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**INTRODUZIONE**

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**ENTRATE, ACCESSORI, POSIZIONI DI MONTAGGIO, PESI E VOLUMI**

UK

**INPUTS, ACCESSORIES, WEIGHTS, VOLUMES AND MOUNTING POSITIONS**







Le gamme di riduttori planetari "RE" e "GB", sono state concepite per soddisfare le aspettative del mercato moderno, sempre più esigente e selettivo. Oggi vengono introdotte nuove taglie che nella continua ricerca di dinamicità, evoluzione tecnologica e flessibilità, completano e in parte rinnovano l'offerta Dinamic Oil sul mercato delle trasmissioni di potenza.

Questi riduttori sono stati studiati per le applicazioni più selettive, tenendo conto sia dei forti sovraccarichi delle applicazioni mobili sia delle esigenze di lunga durata ed affidabilità degli impieghi industriali.

I prodotti Dinamic Oil trovano infatti applicazione con successo su macchine mobili nei settori sollevamento e trasporto, edile, cantieristico, agricolo e marino, così come nelle rotazioni di pompe per calcestruzzo, escavatori, autogrù, gru per autocarro e piattaforme aeree. I riduttori planetari sono largamente utilizzati negli impianti industriali nei settori più svariati: lavorazione lamiera, siderurgico, lavorazione materie plastiche, depurazione acque, chimico, energetico, minerario e di trasformazione in genere.

Questo nuovo catalogo 2012 rappresenta le prestazioni dei riduttori in base alla potenza trasmissibile rispetto ad un fattore di servizio unitario, consentendo una selezione semplice e veloce in funzione dei fattori di servizio richiesti.

I tecnici Dinamic Oil, che si avvalgono dei programmi di calcolo più aggiornati, sono a disposizione dei clienti per una selezione più approfondita, in funzione di normative fem, di durate di vita teorica o di altri metodi di calcolo.

Il catalogo illustra i riduttori attualmente in produzione con coppie massime ammissibili comprese tra 1000 Nm e 3000000 Nm.

Oltre alle diverse versioni di supporti di uscita e predisposizioni per attacco motore, è stata arricchita la gamma degli accessori in ingresso e in uscita che rendono estremamente versatile l'applicazione dei riduttori Dinamic Oil.





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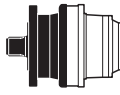
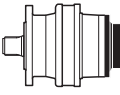
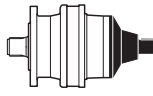



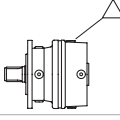
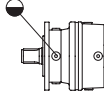
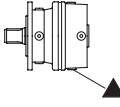
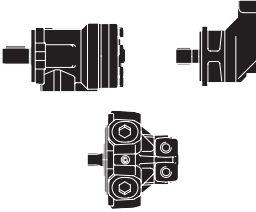


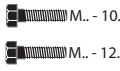

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## 1.0 Simbologia e unità di misura

Simbolo	Unità di misura	Descrizione
...1		valore riferito all'ingresso
...2		valore riferito all'uscita
<b>bu</b>	mm	altezza fascia dentata
<b>de</b>	mm	diametro esterno
<b>dp</b>	mm	diametro primitivo teorico
<b>fa</b>	N	carico assiale
<b>f<sub>amax</sub></b>	N	carico assiale massimo
<b>f<sub>r</sub></b>	N	carico radiale
<b>H</b>	mm	altezza pignone
<b>i<sub>e</sub></b>	-	rapporto di riduzione effettivo
<b>m</b>	mm	modulo
<b>n</b>	RPM	velocità
<b>n<sub>max</sub></b>	RPM	velocità massima
<b>nxh</b>	RPMxh	indice di durata
<b>P<sub>1</sub></b>	kW	potenza nominale
<b>pb</b>	bar	pressione apertura freno
<b>pmax</b>	bar	pressione massima freno
<b>P<sub>t</sub></b>	kW	potenza termica
<b>T</b>	Nm	coppia
<b>T<sub>b</sub></b>	Nm	coppia frenante
<b>T<sub>max</sub></b>	Nm	coppia massima
<b>X</b>	mm	distanza applicazione carico
<b>x</b>	-	correzione dentatura
<b>z</b>	-	numero di denti

Simbolo	Descrizione
	Supporto in uscita
	Entrata
	Supporto in entrata
	Coppia di serraggio [Nm]
	Quantità d'olio [litri]
	Peso [kg]
	Carico olio / sfiato
	Livello olio
	Scarico olio
	Motori idraulici
	Motori elettrici
	Riduttore a vite senza fine
	Vite di fissaggio raccomandata
	Riferimento pagina



## 2.0 Forme costruttive disponibili

### MOTORI UTILIZZABILI

- 1 Motore elettrico
- 2 Motore idraulico orbitale
- 3 Motore idraulico a pistoni assiali
- 4 Motore idraulico a pistoni radiali
- 5 Motore idraulico orbitale "MLR"

### TIPI DI ENTRATE

- 9 Predisposizione attacco motore
- 10 Albero veloce
- 11 Motore elettrico diretto
- 12 Motore orbitale diretto
- 13 Freno negativo "F1../F2.."
- 14 Freno negativo "F5../F6../F8../F9"
- 15 Flangia standard
- 16 Flangia attacco "MZ"
- 17 Flangia attacco "MD"

### STADI DI RIDUZIONE

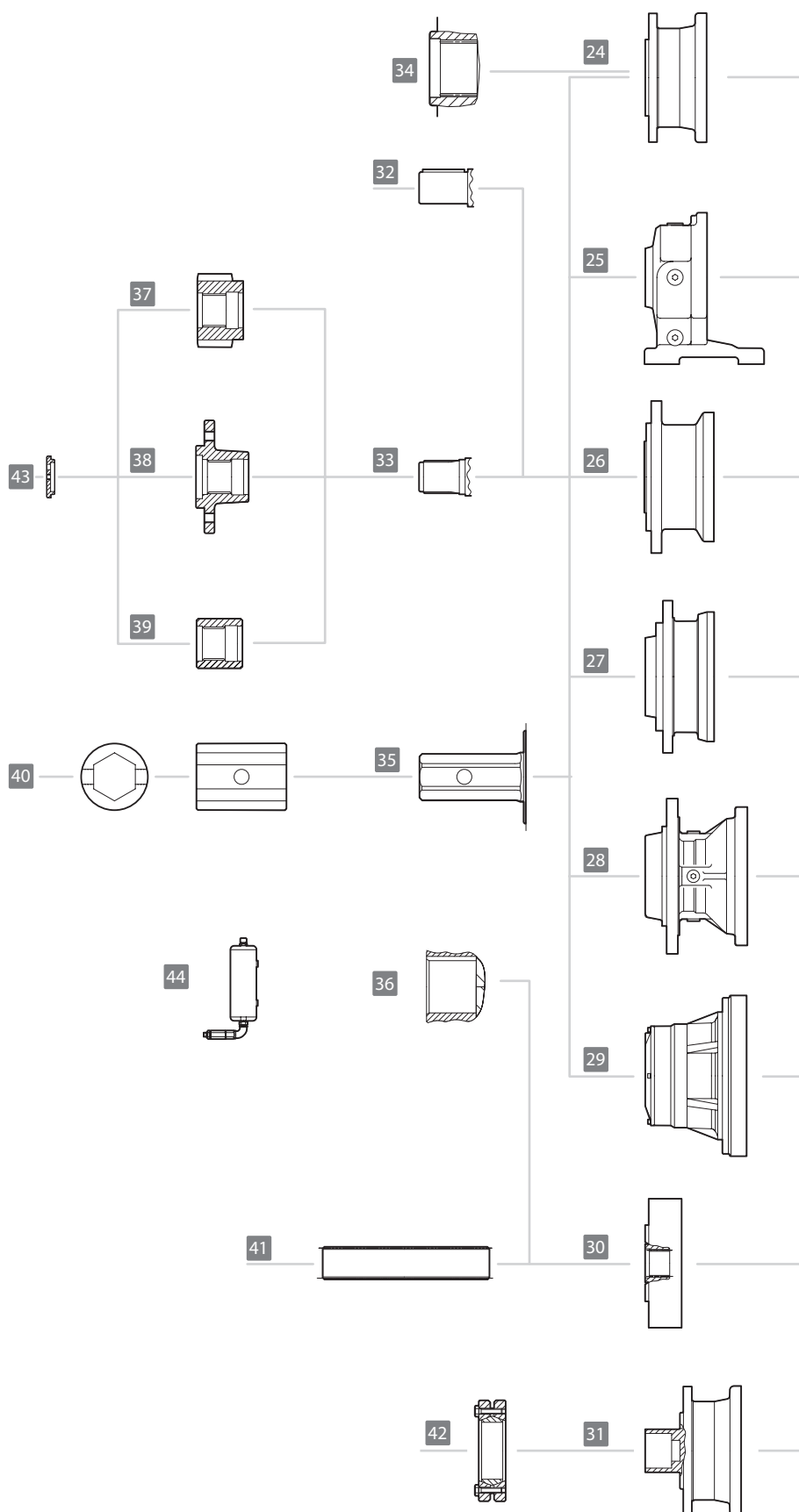
- 18 Riduttore angolare entrata diretta
- 19 Uno stadio di riduzione
- 20 Due stadi di riduzione
- 21 Tre stadi di riduzione
- 22 Quattro stadi di riduzione
- 23 Cinque stadi di riduzione

### SUPPORTI E ALBERI DI USCITA

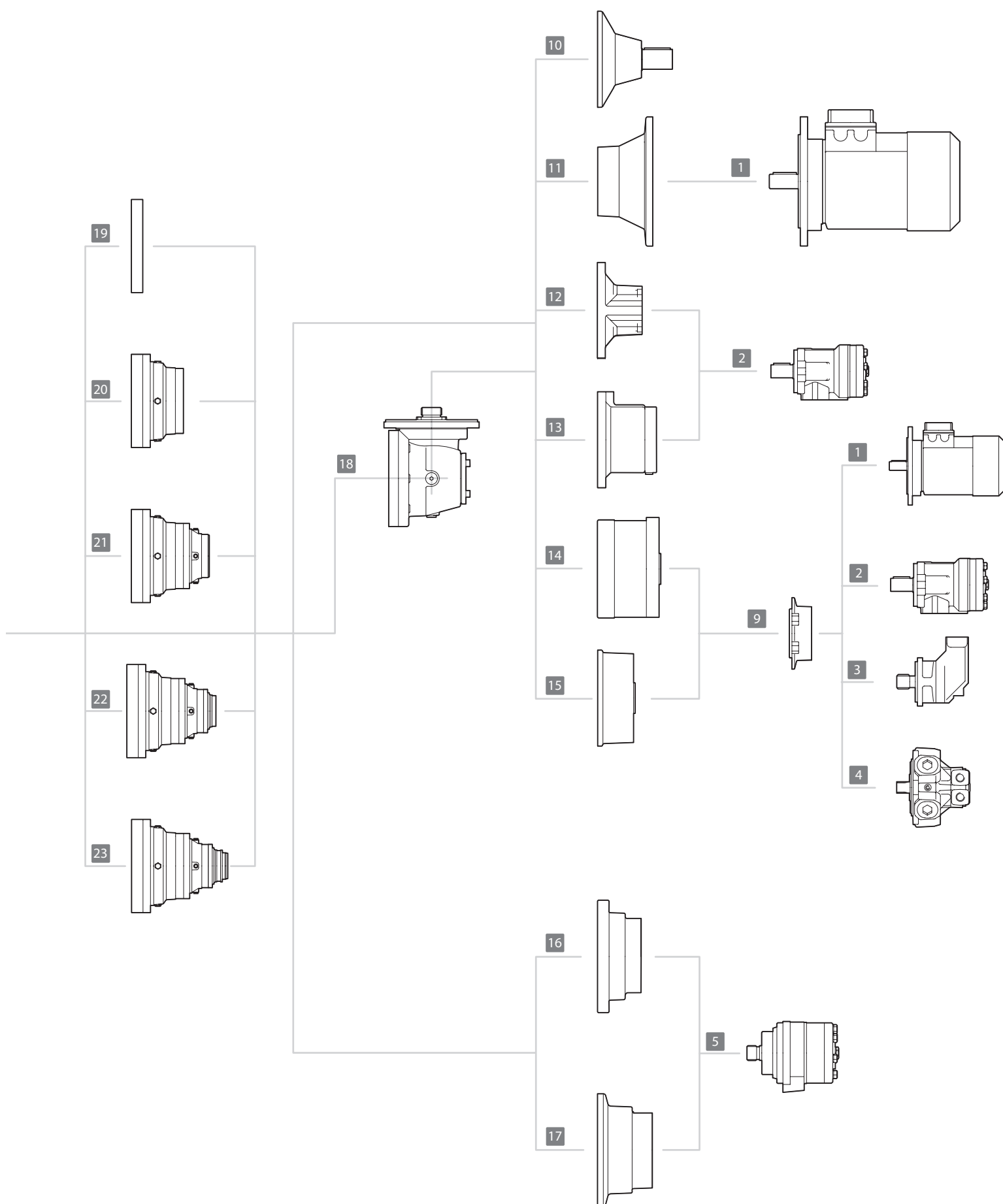
- 24 Supporto uscita "N"
- 25 Supporto uscita "P"
- 26 Supporto uscita "T"
- 27 Supporto uscita "TR"
- 28 Supporto uscita "TL"
- 29 Supporto uscita "H"
- 30 Supporto uscita "F"
- 31 Supporto uscita "NQ"
- 32 Albero uscita cilindrico
- 33 Albero uscita scanalato
- 34 Albero uscita femmina scanalato
- 35 Albero uscita esagonale
- 36 Albero uscita femmina cilindrico

### ACCESSORI

- 37 Pignone "P"
- 38 Flangia "FL"
- 39 Manicotto liscio "BS"
- 40 Manicotto esagonale "ES"
- 41 Barra scanalata "BF"
- 42 Giunto di attrito "GA"
- 43 Fondello di arresto "EP"
- 44 Vaso di espansione "VE"









### 3.0 Definizioni tecniche

Tutti i valori prestazionali indicati nel presente catalogo sono calcolati secondo le normative ISO 6336 e ISO 281, ma potrebbero non rispondere a ulteriori requisiti richiesti dai regolamenti interni degli Enti certificatori. Per selezioni in accordo con tali regolamenti contattare il servizio commerciale Dinamic Oil.

#### $f_s$ - Fattore di servizio

è il fattore che tiene conto della gravosità dell'applicazione; dipende dalle condizioni di funzionamento, dal tipo di azionamento e dalla frequenza degli avviamenti.

I dati forniti nel presente catalogo sono calcolati per  $f_s = 1$ .

Il valore del fattore di servizio di un riduttore è calcolabile dividendo la sua potenza nominale per la potenza assorbita.

**Fattori di servizio (tab. 1)**

	CONDIZIONI DI FUNZIONAMENTO								
	Uniforme			Variabile con urti moderati			Variabile con urti forti		
	U			M			H		
ore / giorno	AVVIAMENTI / ORA								
	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250
< 0.5	0.9	1.3	1.5	0.9	1.3	1.5	1.2	1.5	1.8
0.5 - 3	0.9	1.3	1.5	1.2	1.5	1.8	1.7	2.0	2.3
3 - 8	1.2	1.5	1.8	1.4	1.8	2.0	1.9	2.3	2.8
8 - 24	1.4	1.8	2.0	1.7	2.0	2.5	2.4	2.8	3.0

#### $P_1$ - Potenza nominale [kW]

è la potenza meccanica trasmissibile dal riduttore, riferita all'ingresso, alla quale con  $f_s = 1$  il riduttore ha una durata di vita teorica pari a 10.000 ore secondo la norma ISO 6336. Tale valore non tiene conto di eventuali limiti di capacità termica del riduttore, ma si basa esclusivamente sulla tenuta meccanica in funzione della velocità di utilizzo.

#### $P_a$ - Potenza assorbita [kW]

rispetto alla potenza installata o disponibile, è il valore di potenza realmente assorbita dall'applicazione, riferita all'ingresso del riduttore.

#### $P_t$ - Potenza termica [kW]

è la massima potenza meccanica che il riduttore può trasmettere in funzionamento continuo, con lubrificazione a sbattimento, senza oltrepassare il livello termico limite (temperatura dell'olio non superiore a 90°C).

Potenze superiori possono essere trasmesse utilizzando tenute in viton e oli sintetici o appositi dispositivi di raffreddamento. I valori indicati per le varie grandezze di riduttore si riferiscono ad un funzionamento continuo con velocità in ingresso di 1500 RPM, temperatura ambiente di 20°C, altitudine 0 / 500 m, applicazione al coperto.

Per diverse condizioni di impiego il valore di potenza termica deve essere moltiplicato per i fattori termici indicati nella seguente tabella. Per periodi di funzionamento limitati, seguiti da periodi di riposo sufficientemente lunghi da garantire un opportuno raffreddamento del riduttore, la potenza termica perde il suo significato e può essere trascurata.



**Fattori termici (tab. 2)**

Temperatura ambiente	Tempo di funzionamento [%]				
	100%	80%	60%	40%	20%
10°	1.2	1.3	1.4	1.6	1.8
20°	1.0	1.1	1.3	1.4	1.6
30°	0.8	1.0	1.1	1.3	1.4
40°	0.7	0.8	1.0	1.1	1.3
50°	0.5	0.7	0.8	1.0	1.1

Altitudine [m]	Velocità in ingresso [RPM]				
	400	800	1000	1500	2000
0	1.2	1.1	1.1	1.0	0.7
500	1.2	1.1	1.1	1.0	0.7
1000	1.1	1.0	1.0	0.9	0.6
1500	1.1	1.0	1.0	0.9	0.6
2000	1.1	1.0	1.0	0.9	0.6

### **$P_d$ - Potenza da dissipare [kW]**

rappresenta la potenza che un eventuale sistema di raffreddamento deve dissipare, nel caso in cui la potenza da trasmettere sia superiore alla potenza termica del riduttore.

### **$\eta_m$ - Rendimento meccanico**

è il rapporto tra potenza meccanica in uscita e potenza meccanica in ingresso; normalmente è considerato pari a 0.97 – 0.98 per ogni stadio di riduzione epicicloidale di cui è composto il riduttore e pari a 0.94 - 0.95 per l'eventuale coppia conica; il valore effettivo dipende da diversi fattori tra quali velocità, coppia, rapporto, posizione di montaggio e lubrificazione.

### **$T_2$ - Coppia trasmessa [Nm]**

è il valore di coppia applicata in continuo alla velocità  $n_1$ , alla quale il riduttore ha una durata di vita teorica di 10000 h per gli ingranaggi e 5000 h ( $L_{h10}$ ) per i cuscinetti dell'ingranaggeria.

### **$T_{max}$ - Coppia massima trasmissibile [Nm]**

è la coppia massima trasmissibile dall'accessorio eventualmente fornito a corredo del riduttore. Questo valore potrebbe limitare la coppia massima trasmissibile dal riduttore.

### **$T_{2max}$ - Coppia massima [Nm]**

è la coppia massima d'uscita ammissibile come punta o per brevi durate (calcolata al 90%  $R_s$  del componente più debole). Per azionamenti che comportano un elevato numero di avviamenti o inversioni occorre considerare valori di coppia massima opportunamente ridotti.

Il valore indicato si riferisce alla versione con albero femmina scanalato (FS); versioni diverse potrebbero avere valori inferiori.

### **$T_b$ - Coppia frenante [Nm]**

è il valore della coppia frenante trasmissibile staticamente dal freno negativo.



### **$n_1$ - Velocità in ingresso [RPM]**

è la velocità al lato veloce del riduttore.

### **$n_2$ - Velocità in uscita [RPM]**

è la velocità al lato lento del riduttore.

### **$n_{1max}$ - Velocità massima [RPM]**

è la velocità massima in ingresso al freno. Per applicazioni con valori superiori rivolgersi al servizio commerciale Dinamic Oil per verificare la compatibilità con l'applicazione.

### **$i_e$ - Rapporto di riduzione effettivo**

è il rapporto di riduzione effettivo, cioè il rapporto tra la velocità di ingresso e quella di uscita dal riduttore.

### **$n_{xh}$ - Indice di durata [RPMxh]**

è il valore che equivale al prodotto tra la velocità e la durata di vita teorica espressa in ore. È espresso come  $n_2xh$  quando riferito alla velocità in uscita, come  $n_1xh$  quando riferito alla velocità in ingresso.

#### **Valori indicativi delle durate richieste per diverse applicazioni (tab. 3)**

Applicazione	Ore di vita richieste
Macchine agricole	300 - 3000
Macchine con funzionamento intermittente o per brevi periodi (macchine per l'edilizia)	3000 - 8000
Macchine con funzionamento intermittente o per brevi periodi con alta affidabilità operativa (montacarichi)	8000 - 12000
Macchine con funzionamento per 8 ore al giorno, ma non pienamente utilizzate (macchine varie per l'industria, frantoi rotativi)	10000 - 25000
Macchine con funzionamento per 8 ore al giorno pienamente utilizzate (macchine varie per l'industria, nastri trasportatori)	20000 - 30000
Macchine con funzionamento continuo (laminatoi, macchine tessili)	40000 - 50000

### **$k_f$ - Fattore di correzione**

è il fattore da applicare per calcolare la durata teorica dei supporti con alberi maschio per valori di  $n_{xh}$  diversi da quelli dei diagrammi riportati nel catalogo. Per tutti i riduttori le curve dei carichi esterni sono calcolate per:

- $n_2xh = 100.000$  per i supporti in uscita
- $n_1xh = 1.500.000$  per i supporti in ingresso

### **$L_{min}$ - Lunghezza minima del braccio di reazione [mm]**

è la lunghezza minima consigliata per il braccio di reazione da realizzarsi nelle applicazioni di tipo pendolare.



## 4.0 Selezione del riduttore

### 4.1 Selezione

La selezione del riduttore avviene sulla base del fattore di servizio richiesto dall'applicazione e della velocità richiesta in uscita. Una volta determinato il motore elettrico (nei termini di potenza e velocità nominale), occorre selezionare quel riduttore che abbia il rapporto di riduzione necessario per raggiungere il valore di velocità richiesto in uscita ed una potenza nominale tale che il rapporto tra il suo valore ed il valore della potenza nominale del motore è superiore al fattore di servizio.

$$i_e = n_1 / n_2$$

$$P_1 \geq P_a \times f_s$$

Tale selezione deve essere poi verificata in funzione di altri parametri, come potenza termica, coppia impulsiva ed eventuali carichi radiali o assiali agenti sugli alberi maschi di ingresso e di uscita.

In caso di azionamenti non elettrici applicare lo stesso metodo facendo riferimento alla coppia in uscita richiesta dall'applicazione anziché alla potenza nominale.

### 4.2 Verifiche

#### Supporti di uscita e di ingresso del riduttore:

devono essere verificati in base agli eventuali carichi radiali e assiali presenti. Per ogni modello vengono riportati nel catalogo i diagrammi che rappresentano i carichi radiali dinamici sopportabili secondo la normativa ISO 281 per una durata L10 corrispondente a  $n_x h = 100.000$ . Per durate differenti è possibile ottenere i carichi radiali applicabili moltiplicando i valori dei diagrammi per il fattore correttivo  $k_f$ . In ogni caso il carico radiale non deve mai essere superiore al valore massimo raggiunto dalla curva del diagramma.

Per quanto riguarda gli eventuali carichi assiali, occorre verificare che non superino il valore massimo ammesso.

#### Coppia in uscita:

non deve comunque mai superare la coppia massima trasmissibile del riduttore selezionato. Occorre verificare con particolare cura che questo valore sia superiore a quello della massima coppia erogabile dal motore installato riportata all'uscita del riduttore (cioè moltiplicata per il rapporto di riduzione effettivo e per il rendimento meccanico del riduttore)

#### Velocità in ingresso:

Per valori di velocità diverse da quelle in tabella, contattare l'ufficio commerciale.

#### Potenza termica:

nel caso in cui la potenza installata sia superiore alla potenza termica del riduttore, occorre selezionare un riduttore di grandezza superiore, utilizzare olio sintetico unitamente con l'impiego di tenute in viton oppure prevedere un circuito di raffreddamento.

Nel caso dell'impiego di tenute in viton ed olio sintetico, si può considerare il fattore termico equivalente ad una temperatura ambiente inferiore di 20°C rispetto a quella reale, simulando in questo modo il fatto che il riduttore può accettare un surriscaldamento di 20°C rispetto ai dati di progetto.

Nel caso di utilizzo di un sistema di raffreddamento, la potenza da dissipare è

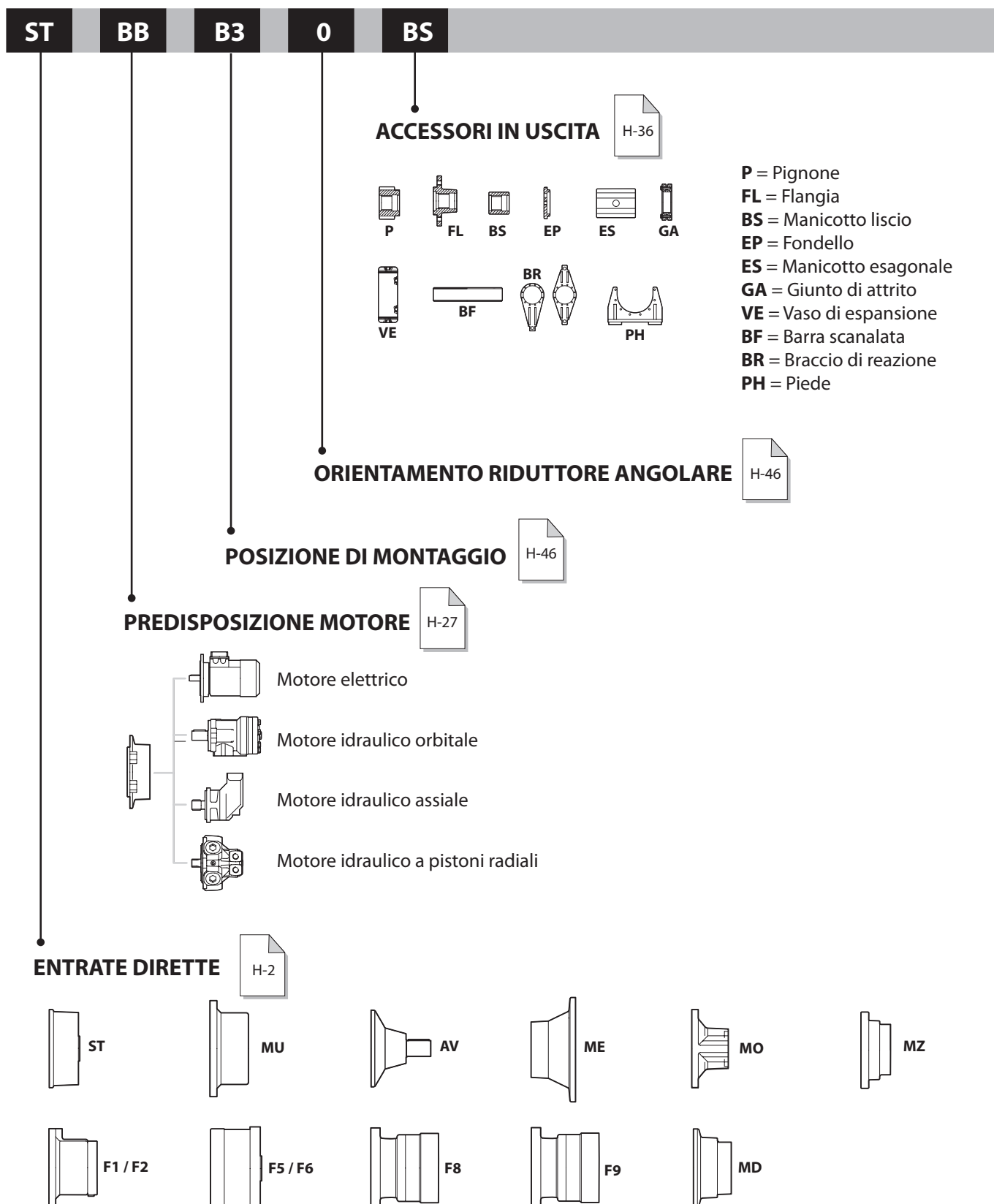
$$P_d = (P_a - P_t) \cdot (1 - \eta_m)$$



## 5.0 Codice d'ordinazione

RA	21	3	P	S		78.7																																				
<p><b>VERSIONE USCITA</b> </p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> </div>																																										
<p><b>NUMERO STADI DI RIDUZIONE</b>  1 - 2 - 3 - 4 - 5 - 6</p>																																										
<p><b>GRANDEZZA RIDUTTORE</b> </p> <table border="1"> <thead> <tr> <th>RE - RA</th> <th>RE - RA</th> <th>GB - GBA</th> <th>GB - GBA</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>1520</td> <td>12010</td> <td>61000</td> </tr> <tr> <td>210</td> <td>2000</td> <td>16000</td> <td>85000</td> </tr> <tr> <td>240</td> <td>2520</td> <td>21000</td> <td>110000</td> </tr> <tr> <td>310</td> <td>3000</td> <td>26000</td> <td>130000</td> </tr> <tr> <td>510</td> <td>3510</td> <td>31000</td> <td>GB</td> </tr> <tr> <td>610</td> <td>4800</td> <td>40000</td> <td>150000</td> </tr> <tr> <td>810</td> <td>6000</td> <td>45000</td> <td>205000</td> </tr> <tr> <td>1020</td> <td>8000</td> <td>53000</td> <td>235000</td> </tr> </tbody> </table>							RE - RA	RE - RA	GB - GBA	GB - GBA	110	1520	12010	61000	210	2000	16000	85000	240	2520	21000	110000	310	3000	26000	130000	510	3510	31000	GB	610	4800	40000	150000	810	6000	45000	205000	1020	8000	53000	235000
RE - RA	RE - RA	GB - GBA	GB - GBA																																							
110	1520	12010	61000																																							
210	2000	16000	85000																																							
240	2520	21000	110000																																							
310	3000	26000	130000																																							
510	3510	31000	GB																																							
610	4800	40000	150000																																							
810	6000	45000	205000																																							
1020	8000	53000	235000																																							
<p><b>ALBERO IN USCITA</b> </p> <p> <b>S</b> = Scanalato maschio  <b>F</b> = Scanalato femmina  <b>C</b> = Cilindrico  <b>K</b> = Cilindrico lungo  <b>E</b> = Esagonale  <b>Q</b> = Giunto di attrito  <b>FS</b> = Femmina scanalato  <b>FC</b> = Femmina cilindrico  <b>U</b> = Femmina cilindrico         </p>																																										
<p><b>RAPPORTO DI RIDUZIONE</b>  Indicare il valore del rapporto (compreso virgola e decimale) riportato sulle pagine dei dati tecnici relative ad ogni grandezza</p>																																										
<p><b>ESECUZIONE</b> </p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <p> <b>RE - GB</b> = Lineare  <b>RA - GBA</b> = Angolare         </p>																																										
<p><b>COMPOSIZIONE</b> </p> <p> <b>/</b> = Standard  <b>L</b> = Light  <b>R</b> = Rinforzato  <b>S</b> = Speciale         </p>																																										





Nell'esempio è illustrato il codice di ordinazione di un riduttore planetario angolare, grandezza 210, tre stadi di riduzione, versione in uscita con i piedi e albero scanalato, rapporto di riduzione 78.7, entrata standard, predisposizione per motore "SAE B" albero 16/32 z=15, posizione di montaggio del riduttore in uscita orizzontale, orientamento del riduttore angolare standard, manicotto liscio in uscita



## 6.0 Freni idraulici negativi

### 6.1 Freni idraulici negativi a dischi multipli

I riduttori Dinamic Oil possono essere dotati di freno negativo statico a dischi multipli a comando idraulico.

I freni dal modello **F1** al modello **F2** sono previsti per il montaggio diretto di motori idraulici orbitali con flangiatura secondo norme SAE A.

I freni dal modello **F5** al modello **F6**, raggiungono coppie frenanti maggiori e sono predisposti con entrata integrale ST per il montaggio di flange e giunti di collegamento per una vasta gamma di motori in commercio.

I freni del modello **F8**, raggiungono coppie frenanti fino a 3.000 Nm ed sono predisposti con entrata integrale MU per il montaggio di flange e giunti di collegamento per una vasta gamma di motori in commercio.

I freni del modello **F9** raggiungono coppie frenanti fino a 1.500 Nm e possono avere la possibilità di montare un meccanismo a ruota libera fino alla coppia di 1.200 Nm. Sono predisposti con entrata "SAE C", "SAE D" ed entrata integrale ST. Tramite quest'ultima possono montare flange e giunti di collegamento per una vasta gamma di motori in commercio.

Il freno **MD** è montato all'interno di una flangia di collegamento diretto per motori MLR su stadi di riduzione RE110/RE240.

La frenatura è generata da molle che comprimono coppie di dischi fissi in acciaio temprato alternati a dischi mobili in bronzo; questa spinta si trasforma per attrito in coppia frenante.

L'apertura si ottiene introducendo nel freno olio idraulico in pressione; la pressione agisce su un pistone che comprime le molle permettendo ai dischi di ruotare liberamente. Si tratta di freni di stazionamento che agiscono creando una coppia frenante statica quando la pressione idraulica di comando è nulla. La loro azione cessa quando la pressione idraulica raggiunge il minimo valore per lo sbloccaggio.

Per i freni che hanno una camera di lubrificazione (F1, F2 e versioni standard di F5, F6 e F8) è necessario effettuare il riempimento (circa 0.1 l) con olio minerale di viscosità ISO VG 32.

Alcuni modelli di freni F5, F6, F8 ed F9 sono disponibili in versioni speciali che consentono valori elevati di velocità massima.

### 6.2 Selezione del freno

Occorre tenere in considerazione i seguenti parametri:

- Le coppie frenanti sono calcolate con pressione di comando nulla; nel caso di contropressioni nel circuito idraulico i valori effettivi di frenatura vanno ridotti come segue:

$$\text{Coppia effettiva} = \text{Coppia teorica} \times (\text{Pressione di apertura} - \text{Contropressione}) / \text{Pressione di inizio apertura.}$$

- La coppia del freno moltiplicata per il rapporto di riduzione e divisa per il rendimento del riduttore, deve essere maggiore o uguale alla coppia richiesta in uscita:

$$T_b \times i_e / \eta_m \geq T_2$$

- Ad eccezione di particolari casi, la coppia del freno moltiplicata per il rapporto di riduzione e divisa per il rendimento del riduttore, non deve superare la coppia massima del riduttore:

$$T_b \times i_e / \eta_m \leq T_{2\max}$$

## 7.0 Posizioni di montaggio

Per la completa definizione della forma costruttiva del riduttore occorre definire la posizione di montaggio. In base alla posizione è inoltre possibile determinare i tappi per riempimento, livello e scarico dell'olio.

Vedi pag. H46 - H48.

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## 8.0 Istruzioni di installazione

Le informazioni contenute nel presente capitolo non sono esaustive, ma rappresentano una sintesi parziale del manuale di uso e manutenzione al quale occorre fare sempre riferimento.

### 8.1 Installazione

#### Riduttori con flangia e albero maschio:

il telaio di accoppiamento deve avere la superficie di appoggio al riduttore non verniciata, piana, lavorata di macchina utensile e perpendicolare all'asse di rotazione. La tabella seguente mostra la tolleranza dei centraggi sugli accoppiamenti.

Per la serie RE i centraggi hanno tolleranza H8.

Diametri	[mm]	80 - 120	120 - 180	180 - 250
Tolleranze	[mm]	+0.054 0	+0.063 0	+0.072 0
Diametri	[mm]	250 - 315	315 - 400	400 - 500
Tolleranze	[mm]	+0.081 0	+0.089 0	+0.097 0

I riduttori delle grandezze da RE1520 a RE8000 con uscita H sono provvisti di due diametri di centraggio. È sufficiente realizzare sulla struttura un solo centraggio, quello maggiore, quando sull'albero in uscita i carichi radiali non sono presenti o sono inferiori al 50% dei carichi massimi ammessi.

Per la gamma GB i centraggi hanno tolleranza F8.

Diametri	[mm]	80 - 120	120 - 180	180 - 250
Tolleranze	[mm]	+0.186 +0.076	+0.205 +0.080	+0.226 +0.086

#### Riduttori con albero femmina scanalato:

i riduttori con supporto di uscita femmina non sono idonei a sopportare carichi radiali sull'uscita; è pertanto molto importante curare l'allineamento tra riduttore e albero condotto. Occorre inoltre verificare che l'albero condotto non subisca flessioni durante le fasi di lavoro.

#### Riduttori con fissaggio a piede:

il riduttore deve essere fissato su una superficie di appoggio piana ed essere in asse con la macchina condotta; è importante che ogni operazione di livellamento e allineamento venga eseguita con accuratezza. Un errato appoggio o un allineamento non corretto pregiudicano la vita del riduttore.

#### Riduttori con montaggio pendolare:

occorre realizzare un ancoraggio del braccio di reazione non vincolato nella direzione dell'asse del riduttore. L'ancoraggio deve inoltre essere opportunamente ammortizzato.

Nelle tavole dimensionali di ogni riduttore sono riportati i valori minimi di lunghezza del braccio di reazione per realizzare l'applicazione in modo corretto.



**Coppie di serraggio e corrispondenti forze assiali esercitate dalle viti a passo grosso (tab. 4)**

	Classe 8.8		Classe 10.9		Classe 12.9	
	Coppia [Nm]	Forza [N]	Coppia [Nm]	Forza [N]	Coppia [Nm]	Forza [N]
<b>M10</b>	44	26000	62	37000	74.5	44000
<b>M12</b>	77	37800	108	53000	130	64000
<b>M14</b>	122	51500	172	72000	207	87000
<b>M16</b>	191	70400	269	99000	323	119000
<b>M18</b>	263	86000	370	121000	444	145000
<b>M20</b>	373	110000	525	154000	630	185000
<b>M22</b>	507	138000	714	191000	857	229000
<b>M24</b>	645	158000	908	222000	1090	267000
<b>M27</b>	944	206000	1330	289000	1590	347000
<b>M30</b>	1280	251000	1800	353000	2160	424000
<b>M33</b>	1740	311000	2460	437000	2940	525000
<b>M36</b>	2240	366000	3150	515000	3780	618000
<b>M39</b>	2900	437000	4080	615000	4890	738000
<b>M42</b>	3580	502000	5040	706000	6050	847000

## 8.2 Lubrificazione

### I riduttori sono forniti senza olio.

Prima della messa in funzione occorre riempire il riduttore fino al livello previsto con uno degli oli lubrificanti consigliati. La scelta e la quantità dell'olio saranno demandate all'installatore / utilizzatore in base al tipo di applicazione.

## 8.3 Vernice

I riduttori sono forniti non verniciati. Alcune parti sono trattate con uno strato di fondo idrosolubile estere epossidico rosso ossido. È cura del cliente realizzare la finitura utilizzando una vernice compatibile con quella di fondo. Gli anelli di tenuta devono essere protetti durante la verniciatura.

## 8.4 Montaggio dei motori a flangia

Il montaggio dei motori alle flange di accoppiamento fornite da Dinamic Oil è un'operazione particolarmente semplice, ma da eseguire seguendo alcuni importanti suggerimenti:

- lubrificare l'accoppiamento con un leggero velo di grasso o lubrificante anti-grippaggio;
- assicurarsi che il motore vada liberamente a battuta sulla flangia di fissaggio del riduttore senza forzare né sull'albero né sul centraggio;
- serrare le viti.

Per ulteriori informazioni si faccia riferimento al manuale d'uso e manutenzione.

## 8.5 Montaggio dei motori con giunto di collegamento

Quando vengono utilizzati giunti di collegamento fra motore e riduttore, bisogna verificare che l'allineamento deve essere compatibile col tipo di giunto utilizzato. I giunti sono largamente usati in applicazioni industriali per le varie funzioni che essi possono svolgere come:

- limitare la coppia in ingresso,
- smorzare vibrazioni provenienti dal motore,
- compensare piccoli disallineamenti.

Nell'applicazione dei giunti si faccia riferimento ai manuali d'uso dei fornitori di detto componente.

## 8.6 Peso dei riduttori

I pesi dei vari riduttori sono riportati, a titolo indicativo, a pag. H52.



## 9.0 Stoccaggio

*Le informazioni contenute nel presente capitolo non sono esaustive, ma rappresentano una sintesi parziale del manuale di uso e manutenzione al quale occorre fare sempre riferimento.*

I riduttori non devono essere conservati all'aperto o a diretto contatto con il suolo. Per lunghi periodi di stoccaggio devono essere riempiti d'olio, con le parti esterne lavorate ricoperte di grasso; le superfici di accoppiamento vanno protette con agenti antiossidanti e si raccomanda l'azionamento a vuoto (è sufficiente una rotazione completa dell'albero di uscita) almeno ogni due mesi.

Per maggiori informazioni sullo stoccaggio si faccia riferimento al manuale d'uso e manutenzione.

## 10.0 Lubrificazione

### 10.1 Tipo di lubrificazione

La lubrificazione dei riduttori avviene per bagno d'olio; prima della messa in funzione del riduttore occorre procedere al riempimento d'olio, accertandosi visivamente attraverso il tappo di livello che sia raggiunto il livello corretto; tale operazione richiede particolare attenzione e si deve verificare nuovamente, dopo pochi minuti di funzionamento, che il livello sia stato effettuato correttamente. Le quantità d'olio a catalogo sono indicative e variano in funzione del rapporto di riduzione e del tipo di ingresso del riduttore.

### 10.2 Scelta dell'olio

Può essere impiegato qualunque olio per trasmissioni meccaniche con additivazione EP che soddisfi la classe di viscosità da ISO VG220 a ISO VG320 secondo ISO 3448. In casi particolari possono essere utilizzati oli con viscosità diverse; in tal caso contattare il servizio tecnico Dinamic Oil. La viscosità dell'olio deve essere selezionata in funzione della temperatura ambiente e della reale temperatura di lavoro del riduttore. Per riduttori che devono operare a temperature ambiente molto elevate o con forte escursione termica si raccomanda l'uso di oli a base sintetica. Nei riduttori con montaggio verticale e funzionamento continuo l'olio può subire un elevato surriscaldamento; in questi casi si rende necessario un serbatoio esterno (che può essere fornito da Dinamic Oil) per consentire all'olio di espandersi per effetto della sua dilatazione termica.

### 10.3 Cambio dell'olio

Il cambio dell'olio deve essere effettuato dopo le prime 150 ore di lavoro, successivamente dopo 2000 oppure 4000 ore di funzionamento, a seconda delle modalità d'uso del riduttore e comunque almeno una volta all'anno. Per agevolare lo svuotamento del riduttore, si consiglia di realizzare il cambio dell'olio a riduttore caldo, le parti interne devono essere lavate con liquidi idonei prima di introdurre l'olio nuovo. Non devono essere miscelati oli di diversa viscosità o di marche diverse; in particolare oli sintetici e oli minerali non devono essere mai miscelati tra loro. Dopo la messa in funzione occorre verificare periodicamente il livello del lubrificante ed effettuare rabbocchi qualora si rendessero necessari.

### 10.4 Quantità di olio

Le quantità di olio per la corretta lubrificazione dei riduttori sono riportate, a titolo indicativo, da pag. H48.



## 10.5 Lubrificanti consigliati

Viscosità consigliata (tab. 5)

ISO VG 3448	TEMPERATURA DI FUNZIONAMENTO [C°]												
	Temperatura ambiente [C°]												
	-20°	-10°	0	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
220													
320													

Lubrificanti raccomandati (tab. 6)

Lubrificanti per uso generale

Produttore	Olio minerale	Olio sintetico	
		Polialfaolefine (PAO)	Poliglicoli (PG)
AGIP	Blasia	Blasia SX	Blasia S
ARAL	Degol BG		Degol GS
BP	Energol GR-XP	Energol EPX	Energol HTX
CASTROL	Alpha SP	Alphasyn EP	Alphasyn PG
CHEVRON	Ultra Gear	Tegra Synthetic	HiPerSYN
DEA	Falcon CLP		
ELF	Reductelf SP	Elf Syntherma	Elf Syntherma
ESSO	Spartan EP	Spartan S EP	Glycolube
FINA	Giran		
IP	Mellana		Telesia Oil
KLÜBER	Kluberoil GEM 1	Klubersynt EG4	Klubersynt GH6
MOBIL	Mobilgear XMP	Mobilgear SHC	Glygoile
OPTIMOL	Ultra		
Q8	Goya	El Greco	El Greco
SHELL	Omala S2 G	Omala S4 GX	Omala S4 WE
TOTAL	Carter EP	Carter SH	Carter SY

Lubrificanti per uso alimentare

Produttore	Olio per ingranaggi
AGIP	Rocol Foodlube Hi-Torque
ESSO	Gear Oil FM
KLÜBER	Kluberoil 4 UH1 N
MOBIL	DTE FM
SHELL	Cassida Fluid GL

## 10.6 Temperatura

La temperatura ambiente consigliata, per l'utilizzo di riduttori standard, dovrà essere compresa fra -15°C e +40°C.



## 11.0 Unità autonome di raffreddamento

Quando la potenza trasmessa è superiore alla potenza termica dissipabile dal riduttore, è necessario l'impiego di un'unità di raffreddamento, in grado di smaltire la potenza termica in eccedenza.

Dinamic Oil propone una serie di unità autonome di raffreddamento, olio-acqua ed olio-aria, in grado di dissipare fino a 50kW. Per potenze superiori contattare l'ufficio tecnico.

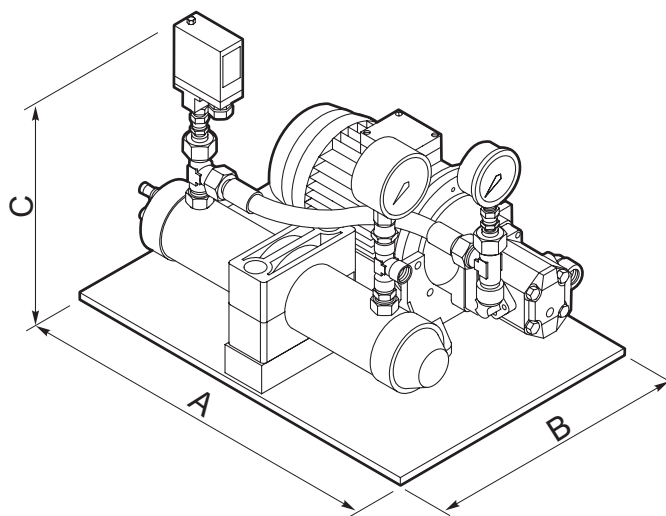
### 11.1 Unità autonome di raffreddamento olio-acqua, composizione standard e personalizzata

Le unità di raffreddamento serie URO/W standard sono composte da:

- Uno scambiatore di calore acqua-olio.
- Una motopompa (collegamento motore-pompa con giunto e supporto; pompa con tenute al viton) composta da un motore a 4 poli in forma B5, alimentazione standard trifase 230-400V 50 hz e da una pompa ad ingranaggi.
- Manometro 0-16 bar montato fra pompa e scambiatore di calore.
- Termometro analogico 0-120 °C, montato in uscita dallo scambiatore.
- Filtro, da installare in mandata al serbatoio, per la pulizia dell'olio scaricato (opzione consigliata).

Per un'esecuzione personalizzata è possibile equipaggiare l'unità con i seguenti optional:

- Pressostato di minima con contatti in scambio, da montare fra pompa e scambiatore di calore. (In questo caso è già presente la predisposizione sull'impianto idraulico).
- Flussostato elettrico per il totale controllo della portata dell'olio.



Unità	Capacità [kW]*	Motopompa olio		Portata acqua [l/min]*	A	B	C
		[kW]	[l/min]				
URO/W 4	4	0.37	16	8	500	350	400
URO/W 6	6	0.37	16	10	500	350	400
URO/W 9	9	0.55	16	16	500	350	400
URO/W 13	13	1.1	30	25	500	350	400
URO/W 21	21	1.5	30	40	500	400	450
URO/W 31	31	2.2	56	50	720	510	520
URO/W 50	50	3.0	80	80	730	520	520

\* I valori indicati in tabella sono riferiti ad una temperatura dell'acqua di 20° C.



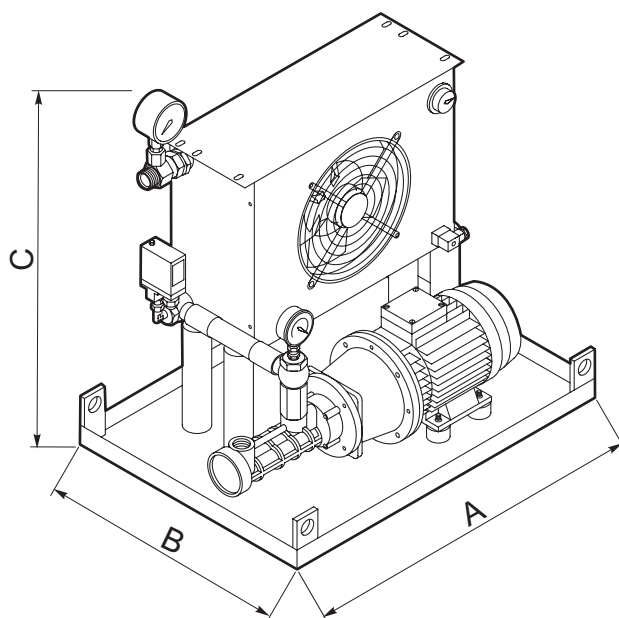
## 11.2 Unità autonome di raffreddamento olio-aria, composizione standard e personalizzata

Le unità di raffreddamento serie URO/A standard sono composte da:

- Uno scambiatore di calore aria-olio completo di ventilatore e termostato regolabile 0-90 °C già cablato.
- Una motopompa collegamento motore-pompa con giunto e supporto , pompa con tenuta al viton) composto da un motore a 4 poli in forma B3/B5, alimentazione standard 230-400V/3 50Hz e da una pompa a vite.
- Manometro 0-16 bar montato fra pompa e scambiatore di calore.
- Termometro analogico 0-120 °C, montato in uscita dallo scambiatore.
- Filtro, da installare in mandata al serbatoio, per la pulizia dell'olio scaricato (opzione consigliata).

Per un'esecuzione personalizzata è possibile equipaggiare l'unità con i seguenti optional:

- Pressostato di minima con contatti in scambio, da montare fra pompa e scambiatore di calore. (In questo caso è già presente la predisposizione sull'impianto idraulico).
- Flussostato elettrico per il totale controllo della portata dell'olio.



Unità	Capacità [kW]*	Motopompa olio		Motoventilatore		A	B	C
		[kW]	[l/min]	[kW]	[m³/h]			
URO/A 5	5	1.5	30	0.12	900	660	430	700
URO/A 7	7	1.5	30	0.12	1300	710	510	700
URO/A 10	10	1.5	30	0.18	2750	710	510	830
URO/A 13	13	1.5	30	0.23	2750	710	510	830
URO/A 16	16	2.2	56	0.23	3500	710	510	1010
URO/A 21	21	2.2	56	0.56	6300	800	500	1200
URO/A 26	26	3	56	0.56	7450	800	500	1265
URO/A 30	30	3	80	0.56	7450	800	500	1265
URO/A 40	40	2.2	56	0.9	9500	1010	600	1350
URO/A 46	46	3	80	0.9	9500	1010	600	1350

\* I valori indicati in tabella sono riferiti ad una temperatura dell'aria di 20° C.



To meet the needs of an increasingly demanding and selective market Dinamic Oil have completely updated their RE and GB ranges of planetary gearboxes. With the introduction of new sizes the already comprehensive product lines have been extended and enhanced in line with feedback from the power transmission market.

Planetary gearboxes are suited to a broad range of applications covering the high overload characteristics found in the mobile industry to the longevity and reliability requirements of the industrial sector.

In the mobile market Dinamic Oil products can be found in machinery for lifting & transportation, building and construction, agriculture & marine; specific applications include concrete pumps, excavators, cranes and aerial platforms, in fact anywhere rotational movement is required. The use of planetary gearboxes for industrial applications is growing rapidly and they are now common in sheet metal, steel, plastics water treatment, chemical, energy mining and process industries.

The new 2012 catalogue facilitates quick & easy preliminary gearbox selection based on the transmissible power adjusted by the appropriate service factors. However, the Dinamic Oil Technical Sales Department is at your disposal providing a wealth of experience backed by the latest technology to provide confirmation and ensure the most cost effective solution in accordance with relevant standards.

The catalogue illustrates the range of gearboxes in production at the time of going to press with maximum torque capacity between 1000Nm and 3,000,000Nm. If your requirements fall outside this range please contact us.

The renowned versatility of Dinamic Oil gearboxes has been further expanded with the introduction of new input and output adaptors and accessories to make this the most comprehensive transmission system on the market

**B**



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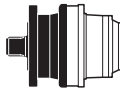
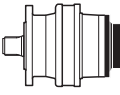
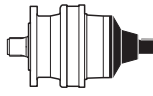



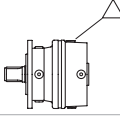
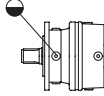
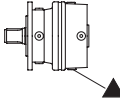
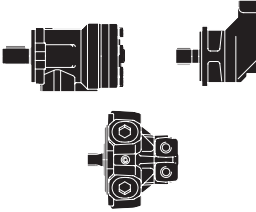


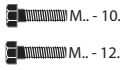


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## 1.0 Symbols and Unit of Measurement

Symbol	Unit of measurement	Description
$-1$		Input value
$-2$		Output value
<b>bu</b>	mm	Height of toothed set
<b>de</b>	mm	External diameter
<b>dp</b>	mm	Theoretical primitive diameter
<b>fa</b>	N	Axial load
<b>f<sub>amax</sub></b>	N	Maximum axial load
<b>f<sub>r</sub></b>	N	Radial load
<b>H</b>	mm	Pinion height
<b>i<sub>e</sub></b>	-	Effective reduction ratio
<b>m</b>	mm	Module
<b>n</b>	RPM	Speed
<b>n<sub>max</sub></b>	RPM	Maximum speed
<b>nxh</b>	RPMxh	Duration index
<b>P<sub>1</sub></b>	kW	Rated power
<b>pb</b>	bar	Brake opening pressure
<b>pmax</b>	bar	Maximum brake pressure
<b>P<sub>t</sub></b>	kW	Thermal power
<b>T</b>	Nm	Torque
<b>T<sub>b</sub></b>	Nm	Braking torque
<b>T<sub>max</sub></b>	Nm	Maximum torque
<b>X</b>	mm	Load application distance
<b>x</b>	-	Tooth correction
<b>z</b>	-	Number of teeth

Symbol	Description
	Support at output
	Input
	Support at input
 ...Nm	Tightening torque [Nm]
	Oil quantity [liters]
	Weight [kg]
	Oil fill / bleed
	Oil level
	Oil drain
	Hydraulic motors
	Electrical motors
	Wormgearbox
 M.. - 10.8  M.. - 12.9	Recommended screw
	Reference page



## 2.0 Construction Options

### USABLE MOTORS

- 1 Electric motor
- 2 Orbital hydraulic motor
- 3 Hydraulic motor with axial pistons
- 4 Hydraulic motor with radial pistons
- 5 Orbital hydraulic motor "MLR"

### TYPES OF INPUT

- 9 Preparation for motor connection
- 10 Input shaft
- 11 Direct electric motor adapter
- 12 Direct orbital motor adapter
- 13 Negative brake "F1../F2.."
- 14 Negative brake "F5../F6../F8../F9"
- 15 Standard flange
- 16 Adaptor "MZ"
- 17 Adaptor "MD"

### REDUCTION STAGES

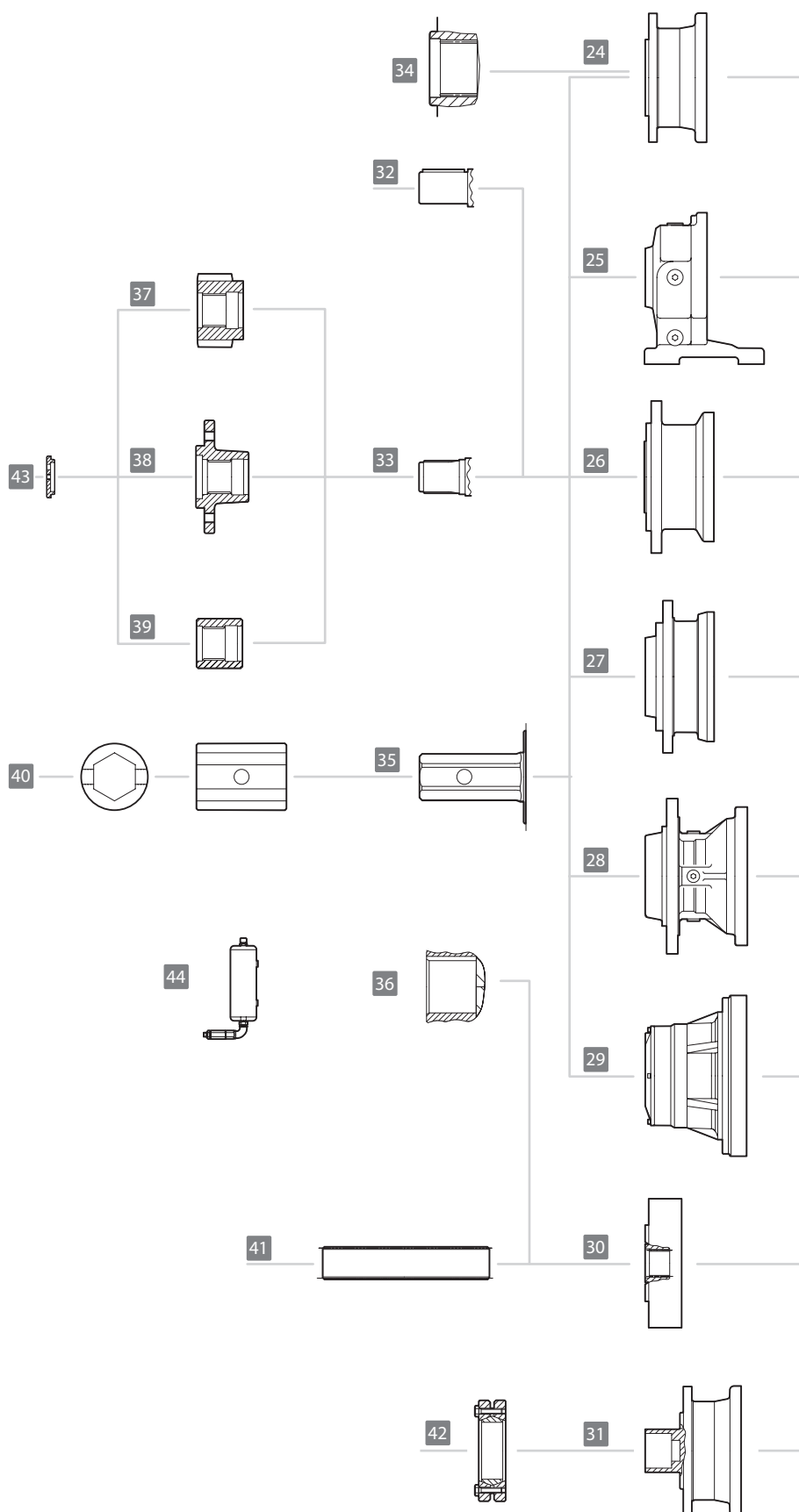
- 18 Angular gearbox with direct input
- 19 One reduction stage
- 20 Two reduction stages
- 21 Three reduction stages
- 22 Four reduction stages
- 23 Five reduction stages

### SUPPORTS AND OUTPUT SHAFTS

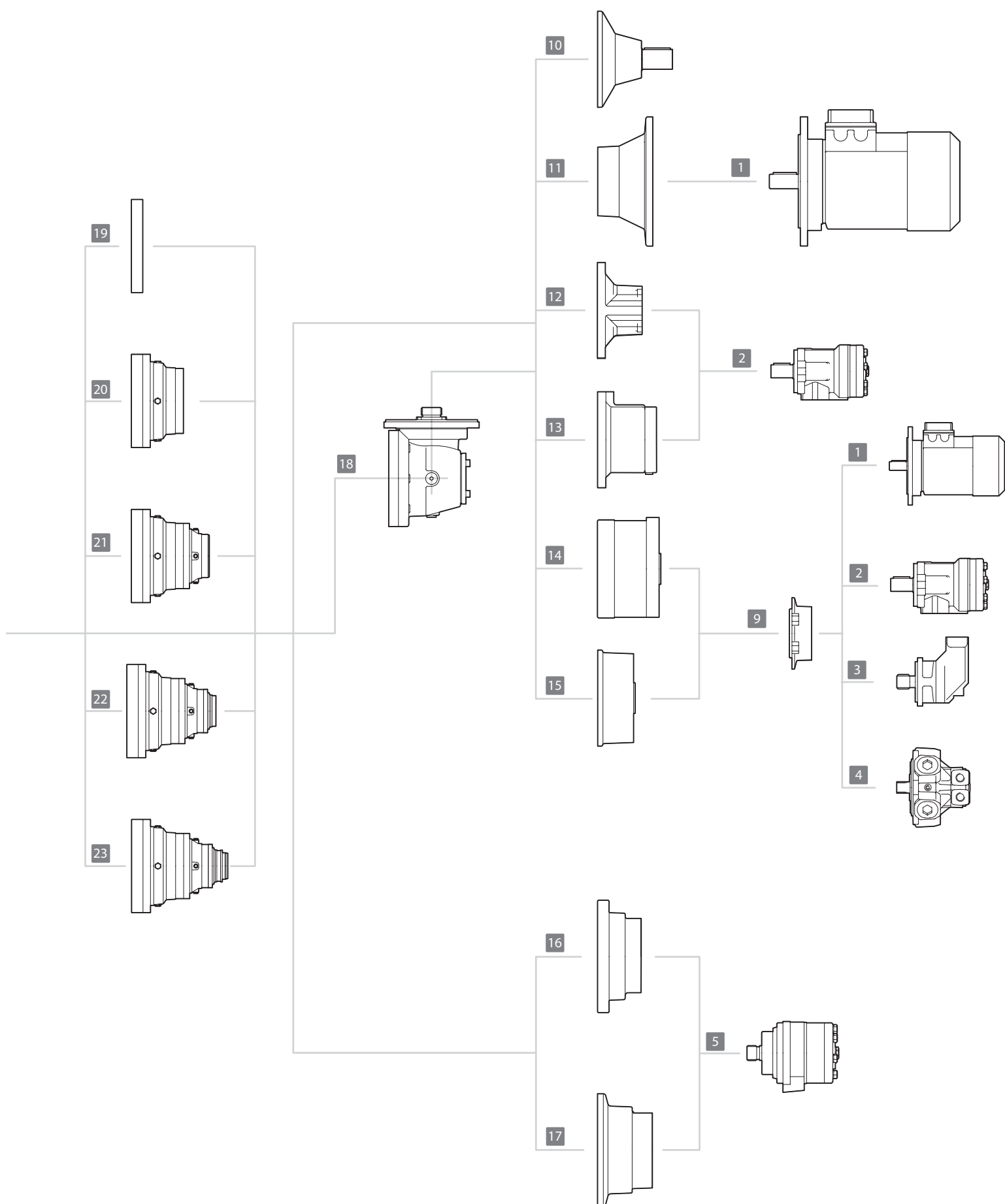
- 24 Output support "N"
- 25 Output support "P"
- 26 Output support "T"
- 27 Output support "TR"
- 28 Output support "TL"
- 29 Output support "H"
- 30 Output support "F"
- 31 Output support "NQ"
- 32 Cylindrical output shaft
- 33 Splined output support
- 34 Female splined output shaft
- 35 Hexagonal output shaft
- 36 Female cylindrical output shaft

### ACCESSORIES

- 37 Pinion "P"
- 38 Flange "FL"
- 39 Cylindrical bushing "BS"
- 40 Hexagonal bushing "ES"
- 41 Splined bar "BF"
- 42 Shrink disk "GA"
- 43 End plate "EP"
- 44 Oil expansion tank "VE"









### 3.0 Technical Definitions

All values specified in this catalogue were calculated using the ISO 6336 and ISO 281 standards, but may not meet additional requirements set by the internal regulations of certifying bodies.

To select products that comply with these regulations, contact Dinamic Oil's sales team.

#### **$f_s$ - Service Factor**

this factor represents the application's industrial rating; it depends on operating conditions, type of drive and frequency of start-up.

The information provided in this catalog is calculated for  $f_s = 1$ . The service factor value of a gearbox may be calculated by dividing its nominal power by its absorbed power.

**Service factors (tab. 1)**

	OPERATING CONDITIONS								
	Uniform U			With moderate shocks M			With moderate shocks H		
hours / day	START-UPS / HOUR								
	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250	< 16	16 - 63	64 - 250
< 0.5	0.9	1.3	1.5	0.9	1.3	1.5	1.2	1.5	1.8
0.5 - 3	0.9	1.3	1.5	1.2	1.5	1.8	1.7	2.0	2.3
3 - 8	1.2	1.5	1.8	1.4	1.8	2.0	1.9	2.3	2.8
8 - 24	1.4	1.8	2.0	1.7	2.0	2.5	2.4	2.8	3.0

#### **$P_1$ - Nominal Power [kW]**

the mechanical power transmitted by the gearbox, related to input. At  $f_s = 1$  the gearbox has a theoretical lifetime of 10000 hours under the ISO 6336 standard. This value does not take into account any limits on the gearbox's thermal capacity, as it is exclusively based on mechanical resistance in accordance with the speed of use.

#### **$P_a$ - Absorbed Power [kW]**

relates to installed or available power, the amount of power actually absorbed by the application, at the gearbox input

#### **$P_t$ - Thermal Power [kW]**

the maximum mechanical power the gearbox can transmit while in continuous operation, with splash fed lubrication, without going beyond its maximum temperature level (oil temperature below 90°C). More power may be transmitted using a Viton seal and synthetic oils or special cooling devices. The values indicated for various gearbox sizes refer to continuous operation with input speeds of 1500 RPM, at an ambient temperature of 20°C and an altitude of 0 / 500 m, for indoor applications.

Under different conditions of use, thermal power must be multiplied by the thermal factors identified in the tables below. For limited periods of operation, followed by periods of rest long enough to guarantee sufficient cooling of the gearbox, thermal power loses its significance and may be neglected.



## Thermal Factors (tab. 2)

Ambient Temperature	Operating Time [%]				
	100%	80%	60%	40%	20%
10°	1.2	1.3	1.4	1.6	1.8
20°	1.0	1.1	1.3	1.4	1.6
30°	0.8	1.0	1.1	1.3	1.4
40°	0.7	0.8	1.0	1.1	1.3
50°	0.5	0.7	0.8	1.0	1.1

Altitude [m]	Input Speed [RPM]				
	400	800	1000	1500	2000
0	1.2	1.1	1.1	1.0	0.7
500	1.2	1.1	1.1	1.0	0.7
1000	1.1	1.0	1.0	0.9	0.6
1500	1.1	1.0	1.0	0.9	0.6
2000	1.1	1.0	1.0	0.9	0.6

## **P<sub>d</sub> - Power to be Dissipated [kW]**

the power that a cooling system must dissipate if the power to be transmitted exceeds the gearbox's thermal power.

## **η<sub>m</sub> - Mechanical Efficiency**

The ratio between mechanical power output and input; normally considered equal to 0.97 ÷ 0.98 for each epicycloidal reduction stage in the gearbox, and equal to 0.94 ÷ 0.95 for conical torque; the actual value depends on a number of factors including speed, torque, ratio, assembly position and lubrication.

## **T<sub>2</sub> - Torque Transmitted [Nm]**

this value represents torque continuously applied at a speed of  $n_1$ , at which the gearbox has a theoretical lifetime of 10000 h for gears, or 5000 h ( $L_{h10}$ ) for the bearings in gear mechanisms.

## **T<sub>max</sub> - Maximum Transmissible torque [Nm]**

the maximum torque transmitted by the accessory supplied with the gearbox, if applicable. This value may limit the maximum transmissible torque of the gearbox.

## **T<sub>2max</sub> - Maximum Torque [Nm]**

the maximum admissible output torque, as a peak value or for brief periods of time (calculated at 90% Rs of the weakest component).

For drives with a high number of start-ups or inversions, appropriately reduced maximum torque values should be considered.

The value specified refers to the version with a grooved female shaft (FS); different versions may have lower values.

## **T<sub>b</sub> - Braking Torque [Nm]**

the value of braking torque that may be conveyed statically by the negative brake.



### **$n_1$ - Input Speed [RPM]**

the speed on the fast side of the gearbox.

### **$n_2$ - Output Speed [RPM]**

the speed on the slow side of the gearbox.

### **$n_{1max}$ - Maximum Speed [RPM]**

the maximum input speed at the brake. For applications with higher values, contact Dinamic Oil's sales service to determine application compatibility.

### **$i_e$ - Actual Reduction Ratio**

the actual reduction ratio, meaning the ratio between the gearbox's input and output speeds.

### **$n_{xh}$ - Duration Index [RPMxh]**

the value of the product between speed and duration of theoretical lifetime in hours. This value is expressed as  $n_2xh$  when used with output speed,  $n_1xh$  with used with input speed.

#### **Duration Values Required for Different Applications (tab. 3)**

Application	Required Lifetime
Agricultural machinery	300 - 3000
Machines operated intermittently or for short periods of time (construction machines)	3000 - 8000
Machines operated intermittently or for short periods of time with high operational reliability (freight lifts)	8000 - 12000
Machines operated 8 hours a day but not all the time (various industrial machines, rotary mills)	10000 - 25000
Machines operated 8 hours a day all the time (various industrial machines, conveyor belts)	20000 - 30000
Machines operated continuously (rolling mills, textiles machines)	40000 - 50000

### **$k_f$ - Correction Factor**

the factor applied to calculate the theoretical lifetime of bearings with male shafts for values of  $n_{xh}$  other than those shown in catalog diagrams. External load curves are calculated for all gearboxes as:

- $n_2xh = 100000$  for output supports
- $n_1xh = 1500000$  for input supports

### **$L_{min}$ - Minimum Length of Torque Arm [mm]**

the minimum length recommended for the torque arm, applied to pendular applications.



## 4.0 Gearbox selection

### 4.1 Selection

Gearbox selection is based on the service factor required by the application and the required output speed. Once the electric motor has been determined (in terms of nominal speed and power), select the gearbox with the reduction ratio required to reach the required output speed and nominal power needed to ensure that the ratio between its value and the value of the motor's rated power is higher than the service factor.

$$i_e = n_1 / n_2$$

$$P_1 \geq P_a \times f_s$$

Confirm the selection with other parameters such as thermal power, impulse torque and any radial or axial loads acting on the male input and output shafts.

If the drive is not electric, apply the same method for the outgoing torque required by the application rather than the nominal power.

### 4.2 Verification

#### **Gearbox input and output supports:**

these must be verified based on any radial and axial loads present. For each model, the catalog provides diagrams representing the dynamic radial loads that may be supported in accordance with the ISO 281 standard with a duration of  $L_{10}$  corresponding to  $n \times h = 100000$ . For different durations, an applicable radial load can be calculated by multiplying the values in the diagrams by the corrective factor  $k_f$ .

The radial load cannot in any case exceed the maximum value on the curve in the diagram.

Make sure that if there are axial loads, they do not exceed the maximum permitted value.

#### **Output torque:**

this must never exceed the maximum transmissible torque of the selected gearbox. Carefully check that this value is higher than the maximum torque deliverable by the motor installed, shown at the gearbox output (that is, multiplied by the actual reduction ratio and the gearbox's mechanical yield).

#### **Input speed:**

for speeds other than those shown in the table, please contact the sales office.

#### **Thermal power:**

if installed power exceeds the gearbox's thermal power, select a larger gearbox and use synthetic oil with Viton seals or use a cooling circuit.

If you use Viton seals and synthetic oil, you may consider the thermal factor equivalent to an ambient temperature lower than 20°C with respect to the actual temperature, in order to consider the fact that the gearbox can withstand overheating 20°C over the projected data.

If you use a cooling system, the power to be dissipated is

$$P_d = (P_a - P_t) \cdot (1 - \eta_m)$$



## 5.0 Order code

<b>RA</b>	<b>21</b>	<b>3</b>	<b>P</b>	<b>S</b>		<b>78.7</b>	
-----------	-----------	----------	----------	----------	--	-------------	--

**OUTPUT VERSION**

G-2

**OUTPUT SHAFT**

G-2

S = Male spline  
F = Female spline  
C = Cylindrical shaft  
K = Extended cylindrical shaft  
E = Hexagonal shaft  
Q = Hollow female shaft  
FS = Female spline  
FC = Female cylindrical shaft  
U = Female cylindrical shaft

**NUMBER OF STAGES**

F-2

1 - 2 - 3 - 4 - 5 - 6

**REDUCTION RATIO**

F-2

Please write the exact ratio as shown on the selection table

**GEARBOX FRAME SIZE**

F-1

RE - RA	RE - RA	GB - GBA	GB - GBA
110	1520	12010	61000
210	2000	16000	85000
240	2520	21000	110000
310	3000	26000	130000
510	3510	31000	GB
610	4800	40000	150000
810	6000	45000	205000
1020	8000	53000	235000

**COMPOSITION**

F-2

/ = Standard  
L = Light  
R = Reinforced  
S = Special

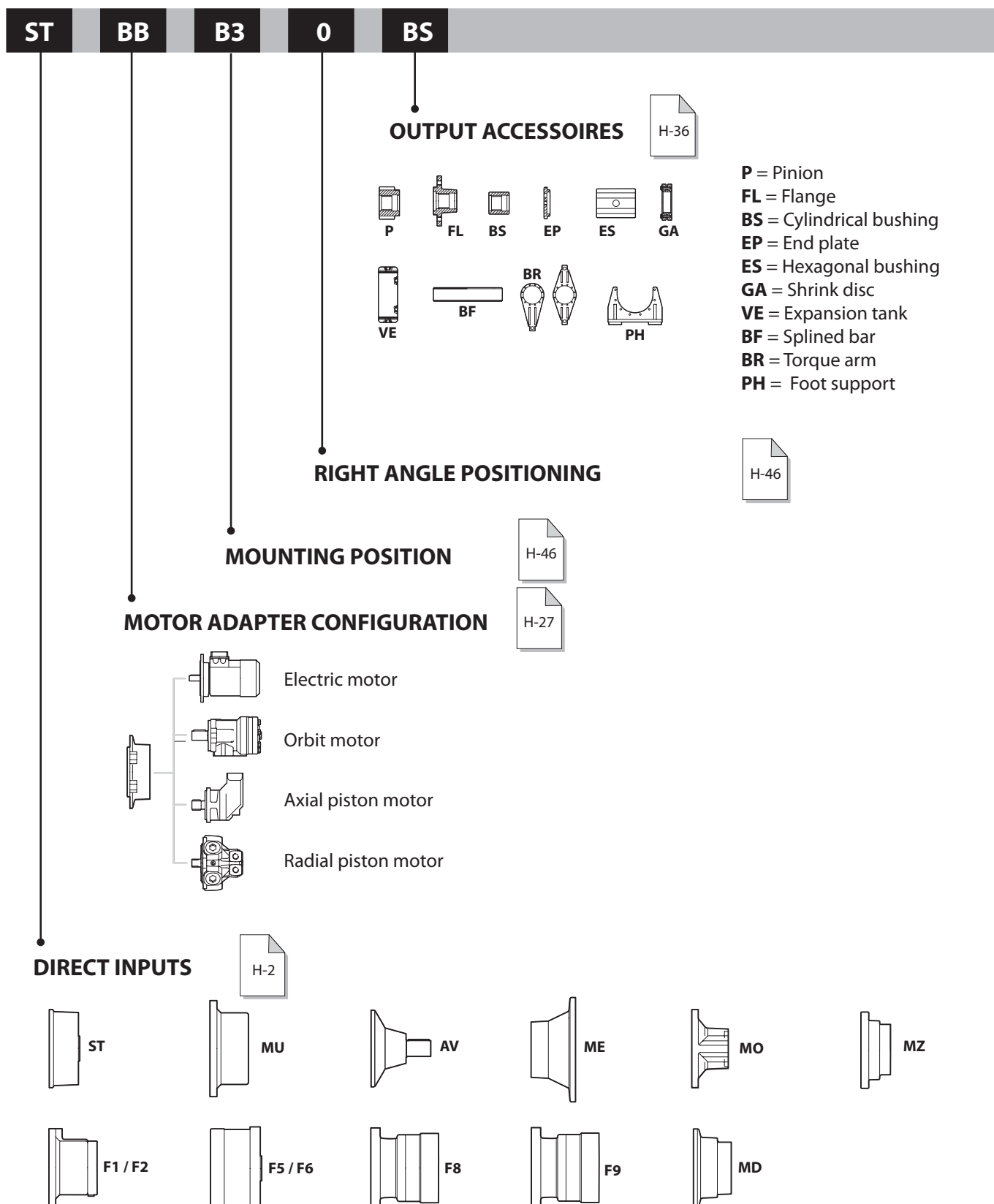
  

**EXECUTION**

F-1

RE - GB = Linear      RA - GBA = Angular





The example shows the ordering code for a right angle planetary gearbox frame 210, with 3 reduction stages a foot mounted output support and a male splined shaft, and 78.7 reduction ratio, with a "ST" input and "SAE B", 16/32 15 teeth motor adapter flange. Horizontal mounting position and standard right angle positioning, and a parallel bushing output accessory.



## 6.0 Negative Hydraulic Brakes

### 6.1 1.1 Negative Hydraulic Multi disk Brakes

Dinamic Oil gearboxes may have a static negative multi disk brakes and hydraulic control.

The brakes on models **F1** through **F2** are designed for direct assembly of orbital hydraulic motors with flanging, compliant with the SAE A Standard.

The brakes on models **F5** through **F6** reach greater braking torques and have an ST universal for connection to wide range of motors available on the market.

The brakes on model **F8** reach braking torques of up to 3000 Nm and have an MU input for connection to a wide range of motors available on the market.

The brakes on model **F9** reach braking torques of up to 1500 Nm. An optional sprag clutch mechanism with a torque of up to 1200 Nm can also be mounted. They have a "SAE C" or "SAE D" input and or optional universal ST input. These can be used for connection to a wide range of motors available on the market.

The **MD** brake is assembled with a direct flange connection for MLR motors on reduction stages RE 110/RE 240.

Braking is generated by springs which compress fixed tempered steel disks alternating with bronze disks; friction transforms this thrust into a braking torque.

The brakes open when hydraulic oil pressurizes the brake release port; the pressure acts on a piston which compresses the spring so that the disks can turn freely. These are parking brakes which act by creating static braking torque when hydraulic release pressure is zero. The action stops when hydraulic pressure reaches the minimum release value.

For the following brakes F1, F2 and standard versions of F5, F6 and F8, circa 0.1 liter of mineral oil, with an ISO VG 32 viscosity is required.

Several brake models - F5, F6, F8 and F9 - are available in special versions with a higher maximum velocity.

### 6.2 Brake Selection

The following criteria must be considered:

- Braking torques are calculated under zero release pressure; if there is counter-pressure in the hydraulic circuit the actual braking values will be reduced as follows:

Actual torque = Theoretical torque x (Opening pressure – Counter-pressure) / Pressure at the start of opening.

- Brake torque multiplied by the reduction ratio and divided by gearbox efficiency must be greater than or equal to the required output torque:

$$T_b \times i_e / \eta_m \geq T_2$$

- Except in particular cases, brake torque multiplied by the reduction ratio and divided by gearbox efficiency must not exceed the maximum gearbox torque:

$$T_b \times i_e / \eta_m \leq T_{2max}$$

## 7.0 Assembly Positions

For a complete definition of gearbox order code, it is necessary to determine the assembly position. This position defines the location of the oil filling caps, levels and drainage plugs.

See page H46 - H48.



## 8.0 Installation Instructions

The information in this chapter is indicative: it provides a partial summary of the installation and maintenance manual, which users should always refer to for more detailed information.

### 8.1 Installation

#### Gearboxes with flange and male shaft:

the coupling frame must have an unpainted, flat surface for the gearbox to rest on. The surface should be processed with machine tools and perpendicular to the axis of rotation. The table below shows the tolerance for centering on couplings. For the RE series, the centering has a tolerance of H8.

Diameter	[mm]	80 - 120	120 - 180	180 - 250
Tolerance	[mm]	+0.054 0	+0.063 0	+0.072 0
Diameter	[mm]	250 - 315	315 - 400	400 - 500
Tolerance	[mm]	+0.081 0	+0.089 0	+0.097 0

The gearboxes sized from RE1520 to RE8000 with output H have two pilot diameters. It is sufficient to use 1 pilot when the radial loads on the output shaft are not present or are less than 50% of the maximum permitted loads. For the GB line, the pilot diameter has a tolerance of F8.

Diameter	[mm]	80 - 120	120 - 180	180 - 250
Tolerance	[mm]	+0.186 +0.076	+0.205 +0.080	+0.226 +0.086

#### Gearboxes with a female splined shaft:

gearboxes with a female splined output shaft are not suitable for supporting radial loads on the output; it is therefore very important to carefully align the gearbox and the drive shaft. It is also necessary to check that the drive shaft does not bend while operating.

#### Gearboxes with Foot Support:

the gearbox foot support must be anchored to a flat surface and be aligned with the drive machine; it is important to align and level it very carefully. Incorrect support or alignment will affect the gearbox's lifetime.

#### Gearboxes with Pendular Assembly:

anchor the torque arm so that it is not constrained in the direction of the gearbox axis. The anchor point must have appropriate shock absorption.

The dimensional tables for each gearbox show the minimum length of the torque arm.



**Torques and corresponding axial forces exerted by large pitch screws (tab. 4)**

	Class 8.8		Class 10.9		Class 12.9	
	Torque [Nm]	Force [N]	Torque [Nm]	Force [N]	Torque [Nm]	Force [N]
<b>M10</b>	44	26000	62	37000	74.5	44000
<b>M12</b>	77	37800	108	53000	130	64000
<b>M14</b>	122	51500	172	72000	207	87000
<b>M16</b>	191	70400	269	99000	323	119000
<b>M18</b>	263	86000	370	121000	444	145000
<b>M20</b>	373	110000	525	154000	630	185000
<b>M22</b>	507	138000	714	191000	857	229000
<b>M24</b>	645	158000	908	222000	1090	267000
<b>M27</b>	944	206000	1330	289000	1590	347000
<b>M30</b>	1280	251000	1800	353000	2160	424000
<b>M33</b>	1740	311000	2460	437000	2940	525000
<b>M36</b>	2240	366000	3150	515000	3780	618000
<b>M39</b>	2900	437000	4080	615000	4890	738000
<b>M42</b>	3580	502000	5040	706000	6050	847000

## 8.2 Lubrication

### Gearboxes are supplied without oil.

Before use, the gearbox should be filled up to the specified level with a recommended lubricant oil.

The choice and quantity of oil will be determined by the installer / user based on the type of application.

## 8.3 Paint

Gearboxes are supplied unpainted. Some parts are treated with a water-soluble base coat of red epoxy paint. The customer should paint them using a paint compatible with the base coat. Oil seals must be protected during painting

## 8.4 Assembling Flanged Motors

Assembling motors on the coupling flanges supplied by Dinamic Oil is easy, but these important recommendations should be followed:

- lubricate the coupling with a light layer of anti-seizure grease or lubricant;
- make sure the motor runs freely but snugly on the flange, anchoring the gearbox in place, without forcing the shaft or the pilot;
- tighten screws.

Refer to the installation and maintenance manual for additional information.

## 8.5 Assembling Motors with Connection Couplings

When connection couplings are used between the motor and the gearbox, ensure that the alignment is compatible with the type of coupling used. Couplings are widely used in industrial applications for a variety of functions, such as:

- limiting input torque,
- absorbing vibrations from the motor,
- compensating for small misalignments.

When using connection couplings, refer to the instruction manuals supplied by the suppliers of the component.

## 8.6 Gearbox Weight

For your information, the indicative weights of various gearboxes are provided on page H52.



## 9.0 Storage

*The information in this chapter is indicative: it provides a partial summary of the installation and maintenance manual, which users should always refer to for more detailed information.*

Gearboxes must not be stored outdoors or in direct contact with the ground or sun. For long-term storage they must be filled with oil, and all external parts covered with grease; coupling surfaces must be protected with rust proof agents and the gearbox should be operated under no load at least once every two months (one complete turn of the output shaft is sufficient). Refer to the installation and maintenance manual for additional information on storage.

## 10.0 Lubrication

### 10.1 Type of Lubrication

Gearboxes are lubricated in oil baths; before operating the gearbox, fill it with oil and look through the level cap to see if the oil is at the correct level; this operation requires special attention, and you must check the level again after a few minutes of operation. The oil quantities identified in the catalog are approximate and vary according to the reduction ratio and the type of gearbox input.

### 10.2 Selecting an Oil

You may use any mechanical transmission oil with EP additives in viscosity classes ISO VG220 to ISO VG320 under ISO 3448. In special cases, oils with different viscosities may be used; for more information on these exceptions, contact Dinamic Oil's Technical Assistance Service. Oil viscosity must be selected based on ambient temperature and the actual operating temperature of the gearbox. If the gearboxes are being operated at very high ambient temperatures, synthetic oil is recommended. Oil may suddenly overheat in gearboxes assembled vertically and continuously functioning; in these cases it is necessary to use an external expansion tank (which Dinamic Oil may supply) to allow the oil to expand through thermal dilation.

### 10.3 Changing the oil

Oil must be changed after the first 150 hours of operation, and then after 2000 or 4000 hours of operation depending on how the gearbox is used, and in all cases at least once a year. To facilitate the process of emptying the gearbox, change the oil while the gearbox is hot; internal parts must be washed with a suitable liquid before introducing new oil. Oils with different viscosities or different brands of oil should not be mixed. In particular, synthetic and minerals oils must never be mixed together. Once the machine is in operation, periodically check lubricant level and top it off, if necessary.

### 10.4 Oil quantity

Information on the quantity of oil required for proper gearbox lubrication is provided on page H48.



## 10.5 Recommended lubricants

Recommended viscosity (tab. 5)

ISO VG 3448	OPERATING TEMPERATURE [C°]												
	Ambient Temperature [C°]												
	-20°	-10°	0	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
220													
320													

Recommended lubricants (tab. 6)

Lubricants for general use

Manufacturer	Mineral Oil	Synthetic Oil	
		Poly-Alpha-Olefin (PAO)	Polyglycol (PG)
AGIP	Blasia	Blasia SX	Blasia S
ARAL	Degol BG		Degol GS
BP	Energol GR-XP	Energol EPX	Energol HTX
CASTROL	Alpha SP	Alphasyn EP	Alphasyn PG
CHEVRON	Ultra Gear	Tegra Synthetic	HiPerSYN
DEA	Falcon CLP		
ELF	Reductelf SP	Elf Syntherma	Elf Syntherma
ESSO	Spartan EP	Spartan S EP	Glycolube
FINA	Giran		
IP	Mellana		Telesia Oil
KLÜBER	Kluberoil GEM 1	Klubersynt EG4	Klubersynt GH6
MOBIL	Mobilgear XMP	Mobilgear SHC	Glygoile
OPTIMOL	Ultra		
Q8	Goya	El Greco	El Greco
SHELL	Omala S2 G	Omala S4 GX	Omala S4 WE
TOTAL	Carter EP	Carter SH	Carter SY

Lubricants for food use

Manufacturer	Gear Oils
AGIP	Rocol Foodlube Hi-Torque
ESSO	Gear Oil FM
KLÜBER	Kluberoil 4 UH1 N
MOBIL	DTE FM
SHELL	Cassida Fluid GL

## 10.6 Temperature

The recommended ambient temperature for use of standard gearboxes is from -15°C to +40°C.



## 11.0 Independent Cooling Units

When transmitted power exceeds the thermal power that may be dissipated by the reducer, it is necessary to use a cooling unit to dispose of excessive thermal power.

Dinamic Oil offers a series of independent oil/water and oil/air cooling units which can dissipate up to 50 kW. For greater power levels, contact our technical office.

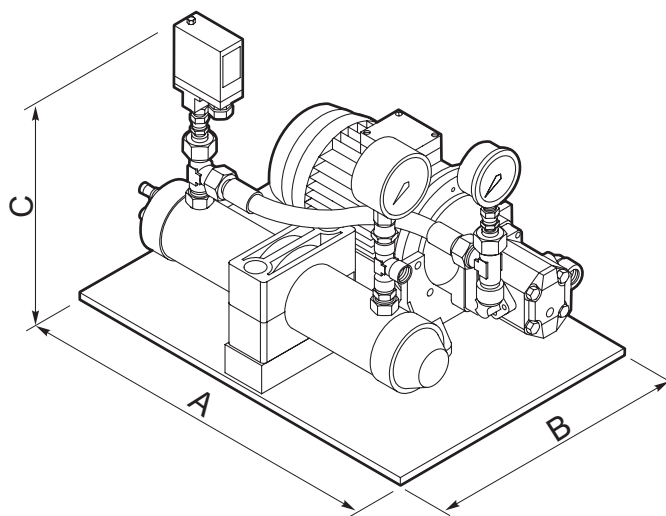
### 11.1 Independent oil/water cooling units, standard and customized composition.

Standard series URO/W cooling units are composed of:

- A water/oil heat exchanger.
- A motor-driven pump (motor/pump connection with joint and support; pump with viton seals) composed of a 4 pole B5 motor, standard three-phase 230-400V 50 hz power supply and gear pump.
- 0-16 bar manometer assembled between pump and heat exchanger.
- Analogue 0-120 °C thermometer mounted at the exchanger exit.
- Filter for installation on the tank delivery for cleaning the oil released (recommended option).

Units in customized installations may be equipped with the following options:

- Minimum pressure switch with exchange contacts, for assembly between the pump and the heat exchanger. (In this case the hydraulic system is already prepared).
- Electric flow switch for total control of oil flow. .



Unit	Capacity [kW]*	Motor-driven oil pump		Water quantity [l/min]*	A	B	C
		[kW]	[l/min]				
URO/W 4	4	0.37	16	8	500	350	400
URO/W 6	6	0.37	16	10	500	350	400
URO/W 9	9	0.55	16	16	500	350	400
URO/W 13	13	1.1	30	25	500	350	400
URO/W 21	21	1.5	30	40	500	400	450
URO/W 31	31	2.2	56	50	720	510	520
URO/W 50	50	3.0	80	80	730	520	520

\* The values appearing in the table are for a water temperature of 20° C..



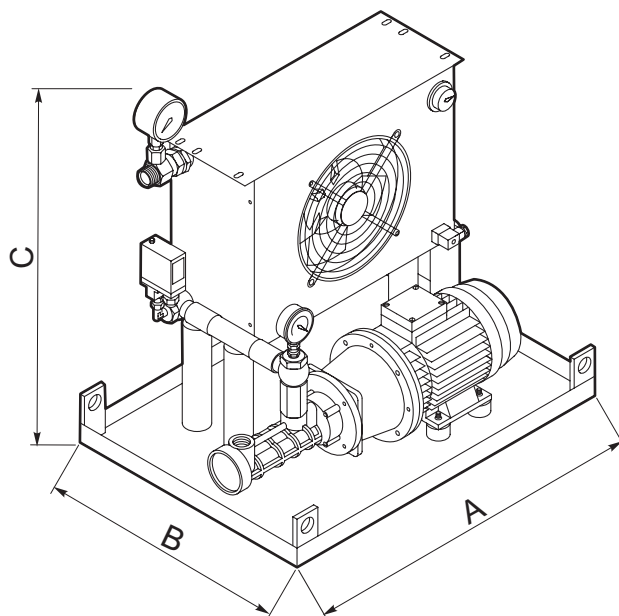
## 11.2 Independent oil/water cooling units, standard and customized composition

Standard series URO/A cooling units are composed of:

- An air/oil heat exchanger complete with a fan and an adjustable 0-90 °C thermostat, already wired.
- A motor-driven pump (motor/pump connection with joint and support; pump with viton seals) composed of a 4 pole B3/ B5 motor, standard 230-400V / 350 hz power supply and screw pump.
- 0-16 bar manometer assembled between pump and heat exchanger.
- Analogue 0-120 °C thermometer mounted at the exchanger exit.
- Filter for installation on the tank delivery for cleaning the oil released (recommended option).

Units in customized installations may be equipped with the following options:

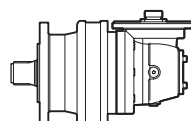
- Minimum pressure switch with exchange contacts, for assembly between the pump and the heat exchanger. (In this case the hydraulic system is already prepared).
- Electric flow switch for total control of oil flow.
- Filter for installation on the tank delivery for cleaning the oil released (recommended option).



Unit	Capacity [kW]*	Motor-driven oil pump		Motor-driven fan		A	B	C
		[kW]	[l/min]	[kW]	[m³/h]			
URO/A 5	5	1.5	30	0.12	900	660	430	700
URO/A 7	7	1.5	30	0.12	1300	710	510	700
URO/A 10	10	1.5	30	0.18	2750	710	510	830
URO/A 13	13	1.5	30	0.23	2750	710	510	830
URO/A 16	16	2.2	56	0.23	3500	710	510	1010
URO/A 21	21	2.2	56	0.56	6300	800	500	1200
URO/A 26	26	3	56	0.56	7450	800	500	1265
URO/A 30	30	3	80	0.56	7450	800	500	1265
URO/A 40	40	2.2	56	0.9	9500	1010	600	1350
URO/A 46	46	3	80	0.9	9500	1010	600	1350

\* The values appearing in the table are for a water temperature of 20° C..





RE	ie	RA	ie	T <sub>2max</sub> [Nm]	
<b>110</b>	3.48 - 2153.35	<b>110</b>	11.14 - 1194.39	<b>1780</b>	<b>F-2</b>
<b>210</b>	3.48 - 2153.35	<b>210</b>	11.14 - 1194.39	<b>3600</b>	<b>F-4</b>
<b>240</b>	3.82 - 1658.88	<b>240</b>	12.22 - 900.53	<b>3650</b>	<b>F-6</b>
<b>310</b>	3.60 - 1990.66	<b>310</b>	10.03 - 1244.16	<b>6120</b>	<b>F-8</b>
<b>510</b>	3.60 - 1990.66	<b>510</b>	10.03 - 1244.16	<b>11600</b>	<b>F-10</b>
<b>610</b>	4.00 - 1416.08	<b>610</b>	11.14 - 629.37	<b>14900</b>	<b>F-12</b>
<b>810</b>	3.56 - 2264.19	<b>810</b>	10.41 - 1184.91	<b>18600</b>	<b>F-14</b>
<b>1020</b>	3.56 - 2264.19	<b>1020</b>	10.41 - 1184.91	<b>26100</b>	<b>F-16</b>
<b>1520</b>	4.09 - 2041.20	<b>1520</b>	12.56 - 1076.68	<b>39000</b>	<b>F-18</b>
<b>2000</b>	3.83 - 1451.52	<b>2000</b>	11.77 - 907.20	<b>44100</b>	<b>F-20</b>
<b>2520</b>	4.00 - 1925.49	<b>2520</b>	12.29 - 1091.91	<b>50100</b>	<b>F-22</b>
<b>3000</b>	4.00 - 1742.52	<b>3000</b>	12.29 - 968.07	<b>78800</b>	<b>F-24</b>
<b>3510</b>	3.84 - 2392.62	<b>3510</b>	12.48 - 1118.57	<b>94300</b>	<b>F-26</b>
<b>4800</b>	3.84 - 1741.68	<b>4800</b>	12.48 - 967.60	<b>111000</b>	<b>F-28</b>
<b>6000</b>	4.14 - 1435.91	<b>6000</b>	13.46 - 1009.38	<b>123000</b>	<b>F-30</b>
<b>8000</b>	4.00 - 3164.84	<b>8000</b>	13.00 - 800.00	<b>196000</b>	<b>F-32</b>

GB	ie	GBA	ie	T <sub>2max</sub> [Nm]	
<b>12010</b>	4.09 - 3544.35	<b>12010</b>	48.55 - 3161.48	<b>281000</b>	<b>F-34</b>
<b>16000</b>	3.83 - 3172.87	<b>16000</b>	47.84 - 3544.35	<b>326000</b>	<b>F-36</b>
<b>21000</b>	3.68 - 3129.84	<b>21000</b>	49.55 - 3065.78	<b>361000</b>	<b>F-38</b>
<b>26000</b>	3.68 - 3532.80	<b>26000</b>	55.81 - 2527.69	<b>433000</b>	<b>F-40</b>
<b>31000</b>	3.43 - 3559.02	<b>31000</b>	172.32 - 5011.04	<b>617000</b>	<b>F-42</b>
<b>40000</b>	3.43 - 3559.02	<b>40000</b>	172.32 - 5011.04	<b>650000</b>	<b>F-44</b>
<b>45000</b>	3.83 - 3554.59	<b>45000</b>	210.50 - 2211.75	<b>650000</b>	<b>F-46</b>
<b>53000</b>	3.84 - 3103.82	<b>53000</b>	248.00 - 4278.67	<b>1191000</b>	<b>F-48</b>
<b>61000</b>	3.84 - 2943.14	<b>61000</b>	190.27 - 11772.58	<b>1191000</b>	<b>F-50</b>
<b>85000</b>	3.84 - 2448.10	<b>85000</b>	214.32 - 11429.12	<b>1191000</b>	<b>F-52</b>
<b>110000</b>	4.32 - 3553.28	<b>110000</b>	744.42 - 21647.68	<b>2206000</b>	<b>F-54</b>
<b>130000</b>	4.32 - 2350.11	<b>130000</b>	909.34 - 10967.19	<b>2470000</b>	<b>F-56</b>
<b>150000</b>	4.07 - 2344.94			<b>2470000</b>	<b>F-58</b>
<b>205000</b>	4.14 - 3259.83			<b>3293000</b>	<b>F-59</b>
<b>235000</b>	4.14 - 2902.95			<b>3293000</b>	<b>F-60</b>

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Radial and Axial loads

F-61

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# RE 110



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 111	3.48	216	14.7	630	259	16.8	610	417	23.5	530	833	38.2	430	1730	10.8 (N) 12.8 (T) 8.2 (F) 21 (P)
	4.26	176	12.2	650	211	14.4	640	340	20.1	550	680	32.7	450	1780	
	5.77	130	6.7	480	156	7.9	470	251	12.4	460	503	23.9	440	1320	
	7.20	104	3.8	340	125	4.6	340	201	7.1	330	403	13.7	320	950	
RE 112	12.11	62	4.6	680	74	5.5	670	120	8.6	660	239	16.4	620	1730	6.5 (N) 7.5 (T) 5.1 (F) 13.1 (P)
	14.84	51	3.8	690	61	4.6	680	98	7.1	660	195	13.7	640	1730	
	18.17	41.3	3.2	700	49.5	3.8	700	80	6.0	680	160	11.4	650	1780	
	20.08	37.4	2.9	700	44.8	3.4	690	72	5.4	670	144	10.3	650	1730	
	24.60	30.5	2.4	720	36.6	2.9	710	59	4.5	690	118	8.6	660	1780	
	30.69	24.4	2.0	720	29.3	2.3	720	47.2	3.6	700	94	7.0	670	1780	
	33.28	22.5	1.3	530	27.0	1.6	520	43.6	2.4	510	87	4.7	490	1320	
	41.54	18.1	1.1	530	21.7	1.3	530	34.9	2.0	510	70	3.8	490	1320	
	51.84	14.5	0.61	380	17.4	0.73	380	28.0	1.1	370	56	2.2	350	950	
RE 113	51.63	14.5	1.2	750	17.4	1.5	740	28.1	2.3	720	56	4.4	690	1730	5.1 (N) 5.7 (T) 4.1 (F) 9.5 (P)
	63.25	11.9	1.0	760	14.2	1.2	750	22.9	1.9	730	45.9	3.6	700	1780	
	69.87	10.7	0.92	750	12.9	1.1	740	20.8	1.7	720	41.5	3.3	700	1730	
	77.48	9.7	0.84	760	11.6	0.99	760	18.7	1.6	740	37.4	3.0	710	1780	
	85.59	8.8	0.76	770	10.5	0.90	760	16.9	1.4	740	33.9	2.7	710	1780	
	104.85	7.2	0.64	790	8.6	0.75	770	13.8	1.2	750	27.7	2.2	720	1780	
	106.82	7.0	0.63	790	8.4	0.73	770	13.6	1.1	750	27.1	2.2	720	1780	
	130.86	5.7	0.53	820	6.9	0.62	800	11.1	0.95	760	22.2	1.8	730	1780	
	141.90	5.3	0.49	830	6.3	0.58	810	10.2	0.88	760	20.4	1.7	730	1780	
	144.55	5.2	0.49	840	6.2	0.58	820	10.0	0.86	760	20.1	1.6	730	1730	
	177.09	4.2	0.41	860	5.1	0.48	830	8.2	0.72	770	16.4	1.4	740	1780	
	180.40	4.2	0.41	870	5.0	0.48	850	8.0	0.72	790	16.1	1.3	730	1730	
	221.00	3.4	0.34	880	4.1	0.40	860	6.6	0.59	800	13.1	1.1	750	1780	
	239.64	3.1	0.22	630	3.8	0.26	610	6.1	0.39	570	12.1	0.75	550	1320	
	299.08	2.5	0.18	650	3.0	0.21	630	4.8	0.32	590	9.7	0.61	550	1320	
RE 114	220.10	3.4	0.35	880	4.1	0.41	860	6.6	0.61	800	13.2	1.1	750	1780	4.4 (N) 4.9 (T) 3.6 (F) 7.6 (P)
	243.14	3.1	0.33	910	3.7	0.38	890	6.0	0.57	830	11.9	1.0	750	1730	
	269.63	2.8	0.29	910	3.3	0.34	890	5.4	0.51	830	10.8	0.95	760	1780	
	303.44	2.5	0.27	940	3.0	0.32	920	4.8	0.47	850	9.6	0.85	770	1730	
	364.89	2.1	0.23	950	2.5	0.27	930	4.0	0.40	860	7.9	0.72	780	1780	
	403.08	1.9	0.21	980	2.2	0.25	960	3.6	0.37	890	7.2	0.67	800	1730	
	447.00	1.7	0.19	980	2.0	0.22	960	3.2	0.33	890	6.5	0.60	800	1780	
	493.79	1.5	0.18	1000	1.8	0.21	970	2.9	0.31	900	5.9	0.55	810	1780	
	557.86	1.3	0.16	1020	1.6	0.19	990	2.6	0.28	920	5.2	0.50	830	1780	
	627.80	1.2	0.15	1050	1.4	0.17	1020	2.3	0.25	950	4.6	0.46	860	1730	
	818.63	0.92	0.11	1080	1.1	0.13	1050	1.8	0.20	980	3.5	0.36	880	1780	
	942.17	0.80	0.10	1100	0.96	0.12	1070	1.5	0.18	1000	3.1	0.32	900	1780	
	1021.64	0.73	0.09	1120	0.88	0.11	1090	1.4	0.17	1010	2.8	0.30	910	1780	
	1275.01	0.59	0.08	1150	0.71	0.09	1120	1.1	0.14	1040	2.3	0.25	940	1780	
	1591.22	0.47	0.07	1190	0.57	0.08	1160	0.91	0.11	1080	1.8	0.21	970	1780	
	1725.44	0.43	0.04	840	0.52	0.05	820	0.84	0.07	760	1.7	0.13	690	1320	
	2153.35	0.35	0.04	870	0.42	0.04	850	0.67	0.06	790	1.3	0.11	710	1320	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 112	11.14	67.3	5.1	680	81	6.1	670	130	9.5	650	260	16.4	560	1730	4.7 (N) 5.4 (T) 3.8 (F) 8.9 (P)
	13.64	55.0	4.3	690	66	5.1	680	106	7.9	670	213	15.1	630	1780	
	18.46	40.6	2.3	510	48.8	2.8	500	79	4.3	490	157	8.3	470	1320	
	23.04	32.6	1.3	370	39.1	1.6	360	63	2.5	350	126	4.8	340	950	
RA 113	38.75	19.4	1.6	730	23.2	1.9	720	37.4	3.0	700	75	5.8	670	1730	4.1 (N) 4.6 (T) 3.4 (F) 8.1 (P)
	47.47	15.8	1.3	740	19.0	1.6	740	30.5	2.5	720	61	4.8	690	1780	
	58.16	12.9	1.1	750	15.5	1.3	740	24.9	2.1	720	49.9	4.0	700	1780	
	64.25	11.7	1.0	750	14.0	1.2	740	22.6	1.9	720	45.1	3.6	690	1730	
	78.70	9.5	0.84	770	11.4	0.99	760	18.4	1.6	740	36.8	3.0	710	1780	
	98.22	7.6	0.69	780	9.2	0.81	770	14.8	1.3	750	29.5	2.4	720	1780	
	106.51	7.0	0.46	560	8.5	0.54	560	13.6	0.85	540	27.2	1.6	520	1320	
	132.92	5.6	0.37	570	6.8	0.44	570	10.9	0.69	550	21.8	1.3	530	1320	
	165.89	4.5	0.21	410	5.4	0.25	410	8.7	0.40	390	17.5	0.76	380	950	
RA 114	134.86	5.6	0.55	830	6.7	0.64	810	10.8	0.95	750	21.5	1.8	720	1730	3.7 (N) 4.1 (T) 3.2 (F) 7.7 (P)
	165.21	4.5	0.45	850	5.4	0.53	820	8.8	0.79	770	17.6	1.5	740	1780	
	202.39	3.7	0.38	870	4.4	0.44	850	7.2	0.67	790	14.3	1.3	750	1780	
	223.58	3.4	0.36	900	4.0	0.41	880	6.5	0.62	810	13.0	1.1	740	1730	
	247.94	3.0	0.32	900	3.6	0.37	880	5.8	0.56	810	11.7	1.0	760	1780	
	273.89	2.7	0.29	910	3.3	0.34	890	5.3	0.52	830	10.6	0.95	760	1780	
	335.53	2.2	0.25	940	2.7	0.29	920	4.3	0.43	850	8.6	0.78	770	1780	
	341.82	2.2	0.24	950	2.6	0.28	920	4.2	0.43	860	8.5	0.77	770	1780	
	418.74	1.8	0.21	970	2.1	0.24	950	3.5	0.36	880	6.9	0.65	790	1780	
	454.06	1.7	0.19	990	2.0	0.22	960	3.2	0.34	890	6.4	0.60	800	1780	
	566.67	1.3	0.16	1020	1.6	0.19	990	2.6	0.28	920	5.1	0.50	830	1780	
	614.47	1.2	0.10	720	1.5	0.12	700	2.4	0.18	650	4.7	0.33	590	1320	
	707.21	1.1	0.13	1060	1.3	0.15	1030	2.1	0.23	960	4.1	0.41	860	1780	
	766.86	0.98	0.09	750	1.2	0.10	730	1.9	0.15	680	3.8	0.27	610	1320	
	957.05	0.78	0.07	770	0.94	0.08	750	1.5	0.12	700	3.0	0.22	630	1320	
	1194.39	0.63	0.04	550	0.75	0.05	540	1.2	0.07	500	2.4	0.13	450	950	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 211	3.48	216	26.5	1140	259	30.1	1080	417	42.0	940	833	68	760	2420	11.4 (N) 13.4 (T) 8.7 (F) 22 (P)
	4.26	176	22.7	1200	211	25.7	1140	340	36.0	980	680	58	800	3550	
	5.77	130	13.4	960	156	16.0	950	251	25.0	930	503	45.8	850	2650	
	7.20	104	7.8	690	125	9.2	690	201	14.4	670	403	27.8	640	1920	
RE 212	12.11	62	9.7	1410	74	11.5	1400	120	18.0	1360	239	29.3	1110	2420	6.8 (N) 7.8 (T) 5.4 (F) 13.4 (P)
	14.84	51	7.7	1390	61	9.2	1380	98	14.4	1340	195	25.0	1160	3550	
	18.17	41.3	6.4	1410	49.5	7.6	1390	80	11.9	1360	160	21.7	1240	3550	
	20.08	37.4	6.0	1460	44.8	7.1	1440	72	11.2	1400	144	20.5	1290	2420	
	24.60	30.5	4.8	1430	36.6	5.7	1420	59	9.0	1380	118	17.2	1330	3550	
	30.69	24.4	3.9	1450	29.3	4.6	1430	47.2	7.3	1400	94	14.0	1340	3550	
	33.28	22.5	2.6	1060	27.0	3.1	1050	43.6	4.9	1030	87	9.5	990	2650	
	41.54	18.1	2.1	1080	21.7	2.5	1070	34.9	4.0	1040	70	7.7	1000	2650	
	51.84	14.5	1.2	780	17.4	1.5	770	28.0	2.3	750	56	4.4	720	1920	
RE 213	51.63	14.5	2.5	1490	17.4	2.9	1480	28.1	4.6	1440	56	8.8	1380	3550	5.2 (N) 5.9 (T) 4.3 (F) 9.6 (P)
	63.25	11.9	2.0	1510	14.2	2.4	1500	22.9	3.8	1460	45.9	7.2	1400	3550	
	69.87	10.7	1.9	1570	12.9	2.3	1550	20.8	3.5	1510	41.5	6.8	1450	2420	
	77.48	9.7	1.7	1530	11.6	2.0	1510	18.7	3.1	1470	37.4	6.0	1420	3550	
	85.59	8.8	1.5	1540	10.5	1.8	1520	16.9	2.8	1480	33.9	5.4	1420	3550	
	104.85	7.2	1.3	1580	8.6	1.5	1540	13.8	2.3	1500	27.7	4.5	1440	3550	
	106.82	7.0	1.3	1590	8.4	1.5	1540	13.6	2.3	1500	27.1	4.4	1440	3550	
	130.86	5.7	1.1	1630	6.9	1.2	1590	11.1	1.9	1520	22.2	3.7	1460	3550	
	141.90	5.3	1.0	1660	6.3	1.2	1610	10.2	1.8	1520	20.4	3.4	1460	3550	
	144.55	5.2	1.0	1750	6.2	1.2	1700	10.0	1.8	1590	20.1	3.4	1510	2420	
	177.09	4.2	0.82	1710	5.1	1.0	1660	8.2	1.4	1550	16.4	2.7	1480	3550	
	180.40	4.2	0.63	1330	5.0	0.74	1320	8.0	1.2	1290	16.1	2.2	1240	3290	
	221.00	3.4	0.63	1630	4.1	0.74	1620	6.6	1.2	1570	13.1	2.2	1500	3550	
	239.64	3.1	0.45	1260	3.8	0.52	1230	6.1	0.78	1150	12.1	1.5	1100	2650	
	299.08	2.5	0.37	1310	3.0	0.43	1270	4.8	0.65	1180	9.7	1.2	1120	2650	
RE 214	220.10	3.4	0.70	1770	4.1	0.82	1720	6.6	1.22	1600	13.2	2.3	1500	3550	4.5 (N) 5.0 (T) 3.8 (F) 7.8 (P)
	243.14	3.1	0.68	1900	3.7	0.79	1840	6.0	1.19	1720	11.9	2.1	1550	2420	
	269.63	2.8	0.59	1820	3.3	0.69	1770	5.4	1.03	1650	10.8	1.9	1520	3550	
	303.44	2.5	0.56	1960	3.0	0.66	1910	4.8	0.98	1770	9.6	1.8	1600	2420	
	364.89	2.1	0.45	1910	2.5	0.53	1860	4.0	0.80	1730	7.9	1.4	1560	3550	
	403.08	1.9	0.43	1970	2.2	0.50	1950	3.6	0.77	1850	7.2	1.4	1670	2420	
	447.00	1.7	0.38	1970	2.0	0.45	1920	3.2	0.67	1780	6.5	1.2	1600	3550	
	493.79	1.5	0.35	2000	1.8	0.41	1940	2.9	0.62	1810	5.9	1.1	1630	3550	
	557.86	1.3	0.32	2040	1.6	0.37	1980	2.6	0.55	1840	5.2	1.0	1660	3550	
	627.80	1.2	0.30	2190	1.4	0.35	2130	2.3	0.53	1980	4.6	0.95	1780	2420	
	818.63	0.92	0.23	2160	1.1	0.27	2100	1.8	0.40	1950	3.5	0.72	1760	3550	
	942.17	0.80	0.20	2200	0.96	0.24	2140	1.5	0.36	1990	3.1	0.64	1800	3550	
	1021.64	0.73	0.19	2230	0.88	0.22	2170	1.4	0.33	2020	2.8	0.60	1820	3550	
	1275.01	0.59	0.16	2310	0.71	0.18	2240	1.1	0.28	2090	2.3	0.50	1880	3550	
	1591.22	0.47	0.11	1970	0.57	0.13	1920	0.91	0.19	1790	1.8	0.36	1690	3550	
	1725.44	0.43	0.09	1700	0.52	0.10	1660	0.84	0.15	1540	1.7	0.27	1390	2650	
	2153.35	0.35	0.07	1760	0.42	0.08	1710	0.67	0.12	1590	1.3	0.22	1440	2650	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 212	11.14	67	7.1	940	81	8.4	930	130	12.4	850	260	20.2	690	2410	4.9 (N) 5.5 (T) 4.0 (F) 9.0 (P)
	13.64	55	7.1	1150	66	8.4	1140	106	12.4	1050	213	20.2	850	2950	
	18.46	40.6	4.7	1030	48.8	5.6	1020	79	8.7	990	157	16.7	950	2650	
	23.04	32.6	2.7	740	39.1	3.2	730	63	5.0	710	126	9.7	690	1920	
RA 213	38.75	19.4	3.4	1510	23.2	4.0	1500	37.4	6.3	1460	75	12.0	1400	2420	4.2 (N) 4.7 (T) 3.5 (F) 8.2 (P)
	47.47	15.8	2.8	1530	19.0	3.2	1470	30.5	5.0	1430	61	9.6	1380	3550	
	58.16	12.9	2.2	1500	15.5	2.6	1490	24.9	4.1	1450	49.9	8.0	1390	3550	
	64.25	11.7	2.1	1560	14.0	2.5	1540	22.6	3.9	1500	45.1	7.5	1440	2420	
	78.70	9.5	1.7	1530	11.4	2.0	1510	18.4	3.1	1470	36.8	6.0	1420	3550	
	98.22	7.6	1.4	1560	9.2	1.6	1530	14.8	2.5	1490	29.5	4.9	1430	3550	
	106.51	7.0	0.92	1140	8.5	1.1	1130	13.6	1.7	1100	27.2	3.3	1050	2650	
	132.92	5.6	0.75	1160	6.8	0.89	1140	10.9	1.4	1110	21.8	2.7	1070	2650	
	165.89	4.5	0.43	830	5.4	0.51	820	8.7	0.80	800	17.5	1.5	770	1920	
RA 214	134.86	5.6	1.1	1730	6.7	1.3	1690	10.8	2.0	1570	21.5	3.8	1500	2420	3.9 (N) 4.3 (T) 3.3 (F) 7.9 (P)
	165.21	4.5	0.90	1690	5.4	1.1	1650	8.8	1.6	1540	17.6	3.1	1480	3550	
	202.39	3.7	0.76	1750	4.4	0.89	1700	7.2	1.3	1580	14.3	2.5	1490	3550	
	223.58	3.4	0.74	1870	4.0	0.86	1820	6.5	1.3	1690	13.0	2.4	1550	2420	
	247.94	3.0	0.64	1800	3.6	0.75	1750	5.8	1.1	1630	11.7	2.1	1510	3550	
	273.89	2.7	0.59	1830	3.3	0.69	1780	5.3	1.0	1650	10.6	1.9	1520	3550	
	335.53	2.2	0.50	1890	2.7	0.58	1830	4.3	0.87	1710	8.6	1.6	1540	3550	
	341.82	2.2	0.49	1890	2.6	0.57	1840	4.2	0.85	1710	8.5	1.5	1540	3550	
	418.74	1.8	0.41	1950	2.1	0.48	1900	3.5	0.72	1760	6.9	1.3	1590	3550	
	454.06	1.7	0.38	1970	2.0	0.45	1920	3.2	0.67	1790	6.4	1.2	1610	3550	
	566.67	1.3	0.32	2040	1.6	0.37	1990	2.6	0.56	1850	5.1	1.0	1660	3550	
	614.47	1.2	0.21	1460	1.5	0.24	1420	2.4	0.37	1320	4.7	0.66	1190	2650	
	707.21	1.1	0.22	1750	1.3	0.26	1730	2.1	0.41	1680	4.1	0.78	1620	3550	
	766.86	1.0	0.17	1510	1.2	0.20	1470	1.9	0.30	1360	3.8	0.55	1230	2650	
	957.05	0.78	0.14	1560	0.94	0.17	1520	1.5	0.25	1410	3.0	0.45	1270	2650	
	1194.39	0.63	0.08	1120	0.75	0.10	1090	1.2	0.14	1010	2.4	0.26	910	1920	



# RE 240



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 241	3.82	196	32.8	1550	236	37.2	1470	380	51.98	1270	760	84	1040	4010	13.4 (T) 8.7 (F)
	4.44	169	29.0	1600	203	32.9	1520	326	46.01	1310	653	75	1070	4010	
	5.43	138	19.7	1330	166	23.4	1310	267	36.67	1280	534	64	1110	3710	
RE 242	13.29	56	12.5	2000	68	14.8	1980	109	22.27	1850	218	36.2	1500	4010	7.8 (T) 5.4 (F)
	15.47	48.5	9.4	1760	58	11.2	1740	94	17.48	1690	188	32.0	1550	4010	
	16.28	46.1	10.3	2030	55	12.2	2010	89	19.15	1950	178	31.4	1600	4010	
	18.95	39.6	7.8	1780	47.5	9.2	1760	77	14.44	1710	153	27.8	1650	4010	
	22.03	34.0	6.8	1820	40.9	8.1	1800	66	12.73	1760	132	24.5	1690	4010	
	25.64	29.3	5.8	1810	35.1	6.9	1790	57	10.85	1740	113	20.9	1670	4010	
	27.49	27.3	3.9	1310	32.7	4.7	1290	53	7.32	1260	105	14.1	1210	3610	
	31.32	23.9	3.9	1470	28.7	4.6	1450	46.3	7.20	1410	93	13.9	1360	3710	
	39.09	19.2	3.1	1490	23.0	3.7	1470	37.1	5.85	1430	74	11.2	1380	3710	
RE 243	46.24	16.2	3.9	2150	19.5	4.7	2130	31.4	7.34	2070	63	14.1	1990	4010	5.9 (T) 4.3 (F)
	53.82	13.9	3.0	1890	16.7	3.5	1870	26.9	5.53	1820	54	10.6	1750	4010	
	56.65	13.2	3.3	2180	15.9	3.9	2150	25.6	6.06	2100	51	11.7	2010	4010	
	65.94	11.4	2.5	1910	13.6	2.9	1890	22.0	4.57	1840	44.0	8.8	1770	4010	
	69.39	10.8	2.7	2200	13.0	3.2	2180	20.9	5.01	2120	41.8	9.6	2040	4010	
	76.66	9.8	2.4	2210	11.7	2.9	2190	18.9	4.56	2130	37.8	8.8	2050	4010	
	93.91	8.0	2.0	2240	9.6	2.4	2220	15.4	3.76	2160	30.9	7.2	2070	4010	
	95.67	7.8	2.0	2240	9.4	2.4	2220	15.2	3.70	2160	30.3	7.1	2080	4010	
	111.36	6.7	1.5	1970	8.1	1.8	1950	13.0	2.79	1900	26.0	5.4	1820	4010	
	117.20	6.4	1.7	2300	7.7	1.9	2250	12.4	3.05	2180	24.7	5.9	2100	4010	
	147.93	5.1	1.2	2030	6.1	1.4	1980	9.8	2.13	1930	19.6	4.1	1850	4010	
	158.60	4.7	1.1	2040	5.7	1.3	2020	9.1	2.03	1960	18.3	3.9	1890	4010	
	184.62	4.1	0.97	2100	4.9	1.1	2050	7.9	1.73	1950	15.7	3.3	1870	4010	
	197.93	3.8	0.63	1460	4.5	0.74	1450	7.3	1.17	1410	14.7	2.2	1360	4010	
	230.40	3.3	0.63	1700	3.9	0.74	1690	6.3	1.17	1640	12.6	2.2	1580	4010	
	281.42	2.7	0.53	1750	3.2	0.62	1710	5.2	0.93	1600	10.3	1.8	1540	4010	
RE 244	241.49	3.1	0.92	2570	3.7	1.08	2500	6.0	1.62	2320	12.0	3.0	2190	4010	5.0 (T) 3.8 (F)
	295.84	2.5	0.78	2650	3.0	0.91	2570	4.9	1.36	2390	9.8	2.5	2210	4010	
	326.80	2.3	0.71	2690	2.8	0.83	2610	4.4	1.25	2430	8.9	2.3	2230	4010	
	344.36	2.2	0.58	2310	2.6	0.68	2250	4.2	1.02	2090	8.4	1.9	1940	4010	
	400.35	1.9	0.60	2770	2.2	0.70	2690	3.6	1.05	2510	7.2	1.9	2260	4010	
	442.25	1.7	0.55	2810	2.0	0.64	2730	3.3	0.97	2540	6.6	1.7	2290	4010	
	499.63	1.5	0.50	2860	1.8	0.58	2790	2.9	0.87	2590	5.8	1.6	2330	4010	
	551.93	1.4	0.46	2910	1.6	0.53	2830	2.6	0.80	2630	5.3	1.4	2370	4010	
	676.14	1.1	0.39	3000	1.3	0.45	2920	2.1	0.67	2710	4.3	1.2	2440	4010	
	733.18	1.0	0.27	2310	1.2	0.32	2250	2.0	0.49	2140	4.0	0.94	2060	4010	
	843.83	0.89	0.32	3100	1.1	0.37	3020	1.7	0.56	2810	3.4	1.0	2530	4010	
	915.01	0.82	0.23	2390	0.98	0.27	2330	1.6	0.40	2170	3.2	0.77	2090	4010	
	1065.09	0.70	0.22	2740	0.85	0.26	2670	1.4	0.39	2480	2.7	0.70	2230	4010	
	1141.93	0.66	0.19	2470	0.79	0.22	2410	1.3	0.33	2240	2.5	0.62	2110	4010	
	1300.93	0.58	0.15	2210	0.69	0.17	2150	1.1	0.26	2000	2.2	0.47	1800	4010	
	1329.23	0.56	0.19	2830	0.68	0.22	2760	1.1	0.32	2570	2.2	0.58	2310	4010	
	1658.88	0.45	0.11	2060	0.54	0.13	2000	0.87	0.19	1860	1.7	0.36	1770	4010	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 242	12.22	61	7.1	1030	74	8.4	1020	119	12.4	940	237	20.2	760	2640	5.5 (T) 4.0 (F)
	14.22	53	7.1	1200	63	8.4	1190	102	12.4	1090	204	20.2	880	3080	
	17.37	43.2	6.9	1420	52	8.1	1400	83	12.4	1330	167	20.2	1080	3710	
RA 243	42.52	17.6	4.3	2140	21.2	5.1	2120	34.1	8.1	2060	68	15.5	1980	3710	4.7 (T) 3.5 (F)
	49.49	15.2	3.3	1880	18.2	3.9	1860	29.3	6.1	1810	59	11.7	1740	3710	
	52.09	14.4	3.6	2170	17.3	4.2	2140	27.8	6.7	2090	56	12.8	2000	3710	
	60.63	12.4	2.7	1900	14.8	3.2	1880	23.9	5.0	1830	47.8	9.7	1760	3710	
	70.49	10.6	2.4	1950	12.8	2.8	1930	20.6	4.4	1880	41.1	8.5	1800	3710	
	82.05	9.1	2.0	1930	11.0	2.4	1910	17.7	3.8	1860	35.3	7.3	1790	3710	
	87.97	8.5	1.4	1400	10.2	1.6	1380	16.5	2.5	1350	33.0	4.9	1290	3610	
	102.40	7.3	1.4	1630	8.8	1.6	1610	14.2	2.5	1570	28.3	4.9	1510	3710	
	125.07	6.0	1.1	1590	7.2	1.3	1570	11.6	2.0	1530	23.2	3.9	1470	3710	
RA 244	147.97	5.1	1.4	2380	6.1	1.7	2320	9.8	2.6	2210	19.6	4.9	2130	3710	4.3 (T) 3.3 (F)
	172.24	4.4	1.1	2080	5.2	1.2	2020	8.4	1.9	1940	16.8	3.7	1870	3710	
	181.27	4.1	1.2	2460	5.0	1.4	2390	8.0	2.1	2240	16.0	4.1	2150	3710	
	211.00	3.6	0.90	2150	4.3	1.0	2090	6.9	1.6	1970	13.7	3.1	1890	3710	
	222.06	3.4	1.0	2530	4.1	1.2	2460	6.5	1.8	2290	13.1	3.3	2180	3710	
	245.30	3.1	0.93	2570	3.7	1.1	2500	5.9	1.6	2330	11.8	3.0	2190	3710	
	285.54	2.6	0.69	2250	3.2	0.81	2190	5.1	1.2	2030	10.2	2.3	1920	3710	
	306.14	2.4	0.77	2660	2.9	0.89	2590	4.7	1.3	2410	9.5	2.5	2220	3710	
	375.03	2.0	0.65	2740	2.4	0.75	2670	3.9	1.1	2480	7.7	2.0	2240	3710	
	406.67	1.8	0.47	2150	2.2	0.55	2130	3.6	0.87	2070	7.1	1.7	1990	3710	
	436.55	1.7	0.48	2400	2.1	0.57	2330	3.3	0.85	2170	6.6	1.5	1970	3710	
	507.52	1.5	0.38	2190	1.8	0.45	2160	2.9	0.71	2100	5.7	1.4	2020	3710	
	590.77	1.3	0.37	2510	1.5	0.44	2440	2.5	0.66	2270	4.9	1.2	2040	3710	
	633.39	1.2	0.22	1560	1.4	0.26	1550	2.3	0.41	1510	4.6	0.78	1450	3610	
	721.58	1.0	0.25	2020	1.2	0.29	1970	2.0	0.43	1830	4.0	0.78	1650	3710	
	900.53	0.8	0.21	2090	1.0	0.24	2040	1.6	0.36	1890	3.2	0.65	1710	3710	



# RE 310



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 311	3.60	208	43.9	1960	250	49.9	1860	403	70	1610	806	113	1310	4320	18.4 (N) 22 (T) 12.8 (F) 35.9 (P)
	4.25	176	38.5	2030	212	43.8	1920	341	61	1670	682	99	1350	5630	
	5.33	141	25.3	1680	169	30.1	1660	272	47.1	1610	544	82	1410	4610	
	6.20	121	18.4	1410	145	21.8	1400	234	34.2	1360	468	66	1310	3900	
	7.50	100	11.9	1110	120	14.2	1100	193	22.2	1070	387	42.7	1030	3070	
RE 312	12.53	60	14.9	2260	72	17.3	2180	116	24.1	1890	231	39.2	1540	4320	10.3 (N) 12.2 (T) 7.5 (F) 21 (P)
	14.79	51	12.3	2200	61	14.6	2180	98	22.9	2120	196	39.2	1810	5630	
	15.35	48.9	12.3	2280	59	14.6	2260	94	20.6	1980	189	33.5	1610	4320	
	18.12	41.4	10.2	2230	49.7	12.1	2210	80	18.9	2150	160	33.5	1900	5630	
	20.77	36.1	6.8	1720	43.3	8.1	1700	70	12.7	1650	140	24.5	1590	4320	
	22.74	33.0	6.6	1820	39.6	7.9	1800	64	12.3	1750	128	23.7	1690	4610	
	24.52	30.6	6.8	2030	36.7	8.1	2010	59	12.7	1950	118	24.5	1880	5960	
	26.43	28.4	4.8	1540	34.1	5.7	1520	55	8.9	1480	110	17.2	1420	3900	
	30.77	24.4	5.0	1850	29.3	5.9	1830	47.1	9.3	1780	94	17.8	1720	4610	
	35.77	21.0	3.6	1560	25.2	4.3	1550	40.5	6.7	1510	81	12.9	1450	3900	
	38.40	19.5	3.9	1830	23.4	4.7	1810	37.8	7.3	1760	76	14.1	1690	4610	
	44.64	16.8	2.9	1580	20.2	3.5	1570	32.5	5.5	1520	65	10.5	1470	3900	
	54.00	13.9	1.9	1240	16.7	2.3	1230	26.9	3.5	1200	54	6.8	1150	3070	
RE 313	43.60	17.2	4.7	2420	20.6	5.6	2400	33.3	8.8	2330	67	16.8	2230	4320	7.6 (N) 9.1 (T) 5.7 (F) 14.6 (P)
	51.47	14.6	3.9	2370	17.5	4.6	2340	28.2	7.3	2280	56	13.9	2190	5630	
	53.41	14.0	3.9	2450	16.9	4.6	2430	27.1	7.2	2360	54	13.9	2270	4320	
	63.05	11.9	3.2	2390	14.3	3.8	2370	23.0	6.0	2310	46.0	11.5	2220	5630	
	72.28	10.4	2.9	2500	12.5	3.5	2470	20.1	5.4	2400	40.1	10.5	2310	4320	
	77.24	9.7	2.7	2420	11.7	3.2	2400	18.8	4.9	2330	37.5	9.5	2240	5630	
	85.33	8.8	2.4	2440	10.5	2.9	2410	17.0	4.5	2350	34.0	8.7	2250	5630	
	104.53	7.2	2.0	2510	8.6	2.4	2440	13.9	3.7	2370	27.7	7.2	2280	5630	
	106.49	7.0	2.0	2510	8.5	2.3	2440	13.6	3.7	2380	27.2	7.0	2280	5630	
	130.45	5.7	1.7	2590	6.9	2.0	2520	11.1	3.0	2400	22.2	5.8	2310	5630	
	141.46	5.3	1.3	2240	6.4	1.6	2220	10.3	2.5	2160	20.5	4.8	2080	5960	
	163.71	4.6	1.1	2100	5.5	1.3	2050	8.9	2.0	1960	17.7	3.8	1890	4610	
	176.54	4.2	1.1	2270	5.1	1.3	2250	8.2	2.0	2190	16.4	3.9	2100	5960	
	190.31	3.9	0.79	1770	4.7	0.92	1720	7.6	1.4	1660	15.2	2.7	1590	3900	
	221.54	3.4	0.84	2200	4.1	0.98	2140	6.5	1.5	2000	13.1	2.8	1920	4610	
	257.54	2.9	0.61	1850	3.5	0.71	1800	5.6	1.1	1680	11.3	2.1	1620	3900	
	276.48	2.7	0.63	2040	3.3	0.74	2020	5.2	1.2	1970	10.5	2.2	1890	4610	
	321.41	2.3	0.50	1920	2.8	0.59	1860	4.5	0.88	1730	9.0	1.7	1640	3900	
RE 314	219.42	3.4	1.1	2800	4.1	1.30	2730	6.6	1.9	2540	13.2	3.6	2380	5630	6.3 (N) 7.4 (T) 4.9 (F) 11.5 (P)
	268.80	2.8	0.93	2890	3.3	1.09	2810	5.4	1.6	2620	10.8	3.0	2410	5630	
	296.94	2.5	0.86	2930	3.0	1.00	2850	4.9	1.5	2660	9.8	2.7	2420	5630	
	329.29	2.3	0.79	2980	2.7	0.92	2900	4.4	1.4	2700	8.8	2.5	2440	5630	
	363.76	2.1	0.72	3030	2.5	0.84	2940	4.0	1.3	2740	8.0	2.3	2470	5630	
	416.98	1.8	0.61	2930	2.2	0.71	2850	3.5	1.1	2680	7.0	2.1	2580	4320	
	453.98	1.7	0.60	3130	2.0	0.70	3040	3.2	1.0	2830	6.4	1.9	2550	5630	
	492.27	1.5	0.56	3170	1.8	0.65	3080	2.9	0.98	2870	5.9	1.8	2580	5630	
	556.14	1.3	0.50	3230	1.6	0.59	3140	2.6	0.88	2920	5.2	1.6	2630	5630	
	614.35	1.2	0.46	3280	1.5	0.54	3190	2.4	0.81	2960	4.7	1.5	2670	5630	
	766.71	0.98	0.38	3390	1.2	0.45	3290	1.9	0.67	3070	3.8	1.2	2760	5630	
	795.61	0.94	0.35	3190	1.1	0.41	3100	1.8	0.61	2880	3.6	1.1	2700	4320	
	939.26	0.80	0.32	3490	0.96	0.38	3400	1.5	0.57	3160	3.1	1.0	2850	5630	
	1018.49	0.74	0.23	2660	0.88	0.27	2590	1.4	0.40	2420	2.8	0.77	2320	5960	
	1178.68	0.64	0.21	2840	0.76	0.24	2760	1.2	0.37	2570	2.5	0.66	2310	4610	
	1271.08	0.59	0.19	2750	0.71	0.22	2680	1.1	0.33	2490	2.3	0.62	2350	5960	
	1595.08	0.47	0.16	2970	0.56	0.19	2890	0.91	0.28	2690	1.8	0.51	2420	4610	
	1990.66	0.38	0.11	2470	0.45	0.13	2400	0.73	0.19	2230	1.5	0.36	2120	4610	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 312	10.03	75	18.6	2230	90	22.1	2200	145	34.7	2150	289	58	1780	4320	10 (N) 11.5 (T) 8.2 (F) 16.5 (P)
	11.84	63	15.4	2180	76	18.3	2150	122	28.7	2100	245	50	1840	5630	
	14.40	52	13.3	2270	63	15.7	2250	101	24.7	2190	201	44.7	1980	4320	
	17.00	44.1	11.0	2220	53	13.0	2200	85	20.4	2140	171	39.2	2050	5630	
	21.33	35.2	7.1	1810	42.2	8.5	1800	68	13.3	1750	136	25.5	1680	4610	
	24.80	30.2	5.2	1530	36.3	6.1	1510	58	9.6	1470	117	18.5	1420	3900	
	30.00	25.0	3.4	1200	30.0	4.0	1190	48.3	6.3	1160	97	12.0	1110	3070	
RA 313	40.09	18.7	5.2	2410	22.4	6.1	2390	36.2	9.6	2320	72	18.1	2180	4320	6 (N) 7 (T) 4.5 (F) 11 (P)
	47.33	15.8	4.3	2360	19.0	5.1	2330	30.6	8.0	2270	61	15.3	2180	5630	
	49.11	15.3	4.3	2440	18.3	5.1	2410	29.5	8.0	2350	59	15.3	2260	4320	
	57.98	12.9	3.5	2380	15.5	4.2	2360	25.0	6.6	2290	50	12.7	2210	5630	
	66.46	11.3	2.4	1840	13.5	2.8	1820	21.8	4.4	1770	43.6	8.5	1700	4730	
	72.76	10.3	2.3	1950	12.4	2.7	1930	19.9	4.3	1870	39.9	8.2	1800	4610	
	78.46	9.6	2.4	2170	11.5	2.8	2150	18.5	4.4	2090	37.0	8.5	2010	5590	
	84.58	8.9	1.7	1640	10.6	2.0	1620	17.1	3.1	1580	34.3	6.0	1520	3900	
	98.46	7.6	1.7	1980	9.1	2.1	1960	14.7	3.2	1910	29.5	6.2	1830	4610	
	114.46	6.6	1.3	1670	7.9	1.5	1650	12.7	2.3	1610	25.3	4.5	1550	3900	
	122.88	6.1	1.4	1950	7.3	1.6	1930	11.8	2.5	1880	23.6	4.9	1810	4610	
	142.85	5.3	1.0	1690	6.3	1.2	1670	10.2	1.9	1630	20.3	3.6	1570	3900	
	172.80	4.3	0.66	1330	5.2	0.79	1320	8.4	1.23	1280	16.8	2.37	1230	3070	
RA 314	139.51	5.4	1.7	2620	6.5	2.0	2590	10.4	3.1	2500	20.8	5.9	2400	4320	5.2 (N) 6 (T) 4.1 (F) 10 (P)
	164.70	4.6	1.4	2680	5.5	1.7	2610	8.8	2.5	2440	17.6	4.9	2340	5630	
	170.91	4.4	1.4	2680	5.3	1.6	2650	8.5	2.6	2580	17.0	4.8	2430	4320	
	201.77	3.7	1.2	2770	4.5	1.4	2690	7.2	2.1	2500	14.4	4.0	2370	5630	
	231.29	3.2	1.0	2690	3.9	1.2	2670	6.3	1.9	2590	13.9	3.6	2470	4320	
	247.17	3.0	1.0	2850	3.6	1.2	2780	5.9	1.8	2580	11.7	3.3	2400	5630	
	273.05	2.7	0.94	2900	3.3	1.1	2820	5.3	1.6	2620	10.6	3.0	2410	5630	
	310.18	2.4	0.66	2320	2.9	0.77	2250	4.7	1.15	2100	9.3	2.15	1960	4610	
	340.76	2.2	0.78	3000	2.6	0.91	2910	4.3	1.36	2710	8.5	2.45	2440	5630	
	417.45	1.8	0.65	3090	2.2	0.76	3010	3.5	1.14	2800	6.9	2.06	2520	5630	
	452.66	1.7	0.47	2400	2.0	0.55	2370	3.2	0.87	2310	6.4	1.67	2220	5590	
	497.11	1.5	0.36	2050	1.8	0.42	1990	2.9	0.64	1850	5.8	1.15	1680	3900	
	564.92	1.3	0.38	2430	1.6	0.45	2400	2.6	0.71	2340	5.1	1.36	2250	5590	
	608.98	1.2	0.31	2110	1.5	0.36	2050	2.4	0.54	1910	4.8	0.96	1720	3900	
	708.92	1.1	0.33	2630	1.3	0.38	2560	2.0	0.57	2380	4.1	1.03	2140	4610	
	824.12	0.91	0.24	2210	1.1	0.28	2150	1.8	0.41	2000	3.5	0.75	1800	3900	
	884.74	0.85	0.22	2190	1.0	0.26	2160	1.6	0.41	2100	3.3	0.78	2020	4610	
	1028.51	0.73	0.20	2280	0.88	0.23	2220	1.4	0.34	2070	2.8	0.62	1860	3900	
	1244.16	0.60	0.13	1790	0.72	0.15	1740	1.2	0.22	1620	2.3	0.40	1460	3070	



# RE 510



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 511	3.60	208	76	3400	250	86	3220	403	121	2790	806	196	2260	11600	19.4 (N) 24 (T) 13.9 (F) 37 (P)
	4.25	176	67	3520	212	76	3330	341	106	2890	682	172	2340	11600	
	5.33	141	52	3450	169	62	3420	272	88	3010	544	143	2440	9500	
	6.20	121	37.9	2920	145	45.1	2890	234	71	2810	468	127	2530	8050	
	7.50	100	24.6	2290	120	29.2	2260	193	45.8	2200	387	88	2120	6320	
RE 512	12.53	60	27.2	4120	72	30.9	3900	116	43.1	3380	231	70	2750	11600	11.1 (N) 13.4 (T) 8.3 (F) 21 (P)
	14.79	51	25.4	4540	61	30.1	4500	98	43.1	3990	196	70	3240	11600	
	15.35	48.9	23.2	4320	59	26.4	4090	94	36.9	3540	189	60	2880	11600	
	18.12	41.4	21.0	4600	49.7	24.9	4550	80	36.9	4180	160	60	3400	11600	
	20.77	36.1	13.8	3470	43.3	16.4	3430	70	25.7	3340	140	46.9	3050	9540	
	22.74	33.0	13.6	3750	39.6	16.2	3710	64	25.4	3610	128	48.8	3470	9500	
	24.52	30.6	13.8	4090	36.7	16.4	4050	59	25.7	3940	118	46.9	3600	11300	
	26.43	28.4	9.9	3170	34.1	11.8	3140	55	18.5	3060	110	35.5	2940	8050	
	30.77	24.4	10.2	3820	29.3	12.2	3780	47.1	19.1	3680	94	36.7	3530	9500	
	35.77	21.0	7.5	3230	25.2	8.9	3190	40.5	13.9	3110	81	26.7	2990	8050	
	38.40	19.5	8.0	3700	23.4	9.4	3660	37.8	14.8	3560	76	28.5	3420	9500	
	44.64	16.8	6.0	3270	20.2	7.2	3230	32.5	11.3	3150	65	21.7	3030	8050	
	54.00	13.9	3.9	2560	16.7	4.7	2530	26.9	7.3	2470	54	14.0	2370	6320	
RE 513	43.60	17.2	9.5	4870	20.6	11.2	4820	33.3	17.6	4690	67	30.0	3990	11600	8.2 (N) 9.7 (T) 6.3 (F) 15 (P)
	51.47	14.6	8.0	4880	17.5	9.5	4830	28.2	15.0	4700	56	28.7	4520	11600	
	53.41	14.0	7.8	4920	16.9	9.3	4870	27.1	14.5	4740	54	25.7	4180	11600	
	63.05	11.9	6.6	4940	14.3	7.9	4880	23.0	12.3	4750	46.0	23.7	4570	11600	
	72.28	10.4	5.9	5020	12.5	7.0	4960	20.1	10.9	4820	40.1	21.0	4640	11600	
	77.24	9.7	5.5	4990	11.7	6.5	4940	18.8	10.2	4810	37.5	19.6	4620	11600	
	85.33	8.8	5.0	5020	10.5	5.9	4970	17.0	9.3	4840	34.0	17.8	4650	11600	
	104.53	7.2	4.2	5160	8.6	4.9	5030	13.9	7.7	4890	27.7	14.7	4700	11600	
	110.50	6.8	4.0	5220	8.1	4.8	5170	13.1	7.3	4940	26.2	14.1	4750	11600	
	130.45	5.7	3.5	5340	6.9	4.0	5200	11.1	6.2	4960	22.2	12.0	4760	11600	
	141.46	5.3	2.7	4520	6.4	3.2	4480	10.3	5.0	4360	20.5	9.7	4190	11300	
	163.71	4.6	2.2	4330	5.5	2.6	4220	8.9	4.0	4040	17.7	7.8	3890	9500	
	176.54	4.2	2.2	4580	5.1	2.6	4530	8.2	4.1	4410	16.4	7.9	4240	11300	
	190.31	3.9	1.6	3650	4.7	1.9	3550	7.6	2.9	3420	15.2	5.7	3290	8050	
	221.54	3.4	1.7	4540	4.1	2.0	4410	6.5	3.0	4120	13.1	5.8	3960	9500	
	257.54	2.9	1.3	3830	3.5	1.5	3720	5.6	2.2	3480	11.3	4.3	3340	8050	
	276.48	2.7	1.3	4140	3.3	1.5	4100	5.2	2.4	3990	10.5	4.5	3830	9500	
	321.41	2.3	1.0	3960	2.8	1.2	3850	4.5	1.8	3580	9.0	3.5	3390	8050	
RE 514	219.42	3.4	2.3	5780	4.1	2.7	5620	6.6	4.0	5230	13.2	7.5	4910	11600	6.7 (N) 7.8 (T) 5.3 (F) 11.9 (P)
	268.80	2.8	1.9	5960	3.3	2.2	5800	5.4	3.4	5390	10.8	6.2	4960	11600	
	296.94	2.5	1.8	6050	3.0	2.1	5880	4.9	3.1	5470	9.8	5.6	4990	11600	
	329.29	2.3	1.6	6140	2.7	1.9	5980	4.4	2.8	5560	8.8	5.1	5020	11600	
	363.76	2.1	1.5	6240	2.5	1.7	6070	4.0	2.6	5650	8.0	4.7	5080	11600	
	416.98	1.8	1.3	6100	2.2	1.5	5940	3.5	2.2	5580	7.0	4.3	5340	11600	
	453.98	1.7	1.2	6450	2.0	1.4	6270	3.2	2.2	5840	6.4	3.9	5260	11600	
	492.27	1.5	1.2	6530	1.8	1.3	6350	2.9	2.0	5910	5.9	3.6	5320	11600	
	556.14	1.3	1.0	6650	1.6	1.2	6470	2.6	1.8	6020	5.2	3.3	5420	11600	
	614.35	1.2	0.96	6750	1.5	1.1	6570	2.4	1.7	6110	4.7	3.0	5500	11600	
	766.71	0.98	0.64	5670	1.2	0.76	5610	1.9	1.2	5460	3.8	2.3	5250	11600	
	939.26	0.80	0.64	6950	0.96	0.76	6880	1.5	1.2	6520	3.1	2.1	5870	11600	
	1018.49	0.74	0.46	5370	0.88	0.53	5220	1.4	0.80	4880	2.8	1.5	4690	11300	
	1178.68	0.64	0.43	5840	0.76	0.50	5680	1.2	0.75	5290	2.5	1.4	4760	9500	
	1271.08	0.59	0.38	5550	0.71	0.44	5400	1.1	0.66	5030	2.3	1.3	4750	11300	
	1595.08	0.47	0.33	6120	0.56	0.39	5950	0.91	0.58	5540	1.8	1.1	4990	9500	
	1854.28	0.40	0.24	5160	0.49	0.28	5020	0.78	0.42	4670	1.6	0.76	4200	8050	
	1990.66	0.38	0.22	5000	0.45	0.25	4860	0.73	0.38	4520	1.5	0.72	4290	9500	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 512	10.03	75	27.1	3240	90	30.8	3070	145	43.0	2660	289	70	2160	11600	10 (N) 11.8 (T) 8.6 (F) 16.8 (P)
	11.84	63	27.1	3820	76	30.8	3620	122	43.0	3140	245	70	2550	11600	
	14.40	52	20.0	3440	63	22.8	3260	101	31.8	2820	201	51.7	2290	10000	
	17.00	44.1	20.0	4060	53	22.8	3840	85	31.8	3330	171	51.7	2710	11600	
	20.89	35.9	9.7	2430	43.1	11.6	2400	69	18.1	2340	139	34.9	2250	6320	
	21.33	35.2	14.7	3740	42.2	17.5	3700	68	27.4	3600	136	51.7	3400	9500	
	24.80	30.2	10.7	3160	36.3	12.7	3130	58	19.9	3040	117	38.3	2930	8050	
	30.00	25.0	6.9	2480	30.0	8.2	2450	48.3	12.9	2390	97	24.8	2290	6320	
RA 513	40.09	18.7	7.3	3390	22.4	8.6	3350	36.2	12.7	3070	72	20.7	2490	8660	6.5 (N) 8.5 (T) 5 (F) 11.5 (P)
	47.33	15.8	7.3	4000	19.0	8.6	3960	30.6	12.7	3630	61	20.7	2950	10300	
	49.11	15.3	7.3	4150	18.3	8.6	4110	29.5	12.7	3760	59	20.7	3060	10700	
	57.98	12.9	7.3	4900	15.5	8.6	4850	25.0	12.7	4440	50	20.7	3610	11600	
	66.46	11.3	4.8	3710	13.5	5.7	3670	21.8	8.9	3570	43.6	17.2	3430	9540	
	72.76	10.3	4.7	4010	12.4	5.6	3970	19.9	8.8	3860	39.9	17.0	3710	9500	
	78.46	9.6	4.8	4370	11.5	5.7	4330	18.5	8.9	4210	37.0	17.2	4050	11300	
	84.58	8.9	3.4	3390	10.6	4.1	3360	17.1	6.4	3270	34.3	12.3	3140	8050	
	98.46	7.6	3.6	4080	9.1	4.2	4040	14.7	6.6	3930	29.5	12.8	3780	9500	
	114.46	6.6	2.6	3450	7.9	3.1	3410	12.7	4.8	3320	25.3	9.3	3190	8050	
	122.88	6.1	2.8	3950	7.3	3.3	3910	11.8	5.2	3810	23.6	9.9	3660	9500	
	142.85	5.3	2.1	3500	6.3	2.5	3460	10.2	3.9	3360	20.3	7.5	3230	8050	
	172.80	4.3	1.4	2740	5.2	1.6	2710	8.4	2.5	2640	16.8	4.9	2530	6320	
RA 514	139.51	5.4	3.4	5440	6.5	4.1	5390	10.4	6.1	5020	20.8	11.8	4810	11600	5.6 (N) 6.5 (T) 4.5 (F) 10.5 (P)
	164.70	4.6	3.0	5530	5.5	3.5	5380	8.8	5.2	5020	17.6	10.0	4830	11600	
	170.91	4.4	2.8	5350	5.3	3.3	5300	8.5	5.1	5150	17.0	9.7	4870	11600	
	201.77	3.7	2.5	5710	4.5	2.9	5550	7.2	4.4	5160	14.4	8.3	4880	11600	
	231.29	3.2	2.1	5600	3.9	2.5	5540	6.3	4.0	5400	12.5	7.3	4950	11600	
	247.17	3.0	2.1	5880	3.6	2.5	5720	5.9	3.7	5320	11.7	6.8	4940	11600	
	273.05	2.7	1.9	5970	3.3	2.3	5810	5.3	3.4	5410	10.6	6.2	4970	11600	
	310.18	2.4	1.4	4770	2.9	1.6	4640	4.7	2.4	4320	9.3	4.4	4030	9500	
	340.76	2.2	1.4	5410	2.6	1.7	5360	4.3	2.6	5210	8.5	5.0	5010	11600	
	417.45	1.8	1.3	6370	2.2	1.6	6200	3.5	2.4	5760	6.9	4.2	5190	11600	
	452.66	1.7	0.94	4830	2.0	1.1	4780	3.2	1.8	4660	6.4	3.4	4480	11300	
	497.11	1.5	0.75	4230	1.8	0.88	4110	2.9	1.3	3820	5.8	2.4	3470	8050	
	564.92	1.3	0.77	4910	1.6	0.91	4850	2.6	1.4	4720	5.1	2.7	4530	11300	
	608.98	1.2	0.63	4360	1.5	0.74	4240	2.4	1.1	3940	4.8	2.0	3550	8050	
	708.92	1.1	0.67	5410	1.3	0.79	5260	2.0	1.2	4900	4.1	2.1	4410	9500	
	824.12	0.91	0.49	4560	1.1	0.57	4440	1.8	0.85	4130	3.5	1.5	3720	8050	
	884.74	0.85	0.44	4420	1.0	0.52	4380	1.6	0.82	4260	3.3	1.6	4100	9500	
	1028.51	0.73	0.40	4720	0.88	0.47	4590	1.4	0.71	4270	2.8	1.3	3840	8050	
	1244.16	0.60	0.26	3680	0.72	0.31	3580	1.2	0.46	3340	2.3	0.82	3000	6320	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 611	4.00	188	93	4630	225	106	4380	363	148	3800	725	240	3080	14900	19.9 (N) 24 (T) 14.3 (F) 37 (P)
	4.55	165	84	4730	198	95	4480	319	133	3880	638	216	3160	12860	
RE 612	14.40	52	34.3	5970	63	40.7	5910	101	62	5580	201	100	4530	14900	14.6 (N) 13.9 (T) 8.8 (F) 22 (P)
	16.36	45.8	26.8	5320	55	31.9	5260	89	50	5120	177	90	4630	12860	
	17.00	44.1	29.3	6030	53	34.8	5970	85	55	5810	171	89	4760	14900	
	19.32	38.8	23.0	5370	46.6	27.3	5310	75	42.7	5170	150	81	4870	12860	
	21.33	35.2	23.6	6110	42.2	28.1	6040	68	44.0	5880	136	76	5100	14900	
	24.24	30.9	18.5	5440	37.1	22.0	5380	60	34.5	5240	120	66	5030	12860	
	28.18	26.6	16.1	5490	31.9	19.1	5430	51	29.9	5280	103	58	5080	12860	
	30.00	25.0	12.2	4440	30.0	14.5	4400	48.3	22.8	4280	97	43.8	4110	12300	
	34.09	22.0	12.2	5050	26.4	14.5	5000	42.5	22.8	4860	85	43.8	4670	12860	
RE 613	50.11	15.0	10.8	6410	18.0	12.9	6350	28.9	20.2	6180	58	38.8	5940	14900	8.5 (N) 10 (T) 6.6 (F) 16.8 (P)
	56.95	13.2	8.5	5710	15.8	10.1	5650	25.5	15.8	5500	51	30.4	5290	12860	
	61.39	12.2	9.0	6490	14.7	10.6	6420	23.6	16.7	6250	47.2	32.0	6000	14900	
	69.76	10.8	7.0	5780	12.9	8.3	5720	20.8	13.1	5560	41.6	25.1	5350	12860	
	82.36	9.1	6.0	5830	10.9	7.1	5770	17.6	11.2	5620	35.2	21.5	5400	12860	
	90.95	8.2	6.2	6630	9.9	7.3	6570	15.9	11.5	6390	31.9	22.1	6140	14900	
	98.08	7.6	5.8	6660	9.2	6.8	6590	14.8	10.7	6420	29.6	20.6	6170	14900	
	111.45	6.7	4.5	5930	8.1	5.4	5870	13.0	8.4	5710	26.0	16.1	5490	12860	
	123.08	6.1	4.7	6830	7.3	5.5	6680	11.8	8.7	6500	23.6	16.6	6250	14900	
	139.86	5.4	3.7	6060	6.4	4.3	5950	10.4	6.8	5790	20.7	13.0	5560	12860	
	153.60	4.9	3.9	7070	5.9	4.6	6870	9.4	7.0	6580	18.9	13.5	6330	14900	
	174.55	4.3	3.0	6270	5.2	3.6	6100	8.3	5.5	5860	16.6	10.6	5640	12860	
	202.91	3.7	2.7	6410	4.4	3.1	6240	7.1	4.8	5910	14.3	9.2	5680	12860	
RE 614	174.39	4.3	3.6	7200	5.2	4.2	7010	8.3	6.4	6630	16.6	12.3	6370	14900	7 (N) 9.3 (T) 5.5 (F) 12.7 (P)
	205.88	3.6	3.1	7390	4.4	3.6	7190	7.0	5.5	6690	14.1	10.5	6430	14900	
	233.95	3.2	2.4	6550	3.8	2.8	6380	6.2	4.3	5960	12.4	8.2	5730	12860	
	252.21	3.0	2.6	7620	3.6	3.1	7410	5.7	4.6	6890	11.5	8.7	6510	14900	
	286.60	2.6	2.0	6760	3.1	2.4	6570	5.1	3.6	6120	10.1	6.8	5800	12860	
	316.50	2.4	2.1	7820	2.8	2.5	7670	4.6	3.8	7140	9.2	7.0	6590	14900	
	354.17	2.1	2.0	8020	2.5	2.3	7800	4.1	3.4	7260	8.2	6.3	6640	14900	
	402.47	1.9	1.5	7110	2.2	1.8	6920	3.6	2.7	6440	7.2	4.9	5910	12860	
	450.73	1.7	1.3	6680	2.0	1.5	6610	3.2	2.4	6430	6.4	4.6	6180	14900	
	502.28	1.5	1.3	7360	1.8	1.5	7160	2.9	2.2	6660	5.8	4.0	6000	12860	
	565.83	1.3	1.3	8610	1.6	1.5	8370	2.6	2.3	7790	5.1	4.2	7020	14900	
	642.99	1.2	1.0	7640	1.4	1.2	7430	2.3	1.8	6910	4.5	3.3	6220	12860	
	706.15	1.1	1.1	8900	1.3	1.3	8660	2.1	1.9	8060	4.1	3.5	7250	14900	
	802.45	0.93	0.86	7900	1.1	1.0	7680	1.8	1.5	7150	3.6	2.7	6440	12860	
	886.15	0.85	0.86	8810	1.0	1.0	8570	1.6	1.5	7990	3.3	2.8	7510	14900	
	1006.99	0.74	0.71	8170	0.89	0.82	7950	1.4	1.2	7400	2.9	2.2	6660	12860	
	1105.92	0.68	0.64	8180	0.81	0.76	8100	1.3	1.2	7880	2.6	2.3	7570	14900	
	1256.73	0.60	0.58	8450	0.72	0.68	8220	1.2	1.0	7650	2.3	1.8	6890	12860	
	1416.08	0.53	0.40	6590	0.64	0.47	6410	1.0	0.71	6020	2.0	1.4	5780	12860	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 612	11.14	67	27.1	3600	81	30.8	3410	130	43.0	2950	260	70	2400	14900	10.5 (N) 12 (T) 8.5 (F) 16 (P)
	12.66	59	27.1	4090	71	30.8	3870	115	43.0	3350	229	70	2720	12800	
	16.00	46.9	20.0	3820	56	22.8	3620	91	31.8	3140	181	51.7	2550	11100	
	18.18	41.3	20.0	4340	49.5	22.8	4110	80	31.8	3560	160	51.7	2890	12800	
RA 613	40.11	18.7	13.6	6330	22.4	16.1	6270	36.1	25.3	6100	72	48.6	5860	14900	9 (N) 10.2 (T) 7.5 (F) 14.2 (P)
	45.58	16.5	10.6	5640	19.7	12.6	5580	31.8	19.8	5430	64	38.1	5220	12800	
	47.36	15.8	11.6	6390	19.0	13.8	6330	30.6	21.6	6160	61	41.6	5920	14900	
	57.60	13.0	9.7	6460	15.6	11.5	6400	25.2	18.0	6220	50	34.6	5980	14900	
	65.45	11.5	7.6	5760	13.8	9.0	5700	22.2	14.1	5540	44.3	27.1	5330	12800	
	68.00	11.0	8.3	6530	13.2	9.8	6460	21.3	15.4	6280	42.6	29.6	6040	14900	
	78.51	9.6	6.4	5820	11.5	7.6	5760	18.5	11.9	5600	36.9	22.8	5380	12800	
	85.33	8.8	6.7	6610	10.5	7.9	6540	17.0	12.4	6370	34.0	23.9	6120	14900	
	96.97	7.7	5.2	5890	9.3	6.2	5830	15.0	9.7	5670	29.9	18.7	5450	12800	
	112.73	6.7	4.5	5940	8.0	5.4	5880	12.9	8.4	5720	25.7	16.2	5500	12800	
RA 614	160.36	4.7	3.9	7110	5.6	4.6	6920	9.0	7.0	6600	18.1	13.5	6340	14900	6 (N) 6.8 (T) 4.7 (F) 10.8 (P)
	182.23	4.1	3.1	6310	4.9	3.6	6140	8.0	5.5	5880	15.9	10.6	5650	12800	
	196.45	3.8	3.3	7330	4.6	3.8	7140	7.4	5.8	6680	14.8	11.1	6420	14900	
	231.92	3.2	2.9	7520	3.9	3.3	7320	6.3	5.0	6810	12.5	9.5	6480	14900	
	263.54	2.8	2.2	6670	3.4	2.6	6490	5.5	3.9	6040	11.0	7.5	5770	12800	
	291.03	2.6	2.4	7780	3.1	2.8	7570	5.0	4.1	7050	10.0	7.7	6560	14900	
	313.85	2.4	2.2	7870	2.9	2.6	7660	4.6	3.9	7130	9.2	7.2	6590	14900	
	356.64	2.1	1.7	6990	2.5	2.0	6800	4.1	3.0	6320	8.1	5.6	5870	12800	
	393.85	1.9	1.8	7920	2.3	2.1	7840	3.7	3.2	7380	7.4	5.8	6680	14900	
	447.55	1.7	1.4	7230	2.0	1.7	7030	3.2	2.5	6540	6.5	4.5	5950	12800	
	491.52	1.5	1.4	7810	1.8	1.7	7730	3.0	2.6	7520	5.9	4.8	6870	14900	
	558.55	1.3	1.2	7480	1.6	1.4	7270	2.6	2.1	6770	5.2	3.7	6090	12800	
	629.37	1.2	0.84	5960	1.4	0.99	5900	2.3	1.6	5740	4.6	3.0	5520	12800	



# RE 810



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 811	3.56	211	155	6860	253	108	3970	407	150	3440	—	—	—	18600	30 (N) 29 (T) 19.4 (F) 56 (P)
	4.15	181	118	6100	217	95	4090	349	133	3550	—	—	—	16800	
	5.10	147	81	5130	176	81	4250	284	113	3690	—	—	—	14200	
	5.82	129	60	4370	155	72	4330	249	102	3800	—	—	—	12100	
	6.86	109	44.2	3760	131	52	3720	211	82	3620	—	—	—	10400	
RE 812	12.83	58	47.6	7380	70	45.1	5830	113	63	5060	226	102	4110	18600	16.5 (N) 16.4 (T) 11.4 (F) 31.3 (P)
	15.14	49.5	39.9	7310	59	40.1	6130	96	56	5310	192	91	4320	18600	
	17.65	42.5	31.0	6630	51	35.5	6320	82	49.5	5470	164	80.5	4450	16800	
	18.36	40.8	24.9	5520	49.0	29.5	5470	79	46.3	5320	158	76.5	4400	14200	
	22.15	33.9	25.0	6710	40.6	29.7	6640	65	42.2	5860	131	68.6	4760	16800	
	25.75	29.1	18.8	5870	34.9	22.4	5810	56	35.1	5660	113	61.8	4980	16200	
	27.20	27.6	17.2	5650	33.1	20.4	5590	53	31.9	5440	107	58.1	4950	14200	
	31.62	23.7	14.9	5700	28.5	17.7	5640	45.9	27.7	5490	92	52.3	5180	14200	
	36.11	20.8	11.1	4850	24.9	13.2	4800	40.2	20.7	4670	80	39.7	4490	12100	
	38.25	19.6	12.2	5660	23.5	14.5	5610	37.9	22.8	5460	76	43.8	5240	14200	
	43.68	17.2	9.3	4900	20.6	11.0	4850	33.2	17.3	4720	66	33.2	4540	12100	
	51.43	14.6	6.8	4220	17.5	8.1	4180	28.2	12.6	4060	56	24.3	3910	10400	
RE 813	52.69	14.2	12.6	7850	17.1	15.0	7770	27.5	23.5	7560	55	39.0	6270	18600	11.8 (N) 11.7 (T) 8.4 (F) 22 (P)
	54.68	13.7	12.4	8020	16.5	14.8	7940	26.5	21.2	7060	53	34.4	5730	18600	
	63.75	11.8	9.5	7130	14.1	11.3	7060	22.7	17.6	6870	45.5	33.6	6540	16800	
	75.26	10.0	8.1	7200	12.0	9.6	7120	19.3	15.1	6930	38.5	29.0	6660	16800	
	77.10	9.7	7.9	7210	11.7	9.4	7130	18.8	14.8	6940	37.6	28.4	6670	16800	
	87.35	8.6	7.0	7230	10.3	8.3	7150	16.6	13.1	6960	33.2	25.1	6690	18600	
	101.85	7.4	6.2	7450	8.8	7.2	7250	14.2	11.3	7050	28.5	21.8	6780	16800	
	109.62	6.8	5.1	6600	8.2	6.1	6530	13.2	9.5	6360	26.5	18.3	6110	16500	
	127.81	5.9	5.1	7700	7.0	6.0	7500	11.3	9.2	7150	22.7	17.6	6870	16800	
	134.80	5.6	4.0	6310	6.7	4.6	6130	10.8	7.2	5960	21.5	13.9	5730	14200	
	156.92	4.8	3.5	6450	5.7	4.1	6280	9.2	6.3	6010	18.5	12.1	5780	14200	
	182.42	4.1	3.1	6600	4.9	3.6	6420	7.9	5.4	6060	15.9	10.5	5830	14200	
	195.84	3.8	2.9	6670	4.6	3.4	6490	7.4	5.1	6090	14.8	9.8	5850	14200	
	227.66	3.3	2.5	6830	4.0	3.0	6640	6.4	4.4	6180	12.7	8.5	5900	14200	
	251.98	3.0	1.9	5770	3.6	2.3	5610	5.8	3.4	5220	11.5	6.5	5020	12100	
RE 814	275.40	2.7	2.0	6340	3.3	2.3	6280	5.3	3.6	6110	10.5	7.0	5870	14200	9.4 (N) 9.3 (T) 6.8 (F) 17 (P)
	314.47	2.4	1.6	5960	2.9	1.9	5800	4.6	2.8	5400	9.2	5.3	5080	12100	
	183.36	4.1	4.0	8430	4.9	4.7	8340	7.9	7.4	8120	15.8	14.3	7800	18600	
	224.62	3.3	3.3	8530	4.0	3.9	8440	6.5	6.1	8210	12.9	11.8	7900	18600	
	261.91	2.9	2.9	8590	3.4	3.3	8360	5.5	5.0	7780	11.1	9.2	7160	16800	
	275.17	2.7	2.7	8630	3.3	3.2	8540	5.3	5.1	8310	10.5	9.8	7990	18600	
	320.85	2.3	2.4	8860	2.8	2.8	8620	4.5	4.2	8020	9.0	7.6	7240	16800	
	354.43	2.1	2.2	9000	2.5	2.6	8750	4.1	3.9	8140	8.2	7.0	7330	16800	
	393.66	1.9	2.1	9300	2.3	2.4	9200	3.7	3.7	8770	7.4	7.2	8430	18600	
	459.00	1.6	1.8	9350	2.0	2.1	9100	3.2	3.1	8470	6.3	5.6	7620	16800	
	503.94	1.5	1.4	7990	1.8	1.6	7910	2.9	2.6	7690	5.8	4.9	7390	18600	
	541.88	1.4	1.5	9590	1.7	1.8	9330	2.7	2.7	8680	5.4	4.8	7820	16800	
	634.83	1.2	1.1	7970	1.4	1.3	7750	2.3	1.9	7210	4.6	3.4	6500	14200	
	733.31	1.0	1.1	9430	1.2	1.3	9330	2.0	2.1	9080	4.0	3.8	8180	16800	
	792.27	0.95	0.90	8240	1.1	1.1	8020	1.8	1.6	7460	3.7	2.8	6720	14200	
	905.33	0.83	0.81	8410	0.99	0.94	8180	1.6	1.4	7610	3.2	2.5	6850	14200	
	1052.44	0.71	0.71	8600	0.86	0.83	8370	1.4	1.2	7790	2.8	2.2	7010	14200	
	1129.85	0.66	0.67	8700	0.80	0.78	8460	1.3	1.2	7870	2.6	2.1	7090	14200	
	1313.45	0.57	0.59	8900	0.69	0.69	8660	1.1	1.0	8050	2.2	1.9	7250	14200	
	1410.05	0.53	0.55	8990	0.64	0.65	8750	1.0	0.97	8140	2.1	1.7	7330	14200	
	1639.18	0.46	0.49	9200	0.55	0.57	8950	0.88	0.85	8330	1.8	1.5	7500	14200	
	1814.25	0.41	0.37	7780	0.50	0.43	7560	0.80	0.65	7040	1.6	1.2	6340	12100	
	1982.88	0.38	0.34	7650	0.45	0.39	7440	0.73	0.59	6920	1.5	1.1	6570	14200	
	2264.19	0.33	0.31	8040	0.40	0.36	7820	0.64	0.54	7280	1.3	0.97	6550	12100	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 812	10.41	72	46.6	5790	86	53	5480	139	74	4750	278	120	3860	18600	16 (N) 16 (T) 12.5 (F) 29 (P)
	12.14	62	41.2	5960	74	46.8	5650	119	65.4	4890	239	106	3970	16800	
	14.25	53	37.4	6360	63	42.5	6020	102	59.4	5220	204	96	4240	18600	
	16.62	45.1	33.1	6550	54	37.6	6200	87	52.5	5380	175	85	4370	16800	
	20.40	36.8	22.9	5560	44.1	27.1	5500	71	42.5	5350	142	72	4540	14200	
	23.29	32.2	17.0	4730	38.6	20.2	4680	62	31.7	4560	124	61	4380	12100	
	27.43	27.3	12.5	4070	32.8	14.8	4030	53	23.2	3920	106	44.6	3770	10400	
RA 813	35.73	21.0	18.9	7830	25.2	22.4	7750	40.6	32.0	6870	81	52	5580	18600	11.5 (N) 11.5 (T) 8.5 (F) 25 (P)
	41.66	18.0	14.4	6960	21.6	17.1	6890	34.8	26.8	6700	70	46.0	5750	16800	
	51.30	14.6	13.4	7990	17.5	15.9	7910	28.3	24.8	7660	57	40.4	6220	18600	
	60.56	12.4	11.2	7910	14.9	13.4	7830	23.9	20.9	7620	47.9	35.9	6540	18600	
	70.62	10.6	8.7	7170	12.7	10.4	7100	20.5	16.3	6910	41.1	31.3	6640	16800	
	76.00	9.9	7.3	6460	11.8	8.7	6400	19.1	13.6	6230	38.2	26.2	5980	16500	
	88.62	8.5	7.1	7290	10.2	8.4	7190	16.4	13.1	7000	32.7	25.3	6730	16800	
	103.02	7.3	5.3	6360	8.7	6.3	6290	14.1	9.9	6120	28.2	19.0	5890	16200	
	108.80	6.9	4.8	6110	8.3	5.7	6050	13.3	9.0	5890	26.7	17.3	5660	14200	
	126.48	5.9	4.2	6240	7.1	5.0	6100	11.5	7.8	5940	22.9	15.0	5710	14200	
	144.42	5.2	3.2	5300	6.2	3.7	5200	10.0	5.8	5060	20.1	11.2	4860	12100	
	153.00	4.9	3.4	6130	5.9	4.1	6070	9.5	6.4	5910	19.0	12.3	5680	14200	
	174.71	4.3	2.7	5460	5.2	3.1	5310	8.3	4.9	5110	16.6	9.4	4910	12100	
RA 814	142.82	5.3	5.3	8590	6.3	6.3	8500	10.2	9.8	8210	20.3	18.5	7760	18600	8 (N) 8 (T) 5.5 (F) 15 (P)
	168.61	4.4	4.4	8390	5.3	5.2	8300	8.6	8.2	8080	17.2	15.7	7770	18600	
	174.96	4.3	4.4	8690	5.1	5.2	8600	8.3	8.2	8370	16.6	15.5	7940	18600	
	206.55	3.6	3.6	8490	4.4	4.3	8400	7.0	6.8	8180	14.0	13.0	7860	18600	
	211.58	3.5	2.9	6850	4.3	3.4	6780	6.9	5.3	6600	13.7	10.2	6340	16500	
	246.71	3.0	2.9	7990	3.6	3.4	7910	5.9	5.3	7700	11.8	9.9	7130	16800	
	279.52	2.7	2.4	7720	3.2	2.9	7640	5.2	4.5	7440	10.4	8.7	7150	18600	
	302.23	2.5	2.4	8090	3.0	2.8	8000	4.8	4.4	7790	9.6	8.1	7210	16800	
	352.12	2.1	1.8	7290	2.6	2.1	7090	4.1	3.2	6600	8.2	5.9	6050	14200	
	408.99	1.8	1.8	8230	2.2	2.1	8140	3.5	3.3	7920	7.1	6.3	7490	16800	
	431.36	1.7	1.5	7520	2.1	1.8	7310	3.4	2.7	6800	6.7	4.8	6130	14200	
	502.15	1.5	1.4	7690	1.8	1.6	7480	2.9	2.4	6960	5.8	4.3	6270	14200	
	583.75	1.3	1.2	7870	1.5	1.4	7660	2.5	2.1	7120	5.0	3.7	6410	14200	
	626.69	1.2	1.1	7960	1.4	1.3	7740	2.3	2.0	7200	4.6	3.5	6480	14200	
	728.52	1.0	0.99	8140	1.2	1.2	7920	2.0	1.7	7370	4.0	3.1	6630	14200	
	806.33	0.93	0.75	6880	1.1	0.88	6690	1.8	1.3	6230	3.6	2.4	5610	12100	
	881.28	0.85	0.68	6780	1.0	0.81	6710	1.6	1.3	6530	3.3	2.4	6270	14200	
	1006.31	0.75	0.62	7110	0.89	0.73	6920	1.4	1.1	6440	2.9	2.0	5800	12100	
	1184.91	0.63	0.45	6100	0.76	0.53	5940	1.2	0.80	5520	2.4	1.4	4970	10400	



# RE 1020



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 1021	3.56	211	130	5750	253	148	5440	407	206	4720	—	—	—	27200	36 (T) 22 (F) 58 (P)
	4.15	181	115	5920	217	131	5610	349	182	4860	—	—	—	24200	
	5.10	147	97	6160	176	111	5830	284	154	5050	—	—	—	20400	
	5.82	129	87	6320	155	100	6010	249	139	5200	—	—	—	17400	
	6.86	109	64	5440	131	76	5380	211	119	5240	—	—	—	15000	
RE 1022	12.83	58	54	8440	70	62	8000	113	86	6930	226	140	5630	27200	20 (T) 22 (F) 58 (P)
	15.14	49.5	48.4	8880	59	55	8400	96	77	7280	192	125	5920	27200	
	17.65	42.5	42.8	9140	51	48.6	8660	82	68	7500	164	110	6090	24200	
	19.00	39.5	41.3	9500	47.4	46.9	9000	76	66	7800	153	106	6330	27200	
	22.15	33.9	36.3	9720	40.6	41.5	9270	65	58	8030	131	94	6520	24200	
	25.75	29.1	31.5	9810	34.9	37.3	9700	56	52	8400	113	85	6830	24200	
	27.20	27.6	24.8	8170	33.1	29.5	8080	53	46.2	7870	107	79.7	6780	20400	
	31.62	23.7	21.5	8240	28.5	25.6	8150	45.9	40.1	7930	92	71.7	7100	20400	
	36.11	20.8	16.1	7020	24.9	19.1	6940	40.2	29.9	6760	80	57.5	6490	17400	
	38.25	19.6	18.0	8330	23.5	21.4	8240	37.9	33.5	8020	76	62.7	7510	20400	
	43.68	17.2	13.4	7090	20.6	15.9	7020	33.2	25.0	6830	66	48.0	6570	17400	
	51.43	14.6	9.8	6110	17.5	11.6	6040	28.2	18.3	5880	56	35.1	5650	15000	
RE 1023	52.69	14.2	18.6	11600	17.1	22.1	11500	27.5	32.9	10600	55	53.5	8600	27200	14.6 (T) 9.8 (F) 22 (P)
	54.68	13.7	18.0	11600	16.5	21.4	11500	26.5	32.1	10700	53	52.1	8700	27200	
	63.75	11.8	13.7	10300	14.1	16.3	10200	22.7	25.6	9950	45.5	46.0	8960	24200	
	73.99	10.1	13.6	11900	12.2	16.1	11700	19.6	25.2	11400	39.2	42.2	9500	27200	
	81.00	9.3	12.6	12100	11.1	14.8	11800	17.9	23.1	11400	35.8	39.6	9800	27200	
	87.35	8.6	11.8	12200	10.3	13.8	11900	16.6	21.5	11500	33.2	37.5	10000	27200	
	89.62	8.4	10.0	10600	10.0	11.8	10400	16.2	18.5	10100	32.4	35.6	9750	24200	
	101.85	7.4	9.0	10800	8.8	10.5	10500	14.2	16.4	10200	28.5	31.6	9820	24200	
	109.62	6.8	9.8	12600	8.2	11.4	12300	13.2	17.4	11600	26.5	32.0	10700	27200	
	127.81	5.9	7.4	11200	7.0	8.6	10900	11.3	13.3	10300	22.7	25.5	9950	24200	
	148.58	5.0	6.5	11400	6.1	7.6	11100	9.8	11.5	10400	19.5	22.1	10000	24200	
	159.51	4.7	6.1	11500	5.6	7.2	11200	9.1	10.8	10500	18.2	20.7	10100	24200	
	185.43	4.0	5.4	11800	4.9	6.3	11500	7.8	9.4	10700	15.6	18.0	10200	24200	
	195.84	3.8	4.2	9650	4.6	4.9	9390	7.4	7.4	8810	14.8	14.2	8460	20400	
	227.66	3.3	3.7	9870	4.0	4.3	9600	6.4	6.4	8930	12.7	12.3	8540	20400	
	275.40	2.7	3.1	10160	3.3	3.6	9880	5.3	5.5	9190	10.5	10.3	8630	20400	
	314.47	2.4	2.3	8630	2.9	2.7	8390	4.6	4.1	7810	9.2	7.7	7350	17400	
RE 1024	190.27	3.9	6.3	13700	4.7	7.3	13300	7.6	11.0	12400	15.2	20.4	11500	27200	11.6 (T) 8.0 (F) 17.4 (P)
	224.62	3.3	5.4	14100	4.0	6.4	13700	6.5	9.5	12700	12.9	17.4	11700	27200	
	257.49	2.9	4.8	14400	3.5	5.7	14000	5.6	8.5	13000	11.3	15.3	11700	27200	
	275.17	2.7	4.6	14500	3.3	5.3	14100	5.3	8.0	13100	10.5	14.4	11800	27200	
	315.43	2.4	4.1	14800	2.9	4.8	14400	4.6	7.1	13400	9.2	12.9	12100	27200	
	345.32	2.2	3.7	14500	2.6	4.3	14400	4.2	6.6	13600	8.4	11.9	12200	27200	
	393.66	1.9	3.4	15300	2.3	3.9	14900	3.7	5.9	13900	7.4	10.7	12500	27200	
	503.94	1.5	2.7	15900	1.8	3.2	15500	2.9	4.8	14400	5.8	8.6	13000	27200	
	583.20	1.3	2.3	15400	1.5	2.7	15000	2.5	4.2	14400	5.0	7.6	13200	27200	
	632.40	1.2	2.1	15600	1.4	2.5	15200	2.3	3.8	14500	4.6	7.1	13400	27200	
	733.31	1.0	1.7	14500	1.2	2.0	14100	2.0	3.0	13200	4.0	5.4	11900	24200	
	857.19	0.87	1.5	14900	1.0	1.8	14500	1.7	2.6	13500	3.4	4.8	12100	24200	
	920.24	0.82	1.4	15100	0.98	1.7	14600	1.6	2.5	13600	3.2	4.5	12300	24200	
	984.96	0.76	1.3	14700	0.91	1.5	14600	1.5	2.4	14200	2.9	4.7	13700	27200	
	1148.46	0.65	1.2	15600	0.78	1.4	15100	1.3	2.1	14100	2.5	3.7	12700	24200	
	1273.11	0.59	0.87	12800	0.71	1.0	12500	1.1	1.5	11600	2.3	2.8	10400	20400	
	1410.05	0.53	0.80	13000	0.64	0.94	12700	1.0	1.4	11800	2.1	2.5	10600	20400	
	1588.85	0.47	0.72	13200	0.57	0.85	12900	0.91	1.3	12000	1.8	2.3	10800	20400	
	1814.25	0.41	0.54	11200	0.50	0.63	10900	0.80	0.94	10200	1.6	1.70	9170	17400	
	1982.88	0.38	0.60	13700	0.45	0.70	13300	0.73	1.05	12400	1.5	1.89	11200	20400	
	2264.19	0.33	0.45	11600	0.40	0.52	11300	0.64	0.78	10500	1.3	1.41	9480	17400	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 1022	10.41	72	64	7930	86	73	7510	139	101	6510	278	165	5290	27200	18.5 (T) 13.5 (F) 29 (P)
	12.14	61	56	8170	74	64	7740	119	90	6707	239	146	5450	24200	
	14.25	53	51.3	8720	63	58	8250	102	81	7152	204	132	5810	24700	
	16.62	45	45.3	8980	54	52	8500	87	72	7369	175	117	5990	24200	
	20.40	36.8	33.0	8030	44.1	39.2	7950	71	61	7660	142	99	6220	20400	
	23.29	32.2	24.6	6840	38.6	29.3	6770	62	45.9	6590	124	88	6330	17400	
	27.43	27.3	18.0	5890	32.8	21.4	5830	53	33.5	5672	106	64	5450	15000	
RA 1023	35.73	21.0	27.3	11300	25.2	31.4	10900	40.6	43.9	9423	81	71	7650	27200	13.5 (T) 9.5 (F) 25 (P)
	41.66	18.0	20.8	10100	21.6	24.7	9980	34.8	38.8	9707	70	63	7890	24200	
	49.18	15.3	17.8	10200	18.3	21.1	10100	29.5	33.2	9800	59	56	8290	24200	
	59.82	12.5	14.8	10300	15.0	17.6	10200	24.2	27.6	9910	48.5	48.9	8790	24200	
	61.71	12.2	14.4	10300	14.6	17.1	10200	23.5	26.8	9927	47.0	47.8	8870	24200	
	70.62	10.6	12.7	10400	12.7	15.0	10300	20.5	23.6	10004	41.1	43.5	9240	24200	
	76.00	9.9	13.5	11900	11.8	15.9	11700	19.1	24.9	11396	38.2	42.0	9600	27200	
	88.62	8.5	8.5	8740	10.2	12.1	10400	16.4	19.0	10135	32.7	36.6	9740	24200	
	103.02	7.3	9.0	10800	8.7	10.5	10500	14.1	16.5	10222	28.2	31.7	9830	24200	
	108.80	6.9	7.0	8840	8.3	8.3	8750	13.3	13.0	8514	26.7	25.0	8180	20400	
	126.48	5.9	6.1	9030	7.1	7.2	8830	11.5	11.3	8588	22.9	21.7	8250	20400	
	153.00	4.9	5.2	9290	5.9	6.1	9040	9.5	9.4	8682	19.0	18.1	8340	20400	
	174.71	4.3	3.9	7890	5.2	4.5	7680	8.3	7.0	7394	16.6	13.5	7110	17400	
RA 1024	142.82	5.3	7.5	12100	6.3	8.9	11900	10.2	13.1	10941	20.3	21.2	8890	27200	9.5 (T) 6.5 (F) 15 (P)
	168.61	4.5	7.1	13500	5.3	8.2	13100	8.6	12.3	12190	17.2	21.2	10500	27200	
	174.96	4.3	6.8	13500	5.1	8.0	13200	8.3	12.0	12258	16.6	21.2	10900	27200	
	206.55	3.6	5.9	13900	4.4	6.9	13500	7.0	10.4	12570	14.0	19.2	11600	27200	
	236.77	3.2	4.9	13200	3.8	5.8	13100	6.1	9.2	12711	12.2	16.8	11700	27200	
	259.20	2.9	4.9	14300	3.5	5.7	14000	5.6	8.6	13009	11.2	15.5	11700	27200	
	302.23	2.5	3.7	12700	3.0	4.3	12400	4.8	6.5	11511	9.6	11.8	10400	24200	
	350.77	2.1	3.7	14500	2.6	4.3	14400	4.1	6.6	13618	8.3	11.9	12300	27200	
	408.99	1.8	2.9	13300	2.2	3.4	13000	3.5	5.0	12050	7.1	9.1	10900	24200	
	475.46	1.6	2.5	13600	1.9	3.0	13200	3.0	4.4	12327	6.1	8.0	11100	24200	
	510.42	1.5	2.4	13800	1.8	2.8	13400	2.8	4.2	12460	5.7	7.5	11200	24200	
	593.37	1.3	2.1	14100	1.5	2.4	13700	2.4	3.7	12748	4.9	6.6	11500	24200	
	706.15	1.1	1.5	11700	1.3	1.7	11400	2.1	2.6	10602	4.1	4.6	9550	20400	
	806.33	0.93	1.1	9950	1.1	1.3	9680	1.8	1.9	9004	3.6	3.4	8110	17400	
	881.28	0.85	1.2	12100	1.0	1.4	11800	1.6	2.1	10963	3.3	3.8	9870	20400	
	1006.31	0.75	0.90	10300	0.89	1.1	10000	1.4	1.6	9311	2.9	2.8	8380	17400	
	1184.91	0.63	0.66	8830	0.76	0.77	8590	1.2	1.15	7991	2.4	2.1	7200	15000	



# RE 1520



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 1521	4.09	183	193	9800	220	219	9280	354	306	8040	—	—	—	39000	44 (T) 36 (H) 28 (F)
	5.25	143	158	10300	171	179	9730	276	250	8430	—	—	—	30500	
	6.23	120	114	8780	144	135	8690	233	211	8460	—	—	—	24200	
RE 1522	14.73	51	78	13900	61	89	13200	98	124	11400	197	201	9270	39000	25 (T) 21 (H) 16.1 (F)
	17.39	43.1	68	14400	52	78	13600	83	108	11800	167	176	9590	39000	
	21.82	34.4	53	14100	41.3	64	14000	66	90	12300	133	146	9990	38900	
	25.36	29.6	38.9	11900	35.5	46.2	11800	57	72	11500	114	130	10400	32900	
	28.00	26.8	35.9	12200	32.1	42.7	12100	52	67	11700	104	129	11300	30500	
	32.55	23.0	31.2	12300	27.6	37.0	12200	44.5	58	11800	89	112	11400	30500	
	33.23	22.6	24.0	9700	27.1	28.5	9570	43.6	44.7	9310	87	86	8950	24200	
	39.38	19.0	25.2	12000	22.9	29.9	11900	36.8	46.9	11600	74	90	11100	30500	
	46.73	16.0	17.4	9900	19.3	20.7	9750	31.0	32.4	9490	62	62	9120	24200	
RE 1523	51.25	14.6	27.2	16400	17.6	31.7	16000	28.3	44.2	13800	57	72	11200	39000	17.4 (T) 14.7 (H) 11.7 (F)
	60.50	12.4	23.2	16600	14.9	27.6	16400	24.0	43.2	16000	47.9	72	13300	39000	
	62.78	11.9	22.4	16600	14.3	26.6	16400	23.1	37.8	14500	46.2	61	11800	39000	
	74.12	10.1	19.2	16800	12.1	22.8	16600	19.6	35.7	16200	39.1	61	13900	39000	
	80.57	9.3	13.6	12900	11.2	16.2	12800	18.0	25.3	12500	36.0	49	12000	30500	
	93.01	8.1	14.0	15300	9.7	16.6	15200	15.6	26.0	14800	31.2	50	14200	38900	
	100.31	7.5	14.1	16700	9.0	16.8	16600	14.5	26.3	16100	28.9	48.1	14700	39000	
	109.04	6.9	10.2	13200	8.3	12.1	13000	13.3	19.0	12700	26.6	36.6	12200	30500	
	125.87	6.0	10.5	15600	7.2	12.5	15500	11.5	19.6	15000	23.0	37.6	14500	38900	
	146.33	5.1	7.6	13200	6.2	9.1	13100	9.9	14.2	12700	19.8	27.4	12200	32900	
	157.09	4.8	8.2	15100	5.7	9.7	15000	9.2	15.2	14600	18.5	29.2	14000	38900	
	182.62	4.1	6.2	13400	4.9	7.4	13200	7.9	11.6	12900	15.9	22.2	12400	32900	
	201.60	3.7	6.0	14400	4.5	7.1	14000	7.2	10.7	13100	14.4	20.5	12600	30500	
	234.36	3.2	5.3	14700	3.8	6.2	14300	6.2	9.3	13300	12.4	17.8	12700	30500	
	239.26	3.1	4.0	11400	3.8	4.7	11100	6.1	7.1	10400	12.1	13.7	10000	24200	
	278.14	2.7	3.5	11600	3.2	4.1	11300	5.2	6.2	10500	10.4	11.9	10100	24200	
RE 1524	210.56	3.6	8.0	19400	4.3	9.4	18900	6.9	14.0	17600	13.8	26.3	16500	39000	13.7 (T) 11.6 (F) 9.4 (P)
	218.49	3.4	7.8	19500	4.1	9.1	19000	6.6	13.6	17700	13.3	25.4	16500	39000	
	257.94	2.9	6.7	20000	3.5	7.9	19500	5.6	11.8	18100	11.2	21.7	16700	39000	
	280.40	2.7	4.7	15100	3.2	5.5	14700	5.2	8.2	13700	10.3	15.4	12900	30500	
	315.99	2.4	5.6	20400	2.8	6.6	20100	4.6	9.9	18700	9.2	17.9	16900	39000	
	349.06	2.1	5.1	20500	2.6	6.1	20300	4.2	9.1	19000	8.3	16.5	17100	39000	
	396.53	1.9	3.7	16700	2.3	4.3	16500	3.7	6.8	16100	7.3	13.1	15400	38900	
	452.05	1.7	4.1	21400	2.0	4.9	21100	3.2	7.3	19700	6.4	13.2	17800	39000	
	508.89	1.5	2.8	16500	1.8	3.3	16100	2.8	4.9	15000	5.7	8.9	13500	30500	
	578.69	1.3	2.8	18500	1.6	3.3	18300	2.5	5.2	17800	5.0	9.9	17100	39000	
	629.07	1.2	2.4	17100	1.4	2.8	16600	2.3	4.1	15500	4.6	7.4	13900	30500	
	722.20	1.0	2.3	18700	1.2	2.7	18500	2.0	4.2	18000	4.0	8.1	17300	39000	
	800.57	0.94	1.9	17700	1.1	2.2	17200	1.8	3.4	16000	3.6	6.1	14400	30500	
	906.29	0.83	1.8	18600	0.99	2.1	18100	1.6	3.1	16800	3.2	6.0	16200	38900	
	999.11	0.75	1.6	18300	0.90	1.9	17800	1.5	2.8	16600	2.9	5.0	14900	30500	
	1156.68	0.65	1.3	17300	0.78	1.5	17100	1.3	2.4	16700	2.5	4.4	15300	30500	
	1285.79	0.58	0.99	14700	0.70	1.2	14300	1.1	1.7	13300	2.3	3.1	12000	24200	
	1451.52	0.52	1.2	19400	0.62	1.4	18900	1.0	2.0	17500	2.0	3.7	15800	30500	
	1635.58	0.46	0.83	15700	0.55	0.97	15300	0.89	1.5	14300	1.8	2.8	13800	30500	
	1722.68	0.44	0.77	15300	0.52	0.90	14900	0.84	1.4	13900	1.7	2.4	12500	24200	
	2041.20	0.37	0.69	16200	0.44	0.81	15800	0.71	1.2	14700	1.4	2.3	13900	30500	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 1522	12.56	60	91.7	13700	72	104	13000	115	145	11300	231	236	9150	39000	24 (T) 20 (H) 18.3 (F)
	16.13	46.5	61.4	11800	56	73	11700	90	114	11400	180	193	9590	30500	
	19.09	39.3	53.9	12300	47.1	64	12100	76	100	11800	152	176	10400	31600	
	24.50	30.6	41.4	12100	36.7	49.2	12000	59	77	11600	118	144	10900	30500	
	29.08	25.8	27.7	9600	31.0	32.9	9500	49.9	52	9200	100	99	8880	24200	
RA 1523	34.38	21.8	27.8	11100	26.2	31.6	10500	42.2	44.1	9100	84	72	7400	34100	15.3 (T) 12.8 (H) 11.3 (F)
	41.03	18.3	27.8	13200	21.9	31.6	12500	35.3	44.1	10900	71	72	8830	39000	
	48.43	15.5	27.8	15600	18.6	31.6	14800	29.9	44.1	12800	60	72	10400	39000	
	58.91	12.7	20.6	14100	15.3	23.4	13300	24.9	32.6	11400	49.2	53.0	9380	39000	
	62.16	12.1	17.6	12700	14.5	21.0	12600	23.3	32.9	12300	46.7	63	11800	30500	
	70.66	10.6	15.4	12700	12.7	18.3	12500	20.5	28.7	12200	41.0	55	11700	24200	
	78.00	9.6	14.2	12900	11.5	16.9	12800	18.6	26.5	12400	37.2	51	12000	32900	
	89.25	8.4	12.5	13000	10.1	14.9	12900	16.2	23.4	12500	32.5	44.9	12000	30500	
	101.45	7.4	11.0	12900	8.9	13.0	12800	14.3	20.4	12500	28.6	39.3	12000	30500	
	112.00	6.7	10.1	13200	8.0	12.0	13000	12.9	18.9	12700	25.9	36.2	12200	32900	
	130.20	5.8	8.9	13500	6.9	10.4	13200	11.1	16.4	12800	22.3	31.5	12300	30500	
	154.52	4.9	5.9	10600	5.8	7.0	10400	9.4	10.9	10200	18.8	21.0	9770	30500	
	186.92	4.0	5.0	11000	4.8	5.9	10700	7.8	9.1	10300	15.5	17.6	9880	24200	
RA 1524	164.00	4.6	7.5	13900	5.5	8.9	13700	8.8	13.1	12600	17.7	21.2	10200	24200	11.3 (T) 9.2 (H) 8 (F)
	193.61	3.9	7.5	16400	4.6	8.9	16200	7.5	13.1	14800	15.0	21.2	12000	35500	
	200.91	3.7	7.5	17000	4.5	8.9	16800	7.2	13.1	15400	14.4	21.2	12500	39000	
	237.19	3.2	7.4	19800	3.8	8.6	19200	6.1	12.9	17900	12.2	21.2	14800	39000	
	248.47	3.0	5.3	14800	3.6	6.2	14400	5.8	9.2	13400	11.7	17.5	12800	39000	
	271.89	2.8	4.9	15200	3.3	5.8	15000	5.3	9.2	14600	10.7	17.6	14000	30500	
	297.65	2.5	4.9	16400	3.0	5.8	16200	4.9	9.1	15800	9.7	17.4	15200	39000	
	320.98	2.3	4.9	17900	2.8	5.8	17700	4.5	9.2	17200	9.0	17.6	16600	38900	
	348.92	2.1	4.0	15600	2.6	4.6	15200	4.2	6.9	14100	8.3	12.7	13000	39000	
	402.80	1.9	3.7	16700	2.2	4.3	16500	3.6	6.8	16100	7.2	13.1	15400	30500	
	444.05	1.7	3.2	16200	2.0	3.8	15800	3.3	5.6	14700	6.5	10.1	13200	38900	
	516.92	1.5	2.8	16600	1.7	3.3	16100	2.8	5.0	15000	5.6	8.9	13500	30500	
	600.92	1.2	2.5	17000	1.5	2.9	16500	2.4	4.4	15300	4.8	7.8	13800	30500	
	645.12	1.2	2.3	17100	1.4	2.7	16700	2.2	4.1	15500	4.5	7.4	14000	30500	
	749.95	1.0	2.1	17500	1.2	2.4	17100	1.9	3.6	15900	3.9	6.5	14300	30500	
	907.20	0.83	1.4	14400	0.99	1.7	14200	1.6	2.6	13800	3.2	5.0	13300	30500	
	1076.68	0.70	1.2	14300	0.84	1.4	13900	1.3	2.0	12900	2.7	3.7	11600	30500	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
	ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 2001		3.83													
		5.25													
RE 2002	L	13.80	54	78	13000	65	89	12300	105	124	10700	210	201	8680	44000
		15.33	48.9	96	17700	59	109	16800	95	152	14600	189	246	11800	44100
		17.42	43.0	86	18100	52	98	17200	83	136	14900	166	222	12100	44100
		21.00	35.7	61	15600	42.9	73	15400	69	114	15000	138	210	13800	40300
	L	22.31	33.6	58	15600	40.3	69	15500	65	108	15100	130	176	12300	40300
	L	28.00	26.8	46.7	15800	32.1	55	15700	52	87	15300	104	146	12800	40300
	L	32.55	23.0	38.9	15300	27.6	46.2	15200	44.5	72	14800	89	130	13300	40300
	L	39.38	19.0	25.2	12000	22.9	29.9	11900	36.8	47	11600	74	90	11100	33200
RE 2003	L	48.02	15.6	27.9	15800	18.7	31.7	15000	30.2	44	13000	60	72	10500	44000
		55.20	13.6	35.1	22900	16.3	41.7	22700	26.3	63	21400	53	103	17400	44100
		65.17	11.5	30.0	23100	13.8	35.7	22900	22.3	56	22300	44.5	92	18200	44100
		74.05	10.1	23.5	20600	12.2	28.0	20400	19.6	43.8	19800	39.2	83	18700	44100
		81.78	9.2	24.3	23400	11.0	28.8	23200	17.7	45.2	22500	35.5	78	19500	44100
		92.93	8.1	19.0	20800	9.7	22.6	20600	15.6	35.4	20100	31.2	68	19300	44100
		101.42	7.4	14.2	17000	8.9	16.9	16900	14.3	26.5	16400	28.6	51	15800	40300
		112.00	6.7	13.0	17100	8.0	15.4	17000	12.9	24.1	16500	25.9	46.4	15900	40300
	L	128.73	5.8	11.4	17300	7.0	13.5	17100	11.3	21.2	16600	22.5	40.7	16000	40300
		147.95	5.1	10.0	17400	6.1	11.8	17200	9.8	18.6	16800	19.6	35.7	16100	40300
		157.50	4.8	9.4	17500	5.7	11.2	17300	9.2	17.5	16800	18.4	33.7	16200	40300
		178.98	4.2	8.5	17900	5.0	9.9	17400	8.1	15.5	17000	16.2	29.8	16300	40300
	L	201.60	3.7	7.6	18200	4.5	8.9	17700	7.2	13.9	17100	14.4	26.7	16400	40300
RE 2004		192.10	3.9	11.1	24600	4.7	13.2	24300	7.5	20.7	23700	15.1	39.8	22800	44100
		226.78	3.3	9.5	24800	4.0	11.3	24600	6.4	17.7	23900	12.8	34.0	23000	44100
		257.70	2.9	7.5	22100	3.5	8.8	21900	5.6	13.9	21300	11.3	26.7	20500	44100
		284.59	2.6	7.7	25100	3.2	9.1	24900	5.1	14.3	24200	10.2	27.5	23300	44100
		315.70	2.4	6.2	22400	2.9	7.3	22100	4.6	11.5	21500	9.2	22.0	20700	44100
		348.63	2.2	6.3	25400	2.6	7.5	25200	4.2	4.7	9700	8.3	22.7	23500	44100
		396.17	1.9	5.0	22600	2.3	5.9	22400	3.7	9.2	21800	7.3	17.8	21000	44100
	L	447.97	1.7	4.0	20500	2.0	4.6	20000	3.2	7.0	18600	6.5	12.9	17200	40100
	L	500.07	1.5	3.6	20500	1.8	4.2	19900	2.9	6.4	19000	5.8	12.3	18300	40100
	L	562.15	1.3	3.3	21200	1.6	3.8	20700	2.6	5.7	19200	5.2	10.4	17400	40100
	L	629.07	1.2	2.8	20100	1.4	3.3	19900	2.3	5.2	19400	4.6	9.4	17600	40100
	L	701.57	1.1	2.7	22000	1.3	3.2	21400	2.1	4.8	19900	4.1	8.6	17900	40100
		806.40	0.93	2.4	22400	1.1	2.8	21800	1.8	4.2	20300	3.6	7.6	18300	40300
		908.65	0.83	2.2	22800	0.99	2.6	22200	1.6	3.8	20700	3.2	6.9	18600	40300
		1032.56	0.73	2.0	23300	0.87	2.3	22700	1.4	3.4	21100	2.8	6.2	19000	40300
		1134.00	0.66	1.8	23600	0.79	2.1	23000	1.3	3.2	21400	2.6	5.7	19300	40300
		1288.64	0.58	1.6	24100	0.70	1.9	23400	1.1	2.8	21800	2.3	5.1	19600	40300
	L	1451.52	0.52	1.3	21700	0.62	1.5	21500	1.0	2.4	20900	2.0	4.6	20000	40100



		n <sub>1</sub> = <b>750</b> RPM			n <sub>1</sub> = <b>900</b> RPM			n <sub>1</sub> = <b>1450</b> RPM			n <sub>1</sub> = <b>2900</b> RPM					
		ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
RA 2002		11.77	64	107	15000	76	121	14200	123	169	12300	246	275	9970	44100	24 (T) 20 (H) 18.3 (F)
		16.13	46.5	80	15300	56	95	15200	90	149	14800	180	257	12800	40300	
		17.89	41.9	54	11500	50	64	11400	81	100	11100	162	191	10500	29600	
		24.50	30.6	54	15700	36.7	64	15600	59	100	15100	118	191	14400	40300	
RA 2003	L	38.44	19.5	27.1	12400	23.4	31.6	11800	37.7	44.1	10200	75	72	8270	44000	15.3 (T) 12.8 (H) 11.3 (F)
		42.71	17.6	27.1	13800	21.1	31.6	13100	33.9	44.1	11300	68	72	9190	44100	
	L	45.38	16.5	27.8	14700	19.8	31.6	13900	31.9	44.1	12000	64	72	9770	44000	
	L	52.65	14.2	26.8	16400	17.1	31.6	16100	27.5	44.1	13900	55	72	11300	40300	
	L	55.20	13.6	20.6	13200	16.3	23.4	12500	26.3	32.6	10800	53	53	8790	38200	
	L	62.16	12.1	22.9	16600	14.5	27.3	16400	23.3	42.7	16000	46.7	72	13400	40300	
		69.70	10.8	20.6	16600	12.9	23.4	15800	20.8	32.6	13700	41.6	53.0	11100	44100	
	L	78.00	9.6	18.5	16800	11.5	22.0	16600	18.6	34.5	16200	37.2	66	15500	40300	
	L	89.25	8.4	16.3	16900	10.1	19.4	16700	16.2	30.4	16300	32.5	53.0	14200	40300	
		95.45	7.9	15.3	17000	9.4	18.2	16800	15.2	28.5	16400	30.4	53.0	15200	40300	
	L	112.00	6.7	13.2	17100	8.0	15.6	17000	12.9	24.5	16500	25.9	47.1	15900	40300	
	L	130.20	5.8	11.0	16600	6.9	13.0	16400	11.1	20.4	16000	22.3	39.3	15400	40300	
	L	157.50	4.8	7.1	13000	5.7	8.4	12900	9.2	13.2	12500	18.4	25.4	12000	33200	
RA 2004		153.77	4.9	13.9	24300	5.9	16.5	24000	9.4	25.9	23400	18.9	49.9	22500	44100	13.2 (T) 9.2 (H) 9.8 (F)
		181.54	4.1	11.9	24500	5.0	14.1	24200	8.0	22.2	23600	16.0	42.6	22700	44100	
		206.29	3.6	9.3	21800	4.4	11.1	21600	7.0	17.4	21000	14.1	33.4	20200	44100	
		220.80	3.4	9.9	24800	4.1	11.8	24500	6.6	18.4	23900	13.1	35.4	22900	44100	
	L	248.47	3.0	6.7	18800	3.6	7.8	18300	5.8	11.9	17300	11.7	21.2	15500	40300	
		282.53	2.7	6.0	19100	3.2	5.8	15200	5.1	10.5	17400	10.3	20.2	16700	40300	
	L	311.81	2.4	5.5	19400	3.2	7.0	18600	4.7	9.6	17600	9.3	18.4	16800	40300	
	L	348.92	2.1	4.9	19500	2.6	5.8	19200	4.2	8.7	17900	8.3	16.6	16900	40300	
	L	411.92	1.8	4.3	20300	2.2	5.1	19700	3.5	7.6	18300	7.0	14.2	17100	40300	
		448.00	1.7	4.0	20500	2.0	4.7	20000	3.2	7.1	18600	6.5	13.1	17200	40300	
		498.58	1.5	3.7	20900	1.8	4.3	20300	2.9	6.5	18900	5.8	11.8	17300	40300	
	L	547.58	1.4	2.2	13400	1.6	2.6	13300	2.6	4.0	12900	5.3	7.7	12400	30900	
		591.82	1.3	3.2	21400	1.5	3.7	20800	2.5	5.6	19400	4.9	10.1	17500	40300	
		630.00	1.2	3.0	21600	1.4	3.5	21000	2.3	5.3	19600	4.6	9.5	17600	40300	
		715.91	1.0	2.7	22000	1.3	3.2	21400	2.0	4.8	19900	4.1	8.6	18000	40300	
	L	907.20	0.83	1.4	14400	1.0	1.7	14200	1.6	2.6	13800	3.2	5.0	13300	33200	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 2521	4.00	188	294	14600	225	334	13800	363	467	12000	—	—	—	63000	46 (H) 41 (F)
	5.20	144	238	15300	173	270	14500	279	377	12600	—	—	—	50100	
	6.25	120	184	14300	144	218	14100	232	327	13100	—	—	—	39300	
RE 2522	14.25	53	97	16800	63	111	15900	102	154	13800	—	—	—	47700	26 (H) 24 (F)
	16.62	45.1	86	17300	54	98	16400	87	136	14200	—	—	—	47700	
	18.53	40.5	87	19600	48.6	104	19400	78	154	17900	—	—	—	50100	
	21.60	34.7	76	19700	41.7	90	19500	67	136	18400	—	—	—	50100	
	26.52	28.3	62	20000	33.9	74	19800	55	115	19200	—	—	—	50100	
	30.28	24.8	55	20100	29.7	65	19900	47.9	102	19400	—	—	—	50100	
	35.66	21.0	45.3	19600	25.2	54	19400	40.7	84	18800	—	—	—	50100	
	42.86	17.5	30.7	15900	21.0	36.5	15800	33.8	57	15300	—	—	—	39300	
RE 2523	51.30	14.6	40.7	24600	17.5	46.2	23300	28.3	65	20200	57	105	16400	47700	18.6 (H) 17.1 (F)
	59.82	12.5	36.0	25400	15.0	40.9	24000	24.2	57	20800	48.5	93	16900	47700	
	60.56	12.4	36.2	25900	14.9	41.2	24500	23.9	57	21300	47.9	93	17300	47700	
	70.62	10.6	31.8	26500	12.7	36.4	25300	20.5	51	21900	41.1	83	17800	47700	
	78.73	9.5	22.9	21300	11.4	27.2	21000	18.4	42.6	20500	36.8	82	19700	50100	
	86.70	8.7	21.8	22300	10.4	25.9	22100	16.7	40.6	21500	33.4	70	18500	47700	
	103.02	7.3	19.3	23500	8.7	22.9	23300	14.1	36.0	22600	28.2	63	19900	47700	
	112.71	6.7	16.3	21700	8.0	19.4	21500	12.9	30.4	20900	25.7	58	20100	50100	
	128.70	5.8	14.6	22100	7.0	17.1	21600	11.3	26.8	21100	22.5	52	20200	50100	
	141.44	5.3	13.4	22400	6.4	15.7	21800	10.3	24.5	21200	20.5	47.1	20400	50100	
	164.42	4.6	11.8	23000	5.5	13.8	22300	8.8	21.3	21400	17.6	40.9	20500	50100	
	187.75	4.0	10.6	23400	4.8	12.3	22800	7.7	18.8	21500	15.4	36.1	20700	50100	
	198.90	3.8	10.1	23600	4.5	11.8	23000	7.3	17.8	21600	14.6	34.2	20800	50100	
	221.07	3.4	8.3	21700	4.1	9.9	21500	6.6	15.5	20900	13.1	29.8	20100	50100	
	239.06	3.1	6.5	18500	3.8	7.6	18000	6.1	11.6	16900	12.1	22.3	16300	39300	
	267.43	2.8	7.0	21900	3.4	8.3	21700	5.4	12.9	21100	10.8	24.9	20300	50100	
	321.43	2.3	5.1	19300	2.8	5.9	18800	4.5	8.9	17500	9.0	16.9	16500	39300	
RE 2524	210.76	3.6	13.0	31400	4.3	15.4	31100	6.9	23.7	29700	13.8	40.0	25100	47700	14.8 (H) 13.5 (F)
	218.70	3.4	12.7	32100	4.1	15.1	31800	6.6	21.7	28200	13.3	35.2	22900	47700	
	245.74	3.1	10.1	28500	3.7	12.0	28200	5.9	18.7	27400	11.8	35.4	25900	47700	
	301.04	2.5	8.3	28800	3.0	9.9	28500	4.8	15.5	27700	9.6	29.8	26700	47700	
	308.38	2.4	8.1	28800	2.9	9.7	28500	4.7	15.1	27800	9.4	29.1	26700	47700	
	345.09	2.2	7.2	28600	2.6	8.5	28300	4.2	13.4	27500	8.4	25.7	26400	47700	
	407.40	1.8	6.4	29800	2.2	7.4	29000	3.6	11.6	28200	7.1	22.4	27100	47700	
	448.62	1.7	5.2	26700	2.0	6.0	26000	3.2	9.1	24200	6.5	16.3	21800	50100	
	500.19	1.5	4.3	24900	1.8	5.1	24400	2.9	8.0	23700	5.8	15.3	22800	47700	
	550.80	1.4	4.4	27600	1.6	5.1	26800	2.6	7.6	25000	5.3	13.7	22500	50100	
	638.03	1.2	4.1	30400	1.4	4.9	30000	2.3	7.6	28900	4.5	14.7	27800	47700	
	711.36	1.1	3.5	28700	1.3	4.1	27900	2.0	6.1	25900	4.1	11.0	23400	50100	
	800.41	0.94	3.0	27800	1.1	3.5	27100	1.8	5.5	26400	3.6	10.0	23800	50100	
	910.66	0.82	2.6	27300	0.99	3.0	26600	1.6	4.6	24700	3.2	8.7	23600	47700	
	1018.37	0.74	2.6	30300	0.88	3.0	29400	1.4	4.5	27400	2.8	8.1	24700	50100	
	1147.50	0.65	2.3	30800	0.78	2.7	30000	1.3	4.1	27900	2.5	7.4	25100	50100	
	1310.29	0.57	2.0	30000	0.69	2.3	29200	1.1	3.5	27100	2.2	6.6	25600	50100	
	1432.08	0.52	1.9	31900	0.63	2.3	31000	1.0	3.4	28800	2.0	6.1	26000	50100	
	1635.25	0.46	1.6	31000	0.55	1.9	30200	0.89	2.9	28100	1.8	5.4	26400	50100	
	1925.49	0.39	1.2	26600	0.47	1.4	25900	0.75	2.1	24100	1.5	4.0	22700	50100	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 2522	12.29	61	107	15600	73	121	14800	118	169	12800	236	275	10400	48300	24 (H) 22 (F)
	15.97	47.0	102	19400	56	121	19200	91	169	16700	182	275	13500	50100	
	19.20	39.1	66	15200	48.2	64	11900	76	124	14600	151	238	14100	39300	
	24.27	30.9	54	15600	37.1	64	15400	60	100	15000	120	191	14300	40200	
	29.17	25.7	44.8	15600	30.9	53	15400	49.7	83	15000	99	160	14400	39300	
RA 2523	41.65	18.0	47.8	23100	21.6	54	21900	34.8	76	19000	70	123	15400	57300	18 (H) 16.7 (F)
	44.01	17.0	42.3	21600	20.4	48.0	20500	32.9	67	17700	66	109	14400	51900	
	51.66	14.5	38.4	23000	17.4	43.6	21800	28.1	61	18900	56	99	15400	51900	
	57.00	13.2	38.4	25400	15.8	43.6	24100	25.4	61	20900	51	99	17000	57300	
	66.46	11.3	33.9	26200	13.5	38.5	24800	21.8	54	21500	43.6	87	17500	57300	
	68.09	11.0	23.5	18600	13.2	27.9	18400	21.3	43.7	17900	42.6	83	17000	57300	
	81.60	9.2	23.4	22200	11.0	27.8	22000	17.8	43.6	21400	35.5	74	18200	57300	
	88.52	8.5	20.8	21400	10.2	24.7	21200	16.4	38.7	20600	32.8	74	19800	50100	
	103.85	7.2	13.9	16700	8.7	16.5	16600	14.0	25.8	16100	27.9	49.7	15500	39300	
	109.71	6.8	12.8	16300	8.2	15.2	16100	13.2	23.8	15700	26.4	45.7	15100	41500	
	125.27	6.0	11.6	16900	7.2	13.8	16800	11.6	21.7	16300	23.1	41.6	15700	39300	
	142.63	5.3	12.8	21200	6.3	15.2	21000	10.2	23.8	20400	20.3	45.7	19600	50100	
	171.43	4.4	8.8	17500	5.3	10.3	17100	8.5	16.1	16600	16.9	31.0	16000	39300	
RA 2524	129.51	5.8	17.8	26200	6.9	20.8	25400	11.2	31.4	23800	22.4	53	20200	51900	13.5 (H) 12.8 (F)
	142.91	5.2	19.1	31000	6.3	22.3	30100	10.1	32.8	27500	20.3	53	22300	57300	
	152.89	4.9	15.5	26800	5.9	18.1	26100	9.5	27.1	24300	19.0	47.5	21300	51900	
	196.71	3.8	12.6	28100	4.6	15.0	27800	7.4	23.5	27100	14.7	42.0	24200	57300	
	219.54	3.4	11.4	28300	4.1	13.3	27600	6.6	19.9	25600	13.2	36.7	23600	51900	
	255.98	2.9	9.0	26000	3.5	10.6	25700	5.7	16.7	25000	11.3	31.7	23800	51900	
	282.46	2.7	9.0	28700	3.2	10.6	28400	5.1	16.7	27600	10.3	32.1	26600	57300	
	314.93	2.4	7.1	25300	2.9	8.3	24600	4.6	12.4	22900	9.2	23.1	21300	50100	
	354.46	2.1	7.3	29200	2.5	8.6	28800	4.1	13.5	28000	8.2	25.9	26900	57300	
	395.20	1.9	5.9	26200	2.3	6.8	25500	3.7	10.2	23700	7.3	18.6	21600	50100	
	449.91	1.7	5.2	26500	2.0	6.1	26000	3.2	9.2	24200	6.4	16.5	21800	50100	
	505.92	1.5	4.4	25000	1.8	5.1	24400	2.9	8.0	23800	5.7	15.4	22800	57300	
	565.76	1.3	4.3	27700	1.6	5.0	26900	2.6	7.6	25100	5.1	13.6	22600	50100	
	632.68	1.2	3.8	27000	1.4	4.5	26800	2.3	6.9	25500	4.6	12.4	22900	50100	
	698.82	1.1	2.8	21800	1.3	3.2	21200	2.1	5.0	20400	4.1	9.6	19700	57300	
	795.60	0.94	3.2	29200	1.1	3.8	28400	1.8	5.7	26400	3.6	10.2	23800	50100	
	884.30	0.85	2.4	23700	1.0	2.8	23300	1.6	4.4	22600	3.3	8.4	21700	50100	
	956.25	0.78	2.1	22800	0.94	2.5	22100	1.5	3.7	20600	3.0	6.6	18500	39300	
	1091.91	0.69	1.9	23200	0.82	2.2	22600	1.3	3.3	21000	2.7	5.9	18900	39300	



# RE 3000



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 3001	4.00	188	392	19500	225	446	18500	363	623	16000	—	—	—	78800	46 (H)
	4.71	159	344	20100	191	390	19000	308	545	16500	—	—	—	71700	41 (F)
RE 3002	14.25	53	133	23000	63	152	21800	102	212	18900	—	—	—	78800	27 (H) 24 (F)
	16.62	45.1	118	23700	54	134	22400	87	187	19400	—	—	—	78800	
	19.55	38.4	118	27900	46.0	134	26400	74	187	22900	—	—	—	71700	
	23.29	32.2	90	25300	38.6	102	24000	62	143	20800	—	—	—	69600	
	24.00	31.3	97	28200	37.5	113	27400	60	158	23800	—	—	—	71700	
	27.40	27.4	86	28400	32.8	102	28100	53	143	24500	—	—	—	71700	
	32.27	23.2	66	25600	27.9	78	25300	44.9	122	24700	—	—	—	70600	
RE 3003	51.30	14.6	56	33800	17.5	63	32000	28.3	89	27700	57	144	22500	78800	19.4 (H) 17.9 (F)
	60.56	12.4	49.7	35500	14.9	56	33600	23.9	79	29100	47.9	128	23700	78800	
	76.00	9.9	40.4	36200	11.8	48.0	35900	19.1	67	31200	38.2	109	25300	78800	
	88.62	8.5	35.0	36600	10.2	41.5	36200	16.4	59	32100	32.7	96	26100	78800	
	103.02	7.3	30.3	36900	8.7	36.0	36500	14.1	53	33600	28.2	87	27300	78800	
	108.80	6.9	25.4	32700	8.3	30.2	32300	13.3	47.4	31500	26.7	81.7	27100	78800	
	124.62	6.0	25.7	37800	7.2	30.1	36900	11.6	46.8	35600	23.3	76.0	28900	78800	
	144.42	5.2	16.5	28100	6.2	19.6	27800	10.0	30.7	27000	20.1	58.9	26000	69600	
	153.00	4.9	18.4	33300	5.9	21.9	33000	9.5	34.4	32100	19.0	64.4	30100	78800	
	180.00	4.2	15.3	32600	5.0	17.9	31700	8.1	27.7	30500	16.1	53.3	29300	71700	
	205.54	3.6	13.7	33200	4.4	16.0	32300	7.1	24.5	30700	14.1	47.0	29500	71700	
	242.02	3.1	10.1	28700	3.7	11.9	28400	6.0	18.7	27700	12.0	36.0	26600	70600	
RE 3004	178.52	4.2	19.4	39900	5.0	22.7	38800	8.1	34.5	36700	16.2	61.6	32700	78800	15.4 (H) 14.4 (F)
	208.16	3.6	17.0	40800	4.3	19.9	39700	7.0	29.8	37000	13.9	54.4	33700	78800	
	218.70	3.4	16.3	41100	4.1	19.1	40000	6.6	28.6	37200	13.3	53.4	34800	78800	
	255.00	2.9	14.1	41300	3.5	16.7	40900	5.7	25.1	38100	11.4	47.2	35800	78800	
	289.11	2.6	10.5	35000	3.1	12.3	34000	5.0	18.4	31700	10.0	35.0	30100	71700	
	324.00	2.3	11.7	43700	2.8	13.7	42500	4.5	20.5	39500	9.0	37.8	36400	78800	
	349.40	2.1	11.0	44200	2.6	12.8	43000	4.1	19.2	40000	8.3	35.2	36600	78800	
	381.18	2.0	8.3	36500	2.4	9.7	35500	3.8	14.5	33000	7.6	27.0	30600	71700	
	439.17	1.7	8.6	43600	2.0	10.1	42500	3.3	15.7	41000	6.6	28.5	37300	78800	
	508.43	1.5	7.6	44600	1.8	8.9	43400	2.9	13.7	41400	5.7	25.2	38100	78800	
	569.18	1.3	5.4	35400	1.6	6.4	35000	2.5	10.1	34100	5.1	18.6	31600	71700	
	636.12	1.2	6.4	46600	1.4	7.6	46100	2.3	11.6	43800	4.6	20.8	39400	78800	
	699.20	1.1	5.0	40000	1.3	5.8	38900	2.1	8.7	36200	4.1	15.7	32600	71700	
	783.36	0.96	4.3	38600	1.1	5.0	37500	1.9	7.6	35200	3.7	14.5	33900	78800	
	897.23	0.84	4.1	42600	1.0	4.9	42100	1.6	7.7	41000	3.2	14.8	39400	78800	
	1007.92	0.74	2.9	33400	0.89	3.4	32500	1.4	5.0	30200	2.9	9.7	29000	69600	
	1101.60	0.68	3.2	40600	0.82	3.7	39500	1.3	5.6	36800	2.6	10.5	34500	78800	
	1257.88	0.60	2.4	34500	0.72	2.8	33600	1.2	4.2	31200	2.3	7.9	29400	69600	
	1396.25	0.54	2.1	33700	0.64	2.4	32800	1.0	3.7	30600	2.1	7.1	29400	70600	
	1742.52	0.43	1.7	34800	0.52	2.0	33900	0.83	3.0	31500	1.7	5.7	29800	70600	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 3002	12.29	61	107	15600	73	121	14800	118	169	12800	236	275	10400	48300	24 (H) 22 (F)
	14.45	52	107	18400	62	121	17400	100	169	15100	201	275	12200	56900	
	18.67	40.2	54	12000	48.2	64	11900	78	100	11500	155	191	11000	30900	
	21.96	34.2	54	14100	41.0	64	14000	66	100	13600	132	191	12900	36400	
RA 3003	41.65	18.0	66	31700	21.6	74	30000	34.8	104	26000	70	169	21100	78800	14.8 (H) 17 (F)
	48.57	15.4	58	32700	18.5	66	31000	29.9	92	26800	60	149	21800	78800	
	57.00	13.2	52.6	34900	15.8	60	33000	25.4	84	28600	51	136	23200	78800	
	66.46	11.3	46.5	35900	13.5	53	34000	21.8	74	29500	43.6	120	23900	78800	
	70.15	10.7	36.8	30000	12.8	43.7	29700	20.7	68	28900	41.3	126	26700	71700	
	78.19	9.6	33.2	30200	11.5	39.4	29900	18.5	62	29100	37.1	119	27900	71700	
	93.18	8.0	25.3	27400	9.7	30.0	27100	15.6	47.1	26400	31.1	90	25300	69600	
	109.62	6.8	24.1	30800	8.2	28.7	30400	13.2	45.0	29600	26.5	86	28500	71700	
	129.08	5.8	18.5	27700	7.0	21.9	27400	11.2	34.4	26700	22.5	66	25700	70600	
RA 3004	142.91	5.2	23.2	38600	6.3	27.8	37500	10.1	43.2	36200	20.3	73	30600	78800	14.2 (H) 13.3 (F)
	166.63	4.5	20.4	39500	5.4	24.4	38400	8.7	37.4	36500	17.4	65	31500	78800	
	196.71	3.8	17.7	40500	4.6	21.2	39400	7.4	32.0	36900	14.7	58	33200	78800	
	231.43	3.2	12.6	33800	3.9	15.1	32900	6.3	22.8	30900	12.5	43.8	29700	71700	
	246.86	3.0	14.4	41200	3.7	17.5	40700	5.9	26.2	37900	11.7	49.1	35500	71700	
	282.46	2.7	12.7	41600	3.2	15.4	41100	5.1	23.4	38700	10.3	43.7	36200	78800	
	304.00	2.5	12.2	43200	3.0	14.7	42100	4.8	22.0	39100	9.5	40.8	36300	78800	
	347.14	2.2	10.0	40300	2.6	12.2	39900	4.2	19.1	38800	8.4	36.0	36600	78800	
	407.16	1.8	7.3	34700	2.2	8.9	34300	3.6	14.0	33300	7.1	19.7	23500	71700	
	435.20	1.7	7.0	35400	2.1	8.5	35000	3.3	13.4	34100	6.7	25.7	32700	78800	
	502.94	1.5	6.5	38000	1.8	7.8	37000	2.9	11.7	34400	5.8	21.1	31100	71700	
	572.57	1.3	5.3	35400	1.6	6.5	35000	2.5	10.2	34100	5.1	18.8	31600	71700	
	612.00	1.2	5.2	37200	1.5	6.3	36200	2.4	9.7	34700	4.7	18.6	33400	78800	
	720.00	1.0	4.8	40100	1.3	5.7	39100	2.0	8.6	36300	4.0	15.5	32700	71700	
	800.27	0.94	3.3	31000	1.1	4.0	30400	1.8	6.3	29600	3.6	12.1	28500	70600	
	968.07	0.77	2.8	31900	0.93	3.4	31000	1.5	5.3	29900	3.0	10.1	28800	70600	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 3511	3.84	195	451	21500	234	512	20300	378	715	17600	—	—	—	96500	53 (H) 54 (F)
	4.74	158	379	22300	190	431	21100	306	602	18300	—	—	—	79800	
	5.44	138	340	22900	166	386	21700	267	539	18800	—	—	—	64100	
	6.46	116	253	20300	139	301	20100	224	467	19400	—	—	—	56000	
RE 3512	13.68	55	133	22100	66	152	20900	106	212	18100	—	—	—	96500	31 (H) 31 (F)
	16.88	44.4	133	27200	53	152	25800	86	212	22400	—	—	—	79800	
	19.68	38.1	118	28100	45.7	134	26600	74	187	23000	—	—	—	79800	
	22.59	33.2	92	25300	39.8	110	25000	64	172	24300	—	—	—	64100	
	24.16	31.0	100	29200	37.3	113	27600	60	158	23900	—	—	—	79800	
	27.73	27.0	76	25600	32.5	90	25300	52	142	24600	—	—	—	64100	
	31.67	23.7	67	25800	28.4	80	25500	45.8	125	24800	—	—	—	64100	
	37.29	20.1	58	26000	24.1	68	25700	38.9	107	25000	—	—	—	64100	
	44.31	16.9	42	22700	20.3	50	22400	32.7	79	21800	—	—	—	56000	
RE 3513	49.25	15.2	56	32400	18.3	63	30700	29.4	89	26600	59	144	21600	96500	22 (H) 22 (F)
	58.14	12.9	49.7	34100	15.5	56	32300	24.9	79	28000	49.9	128	22700	96500	
	60.75	12.3	46.9	33600	14.8	56	33300	23.9	87	32400	47.7	144	26700	79800	
	72.96	10.3	42.4	36500	12.3	48.1	34500	19.9	67	29900	39.7	109	24300	96500	
	82.33	9.1	28.0	27200	10.9	33.3	26900	17.6	52	26200	35.2	100	25200	64100	
	90.00	8.3	32.4	34400	10.0	38.4	34000	16.1	60	33100	32.2	109	30000	79800	
	98.89	7.6	32.3	37700	9.1	38.3	37200	14.7	53	32300	29.3	87	26200	92900	
	104.94	7.1	28.1	34800	8.6	33.3	34300	13.8	52	33400	27.6	96	30900	79800	
	121.99	6.1	24.7	35600	7.4	28.9	34600	11.9	45.2	33700	23.8	87	32300	79800	
	149.78	5.0	20.8	36700	6.0	24.3	35700	9.7	37.3	34100	19.4	72	32800	79800	
	168.88	4.4	14.7	29300	5.3	17.1	28500	8.6	26.5	27300	17.2	51	26200	64100	
	181.18	4.1	17.7	37800	5.0	20.6	36800	8.0	31.2	34500	16.0	60	33100	79800	
	207.98	3.6	12.3	30200	4.3	14.4	29400	7.0	21.8	27600	13.9	41.8	26600	64100	
	237.49	3.2	11.0	30800	3.8	12.8	30000	6.1	19.2	27900	12.2	36.9	26800	64100	
	247.15	3.0	9.0	26300	3.6	10.5	25500	5.9	16.0	24100	11.7	30.7	23200	56000	
	279.64	2.7	9.6	31600	3.2	11.2	30700	5.2	16.8	28600	10.4	31.6	27000	64100	
	332.31	2.3	7.0	27500	2.7	8.2	26700	4.4	12.3	24900	8.7	23.2	23600	56000	
RE 3514	202.33	3.7	19.1	44500	4.4	22.7	44000	7.2	33.8	40700	14.3	54.8	33000	96500	17.4 (H) 17.7 (F)
	209.95	3.6	18.5	44600	4.3	21.9	44100	6.9	32.9	41100	13.8	53.4	33400	96500	
	247.86	3.0	15.8	45000	3.6	18.7	44600	5.9	29.3	43200	11.7	47.6	35100	96500	
	291.01	2.6	12.1	40600	3.1	14.2	39500	5.0	21.2	36800	10.0	39.3	34000	79800	
	311.04	2.4	12.9	46300	2.9	15.1	45100	4.7	23.7	43900	9.3	40.6	37600	96500	
	350.48	2.1	10.4	41800	2.6	12.1	40600	4.1	18.1	37800	8.3	33.0	34400	79800	
	408.66	1.8	9.1	42800	2.2	10.6	41600	3.5	15.9	38700	7.1	28.7	34800	79800	
	447.37	1.7	8.4	43300	2.0	9.8	42200	3.2	14.7	39200	6.5	26.5	35300	79800	
	501.74	1.5	7.2	41800	1.8	8.6	41400	2.9	13.4	39900	5.8	24.1	35900	79800	
	570.55	1.3	6.7	43900	1.6	7.8	42700	2.5	11.8	40100	5.1	22.7	38500	92900	
	648.00	1.2	6.1	45800	1.4	7.2	44600	2.2	10.8	41500	4.5	19.4	37400	79800	
	703.80	1.1	5.7	46400	1.3	6.7	45200	2.1	10.0	42000	4.1	18.1	37800	79800	
	807.90	0.93	4.0	37100	1.1	4.7	36100	1.8	7.0	33600	3.6	12.6	30200	64100	
	878.34	0.85	4.7	48000	1.0	5.5	46700	1.7	8.3	43400	3.3	15.0	39100	79800	
	1045.29	0.72	3.9	46500	0.86	4.5	45300	1.4	6.8	42100	2.8	12.9	40200	79800	
	1140.94	0.66	2.8	36900	0.79	3.3	35900	1.3	5.1	34600	2.5	9.4	31900	64100	
	1304.53	0.57	3.2	48100	0.69	3.7	46800	1.1	5.6	43600	2.2	10.5	40900	79800	
	1413.55	0.53	2.5	40400	0.64	2.9	39300	1.0	4.3	36500	2.1	7.8	32900	64100	
	1613.32	0.46	2.1	38900	0.56	2.4	37900	0.90	3.7	35300	1.8	7.0	33600	64100	
	1779.51	0.42	1.7	35400	0.51	2.0	34400	0.81	3.0	32000	1.6	5.4	28900	56000	
	2013.43	0.37	0.2	40300	0.45	2.0	39200	0.72	3.0	36400	1.4	5.7	34400	64100	
	2392.62	0.31	0.1	37000	0.38	1.6	36000	0.61	2.4	33500	1.2	4.2	30200	56000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 3512	12.48	60	206	30600	72	234	29000	116	326	25100	232	530	20400	88500	30 (H) 31 (F)
	15.39	48.7	169	31100	58	197	30100	94	275	26100	188	446	21200	79800	
	17.67	42.4	118	24900	51	141	24700	82	220	24000	164	399	21800	64100	
	21.00	35.7	87	21700	42.9	103	21500	69	162	20900	138	311	20100	56000	
RA 3513	39.99	18.8	66	30500	22.5	74	28800	36.3	104	25000	73	169	20300	96500	20 (H) 20 (F)
	46.63	16.1	58	31400	19.3	66	29700	31.1	92	25800	62	149	20900	92900	
	49.33	15.2	58	33200	18.2	69	32900	29.4	104	30800	59	169	25000	79800	
	57.51	13.0	50	33500	15.6	60	33200	25.2	92	31800	50	149	25800	79800	
	63.80	11.8	46.5	34500	14.1	53	32600	22.7	74	28300	45.5	120	23000	92900	
	70.62	10.6	41.3	33900	12.7	49.1	33600	20.5	77	32600	41.1	126	26800	79800	
	78.70	9.5	37.3	34100	11.4	44.3	33800	18.4	69	32900	36.8	120	28400	79800	
	90.35	8.3	26.1	27400	10.0	30.9	27100	16.0	48.5	26300	32.1	93	25300	64100	
	96.63	7.8	30.7	34500	9.3	36.5	34200	15.0	57	33200	30.0	101	29500	79800	
	110.34	6.8	25.3	32400	8.2	30.0	32100	13.1	47.1	31200	26.3	90	30000	79800	
	126.66	5.9	19.0	28000	7.1	22.5	27600	11.4	35.3	26900	22.9	68	25800	64100	
	131.82	5.7	15.8	24100	6.8	18.7	23900	11.0	29.3	23200	22.0	56	22300	56000	
	149.14	5.0	16.6	28700	6.0	19.4	28000	9.7	30.2	27100	19.4	58	26100	64100	
	177.23	4.2	12.1	25000	5.1	14.2	24300	8.2	22.2	23600	16.4	43	22700	56000	
RA 3514	137.19	5.5	28.0	43500	6.6	32.2	41700	10.6	45.0	36200	21.1	73	29400	96500	15.8 (H) 16 (F)
	161.96	4.6	23.9	43900	5.6	28.4	43500	9.0	40.1	38000	17.9	65	30900	96500	
	196.99	3.8	19.9	44400	4.6	23.6	44000	7.4	33.4	38600	14.7	52.3	30100	96500	
	229.69	3.3	15.2	39500	3.9	18.0	39100	6.3	28.3	38100	12.6	50.1	33800	92900	
	250.71	3.0	14.0	39700	3.6	16.3	38600	5.8	24.5	35900	11.6	45.9	33700	79800	
	283.34	2.6	12.6	40400	3.2	14.7	39300	5.1	22.0	36600	10.2	40.9	34000	79800	
	317.56	2.4	9.0	32200	2.8	10.5	31300	4.6	15.7	29200	9.1	29.2	27200	56000	
	358.92	2.1	10.1	41000	2.5	12.0	40600	4.0	18.0	37900	8.1	32.7	34400	79800	
	395.58	1.9	9.3	41500	2.3	10.8	40400	3.7	16.9	39300	7.3	32.6	37700	92900	
	445.50	1.7	5.7	28700	2.0	6.6	27900	3.3	10.0	26000	6.5	18.3	23900	56000	
	504.73	1.5	7.3	41800	1.8	8.7	41400	2.9	13.5	40000	5.7	24.3	36000	79800	
	561.00	1.3	4.8	30300	1.6	5.7	30000	2.6	8.9	29200	5.2	17.1	28100	56000	
	633.86	1.2	4.8	34800	1.4	5.8	34400	2.3	8.7	32400	4.6	15.7	29200	64100	
	724.74	1.0	5.4	44000	1.2	6.3	42800	2.0	9.7	41100	4.0	17.9	38000	79800	
	795.43	0.94	3.9	35200	1.1	4.6	34900	1.8	7.2	33500	3.6	12.9	30200	64100	
	924.69	0.81	3.4	35800	1.0	4.0	35200	1.6	6.3	34200	3.1	11.4	30900	64100	
	988.62	0.76	2.9	32400	0.91	3.4	31500	1.5	5.1	29300	2.9	9.1	26400	56000	
	1118.57	0.67	2.9	36800	0.80	3.4	35800	1.3	5.3	34600	2.6	9.7	31800	64100	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 4801	3.84	195	601	28700	234	683	27100	378	953	23500	—	—	—	111000	53 (H)
	5.18	145	471	30200	174	535	28600	280	746	24800	—	—	—	93500	54 (F)
RE 4802	13.17	57	227	36200	68	258	34300	110	361	29700	—	—	—	111000	34 (H) 34 (F)
	15.71	47.7	198	37600	57	225	35600	92	314	30900	—	—	—	111000	
	17.75	42.3	167	35900	51	198	35500	82	311	34600	—	—	—	93500	
	20.16	37.2	162	39400	44.6	184	37300	72	256	32400	—	—	—	111000	
	21.18	35.4	141	36300	42.5	168	35900	68	263	34900	—	—	—	93500	
	23.93	31.3	116	33700	37.6	138	33400	61	217	32500	—	—	—	92900	
	27.18	27.6	112	36800	33.1	133	36400	53	208	35400	—	—	—	93500	
	32.25	23.3	95	37100	27.9	113	36800	45.0	177	35800	—	—	—	93500	
RE 4803	47.40	15.8	80	44700	19.0	91	42400	30.6	127	36700	61	206	29800	111000	24 (H) 25 (F)
	56.55	13.3	79	52700	15.9	91	50500	25.6	127	43800	51	206	35600	111000	
	66.76	11.2	67	53200	13.5	80	52300	21.7	111	45300	43.4	181	36800	111000	
	72.58	10.3	53	45700	12.4	63	45300	20.0	99	44000	40.0	174	38600	111000	
	83.78	9.0	54	53900	10.7	65	53300	17.3	92	47200	34.6	150	38400	111000	
	90.00	8.3	37.1	39400	10.0	44.0	39000	16.1	69	37900	32.2	133	36400	93500	
	101.69	7.4	30.5	36600	8.9	36.3	36300	14.3	57	35300	28.5	109	33900	92900	
	112.94	6.6	29.9	39900	8.0	35.5	39500	12.8	56	38400	25.7	107	36900	93500	
	124.99	6.0	32.0	47200	7.2	38.0	46700	11.6	60	45400	23.2	114	43700	111000	
	144.94	5.2	23.7	40500	6.2	28.1	40000	10.0	44.0	39000	20.0	85	37500	93500	
	158.82	4.7	21.8	40900	5.7	25.8	40300	9.1	40.4	39200	18.3	78	37700	93500	
	172.02	4.4	20.4	41400	5.2	23.9	40400	8.4	37.5	39400	16.9	72	37800	93500	
	199.97	3.8	17.9	42300	4.5	20.9	41200	7.3	32.5	39700	14.5	63	38200	93500	
	241.90	3.1	15.3	43600	3.7	17.8	42400	6.0	27.2	40100	12.0	52	38600	93500	
RE 4804	164.94	4.5	27.9	54300	5.5	32.5	51400	8.8	45.4	44500	17.6	74	36200	111000	19.1 (H) 55 (F)
	196.80	3.8	25.9	60100	4.6	31.0	58500	7.4	45.4	53100	14.7	74	43200	111000	
	232.34	3.2	22.5	61700	3.9	26.9	60000	6.2	40.4	55800	12.5	74	50900	111000	
	252.56	3.0	16.5	49100	3.6	20.1	48600	5.7	31.5	47300	11.5	60	45400	111000	
	284.62	2.6	18.9	63600	3.2	22.7	61900	5.1	34.0	57600	10.2	63	53400	111000	
	322.81	2.3	14.1	53900	2.8	17.2	53300	4.5	27.0	51900	9.0	49.4	47400	111000	
	357.18	2.1	14.0	58900	2.5	17.0	58300	4.1	26.7	56800	8.1	50.9	54200	111000	
	401.94	1.9	9.9	47100	2.2	11.9	45800	3.6	17.8	42600	7.2	33.2	39700	93500	
	456.90	1.6	8.9	48000	2.0	10.7	46700	3.2	16.0	43400	6.3	29.4	40000	93500	
	504.40	1.5	8.2	48700	1.8	9.8	47400	2.9	14.7	44100	5.7	26.8	40200	93500	
	564.43	1.3	7.4	49500	1.6	8.9	48200	2.6	13.3	44800	5.1	24.1	40500	93500	
	634.83	1.2	6.7	50400	1.4	8.1	49100	2.3	12.1	45600	4.6	21.8	41100	93500	
	709.31	1.1	6.1	51300	1.3	7.3	49900	2.0	11.0	46400	4.1	19.8	41800	93500	
	792.27	0.95	5.6	52100	1.1	6.7	50700	1.8	10.0	47200	3.7	18.0	42500	93500	
	899.94	0.83	5.3	56500	1.0	6.4	54900	1.6	9.5	51100	3.2	18.2	48900	111000	
	992.41	0.76	4.6	53900	0.91	5.5	52500	1.5	8.3	48800	2.9	14.9	44000	93500	
	1143.53	0.66	4.0	54200	0.79	4.9	53600	1.3	7.3	49900	2.5	13.2	44900	93500	
	1238.53	0.61	3.8	55800	0.73	4.6	54300	1.2	6.8	50500	2.3	12.3	45500	93500	
	1439.79	0.52	3.4	57100	0.63	4.0	55500	1.0	6.0	51700	2.0	10.9	46500	93500	
	1741.68	0.43	2.9	58700	0.52	3.4	57100	0.83	5.1	53200	1.7	9.2	47900	93500	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RA 4802	12.48	60	233	34600	72	273	33800	116	381	29300	232	619	23800	88500	30 (H)
	16.82	44.6	178	35800	53	212	35400	86	332	34500	172	553	28700	93500	31 (F)
RA 4803	40.44	18.5	108	50800	22.3	123	48100	35.9	171	41600	72	278	33800	111000	24 (H) 17.5 (F)
	48.25	15.5	93	52200	18.7	107	49900	30.1	149	43200	60	242	35100	111000	
	54.51	13.8	60	38300	16.5	72	37900	26.6	112	36900	53	216	35400	93500	
	61.92	12.1	63	45300	14.5	75	44800	23.4	117	43600	46.8	198	36800	111000	
	73.31	10.2	55	47100	12.3	66	46600	19.8	103	45300	39.6	181	39800	111000	
	94.08	8.0	42.4	46400	9.6	50	45900	15.4	79	44700	30.8	148	41700	111000	
	99.06	7.6	34.4	39600	9.1	40.8	39200	14.6	64	38100	29.3	123	36700	93500	
	111.66	6.7	28.4	36800	8.1	33.7	36500	13.0	53	35500	26.0	102	34100	92900	
	126.82	5.9	27.2	40200	7.1	32.4	39700	11.4	51	38700	22.9	98	37200	93500	
	150.52	5.0	23.2	40600	6.0	27.5	40100	9.6	43.2	39100	19.3	83	37500	93500	
RA 4804	132.03	5.7	28.5	42600	6.8	32.4	40400	11.0	45.2	35000	22.0	73	28400	111000	17.2 (H) 15 (F)
	157.54	4.8	28.5	50900	5.7	32.4	48200	9.2	45.2	41700	18.4	73	33900	111000	
	177.99	4.2	20.6	41600	5.1	24.1	40500	8.1	37.8	39400	16.3	73	37900	93500	
	202.18	3.7	21.2	48500	4.5	25.1	48000	7.2	39.4	46700	14.3	73	43500	111000	
	223.82	3.4	21.1	53500	4.0	24.0	50600	6.5	33.4	43900	13.0	54.3	35600	111000	
	250.71	3.0	15.4	43800	3.6	18.0	42600	5.8	27.4	40200	11.6	53	38600	93500	
	280.87	2.7	15.5	49200	3.2	18.4	48700	5.2	28.8	47400	10.3	54.3	44700	111000	
	314.62	2.4	12.7	45300	2.9	14.8	44100	4.6	22.3	41000	9.2	42.5	39200	93500	
	348.19	2.2	12.7	50000	2.6	15.1	49500	4.2	23.6	48200	8.3	45.4	46300	111000	
	403.76	1.9	10.3	47100	2.2	12.0	45800	3.6	18.0	42600	7.2	33.6	39700	93500	
	442.44	1.7	9.5	47700	2.0	11.1	46400	3.3	16.7	43200	6.6	30.8	39900	93500	
	499.97	1.5	9.1	51700	1.8	10.7	50500	2.9	16.8	49200	5.8	32.3	47300	111000	
	567.79	1.3	7.7	49600	1.6	9.0	48200	2.6	13.5	44900	5.1	24.3	40500	93500	
	635.29	1.2	7.0	50400	1.4	8.2	49100	2.3	12.3	45600	4.6	22.1	41100	93500	
	688.07	1.1	6.5	51000	1.3	7.6	49700	2.1	11.5	46200	4.2	20.6	41600	93500	
	799.88	0.94	5.8	52200	1.1	6.7	50800	1.8	10.1	47300	3.6	18.2	42600	93500	
	967.60	0.78	4.9	53700	0.93	5.7	52300	1.5	8.6	48600	3.0	15.4	43800	93500	



# RE 6000



		n <sub>1</sub> = <b>750</b> RPM			n <sub>1</sub> = <b>900</b> RPM			n <sub>1</sub> = <b>1450</b> RPM			n <sub>1</sub> = <b>2900</b> RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]	
		ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]			T <sub>2</sub> [Nm]
RE 6001		4.14	181	576	29600	217	654	28100	350	910	24300	—	—	—	136000	70 (H) 63 (F)
		5.40	139	467	31300	167	530	29600	269	740	25700	—	—	—	112000	
		6.50	115	383	30900	138	452	30400	223	630	26400	—	—	—	85300	
RE 6002	L	14.20	53	227	39100	63	258	37000	102	361	32100	—	—	—	114000	40 (H) 36 (F)
		15.88	47.2	231	44400	57	262	42000	91	366	36400	—	—	—	135000	
	L	16.95	44.3	198	40600	53	225	38400	86	314	33300	—	—	—	114000	
		20.70	36.2	175	43900	43.5	212	43400	70	296	38400	—	—	—	112000	
		21.75	34.5	185	48700	41.4	210	46200	67	294	40000	—	—	—	135000	
	L	22.09	34.0	165	44100	40.7	196	43600	66	283	39200	—	—	—	85300	
	L	25.81	29.1	116	36400	34.9	138	36000	56	217	35000	—	—	—	114000	
	L	28.35	26.5	130	44700	31.7	155	44200	51	238	42200	—	—	—	112000	
	L	33.65	22.3	111	45100	26.7	132	44700	43.1	206	43500	—	—	—	112000	
	L	40.50	18.5	70	34300	22.2	83	34000	35.8	130	33100	—	—	—	85300	
RE 6003	L	51.13	14.7	80	48300	17.6	91	45700	28.4	127	39600	57	206	32200	114000	28 (H) 28 (F)
		63.52	11.8	77	57700	14.2	102	57100	22.8	142	55200	45.7	231	44800	135000	
	L	72.03	10.4	68	58200	12.5	80	56400	20.1	111	48900	40.3	181	39700	114000	
	L	79.53	9.4	51	47400	11.3	60	46900	18.2	94	45600	36.5	181	43900	112000	
		98.86	7.6	51	60100	9.1	75	58600	14.7	104	57000	29.3	169	51200	135000	
	L	114.79	6.5	35.7	48400	7.8	42.4	47900	12.6	67	46600	25.3	128	44800	112000	
	L	120.49	6.2	34.2	48600	7.5	40.5	48000	12.0	64	46700	24.1	122	44900	112000	
	L	141.82	5.3	22.0	36900	6.3	26.2	36500	10.2	41.0	35500	20.4	79	34100	85300	
	L	160.04	4.7	21.4	40400	5.6	25.4	40000	9.1	39.8	38900	18.1	77	37400	100000	
	L	175.77	4.3	24.8	51500	5.1	29.0	50100	8.2	44.5	47800	16.5	86	45900	112000	
	L	199.43	3.8	16.4	38700	4.5	19.2	37600	7.3	29.7	36200	14.5	57	34800	85300	
	L	216.00	3.5	15.4	39100	4.2	17.9	38100	6.7	27.6	36400	13.4	53	35000	85300	
	L	251.10	3.0	13.5	40000	3.6	15.8	38900	5.8	23.9	36700	11.5	46	35300	85300	
RE 6004	L	177.95	4.2	28.6	58500	5.1	32.5	55400	8.1	45.4	48000	16.3	74	39000	114000	22 (H) 21 (F)
	L	212.33	3.5	27.6	67400	4.2	32.2	65600	6.8	45.4	57300	13.7	74	46600	114000	
		228.69	3.3	25.9	68200	3.9	42.6	66300	6.3	59	61700	12.7	97	57500	135000	
	L	250.66	3.0	23.8	68700	3.6	28.0	67300	5.8	42.0	62600	11.6	74	55000	114000	
	L	284.15	2.6	16.9	55300	3.2	19.8	53800	5.1	29.6	50100	10.2	56	47200	112000	
		313.20	2.4	19.3	69400	2.9	34.2	68700	4.6	47.7	64700	9.3	78	58500	135000	
		355.91	2.1	17.1	69900	2.5	31.3	69200	4.1	43.6	66000	8.1	71	59400	135000	
		393.85	1.9	16.3	74000	2.3	29.1	72000	3.7	40.7	67000	7.4	66	60300	135000	
		447.55	1.7	14.7	75500	2.0	26.6	73400	3.2	37.2	68300	6.5	60	61500	135000	
	L	502.28	1.5	10.4	60300	1.8	12.2	58700	2.9	18.3	54600	5.8	32.9	49200	112000	
	L	569.67	1.3	9.4	61500	1.6	10.9	59800	2.5	16.4	55600	5.1	29.6	50100	112000	
		621.00	1.2	8.7	62300	1.4	20.6	60600	2.3	28.8	56400	4.7	46.8	50800	112000	
		703.08	1.1	7.8	63500	1.3	18.9	61700	2.1	26.4	57400	4.1	42.9	51700	112000	
	L	790.17	0.95	7.1	64600	1.1	8.3	62800	1.8	12.4	58500	3.7	22.4	52600	112000	
	L	906.45	0.83	6.3	66000	1.0	7.4	64200	1.6	11.1	59700	3.2	19.9	53800	112000	
	L	986.14	0.76	5.9	66800	0.91	6.9	65000	1.5	10.3	60500	2.9	18.6	54400	112000	
	L	1088.64	0.69	5.4	67800	0.83	6.3	66000	1.3	9.5	61400	2.7	17.1	55300	112000	
	L	1265.54	0.59	4.8	69400	0.71	5.6	67500	1.1	8.3	62800	2.3	15.0	56500	112000	
	L	1435.91	0.52	3.2	52100	0.63	3.7	50700	1.0	5.5	47200	2.0	9.9	42500	85300	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]	
		ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]			T <sub>2</sub> [Nm]
RA 6002		13.46	56	233	37300	67	273	36500	108	381	31600	215	619	25700	95500	36 (H) 34 (F)
		17.55	42.7	208	43500	51	242	42200	83	338	36600	165	549	29700	112000	
		21.13	35.5	131	33100	42.6	156	32700	69	245	31900	137	469	30500	85300	
RA 6003	L	43.63	17.2	108	54800	20.6	123	51800	33.2	171	44900	66	278	36500	114000	27 (H) 25 (F)
	L	52.05	14.4	94	56900	17.3	107	53800	27.9	149	46700	56	242	37900	114000	
	L	56.87	13.2	70	46500	15.8	84	46000	25.5	131	44800	51	247	42300	112000	
		66.80	11.2	75	57900	13.5	89	57300	21.7	139	55800	43.4	227	45500	135000	
		74.11	10.1	55	47600	12.1	66	47100	19.6	103	45800	39.1	196	43600	135000	
	L	79.09	9.5	55	50800	11.4	66	50200	18.3	103	48900	36.7	181	43000	114000	
	L	87.08	8.6	47.1	47600	10.3	56	47200	16.7	88	45900	33.3	169	44100	112000	
		101.50	7.4	51	60300	8.9	60	58700	14.3	94	57100	28.6	169	51600	135000	
		116.28	6.5	27.0	36500	7.7	32.1	36100	12.5	50	35100	24.9	97	33800	85300	
	L	132.30	5.7	32.1	49300	6.8	37.7	48300	11.0	59	47000	21.9	114	45200	112000	
L	157.02	4.8	27.7	50600	5.7	32.4	49200	9.2	50	47500	18.5	97	45600	112000		
RA 6004	L	142.45	5.3	28.5	46000	6.3	32.4	43500	10.2	45.2	37700	20.4	73	30600	114000	19.5 (H) 18.0 (F)
	L	168.17	4.5	28.5	54300	5.4	32.4	51400	8.6	45.2	44500	17.2	73	36200	114000	
		176.96	4.2	28.5	57100	5.1	32.4	54100	8.2	45.2	46900	16.4	73	38100	135000	
	L	200.65	3.7	28.5	64800	4.5	32.4	61300	7.2	45.2	53200	14.5	73	43200	114000	
	L	221.54	3.4	21.2	53300	4.1	24.8	51800	6.5	37.3	48400	13.1	72	46500	112000	
	L	251.80	3.0	21.8	62100	3.6	25.8	61400	5.8	40.5	59800	11.5	73	54200	114000	
	L	284.31	2.6	17.2	55300	3.2	20.1	53800	5.1	30.1	50100	10.2	57	47200	112000	
	L	314.74	2.4	15.8	56200	2.9	18.4	54700	4.6	27.6	50900	9.2	51.5	47500	112000	
		348.00	2.2	17.7	69900	2.6	21.0	69100	4.2	32.3	65800	8.3	54.3	55400	135000	
		395.45	1.9	15.7	70400	2.3	18.7	69600	3.7	28.9	67100	7.3	52.1	60400	135000	
		453.60	1.7	11.6	59400	2.0	10.0	42600	3.2	14.9	39600	6.4	36.5	48500	85300	
		515.45	1.5	10.4	60600	1.7	12.1	58900	2.8	18.1	54800	5.6	32.7	49400	112000	
	L	547.85	1.4	9.8	61100	1.6	11.5	59500	2.6	17.2	55300	5.3	31.0	49800	112000	
	L	640.17	1.2	6.1	44100	1.4	7.2	43300	2.3	11.2	42100	4.5	21.6	40500	114000	
	L	703.08	1.1	8.0	63500	1.3	9.3	61700	2.1	13.9	57400	4.1	25.1	51700	112000	
	L	797.73	0.94	5.3	47700	1.1	6.2	46400	1.8	9.2	43200	3.6	16.6	38900	85300	
	L	1009.38	0.74	5.2	59200	0.89	6.0	57500	1.4	9.4	55500	2.9	18.0	53300	112000	



# RE 8000



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
	ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
RE 8001		4.00	188	789	39200	225	897	37100	363	1252	32200	—	—	198000	77
		4.67	161	696	40300	193	790	38200	311	1104	33100	—	—	175000	(H-F)
RE 8002	L	14.50	52	329	57700	62	373	54600	100	521	47300	—	—	198000	45 (H-F)
	L	16.00	46.9	302	58500	56	343	55400	91	479	48000	—	—	198000	
		18.82	39.8	274	62400	47.8	311	59100	77	434	51200	—	—	198000	
	L	20.80	36.1	244	61400	43.3	277	58100	70	387	50300	—	—	198000	
		21.96	34.2	241	64200	41.0	274	60700	66	383	52600	—	—	175000	
	L	24.27	30.9	225	66100	37.1	256	62600	60	357	54200	—	—	175000	
	L	29.17	25.7	189	66600	30.9	224	65900	49.7	314	57300	—	—	175000	
RE 8003	L	51.66	14.5	100	60800	17.4	113	57600	28.1	158	49900	—	—	198000	33 (H-F)
	L	57.00	13.2	100	67100	15.8	113	63500	25.4	158	55100	—	—	198000	
	L	66.46	11.3	88	69200	13.5	100	65500	21.8	140	56700	—	—	198000	
	L	70.27	10.7	87	72500	12.8	100	69200	20.6	140	60000	—	—	175000	
		78.19	9.6	92	85200	11.5	110	84300	18.5	164	78500	—	—	198000	
		93.18	8.0	78	86000	9.7	93	85100	15.6	145	82700	—	—	198000	
	L	100.80	7.4	62	74000	8.9	74	73200	14.4	116	71200	—	—	175000	
		112.00	6.7	56	74400	8.0	67	73700	12.9	105	71700	—	—	175000	
	L	129.08	5.8	58	89100	7.0	68	86700	11.2	107	84400	—	—	198000	
	L	141.32	5.3	45.5	75900	6.4	54	74600	10.3	84	72600	—	—	175000	
	L	166.40	4.5	39.6	77800	5.4	46.3	75700	8.7	72	73300	—	—	175000	
RE 8004	L	185.96	4.0	41.7	89300	4.8	47.4	84600	7.8	66	73300	15.6	108	59500	26 (H-F)
	L	205.20	3.7	40.5	95600	4.4	47.3	93000	7.1	66	80900	14.1	108	65700	
	L	219.54	3.4	37.2	93900	4.1	42.2	88900	6.6	59	77000	13.2	96	62600	
	L	255.98	2.9	32.2	95000	3.5	37.3	91600	5.7	52	79400	11.3	85	64500	
	L	282.46	2.7	30.9	100000	3.2	36.0	97600	5.1	52	87600	10.3	85	71100	
	L	321.23	2.3	26.3	97300	2.8	30.9	95200	4.5	44.4	85000	9.0	72	69000	
	L	354.46	2.1	25.5	104000	2.5	29.7	101000	4.1	44.4	93800	8.2	72	76200	
		394.63	1.9	23.2	106000	2.3	27.1	103000	3.7	40.7	95500	7.3	74	86500	
		435.20	1.7	21.4	107000	2.1	25.0	104000	3.3	37.4	96900	6.7	67	87300	
		502.94	1.5	18.9	109000	1.8	22.1	106000	2.9	33.1	99100	5.8	60	89200	
		577.69	1.3	16.8	112000	1.6	19.6	109000	2.5	29.4	101000	5.0	53	91100	
		612.00	1.2	16.0	113000	1.5	18.7	110000	2.4	28.0	102000	4.7	50	91900	
		698.82	1.1	14.1	113000	1.3	16.7	112000	2.1	25.0	104000	4.1	45.1	93800	
		800.27	0.94	12.3	114000	1.1	14.7	113000	1.8	22.3	106000	3.6	40.2	95700	
	L	887.47	0.85	9.8	100000	1.0	11.5	97500	1.6	17.2	90700	3.3	30.9	81700	
		933.65	0.80	9.4	101000	1.0	11.0	98300	1.6	16.5	91400	3.1	29.6	82300	
	L	1031.68	0.73	8.5	101000	0.9	10.1	99800	1.4	15.1	92800	2.8	27.2	83600	
		1129.41	0.66	8.0	104000	0.8	9.3	101000	1.3	14.0	94100	2.6	25.2	84700	
	L	1248.00	0.60	7.1	102000	0.7	8.5	101000	1.2	12.9	95500	2.3	23.2	86000	
RE 8005	L	647.15	1.16	14.9	108000	1.4	17.4	105000	2.2	26.0	97700	4.5	42.3	79400	22 (H-F)
	L	714.10	1.05	14.4	115000	1.3	16.8	112000	2.0	25.2	104000	4.1	42.3	87600	
	L	792.79	0.95	12.5	112000	1.1	14.6	109000	1.8	22.0	101000	3.7	36.1	83100	
	L	890.81	0.84	10.3	103000	1.0	12.3	102000	1.6	19.2	99400	3.3	36.3	93700	
		991.80	0.76	10.9	121000	0.91	12.7	118000	1.5	19.1	110000	2.9	34.4	98900	
	L	1117.88	0.67	8.3	105000	0.81	9.9	103000	1.3	15.5	101000	2.6	29.5	95800	
	L	1266.57	0.59	7.4	105000	0.71	8.8	104000	1.1	13.7	101000	2.3	26.4	97000	
		1416.68	0.53	8.1	128000	0.64	9.4	125000	1.0	14.1	116000	2.0	25.4	104000	
	L	1589.42	0.47	5.4	95700	0.57	6.4	94700	0.91	10.0	92200	1.8	19.2	88600	
		1777.79	0.42	6.6	133000	0.51	7.8	129000	0.82	11.6	120000	1.6	20.9	108000	
		1993.85	0.38	6.0	135000	0.45	7.0	131000	0.73	10.5	122000	1.5	19.0	110000	
	L	2236.25	0.34	4.2	106000	0.40	5.0	104000	0.65	7.8	101000	1.3	14.5	93900	
		2510.77	0.30	5.0	140000	0.36	5.8	136000	0.58	8.7	126000	1.2	15.6	114000	
	L	2813.91	0.27	3.8	119000	0.32	4.4	116000	0.52	6.6	108000	1.0	11.9	97300	
		3164.84	0.24	3.5	124000	0.28	4.1	122000	0.46	6.4	118000	0.92	12.4	114000	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM					
ie		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]	
RA 8002		13.00 15.17	58 49.5	233 233	36000 42000	69 59	273 273	35200 41100	112 96	381 381	30500 35600	223 191	619 619	24800 28900	92200 108000	35 (H-F)
RA 8003	L	44.54	16.8	109	56600	20.2	124	53600	32.6	173	46400	65	282	37700	175000	29 (H-F)
	L	49.14	15.3	109	62400	18.3	124	59100	29.5	173	51200	59	282	41600	175000	
	L	57.33	13.1	108	71600	15.7	124	69000	25.3	173	59800	51	282	48600	175000	
	L	63.89	11.7	105	77600	14.1	124	76800	22.7	173	66600	45.4	282	54100	175000	
		67.45	11.1	92	72300	13.3	110	71600	21.5	172	69600	43.0	282	57100	175000	
	L	76.79	9.8	68	60800	11.7	81	60200	18.9	127	58600	37.8	244	56300	158000	
	L	89.58	8.4	68	71000	10.0	81	70200	16.2	127	68400	32.4	242	65200	175000	
	L	97.07	7.7	55	62300	9.3	66	61700	14.9	103	60000	29.9	196	57100	161000	
	L	113.24	6.6	55	72700	7.9	66	71900	12.8	103	70000	25.6	196	66700	175000	
RA 8004	L	151.00	5.0	49.1	83900	6.0	56	79500	9.6	78	68900	19.2	126	55900	175000	24 (H-F)
	L	166.62	4.5	49.1	92600	5.4	56	87700	8.7	78	76000	17.4	126	61700	175000	
	L	176.06	4.3	43.3	86500	5.1	49.2	81900	8.2	69	70900	16.5	112	57600	175000	
	L	194.27	3.9	43.1	94800	4.6	49.2	90300	7.5	69	78300	14.9	112	63600	175000	
	L	228.00	3.3	37.6	97100	3.9	43.9	94500	6.4	62	83500	12.7	101	67800	175000	
	L	252.19	3.0	29.0	82900	3.6	33.9	80600	5.7	51	75100	11.5	95	69900	175000	
		265.85	2.8	33.0	99400	3.4	38.5	96700	5.5	58	90000	10.9	109	84500	198000	
		280.62	2.7	31.5	100000	3.2	36.8	97500	5.2	55	90700	10.3	103	84800	198000	
		312.76	2.4	28.8	102000	2.9	33.6	99100	4.6	50	92200	9.3	93	85300	198000	
	L	361.76	2.1	21.4	87500	2.5	24.9	85100	4.0	37.4	79200	8.0	69	73700	175000	
		384.00	2.0	24.2	105000	2.3	28.2	102000	3.8	42.3	95100	7.6	77	86300	198000	
		438.48	1.7	21.6	107000	2.1	25.2	104000	3.3	37.8	97000	6.6	68	87400	198000	
		516.30	1.5	18.8	110000	1.7	21.9	107000	2.8	32.9	99500	5.6	59	89600	198000	
		602.35	1.2	13.9	94500	1.5	16.2	92000	2.4	24.2	85600	4.8	43.6	77000	175000	
	L	685.71	1.1	9.0	70200	1.3	10.5	68300	2.1	16.5	66400	4.2	31.8	63800	158000	
	L	800.00	0.94	9.0	81900	1.1	10.5	79700	1.8	16.5	77500	3.6	31.8	74500	175000	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]      P <sub>t</sub> [kW]		
		ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]			T <sub>2</sub> [Nm]
GB 12011		4.09	183	1389	70600	220	1578	66800	354	2204	57900	—	—	—	281000	102 (H-F)
		5.25	143	1132	73800	171	1286	69800	276	1795	60500	—	—	—	233000	
		6.23	120	886	68500	144	1052	67800	233	1574	63000	—	—	—	189000	
GB 12012	L	14.83	51	330	59200	61	375	56100	98	524	48600	—	—	—	226000	59 (H-F)
		16.36	45.8	403	79700	55	457	75500	89	639	65400	—	—	—	281000	
	L	19.03	39.4	330	76000	47.3	375	72000	76	524	62400	—	—	—	233000	
	L	21.00	35.7	302	76700	42.9	343	72700	69	479	63000	—	—	—	233000	
	L	22.59	33.2	270	73800	39.8	320	73000	64	502	71000	—	—	—	189000	
	L	24.92	30.1	246	74200	36.1	292	73400	58	458	71400	—	—	—	189000	
	L	27.30	27.5	244	80500	33.0	277	76200	53	387	66100	—	—	—	233000	
	L	32.40	23.1	192	75300	27.8	228	74500	44.8	357	72500	—	—	—	189000	
	L	38.94	19.3	161	76100	23.1	192	75300	37.2	301	73300	—	—	—	189000	
GB 12013	L	52.83	14.2	100	62200	17.0	113	58900	27.4	158	51000	—	—	—	212000	42 (H-F)
		58.30	12.9	137	94100	15.4	155	89100	24.9	217	77200	—	—	—	281000	
	L	61.60	12.2	88	64100	14.6	100	60700	23.5	140	52600	—	—	—	212000	
	L	67.80	11.1	100	79800	13.3	113	75600	21.4	158	65500	—	—	—	268000	
	L	79.05	9.5	88	82300	11.4	100	77900	18.3	140	67500	—	—	—	268000	
	L	87.23	8.6	88	90800	10.3	100	85900	16.6	140	74500	—	—	—	233000	
		102.62	7.3	83	100000	8.8	98	99300	14.1	154	96600	—	—	—	233000	
		112.11	6.7	88	116000	8.0	104	115000	12.9	146	100000	—	—	—	281000	
		126.00	6.0	69	102000	7.1	81	100000	11.5	127	97800	—	—	—	233000	
		143.88	5.2	62	105000	6.3	72	102000	10.1	112	98500	—	—	—	233000	
	L	158.98	4.7	56	106000	5.7	66	103000	9.1	102	99100	—	—	—	233000	
	L	170.90	4.4	41.8	84300	5.3	48.8	82000	8.5	76	79700	—	—	—	189000	
	L	198.61	3.8	36.8	86200	4.5	42.9	83900	7.3	66	80400	—	—	—	189000	
	L	222.17	3.4	33.5	87700	4.1	39.0	85300	6.5	60	80900	—	—	—	189000	
GB 12014	L	209.86	3.6	57	138000	4.3	65	131000	6.9	91	113000	13.8	147	92100	281000	33 (H-F)
		224.53	3.3	37.2	96000	4.0	42.2	90900	6.5	59	78800	12.9	96	64000	212000	
		247.76	3.0	51	145000	3.6	58	138000	5.9	81	119000	11.7	131	96800	281000	
		288.88	2.6	44.4	148000	3.1	51	142000	5.0	71	123000	10.0	116	99700	281000	
		310.91	2.4	41.4	148000	2.9	49.2	147000	4.7	69	128000	9.3	112	104000	281000	
		354.68	2.1	32.3	132000	2.5	38.4	131000	4.1	60	127000	8.2	98	104000	281000	
	L	399.00	1.9	26.6	122000	2.3	31.0	119000	3.6	46.5	110000	7.3	82	97000	233000	
		445.09	1.7	26.1	134000	2.0	31.0	132000	3.3	48.6	129000	6.5	84	111000	281000	
		495.80	1.5	22.2	127000	1.8	26.3	125000	2.9	41.3	122000	5.8	79	117000	281000	
		561.09	1.3	19.9	128000	1.6	23.2	125000	2.6	34.8	116000	5.2	63	105000	233000	
		636.27	1.2	17.9	131000	1.4	20.9	127000	2.3	31.3	118000	4.6	56	107000	233000	
		720.00	1.0	16.1	133000	1.3	18.8	130000	2.0	28.2	121000	4.0	51	109000	233000	
		803.25	0.93	14.7	136000	1.1	17.1	132000	1.8	25.7	123000	3.6	46.2	110000	233000	
		892.03	0.84	13.4	138000	1.0	15.7	134000	1.6	23.5	125000	3.3	42.3	112000	233000	
	L	998.40	0.75	9.8	113000	0.90	11.7	112000	1.5	18.3	109000	2.9	35.2	105000	233000	
		1050.35	0.71	11.7	141000	0.86	13.6	137000	1.4	20.4	128000	2.8	36.8	115000	233000	
	L	1134.89	0.66	8.4	110000	0.79	9.9	107000	1.3	15.0	102000	2.6	27.1	91000	189000	
		1270.59	0.59	9.9	145000	0.71	11.6	141000	1.1	17.4	132000	2.3	31.3	118000	233000	
L	1415.12	0.53	7.1	116000	0.64	8.3	113000	1.0	12.5	105000	2.0	22.5	95000	189000		
	1507.95	0.50	6.8	117000	0.60	7.9	114000	1.0	11.8	106000	1.9	21.3	96000	189000		
GB 12015	L	661.86	1.13	14.9	111000	1.36	17.4	108000	2.2	26.0	100000	4.4	42.3	81000	212000	27 (H-F)
		730.33	1.03	19.9	163000	1.23	23.3	159000	2.0	35.4	150000	4.0	63.2	134000	281000	
		894.68	0.84	16.8	168000	1.01	19.6	164000	1.6	29.3	152000	3.2	54.8	142000	281000	
		1005.31	0.75	15.0	169000	0.90	17.7	167000	1.4	26.6	155000	2.9	49.7	145000	281000	
		1148.18	0.65	11.1	143000	0.78	13.0	139000	1.3	19.4	130000	2.5	35.0	117000	233000	
		1257.78	0.60	12.6	177000	0.72	14.7	172000	1.2	22.0	160000	2.3	40.7	149000	281000	
		1411.73	0.53	10.9	172000	0.64	12.9	170000	1.03	19.9	163000	2.1	36.5	150000	281000	
	L	1580.48	0.47	8.5	150000	0.57	9.9	146000	0.92	14.8	136000	1.8	26.7	122000	233000	
		1783.84	0.42	8.6	172000	0.50	10.2	170000	0.81	16.0	165000	1.6	29.4	152000	281000	
		2001.18	0.37	6.9	156000	0.45	8.1	151000	0.72	12.1	141000	1.4	21.8	127000	233000	
		2238.55	0.34	7.7	193000	0.40	9.0	188000	0.65	13.5	175000	1.3	24.3	158000	281000	
		2516.27	0.30	5.7	161000	0.36	6.7	157000	0.58	10.0	146000	1.2	18.0	131000	233000	
		2814.15	0.27	5.2	164000	0.32	6.1	159000	0.52	9.1	148000	1.0	16.4	134000	233000	
		3157.67	0.24	4.7	167000	0.29	5.5	162000	0.46	8.2	151000	0.92	14.8	136000	233000	
	L	3544.35	0.21	3.4	133000	0.25	3.9	130000	0.41	5.9	121000	0.82	10.6	109000	189000	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
	ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GBA 12013	L 45.55	16.5	109	57900	19.8	124	54800	31.8	173	47500	64	282	38600	180000	36 (H-F)
	L 50.26	14.9	109	63900	17.9	124	60500	28.9	173	52400	58	282	42600	198000	
	L 58.45	12.8	109	74300	15.4	124	70300	24.8	173	60900	49.6	282	49500	230000	
	L 64.50	11.6	109	82000	14.0	124	77600	22.5	173	67200	45.0	282	54600	233000	
	L 69.37	10.8	98	78600	13.0	116	77800	20.9	173	72300	41.8	282	58700	189000	
	L 75.88	9.9	109	96400	11.9	124	91300	19.1	173	79100	38.2	282	64300	233000	
	L 83.85	8.9	102	99200	10.7	121	98200	17.3	173	87400	34.6	282	71000	233000	
	L 90.06	8.3	76	79800	10.0	91	79000	16.1	142	76900	32.2	273	73900	189000	
	L 99.51	7.5	69	80300	9.0	82	79400	14.6	129	77300	29.1	248	74300	189000	
	L 116.31	6.4	55	74700	7.7	66	73900	12.5	103	71900	24.9	196	68500	189000	
	L 127.40	5.9	55	81800	7.1	66	80900	11.4	103	78800	22.8	196	75000	211000	
	L 136.83	5.5	51	81800	6.6	61	80900	10.6	96	78700	21.2	184	75700	189000	
GBA 12014	L 154.43	4.9	49.1	85800	5.8	56	81300	9.4	78	70400	18.8	126	57200	200000	30 (H-F)
	L 170.40	4.4	67	130000	5.3	76	123000	8.5	107	107000	17.0	173	86500	261000	
	L 198.69	3.8	59	134000	4.5	68	127000	7.3	94	110000	14.6	153	89100	261000	
	L 218.68	3.4	44.9	111000	4.1	52	108000	6.6	78	99700	13.3	126	81000	233000	
	L 254.98	2.9	39.4	114000	3.5	46.1	111000	5.7	69	103000	11.4	112	83500	233000	
	L 286.99	2.6	37.7	123000	3.1	44.8	121000	5.1	70	118000	10.1	130	109000	261000	
	L 313.06	2.4	32.3	115000	2.9	38.4	113000	4.6	58	106000	9.3	95	86800	233000	
	L 348.92	2.1	30.2	120000	2.6	35.3	116000	4.2	53	108000	8.3	90	91700	233000	
	L 392.73	1.9	28.1	125000	2.3	33.3	124000	3.7	52	120000	7.4	100	116000	261000	
	L 448.44	1.7	24.8	126000	2.0	29.4	125000	3.2	46.1	121000	6.5	89	116000	261000	
	L 504.00	1.5	22.1	126000	1.8	25.8	123000	2.9	38.7	114000	5.8	70	103000	233000	
	L 575.50	1.3	19.8	129000	1.6	23.1	125000	2.5	34.6	117000	5.0	62	105000	233000	
	L 635.93	1.2	16.0	115000	1.4	18.9	113000	2.3	29.6	110000	4.6	57	106000	233000	
	L 677.65	1.1	11.7	106000	1.3	20.1	129000	2.1	30.1	120000	4.3	54	108000	233000	
	L 794.42	0.94	17.2	132000	1.1	13.8	103000	1.8	20.7	96300	3.7	37.2	86700	189000	
	L 888.69	0.84	10.7	108000	1.0	12.5	105000	1.6	18.8	97900	3.3	33.9	88200	189000	
GBA 12015	L 584.62	1.3	24.4	158000	1.5	28.5	154000	2.5	44.3	148000	5.0	75	125000	261000	25 (H-F)
	L 625.47	1.2	15.9	110000	1.4	18.5	107000	2.3	27.8	99300	4.6	48.7	87000	200000	
	L 690.18	1.1	21.2	162000	1.3	24.8	157000	2.1	37.9	149000	4.2	67	132000	261000	
	L 804.74	0.93	18.6	166000	1.1	21.8	161000	1.8	32.8	151000	3.6	59	136000	261000	
	L 885.73	0.85	14.1	138000	1.0	16.4	134000	1.6	24.6	125000	3.3	44.3	112000	232000	
	L 991.02	0.76	15.6	171000	0.91	18.2	166000	1.5	27.3	155000	2.9	51.8	147000	261000	
	L 1124.31	0.67	11.2	139000	0.80	13.3	137000	1.3	20.0	128000	2.6	38.2	123000	261000	
	L 1243.64	0.60	12.9	177000	0.72	15.0	172000	1.2	22.5	160000	2.3	41.8	149000	261000	
	L 1413.82	0.53	9.4	147000	0.64	11.0	143000	1.0	16.5	133000	2.1	30.8	124000	261000	
	L 1591.20	0.47	8.6	150000	0.57	10.0	146000	0.91	15.0	136000	1.8	27.0	123000	233000	
	L 1780.36	0.42	7.4	145000	0.51	8.7	143000	0.81	13.7	139000	1.6	26.3	134000	261000	
	L 1983.18	0.38	7.1	155000	0.45	8.2	150000	0.73	12.4	140000	1.5	22.4	127000	261000	
	L 2237.63	0.34	5.1	126000	0.40	6.1	125000	0.65	9.5	121000	1.3	18.3	117000	189000	
	L 2342.31	0.32	5.6	145000	0.38	6.6	143000	0.62	10.4	139000	1.2	19.3	129000	262000	
	L 2516.97	0.30	5.6	157000	0.36	6.7	155000	0.58	10.1	146000	1.2	18.3	131000	233000	
	L 2816.20	0.27	4.0	125000	0.32	4.8	123000	0.51	7.5	120000	1.0	14.4	115000	261000	
	L 3161.48	0.24	3.7	129000	0.28	4.3	125000	0.46	6.5	117000	0.92	11.7	106000	189000	



		n <sub>1</sub> = <b>750</b> RPM			n <sub>1</sub> = <b>900</b> RPM			n <sub>1</sub> = <b>1450</b> RPM			n <sub>1</sub> = <b>2900</b> RPM					
		ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
GB 16001		3.83	196	1956	93100	235	2222	88100	378	3103	76400	—	—	—	345000	109
		4.40	170	1746	95400	205	1983	90300	330	2770	78300	—	—	—	357000	(H-F)
GB 16002	L	14.72	51	616	110000	61	700	104000	99	977	90100	—	—	—	345000	66 (H-F)
		16.90	44.4	462	94600	53	525	89500	86	733	77600	—	—	—	357000	
	L	18.16	41.3	389	85500	49.6	442	81000	80	617	70200	—	—	—	306000	
	L	20.84	36.0	389	98200	43.2	442	93000	70	617	80600	—	—	—	357000	
		22.78	32.9	482	133000	39.5	548	126000	64	765	109000	—	—	—	357000	
	L	23.93	31.3	348	101000	37.6	396	95500	61	552	82800	—	—	—	282000	
GB 16003		50.47	14.9	233	139000	17.8	265	132000	28.7	370	114000	—	—	—	345000	48 (H-F)
		57.93	12.9	217	149000	15.5	258	147000	25.0	370	131000	—	—	—	357000	
	L	64.69	11.6	137	104000	13.9	155	98900	22.4	217	85700	—	—	—	306000	
		69.12	10.9	184	150000	13.0	218	149000	21.0	322	136000	—	—	—	357000	
		78.09	9.6	164	151000	11.5	195	150000	18.6	305	146000	—	—	—	357000	
		88.70	8.5	145	152000	10.1	173	151000	16.3	263	142000	—	—	—	357000	
	L	106.29	7.1	102	128000	8.5	116	122000	13.6	162	105000	—	—	—	357000	
		123.64	6.1	98	142000	7.3	116	141000	11.7	182	137000	—	—	—	345000	
		141.91	5.3	95	159000	6.3	111	155000	10.2	174	151000	—	—	—	357000	
	L	164.06	4.6	59	114000	5.5	70	113000	8.8	110	110000	—	—	—	282000	
GB 16004		181.69	4.1	82	172000	5.0	93	162000	8.0	130	141000	16.0	211	114000	345000	37 (H-F)
		208.54	3.6	70	168000	4.3	82	163000	7.0	124	154000	13.9	211	131000	357000	
	L	222.87	3.4	51	131000	4.0	58	124000	6.5	81	107000	13.0	131	87100	345000	
		255.93	2.9	68	201000	3.5	80	195000	5.7	114	174000	11.3	185	141000	345000	
		281.13	2.7	52	170000	3.2	62	168000	5.2	95	159000	10.3	180	150000	357000	
		319.33	2.3	49.0	179000	2.8	57	174000	4.5	85	162000	9.1	160	152000	357000	
		359.16	2.1	41.0	169000	2.5	48.6	167000	4.0	76	163000	8.1	137	147000	357000	
	L	396.00	1.9	33.2	151000	2.3	39.4	150000	3.7	62	146000	7.3	112	132000	350000	
	L	451.75	1.7	29.4	153000	2.0	34.8	151000	3.2	55	147000	6.4	98	132000	357000	
		496.94	1.5	30.6	176000	1.8	36.5	174000	2.9	57	169000	5.8	106	156000	357000	
		561.47	1.3	25.2	163000	1.6	30.0	162000	2.6	47.0	157000	5.2	90	151000	357000	
		637.74	1.2	24.4	178000	1.4	28.8	176000	2.3	45.1	171000	4.5	85	162000	357000	
		698.82	1.1	22.3	180000	1.3	26.4	177000	2.1	41.4	172000	4.1	79	164000	357000	
	L	797.21	0.94	18.1	166000	1.1	21.2	162000	1.8	31.9	152000	3.6	61	146000	357000	
		896.82	0.84	18.1	187000	1.0	21.1	182000	1.6	32.7	175000	3.2	63	168000	357000	
		1064.36	0.70	15.6	192000	0.85	18.3	187000	1.4	27.8	177000	2.7	54	170000	357000	
	L	1241.76	0.60	8.3	118000	0.72	9.6	115000	1.2	14.5	107000	2.3	27.8	103000	247000	
GB 16005		632.27	1.2	29.3	208000	1.4	33.3	197000	2.3	46.4	171000	4.6	76	139000	345000	31 (H-F)
		725.74	1.0	25.0	203000	1.2	29.1	197000	2.0	43.5	184000	4.0	76	159000	357000	
	L	804.82	0.93	18.9	171000	1.1	22.5	169000	1.8	33.7	158000	3.6	55	128000	345000	
		890.63	0.84	23.6	236000	1.0	27.6	230000	1.6	41.3	214000	3.3	76	195000	345000	
		978.32	0.77	17.2	189000	0.92	20.1	184000	1.5	31.0	176000	3.0	59	169000	357000	
		1117.65	0.67	17.8	223000	0.81	21.2	221000	1.3	33.1	215000	2.6	63	204000	345000	
		1252.35	0.60	15.6	220000	0.72	18.3	214000	1.2	27.4	199000	2.3	49.4	180000	357000	
		1414.88	0.53	12.6	200000	0.64	14.7	195000	1.0	22.0	181000	2.0	42.0	172000	357000	
	L	1595.75	0.47	10.1	180000	0.56	11.8	177000	0.91	18.6	172000	1.8	35.7	165000	357000	
		1782.44	0.42	11.0	221000	0.50	13.1	219000	0.81	20.3	210000	1.6	36.6	189000	357000	
		2003.10	0.37	8.6	193000	0.45	10.2	191000	0.72	16.0	186000	1.4	30.7	179000	345000	
		2224.48	0.34	8.6	214000	0.40	10.2	212000	0.65	16.0	206000	1.3	30.4	196000	357000	
	L	2510.41	0.30	6.8	193000	0.36	8.0	188000	0.58	12.1	176000	1.2	23.3	170000	357000	
	L	2809.54	0.27	6.1	190000	0.32	7.0	185000	0.52	11.0	180000	1.0	20.1	164000	357000	
		3172.87	0.24	6.7	240000	0.28	7.9	234000	0.46	12.0	221000	0.91	22.5	207000	357000	



		n <sub>1</sub> = <b>750</b> RPM			n <sub>1</sub> = <b>900</b> RPM			n <sub>1</sub> = <b>1450</b> RPM			n <sub>1</sub> = <b>2900</b> RPM					
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]	
GBA 16003	L	47.84	15.7	211	117000	18.8	240	111000	30.3	335	96300	61	544	78200	338000	42 (H-F)
	L	54.91	13.7	211	135000	16.4	240	127000	26.4	335	111000	53	544	89800	356000	
		64.49	11.6	183	137000	14.0	217	136000	22.5	341	132000	45.0	568	110000	338000	
		74.02	10.1	175	151000	12.2	208	149000	19.6	326	145000	39.2	568	126000	356000	
	L	77.76	9.6	121	110000	11.6	144	109000	18.6	226	106000	37.3	410	95700	282000	
	L	92.40	8.1	89	95600	9.7	106	95000	15.7	166	92000	31.4	319	88500	247000	
GBA 16004		155.01	4.8	106	186000	5.8	124	181000	9.4	176	160000	18.7	285	130000	338000	35 (H-F)
		184.96	4.1	91	191000	4.9	106	186000	7.8	153	166000	15.7	248	135000	338000	
		212.30	3.5	70	169000	4.2	82	164000	6.8	124	154000	13.7	238	148000	356000	
	L	220.47	3.4	51	128000	4.1	61	127000	6.6	94	122000	13.2	153	98900	306000	
		249.33	3.0	52	148000	3.6	62	147000	5.8	98	143000	11.6	188	137000	338000	
		281.02	2.7	57	180000	3.2	67	179000	5.2	105	174000	10.3	185	153000	338000	
		317.49	2.4	41.8	150000	2.8	49.6	149000	4.6	78	145000	9.1	149	139000	338000	
		360.64	2.1	43.5	178000	2.5	52	176000	4.0	81	171000	8.0	151	160000	338000	
		413.95	1.8	39.7	186000	2.2	46.4	181000	3.5	70	169000	7.0	127	154000	356000	
		435.88	1.7	35.3	174000	2.1	41.9	172000	3.3	66	168000	6.7	121	154000	356000	
		491.28	1.5	29.1	162000	1.8	34.6	160000	3.0	54	156000	5.9	104	150000	356000	
		558.02	1.3	27.9	177000	1.6	33.2	175000	2.6	52	170000	5.2	97	159000	356000	
	662.27	1.1	23.8	178000	1.4	28.2	177000	2.2	44.3	172000	4.4	84	163000	356000		
GBA 16005		506.13	1.5	29.2	163000	1.8	33.2	155000	2.9	46.4	134000	5.7	75	109000	338000	27 (H-F)
		580.95	1.3	29.2	188000	1.5	33.2	178000	2.5	46.4	154000	5.0	75	125000	356000	
	L	620.85	1.2	24.6	168000	1.4	29.2	167000	2.3	41.1	146000	4.7	67	118000	338000	
		712.94	1.1	29.0	229000	1.3	33.2	218000	2.0	46.4	189000	4.1	75	153000	338000	
		783.14	0.96	21.2	183000	1.1	24.7	178000	1.9	38.8	173000	3.7	75	167000	356000	
		894.67	0.84	22.3	221000	1.0	26.5	218000	1.6	41.5	212000	3.2	75	193000	338000	
		995.33	0.75	19.4	213000	0.90	22.6	207000	1.5	33.9	193000	2.9	55.7	158000	356000	
		1124.51	0.67	15.6	193000	0.80	18.2	188000	1.3	27.6	177000	2.6	53.0	170000	356000	
	L	1258.45	0.60	12.8	178000	0.72	15.0	173000	1.2	22.4	161000	2.3	41.6	150000	356000	
		1415.70	0.53	12.8	200000	0.64	14.9	195000	1.0	22.4	181000	2.0	42.6	172000	356000	
	L	1584.00	0.47	10.5	185000	0.57	12.3	180000	0.92	18.5	167000	1.8	33.5	152000	356000	
		1776.56	0.42	10.6	207000	0.51	12.3	202000	0.82	18.5	188000	1.6	34.4	175000	356000	
		1987.76	0.38	9.6	211000	0.45	11.2	205000	0.73	16.8	191000	1.5	31.0	176000	356000	
		2245.87	0.33	7.1	177000	0.40	8.5	175000	0.65	13.3	170000	1.3	25.5	164000	356000	
		2498.29	0.30	7.9	218000	0.36	9.2	212000	0.58	13.8	197000	1.2	25.0	178000	356000	
		2795.29	0.27	7.2	222000	0.32	8.4	216000	0.52	12.6	201000	1.0	22.6	181000	356000	
		3158.25	0.24	5.3	185000	0.28	6.2	180000	0.46	9.6	174000	0.92	18.5	167000	356000	
	L	3544.35	0.21	3.5	137000	0.25	4.1	135000	0.41	6.5	131000	0.82	12.5	126000	338000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GB 21001	3.68	204	2071	94600	245	2353	89600	394	3285	77600	—	—	—	406000	133 (H-F)
	4.94	152	1627	99800	182	1848	94500	293	2581	81900	—	—	—	361000	
	5.79*	129	1111	77426	155	1262	73305	250	1763	63533	—	—	—	215000	
GB 21002	15.25	49.2	591	109000	59	672	103000	95	938	89500	—	—	—	406000	78 (H-F)
	20.47	36.6	565	140000	44.0	671	138000	71	938	120000	—	—	—	361000	
	23.92	31.4	393	114000	37.6	464	112000	61	648	97100	—	—	—	314000	
	26.68	28.1	440	142000	33.7	522	141000	54	759	127000	—	—	—	361000	
	32.12	23.4	369	144000	28.0	439	142000	45.1	648	130000	—	—	—	361000	
GB 21003	58.44	12.8	237	163000	15.4	269	155000	24.8	375	134000	—	—	—	406000	56 (H-F)
	80.04	9.4	190	179000	11.2	216	170000	18.1	301	147000	—	—	—	406000	
	91.69	8.2	114	123000	9.8	135	122000	15.8	211	118000	—	—	—	314000	
	102.28	7.3	127	153000	8.8	151	152000	14.2	237	148000	—	—	—	361000	
	107.47	7.0	121	154000	8.4	144	152000	13.5	226	148000	—	—	—	361000	
	123.12	6.1	107	155000	7.3	127	153000	11.8	199	149000	—	—	—	361000	
	140.08	5.4	94	156000	6.4	112	155000	10.4	176	150000	—	—	—	361000	
GB 21004	233.77	3.2	79	212000	3.8	94	210000	6.2	146	203000	12.4	237	165000	406000	44 (H-F)
	265.65	2.8	70	214000	3.4	83	212000	5.5	130	206000	10.9	217	171000	406000	
	313.88	2.4	48.8	176000	2.9	57	171000	4.6	85	160000	9.2	162	151000	361000	
	356.68	2.1	43.8	180000	2.5	51	175000	4.1	77	163000	8.1	144	153000	361000	
	409.13	1.8	39.0	183000	2.2	45.5	178000	3.5	68	166000	7.1	126	154000	361000	
	464.92	1.6	35.0	187000	1.9	40.8	182000	3.1	61	169000	6.2	112	155000	361000	
	502.32	1.5	23.4	135000	1.8	27.8	134000	2.9	43.6	130000	5.8	84	125000	314000	
	560.33	1.3	29.8	192000	1.6	34.8	187000	2.6	52	174000	5.2	94	157000	361000	
	636.74	1.2	26.8	196000	1.4	31.3	191000	2.3	46.8	178000	4.6	84	160000	361000	
	766.44	0.98	20.9	184000	1.2	24.7	181000	1.9	38.7	176000	3.8	72	164000	361000	
GB 21005	841.56	0.89	26.6	251000	1.1	31.0	244000	1.7	46.5	227000	3.4	87	212000	406000	36 (H-F)
	993.51	0.75	23.1	257000	0.91	27.0	250000	1.5	40.4	233000	2.9	74	214000	406000	
	1128.99	0.66	20.7	262000	0.80	24.2	255000	1.3	36.2	237000	2.6	66	215000	406000	
	1246.76	0.60	19.0	266000	0.72	22.2	259000	1.2	33.3	241000	2.3	60	217000	406000	
	1416.77	0.53	17.1	272000	0.64	19.9	264000	1.0	29.9	246000	2.0	54	221000	406000	
	1625.09	0.46	11.9	218000	0.55	13.9	212000	0.89	20.9	197000	1.8	37.8	178000	406000	
	1773.58	0.42	11.1	221000	0.51	12.9	215000	0.82	19.4	200000	1.6	34.9	180000	406000	
	1992.34	0.38	12.8	286000	0.45	14.9	278000	0.73	22.4	259000	1.5	40.3	233000	406000	
	2255.67	0.33	10.5	266000	0.40	12.5	263000	0.64	19.5	256000	1.3	36.3	237000	406000	
	2536.60	0.30	8.5	242000	0.35	9.9	235000	0.57	14.9	219000	1.1	26.8	197000	361000	
	2882.50	0.26	7.6	247000	0.31	8.9	240000	0.50	13.3	223000	1.0	24.0	201000	361000	
	3129.84	0.24	6.8	240000	0.29	8.0	234000	0.46	12.0	218000	0.93	21.6	196000	406000	

\* GB 18001



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GBA 21003	49.55	15.1	239	137000	18.2	280	134000	29.3	391	116000	59	634	94500	351000	49 (H-F)
	66.53	11.3	194	150000	13.5	230	148000	21.8	360	144000	43.6	634	127000	361000	
	77.74	9.6	135	122000	11.6	160	120000	18.7	251	117000	37.3	481	112000	314000	
	86.72	8.6	151	152000	10.4	179	150000	16.7	281	146000	33.4	540	141000	361000	
	104.38	7.2	127	154000	8.6	150	152000	13.9	236	148000	27.8	453	142000	361000	
GBA 21004	179.50	4.2	103	209000	5.0	122	207000	8.1	178	187000	16.2	289	152000	351000	40 (H-F)
	233.97	3.2	65	172000	3.8	77	170000	6.2	121	166000	12.4	233	159000	351000	
	245.84	3.1	77	213000	3.7	91	211000	5.9	142	205000	11.8	232	167000	351000	
	272.73	2.7	57	175000	3.3	67	173000	5.3	105	169000	10.6	201	161000	351000	
	314.15	2.4	49.5	176000	2.9	58	171000	4.6	87	160000	9.2	164	151000	361000	
	355.49	2.1	43.8	176000	2.5	52	175000	4.1	82	170000	8.2	157	163000	351000	
	385.71	1.9	30.5	133000	2.4	48.8	174000	3.8	74	164000	7.5	109	123000	314000	
	430.25	1.7	37.9	185000	2.1	44.3	180000	3.4	66	167000	6.7	122	154000	361000	
	501.53	1.5	33.3	189000	1.8	38.9	184000	2.9	58	171000	5.8	106	156000	361000	
	574.55	1.3	27.7	180000	1.6	32.9	178000	2.5	52	174000	5.0	93	157000	361000	
	653.72	1.1	26.6	197000	1.4	31.0	192000	2.2	46.5	178000	4.4	84	161000	361000	
	786.88	1.0	20.7	185000	1.1	24.4	182000	1.8	38.3	177000	3.7	72	165000	361000	
GBA 21005	651.21	1.2	29.2	210000	1.4	33.2	199000	2.2	46.4	173000	4.5	75	140000	351000	32 (H-F)
	740.01	1.0	29.2	239000	1.2	33.2	226000	2.0	46.4	196000	3.9	75	159000	351000	
	891.87	0.84	25.6	252000	1.0	30.0	246000	1.6	45.0	229000	3.3	75	192000	351000	
	993.62	0.75	19.1	210000	0.91	22.3	204000	1.5	33.4	190000	2.9	60	171000	361000	
	1139.72	0.66	17.0	214000	0.79	19.9	208000	1.3	29.8	194000	2.5	54	175000	361000	
	1255.53	0.60	15.7	217000	0.72	18.3	211000	1.2	27.4	197000	2.3	49.4	177000	361000	
	1426.74	0.53	14.1	222000	0.63	16.4	216000	1.0	24.6	201000	2.0	44.3	181000	361000	
	1560.92	0.48	13.0	225000	0.58	15.2	219000	0.93	22.8	203000	1.9	41.1	183000	361000	
	1773.77	0.42	11.7	229000	0.51	13.6	223000	0.82	20.5	207000	1.6	36.8	187000	361000	
	1969.88	0.38	9.8	212000	0.46	11.4	206000	0.74	17.1	192000	1.5	31.8	179000	361000	
	2241.32	0.33	9.6	237000	0.40	11.2	231000	0.65	16.8	215000	1.3	30.2	193000	361000	
	2546.95	0.29	8.6	242000	0.35	10.0	235000	0.57	15.0	219000	1.1	27.1	197000	361000	
	3065.78	0.24	6.7	227000	0.29	7.8	221000	0.47	11.7	205000	0.95	21.1	185000	361000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GB 26001	3.68	204	2405	110000	245	2733	104000	394	3816	90200	—	—	—	540000	136 (H-F)
	4.94	152	1890	116000	182	2147	110000	293	2998	95100	—	—	—	414000	
GB 26002	14.72	51	810	144000	61	920	137000	99	1284	118000	—	—	—	540000	85 (H-F)
	17.17	43.7	714	148000	52	811	140000	84	1132	122000	—	—	—	540000	
	19.76	37.9	670	160000	45.5	796	159000	73	1165	144000	—	—	—	414000	
	23.06	32.5	580	162000	39.0	688	160000	63	1046	151000	—	—	—	414000	
GB 26003	58.88	12.7	315	219000	15.3	357	207000	24.6	499	179000	—	—	—	540000	61 (H-F)
	69.27	10.8	281	230000	13.0	319	217000	20.9	445	188000	—	—	—	540000	
	80.82	9.3	244	233000	11.1	281	224000	17.9	393	194000	—	—	—	540000	
	92.24	8.1	161	175000	9.8	191	173000	15.7	300	169000	—	—	—	414000	
	108.51	6.9	138	177000	8.3	164	175000	13.4	257	170000	—	—	—	414000	
GB 26004	209.76	3.6	110	264000	4.3	128	257000	6.9	192	239000	13.8	342	213000	540000	48 (H-F)
	246.78	3.0	95	271000	3.6	111	264000	5.9	167	245000	11.8	305	224000	540000	
	287.74	2.6	84	277000	3.1	98	270000	5.0	147	251000	10.1	271	232000	540000	
	328.40	2.3	54	204000	2.7	63	198000	4.4	94	184000	8.8	178	174000	414000	
	353.28	2.1	70	286000	2.5	82	278000	4.1	123	259000	8.2	223	234000	540000	
	400.04	1.9	59	273000	2.2	71	271000	3.6	111	263000	7.2	200	238000	540000	
	450.74	1.7	41.2	214000	2.0	48.1	208000	3.2	72	194000	6.4	132	177000	414000	
	554.16	1.4	44.2	282000	1.6	52	276000	2.6	81	268000	5.2	151	250000	540000	
	631.92	1.2	30.9	225000	1.4	36.1	219000	2.3	54	204000	4.6	98	183000	414000	
	744.08	1.0	26.9	231000	1.2	31.4	224000	1.9	47.1	209000	3.9	85	188000	414000	
GB 26005	755.14	0.99	37.9	321000	1.2	44.2	312000	1.9	66	290000	3.8	119	262000	540000	40 (H-F)
	891.48	0.84	32.9	329000	1.0	38.4	320000	1.6	58	298000	3.3	104	268000	540000	
	1013.93	0.74	21.2	242000	0.89	24.8	235000	1.4	37.2	219000	2.9	67	197000	414000	
	1118.72	0.67	27.1	341000	0.80	31.7	331000	1.3	47.5	308000	2.6	86	278000	540000	
	1261.21	0.59	22.6	319000	0.71	26.4	311000	1.1	39.5	289000	2.3	74	270000	540000	
	1426.71	0.53	20.3	325000	0.63	23.7	317000	1.0	35.6	295000	2.0	66	272000	540000	
	1601.54	0.47	20.0	360000	0.56	23.4	350000	0.91	35.0	325000	1.8	63	293000	540000	
	1783.98	0.42	18.3	366000	0.50	21.3	356000	0.81	32.0	331000	1.6	58	298000	540000	
	1994.99	0.38	15.3	342000	0.45	17.9	333000	0.73	26.8	310000	1.5	48.2	279000	540000	
	2252.16	0.33	15.0	379000	0.40	17.5	368000	0.64	26.2	343000	1.3	47.2	309000	540000	
	2503.24	0.30	12.7	356000	0.36	15.0	352000	0.58	23.6	342000	1.2	43.2	314000	540000	
	2854.49	0.26	8.8	283000	0.32	10.3	275000	0.51	15.4	256000	1.0	27.8	230000	414000	
	3091.20	0.24	10.5	366000	0.29	12.3	356000	0.47	18.5	331000	0.94	33.2	298000	540000	
	3532.80	0.21	9.4	373000	0.25	11.0	363000	0.41	16.5	338000	0.82	29.7	304000	540000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GBA 26003</b>	<b>55.81</b>	13.4	<b>239</b>	155000	16.1	<b>280</b>	151000	26.0	<b>391</b>	131000	52	<b>634</b>	106000	396000	49 (H-F)
	<b>64.24</b>	11.7	<b>230</b>	172000	14.0	<b>273</b>	170000	22.6	<b>391</b>	151000	45.1	<b>634</b>	122000	414000	
	<b>74.94</b>	10.0	<b>199</b>	173000	12.0	<b>236</b>	171000	19.3	<b>370</b>	167000	38.7	<b>634</b>	143000	414000	
<b>GBA 26004</b>	<b>180.85</b>	4.1	<b>112</b>	230000	5.0	<b>127</b>	218000	8.0	<b>178</b>	189000	16.0	<b>289</b>	153000	540000	42 (H-F)
	<b>212.76</b>	3.5	<b>110</b>	265000	4.2	<b>127</b>	256000	6.8	<b>178</b>	222000	13.6	<b>289</b>	180000	540000	
	<b>248.22</b>	3.0	<b>95</b>	266000	3.6	<b>112</b>	263000	5.8	<b>169</b>	245000	11.7	<b>289</b>	210000	540000	
	<b>285.67</b>	2.6	<b>62</b>	200000	3.2	<b>72</b>	194000	5.1	<b>108</b>	181000	10.2	<b>207</b>	173000	414000	
	<b>320.57</b>	2.3	<b>57</b>	206000	2.8	<b>67</b>	204000	4.5	<b>105</b>	198000	9.0	<b>201</b>	189000	540000	
	<b>368.94</b>	2.0	<b>50</b>	207000	2.4	<b>58</b>	202000	3.9	<b>87</b>	188000	7.9	<b>162</b>	175000	414000	
	<b>434.05</b>	1.7	<b>43.2</b>	213000	2.1	<b>50</b>	207000	3.3	<b>76</b>	192000	6.7	<b>139</b>	177000	414000	
	<b>506.39</b>	1.5	<b>37.9</b>	218000	1.8	<b>44.3</b>	212000	2.9	<b>66</b>	197000	5.7	<b>120</b>	179000	414000	
<b>GBA 26005</b>	<b>613.14</b>	1.2	<b>45.9</b>	311000	1.5	<b>54</b>	303000	2.4	<b>80</b>	281000	4.7	<b>145</b>	253000	540000	36 (H-F)
	<b>714.92</b>	1.0	<b>40.3</b>	318000	1.3	<b>47.0</b>	310000	2.0	<b>71</b>	288000	4.1	<b>127</b>	259000	540000	
	<b>834.08</b>	0.90	<b>32.6</b>	300000	1.1	<b>38.0</b>	292000	1.7	<b>58</b>	275000	3.5	<b>111</b>	264000	540000	
	<b>877.76</b>	0.85	<b>33.9</b>	328000	1.0	<b>39.5</b>	319000	1.7	<b>59</b>	297000	3.3	<b>107</b>	268000	540000	
	<b>987.11</b>	0.76	<b>30.7</b>	334000	0.91	<b>35.8</b>	325000	1.5	<b>54</b>	303000	2.9	<b>97</b>	272000	540000	
	<b>1119.92</b>	0.67	<b>19.8</b>	245000	0.80	<b>23.2</b>	239000	1.3	<b>34.7</b>	222000	2.6	<b>62</b>	200000	414000	
	<b>1201.15</b>	0.62	<b>25.9</b>	344000	0.75	<b>30.3</b>	335000	1.2	<b>45.4</b>	312000	2.4	<b>82</b>	281000	540000	
	<b>1413.12</b>	0.53	<b>22.6</b>	353000	0.64	<b>26.4</b>	343000	1.0	<b>39.6</b>	319000	2.1	<b>71</b>	288000	540000	
	<b>1600.15</b>	0.47	<b>18.7</b>	331000	0.56	<b>21.9</b>	322000	0.91	<b>32.8</b>	300000	1.8	<b>60</b>	274000	540000	
	<b>1802.97</b>	0.42	<b>13.2</b>	264000	0.50	<b>15.5</b>	257000	0.80	<b>23.2</b>	239000	1.6	<b>41.7</b>	215000	414000	
	<b>1899.99</b>	0.39	<b>17.6</b>	369000	0.47	<b>20.5</b>	359000	0.76	<b>30.8</b>	334000	1.5	<b>55</b>	301000	540000	
	<b>2216.66</b>	0.34	<b>14.2</b>	348000	0.41	<b>16.6</b>	338000	0.65	<b>24.9</b>	315000	1.3	<b>44.8</b>	283000	540000	
	<b>2527.69</b>	0.30	<b>9.9</b>	278000	0.36	<b>11.6</b>	270000	0.57	<b>17.4</b>	251000	1.1	<b>31.3</b>	226000	414000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GB 31001	3.43	219	3309	141000	263	3760	133000	—	—	—	—	—	—	549000	214 (H-F)
	4.09	183	2891	147000	220	3285	139000	—	—	—	—	—	—	650000	
	5.25	143	2357	154000	171	2678	145000	—	—	—	—	—	—	526000	
	6.23	120	1968	152000	144	2338	151000	—	—	—	—	—	—	420000	
GB 31002	14.03	53	1266	215000	64	1438	204000	103	2008	176000	—	—	—	549000	125 (H-F)
	18.00	41.7	1015	221000	50	1205	219000	81	1687	190000	—	—	—	549000	
	21.48	34.9	929	242000	41.9	1055	229000	68	1474	198000	—	—	—	650000	
	25.49	29.4	824	254000	35.3	936	241000	57	1307	209000	—	—	—	650000	
	32.71	22.9	536	212000	27.5	636	210000	44.3	998	204000	—	—	—	526000	
	38.82	19.3	360	169000	23.2	427	167000	37.3	670	163000	—	—	—	420000	
GB 31003	56.10	13.4	356	236000	16.0	423	233000	25.8	655	224000	—	—	—	549000	89 (H-F)
	66.94	11.2	363	287000	13.4	431	284000	21.7	655	268000	—	—	—	650000	
	78.76	9.5	311	289000	11.4	370	286000	18.4	573	276000	—	—	—	650000	
	85.91	8.7	221	224000	10.5	263	222000	16.9	412	216000	—	—	—	526000	
	101.07	7.4	251	299000	8.9	292	291000	14.3	458	283000	—	—	—	650000	
	110.25	6.8	175	227000	8.2	208	225000	13.2	326	219000	—	—	—	526000	
	129.71	5.8	152	232000	6.9	178	227000	11.2	279	221000	—	—	—	526000	
	153.94	4.9	131	238000	5.8	153	232000	9.4	238	223000	—	—	—	526000	
	182.69	4.1	88	189000	4.9	102	184000	7.9	159	178000	—	—	—	420000	
GB 31004	199.87	3.8	122	282000	4.5	143	274000	7.3	214	255000	14.5	362	215000	549000	69 (H-F)
	233.05	3.2	108	288000	3.9	126	280000	6.2	188	261000	12.4	319	222000	549000	
	256.50	2.9	99	293000	3.5	116	285000	5.7	173	265000	11.3	312	238000	549000	
	280.57	2.7	108	349000	3.2	126	339000	5.2	189	316000	10.3	345	288000	650000	
	327.14	2.3	95	357000	2.8	111	347000	4.4	166	323000	8.9	299	291000	650000	
	356.85	2.1	88	362000	2.5	103	352000	4.1	154	327000	8.1	278	295000	650000	
	401.65	1.9	80	368000	2.2	93	358000	3.6	139	333000	7.2	251	300000	650000	
	438.14	1.7	74	373000	2.1	86	363000	3.3	129	338000	6.6	233	304000	650000	
	500.29	1.5	66	381000	1.8	77	370000	2.9	116	345000	5.8	208	310000	650000	
	562.28	1.3	44.8	290000	1.6	52	282000	2.6	78	262000	5.2	141	236000	526000	
	639.43	1.2	40.2	296000	1.4	46.9	288000	2.3	70	268000	4.5	127	241000	526000	
	699.14	1.1	42.9	345000	1.3	50	335000	2.1	78	326000	4.1	151	314000	650000	
	785.08	0.96	33.8	305000	1.1	39.4	297000	1.8	59	276000	3.7	106	249000	526000	
	897.23	0.84	30.1	311000	1.0	35.2	303000	1.6	53	282000	3.2	95	254000	526000	
	1055.57	0.71	26.3	319000	0.9	30.7	310000	1.4	45.9	289000	2.7	83	260000	526000	
	1252.76	0.60	17.6	253000	0.7	20.5	246000	1.2	30.7	229000	2.3	55	206000	420000	
GB 31005	719.53	1.04	42.4	342000	1.3	49.4	333000	2.0	74	309000	4.0	133	279000	549000	57 (H-F)
	858.53	0.87	42.9	413000	1.0	50.1	402000	1.7	75	374000	3.4	135	337000	650000	
	1001.04	0.75	37.6	423000	0.90	43.9	411000	1.4	66	383000	2.9	119	345000	650000	
	1101.78	0.68	34.7	429000	0.82	40.5	417000	1.3	61	388000	2.6	109	350000	650000	
	1254.09	0.60	26.4	372000	0.72	30.9	362000	1.2	46.3	337000	2.3	83	303000	549000	
	1403.42	0.53	28.3	445000	0.64	33.0	433000	1.0	49.4	403000	2.1	89	363000	650000	
	1577.29	0.48	25.6	453000	0.57	29.9	441000	0.92	44.8	410000	1.8	81	369000	650000	
	1784.27	0.42	23.0	461000	0.50	20.1	336000	0.81	40.3	418000	1.6	73	376000	650000	
	1981.09	0.38	15.8	351000	0.45	18.4	341000	0.73	27.6	318000	1.5	50	286000	526000	
	2239.08	0.33	19.0	478000	0.40	22.2	465000	0.65	33.3	432000	1.3	60	389000	650000	
	2516.91	0.30	14.8	419000	0.36	17.3	407000	0.58	25.9	379000	1.2	46.7	341000	650000	
	2811.38	0.27	11.7	370000	0.32	13.7	360000	0.52	20.5	335000	1.0	37.0	301000	526000	
	3148.70	0.24	14.2	503000	0.29	16.6	489000	0.46	24.9	455000	0.92	44.8	410000	650000	
	3559.02	0.21	9.6	383000	0.25	11.2	373000	0.41	16.8	347000	0.81	30.3	312000	526000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GBA 31004	172.32	4.4	112	219000	5.2	127	207000	8.4	178	180000	16.8	289	146000	549000	60 (H-F)
	205.61	3.6	112	261000	4.4	127	247000	7.1	178	214000	14.1	289	174000	650000	
	221.14	3.4	112	281000	4.1	127	266000	6.6	178	231000	13.1	289	187000	549000	
	263.86	2.8	112	335000	3.4	127	317000	5.5	178	275000	11.0	289	223000	526000	
	310.43	2.4	101	354000	2.9	118	344000	4.7	176	321000	9.3	289	263000	526000	
	368.42	2.0	78	327000	2.4	93	323000	3.9	146	314000	7.9	274	296000	650000	
	398.38	1.9	61	275000	2.3	71	268000	3.6	107	249000	7.3	194	227000	549000	
	469.14	1.6	53	280000	1.9	63	277000	3.1	98	270000	6.2	189	259000	549000	
	514.50	1.5	49	286000	1.7	57	278000	2.8	86	259000	5.6	155	233000	526000	
	561.13	1.3	35	224000	1.6	41	218000	2.6	62	203000	5.2	111	183000	420000	
	610.62	1.2	42	294000	1.5	50	286000	2.4	74	266000	4.7	134	239000	526000	
	718.37	1.0	37	301000	1.3	43	293000	2.0	65	272000	4.0	117	245000	526000	
	852.57	0.88	25	239000	1.1	29	232000	1.7	43	216000	3.4	78	195000	549000	
GBA 31005	584.24	1.3	51	331000	1.5	60	322000	2.5	90	300000	5.0	162	270000	650000	50 (H-F)
	697.10	1.1	52	400000	1.3	61	389000	2.1	91	362000	4.2	164	326000	650000	
	812.81	0.92	45.6	410000	1.1	53	398000	1.8	80	371000	3.6	144	334000	420000	
	894.61	0.84	42.1	416000	1.0	49.1	404000	1.6	74	376000	3.2	133	339000	650000	
	997.95	0.75	38.3	423000	0.90	44.7	411000	1.5	67	382000	2.9	121	344000	650000	
	1122.27	0.67	34.7	430000	0.80	40.5	418000	1.3	61	389000	2.6	109	351000	650000	
	1262.77	0.59	26.7	372000	0.71	31.2	362000	1.1	46.7	337000	2.3	84	303000	549000	
	1427.41	0.53	28.3	446000	0.63	33.0	434000	1.0	37.0	302000	2.0	89	364000	650000	
	1578.57	0.48	26.0	453000	0.57	30.3	441000	0.92	45.4	410000	1.8	82	369000	650000	
	1788.19	0.42	20.1	397000	0.50	23.5	387000	0.81	35.2	360000	1.6	65	331000	650000	
	2001.18	0.37	21.2	469000	0.45	18.6	342000	0.72	37.2	425000	1.4	67	383000	650000	
	2227.34	0.34	14.5	357000	0.40	16.9	347000	0.65	25.4	323000	1.3	45.7	291000	526000	
	2557.72	0.29	12.9	365000	0.35	15.1	355000	0.57	22.6	330000	1.1	40.7	297000	526000	
	2796.56	0.27	13.8	425000	0.32	16.1	414000	0.52	24.1	385000	1.0	43.4	347000	650000	
	3140.31	0.24	10.8	376000	0.29	12.7	366000	0.46	19.0	340000	0.92	34.2	307000	526000	
	3557.65	0.21	9.8	383000	0.25	11.4	373000	0.41	17.1	347000	0.82	30.7	312000	526000	
	4222.26	0.18	8.4	393000	0.21	9.8	383000	0.34	14.8	356000	0.69	26.6	321000	526000	
	5011.04	0.15	5.6	312000	0.18	6.6	304000	0.29	9.9	283000	0.58	17.8	255000	420000	



# GB 40000



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GB 40001	3.43	219	3905	166000	263	4436	157000	—	—	—	—	—	—	650000	224 (H-F)
	4.09	183	3412	173000	220	3876	164000	—	—	—	—	—	—	650000	
	5.25	143	2782	181000	171	3160	172000	—	—	—	—	—	—	650000	
	6.23	120	2436	188000	144	2768	178000	—	—	—	—	—	—	522000	
GB 40002	14.03	53	1425	242000	64	1619	229000	103	2260	198000	—	—	—	650000	130 (H-F)
	16.74	44.8	1305	264000	54	1483	250000	87	2071	217000	—	—	—	650000	
	18.00	41.7	1161	253000	50	1319	239000	81	1842	208000	—	—	—	650000	
	21.48	34.9	1096	285000	41.9	1245	270000	68	1739	234000	—	—	—	650000	
	25.49	29.4	909	280000	35.3	1079	277000	57	1542	246000	—	—	—	650000	
	27.56	27.2	783	261000	32.7	930	258000	53	1418	245000	—	—	—	650000	
	32.71	22.9	666	264000	27.5	791	261000	44.3	1240	254000	—	—	—	650000	
	38.82	19.3	447	210000	23.2	531	208000	37.3	832	202000	—	—	—	522000	
GB 40003	56.10	13.4	413	273000	16.0	469	259000	25.8	655	224000	52	1064	182000	650000	76 (H-F)
	66.94	11.2	413	326000	13.4	469	309000	21.7	655	268000	43.3	1064	217000	650000	
	72.00	10.4	352	300000	12.5	415	294000	20.1	650	286000	40.3	1064	234000	650000	
	78.76	9.5	361	336000	11.4	411	318000	18.4	573	276000	36.8	932	224000	650000	
	85.91	8.7	357	362000	10.5	423	358000	16.9	655	343000	33.8	1064	279000	650000	
	101.07	7.4	311	371000	8.9	363	361000	14.3	569	351000	28.7	932	287000	650000	
	110.25	6.8	217	283000	8.2	258	280000	13.2	404	272000	26.3	778	262000	650000	
	129.71	5.8	189	289000	6.9	221	282000	11.2	347	275000	22.4	667	264000	650000	
	155.29	4.8	125	229000	5.8	147	225000	9.3	231	219000	18.7	444	211000	522000	
	182.69	4.1	109	235000	4.9	127	229000	7.9	198	221000	15.9	381	212000	522000	
GB 40004	199.87	3.8	140	323000	4.5	159	305000	7.3	223	265000	14.5	362	215000	650000	72 (H-F)
	235.14	3.2	132	358000	3.8	155	348000	6.2	223	311000	12.3	362	253000	650000	
	256.50	2.9	114	338000	3.5	136	334000	5.7	213	325000	11.3	362	276000	650000	
	280.57	2.7	134	433000	3.2	157	421000	5.2	223	372000	10.3	362	302000	650000	
	306.05	2.5	93	329000	2.9	109	320000	4.7	163	297000	9.5	362	329000	650000	
	351.86	2.1	85	344000	2.6	101	341000	4.1	158	331000	8.2	296	310000	650000	
	401.65	1.9	99	457000	2.2	116	445000	3.6	166	398000	7.2	270	323000	650000	
	438.14	1.7	82	412000	2.1	97	407000	3.3	152	396000	6.6	270	353000	650000	
	500.29	1.5	72	417000	1.8	86	410000	2.9	134	399000	5.8	244	363000	650000	
	562.28	1.3	56	360000	1.6	65	351000	2.6	97	326000	5.2	175	294000	650000	
	639.43	1.2	49.9	367000	1.4	58	357000	2.3	87	333000	4.5	157	299000	650000	
	699.14	1.1	42.9	345000	1.3	50	335000	2.1	78	326000	4.1	151	314000	650000	
	791.98	0.95	32.2	294000	1.1	37.6	286000	1.8	56	266000	3.7	102	239000	522000	
	889.41	0.84	37.7	386000	1.0	44.1	376000	1.6	66	350000	3.3	119	315000	650000	
	1055.57	0.71	32.6	396000	0.85	38.1	386000	1.4	57	359000	2.7	103	323000	650000	
GB 40005	719.53	1.0	52.6	424000	1.25	61.4	413000	2.0	92	384000	4.0	151	316000	650000	59 (H-F)
	858.53	0.87	53.3	513000	1.05	62.2	499000	1.7	93	464000	3.4	151	377000	650000	
	999.35	0.75	37.5	421000	0.90	44.6	417000	1.5	70	404000	2.9	125	363000	650000	
	1101.78	0.68	38.0	470000	0.82	44.4	457000	1.3	67	425000	2.6	126	402000	650000	
	1254.09	0.60	30.3	426000	0.72	36.0	422000	1.2	56	411000	2.3	103	376000	650000	
	1413.96	0.53	26.1	414000	0.64	30.5	403000	1.0	45.7	375000	2.1	82	338000	650000	
	1577.29	0.48	28.0	496000	0.57	32.7	483000	0.92	49.1	449000	1.8	90	410000	650000	
	1784.27	0.42	25.3	506000	0.50	29.5	492000	0.81	44.2	458000	1.6	80	413000	650000	
	1981.09	0.38	19.6	436000	0.45	22.9	424000	0.73	34.3	395000	1.5	62	355000	650000	
	2239.08	0.33	20.8	520000	0.40	24.3	509000	0.65	36.5	474000	1.3	66	427000	650000	
	2514.73	0.30	14.8	419000	0.36	17.3	407000	0.58	26.0	379000	1.2	46.7	341000	650000	
	2811.38	0.27	14.6	460000	0.32	17.0	447000	0.52	25.5	416000	1.0	45.9	375000	650000	
	3166.70	0.24	12.2	433000	0.28	14.2	422000	0.46	21.3	392000	0.92	38.4	353000	650000	
	3559.02	0.21	11.9	476000	0.25	13.9	463000	0.41	20.9	431000	0.81	37.6	388000	650000	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
ie		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GBA 40004	172.32	4.4	112	219000	5.2	127	207000	8.4	178	180000	16.8	289	146000	650000	62 (H-F)
	205.61	3.6	112	261000	4.4	127	247000	7.1	178	214000	14.1	289	174000	650000	
	221.14	3.4	112	281000	4.1	127	266000	6.6	178	231000	13.1	289	187000	650000	
	260.17	2.9	112	331000	3.5	127	313000	5.6	178	271000	11.1	289	220000	650000	
	310.43	2.4	112	394000	2.9	127	373000	4.7	178	324000	9.3	289	263000	650000	
	368.42	2.0	78	327000	2.4	93	323000	3.9	146	314000	7.9	280	302000	650000	
	398.38	1.9	76	342000	2.3	88	333000	3.6	133	310000	7.3	241	282000	650000	
	469.14	1.6	53	280000	1.9	63	277000	3.1	98	270000	6.2	189	259000	648000	
	514.50	1.5	57	330000	1.7	67	327000	2.8	105	318000	5.6	192	290000	650000	
	559.77	1.3	53	334000	1.6	63	331000	2.6	98	322000	5.2	189	310000	650000	
	610.62	1.2	53	365000	1.5	62	355000	2.4	92	330000	4.7	166	297000	650000	
	718.37	1.0	45.9	374000	1.3	54	364000	2.0	80	338000	4.0	145	305000	650000	
	852.57	0.88	30.7	297000	1.1	35.9	289000	1.7	54	269000	3.4	97	242000	522000	
GBA 40005	584.24	1.3	64	411000	1.5	74	400000	2.5	109	365000	5.0	178	297000	650000	54 (H-F)
	697.10	1.1	65	497000	1.3	75	484000	2.1	109	436000	4.2	178	354000	650000	
	799.48	0.94	48.8	431000	1.1	57	419000	1.8	85	390000	3.6	143	326000	650000	
	894.61	0.84	46.1	456000	1.0	54	443000	1.6	81	413000	3.2	155	397000	650000	
	997.95	0.75	47.6	520000	0.90	56	511000	1.5	82	467000	2.9	133	379000	650000	
	1122.27	0.67	40.4	501000	0.80	48.0	495000	1.3	75	482000	2.6	136	435000	650000	
	1262.77	0.59	29.6	413000	0.71	34.6	402000	1.1	52	374000	2.3	95	343000	650000	
	1427.41	0.53	31.0	489000	0.63	36.2	476000	1.0	54	442000	2.0	100	408000	650000	
	1578.57	0.48	26.1	456000	0.57	31.0	451000	0.92	48.6	439000	1.8	94	422000	650000	
	1788.19	0.42	20.1	397000	0.50	19.6	323000	0.81	35.2	360000	1.6	65	331000	650000	
	1993.03	0.38	18.4	404000	0.45	21.4	393000	0.73	32.1	366000	1.5	58	333000	650000	
	2227.34	0.34	18.0	444000	0.40	21.1	432000	0.65	31.6	402000	1.3	57	362000	650000	
	2557.72	0.29	16.0	453000	0.35	18.7	441000	0.57	28.1	410000	1.1	51	369000	650000	
	2796.56	0.27	13.8	425000	0.32	16.1	414000	0.52	24.1	385000	1.0	43.4	347000	650000	
	3140.31	0.24	13.5	467000	0.29	15.7	455000	0.46	23.6	423000	0.92	42.5	381000	650000	
	3557.65	0.21	12.1	476000	0.25	14.1	463000	0.41	21.2	431000	0.82	38.2	388000	650000	
	4222.26	0.18	10.5	489000	0.21	12.2	476000	0.34	18.3	442000	0.69	33.0	398000	650000	
	5011.04	0.15	7.0	388000	0.18	8.2	378000	0.29	12.3	351000	0.58	22.1	316000	522000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 45001</b>	<b>3.83</b>	196	<b>4792</b>	228000	235	<b>5444</b>	216000	—	—	—	—	—	—	650000	224 (H-F)
<b>GB 45002</b>	<b>14.69</b>	51	<b>1919</b>	341000	61	<b>2180</b>	323000	99	<b>3044</b>	280000	—	—	—	650000	133 (H-F)
	<b>16.87</b>	44.5	<b>1742</b>	356000	53	<b>1979</b>	337000	86	<b>2764</b>	292000	—	—	—	650000	
<b>GB 45003</b>	<b>56.43</b>	13.3	<b>632</b>	421000	15.9	<b>718</b>	399000	25.7	<b>1003</b>	345000	—	—	—	650000	98 (H-F)
	<b>64.77</b>	11.6	<b>594</b>	454000	13.9	<b>705</b>	449000	22.4	<b>1003</b>	397000	—	—	—	650000	
	<b>76.07</b>	9.9	<b>495</b>	444000	11.8	<b>562</b>	421000	19.1	<b>785</b>	365000	—	—	—	650000	
	<b>87.31</b>	8.6	<b>448</b>	462000	10.3	<b>532</b>	457000	16.6	<b>785</b>	418000	—	—	—	650000	
<b>GB 45004</b>	<b>193.46</b>	3.9	<b>231</b>	513000	4.7	<b>269</b>	499000	7.5	<b>380</b>	437000	—	—	—	650000	76 (H-F)
	<b>222.06</b>	3.4	<b>205</b>	520000	4.1	<b>239</b>	510000	6.5	<b>359</b>	474000	—	—	—	650000	
	<b>260.80</b>	2.9	<b>176</b>	520000	3.5	<b>209</b>	520000	5.6	<b>313</b>	486000	—	—	—	650000	
	<b>299.35</b>	2.5	<b>159</b>	520000	3.0	<b>186</b>	520000	4.8	<b>279</b>	496000	—	—	—	650000	
	<b>311.18</b>	2.4	<b>149</b>	520000	2.9	<b>177</b>	520000	4.7	<b>270</b>	499000	—	—	—	650000	
	<b>357.18</b>	2.1	<b>137</b>	520000	2.5	<b>160</b>	520000	4.1	<b>240</b>	510000	—	—	—	650000	
	<b>399.34</b>	1.9	<b>118</b>	520000	2.3	<b>140</b>	520000	3.6	<b>218</b>	518000	—	—	—	650000	
	<b>458.38</b>	1.6	<b>111</b>	520000	2.0	<b>129</b>	520000	3.2	<b>194</b>	520000	—	—	—	650000	
	<b>544.01</b>	1.4	<b>96</b>	520000	1.7	<b>112</b>	520000	2.7	<b>168</b>	520000	—	—	—	650000	
<b>GB 45005</b>	<b>696.47</b>	1.1	<b>80</b>	520000	1.3	<b>93</b>	520000	2.1	<b>133</b>	520000	4.2	<b>217</b>	438000	650000	63 (H-F)
	<b>799.42</b>	0.94	<b>71</b>	520000	1.1	<b>83</b>	520000	1.8	<b>124</b>	520000	3.6	<b>217</b>	503000	650000	
	<b>981.05</b>	0.76	<b>60</b>	520000	0.92	<b>70</b>	520000	1.5	<b>104</b>	520000	3.0	<b>188</b>	520000	650000	
	<b>1126.08</b>	0.67	<b>53</b>	520000	0.80	<b>62</b>	520000	1.3	<b>93</b>	520000	2.6	<b>167</b>	520000	650000	
	<b>1259.02</b>	0.60	<b>48.0</b>	520000	0.71	<b>56</b>	520000	1.2	<b>84</b>	520000	2.3	<b>152</b>	520000	650000	
	<b>1413.12</b>	0.53	<b>43.7</b>	520000	0.64	<b>51</b>	520000	1.0	<b>77</b>	520000	2.1	<b>138</b>	520000	650000	
	<b>1579.95</b>	0.47	<b>38.8</b>	520000	0.57	<b>46.0</b>	520000	0.92	<b>70</b>	520000	1.8	<b>125</b>	520000	650000	
	<b>1813.50</b>	0.41	<b>35.4</b>	520000	0.50	<b>41.3</b>	520000	0.80	<b>62</b>	520000	1.6	<b>112</b>	520000	650000	
	<b>1987.20</b>	0.38	<b>27.2</b>	520000	0.45	<b>32.3</b>	520000	0.73	<b>51</b>	520000	1.5	<b>97</b>	520000	650000	
	<b>2245.11</b>	0.33	<b>27.0</b>	520000	0.40	<b>32.0</b>	520000	0.65	<b>50</b>	520000	1.3	<b>93</b>	520000	650000	
	<b>2502.04</b>	0.30	<b>22.5</b>	520000	0.36	<b>26.7</b>	520000	0.58	<b>41.9</b>	520000	1.2	<b>81</b>	520000	650000	
	<b>2841.93</b>	0.26	<b>21.8</b>	520000	0.32	<b>25.6</b>	520000	0.51	<b>40.2</b>	520000	1.0	<b>76</b>	520000	650000	
	<b>3372.84</b>	0.22	<b>18.9</b>	520000	0.27	<b>22.0</b>	520000	0.43	<b>34.2</b>	520000	0.9	<b>66</b>	520000	650000	
	<b>3554.59</b>	0.21	<b>16.1</b>	520000	0.25	<b>18.7</b>	520000	0.41	<b>28.6</b>	520000	0.8	<b>55</b>	520000	650000	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
	ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GBA 45004	210.50	3.6	218	520000	4.3	255	506000	6.9	382	471000	13.8	651	401000	650000	66 (H-F)
	247.21	3.0	188	520000	3.6	222	518000	5.9	333	482000	11.7	582	422000	650000	
	283.76	2.6	169	520000	3.2	198	520000	5.1	296	492000	10.2	550	457000	650000	
GBA 45005	594.21	1.3	93	520000	1.5	108	520000	2.4	162	520000	4.9	292	496000	650000	57 (H-F)
	709.00	1.1	80	520000	1.3	93	520000	2.0	140	520000	4.1	251	509000	650000	
	813.81	0.92	71	520000	1.1	83	520000	1.8	124	520000	3.6	224	520000	650000	
	902.83	0.83	58	520000	1.0	69	520000	1.6	108	520000	3.2	205	520000	650000	
	1036.29	0.72	58	520000	0.87	67	520000	1.4	101	520000	2.8	182	520000	650000	
	1097.04	0.68	54	520000	0.82	64	520000	1.3	96	520000	2.6	174	520000	650000	
	1236.48	0.61	49.8	520000	0.73	58	520000	1.2	87	520000	2.3	157	520000	650000	
	1407.87	0.53	42.5	520000	0.64	50	520000	1.0	78	520000	2.1	140	520000	650000	
	1586.82	0.47	40.3	520000	0.57	47.0	520000	0.91	70	520000	1.8	127	520000	650000	
	1670.88	0.45	36.2	520000	0.54	43.0	520000	0.87	67	520000	1.7	121	520000	650000	
	1883.25	0.40	29.9	520000	0.48	35.5	520000	0.77	56	520000	1.5	107	520000	650000	
	2211.75	0.34	24.4	520000	0.41	29.0	520000	0.66	45.4	520000	1.3	87	520000	650000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GB 53001	3.84	195	6576	313000	234	7471	477000	—	—	—	—	—	—	1191000	324 (H-F)
	5.44	138	4311	291000	166	5120	288000	—	—	—	—	—	—	801000	
GB 53002	14.13	53	2124	363000	64	2413	514000	—	—	—	—	—	—	1191000	185 (H-F)
	18.97	39.5	1669	383000	47.4	1896	490000	—	—	—	—	—	—	1191000	
GB 53003	111.31	6.7	263	346000	8.1	313	342000	13.0	490	333000	—	—	—	801000	132 (H-F)
	145.09	5.2	209	357000	6.2	244	348000	10.0	382	338000	—	—	—	801000	
	174.64	4.3	178	368000	5.2	208	358000	8.3	321	342000	—	—	—	801000	
GB 53004	200.72	3.7	239	553000	4.5	272	523000	7.2	380	453000	—	—	—	1191000	103 (H-F)
	400.62	1.9	137	631000	2.2	163	625000	3.6	250	597000	—	—	—	1191000	
	475.46	1.6	117	638000	1.9	138	631000	3.0	217	614000	—	—	—	1191000	
	647.49	1.2	83	616000	1.4	97	600000	2.2	151	584000	—	—	—	1191000	
	768.45	0.98	72	632000	1.2	83	615000	1.9	129	589000	—	—	—	1191000	
GB 53005	1437.38	0.52	43.1	695000	0.63	50	676000	1.0	75	629000	2.0	141	587000	1191000	84 (H-F)
	1639.22	0.46	38.8	713000	0.55	46.0	706000	0.88	72	687000	1.8	139	660000	1191000	
	1936.50	0.39	33.5	727000	0.46	39.1	707000	0.75	59	658000	1.5	106	597000	1191000	
	2341.28	0.32	27.2	714000	0.38	32.0	701000	0.62	50	673000	1.2	95	647000	1191000	
	2766.43	0.27	22.6	701000	0.33	26.8	694000	0.52	42.0	675000	1.0	78	625000	1191000	
	3143.67	0.24	22.2	782000	0.29	25.9	761000	0.46	38.8	708000	0.9	70	638000	1191000	
	3335.08	0.22	21.1	789000	0.30	24.6	768000	0.43	36.9	715000	0.9	66	643000	1191000	
	3673.37	0.20	18.8	775000	0.25	22.3	767000	0.39	34.0	725000	0.8	61	653000	1191000	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
	ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GBA 53004	190.27	3.9	245	527000	4.7	287	515000	7.6	401	447000	15.2	651	363000	1191000	89 (H-F)
	248.00	3.0	219	614000	3.6	255	596000	5.8	356	517000	11.7	578	420000	1191000	
	361.75	2.1	100	410000	2.5	117	399000	4.0	175	372000	8.0	323	342000	801000	
	471.53	1.6	80	427000	1.9	93	416000	3.1	140	387000	6.2	252	348000	801000	
	567.58	1.3	68	439000	1.6	80	427000	2.6	120	398000	5.1	215	358000	801000	
GBA 53005	616.50	1.2	114	773000	1.5	129	733000	2.4	180	635000	4.7	293	516000	1191000	75 (H-F)
	735.60	1.0	99	804000	1.2	112	761000	2.0	157	659000	3.9	255	536000	1191000	
	1117.65	0.67	58	717000	0.81	69	710000	1.3	108	691000	2.6	190	607000	1191000	
	1500.68	0.50	42.2	700000	0.60	49	681000	1.0	74	633000	1.9	137	589000	1191000	
	2360.24	0.32	26.6	695000	0.38	32	687000	0.61	50	669000	1.2	91	611000	1191000	
	2979.23	0.25	23.6	776000	0.30	28	755000	0.49	41	702000	1.0	74	632000	1191000	
	3334.03	0.22	15.6	574000	0.27	18.2	559000	0.43	27	520000	0.87	49	468000	801000	
	3781.89	0.20	14.0	585000	0.24	16.4	570000	0.38	25	530000	0.77	44	477000	801000	
	4218.63	0.18	12.8	595000	0.21	14.9	579000	0.34	22	539000	0.69	40	485000	801000	
	5077.99	0.15	10.9	612000	0.18	12.7	595000	0.29	19	554000	0.57	34	499000	801000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 61001</b>	<b>3.84</b>	195	<b>8767</b>	418000	—	—	—	—	—	—	—	—	—	1310000	324 (H-F)
<b>GB 61002</b>	<b>14.13</b>	53	<b>2124</b>	363000	64	<b>2413</b>	344000	—	—	—	—	—	—	1310000	185 (H-F)
	<b>18.97</b>	39.5	<b>1669</b>	383000	47.4	<b>1896</b>	363000	—	—	—	—	—	—	1310000	
<b>GB 61003</b>	<b>102.46</b>	7.3	<b>451</b>	546000	8.8	<b>536</b>	540000	14.2	<b>779</b>	487000				1310000	132 (H-F)
	<b>123.33</b>	6.1	<b>379</b>	551000	7.3	<b>450</b>	546000	11.8	<b>665</b>	501000				1310000	
<b>GB 61004</b>	<b>224.42</b>	3.3	<b>243</b>	627000	4.0	<b>276</b>	593000	6.5	<b>385</b>	514000	—	—	—	1310000	103 (H-F)
	<b>292.52</b>	2.6	<b>184</b>	620000	3.1	<b>219</b>	614000	5.0	<b>312</b>	543000	—	—	—	1310000	
	<b>307.35</b>	2.4	<b>195</b>	689000	2.9	<b>221</b>	652000	4.7	<b>309</b>	565000	—	—	—	1310000	
	<b>400.62</b>	1.9	<b>137</b>	631000	2.2	<b>163</b>	625000	3.6	<b>250</b>	597000	—	—	—	1310000	
	<b>537.92</b>	1.4	<b>97</b>	600000	1.7	<b>115</b>	594000	2.7	<b>180</b>	578000	—	—	—	1310000	
	<b>647.49</b>	1.2	<b>83</b>	616000	1.4	<b>97</b>	600000	2.2	<b>151</b>	584000	—	—	—	1310000	
<b>GB 61005</b>	<b>897.67</b>	0.84	<b>81</b>	816000	1.0	<b>96</b>	807000	1.6	<b>150</b>	780000	3.2	<b>243</b>	633000	1310000	84 (H-F)
	<b>1020.08</b>	0.74	<b>72</b>	822000	0.88	<b>85</b>	813000	1.4	<b>134</b>	791000	2.8	<b>222</b>	658000	1310000	
	<b>1170.06</b>	0.64	<b>51</b>	671000	0.77	<b>61</b>	664000	1.2	<b>95</b>	647000	2.5	<b>183</b>	621000	1310000	
	<b>1229.41</b>	0.61	<b>60</b>	833000	0.73	<b>72</b>	822000	1.2	<b>112</b>	800000	2.4	<b>195</b>	696000	1310000	
	<b>1397.06</b>	0.54	<b>54</b>	849000	0.64	<b>63</b>	828000	1.0	<b>99</b>	806000	2.1	<b>178</b>	723000	1310000	
	<b>1571.06</b>	0.48	<b>40.0</b>	704000	0.57	<b>46.7</b>	685000	0.92	<b>70</b>	638000	1.8	<b>129</b>	590000	1310000	
	<b>1785.29</b>	0.42	<b>35.9</b>	718000	0.50	<b>41.9</b>	699000	0.81	<b>63</b>	650000	1.6	<b>115</b>	595000	1310000	
	<b>1928.91</b>	0.39	<b>24.0</b>	520000	0.47	<b>28.5</b>	515000	0.75	<b>44.7</b>	501000	1.5	<b>86</b>	481000	1310000	
	<b>2151.66</b>	0.35	<b>30.6</b>	739000	0.42	<b>35.7</b>	719000	0.67	<b>53.6</b>	669000	1.3	<b>96</b>	602000	1310000	
	<b>2589.97</b>	0.29	<b>24.0</b>	698000	0.35	<b>28.5</b>	691000	0.56	<b>44.7</b>	672000	1.1	<b>82</b>	619000	1310000	
	<b>2943.14</b>	0.25	<b>21.4</b>	706000	0.31	<b>25.3</b>	696000	0.49	<b>39.7</b>	677000	1.0	<b>74</b>	631000	1310000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GBA 61004</b>	<b>190.27</b>	3.9	<b>245</b>	527000	4.7	<b>287</b>	515000	7.6	<b>401</b>	447000	15.2	<b>651</b>	363000	1310000	89 (H-F)
	<b>333.00</b>	2.3	<b>155</b>	584000	2.7	<b>184</b>	577000	4.4	<b>288</b>	562000	8.7	<b>554</b>	540000	1310000	
	<b>400.83</b>	1.9	<b>130</b>	590000	2.2	<b>154</b>	584000	3.6	<b>242</b>	568000	7.2	<b>465</b>	546000	1310000	
<b>GBA 61005</b>	<b>898.44</b>	0.83	<b>67</b>	661000	1.0	<b>79</b>	654000	1.6	<b>124</b>	637000	3.2	<b>238</b>	612000	1310000	75 (H-F)
	<b>944.01</b>	0.79	<b>78</b>	818000	1.0	<b>93</b>	810000	1.5	<b>146</b>	788000	3.1	<b>238</b>	643000	1310000	
	<b>1047.28</b>	0.72	<b>58</b>	672000	0.83	<b>69</b>	665000	1.3	<b>108</b>	647000	2.8	<b>206</b>	617000	1310000	
	<b>1230.47</b>	0.61	<b>49.5</b>	673000	0.71	<b>59</b>	666000	1.1	<b>92</b>	648000	2.4	<b>177</b>	623000	1310000	
	<b>1434.32</b>	0.52	<b>54</b>	852000	0.63	<b>63</b>	829000	1.0	<b>98</b>	807000	2.0	<b>178</b>	729000	1310000	
	<b>1652.17</b>	0.40	<b>38.9</b>	710000	0.54	<b>45.4</b>	691000	0.88	<b>68</b>	642000	1.8	<b>125</b>	592000	1310000	
	<b>1988.72</b>	0.38	<b>31.3</b>	688000	0.45	<b>37.2</b>	681000	0.73	<b>58</b>	661000	1.5	<b>105</b>	598000	1310000	
	<b>2206.27</b>	0.34	<b>28.4</b>	692000	0.41	<b>33.7</b>	685000	0.66	<b>53</b>	666000	1.3	<b>96</b>	604000	1310000	
	<b>2510.28</b>	0.30	<b>27.3</b>	756000	0.36	<b>31.8</b>	736000	0.58	<b>47.7</b>	684000	1.2	<b>85.9</b>	616000	1310000	
	<b>3021.63</b>	0.25	<b>21.2</b>	709000	0.30	<b>25.1</b>	697000	0.58	<b>39.3</b>	678000	0.96	<b>73.4</b>	634000	1310000	
<b>GBA 61006</b>	<b>3259.46</b>	0.23	<b>21.6</b>	758000	0.28	<b>24.6</b>	737000	0.44	<b>37.8</b>	686000	0.89	<b>72.6</b>	659000	1310000	63 (H-F)
	<b>3590.67</b>	0.21	<b>22.2</b>	858000	0.25	<b>25.2</b>	812000	0.40	<b>35.2</b>	704000	0.81	<b>57.2</b>	572000	1310000	
	<b>3923.43</b>	0.19	<b>13.6</b>	574000	0.23	<b>15.9</b>	559000	0.37	<b>23.9</b>	522000	0.74	<b>45.9</b>	501000	1310000	
	<b>4464.05</b>	0.17	<b>16.5</b>	795000	0.20	<b>19.3</b>	773000	0.32	<b>28.9</b>	719000	0.65	<b>54.0</b>	671000	1310000	
	<b>5072.78</b>	0.15	<b>14.8</b>	810000	0.18	<b>17.3</b>	788000	0.29	<b>25.9</b>	733000	0.57	<b>47.8</b>	676000	1310000	
	<b>5588.25</b>	0.13	<b>16.5</b>	994000	0.16	<b>19.6</b>	984000	0.26	<b>30.4</b>	948000	0.52	<b>54.8</b>	853000	1310000	
	<b>6284.23</b>	0.12	<b>12.8</b>	869000	0.14	<b>15.0</b>	845000	0.23	<b>22.5</b>	786000	0.46	<b>40.5</b>	708000	1310000	
	<b>7141.17</b>	0.11	<b>11.5</b>	886000	0.13	<b>13.4</b>	862000	0.20	<b>20.2</b>	802000	0.41	<b>36.3</b>	722000	1310000	
	<b>8198.76</b>	0.09	<b>9.3</b>	825000	0.11	<b>10.9</b>	802000	0.18	<b>16.3</b>	746000	0.35	<b>30.2</b>	690000	1310000	
	<b>8767.77</b>	0.09	<b>6.9</b>	649000	0.10	<b>8.0</b>	631000	0.17	<b>12.0</b>	587000	0.33	<b>21.6</b>	529000	1310000	
	<b>10359.87</b>	0.07	<b>7.7</b>	854000	0.09	<b>8.9</b>	831000	0.14	<b>13.4</b>	773000	0.28	<b>24.2</b>	700000	1310000	
	<b>11772.58</b>	0.06	<b>6.9</b>	871000	0.08	<b>8.0</b>	847000	0.12	<b>12.0</b>	788000	0.25	<b>21.6</b>	710000	1310000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 85001</b>	<b>3.84</b>	195	<b>10959</b>	522000	—	—	—	—	—	—	—	—	—	1310000	336 (H-F)
<b>GB 85002</b>	<b>14.13</b>	53	<b>2467</b>	422000	64	<b>2803</b>	400000	—	—	—	—	—	—	1310000	193 (H-F)
	<b>18.97</b>	39.5	<b>1938</b>	445000	47.4	<b>2202</b>	421000	—	—	—	—	—	—	1310000	
<b>GB 85003</b>	<b>56.52</b>	13.3	<b>830</b>	554000	15.9	<b>943</b>	524000	25.7	<b>1317</b>	455000	—	—	—	1310000	141 (H-F)
	<b>65.95</b>	11.4	<b>732</b>	570000	13.6	<b>832</b>	539000	22.0	<b>1161</b>	467000	—	—	—	1310000	
	<b>75.90</b>	9.9	<b>688</b>	616000	11.9	<b>817</b>	609000	19.1	<b>1195</b>	554000	—	—	—	1310000	
	<b>88.55</b>	8.5	<b>595</b>	621000	10.2	<b>706</b>	615000	16.4	<b>1073</b>	580000	—	—	—	1310000	
<b>GB 85004</b>	<b>226.10</b>	3.3	<b>323</b>	840000	4.0	<b>367</b>	795000	6.4	<b>512</b>	689000	12.8	<b>832</b>	560000	1310000	110 (H-F)
	<b>266.00</b>	2.8	<b>288</b>	882000	3.4	<b>327</b>	835000	5.5	<b>457</b>	723000	10.9	<b>742</b>	588000	1310000	
	<b>310.33</b>	2.4	<b>250</b>	894000	2.9	<b>288</b>	858000	4.7	<b>403</b>	744000	9.3	<b>654</b>	604000	1310000	
	<b>354.18</b>	2.1	<b>165</b>	673000	2.5	<b>196</b>	666000	4.1	<b>307</b>	648000	8.2	<b>591</b>	623000	1310000	
	<b>416.69</b>	1.8	<b>142</b>	679000	2.2	<b>168</b>	672000	3.5	<b>264</b>	654000	7.0	<b>507</b>	628000	1310000	
<b>GB 85005</b>	<b>805.48</b>	0.93	<b>112</b>	1015000	1.1	<b>131</b>	988000	1.8	<b>197</b>	919000	3.6	<b>351</b>	819000	1310000	91 (H-F)
	<b>947.62</b>	0.79	<b>98</b>	1041000	0.95	<b>114</b>	1012000	1.5	<b>171</b>	942000	3.1	<b>313</b>	860000	1310000	
	<b>1153.11</b>	0.65	<b>83</b>	1072000	0.78	<b>97</b>	1043000	1.3	<b>145</b>	970000	2.5	<b>267</b>	892000	1310000	
	<b>1261.05</b>	0.59	<b>55</b>	783000	0.71	<b>65</b>	761000	1.1	<b>97</b>	708000	2.3	<b>183</b>	669000	1310000	
	<b>1356.60</b>	0.55	<b>72</b>	1048000	0.66	<b>84</b>	1048000	1.1	<b>126</b>	994000	2.1	<b>229</b>	900000	1310000	
	<b>1582.69</b>	0.47	<b>59</b>	1048000	0.57	<b>70</b>	1041000	0.92	<b>110</b>	1013000	1.8	<b>200</b>	917000	1310000	
	<b>1767.94</b>	0.42	<b>41.5</b>	824000	0.51	<b>48.5</b>	801000	0.82	<b>73</b>	745000	1.6	<b>133</b>	682000	1310000	
	<b>2062.60</b>	0.36	<b>36.4</b>	843000	0.44	<b>42.5</b>	820000	0.70	<b>64</b>	763000	1.4	<b>115</b>	688000	1310000	
	<b>2449.10</b>	0.31	<b>31.5</b>	865000	0.37	<b>36.8</b>	842000	0.59	<b>55</b>	783000	1.2	<b>99</b>	705000	1310000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GBA 85004</b>	<b>214.32</b>	3.5	<b>245</b>	594000	4.2	<b>287</b>	580000	6.8	<b>401</b>	503000	13.5	<b>651</b>	409000	1310000	92 (H-F)
	<b>246.66</b>	3.0	<b>236</b>	659000	3.6	<b>280</b>	652000	5.9	<b>401</b>	579000	11.8	<b>651</b>	470000	1310000	
	<b>287.77</b>	2.6	<b>204</b>	665000	3.1	<b>242</b>	658000	5.0	<b>380</b>	640000	10.1	<b>651</b>	549000	1310000	
<b>GBA 85005</b>	<b>694.45</b>	1.1	<b>115</b>	882000	1.3	<b>131</b>	835000	2.1	<b>182</b>	724000	4.2	<b>296</b>	588000	1310000	79 (H-F)
	<b>810.19</b>	0.93	<b>113</b>	1012000	1.1	<b>131</b>	975000	1.8	<b>182</b>	845000	3.6	<b>296</b>	686000	1310000	
	<b>953.16</b>	0.79	<b>97</b>	1022000	0.94	<b>115</b>	1011000	1.5	<b>173</b>	943000	3.0	<b>296</b>	807000	1310000	
	<b>1096.99</b>	0.68	<b>63</b>	766000	0.82	<b>74</b>	745000	1.3	<b>111</b>	694000	2.6	<b>212</b>	664000	1310000	
	<b>1241.33</b>	0.60	<b>58</b>	797000	0.73	<b>69</b>	789000	1.2	<b>108</b>	767000	2.3	<b>206</b>	731000	1310000	
	<b>1448.22</b>	0.52	<b>58</b>	930000	0.62	<b>69</b>	920000	1.0	<b>108</b>	895000	2.0	<b>206</b>	853000	1310000	
	<b>1652.86</b>	0.45	<b>44.7</b>	815000	0.54	<b>52</b>	793000	0.88	<b>78</b>	738000	1.8	<b>144</b>	680000	1310000	
	<b>1944.54</b>	0.39	<b>38.9</b>	836000	0.46	<b>45.4</b>	813000	0.75	<b>68</b>	756000	1.7	<b>124</b>	686000	1310000	
<b>GBA 85006</b>	<b>2354.48</b>	0.32	<b>47.1</b>	1048000	0.38	<b>55.0</b>	1048000	0.62	<b>82</b>	1048000	1.5	<b>148</b>	973000	1310000	69 (H-F)
	<b>2745.30</b>	0.27	<b>41.3</b>	1048000	0.33	<b>48.3</b>	1048000	0.53	<b>72</b>	1048000	1.2	<b>130</b>	996000	1310000	
	<b>3202.85</b>	0.23	<b>33.4</b>	1048000	0.28	<b>39.0</b>	1048000	0.45	<b>59</b>	1048000	1.1	<b>114</b>	1014000	1310000	
	<b>3686.14</b>	0.20	<b>23.2</b>	920000	0.24	<b>27.1</b>	895000	0.39	<b>40.6</b>	833000	0.91	<b>73</b>	750000	1310000	
	<b>3965.43</b>	0.19	<b>30.3</b>	1048000	0.23	<b>35.3</b>	1048000	0.37	<b>52.9</b>	1048000	0.79	<b>95</b>	1048000	1310000	
	<b>4490.27</b>	0.17	<b>25.1</b>	1048000	0.20	<b>29.3</b>	1048000	0.32	<b>43.9</b>	1048000	0.65	<b>83</b>	1033000	1310000	
	<b>5156.29</b>	0.15	<b>22.3</b>	1048000	0.17	<b>26.0</b>	1048000	0.28	<b>39.0</b>	1048000	0.56	<b>73</b>	1042000	1310000	
	<b>5426.38</b>	0.14	<b>23.2</b>	1048000	0.17	<b>27.1</b>	1048000	0.27	<b>40.6</b>	1048000	0.53	<b>73</b>	1104000	1310000	
	<b>6330.78</b>	0.12	<b>18.7</b>	1048000	0.14	<b>21.9</b>	1048000	0.23	<b>32.8</b>	1048000	0.46	<b>60</b>	1048000	1310000	
	<b>7099.24</b>	0.11	<b>13.3</b>	1016000	0.13	<b>15.5</b>	989000	0.20	<b>23.3</b>	920000	0.41	<b>41.9</b>	828000	1310000	
	<b>8250.39</b>	0.09	<b>11.7</b>	1040000	0.11	<b>13.7</b>	1012000	0.18	<b>20.5</b>	941000	0.35	<b>36.9</b>	847000	1310000	
	<b>9796.38</b>	0.08	<b>10.1</b>	1048000	0.09	<b>11.8</b>	1038000	0.15	<b>17.7</b>	966000	0.30	<b>31.9</b>	870000	1310000	
	<b>11429.12</b>	0.07	<b>8.9</b>	1048000	0.08	<b>10.4</b>	1048000	0.13	<b>15.5</b>	989000	0.25	<b>28.0</b>	890000	1310000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 110001</b>	<b>4.32</b>	174	<b>10073</b>	540000	—	—	—	—	—	—	—	—	—	2250000	584 (H-F)
<b>GB 110002</b>	<b>14.81</b>	51	<b>4005</b>	718000	61	<b>4550</b>	680000	—	—	—	—	—	—	2250000	340 (H-F)
	<b>17.67</b>	42.4	<b>3499</b>	749000	51	<b>3976</b>	709000	—	—	—	—	—	—	2250000	
	<b>22.68</b>	33.1	<b>2853</b>	783000	39.7	<b>3241</b>	742000	—	—	—	—	—	—	2250000	
	<b>26.92</b>	27.9	<b>2499</b>	814000	33.4	<b>2839</b>	771000	—	—	—	—	—	—	2250000	
<b>GB 110003</b>	<b>60.59</b>	12.4	<b>1336</b>	955000	14.9	<b>1587</b>	945000	23.9	<b>2318</b>	857000	—	—	—	2250000	241 (H-F)
	<b>77.76</b>	9.6	<b>1056</b>	969000	11.6	<b>1254</b>	959000	18.6	<b>1889</b>	897000	—	—	—	2250000	
	<b>92.78</b>	8.1	<b>897</b>	982000	9.7	<b>1062</b>	969000	15.6	<b>1664</b>	943000	—	—	—	2250000	
	<b>110.11</b>	6.8	<b>776</b>	1008000	8.2	<b>905</b>	980000	13.2	<b>1416</b>	952000	—	—	—	2250000	
	<b>119.07</b>	6.3	<b>726</b>	1020000	7.6	<b>847</b>	992000	12.2	<b>1316</b>	956000	—	—	—	2250000	
	<b>141.31</b>	5.3	<b>628</b>	1047000	6.4	<b>733</b>	1018000	10.3	<b>1119</b>	966000	—	—	—	2250000	
	<b>167.71</b>	4.5	<b>459</b>	908000	5.4	<b>545</b>	898000	8.6	<b>854</b>	874000	—	—	—	2250000	
<b>GB 110004</b>	<b>242.37</b>	3.1	<b>407</b>	1136000	3.7	<b>475</b>	1105000	6.0	<b>672</b>	969000	12.0	<b>1091</b>	787000	2250000	186 (H-F)
	<b>289.19</b>	2.6	<b>351</b>	1166000	3.1	<b>409</b>	1135000	5.0	<b>613</b>	1056000	10.0	<b>1091</b>	939000	2250000	
	<b>311.04</b>	2.4	<b>330</b>	1179000	2.9	<b>385</b>	1147000	4.7	<b>577</b>	1067000	9.3	<b>1049</b>	971000	2250000	
	<b>365.93</b>	2.0	<b>287</b>	1209000	2.5	<b>335</b>	1176000	4.0	<b>502</b>	1094000	7.9	<b>905</b>	985000	2250000	
	<b>440.46</b>	1.7	<b>245</b>	1243000	2.0	<b>286</b>	1209000	3.3	<b>429</b>	1125000	6.6	<b>773</b>	1013000	2250000	
	<b>518.19</b>	1.4	<b>214</b>	1274000	1.7	<b>249</b>	1239000	2.8	<b>374</b>	1153000	5.6	<b>673</b>	1038000	2250000	
	<b>560.33</b>	1.3	<b>193</b>	1247000	1.6	<b>227</b>	1220000	2.6	<b>350</b>	1167000	5.2	<b>630</b>	1051000	2250000	
	<b>665.01</b>	1.1	<b>167</b>	1280000	1.4	<b>195</b>	1245000	2.2	<b>303</b>	1197000	4.4	<b>545</b>	1078000	2250000	
	<b>789.24</b>	0.95	<b>112</b>	1016000	1.1	<b>131</b>	988000	1.8	<b>203</b>	955000	3.7	<b>391</b>	918000	2250000	
<b>GB 110005</b>	<b>863.44</b>	0.87	<b>142</b>	1376000	1.0	<b>163</b>	1320000	1.7	<b>228</b>	1144000	3.4	<b>371</b>	929000	2250000	152 (H-F)
	<b>1015.81</b>	0.74	<b>124</b>	1411000	0.89	<b>144</b>	1372000	1.4	<b>217</b>	1277000	2.9	<b>371</b>	1093000	2250000	
	<b>1108.08</b>	0.68	<b>115</b>	1429000	0.81	<b>134</b>	1390000	1.3	<b>201</b>	1294000	2.6	<b>362</b>	1165000	2250000	
	<b>1236.08</b>	0.61	<b>105</b>	1453000	0.73	<b>122</b>	1413000	1.2	<b>171</b>	1225000	2.3	<b>277</b>	995000	2250000	
	<b>1413.24</b>	0.53	<b>94</b>	1483000	0.64	<b>109</b>	1442000	1.0	<b>164</b>	1342000	2.1	<b>295</b>	1208000	2250000	
	<b>1474.87</b>	0.51	<b>90</b>	1492000	0.61	<b>105</b>	1452000	0.98	<b>158</b>	1351000	2.0	<b>277</b>	1187000	2250000	
	<b>1586.30</b>	0.47	<b>84</b>	1490000	0.57	<b>99</b>	1468000	0.91	<b>148</b>	1366000	1.8	<b>267</b>	1230000	2250000	
	<b>1735.14</b>	0.43	<b>79</b>	1530000	0.52	<b>92</b>	1488000	0.84	<b>137</b>	1384000	1.7	<b>248</b>	1247000	2250000	
	<b>1996.17</b>	0.38	<b>67</b>	1511000	0.45	<b>79</b>	1470000	0.73	<b>118</b>	1368000	1.5	<b>213</b>	1231000	2250000	
	<b>2246.34</b>	0.33	<b>57</b>	1439000	0.40	<b>68</b>	1424000	0.65	<b>106</b>	1386000	1.3	<b>199</b>	1296000	2250000	
	<b>2509.23</b>	0.30	<b>56</b>	1587000	0.36	<b>66</b>	1544000	0.58	<b>101</b>	1464000	1.2	<b>181</b>	1318000	2250000	
	<b>2857.68</b>	0.26	<b>49.8</b>	1595000	0.31	<b>58</b>	1552000	0.51	<b>87</b>	1444000	1.0	<b>157</b>	1300000	2250000	
	<b>3263.09</b>	0.23	<b>44.5</b>	1628000	0.28	<b>52</b>	1583000	0.44	<b>78</b>	1473000	0.89	<b>140</b>	1327000	2250000	
	<b>3553.28</b>	0.21	<b>38.3</b>	1527000	0.25	<b>44.7</b>	1485000	0.41	<b>69</b>	1422000	0.82	<b>133</b>	1367000	2250000	



		n <sub>1</sub> = <b>750</b> RPM			n <sub>1</sub> = <b>900</b> RPM			n <sub>1</sub> = <b>1450</b> RPM			n <sub>1</sub> = <b>2900</b> RPM				
ie		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
GBA 110005	744.42	1.0	115	946000	1.2	131	896000	1.9	182	776000	3.9	296	630000	2250000	131 (H-F)
	888.23	0.84	115	1129000	1.0	131	1069000	1.6	182	926000	3.3	296	752000	2250000	
	1044.97	0.72	115	1328000	0.86	131	1257000	1.4	182	1090000	2.8	296	885000	2250000	
	1123.93	0.67	115	1428000	0.80	131	1352000	1.3	182	1172000	2.6	296	952000	2250000	
	1333.89	0.56	80	1182000	0.67	95	1170000	1.1	149	1139000	2.2	296	960000	2250000	
	1462.86	0.51	89	1442000	0.62	104	1402000	0.99	156	1305000	2.0	288	1205000	2250000	
	1591.57	0.47	80	1411000	0.57	95	1396000	0.91	149	1359000	1.8	271	1230000	2250000	
	1736.14	0.43	77	1479000	0.52	90	1439000	0.84	135	1339000	1.7	245	1217000	2250000	
	2042.52	0.37	67	1516000	0.44	78	1475000	0.71	118	1372000	1.4	212	1236000	2250000	
	2222.64	0.34	54	1445000	0.40	69	1412000	0.65	108	1374000	1.3	197	1252000	2250000	
	2418.20	0.31	54	1576000	0.37	64	1430000	0.60	101	1391000	1.2	190	1311000	2250000	
	2637.86	0.28	47	1615000	0.34	63	1533000	0.55	95	1427000	1.1	170	1285000	2250000	
	3103.36	0.24	36.5	1250000	0.29	55	1571000	0.47	82	1462000	0.93	148	1316000	2250000	
	3683.11	0.20	31.5	1283000	0.24	36.8	1248000	0.39	55	1161000	0.79	99	1045000	2250000	
GBA 110006	2523.90	0.30	60	1619000	0.36	70	1575000	0.57	104	1465000	1.1	182	1282000	2250000	114 (H-F)
	2969.29	0.25	52	1659000	0.30	61	1614000	0.49	91	1502000	1.0	163	1352000	2250000	
	3239.00	0.23	47.3	1649000	0.28	55	1604000	0.45	83	1495000	0.90	152	1370000	2250000	
	3542.91	0.21	44.7	1704000	0.25	52	1658000	0.41	78	1542000	0.82	141	1389000	2250000	
	3864.72	0.19	41.5	1727000	0.23	48.4	1680000	0.38	73	1563000	0.75	131	1407000	2250000	
	4506.23	0.17	36.4	1767000	0.20	42.5	1719000	0.32	62	1547000	0.64	115	1440000	2250000	
	5071.95	0.15	32.9	1799000	0.18	38.4	1750000	0.29	58	1628000	0.57	104	1466000	2250000	
	5652.95	0.13	30.0	1800000	0.16	35.1	1779000	0.26	53	1655000	0.51	95	1490000	2250000	
	6317.56	0.12	27.3	1800000	0.14	31.9	1800000	0.23	47.8	1683000	0.46	86	1516000	2250000	
	7100.24	0.11	23.9	1800000	0.13	27.9	1781000	0.20	41.9	1657000	0.41	75	1492000	2250000	
	7925.21	0.09	22.5	1800000	0.11	26.3	1800000	0.18	39.5	1742000	0.37	71	1569000	2250000	
	8907.05	0.08	20.4	1800000	0.10	23.8	1800000	0.16	34.6	1715000	0.33	64	1597000	2250000	
	9913.71	0.08	18.0	1800000	0.09	21.1	1800000	0.15	31.6	1743000	0.29	57	1569000	2250000	
	11231.22	0.07	16.2	1800000	0.08	18.9	1800000	0.13	28.4	1776000	0.26	51	1599000	2250000	
	12081.15	0.06	14.1	1800000	0.07	16.5	1787000	0.12	24.7	1663000	0.24	44.5	1497000	2250000	
	14213.12	0.05	12.3	1800000	0.06	14.4	1800000	0.10	21.5	1704000	0.20	38.8	1535000	2250000	
	15819.46	0.05	9.4	1599000	0.06	11.0	1556000	0.09	16.4	1447000	0.18	29.6	1303000	2250000	
	18240.17	0.04	10.7	1800000	0.05	12.5	1800000	0.08	18.8	1800000	0.16	33.9	1721000	2250000	
	21647.68	0.03	7.2	1677000	0.04	8.4	1631000	0.07	12.6	1518000	0.13	22.7	1367000	2250000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 130001</b>	<b>4.32</b>	174	<b>13431</b>	720000	—	—	—	—	—	—	—	—	—	2720000	585 (H-F)
<b>GB 130002</b>	<b>16.56</b>	45.3	<b>4914</b>	985000	54	<b>5583</b>	933000	—	—	—	—	—	—	2720000	340 (H-F)
<b>GB 130003</b>	<b>63.48</b>	11.8	<b>1551</b>	1162000	14.2	<b>1842</b>	1150000	22.8	<b>2888</b>	1119000	—	—	—	2720000	243 (H-F)
	<b>72.86</b>	10.3	<b>1362</b>	1171000	12.4	<b>1618</b>	1159000	19.9	<b>2536</b>	1128000	—	—	—	2720000	
<b>GB 130004</b>	<b>243.76</b>	3.1	<b>479</b>	1342000	3.7	<b>559</b>	1306000	5.9	<b>837</b>	1215000	—	—	—	2720000	190 (H-F)
	<b>279.80</b>	2.7	<b>426</b>	1370000	3.2	<b>497</b>	1333000	5.2	<b>745</b>	1240000	—	—	—	2720000	
	<b>328.60</b>	2.3	<b>371</b>	1404000	2.7	<b>434</b>	1366000	4.4	<b>650</b>	1271000	—	—	—	2720000	
	<b>377.18</b>	2.0	<b>330</b>	1434000	2.4	<b>386</b>	1395000	3.8	<b>578</b>	1298000	—	—	—	2720000	
<b>GB 130005</b>	<b>835.76</b>	0.90	<b>172</b>	1617000	1.1	<b>201</b>	1573000	1.7	<b>302</b>	1464000	3.5	<b>544</b>	1318000	2720000	156 (H-F)
	<b>997.21</b>	0.75	<b>148</b>	1661000	0.90	<b>173</b>	1616000	1.5	<b>260</b>	1503000	2.9	<b>468</b>	1354000	2720000	
	<b>1126.64</b>	0.67	<b>134</b>	1692000	0.80	<b>156</b>	1646000	1.3	<b>234</b>	1531000	2.6	<b>422</b>	1379000	2720000	
	<b>1293.18</b>	0.58	<b>119</b>	1728000	0.70	<b>139</b>	1681000	1.1	<b>208</b>	1564000	2.2	<b>375</b>	1408000	2720000	
	<b>1468.94</b>	0.51	<b>107</b>	1761000	0.61	<b>125</b>	1713000	0.99	<b>187</b>	1594000	2.0	<b>337</b>	1435000	2720000	
	<b>1543.00</b>	0.49	<b>102</b>	1774000	0.58	<b>120</b>	1726000	0.94	<b>179</b>	1606000	1.9	<b>323</b>	1446000	2720000	
	<b>1725.16</b>	0.43	<b>93</b>	1805000	0.52	<b>109</b>	1756000	0.84	<b>163</b>	1633000	1.7	<b>294</b>	1471000	2720000	
	<b>1980.19</b>	0.38	<b>83</b>	1843000	0.45	<b>97</b>	1793000	0.73	<b>145</b>	1668000	1.5	<b>261</b>	1502000	2720000	
	<b>2350.11</b>	0.32	<b>72</b>	1891000	0.38	<b>84</b>	1840000	0.62	<b>125</b>	1712000	1.2	<b>226</b>	1541000	2720000	



		n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
	ie	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
GBA 130005	909.34	0.82	163	1638000	0.99	190	1593000	1.6	285	1483000	3.2	514	1335000	2720000	135 (H-F)
	1067.96	0.70	142	1678000	0.84	166	1633000	1.4	249	1519000	2.7	448	1368000	2720000	
	1225.83	0.61	127	1714000	0.73	148	1667000	1.2	221	1551000	2.4	399	1397000	2720000	
GBA 130006	2566.98	0.29	69	1916000	0.35	81	1864000	0.56	121	1735000	1.1	218	1562000	2720000	118 (H-F)
	3062.87	0.24	60	1968000	0.29	70	1915000	0.47	104	1782000	0.95	188	1604000	2720000	
	3515.64	0.21	53	2010000	0.26	62	1955000	0.41	93	1819000	0.82	167	1638000	2720000	
	3971.92	0.19	47.9	2047000	0.23	56	1992000	0.37	84	1853000	0.73	151	1668000	2720000	
	4476.76	0.17	43.2	2085000	0.20	50	2028000	0.32	76	1887000	0.65	136	1699000	2720000	
	5257.64	0.14	37.7	2136000	0.17	44.0	2078000	0.28	66	1933000	0.55	119	1741000	2720000	
	5972.20	0.13	33.9	2176000	0.15	39.5	2118000	0.24	59	1971000	0.49	107	1775000	2720000	
	6288.58	0.12	32.4	2176000	0.14	37.8	2135000	0.23	57	1986000	0.46	102	1789000	2720000	
	7087.88	0.11	29.3	2176000	0.13	34.2	2174000	0.20	51	2023000	0.41	92	1821000	2720000	
	8050.76	0.09	26.3	2176000	0.11	30.7	2176000	0.18	46.0	2062000	0.36	83	1857000	2720000	
	9554.75	0.08	22.7	2176000	0.09	26.5	2176000	0.15	39.8	2116000	0.30	72	1905000	2720000	
	10967.19	0.07	20.2	2176000	0.08	23.6	2176000	0.13	35.4	2161000	0.26	64	1946000	2720000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 150001</b>	<b>4.07</b>	—	—	—	—	—	—	—	—	—	—	—	—	2720000	585 (H-F)
<b>GB 150002</b>	<b>15.62</b>	48.0	<b>4914</b>	929000	58	<b>5583</b>	880000	—	—	—	—	—	—	2720000	340 (H-F)
<b>GB 150003</b>	<b>59.87</b>	12.5	<b>1968</b>	1390000	15.0	<b>2236</b>	1316000	24.2	<b>3122</b>	1141000	—	—	—	2720000	246 (H-F)
	<b>68.72</b>	10.9	<b>1742</b>	1413000	13.1	<b>2030</b>	1372000	21.1	<b>2834</b>	1189000	—	—	—	2720000	
<b>GB 150004</b>	<b>248.02</b>	3.0	<b>563</b>	1607000	3.6	<b>657</b>	1563000	5.8	<b>986</b>	1456000	—	—	—	2720000	192 (H-F)
	<b>284.68</b>	2.6	<b>501</b>	1640000	3.2	<b>585</b>	1596000	5.1	<b>876</b>	1485000	—	—	—	2720000	
	<b>323.28</b>	2.3	<b>450</b>	1672000	2.8	<b>525</b>	1627000	4.5	<b>787</b>	1513000	—	—	—	2720000	
	<b>371.07</b>	2.0	<b>400</b>	1707000	2.4	<b>467</b>	1661000	3.9	<b>700</b>	1545000	—	—	—	2720000	
	<b>389.13</b>	1.9	<b>384</b>	1720000	2.3	<b>448</b>	1673000	3.7	<b>672</b>	1557000	—	—	—	2720000	
	<b>446.65</b>	1.7	<b>342</b>	1756000	2.0	<b>399</b>	1708000	3.2	<b>598</b>	1589000	—	—	—	2720000	
<b>GB 150005</b>	<b>950.73</b>	0.79	<b>185</b>	1969000	0.95	<b>215</b>	1915000	1.5	<b>323</b>	1782000	3.05	<b>582</b>	1604000	2720000	158 (H-F)
	<b>1091.28</b>	0.69	<b>164</b>	2010000	0.82	<b>192</b>	1955000	1.3	<b>287</b>	1819000	2.66	<b>517</b>	1638000	2720000	
	<b>1239.23</b>	0.61	<b>147</b>	2049000	0.73	<b>172</b>	1993000	1.2	<b>258</b>	1855000	2.34	<b>464</b>	1670000	2720000	
	<b>1302.09</b>	0.58	<b>141</b>	2065000	0.69	<b>165</b>	2008000	1.1	<b>247</b>	1869000	2.23	<b>445</b>	1683000	2720000	
	<b>1422.42</b>	0.53	<b>131</b>	2092000	0.63	<b>153</b>	2035000	1.0	<b>229</b>	1894000	2.04	<b>413</b>	1705000	2720000	
	<b>1491.67</b>	0.50	<b>119</b>	1999000	0.60	<b>142</b>	1978000	0.97	<b>220</b>	1907000	1.94	<b>397</b>	1718000	2720000	
	<b>1494.57</b>	0.50	<b>126</b>	2108000	0.60	<b>147</b>	2051000	0.97	<b>220</b>	1908000	1.94	<b>396</b>	1718000	2720000	
	<b>1697.21</b>	0.44	<b>113</b>	2149000	0.53	<b>132</b>	2091000	0.85	<b>197</b>	1945000	1.71	<b>356</b>	1751000	2720000	
	<b>1712.17</b>	0.44	<b>112</b>	2152000	0.53	<b>131</b>	2093000	0.85	<b>196</b>	1948000	1.69	<b>353</b>	1754000	2720000	
	<b>1948.10</b>	0.38	<b>100</b>	2176000	0.46	<b>117</b>	2135000	0.74	<b>176</b>	1986000	1.49	<b>316</b>	1788000	2720000	
	<b>2042.94</b>	0.37	<b>89</b>	2035000	0.44	<b>105</b>	2014000	0.71	<b>165</b>	1960000	1.42	<b>304</b>	1801000	2720000	
	<b>2344.94</b>	0.32	<b>86</b>	2176000	0.38	<b>100</b>	2176000	0.62	<b>150</b>	2043000	1.24	<b>270</b>	1839000	2720000	



	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 205001</b>	<b>4.14</b>	—	—	—	—	—	—	—	—	—	—	—	—	3620000	870 (H-F)
<b>GB 205002</b>	<b>15.89</b>	47.2	<b>6744</b>	1297000	—	—	—	—	—	—	—	—	—	3620000	498 (H-F)
	<b>22.50</b>	33.3	<b>4422</b>	1204000	—	—	—	—	—	—	—	—	—	3620000	
<b>GB 205003</b>	<b>58.47</b>	12.8	<b>2530</b>	1746000	15.4	<b>2875</b>	1653000	—	—	—	—	—	—	3620000	357 (H-F)
	<b>78.51</b>	9.6	<b>1988</b>	1842000	11.5	<b>2259</b>	1744000	—	—	—	—	—	—	3620000	
	<b>82.80</b>	9.1	<b>1328</b>	1297000	10.9	<b>1577</b>	1284000	—	—	—	—	—	—	3620000	
	<b>111.18</b>	6.7	<b>1006</b>	1319000	8.1	<b>1194</b>	1306000	—	—	—	—	—	—	3620000	
<b>GB 205004</b>	<b>239.21</b>	3.1	<b>834</b>	2296000	3.8	<b>974</b>	2234000	6.1	<b>1460</b>	2078000	—	—	—	3620000	280 (H-F)
	<b>306.99</b>	2.4	<b>669</b>	2362000	2.9	<b>788</b>	2320000	4.7	<b>1181</b>	2158000	—	—	—	3620000	
	<b>321.19</b>	2.3	<b>642</b>	2371000	2.8	<b>758</b>	2336000	4.5	<b>1137</b>	2173000	—	—	—	3620000	
	<b>338.73</b>	2.2	<b>361</b>	1406000	2.7	<b>428</b>	1392000	4.3	<b>672</b>	1354000	—	—	—	3620000	
	<b>364.34</b>	2.1	<b>576</b>	2417000	2.5	<b>676</b>	2361000	4.0	<b>1021</b>	2215000	—	—	—	3310000	
	<b>412.20</b>	1.8	<b>519</b>	2462000	2.2	<b>606</b>	2395000	3.5	<b>920</b>	2257000	—	—	—	3620000	
	<b>434.70</b>	1.7	<b>285</b>	1426000	2.1	<b>339</b>	1411000	3.3	<b>531</b>	1374000	—	—	—	3620000	
	<b>454.81</b>	1.6	<b>273</b>	1430000	2.0	<b>324</b>	1415000	3.2	<b>509</b>	1377000	—	—	—	3620000	
	<b>489.20</b>	1.5	<b>449</b>	2527000	1.8	<b>524</b>	2458000	3.0	<b>795</b>	2316000	—	—	—	3310000	
	<b>515.91</b>	1.5	<b>244</b>	1446000	1.7	<b>288</b>	1425000	2.8	<b>452</b>	1387000	—	—	—	3620000	
	<b>583.68</b>	1.3	<b>219</b>	1473000	1.5	<b>256</b>	1435000	2.5	<b>402</b>	1397000	—	—	—	3620000	
	<b>692.71</b>	1.1	<b>190</b>	1512000	1.3	<b>221</b>	1470000	2.1	<b>342</b>	1411000	—	—	—	3620000	
<b>GB 205005</b>	<b>956.85</b>	0.78	<b>261</b>	2797000	0.94	<b>304</b>	2721000	1.5	<b>456</b>	2532000	3.0	<b>831</b>	2308000	3620000	230 (H-F)
	<b>1125.70</b>	0.67	<b>227</b>	2867000	0.80	<b>265</b>	2789000	1.3	<b>397</b>	2595000	2.6	<b>721</b>	2355000	3620000	
	<b>1227.95</b>	0.61	<b>211</b>	2896000	0.73	<b>246</b>	2826000	1.2	<b>369</b>	2629000	2.4	<b>664</b>	2367000	3620000	
	<b>1284.77</b>	0.58	<b>192</b>	2762000	0.70	<b>228</b>	2733000	1.1	<b>355</b>	2647000	2.3	<b>639</b>	2383000	3620000	
	<b>1354.91</b>	0.55	<b>110</b>	2896000	0.66	<b>128</b>	2896000	1.1	<b>193</b>	1514000	2.1	<b>358</b>	1409000	3620000	
	<b>1444.65</b>	0.52	<b>184</b>	2896000	0.62	<b>214</b>	2900000	1.0	<b>321</b>	2694000	2.0	<b>579</b>	2426000	3620000	
	<b>1457.35</b>	0.51	<b>182</b>	2788000	0.62	<b>213</b>	2759000	0.99	<b>319</b>	2698000	2.0	<b>575</b>	2429000	3620000	
	<b>1511.49</b>	0.50	<b>164</b>	1715000	0.60	<b>195</b>	1668000	0.96	<b>306</b>	2685000	1.9	<b>557</b>	2443000	3310000	
	<b>1594.01</b>	0.47	<b>96</b>	2802000	0.56	<b>112</b>	2773000	0.91	<b>168</b>	1552000	1.8	<b>307</b>	1422000	3620000	
	<b>1648.79</b>	0.45	<b>151</b>	2896000	0.55	<b>180</b>	2896000	0.88	<b>282</b>	2698000	1.8	<b>517</b>	2475000	3620000	
	<b>1714.53</b>	0.44	<b>159</b>	1737000	0.52	<b>185</b>	1690000	0.85	<b>278</b>	2765000	1.7	<b>500</b>	2490000	3310000	
	<b>1738.80</b>	0.43	<b>89</b>	1749000	0.52	<b>104</b>	1702000	0.83	<b>156</b>	1573000	1.7	<b>283</b>	1429000	3310000	
	<b>1819.25</b>	0.41	<b>86</b>	2828000	0.49	<b>100</b>	2798000	0.80	<b>150</b>	1583000	1.6	<b>271</b>	1433000	3620000	
	<b>1939.75</b>	0.39	<b>130</b>	2829000	0.46	<b>154</b>	2800000	0.75	<b>242</b>	2723000	1.5	<b>451</b>	2537000	3620000	
	<b>1956.80</b>	0.38	<b>129</b>	1783000	0.46	<b>153</b>	1735000	0.74	<b>240</b>	2725000	1.5	<b>447</b>	2540000	3310000	
	<b>2045.65</b>	0.37	<b>78</b>	1793000	0.44	<b>91</b>	1744000	0.71	<b>136</b>	1612000	1.4	<b>244</b>	1451000	3310000	
	<b>2063.63</b>	0.36	<b>77</b>	2861000	0.44	<b>90</b>	2826000	0.70	<b>135</b>	1614000	1.4	<b>243</b>	1453000	3620000	
	<b>2140.30</b>	0.35	<b>75</b>	1827000	0.42	<b>87</b>	1778000	0.68	<b>131</b>	1623000	1.4	<b>235</b>	1461000	3310000	
	<b>2302.12</b>	0.33	<b>111</b>	1862000	0.39	<b>131</b>	1811000	0.63	<b>206</b>	2750000	1.3	<b>390</b>	2603000	3310000	
	<b>2334.71</b>	0.32	<b>69</b>	1864000	0.39	<b>81</b>	1814000	0.62	<b>121</b>	1644000	1.2	<b>219</b>	1481000	3310000	
	<b>2427.80</b>	0.31	<b>67</b>	1911000	0.37	<b>78</b>	1859000	0.60	<b>117</b>	1654000	1.2	<b>211</b>	1489000	3310000	
	<b>2746.71</b>	0.27	<b>60</b>	1862000	0.33	<b>71</b>	1811000	0.53	<b>106</b>	1685000	1.1	<b>190</b>	1517000	3293000	
	<b>2770.86</b>	0.27	<b>60</b>	1864000	0.32	<b>70</b>	1814000	0.52	<b>105</b>	1687000	1.0	<b>189</b>	1519000	3293000	
	<b>3259.83</b>	0.23	<b>52</b>	1911000	0.28	<b>61</b>	1859000	0.44	<b>91</b>	1729000	0.89	<b>165</b>	1557000	3293000	



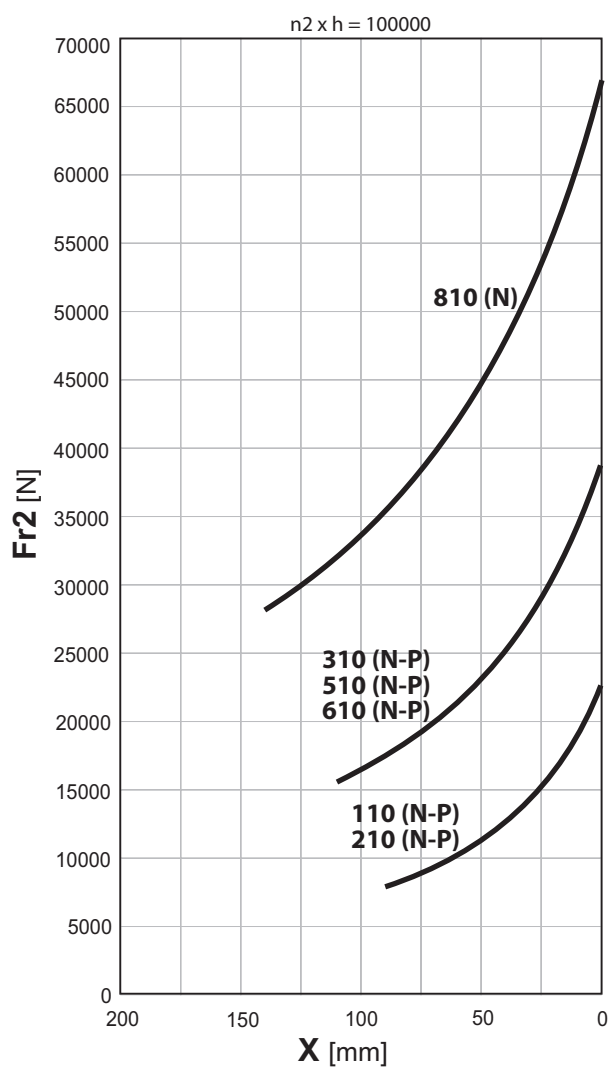
# GB 235000



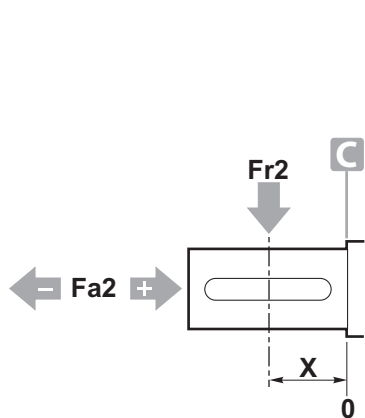
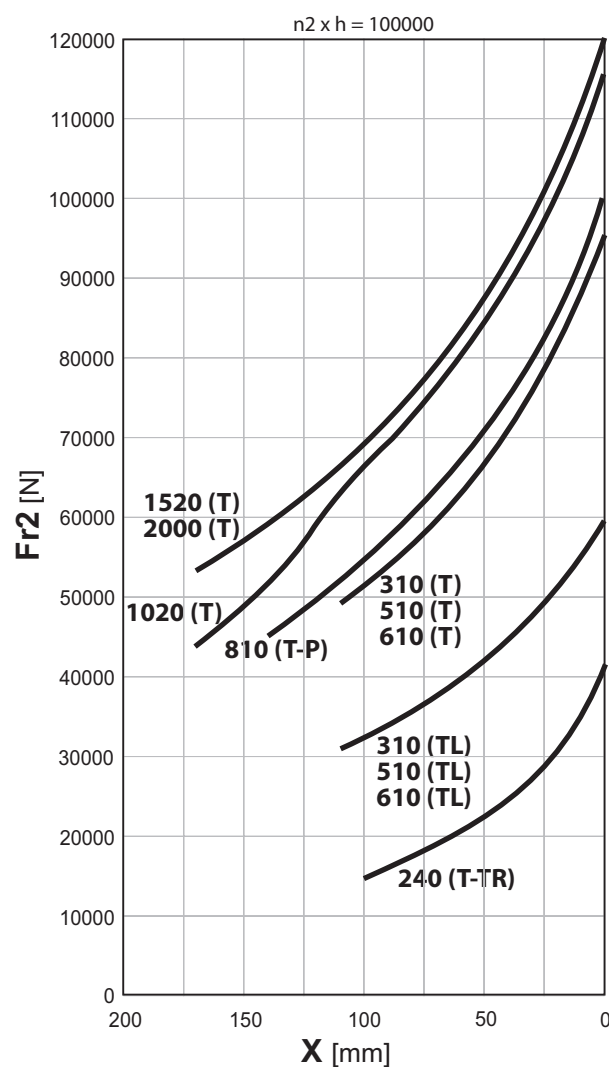
	ie	n <sub>1</sub> = 750 RPM			n <sub>1</sub> = 900 RPM			n <sub>1</sub> = 1450 RPM			n <sub>1</sub> = 2900 RPM			T <sub>2max</sub> [Nm]	P <sub>t</sub> [kW]
		n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]	n <sub>2</sub> [RPM]	P <sub>1</sub> [kW]	T <sub>2</sub> [Nm]		
<b>GB 235001</b>	<b>4.14</b>	—	—	—	—	—	—	—	—	—	—	—	—	3620000	870 (H-F)
<b>GB 235002</b>	<b>15.89</b>	47.2	<b>8992</b>	1730000	—	—	—	—	—	—	—	—	—	3620000	508 (H-F)
<b>GB 235003</b>	<b>54.48</b>	13.8	<b>3467</b>	2229000	16.5	<b>4118</b>	2206000	—	—	—	—	—	—	3620000	371 (H-F)
	<b>65.00</b>	11.5	<b>2936</b>	2252000	13.8	<b>3486</b>	2229000	—	—	—	—	—	—	3620000	
	<b>83.42</b>	9.0	<b>2320</b>	2284000	10.8	<b>2755</b>	2261000	—	—	—	—	—	—	3620000	
	<b>99.00</b>	7.6	<b>1974</b>	2307000	9.1	<b>2345</b>	2283000	—	—	—	—	—	—	3620000	
<b>GB 235004</b>	<b>222.87</b>	3.4	<b>984</b>	2522000	4.0	<b>1148</b>	2454000	6.5	<b>1754</b>	2327000	—	—	—	3620000	291 (H-F)
	<b>265.92</b>	2.8	<b>847</b>	2591000	3.4	<b>988</b>	2520000	5.5	<b>1485</b>	2351000	—	—	—	3620000	
	<b>286.01</b>	2.6	<b>796</b>	2619000	3.1	<b>929</b>	2548000	5.1	<b>1393</b>	2371000	—	—	—	3620000	
	<b>339.44</b>	2.2	<b>688</b>	2688000	2.7	<b>803</b>	2615000	4.3	<b>1204</b>	2433000	—	—	—	3620000	
	<b>341.27</b>	2.2	<b>685</b>	2690000	2.6	<b>800</b>	2617000	4.2	<b>1199</b>	2435000	—	—	—	3620000	
	<b>341.27</b>	2.2	<b>685</b>	2690000	2.2	<b>692</b>	2686000	4.2	<b>1199</b>	2435000	—	—	—	3620000	
	<b>405.02</b>	1.9	<b>592</b>	2761000	2.1	<b>647</b>	2718000	3.6	<b>1037</b>	2499000	—	—	—	3620000	
	<b>437.96</b>	1.7	<b>554</b>	2794000	1.7	<b>560</b>	2789000	3.3	<b>970</b>	2529000	—	—	—	3620000	
	<b>519.78</b>	1.4	<b>479</b>	2867000	1.7	<b>560</b>	2789000	2.8	<b>839</b>	2595000	—	—	—	3620000	
	<b>616.88</b>	1.2	<b>415</b>	2896000	1.5	<b>484</b>	2862000	2.4	<b>725</b>	2663000	—	—	—	3620000	
<b>GB 235005</b>	<b>891.47</b>	0.84	<b>311</b>	2896000	1.0	<b>363</b>	2896000	1.6	<b>544</b>	2816000	3.3	<b>980</b>	2535000	3620000	238 (H-F)
	<b>1048.79</b>	0.72	<b>271</b>	2896000	0.86	<b>316</b>	2896000	1.4	<b>474</b>	2886000	2.8	<b>854</b>	2599000	3620000	
	<b>1063.69</b>	0.71	<b>268</b>	2896000	0.85	<b>313</b>	2896000	1.4	<b>469</b>	2892000	2.7	<b>844</b>	2604000	3620000	
	<b>1144.06</b>	0.66	<b>252</b>	2896000	0.79	<b>294</b>	2896000	1.3	<b>440</b>	2896000	2.5	<b>793</b>	2633000	3620000	
	<b>1251.40</b>	0.60	<b>233</b>	2896000	0.72	<b>272</b>	2896000	1.2	<b>408</b>	2896000	2.3	<b>735</b>	2669000	3620000	
	<b>1345.95</b>	0.56	<b>219</b>	2896000	0.67	<b>256</b>	2896000	1.1	<b>384</b>	2896000	2.2	<b>691</b>	2698000	3620000	
	<b>1357.78</b>	0.55	<b>218</b>	2896000	0.66	<b>254</b>	2896000	1.1	<b>381</b>	2896000	2.1	<b>686</b>	2702000	3620000	
	<b>1365.07</b>	0.55	<b>217</b>	2896000	0.66	<b>253</b>	2896000	1.1	<b>379</b>	2896000	2.1	<b>683</b>	2704000	3620000	
	<b>1597.39</b>	0.47	<b>190</b>	2896000	0.56	<b>221</b>	2896000	0.91	<b>332</b>	2896000	1.8	<b>597</b>	2769000	3620000	
	<b>1605.96</b>	0.47	<b>189</b>	2896000	0.56	<b>220</b>	2896000	0.90	<b>330</b>	2896000	1.8	<b>595</b>	2772000	3620000	
	<b>1620.08</b>	0.46	<b>187</b>	2896000	0.56	<b>219</b>	2896000	0.90	<b>328</b>	2896000	1.8	<b>590</b>	2775000	3620000	
	<b>1751.83</b>	0.43	<b>175</b>	2896000	0.51	<b>205</b>	2896000	0.83	<b>307</b>	2896000	1.7	<b>552</b>	2808000	3620000	
	<b>1905.97</b>	0.39	<b>163</b>	2896000	0.47	<b>191</b>	2896000	0.76	<b>286</b>	2896000	1.5	<b>514</b>	2844000	3620000	
	<b>2060.98</b>	0.36	<b>153</b>	2896000	0.44	<b>178</b>	2896000	0.70	<b>267</b>	2896000	1.4	<b>481</b>	2878000	3620000	
	<b>2079.10</b>	0.36	<b>152</b>	2896000	0.43	<b>177</b>	2896000	0.70	<b>265</b>	2896000	1.4	<b>478</b>	2882000	3620000	
	<b>2446.00</b>	0.31	<b>132</b>	2896000	0.37	<b>154</b>	2896000	0.59	<b>231</b>	2896000	1.2	<b>416</b>	2896000	3620000	
	<b>2467.50</b>	0.30	<b>131</b>	2896000	0.36	<b>153</b>	2896000	0.59	<b>229</b>	2896000	1.2	<b>413</b>	2896000	3620000	
	<b>2902.95</b>	0.26	<b>114</b>	2896000	0.31	<b>133</b>	2896000	0.50	<b>200</b>	2896000	1.0	<b>360</b>	2896000	3620000	



**N** (110-210-310-510-810) - **P** (110-210-310-510-610)



**T** (240-310-510-810-1020-1520-2000) - **TL** (310-510) - **P** (810-1020)



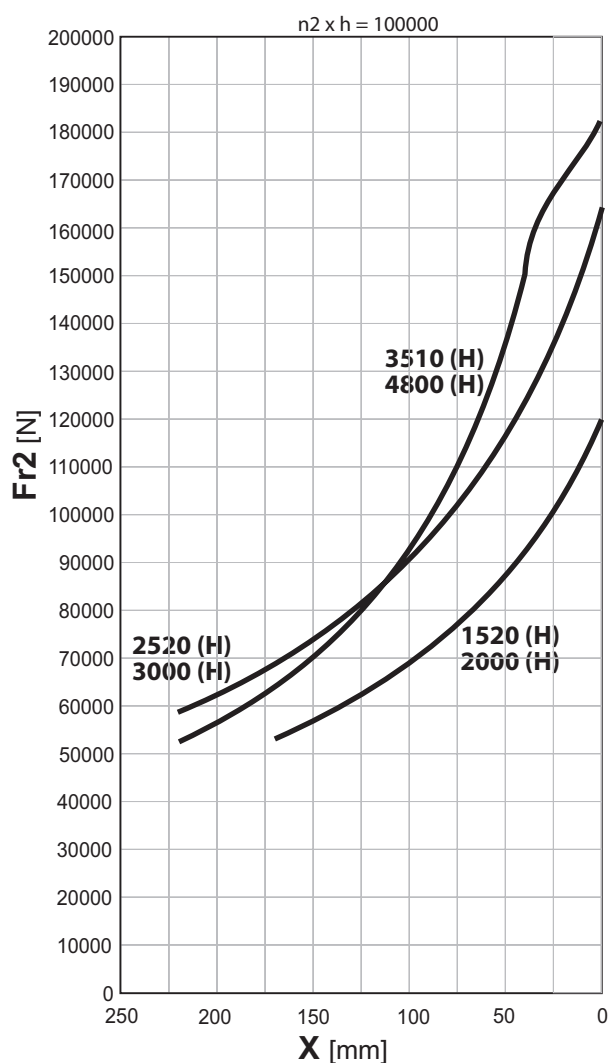
$n_2 \times h = 100000$

RE-RA	Fa2 [N]									
	FS		N		P		T		TL	
	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)
110	6800	6800	19250	19250	19250	19250	22500	35500	—	—
210	6800	6800	19250	19250	19250	19250	22500	35500	—	—
240	7350	7350	—	—	—	—	25700	34400	—	—
310	10500	10500	39500	39500	58400	58400	57500	78500	48500	48500
510	10500	10500	39500	39500	58400	58400	57500	78500	48500	48500
610	10500	10500	39500	39500	58400	58400	57500	78500	48500	48500
810	21500	21500	58400	58400	58400	88500	58400	88500	—	—
1020	19000	19000	—	—	58400	88000	60500	104500	—	—
1520	27000	27000	—	—	—	—	73400	104500	—	—
2000	27000	27000	—	—	—	—	73400	104500	—	—

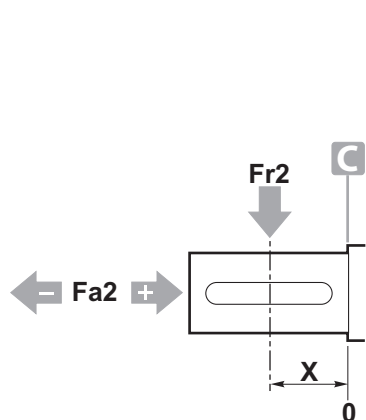
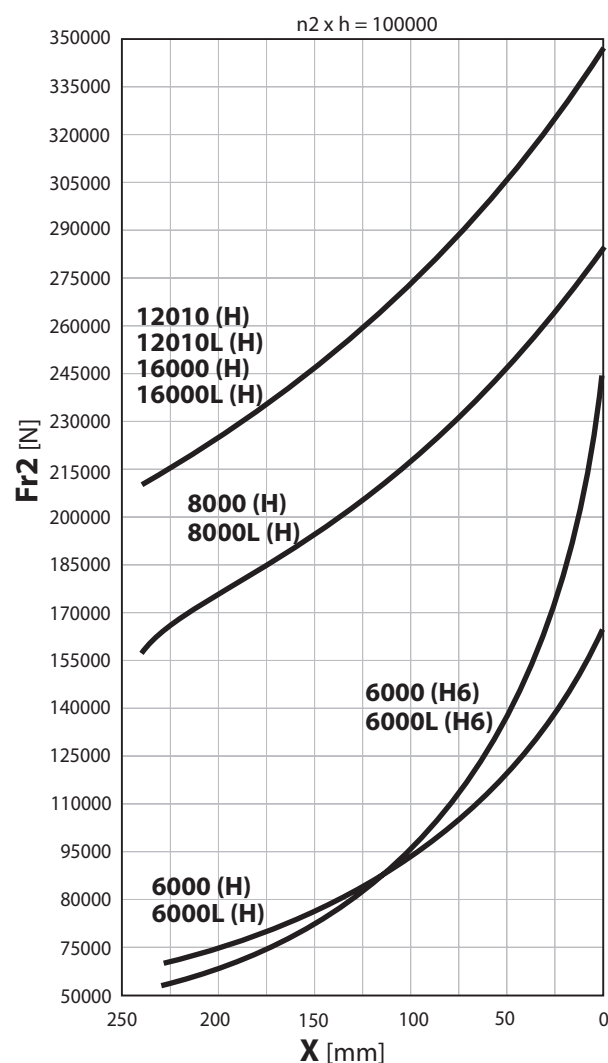
$K_f$	$n_2 \times h$						
	20000	40000	60000	80000	100000	200000	400000
	1.7	1.3	1.15	1.06	1	0.8	0.63



## H (1520-2000-2520-3000-3510)



## H (6000-8000-12010-16000) - H6 (6000)



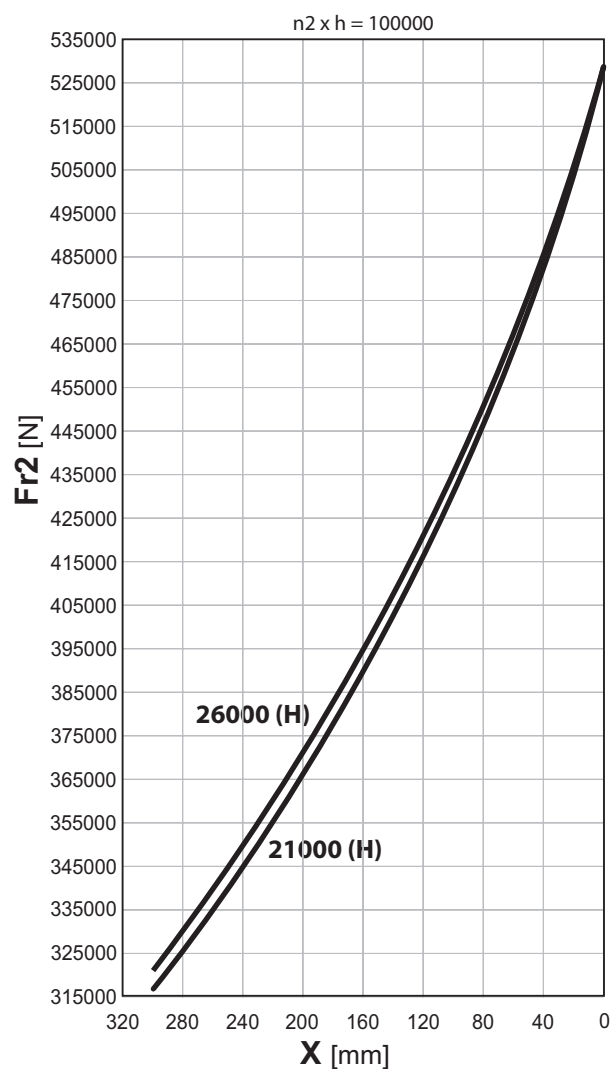
RE-RA	Fa2 [N]							
	FS		FS1		H		H6	
	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)
1520	27000	27000	—	—	73400	104500	—	—
2000	27000	27000	—	—	73400	104500	—	—
2520	29500	29500	—	—	112600	149000	—	—
3000	29500	29500	—	—	112600	149000	—	—
3500	44000	44000	—	—	59000	44000	—	—
4800	44000	44000	65250*	44000	59000	44000	—	—
6000	52000	42000	—	—	148500	131000	94000	42000
8000	67000	56000*	82200*	56000*	94000	56000*	—	—
12010	75000	65250*	—	—	114000	65250*	—	—
16000	75000	65250*	113600*	65250*	114000	65250*	—	—

\* Fa/Fr < 0.4

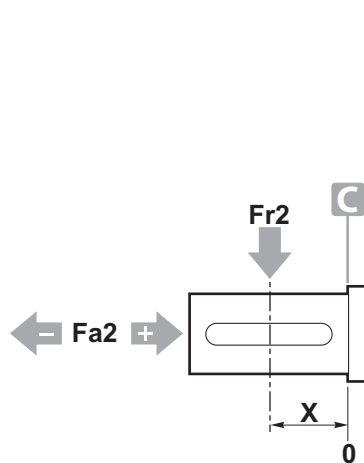
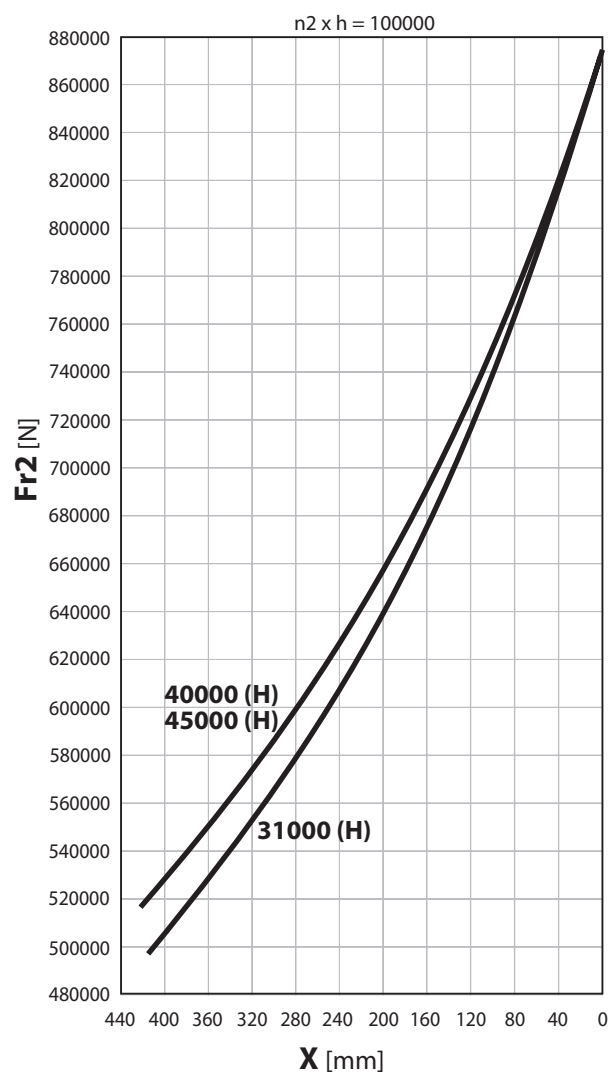
	$n_2 \times h$						
	20000	40000	60000	80000	100000	200000	400000
K <sub>f</sub>	1.7	1.3	1.15	1.06	1	0.8	0.63



## H (21000-26000)



## H (31000-40000-45000)



GB	Fa2 [N]			
	FS		H	
	Fa2 (-)	Fa2 (+)	Fa2 (-)	Fa2 (+)
21000	113600*	113600*	170000	113600*
26000	160500*	113600*	170000	113600*
31000	240000*	160500*	275000	160500*
40000	240000*	160500*	275000	160500*
45000	260000*	160500*	275000	160500*
53000	185000	185000	—	—
61000	185000	185000	—	—
85000	225000	185000	—	—
110000	315000	230000	—	—
130000	315000	230000	—	—
150000	315000	230000	—	—
205000	550000	315000	—	—
235000	550000	315000	—	—

\*  $Fa/Fr < 0.4$

$K_f$	$n_2 \times h$					
	20000	40000	60000	80000	100000	200000
	1.7	1.3	1.15	1.06	1	0.8
						0.63







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**DIMENSIONI**

UK

**DIMENSIONS**

G





<b>S</b>	<b>N</b>	NS	110 - 210 - 310 - 510 - 610 - 810	G-4
	<b>P</b>	PS	110 - 210 - 310 - 510 - 610 - 810 - 1020	G-6
	<b>T</b>	TS/T1S/TLS/TRS/TR1S	110 - 210 - 240 - 310 - 510 - 610	G-8
		TS	810 - 1020 - 1520 - 2000 - 2000L	G-10
	<b>H</b>	HS	1520 - 2000 - 2000L - 2520 - 3000 - 3510 - 4800	G-12
		HS/H6S	6000 - 8000 - 12010 - 16000	G-14
		HS/H6S	6000L - 8000L - 12010L - 16000L	G-16
		HS	21000 - 26000 - 31000 - 40000 - 45000	G-18



<b>C</b>	<b>N</b>	NC/NK/NK1	110 - 210 - 310 - 510 - 610 - 810	G-20
	<b>P</b>	PC/PK/PK1	110 - 210 - 310 - 510 - 610 - 810 - 1020	G-22
	<b>T</b>	TC/T1C/TLC/TRC/TLK/TR1C	110 - 210 - 240 - 310 - 510 - 610 - 810	G-24
		TC	810 - 1020 - 1520 - 2000 - 2000L	G-26
	<b>H</b>	HC	1520 - 2000 - 2000L - 2520 - 3000 - 3510 - 4800	G-28
		HC/H6C	6000 - 8000 - 12010 - 16000	G-30
		HC/H6C	6000L - 8000L - 12010L - 16000L	G-32
		HC	21000 - 26000 - 31000 - 40000 - 45000	G-34



<b>E</b>	<b>N</b>	NE	110 - 210 - 310 - 510 - 610	G-36
	<b>T</b>	TE/T1E/TRE/TR1E/TLE	110 - 210 - 240 - 310 - 510 - 610	G-38
		TE	810 - 1020 - 1520 - 2000 - 2000L	G-40
	<b>H</b>	HE	1520 - 2000 - 2000L - 2520 - 3000	G-42



<b>S</b>	<b>F</b>	FS	110 - 210 - 240 - 310 - 510 - 810 - 1020	G-44
			1520 - 2000 - 2000L - 2520 - 3000 - 3510 - 4800	G-46
			6000 - 8000 - 12010 - 16000	G-48
			6000L - 8000L - 12010L - 16000L	G-50
			21000 - 26000 - 31000 - 40000 - 45000 53000 - 61000 - 85000	G-52
			110000 - 130000 - 150000 205000 - 235000	G-54
<b>F</b>	<b>N</b>	NF	310 - 510 - 610 - 810	G-56





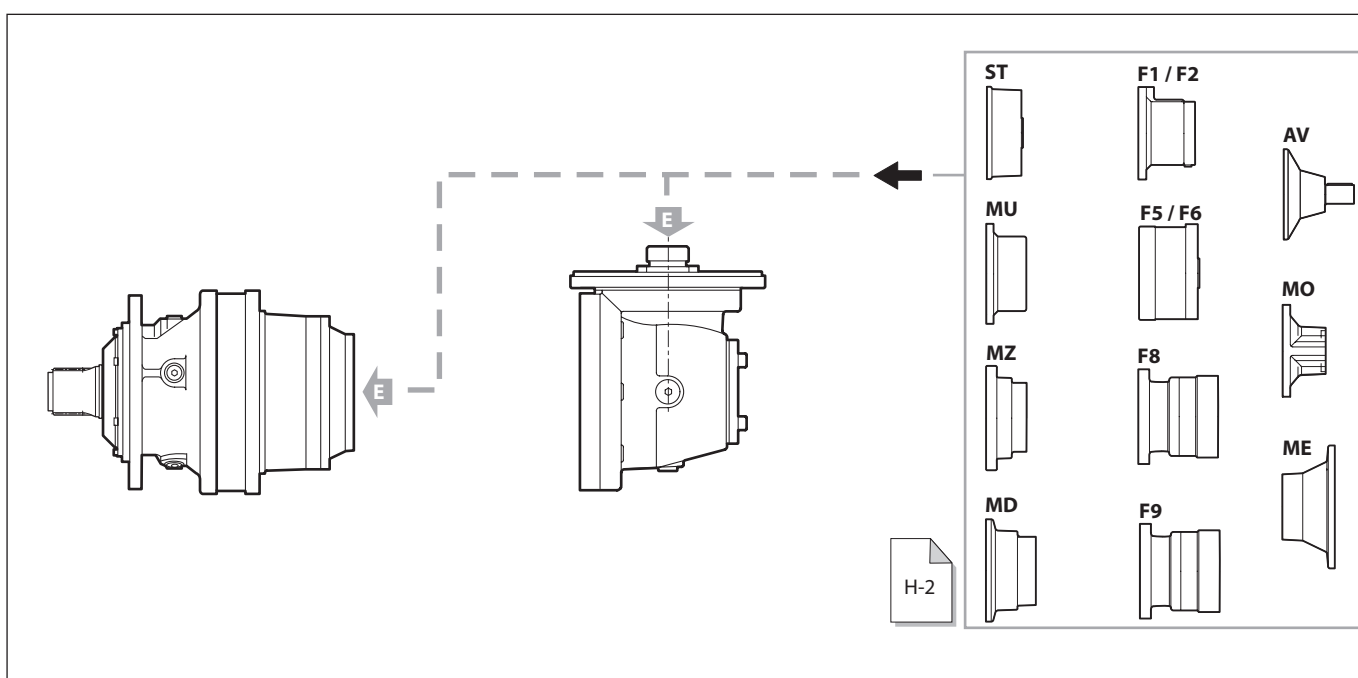
<b>Q</b>	<b>N</b>	NQ	110 - 210 - 310 - 510 - 610	<b>G-58</b>
	<b>T</b>	TQ/TRQ	240 - 810 - 1020 - 1520 - 2000 - 2000L	<b>G-60</b>
	<b>H</b>	HQ	1520 - 2000 - 2000L - 2520 - 3000 - 3510 - 4800	<b>G-62</b>
		HQ/H6Q	6000 - 8000 - 12010 - 16000	<b>G-64</b>
		HQ/H6Q	6000L - 8000L - 12010L - 16000L	<b>G-66</b>
		HQ	21000 - 26000 - 31000 - 40000 - 45000 53000 - 61000 - 85000	<b>G-68</b>
		HQ	110000 - 130000 - 150000 205000 - 235000	<b>G-70</b>



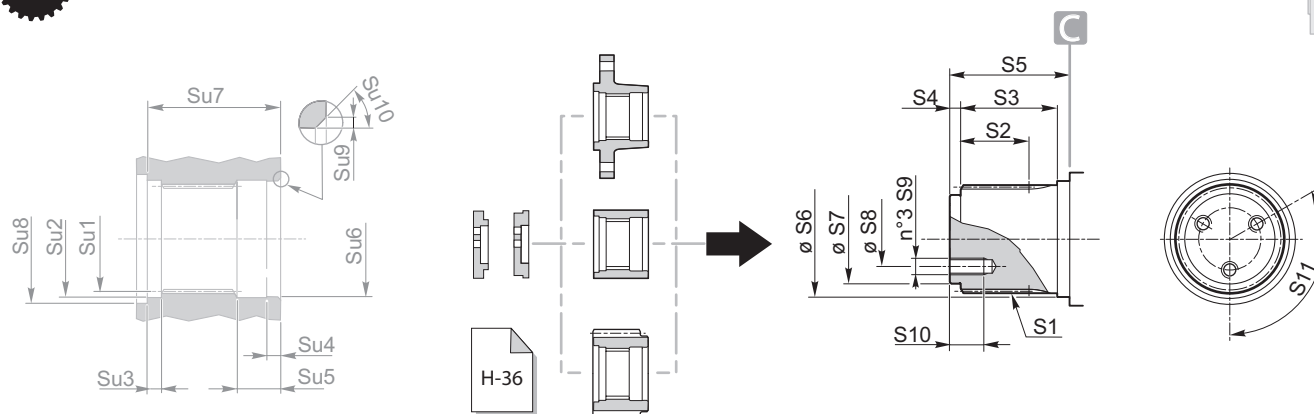
<b>U</b>		TU/NU/NU2	110 - 210 - 310 - 510 - 610	<b>G-72</b>
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<b>C</b>		FC	110 - 210	<b>G-74</b>
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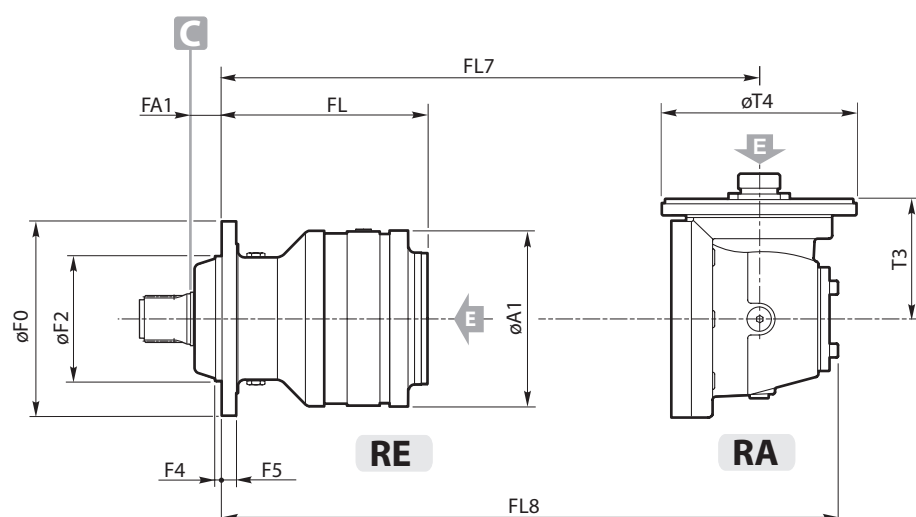
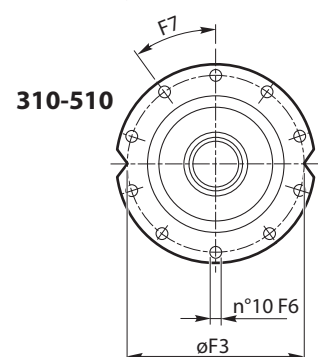
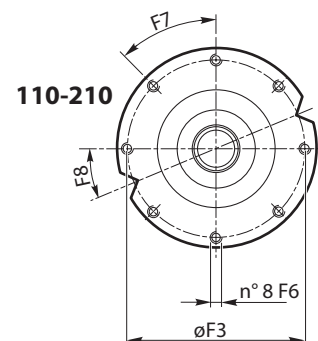
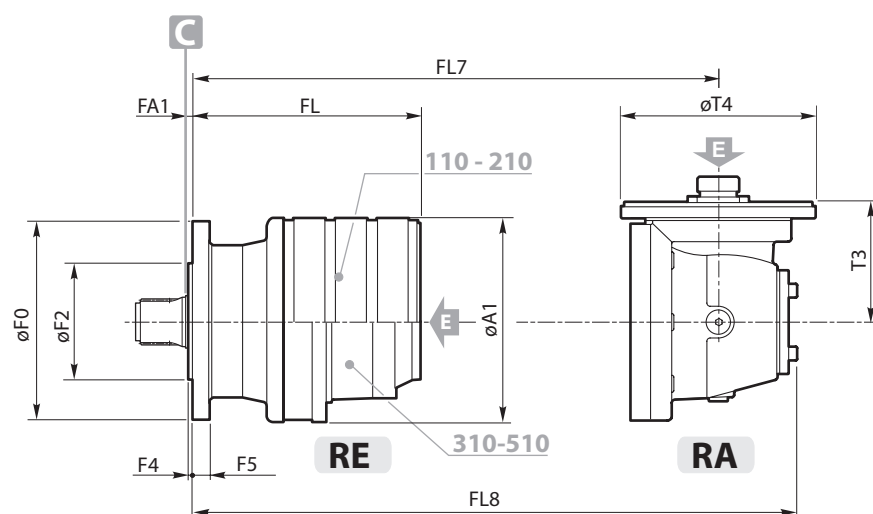
RE - RA						
	110	210	310	510	610	810
<b>S1</b>	B40x36 DIN5482	B40x36 DIN5482	B58x53 DIN5482	B58x53 DIN5482	B58x53 DIN5482	B70x64 DIN5482
<b>S2</b>	30	30	37	37	37	51
<b>S3</b>	43	43	50	50	50	70
<b>S4</b>	5	5	8	8	8	10
<b>S5</b>	55	55	68.5	68.5	68.5	90
<b>S6</b>	42 f7	42 f7	60 f7	60 f7	60 f7	72 f7
<b>S7</b>	35 f7	35 f7	50 f7	50 f7	50 f7	62 f7
<b>S8</b>	24	24	32	32	32	40
<b>S9</b>	M6	M6	M10	M10	M10	M10
<b>S10</b>	13	13	20	20	20	22
<b>S11</b>	120°	120°	120°	120°	120°	120°

RE - RA						
	110	210	310	510	610	810
<b>Su1</b>	A40x36 DIN5482	A40x36 DIN5482	A58x53 DIN5482	A58x53 DIN5482	A58x53 DIN5482	A70x64 DIN5482
<b>Su2</b>	Ø42 H7	Ø42 H7	Ø60 H7	Ø60 H7	Ø60 H7	Ø72 H7
<b>Su3</b>	6	6	7	7	7	11
<b>Su4</b>	6	6	10	10	10	10
<b>Su5</b>	20.5	20.5	25	25	25	29
<b>Su6</b>	Ø42 H7	Ø42 H7	Ø60 H7	Ø60 H7	Ø60 H7	Ø72 H7
<b>Su7</b>	49	49	69	69	69	80
<b>Su8</b>	Ø52	Ø52	Ø72	Ø72	Ø72	Ø80
<b>Su9</b>	1	1	1	1	1	1
<b>Su10</b>	1	1	1	1	1	1

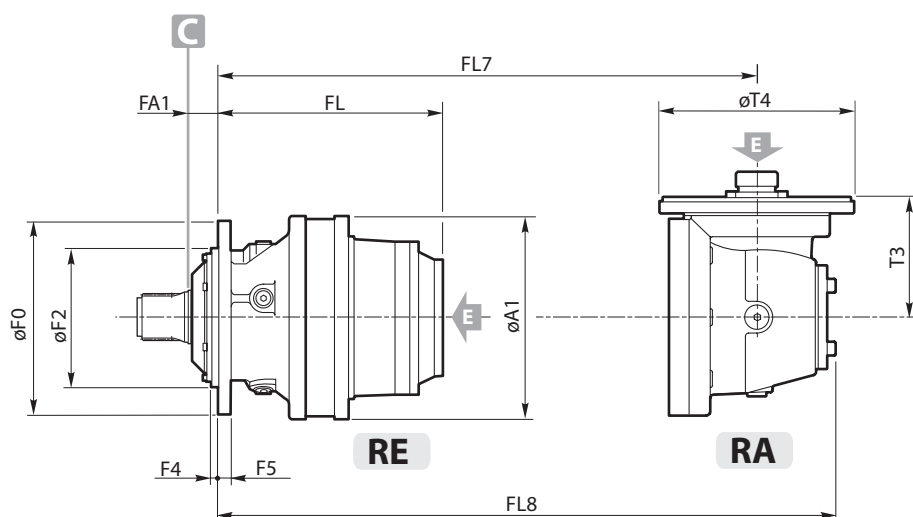
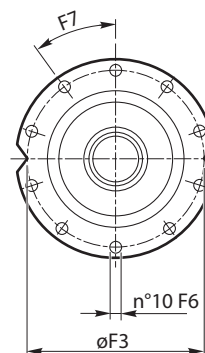
RE - RA							
	stages	110	210	310	510	610	810
A1		186	186	224	224	224	295
F0		185	185	222	222	222	280
F2		110 h7	110 h7	150 f7	150 f7	150 f7	200 f7
F3		165	165	195	195	195	250
F4		5	5	13.5	13.5	13.5	10.5
F5		12	12	16	16	16	18
F6		Ø10.5	Ø10.5	Ø12.5	Ø12.5	Ø12.5	Ø15
		 M.. - 12.9					
F7		M10	M10	M12	M12	M12	M14
F7		45°	45°	36°	36°	36°	30°
F8		22.5°	22.5°	—	—	—	—
FA1		6.5	6.5	15	15	15	40
FL	1	95	107	133	151	151	162.5
	2	138	150	185.5	215.5	209.5	229.5
	3	181	193	228.5	258.5	262	282
	4	224	236	271.5	301.5	305	325
FL7	2	176	188	255	273	273	304.5
	3	219	231	266.5	296.5	331.5	351.5
	4	262	274	309.5	339.5	343	363
FL8	2	250.5	262.5	346	364	364	412.5
	3	293.5	305.5	341	371	422.5	442.5
	4	336.5	348.5	384	414	417.5	437.5
T3	2	113.8	113.8	171.5	171.5	171.5	277
	3	113.8	113.8	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	183	183	183	242
	3	184	184	184	184	183	183
	4	184	184	184	184	184	184



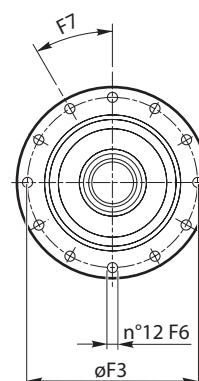
**110 - 210  
310 - 510**



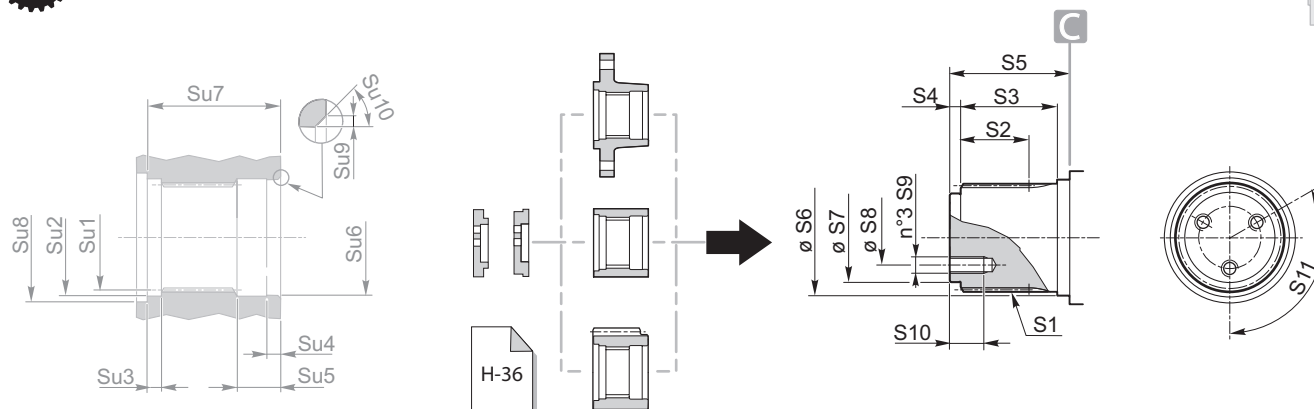
**610**



**810**






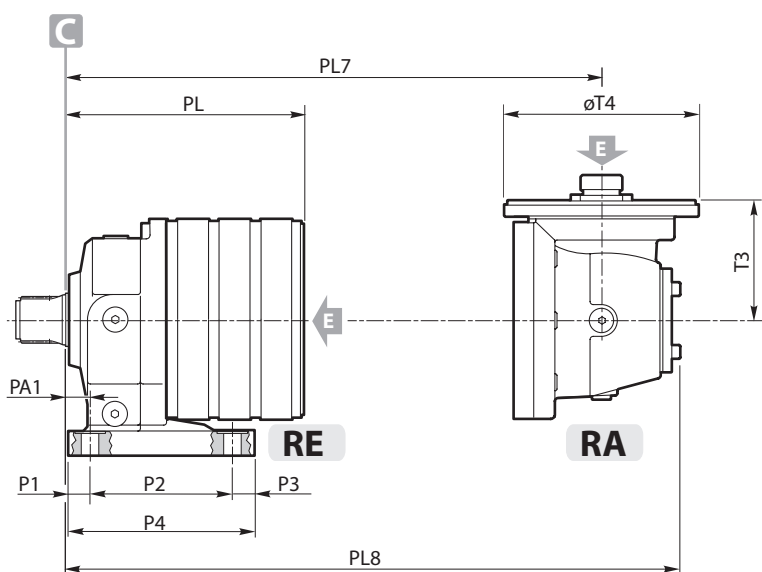


RE - RA							
	110	210	310	510	610	810	1020
<b>S1</b>	B40x36 DIN5482	B40x36 DIN5482	B58x53 DIN5482	B58x53 DIN5482	B58x53 DIN5482	B70x64 DIN5482	B70x64 DIN5482
<b>S2</b>	30	30	37	37	37	51	51
<b>S3</b>	43	43	50	50	50	70	70
<b>S4</b>	5	5	8	8	8	10	10
<b>S5</b>	55	55	68.5	68.5	68.5	90	90
<b>S6</b>	42 f7	42 f7	60 f7	60 f7	60 f7	72 f7	72 f7
<b>S7</b>	35 f7	35 f7	50 f7	50 f7	50 f7	62 f7	62 f7
<b>S8</b>	24	24	32	32	32	40	40
<b>S9</b>	M6	M6	M10	M10	M10	M10	M10
<b>S10</b>	13	13	20	20	20	22	22
<b>S11</b>	120°	120°	120°	120°	120°	120°	120°

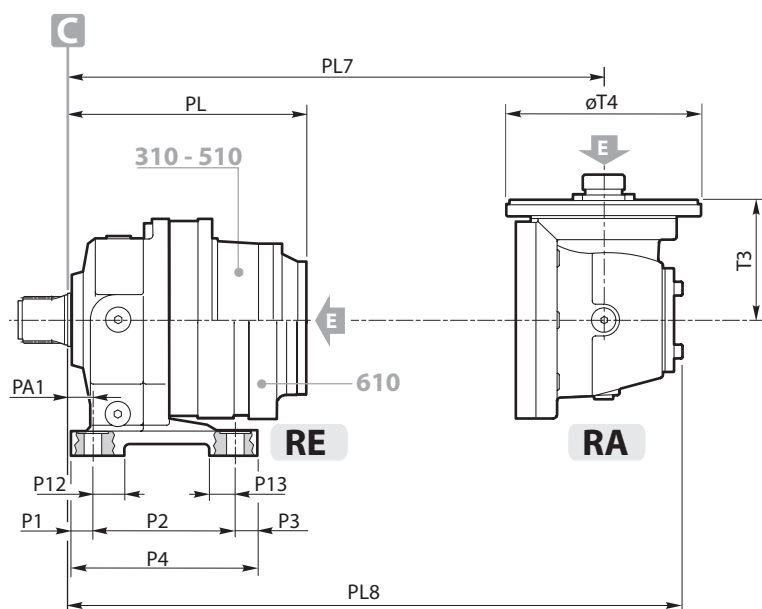
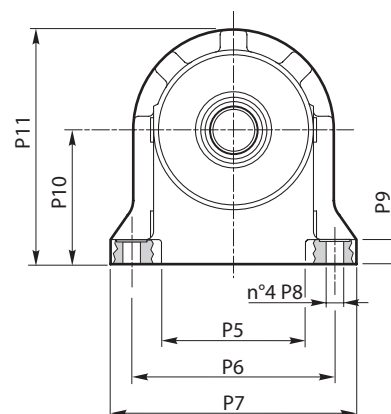
RE - RA							
	110	210	310	510	610	810	1020
<b>Su1</b>	A40x36 DIN5482	A40x36 DIN5482	A58x53 DIN5482	A58x53 DIN5482	A58x53 DIN5482	A70x64 DIN5482	A70x64 DIN5482
<b>Su2</b>	Ø42 H7	Ø42 H7	Ø60 H7	Ø60 H7	Ø60 H7	Ø72 H7	Ø72 H7
<b>Su3</b>	6	6	7	7	7	11	11
<b>Su4</b>	6	6	10	10	10	10	10
<b>Su5</b>	20.5	20.5	25	25	25	29	29
<b>Su6</b>	Ø42 H7	Ø42 H7	Ø60 H7	Ø60 H7	Ø60 H7	Ø72 H7	Ø72 H7
<b>Su7</b>	49	49	69	69	69	80	80
<b>Su8</b>	Ø52	Ø52	Ø72	Ø72	Ø72	Ø80	Ø80
<b>Su9</b>	1	1	1	1	1	1	1
<b>Su10</b>	1	1	1	1	1	1	1

RE - RA								
	stages	110	210	310	510	610	810	1020
P1		20	20	28	28	28	35	35
P2		132	132	180	180	180	225	225
P3		20	20	28	28	28	35	35
P4		172	172	236	236	236	295	295
P5		134	134	180	180	180	206	206
P6		190	190	250	250	250	300	300
P7		230	230	310	310	310	370	370
P8		Ø14	Ø14	Ø22	Ø22	Ø22	Ø26	Ø26
		 M.. - 12.9						
		M12	M12	M20	M20	M20	M24	M24
P9		23	23	26.5	26.5	26.5	36	36
P10		125	125	160	160	160	200	200
P11		218	218	282	282	282	247.5	247.5
P12		—	—	21	21	21	45	45
P13		—	—	21	21	21	45	45
PA1		20	20	29	29	29	35	35
PL	1	101.5	113.5	148	166	166	225	242
	2	144.5	156.5	200.5	230.5	224.5	292	327
	3	187.5	199.5	243.5	273.5	277	344.5	391.5
	4	230.5	242.5	286.5	316.5	320	387.5	434.5
PL7	2	182.5	194.5	297	315	288	367	384
	3	225.5	237.5	281.5	311.5	346.5	414	449
	4	268.5	280.5	324.5	354.5	358	425.5	472.5
PL8	2	257	269	361	379	379	475	492
	3	300	312	356	386	437.5	505	540
	4	343	355	399	429	432.5	500	547
T3	2	113.8	113.8	171.5	171.5	171.5	277	277
	3	113.8	113.8	113.8	113.8	171.5	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	183	183	183	242	242
	3	184	184	184	184	183	183	183
	4	184	184	184	184	184	184	184

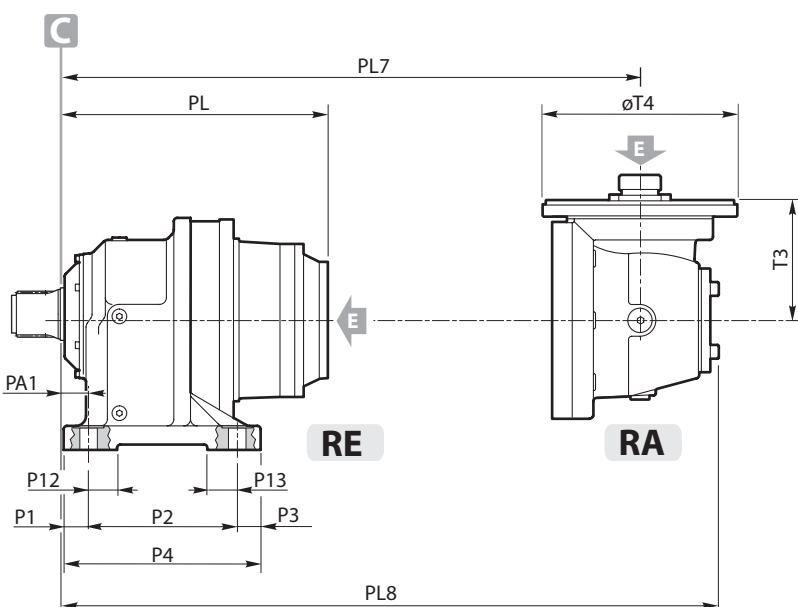
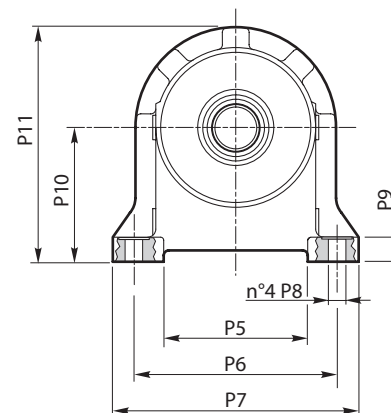




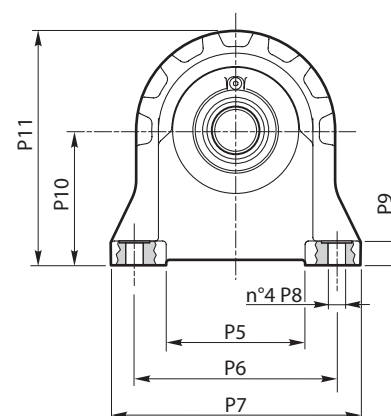
**110 - 210**



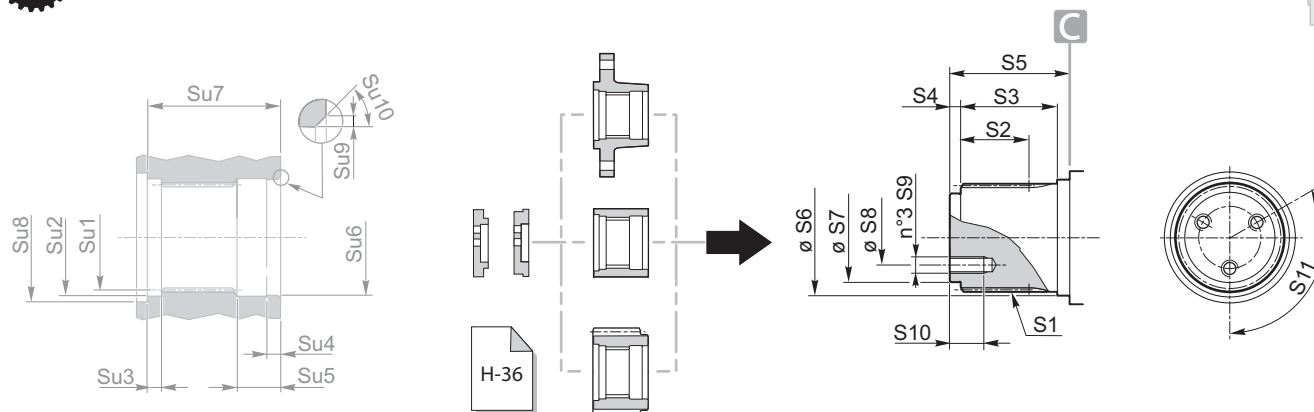
**310 - 510  
610**



**810 - 1020**






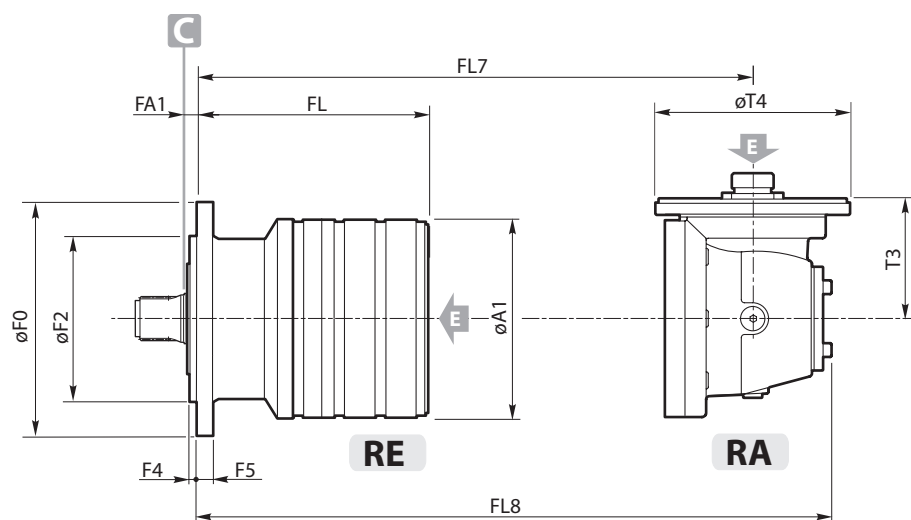


RE - RA						
	110	210	240	310	510	610
<b>Su1</b>	A40x36 DIN5482	A40x36 DIN5482	A58x53 DIN5482	A58x53 DIN5482	A58x53 DIN5482	A58x53 DIN5482
<b>Su2</b>	42 H7	42 H7	60 H7	60 H7	60 H7	60 H7
<b>Su3</b>	7	7	7	7	7	7
<b>Su4</b>	6	6	10	10	10	10
<b>Su5</b>	20.5	20.5	25	25	25	25
<b>Su6</b>	42 H7	42 H7	60 H7	60 H7	60 H7	60 H7
<b>Su7</b>	62.5	62.5	69	69	69	69
<b>Su8</b>	51	51	72	72	72	72
<b>Su9</b>	1	1	1	1	1	1
<b>Su10</b>	1	1	1	1	1	1

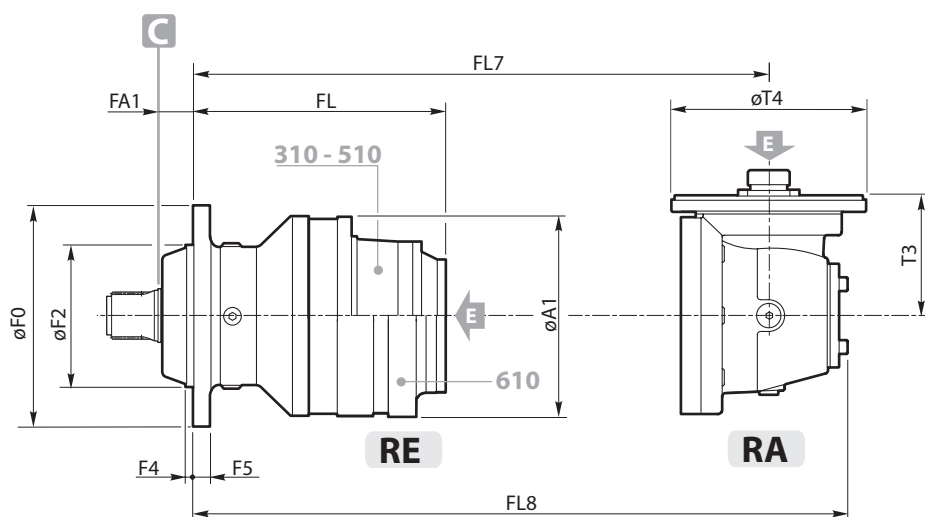
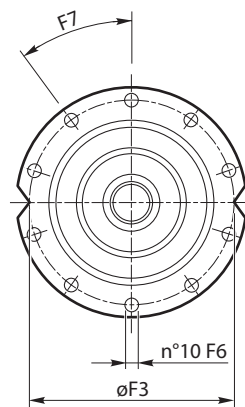
RE - RA						
	110	210	240	310	510	610
<b>S1</b>	B40x36 DIN5482	B40x36 DIN5482	B58x53 DIN5482	B58x53 DIN5482	B58x53 DIN5482	B58x53 DIN5482
<b>S2</b>	35	35	37	46	46	46
<b>S3</b>	50	50	50	60	60	60
<b>S4</b>	7	7	8	8	8	8
<b>S5</b>	62	62	68.5	78	78	78
<b>S6</b>	42 f7	42 f7	60 f7	60 f7	60 f7	60 f7
<b>S7</b>	35 f7	35 f7	50 f7	50 f7	50 f7	50 f7
<b>S8</b>	24	24	32	32	32	32
<b>S9</b>	M6	M6	M10	M10	M10	M10
<b>S10</b>	13	13	20	20	20	20
<b>S11</b>	120°	120°	120°	120°	120°	120°

RE - RA																	
	stages	110				210				240		310		510		610	
		TS	T1S	TRS	TR1S	TS	T1S	TRS	TR1S	TS	TRS	TS	TLS	TS	TLS	TS	TLS
A1		186	186	186	186	186	186	186	186	186	186	244	244	244	244	244	244
F0		219	219	219	219	219	219	219	219	219	219	272	272	272	272	272	272
F2		155 h7	150 f7	155 h7	150 f7	155 h7	150 f7	155 h7	150 f7	150 f7	155 f7	175 h8	175 h8	175 h8	175 h8	175 h8	175 h8
F3		194	195	194	195	194	195	194	195	195	194	245	245	245	245	245	245
F4		7	7	10	10	7	7	10	10	7	10	12	9	12	9	12	9
F5		15	15	15	15	15	15	15	15	15	15	20	20	20	20	20	20
F6		Ø11	Ø13	Ø11	Ø13	Ø11	Ø13	Ø11	Ø13	Ø12.5	Ø11	Ø12.5	Ø12.5	Ø12.5	Ø12.5	Ø12.5	Ø12.5
		 M. - 12.9															
		M10	M12	M10	M12	M10	M12	M10	M12	M12	M10	M12	M12	M12	M12	M12	M12
F7		36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°
FA1		13	13	30	30	13	13	30	30	13	30	39	39	39	39	39	39
FL	1	102	102	85	85	114	114	97	97	114	97	157	157	175	175	175	175
	2	145	145	128	128	157	157	140	140	157	140	209.5	209.5	239.5	239.5	233.5	233.5
	3	188	188	171	171	200	200	183	183	200	183	252.5	252.5	282.5	282.5	286	286
	4	231	231	214	214	243	243	226	226	243	226	295.5	295.5	325.5	325.5	329	329
FL7	2	183	183	166	166	195	195	178	178	195	178	279	279	297	297	297	297
	3	226	226	209	209	238	238	221	221	238	221	290.5	290.5	320.5	320.5	355.5	355.5
	4	269	269	252	252	281	281	264	264	281	264	333.5	333.5	363.5	363.5	367	367
FL8	2	257.5	257.5	240.5	240.5	269.5	269.5	252.5	252.5	269.5	252.5	370	370	388	388	388	388
	3	300.5	300.5	283.5	283.5	312.5	312.5	295.5	295.5	312.5	295.5	365	365	395	395	446.5	446.5
	4	343.5	343.5	326.5	326.5	355.5	355.5	338.5	338.5	355.5	338.5	408	408	438	438	441.5	441.5
T3	2	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	171.5	171.5	171.5	171.5	171.5	171.5
	3	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	184	184	184	184	184	184	184	184	183	183	183	183	183	183
	3	184	184	184	184	184	184	184	184	184	184	184	184	184	184	183	183
	4	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184

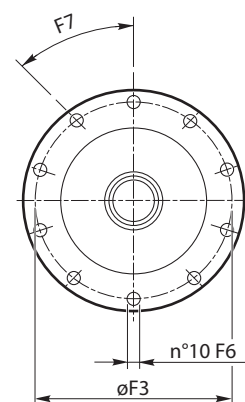




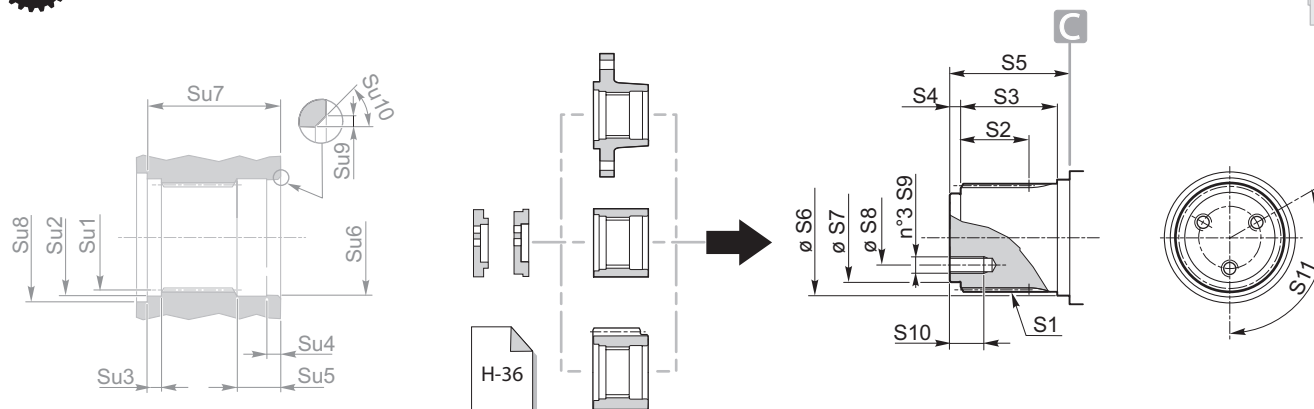
**110 ÷ 240**



**310 - 510  
610**





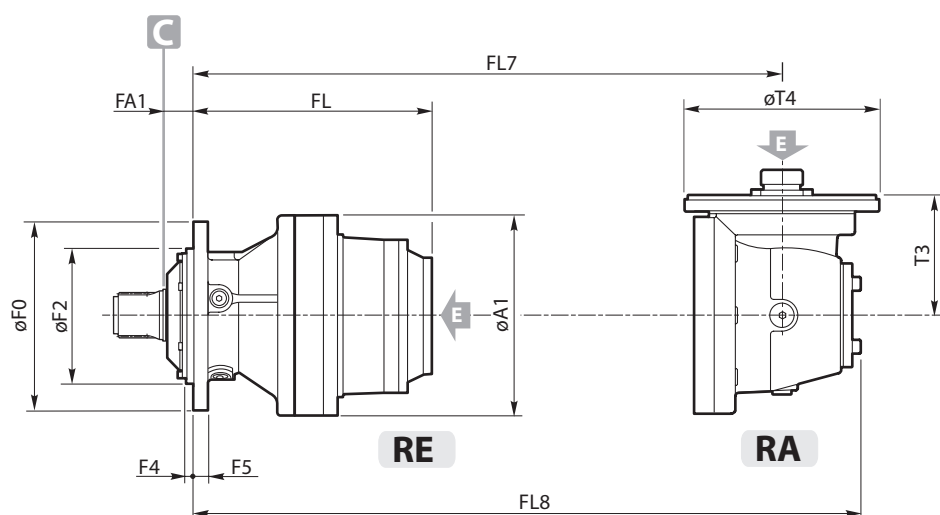


RE - RA				
	810	1020	1520	2000 2000L
<b>S1</b>	B70x64 DIN5482	B80x74 DIN5482	B80x74 DIN5482	B80x74 DIN5482
<b>S2</b>	51	50	50	50
<b>S3</b>	70	70	70	70
<b>S4</b>	10	10	10	10
<b>S5</b>	90	90	90	90
<b>S6</b>	72 f7	85 f7	85 f7	85 f7
<b>S7</b>	62 f7	70 f7	70 f7	70 f7
<b>S8</b>	40	45	45	45
<b>S9</b>	M10	M10	M10	M10
<b>S10</b>	22	25	25	25
<b>S11</b>	120°	120°	120°	120°

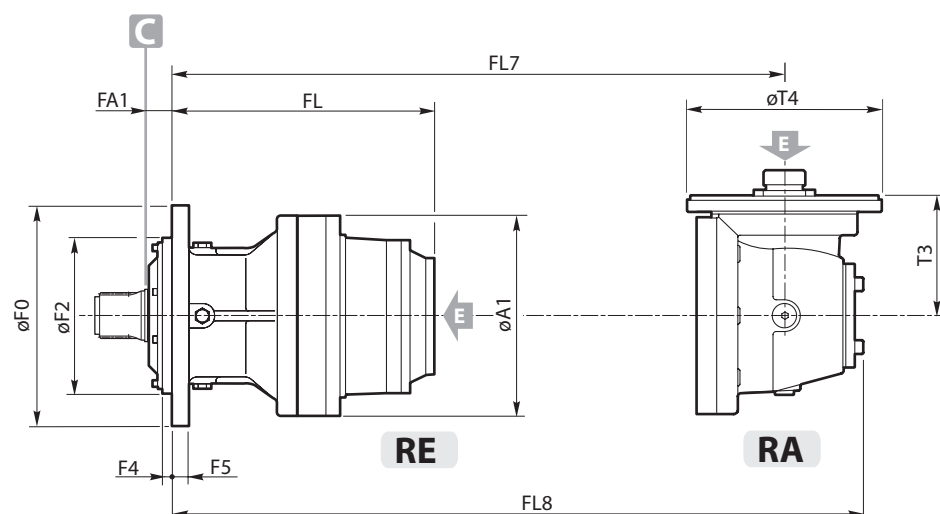
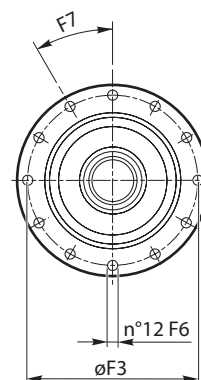
RE - RA				
	810	1020	1520	2000 2000L
<b>Su1</b>	A70x64 DIN5482	A80x74 DIN5482	A80x74 DIN5482	A80x74 DIN5482
<b>Su2</b>	72 H7	85 H7	85 H7	85 H7
<b>Su3</b>	10	10.5	10.5	10.5
<b>Su4</b>	11	10.5	10.5	10.5
<b>Su5</b>	29	30.5	30.5	30.5
<b>Su6</b>	72 H7	85 H7	85 H7	85 H7
<b>Su7</b>	90	90.5	90.5	90.5
<b>Su8</b>	82	100	100	100
<b>Su9</b>	1	1	1	1
<b>Su10</b>	1	1	1	1

RE - RA						
	stages	810	1020	1520	2000	2000L
<b>A1</b>		295	295	350	350	350
<b>F0</b>		280	325	325	325	325
<b>F2</b>		200 f7	230 f7	230 f7	230 f7	230 f7
<b>F3</b>		250	295	295	295	295
<b>F4</b>		10.5	15	15	15	15
<b>F5</b>		22	25	28	28	28
<b>F6</b>		Ø15	Ø17	Ø17	Ø17	Ø17
<b>F7</b>		M14	M16	M16	M16	M16
<b>FA1</b>		30°	36°	36°	36°	36°
<b>FL</b>	1	185	237	240	240	240
	2	252	322	333	333	333
	3	304.5	386.5	397.5	391.5	397.5
	4	347.5	429.5	440	444	440
<b>FL7</b>	2	326.5	379	446	446	446
	3	374	444	455	455	455
	4	385.5	467.5	478.5	513.5	478.5
<b>FL8</b>	2	435	487	574	574	574
	3	465	535	546	546	546
	4	460	542	553	604.5	553
<b>T3</b>	2	277	277	310	310	310
	3	171.5	171.5	171.5	171.5	171.5
	4	113.8	113.8	113.8	171.5	113.8
<b>T4</b>	2	242	242	293	293	293
	3	183	183	183	183	183
	4	184	184	184	183	184

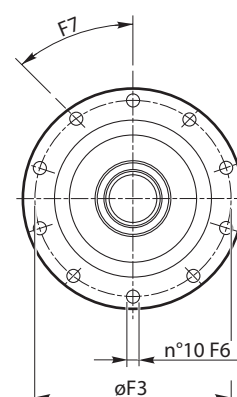




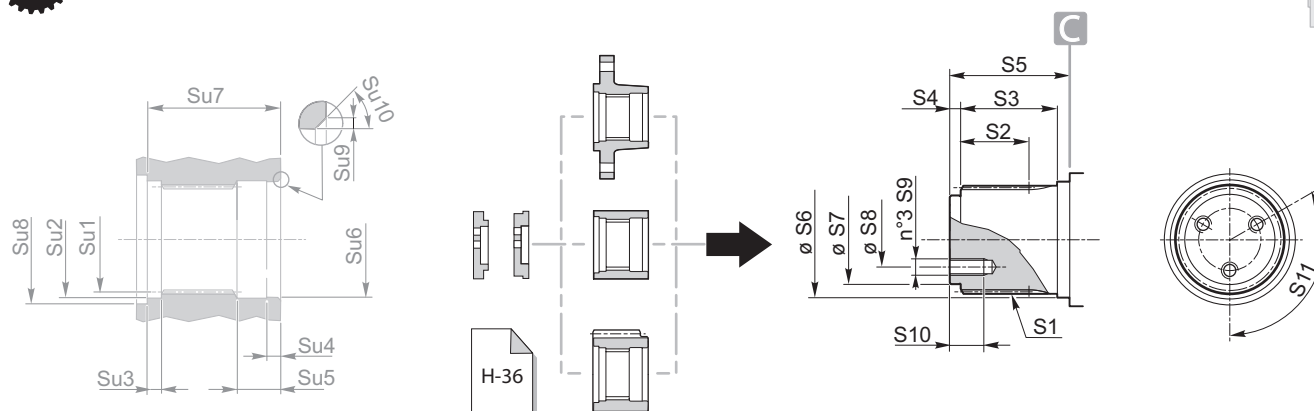
**810**



**1020 - 1520  
2000 - 2000L**





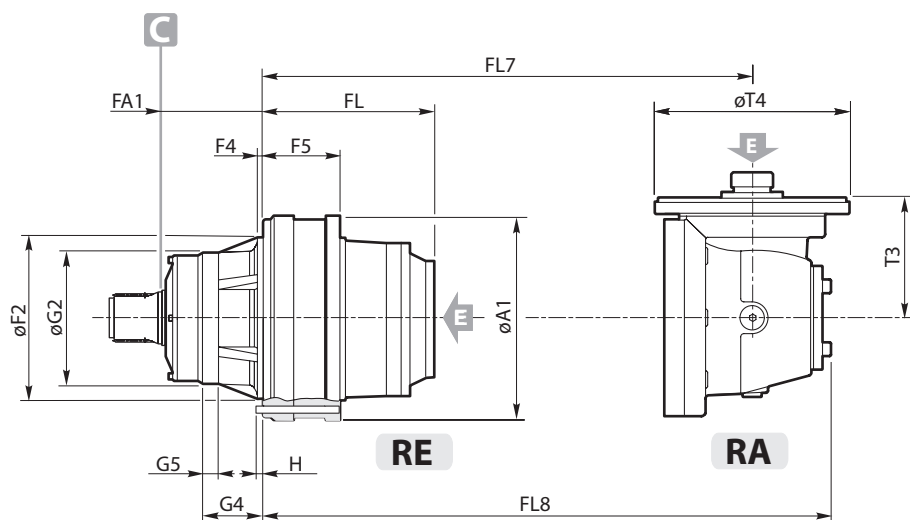


RE - RA						
	1520	2000 2000L	2520	3000	3510	4800
<b>S1</b>	B80x74 DIN 5482	B80x74 DIN 5482	B100x94 DIN 5482	B100x94 DIN 5482	W120x3x8f DIN 5480	W120x3x8f DIN 5480
<b>S2</b>	50	50	65	65	95	95
<b>S3</b>	70	70	85	85	111	111
<b>S4</b>	10	10	12	12	15	15
<b>S5</b>	90	90	110	110	136	136
<b>S6</b>	85 f7	85 f7	105 h7	105 h7	124 f7	124 f7
<b>S7</b>	70 f7	70 f7	85 h7	85 h7	90 f7	90 f7
<b>S8</b>	45	45	52	52	50	50
<b>S9</b>	M10	M10	M14	M14	M16	M16
<b>S10</b>	25	25	30	30	30	30
<b>S11</b>	120°	120°	120°	120°	120°	120°

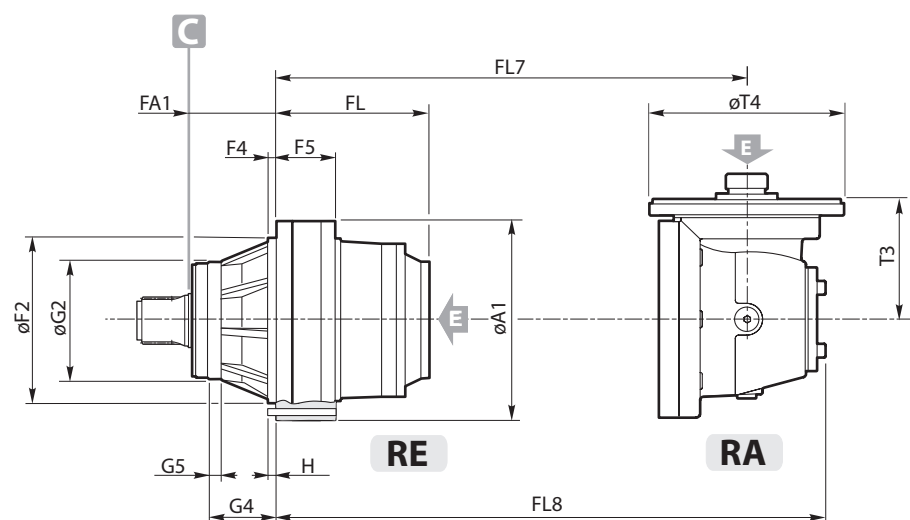
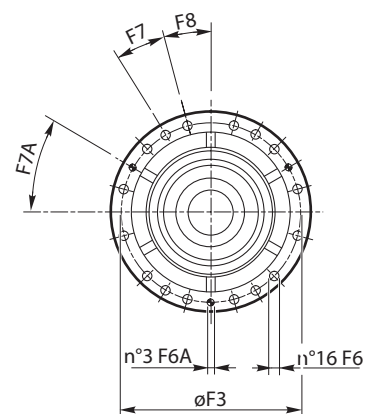
RE - RA						
	1520	2000 2000L	2520	3000	3510	4800
<b>Su1</b>	A80x74 DIN 5482	A80x74 DIN 5482	A100x94 DIN 5482	A100x94 DIN 5482	N120x3x9H DIN 5480	N120x3x9H DIN 5480
<b>Su2</b>	85 H7	85 H7	105 H7	105 H7	130 H7	130 H7
<b>Su3</b>	10.5	10.5	12	12	28	28
<b>Su4</b>	10.5	10.5	13	13	12	12
<b>Su5</b>	30.5	30.5	33	33	29	29
<b>Su6</b>	85 H7	85 H7	105 H7	105 H7	124 H7	124 H7
<b>Su7</b>	90.5	90.5	110	110	150	150
<b>Su8</b>	100	100	116	116	132	132
<b>Su9</b>	1	1	1.5	1.5	3	3
<b>Su10</b>	1	1	1.5	1.5	3	3

RE - RA								
	stages	1520	2000	2000L	2520	3000	3510	4800
<b>A1</b>		350	350	350	409	409	452	452
<b>FA1</b>		169	169	169	180	180	109	109
<b>F2</b>		278 f7	278 f7	278 f7	340 f7	340 f7	390 f8	390 f8
<b>F3</b>		314	314	314	370	370	424	424
<b>F4</b>		10	10	10	17	17	15	15
<b>F5</b>		133	133	133	131	131	120	120
<b>F6</b>		Ø16.5	Ø16.5	Ø16.5	Ø17	Ø17	Ø17	Ø17
<b>F6A</b>		M16	M16	M16	M16	M16	M16	M16
<b>F7</b>		Ø12	Ø12	Ø12	Ø16	Ø16	—	—
<b>F7A</b>		15°	15°	15°	12°	12°	20°	20°
<b>F8</b>		30°	30°	30°	30°	30°	—	—
<b>FL</b>	1	107	107	107	98	98	85	85
	2	200	200	200	209	226	277	326
	3	264.5	258.5	264.5	276	311	362	419
	4	307.5	311	307.5	328.5	375.5	426.5	483.5
<b>FL7</b>	2	313	313	313	292	292	339	339
	3	322	322	322	351	368	419	532
	4	345.5	380.5	345.5	398	433	484	541
<b>FL8</b>	2	441	441	441	420	420	529	529
	3	413	413	413	459	476	527	660
	4	420	472	420	489	524	575	632
<b>G2</b>		225 f7	225 f7	225 f7	245 f7	245 f7	—	—
<b>G4</b>		104.5	104.5	104.5	142	142	—	—
<b>G5</b>		27.5	27.5	27.5	29	29	—	—
<b>H</b>		15	15	15	29	29	—	—
<b>T3</b>	2	310	310	310	310	310	432	432
	3	171	171	171	227	227	227	310
	4	113.8	171	113.8	171	171	171	171
<b>T4</b>	2	293	293	293	293	293	295	295
	3	183	183	183	242	242	242	293
	4	184	183	184	183	183	183	183

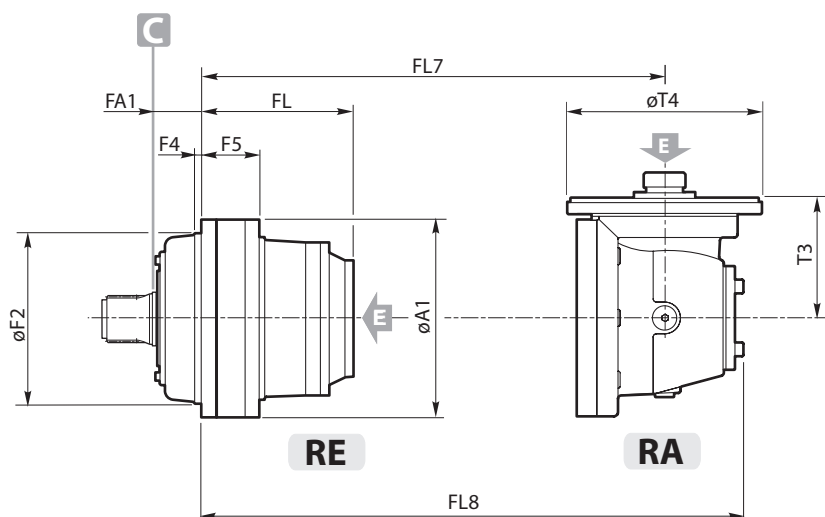
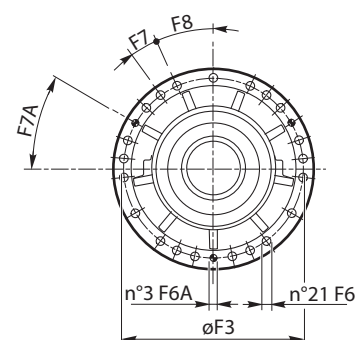




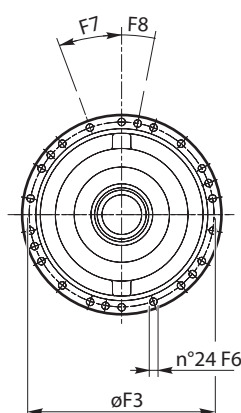
**1520 - 2000  
2000L**



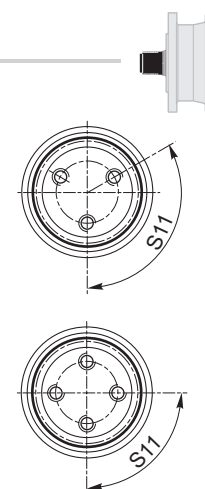
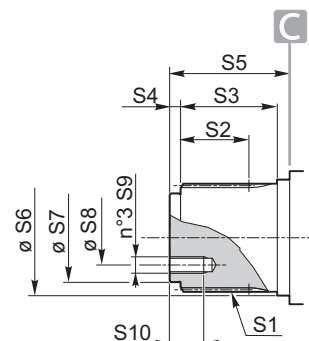
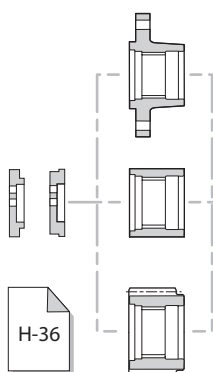
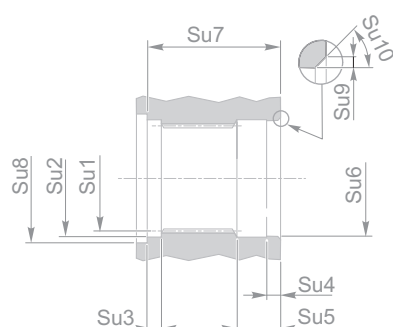
**2520 - 3000**



**3510 - 4800**





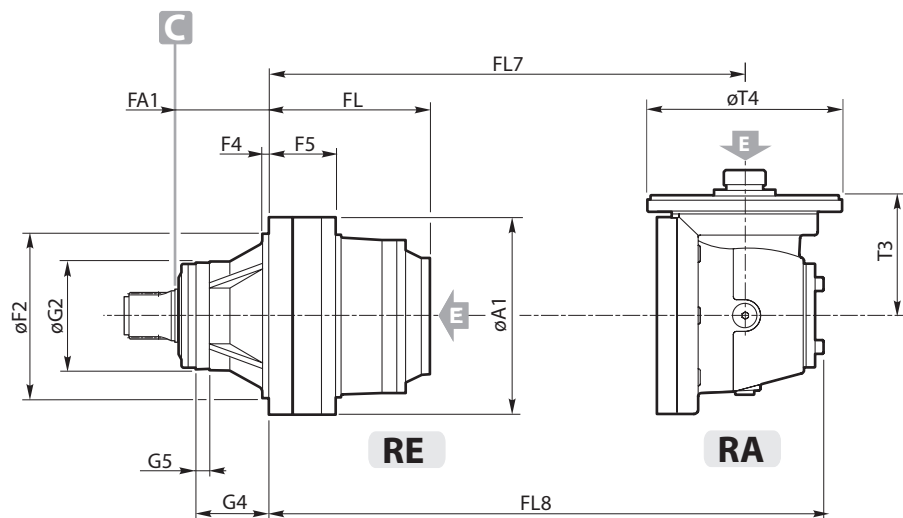


	RE - RA			GB - GBA	
	6000		8000	12010	16000
	HS	H6S	HS	HS	HS
S1	W120x3x8f DIN 5480	W150x5x8f DIN 5480	W150x5x8f DIN 5480	W170x5x8f DIN 5480	W170x5x8f DIN 5480
S2	85	107	107	110	110
S3	103	124	124	135	135
S4	10	12	12	15	15
S5	125	150	150	165	165
S6	120 h7	151 f7	151 f7	170 f7	170 f7
S7	100 h7	125 f7	125 f7	150 f7	150 f7
S8	70	80	80	110	110
S9	M16 (3)	M16 (3)	M16 (3)	M16 (4)	M16 (4)
S10	35	35	35	35	35
S11	120°	120°	120°	90°	90°

	RE - RA			GB - GBA	
	6000		8000	12010	16000
	HS	H6S	HS	HS	HS
Su1	N120x3x9H DIN 5480	N150x5x9H DIN 5480	N150x5x9H DIN 5480	N170x5x9H DIN 5480	N170x5x9H DIN 5480
Su2	120 H7	151 H7	151 H7	175 H7	175 H7
Su3	10.5	11	11	14	14
Su4	12	33	33	15	15
Su5	31	33	33	42	42
Su6	120 H7	151 H7	151 H7	170 H7	170 H7
Su7	124.5	150	150	163	163
Su8	137	172	172	200	200
Su9	3	3	3	3	3
Su10	3	3	3	3	3

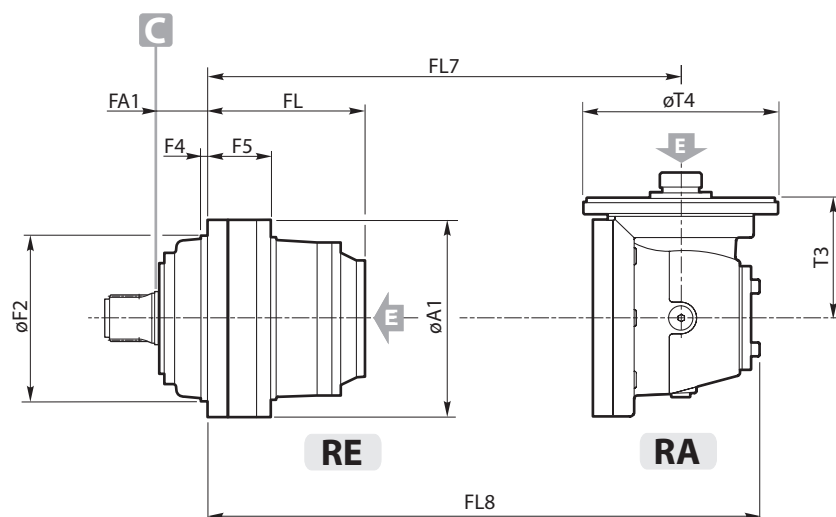
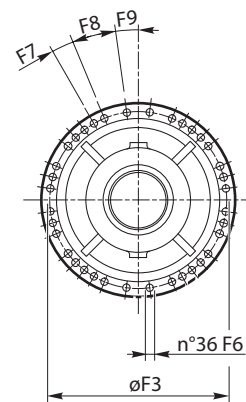
	stages	RE - RA			GB - GBA	
		6000		8000	12010	16000
		HS	H6S	HS	HS	HS
A1		490	490	490	610	610
F2		410 f7	410 h8	410 h8	515 h8	515 h8
F3		445	445	445	560	560
F4		15	15	15	20	20
F5		187	178.5	181.5	230	230
F6		Ø19	Ø19	Ø19	Ø25	Ø25
F7		M18	M18	M18	M24	M24
F8		7°30'	7°30'	7°30'	15°	15°
F9		15°	15°	15°	7°30'	7°30'
FA1		226	126	126	145	145
FL	1	145	136.5	136.5	160.5	160.5
FL	2	313.5	305	390.5	410	427
FL	3	406.5	398	518.5	538	668
FL	4	465	456.5	603.5	623	761
FL	5	—	—	668	687.5	825.5
FL7	2	399	390.5	390.5	—	—
FL7	3	519.5	511	584.5	604	681
FL7	4	528.5	520	660.5	680	874
FL7	5	—	—	—	745	883
FL8	2	589	580.5	580.5	—	—
FL8	3	647.5	639	712.5	732	871
FL8	4	619.5	611	768.5	788	1002
FL8	5	—	—	—	836	974
G2		260 f7	—	—	—	—
G4		181	—	—	—	—
G5		33	—	—	—	—
T3	2	432	432	432	—	—
T3	3	310	310	310	310	432
T3	4	171	171	227	227	310
T3	5	—	—	—	171	171
T4	2	295	295	295	—	—
T4	3	293	293	293	293	295
T4	4	183	183	242	242	293
T4	5	—	—	—	183	183





**HS**

**6000**

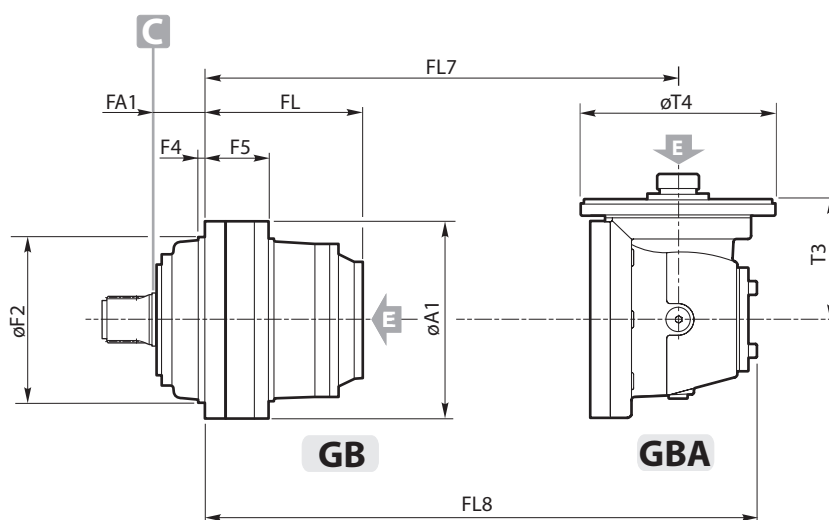
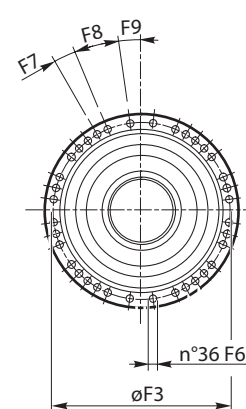


**H6S**

**6000**

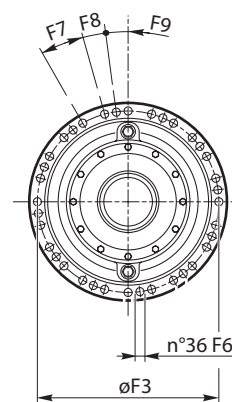
**HS**

**8000**

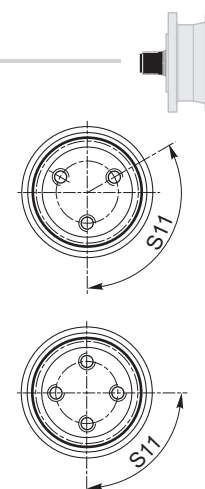
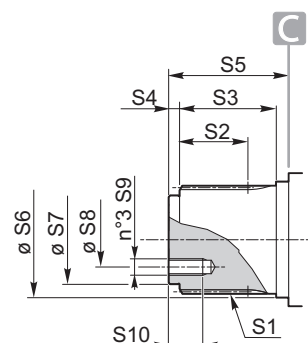
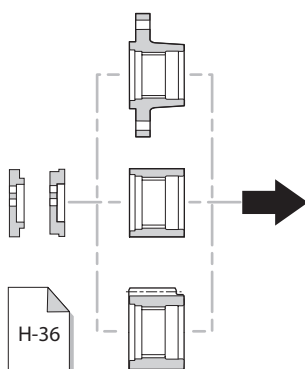
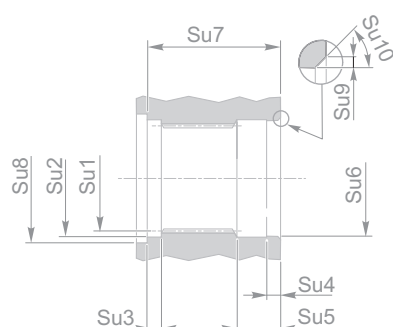


**HS**

**12010 - 16000**





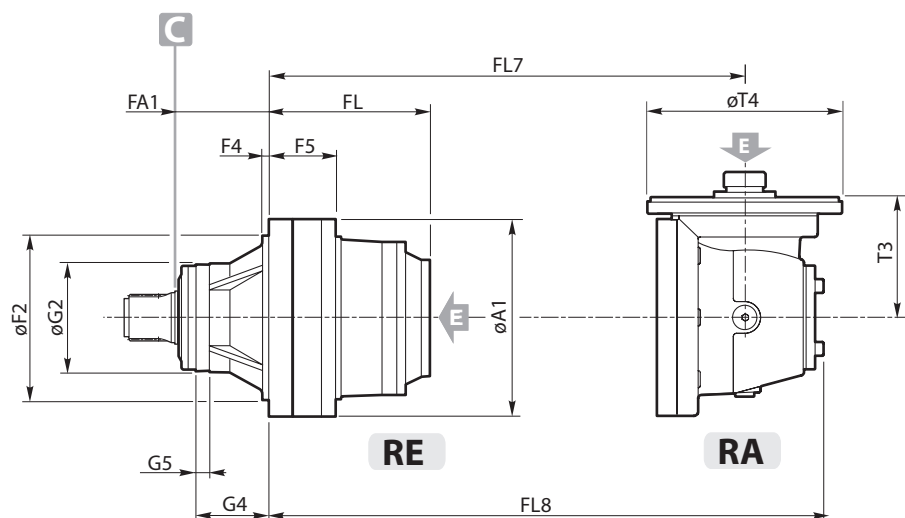


	RE - RA			GB - GBA	
	6000L		8000L	12010L	16000L
	HS	H6S	HS	HS	HS
S1	W120x3x8f DIN 5480	W150x5x8f DIN 5480	W150x5x8f DIN 5480	W170x5x8f DIN 5480	W170x5x8f DIN 5480
S2	85	107	107	110	110
S3	103	124	124	135	135
S4	10	12	12	15	15
S5	125	150	150	165	165
S6	120 h7	151 f7	151 f7	170 f7	170 f7
S7	100 h7	125 f7	125 f7	150 f7	150 f7
S8	70	80	80	110	110
S9	M16 (3)	M16 (3)	M16 (3)	M16 (4)	M16 (4)
S10	35	35	35	35	35
S11	120°	120°	120°	90°	90°

	RE - RA			GB - GBA	
	6000L		8000L	12010L	16000L
	HS	H6S	HS	HS	HS
Su1	N120x3x9H DIN 5480	N150x5x9H DIN 5480	N150x5x9H DIN 5480	N170x5x9H DIN 5480	N170x5x9H DIN 5480
Su2	120 H7	151 H7	151 H7	175 H7	175 H7
Su3	10.5	11	11	14	14
Su4	12	33	33	15	15
Su5	31	33	33	42	42
Su6	120 H7	151 H7	151 H7	170 H7	170 H7
Su7	124.5	150	150	163	163
Su8	137	172	172	200	200
Su9	3	3	3	3	3
Su10	3	3	3	3	3

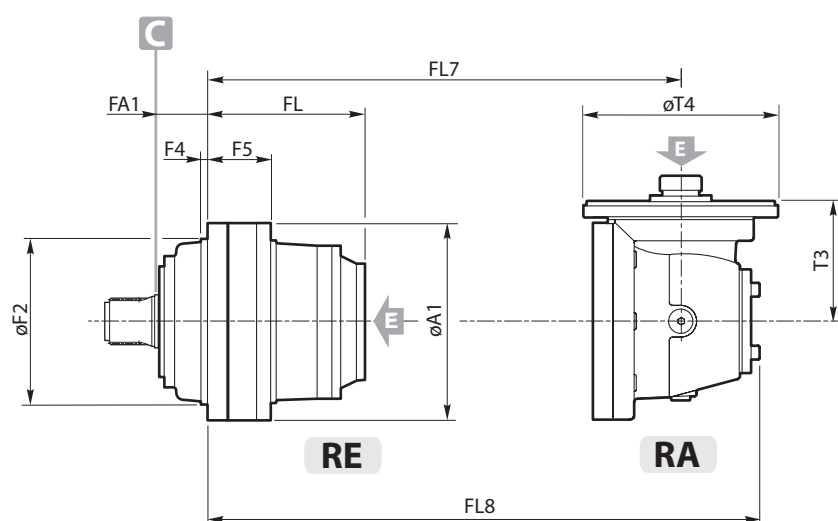
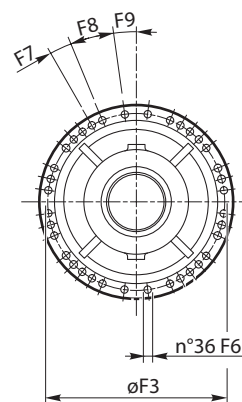
	stages	RE - RA			GB - GBA	
		6000L		8000L	12010L	16000L
		HS	H6S	HS	HS	HS
A1		490	490	490	610	610
F2		410 f7	410 h8	410 h8	515 h8	515 h8
F3		445	445	445	560	560
F4		15	15	15	20	20
F5		187	178.5	181.5	230	230
F6		Ø19	Ø19	Ø19	Ø25	Ø25
F7		M18	M18	M18	M24	M24
F8		7°30'	7°30'	7°30'	15°	15°
F9		15°	15°	15°	7°30'	7°30'
F10		7°30'	7°30'	7°30'	7°30'	7°30'
FA1		226	126	126	145	145
FL	1	145	136.5	136.5	160.5	160.5
FL	2	313.5	305	390.5	410	427
FL	3	406.5	398	501.5	521	619
FL	4	471	462.5	568.5	588	704
FL	5	—	—	621	640.5	768.5
FL7	2	399	390.5	390.5	—	—
FL7	3	519.5	511	584.5	604	681
FL7	4	528.5	520	643.5	663	761
FL7	5	—	—	—	710	826
FL8	2	589	580.5	580.5	—	—
FL8	3	647.5	639	712.5	732	871
FL8	4	619.5	611	751.5	771	869
FL8	5	—	—	—	801	917
G2		260 f7	—	—	—	—
G4		181	—	—	—	—
G5		33	—	—	—	—
T3	2	432	432	432	/	/
T3	3	310	310	310	310	432
T3	4	171	171	227	227	227
T3	5	—	—	—	171	171
T4	2	295	295	295	—	—
T4	3	293	293	293	293	295
T4	4	183	183	242	242	242
T4	5	—	—	—	183	183





**HS**

**6000L**

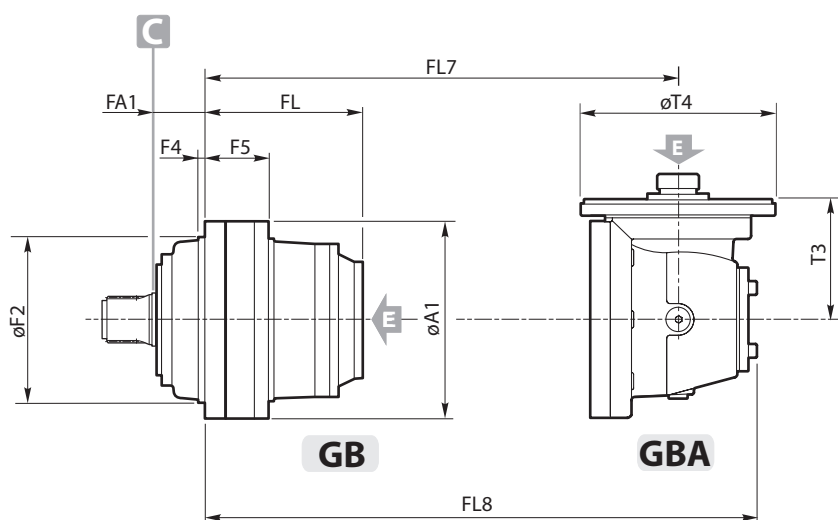
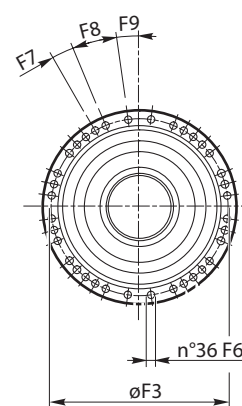


**H6S**

**6000L**

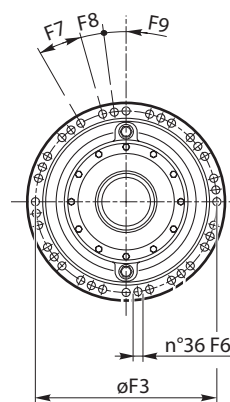
**HS**

**8000L**

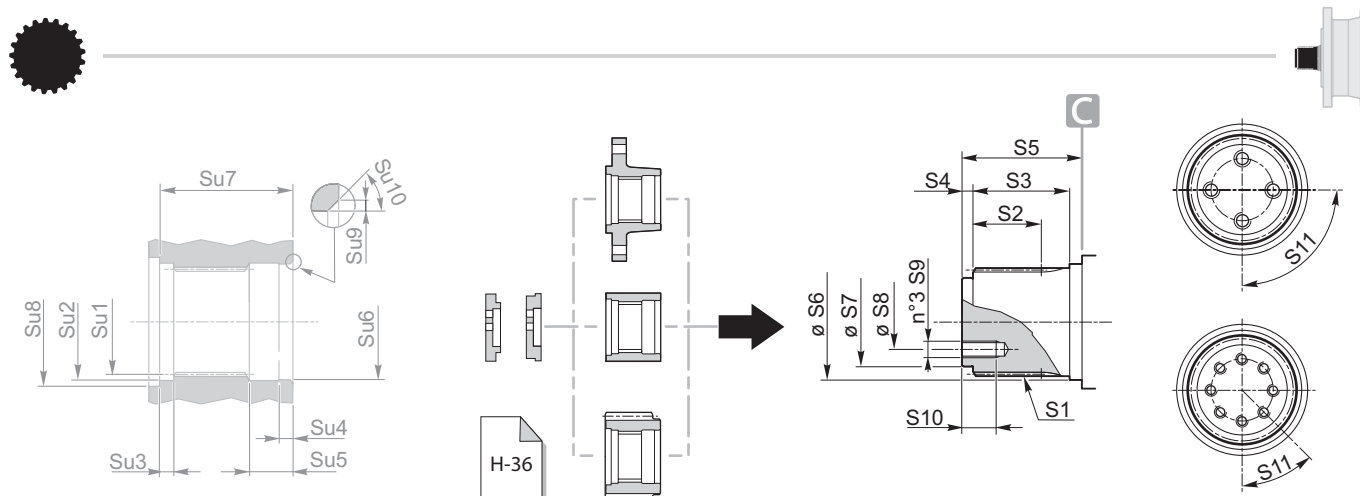


**HS**

**12010L-16000L**





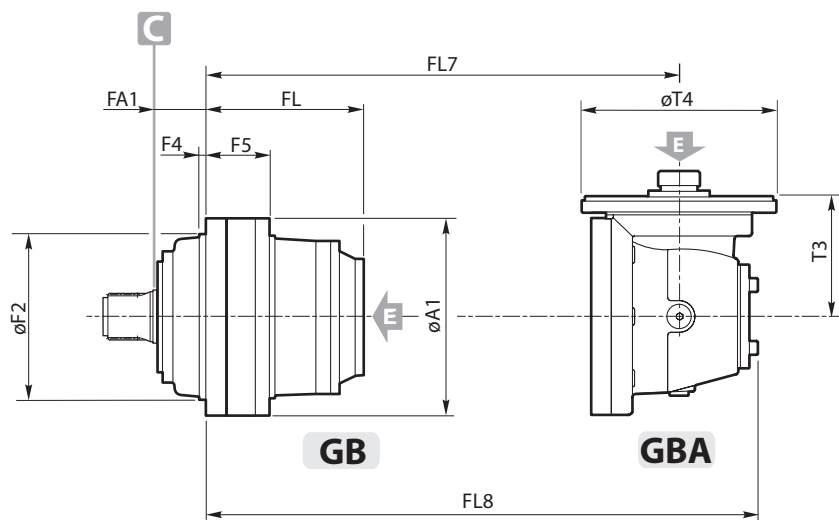


	RE - RA				
	21000	26000	31000	40000	45000
<b>S1</b>	W220x5x8f DIN 5480	W220x5x8f DIN 5480	W280x5x8f DIN 5480	W280x5x8f DIN 5480	W280x5x8f DIN 5480
<b>S2</b>	140	140	175	175	175
<b>S3</b>	167	167	210	210	210
<b>S4</b>	20	20	25	25	25
<b>S5</b>	210	210	260	260	260
<b>S6</b>	220 f7	220 f7	283 f7	283 f7	283 f7
<b>S7</b>	200 f7	200 f7	260 f7	260 f7	260 f7
<b>S8</b>	150	150	200	200	200
<b>S9</b>	M24(x4)	M24(x4)	M24(x8)	M24(x8)	M24(x8)
<b>S10</b>	50	50	50	50	50
<b>S11</b>	90°	90°	45°	45°	45°

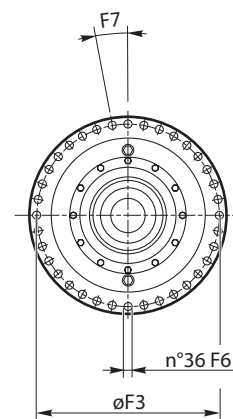
	RE - RA				
	21000	26000	31000	40000	45000
<b>Su1</b>	N220x5x9H DIN 5480	N220x5x9H DIN 5480	N280x5x9H DIN 5480	N280x5x9H DIN 5480	N280x5x9H DIN 5480
<b>Su2</b>	230 H7	230 H7	300 H7	300 H7	300 H7
<b>Su3</b>	16	16	24.5	24.5	24.5
<b>Su4</b>	23	23	25	25	25
<b>Su5</b>	51.5	51.5	65	65	65
<b>Su6</b>	220 H7	220 H7	283 H7	283 H7	283 H7
<b>Su7</b>	205	205	260	260	260
<b>Su8</b>	262	262	302	302	302
<b>Su9</b>	3	3	3	3	3
<b>Su10</b>	3	3	3	3	3

		RE - RA				
	stages	21000	26000	31000	40000	45000
<b>A1</b>		710	710	870	870	870
<b>F2</b>		600 h8	600 h8	760 h8	760 h8	760 h8
<b>F3</b>		660	660	810	810	810
<b>F4</b>		23.5	23.5	35	35	35
<b>F5</b>		196	216	250	290	290
<b>F6</b>		Ø28	Ø28	Ø32	Ø32	Ø32
		M... - 10.8				
		M25	M25	M30	M30	M30
<b>F7</b>		10°	10°	10°	10°	10°
<b>FA1</b>		180	180	225	225	225
<b>FL</b>	1	138	158	180	220	220
	2	443	463	588.5	628.5	628.5
	3	611.5	717	838	878	895
	4	704.5	845	966	1006	1136
	5	763	930	1051	1091	1229
<b>FL7</b>	3	697	717	/	/	/
	4	817.5	911	1032	1072	1149
	5	826.5	987	1108	1148	1342
<b>FL8</b>	3	887	907	/	/	/
	4	945.5	1039	1160	1200	1339
	5	917.5	1095	1216	1256	1470
<b>T3</b>	3	432	432	/	/	/
	4	310	310	310	310	432
	5	171	227	227	227	310
<b>T4</b>	3	295	295	/	/	/
	4	293	293	293	293	295
	5	183	242	242	242	293

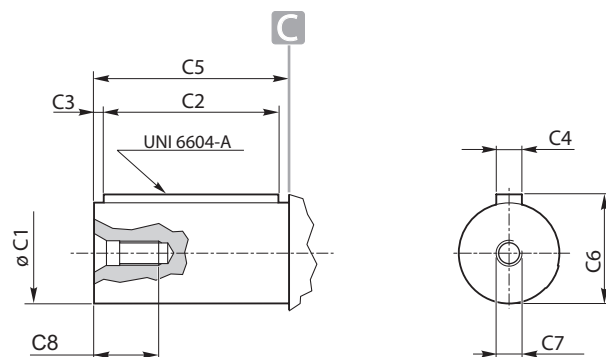




**21000 ÷ 45000**







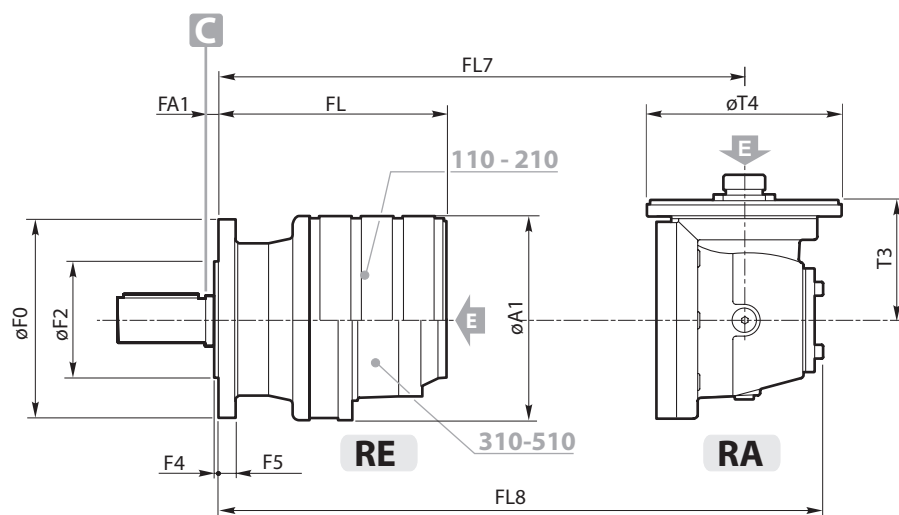
		RE - RA					
NC		110	210	310	510	610	810
	C1	38 h7	38 h7	50 h7	50 h7	50 h7	80 h6
	C2	50	50	90	90	90	110
	C3	4	4	8	8	8	8
	C4	10	10	14	14	14	22
	C5	58	58	105	105	105	130
	C6	41	41	53.5	53.5	53.5	85
	C7	M12	M12	M14	M14	M14	M20
	C8	20	20	30	30	30	45

		RE - RA					
NK		110	210	310	510	610	810
	C1	42 h7	42 h7	60 h7	60 h7	60 h7	—
	C2	70	70	90	90	90	—
	C3	6	6	8	8	8	—
	C4	12	12	18	18	18	—
	C5	82	82	105	105	105	—
	C6	45	45	53.5	53.5	53.5	—
	C7	M16	M16	M16	M16	M16	—
	C8	30	30	30	30	30	—

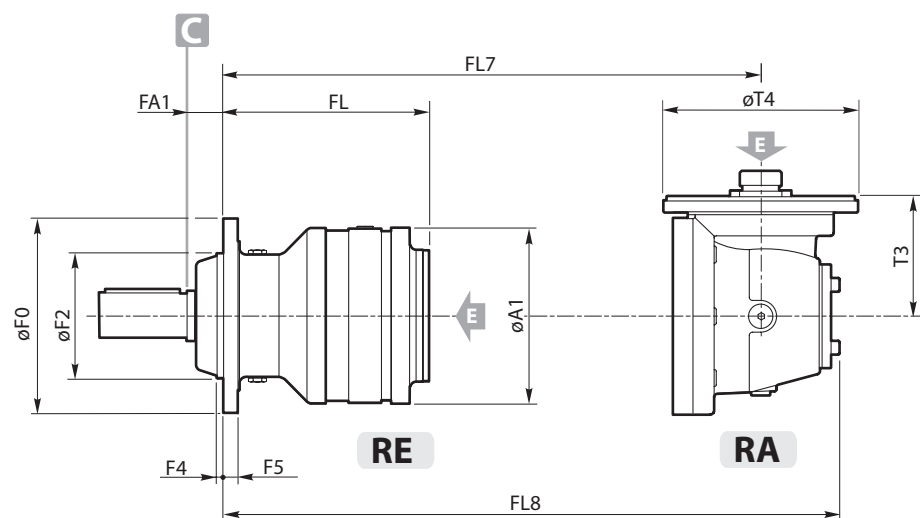
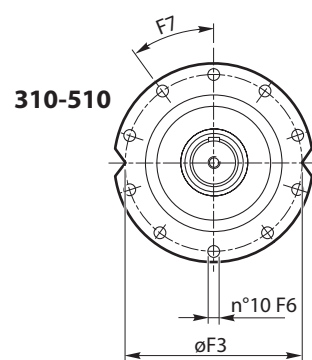
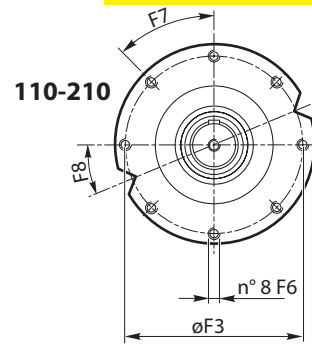
		RE - RA					
NK1		110	210	310	510	610	810
	C1	—	—	65 h7	65 h7	65 h7	—
	C2	—	—	90	90	90	—
	C3	—	—	8	8	8	—
	C4	—	—	18	18	18	—
	C5	—	—	105	105	105	—
	C6	—	—	69	69	69	—
	C7	—	—	M20	M20	M20	—
	C8	—	—	40	40	40	—

		RE - RA					
	stages	110	210	310	510	610	810
A1		186	186	224	224	224	295
F0		185	185	222	222	222	280
F2		110 h7	110 h7	150 f7	150 f7	150 f7	200 f7
F3		165	165	195	195	195	250
F4		5	5	13.5	13.5	13.5	10.5
F5		12	12	16	16	16	18
F6		10.5	10.5	12.5	12.5	12.5	15
		M... - 12.9					
		M10	M10	M12	M12	M12	M14
F7		45°	45°	36°	36°	36°	30°
F8		22.5°	22.5°	—	—	—	—
FA1		6.5	6.5	15	15	15	40
FL	1	95	107	133	151	151	162.5
	2	138	150	185.5	215.5	209.5	229.5
	3	181	193	228.5	258.5	262	282
	4	224	236	271.5	301.5	305	325
FL7	2	176	188	255	273	273	304.5
	3	219	231	266.5	296.5	331.5	351.5
	4	262	274	309.5	339.5	343	363
FL8	2	250.5	262.5	346	364	364	412.5
	3	293.5	305.5	341	371	422.5	442.5
	4	336.5	348.5	384	414	417.5	437.5
T3	2	113.8	113.8	171.5	171.5	171.5	277
	3	113.8	113.8	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	183	183	183	242
	3	184	184	184	184	183	183
	4	184	184	184	184	184	184

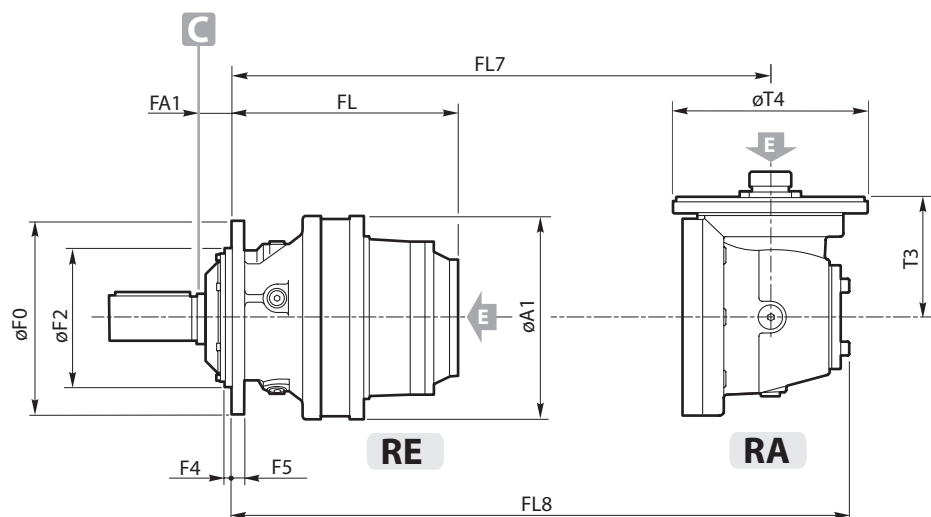
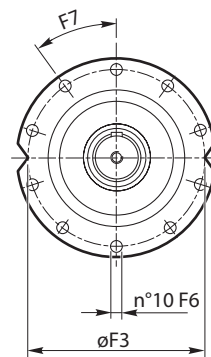




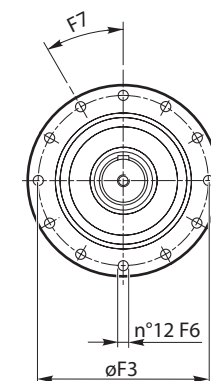
**110 - 210  
310 - 510**



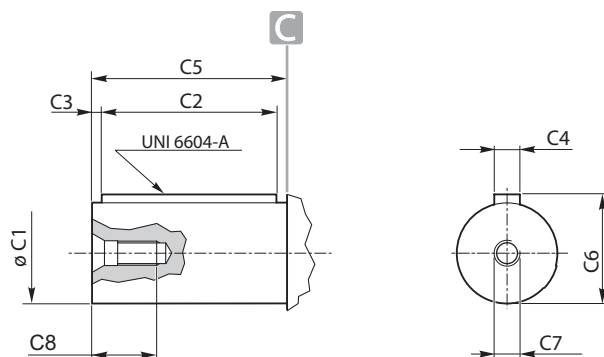
**610**



**810**







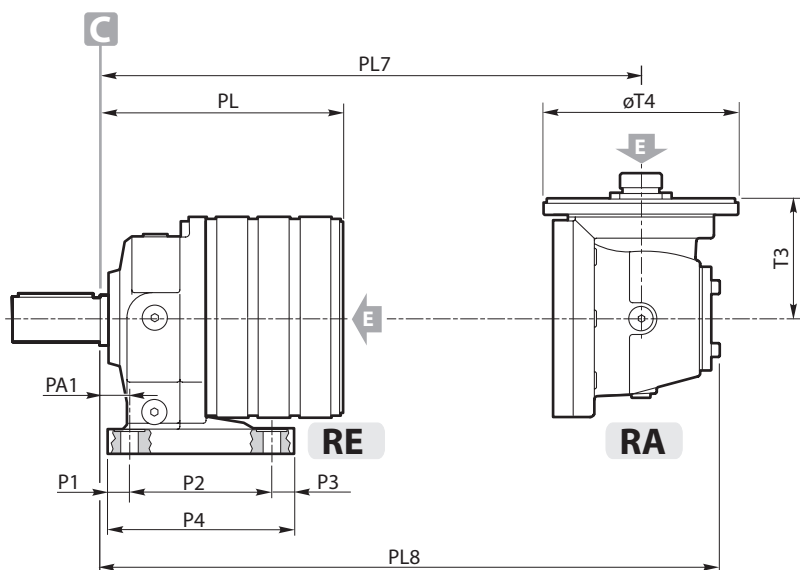
		RE - RA						
		110	210	310	510	610	810	1020
PC	C1	38 h7	38 h7	50 h7	50 h7	50 h7	80 h6	80 h6
	C2	50	50	90	90	90	110	110
	C3	4	4	8	8	8	8	8
	C4	10	10	14	14	14	22	22
	C5	58	58	105	105	105	130	130
	C6	41	41	53.5	53.5	53.5	85	85
	C7	M12	M12	M14	M14	M14	M20	M20
	C8	20	20	30	30	30	45	45

		RE - RA						
		110	210	310	510	610	810	1020
PK	C1	42 h7	42 h7	60 h7	60 h7	60 h7	—	—
	C2	70	70	90	90	90	—	—
	C3	6	6	8	8	8	—	—
	C4	12	12	18	18	18	—	—
	C5	82	82	105	105	105	—	—
	C6	45	45	53.5	53.5	53.5	—	—
	C7	M16	M16	M16	M16	M16	—	—
	C8	30	30	30	30	30	—	—

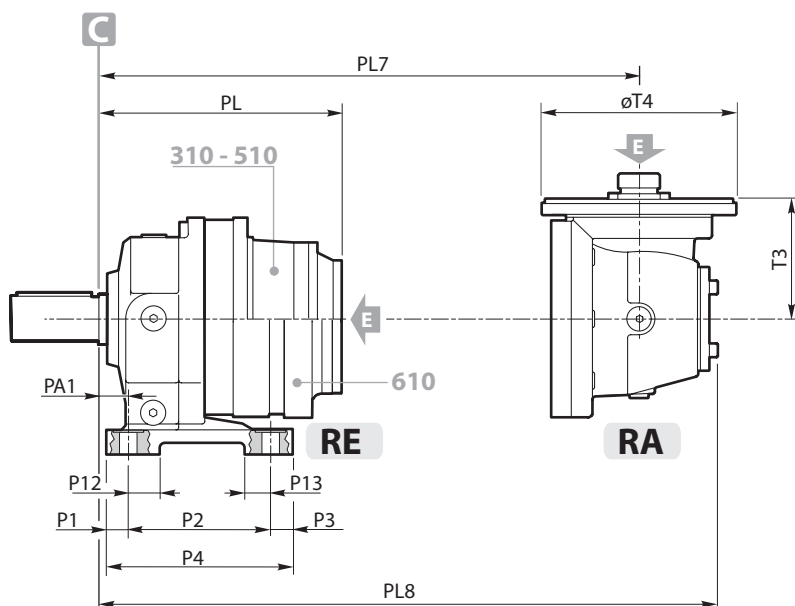
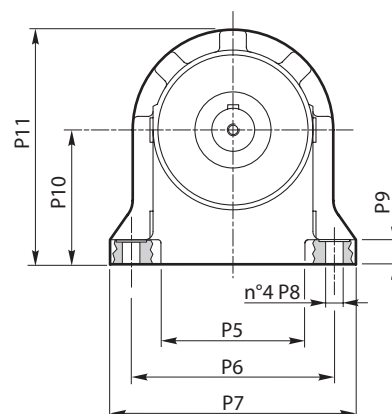
		RE - RA						
		110	210	310	510	610	810	1020
PK1	C1	/	/	65 h7	65 h7	65 h7	—	—
	C2	/	/	90	90	90	—	—
	C3	/	/	8	8	8	—	—
	C4	/	/	18	18	18	—	—
	C5	/	/	105	105	105	—	—
	C6	/	/	69	69	69	—	—
	C7	/	/	M20	M20	M20	—	—
	C8	/	/	40	40	40	—	—

		RE - RA						
		110	210	310	510	610	810	1020
P1		20	20	28	28	28	35	35
P2		132	132	180	180	180	225	225
P3		20	20	28	28	28	35	35
P4		172	172	236	236	236	295	295
P5		134	134	180	180	180	206	206
P6		190	190	250	250	250	300	300
P7		230	230	310	310	310	370	370
P8		Ø14	Ø14	Ø22	Ø22	Ø22	Ø26	Ø26
		M... - 12.9						
		M12	M12	M20	M20	M20	M24	M24
P9		23	23	26.5	26.5	26.5	36	36
P10		125	125	160	160	160	200	200
P11		218	218	282	282	282	247.5	247.5
P12		—	—	21	21	21	45	45
P13		—	—	21	21	21	45	45
PA1		20	20	29	29	29	35	35
PL	1	101.5	113.5	148	166	166	225	242
	2	144.5	156.5	200.5	230.5	224.5	292	327
	3	187.5	199.5	243.5	273.5	277	344.5	391.5
	4	230.5	242.5	286.5	316.5	320	387.5	434.5
PL7	2	182.5	194.5	297	315	288	367	384
	3	225.5	237.5	281.5	311.5	346.5	414	449
	4	268.5	280.5	324.5	354.5	358	425.5	472.5
	2	257	269	361	379	379	475	492
PL8	3	300	312	356	386	437.5	505	540
	4	343	355	399	429	432.5	500	547
T3	2	113.8	113.8	171.5	171.5	171.5	277	277
	3	113.8	113.8	113.8	113.8	171.5	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	183	183	183	242	242
	3	184	184	184	184	183	183	183
	4	184	184	184	184	184	184	184

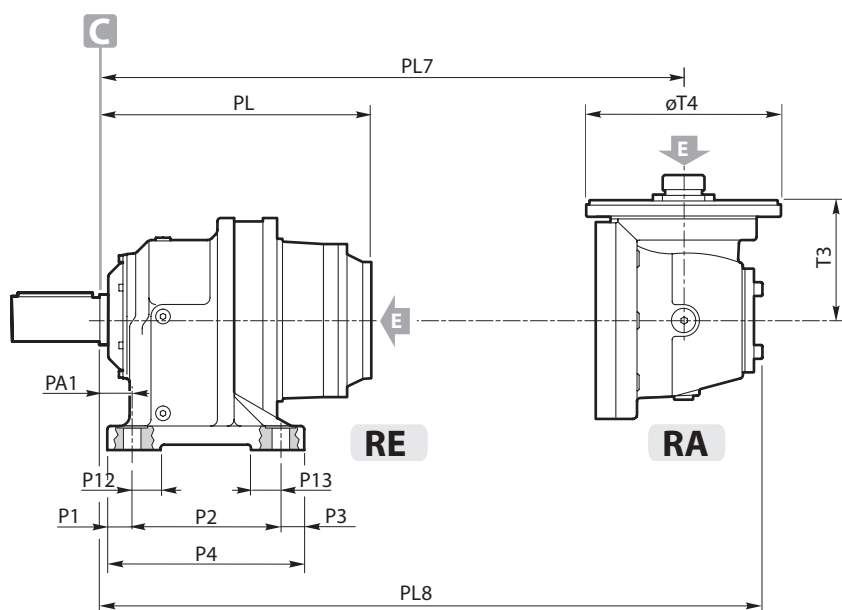
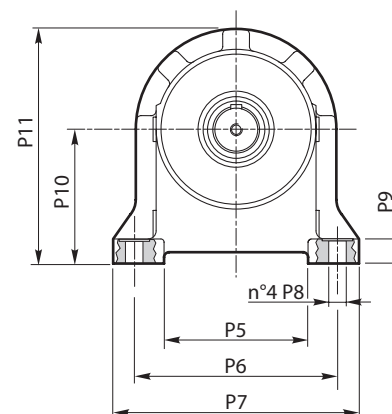




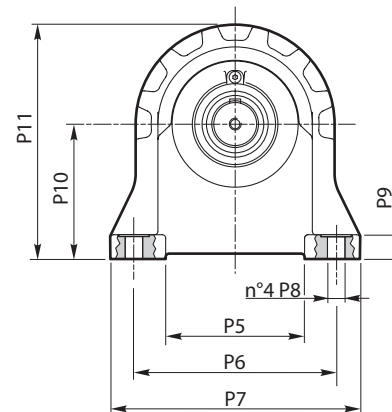
**110 - 210**



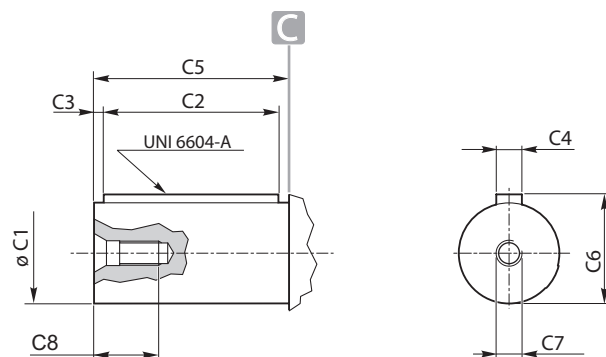
**310 - 510  
610**



**810 - 1020**





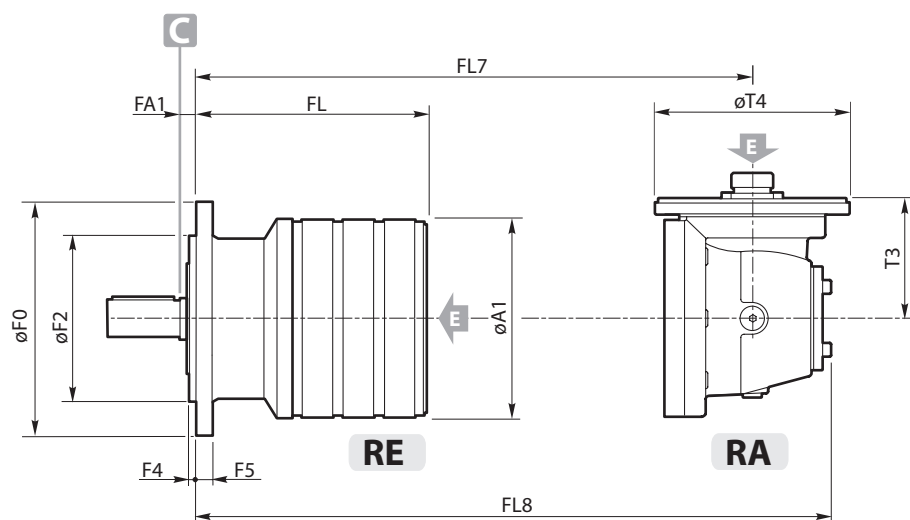


		RE - RA					
		110	210	240	310	510	610
TC T1C TRC TR1C TLC	C1	50 h7	50 h7	50 h7	60 h7	60 h7	60 h7
	C2	90	90	90	90	90	90
	C3	5	5	5	8	8	8
	C4	14	14	14	18	18	18
	C5	100	100	100	105	105	105
	C6	53.5	53.5	53.5	64	64	64
	C7	M12	M12	M12	M16	M16	M16
	C8	30	30	30	30	30	30

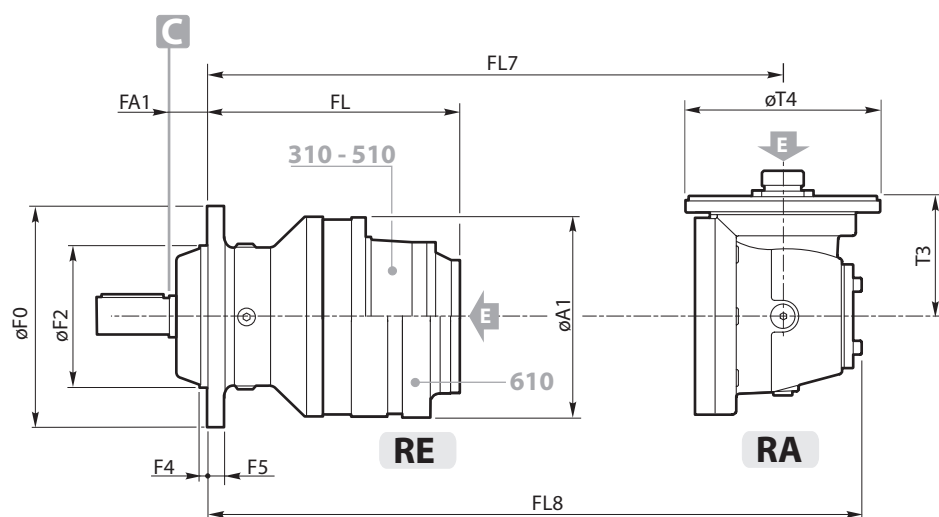
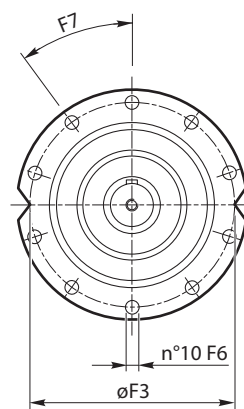
		RE - RA					
		110	210	240	310	510	610
TK TLK	C1	/	/	/	65 h7	65 h7	65 h7
	C2	/	/	/	90	90	90
	C3	/	/	/	8	8	8
	C4	/	/	/	18	18	18
	C5	/	/	/	105	105	105
	C6	/	/	/	69	69	69
	C7	/	/	/	M20	M20	M20
	C8	/	/	/	40	40	40

		RE - RA															
	stages	110				210				240		310		510		610	
		T_	T1_	TR_	TR1_	T_	T1_	TR_	TR1_	T_	TR_	T_	TL_	T_	TL_	T_	TL_
A1		186	186	186	186	186	186	186	186	186	186	244	244	244	244	244	244
F0		219	219	219	219	219	219	219	219	219	219	272	272	272	272	272	272
F2		155 h7	150 f7	155 h7	150 f7	155 h7	150 f7	155 h7	150 f7	150 f7	155 f7	175 h8	175 h8	175 h8	175 h8	175 h8	175 h8
F3		194	195	194	195	194	195	194	195	195	194	245	245	245	245	245	245
F4		7	7	10	10	7	7	10	10	7	10	12	9	12	9	12	9
F5		15	15	15	15	15	15	15	15	15	15	20	20	20	20	20	20
F6		Ø11	Ø13	Ø11	Ø13	Ø11	Ø13	Ø11	Ø13	Ø12.5	Ø11	Ø12.5	Ø12.5	Ø12.5	Ø12.5	Ø12.5	Ø12.5
		M... - 12.9															
		M10	M12	M10	M12	M10	M12	M10	M12	M12	M10	M12	M12	M12	M12	M12	M12
F7		36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°
FA1		13	13	30	30	13	13	30	30	13	30	39	39	39	39	39	39
FL	1	102	102	85	85	114	114	97	97	114	97	157	157	175	175	175	175
	2	145	145	128	128	157	157	140	140	157	140	209.5	209.5	239.5	239.5	233.5	233.5
	3	188	188	171	171	200	200	183	183	200	183	252.5	252.5	282.5	282.5	286	286
	4	231	231	214	214	243	243	226	226	243	226	295.5	295.5	325.5	325.5	329	329
FL7	2	183	183	166	166	195	195	178	178	195	178	279	279	297	297	297	297
	3	226	226	209	209	238	238	221	221	238	221	290.5	290.5	320.5	320.5	355.5	355.5
	4	269	269	252	252	281	281	264	264	281	264	333.5	333.5	363.5	363.5	367	367
FL8	2	257.5	257.5	240.5	240.5	269.5	269.5	252.5	252.5	269.5	252.5	370	370	388	388	388	388
	3	300.5	300.5	283.5	283.5	312.5	312.5	295.5	295.5	312.5	295.5	365	365	395	395	446.5	446.5
	4	343.5	343.5	326.5	326.5	355.5	355.5	338.5	338.5	355.5	338.5	408	408	438	438	441.5	441.5
T3	2	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	171.5	171.5	171.5	171.5	171.5	171.5
	3	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	184	184	184	184	184	184	184	184	183	183	183	183	183	183
	3	184	184	184	184	184	184	184	184	184	184	184	184	184	184	183	183
	4	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184

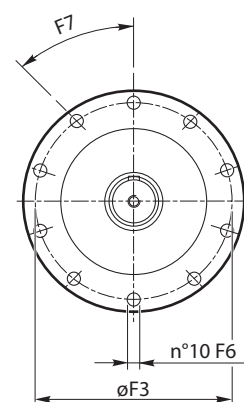




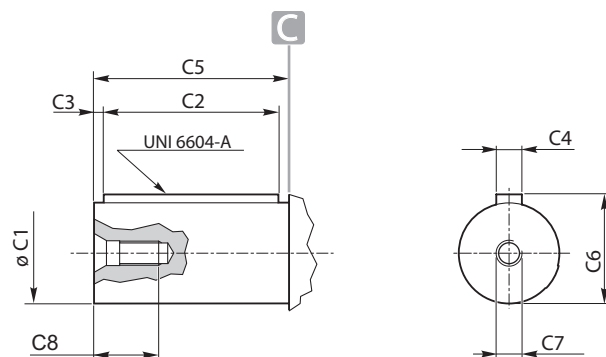
**110 ÷ 240**



**310 - 510  
610**



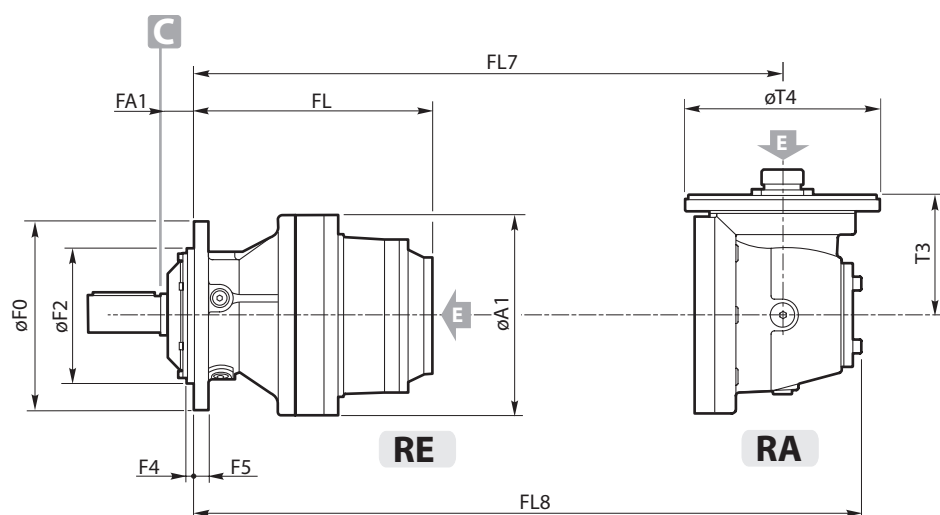




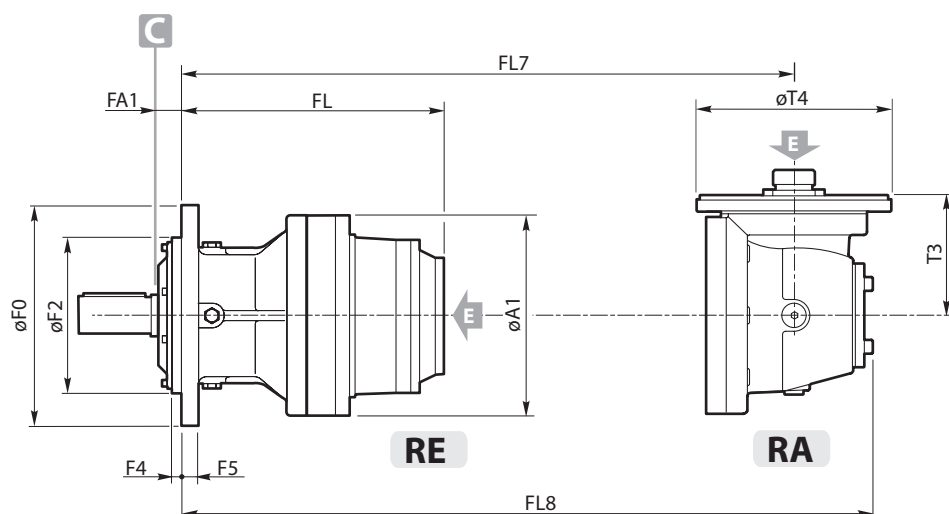
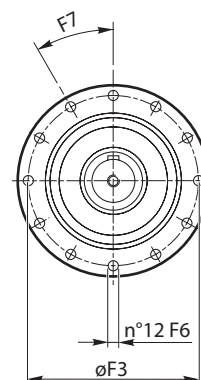
		RE - RA				
		810	1020	1520	2000	2000L
TC	C1	80 h6	90 h7	90 h7	90 h7	90 h7
	C2	110	160	160	160	160
	C3	8	5	5	5	5
	C4	22	25	25	25	25
	C5	130	170	170	170	170
	C6	85	95	95	95	95
	C7	M20	M24	M24	M24	M24
	C8	45	50	50	50	50

		RE - RA				
	stages	810	1020	1520	2000	2000L
A1		295	295	350	350	350
F0		280	325	325	325	325
F2		200 f7	230 f7	230 f7	230 f7	230 f7
F3		250	295	295	295	295
F4		10.5	15	15	15	15
F5		22	25	28	28	28
F6		Ø15	Ø17	Ø17	Ø17	Ø17
		M... - 12.9				
		M14	M16	M16	M16	M16
F7		30°	36°	36°	36°	36°
FA1		40	36	36	36	36
FL	1	185	237	240	240	240
	2	252	322	333	333	333
	3	304.5	386.5	397.5	391.5	397.5
	4	347.5	429.5	440	444	440
FL7	2	326.5	379	446	446	446
	3	374	444	455	455	455
	4	385.5	467.5	478.5	513.5	478.5
FL8	2	435	487	574	574	574
	3	465	535	546	546	546
	4	460	542	553	604.5	553
T3	2	277	277	310	310	310
	3	171.5	171.5	171.5	171.5	171.5
	4	113.8	113.8	113.8	171.5	113.8
T4	2	242	242	293	293	293
	3	183	183	183	183	183
	4	184	184	184	183	184

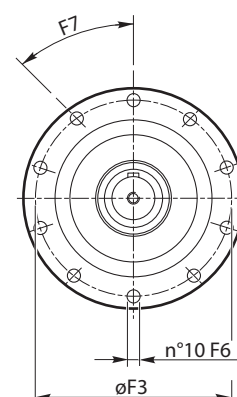




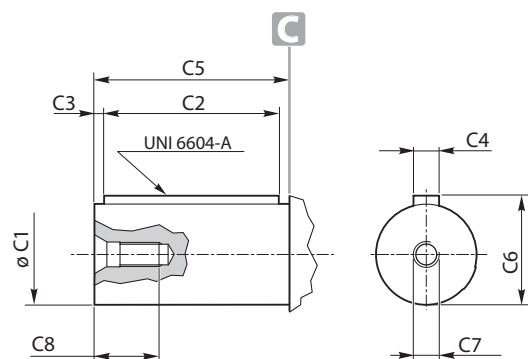
810



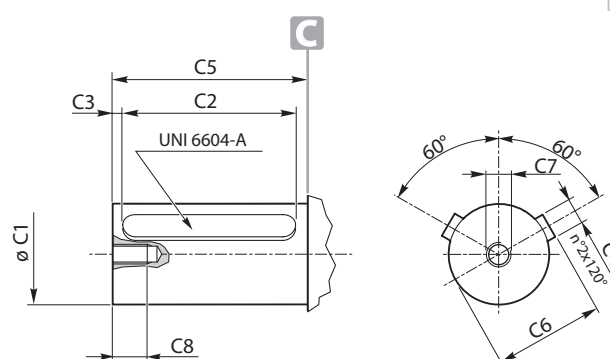
1020 - 1520  
2000 - 2000L








1520 ÷ 3000

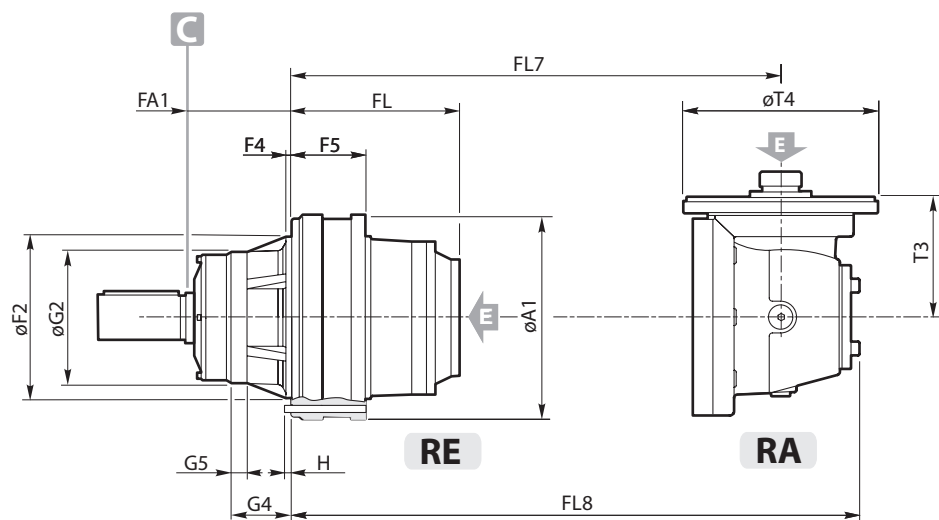


3510 - 4800

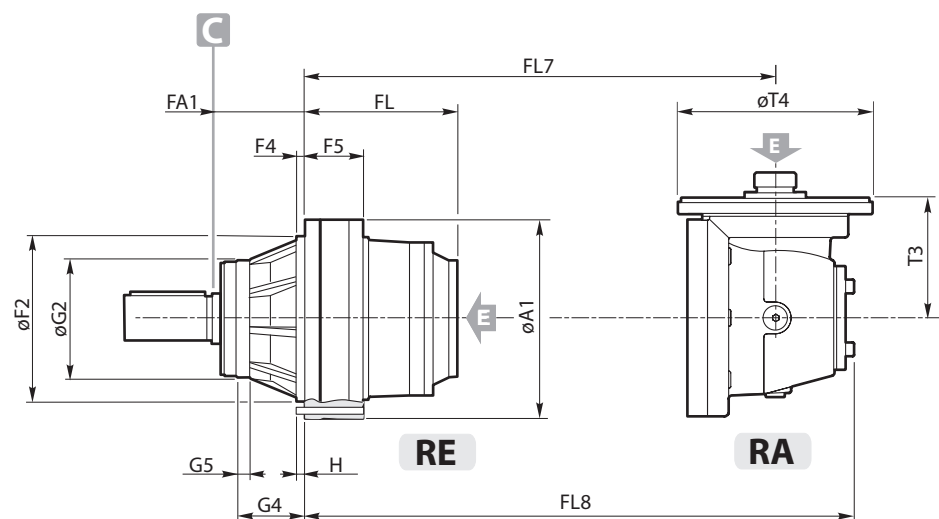
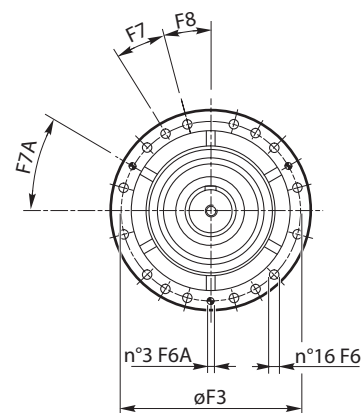
		RE - RA						
		1520	2000	2000L	2520	3000	3510	4800
HC	C1	90 h7	90 h7	90 h7	110 h6	110 h6	120 h7	120 h7
	C2	160	160	160	200	200	200	200
	C3	5	5	5	5	5	5	5
	C4	25	25	25	28	28	32	32
	C5	170	170	170	210	210	210	210
	C6	95	95	95	116	116	127	127
	C7	M24	M24	M24	M24	M24	M24	M24
	C8	50	50	50	50	50	50	50

		RE - RA						
	stages	1520	2000	2000L	2520	3000	3510	4800
A1		350	350	350	409	409	452	452
FA1		169	169	169	180	180	109	109
F2		278 f7	278 f7	278 f7	340 f7	340 f7	390 f8	390 f8
F3		314	314	314	370	370	424	424
F4		10	10	10	17	17	15	15
F5		133	133	133	131	131	120	120
F6		Ø16.5	Ø16.5	Ø16.5	Ø17	Ø17	Ø17	Ø17
		 M.. - 12.9						
F6A		M16	M16	M16	M16	M16	M16	M16
F7		Ø12	Ø12	Ø12	Ø16	Ø16	/	/
F7		15°	15°	15°	12°	12°	20°	20°
F7A		30°	30°	30°	30°	30°	/	/
F8		15°	15°	15°	24°	24°	10°	10°
FL	1	107	107	107	98	98	85	85
	2	200	200	200	209	226	277	326
	3	264.5	258.5	264.5	276	311	362	419
	4	307.5	311	307.5	328.5	375.5	426.5	483.5
FL7	2	313	313	313	292	292	339	339
	3	322	322	322	351	368	419	532
	4	345.5	380.5	345.5	398	433	484	541
FL8	2	441	441	441	420	420	529	529
	3	413	413	413	459	476	527	660
	4	420	472	420	489	524	575	632
G2		225 f7	225 f7	225 f7	245 f7	245 f7	/	/
G4		104.5	104.5	104.5	142	142	/	/
G5		27.5	27.5	27.5	29	29	/	/
H		15	15	15	29	29	/	/
T3	2	310	310	310	310	310	432	432
	3	171	171	171	227	227	227	310
	4	113.8	171	113.8	171	171	171	171
T4	2	293	293	293	293	293	295	295
	3	183	183	183	242	242	242	293
	4	184	183	184	183	183	183	183

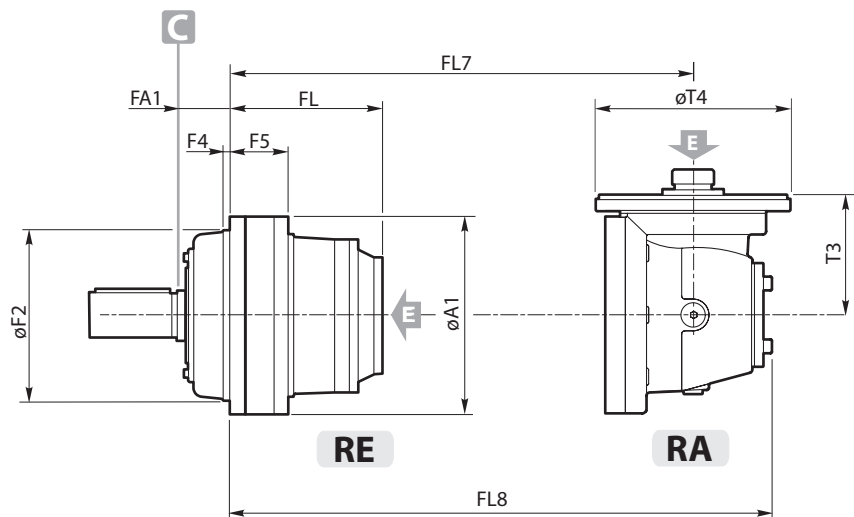
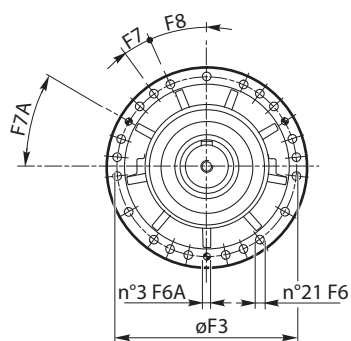




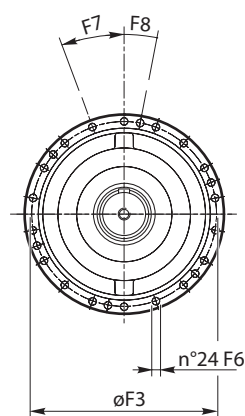
**1520 - 2000  
2000L**



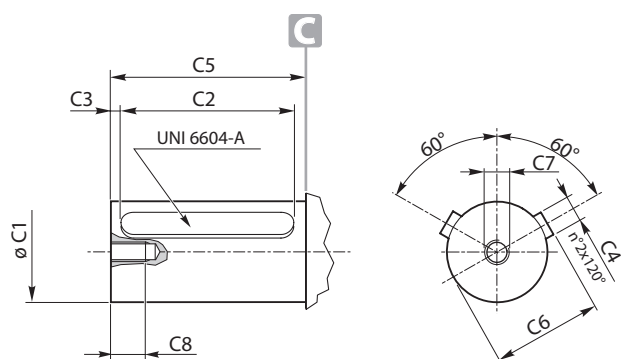
**2520 - 3000**



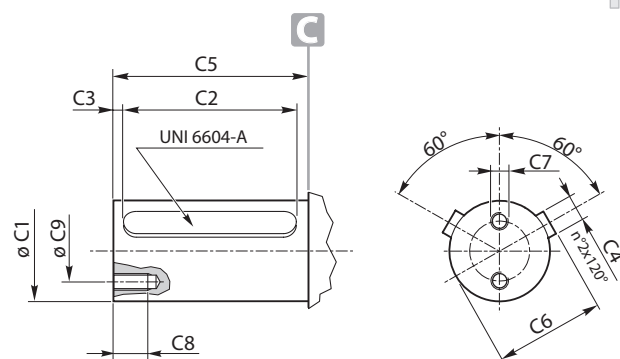
**3510 - 4800**







**6000 - 8000**

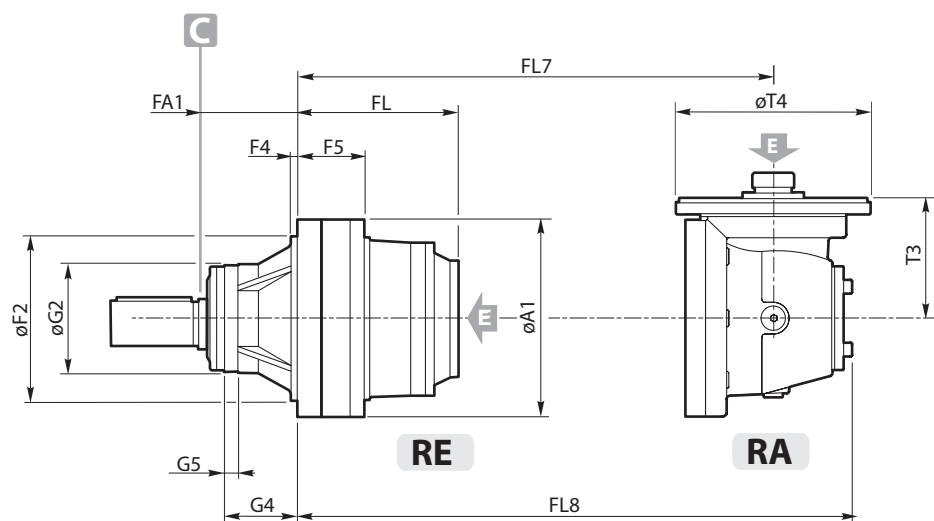


**12010 - 16000**

		RE - RA		GB - GBA		
		6000		8000	12010	16000
		HC	H6C	HC	HC	HC
<b>HC H6C</b>	<b>C1</b>	140 h6	160 h7	160 h7	180 h7	180 h7
	<b>C2</b>	200	210	210	220	220
	<b>C3</b>	10	10	10	10	10
	<b>C4</b>	36	40	40	45	45
	<b>C5</b>	220	230	230	240	240
	<b>C6</b>	148	169	169	190	190
	<b>C7</b>	M24	M24	M24	M16(2)	M16(2)
	<b>C8</b>	50	50	50	35	35
	<b>C9</b>	—	—	—	110	110

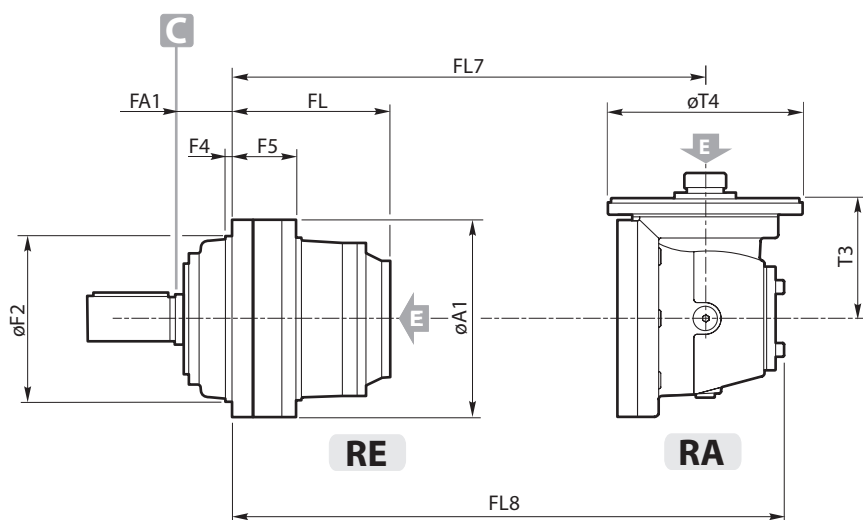
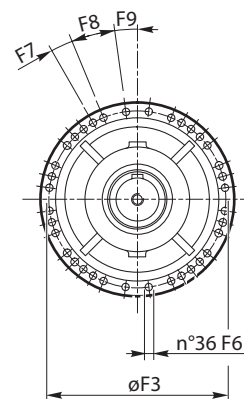
		RE - RA			GB - GBA	
		6000			12010	16000
		HC	H6C	HC	HC	HC
<b>A1</b>		490	490	490	610	610
<b>F2</b>		410 f7	410 h8	410 h8	515 h8	515 h8
<b>F3</b>		445	445	445	560	560
<b>F4</b>		15	15	15	20	20
<b>F5</b>		187	178.5	181.5	230	230
<b>F6</b>		Ø19	Ø19	Ø19	Ø25	Ø25
<b>F7</b>		M18	M18	M18	M24	M24
<b>F8</b>		7°30'	7°30'	7°30'	15°	15°
<b>F9</b>		15°	15°	15°	7°30'	7°30'
<b>FA1</b>		226	126	126	145	145
<b>FL</b>	1	145	136.5	136.5	160.5	160.5
	2	313.5	305	390.5	410	427
	3	406.5	398	518.5	538	668
	4	465	456.5	603.5	623	761
	5	—	—	668	687.5	825.5
<b>FL7</b>	2	399	390.5	390.5	—	—
	3	519.5	511	584.5	604	681
	4	528.5	520	660.5	680	874
	5	—	—	—	745	883
<b>FL8</b>	2	589	580.5	580.5	—	—
	3	647.5	639	712.5	732	871
	4	619.5	611	768.5	788	1002
	5	—	—	—	836	974
<b>G2</b>		260 f7	—	—	—	—
<b>G4</b>		181	—	—	—	—
<b>G5</b>		33	—	—	—	—
<b>T3</b>	2	432	432	432	—	—
	3	310	310	310	310	432
	4	171	171	227	227	310
	5	—	—	—	171	171
<b>T4</b>	2	295	295	295	—	—
	3	293	293	293	293	295
	4	183	183	242	242	293
	5	—	—	—	183	183





**HC**

**6000**

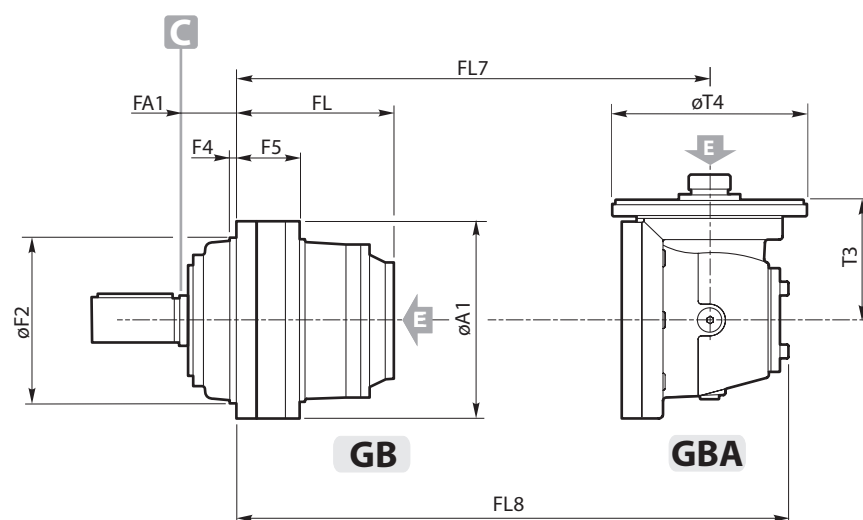
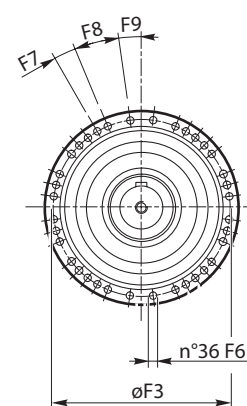


**H6C**

**6000**

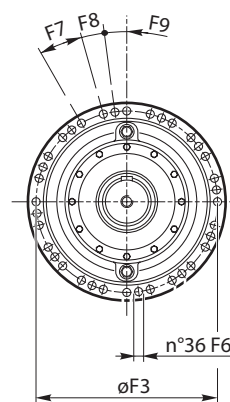
**HC**

**8000**

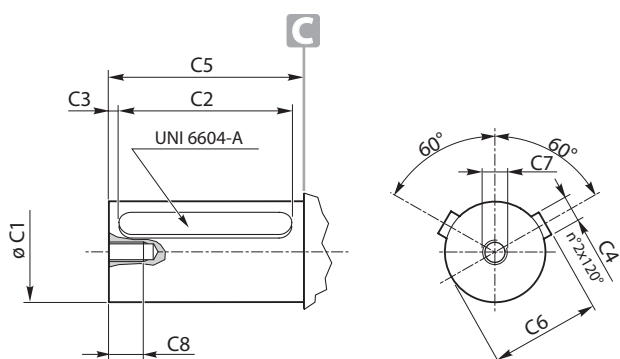


**HC**

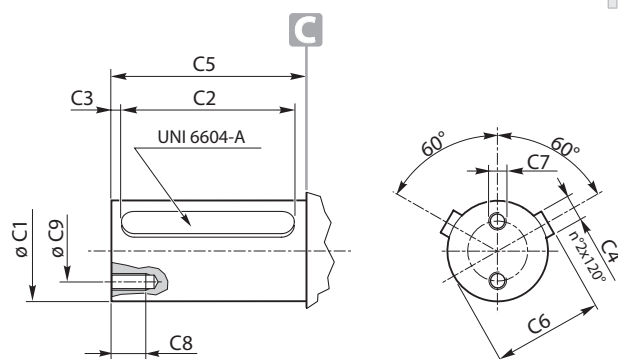
**12010 - 16000**







**6000L - 8000L**

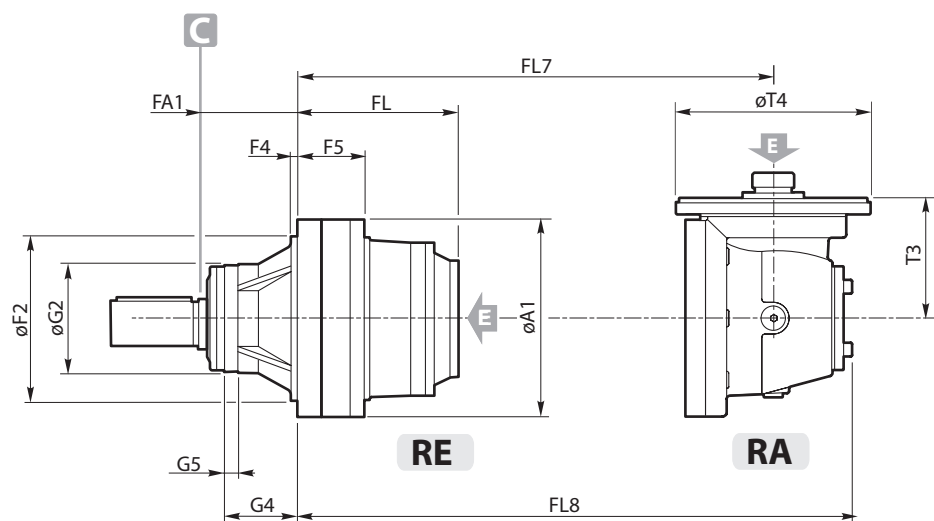


**12010L - 16000L**

		RE - RA		GB - GBA	
		6000L		12010L	16000L
		HC	H6C	HC	HC
<b>HC H6C</b>	<b>C1</b>	140 h6	160 h7	160 h7	180 h7
	<b>C2</b>	200	210	210	220
	<b>C3</b>	10	10	10	10
	<b>C4</b>	36	40	40	45
	<b>C5</b>	220	230	230	240
	<b>C6</b>	148	169	169	190
	<b>C7</b>	M24	M24	M24	M16(2)
	<b>C8</b>	50	50	50	35
	<b>C9</b>	—	—	—	110

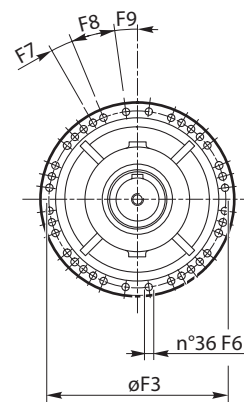
		RE - RA		GB - GBA	
		6000L		12010L	16000L
		HS	H6S	HS	HS
<b>A1</b>		490	490	490	610
<b>F2</b>		410 f7	410 h8	410 h8	515 h8
<b>F3</b>		445	445	445	560
<b>F4</b>		15	15	15	20
<b>F5</b>		187	178.5	181.5	230
<b>F6</b>		Ø19	Ø19	Ø19	Ø25
<b>F7</b>		7°30'	7°30'	7°30'	15°
<b>F8</b>		15°	15°	15°	7°30'
<b>F9</b>		7°30'	7°30'	7°30'	7°30'
<b>FA1</b>		226	126	126	145
<b>FL</b>	1	145	136.5	136.5	160.5
	2	313.5	305	390.5	410
	3	406.5	398	501.5	521
	4	471	462.5	568.5	588
	5	—	—	621	640.5
<b>FL7</b>	2	399	390.5	390.5	—
	3	519.5	511	584.5	604
	4	528.5	520	643.5	663
	5	—	—	—	710
	5	—	—	—	826
<b>FL8</b>	2	589	580.5	580.5	—
	3	647.5	639	712.5	732
	4	619.5	611	751.5	771
	5	—	—	—	801
	5	—	—	—	917
<b>G2</b>		260 f7	—	—	—
<b>G4</b>		181	—	—	—
<b>G5</b>		33	—	—	—
<b>T3</b>	2	432	432	432	—
	3	310	310	310	310
	4	171	171	227	227
	5	—	—	—	171
	5	—	—	—	171
<b>T4</b>	2	295	295	295	—
	3	293	293	293	293
	4	183	183	242	242
	5	—	—	—	183
	5	—	—	—	183





**HC**

**6000L**

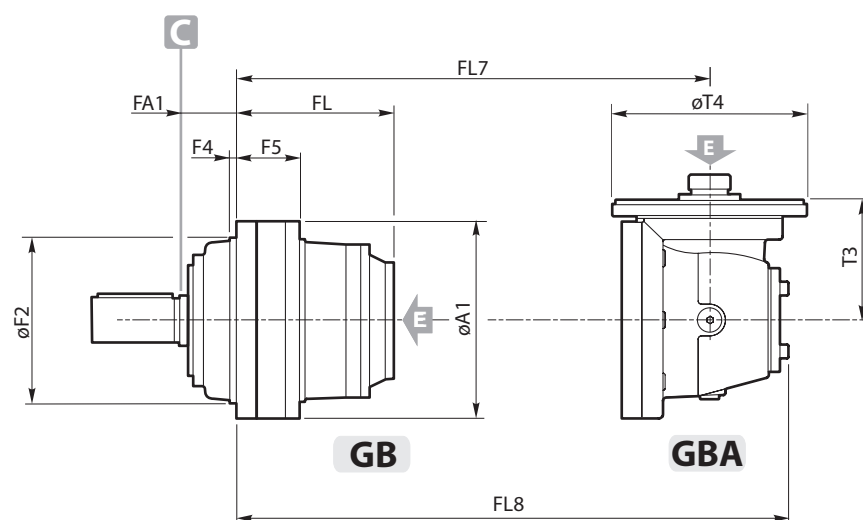
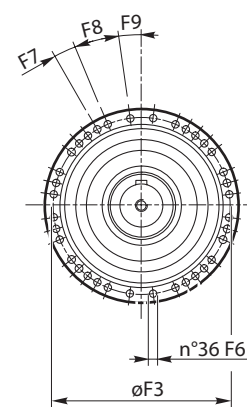
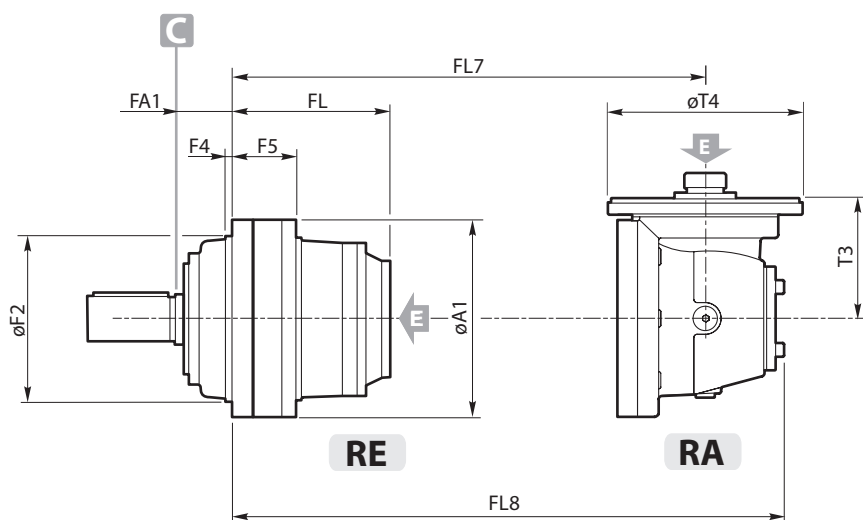


**H6C**

**6000L**

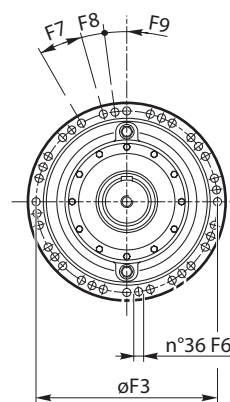
**HC**

**8000L**

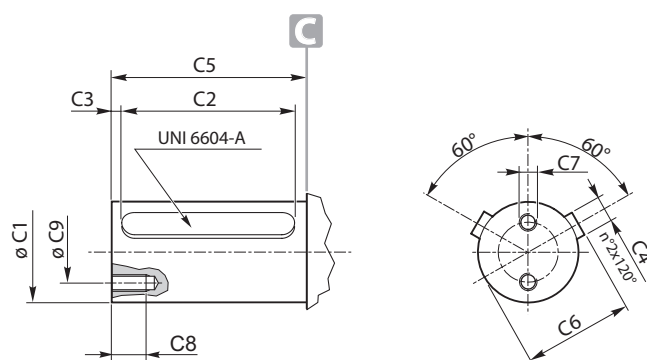


**HC**

**12010L-16000L**



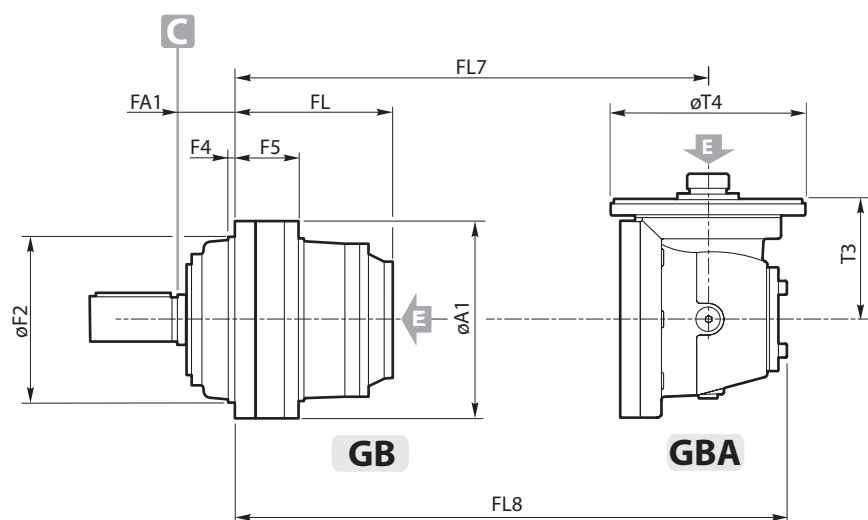




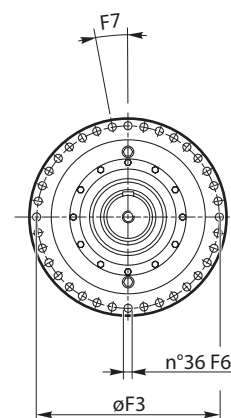
		GB - GBA				
TC		21000	26000	31000	40000	45000
	C1	230 h7	230 h7	290 h7	290 h7	290 h7
	C2	280	280	400	400	400
	C3	10	10	12.5	12.5	12.5
	C4	50	50	63	63	63
	C5	300	300	425	425	425
	C6	241	241	302	302	302
	C7	M24(2)	M24(2)	M24(2)	M24(2)	M24(2)
	C8	50	50	50	50	50
	C9	150	150	200	200	200

		GB - GBA				
	stages	21000	26000	31000	40000	45000
A1		710	710	870	870	870
F2		600 h8	600 h8	760 h8	760 h8	760 h8
F3		660	660	810	810	810
F4		23.5	23.5	35	35	35
F5		196	216	250	290	290
F6		Ø28	Ø28	Ø32	Ø32	Ø32
		M... - 10.8				
		M27	M27	M30	M30	M30
F7		10°	10°	10°	10°	10°
FA1		180	180	225	225	225
FL	1	138	158	180	220	220
	2	443	463	588.5	628.5	628.5
	3	611.5	717	838	878	895
	4	704.5	845	966	1006	1136
	5	763	930	1051	1091	1229
FL7	3	697	717	—	—	—
	4	817.5	911	1032	1072	1149
	5	826.5	987	1108	1148	1342
FL8	3	887	907	—	—	—
	4	945.5	1039	1160	1200	1339
	5	917.5	1095	1216	1256	1470
T3	3	432	432	—	—	—
	4	310	310	310	310	432
	5	171	227	227	227	310
T4	3	295	295	—	—	—
	4	293	293	293	293	295
	5	183	242	242	242	293

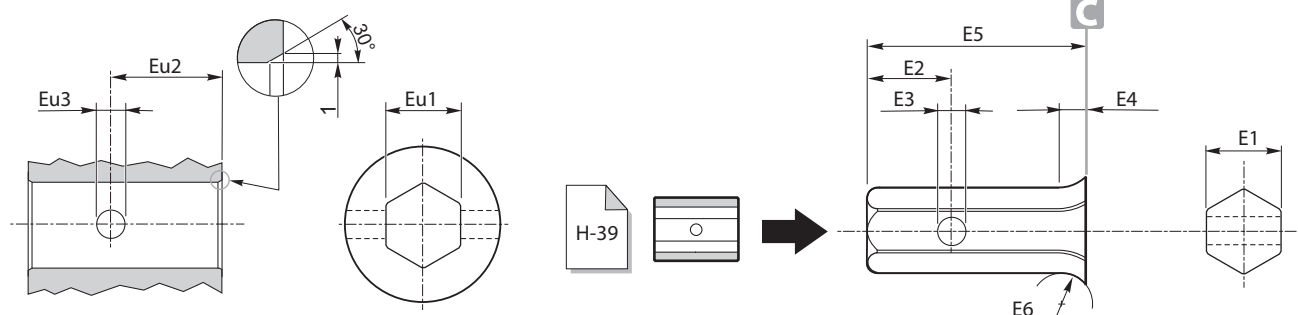





**21000 ÷ 45000**



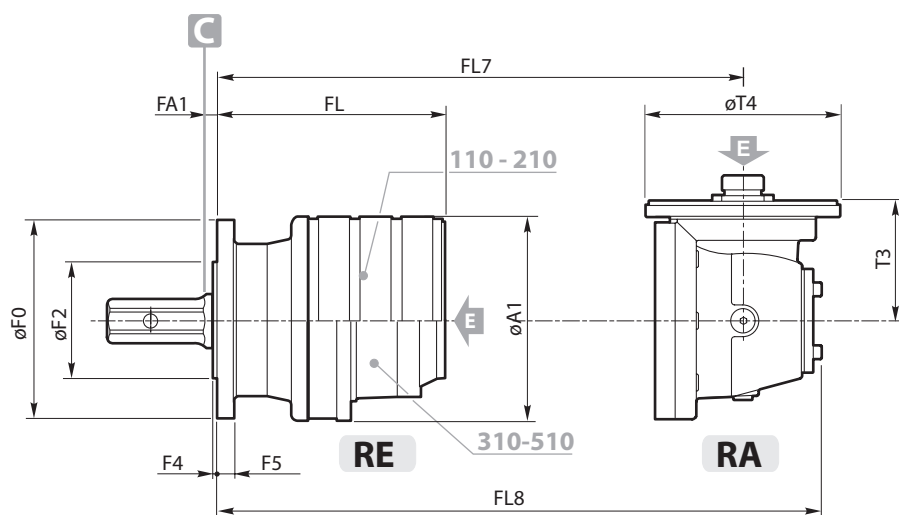




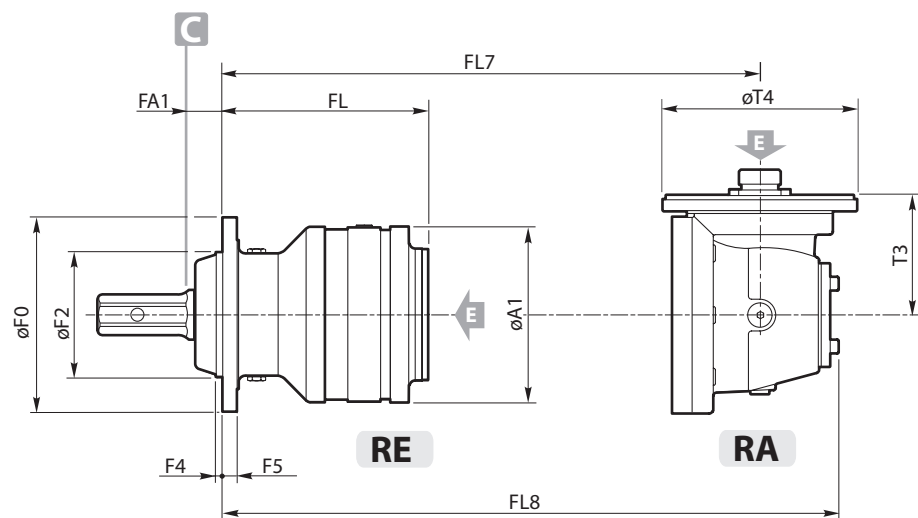
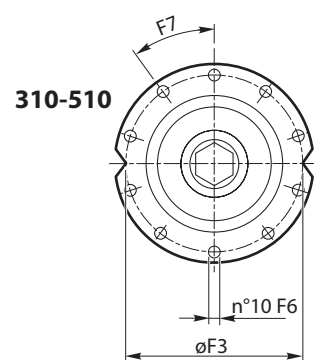
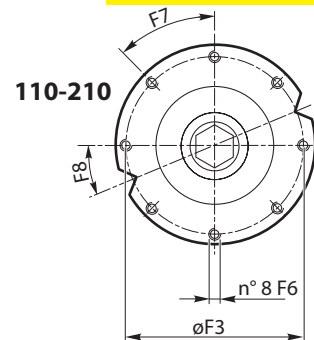
		RE - RA				
		110	210	310	510	610
NE	E1	50	50	50	50	50
	E2	54	54	54	54	54
	E3	Ø 18	Ø 18	Ø 18	Ø 18	Ø 18
	E4	6.5	6.5	13	13	13
	E5	121	121	132	132	132
	E6	r 24	r 24	r 24	r 24	r 24
	Eu1	50	50	50	50	50
	Eu2	54	54	60	60	60
	Eu3	Ø 18	Ø 18	Ø 18	Ø 18	Ø 18

		RE - RA				
	stages	110	210	310	510	610
A1		186	186	224	224	224
F0		185	185	222	222	222
F2		110 h7	110 h7	150 f7	150 f7	150 f7
F3		165	165	195	195	195
F4		5	5	13.5	13.5	13.5
F5		12	12	16	16	16
F6		10.5	10.5	12.5	12.5	12.5
		 M... - 12.9				
		M10	M10	M12	M12	M12
F7		45°	45°	36°	36°	36°
F8		22.5°	22.5°	—	—	—
FA1		7	7	22	22	22
FL	1	97	109	134	152	152
	2	140	152	186.5	216.5	210.5
	3	183	195	229.5	259.5	263
	4	226	238	272.5	302.5	306
FL7	2	178	190	256	274	274
	3	221	233	267.5	297.5	332.5
	4	264	276	310.5	340.5	344
FL8	2	252.5	264.5	347	365	365
	3	295.5	307.5	342	372	423.5
	4	338.5	350.5	385	415	418.5
T3	2	113.8	113.8	171.5	171.5	171.5
	3	113.8	113.8	113.8	113.8	171.5
	4	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	183	183	183
	3	184	184	184	184	183
	4	184	184	184	184	184

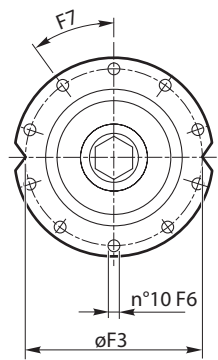




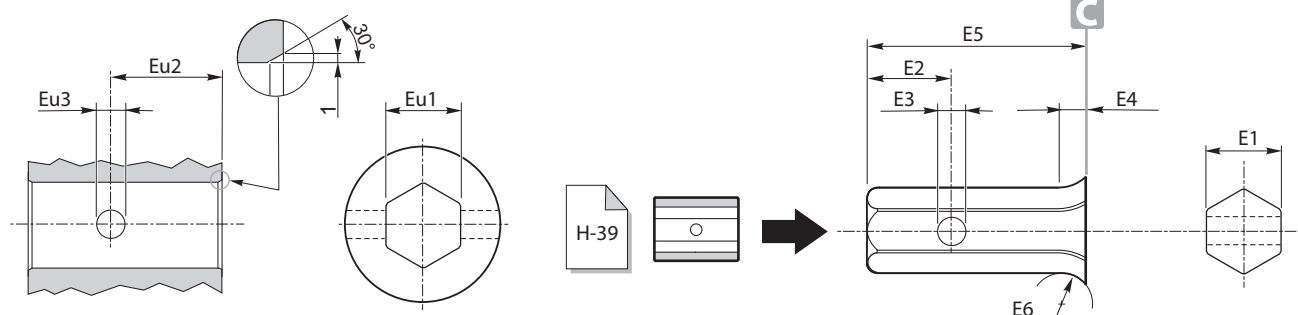
**110 - 210  
310 - 510**




**610**



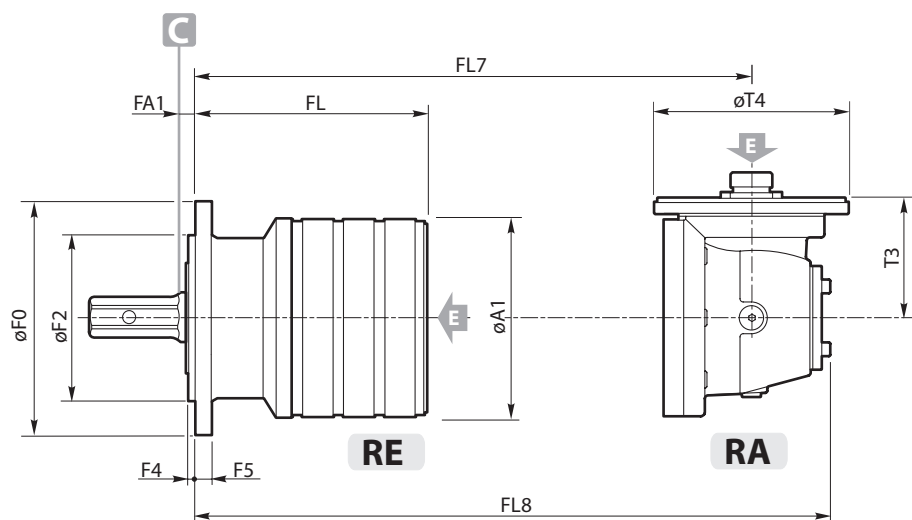




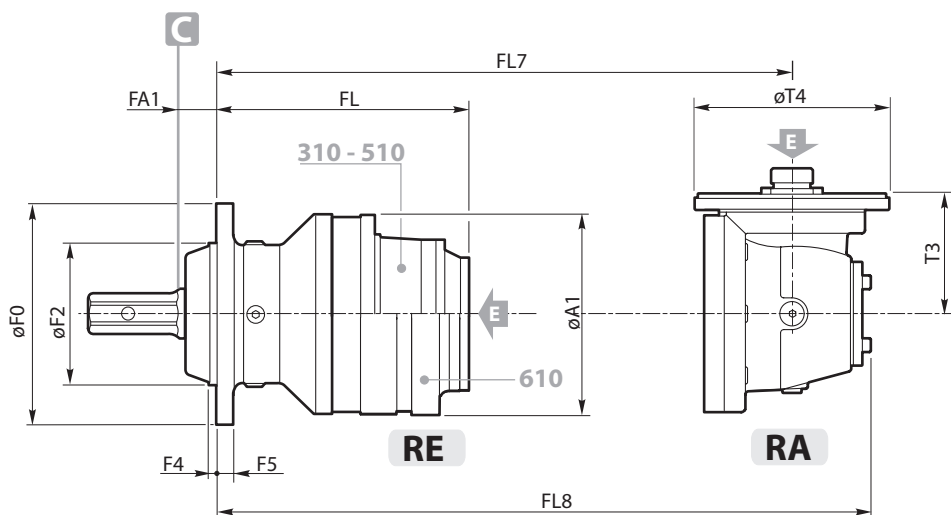
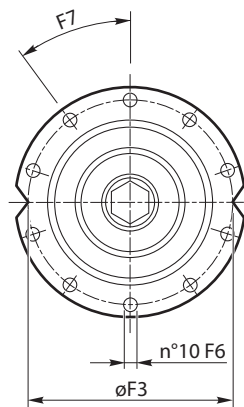
RE - RA							
TE T1E TRE TR1E TLE		110	210	240	310	510	610
	E1	50	50	50	70	70	70
	E2	54	54	54	65	65	65
	E3	Ø 18	Ø 18	Ø 18	Ø 22	Ø 22	Ø 22
	E4	9	9	15	15	15	15
	E5	121	121	119.5	138	138	138
	E6	r 15	r 15	r 24	r 30	r 30	r 30
	Eu1	50	50	50	70	70	70
	Eu2	54	54	54	50	50	50
	Eu3	Ø 18	Ø 18	Ø 18	Ø 22	Ø 22	Ø 22

RE - RA																	
	stages	110				210				240		310		510		610	
		TE	T1E	TRE	TR1E	TE	T1E	TRE	TR1E	TE	TRE	TE	TLE	TE	TLE	TE	TLE
A1		186	186	186	186	186	186	186	186	186	186	244	244	244	244	244	244
F0		219	219	219	219	219	219	219	219	219	219	272	272	272	272	272	272
F2		155 h7	150 f7	155 h7	150 f7	155 h7	150 f7	155 h7	150 f7	150 f7	155 f7	175 h8	175 h8	175 h8	175 h8	175 h8	175 h8
F3		194	195	194	195	194	195	194	195	195	194	245	245	245	245	245	245
F4		7	7	10	10	7	7	10	10	7	10	12	9	12	9	12	9
F5		15	15	15	15	15	15	15	15	15	15	20	20	20	20	20	20
F6		Ø11	Ø13	Ø11	Ø13	Ø11	Ø13	Ø11	Ø13	Ø12.5	Ø11	Ø12.5	Ø12.5	Ø12.5	Ø12.5	Ø12.5	Ø12.5
		 M... - 12.9															
		M10	M12	M10	M12	M10	M12	M10	M12	M12	M10	M12	M12	M12	M12	M12	M12
F7		36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°	36°
FA1		17	17	34	34	17	17	34	34	17.5	34.5	47.5	47.5	47.5	47.5	47.5	47.5
FL	1	102	102	85	85	114	114	97	97	114	97	157	157	175	175	175	175
	2	145	145	128	128	157	157	140	140	157	140	209.5	209.5	239.5	239.5	233.5	233.5
	3	188	188	171	171	200	200	183	183	200	183	252.5	252.5	282.5	282.5	286	286
	4	231	231	214	214	243	243	226	226	243	226	295.5	295.5	325.5	325.5	329	329
FL7	2	183	183	166	166	195	195	178	178	195	178	279	279	297	297	297	297
	3	226	226	209	209	238	238	221	221	238	221	290.5	290.5	320.5	320.5	355.5	355.5
	4	269	269	252	252	281	281	264	264	281	264	333.5	333.5	363.5	363.5	367	367
FL8	2	257.5	257.5	240.5	240.5	269.5	269.5	252.5	252.5	269.5	252.5	370	370	388	388	388	388
	3	300.5	300.5	283.5	283.5	312.5	312.5	295.5	295.5	312.5	295.5	365	365	395	395	446.5	446.5
	4	343.5	343.5	326.5	326.5	355.5	355.5	338.5	338.5	355.5	338.5	408	408	438	438	441.5	441.5
T3	2	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	171.5	171.5	171.5	171.5	171.5	171.5
	3	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	184	184	184	184	184	184	184	184	183	183	183	183	183	183
	3	184	184	184	184	184	184	184	184	184	184	184	184	184	184	183	183
	4	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184

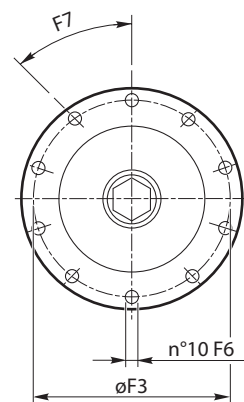




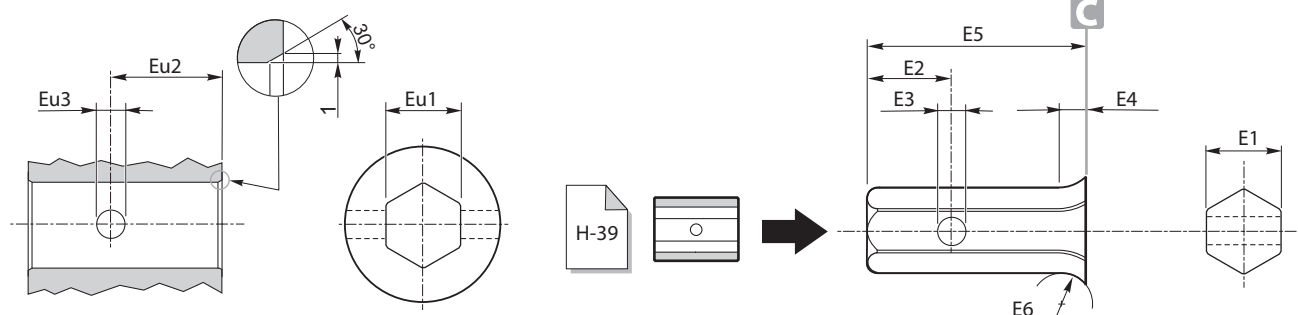
110 ÷ 240



310 - 510  
610



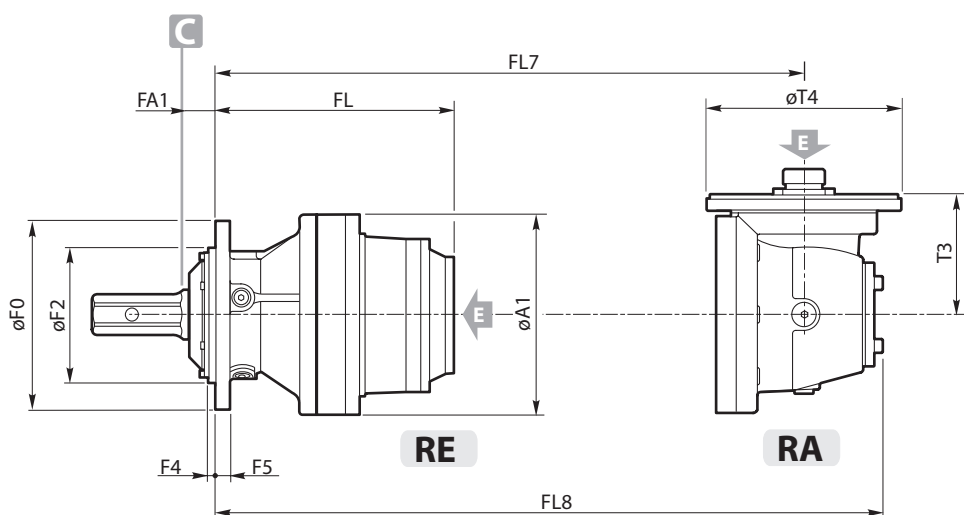




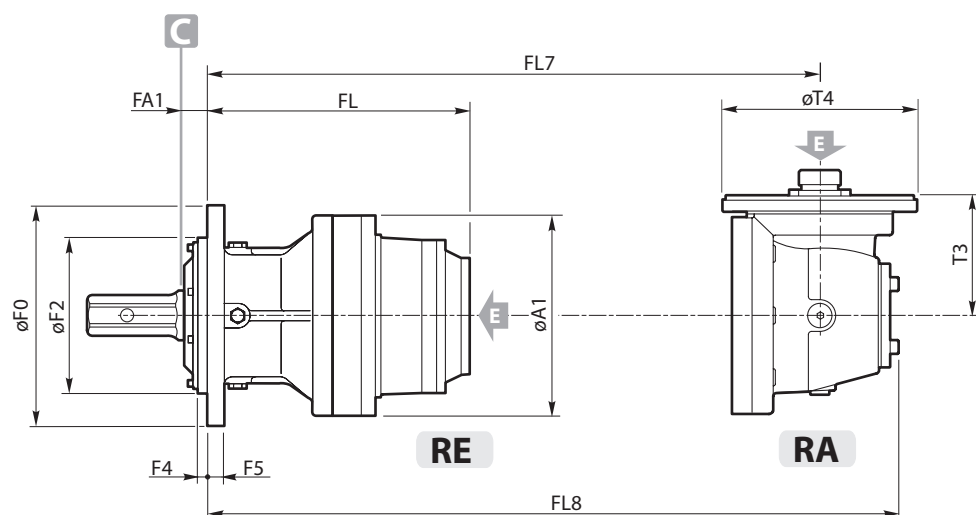
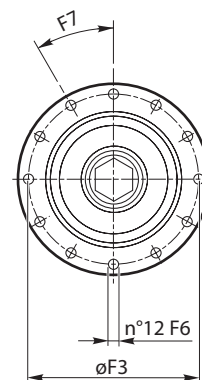
		RE - RA				
		810	1020	1520	2000	2000L
TE	E1	70	70	70	70	70
	E2	40	65	65	65	65
	E3	Ø 22	Ø 22	Ø 22	Ø 22	Ø 22
	E4	3	25	25	25	25
	E5	141	142.5	142.5	142.5	142.5
	E6	r 30	r 30	r 30	r 30	r 30
	Eu1	70	70	70	70	70
	Eu2	95	50	50	50	50
	Eu3	Ø 22	Ø 22	Ø 22	Ø 22	Ø 22

		RE - RA				
	stages	810	1020	1520	2000	2000L
A1		295	295	350	350	350
F0		280	325	325	325	325
F2		200 f7	230 f7	230 f7	230 f7	230 f7
F3		250	295	295	295	295
F4		10.5	15	15	15	15
F5		22	25	28	28	28
F6		Ø15	Ø17	Ø17	Ø17	Ø17
		M14	M16	M16	M16	M16
F7		30°	36°	36°	36°	36°
FA1		41	43.5	43.5	43.5	43.5
FL	1	185	237	240	240	240
	2	252	322	333	333	333
	3	304.5	386.5	397.5	391.5	397.5
	4	347.5	429.5	440	444	440
FL7	2	326.5	379	446	446	446
	3	374	444	455	455	455
	4	385.5	467.5	478.5	513.5	478.5
FL8	2	435	487	574	574	574
	3	465	535	546	546	546
	4	460	542	553	604.5	553
T3	2	277	277	310	310	310
	3	171.5	171.5	171.5	171.5	171.5
	4	113.8	113.8	113.8	171.5	113.8
T4	2	242	242	293	293	293
	3	183	183	183	183	183
	4	184	184	184	183	184

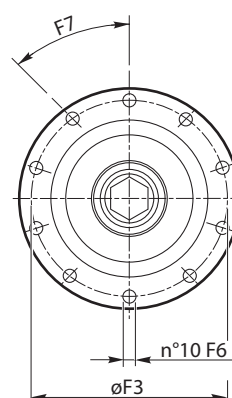




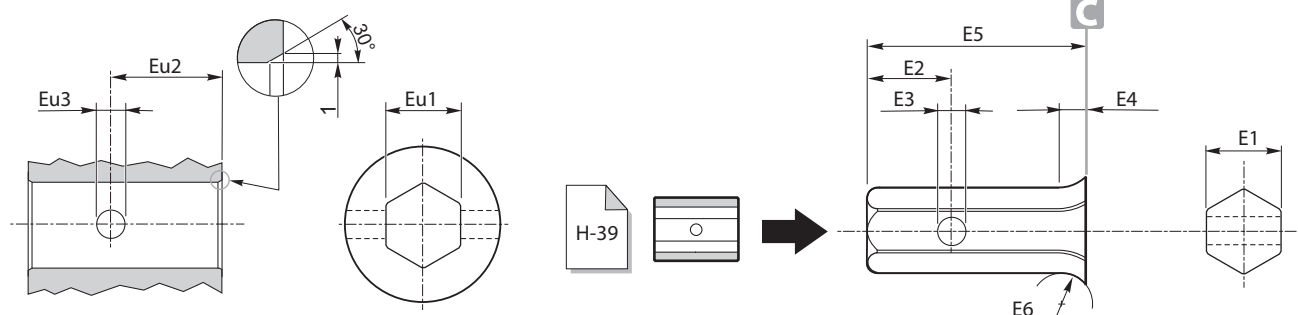
**810**



**1020 - 1520  
2000 - 2000L**



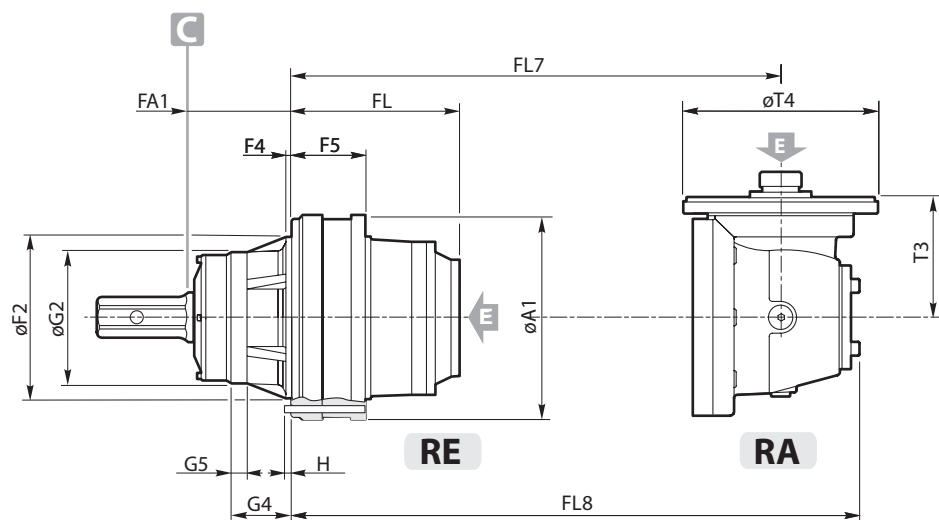




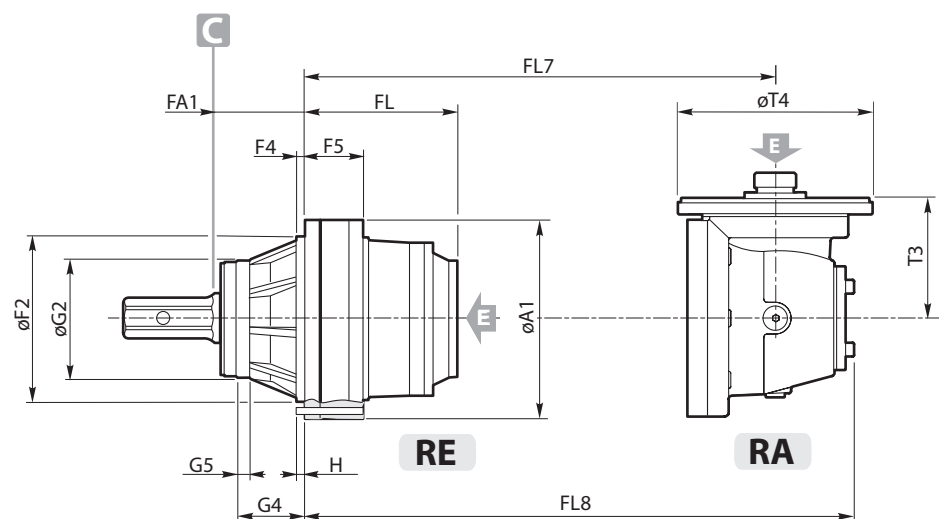
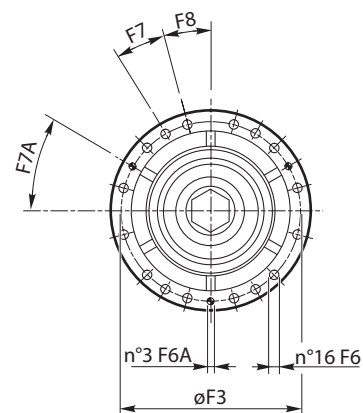
		RE - RA				
		1520	2000	2000L	2520	3000
HE	E1	70	70	70	100	100
	E2	65	65	65	170.5	170.5
	E3	Ø 22	Ø 22	Ø 22	Ø 32	Ø 32
	E4	25	25	25	20	20
	E5	142.5	142.5	142.5	160	160
	E6	r 30	r 30	r 30	r 35	r 35
	Eu1	70	70	70	100	100
	Eu2	50	50	50	65	65
	Eu3	Ø 22	Ø 22	Ø 22	Ø 32	Ø 32

		RE - RA				
	stages	1520	2000	2000L	2520	3000
A1		350	350	350	409	409
FA1		176.5	176.5	176.5	210	210
F2		278 f7	278 f7	278 f7	340 f7	340 f7
F3		314	314	314	370	370
F4		10	10	10	17	17
F5		133	133	133	131	131
F6		Ø16.5	Ø16.5	Ø16.5	Ø17	Ø17
		M16	M16	M16	M16	M16
		Ø12	Ø12	Ø12	Ø16	Ø16
F7		15°	15°	15°	12°	12°
F7A		30°	30°	30°	30°	30°
F8		15°	15°	15°	24°	24°
FL	1	107	107	107	98	98
	2	200	200	200	209	226
	3	264.5	258.5	264.5	276	311
	4	307.5	311	307.5	328.5	375.5
FL7	2	313	313	313	292	292
	3	322	322	322	351	368
	4	345.5	380.5	345.5	398	433
FL8	2	441	441	441	420	420
	3	413	413	413	459	476
	4	420	472	420	489	524
G2		225 f7	225 f7	225 f7	245 f7	245 f7
G4		104.5	104.5	104.5	142	142
G5		27.5	27.5	27.5	29	29
H		15	15	15	29	29
T3	2	310	310	310	310	310
	3	171	171	171	227	227
	4	113.8	171	113.8	171	171
T4	2	293	293	293	293	293
	3	183	183	183	242	242
	4	184	183	184	183	183

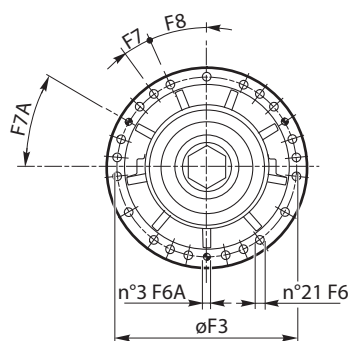




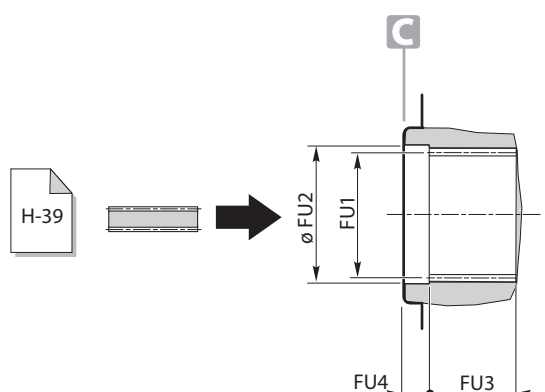
**1520 - 2000  
2000L**



**2520 - 3000**



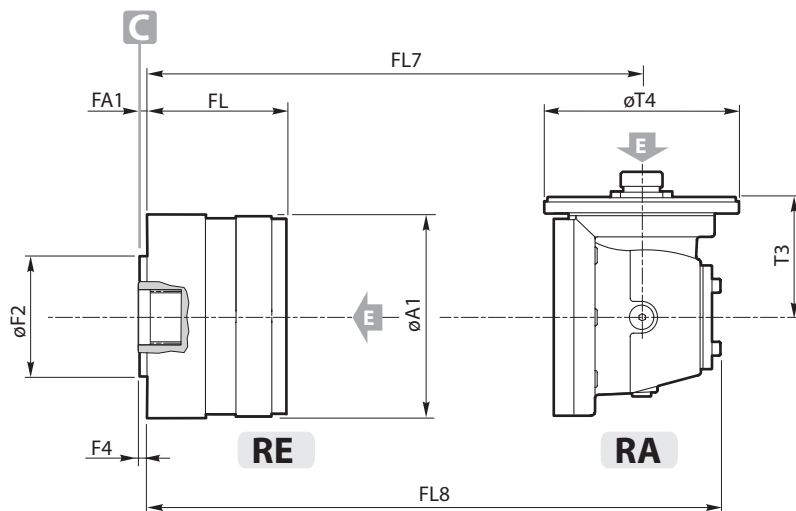




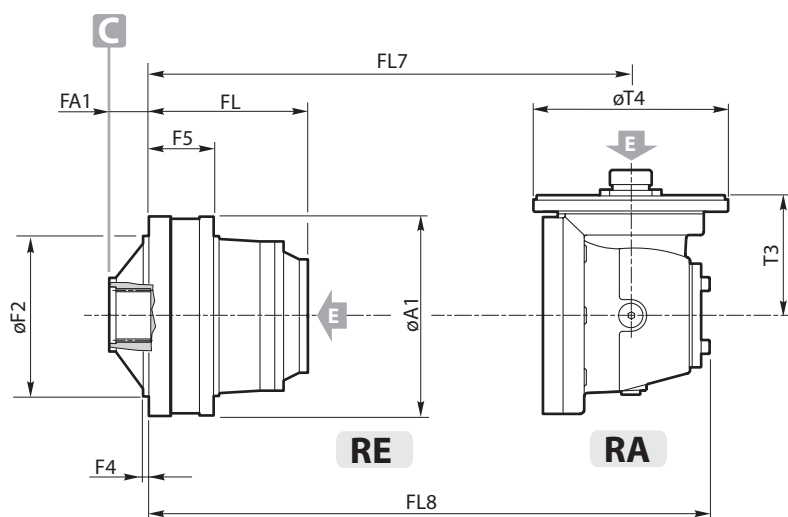
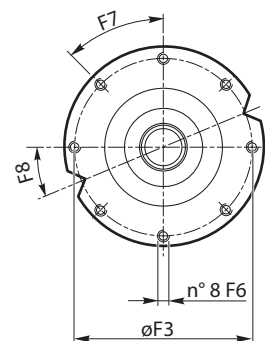
		RE - RA						
FS		110	210	240	310	510	810	1020
	FU1	A 40x36 DIN 5482	A 40x36 DIN 5482	A 45x41 DIN 5482	A 58x53 DIN 5482	A 58x53 DIN 5482	A 70x64 DIN 5482	A 80x74 DIN 5482
	FU2	42 H7	42 H7	46 H7	60 H7	60 H7	72 H7	85 H8
	FU3	29	29	29	41	41	50	59
	FU4	6	6	6	7	7	11.5	10

		RE - RA						
	stages	110	210	240	310	510	810	1020
A1		186	186	186	244	244	295	295
F2		110 h7	110 h7	110 h7	200 h8	200 h8	240 f7	240 f7
F3		165	165	165	222	222	265	265
F4		5	5	5	9	9	10	10
F5		—	—	—	62	80	83	101
F6		Ø10.5	Ø10.5	Ø10.5	Ø10.5	Ø10.5	Ø13	Ø13
		M10	M10	M10	M10	M10	M12	M12
F7		45°	45°	45°	30°	30°	30°	15°
F8		22.5°	22.5°	22.5°	—	—	—	15°
F9		—	—	—	—	—	—	30°
FA1		5	5	5	51	51	50	57
FL	1	59	71	71	39.5	57.5	67	85
	2	102	114	114	92	122	134	170
	3	145	157	157	135	165	186.5	234.5
	4	188	200	200	178	208	229.5	277.5
FL7	2	140	152	152	188.5	179.5	209	227
	3	183	195	195	173	203	256.5	292
	4	226	238	238	216	246	267.5	315.5
FL8	2	214.5	226.5	226.5	252.5	270.5	317	335
	3	257.5	269.5	269.5	247.5	277.5	347.5	383
	4	300.5	312.5	312.5	290.5	320.5	342	390
T3	2	113.8	113.8	113.8	113.8	171.5	277	277
	3	113.8	113.8	113.8	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	184	184	183	242	242
	3	184	184	184	184	184	183	183
	4	184	184	184	184	184	184	184

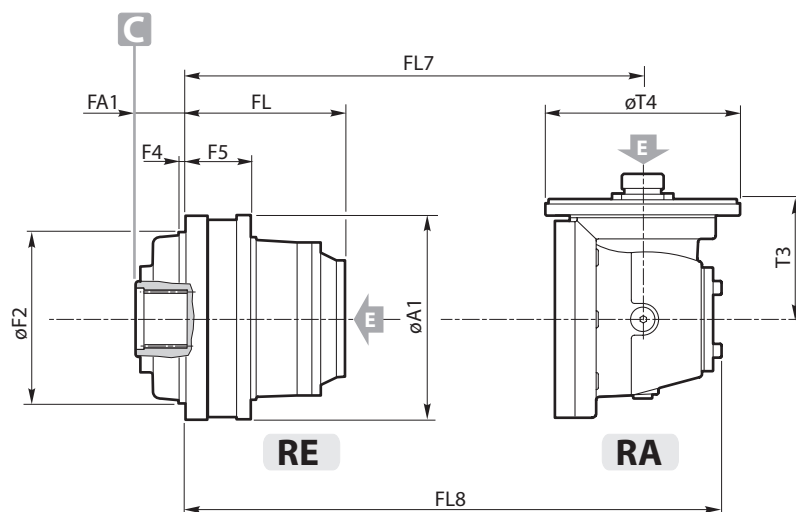
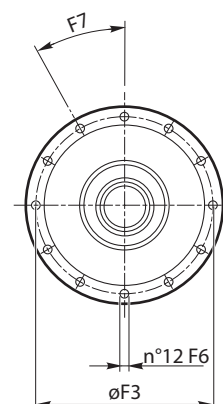




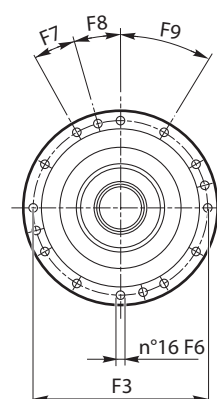
**110 - 210 - 240**



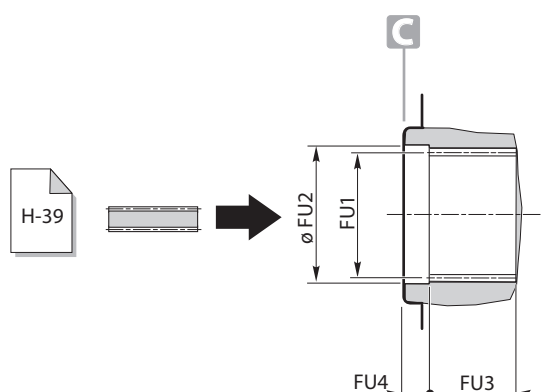
**310 - 510 - 810**



**1020**



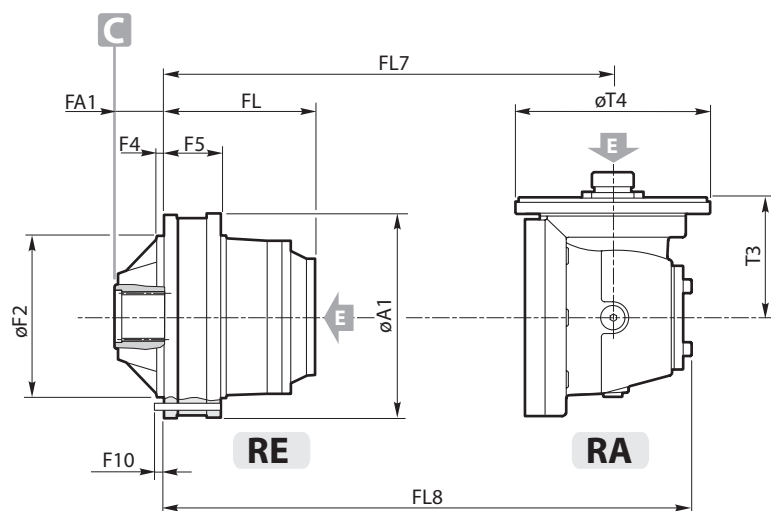




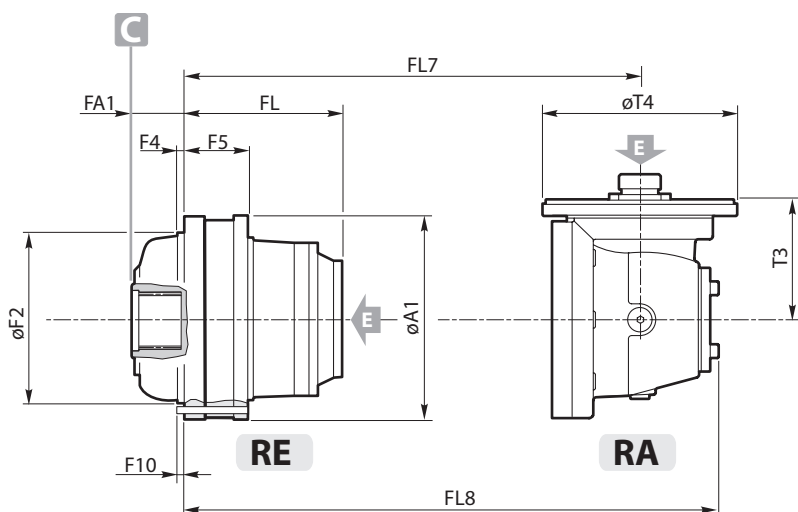
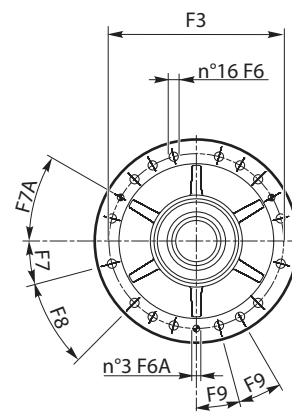
		RE - RA						
FS		1520	2000	2000L	2520	3000	3510	4800
	FU1	A 80x74 DIN 5482	A 80x74 DIN 5482"	A 80x74 DIN 5482"	A 100x94 DIN 5482"	A 100x94 DIN 5482	N120x3x9H DIN5480	N120x3x9H DIN5480
	FU2	88 H8	88 H8	88 H8	102 H8	102 H8	121.5 H7	121.5 H7
	FU3	77	77	77	86	86	85	85
	FU4	7	7	7	10	10	10	10

		RE - RA						
	stages	1520	2000	2000L	2520	3000	3510	4800
A1		350	350	350	409	409	452	452
F2		278 f7	278 f7	278 f7	240 f7	240 f7	390 f7	390 f7
F3		314	314	314	370	370	424	424
F4		12	12	12	18	18	15	15
F5		103.5	103.5	103.5	126	126	120	120
F6		Ø16.5	Ø16.5	Ø16.5	Ø17	Ø17	Ø17	Ø17
		M16	M16	M16	M16	M16	M16	M16
F6A		Ø12	Ø12	Ø12	Ø16	Ø16	—	—
F7		15°	15°	15°	24°	24°	20°	20°
F7A		30°	30°	30°	30°	30°	—	—
F8		30°	30°	30°	12°	12°	10°	10°
F9		15°	15°	15°	12°	12°	—	—
F10		15	15	15	34	34	—	—
FA1		83	83	83	95	95	109.5	109.5
FL	1	77.5	77.5	77.5	93	93	85	85
	2	170.5	170.5	170.5	204	221	277	326
	3	235	229	235	271	306	362	419
	4	278	281.5	278	323.5	370.5	426.5	483.5
FL7	2	283.5	283.5	283.5	287	287	339	339
	3	292.5	292.5	292.5	346	363	419	532
	4	316	351	316	393	428	484	541
FL8	2	411.5	411.5	411.5	415	415	529	529
	3	383.5	383.5	383.5	454	471	527	660
	4	390.5	442	390.5	484	519	575	632
T3	2	310	310	310	310	310	432	432
	3	171	171	171	227	227	227	310
	4	113.8	171	113.8	171	171	171	171
T4	2	293	293	293	293	293	295	295
	3	183	183	183	242	242	242	293
	4	184	183	184	183	183	183	183

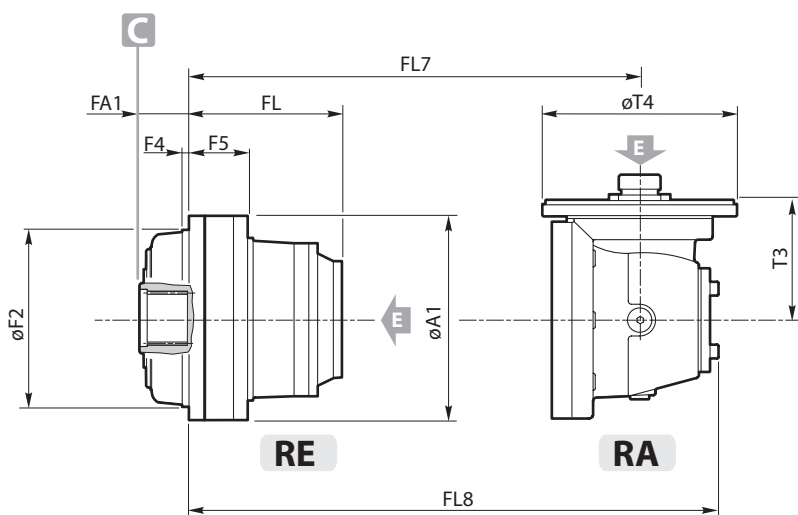
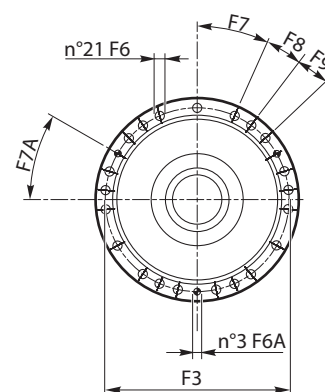




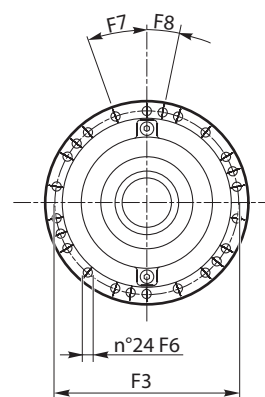
**1520 - 2000  
2000L**



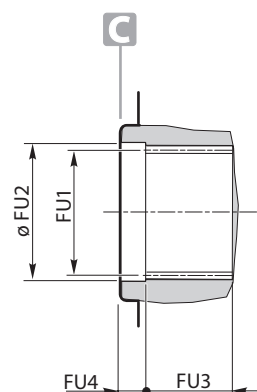
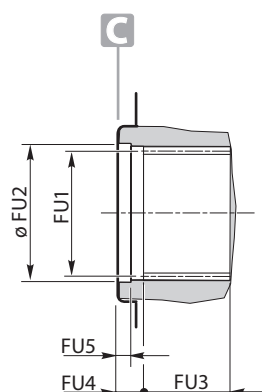
**2520 - 3000**



**3510 - 4800**







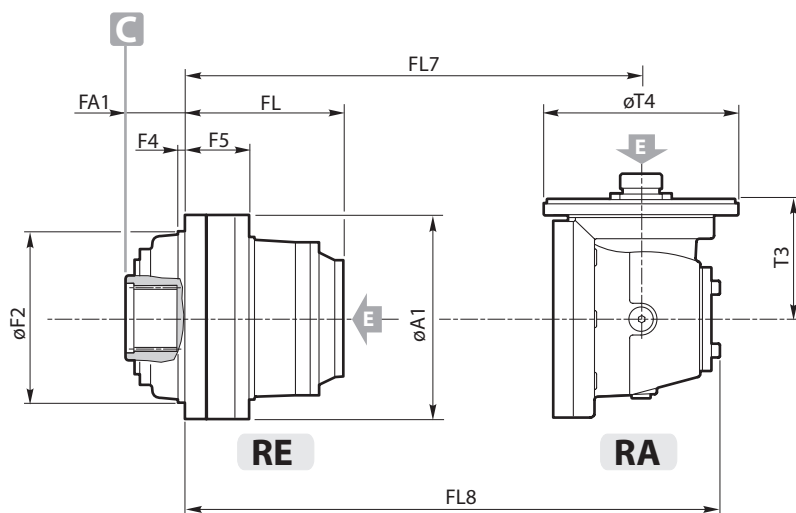
FS	RE - RA		GB - GBA	
	6000	8000	12010	16000
	FU1	N140x5x9H DIN 5480	N140x5x9H DIN 5480	N160x5x9H DIN 5480
	FU2	142 H9	142 H9	165 H7
	FU3	97	122	100
	FU4	—	—	40
	FU5	12	12	20

FS1	RE - RA		GB - GBA	
	6000	8000	12010	16000
	FU1	N150x5x9H DIN 5480	N150x5x9H DIN 5480	—
	FU2	152 H7	152 H7	—
	FU3	74	74	—
	FU4	41	41	—
	FU5	20	20	—

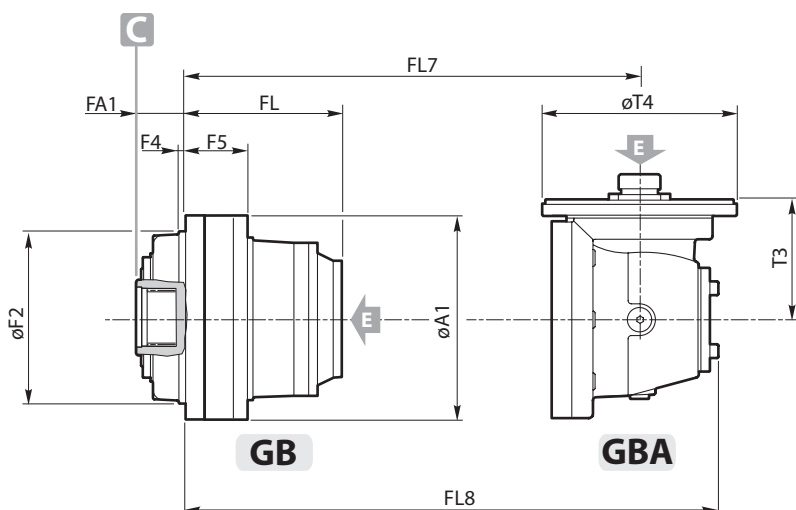
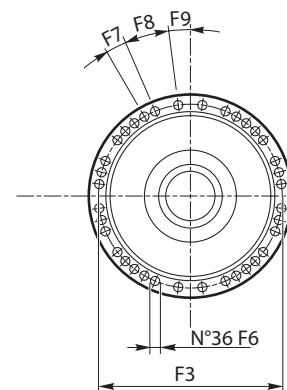
FS4	RE - RA		GB - GBA	
	6000	8000	12010	16000
	FU1	—	N180x5x9H DIN 5480	N180x5x9H DIN 5480
	FU2	—	185 H7	185 H7
	FU3	—	100	100
	FU4	—	—	—
	FU5	—	40	40

	stages	RE - RA		GB - GBA	
		6000	8000	12010	16000
A1		490	490	610	610
F2		410 f7	410 h8	515 h8	515 h8
F3		445	445	560	560
F4		15	15	20	20
F5		178.5	181.5	230	230
F6		Ø19	Ø19	Ø25	Ø25
F6		M <sub>18</sub> - 12.9		M <sub>24</sub> - 10.8	
F7		7°30'	7°30'	15°	15°
F8		15°	15°	7°30'	7°30'
F9		7°30'	7°30'	7°30'	7°30'
FA1	FS	100	100	152	152
FA1	FS1	106	106	—	—
FA1	FS4	—	—	152	152
FL	1	136.5	136.5	160.5	160.5
FL	2	305	390.5	410	427
FL	3	398	518.5	538	668
FL	4	456.5	603.5	623	761
FL	5	—	668	687.5	825.5
FL7	2	390.5	390.5	—	—
FL7	3	511	584.5	604	681
FL7	4	520	660.5	680	874
FL7	5	—	—	745	883
FL8	2	580.5	580.5	—	—
FL8	3	639	712.5	732	871
FL8	4	611	768.5	788	1002
FL8	5	—	—	836	974
T3	2	432	432	—	—
T3	3	310	310	310	432
T3	4	171	227	227	310
T3	5	—	—	171	171
T4	2	295	295	—	—
T4	3	293	293	293	295
T4	4	183	242	242	293
T4	5	—	—	183	183

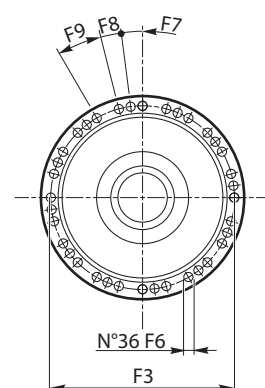




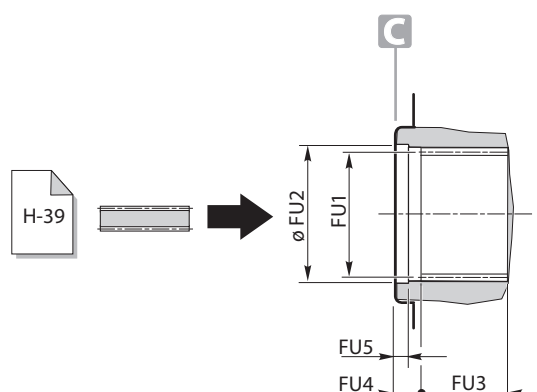
**6000 - 8000**



**12010 - 16000**







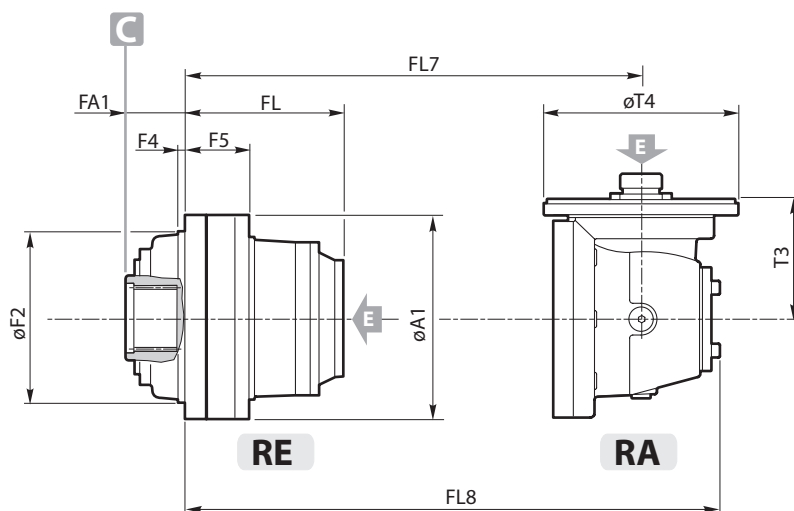
		RE - RA		GB - GBA	
		6000L	8000L	12010L	16000L
FS	FU1	N140x5x9H DIN 5480	N140x5x9H DIN 5480	N160x5x9H DIN 5480	N160x5x9H DIN 5480
	FU2	142 H9	142 H9	165 H7	165 H7
	FU3	97	122	100	100
	FU4	—	—	40	40
	FU5	12	12	20	20

		RE - RA		GB - GBA	
		6000L	8000L	12010L	16000L
FS1	FU1	N150x5x9H DIN 5480	N150x5x9H DIN 5480	—	—
	FU2	152 H7	152 H7	—	—
	FU3	74	74	—	—
	FU4	41	41	—	—
	FU5	20	20	—	—

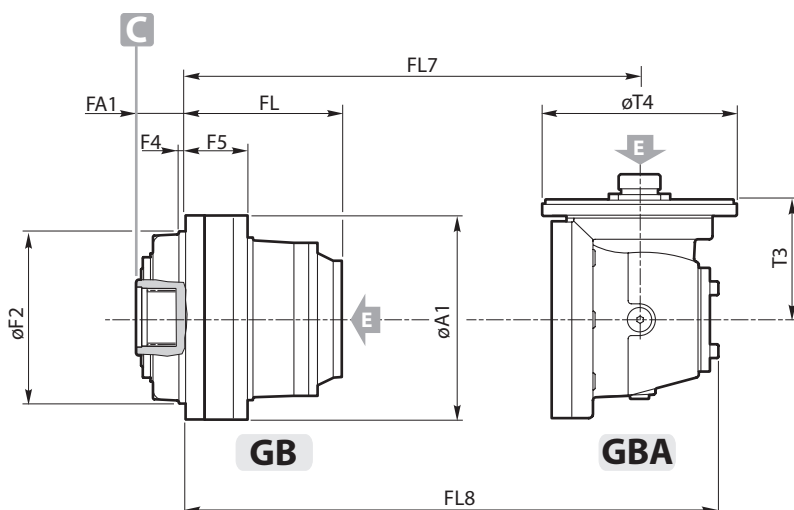
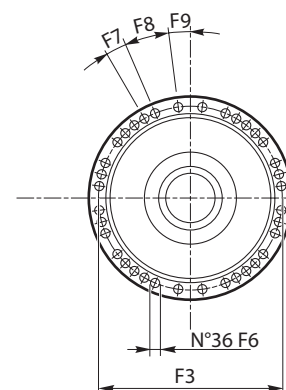
		RE - RA		GB - GBA	
		6000L	8000L	12010L	16000L
FS4	FU1	—	—	N180x5x9H DIN 5480	N180x5x9H DIN 5480
	FU2	—	—	185 H7	185 H7
	FU3	—	—	100	100
	FU4	—	—	40	40
	FU5	—	—	—	—

		RE - RA		GB - GBA	
		6000L	8000L	12010L	16000L
A1		490	490	610	610
F2		410 f7	410 h8	515 h8	515 h8
F3		445	445	560	560
F4		15	15	20	20
F5		178.5	178.5	230	230
F6		Ø19	Ø19	Ø25	Ø25
F6		M18 M18 M., - 12.9		M24 M24 M., - 10.8	
F7		7°30'	7°30'	15°	15°
F8		15°	15°	7°30'	7°30'
F9		7°30'	7°30'	7°30'	7°30'
FA1	FS	100	100	152	152
FA1	FS1	106	106	—	—
FA1	FS4	—	—	152	152
FL	1	136.5	136.5	160.5	160.5
	2	305	390.5	410	427
	3	398	501.5	521	619
	4	462.5	568.5	588	704
	5	—	621	640.5	768.5
FL7	2	390.5	390.5	—	—
	3	511	584.5	604	681
	4	520	643.5	663	761
	5	—	—	710	826
FL8	2	580.5	580.5	—	—
	3	639	712.5	732	871
	4	611	751.5	771	869
	5	—	—	801	917
T3	2	432	432	—	—
	3	310	310	310	432
	4	171	227	227	310
	5	—	—	171	171
T4	2	295	295	—	—
	3	293	293	293	295
	4	183	242	242	293
	5	—	—	183	183

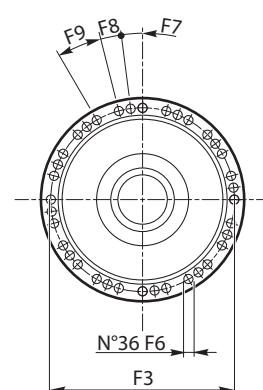




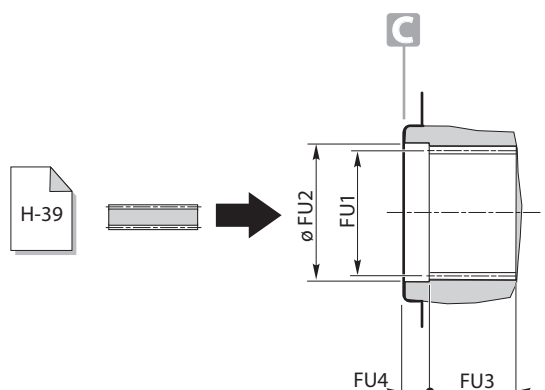
**6000L - 8000L**



**12010L - 16000L**



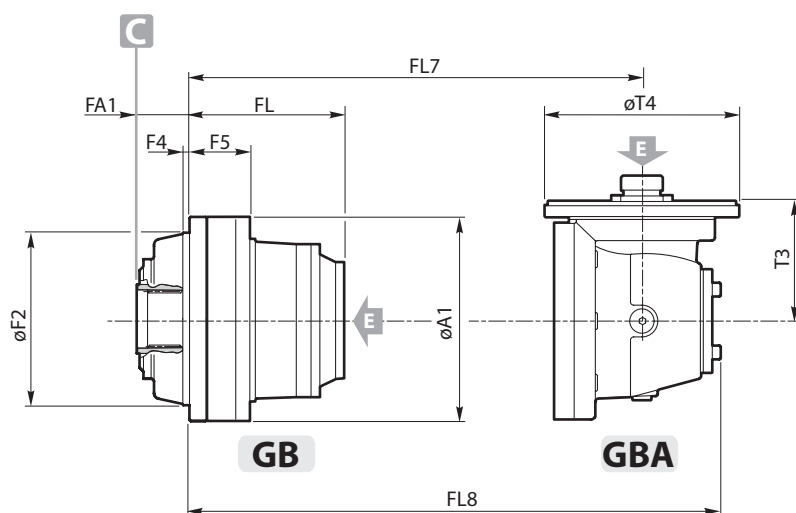




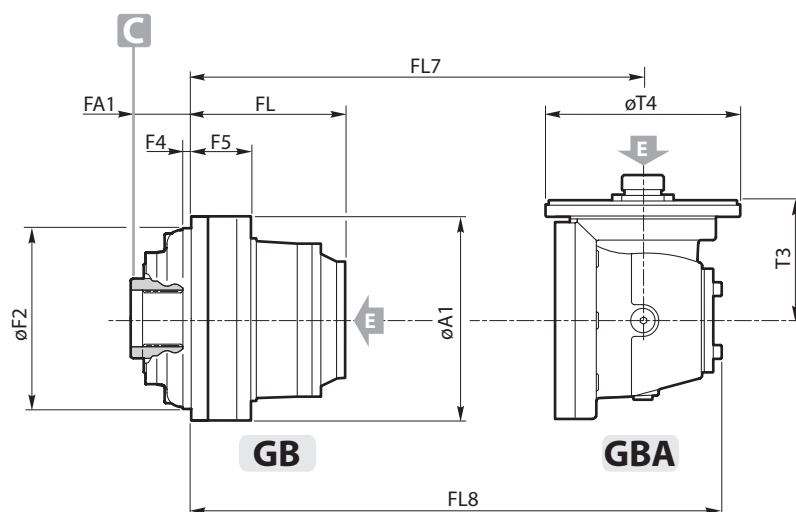
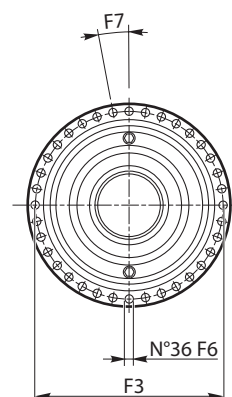
		GB - GBA							
FS		21000	26000	31000	40000	45000	53000	61000	85000
	FU1	N200x5x9H DIN 5480	N220x5x9H DIN 5480	N240x5x9H DIN 5480	N240x5x9H DIN 5480	N280x6x9H DIN 5480	N300x8x9H DIN 5480	N300x8x9H DIN 5480	N340x8x9H DIN 5480
	FU2	202 H7	222 H7	242 H7	242 H7	281 H8	303 H7	303 H7	343 H7
	FU3	120	120	170	170	175	190	190	190
	FU4	38	38	50	50	50	70	70	70

		GB - GBA							
	stages	21000	26000	31000	40000	45000	53000	61000	85000
A1		710	710	870	870	870	1090	1090	1090
F2		600 h8	600 h8	760 h8	760 h8	760 h8	930 h8	930 h8	930 h8
F3		660	660	810	810	810	1020	1020	1020
F4		23.5	23.5	35	35	35	50	50	50
F5		196	216	250	290	290	305	305	353
F6		Ø28	Ø28	Ø32	Ø32	Ø32	Ø39	Ø39	Ø39
		M27	M27	M30	M30	M30	M36	M36	M36
F7		10°	10°	10°	10°	10°	10°	10°	10°
FA1		185	185	255	255	260	300	300	300
FL	1	138	158	180	220	220	225	225	273
	2	443	463	588.5	628.5	628.5	700	700	768
	3	611.5	717	838	878	895	1005	1005	1073
	4	704.5	845	966	1006	1136	1173.5	1173.5	1327
	5	763	930	1051	1091	1229	1266.5	1266.5	1455
FL7	3	697	717	—	—	—	—	—	—
	4	817.5	911	1032	1072	1149	1259	1259	1327
	5	826.5	987	1108	1148	1342	1379.5	1379.5	1521
	6	—	—	—	—	—	—	1388.5	1597
FL8	3	887	907	—	—	—	—	—	—
	4	945.5	1039	1160	1200	1339	1449	1449	1517
	5	917.5	1095	1216	1256	1470	1507.5	1507.5	1649
	6	—	—	—	—	—	—	1479.5	1705
T3	3	432	432	—	—	—	—	—	—
	4	310	310	310	310	432	432	432	432
	5	171	227	227	227	310	310	310	310
	6	—	—	—	—	—	—	171	171
T4	3	295	295	—	—	—	—	—	—
	4	293	293	293	293	295	295	295	295
	5	183	242	242	242	293	293	293	293
	6	—	—	—	—	—	—	183	183

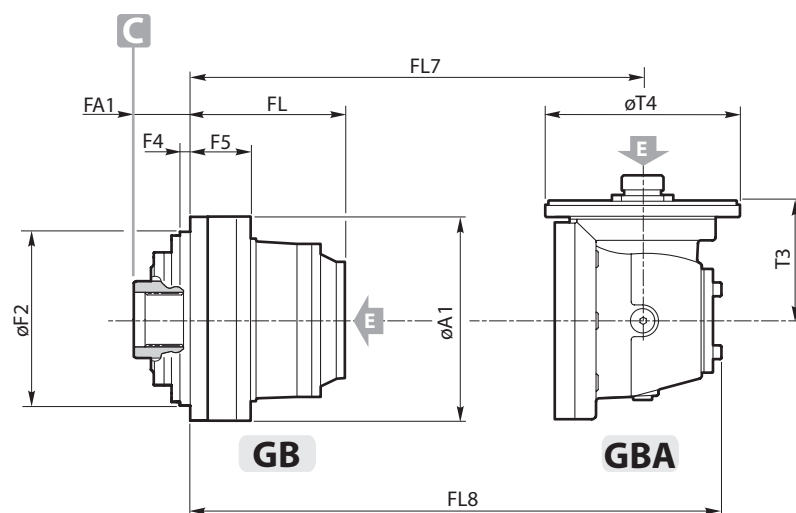
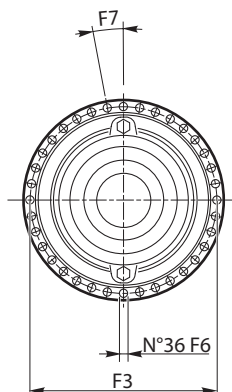




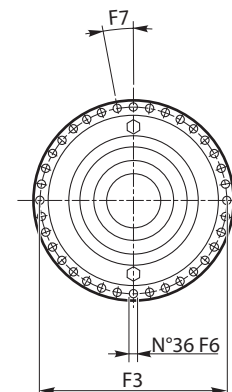
**21000 - 26000**



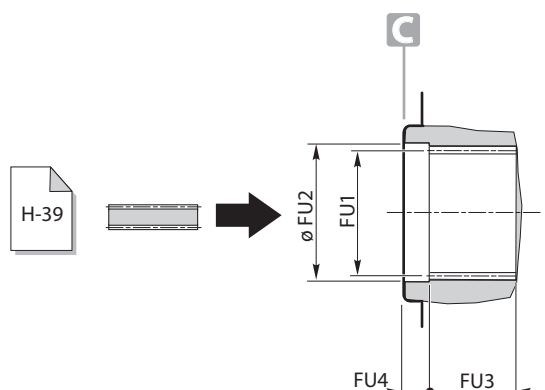
**31000 ÷ 45000**



**53000 ÷ 85000**



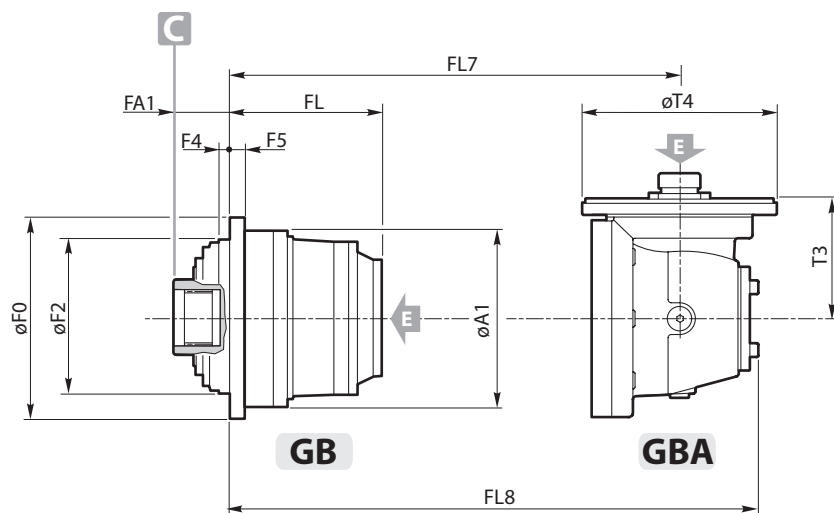




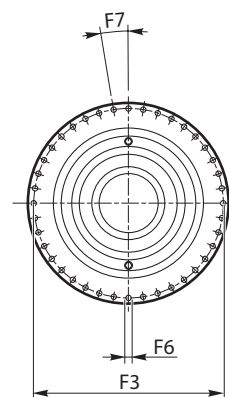
		GB - GBA				
FS		110000	130000	150000	205000	235000
	FU1	N420x8x9H DIN 5480	N420x8x9H DIN 5480	N420x8x9H DIN 5480	N500x8x9H DIN 5480	N500x8x9H DIN 5480
	FU2	430 H7	430 H7	430 H7	510 H8	510 H8
	FU3	210	210	210	265	265
	FU4	80	80	80	73	73

		GB - GBA				
	stages	110000	130000	150000	205000	235000
A1		1320	1320	1320	1630	1630
F0		1538	1538	1538	1880	1880
F2		1150 h9	1150 h9	1150 h9	1440 h8	1440 h8
F3		1450	1450	1450	1780	1780
F4		80	80	80	80	80
F5		110	110	110	110	110
F6		Ø44 (x40)	Ø44 (x40)	Ø44 (x40)	Ø44 (x48)	Ø44 (x48)
		M42	M42	M42	M42	M42
F7		9°	9°	9°	7°30'	7°30'
FA1		402.5	402.5	402.5	375	375
FL	1	315	315	315	303	303
	2	966.5	966.5	966.5	1016	1016
	3	1375	1375	1375	1511	1590.5
	4	1624.5	1641.5	1721.5	1852	1986.5
	5	1752.5	1882.5	1890	2101.5	2236
FL7	5	1818.5	1895.5	—	—	—
	6	1894.5	2088.5	—	—	—
FL8	5	1946.5	2085.5	—	—	—
	6	2002.5	2216.5	—	—	—
T3	5	310	432	—	—	—
	6	227	310	—	—	—
T4	5	293	295	—	—	—
	6	242	293	—	—	—

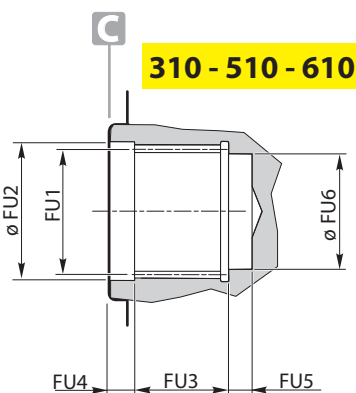




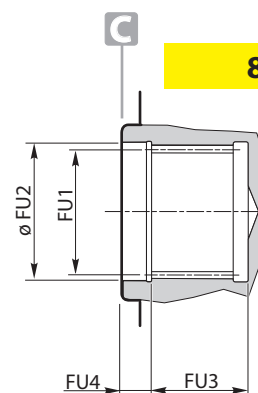
**110000 ÷ 235000**








310 - 510 - 610

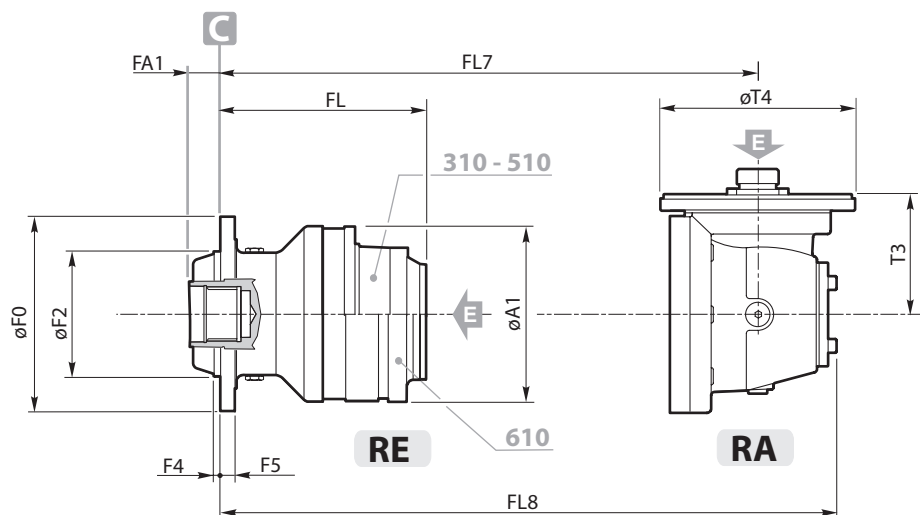


810

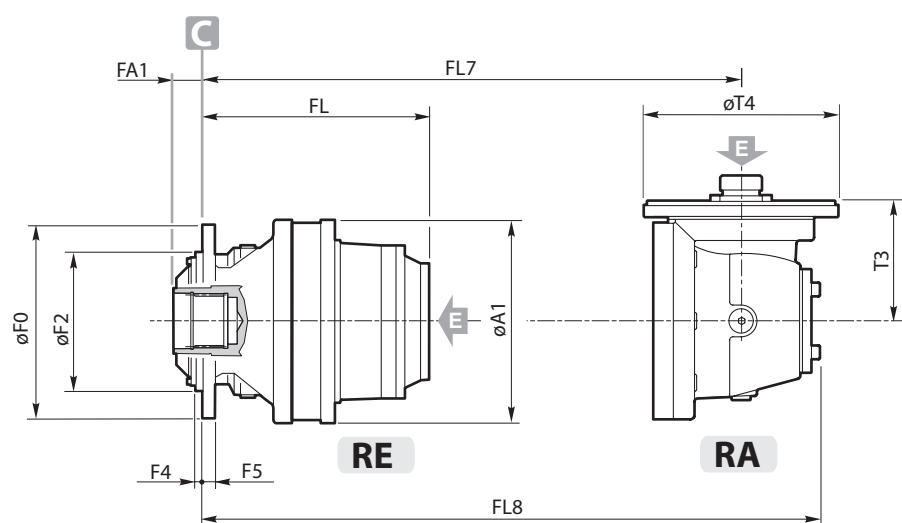
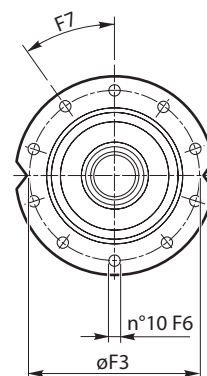
		RE - RA			
NF		310	510	610	810
	FU1	A 58x53 DIN 5482	A 58x53 DIN 5482	A 58x53 DIN 5482	A 70x64 DIN 5482
	FU2	60 H8	60 H8	60 H8	72 H8
	FU3	29	29	29	45
	FU4	15	15	15	22
	FU5	10	10	10	—
	FU6	50 H8	50 H8	50 H8	—

		RE - RA			
	stages	310	510	610	810
A1		224	224	224	295
F0		222	222	222	280
F2		150 f7	150 f7	150 f7	200 f7
F3		195	195	195	250
F4		13.5	13.5	13.5	10.5
F5		16	16	16	18
F6		Ø12.5	Ø12.5	12.5	Ø15
		 M.. - 12.9			
		M12	M12	M12	M14
F7		36°	36°	36°	30°
FA1		15	15	15	40
FL	1	133	151	151	162.5
	2	185.5	215.5	209.5	229.5
	3	228.5	258.5	262	282
	4	271.5	301.5	305	325
FL7	2	255	273	273	304.5
	3	266.5	296.5	331.5	351.5
	4	309.5	339.5	343	363
FL8	2	346	364	364	412.5
	3	341	371	422.5	442.5
	4	384	414	417.5	437.5
T3	2	171.5	171.5	171.5	277
	3	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8
T4	2	183	183	183	242
	3	184	184	183	183
	4	184	184	184	184

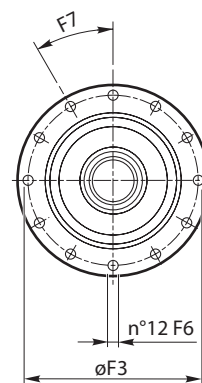




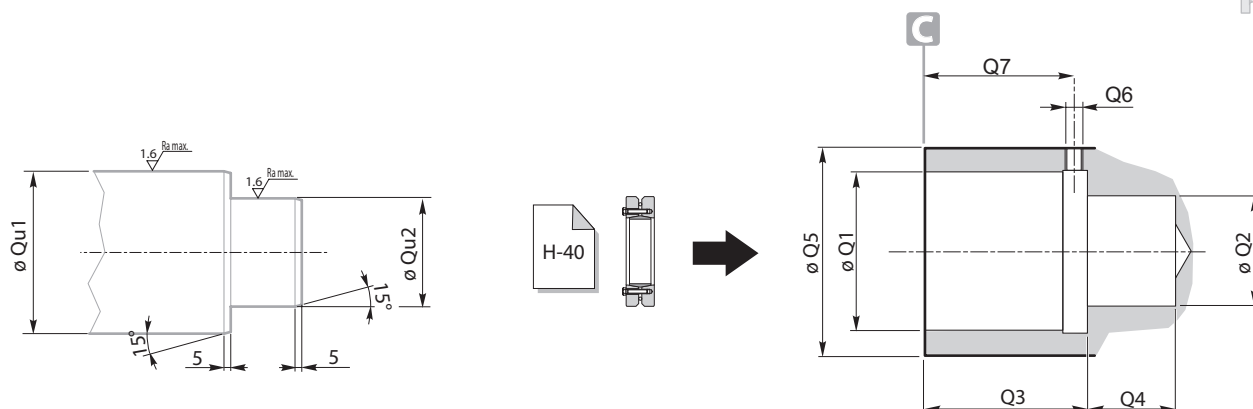
**310 - 510 - 610**



**810**







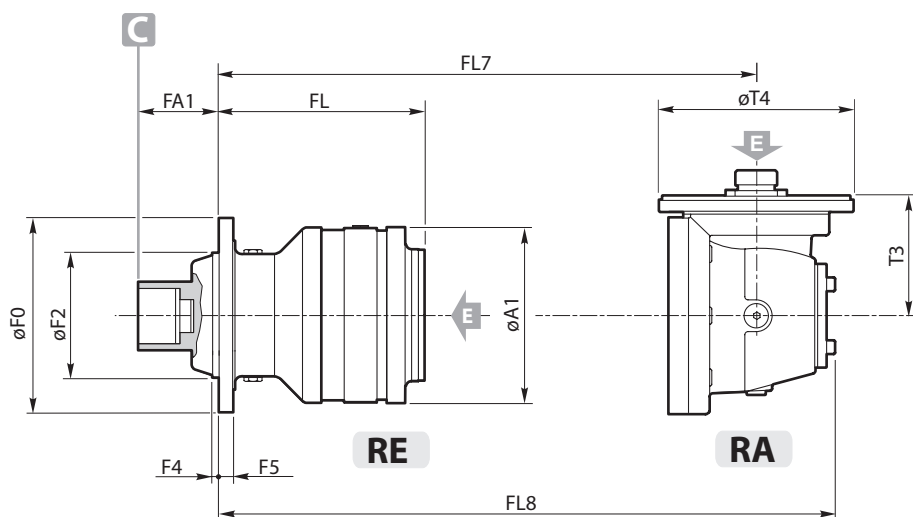
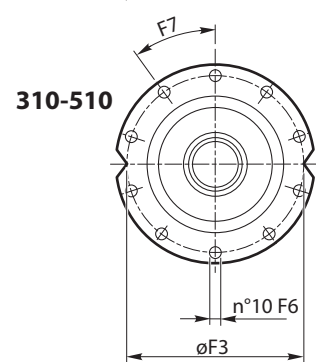
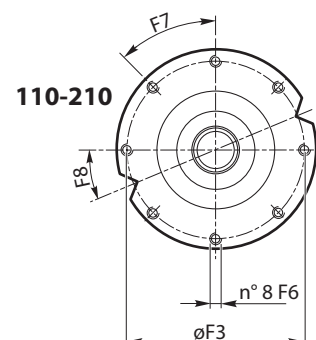
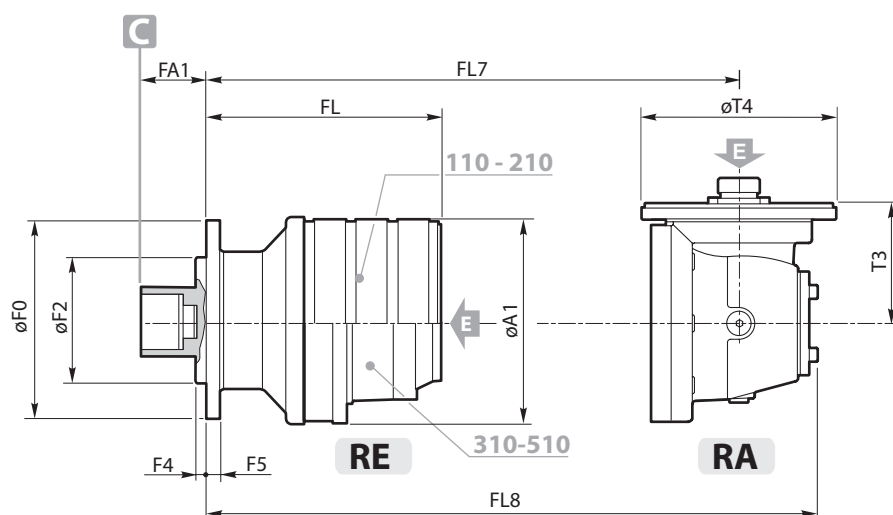
		RE - RA			
NQ		110	210	310	510
	Q1	50 H7	50 H7	75 H7	75 H7
	Q2	30 H7	30 H7	40 H7	40 H7
	Q3	38	38	55	55
	Q4	12	12	20	20
	Q5	62 f7	62 f7	100 f7	100 f7
	Q6	—	—	1/8"G	1/8"G
	Q7	—	—	52	52
	Qu1	50 g6	50 g6	75 g6	75 g6
	Qu2	30 f6	30 f6	40 f6	40 f6

RE - RA						
	stages	110	210	310	510	610
A1		186	186	224	224	224
F0		185	185	222	222	222
F2		110 h7	110 h7	150 f7	150 f7	150 f7
F3		165	165	195	195	195
F4		5	5	13.5	13.5	13.5
F5		12	12	16	16	16
F6		10.5	10.5	12.5	12.5	12.5
		M... - 12.9				
		M10	M10	M12	M12	M12
F7		45°	45°	36°	36°	36°
F8		22.5°	22.5°	—	—	—
FA1		55	55	87	87	87
FL	1	95	107	133	151	151
	2	138	150	185.5	215.5	209.5
	3	181	193	228.5	258.5	262
	4	224	236	271.5	301.5	305
FL7	2	176	188	255	273	273
	3	219	231	266.5	296.5	331.5
	4	262	274	309.5	339.5	343
FL8	2	250.5	262.5	346	364	364
	3	293.5	305.5	341	371	422.5
	4	336.5	348.5	384	414	417.5
T3	2	113.8	113.8	171.5	171.5	171.5
	3	113.8	113.8	113.8	113.8	171.5
	4	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	183	183	183
	3	184	184	184	184	183
	4	184	184	184	184	184

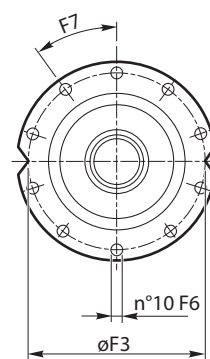




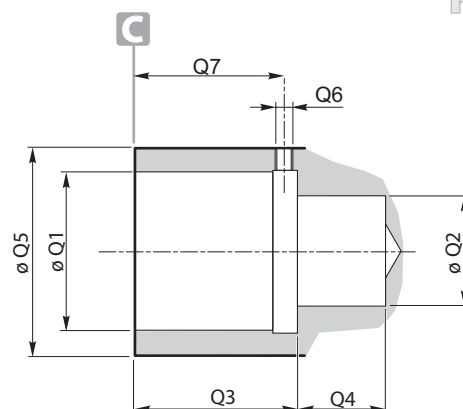
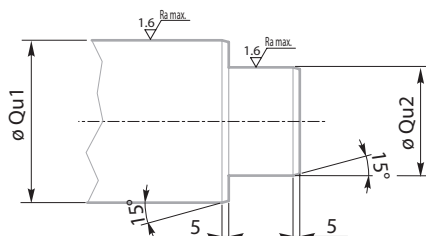
**110 ÷ 510**




**610**



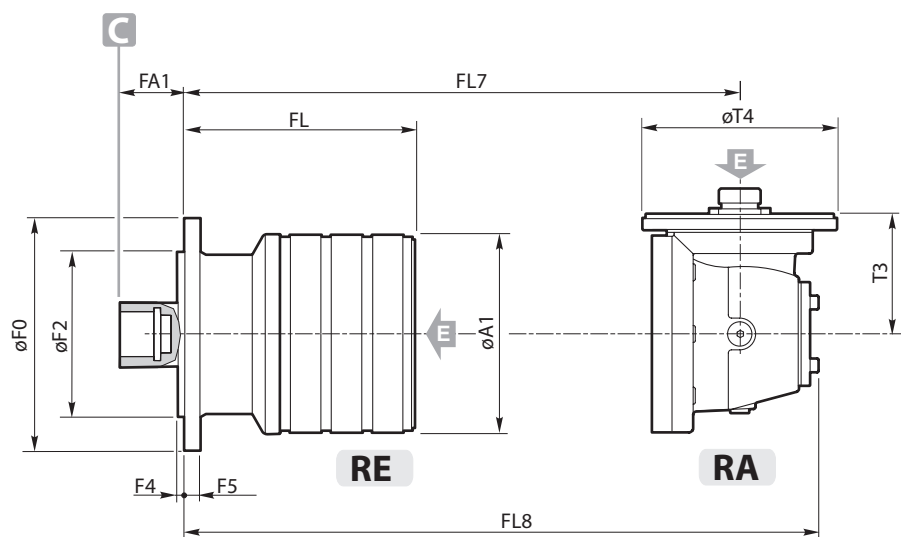




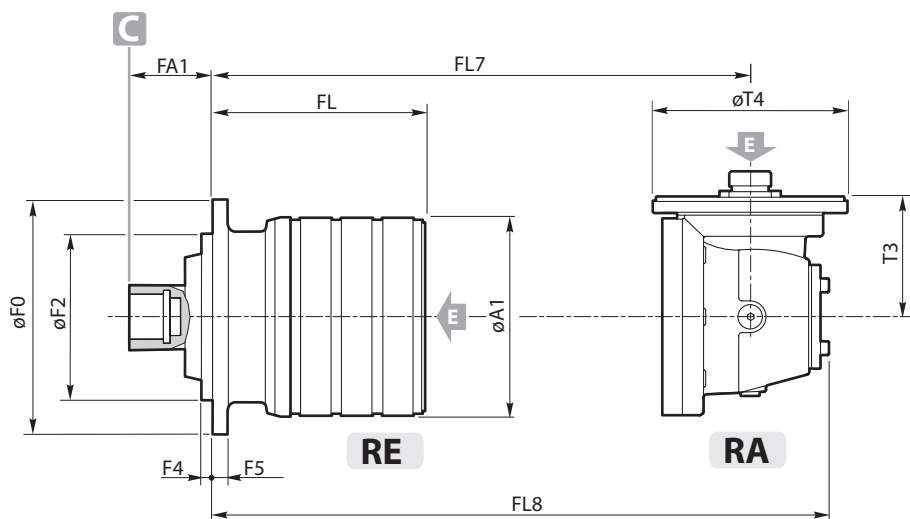
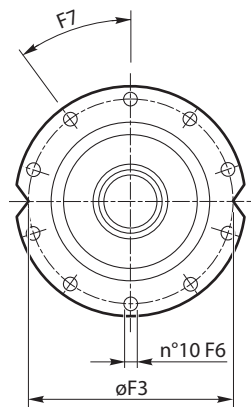
		RE - RA					
		240		810	1020	1520	2000 2000L
		TQ	TRQ	TQ	TQ	TQ	TQ
TQ TRQ	Q1	75 H7	75 H7	90 H7	120 H7	120 H7	120 H7
	Q2	40 H7	40 H7	50 H7	80 H7	80 H7	80 H7
	Q3	55	55	72	85	85	85
	Q4	17	17	25	30	30	30
	Q5	100 f7	100 f7	125 f7	165 f7	165 f7	165 f7
	Q6	—	—	1/8"G	1/8"G	1/8"G	1/8"G
	Q7	—	—	81.5	97.5	97.5	97.5
	Qu1	40 f6	40 f6	50 f6	80 f6	80 f6	80 f6
Qu2	75 a6	75 a6	90 a6	120 a6	120 a6	120 a6	

RE - RA								
	stages	240		810	1020	1520	2000	2000L
		TQ	TRQ	TQ	TQ	TQ	TQ	TQ
A1		186	186	295	295	350	350	350
F0		219	219	280	325	325	325	325
F2		150 h7	155 f7	200 f7	230 f7	230 f7	230 f7	230 f7
F3		195	194	250	295	295	295	295
F4		7	10	10.5	15	15	15	15
F5		15	15	22	25	28	28	28
F6		Ø12.5	Ø11	Ø15	Ø17	Ø17	Ø17	Ø17
		 M. - 12.9						
		M12	M10	M14	M16	M16	M16	M16
F7		36°	36°	30°	36°	36°	36°	36°
FA1		87	104	131	140	140	140	104
FL	1	114	97	185	237	240	240	240
	2	157	140	252	322	333	333	333
	3	200	183	304.5	386.5	397.5	391.5	397.5
	4	243	226	347.5	429.5	440	444	440
FL7	2	195	178	326.5	379	446	446	446
	3	238	221	374	444	455	455	455
	4	281	264	385.5	467.5	478.5	513.5	478.5
FL8	2	269.5	252.5	435	487	574	574	574
	3	312.5	295.5	465	535	546	546	546
	4	355.5	338.5	460	542	553	604.5	553
T3	2	113.8	113.8	277	277	310	310	310
	3	113.8	113.8	171.5	171.5	171.5	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	171.5	113.8
T4	2	184	184	242	242	293	293	293
	3	184	184	183	183	183	183	183
	4	184	184	184	184	184	183	184

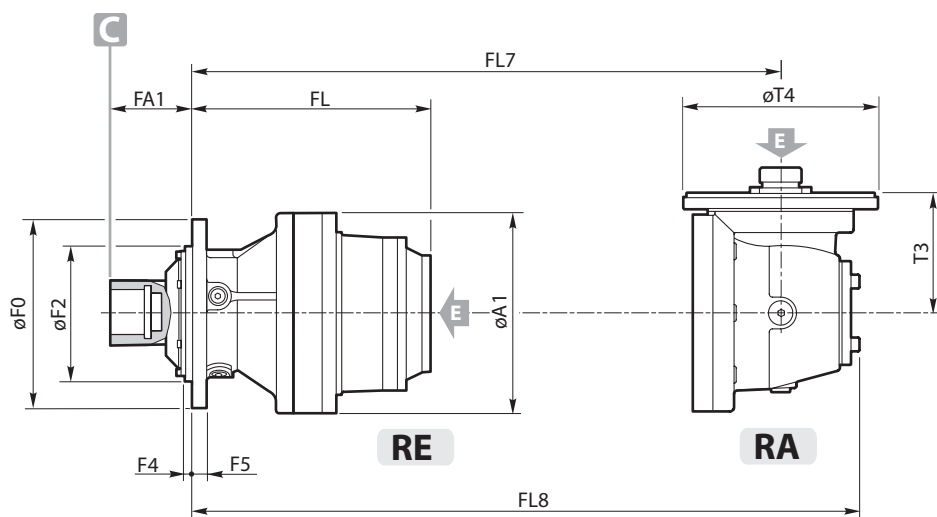
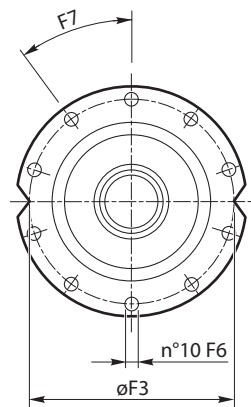




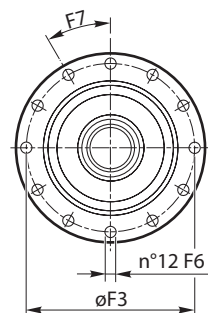
**TQ 240**



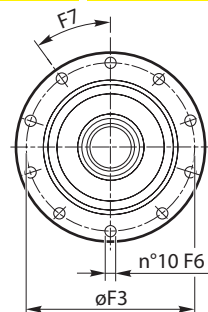
**TRQ 240**



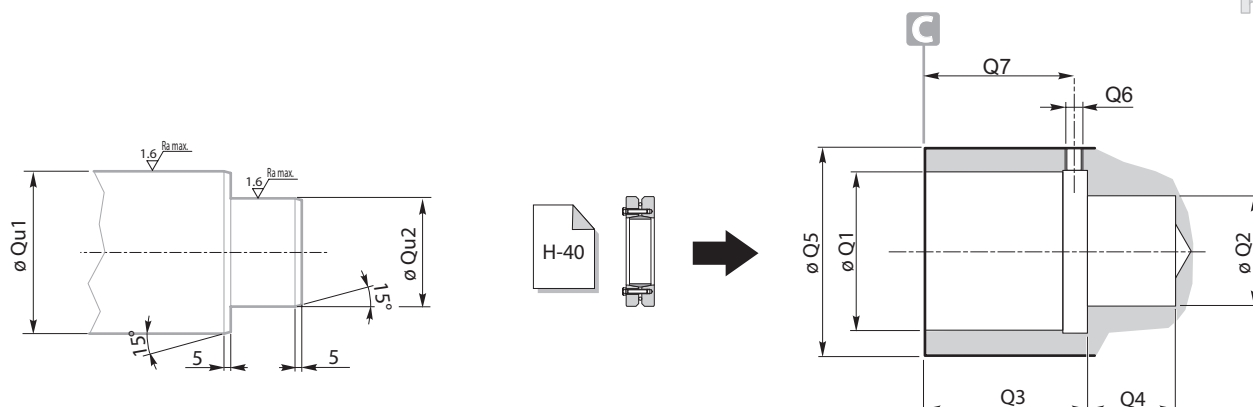
**TQ 810**



**TQ 1020 ÷ 2000L**








		RE - RA					
		1520	2000 2000L	2520	3000	3510	4800
HQ	Q1	120 H7	120 H7	130 H7	130 H7	145 H7	145 H7
	Q2	80 H7	80 H7	80 H7	80 H7	100 H7	100 H7
	Q3	85	85	100	100	146	146
	Q4	30	30	30	30	89.5	89.5
	Q5	165 f7	165 f7	175 f7	175 f7	185 f7	185 f7
	Q6	1/8"G	1/8"G	1/8"G	1/8"G	1/8"G	1/8"G
	Q7	97.5	97.5	99	99	136	136
	Qu1	120 g6	120 g6	130 g6	130 g6	145 g6	145 g6
	Qu2	80 f6	80 f6	80 f6	80 f6	100 f6	100 f6

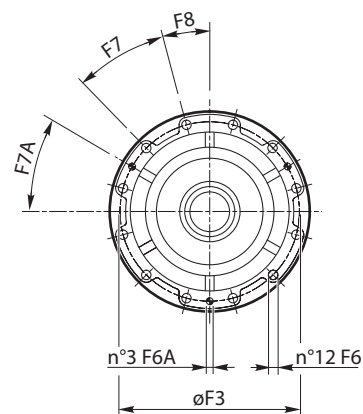
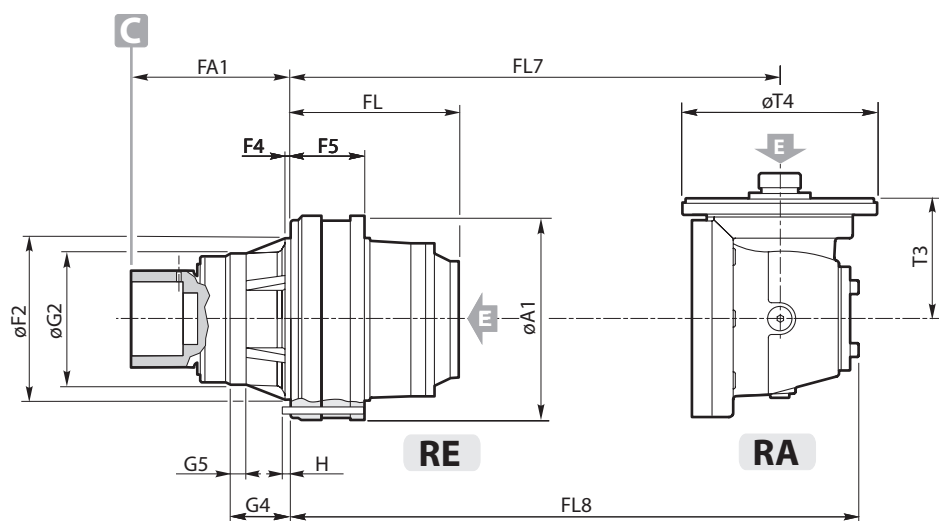
HQ1	RE - RA	
		4800
	Q1	155 H7
	Q2	100 H7
	Q3	146
	Q4	99.5
	Q5	200 f7
	Q6	1/8"G
	Q7	136
Qu1	155 g6	
Qu2	100 f6	

		RE - RA						
	stages	1520	2000	2000L	2520	3000	3510	4800
A1		350	350	350	409	409	452	452
FA1	Q	273	273	273	310	310	250	250
	Q1	—	—	—	—	—	—	260
F2		278 f7	278 f7	278 f7	340 f7	340 f7	390 f8	390 f8
F3		314	314	314	370	370	424	424
F4		10	10	10	17	17	15	15
F5		133	133	133	131	131	120	120
F6		Ø16.5	Ø16.5	Ø16.5	Ø17	Ø17	Ø17	Ø17
		 M.. - 12.9						
F6A		M16	M16	M16	M16	M16	M16	M16
F7		Ø12	Ø12	Ø12	Ø16	Ø16	—	—
F7		15°	15°	15°	12°	12°	20°	20°
F7A		30°	30°	30°	30°	30°	—	—
F8		15°	15°	15°	24°	24°	10°	10°
FL	1	107	107	107	98	98	85	85
	2	200	200	200	209	226	277	326
	3	264.5	258.5	264.5	276	311	362	419
	4	307.5	311	307.5	328.5	375.5	426.5	483.5
FL7	2	313	313	313	292	292	339	339
	3	322	322	322	351	368	419	532
	4	345.5	380.5	345.5	398	433	484	541
FL8	2	441	441	441	420	420	529	529
	3	413	413	413	459	476	527	660
	4	420	472	420	489	524	575	632
G2		225 f7	225 f7	225 f7	245 f7	245 f7	—	—
G4		104.5	104.5	104.5	142	142	—	—
G5		27.5	27.5	27.5	29	29	—	—
H		15	15	15	29	29	—	—
T3	2	310	310	310	310	310	432	432
	3	171	171	171	227	227	227	310
	4	113.8	171	113.8	171	171	171	171
T4	2	293	293	293	293	293	295	295
	3	183	183	183	242	242	242	293
	4	184	183	184	183	183	183	183

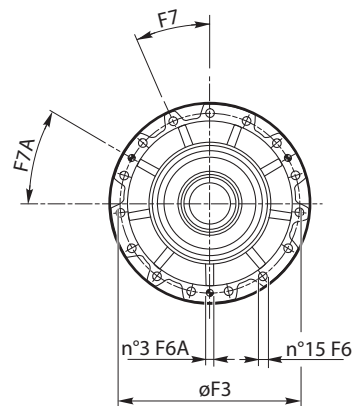
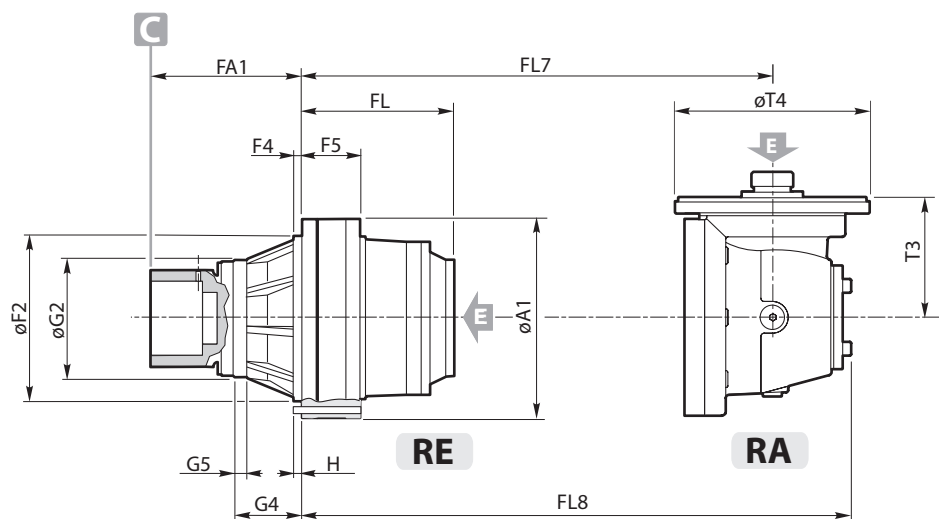




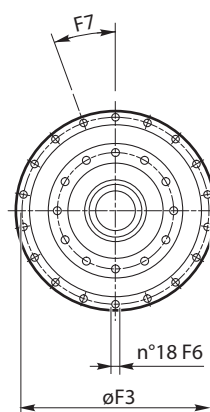
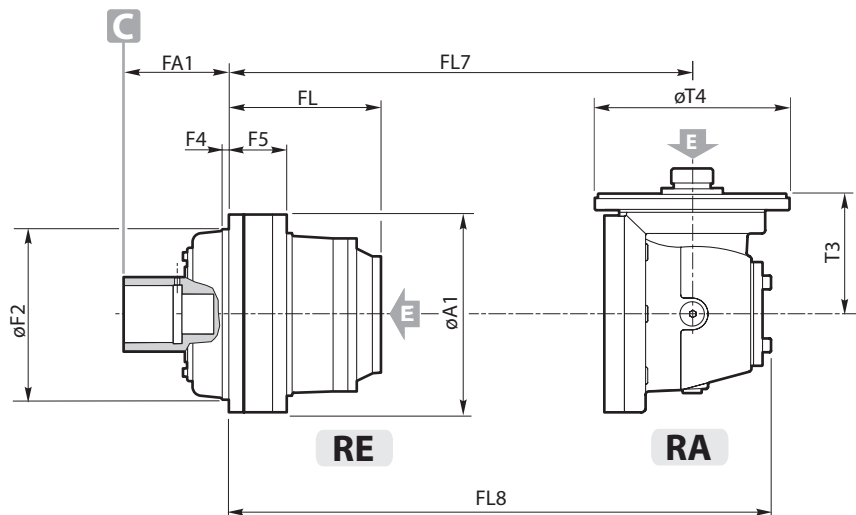
**1520 ÷ 2000L**



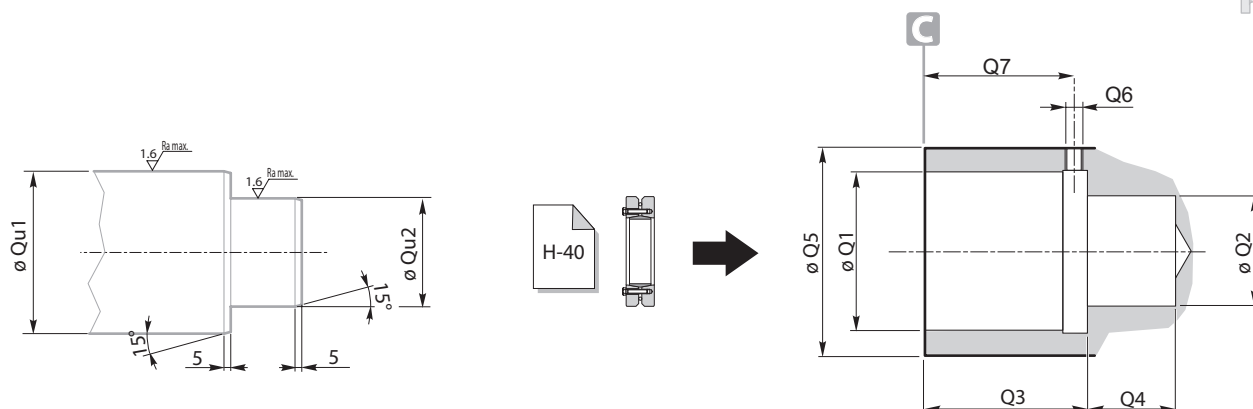
**2520 - 3000**



**3510 - 4800**





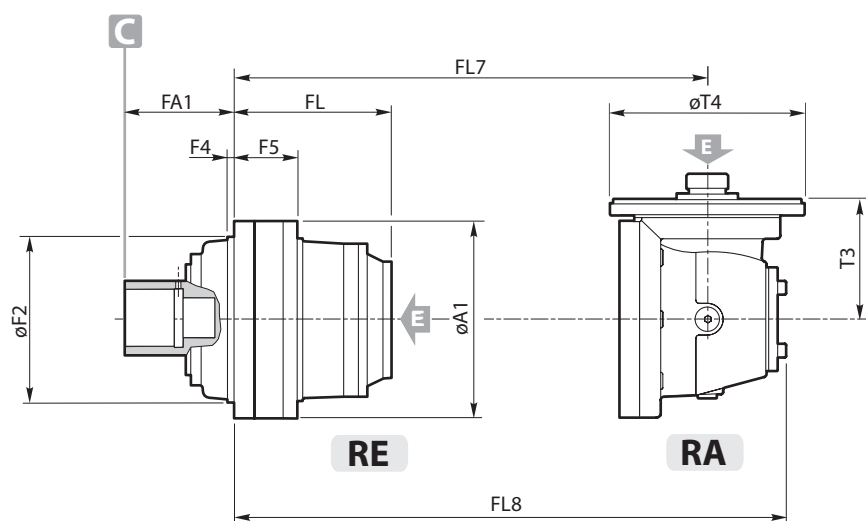


		RE - RA		GB - GBA	
		6000	8000	12010	16000
		H6Q	HQ	HQ	HQ
<b>HQ H6Q</b>	<b>Q1</b>	155 H7	155 H7	190 H7	190 H7
	<b>Q2</b>	85 F8	85 F8	90 H7	90 H7
	<b>Q3</b>	125	125	190	190
	<b>Q4</b>	70	70	40	40
	<b>Q5</b>	195 f7	195 f7	240 f7	240 f7
	<b>Q6</b>	1/8"G	1/8"G	1/8"G	1/8"G
	<b>Q7</b>	107	107	160	160
	<b>Qu1</b>	155 g6	155 g6	190 g6	190 g6
	<b>Qu2</b>	85 f6	85 f6	90 f6	90 f6

		RE - RA		GB - GBA	
		6000	8000	12010	16000
		H6Q1	HQ1	HQ1	HQ1
<b>HQ1 H6Q1</b>	<b>Q1</b>	180 H7	180 H7	210 H7	210 H7
	<b>Q2</b>	110 H7	110 H7	110 H7	110 H7
	<b>Q3</b>	183	183	210	210
	<b>Q4</b>	70	70	50	50
	<b>Q5</b>	240 f7	240 f7	260 f7	260 f7
	<b>Q6</b>	1/8"G	1/8"G	1/8"G	1/8"G
	<b>Q7</b>	164	164	187	187
	<b>Qu1</b>	180 g6	180 g6	210 g6	210 g6
	<b>Qu2</b>	110 f6	110 f6	110 f6	110 f6

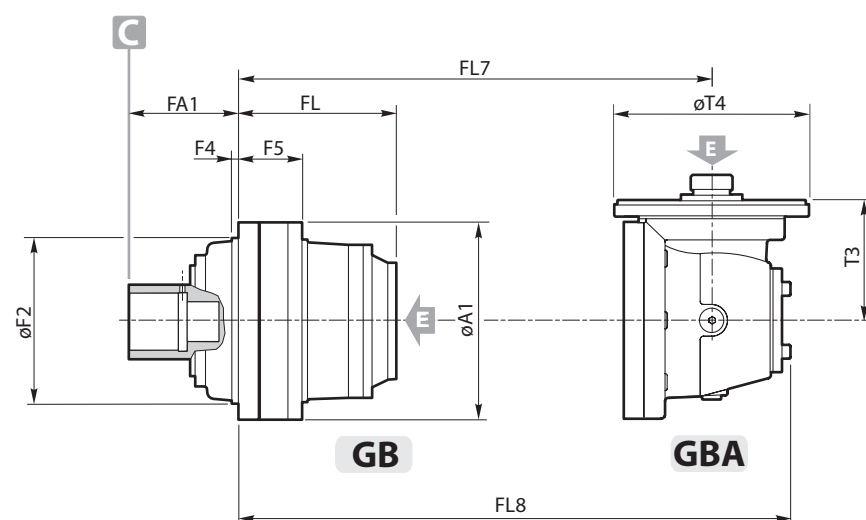
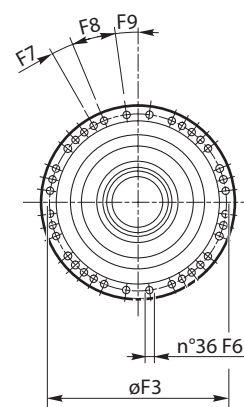
		RE - RA		GB - GBA	
		6000	8000	12010	16000
		H6	H	H	H
<b>A1</b>	stages	490	490	610	610
<b>F2</b>		410 h8	410 h8	515 h8	515 h8
<b>F3</b>		445	445	560	560
<b>F4</b>		15	15	20	20
<b>F5</b>		178.5	181.5	230	230
<b>F6</b>		Ø19	Ø19	Ø25	Ø25
<b>F6</b>		M18 - 12.9		M24 - 10.8	
<b>F7</b>		7°30	7°30	15°	15°
<b>F8</b>		15°	15°	7°30'	7°30'
<b>F9</b>		7°30	7°30	7°30'	7°30'
<b>FA1</b>	Q	240	240	300	300
<b>FA1</b>	Q1	298	298	330	330
<b>FL</b>	1	136.5	136.5	160.5	160.5
	2	305	390.5	410	427
	3	398	518.5	538	668
	4	456.5	603.5	623	761
	5	—	668	687.5	825.5
<b>FL7</b>	2	390.5	390.5	—	—
	3	511	584.5	604	681
	4	520	660.5	680	874
	5	—	—	745	883
<b>FL8</b>	2	580.5	580.5	—	—
	3	639	712.5	732	871
	4	611	768.5	788	1002
	5	—	—	836	974
<b>G2</b>		—	—	—	—
<b>G4</b>		—	—	—	—
<b>G5</b>		—	—	—	—
<b>T3</b>	2	432	432	—	—
	3	310	310	310	432
	4	171	227	227	310
	5	—	—	171	171
<b>T4</b>	2	295	295	—	—
	3	293	293	293	295
	4	183	242	242	293
	5	—	—	183	183



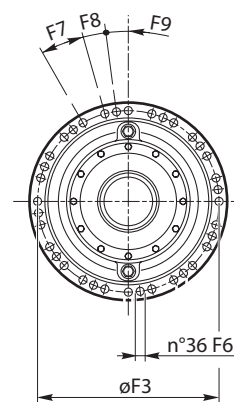


**H6Q 6000**

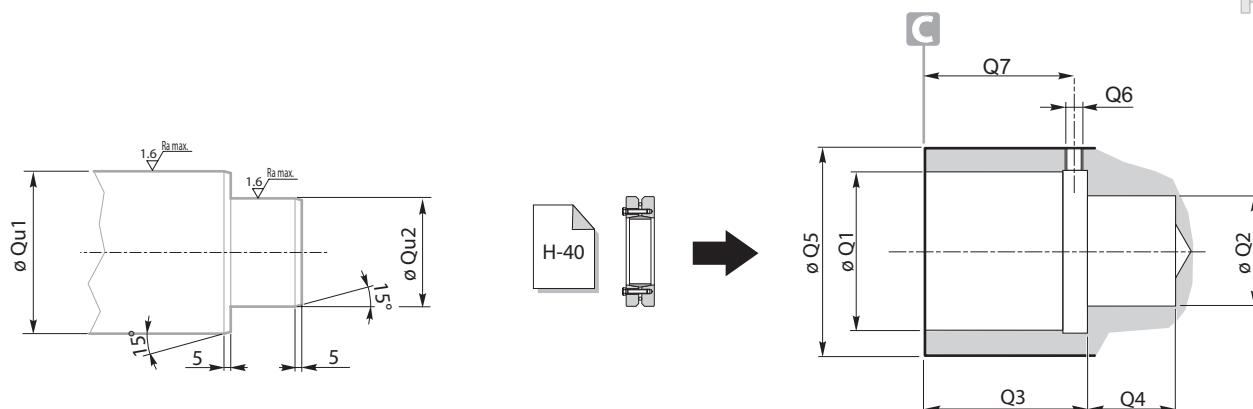
**HQ 8000**



**HQ 12010 - 16000**







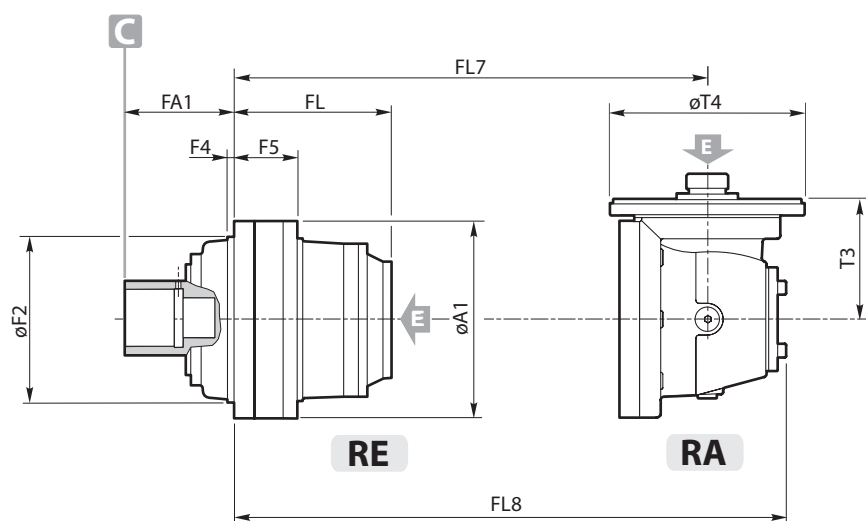


		RE - RA		GB - GBA	
		6000L	8000L	12010L	16000L
		H6Q	HQ	HQ	HQ
HQ H6Q	Q1	155 H7	155 H7	190 H7	190 H7
	Q2	85 F8	85 F8	90 H7	90 H7
	Q3	125	125	190	190
	Q4	70	70	40	40
	Q5	195 f7	195 f7	240 f7	240 f7
	Q6	1/8"G	1/8"G	1/8"G	1/8"G
	Q7	107	107	160	160
	Qu1	155 g6	155 g6	190 g6	190 g6
	Qu2	85 f6	85 f6	90 f6	90 f6

		RE - RA		GB - GBA	
		6000L	8000L	12010L	16000L
		H6Q1	HQ1	HQ1	HQ1
HQ1 H6Q1	Q1	180 H7	180 H7	210 H7	210 H7
	Q2	110 H7	110 H7	110 H7	110 H7
	Q3	183	183	210	210
	Q4	70	70	50	50
	Q5	240 f7	240 f7	260 f7	260 f7
	Q6	1/8"G	1/8"G	1/8"G	1/8"G
	Q7	164	164	187	187
	Qu1	180 g6	180 g6	210 g6	210 g6
	Qu2	110 f6	110 f6	110 f6	110 f6

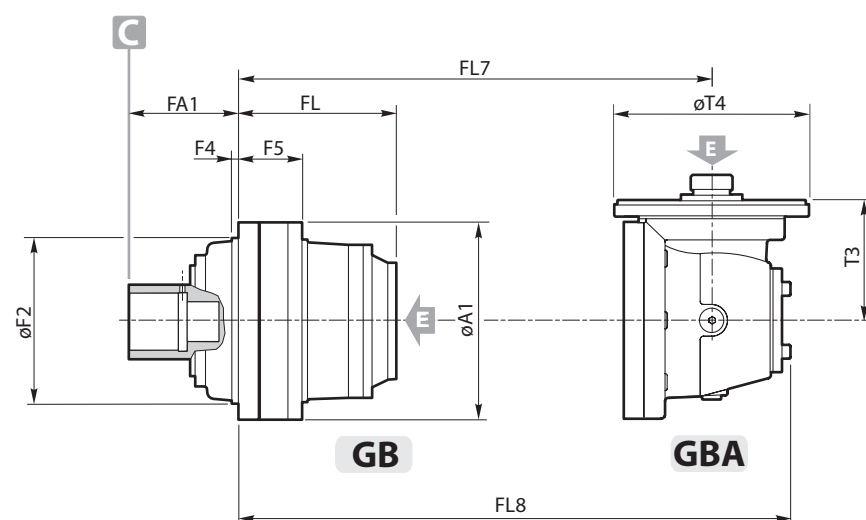
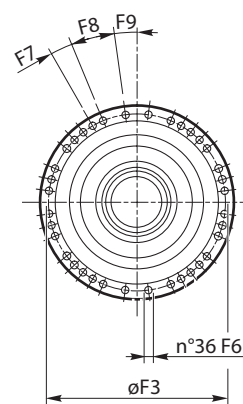
		RE - RA		GB - GBA	
		6000L	8000L	12010L	16000L
		H6	H	H	H
A1		490	490	610	610
F2		410 h8	410 h8	515 h8	515 h8
F3		445	445	560	560
F4		15	15	20	20
F5		178.5	181.5	230	230
F6		Ø19	Ø19	Ø25	Ø25
		 M. - 12.9		 M. - 10.8	
		M18	M18	M24	M24
F7		7°30	7°30	15°	15°
F8		15°'	15°	7°30'	7°30'
F9		7°30	7°30	7°30'	7°30'
FA1	Q	240	240	300	300
	Q1	298	298	330	330
FL	1	136.5	136.5	160.5	160.5
	2	305	390.5	410	427
	3	398	501.5	521	619
	4	462.5	568.5	588	704
	5	—	621	640.5	768.5
FL7	2	390.5	390.5	—	—
	3	511	584.5	604	681
	4	520	643.5	663	761
	5	—	—	710	826
FL8	2	580.5	580.5	—	—
	3	639	712.5	732	871
	4	611	751.5	771	869
	5	—	—	801	917
G2		432	432	—	—
G4		310	310	310	432
G5		171	227	227	310
T3	2	—	—	171	171
	3	295	295	—	—
	4	293	293	293	295
	5	183	242	242	293
T4	2	—	—	183	183
	3	293	293	293	295
	4	183	242	242	293
	5	—	—	183	183



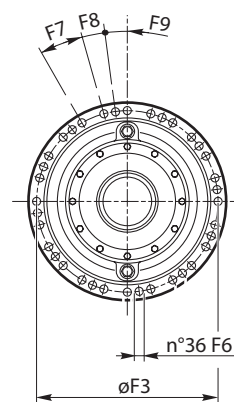


**H6Q 6000L**

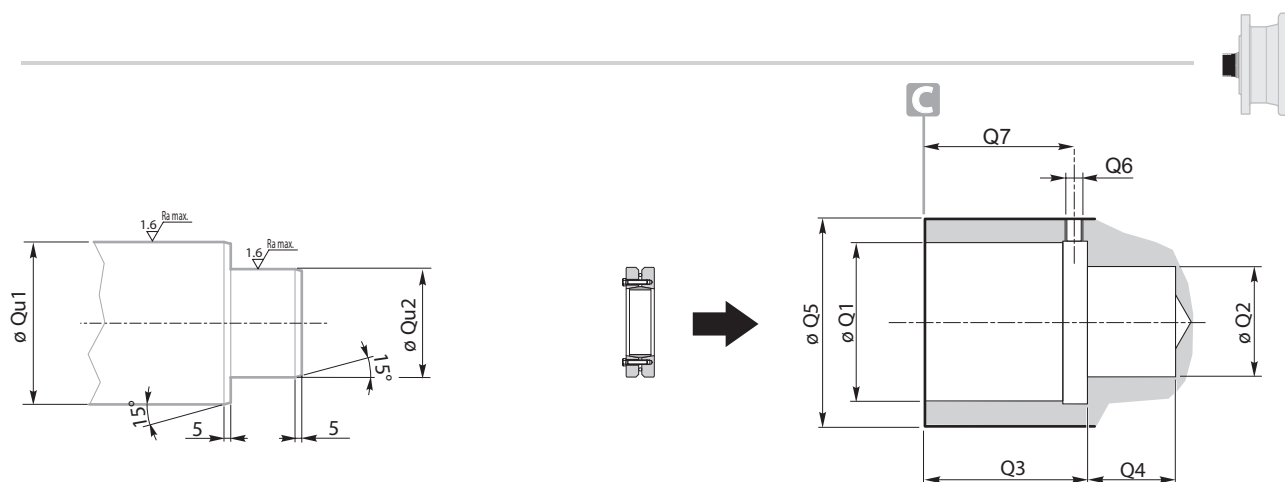
**HQ 8000L**




**HQ 12010L - 16000L**



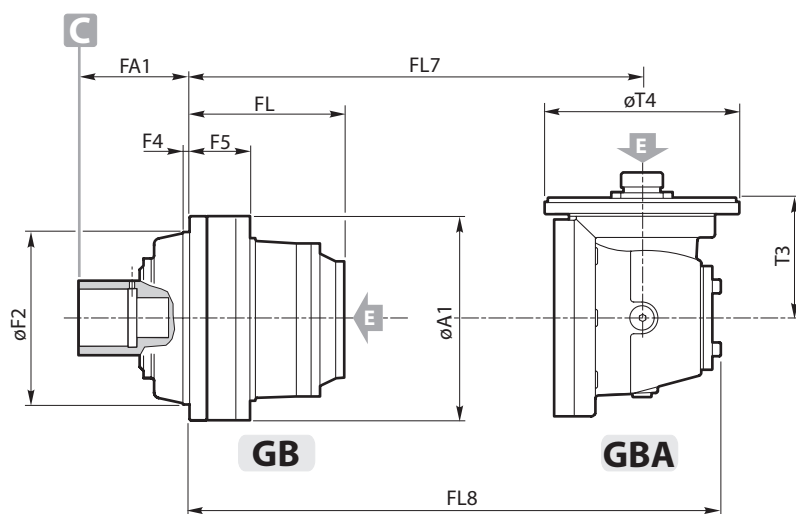




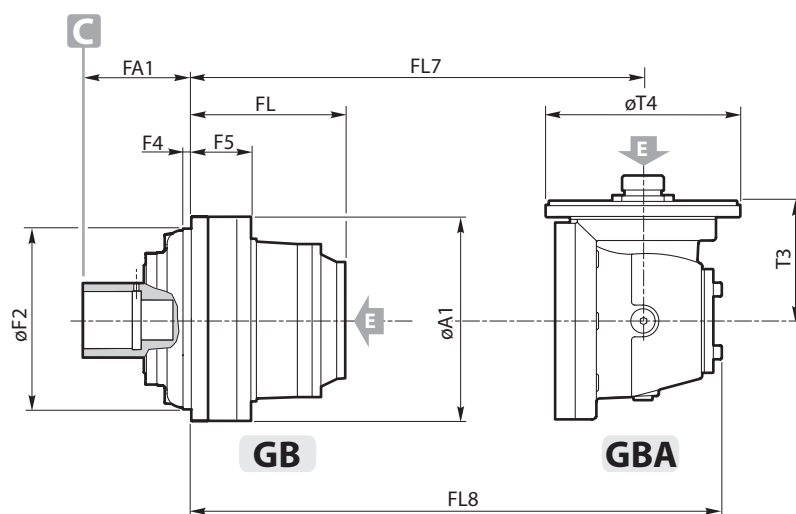
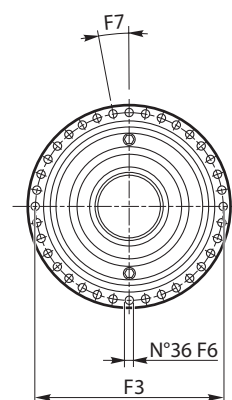
GB - GBA									
HQ		21000	26000	31000	40000	45000	53000	61000	85000
	Q1	230 H7	230 H7	295 H7	295 H7	300 H7	320 H7	320 H7	380 H7
	Q2	120 H7	120 H7	210 H7	210 H7	210 H7	190 H7	190 H7	260 H7
	Q3	230	230	300	300	300	335	335	335
	Q4	101	101	155	155	155	175	175	170
	Q5	280 f7	280 f7	360 f7	360 f7	380 f7	390 f7	390 f7	460 f7
	Q6	1/8"G	1/8"G	1/8"G	1/8"G	1/8"G	1/4"G	1/4"G	1/4"G
	Q7	225	225	265	265	265	305	305	323
	Qu1	230 g6	230 g6	295 g6	295 g6	300 g6	320 h6	320 h6	380 g6
	Qu2	120 f6	120 f6	210 f6	210 f6	210 f6	190 f6	190 f6	260 f6

GB - GBA									
	stages	21000	26000	31000	40000	45000	53000	61000	85000
A1		710	710	870	870	870	1090	1090	1090
F2		600 h8	600 h8	760 h8	760 h8	760 h8	930 h8	930 h8	930 h8
F3		660	660	810	810	810	1020	1020	1020
F4		23.5	23.5	35	35	35	50	50	50
F5		196	216	250	290	290	305	305	353
F6		Ø28	Ø28	Ø32	Ø32	Ø32	Ø39	Ø39	Ø39
		 M... - 10.8							
		M27	M27	M30	M30	M30	M36	M36	M36
F7		10°	10°	10°	10°	10°	10°	10°	10°
FA1		440	440	490	490	490	550	550	550
FL	1	138	158	180	220	220	225	225	273
	2	443	463	588.5	628.5	628.5	700	700	768
	3	611.5	717	838	878	895	1005	1005	1073
	4	704.5	845	966	1006	1136	1173.5	1173.5	1327
	5	763	930	1051	1091	1229	1266.5	1266.5	1455
FL7	3	697	717	—	—	—	—	—	—
	4	817.5	911	1032	1072	1149	1259	1259	1327
	5	826.5	987	1108	1148	1342	1379.5	1379.5	1521
	6	—	—	—	—	—	—	1388.5	1597
FL8	3	887	907	—	—	—	—	—	—
	4	945.5	1039	1160	1200	1339	1449	1449	1517
	5	917.5	1095	1216	1256	1470	1507.5	1507.5	1649
	6	—	—	—	—	—	—	1479.5	1705
T3	3	432	432	—	—	—	—	—	—
	4	310	310	310	310	432	432	432	432
	5	171	227	227	227	310	310	310	310
	6	—	—	—	—	—	—	171	171
T4	3	295	295	—	—	—	—	—	—
	4	293	293	293	293	295	295	295	295
	5	183	242	242	242	293	293	293	293
	6	—	—	—	—	—	—	183	183

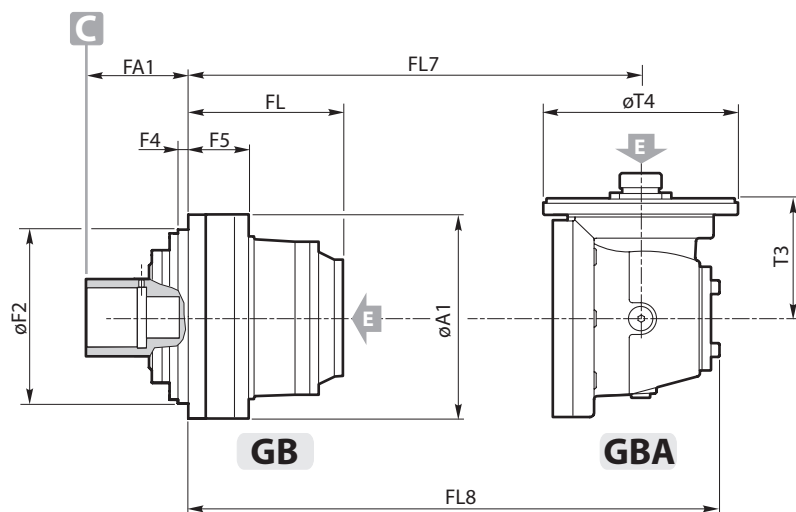
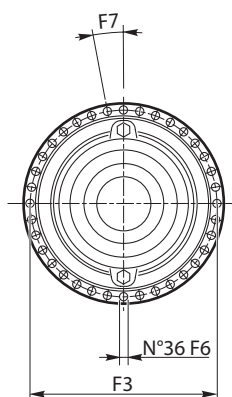




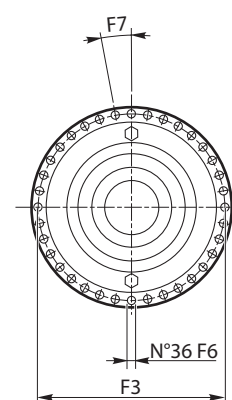
**21000 - 26000**



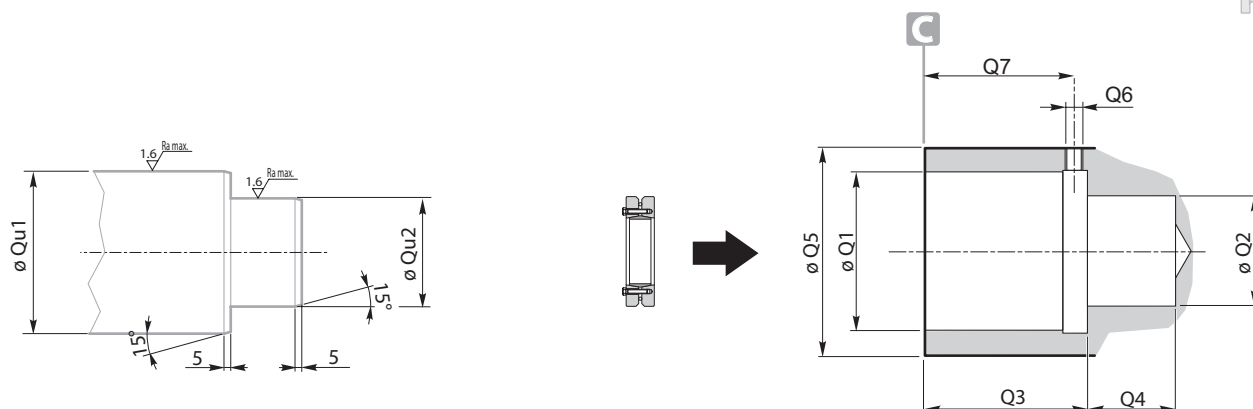
**31000 ÷ 45000**



**53000 ÷ 85000**



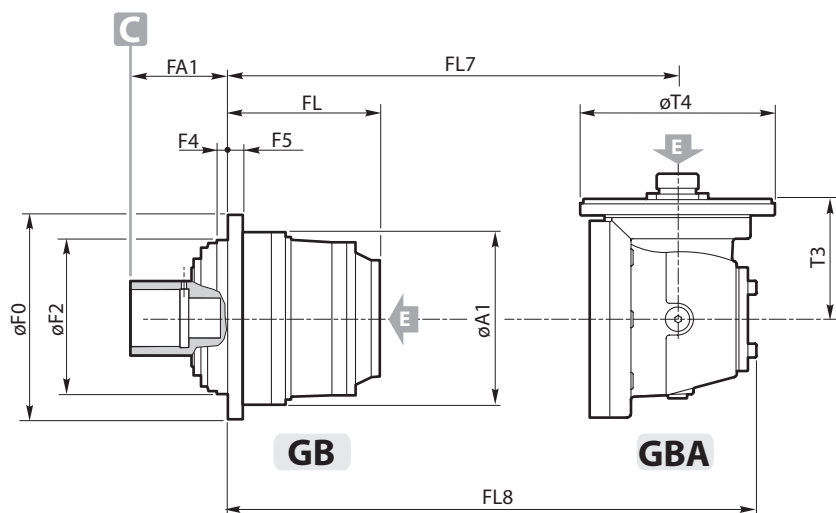




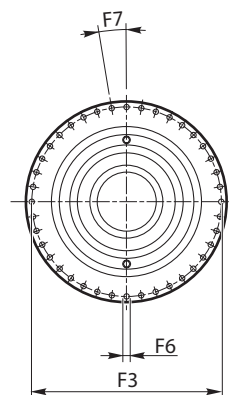
		GB - GBA				
HQ		110000	130000	150000	205000	235000
	Q1	450 H7	450 H7	450 H7	600 H7	600 H7
	Q2	320 H7	320 H7	320 H7	590 H7	590 H7
	Q3	450	450	450	277	277
	Q4	150	150	150	282	282
	Q5	560 f7	560 f7	560 f7	700 f7	700 f7
	Q6	1/4"G	1/4"G	1/4"G	—	—
	Q7	420	420	420	—	—
	Qu1	450 h6	450 h6	450 h6	600 g6	600 g6
	Qu2	320 f6	320 f6	320 f6	590 g6	590 g6

		GB - GBA				
	stages	110000	130000	150000	205000	235000
A1		1320	1320	1320	1630	1630
F0		1538	1538	1538	1880	1880
F2		1150 h9	1150 h9	1150 h9	1440 h8	1440 h8
F3		1450	1450	1450	1780	1780
F4		80	80	80	80	80
F5		110	110	110	110	110
F6		Ø44 (x40)	Ø44 (x40)	Ø44 (x40)	Ø44 (x48)	Ø44 (x48)
		M42	M42	M42	M42	M42
F7		9°	9°	9°	7°30'	7°30'
FA1		722.5	722.5	722.5	675	675
FL	1	315	315	315	303	303
	2	966.5	966.5	966.5	1016	1016
	3	1375	1375	1375	1511	1590.5
	4	1624.5	1641.5	1721.5	1852	1986.5
	5	1752.5	1882.5	1890	2101.5	2236
FL7	5	1818.5	1895.5	—	—	—
	6	1894.5	2088.5	—	—	—
FL8	5	1946.5	2085.5	—	—	—
	6	2002.5	2216.5	—	—	—
T3	5	310	432	—	—	—
	6	227	310	—	—	—
T4	5	293	295	—	—	—
	6	242	293	—	—	—

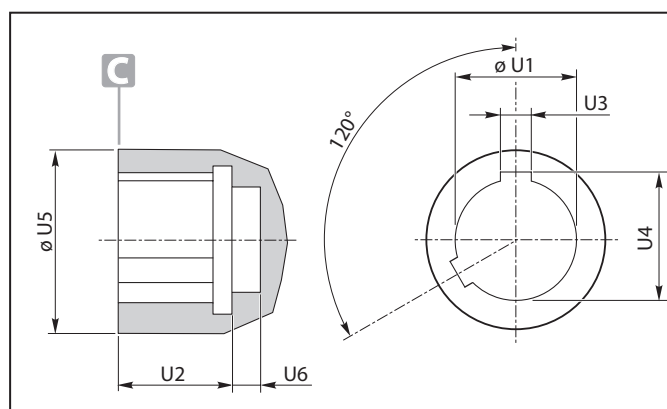
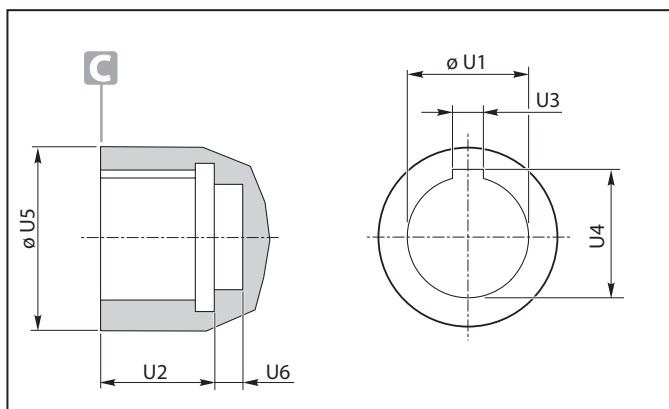




**110000 ÷ 235000**







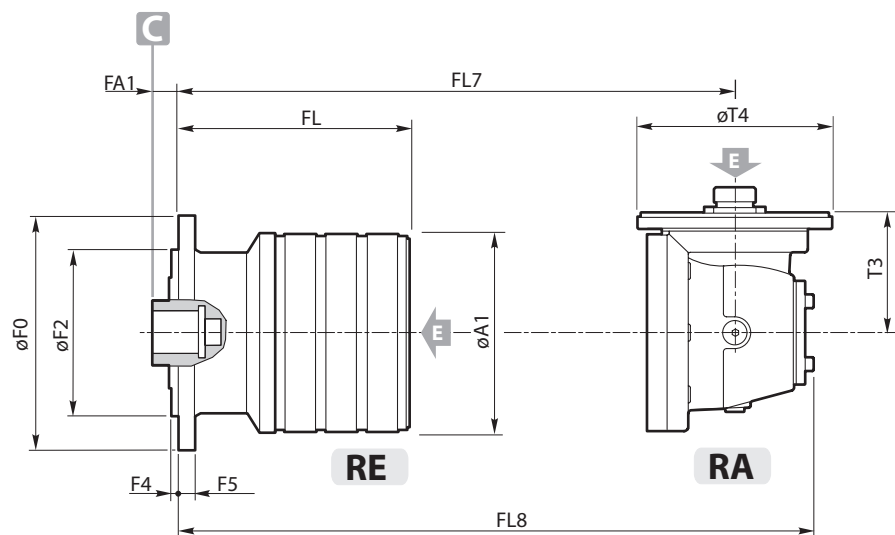
		RE - RA				
TU		110	210	310	510	610
	U1	40 H7	40 H7	—	—	—
	U2	49	49	—	—	—
	U3	12	12	—	—	—
	U4	43.3	43.3	—	—	—
	U5	60	60	—	—	—
	U6	15	15	—	—	—

		RE - RA		
NU		310	510	610
	U1	60 H7	60 H7	60 H7
	U2	60	60	60
	U3	18	18	18
	U4	64.5	64.5	64.5
	U5	85	85	85
	U6	15	15	15

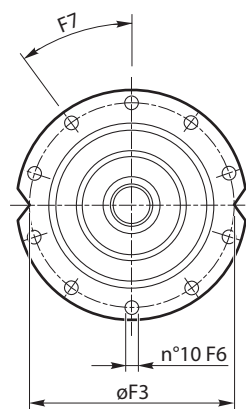
NU2	U1	—	—	70 G6	70 G6	70 G6
	U2	—	—	75	75	75
	U3	—	—	20	20	20
	U4	—	—	75	75	75
	U5	—	—	99.5	99.5	99.5
	U6	—	—	20	20	20

		RE - RA							
	stages	110	210	310		510		610	
		TU	TU	NU	NU2	NU	NU2	NU	NU2
A1		186	186	224	224	224	224	224	224
F0		219	219	222	222	222	222	222	222
F2		155 h7	155 h7	168 f7	168 f7	168 f7	168 f7	168 f7	168 f7
F3		194	194	195	190	195	190	195	190
F4		7	7	20.5	13.5	20.5	13.5	20.5	13.5
F5		15	15	16	16	16	16	16	16
F6		Ø11	Ø11	Ø12.5	Ø14.5	Ø12.5	Ø14.5	Ø12.5	Ø14.5
		M10	M10	M12	M14	M10	M14	M10	M14
F7		36°	36°	36°	45°	36°	45°	36°	45°
F8		—	—	—	22°30'	—	22°30'	—	22°30'
FA1		13	13	52	130	52	130	52	130
FL	1	102	114	133	133	151	151	151	151
	2	145	157	185.5	185.5	215.5	215.5	209.5	209.5
	3	188	200	228.5	228.5	258.5	258.5	262	262
	4	231	243	271.5	271.5	301.5	301.5	305	305
FL7	2	183	195	255	255	273	273	273	273
	3	226	238	266.5	266.5	296.5	296.5	331.5	331.5
	4	269	281	309.5	309.5	339.5	339.5	343	343
FL8	2	257.5	269.5	346	346	364	364	364	364
	3	300.5	312.5	341	341	371	371	422.5	422.5
	4	343.5	355.5	384	384	414	414	417.5	417.5
T3	2	113.8	113.8	171.5	171.5	171.5	171.5	171.5	171.5
	3	113.8	113.8	113.8	113.8	113.8	113.8	171.5	171.5
	4	113.8	113.8	113.8	113.8	113.8	113.8	113.8	113.8
T4	2	184	184	183	183	183	183	183	183
	3	184	184	184	184	184	184	183	183
	4	184	184	184	184	184	184	184	184

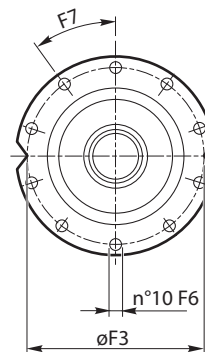




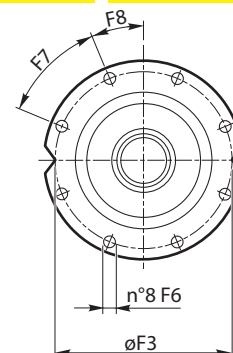
**TU 110 - 210**



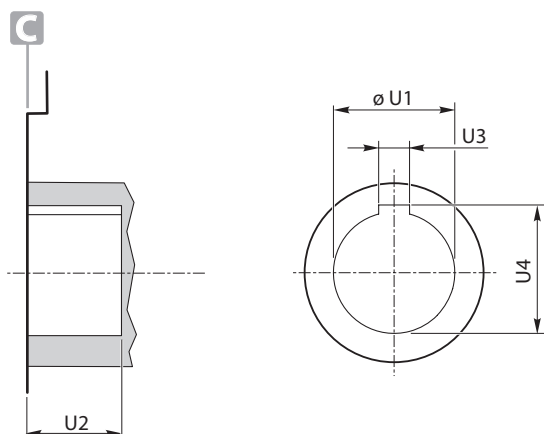
**NU 310 - 510 - 610**



**NU2 310 - 510 - 610**



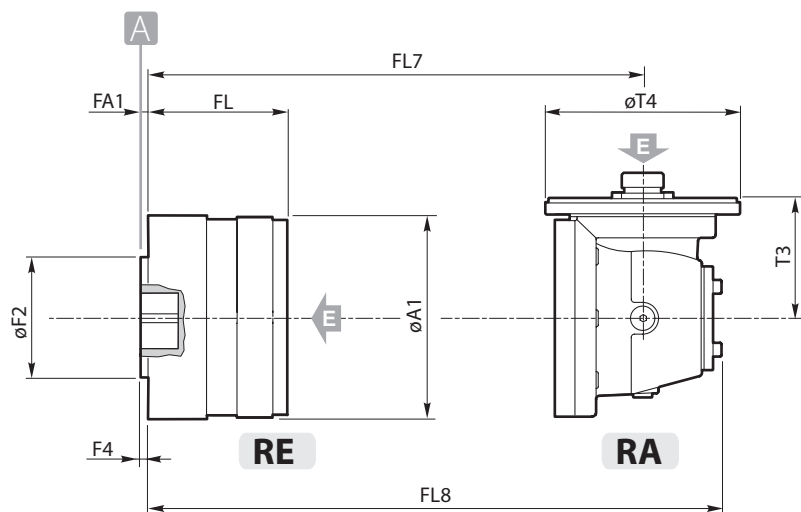




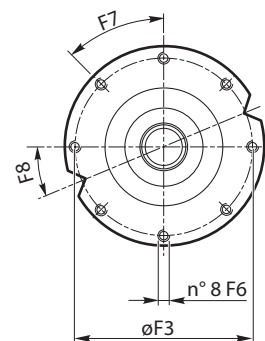
		RE - RA	
		110	210
FC	U1	40 H7	40 H7
	U2	38	38
	U3	12	12
	U4	43.3	43.3

			RE - RA	
	stages		110	210
A1			186	186
F2			110 h7	110 h7
F3			165	165
F4			5	5
F6			$\varnothing 10.5$	$\varnothing 10.5$
F7			45°	45°
F8			22.5°	22.5°
FA1			5	5
FL	1		59	71
	2		102	114
	3		145	157
	4		188	200
FL7	2		140	152
	3		183	195
	4		226	238
FL8	2		214.5	226.5
	3		257.5	269.5
	4		300.5	312.5
T3	2		113.8	113.8
	3		113.8	113.8
	4		113.8	113.8
T4	2		184	184
	3		184	184
	4		184	184





**110 - 210**









# I

## ENTRATE, ACCESSORI, POSIZIONI DI MONTAGGIO, PESI E VOLUMI

Le tavole degli accessori comprendono flange di adattamento e freni. In questa sezione sono inoltre rappresentate le varie posizioni di lavoro dei riduttori e le relative posizioni dei tappi di carico, scarico e livello olio e quelli di sfiato aria.

**I pesi dei riduttori ed i volumi di olio sono puramente indicativi in quanto variano al variare del rapporto e degli accessori installati.**

Qualora si desideri un'informazione precisa si contatti la rete vendita Dinamic Oil comunicando il codice di ordinazione in modo completo.

# UK

## INPUTS, ACCESSORIES, WEIGHTS, VOLUMES AND MOUNTING POSITIONS

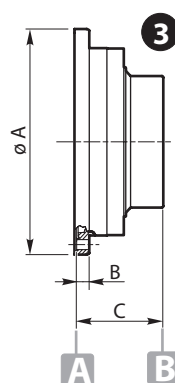
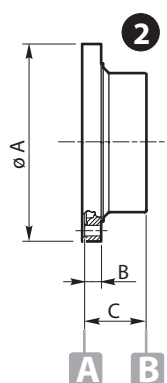
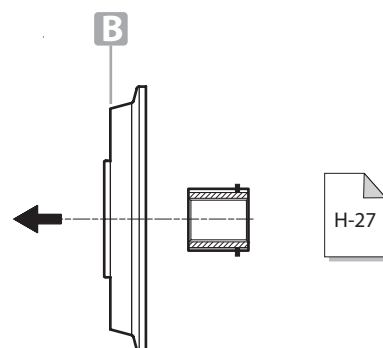
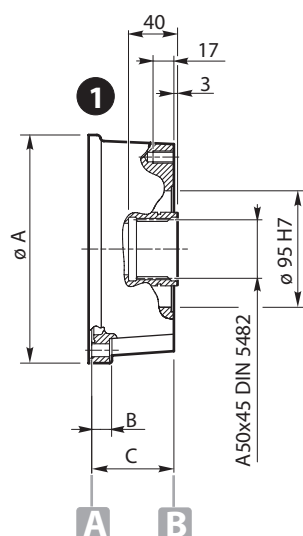
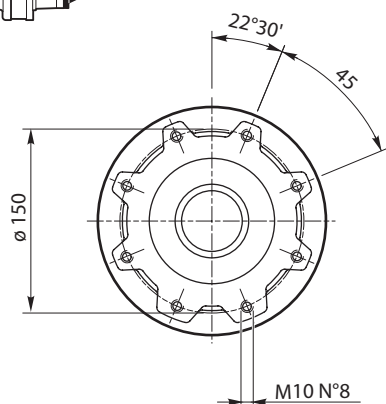
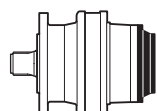
The accessory tables include motor, adapter flanges and brakes. This section also shows the gearboxes working positions options; the location for oil filling, oil level and oil drain ports, as well as breather plugs.

**Weights and oil volumes are purely indicatives because they vary with respect to the installed accessories and the reduction ratio.**

When a precise figure is needed please contact Dinamic Oil sales network specifying the complete ordering code.







1

Ø A	B	C	Code
186	14.5	67	K0700A1
RE 111 - 112 - 113 - 114			
RE 211 - 212 - 213 - 214			
RE 241 - 242 - 243 - 244			
RE 312 - 313 - 314			
RE 512 - 513 - 514			
RE 613 - 614			
RE 813 - 814			
RE 1023 - 1024			
RE 1523 - 1524			
RE 2004			
RE 2524			
RE 3004			
RE 3514-4804			
RE 6004L			
RE 8005 - 8005L			
GB 12015 - 12015L			
GB 16005 - 16005L			
CC30-CC120			

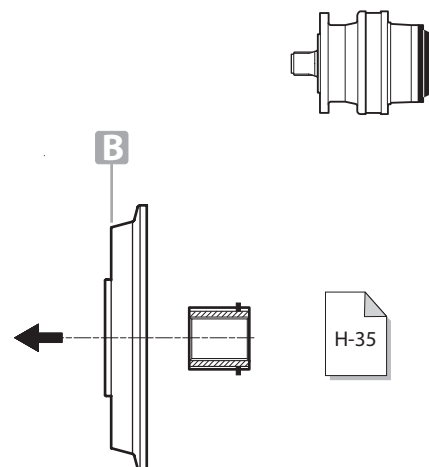
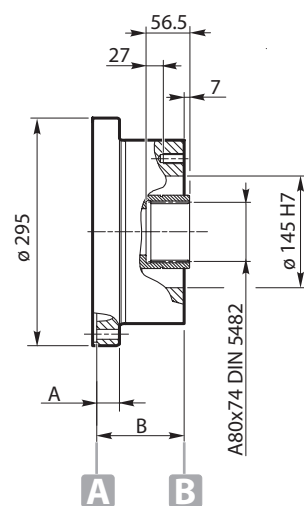
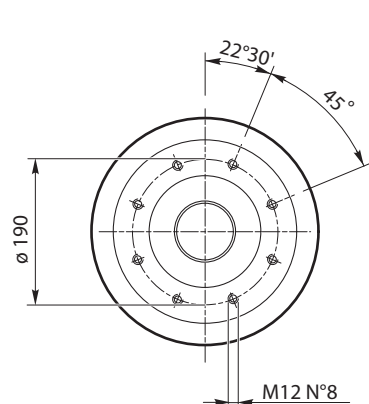
2

Ø A	B	C	Code
186	14.5	67	K0700A1
RE 311-511			
RE 611 - 612			
RE 812-1022			
RE 1522-2003			
RE 2523-3003			
RE 3513-4803			
RE 6003 - 6003L			
RE 6004 - 6004L			
RE 8004 - 8004L			
GB 12014 - 12014L			
GB 16004 - 16004L			
GB 21004 - 21005			
GB 26005-31005			
GB 40005-45005			
GB 53005			
CC350			

3

Ø A	B	C	Code
186	14.5	67	K0700A1
RE 811			
RE 1021			
RE 2522			
RE 3002			
RE 3512			
RE 8003 - 8003L			
GB 12013 - 12013L			
GB 16003L			
GB 26004			
GB 31004			
GB 40004			
GB 85005			
GB 110005			
CC1000			
CC600			

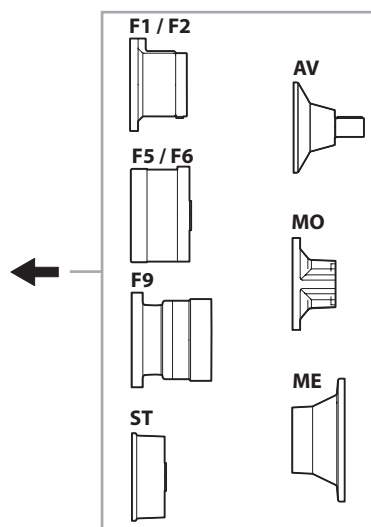
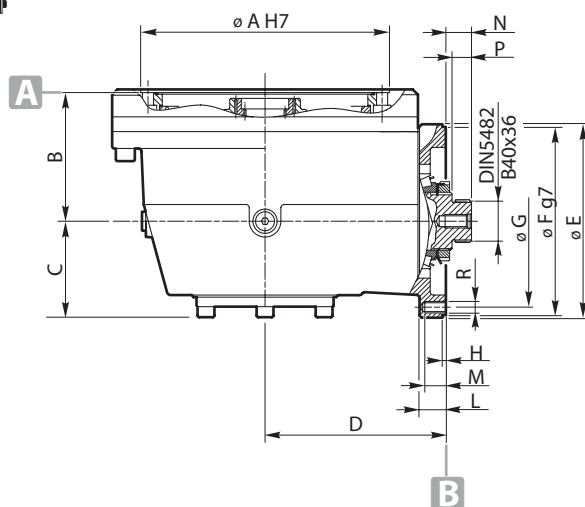
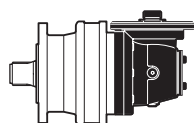




	A	B	Code
RE 811	30	114	K0700D3
RE 1021			
RE 2522			
RE 3002			
RE 3512			
RE 8003 - 8003L			
GB 12013 - 12013L			
GB 16003L			
GB 26004			
GB 31004			
GB 40004			
GB 85005			
GB 110005			
CC600	50	134	
CC1000	61	145	



# CC30 - CC120



## CC30 110/210/240

RA 112-113-114  
RA 212-213-214  
RA 242-243-244  
RA 313-314  
RA 513-514  
RA 814  
RA 1024  
RA 1524  
RA 2004L

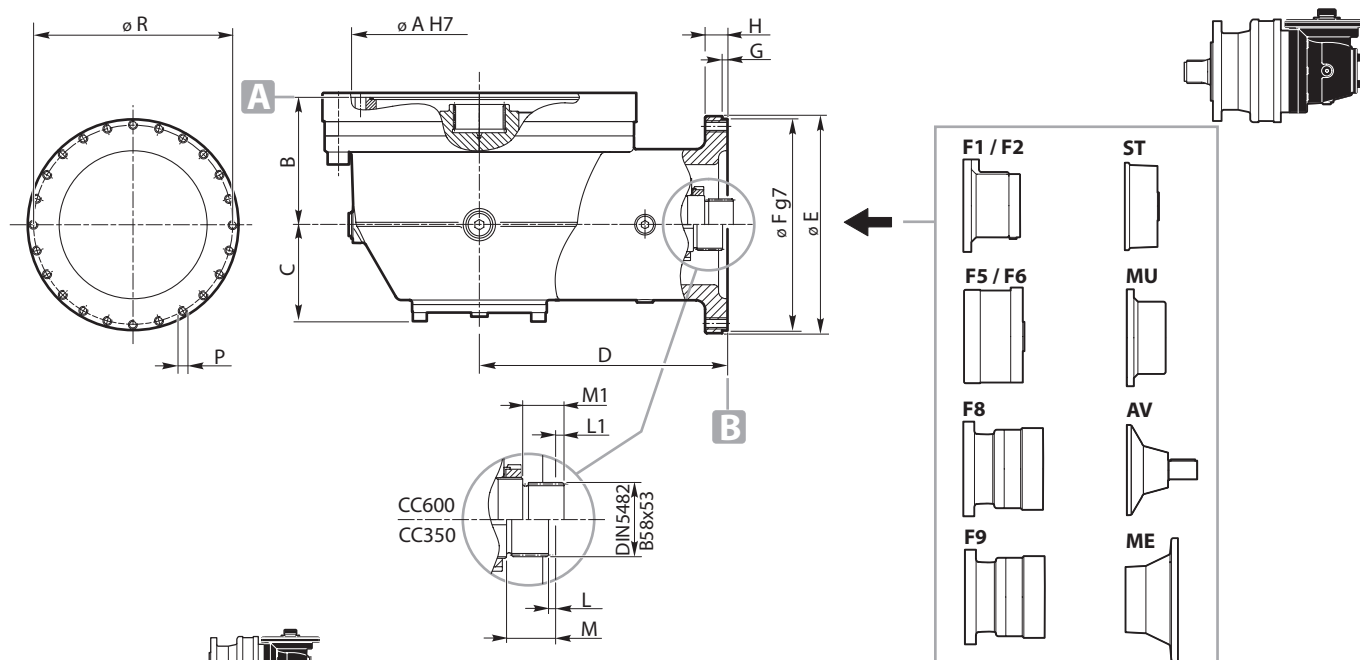
øA	B	C	D	øE	øF	øG	H	L	N	P	R
178	84	71.5	113.8	184	178	165	4	15.7	23.75	18.25	N°8-M10 AT 45°

## CC120 310/510/610

RA 312  
RA 512-612  
RA 613-813  
RA 1023  
RA 1523  
RA 2003-2003L  
RA 2524  
RA 3004  
RA 3514  
RA 4804  
RA 6004-6004L  
GBA 12015-12015L  
GBA 16005-16005L  
GBA 21005

øA	B	C	D	øE	øF	øG	H	L	M	P	R
236	122	91	171.5	183	178	165	3.5	25	24.25	18.5	N°8-M10 AT 45°





		øA	B	C	D	øE	øF	G	H	L	M	P	R
<b>CC350</b> 810/1020	RA 812 RA 1022 RA 2523 RA 3023 RA 3523 RA 8004-8004L GBA 12014-12014L GB 16004L GBA 26005 GBA 31005 GBA 40005	285	142	108	276.75	242	236	6	25	5,5	38	N°24- M10 AT 15°	222

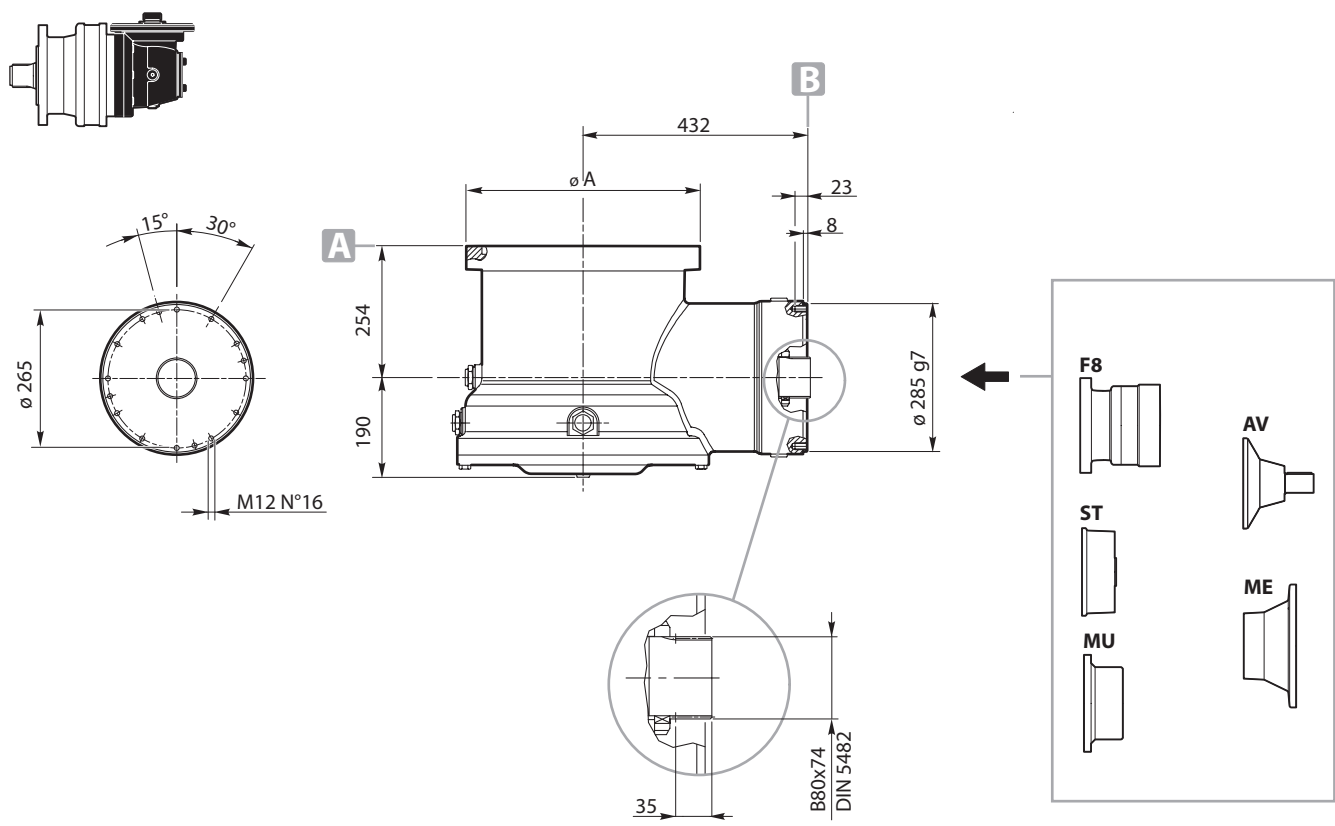
		øA	B	C	D	øE	øF	G	H	L1	M1	P	R
<b>CC600</b> 810/1020	RA 812 RA 1022 RA 2523 RA 3023 RA 3523 RA 8004 GBA 12014 GBA 16004 GBA 26005 GBA 31005 GBA 40005	285	198	128	310	293	285	8	27	6,5	25,5	N°12- M10 AT 30°	265

		øA	B	C	D	øE	øF	G	H	L1	M1	P	R
<b>CC600</b> 1520/2000	RA 1522 RA 2002 RA 4803 RA 6003-6003L GBA 16014 GBA 21004 GBA 45005 GBA 53005 GBA 61005	340	206	128	310	293	285	8	27	6,5	25,5	N°12- M10 AT 30°	265

		øA	B	C	D	øE	øF	G	H	L1	M1	P	R
<b>CC600</b> 2520/3000	RA 2522 RA 3002 RA 8003-8003L GBA 12013-12013L GBA 26004 GBA 31004 GBA 40004 GBA 85005 GBA 110005	395	194	128	310	293	285	8	27	6,5	25,5	N°12- M10 AT 30°	265



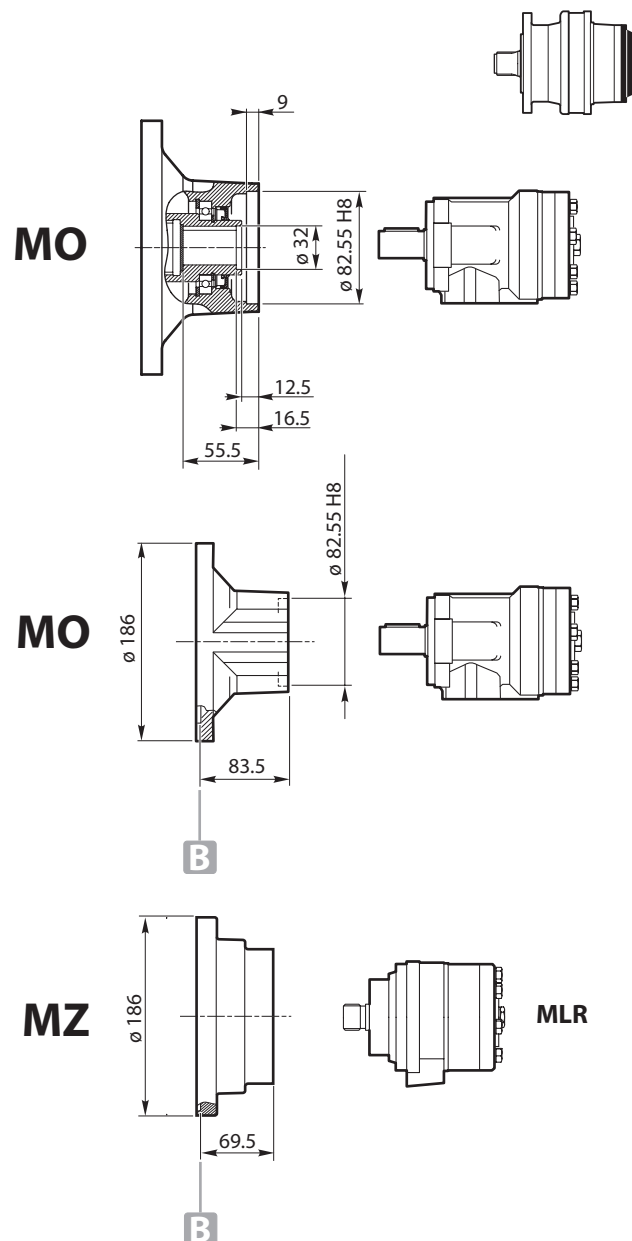
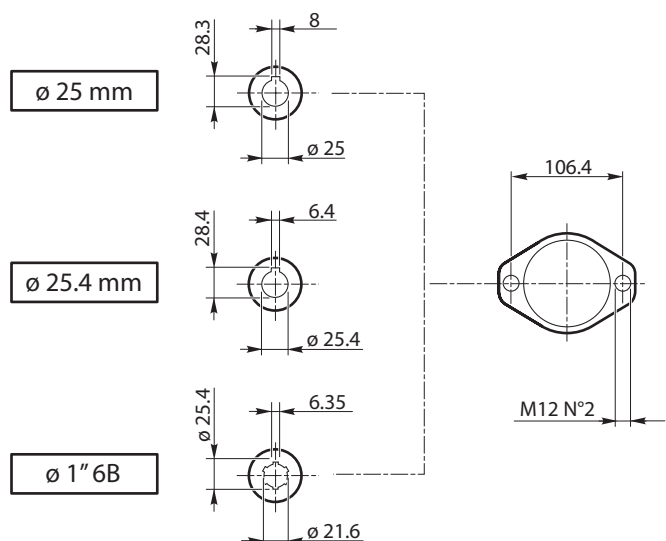
# CC1000



## CC1000

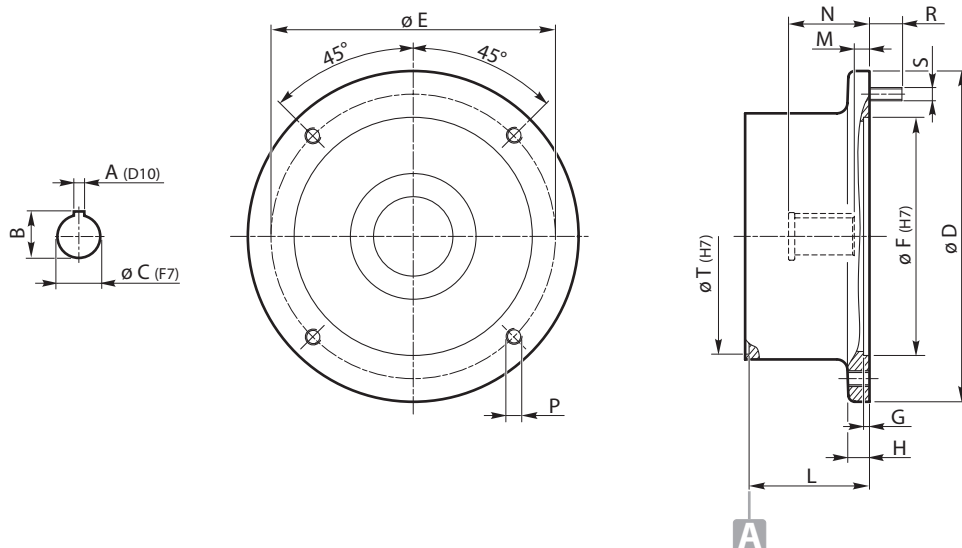
	$\varnothing A$
RA 3512-4802	452
RA 6002-8002	490
GBA 16003-16003L	452
GBA 21003-26003	490
GBA 45004	452
GBA 53004-61004	490
GBA 85004	490
GBA 130005	452





Type	Code
RE 111 - 112 - 113 - 114	
RE 211 - 212 - 213 - 214	
RE 241 - 242 - 243 - 244	
RE 312 - 313 - 314	
RE 512 - 513 - 514	
RE 613 - 614	
RE 813 - 814	
RE 1023 - 1024	
RE 1523 - 1524	
RE 2004	
RE 2524	
RE 3004	
RE 3514-4804	
RE 6004L	
RE 8005 - 8005L	
GB 12015 - 12015L	
GB 16005 - 16005L	
CC30-CC120	
MO 25	K0700AA
MO 25.4	K0700AB
MO 1" 6B	K0700AC
MZ	—



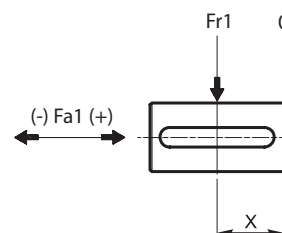
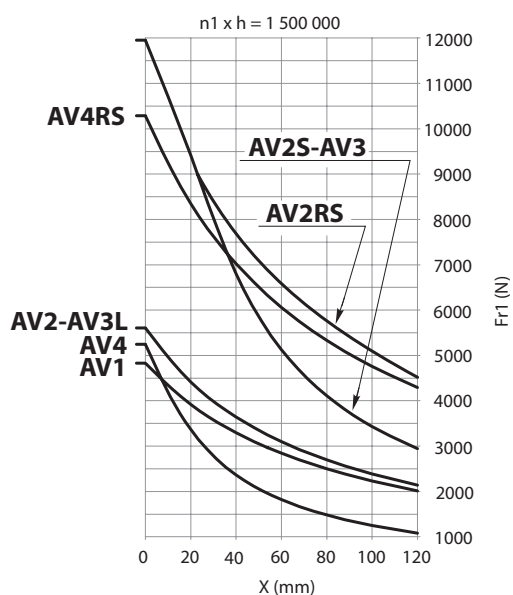
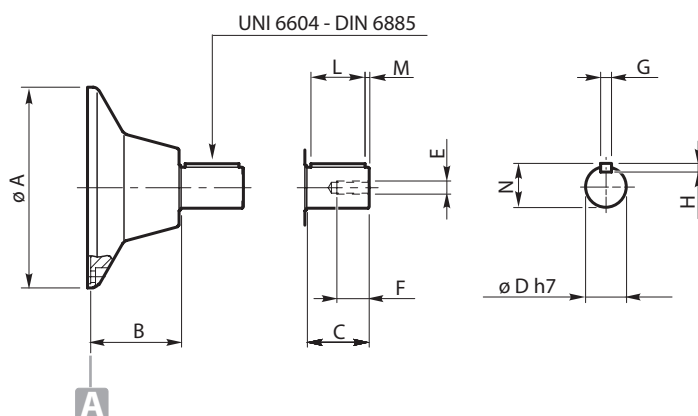


	Input type	Shaft			Flange											
		A	B	C	D	E	F	G	H	L	M	N	P	R	S	T
RE 111 - 112 - 113 - 114 RE 211 - 212 - 213 - 214 RE 241 - 242 - 243 - 244 RE 312 - 313 - 314 RE 512 - 513 - 514 RE 613 - 614 RE 813 - 814 RE 1023 - 1024 RE 1523 - 1524 RE 2004-RE 2004L RE 2524 RE 3004 RE 3514-4804 RE 6004L RE 8005 - 8005L GB 12015 - 12015L GB 16005 - 16005L CC30-CC120	ME 80	6	21.8	19	200	165	130	4	16	82.5	6.5	44.5	—	25	N°4-M10	178
	ME 90	8	27.3	24	200	165	130	4	16	82.5	11.5	52	—	25	N°4-M10	
	ME 110/112	8	31.3	28	250	215	180	4.5	16	91	11.5	61	N°4-M12	—	—	
	ME 132	10	41.3	38	300	265	230	5	20	115.5	8	82.5	N°4-M12	—	—	
	ME 160	12	45.3	42	350	300	250	6	20	145	23	110.5	N°4-M16	—	—	
	ME 180	14	51.8	48	350	300	250	6	20	145	23	110.5	N°4-M16	—	—	

	Input type	Shaft			Flange											
		A	B	C	D	E	F	G	H	L	M	N	P	R	S	T
RE 311-511 RE 611 - 612 RE 812-1022 RE 1522-2002-2002L RE 2003 RE 2523-3003 RE 3513-4803 RE 6003 - 6003L RE 6004 - 6004L RE 8004 - 8004L GB 12014 - 12014L GB 21004 - 21005 GB 26005-31005 GB 40005-45005 GB 53005 CC350	ME132	10	41.3	38	300	265	230	5	20	125.5	8	82.5	N°4-M12	—	—	236
	ME160	12	45.3	42	344	300	250	7	20	154.5	23	110.5	N°4-M16	—	—	
	ME180	14	51.8	48	344	300	250	7	20	154.5	23	110.5	N°4-M16	—	—	
	ME225	18	64.4	60	450	400	350	7	20	191.5	30	143.5	N°4-M16	—	—	

	Input type	Shaft			Flange											
		A	B	C	D	E	F	G	H	L	M	N	P	R	S	T
RE 811 RE 1021 RE 2522 RE 3002 RE 3512 RE 8003 - 8003L GB 12013 - 12013L GB 16003L GB 26004 GB 31004 GB 40004 GB 85005 GB 110005 CC600-CC1000	ME200	16	59.3	55	400	350	300	7	18	165	11.5	114.5	N°4-M18	—	—	285
	ME225	18	64.4	60	450	400	350	7	20	194	30.5	143.5	N°8-M18	—	—	
	ME250	18	64	65	550	500	450	7	22	195	17	145	N°8-ø19	—	—	
	ME280	20	79.9	75	550	500	450	7	22	195	12	145	N°8-ø19	—	—	





	n1 x h = 1 500 000 Fa1 max (Fr1 = 0)	
	Fa1 (+)	Fa1 (-)
<b>AV1</b>	4 800	4 800
<b>AV2 - AV3L - AV4</b>	7 800	7 800
<b>AV2S - AV3</b>	4 900	7 800
<b>AV2RS - AV4RS</b>	4 900	4 900

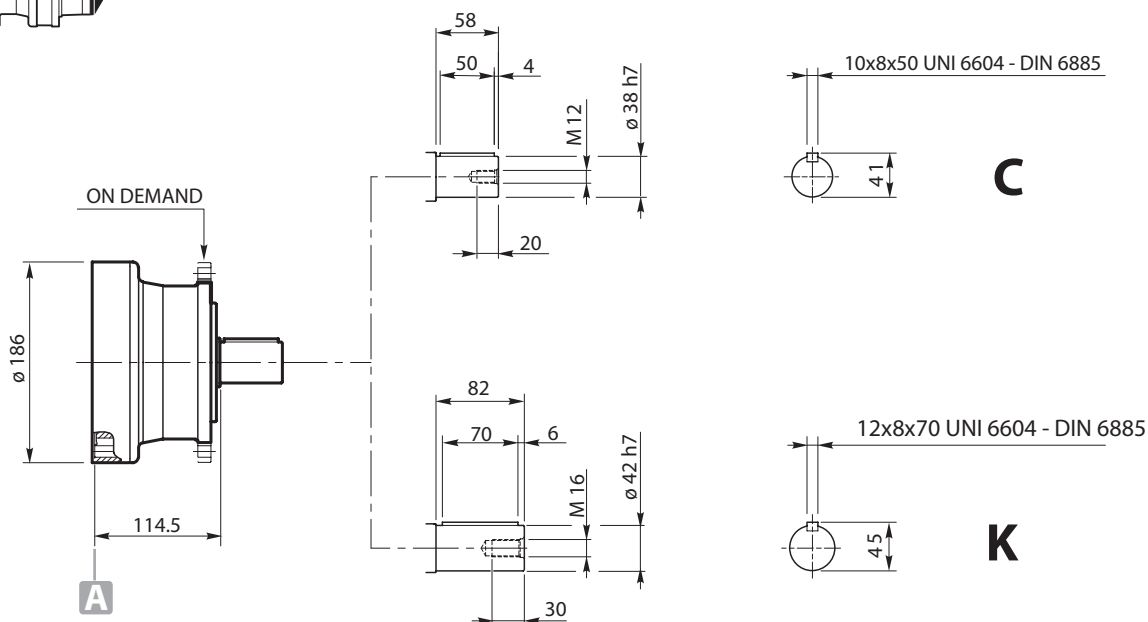


	Type	$\phi A$	B	C	$\phi D$	E	F	G	H	L	M	N	Code
RE 111 - 112 - 113 - 114 RE 211 - 212 - 213 - 214 RE 241 - 242 - 243 - 244 RE 312 - 313 - 314 RE 512 - 513 - 514 RE 613 - 614 - 813 - 814 RE 1023 - 1024 - 1523 - 1524 RE 2000 - 2524 - 3004 - 3514 RE 4804 - 6004L - 8005 - 8005L GB 12015 - 12015L GB 16005 - 16005L CC30-CC120	<b>AV1</b> <b>AV2</b> <b>AV3L</b> <b>AV4</b> <b>AV4RS</b>	186 186 186 186 186	83.5 96.5 96.5 108.5 108.5	58 82 82 65 65	38 42 48 40 40	M12 M12 M16 M12 M12	30 30 40 30 30	10 12 14 12 12	8 8 9 8 8	50 70 70 60 60	4 6 6 2.5 2.5	41 45 51.5 43 43	K0700AH K0700AI K0700AI K0700AX K0700AX

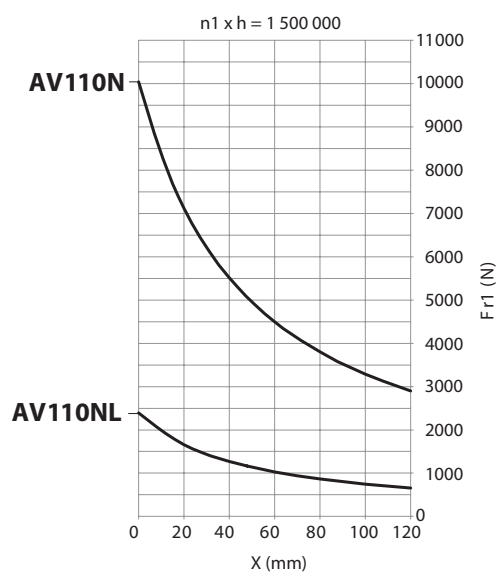
	Type	$\phi A$	B	C	$\phi D$	E	F	G	H	L	M	N	Code
RE 311-511-611-612 RE 812-1022-1522-2003 RE 2523-3003-3513-4803 RE 6003-6003L-6004-6004L RE 8004-8004L GB 12014-12014L-16004-16004L GB 21004-21005-26005-31005 GB 40005-45005-53005 GB 61005 CC350-CC600	<b>AV2</b> <b>AV2S</b> <b>AV2RS</b> <b>AV3</b> <b>AV4</b> <b>AV4RS</b>	244 244 244 244 244 244	106 106 106 106 118 118	82 82 82 82 65 65	42 42 42 48 40 40	M12 M12 M12 M16 M12 M12	30 30 30 40 30 30	12 12 12 14 12 12	8 8 8 9 8 8	70 70 70 70 60 60	6 6 6 6 2.5 2.5	45 45 45 51.5 43 43	K0700DL K0700DL K0700DL K0700DM K0700DJ K0700DJ



# AVF-AV110N-NL

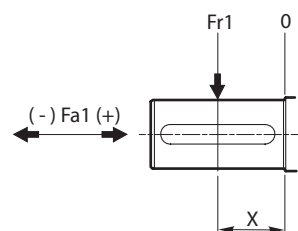
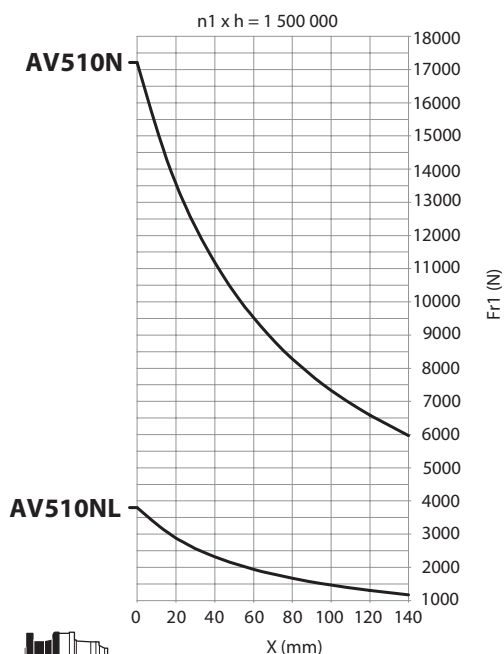
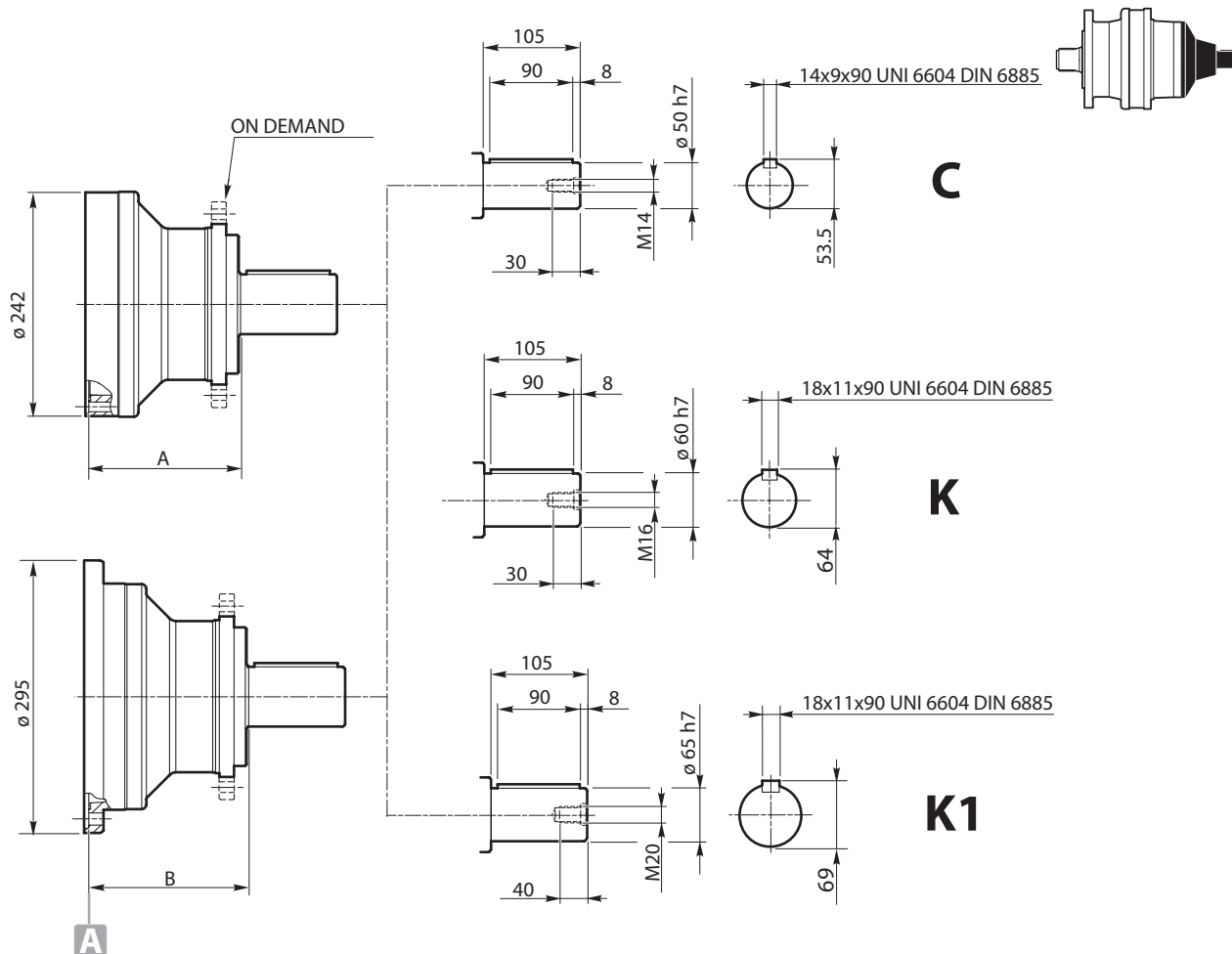


Code	
RE 111 - 112 - 113 - 114	K0700AY
RE 211 - 212 - 213 - 214	
RE 241 - 242 - 243 - 244	
RE 312 - 313 - 314	
RE 512 - 513 - 514	
RE 613 - 614	
RE 813 - 814	
RE 1023 - 1024	
RE 1523 - 1524	
RE 2004	
RE 2524	
RE 3004	
RE 3514	
RE 4804	
RE 6004L	
RE 8005 - 8005L	
GB 12015 - 12015L	
GB 16005 - 16005L	
CC30-CC120	



n1 x h = 1 500 000 Fa1 max (Fr1 = 0)		
	Fa1 (+)	Fa1 (-)
AV110N	4 900	7 800
AV110NL	3 750	3 750



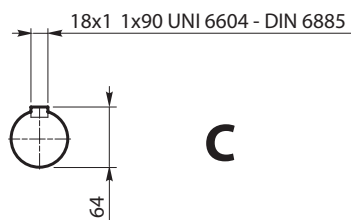
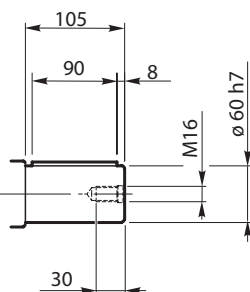
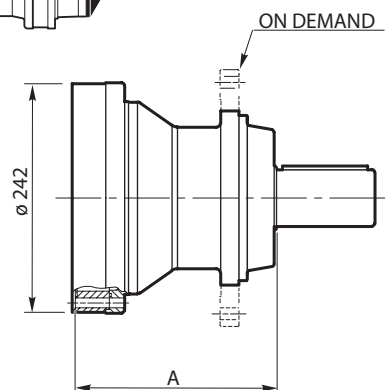
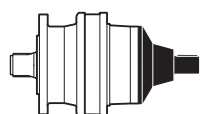


n1 x h = 1 500 000 Fa1 max (Fr1 = 0)		
	Fa1 (+)	Fa1 (-)
AV510NL	6 600	6 600
AV510N	15 250	15 250

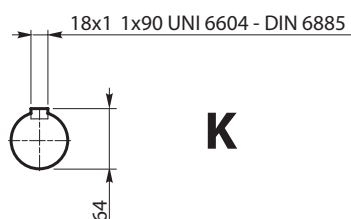
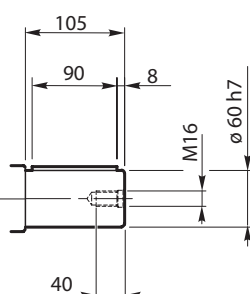
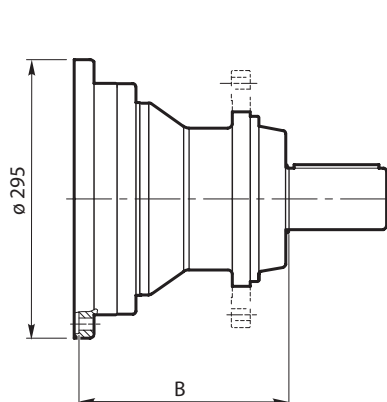


	A	B
RE 311-511-611-612-812-1022-1522-2003-2523-3003-3513-4803-6003-6003L	164	—
RE 6004-6004L-8004-8004L	164	—
GB 12014-12014L-16004-16004L-21004-21005-26005-31005-40005-45005	164	—
GB 53005-61005	—	172.5
RE 811-1021-2522-3002-3512-8003-8003L	—	172.5
GB 12013-12013L-16003L-26004-31004-40004-85005-110005	—	172.5
CC350	128	—
CC600	—	153





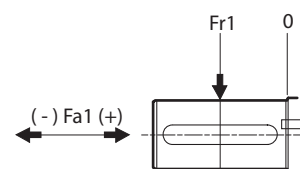
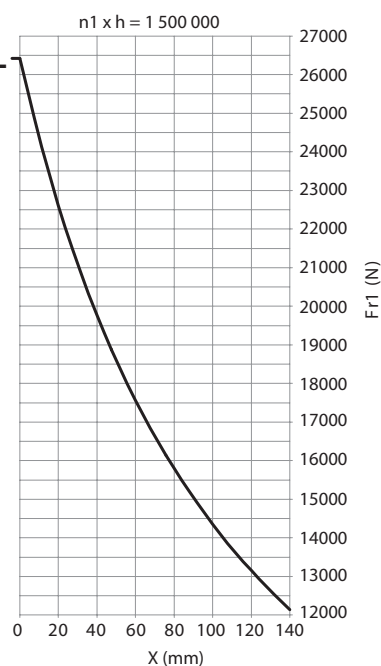
**C**



**K**

**A**

**AV510TL**



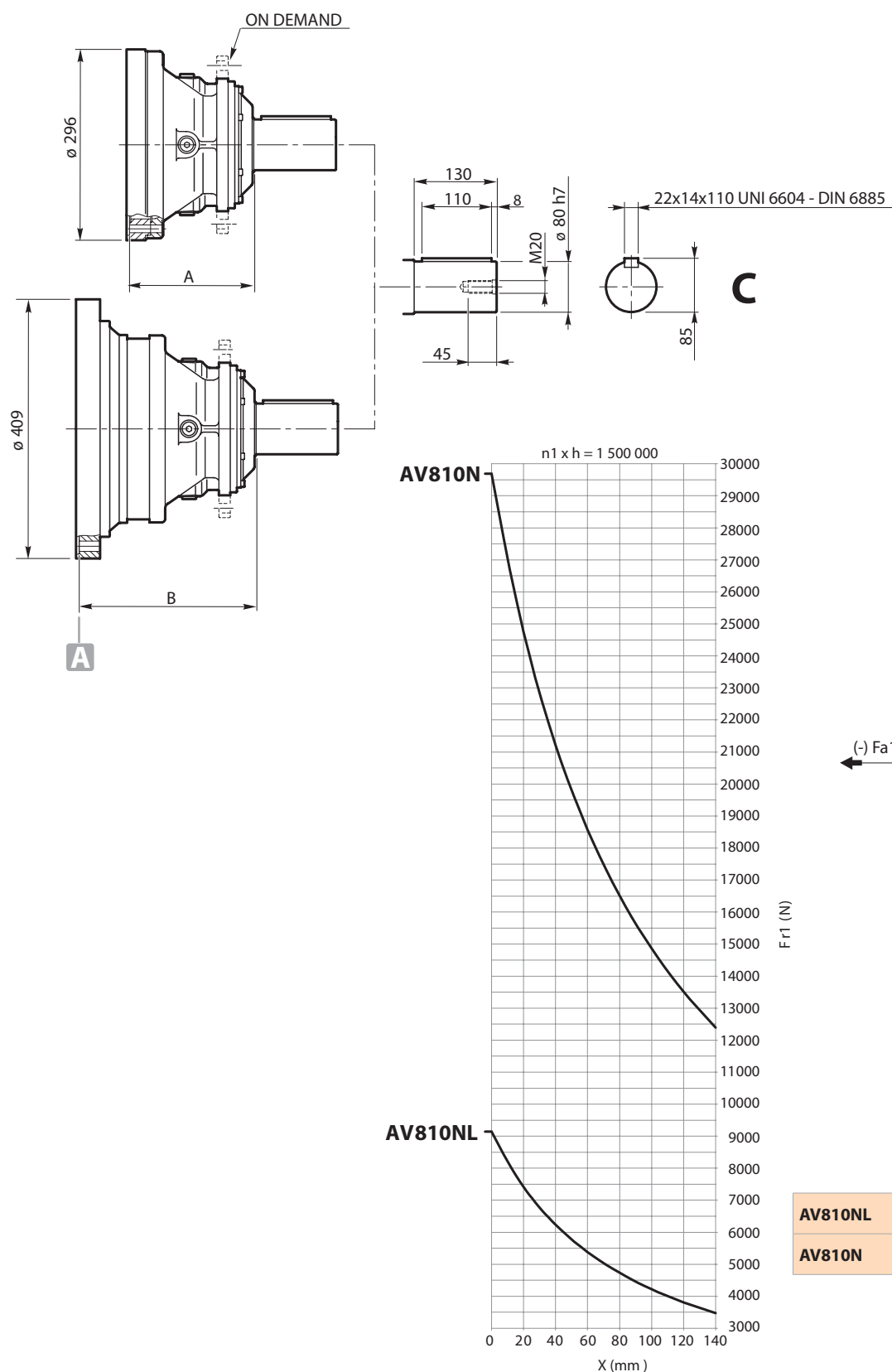
$n1 \times h = 1\,500\,000$   
Fa1 max (Fr1 = 0)

	Fa1 (+)	Fa1 (-)
<b>AV510TL</b>	21 600	21 600



	A	B
RE 311-511-611-612-812-1022-1522-2003-2523-3003-3513-4803-6003-6003L	212	—
RE 6004-6004L-8004-8004L	212	—
GB 12014-12014L-16004-16004L-21004-21005-26005-31005-40005-45005	212	—
GB 53005-61005	212	—
RE 811-1021-2522-3002-3512-8003-8003L	—	221
GB 12013-12013L-16003L-26004-31004-40004-85005-110005	—	221
CC350	176	—
CC600	—	201

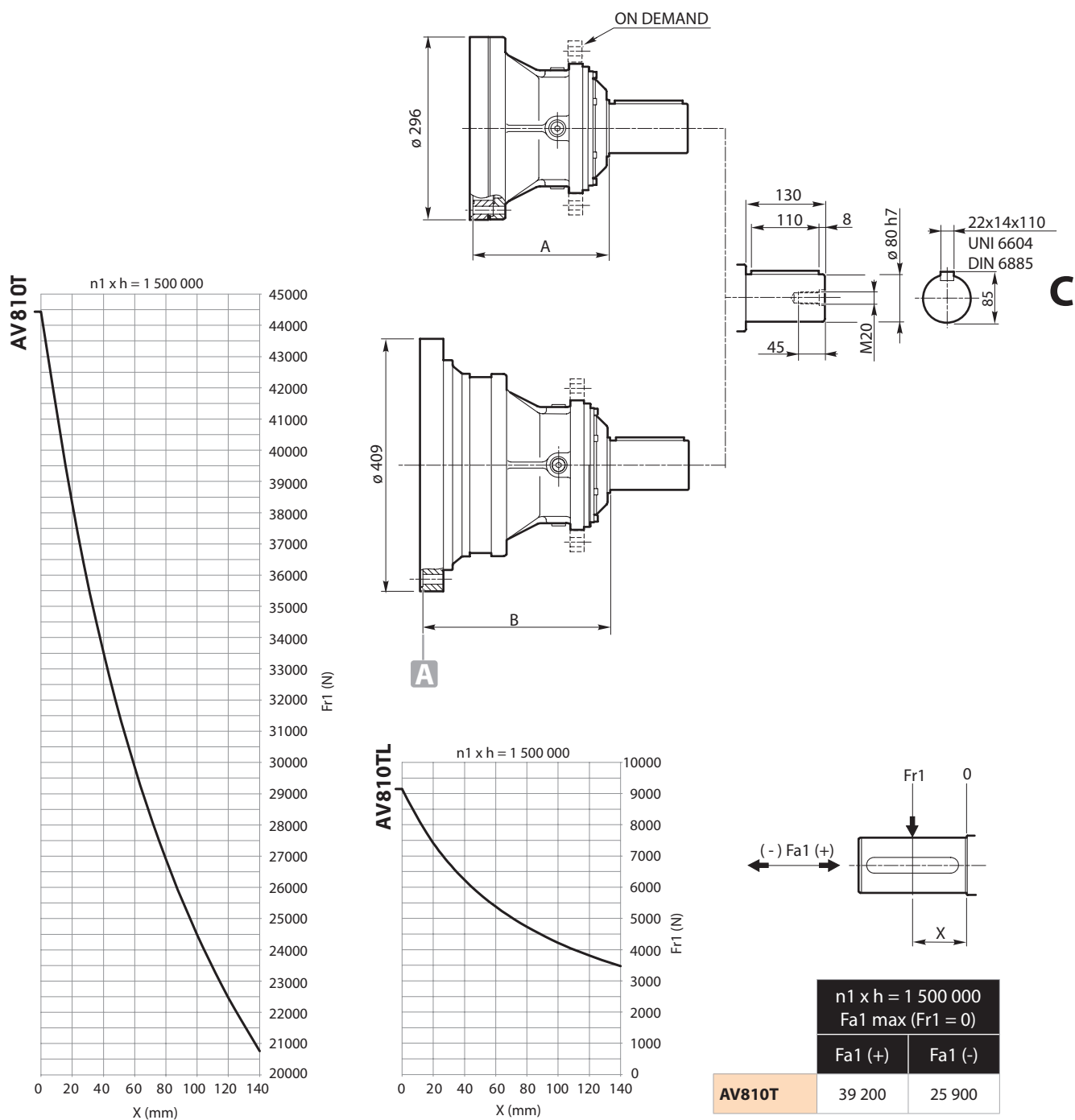




	A	B
RE 811-1021-2522-3002-3512-8003-8003L	195.5	—
GB 12013-12013L-16003L-26004-31004-40004-85005-110005	195.5	—
RE 2521-3001-8002-8002L	—	278
GB 12012-12012L-26003-31003-40003-85004-110004-205005-235005	—	278
CC600	162.5	—
CC1000	162.5	—

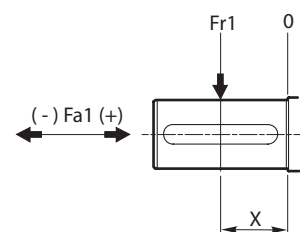
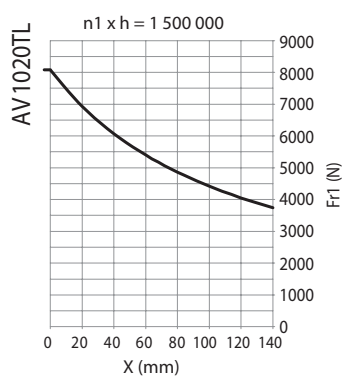
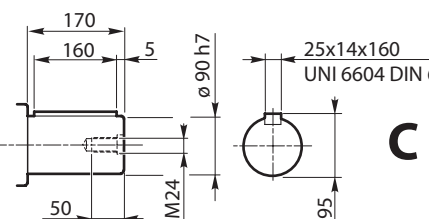
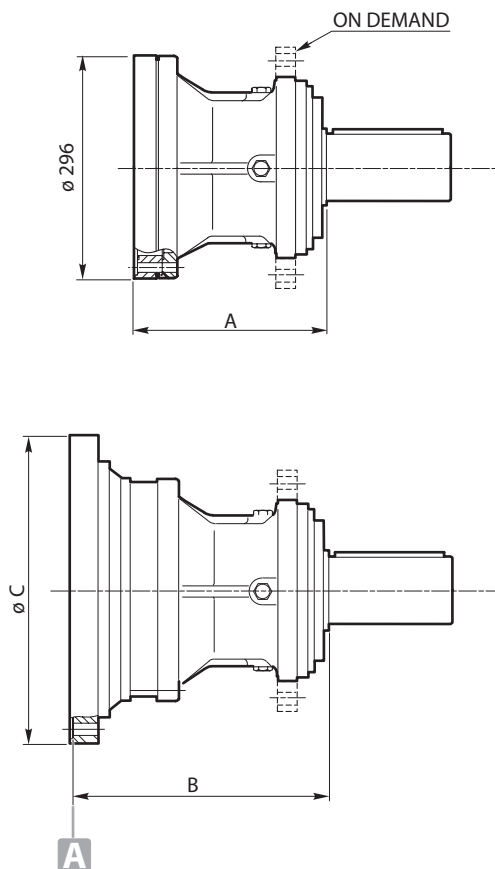
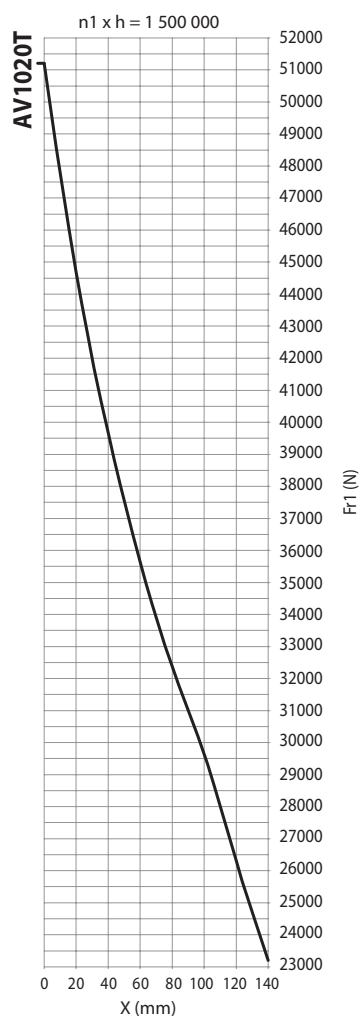


# AVF-AV810T-TL



	A	B
RE 811-1021-2522-3002-3512-8003-8003L	218	—
GB 12013-12013L-16003L-26004-31004-40004-85005-110005	218	—
RE 2521-3001-8002-8002L	—	296
GB 12012-12012L-26003-31003-40003-85004-110004-205005-235005	—	296
CC600	185	—
CC1000	185	—





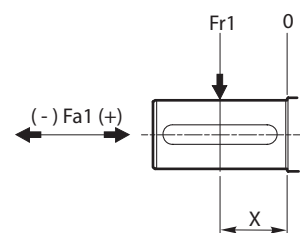
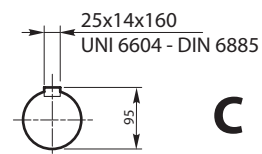
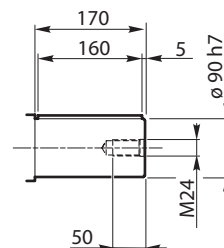
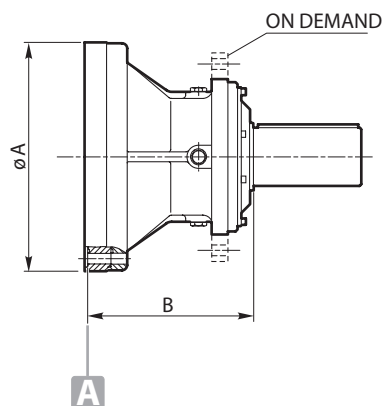
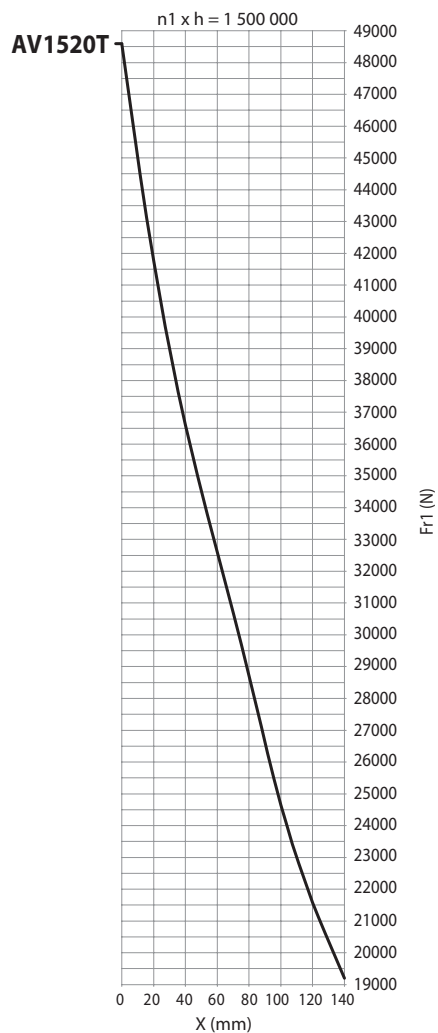
$n1 \times h = 1\,500\,000$ Fa1 max (Fr1 = 0)		
	Fa1 (+)	Fa1 (-)
AV1020T	46 450	26 850



	A	B	C
RE 811-1021-2522-3002-3512-8003-8003L	249	—	—
GB 12013-12013L-16003L-26004-31004-40004-85005-110005	249	—	—
RE 2521-3001-8002-8002L	—	327	409
GB 12012-12012L-26003-31003-40003-85004-110004	—	327	409
RE 3511-4801	—	348	452
GB 16002-16002L-45003-130004	—	348	452
CC1000	216	—	—



# AVF-AV1520T

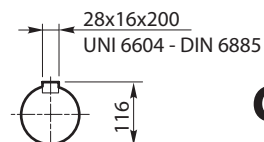
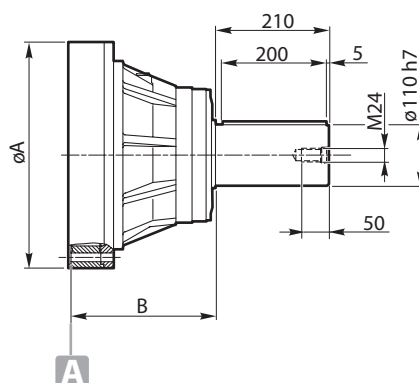
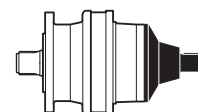
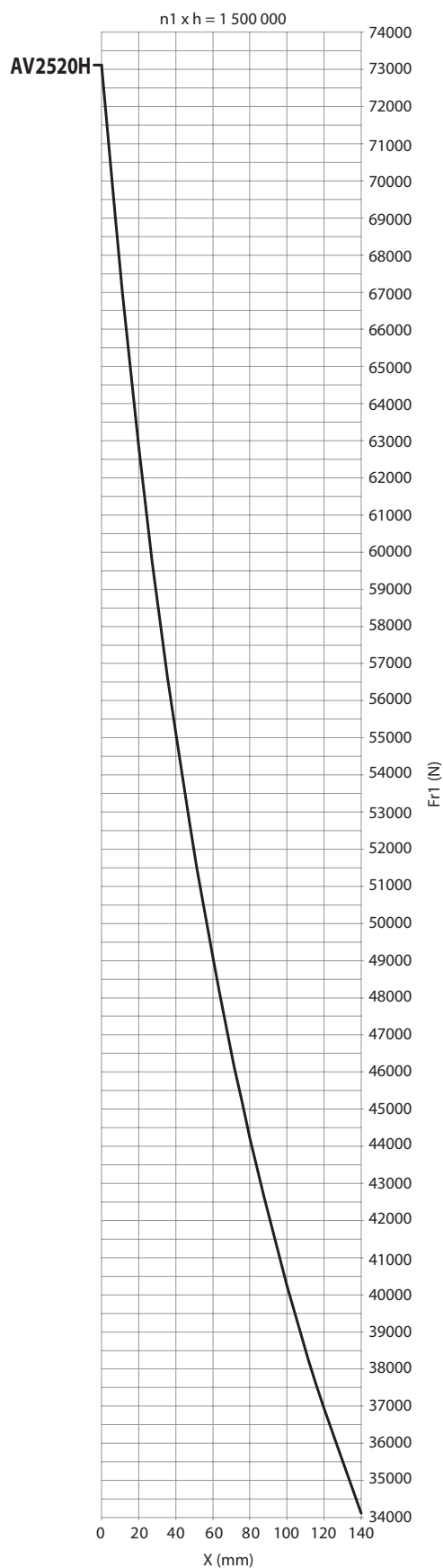


$n1 \times h = 1\,500\,000$ Fa1 max (Fr1 = 0)		
	Fa1 (+)	Fa1 (-)
AV1520T	26 000	8 500

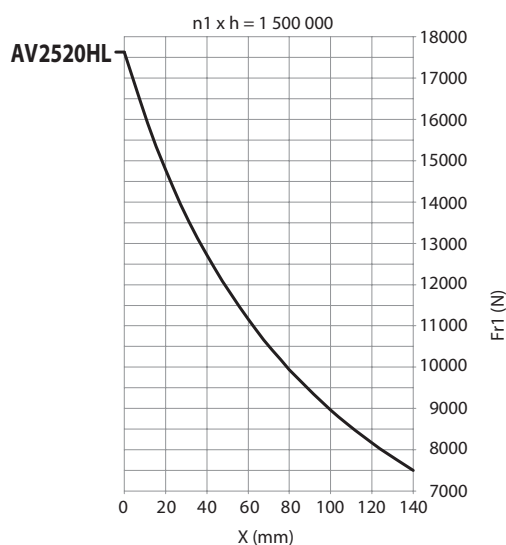
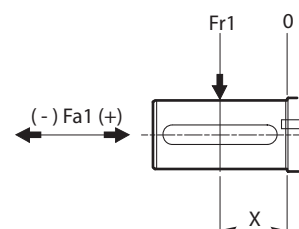


	A	B
RE 1521-2001-6002-6002L	353	252
GB 21003-45004-53004-61004-130005	353	252
RE 6001	490	321
GB 21002-53003-61003-150004	490	321





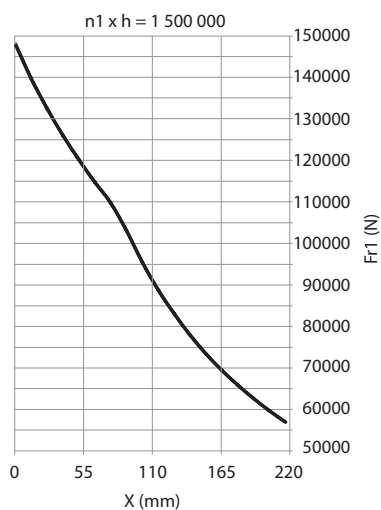
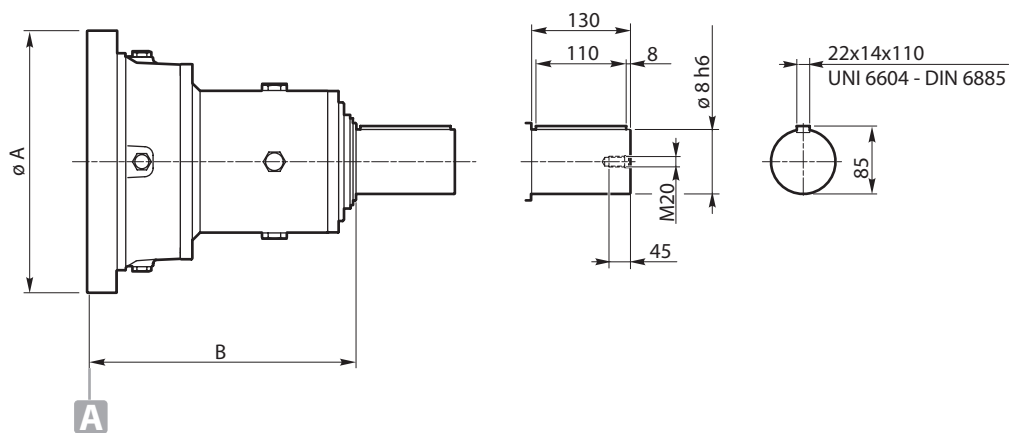
	n1 x h = 1 500 000 Fa1 max (Fr1 = 0)	
	Fa1 (+)	Fa1 (-)
AV2520H	66 000	50 000
AV2520HL	29 700	29 700



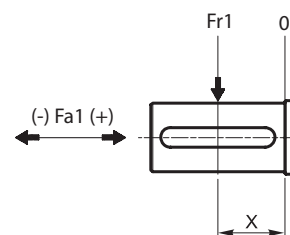
	A	B
RE 2521-3001-8002-8002L	409	257
GB 12012-12012L--26003-31003-40003	409	257
GB 85004-110004-205005-235005		
RE 3511-4801	452	320
GB 16002-16002L-45003-130004	452	320
RE 6001	490	293
GB 21002-53003-61003-150004	490	293
RE 8001	490	385
GB 26002-85003	490	385
GB 12011-16001-31002-40002-45002-110003		
GB 130003-205004-235004	368	610



# AV80

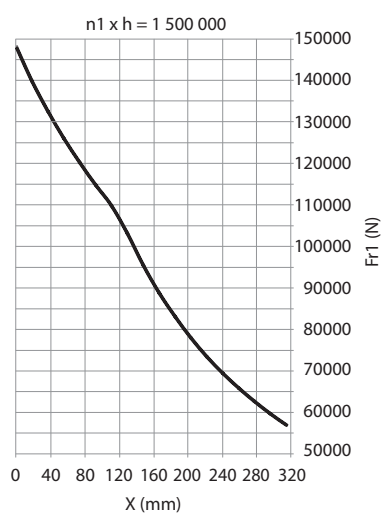
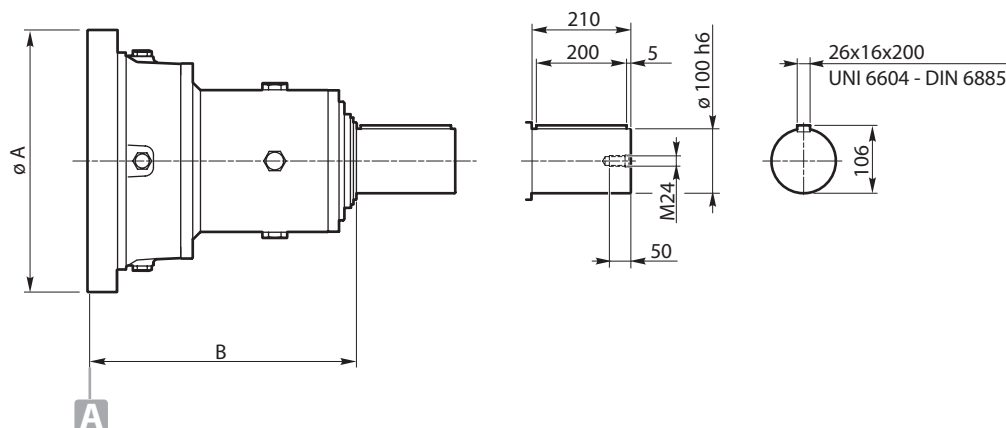
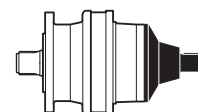


	n1 x h = 1 500 000 Fa1 max (Fr1 = 0)	
	Fa1 (+)	Fa1 (-)
AV80	31 700	31 700



	A	B
RE 811-1021-2522-3002-3512-80003-8003L	295	187.5
GB 12013-12013L-16003L-260004-31004-40004-85005-110005	295	187.5
RE 2521-3001-8002-8002L	409	298
GB 12012-12012L-26003-31003-40003-85004-110004-205003	409	298





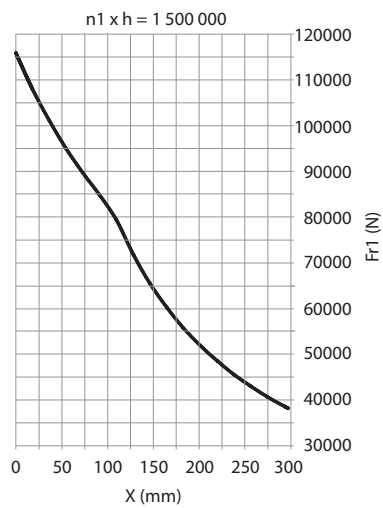
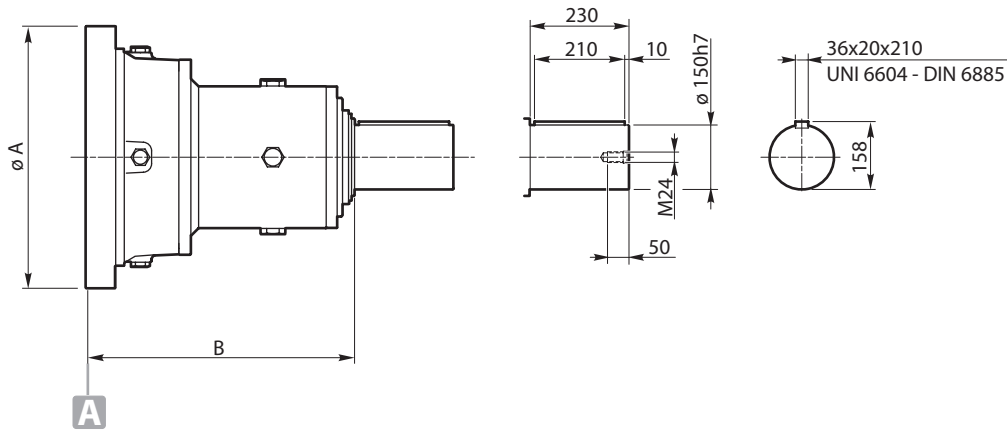
n1 x h = 1 500 000 Fa1 max (Fr1 = 0)		
Fa1 (+)	Fa1 (-)	
<b>AV100</b> 52 000	-	



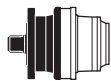
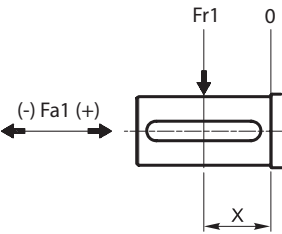
	A	B
RE 3511-4801	452	464.5
GB 16002-45003-130004	452	464.5
RE 6001-8001	490	437
GB 21002-26002-53003-61003-85003-150004	490	437
GB 12011-16001	610	550
GB 31002-40002-45002-110003-130003-150003-205004-235004	610	550



# AV150

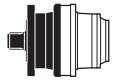
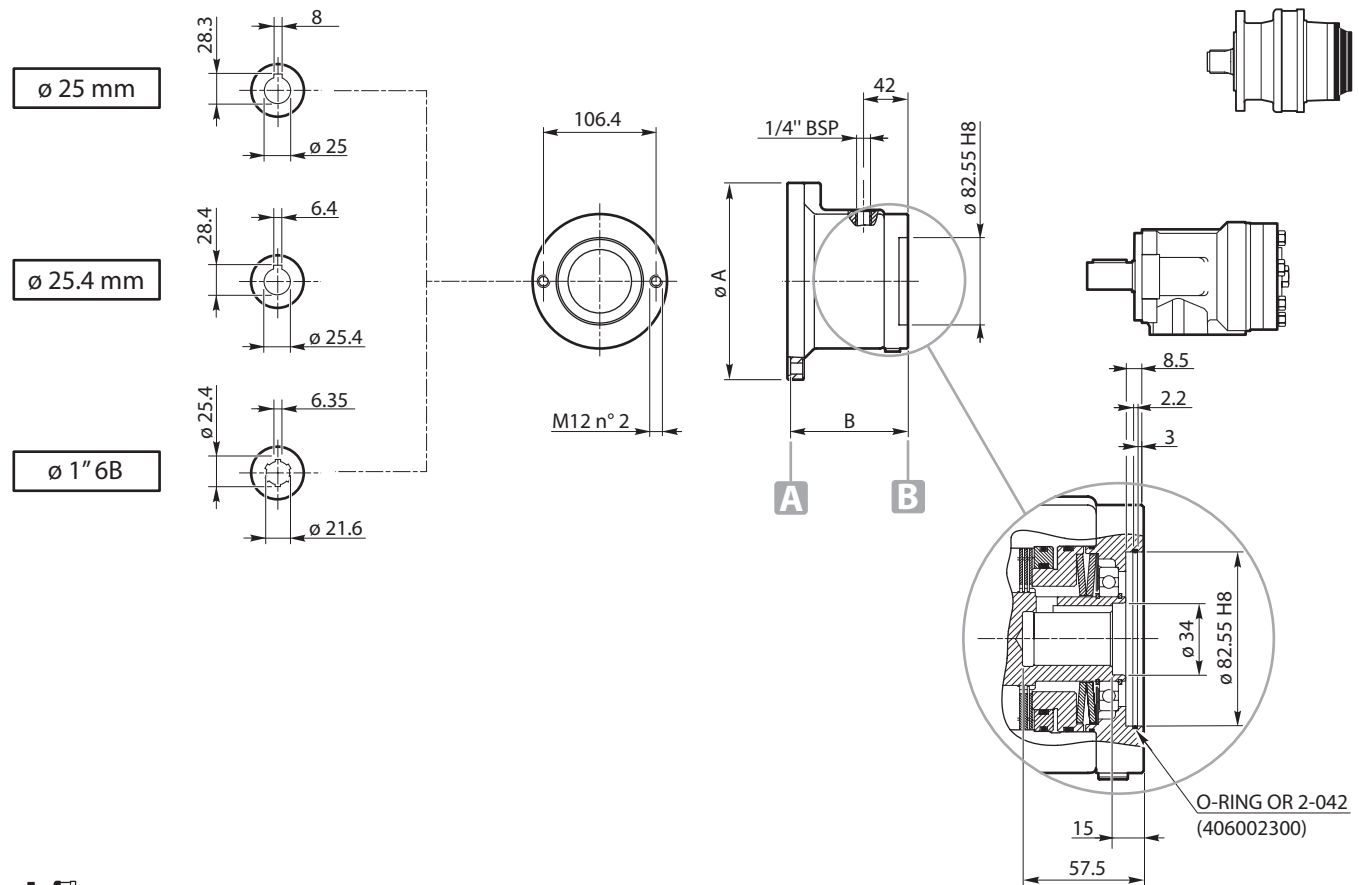



AV150	n1 x h = 1 500 000 Fa1 max (Fr1 = 0)	
	Fa1 (+)	Fa1 (-)
	63 000	-



	A	B
RE 6001-8001	490	634
GB 21002-26002-53003-61003-150004	490	634
GB 12011-16001	610	626
GB 31002-40002-45002-110003-130003-15000-205004-235004	610	626



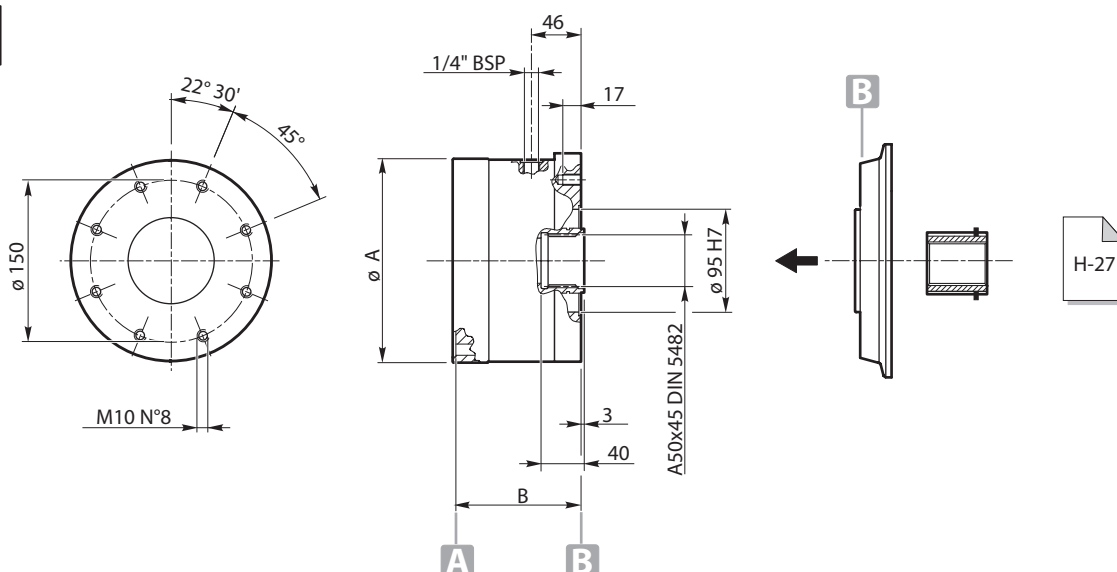
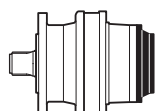



	Ø A	B		F 01	F 10	F 11	F 12	F 13	F 14	F 05	F 16		
RE 111 - 112 - 113 - 114 RE 211 - 212 - 213 - 214 RE 241 - 242 - 243 - 244 RE 312 - 313 - 314 RE 512 - 513 - 514 RE 613 - 614 RE 813 - 814 RE 1023 - 1024 RE 1523 - 1524 RE 2004 RE 2524 RE 3004 RE 3514-4804 RE 6004L RE 8005 - 8005L GB 12015 - 12015L GB 16005 - 16005L CC30-CC120	186	109.5	<b>Tb</b> (Nm)	132	133	182	235	332	468	530	608	±5%	
			<b>pb</b> (bar)	23	29	34	26	30	36	39	42		
			<b>p max</b> (bar)	300									
			<b>n1 max</b> (RPM)	700									

	Ø A	B		F 02	F 20	F 21	F 22	F 23	F 24	F 25	F 26		
RE 311-511 RE 611 - 612 RE 812-1022 RE 1522-2003 RE 2523-3003 RE 3513-4803 RE 6003 - 6003L RE 6004 - 6004L RE 8004 - 8004L GB 12014 - 12014L GB 16004 - 16004L GB 21004 - 21005 GB 26005-31005 GB 40005-45005 GB 53005 CC350	244	118.5	Tb (Nm)	132	133	182	235	332	468	530	608	±5%	
			pb (bar)	23	29	34	26	30	36	39	42		
			p max (bar)	300									
			n1 max (RPM)	700									



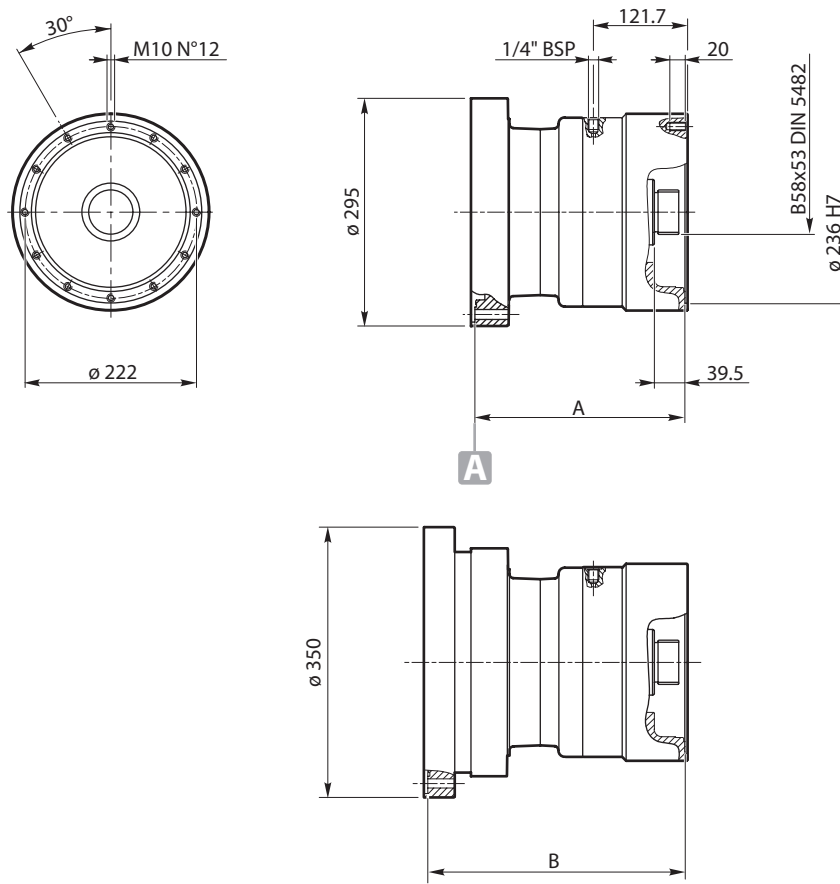
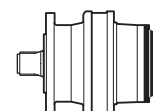
# F5-F6




	Ø A	B		F 501	F 502	F 503	F504	F505	F506	F 508		
RE 111 - 112 - 113 - 114 RE 211 - 212 - 213 - 214 RE 241 - 242 - 243 - 244 RE 312 - 313 - 314 RE 512 - 513 - 514 RE 613 - 614 RE 813 - 814 RE 1023 - 1024 RE 1523 - 1524 RE 2004 RE 2524 RE 3004 RE 3514-4804 RE 6004L RE 8005 - 8005L GB 12015 - 12015L GB 16005 - 16005L CC30 CC120	186	115	<b>Tb</b> (Nm)	110	215	325	405	500	630	818	±5%	
			<b>pb</b> (bar)	10	20	30	38	28	35	33		
			<b>p max</b> (bar)	300								
			<b>n1 max</b> (RPM)	1500 (standard)								
				3500 (special)								

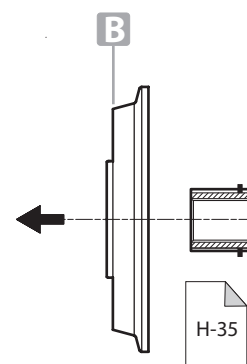
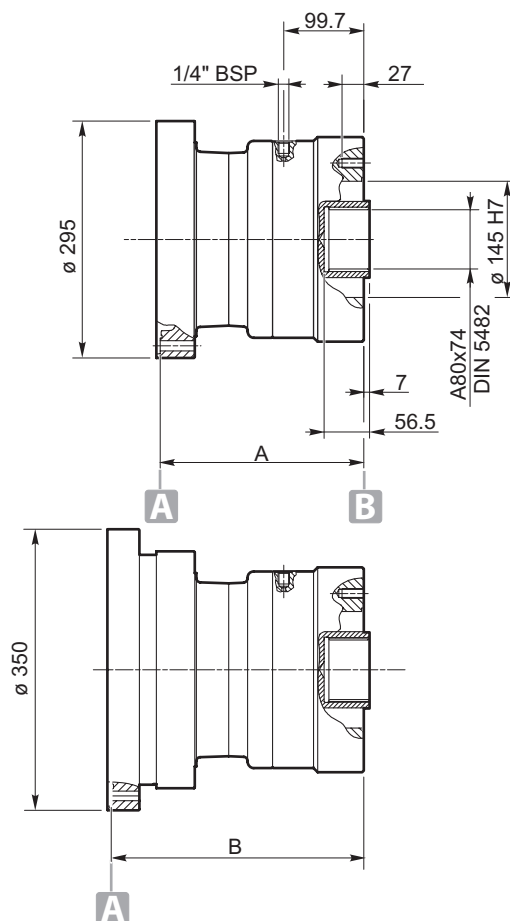
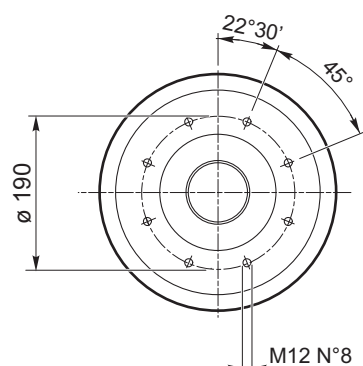
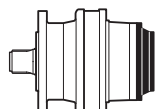
	∅ A	B		F 601	F 602	F 603	F604	F 605	F 606	F608	F610	F612		
RE 311-511 RE 611 - 612 RE 812-1022 RE 1522-2003 RE 2523-3003 RE 3513-4803 RE 6003 - 6003L RE 6004 - 6004L RE 8004 - 8004L GB 12014 - 12014L GB 16004 - 16004L GB 21004 - 21005 GB 26005-31005 GB 40005-45005 GB 53005 CC350	244	125	Tb (Nm)	110	215	325	405	500	630	818	1005	1150	±5%	
			pb (bar)	10	20	30	38	28	35	33	40	40		
			p max (bar)	300										
			n1 max (RPM)	1500 (standard)										
				3500 (special)										






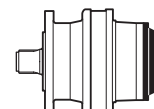
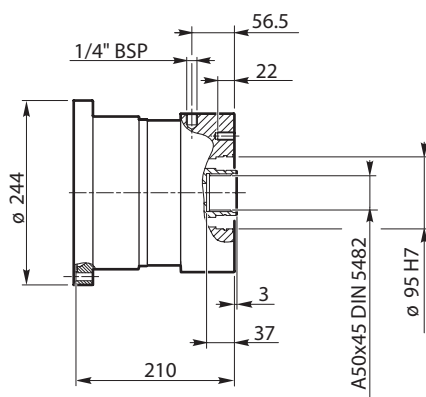
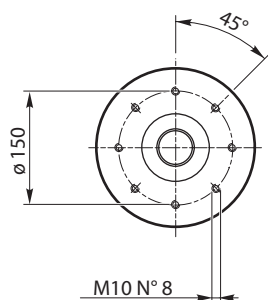
	A	B		F 813	F 815	F 818	F 820	F 823	F 827	F 830	
RE 811 RE 1021 RE 1521-2001 RE 2522-3002 RE 3512-4801 RE 6002-6002L RE 8003-8003L GB 12013-12013L GB 16003L GB 16003 GB 21003 GB 26004 GB 31004 GB 40004 GB 45004 GB 53004 GB 61004 GB 85005 GB 110005 GB 130005 GB 150005 CC600 CC1000	272.5	-	Tb (Nm)	1271	1525	1780	2034	2288	2670	3051	±5%
	272.5	-									
	-	314.5									
	272.5	-	pb (bar)	54	65	76	58	65	76	87	
	272.5	-									
	-	314.5									
	272.5	-									
	272.5	-									
	-	314.5									
	272.5	-	p max (bar)								
	272.5	-									
	-	314.5									
	-	314.5									
	-	314.5									
	272.5	-									
	272.5	-	n1 max (RPM)								
	-	314.5									
	-	314.5									
	272.5	-									
	272.5	-									
-	314.5										
272.5	-										
272.5	-										
292.5	-										
292.5	-										



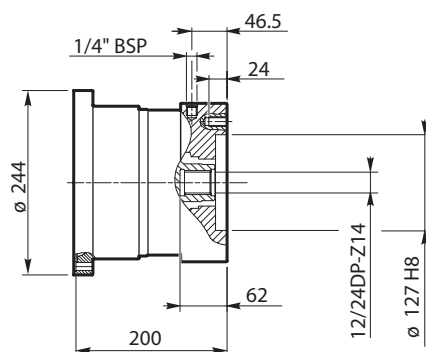
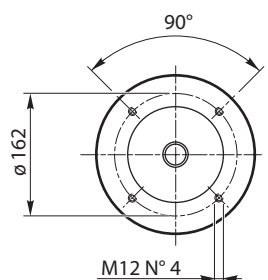


	A	B		F 813	F 815	F 818	F 820	F 823	F 827	F 830	
 RE 811 RE 1021 RE 1521-2001 RE 2522-3002 RE 3512-4801 RE 6002-6002L RE 8003-8003L GB 12013-12013L GB 16003L GB 16003 GB 21003 GB 26004 GB 31004 GB 40004 GB 45004 GB 53004 GB 61004 GB 85005 GB 110005 GB 130005 GB 150005 CC600 CC1000	253.5	-	<b>Tb</b> (Nm)	1271	1525	1780	2034	2288	2670	3051	±5%
	253.5	-									
	-	314.5									
	253.5	-									
	253.5	-									
	-	314.5									
	253.5	-									
	253.5	-									
	253.5	-									
	-	314.5									
	-	314.5									
	253.5	-	<b>p max</b> (bar)	300							
	253.5	-									
	253.5	-									
	-	314.5									
	-	314.5									
	253.5	-	<b>n1 max</b> (RPM)	1500 (standard)							
	253.5	-									
	-	314.5									
	-	314.5									
253.5	-										
253.5	-										
253.5	-	<b>n1 max</b> (RPM)	3500 (special)								
253.5	-										
253.5	-										
253.5	-										

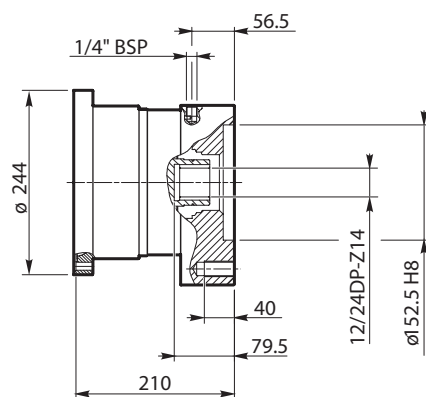
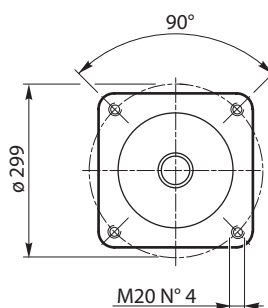




**ST**



**SAE "C"**



**SAE "D"**

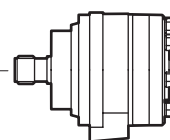
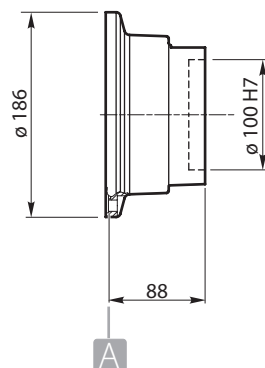
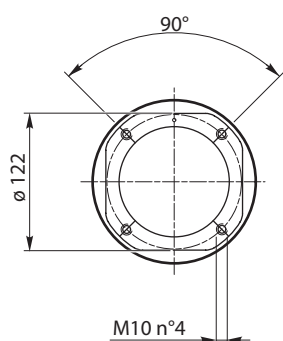
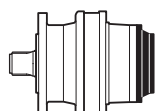


RE 311-511  
RE 611 - 612  
RE 812-1022  
RE 1522-2003  
RE 2523-3003  
RE 3513-4803  
RE 6003 - 6003L  
RE 6004 - 6004L  
RE 8004 - 8004L  
GB 12014 - 12014L  
GB 16004 - 16004L  
GB 21004 - 21005  
GB 26005-31005  
GB 40005-45005  
GB 53005  
CC350

	F 902	F 903	F 904	F 905	F 906	F 908	F 910	F 912	F 915	
<b>Tb</b> (Nm)	244	317	439	488	683	854	976	1120	1465	±5%
<b>pb</b> (bar)	16	21	20	16	23	23	26	32	39	
<b>p max</b> (bar)	300									
<b>n1 max</b> (RPM)	1500 (standard)									
	3500 (special)									


Upon request, brakes up to size F912 can be equipped with freewheeling clutch.





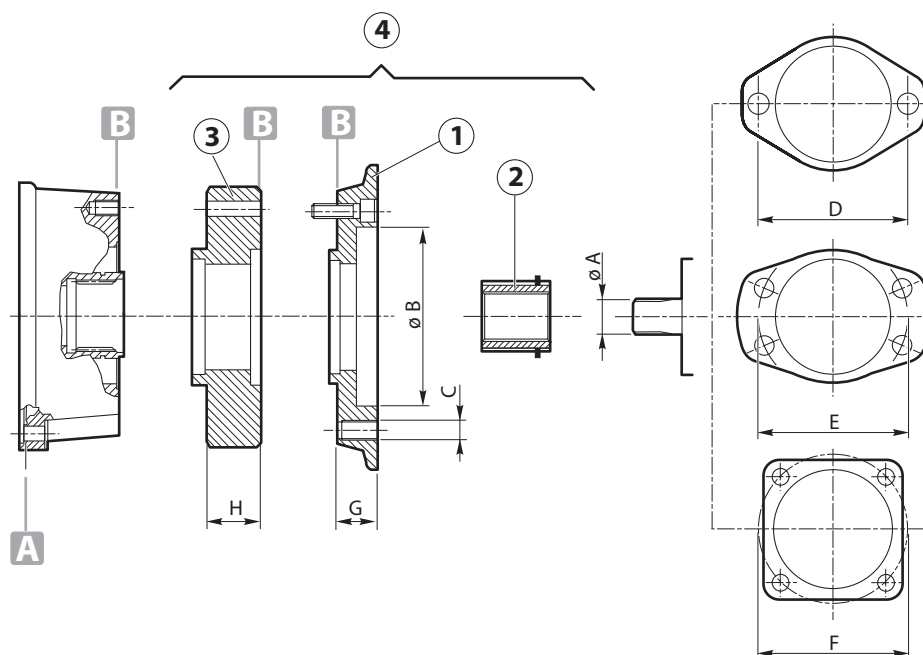
MLR





		20	30	40	45	
RE 111 - 112 - 113 - 114 RE 211 - 212 - 213 - 214 RE 241 - 242 - 243 - 244 RE 312 - 313 - 314 RE 512 - 513 - 514 RE 613 - 614 RE 813 - 814 RE 1023 - 1024 RE 1523 - 1524 RE 2004 RE 2524 RE 3004 RE 3514-4804 RE 6004L RE 8005 - 8005L GB 12015 - 12015L GB 16005 - 16005L	Tb (Nm)	220	308	396	459	+5%
	pb (bar)	24	24	24	26	
	p max (bar)	150				
	n1 max (RPM)	700				





AXIAL PUMP	øA	øB	øC	øD	E	F	G	H	1	2	3	4
M1 15-21	ø 19	82.55	M12	106.4	—	—	26	—	20300047	40000659	—	AQ
M2 24-50	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M2 24-50	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
M3 40-65	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M3 40-65	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB

DANFOSS	øA	øB	øC	øD	E	F	G	H	1	2	3	4
OMM	ø 16	63	M8	80	—	—	14	—	40000698	40000694	—	CE
OMP 25-400	ø 25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
OMP 25-400	ø 25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
OMP 25-400	1" B6	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
OMP 25-400	ø 32	82.55	M12	106.4	—	—	38	—	2511001	40000665	—	AD
OMR 50-375	ø 25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
OMR 50-375	ø 25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
OMR 50-375	1" B6	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
OMR 50-375	ø 32	82.55	M12	106.4	—	—	38	—	02511001	40000665	—	AD
OMH 200-500	ø 32	82.55	M12	106.4	—	—	38	—	02511001	40000665	—	AD
OMH 200-500	12/24-14	82.55	M12	106.4	—	—	38	—	02511001	40000672	—	AE
OMS 80-400	ø 31.75	82.55	M12	106.4	—	—	38	—	02511001	40000664	—	UL
OMS 80-400	ø 32	82.55	M12	106.4	—	—	38	—	02511001	40000665	—	AD
OMS 80-400	12/24-14	82.55	M12	106.4	—	—	38	—	02511001	40000672	—	AE
OMS 80-400 SPEC.	12/24-14	82.55	M10	106.4	—	—	30	—	40000681	40000672	—	CV
OMSS 80-400	12/24-12	100	M10	—	—	125	21	—	02511017	02241030	—	TR
OMTS 160-500	12/24-16	125	M12	160	—	—	42	—	02511081	02241082	—	UR
OMT 160-500	12/24-17	125	M12	—	—	160	86	—	40001833	40000674	—	CI
OMT 160-500	ø 40	125	M12	—	—	160	78	—	02511041	02241051	—	TW
OMT 160-500(US)	12/24-17	127	M12	—	—	150	79.5	—	02511166	40000674	—	DF
OMV 315-800	Ø50	160	M16	—	—	200	140	—	02511006	02591003	—	VM
OMVS 315-800	10/20-16	125	M12	—	—	160	42	—	02511085	02241086	—	US
MTM	12/24-17	127	M12	—	—	162	29	38	02511108	40000674	02731111	UY



EATON (CHAR-LYNN)	øA	øB	øC	øD	E	F	G	H	1	2	3	4
SERIE 2000	ø 25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
SERIE 2000	Ø25	82.55	M12		106.4		26		40000680	40000649		BN
SERIE 2000	ø 25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
SERIE 2000	ø 31.75	82.55	M12	106.4	—	—	26	—	20300047	40000664	—	AR
SERIE 2000	ø 32	82.55	M12	106.4	—	—	38	—	2511001	40000665	—	AD
SERIE 2000	1"6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
SERIE 2000	12/24-14	82.55	M12	106.4	—	—	26	—	20300047	40000672	—	AU
SERIE 4000	12/24-14	101.6	M12			127	20		40000635	40000672		EH
SERIE 4000	12/24-17	127	M12	—	—	162	29	—	02511108	40000674	—	BH
SERIE 6000	12/24-17	127	M12	—	—	162	29	14	02511108	02971179	02731096	CQ
SERIE 6000	ø 40	127	M12	—	—	162	29	38	02511108	02241057	02731111	TV
SERIE 6000	8.5/17	127	M12	—	—	162	29	38	02511108	02241076	02731111	UH

HP HYDRAULIC	øA	øB	øC	øD	E	F	G	H	1	2	3	4
M4PV21-28	ø 25.4	101.6	M14	146	—	—	20	—	40000635	40000645	—	AV
M4PV21-28	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M4PV21-28	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
M4MF 21-28	ø 25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
M4MF 21-28	16/32- 1 3	82.55	M12	106.4	—	—	26	—	20300047	40000657	—	AP
M4MF 21-28	16/32-15	82.55	M12	106.4	—	—	26	—	20300047	40000671	—	AT
M4PV 34-65	ø 25.4	101.6	M14	146	—	—	20	—	40000635	40000645	—	AV
M4PV 34-65	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M4PV 34-65	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
M4MF 34-65	ø 25.4	101.6	M14	146	—	—	20	—	40000635	40000645	—	AV
M4MF 34-65	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M4MF 34-65	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
M4MV 34-65	ø 25.4	101.6	M14	146	—	—	20	—	40000635	40000645	—	AV
M4MV 34-65	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M4MV 34-65	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB

LINDE	øA	øB	øC	øD	E	F	G	H	1	2	3	4
HMF 35	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
HMF 50-75	16/32-21	127	M16	181	—	—	34	—	02511108	40000654	—	CF
HMF 105	16/32-23	127	M16	181	—	—	34	—	40001811	40000686	—	CH
HMF 135	16/32-27	152.4	M20	228.5	—	—	35	—	40001844	02241123	—	CZ
HMR 135	16/32-27	152.4	M20	228.5	—	—	35	—	40001844	02241123	—	CZ
BPV 70	W35x2	127	M12	162	—	—	25	—	02511108	40000670	—	VK

M + S	øA	øB	øC	øD	E	F	G	H	1	2	3	4
EPMM 8-50	ø 14	63	M8	80	—	—	14	—	40000698	40000658	—	CD
EPM M 8-50	ø 16	63	M8	80	—	—	14	—	40000698	40000694	—	CE
EPM 40-630	ø 25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
EPM 40-630	ø 25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
EPM 40-630	1" 6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
EPM 40-630	25/22-14	82.55	M12	106.4	—	—	26	—	20300047	40000647	—	AL
EPM 40-630	12/24-14	82.55	M12	106.4	—	—	38	—	2511001	40000672	—	AE
EPM 40-630	ø 32	82.55	M12	106.4	—	—	38	—	2511001	40000665	—	AD
EPRM 50-400	ø 25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
EPRM 50-400	ø 25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
EPRM 50-400	1" 6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
EPRM 50-400	25/22-14	82.55	M12	106.4	—	—	26	—	20300047	40000647	—	AL
EPRM 50-400	12/24-14	82.55	M12	106.4	—	—	38	—	2511001	40000672	—	AE
EPRM 50-400	ø 32	82.55	M12	106.4	—	—	38	—	2511001	40000665	—	AD
EPMS 80-400	ø 31.75	82.55	M12	106.4	—	—	38	—	2511001	40000664	—	AG
EPMS 80-400	ø 32	82.55	M12	106.4	—	—	38	—	2511001	40000665	—	AD
EPMS 80-400	12/24-17	82.55	M12	106.4	—	—	38	—	2511001	40000674	—	AF
EPMT 160-500	12/24-17	125	M12	—	—	160	86	—	40001833	40000674	—	CI
MTS 250	12/24-16	125	M12	160			42		02511081	02241082		UR



REXROTH	øA	øB	øC	øD	E	F	G	H	1	2	3	4
A2FE 45	W30x2	160	M16	200			107.5		02511250	40000669		ER
A2FE 56	W30x2	160	M16	200			107.5		02511250	40000669		ER
A2FE 80	W35x3	190	M20	224			133		02511281	40000670		ES
A2FM 10-16	ø 25	80	M8	—	—	100	36.5	—	40001842	40000649	—	CL
A2FM 10-16	W25x1.25	80	M8	—	—	100	36.5	—	40001842	40000668	—	CM
A2FM 23-32	ø 25	100	M10	—	—	125	48	—	40000682	40000649	—	BS
A2FM 23-32	W25X1.25	100	M10	—	—	125	48	—	40000682	40000668	—	BT
A2FM 23-32	W30x2	100	M10	—	—	125	48	—	40000682	40000669	—	BU
A2FM 45-63	W30x2	125	M12	—	—	160	44	—	40000684	40000669	—	CA
A2FM 45-63	W35x2	125	M12	—	—	160	44	—	40000684	40000670	—	GB
A2FM 80-90	W35x2	140	M12	—	—	180	53	—	40001852	40000670	—	CN
A2FM 80-90	W40x2	140	M12	—	—	180	53	—	40001852	40001858	—	CP
A2FM 107	W40x2	160	M16	—	—	200	56.5	—	02511039	40001858	—	TP
A2FM 125	W40x2	160	M16	—	—	200	56.5	—	02511039	40001858	—	TP
A2FM 160	W50x2	180	M16	—	—	224	62	—	02511109	02591102	—	CT
A2FM 200	W50x2	200	M20	—	—	250	73	—	02511232	02591102	—	DB
A4FM 22-28	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
A4FM 22-28	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
A4FM 40	W30x2	101.6	M14	146	—	—	20	—	40000635	40000669	—	BA
A4FM 56	W30x2	127	M16	181	—	—	34	—	40001811	40000669	—	CG
A10FM 23-28	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
A10FM 37-45	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
A6VM 28	W25x1.25	100	M10	—	—	125	48	—	40000682	40000668	—	BT
A6VM 28	W30x2	100	M10	—	—	125	48	—	40000682	40000669	—	BU
A6VM 55	W30x2	125	M12	—	—	160	44	—	40000684	40000669	—	CA
A6VM 55	W35x2	125	M12	—	—	160	44	—	40000684	40000670	—	CB
A6VM 80	W35x2	140	M12	—	—	180	53	—	40001818	40000670	—	CN
A6VM 80	W40x2	140	M12	—	—	180	53	—	40001818	40001858	—	CP
A6VM 107	W45x2	160	M16	—	—	200	56.5	—	02511039	02591073	—	VN
A6VM 140	W45x2	180	M16	—	—	224	62	—	02511109	02591073	—	VQ
A6VM 160	W45x2	180	M16	—	—	224	62	—	02511109	02591073	—	VQ
A6VM 160	W50x2	180	M16	—	—	224	62	—	02511109	02591102	—	CT
A6VM 250	W50x2	200	M20	—	—	250	73	—	02511232	02591102	—	DB
AA6VM 55, 80	12/24-12	127	M14	—	—	162	29	—	02511108	40000672	—	BG
AA6VM 107, 160	8/16-13	152.4	M20	—	—	228.5	41	—	40001844	02241043	—	UX
AA2FM 10, 12, 16	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
AA2FM 23, 28, 32	12/24-12	127	M14	—	—	—	29	—	02511108	40000672	—	BG
AA2FM 45, 56 ,63	12/24-12	127	M14	—	—	162	29	—	02511108	40000672	—	BG
AA2FM 80, 90	12/24-12	127	M14	—	—	162	29	—	02511108	40000672	—	BG
AA2FM 56 ,63	16/32-21	127	M14	—	—	162	29	—	02511108	40000654	—	BD
AA2FM 80, 90	16/32-21	127	M14	—	—	162	29	—	02511108	40000654	—	BD
AA2FM 107, 125	8/16-13	152.4	M20	—	—	228.5	41	—	40001844	02241043	—	UX
AA2FM 160, 180	8/16-13	152.4	M20	—	—	228.5	41	—	40001844	02241043	—	UX

SAE STANDARD	øA	øB	øC	øD	E	F	G	H	1	2	3	4
SAE A	ø 25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	—
	ø 25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	—
	ø 31.75	82.55	M12	106.4	—	—	26	—	20300047	40000664	—	—
	ø 32	82.55	M12	106.4	—	—	26	—	20300047	40000665	—	—
	1"6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	—
	12/24-14	82.55	M12	106.4	—	—	26	—	20300047	40000672	—	—
SAE B	ø 25	101.6	M14	146	—	—	20	—	40000635	40000649	—	—
	ø 25.4	101.6	M14	148	—	—	20	—	40000635	40000645	—	—
	ø 31.75	101.6	M14	146	—	—	20	—	40000635	40000664	—	—
	ø 32	101.6	M14	146	—	—	20	—	40000635	40000665	—	—
	1" 6B	101.6	M14	146	—	—	20	—	40000635	40000648	—	—
	12/24-14	101.6	M14	146	—	—	20	—	40000635	40000672	—	—



SAE STANDARD	øA	øB	øC	øD	E	F	G	H	1	2	3	4
MAGNETO	ø 25	82.55	M12	—	106.4	—	26	—	40000680	40000649	—	—
	ø 25.4	82.55	M12	—	106.4	—	26	—	40000680	40000645	—	—
	ø 31.75	82.55	M12	—	106.4	—	26	—	40000680	40000664	—	—
	ø 32	82.55	M12	—	106.4	—	26	—	40000680	40000665	—	—
	1" 6B	82.55	M12	—	106.4	—	26	—	40000680	40000648	—	—
SAE C	12/24-14	82.55	M12	—	106.4	—	26	—	40000680	40000672	—	—
	ø 31.75	127	M14	—	—	162	29	—	02511108	40000664	—	—
	12/24-14	127	M14	—	—	162	29	—	02511108	40000672	—	—
	12/24-17	127	M14	—	—	162	29	—	02511108	40000674	—	—

SAMHYDRAULIK	øA	øB	øC	øD	E	F	G	H	1	2	3	4
BGM 13-50	ø16	63	M8	80	—	—	14	—	40000698	40000694	—	CE
BG 40-400	ø25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
BG 40-400	ø25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
BG 40-400	1" 6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
AGF 50-400	ø25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
ARF 50-400	ø25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
BR 50-400	ø25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
BR 50-400	ø25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
BR 50-400	ø31.75	82.55	M12	106.4	—	—	26	—	20300047	40000664	—	AR
BR 50-400	ø 32	82.55	M12	106.4	—	—	38	—	20300047	40000665	—	AS
BR 50-400	1" 6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
H1C 12	Ø20	80	M8	—	—	100	36.5	—	02971201	02591008	—	CS
H1C 30	W25x1,25	100	M10	—	—	125	31	—	02511221	40000668	—	DW
H1C 55	12/24-17	127	M14	—	—	162	29	—	40000653	40000672	—	UT
H1C 55	W30x2	125	M12	—	—	160	44	—	40000684	40000669	—	CA
H1C 55	Ø30	125	M12	—	—	160	44	—	40000684	02591040	—	DU
H1C 75	W35x2	140	M12	—	—	180	53	—	40001818	40000670	—	TQ
H1C 90-108	W40x2	160	M16	—	—	200	57	—	02511039	40001858	—	TP
H1C 90-108	Ø40	160	M16	—	—	200	56.5	—	02511039	02241057	—	EF
H1C 160	W45x2	180	M16	—	—	224	62	—	02511109	02591073	—	VQ
HPR 80-400	ø31.75	82.55	M12	106.4	—	—	38	—	02511001	40000664	—	AG
HPR 80-400	ø 32	82.55	M12	106.4	—	—	38	—	02511001	40000665	—	AD
HPR 80-400	12/24-14	82.55	M12	106.4	—	—	38	—	02511001	40000672	—	AE
H2V 55	W30x2	125	M12	—	—	160	44	—	40000684	40000669	—	CA
H2V 160	W45x2	180	M16	—	—	224	62	—	02511109	02591073	—	VQ

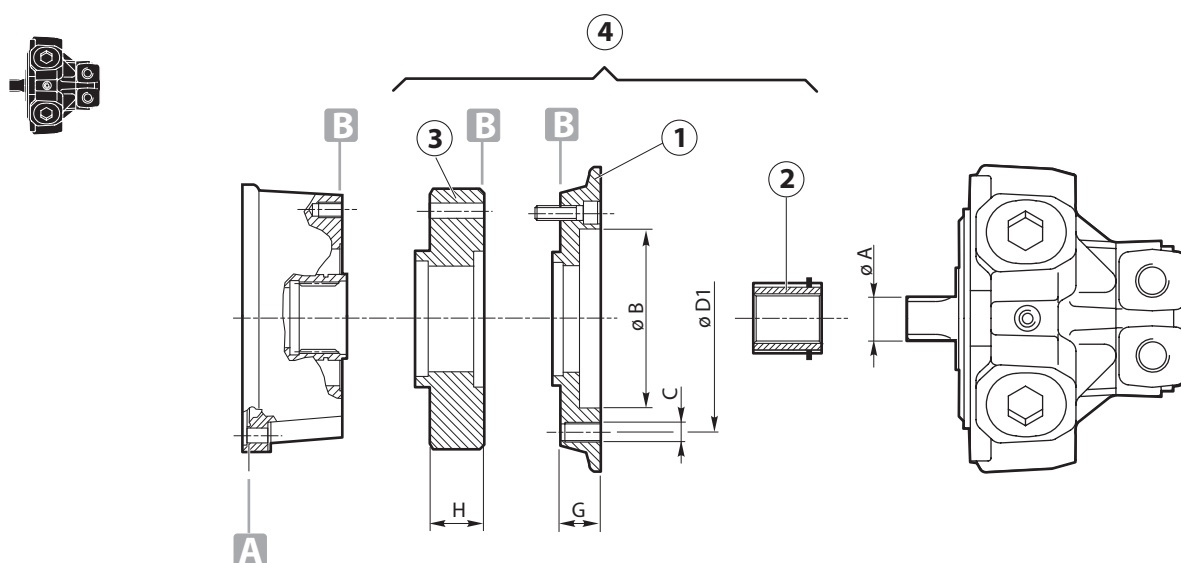
SAUER	øA	øB	øC	øD	E	F	G	H	1	2	3	4
SMF2 033-070	16/32-21	127	M12	—	—	162	29	—	02511108	40000654	—	BD
SMF2 089	16/32-23	127	M14	—	—	162	29	—	40000653	40000686	—	BI
M25MF	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M35MF	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M35/M44 MF	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
M44MF	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
M46MF	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
51D 80	W40x2	140	M12	—	—	180	53	—	40001818	40001858	—	CP
51D 110	W40x3	160	M16	—	—	200	56.5	—	02511039	40001858	—	TP
51V 080	12/24-14	127	M12	—	—	162	29	—	02511108	40000672	—	BG
51V 080	16/32-23	127	M12	—	—	162	29	—	02511108	40000686	—	BI
51V 110/160A	8/16-13	152.4	M20	—	—	228.5	40	—	02511164	02631152	—	8X
51V 160/A	8/16-13	152.4	M20	—	—	228.5	40	—	40001844	02241043	—	UX
51V 250	16/32-27	161.5	M20	—	—	317.15	35	—	02511147	02241123	—	EJ
90M 030	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
90M 030	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
90M 042	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
90M 042	16/32-15	101.6	M14	146	—	—	20	—	40000635	40000671	—	BB
90M 055	16/32-21	127	M12	—	—	162	29	—	02511108	40000654	—	BD
90M 075	16/32-21	127	M12	—	—	162	29	—	02511108	40000654	—	BD
90M 100	16/32-23	127	M12	—	—	162	29	—	02511108	40000686	—	BI
90M 100	8/16-13	127	M12	—	—	162	29	—	02511108	02241013	—	EV
90M 130	8/16-Z13	152.4	M20	—	—	228.5	40	—	40001844	022411043	—	UX



VOAC	øA	øB	øC	øD	E	F	G	H	1	2	3	4
<b>F11-150 SAE</b>	8/16-13	152.4	M20	228.5	—	—	41	—	40001844	02241043	—	UX
<b>F12-30 SAE</b>	ø25.4	101.6	M14	146	—	—	20	—	40000635	40000645	—	AV
<b>F12-30 SAE</b>	16/32-13	101.6	M14	146	—	—	20	—	40000635	40000657	—	AZ
<b>F12-40 SAE</b>	ø31.75	127	M12	—	—	162	29	—	02511108	40000664	—	BF
<b>F12-40 SAE</b>	12/24-14	127	M12	—	—	162	29	—	02511108	40000672	—	BG
<b>F12-60 SAE</b>	ø31.75	127	M12	—	—	162	29	—	02511108	40000664	—	BF
<b>F12-60 SAE</b>	12/24-14	127	M12	—	—	162	29	—	02511108	40000672	—	BG
<b>F12-80 SAE</b>	12/24-17	127	M12	—	—	162	29	—	02511108	40000674	—	BH
<b>V12-60 SAE</b>	12/24-14	127	M12	—	—	162	29	—	02511108	40000672	—	BG
<b>V12-80 SAE</b>	12/24-14	127	M12	—	—	162	29	—	02511108	40000672	—	BG
<b>F12-110 SAE</b>	8/16-13	152.4	M20	228.5	—	—	41	—	40001844	02241043	—	UX
<b>V14-160 ISO</b>	W45x2	180	M16	224	—	—	62	—	02511109	02591073	—	VQ
<b>F12-80 ISO</b>	ø40	140	M12	—	—	180	53	38	40001852	02241057	2731111	UW
<b>TK</b>	12/24-17	127	M12	—	—	162	29	14	02511108	40000674	2731096	CQ
<b>F12-30 ISO</b>	W30x2	100	M10	—	—	125	48	—	40000682	40000669	—	BU
<b>F12-40 MF-HI ISO</b>	W30x2	125	M12	160	—	—	44	—	40000684	40000669	—	CA
<b>F12-60 ISO</b>	W35x2	125	M12	—	—	160	44	—	40000684	40000670	—	CB
<b>F12-80 ISO</b>	W40x2	140	M12	—	—	180	53	—	40001852	40001858	—	CP
<b>F12-110 ISO</b>	W45x2	160	M16	200	—	—	56.5	—	02511039	02591073	—	VN

WHITE	øA	øB	øC	øD	E	F	G	H	1	2	3	4
<b>RS 03-24</b>	ø25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
<b>RS 03-24</b>	ø25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
<b>RS 03-24</b>	1" 6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
<b>HB 03-24</b>	ø25	82.55	M12	106.4	—	—	26	—	20300047	40000649	—	AN
<b>HB 03-24</b>	ø25.4	82.55	M12	106.4	—	—	26	—	20300047	40000645	—	AI
<b>HB 03-24</b>	ø31.75	82.55	M12	106.4	—	—	26	—	20300047	40000664	—	AR
<b>HB 03-24</b>	ø32	82.55	M12	106.4	—	—	26	—	20300047	40000665	—	AS
<b>HB 03-24</b>	1" 6B	82.55	M12	106.4	—	—	26	—	20300047	40000648	—	AM
<b>HB 03-24</b>	12/24-14	82.55	M12	106.4	—	—	26	—	20300047	40000672	—	AU
<b>HB 03-24</b>	16/32-13	82.55	M12	106.4	—	—	26	—	20300047	40000657	—	AP
<b>RE 07-45</b>	ø25	82.55	M12	—	106.4	—	26	—	40000680	40000649	—	BN
<b>RE 07-45</b>	ø25.4	82.55	M12	—	106.4	—	26	—	40000680	40000645	—	BL
<b>RE 07-45</b>	ø31.75	82.55	M12	—	106.4	—	26	—	40000680	40000664	—	BP
<b>RE 07-45</b>	ø32	82.55	M12	—	106.4	—	26	—	40000680	40000665	—	BQ
<b>RE 07-45</b>	1" 6B	82.55	M12	—	106.4	—	26	—	40000680	40000648	—	BM
<b>RE 07-45</b>	12/24-14	82.55	M12	—	106.4	—	26	—	40000680	40000672	—	BR
<b>DR 12-46</b>	ø25	82.55	M12	—	106.4	—	26	—	40000680	40000649	—	BN
<b>DR 12-46</b>	ø25.4	82.55	M12	—	106.4	—	26	—	40000680	40000645	—	BL
<b>DR 12-46</b>	ø31.75	82.55	M12	—	106.4	—	26	—	40000680	40000664	—	BP
<b>DR 12-46</b>	ø32	82.55	M12	—	106.4	—	26	—	40000680	40000665	—	BQ
<b>DR 12-46</b>	1" 6B	82.55	M12	—	106.4	—	26	—	40000680	40000648	—	BM
<b>DR 12-46</b>	12/24-14	82.55	M12	—	106.4	—	26	—	40000680	40000672	—	BR



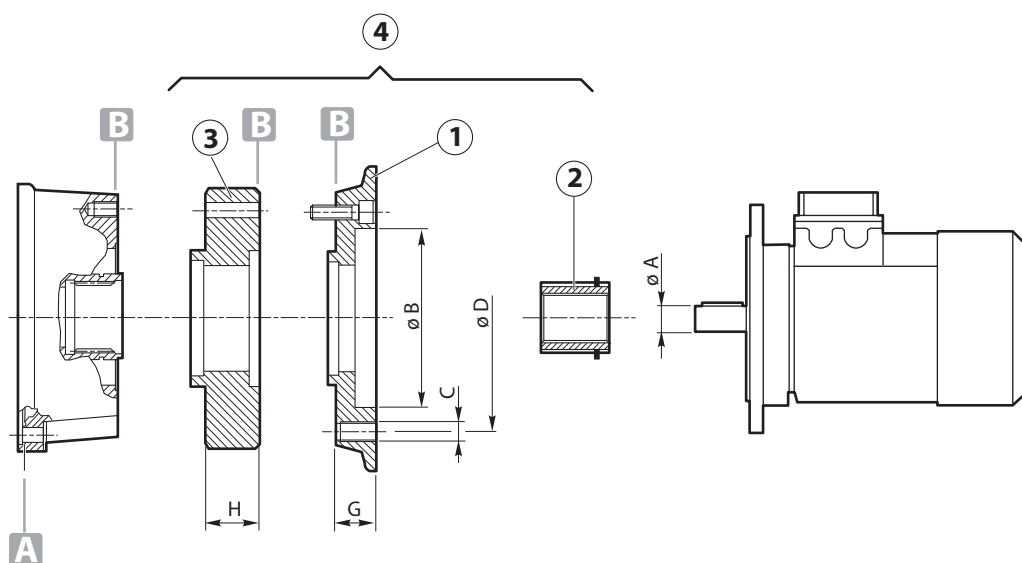


INTERMOT	$\varnothing A$	$\varnothing B$	C	$\varnothing D1$	E	F	G	H	1	2	3	4
G34/A-AA	$\varnothing 30$	82.55	M12	106.4	—	—	10.5	26	02511082	2591040	02511018	UM
G 100	W40x2	125	M8	175	—	—	44	—	02511282	40001858	—	EQ
G 100	A40x36	125	M8	175	—	—	44	—	02511282	40001858	—	ET
IAM 195	6x26x32	172	M10	190	—	—	39.5	—	02511170	40001829	—	DE

SAI	$\varnothing A$	$\varnothing B$	C	$\varnothing D1$	E	F	G	H	1	2	3	4
BD2	W40x2	150	M12	250	—	—	38	—	02511070	02591049	—	UE
BV2	W40x2	150	M12	250	—	—	38	—	02511070	02591049	—	UE
GM05 40-200	28x34x6	125	M10	160	—	—	40	—	02511045	40000646	—	TZ
GM05 40-200	35x2x16	125	M10	160	—	—	40	—	02511045	40000670	—	TT
GM05 40-200	$\varnothing 30$	125	M10	160	—	—	40	—	02511045	02591040	—	TM
GM1 100-320	28x34x6	175	M12	210	—	—	29	—	02971466	40000646	—	VB
GM1 100-320	35x2x16	175	M12	210	—	—	29	—	02971466	40000670	—	TJ
GM2 200-630	40x3x12	150	M12	250	—	—	38	—	02511070	02591044	—	DB
GM2 200-630	36x40	150	M12	250	—	—	38	—	02511070	02591063	—	VA
GM3	W40x3	265	M18	310	—	—	43.5	—	02511151	02591044	—	DS

CALZONI	$\varnothing A$	$\varnothing B$	$\varnothing C$	$\varnothing D1$	E	F	G	H	1	2	3	4
MR 250-300	42x48x8	175	M10	232	—	—	92	—	02511030	02591016	—	FA



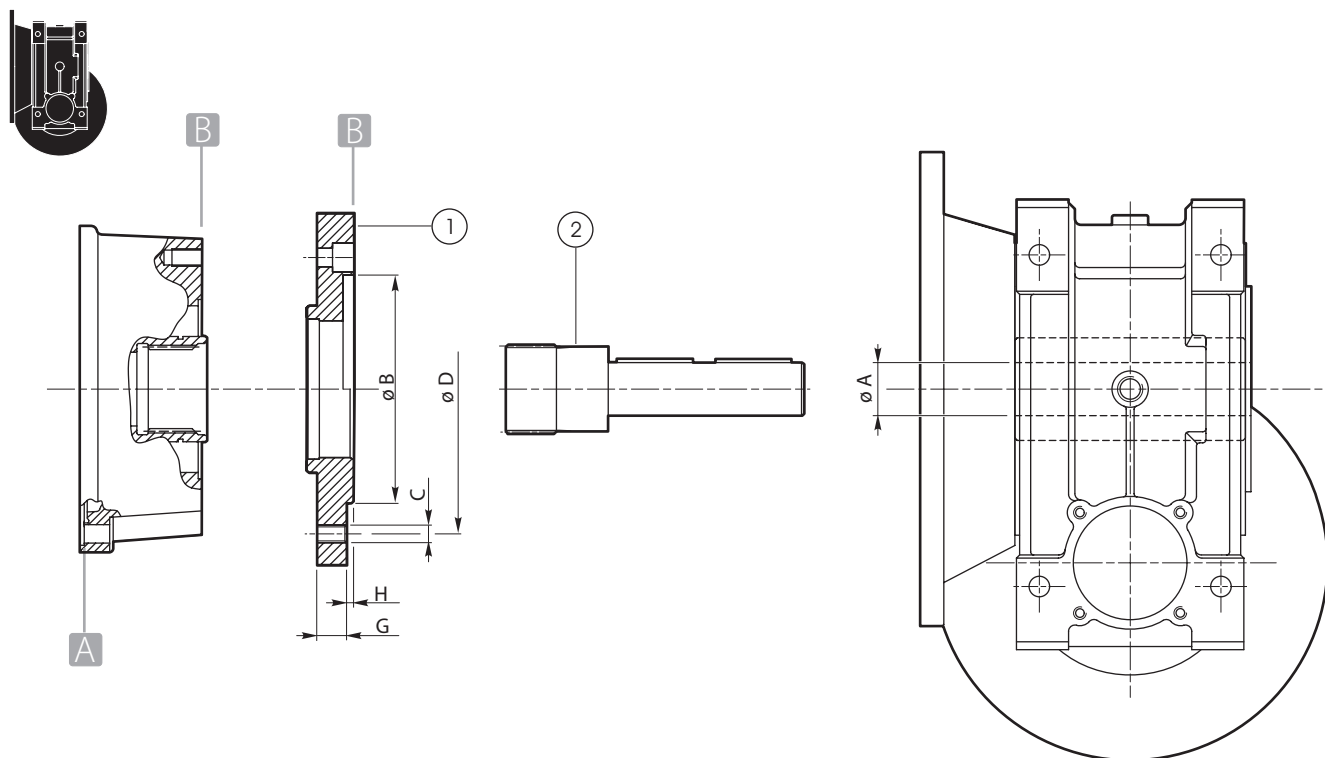


IEC	øA	øB	C	øD	E	F	G	H	1	2	3	4
<b>63 B5</b>	ø11	95	M8	115	—	—	20	—	02511000	02591001	—	TL
<b>71 B5</b>	ø14	110	M8	130	—	—	16	—	40000690	40000658	—	CC
<b>80 B5</b>	ø19	130	M10	165	—	—	16	—	40000683	40000659	—	BV
<b>90 B5</b>	ø24	130	M10	165	—	—	16	—	40000683	40000660	—	BZ
<b>100 B5 ø24</b>	ø24	180	M12	215	—	—	16	—	02511018	40000660	—	UÀ
<b>100/112 B5</b>	ø28	180	M12	215	—	—	24.5	—	02511018	40000661	—	AH
<b>112 B5</b>	ø38	180	M12	215	—	—	24	38	02511018	02241029	02731111	UU
<b>132 B5</b>	ø38	230	M12	265	—	—	49	—	02511016	—	—	AG
<b>132 B14</b>	ø38	130	ø 11	165	—	—	69	—	02511076	—	—	UF
<b>200 B5</b>	ø55	300	M18	350	—	—	130	—	02511067	02241066	—	TX

NEMA	øA	øB	C	øD	E	F	G	H	1	2	3	4
<b>56 H</b>	ø15.88 (0.625)	114.3 (4.500)	Ø10 (0.394)	149.2 (5.874)	—	—	53 (2.087)	—	02511122	02591085	—	VX
<b>143-145 TC</b>	ø22.22 (0.875)	114.3 (4.500)	Ø10 (0.394)	149.2 (5.874)	—	—	53 (2.087)	—	02511122	02591084	—	VZ
<b>182-184 TC</b>	ø28.57 (1.125)	215.9 (8.500)	Ø14 (0.551)	206 (8.110)	—	—	38 (1.496)	—	02511073	02591045	—	UC
<b>213-215 TC</b>	ø34.925 (1.375)	215.9 (8.500)	Ø14 (0.551)	184.5 (7.264)	—	—	55.5 (2.185)	—	02511037	02241048	—	VT
<b>254-256 TC</b>	ø41.275 (1.625)	215.9 (8.500)	Ø14 (0.551)	150 (5.906)	—	—	70 (2.756)	—	02511141	02241131	—	VJ
<b>284-286 TC</b>	ø47.625 (1.875)	266.7 (10.500)	Ø14 (0.551)	228.6 (9.000)	—	—	86 (3.386)	—	02511142	02241132	—	CR

mm (inch)



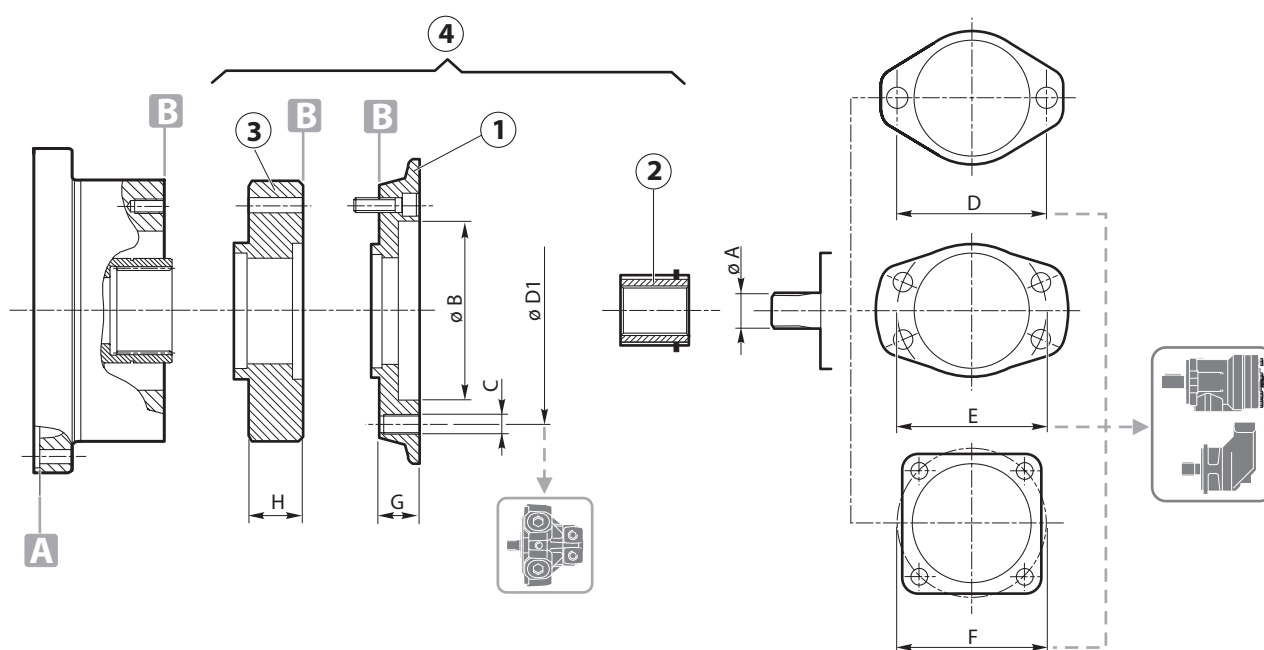


VARVEL	øA	øB	øC	øD	E	F	G	H	1	2	3	4
FRS 50 FL	Ø24	110	M10	130	—	—	16	—	02511022	40000660	—	VR
FRS 60 FL	Ø25	115	M10	150	—	—	16	—	02511095	40000649	—	UZ
FRS 70 FL	Ø28	130	M12	165	—	—	13.5	—	40000644	40000650	—	TI
FRS 85 FL	Ø32	130	M12	165	—	—	13.5	—	40000644	40000655	—	TG
FRS 130 PC	Ø48	180	Ø13	215	—	—	20	—	40001804	40000652	—	VI

STM	øA	øB	øC	øD	E	F	G	H	1	2	3	4
RMI 50 FL	Ø24	110	M10	130	—	—	16	—	02511022	40000660	—	VR
RMI 60 FL	Ø25	115	M10	150	—	—	16	—	02511095	40000649	—	UZ
RMI 70 FL	Ø28	130	M12	165	—	—	13.5	—	40000644	40000650	—	TI
RMI 85 FL	Ø32	130	M12	165	—	—	13.5	—	40000644	40000655	—	TG
RMI 110 F1	Ø42	130	M10	165	—	—	17	—	40001810	40001809	—	VH
RMI 130 P	Ø48	180	Ø13	215	—	—	20	—	40001804	40000652	—	VI
RMI 150 P	Ø55	180	Ø13	215	—	—	20	—	40001804	40001808	—	EN

MOTOVARIO	øA	øB	øC	øD	E	F	G	H	1	2	3	4
NMRV 110	Ø42	180	M12	215	—	—	24.5	—	02511018	40001890	—	FE





CALZONI	A	øB	øC	øD1	E	F	G	H	1	2	3	4
MR700	8x52x60	220	M12	290	—	—	55.5	—	02511229	02591156	—	4J

DANFOSS	A	øB	øC	øD	E	F	G	H	1	2	3	4
OMV	16/32-16	160	M16	—	—	200	73	—	025110102	025910102	—	5U
OMT 160-500	12/24-17	125	M12	—	—	160	66.5	—	025110117	02591123	—	3I
OMT 160-500	Ø40	125	M12	—	—	160	66.5	—	025110117	025910109	—	7W

EATON	A	øB	øC	øD	E	F	G	H	1	2	3	4
SERIE 6000	12/24-17	127	M14	—	—	162	29	—	02511192	02591123	—	3Q
SERIE 6000	12/24-14	127	M12	—	—	162	37	—	02511192	02591163	—	2G

INTERMOT	A	øB	øC	øD1	E	F	G	H	1	2	3	4
IAM H3 400-700	36x42x8	230	M14	254	—	—	43	—	02511197	02591128	—	8I
IAM300	8x32x38	190	M12	210	—	—	38.5	—	02511248	02591166	—	4N

LINDE	A	øB	øC	øD	E	F	G	H	1	2	3	4
HMF 135	16/32-27	152.4	M20	228.5	—	—	35	—	02511164	02631166	—	3Z
HMR 135	16/32-27	152.4	M20	228.5	—	—	35	—	02511164	02631166	—	3Z
HMF 105	16/32-23	127	M16	181	—	—	34	—	02511192	02631203	—	3H

M+S	A	øB	øC	øD	E	F	G	H	1	2	3	4
EPMT 160-500	12/24-17	125	M12	—	—	160	66.5	—	025110117	02591123	—	3I
EPMT 160-500	Ø40	125	M12	—	—	160	66.5	—	025110117	025910109	—	7W

REXROTH	A	øB	øC	øD	E	F	G	H	1	2	3	4
A2FM 107	W40x2	160	M16	—	—	200	51.5	—	02511230	02631193	—	3U
A2FM 160	W50x2	180	M16	—	—	224	62	—	02511163	02631150	—	3T
A2FM 200	W50x2	200	M20	—	—	250	73	—	02511165	02631150	—	4B
A6VM 107	W45x2	160	M16	—	—	200	53	—	02511167	02631160	—	9N
A6VM 160	W45x2	180	M16	—	—	224	62	—	02511163	02631151	—	9Q
A6VM 160	W50x2	180	M16	—	—	224	62	—	02511163	02631150	—	3T
A6VM 250	W50x2	200	M 20	—	—	250	73	—	02511165	02631150	—	4B
A6VM 355	W60x2	280	M16	—	—	320	84.5	—	02511261	02631210	—	5L
AA6VM 107, 160	8/16-13	152.4	M20	—	—	228.5	40	—	02511164	02631152	—	8X
AA2FM 107, 125	8/16-13	152.4	M20	—	—	228.5	40	—	02511164	02631152	—	8X
AA2FM 160, 180	8/16-13	152.4	M20	—	—	228.5	40	—	02511164	02631152	—	8X



SAI	A	øB	øC	øD	E	F	G	H	1	2	3	4
GM1	28x34x6	175	M12	210	—	—	29	—	02511263	02591176	—	6B
GM2	36x40	150	M12	250	—	—	38	—	02511209	02591141	—	9A
GM2	W40x3	150	M12	250	—	—	38	—	02511209	02591170	—	8B
GM3	W40x3	265	M18	310	—	—	43.5	—	02511151	02591044	—	4S

SAMHYDRAULIK	A	øB	øC	øD	E	F	G	H	1	2	3	4
H1C 160 M	W45x2	180	M16	—	—	224	62	—	02511039	02631151	—	9Q
H1C 226 M	W50x2	200	M20	—	—	250	73	—	02511165	02631150	—	4B
H2V 160 M	W45x2	180	M16	—	—	224	62	—	02511163	02631151	—	9Q

SAUER	A	øB	øC	øD	E	F	G	H	1	2	3	4
51V250	16/32-27	165.1	M20	—	—	317.5	38	—	02511201	02631166	—	5J
90M 130	8/16-13	152.4	M 20	—	—	228.5	40	—	02511164	02631152	—	8X

VOAC	A	øB	øC	øD	E	F	G	H	1	2	3	4
F11-50 CETOP	W45x2	200	M20	250	—	—	73	—	02511165	02631151	—	5P
F11-150 SAE	8/16-13	152.4	M20	—	—	228.5	40	—	02511164	02631152	—	8X
F12-110 SAE	8/16-13	152.4	M20	—	—	228.5	40	—	02511164	02631152	—	8X
V14-160 ISO	W45x2	180	M16	—	—	224	62	—	02511163	02631151	—	9Q
F12-110 ISO	W45x2	160	M116	—	—	200	53	—	02511167	02631160	—	9N

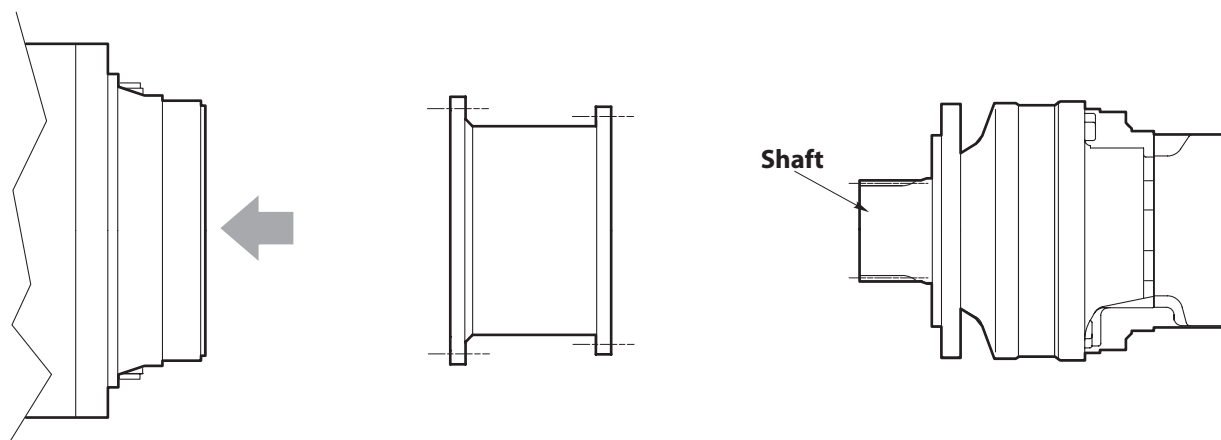
## Direct motor adapters available for:

KAWASAKI	Shaft
KAWASAKI HMC 80	6/12-14
KAWASAKI HMC/HMB/HPC 125	6/12-20
KAWASAKI HMB 200	6/12 -14
KAWASAKI HMB 200	W85x3

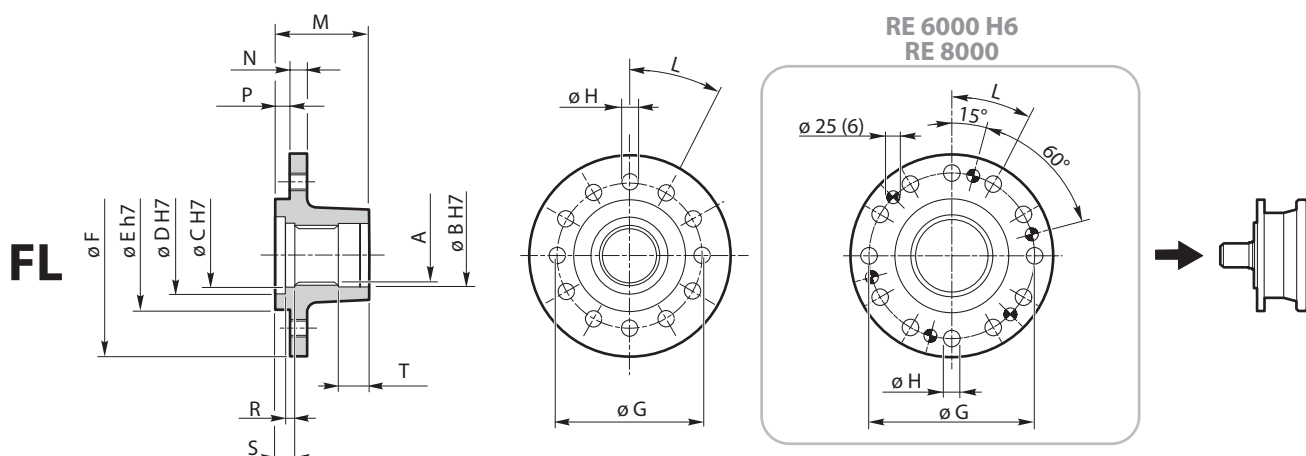
SAI	Shaft
GM3	W40x3
GM3	8x46x54
GM4/5	8x56x65
GM4/5	W65x3
GM6	N80x3

POCLAIN	Shaft
MS08/MSE08	W70x3
MS18/MSE18	W90x3
MS18/MSE18	NF E-22 141 (m2.5 z34)
MS50	NF E-22 141 (m3.75 z33)
MS02/MSE02	W50x2

POCLAIN HYDROBASE	Shaft
MS18/MSE18	NF E-22 141 (m2.5 z34)
MS35	NF E-22 141 (m2.5 z34)
MS50	NF E-22 141 (m2.5 z38)







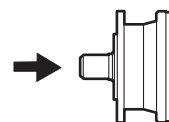
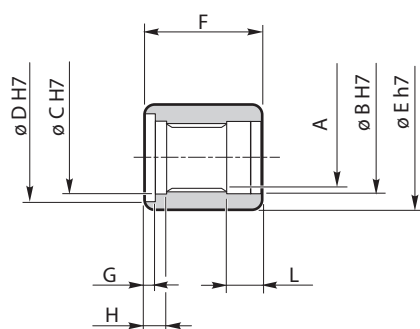
	VERSION	A	ø B	ø C	ø D	ø E	ø F	ø G	ø H	L
RE 110-210	N-P-T-TR	A40x36 DIN 5482	42	42	52	75	135	98	M12x1.5 (4)	90°
RE 240	T-TR	A58x53 DIN 5482	60	60	—	95	165	145	12.5 (12)	30°
RE 310-510-610	N-P-T-TL	A58x53 DIN 5482	60	60	—	95	165	145	12.5 (12)	30°
RE 810	N-P-T	A70x64 DIN 5482	72	72	—	125	208	175	19(12)	30°
RE 1020-1520-2000	T-H	A80x74 DIN 5482	85	85	—	125	208	175	19(12)	30°
RE 2520-3000	H	A100x94 DIN 5482	105	105	—	170	254	212	21 (12)	30°
RE 3510-4800	H	N 120x3 DIN 5480	124	130	—	160	298	250	21 (12)	30°
RE 6000	H	N 120x3 DIN 5480	120	120	—	200	308	260	25 (12)	30°
RE 6000	H6	N 150x5 DIN 5480	151	151	—	240	385	320	32 (12)	30°
RE 8000	H	N 150x5 DIN 5480	151	151	—	240	385	320	32 (12)	30°
GB 12010-16000	H	N 170x5 DIN 5480	170	175	—	250	450	400	28 (18)	20°
GB 21000	H	N220x5 DIN 5480	220	230	—	315	500	450	32 (18)	20°

	VERSION	M	N	P	R	S	T	CODE
RE 110-210	N-P-T-TR	63	12	10	7.5	13.5	20.5	40000618
RE 240	T-TR	74	14	10	8	—	24	02571148
RE 310-510-610	N-P-T-TL	74	14	10	8	—	24	02571148
RE 810	N-P-T	90	21	14	10	—	29	40001838
RE 1020-1520-2000	T-H	90.5	21	14	9.5	—	30.5	40001848
RE 2520-3000	H	110	24	20	12	—	37	40001851
RE 3510-4800	H	150	30	20	28	—	29	02571068
RE 6000	H	125	31	19	11	—	30	02571054
RE 6000	H6	150	35	25	11	—	33	02571063
RE 8000	H	150	35	25	11	—	33	02571063
GB 12010-16000	H	163	42	48	14	—	42	02571048
GB 21000	H	205	47	70	16	—	51.5	02571049

On demand for different size



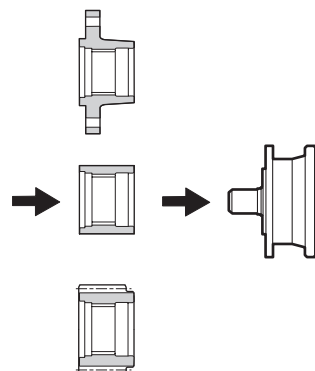
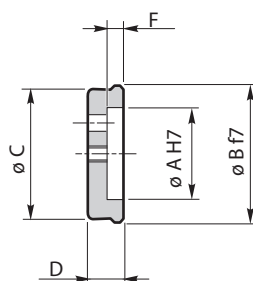
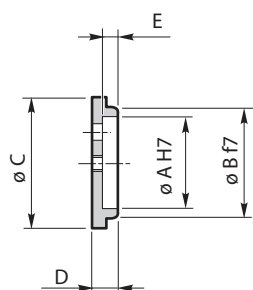
## BS



	VERSION	A	ø B	ø C	ø D	ø E	F	G	H	L	CODE
RE 110-210	N-P	A40x36 DIN 5482	42	42	—	60	55	—	7	20.5	40000608
RE 110-210	T-TR	A40x36 DIN 5482	42	42	51	60	67.5	5	12	20.5	40000617
RE 240	T-TR	A58x53 DIN 5482	60	60	72	94	85	16	23	25	40000642
RE 310-510-610	N-P-T-TL	A58x53 DIN 5482	60	60	72	94	85	16	23	25	40000642
RE 810	N-P-T	A70x64 DIN 5482	72	72	—	95	90	—	10	29	40001836
RE 1020-1520-2000	T-H	A80x74 DIN 5482	85	85	—	108	90.5	—	10.5	30.5	40001847
RE 2520-3000	H	A100x94 DIN 5482	105	105	—	136	110	—	12	33	40001850
RE 3510-4800	H	N120x3x9H DIN 5480	124	130	—	175	150	—	28	29	02631054
RE 6000	H	N120x3x9H DIN 5480	120	120	—	160	124.5	—	10.5	31	02631082
RE 6000	H6	N150x5x9H DIN 5480	151	151	—	220	150	—	11	33	02631092
RE 8000	H	N150x5x9H DIN 5480	151	151	—	220	150	—	11	33	02631092
GB 12010-16000	H	N170x5x9H DIN 5480	170	175	—	235	163	—	14	42	02631026
GB 21000	H	N220x5x9H DIN 5480	220	230	—	295	205	—	16	51.5	02631027

On demand for different size

## EP

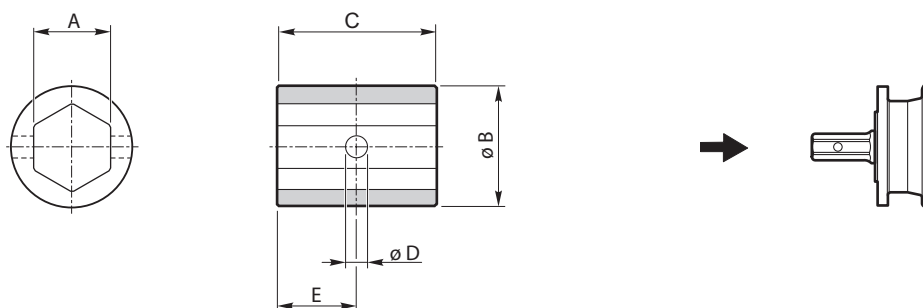


	VERSION	ø A	ø B	ø C	D	E	F	CODE
RE 110-210	N-P-T-TR	35	42	50	9.5	4.5	—	40000609
RE 240	T-TR	50	60	70	13	5.5	—	40000613
RE 310-510	N-P	50	60	70	13	5.5	—	40000613
RE 310-510-610	T-TL	50	72	—	18	—	9	40000616
RE 810	N-P-T	62	72	80	18	9.25	—	40001832
RE 1020-1520-2000	T-H	70	85	98	19.5	8.5	—	40001840
RE 2520-3000	H	85	105	114	20	10	—	40001849
RE 3510-4800	H	90	130	—	26	—	14	02551072
RE 6000	H	100	120	135	21	9.5	—	02551060
RE 6000	H6	125	151	170	25	9	—	02551077
RE 8000	H	125	151	170	25	9	—	02551077
GB 12010-16000	H	150	175	198	31	13.5	—	02551044
GB 21000	H	200	230	260	43.5	19	—	02551046

On demand for different size



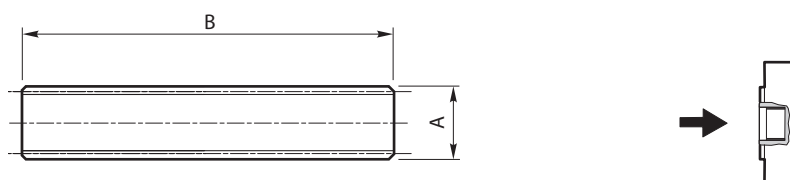
**ES**



	VERSION	A	ø B	C	ø D	E	CODE
RE 110-210	NE	50	80	108	18	54	40001831
RE 240	TE	50	80	108	18	54	40001831
RE 310-510-610	NE	50	80	108	18	54	40001831
RE 310-510-610	TE-TLE	70	100	115	—	—	40001813
RE 810	TE	70	100	115	—	—	40001813
RE 1020-1520-2000	TE	70	100	115	—	—	40001813

On demand for different size

**BF**

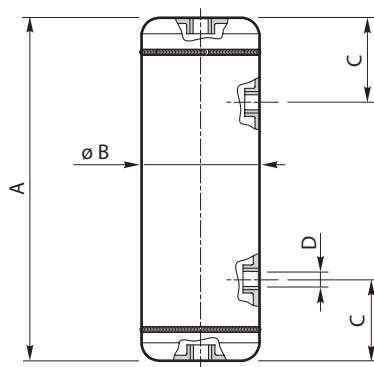


	VERSION	A	B	CODE	Tmax [Nm]
RE 110-210	FS	B40x36 DIN 5482	250	40100901	2240
RE 240	FS	B45x41 DIN 5482	250	02631093	3255
RE 310-510-610	FS - NF	A58x53 DIN 5482	250	40100904	7055
RE 810	FS - NF	A70x64 DIN 548	250	40001855	12600
RE 1020-1520-2000	FS	A80xx74 DIN 5482	250	40001856	19250
RE 2520-3000	FS	A100x94 DIN 5482	250	02631012	39450
RE 3510-4800	FS	W120x3x8f DIN 5480	250	02631086	97500
RE 6000-8000	FS	W140x5x8f DIN 5480	250	02631134	146000

On demand for different size



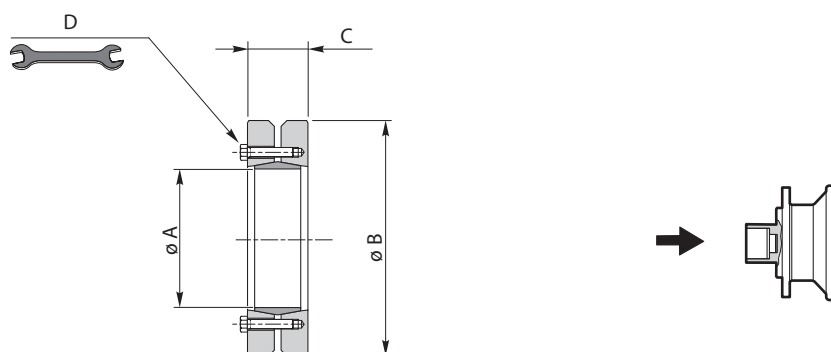
## VE



A	ø B	C	D	Capacity [Liters]	CODE
230	80	55	1/4" GAS (4)	1.0	40000627
330	130	85	1/4" GAS (4)	3.8	40000702
330	160	85	1/4" GAS (4)	5.5	40000703
510	150	85	1/4" GAS (4)	7.7	40000704
690	150	85	1/4" GAS (4)	10.7	40000706

On demand for different size

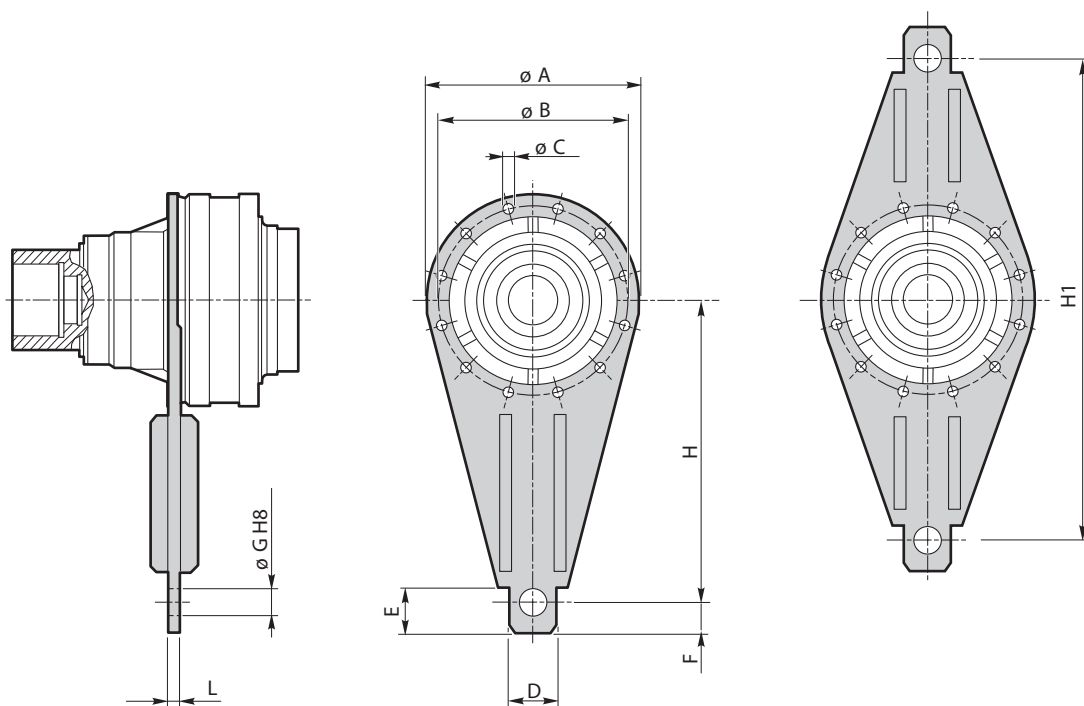
## GA



	VERSION	ø A	ø B	C	D	[Nm]	T max [Nm]
RE 110-210	NQ	62	110	29	M6-10.9 (10)	12	3000
RE 240-310-510-610	NQ-TQ	100	170	43	M8-10.9 (12)	30	9300
RE 810	TQ	125	215	53	M10-10.9 (12)	59	15800
RE 1020-1520-2000	HQ-TQ	165	290	68	M16-10.9 (8)	250	43600
RE 2520-3000	HQ	175	300	88	M16-10.9 (10)	250	59400
RE 3510-4800	HQ	185	330	85	M16-10.9 (10)	250	73100
RE 4800	HQ1	200	350	85	M16-10.9 (12)	250	94800
RE 6000-8000	HQ	195	350	112	M16-10.9 (15)	250	123000
RE 6000-8000	HQ1	240	405	108	M20-10.9 (12)	490	168000
GB 12010-16000	HQ	240	405	144	M20-10.9 (15)	490	236000
GB 12010-16000	HQ1	260	430	160	M20-10.9 (18)	490	325000
GB 21000-26000	HQ	280	460	172	M20-10.9 (20)	490	407000
GB 31000-40000	HQ	360	590	204	M24-10.9 (20)	840	753000
GB 45000	HQ	380	645	164	M24-10.9 (20)	840	739000
GB 53000-61000	HQ	390	660	212	M24-10.9 (24)	840	986000
GB 85000	HQ	460	770	252	M27-10.9 (28)	1250	1870000

On demand for different size



**BR**


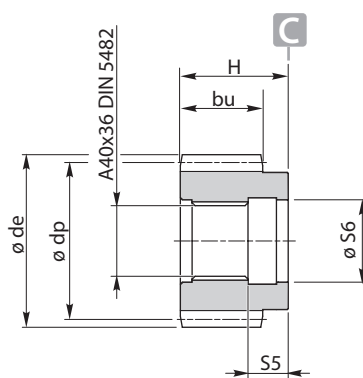
	VERSION	ø A	ø B	ø C	D	E	F	ø G	H	H1	L
RE 110-210	N	185	165	11 (8)	60	50	35	25	300	450	15
RE 110-210	T-TR	219	194	11 (10)	70	50	35	35	300	450	15
RE 240	TR	219	194	11 (10)	70	50	35	35	300	450	15
RE 240	T	219	195	13 (10)	60	50	35	30	350	500	15
RE 310-510-610	N-NU*	222	195	13 (10)	70	60	40	35	350	500	15
RE 810	T	280	250	15(12)	75	65	45	40	400	600	16
RE 1020	T	325	295	17 (10)	80	75	50	45	500	800	17
RE 1520-2000	T	325	295	17 (10)	80	75	50	45	500	800	17
RE 1520-2000	H	350	314	17(16)	80	75	50	45	500	800	17
RE 2520-3000	H	409	370	17(21)	95	125	60	50	700	1000	18
RE 3510-4800	H	452	424	17 (24)	100	130	65	50	800	1100	20
RE 6000-8000	H	490	445	19 (36)	110	140	70	55	900	1200	20
GB 12010-16000	H	610	560	25 (36)	120	120	80	60	1100	1400	22
GB 21000-26000	H	710	660	28 (36)	130	145	90	65	1300	1600	35
GB 31000	H	870	810	32 (36)	140	160	100	70	1500	2000	40
GB 40000-45000	H	870	810	32 (36)	140	160	100	70	1500	2000	40
GB 53000-61000-85000	H	1090	1020	39 (36)	150	170	110	75	1500	2000	60
GB 110000-130000	H	1540	1450	43 (40)	200	180	120	100	1800	2500	50

\* NU Torque arm code 02531016

On demand for different size



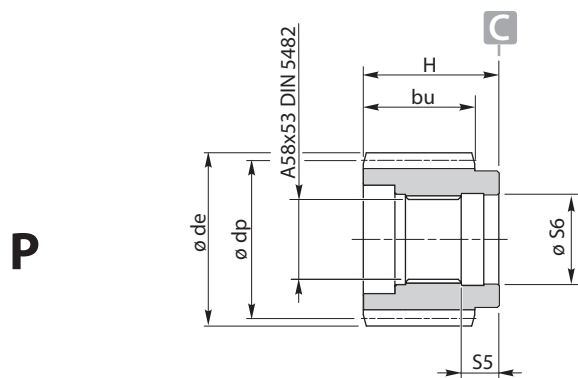
P


**RE 110**  
**RE 210**

M	z	x	$\varnothing de$	$\varnothing dp$	bu	H	S5	$\varnothing S6$	Code
4	20	0	88	80	42	55	20.5	$\varnothing 42 H7$	40100882
4	24	0	104	96	45	57	20.5	$\varnothing 42 H7$	40100889
4.5	14	0.5	76.5	63	55	55	20.5	$\varnothing 42 H7$	40100835
4.5	16	0	81	72	70	80	20.5	$\varnothing 42 H7$	40100802
4.5	16	0	81	72	45	55	20.5	$\varnothing 42 H7$	40100926
4.5	16	0	81	72	45	75	20.5	$\varnothing 42 H7$	40100943
5	14	0	80	70	60	60	20.5	$\varnothing 42 H7$	40100810
5	14	0	80	70	70	80	20.5	$\varnothing 42 H7$	40100812
5	14	0.5	85	70	65	65	20.5	$\varnothing 42 H7$	40100811
5	14	0.5	85	70	60	90	20.5	$\varnothing 42 H7$	40100885
5	14	0.5	85	70	55	78	20.5	$\varnothing 42 H7$	40100888
5	14	0.5	84.5	70	47	55	20.5	$\varnothing 42 H7$	02571014
5	16	0	90	80	70	80	20.5	$\varnothing 42 H7$	40100813
5	17	0	95	85	70	80	20.5	$\varnothing 42 H7$	40100815
5	18	0	100	90	70	80	20.5	$\varnothing 42 H7$	40100814
5	20	0	109.5	100	45	74	20.5	$\varnothing 42 H7$	40100918
5	22	0	120	110	50	76	20.5	$\varnothing 42 H7$	40100934
6	12	0.5	89	72	70	80	20.5	$\varnothing 42 H7$	40100825
6	13	0	90	78	60	85	20.5	$\varnothing 42 H7$	40100914
6	13	0	90	78	50	80	20.5	$\varnothing 42 H7$	40100915
6	13	0.5	95	78	61	97	20.5	$\varnothing 42 H7$	40100823
6	14	0	96	84	50	60	20.5	$\varnothing 42 H7$	40100824
6	14	0	96	84	70	80	20.5	$\varnothing 42 H7$	40100826
6	14	0	96	84	70	100	20.5	$\varnothing 42 H7$	40100827
6	15	0	102	90	60	82.5	20.5	$\varnothing 42 H7$	40100935
6	15	0.5	108	90	40	73	20.5	$\varnothing 42 H7$	40100819
6	17	0	114	102	80	110	20.5	$\varnothing 42 H7$	40100913
6	18	0	120	108	70	80	20.5	$\varnothing 42 H7$	40100830
6	20	0	132	120	60	85	20.5	$\varnothing 42 H7$	40100894
8	12	0.5	118	96	60	65	20.5	$\varnothing 42 H7$	40100841
8	14	0.5	136	112	80	110	20.5	$\varnothing 42 H7$	40100912
8	15	0	136	120	70	80	20.5	$\varnothing 42 H7$	40100846

On demand for different size




**RE 240  
RE 310  
RE 510  
RE 610**

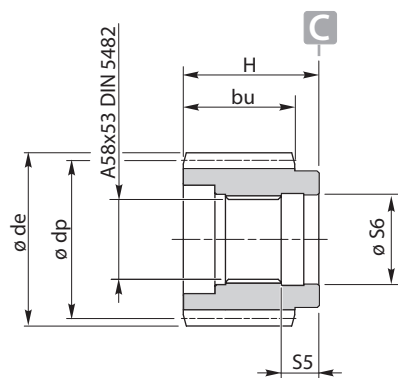
M	z	x	ø de	ø dp	bu	H	S5	ø S6	Code
5	21	0	115	105	60	76	25	ø 60 H7	40100883
5	22	0	120	110	50	76	25	ø 60 H7	02571051
6	14	0.5	101.5	90	65	78	25	ø 60 H7	40100923
6	16	0	108	96	70	80	25	ø 60 H7	40100867
6	18	0	120	108	70	80	25	ø 60 H7	40100831
6	20	0	132	120	75	80	25	ø 60 H7	40100873
6	24	0	156	144	68	77.5	25	ø 60 H7	40100808
7	14	0	112	98	78.5	78.5	25	ø 60 H7	40100874
8	12	0.5	120	96	80	100	25	ø 60 H7	40100818
8	13	0	120	104	68	78	25	ø 60 H7	02571111
8	14	0	128	112	65	68	25	ø 60 H7	40100844
8	14	0	128	112	75	85	25	ø 60 H7	40100845
8	15	0	136	120	75	85	25	ø 60 H7	40100848
8	16	0	144	128	75	85	25	ø 60 H7	40100849
8	16	0.5	152	128	75	85	25	ø 60 H7	40100893
8	17	0	149	136	78	110	25	ø 60 H7	40100937
8	18	0	160	144	76	78	25	ø 60 H7	40100850
8	18	0	160	144	96	98	25	ø 60 H7	40100898
8	19	0	174	152	85	102	25	ø 60 H7	02571055
10	11	0.5	136	110	80	96.5	25	ø 60 H7	40100807
10	11	0.5	136	110	100	120.5	25	ø 60 H7	40100938
10	12	0.5	149	120	80	96.5	25	ø 60 H7	40100820
10	12	0.35	143	120	80	100	25	ø 60 H7	40100838
10	13	0	150	130	80	80	25	ø 60 H7	40100929
10	13	0	150	130	90	105	25	ø 60 H7	40100942
10	14	0	160	140	80	80	25	ø 60 H7	40100866
10	14	0	160	140	90	105	25	ø 60 H7	40100868
10	15	0	170	150	80	80	25	ø 60 H7	40100839

**RE 810**

M	z	x	ø de	ø dp	bu	H	S5	ø S6	Code
8	15	0.3	140.8	120	67	96	29	ø 72 H7	02571235
8	17	0	152	136	80	99	29	ø 72 H7	02571121
8	20	0	176	160	115	124	29	ø 72 H7	025710101
8	23	0.5	208	184	86	131	29	ø 72 H7	40100853
10	11	0.5	136	110	80	90	29	ø 72 H7	40100857
10	12	0.5	150	120	90	90	29	ø 72 H7	02571110
10	13	0.5	160	130	90	90	29	ø 72 H7	40100852
10	13	0.5	160	130	99	99	29	ø 72 H7	02571000
10	14	0	160	140	99	99	29	ø 72 H7	02571024
10	14	0.5	170	140	67	96	29	ø 72 H7	02571236
10	15	0	170	150	98	112	29	ø 72 H7	02571037
10	15	0.5	180	150	98	112	29	ø 72 H7	02571183
10	17	0.48	198	170	80	90	29	ø 72 H7	02571013
12	11	0.5	167	132	90	120	29	ø 72 H7	40100821
12	13	0.5	192	156	118	126	29	ø 72 H7	40100840
12	13	0.3	187	156	75	90	29	ø 72 H7	02571019
12	14	0.5	199	168	90	100	29	ø 72 H7	02571101
14	12	0.3	205	168	80	110	29	ø 72 H7	02571102



P

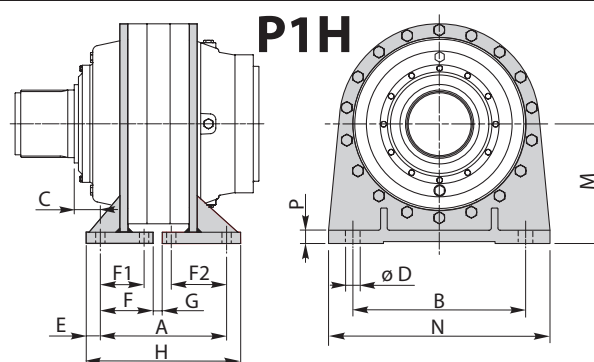
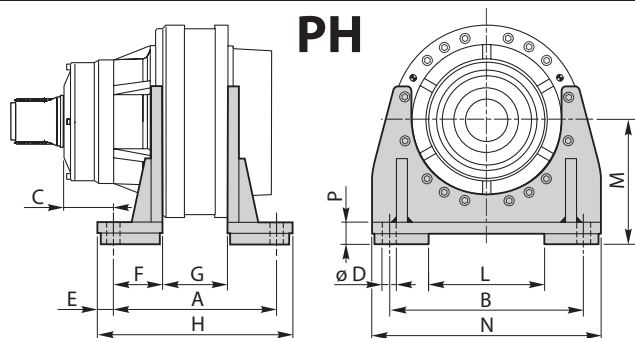


	M	z	x	$\varnothing de$	$\varnothing dp$	bu	H	S5	$\varnothing S6$	Code
RE 1020 RE 1520 RE 2000	10	14	0.32	162.4	140	103	116	30.5	$\varnothing 85 H7$	02571001
	10	15	0	170	150	90	115	30.5	$\varnothing 85 H7$	40100940
	10	18	0	198	180	87	116	30.5	$\varnothing 85 H7$	40100822
	12	11	0.5	167	132	100	120	30.5	$\varnothing 85 H7$	02571136
	12	13	0.5	192	156	120	120	30.5	$\varnothing 85 H7$	02571173
	12	14	0.5	199	168	90.5	90.5	30.5	$\varnothing 85 H7$	40100856
	12	16	0	214	192	90	95	30.5	$\varnothing 85 H7$	40100850
	14	11	0.5	192.36	154	97	97	30.5	$\varnothing 85 H7$	025710113
	14	12	0.5	210	168	135	135	30.5	$\varnothing 85 H7$	02571182
	14	14	0.5	233.8	196	105	105	30.5	$\varnothing 85 H7$	02571103
	16	10	0.5	208	160	115	115	30.5	$\varnothing 85 H7$	025710126
	16	19	0	336	304	120	120	30.5	$\varnothing 85 H7$	02571006
	18	10	0.5	234	180	157	157	30.5	$\varnothing 85 H7$	02571152
	18	13	0.5	288	234	100	100	30.5	$\varnothing 85 H7$	02571208
	20	14	0.5	340	280	125	140	30.5	$\varnothing 85 H7$	025710102

	M	z	x	$\varnothing de$	$\varnothing dp$	bu	H	S5	$\varnothing S6$	Code
RE 2520 RE 3000	12	16	0.5	228.4	192	120	130	34	$\varnothing 105 H7$	02571044
	14	14	0	224	196	110	110	34	$\varnothing 105 H7$	02571030
	14	15	0.5	250.6	210	110	120	34	$\varnothing 105 H7$	02571221
	16	13	0.5	256	208	145	145	34	$\varnothing 105 H7$	02571201
	16	17	0.5	320	272	140	150	34	$\varnothing 105 H7$	02571159
	16	19	0.5	352	304	140	150	34	$\varnothing 105 H7$	02571167
	20	12	0.5	299	240	150	150	34	$\varnothing 105 H7$	02571176

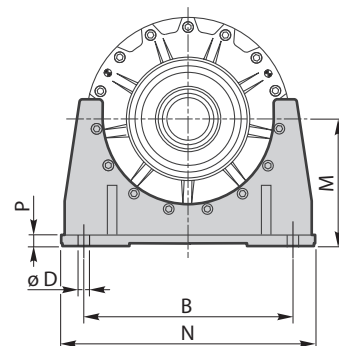
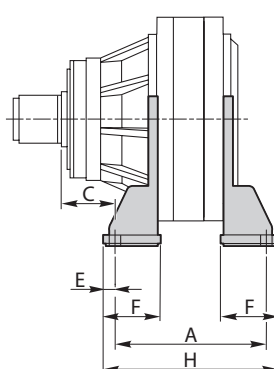
On demand for different size





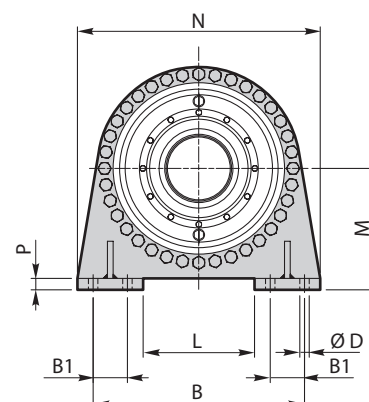
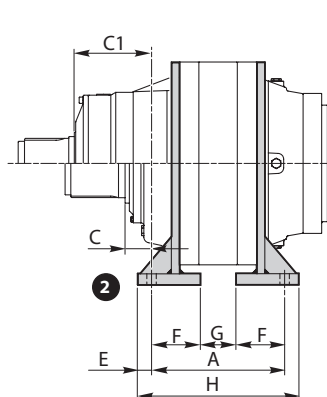
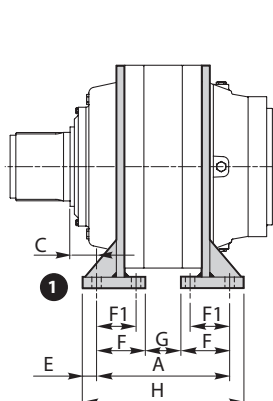
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RE 1520-2000 (PH)	310	356	80.5	25(4)	29.5	90.5	—	—	129	369	210	230	420	40	99119300
RE 3510-4800 (PH)	334	457	2	33(4)	36	120	—	—	94	406	—	280	547	28	99119700
RE 3510-4800 (P1H)	300	390	50	33(8)	35	116.5	92	154	5	370	—	270	500	30.5	99382000

**PH**



	A	B	C	øD	E	F	H	M	N	P	Code
RE 2520-3000	334	457	78.5	32(4)	36	150	406	280	550	34	99115000

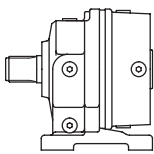
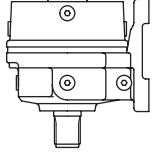
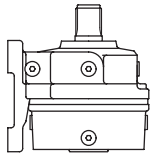
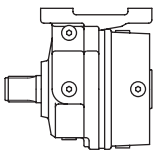
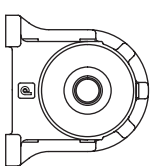
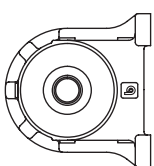
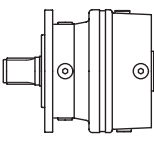
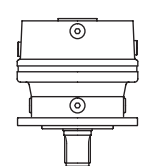
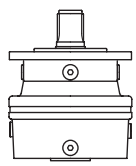
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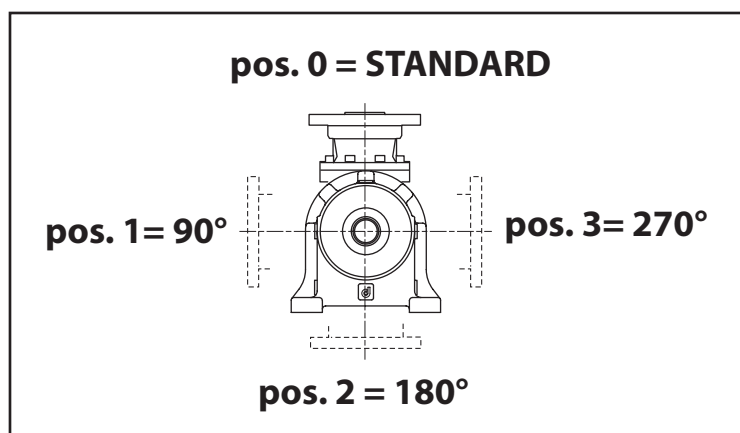


		A	B	B1	C	C1	øD	E	F	F1	G	H	L	M	N	P	Code
RE 6000	2	410	508	—	—	114.5	33(4)	43.5	126.5	—	157	497	360	315	610	35	99341500
RE 6000 H6	2	410	508	—	14.5	—	33(4)	43.5	126.5	—	157	497	360	315	610	35	99341500
RE 8000	2	404.5	508	—	14.5	—	33(4)	43.5	126.5	—	151.5	491.5	360	315	610	35	99341500
GB 12010-16000	1	416	630	100	52	—	32(12)	40	145	100	46	720	340	360	720	43	99335300
GB 21000	2	432	740	120	62	—	33(8)	50	150	—	132	532	390	425	850	40	99171100
GB 26000	2	452	740	120	62	—	33(8)	50	150	—	152	552	390	425	850	40	99171200
GB 31000	2	550	900	150	75	—	45(8)	75	185	—	180	700	480	530	1020	50	99171300
GB 40000-45000	2	590	900	150	75	—	45(8)	75	185	—	220	740	480	530	1020	50	99171400
GB 53000-61000	2	645	1100	200	81	—	52(8)	80	200	—	245	805	550	640	1250	60	99180000
GB 85000	2	693	1100	200	81	—	52(8)	80	200	—	293	853	550	640	1250	60	99180100
GB110000-130000 150000	2	865	1520	380	68	—	60(8)	72.5	245.5	—	354	1110	610	950	1750	80	—
GB 205000-235000	2	1090	1770	380	176	—	85(8)	99	326	—	438	1288	780	1050	2000	110	—

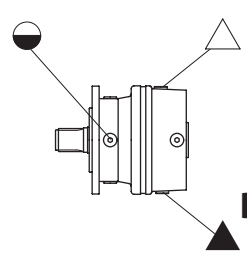
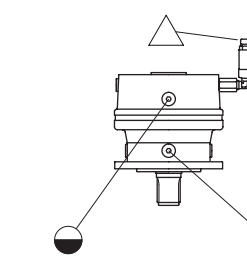
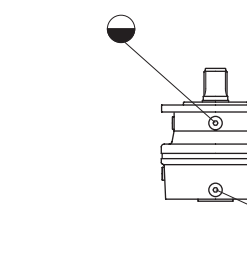
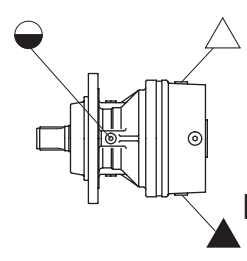
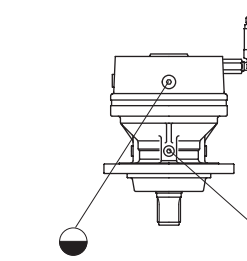
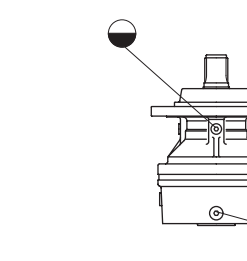
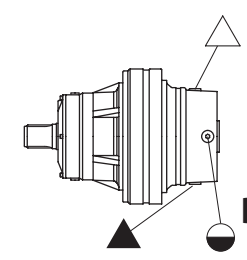
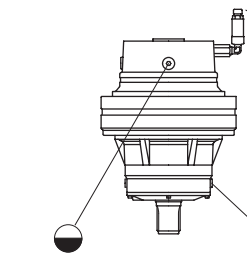
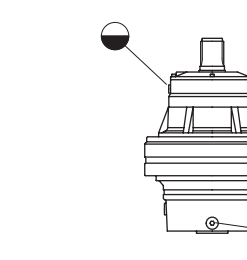
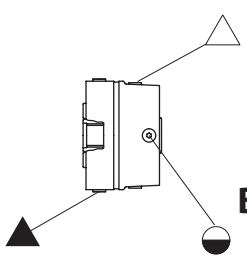
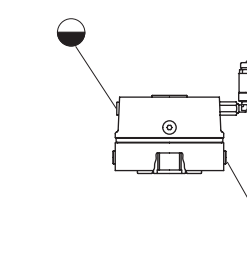
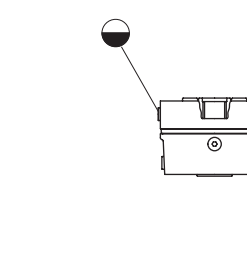
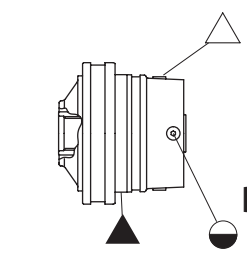
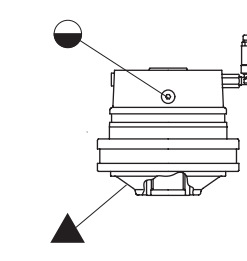
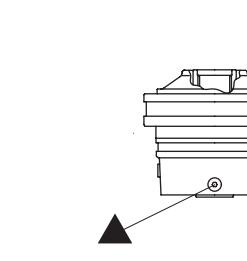
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<b>B3</b>	<b>V5</b>	<b>V6</b>	<b>B8</b>
			
<b>B6</b>	<b>B7</b>	<b>B5</b>	<b>V1</b>
			
<b>V3</b>			

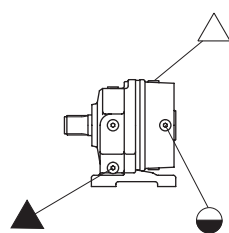




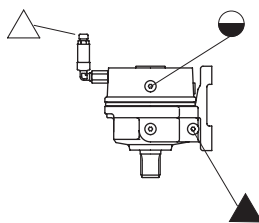
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110÷1520				
T-TL-TR	 <p><b>B5</b></p>	 <p><b>V1</b></p>	 <p><b>V3</b></p>	
110÷810				
H	 <p><b>B5</b></p>	 <p><b>V1</b></p>	 <p><b>V3</b></p>	
1520÷130000				
F	 <p><b>B5</b></p>	 <p><b>V1</b></p>	 <p><b>V3</b></p>	
110÷810				
F	 <p><b>B5</b></p>	 <p><b>V1</b></p>	 <p><b>V3</b></p>	
1020÷1520				



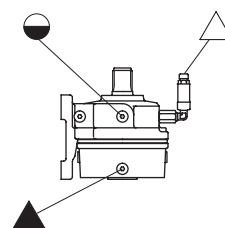
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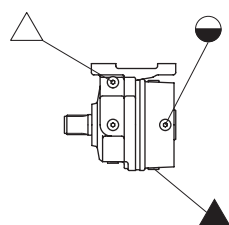
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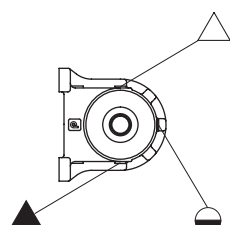
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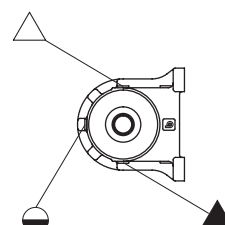
**V6**



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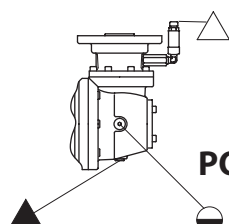
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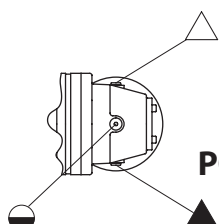
**B7**

**110÷810**

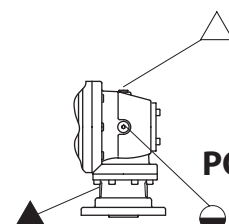
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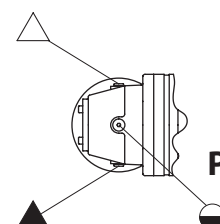
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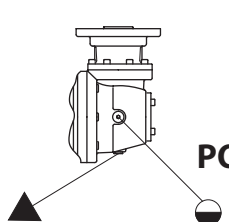
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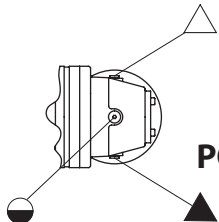
**POS.3**

**110÷510**

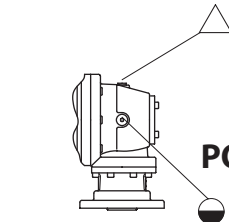
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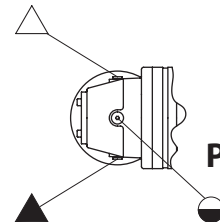
**POS.0**



**POS.1**




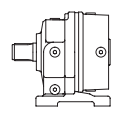
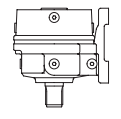
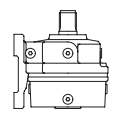
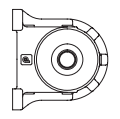
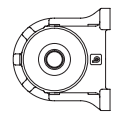
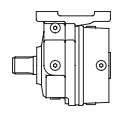
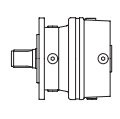
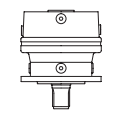
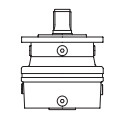
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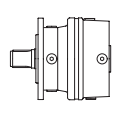
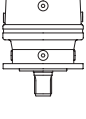
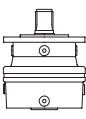
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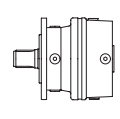
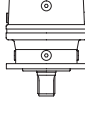
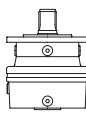
**110÷510**




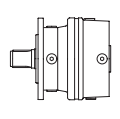
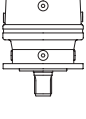
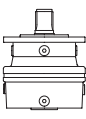
[Liters]	B3	V5	V6	B6	B7	B8	B5	V1	V3
									
RE 111	0.7	1.4	1.4	0.7	1.4	1.4	0.4	0.8	0.8
RE 112	0.9	1.8	1.8	0.9	1.8	1.8	0.5	1	1
RE 113	1.1	2.2	2.2	1.1	2.2	2.2	0.7	1.4	1.4
RE 114	1.3	2.6	2.6	1.3	2.6	2.6	0.8	1.6	1.6
RE 211	0.8	1.6	1.6	0.8	1.6	1.6	0.5	1	1
RE 212	1	2	2	1	2	2	0.6	1.2	1.2
RE 213	1.2	2.4	2.4	1.2	2.4	2.4	0.7	1.4	1.4
RE 214	1.4	2.8	2.8	1.4	2.8	2.8	0.9	1.8	1.8
RE 241	0.8	1.6	1.6	0.8	1.6	1.6	0.5	1	1
RE 242	1	2	2	1	2	2	0.6	1.2	1.2
RE 243	1.2	2.4	2.4	1.2	2.4	2.4	0.7	1.4	1.4
RE 244	1.4	2.8	2.8	1.4	2.8	2.8	0.9	1.8	1.8
RE 311	1.4	2.8	2.8	1.4	2.8	2.8	1	2	2
RE 312	1.6	3.2	3.2	1.6	3.2	3.2	1.2	2.4	2.4
RE 313	1.7	3.4	3.4	1.7	3.4	3.4	1.3	2.6	2.6
RE 314	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RE 511	1.5	3	3	1.5	3	3	1.1	2.2	2.2
RE 512	1.7	3.4	3.4	1.7	3.4	3.4	1.3	2.6	2.6
RE 513	1.8	3.6	3.6	1.8	3.6	3.6	1.5	3	3
RE 514	1.9	3.8	3.8	1.9	3.8	3.8	1.6	3.2	3.2
RE 611	1.6	3.2	3.2	1.6	3.2	3.2	1.2	2.4	2.4
RE 612	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RE 613	1.9	3.8	3.8	1.9	3.8	3.8	1.6	3.2	3.2
RE 614	20	40	40	20	40	40	1.7	3.4	3.4
RE 811	1.8	3.6	3.6	1.8	3.6	3.6	1.5	3	3
RE 812	2	4	4	2	4	4	1.7	3.4	3.4
RE 813	2.2	4.4	4.4	2.2	4.4	4.4	1.9	3.8	3.8
RE 814	2.3	4.6	4.6	2.3	4.6	4.6	2	4	4
RE 1021	2.4	4.8	4.8	2.4	4.8	4.8	2.1	4.2	4.2
RE 1022	2.6	5.2	5.2	2.6	5.2	5.2	2.3	4.6	4.6
RE 1023	2.7	5.4	5.4	2.7	5.4	5.4	2.4	4.8	4.8
RE 1024	2.9	5.8	5.8	2.9	5.8	5.8	2.6	5.2	5.2


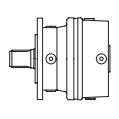
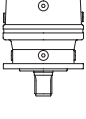



[Liters]	B5	V1	V3
			
RE 1521	2.7	5.4	5.4
RE 1522	3	6	6
RE 1523	3.2	6.4	6.4
RE 1524	3.4	6.8	6.8
RE 2001	2.7	5.4	5.4
RE 2002	3	6	6
RE 2003	3.3	6.6	6.6
RE 2004	3.4	6.8	6.8
RE 2002L	3	6	6
RE 2003L	3.1	6.2	6.2
RE 2004L	3.2	6.4	6.4
RE 2521	7.7	15.4	15.4
RE 2522	9	18	18
RE 2523	9.4	18.8	18.8
RE 2524	9.9	19.8	19.8
RE 3001	7.6	15.2	15.2
RE 3002	9.1	18.2	18.2
RE 3003	9.5	19	19
RE 3004	10	20	20
RE 3511	4.9	9.8	9.8
RE 3512	5.7	11.4	11.4
RE 3513	6	12	12
RE 3514	6.2	12.4	12.4
RE 4801	4.7	9.4	9.4
RE 4802	6.8	13.6	13.6
RE 4803	7.2	14.4	14.4
RE 4804	7.4	14.8	14.8
RE 6001	7.5	15	15
RE 6002	8.5	17	17
RE 6003	9	18	18
RE 6004	9.3	18.6	18.6
RE 6002L	8.5	17	17
RE 6003L	9	18	18


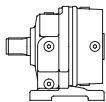
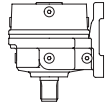
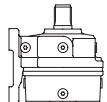
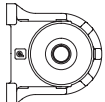
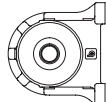
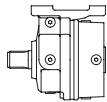
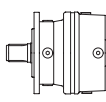
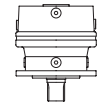
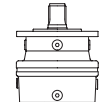
[Liters]	B5	V1	V3
			
RE 6004L	9.2	18.4	18.4
RE 8001	8.3	16.6	16.6
RE 8002	10.2	20.4	20.4
RE 8003	11	22	22
RE 8004	11.5	23	23
RE 8005	11.7	23.4	23.4
RE 8002L	10.2	20.4	20.4
RE 8003L	10.8	21.6	21.6
RE 8004L	11.4	22.8	22.8
RE 8005L	11.6	23.2	23.2
GB 12011	13.5	27	27
GB 12012	15.5	31	31
GB 12013	16.5	33	33
GB 12014	16.8	33.6	33.6
GB 12015	17	34	34
GB 12012L	15.5	31	31
GB 12013L	16.3	32.6	32.6
GB 12014L	16.7	33.4	33.4
GB 12015L	17	34	34
GB 16001	14.5	29	29
GB 16002	18	36	36
GB 16003	19.2	38.4	38.4
GB 16004	19.6	39.2	39.2
GB 16005	19.8	39.6	39.6
GB 16002L	17	34	34
GB 16003L	18	36	36
GB 16004L	18.5	37	37
GB 16005L	18.7	37.4	37.4
GB 21001	20	40	40
GB 21002	23.5	47	47
GB 21003	24.5	49	49
GB 21004	25	50	50
GB 21005	25.5	51	51




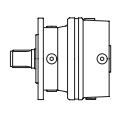
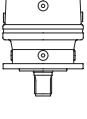
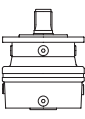
[Liters]	B5	V1	V3
			
GB 26001	20	40	40
GB 26002	25.5	51	51
GB 26003	27.5	55	55
GB 26004	28.5	57	57
GB 26005	29	58	58
GB 31001	38	76	76
GB 31002	46.5	93	93
GB 31003	48.5	97	97
GB 31004	49.5	99	99
GB 31005	50	100	100
GB 40001	41	82	82
GB 40002	49	98	98
GB 40003	51	102	102
GB 40004	52	104	104
GB 40005	52	104	104
GB 45001	41	82	82
GB 45002	50	100	100
GB 45003	53.5	107	107
GB 45004	55	110	110
GB 45005	55.5	111	111
GB 53001	70	140	140
GB 53002	80	160	160
GB 53003	85	170	170
GB 53004	86.5	173	173
GB 53005	87	174	174
GB 61001	70	140	140
GB 61002	80	160	160
GB 61003	85	170	170
GB 61004	86.5	173	173
GB 61005	87	174	174
GB 85001	75	150	150
GB 85002	87.5	175	175
GB 85003	93	186	186


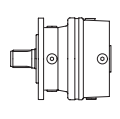
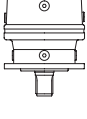

[Liters]	B5	V1	V3
			
GB 85004	95	190	190
GB 85005	95.5	191	191
GB 110001	145	290	290
GB 110002	170	340	340
GB 110003	180	360	360
GB 110004	183	366	366
GB 110005	185	370	370
GB 130001	144	288	288
GB 130002	172	344	344
GB 130003	181	362	362
GB 130004	185	370	370
GB 130005	186	372	372
GB 150001	143	286	286
GB 150002	172	344	344
GB 150003	185	370	370
GB 150004	187	374	374
GB 150005	188	376	376
GB 205001	255	510	510
GB 205002	300	600	600
GB 205003	318	636	636
GB 205004	326	652	652
GB 205005	329	658	658
GB 235001	255	510	510
GB 235002	300	600	600
GB 235003	335	670	670
GB 235004	345	690	690
GB 235005	247	494	494





[Liters]	B3-1	V5	V6	B6-1	B7	B8	B5-1	V1	V3
									
RA 112	1.5	3	3	1.5	3	3	1.2	2.4	2.4
RA 113	1.7	3.4	3.4	1.7	3.4	3.4	1.3	2.6	2.6
RA 114	1.9	3.8	3.8	1.9	3.8	3.8	1.5	3	3
RA 212	1.6	3.2	3.2	1.6	3.2	3.2	1.3	2.6	2.6
RA 213	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RA 214	2	4	4	2	4	4	1.5	3	3
RA 242	1.6	3.2	3.2	1.6	3.2	3.2	1.3	2.6	2.6
RA 243	1.8	3.6	3.6	1.8	3.6	3.6	1.4	2.8	2.8
RA 244	2	4	4	2	4	4	1.5	3	3
RA 312	2.5	5	5	2.5	5	5	2.1	4.2	4.2
RA 313	2.4	4.8	4.8	2.4	4.8	4.8	2	4	4
RA 314	2.5	5	5	2.5	5	5	2.1	4.2	4.2
RA 512	2.6	5.2	5.2	2.6	5.2	5.2	2.2	4.4	4.4
RA 513	2.5	5	5	2.5	5	5	2.1	4.2	4.2
RA 514	2.6	5.2	5.2	2.6	5.2	5.2	2.3	4.6	4.6
RA 612	2.7	5.4	5.4	2.7	5.4	5.4	2.3	4.6	4.6
RA 613	2.9	5.8	5.8	2.9	5.8	5.8	2.5	5	5
RA 614	2.7	5.4	5.4	2.7	5.4	5.4	2.4	4.8	4.8
RA 812	3.8	7.6	7.6	3.8	7.6	7.6	3.5	7	7
RA 813	3.1	6.2	6.2	3.1	6.2	6.2	2.8	5.6	5.6
RA 814	3	6	6	3	6	6	2.7	5.4	5.4
RA 1022	4.4	8.8	8.8	4.4	8.8	8.8	4.1	8.2	8.2
RA 1023	3.7	7.4	7.4	3.7	7.4	7.4	3.4	6.8	6.8
RA 1024	3.5	7	7	3.5	7	7	3.2	6.4	6.4


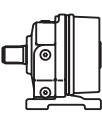
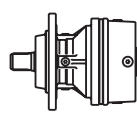
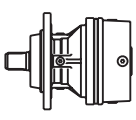
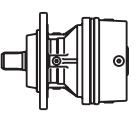
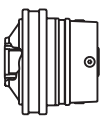
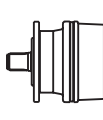
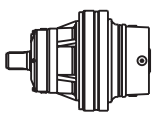


[Liters]	B5-1	V1	V3
			
RA 1522	5.7	11.4	11.4
RA 1523	4.1	8.2	8.2
RA 1524	4	8	8
RA 2002	5.7	11.4	11.4
RA 2003	4.1	8.2	8.2
RA 2004	4.1	8.2	8.2
RA 2003L	4.1	8.2	8.2
RA 2004L	3.9	7.8	7.8
RA 2522	10.7	21.4	21.4
RA 2523	11	22	22
RA 2524	10.5	21	21
RA 3002	10.6	21.2	21.2
RA 3003	11.1	22.2	22.2
RA 3004	10.6	21.2	21.2
RA 3512	14.9	29.8	29.8
RA 3513	7.7	15.4	15.4
RA 3514	7.1	14.2	14.2
RA 4802	14.7	29.4	29.4
RA 4803	9.8	19.6	19.6
RA 4804	8.3	16.6	16.6
RA 6002	17.5	35	35
RA 6003	11.5	23	23
RA 6004	10.1	20.2	20.2
RA 6003L	11.5	23	23
RA 6004L	10.1	20.2	20.2
RA 8002	18.3	36.6	36.6
RA 8003	13.2	26.4	26.4
RA 8004	13	26	26
RA 8003L	13.2	26.4	26.4
RA 8004L	12.8	25.6	25.6
GBA 12013	18.5	37	37
GBA 12014	18.5	37	37
GBA 12015	17.9	35.8	35.8
GBA 12013L	18.5	37	37
GBA 12014L	18.3	36.6	36.6
GBA 12015L	18	36	36
GBA 16003	28	56	56
GBA 16004	22.2	44.4	44.4
GBA 16005	20.7	41.4	41.4


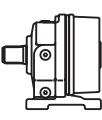
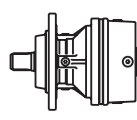
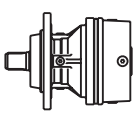
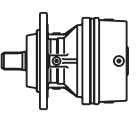
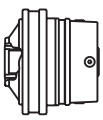
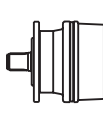
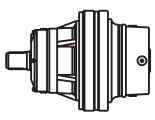
[Liters]	B5-1	V1	V3
			
GBA 16003L	27	54	54
GBA 16004L	21	42	42
GBA 16005L	19.6	39.2	39.2
GBA 21003	33.5	67	67
GBA 21004	27.5	55	55
GBA 21005	26.1	52.2	52.2
GBA 26003	35.5	71	71
GBA 26004	30.5	61	61
GBA 26005	30.5	61	61
GBA 31004	51.5	103	103
GBA 31005	51.5	103	103
GBA 40004	54	108	108
GBA 40005	54	108	108
GBA 45004	63.5	127	127
GBA 45005	58.5	117	117
GBA 53004	96.5	193	193
GBA 53005	90	180	180
GBA 61004	95	190	190
GBA 61005	89.5	179	179
GBA 61006	88	176	176
GBA 85004	103	206	206
GBA 85005	98	196	196
GBA 85006	97	194	194
GBA 110005	186	372	372
GBA 110006	187	374	374
GBA 130005	380	760	388
GBA 130006	189	378	378

CC		
[Liters]		
		
CC30	1.6	Complete filling
CC120	2.2	
CC350	4	
CC600	6	
CC1000	16	


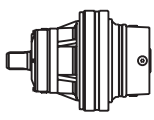
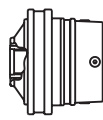



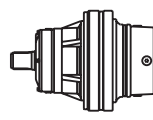
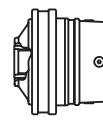
	P	T	TL	TR	F	N	H
							
RE 111	23	20	—	20	14	17	—
RE 112	29.5	26.5	—	26.5	21	24	—
RE 113	36.5	33.5	—	33.5	27.5	30.5	—
RE 114	43	40	—	40	34	37	—
RE 211	25	22	—	22	16	19	—
RE 212	32	29	—	29	23	26	—
RE 213	38	35	—	35	30	32	—
RE 214	45	42	—	42	37	39	—
RE 241	25	—	—	22	—	—	—
RE 242	32	—	—	29	—	—	—
RE 243	38	—	—	35	—	—	—
RE 244	45	—	—	42	—	—	—
RE 311	52	47	47	—	24	35	—
RE 312	59	54	54	—	31	42	—
RE 313	66	61	61	—	38	49	—
RE 314	72	67	66	—	45	56	—
RE 511	57	52	52	—	29	40	—
RE 512	66	61	61	—	38	49	—
RE 513	73	68	68	—	45	56	—
RE 514	80	75	75	—	52	63	—
RE 611	58	53	53	—	30	41	—
RE 612	72	67	67	—	44	55	—
RE 613	79	74	74	—	51	62	—
RE 614	86	81	81	—	58	69	—
RE 811	80	70	—	—	—	67	—
RE 812	94	84	—	—	—	80	—
RE 813	100	90	—	—	—	87	—
RE 814	107	97	—	—	—	94	—
RE 1021	100	90	—	—	60	—	—
RE 1022	117	107	—	—	77	—	—




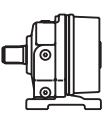
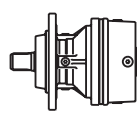
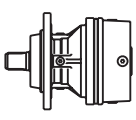
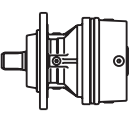
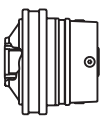
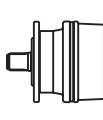
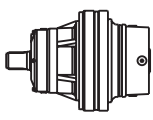
	P	T	TL	TR	F	N	H
							
RE 1023	126	116	—	—	86	—	—
RE 1024	133	123	—	—	93	—	—
RE 1521	—	123	—	—	84	—	130
RE 1522	—	141	—	—	102	—	148
RE 1523	—	149	—	—	110	—	156
RE 1524	—	156	—	—	117	—	163
RE 2001	—	124	—	—	85	—	131
RE 2002	—	142	—	—	104	—	150
RE 2003	—	156	—	—	118	—	163
RE 2004	—	163	—	—	125	—	170
RE 2002L	—	137	—	—	99	—	145
RE 2003L	—	149	—	—	111	—	156
RE 2004L	—	153	—	—	115	—	160
RE 2521	—	—	—	—	151	—	185
RE 2522	—	—	—	—	180	—	214
RE 2523	—	—	—	—	194	—	228
RE 2524	—	—	—	—	201	—	235
RE 3001	—	—	—	—	152	—	186
RE 3002	—	—	—	—	199	—	233
RE 3003	—	—	—	—	207	—	241
RE 3004	—	—	—	—	216	—	250
RE 3511	—	—	—	—	225	—	239
RE 3512	—	—	—	—	260	—	274
RE 3513	—	—	—	—	278	—	292
RE 3514	—	—	—	—	287	—	301
RE 4801	—	—	—	—	226	—	240
RE 4802	—	—	—	—	311	—	325
RE 4803	—	—	—	—	330	—	344
RE 4804	—	—	—	—	339	—	353




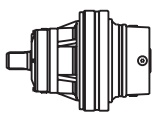
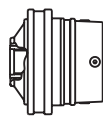
	H	F
		
RE 6002L	365	340
RE 6003L	375	350
RE 6004L	382	357
RE 6001	315	290
RE 6002	370	345
RE 6003	390	365
RE 6004	395	370
RE 8001	410	380
RE 8002	500	470
RE 8003	540	510
RE 8004	555	525
RE 8005	560	530
RE 8002L	485	455
RE 8003L	520	490
RE 8004L	530	500
RE 8005L	535	505
GB 12011	650	615
GB 12012	750	715
GB 12013	785	750
GB 12014	800	765
GB 12015	810	775
GB 12012L	700	665
GB 12013L	745	710
GB 12014L	750	715
GB 12015L	757	722
GB 16001	690	655
GB 16002	860	825
GB 16003	915	880
GB 16004	935	900
GB 16005	940	905
GB 16002L	860	825
GB 16003L	865	830
GB 16004L	885	850
GB 16005L	890	855
GB 21001	930	880
GB 21002	1115	1065
GB 21003	1165	1115
GB 21004	1190	1140
GB 21005	1205	1155
GB 26001	980	920
GB 26002	1230	1170
GB 26003	1330	1270
GB 26004	1360	1300
GB 26005	1380	1320
GB 31001	1900	1750
GB 31002	2280	2130
GB 31003	2375	2225
GB 31004	2410	2260
GB 31005	2425	2275
GB 40001	2030	1880



	H	F
		
GB 40002	2400	2250
GB 40003	2500	2350
GB 40004	2530	2380
GB 40005	2540	2390
GB 45001	2030	1880
GB 45002	2435	2285
GB 45003	2610	2460
GB 45004	2665	2515
GB 45005	2682	2532
GB 53001	3550	3200
GB 53002	4060	3710
GB 53003	4250	3900
GB 53004	4350	4000
GB 53005	4370	4020
GB 61001	3550	3200
GB 61002	4060	3710
GB 61003	4250	3900
GB 61004	4350	4000
GB 61005	4370	4020
GB 85001	3850	3450
GB 85002	4410	4010
GB 85003	4650	4250
GB 85004	4750	4350
GB 85005	4785	4385
GB 110001	7520	6620
GB 110002	8780	7880
GB 110003	9155	8255
GB 110004	9250	8350
GB 110005	9285	8385
GB 130001	7535	6635
GB 130002	8800	7900
GB 130003	9210	8310
GB 130004	9380	8480
GB 130005	9430	8530
GB 150001	7550	6650
GB 150002	8795	7895
GB 150003	9280	8380
GB 150004	9460	8560
GB 150005	9500	8600
GB 205001	12240	11790
GB 205002	14330	13880
GB 205003	15040	14590
GB 205004	15410	14960
GB 205005	15500	15050
GB 235001	12250	11800
GB 235002	14580	14130
GB 235003	15830	15380
GB 235004	16200	15750
GB 235005	16300	15850



	P	T	TL	TR	F	N	H
							
RA 112	43	40	—	40	34	37	—
RA 113	49.5	46.5	—	46.5	41	44	—
RA 114	56.5	53.5	—	53.5	47.5	50.5	—
RA 212	45	42	—	42	36	39	—
RA 213	52	49	—	49	43	46	—
RA 214	58	55	—	55	50	52	—
RA 242	45	—	—	42	—	—	—
RA 243	52	—	—	49	—	—	—
RA 244	58	—	—	55	—	—	—
RA 312	102	97	97	—	74	85	—
RA 313		74	74	—	51	62	—
RA 314	86	81	81	—	58	69	—
RA 512	107	102	102	—	79	90	—
RA 513	86	81	81	—	58	69	—
RA 514	93	88	88	—	65	76	—
RA 612	108	103	103	—	80	91	—
RA 613	122	117	117	—	94	105	—
RA 614	99	94	94	—	71	82	—
RA 812	170	160	—	—	—	157	—
RA 813	144	134	—	—	—	130	—
RA 814	120	110	—	—	—	107	—
RA 1022	190	180	—	—	150	—	—
RA 1023	167	157	—	—	127	—	—
RA 1024	146	136	—	—	106	—	—
RA 1522	—	258	—	—	219	—	265
RA 1523	—	191	—	—	152	—	198
RA 1524	—	169	—	—	130	—	176
RA 2002	—	259	—	—	220	—	266
RA 2003	—	192	—	—	154	—	200
RA 2004	—	176	—	—	138	—	183
RA 2003L	—	187	—	—	149	—	195
RA 2004L	—	169	—	—	131	—	176
RA 2522	—	—	—	—	286	—	320
RA 2523	—	—	—	—	270	—	304
RA 2524	—	—	—	—	214	—	248
RA 3002	—	—	—	—	287	—	321
RA 3003	—	—	—	—	289	—	323
RA 3004	—	—	—	—	257	—	291
RA 3512	—	—	—	—	575	—	589
RA 3513	—	—	—	—	350	—	364
RA 3514	—	—	—	—	398	—	412
RA 4802	—	—	—	—	576	—	590
RA 4803	—	—	—	—	446	—	460
RA 4804	—	—	—	—	380	—	394



	H	F
		
RA 6002	665	640
RA 6003	505	480
RA 6004	440	415
RA 6003L	500	475
RA 6004L	425	400
RA 8002	760	730
RA 8003	635	605
RA 8004	630	600
RA 8003L	620	590
RA 8004L	610	580
GBA 12013	885	850
GBA 12014	875	840
GBA 12015	850	815
GBA 12013L	835	800
GBA 12014L	835	800
GBA 12015L	800	765
GBA 16003	1210	1175
GBA 16004	1050	1015
GBA 16005	985	950
GBA 16003L	1210	1175
GBA 16004L	1000	965
GBA 16005L	935	900
GBA 21003	1465	1415
GBA 21004	1300	1250
GBA 21005	1240	1190
GBA 26003	1580	1520
GBA 26004	1465	1405
GBA 26005	1450	1390
GBA 31004	2510	2360
GBA 31005	2500	2350
GBA 40004	2635	2485
GBA 40005	2620	2470
GBA 45004	2960	2810
GBA 45005	2800	2650
GBA 53004	4600	4250
GBA 53005	4485	4135
GBA 61004	4600	4250
GBA 61005	4485	4135
GBA 61006	4420	4070
GBA 85004	5000	4600
GBA 85005	4885	4485
GBA 85006	4875	4475
GBA 110005	9385	8485
GBA 110006	9375	8475
GBA 130005	9730	8830
GBA 130006	9365	8665

	CC
	
CC30	35
CC120	50
CC350	90
CC600	135
CC1000	350







