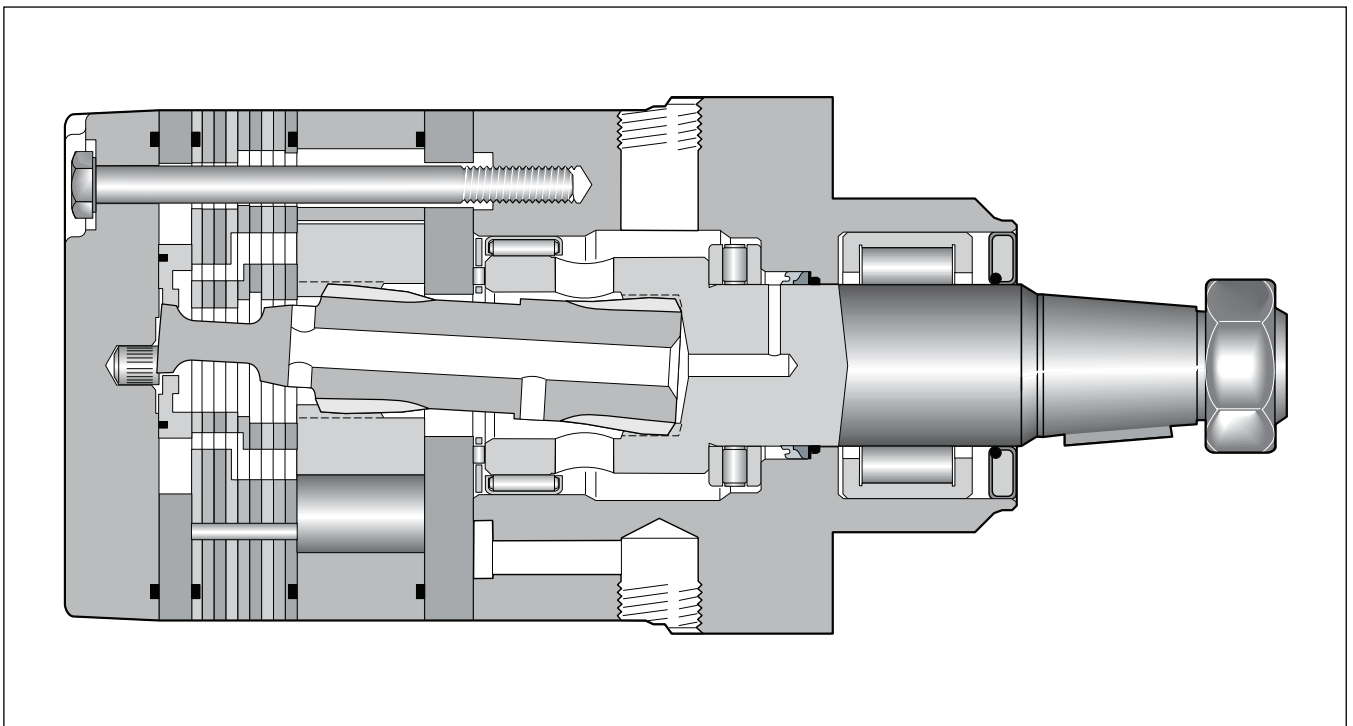
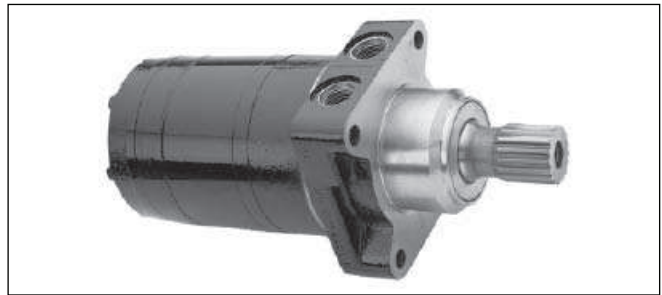
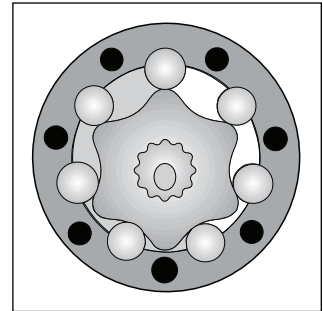
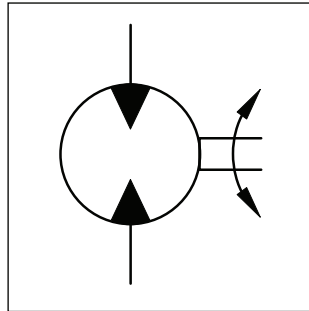


- **Langsamlaufender Gerotor-Motor**
  - **Spezielle Orbital-Steuerung**  
Geringe interne Leckage  
Hoher volumetrischer Wirkungsgrad
  - **Rollen im Rotorsatz**  
Reduzierte Reibung  
Lange Lebensdauer
  - **Patentierter Hochdruckwellendichtung**  
Keine Leckölleitung  
Keine Rückschlagventile
  - **Vielzahl von Varianten**  
Großer Einsatzbereich
- 
- **Moteur lent système Gerotor**
  - **Une distribution orbitale particulière assurée**  
fuites internes minimales  
rendements volumétriques élevés
  - **Le rotor à rouleaux**  
réduit les frottements  
augmente la durée de vie
  - **Par l'utilisation de joints d'arbre haute pression brevetés**  
pas de conduite de drainage  
pas de clapets anti-retour
  - **Grâce à de nombreuses variantes**  
larges domaines d'application
- 
- **Low Speed Gerotor Motor**
  - **Zero leak commutation valve**  
For greater, more consistent volumetric efficiency
  - **Roller vane rotor set**  
Reduces friction and internal leakage  
Maintaining efficiency throughout the life of the motor
  - **A patented high-pressure shaft seal**  
No check valves needed  
No extra plumbing
  - **Wide choice of displacement range, flange and shaft options**  
Greater efficiency in systems design to suit your application
- 
- **Motore orbitale a bassa velocità**
  - **Una particolare distribuzione orbitale assicurata**  
trafilamento ridotto  
elevato rendimento volumetrico
  - **Con lo statore a rullini**  
si riduce l'attrito interno  
si mantiene nel tempo l'efficienza del motore
  - **Una guarnizione di tenuta ad alta pressione brevettata elimina la necessità**  
di una linea di drenaggio esterna  
e di valvole di non ritorno
  - **Un'ampia gamma di cilindrate, flange ed alberi**  
consentono scelte adeguate ad ogni esigenza costruttiva



**Performance**

Drehzahl Speed Vitesse de rotation Velocità di rotazione	max. 710 rev/min
Schluckstrom Oil flow Débit d'huile Portata	max. 115 l/min
Eingangsdruck Supply pressure Pression entrée Pressione in entrata	max. 300 bar
Torque Couple Coppia	max. 1490 Nm
Seitenlast Side load Charges latérales Carico radiale	max. 30.000 N See page 60



Motor series TH	Geom. Schluckvolumen Geometric displacement Cylindrée Cilindrata	Max. Drehzahl Max. speed Vitesse de rotation maxi Velocità di rotazione maxi	Max. Schluckstrom Max. oil flow Débit d'huile maxi Portata max	Max. Druckdifferenz ** Max. differential pressure ** Chute de pression maxi ** Caduta di pressione max **	Max. Eingangsdruck Max. supply pressure Pression maxi entrée Pressione max in entrata	Max. Drehmoment Max. torque Couple maxi Coppia max	Max. Leistungabgabe Max. performance Puissance de sortie maxi Potenza meccanica max	Min. Anlaufmoment Min. starting torque Couple min. fourni au démarrage Coppia min. di spunto
	[cm <sup>3</sup> /U] [cm <sup>3</sup> /rev]	cont / int* [U/min] [rev/min]	cont / int* [l/min]	cont / int* [bar]	max [bar]	cont / int* [Nm]	cont / int* [KW]	cont / int* [Nm]
TH 140	141	530/710	75/100	210/280	300	400/545	33	320/436
TH 170	169	440/575	75/100	210/280	300	485/670	33	388/536
TH 195	195	380/510	75/100	210/280	300	560/770	33	448/616
TH 240	238	320/420	75/100	210/280	300	685/945	32	548/756
TH 280	280	270/350	75/100	210/280	300	800/1100	31	675/880
TH 335	337	225/290	75/100	210/280	300	980/1350	30	784/1080
TH 405	405	185/245	75/100	170/240	300	960/1350	27	791/1145
TH 475	477	160/240	75/115	140/210	300	960/1400	28	768/1120
TH 530	529	140/215	75/115	140/170	300	1050/1280	23	874/1091
TH 625	613	120/185	75/115	120/160	300	1040/1360	20	895/1165
TH 785	786	95/145	75/115	100/140	300	1150/1490	17	991/1341
TH 960	959	78/119	75/115	70/100	300	925/1390	12	763/1177

\*int. =

Intermittierende Werte maximal: 10% von jeder Betriebsminute.

Intermittent operation rating applies to 10% of every minute.

Fonctionnement interm.: 10% max. de chaque minute d'utilisation.

Servizio intermittente: 10% max di ogni minuto di utilizzazione.

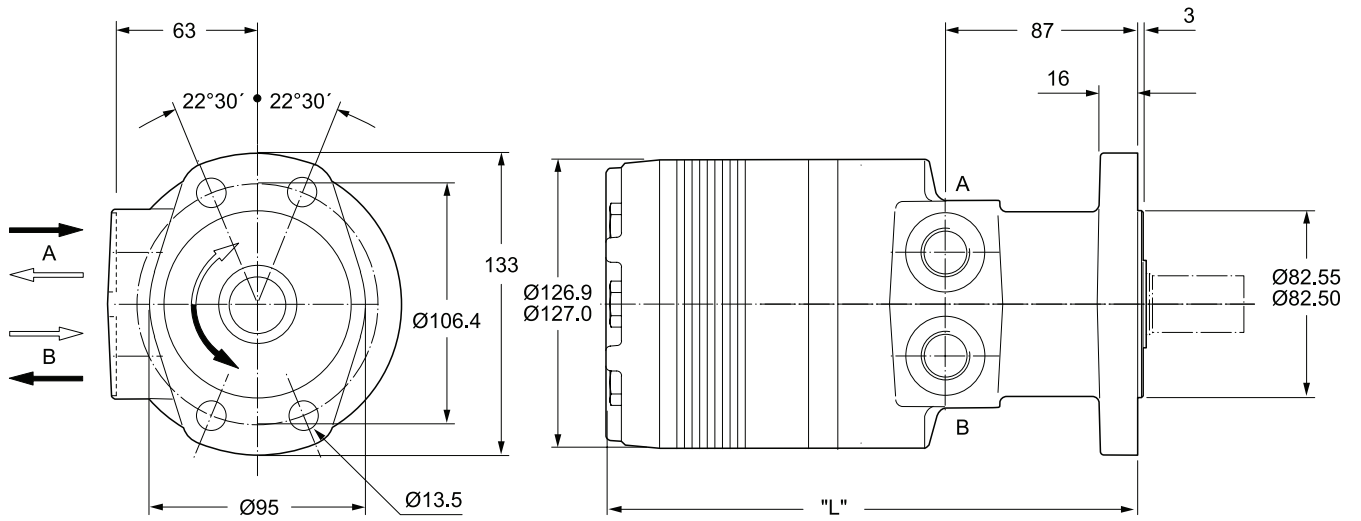
\*\* Druckdifferenz Δp zwischen Ein- und Ausgang

\*\* Pressure difference is Δp between input and output

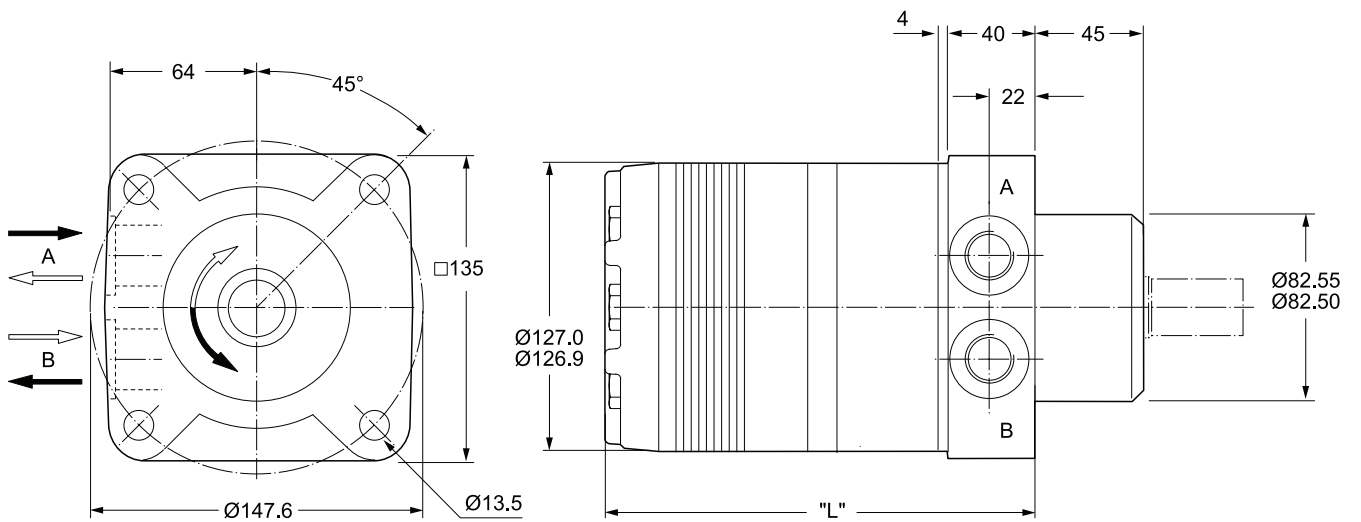
\*\* La différence de pression est Δp entre l'entrée et la sortie

\*\* La differenza di pressione corrisponde al Δp tra ingresso e uscita

**Code M**

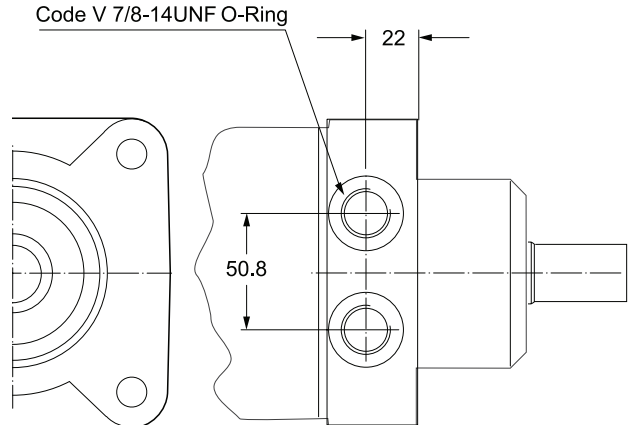
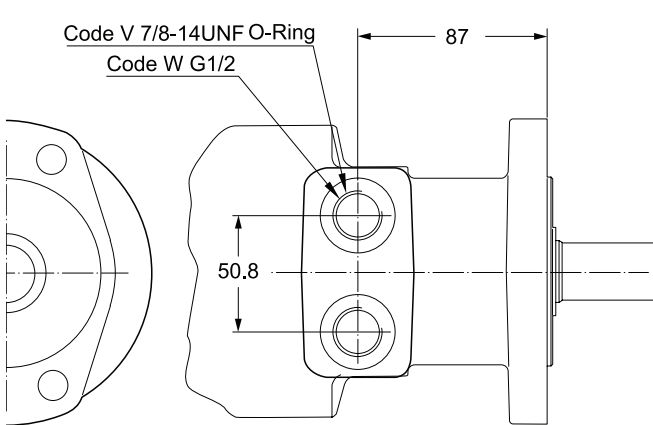


**Code U**

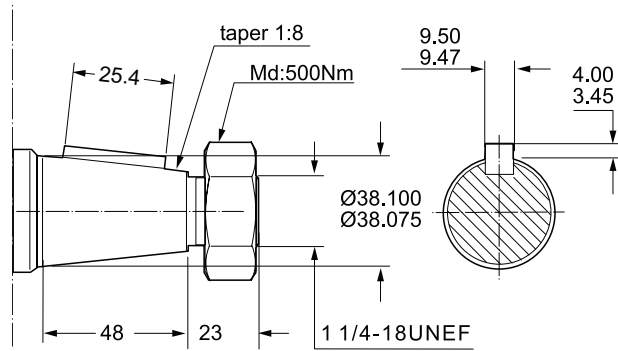


Gewicht / Weight	TH140	TH170	TH195	TH240	TH280	TH335	TH405	TH475	TH530	TH625	TH785	TH960
Poids / Peso [kg]	17.0	17.2	17.4	17.8	18.2	18.6	19.2	19.8	20.6	21.3	22.9	24.5
Code M "L" [mm]	216	219	222	227	232	238	245	254	260	270	289	308
Code U "L" [mm]	173	177	180	184	189	196	203	212	218	227	246	265

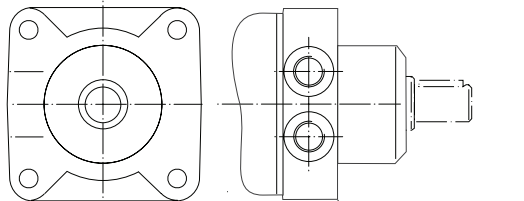
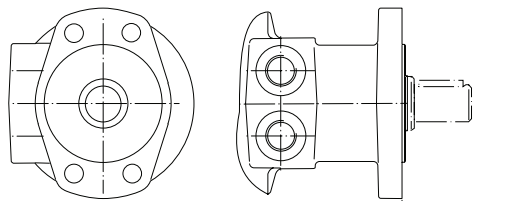
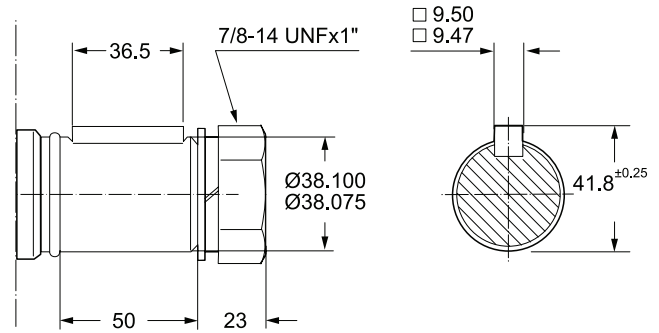
**Ports**



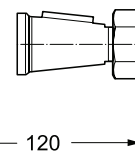
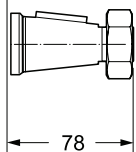
**Coupling shaft  
 Code 31**



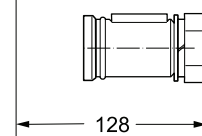
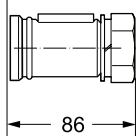
**Code 32**



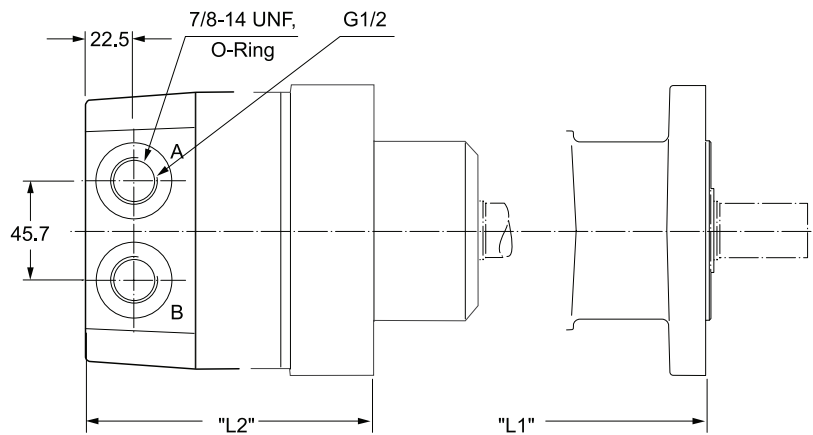
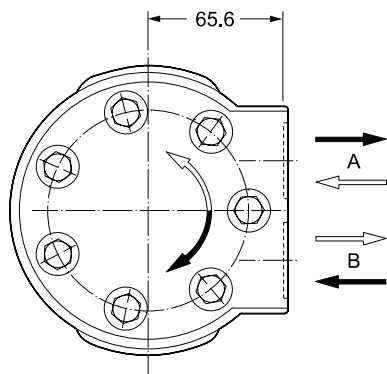
**Code 31**



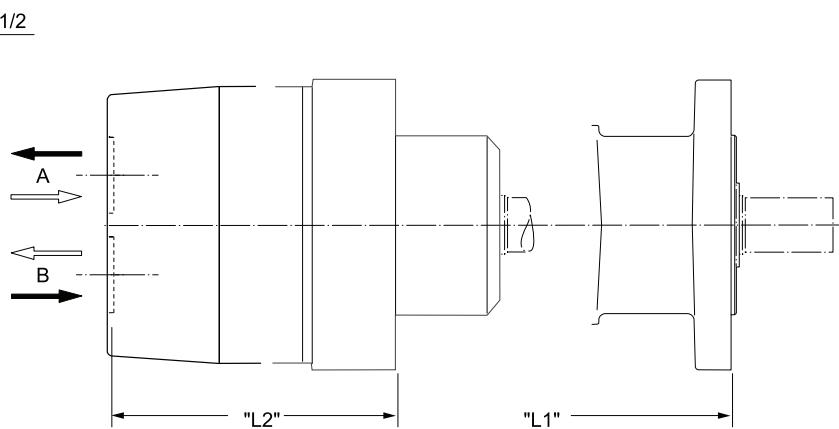
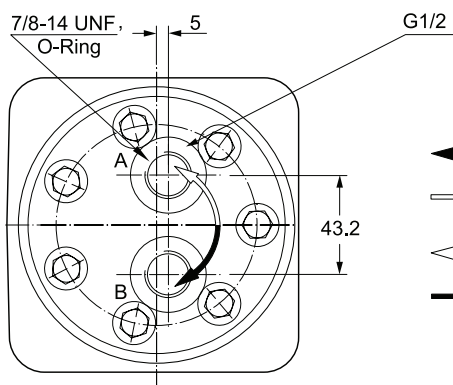
**Code 32**



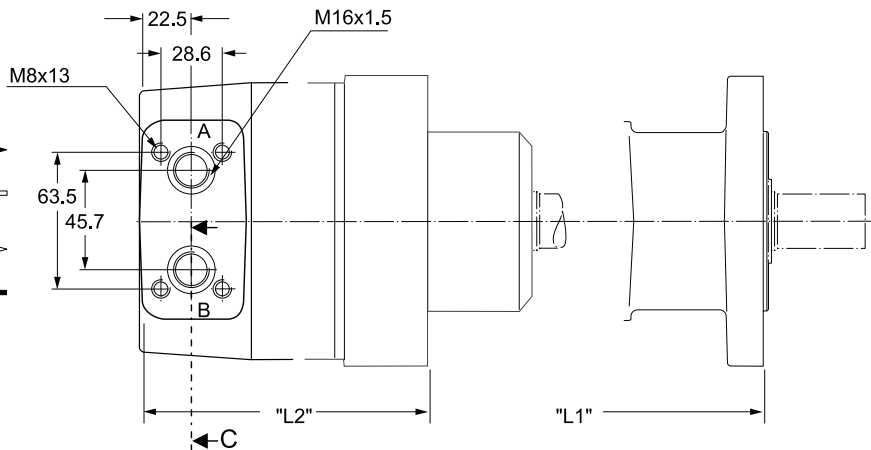
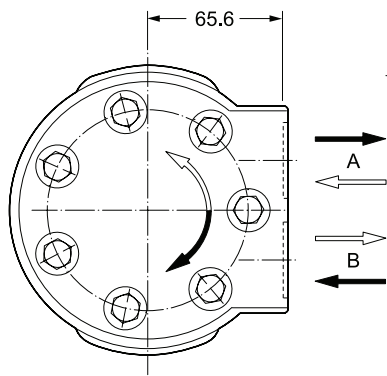
**Code B 7/8-14UNF Code X G 1/2**



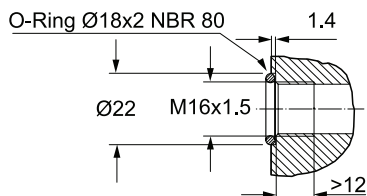
**Code A 7/8-14UNF Code Y G 1/2**



**Code L**



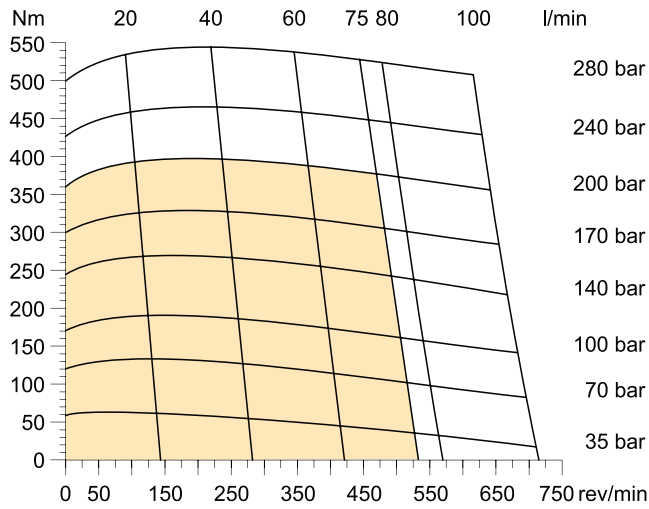
**Section C**



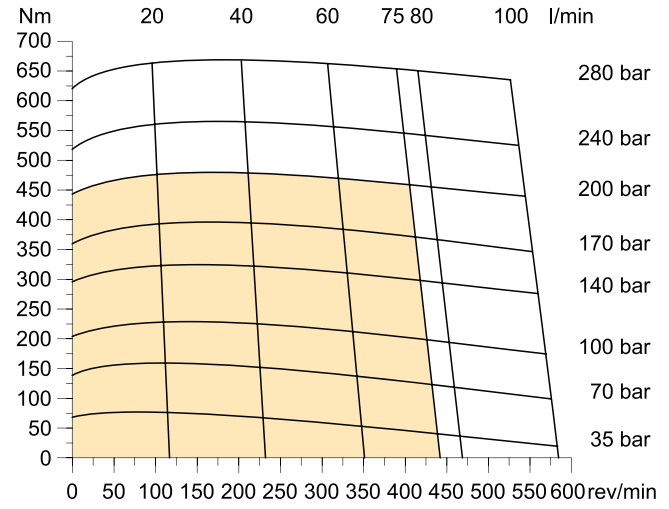
Zum Motor mit Universalanschluss werden 2 O-Ringe geliefert.  
 Motor with manifold mount is supplied with 2 O-rings.  
 Deux joints toriques sont livrés avec les moteurs au plan de raccordement universel.  
 Il blocchetto connessioni è corredato da 2 OR.

Gewicht / Weight	TH140	TH170	TH195	TH240	TH280	TH335	TH405	TH475	TH530	TH625	TH785	TH960
Poids / Peso [kg]	18.6	18.8	19.0	19.4	19.8	20.2	20.8	21.4	22.2	22.9	24.5	26.1
Code "L1" [mm]	241	244	247	252	257	263	270	279	285	295	314	333
B, X, L, A, Y "L2" [mm]	198	202	205	209	214	221	228	237	243	252	271	290

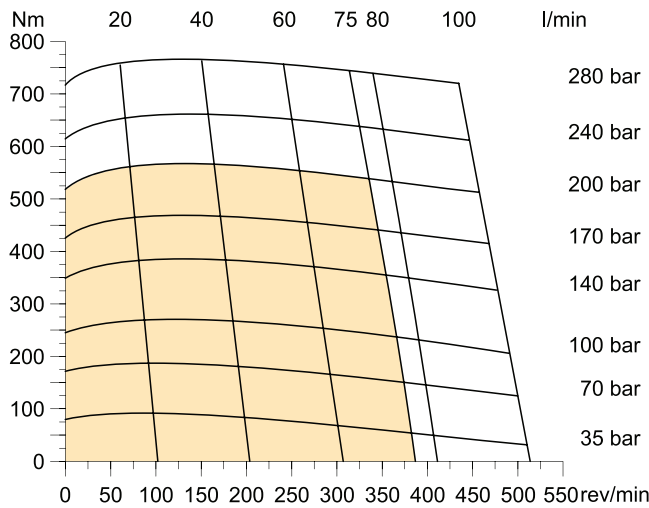
**TH 140**



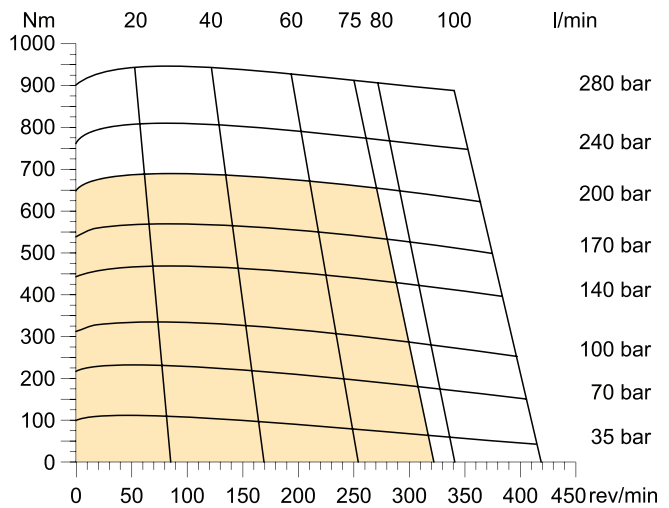
**TH 170**



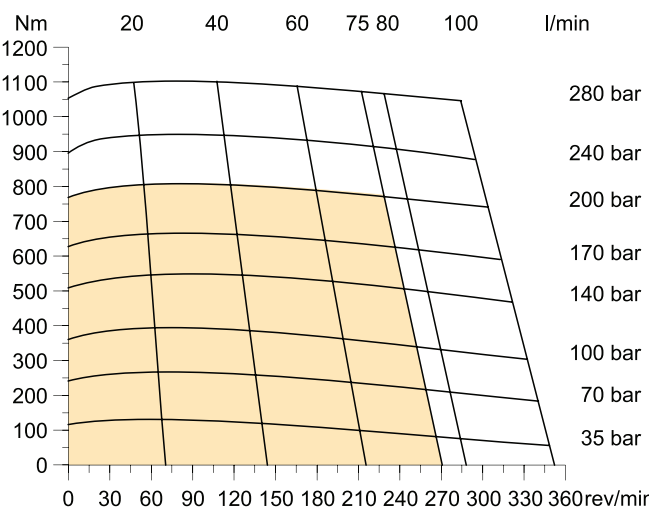
**TH 195**



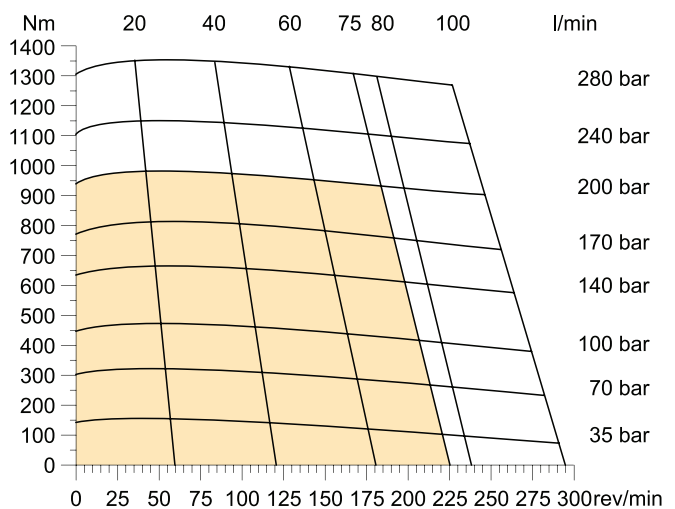
**TH 240**



**TH 280**



**TH 335**



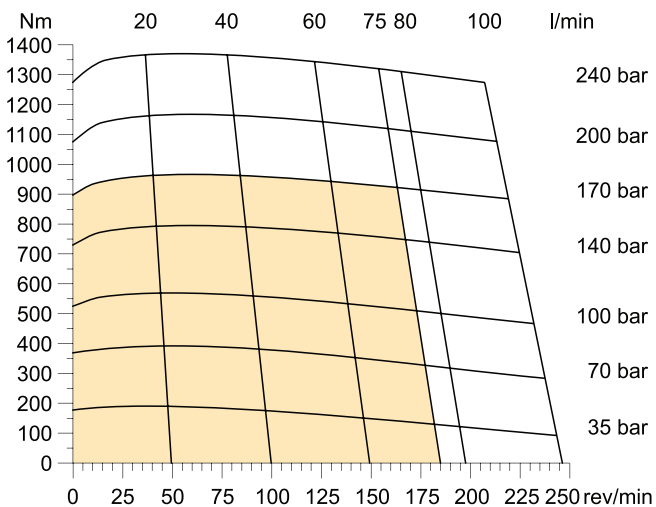
■ Cont.    □ Int.

int. =  
 Intermittierende Werte maximal: 10% von jeder Betriebsminute.  
 Intermittent operation rating applies to 10% of every minute.  
 Fonctionnement interm.: 10% max. de chaque minute d'utilisation.  
 Servizio intermittente: 10% max di ogni minuto di utilizzazione.

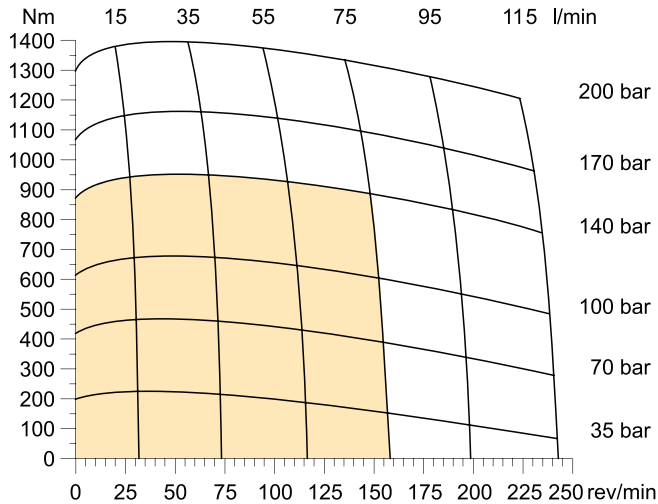
**Diagrams**

**Torqmotor Series TH**

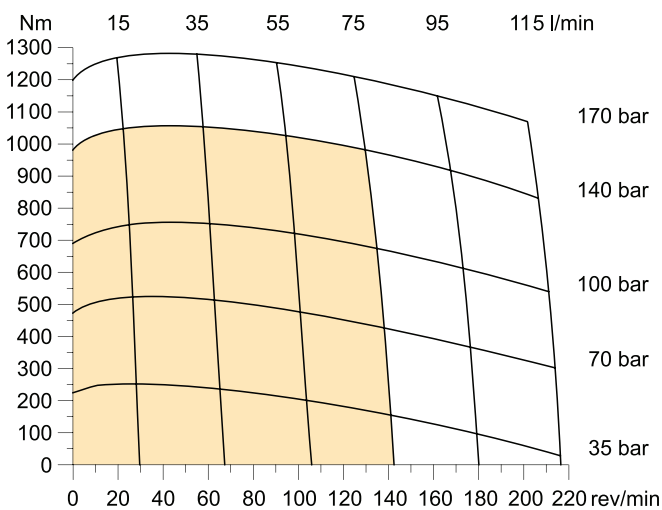
**TH 405**



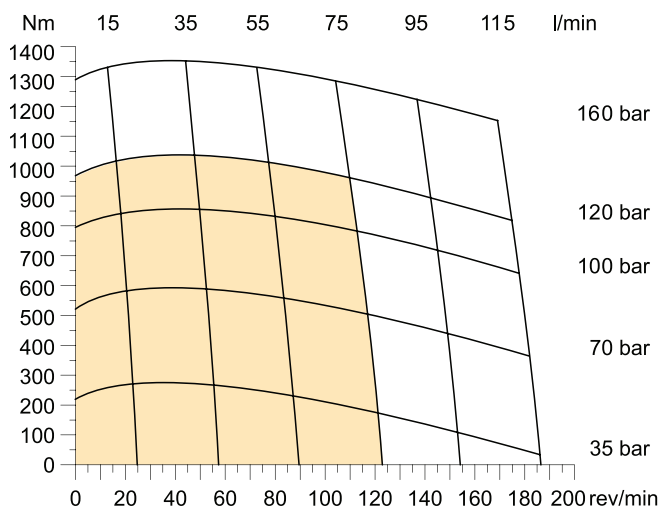
**TH 475**



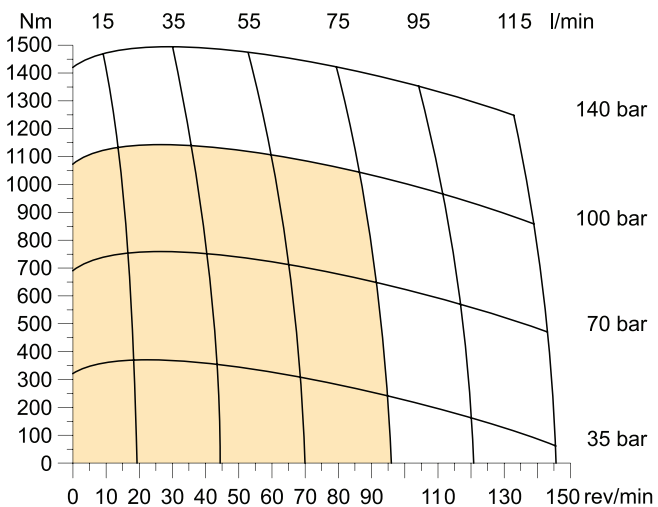
**TH 530**



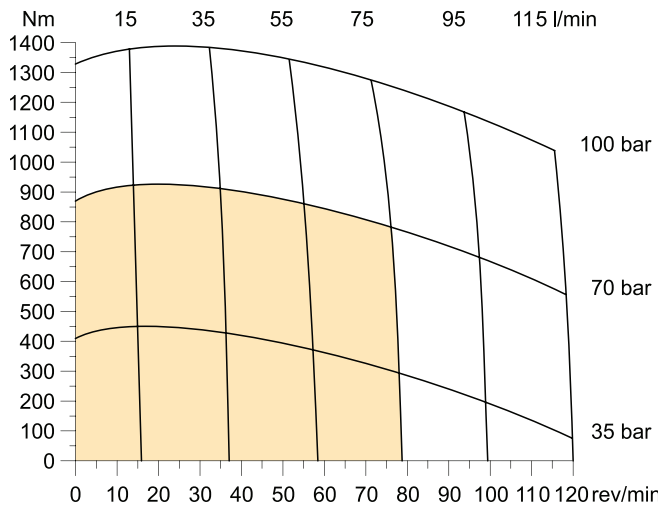
**TH 625**



**TH 785**



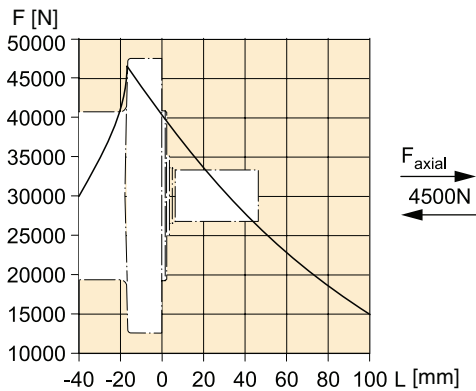
**TH 960**



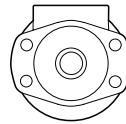
■ Cont.    □ Int.

int. =  
 Intermittierende Werte maximal: 10% von jeder Betriebsminute.  
 Intermittent operation rating applies to 10% of every minute.  
 Fonctionnement interm.: 10% max. de chaque minute d'utilisation.  
 Servizio intermittente: 10% max di ogni minuto di utilizzazione.

**Code M**

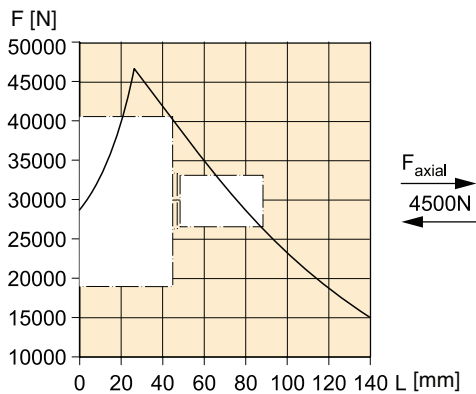


$F_{\text{Radial}}$  [N]

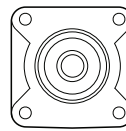


$$L_h = \frac{\left( \frac{1500000}{F_R \cdot \left( 1.20 + \frac{L}{95\text{mm}} \right)} \right)^{3.3}}{n}$$

**Code U**



$F_{\text{Radial}}$  [N]



$$L_h = \frac{\left( \frac{1500000}{F_R \cdot \left( 0.76 + \frac{L}{95\text{mm}} \right)} \right)^{3.3}}{n}$$

Die Lebensdauer der Radiallager ( $L_h$  in Stunden) lässt sich nach folgender Formel berechnen. Die Größe  $F_R$  ist durch die mechanische Festigkeit der Abtriebswelle begrenzt (siehe Diagramm). Das Maß "L" ist das Längenmaß vom Gehäuseflansch bis zum Angriffspunkt der Radialkraft  $F_R$ .

La durée de vie des roulements radiaux ( $L_h$  en heures) peut être calculée par les formules suivantes. La grandeur  $F_R$  est limitée par les résistances mécaniques de l'arbre de sortie (voir diagramme). La cote "L" est la longueur entre la bride du carter jusqu'au point d'appui de l'effort radial  $F_R$ .

Life time ( $L_h$  in hours) of the radial bearings can be calculated with the following formula. The value  $F_R$  is limited by the mechanical strength of the shaft (see diagram). The measurement "L" is the length from the housing flange up to the point of impact of the radial force  $F_R$ .

La durata dei cuscinetti ( $L_h$  in ore) può essere calcolata con la seguente formula. Il valore  $F_R$  è limitato dalla resistenza meccanica dell'albero (vedi diagramma). La quota "L" è la distanza tra la flangia del corpo ed il punto di applicazione della forza radiale  $F_R$ .

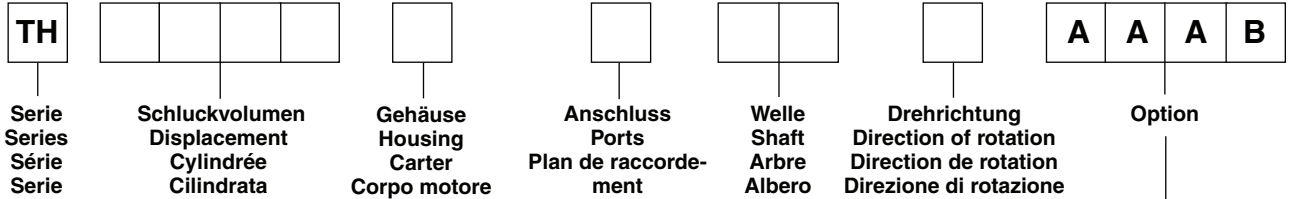
Vorstehende Formeln gelten für eine B10-Lebensdauer.  
 The preceding formulas are valid for a B10 duration of life.  
 Les formules précédentes sont valables pour une durée de vie B10.  
 Le formule precedenti sono valide per una durata della vita B10.

$L_h$  = [h]  
 $L$  = [mm]  
 $n$  = [rev/min]



# Ordering Code

# Torqmotor Series TH



Code	cm <sup>3</sup> /rev
0140	140
0170	169
0195	195
0240	237
0280	280
0335	337
0405	405
0475	476
0530	529
0625	624
0785	786
0960	958

Code	Housing
M	
U	

Code	Front port
S	7/8-14 UNF O-Ring
W <sup>1)</sup>	G 1/2

<sup>1)</sup> Nicht verfügbar für Gehäuse "U"  
Not possible for housing "U"  
Pas disponible pour carter "U"  
Non Disponibile con il corpo codice "U"

Code	Rear port
Y	G 1/2 Axial
A	7/8-14 UNF Axial
X	G 1/2 Radial
B	7/8-14 UNF Radial
L	Universal Radial M8x13

Code	Shaft
31	
32	

For further options different to standard 'AAAB' see page 80

Code	Front port
0	 Standard
1	

Code	Rear port
0	 Standard
1	