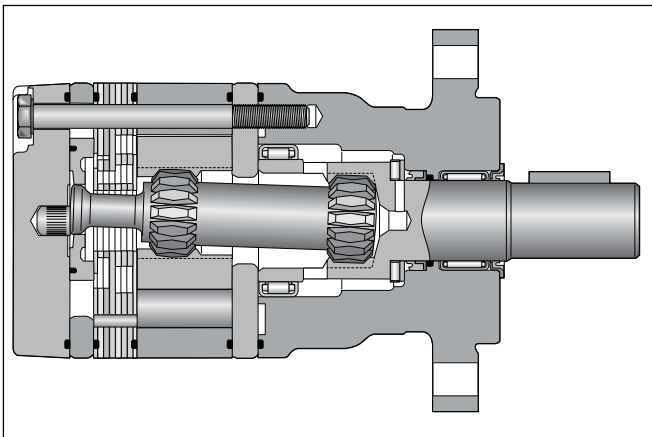
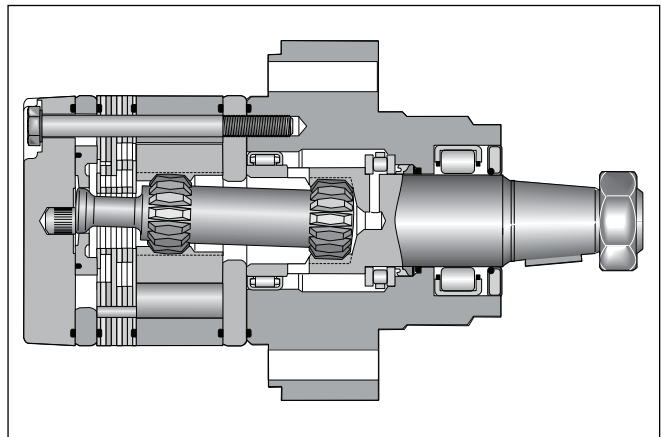


**Features**

- **Langsamlaufender Gerotor-Motor**
- **Spezielle Orbital-Steuerung**  
Geringe interne Leckage  
Hoher volumetrischer Wirkungsgrad
- **Rollen im Rotorsatz**  
Reduzierte Reibung  
Lange Lebensdauer
- **Patentierte Hochdruckwellendichtung**  
Keine Leckölleitung  
Keine Rückschlagventile
- **Vielzahl von Varianten**  
Großer Einsatzbereich

**Torqmotor  
Series TE-TJ**

- **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
- **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

**Series TE****Series TJ**

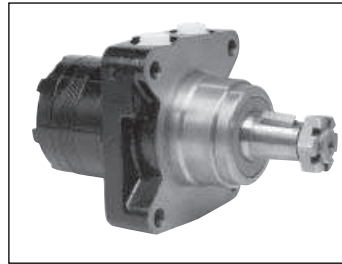
- **Moteur lent système Gerotor**
- **Une distribution orbitale particulière assure**  
fuites internes minimales  
rendements volumétriques élevés
- **Le rotor à rouleaux**  
réduit les frottements  
augmente la durée de vie
- **Par l'utilisation de joints d'arbre haute pression brevetés**  
pas de conduite de drainage  
pas de clapets anti-retour
- **Grâce à de nombreuses variantes**  
larges domaines d'applications

- **Motore orbitale a bassa velocità**
- **Una particolare distribuzione orbitale assicura**  
trafilamento ridotto elevato rendimento volumetrico
- **Con lo statore a rullo**  
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 non ritorno
- **Un'ampia gamma di cilindrate, flangiature ed alberi**  
consentono scelte adeguate ad ogni esigenza costruttiva

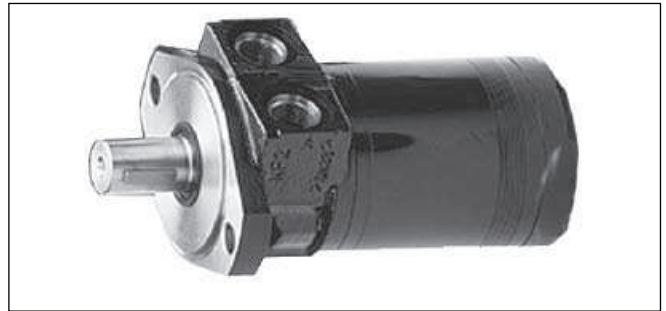
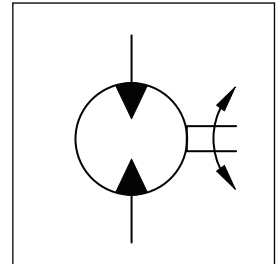
**Performance**

**Torqmotor  
Series TE-TJ**

Drehzahl Speed Vitesse de rotation Velocità di rotazione	max. 1160 rev/min
Schluckstrom Oil flow Débit d'huile Portata	max. 75 l/min
Eingangsdruk Supply pressure Pression entrée Pressione in entrata	max. 200 bar
Torque Couple Coppia	max. 648 Nm
Seitenlast Side load Charges latérales Carico radiale	TE = 7.000 N TJ = 14.000 N See page 16



Series TJ



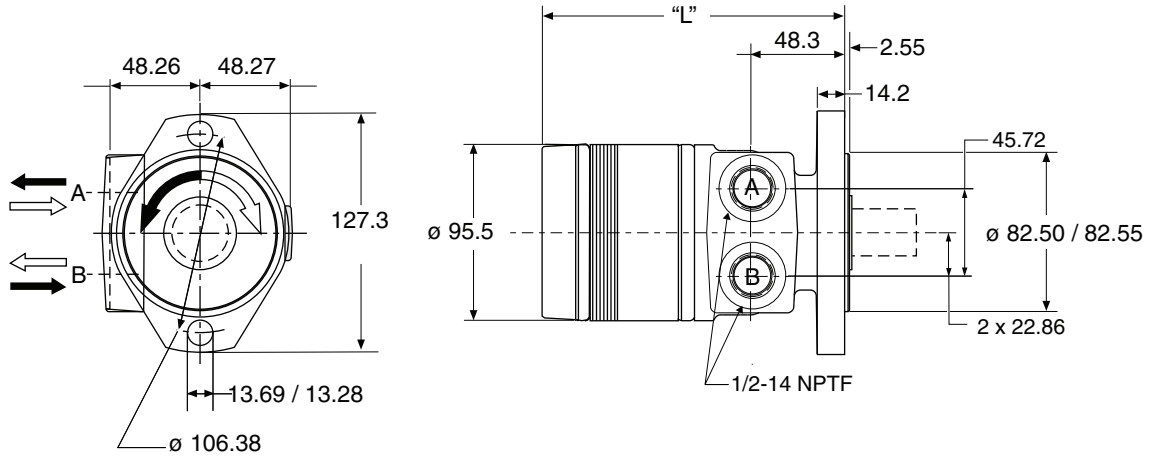
Series TE

Motor series TE / TJ	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. Eingangsdruk 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 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]
TE/TJ 36	36	930/1160	35/40	140/190	200	55/71	9	44/52
TE/TJ 45	41	810/1024	35/41	140/190	200	70/100	10	44/64
TE/TJ 50	50	725/1020	35/50	140/190	200	90/127	13	72/98
TE/TJ 65	66	705/940	45/60	140/190	200	125/176	15	100/137
TE/TJ 80	82	560/750	45/60	140/190	200	160/220	17	128/171
TE/TJ 100	98	470/630	45/60	140/190	200	190/264	17	152/205
TE/TJ 130	130	350/470	45/60	140/190	200	255/352	17	204/274
TE/TJ 165	163	280/375	45/60	140/190	200	310/436	17	248/338
TE/TJ 195	196	235/315	45/60	140/190	200	390/528	17	312/411
TE/TJ 230	228	265/330	60/75	120/165	200	380/514	18	304/411
TE/TJ 260	261	230/290	60/75	110/155	200	400/550	17	320/449
TE/TJ 295	293	200/255	60/75	100/145	200	428/582	16	328/445
TE/TJ 330	326	185/235	60/75	100/135	200	443/600	15	344/453
TE/TJ 365	370	150/200	60/75	95/125	200	467/648	14	373/477
TE/TJ 390	392	152/190	60/75	85/120	200	445/628	13	348/462

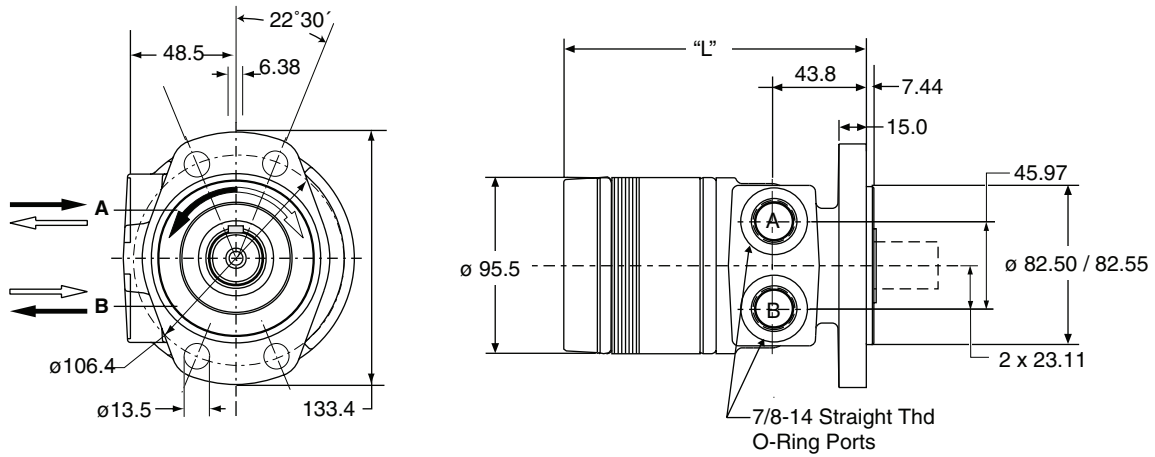
\*int. = Intermittierende Werte maximal: 10% von jeder Betriebsminute.  
Intermittent operation rating applies to 10% of every minute.  
Fonctionnement interm.: 10% max. de chaque minute d'utilisation.  
Servizio intermittente: 10% max di ogni minuto di utilizzazione.

\*\* 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

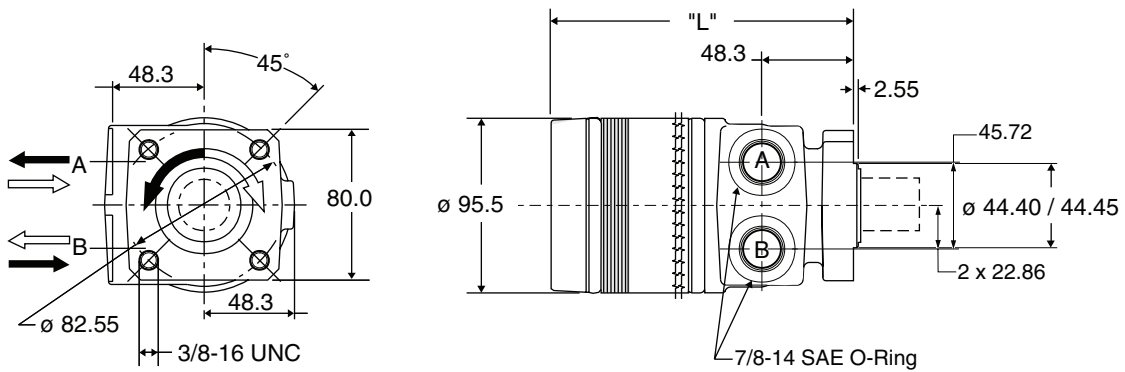
**Code C**



**Code M**

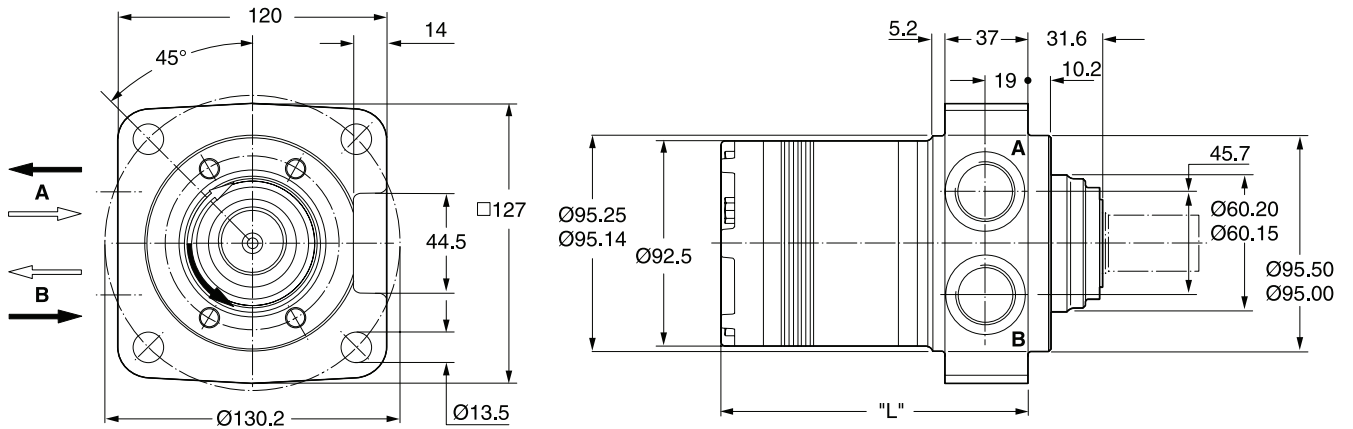


**Code D**

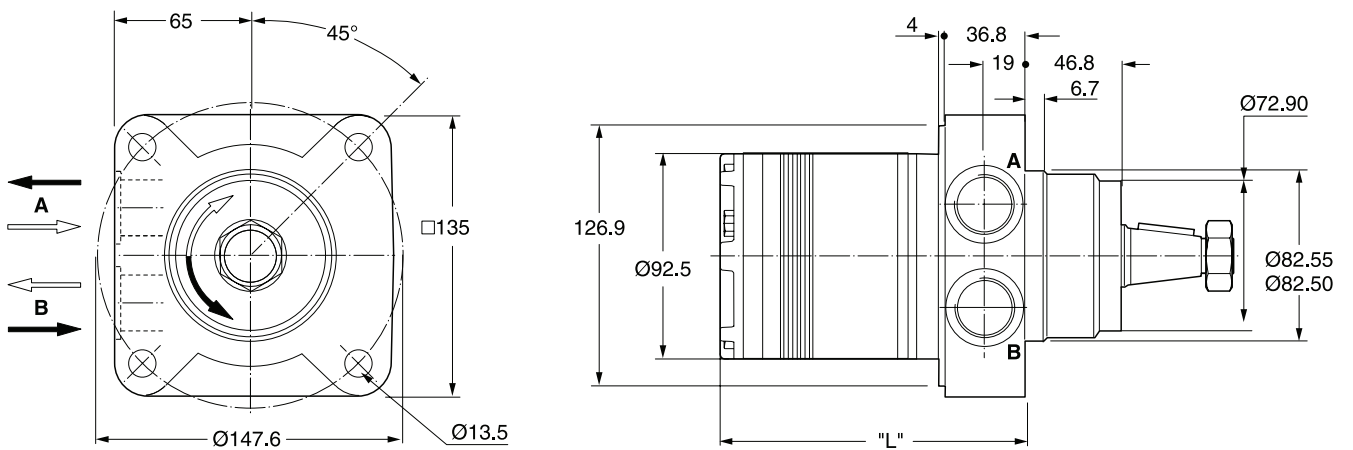


Gewicht / Weight Poinds / Peso [kg]	TE36	TE45	TE50	TE65	TE80	TE100	TE130	TE165	TE195	TE230	TE260	TE295	TE330	TE365	TE390
Code C	5,8	6,3	6,5	6,6	6,7	6,8	7,1	7,4	7,7	7,9	8,2	8,3	8,7	9,0	9,2
Code M, D	128	131	133	136	140	143	149	155	162	168	174	181	187	195	200
	134	136	138	141	144	147	153	160	166	173	179	185	192	200	205

**Code L**

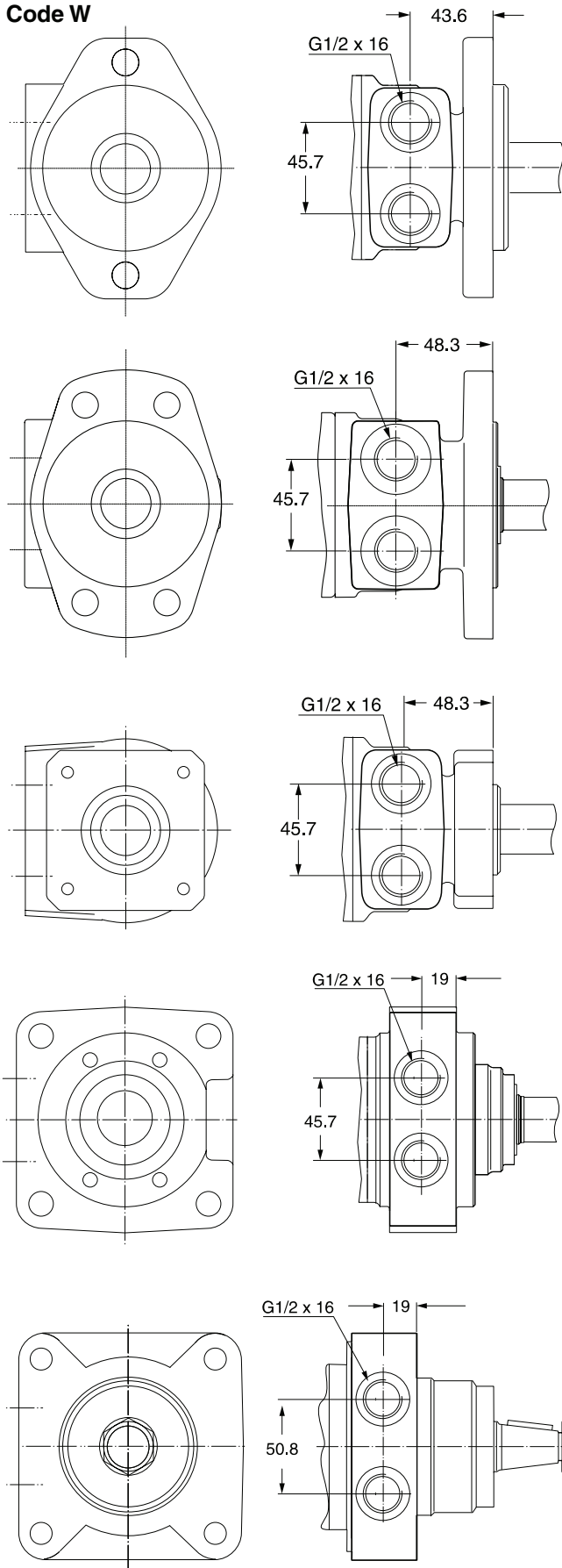


**Code U**

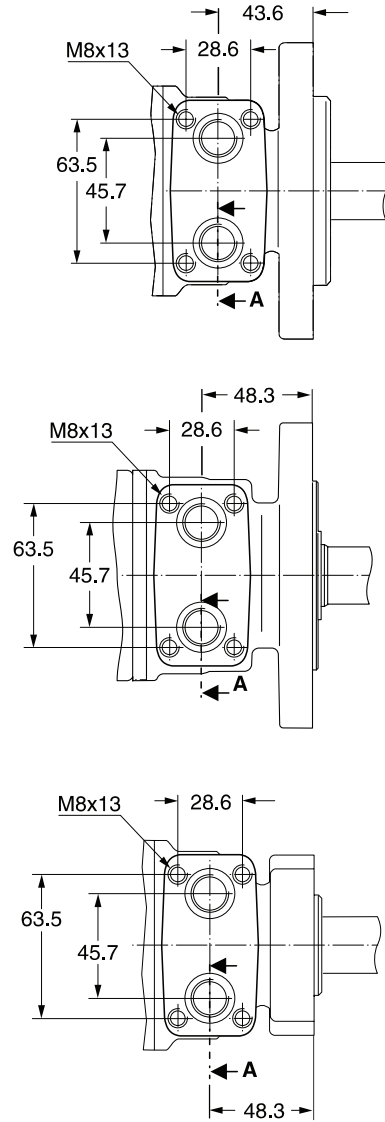


Gewicht / Weight Poids / Peso [kg]	TJ36	TJ45	TJ50	TJ65	TJ80	TJ100	TJ130	TJ165	TJ195	TJ230	TJ260	TJ295	TJ330	TJ365	TJ390
	6,7	6,8	6,9	7,0	7,1	7,2	7,6	7,8	8,1	8,3	8,6	8,8	9,1	9,4	9,6
Code L, U "L"[mm]	103	106	109	112	115	118	124	131	137	143	150	156	162	171	175

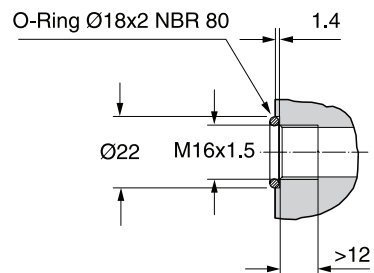
**Code W**



**Code N**



**Section A**



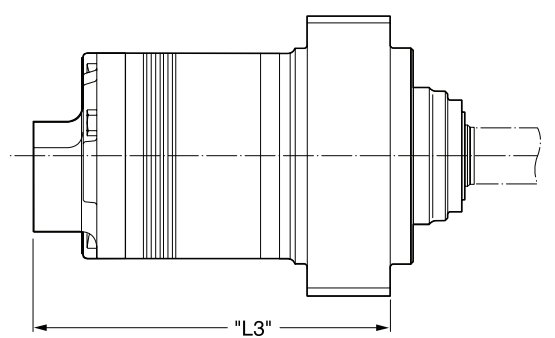
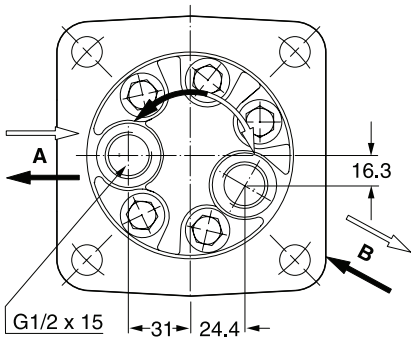
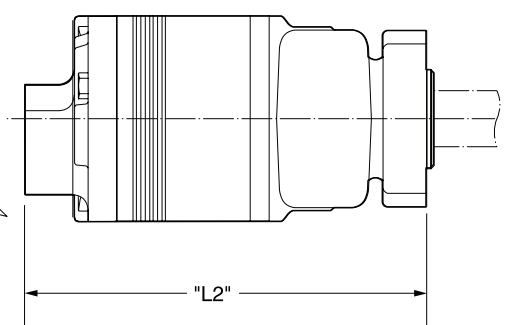
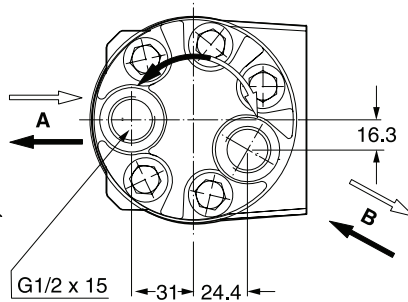
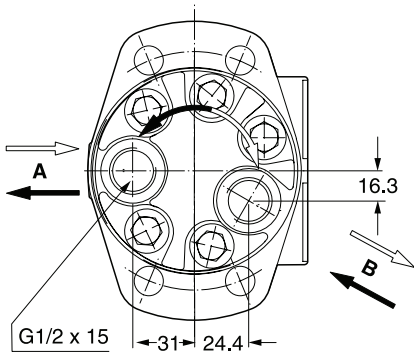
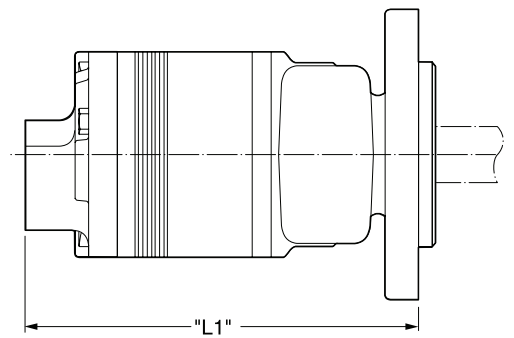
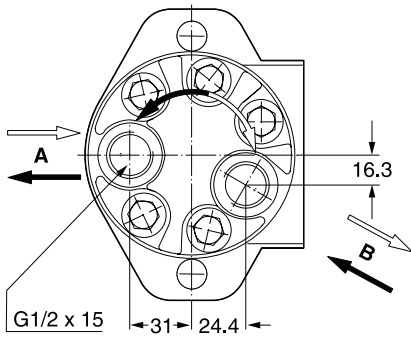
Zum Motor mit Universalanschluss werden 2 O-Ringe geliefert.

Motor with manifold mount is supplied with 2 O-rings.

Deux joints toriques sont livrés avec les moteurs au plan de raccordement universel.

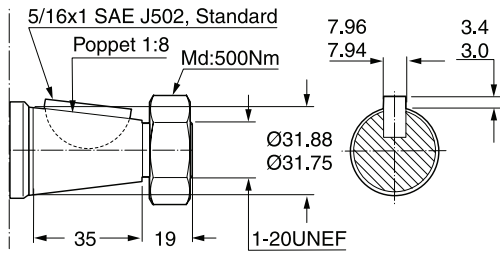
Il blocchetto connessioni è corredato da 2 OR.

**Code Y**

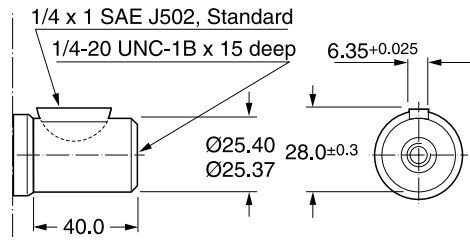


Gewicht / Weight	TE36	TE45	TE50	TE65	TE80	TE100	TE130	TE165	TE195	TE230	TE260	TE295	TE330	TE365	TE390	
Poids / Peso [kg]	7,2	7,3	7,4	7,5	7,6	7,7	8,1	8,3	8,6	8,8	9,1	9,3	9,6	9,9	10,1	
Code Y	"L1"[mm]	151	152	154	157	160	164	170	177	183	189	196	202	208	215,5	221
	"L2"[mm]	155	156	158	161	165	168	174	181	187	193	200	206	212	220	225
	"L3"[mm]	127	128	130	132	136	139	145	152	158	164	171	177	183	191	196

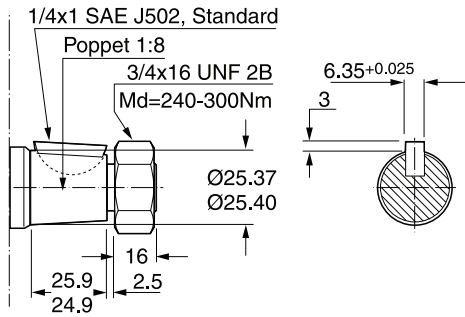
**Code 08**



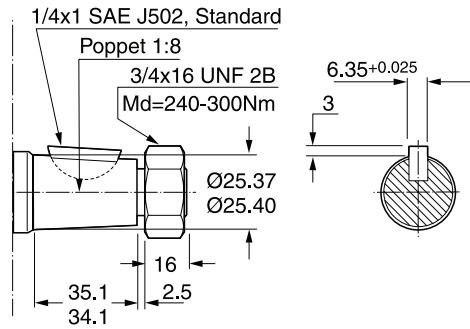
**Code 10<sup>3)</sup>**



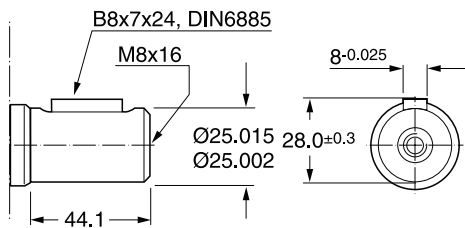
**Code 12**



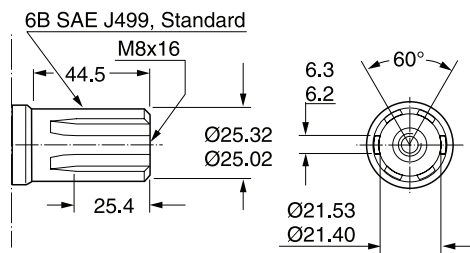
**Code 25**



**Code 26<sup>2)</sup>**

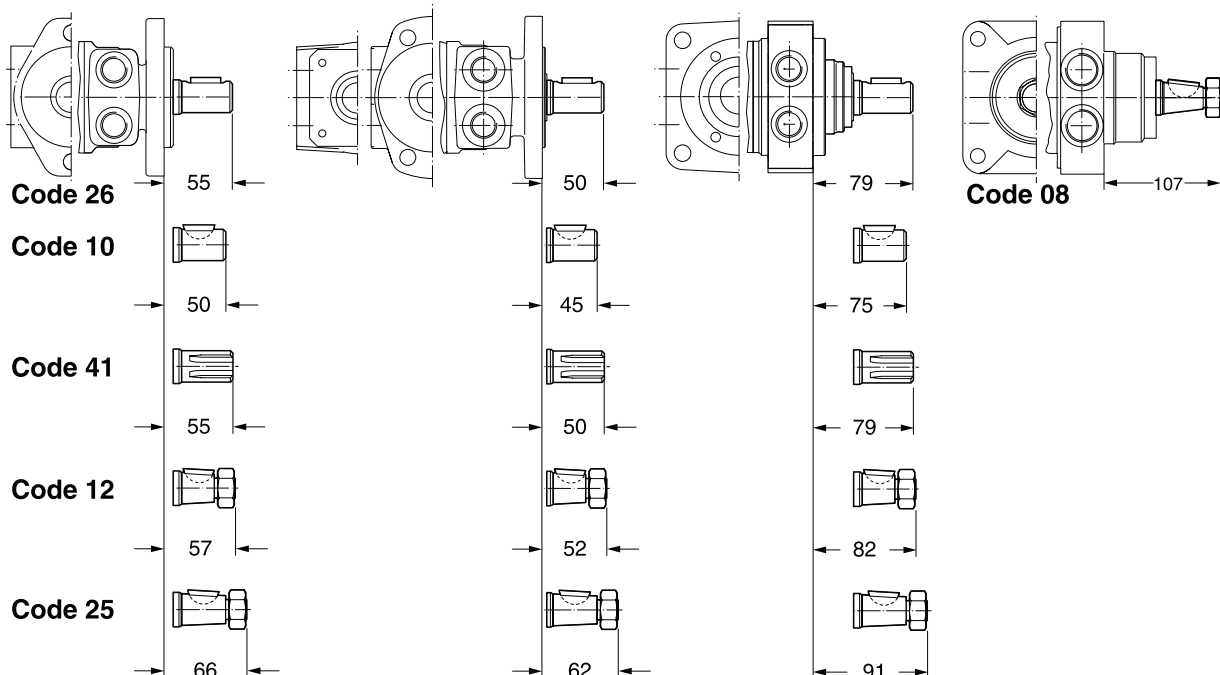


**Code 41**

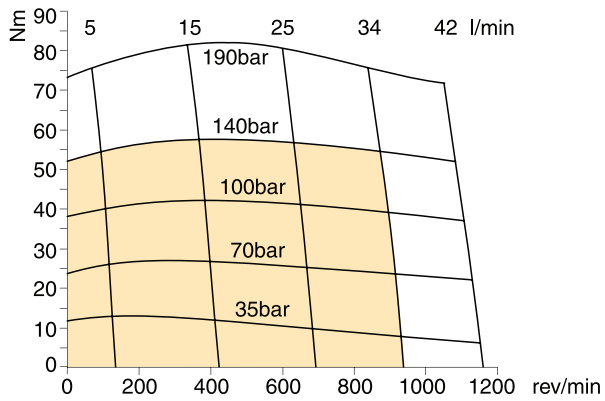


<sup>2)</sup> **Code 69** = Rostfreie Ausführung  
 Stainless steel version  
 Version en acier inoxydable  
 Versione in acciaio inossidabile  
 230 Nm (2100lb in) Max. Drehmoment/  
 Max Torque/ Couple maxi/ Coppia max

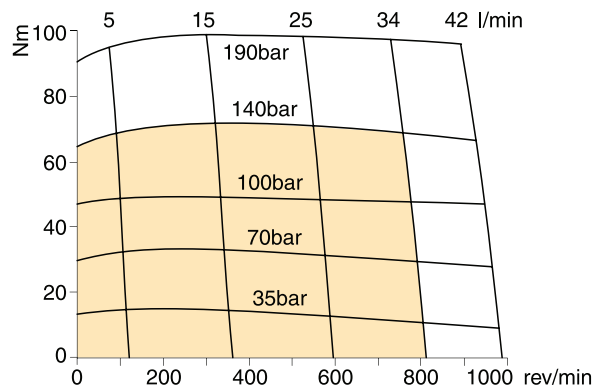
<sup>3)</sup> **Code 70** = 25,4 mm - Rostfreie Ausführung  
 25,4 mm - Stainless steel version  
 25,4 mm - Version en acier inoxydable  
 25,4 mm - Versione in acciaio inossidabile  
 230 Nm (2100lb in) Max. Drehmoment/  
 Max Torque/ Couple maxi/ Coppia max



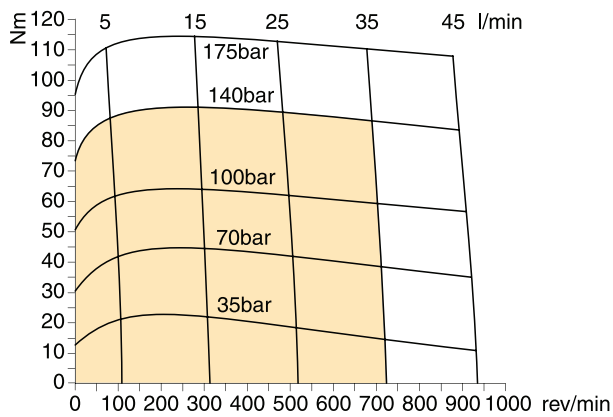
TE/TJ 36



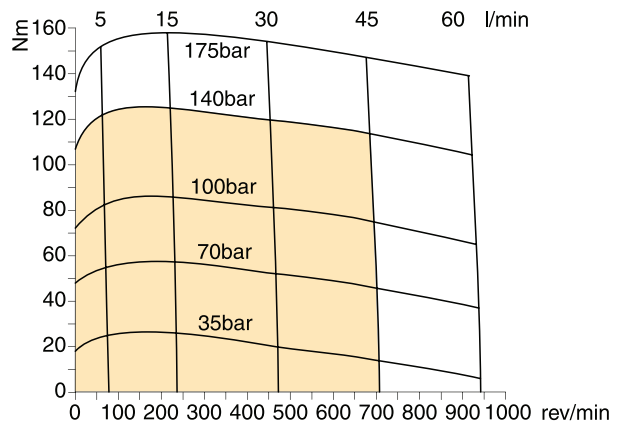
TE/TJ 45



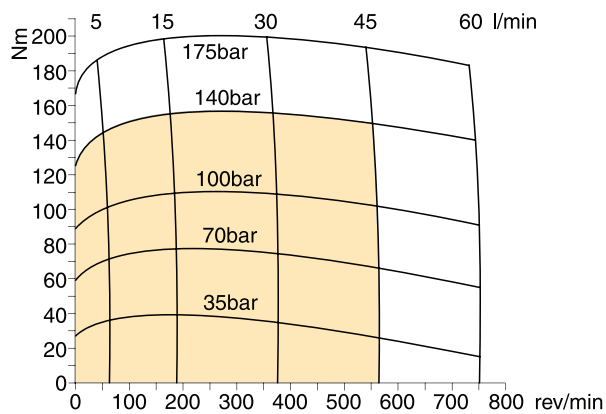
TE/TJ 50



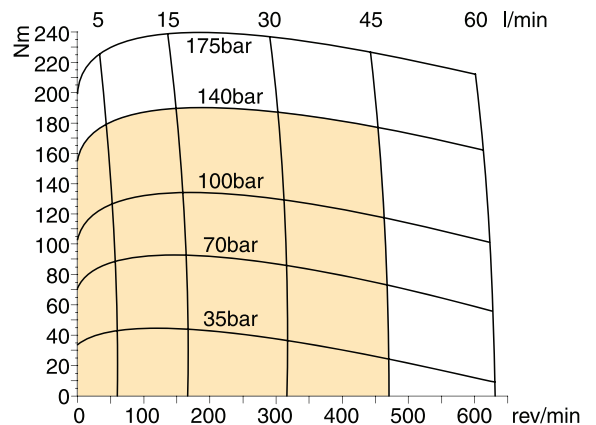
TE/TJ 65



TE/TJ 80



TE/TJ 100



■ Cont.

□ Int.

int. =

Intermittierende Werte maximal 10% von jeder Betriebsminute.

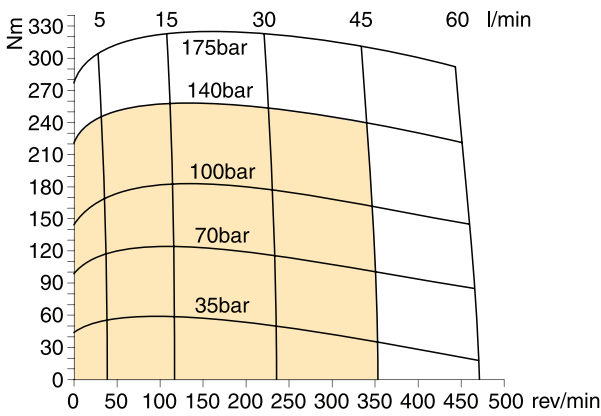
Fonctionnement interm. 10% max. de chaque minute d'utilisation.

Intermittent operation rating applies to 10% of every minute.

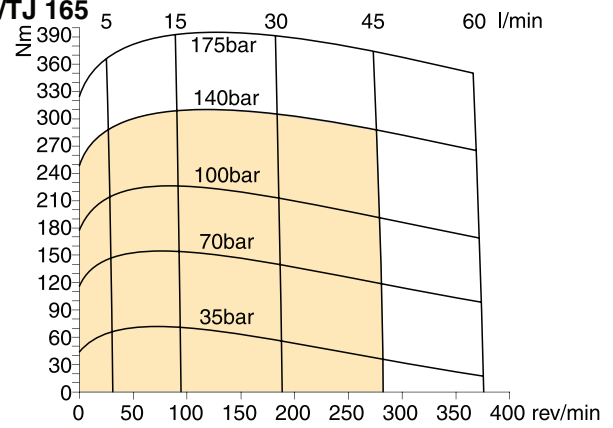
Servizio intermittente 10% max di ogni minuto di utilizzazione.



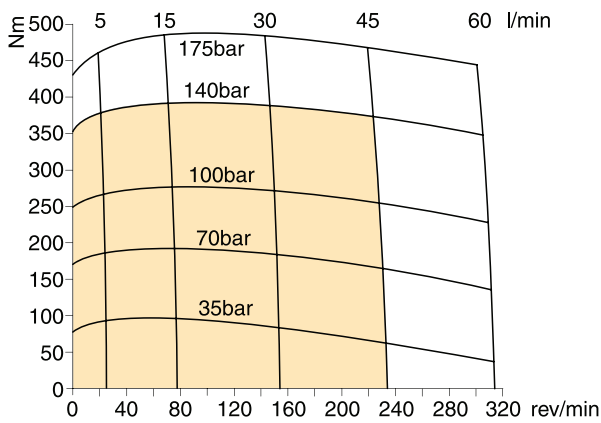
**TE/TJ 130**



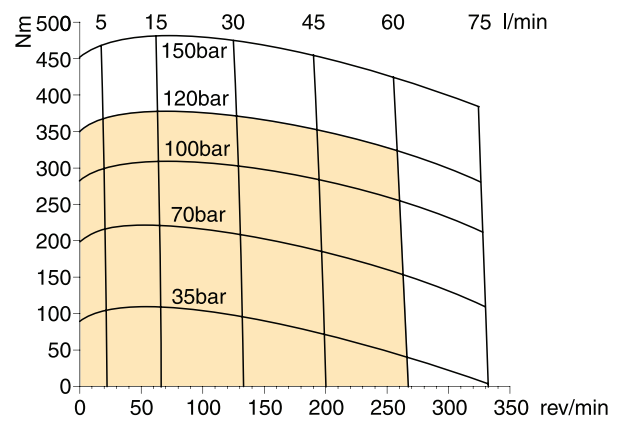
**TE/TJ 165**



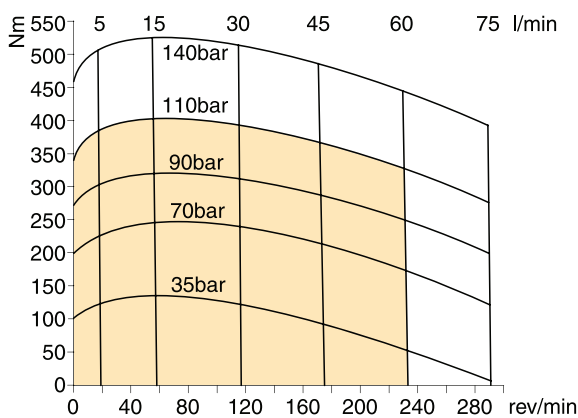
**TE/TJ 195**



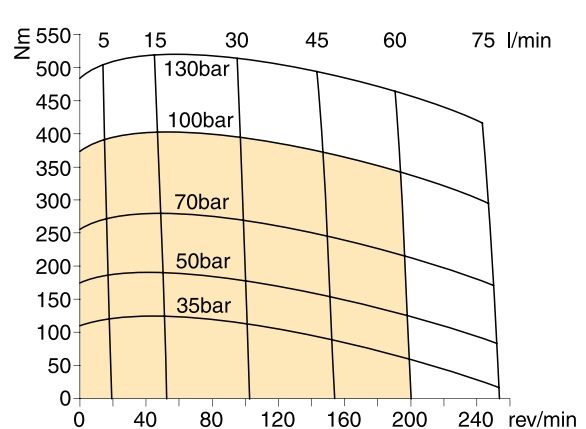
**TE/TJ 230**



**TE/TJ 260**



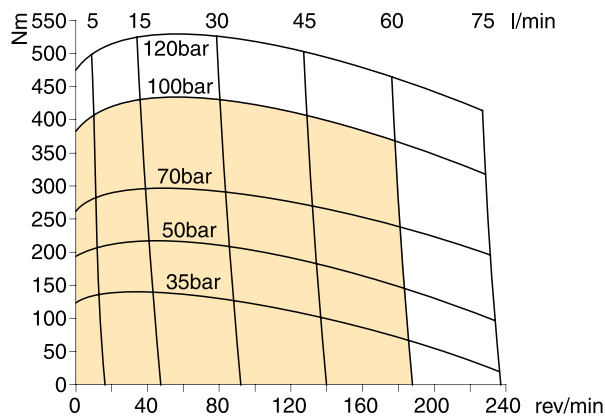
**TE/TJ 295**



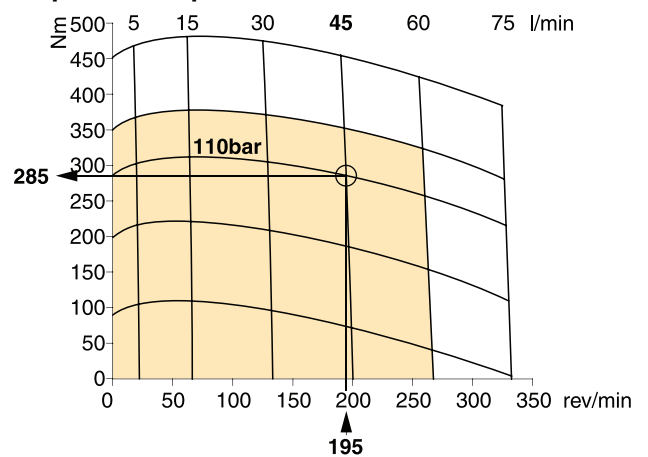
■ Cont.    □ Int.

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

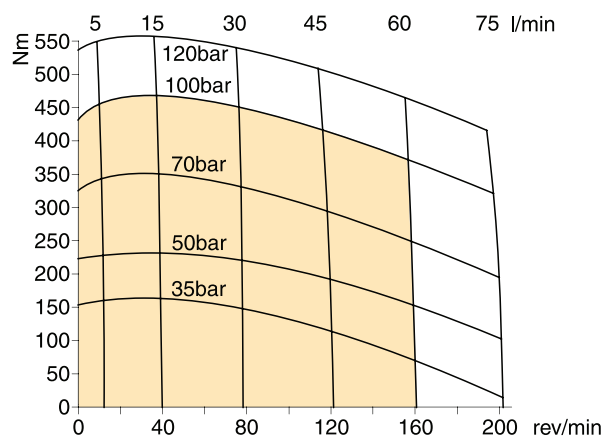
TE/TJ 330



Beispiel / Example Series TE / TJ230



TE/TJ 365



Md = 285 Nm                      V = 229.4 cm<sup>3</sup>/rev  
n = 195 rev/min                Q = 45 l/min  
Δp = 110 bar

Volumetrischer Wirkungsgrad (η<sub>vol</sub>)  
Volumetric efficiency  
Rendement volumétrique  
Rendimento volumetrico

$$\eta_{vol} = \frac{n \cdot V}{Q \cdot 10^3} = \frac{195 \cdot 229.4}{45 \cdot 10^3}$$

$$\eta_{vol} = 0.99$$

Hydraulisch-mechanischer Wirkungsgrad (η<sub>hm</sub>)  
Hydraulic-mechanical efficiency  
Rendement hydro-mécanique  
Rendimento idro-meccanico

$$\eta_{hm} = \frac{Md \cdot 20 \cdot \pi}{\Delta p \cdot V} = \frac{285 \cdot 20 \cdot \pi}{110 \cdot 229.4}$$

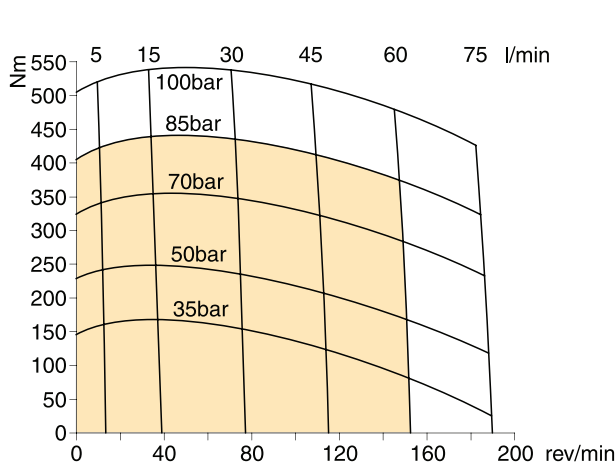
$$\eta_{hm} = 0.71$$

Gesamtwirkungsgrad (η<sub>ges</sub>)  
Overall efficiency  
Rendement global  
Rendimento totale

$$\eta_{ges} = \eta_{vol} \cdot \eta_{hm} = 0.99 \cdot 0.71$$

$$\eta_{ges} = 0.70$$

TE/TJ 390



■ Cont.                      □ Int.

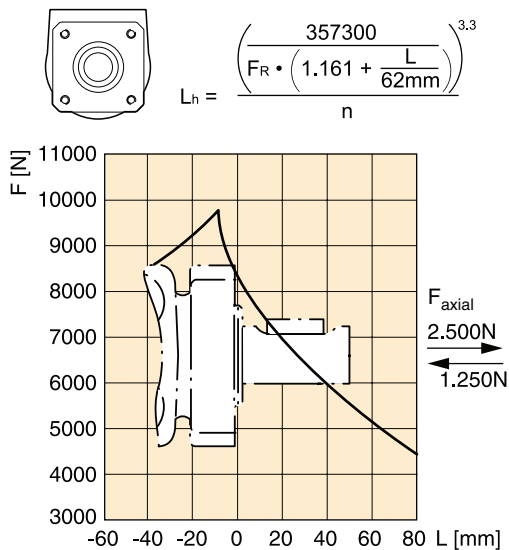
int. =  
Intermittierende Werte maximal 10% von jeder Betriebsminute.  
Fonctionnement interm. 10% max. de chaque minute d' utilisation.  
Intermittent operation rating applies to 10% of every minute.  
Servizio intermittente 10% max di ogni minuto di utilizzazione.

Leistung P (kW)  
Power P  
Puissance P  
Potenza P

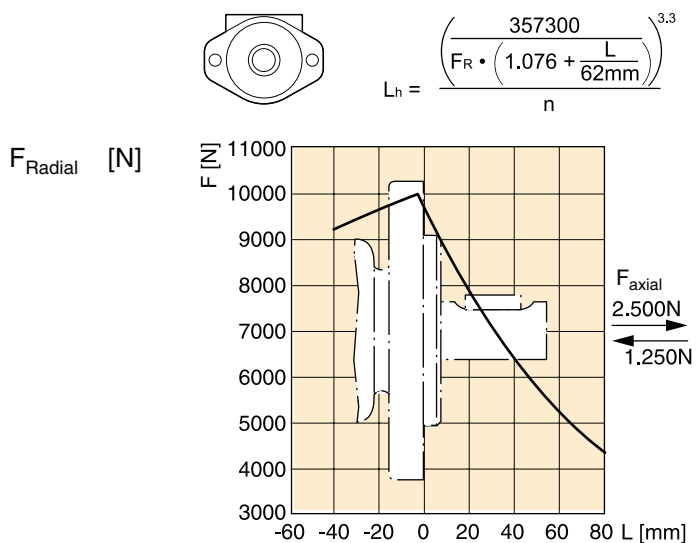
$$P = \frac{Md \cdot n \cdot \pi}{10^4 \cdot 3} = \frac{285 \cdot 195 \cdot \pi}{10^4 \cdot 3}$$

$$P = 5.8 \text{ kW}$$

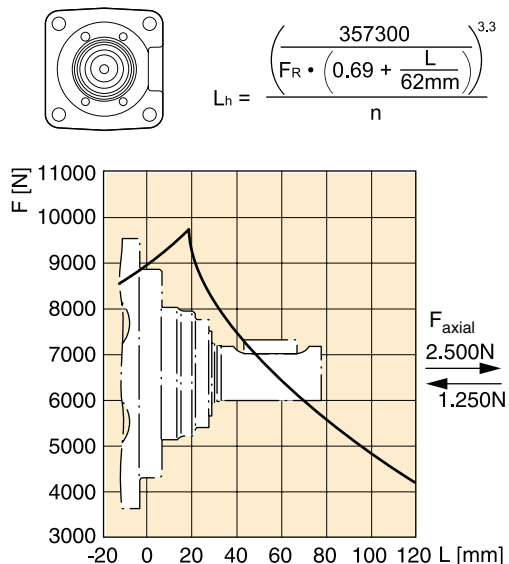
TE Code D



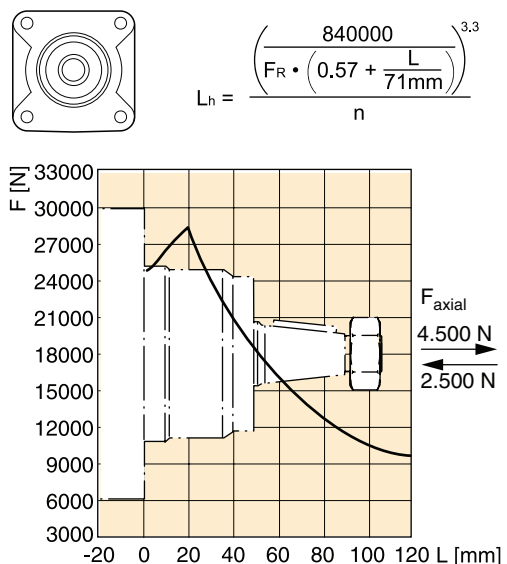
TE Code C



TE Code L



TJ Code U



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  $F_R$ .

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  $F_R$ .

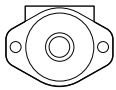

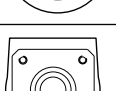
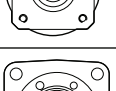

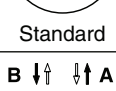
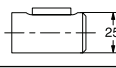
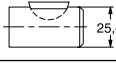
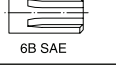
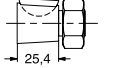

La durée de vie des roulements radiaux ( $L_h$  en heures) peut être calculée par les formules suivantes. La grandeur  $F_R$  est limitée par les résistances mécaniques de l'arbre de sortie (voir diagramme). La cote "L" est la longueur entre la bride du carter jusqu'au point d'appui de l'effort radial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

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.	$L_h = [h]$
The preceding formulas are valid for a B10 duration of life.	$L = [mm]$
Les formules précédentes sont valables pour une durée de vie B10.	$n = [rev/min]$
Le formule precedenti sono valide per una durata della vita B10.	

# Ordering Code

# Torqmotor Series TE-TJ

<b>TE</b>									
Series	Schluckvolumen Displacement Cylindrée Cilindrata			Gehäuse Housing Carter Scatola motore	Welle Shaft Arbre Albero	Drehrichtung Direction of rotation Direction de rotation Direzione di rotazione		Option	
Code	cm <sup>3</sup> /rev	Anschluss Ports Plan de raccordement Conessioni							
0036	36								
0045	41								
0050	50								
0065	66								
0080	82								
0100	98								
0130	130								
0165	163								
0195	196								
0230	228								
0260	261								
0295	293								
0330	326								
0365	370								
0390	392								
Code	Housing								
C									
C									
D									
L									
Code	Port								
W	G 1/2								
N <sup>1)</sup>	universal port M8x13								
Y	rear port G 1/2 axial								
Code	Option								
AAAB	standard								
AANC	shuttle valve								
BBCP <sup>2)</sup>	internal relief valve 100 bar								
BBCN <sup>2)</sup>	internal relief valve 140 bar								
HAAP	external relief valve 100 bar								
HAAU	external relief valve 140 bar								
Code	Direction								
0	 Standard								
1									
Code	Shaft								
26 69 <sup>3)</sup>									
26 69 <sup>3)</sup>									
41	 6B SAE								
12									
25									

<sup>2)</sup> Nicht verfügbar für Anschluss Y  
Not available for port code Y  
Pas disponible pour raccordement code Y  
Non Disponibile per connessioni codice Y

<sup>1)</sup> Nicht verfügbar für Gehäuse L  
Not available for housing code L  
Pas disponible pour carter code L  
Non Disponibile per Alloggiamento codice L

<sup>3)</sup> 230 Nm (2100lb in) Max. Drehmoment/  
Max Torque/ Couple maxi/ Coppia max



**Ordering Code**

**Torqmotor  
Series TE-TJ**

