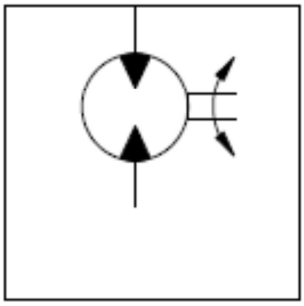
Performance

Series TE / TJ

Drehzahl Speed Vitesse de rotation Velocità di rotazione	5...1160 rev/min
Schluckstrom Oil flow Débit d'huile Portata	max. 75 l/min
Eingangsdruck Supply pressure Pression entrée Pressione in entrata	max. 200 bar
Drehmoment Torque Couple Coppia	max. 550 Nm
Seitenlast Side load Charges latérales Carico radiale	TE = max. 7000 N TJ = max. 14000 N



Series TJ

Series TE

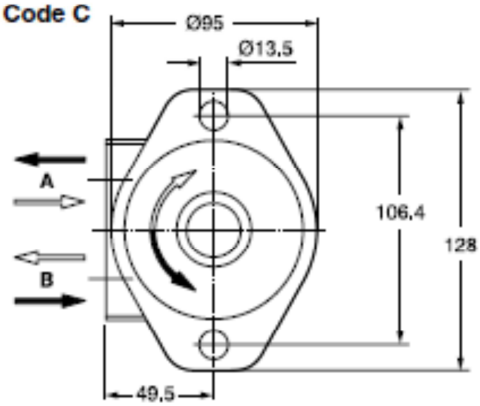
Motor series TE / TJ	Geom. Schluckvolumen Geometric displacement Cylindrée Cilindrata cm³/U cm³/rev	Max. Drehzahl Max. speed Vitesse de rotation maxi Velocità di rotazione max cont / int U/min rev/min	Max. Schluckstrom Max. oil flow Débit d'huile maxi Portata max cont / int l/min	Max. Druckdifferenz Max. differential pressure Chute de pression maxi Caduta di pressione max cont / int bar	Max. Eingangsdruck Max. supply pressure Pression maxi entrée Pressione max in entrata max bar	Max. Drehmoment Max. torque Couple maxi Coppia max cont / int Nm	Max. Leistungsabgabe Max. performance Puissance de sortie maxi Potenza meccanica max cont / int KW	Min. Anlaufmoment Min. starting torque Couple min. tourni au démarrage Coppia min. di spunto cont / int Nm
TE/TJ 36	36	930 / 1160	35 / 42	140 / 190	200	55 / 70	8,5	44 / 52
TE/TJ 45	41	810 / 990	35 / 42	140 / 190	200	70 / 100	10	44 / 64
TE/TJ 50	50	725 / 935	35 / 45	140 / 175	200	90 / 115	11	72 / 92
TE/TJ 65	66	705 / 940	45 / 60	140 / 175	200	125 / 160	15	100 / 128
TE/TJ 80	82	560 / 750	45 / 60	140 / 175	200	160 / 200	15	128 / 160
TE/TJ 100	98	470 / 630	45 / 60	140 / 175	200	190 / 240	15	152 / 192
TE/TJ 130	130	350 / 470	45 / 60	140 / 175	200	255 / 320	15	204 / 256
TE/TJ 165	163	280 / 375	45 / 60	140 / 175	200	310 / 395	15	248 / 316
TE/TJ 195	196	235 / 315	45 / 60	140 / 175	200	390 / 480	15	312 / 384
TE/TJ 230	228	265 / 330	60 / 75	120 / 150	200	380 / 480	15	304 / 384
TE/TJ 260	261	230 / 290	60 / 75	110 / 140	200	400 / 525	15	320 / 420
TE/TJ 295	293	200 / 255	60 / 75	100 / 130	200	410 / 520	13	328 / 416
TE/TJ 330	326	185 / 235	60 / 75	100 / 120	200	430 / 530	13	344 / 424
TE/TJ 365	370	150 / 200	60 / 75	95 / 110	200	467 / 558	11	373 / 446
TE/TJ 390	392	152 / 190	60 / 75	85 / 100	200	435 / 540	10	348 / 432

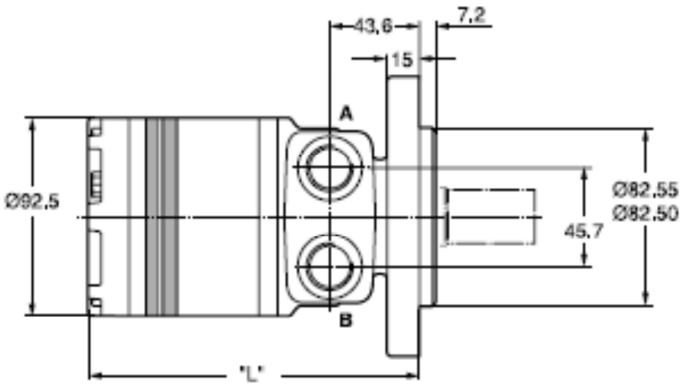
int. =
Intermittierende Werte maximal: 10% von jeder Betriebsminute.
Intermittent operation rating applies to 10% of every minute.
Fonctionnement interm.: 10% max. de chaque minute d'utilisation.
Servizio intermittente: 10% max di ogni minuto di utilizzazione.

Housing

Series TE / TJ

Code C





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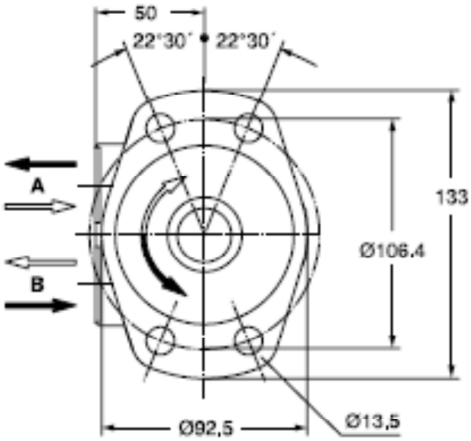
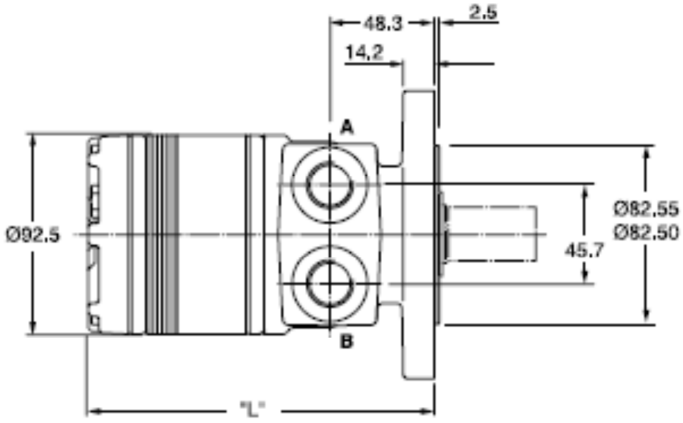
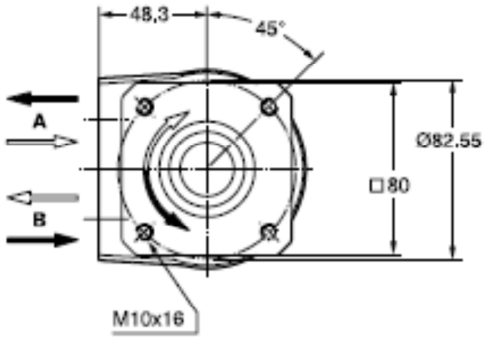
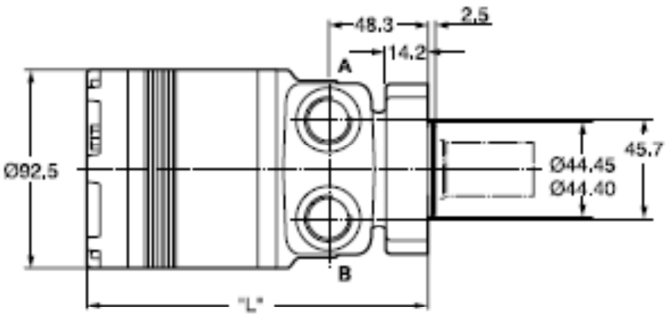




Code D



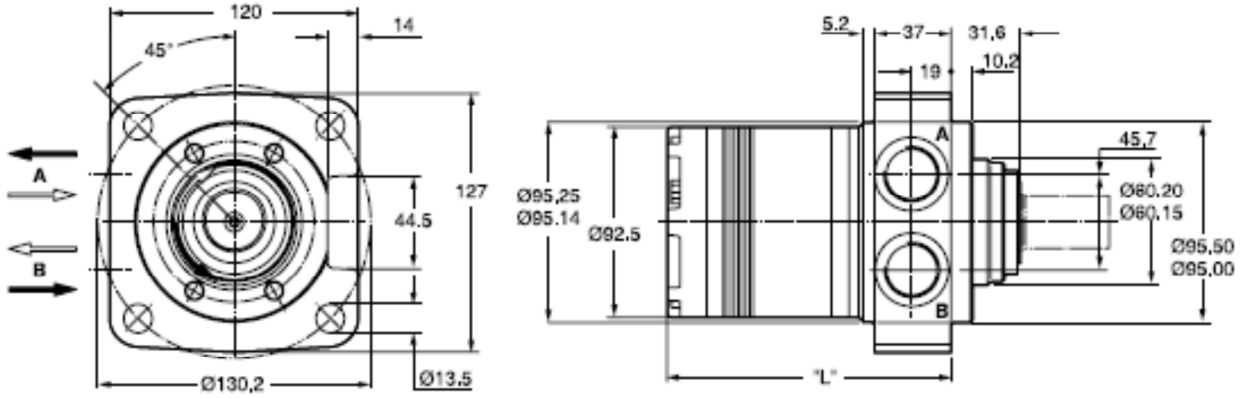


Gewicht / Weight		TE36	TE45	TE50	TE65	TE80	TE100	TE130	TE165	TE195	TE230	TE260	TE295	TE330	TE365	TE390
Poids / Peso	[kg]	5.8	6.3	6.5	6.6	6.7	6.8	7.1	7.4	7.7	7.9	8.2	8.3	8.7	9.0	9.2
Code C	"L" [mm]	128	131	133.1	136.1	139.5	142.5	148.8	155.2	161.5	167.9	174.2	180.6	186.9	195.1	199.9
Code M, D	"L" [mm]	134	136	137.7	140.7	144	147	153.4	159.8	166.1	172.5	178.8	185.2	191.5	199.6	204.5

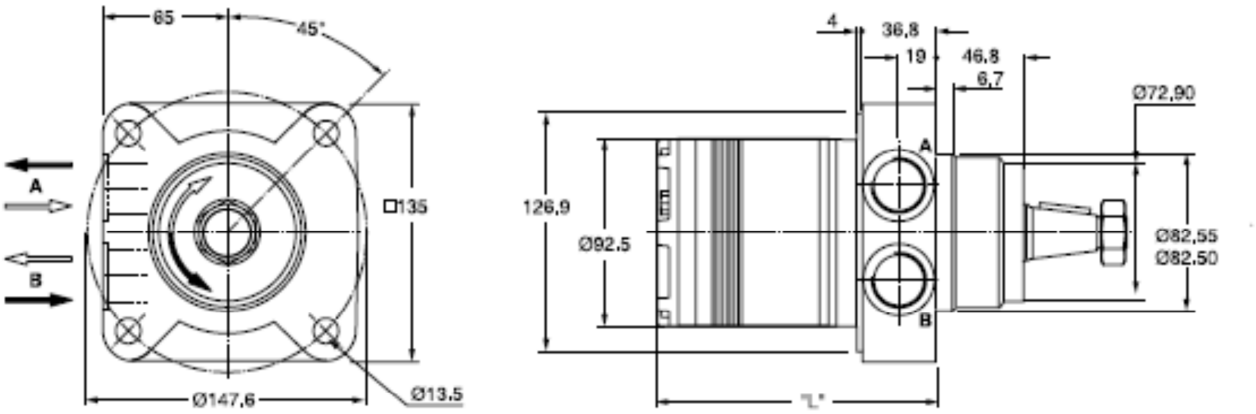
Housing

Series TE / TJ

Code L



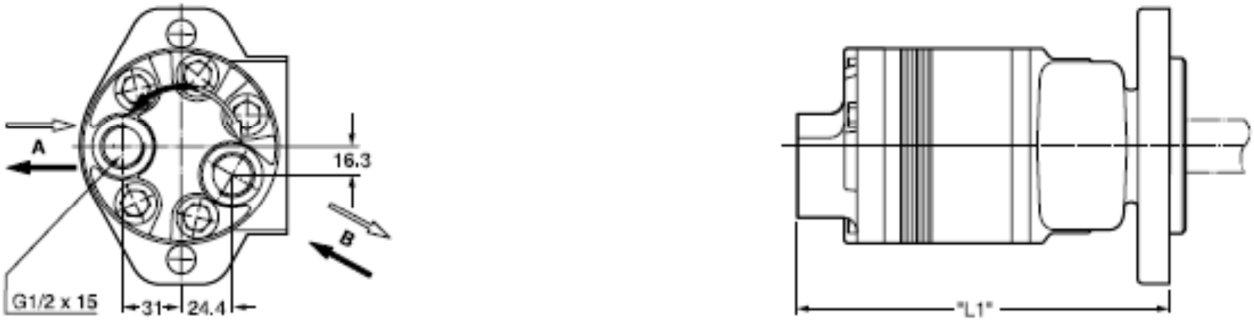
Code U

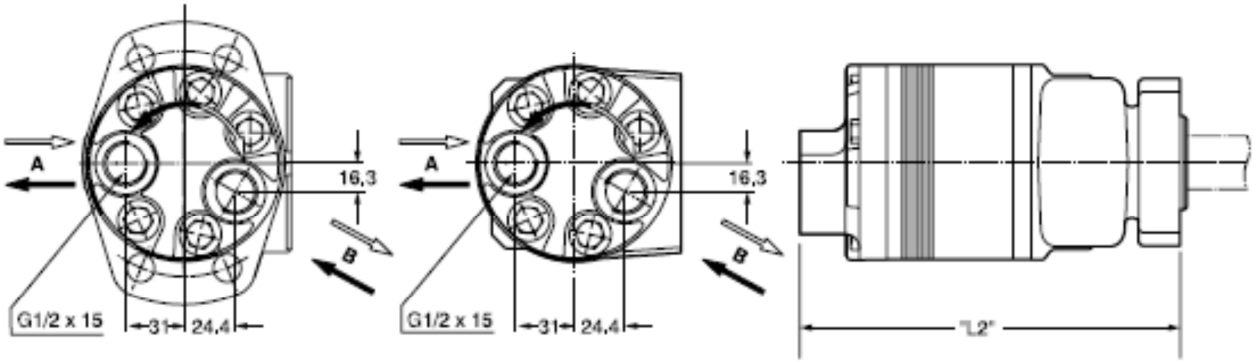


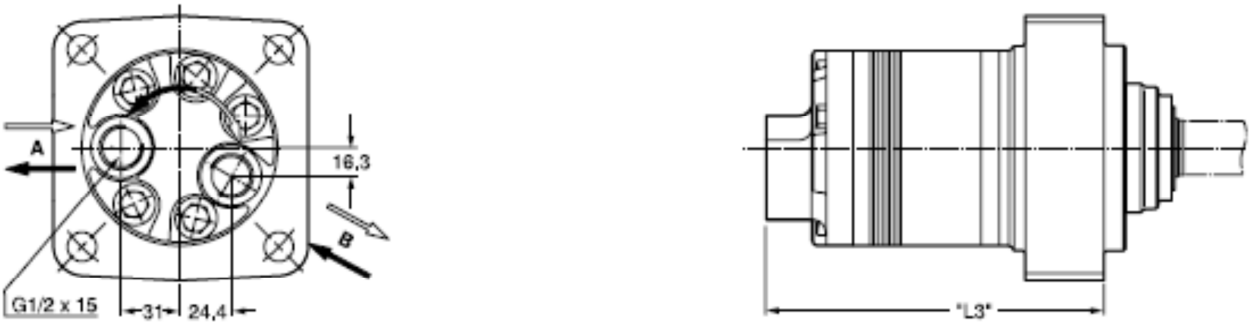
Gewicht / Weight		TJ36	TJ45	TJ50	TJ65	TJ80	TJ100	TJ130	TJ165	TJ195	TJ230	TJ260	TJ295	TJ330	TJ365	TJ390
Poids / Peso	[kg]	6.7	6.8	6.9	7.0	7.1	7.2	7.6	7.8	8.1	8.3	8.6	8.8	9.1	9.4	9.6
Code L, U	"L" [mm]	103	106	109	112	115	118	124	131	137	143	150	156	162	171	175

Rear Ports — Series TE / TJ

Code Y



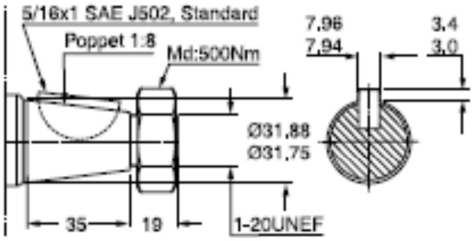




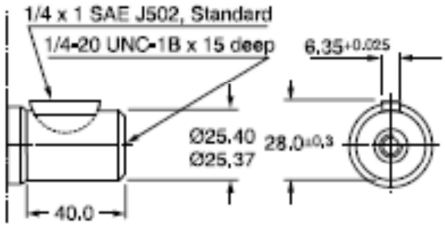
Gewicht / Weight		TE36	TE45	TE50	TE65	TE80	TE100	TE130	TE165	TE195	TE230	TE260	TE295	TE330	TE365	TE390
Poids / Peso [kg]		7.2	7.3	7.4	7.5	7.6	7.7	8.1	8.3	8.6	8.8	9.1	9.3	9.6	9.9	10.1
Code Y	"L1" [mm]	151	152	154	157	160	164	170	177	183	189	196	202	208	215.5	221
	"L2" [mm]	155	156	158	161	165	168	174	181	187	193	200	206	212	220	225
	"L3" [mm]	127	128	130	132	136	139	145	152	158	164	171	177	183	191.1	196

Coupling shaft — Series TE / TJ

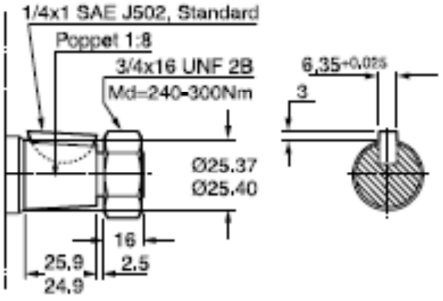
Code 08



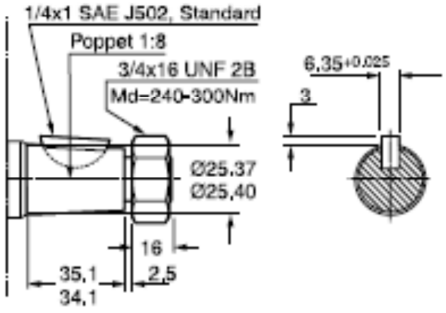
Code 10



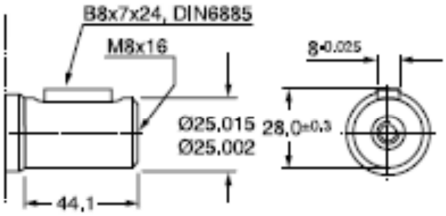
Code 12



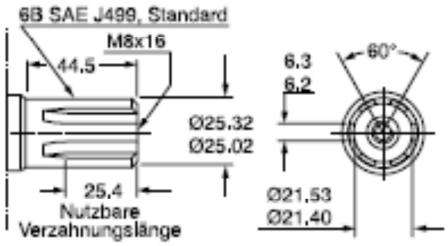
Code 25



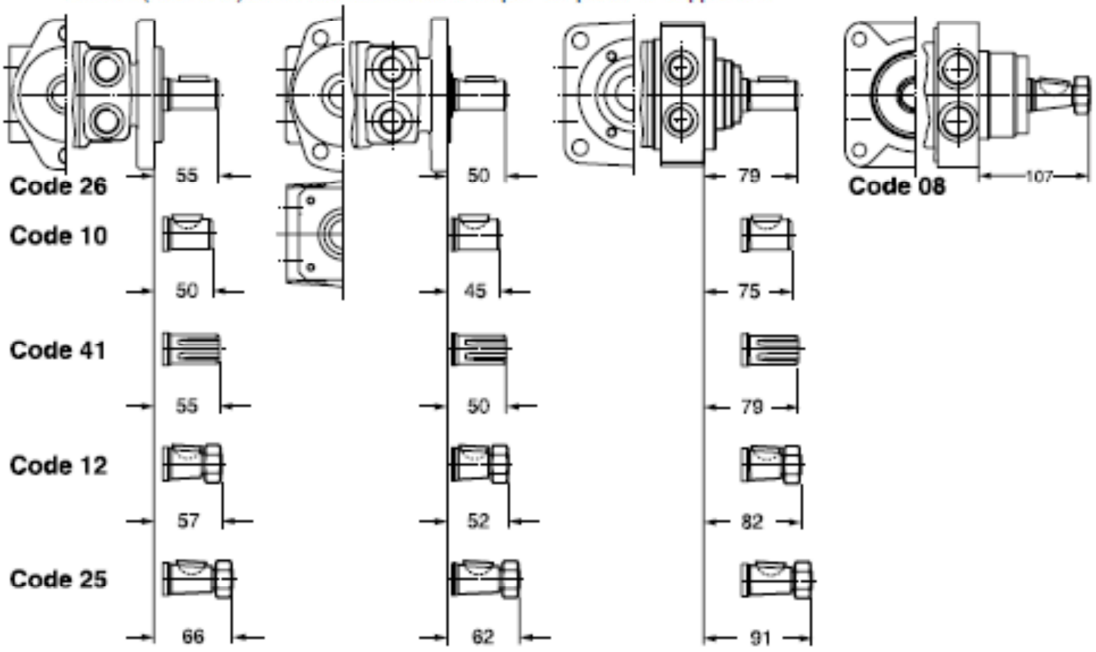
Code 26*



Code 41



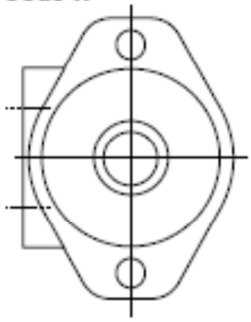
* **Code 69** = Rostfreie Ausführung / **Code 69** = Stainless steel version
Code 69 = Version en acier inoxydable / **Code 69** = Versione in acciaio inossidabile
230 Nm (2100 lb in) Max. Drehmoment /Max Torque/ Couple maxi/ Coppia max

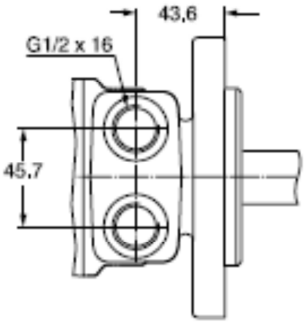


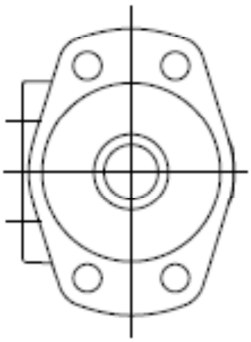
Ports

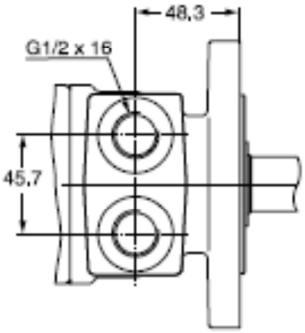
Series TE / TJ

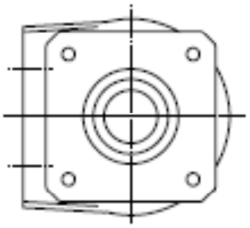
Code W

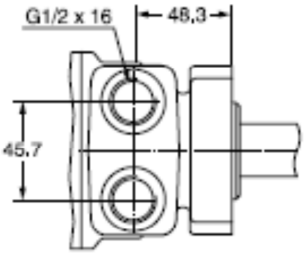


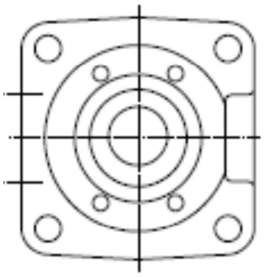


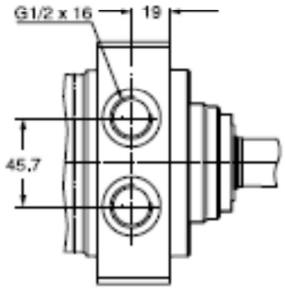


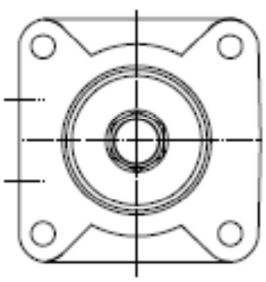


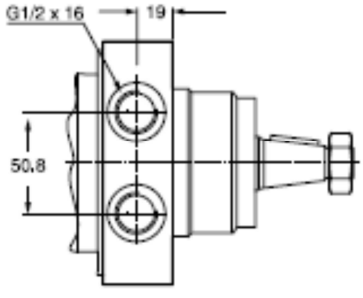




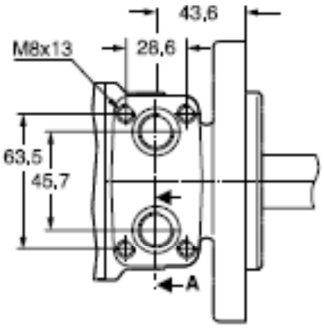


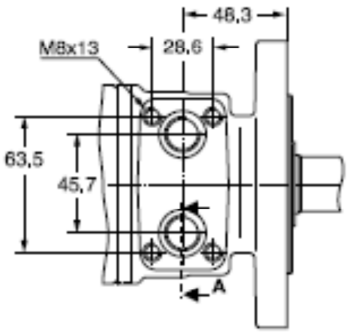


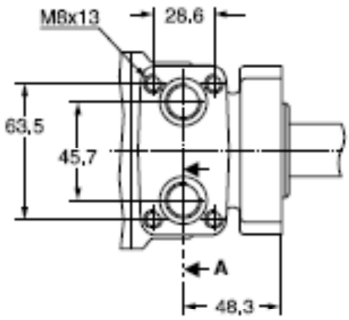




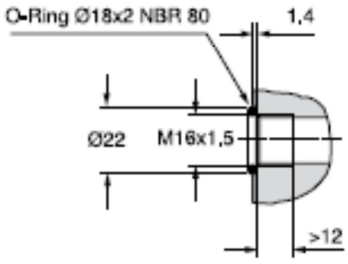
Code N







Section A



Zum Motor mit Universalanschluss werden 2 O-Ringe geliefert.

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

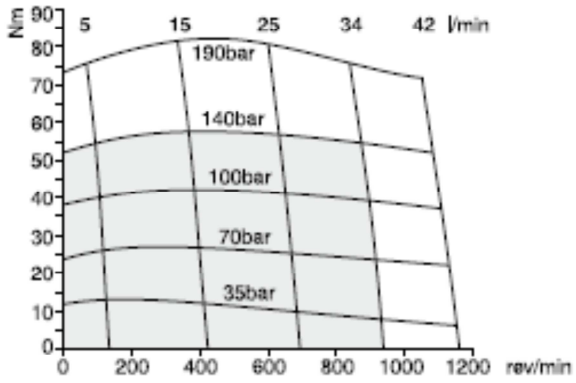
Deux joints toriques sont livrés avec les moteurs au plan de raccordement universel.

Il blocchetto connessioni è corredato da 2 OR.

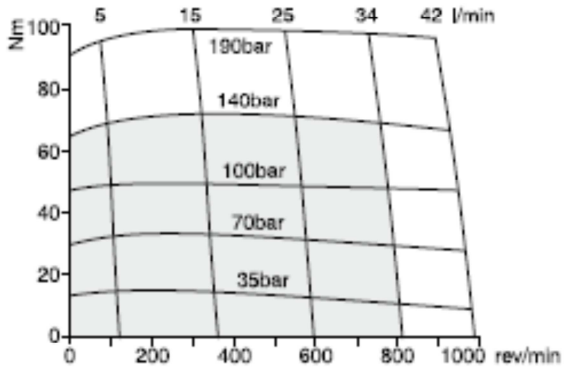
Diagrams

Series TE / TJ

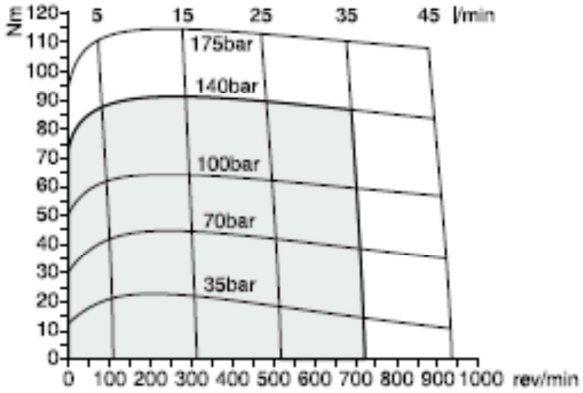
TE/TJ 36



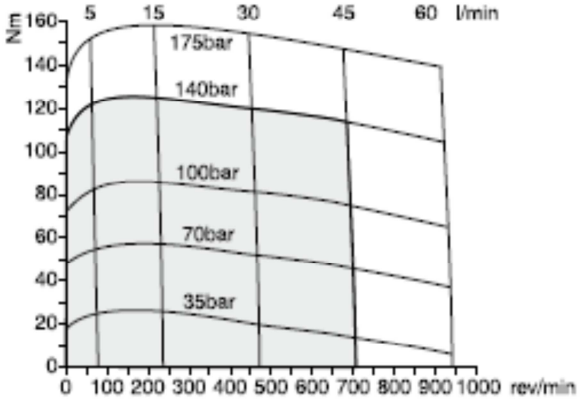
TE/TJ 45



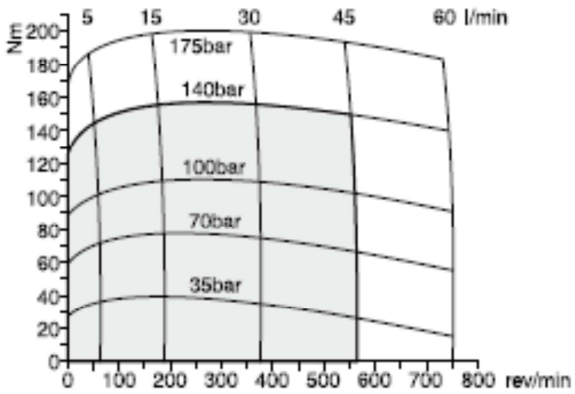
TE/TJ 50



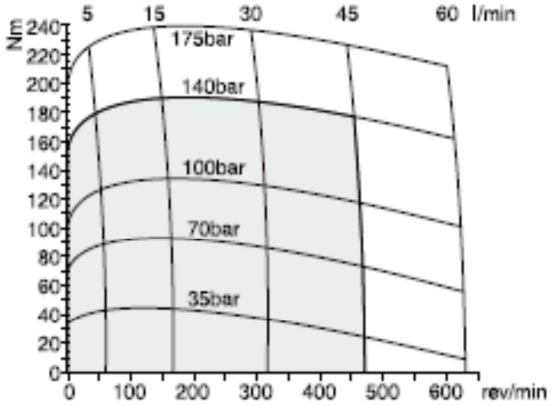
TE/TJ 65



TE/TJ 80



TE/TJ 100



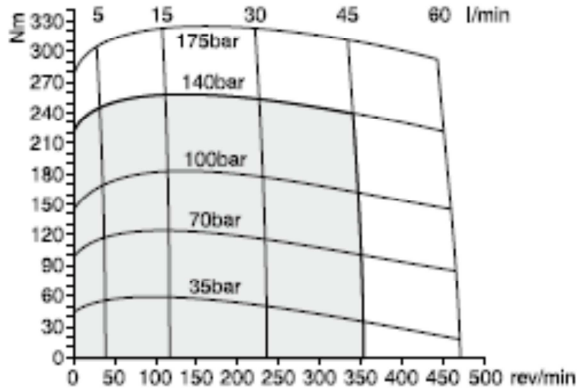
☐ Cont. ☐ Int.

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.

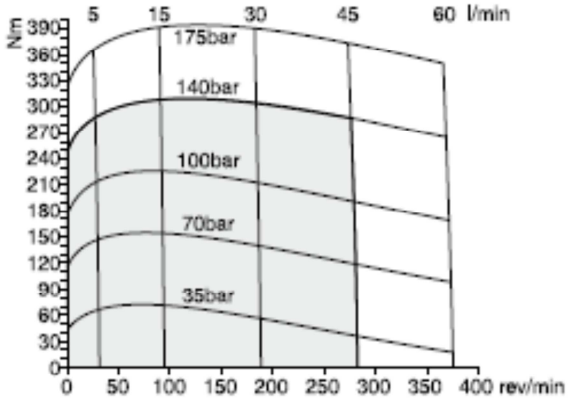
Diagrams

Series TE / TJ

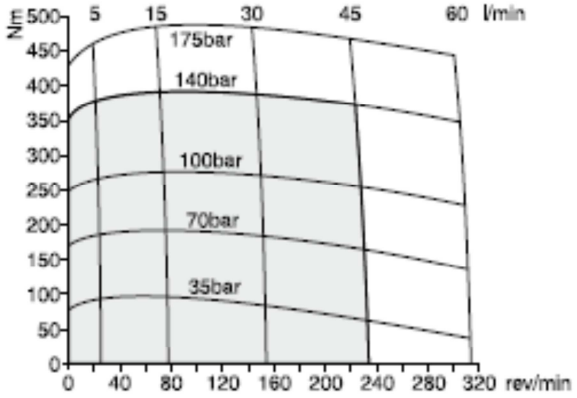
TE/TJ 130



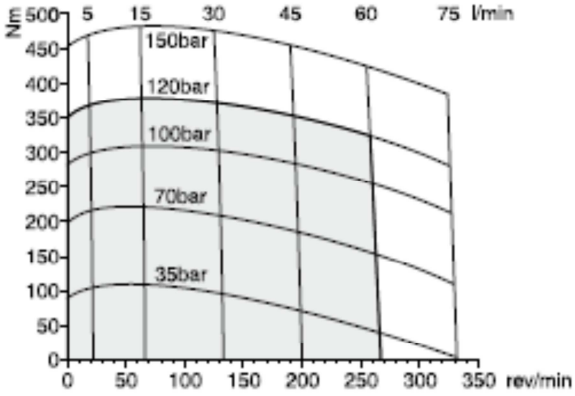
TE/TJ 165



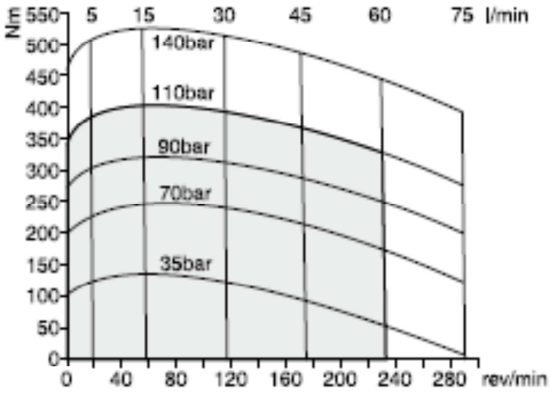
TE/TJ 195



TE/TJ 230



TE/TJ 260



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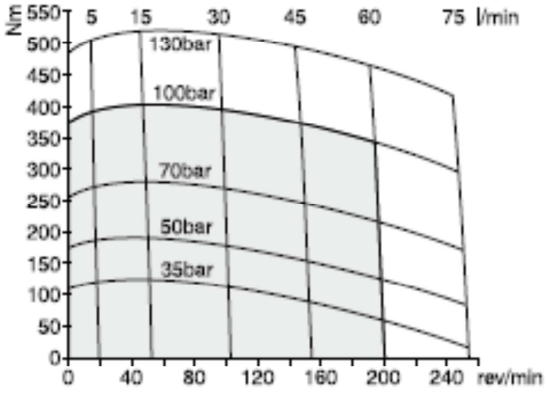


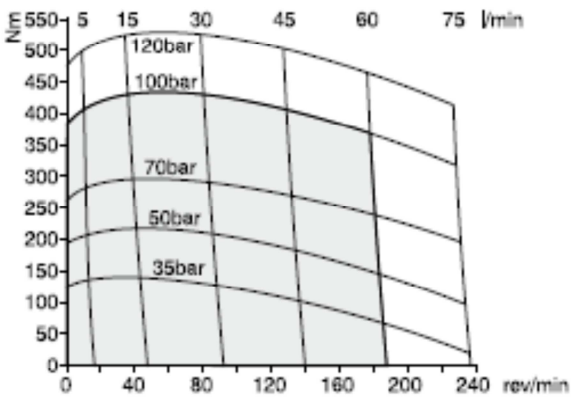
☐ Cont. ☐ Int.

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.

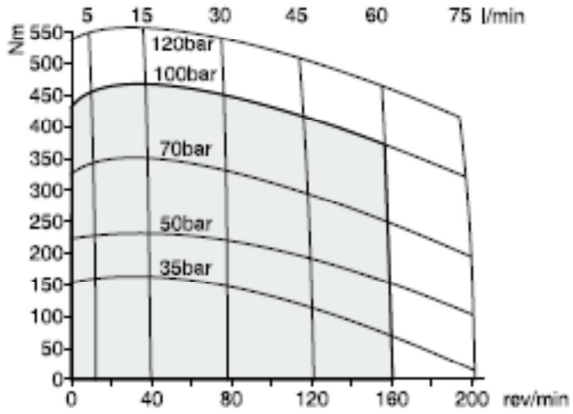
Diagrams

Series TE / TJ

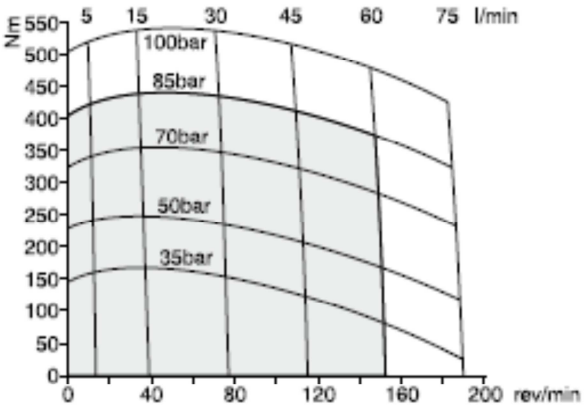
TE/TJ 330



TE/TJ 365



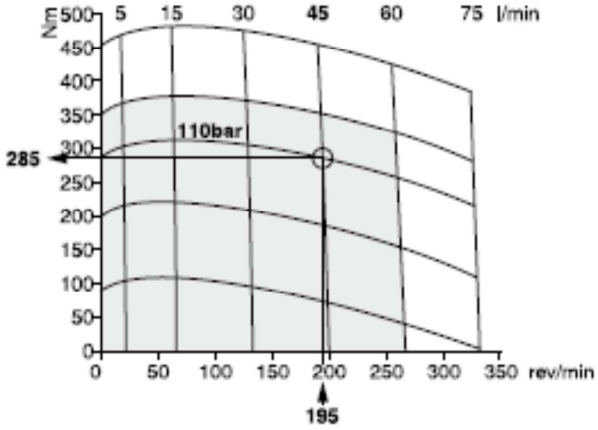
TE/TJ 390



☐ 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.

Beispiel / Example Series TE / TJ230



Md = 285 Nm V = 229.4 cm³/rev
n = 195 rev/min Q = 45 l/min
Δp = 110 bar

Volumetrischer Wirkungsgrad (η_{vol})
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_{hm})
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_{gas})
Overall efficiency
Rendement global
Rendimento totale

$$\eta_{gas} = \eta_{vol} \cdot \eta_{hm} = 0,99 \cdot 0,71$$
$$\eta_{gas} = 0.70$$

Leistung P (kW)
Power P
Puissance P
Potenza P

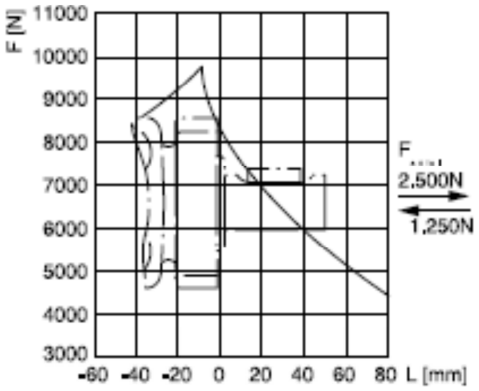
$$P = \frac{Md \cdot n \cdot \pi}{10^4 \cdot 3} = \frac{285 \cdot 195 \cdot \pi}{10^4 \cdot 3}$$
$$P = 5.8 \text{ kW}$$

Life Time

Series TE / TJ

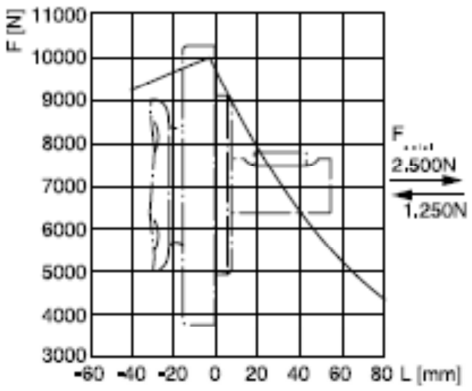
TE Code C/D

$$L_h = \frac{\left(\frac{357300}{F_R \cdot \left(1{,}161 + \frac{L}{62mm}\right)}\right)^{3{,}3}}{n}$$



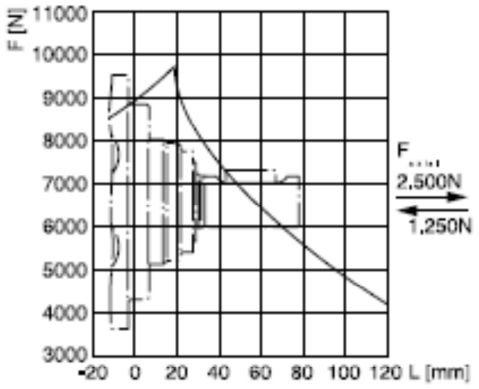
TE Code C

$$L_h = \frac{\left(\frac{357300}{F_R \cdot \left(1{,}076 + \frac{L}{62mm}\right)}\right)^{3{,}3}}{n}$$



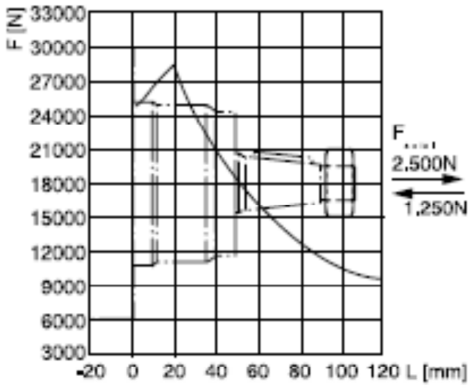
TE Code L

$$L_h = \frac{\left(\frac{357300}{F_R \cdot \left(0{,}69 + \frac{L}{62mm}\right)}\right)^{3{,}3}}{n}$$



TJ Code U

$$L_h = \frac{\left(\frac{840000}{F_R \cdot \left(0{,}57 + \frac{L}{71mm}\right)}\right)^{3{,}3}}{n}$$



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.

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.	F_R	=	**F (N)**
Le formule precedenti sono valide per una durata della vita B10.	n	=	**rev/min**

Ordering Code

Series TE / TJ

TE

Series

Schluckvolumen
Displacement
Cylindrée
Cilindrata

Code	cm³/rev
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

Gehäuse
Housing
Carter
Scatola motore

Code	Housing
C	
M	
D	
L	

Anschluss
Ports
Plan de raccordement
Connessioni

Code	Port
W	G 1/2
N [1]	universal port M8x13
Y	rear port G 1/2 axial

[1] Nicht verfügbar für Gehäuse L
Not availble for housing code L
Pas disponible pour carter code L
Non Disponibile per Alloggiamento codice L

Welle
Shaft
Arbre
Albero

Code	Shaft
26 69[3]	
10	
41	
12	
25	

[3] Code 69 –
Rostfreie Ausführung
Version en acier inoxydable
Stainless steel version
Versione in acciaio inossidabile

230 Nm (2100 lb in) Max Torque

Drehrichtung
Direction of rotation
Direction de rotation
Direzione di rotazione

Code	Direction
0	 Standard
1	

Option

Code	Option
AAAB	standard
AANC	shuttle valve
BBCP [2]	internal relief valve 100 bar
BBCN [2]	internal relief valve 140 bar
HAAP	external relief valve 100 bar
HAAU	external relief valve 140 bar

[2] Nicht verfügbar für Anschluss Y
Not availble for port code Y
Pas disponible pour raccordement code Y
Non Disponibile per connessioni codice Y

Ordering Code — Series TE / TJ

TJ | ☐☐☐☐ | ☐ | ☐ | ☐☐ | ☐ | ☐☐☐☐

- TJ — Series
- Schluckvolumen / Displacement / Cylindrée / Cilindrata
- Gehäuse / Housing / Carter / Scatola motore
- Anschluss / Ports / Plan de raccordement / Connessioni
- Welle / Shaft / Arbre / Albero
- Drehrichtung / Direction of rotation / Direction de rotation / Direzione di rotazione
- Option

Code	cm³/rev
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
U	

Code	Port
W	G 1/2

Code	Option
AAAB	Standard

Code	Direction
0	 Standard
1	

Code	Shaft
08