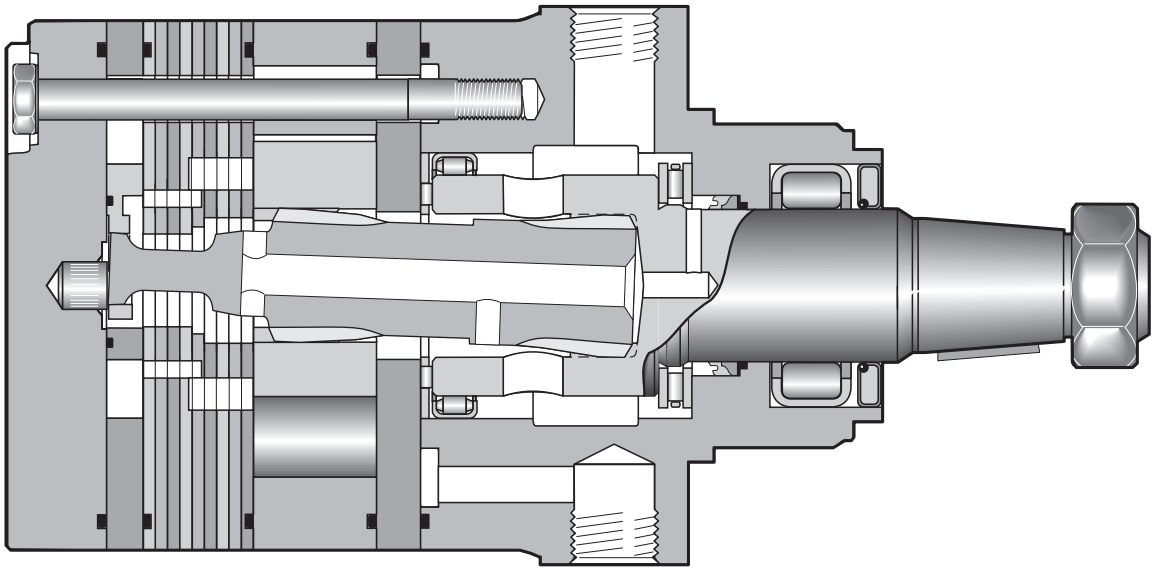
Features / Merkmale / Charactèristique / Carratteristiche

- **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

- **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

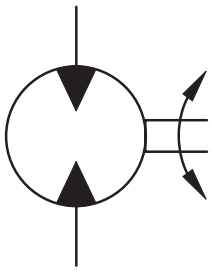
- **Moteur lent systéme Gerotor**
- **Une distribution orbitale particuliére assure**
  fuites internes minimales
  rendements volumàtriques élevés
- **Le rotor à rouleaux**
  réduit les frottements
  augmente la durée de vié
- **Par l`utilisation de joints d`arbre haute pression brevetés**
  pas de conduite de drainage
  pas de clapets anti-retour
- **Gràce à de nombreuses variantes**
  larges domaines d`application

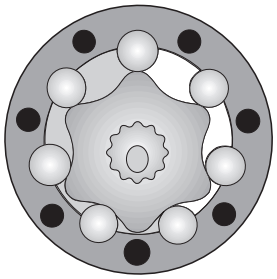
- **Motore orbitale a bassa velocità**
- **Una particolare distribuzione orbitale assicura**
  trafilamento ridotto
  elevato rendimento volumetrico
- **Con lo statore a rullini**
  si riduce l`attrito interno
  si mantiene nel tempo l`efficieza del motore
- **Una guarnizione di tenuta ad alta pressione 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 / Kenndaten / Puissance / Prestazioni

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. 16.000 N See page 51





Motor series TG	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. Leistungabgabe / Max. performance / Puissance de sortie maxi / Potenza meccanica max cont / int* [KW]	Min. Anlaufmoment / Min. starting torque / Couple min. fourni au démarrage / Coppia min. di spunto cont / int* [Nm]
TG 140	141	530/710	75/100	210/280	300	400/545	33	320/436
TG 170	169	440/575	75/100	210/280	300	485/670	33	388/536
TG 195	195	380/510	75/100	210/280	300	560/770	33	448/616
TG 240	238	320/420	75/100	210/280	300	685/945	32	548/756
TG 280	280	270/350	75/100	210/280	300	800/1100	31	675/880
TG 335	337	225/290	75/100	210/280	300	980/1350	30	784/1080
TG 405	405	185/245	75/100	170/240	300	960/1350	27	791/1145
TG 475	477	160/240	75/115	140/210	300	960/1400	28	768/1120
TG 530	529	140/215	75/115	140/170	300	1050/1280	23	874/1091
TG 625	613	120/185	75/115	120/160	300	1040/1360	20	895/1165
TG 785	786	95/145	75/115	100/140	300	1150/1490	17	991/1341
TG 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

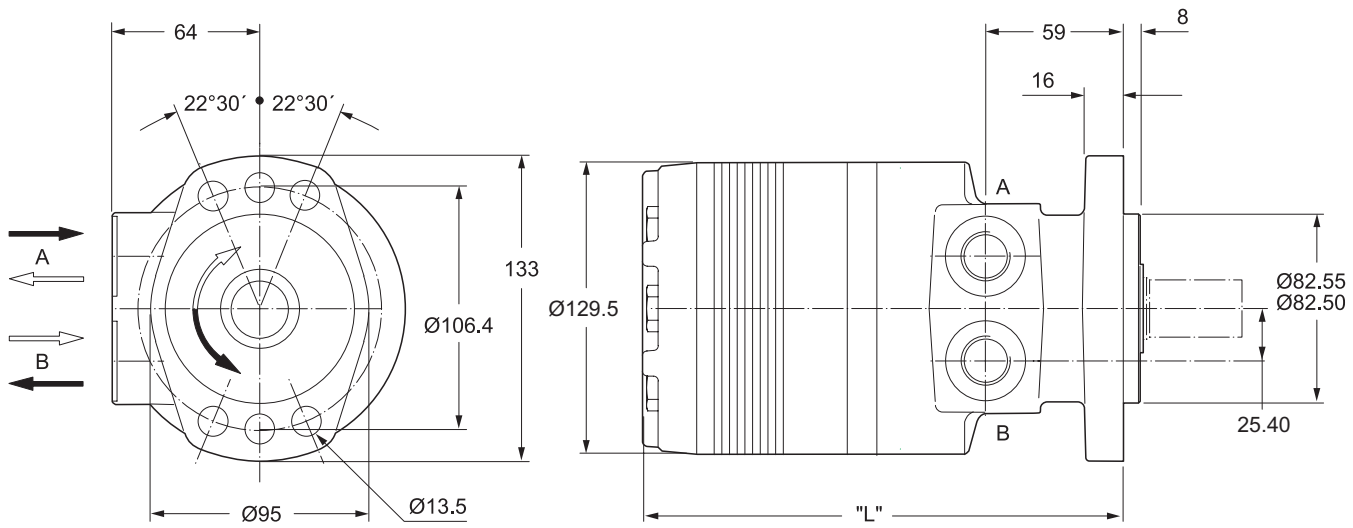
** Pressure difference is Δp between input and output

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

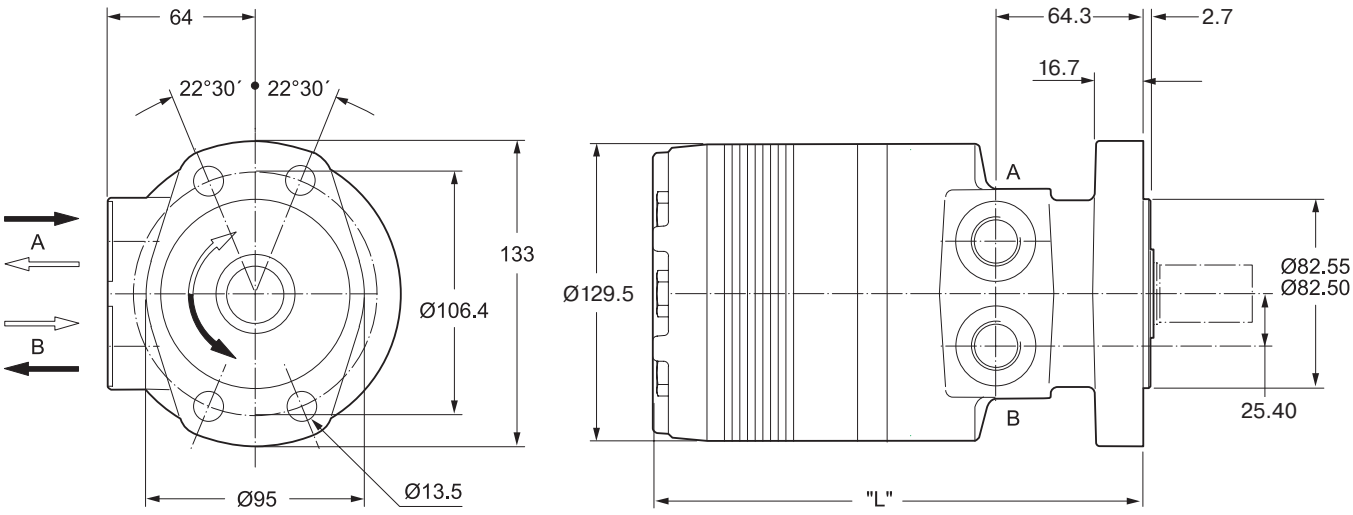
** La differenza di pressione corrisponde al Δp tra ingresso e uscita

Housing / Gehäuse / Carter / Corpo

Code E

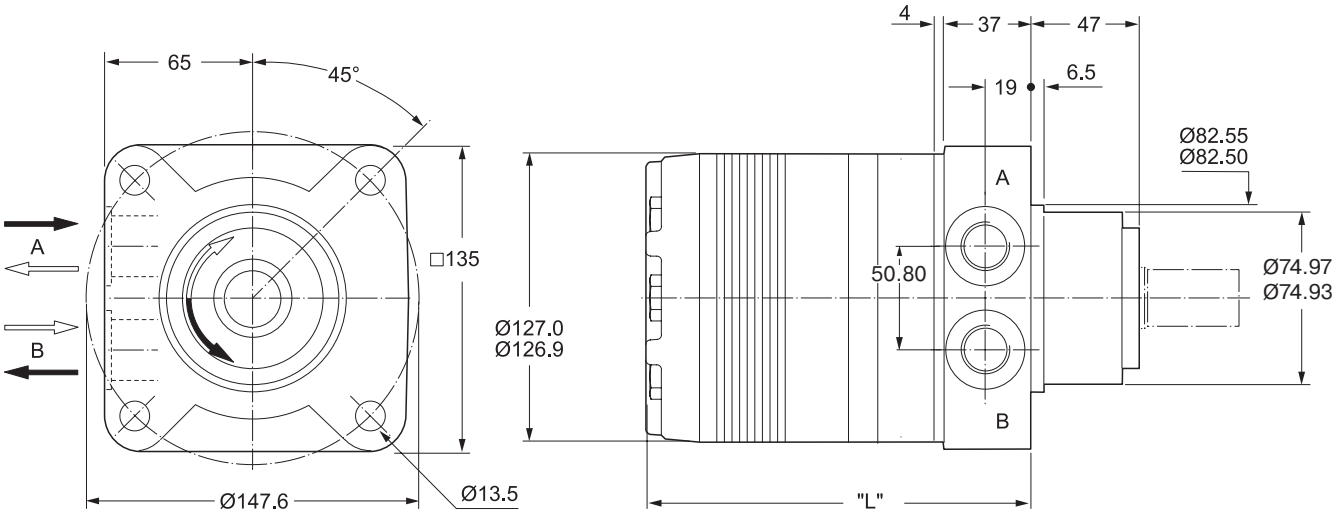


Code M

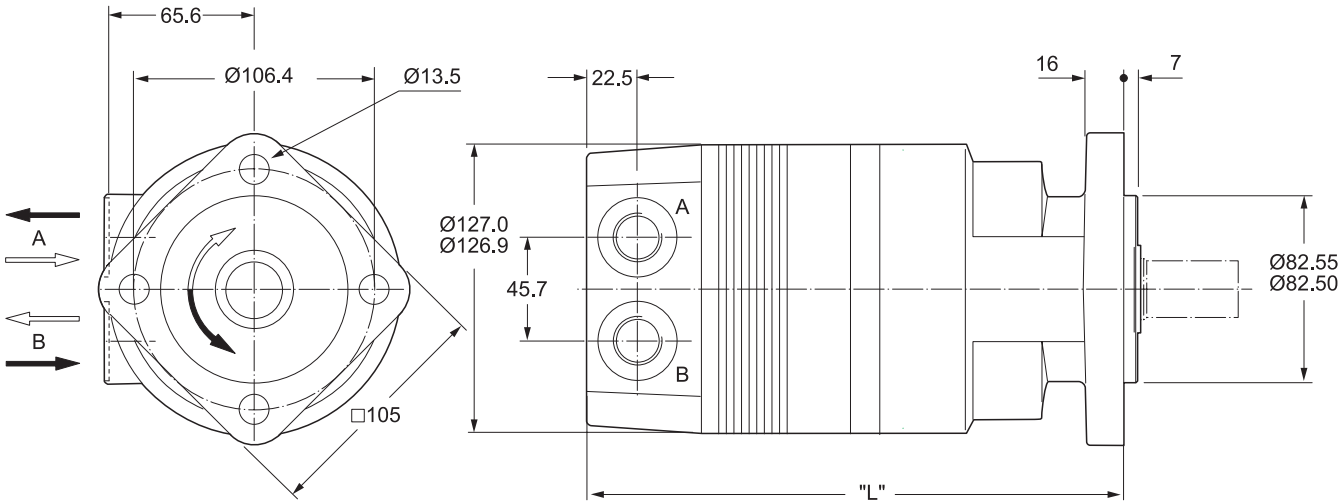


		Series TG											
		140	**170**	**195**	**240**	**280**	**335**	**405**	**475**	**530**	**625**	**785**	**960**
Gewicht / Weight Poids / Peso [kg]		14.2	14.5	14.7	15.1	15.5	15.9	16.5	17.2	17.9	18.6	20.2	22.0
Code E	„L“[mm]	191	194	197	202	207	213	220	229	235	245	264	283
Code M	„L“[mm]	196	199	202	208	212	218	225	234	240	250	269	288

Code H



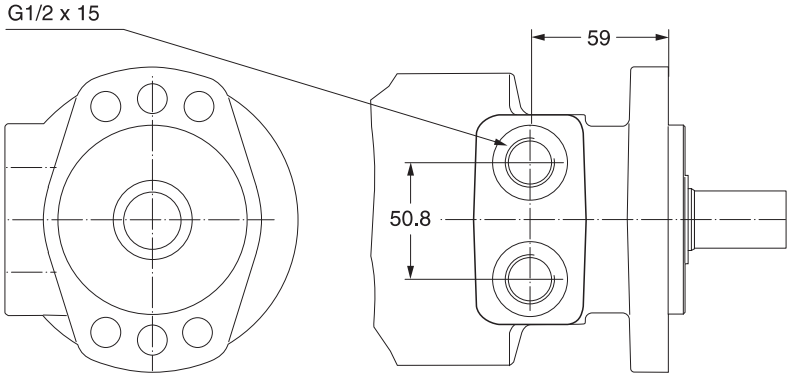
Code V



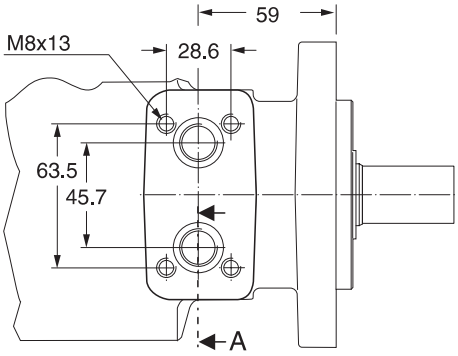
		Series TG											
		140	**170**	**195**	**240**	**280**	**335**	**405**	**475**	**530**	**625**	**785**	**960**
Gewicht / Weight Poids / Peso [kg]		16.1	16.3	16.6	17.0	17.4	17.8	18.4	19.0	19.8	20.5	22.0	23.7
Code H	„L“[mm]	150	154	157	162	166	173	180	188	195	204	223	242
Code V	„L“[mm]	217	220	224	228	233	238	246	255	262	272	290	309

Front Ports / Anschlüsse vorn / Orifices avant / Connessioni anteriori

Code W



Code: N



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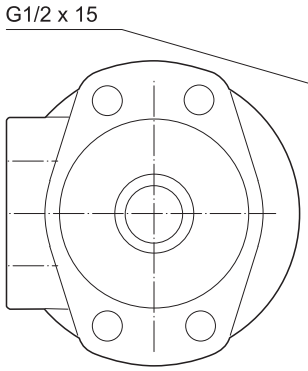

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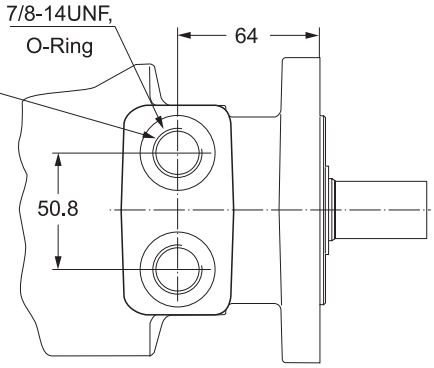

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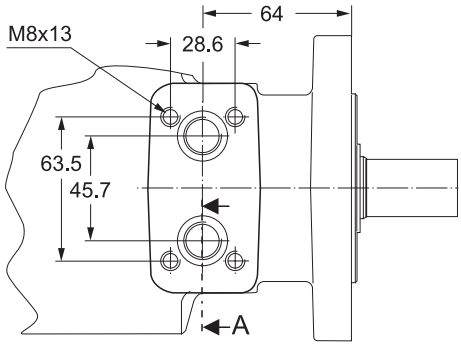

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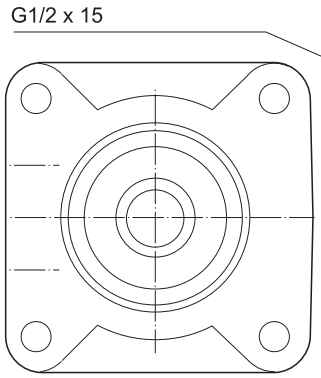
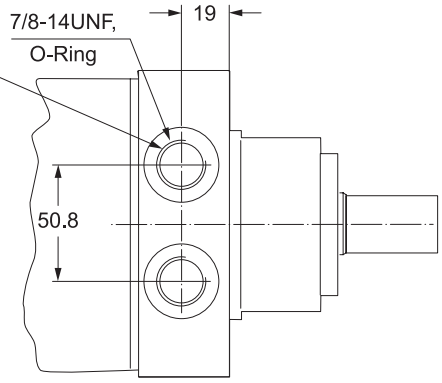
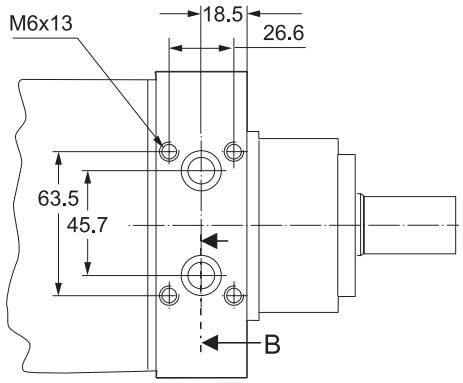


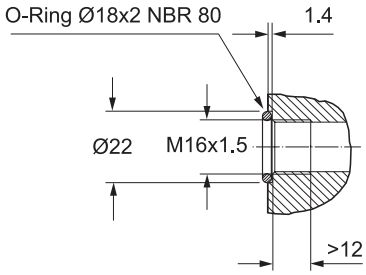
Code V



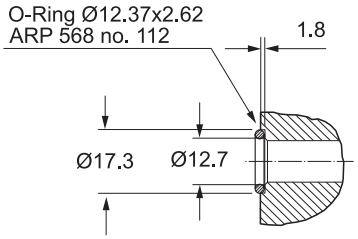
Code K



Section A



Section B



Zum Motor mit Universalanschluss werden 2 O-Ringe geliefert.

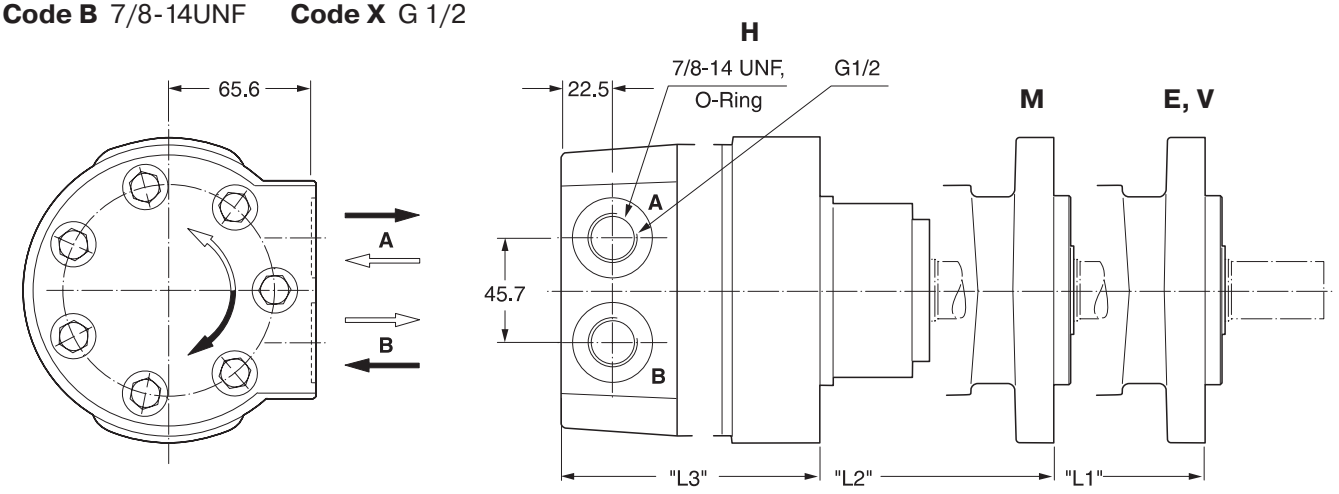
Motor with manifold mount is supplied with 2 O-rings.

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

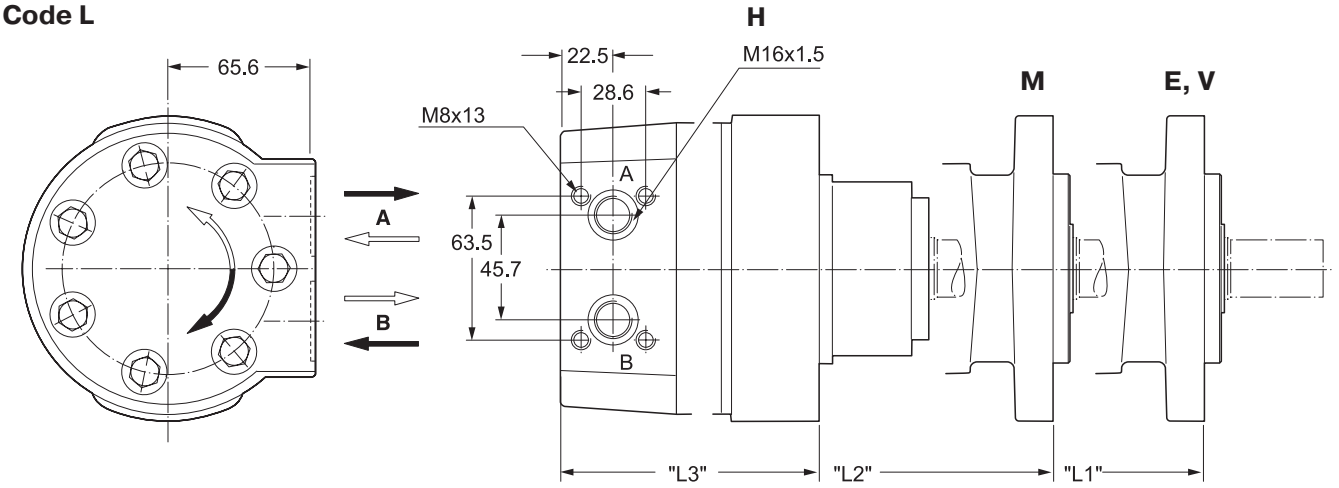
Il blocchetto connessioni è corredato da 2 OR.

Rear Ports / Anschlüsse hinten / orifices arrière/ Connessioni posteriori

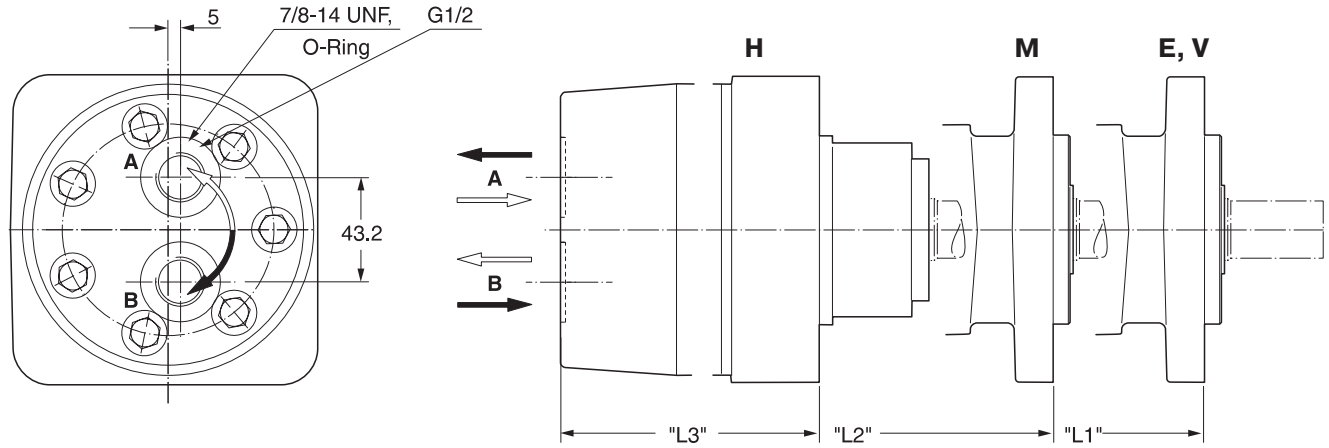
Code B 7/8-14UNF **Code X** G 1/2



Code L



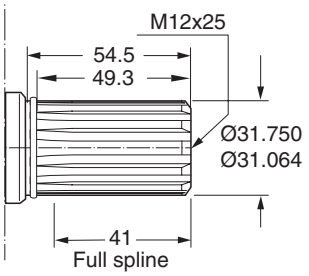
Code A 7/8-14UNF **Code Y** G 1/2



		Series TG											
		140	**170**	**195**	**240**	**280**	**335**	**405**	**475**	**530**	**625**	**785**	**960**
Gewicht / Weight Poids / Peso [kg]		16.1	16.3	16.6	17.0	17.4	17.8	18.4	19.0	19.8	20.5	22.0	23.7
Code B, X, L A, Y	„L1“[mm]	216	219	222	227	232	238	245	254	260	270	289	308
	„L2“[mm]	221	224	227	232	237	243	250	259	265	275	294	313
	„L3“[mm]	175	179	182	187	191	198	205	213	220	229	247	267

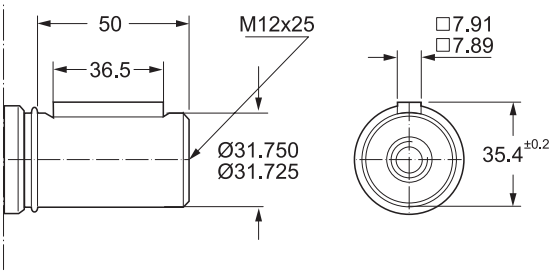
Coupling shaft / Abtriebswelle / Arbre / Alberi

Code 44

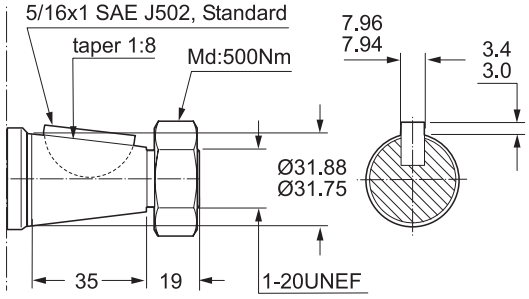


Involute spline
ANS B92.1-1970 Standard
Flat root side fit
Pitch 12/24
Teeth 14
Major diam. 1.25 in
Pressure angle 30˚

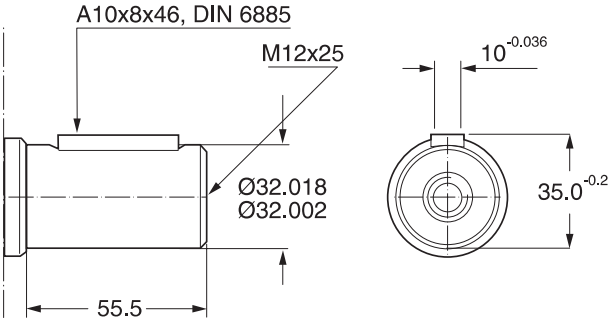
Code 45



Code 08

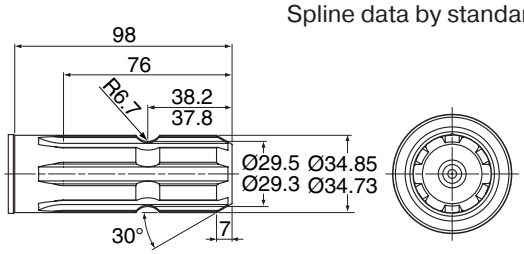


Code 46

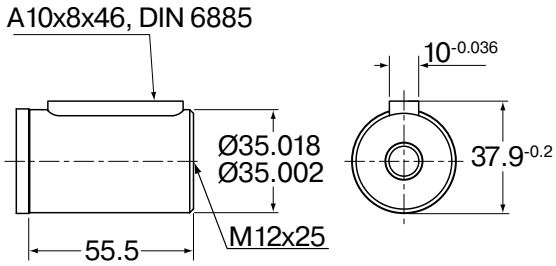


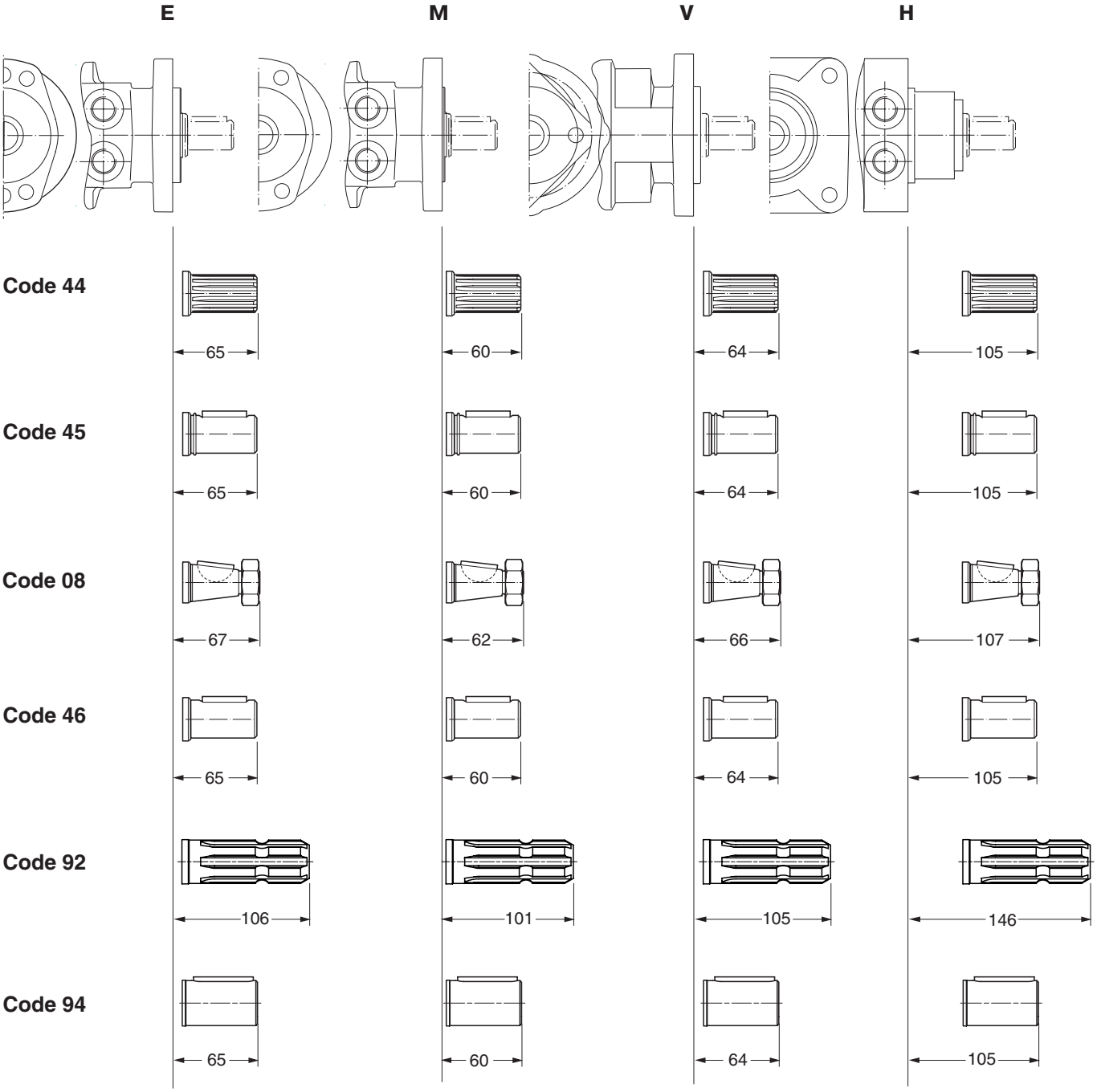
Code 92

Spline data by standard SAE J1170



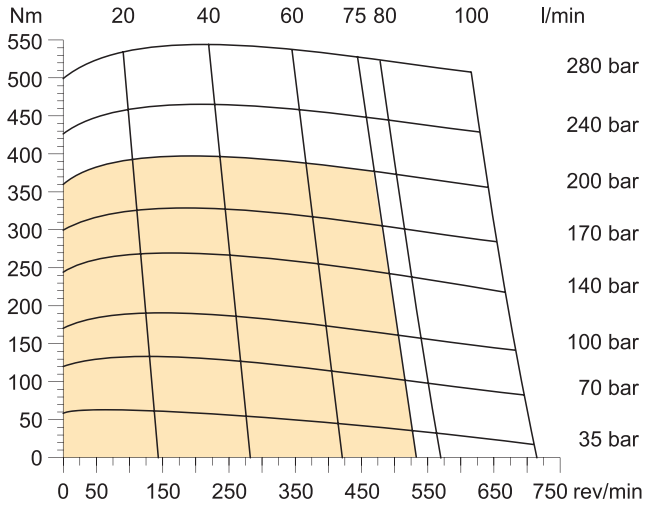
Code 94



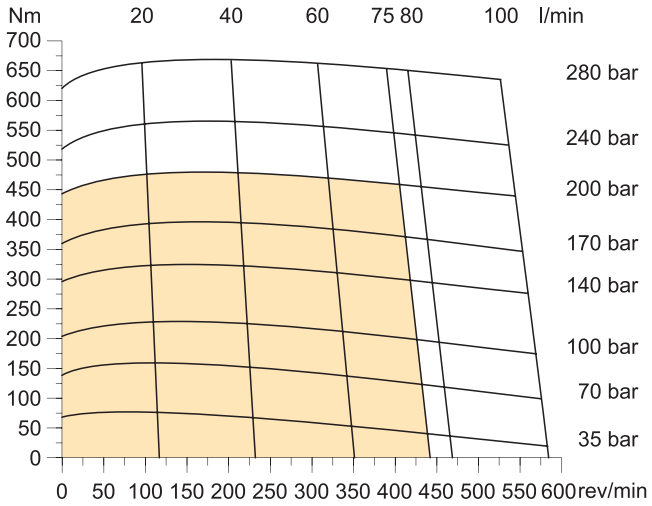

E
M
V
H
Code 44
65
60
64
105
Code 45
65
60
64
105
Code 08
67
62
66
107
Code 46
65
60
64
105
Code 92
106
101
105
146
Code 94
65
60
64
105

Diagrams / Diagramme / Diagrammes / Diagrammi

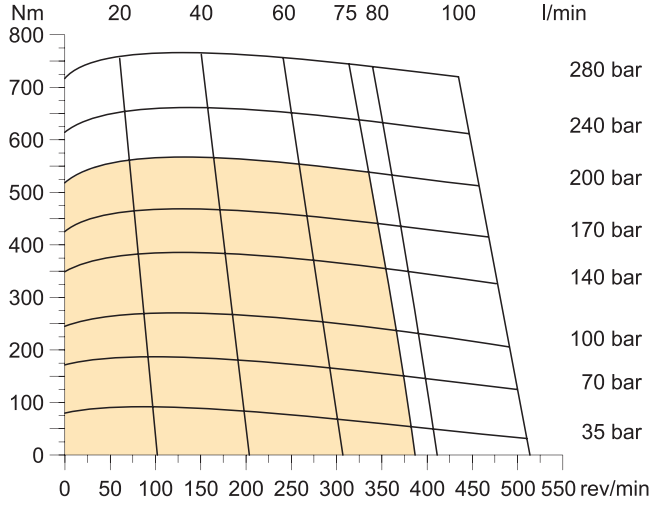
TG 140



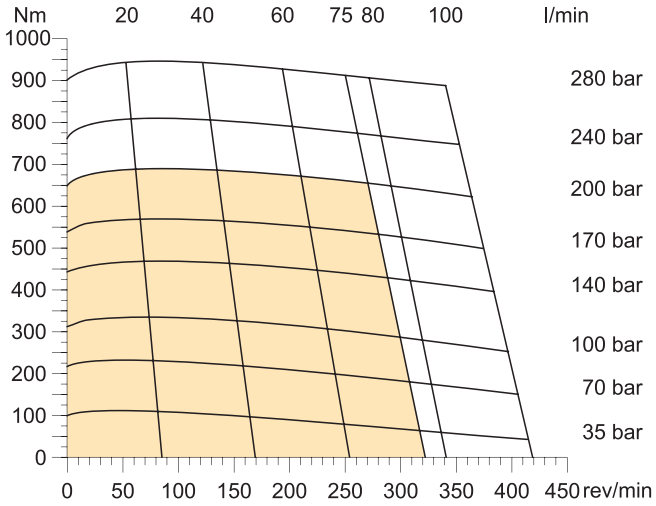
TG 170



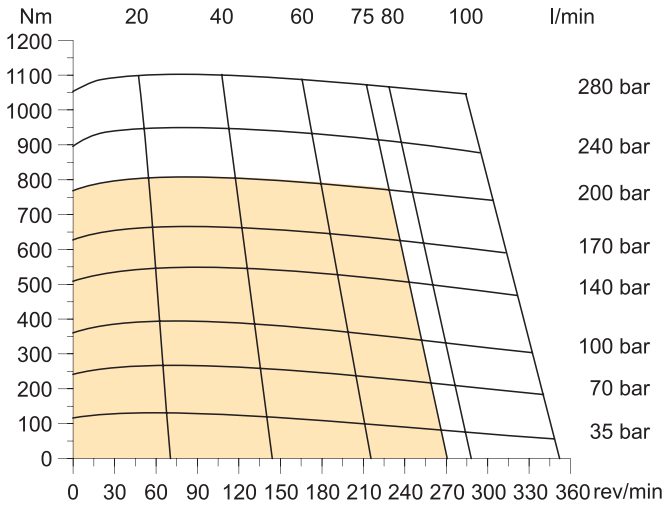
TG 195



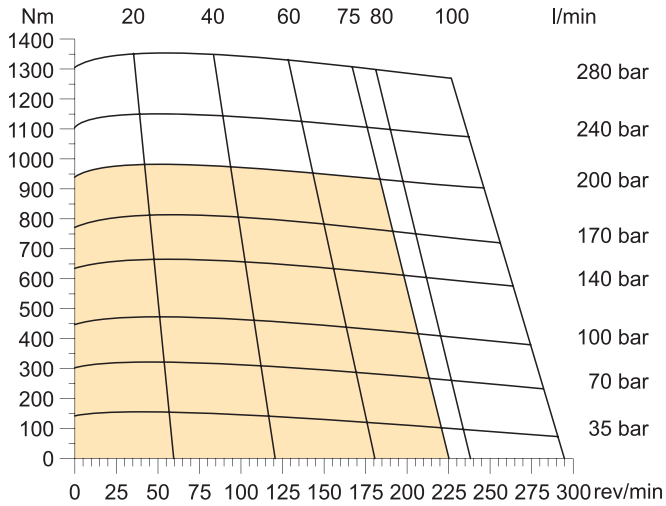
TG 240



TG 280



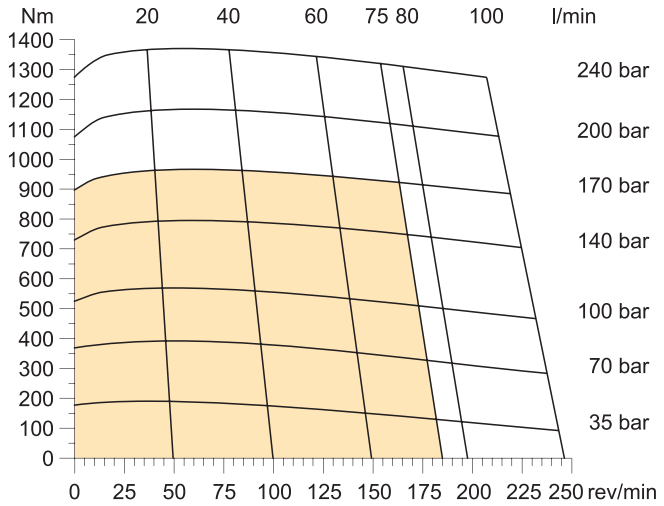
TG 335



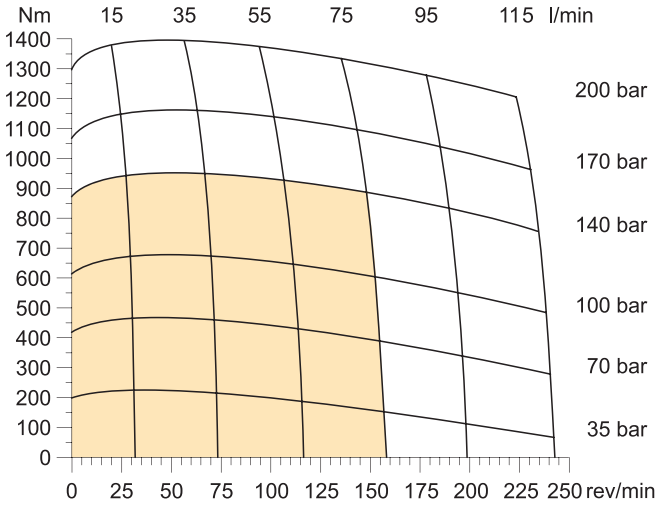
Cont. Int. int. =

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.

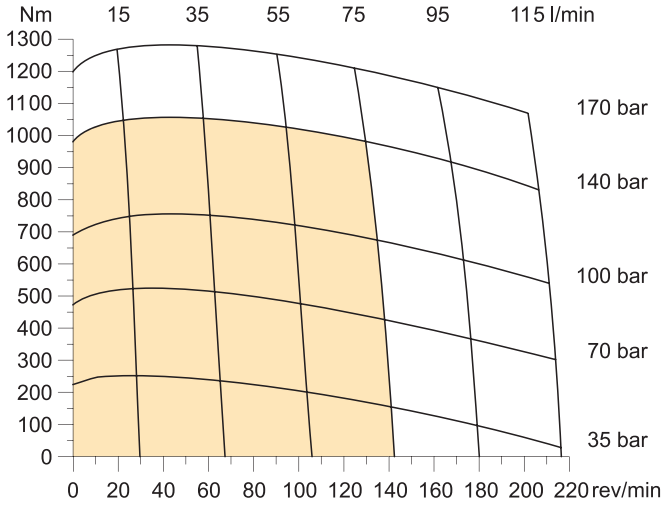
TG 405



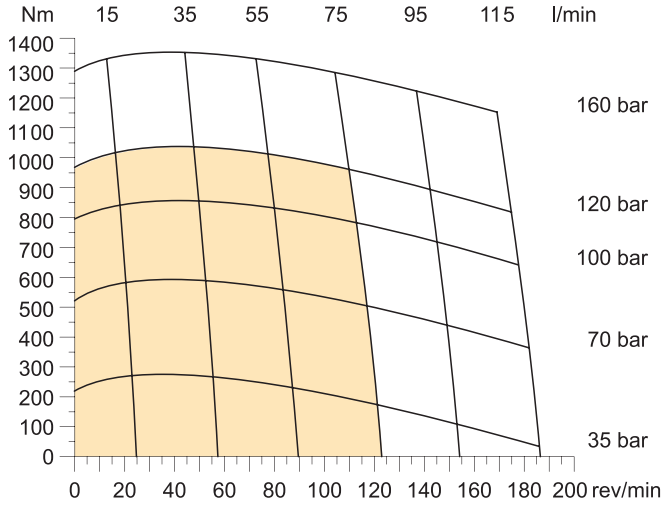
TG 475



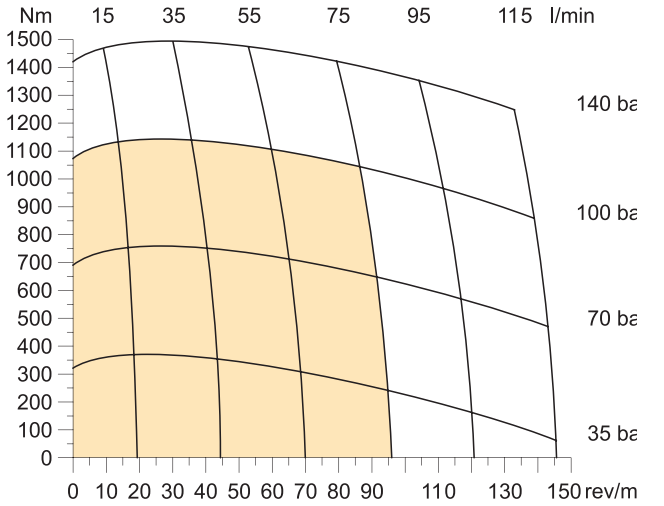
TG 530



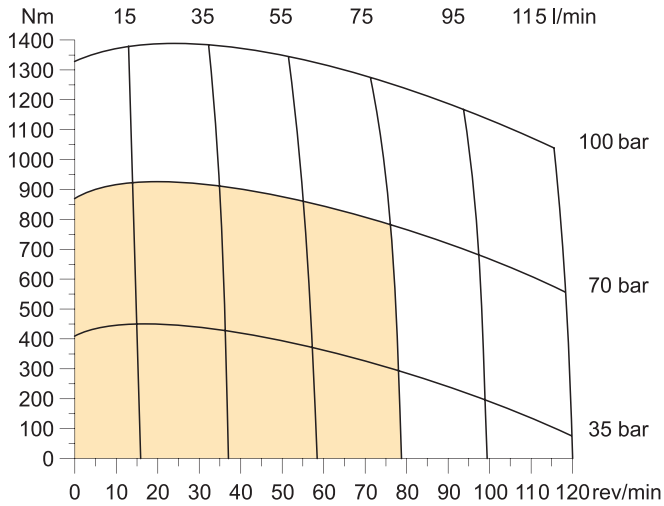
TG 625



TG 785



TG 960

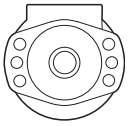


Cont. Int. int. =

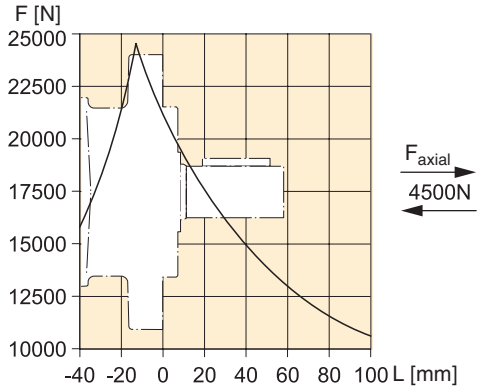
Intermittierende Werte maximal: 10% von jeder Betriebsminute.
Intermittent operation rating applies to 10% of every minute.
Fonctionnement interm.: 10% max. de chaque minute d`utilisation.
Servizio intermittente: 10% max di ogni minuto di utilizzazione.

Life Time / Lebensdauer / Durèe de vie / Durata

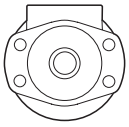
Code E



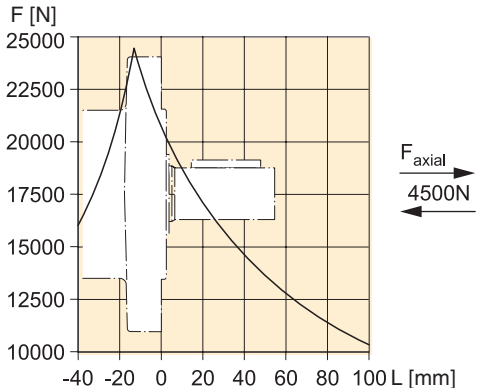
$$L_h = \frac{\left(\frac{670000}{F_R \cdot \left(1.10 + \frac{L}{88mm}\right)}\right)^{3.3}}{n}$$



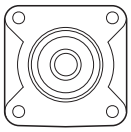
Code M



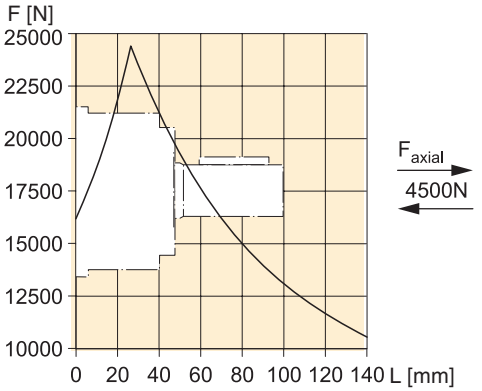
$$L_h = \frac{\left(\frac{670000}{F_R \cdot \left(1.16 + \frac{L}{88mm}\right)}\right)^{3.3}}{n}$$



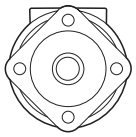
Code H



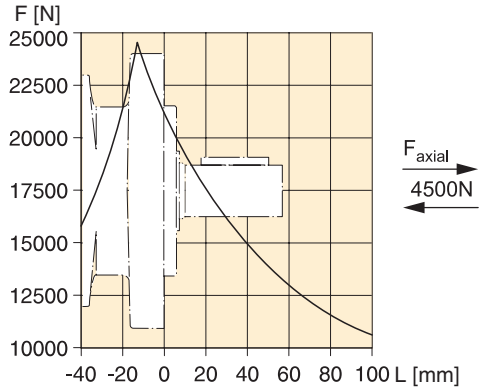
$$L_h = \frac{\left(\frac{670000}{F_R \cdot \left(0.56 + \frac{L}{88mm}\right)}\right)^{3.3}}{n}$$



Code V



$$L_h = \frac{\left(\frac{670000}{F_R \cdot \left(1.11 + \frac{L}{88mm}\right)}\right)^{3.3}}{n}$$



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.

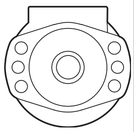
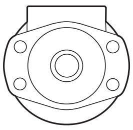
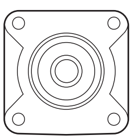
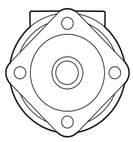
Vorstehende Formeln gelten für eine B10-Lebensdauer.	**L_h**	=	**[h]**
The preceding formulas are valid for a B10 duration of life.	**L**	=	**[mm]**
Les formules prècèdentes sont valables pour une durèe de vie B10.	**F_R**	=	**F [N]**
Le formule precedenti sono valide per una durata della vita B10.	**n**	=	**[rev/min]**

TG											A	A	A	B

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

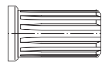
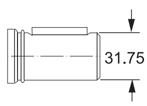
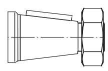
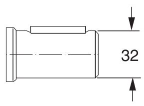
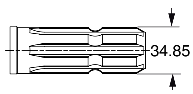
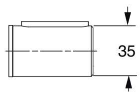
Option: For further options different to standard ’AAAB’ see page 67.

Code	cm³/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

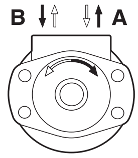
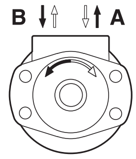
Code	Housing
E	
M	
H	
V1)	

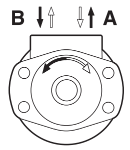
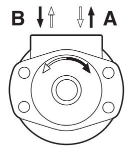
Code	Front port
W	G 1/2
V	7/8-14 UNF O-Ring
N2)	Universal-M8x13
K3)	Universal-M6x12

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
44	 Pitch 12/24
45	
08	
46	
92	
94	

Drehrichtung / Direction of rotation

Code	Front port
0	 Standard
1	

Code	Rear port
0	 Standard
1	

1) Nur verfügbar mit Endanschluss
Only possible with rear port
Possible seulement avec orifice arrière
Possible solo con connessioni posteriori

2) Nicht verfügbar für Gehäuse ”H”
Not possible for housing ”H”
Pas disponible pour carter ”H”
Non Disponibile con il corpo codice ”H”

3) Nicht verfügbar für Gehäuse ”M, E, V”
Not possible for housing ”M, E, V”
Pas disponible pour carter ”M, E, V”
Non disponibile con il corpo codice ”M, E, V”