

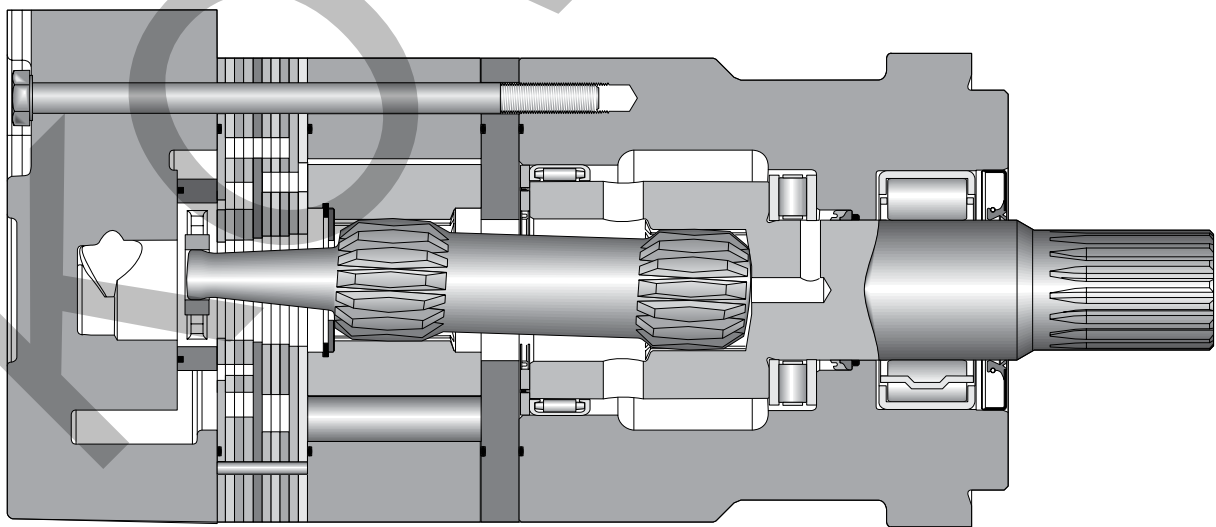
## Features

## Torqmotor Series TK

- **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

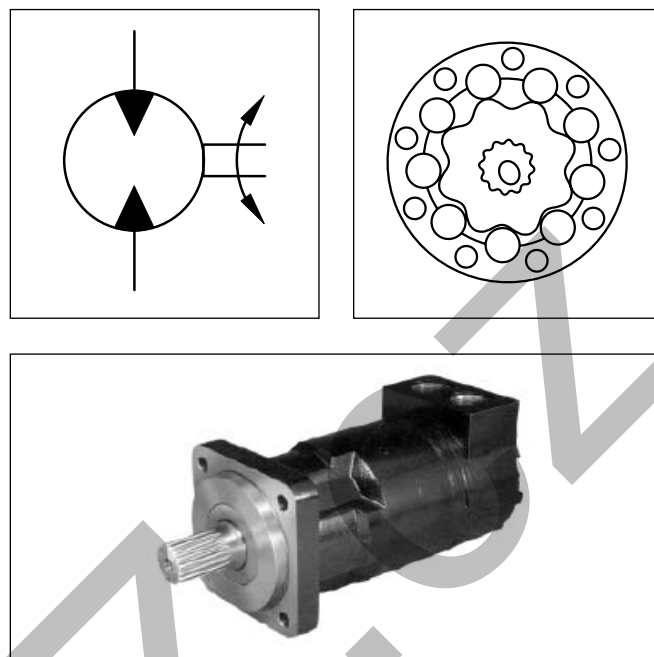
- **Moteur lent système Gerotor**
- **Une distribution orbitale particulière assure**  
fuites internes minimales  
rendements volumétriques élevés
- **Le rotor à rouleaux**  
réduit les frottements  
augmente la durée de vie
- **Par l'utilisation de joints d'arbre haute pression brevetés**  
pas de conduite de drainage  
pas de clapets anti-retour
- **Grâce à de nombreuses variantes**  
larges domaines d'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 assicura**  
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 cilindrata, flange ed alberi**  
consentono scelte adeguate ad ogni esigenza costruttiva



**Performance****Torqmotor  
Series TK**

Drehzahl Speed Vitesse de rotation Velocità di rotazione	max. 523 rev/min
Schluckstrom Oil flow Débit d'huile Portata	max. 227 l/min
Eingangsdruck Supply pressure Pression entrée Pressione in entrata	max. 330 bar
Torque Couple Coppia	max. 2660 Nm
Seitenlast Side load Charges latérales Carico radiale	max. 26.000 N See page 68



Motor series TK	Geom. Schluckvolumen Geometric displacement Cylindrée Cilindrata	Max. Drehzahl Max. speed Vitesse de rotation Velocità di rotazione	Max. Schluckstrom Max. oil flow Débit d'huile Portata max	Max. Druckdifferenz ** Max. differential pressure Chute de pression max Caduta di pressione max	Max. Eingangsdruck Max. supply pressure Pression max entrée Pressione max in entrata	Max. Drehmoment Max. torque Couple max Coppia max	Max. Leistungabgabe Max. performance Puisissance de sortie Potenza meccanica max	Min. Anlaufmoment Min. starting torque Couple min. fourni au démarrage Coppia min. di spunto
	[cm³/U] [cm³/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]
TK 250	250	523	114/133	240/310	330	815/1043	49	690/880
TK 315	315	413	114/133	240/310	330	1030/1315	47	950/1220
TK 400	400	373	114/151	205/275	330	1150/1525	49	1050/1410
TK 500	500	300	114/151	205/275	330	1440/1915	48	1320/1780
TK 630	630	240	114/151	205/225	330	1620/1715	34	1500/1620
TK 800	800	276	151/227	190/205	330	1915/2300	44	1740/1900
TK 1000	1000	220	151/227	175/190	330	2410/2660	35	1980/2180

\*int. =

Intermittierende Werte maximal: 10% von jeder Betriebsminute.

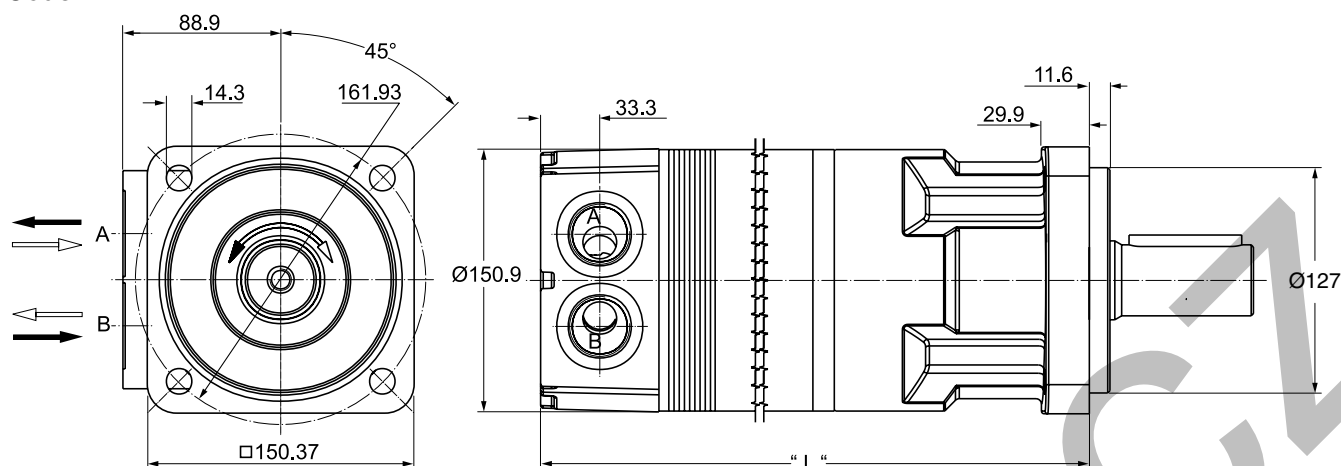
Intermittent operation rating applies to 10% of every minute.

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

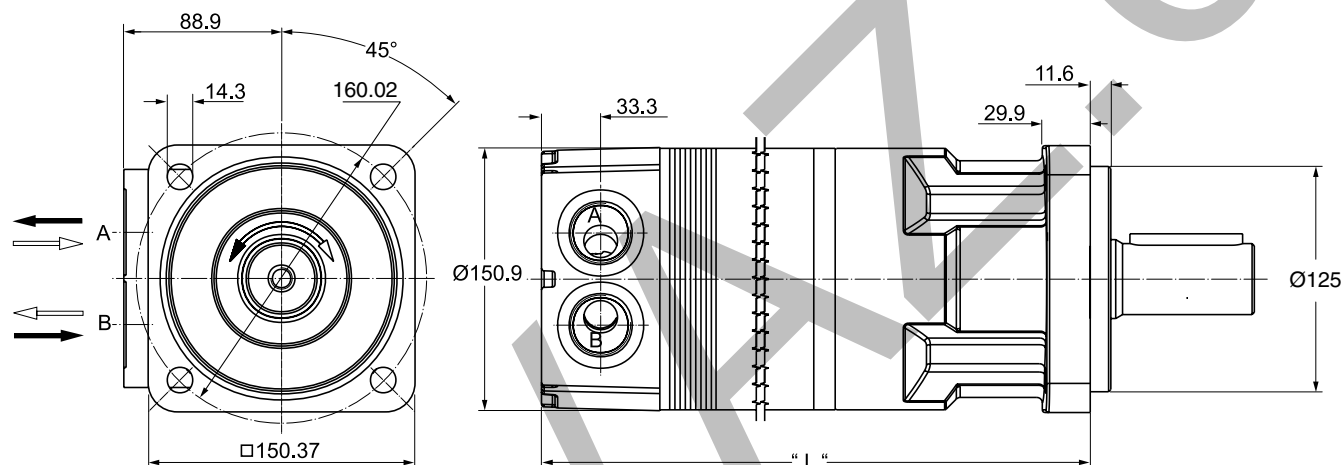
Servizio intermittente: 10% max di ogni minuto di utilizzazione.

\*\* Druckdifferenz  $\Delta p$  zwischen Ein- und Ausgang\*\* Pressure difference is  $\Delta p$  between input and output\*\* La différence de pression est  $\Delta p$  entre l'entrée et la sortie\*\* La differenza di pressione corrisponde al  $\Delta p$  tra ingresso e uscita

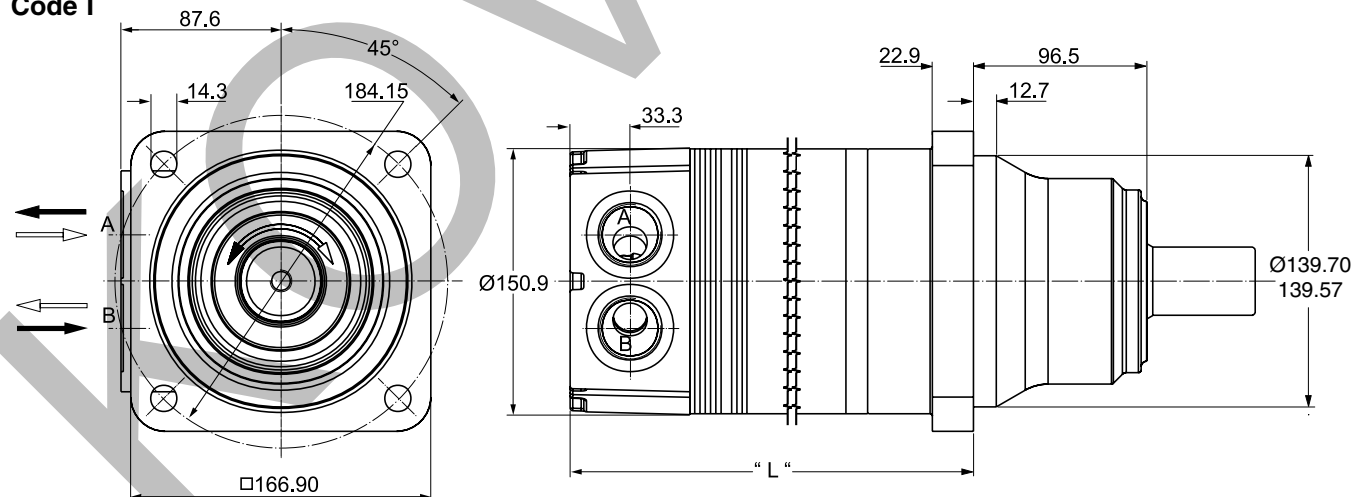
**Code K**



**Code R**

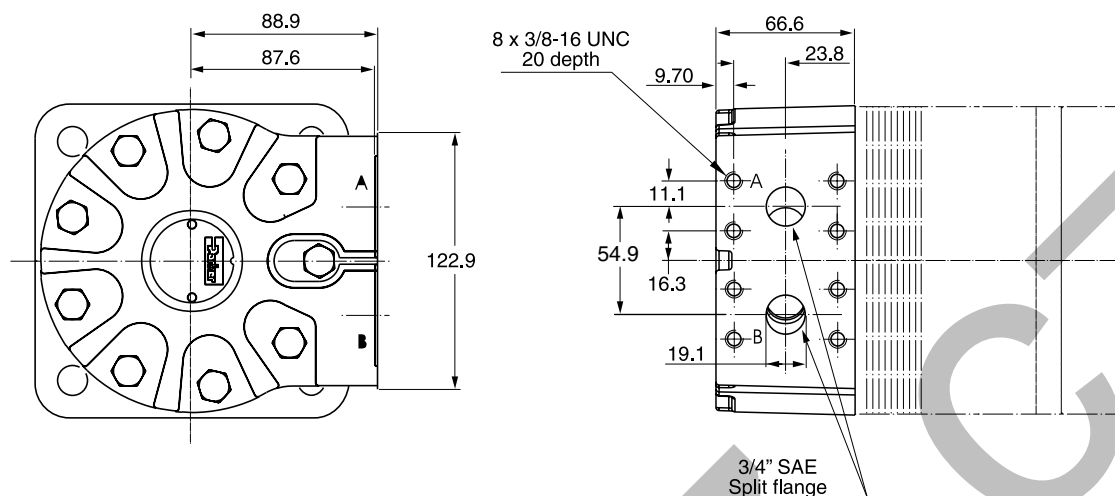


**Code T**

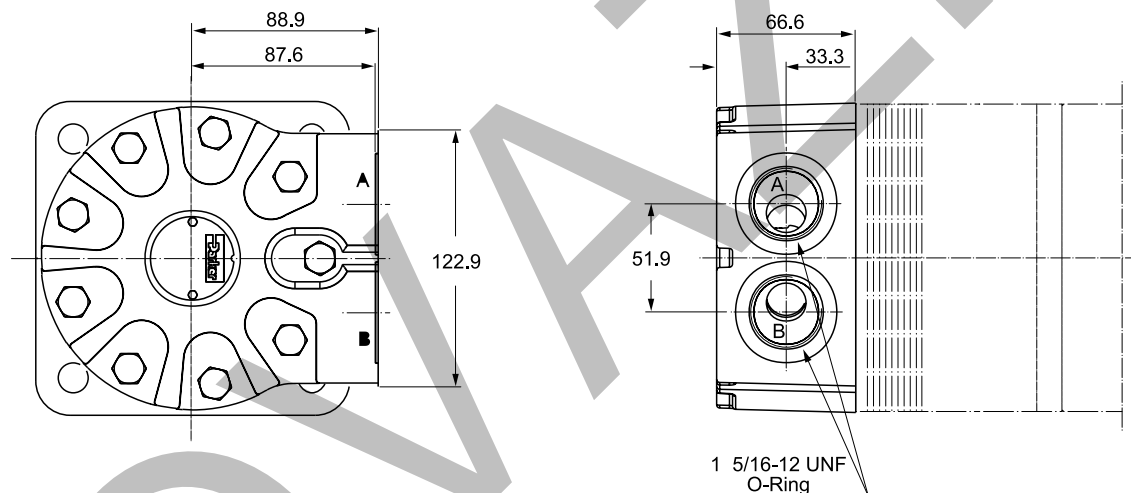


Gewicht / Weight / Poids / Peso	TK250	TK315	TK400	TK500	TK630	TK800	TK1000
Code K, R Code T [kg]	32.0	32.7	33.5	34.5	35.7	37.2	39.1
Code K, R Code T "L" [mm]	277	282	290	297	310	323	340
Code K, R Code T	191	196	203	213	224	239	257

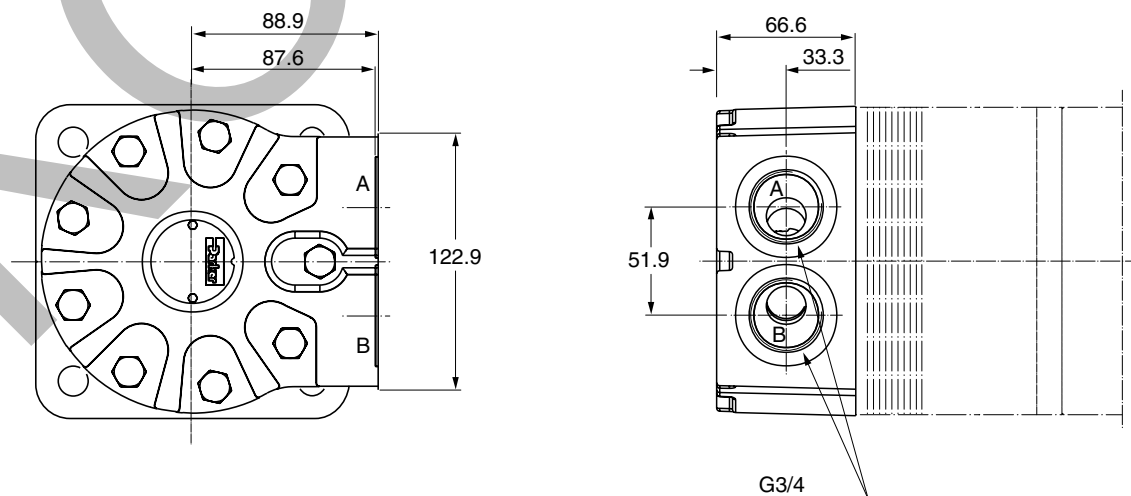
**Code 4**



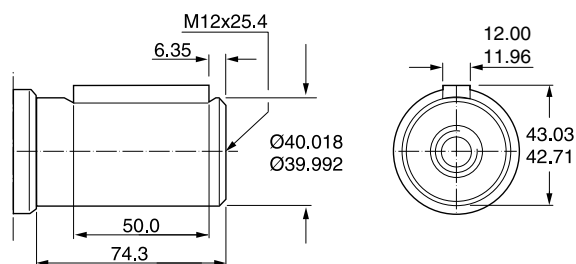
**Code 5**



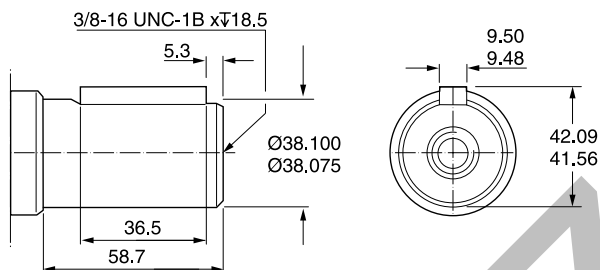
**Code 6**



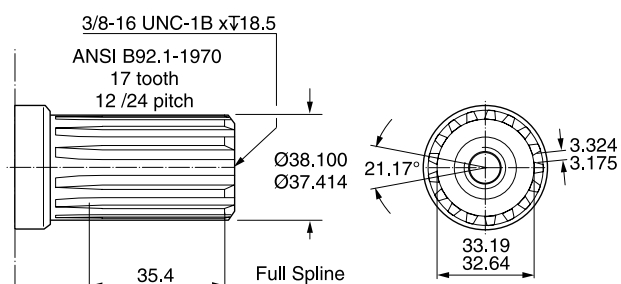
**Code 64**



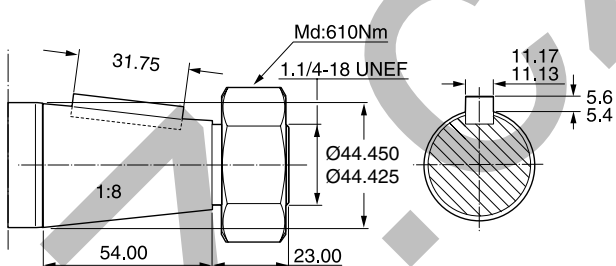
**Code 32**



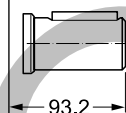
**Code 36**



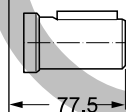
**Code 63**



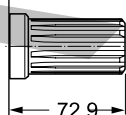
**Code 64**



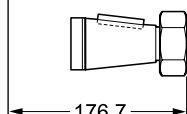
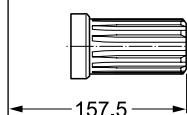
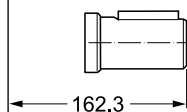
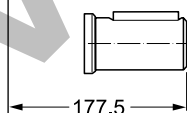
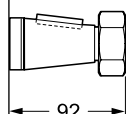
**Code 32**



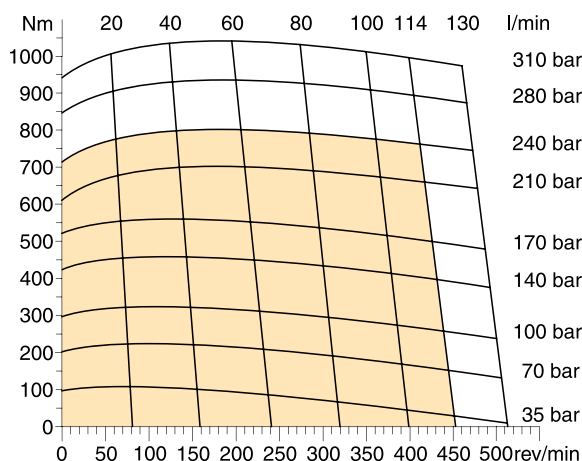
**Code 36**



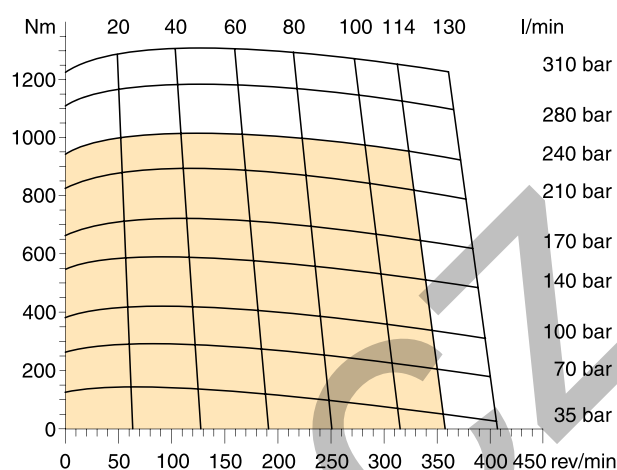
**Code 63**



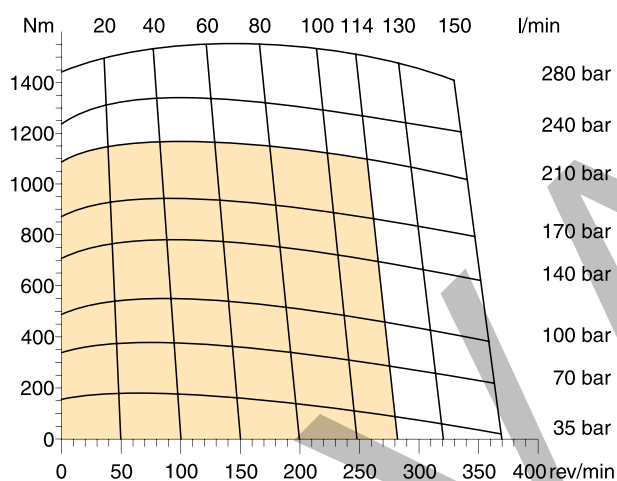
**TK 250**



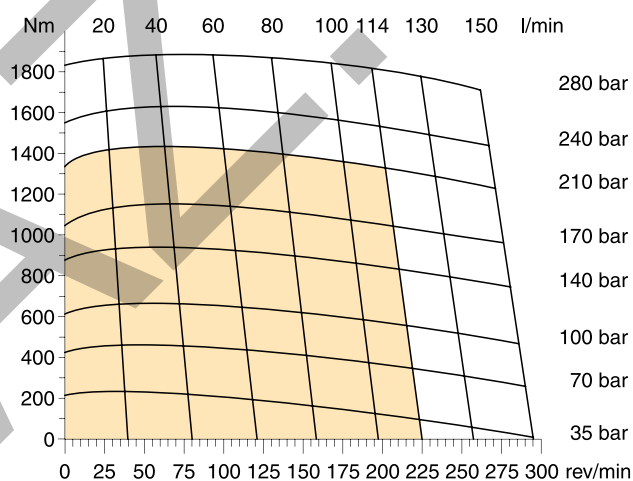
**TK 315**



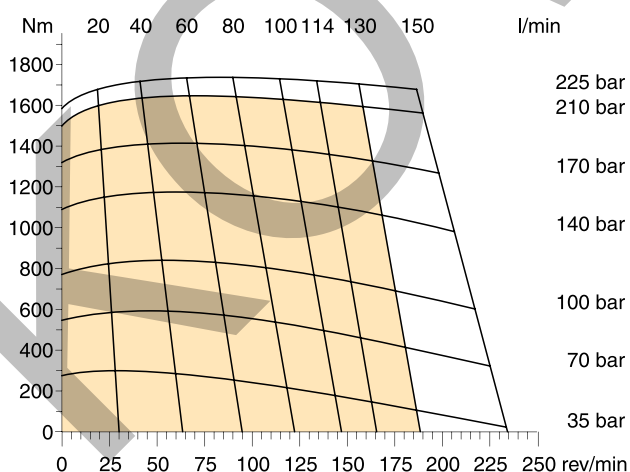
**TK 400**



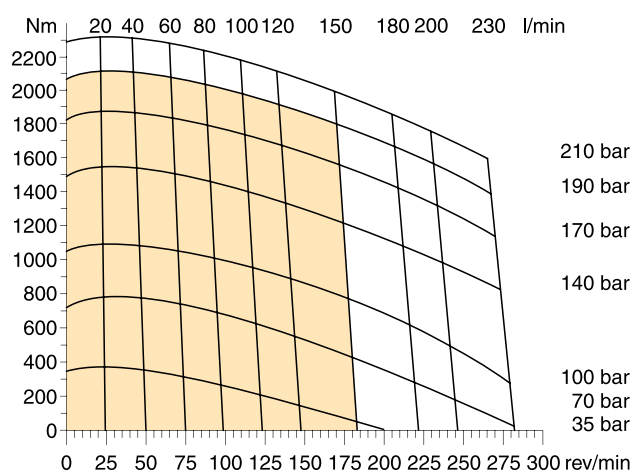
**TK 500**



**TK 630**



**TK 800**



■ Cont.

□ Int.

int. =

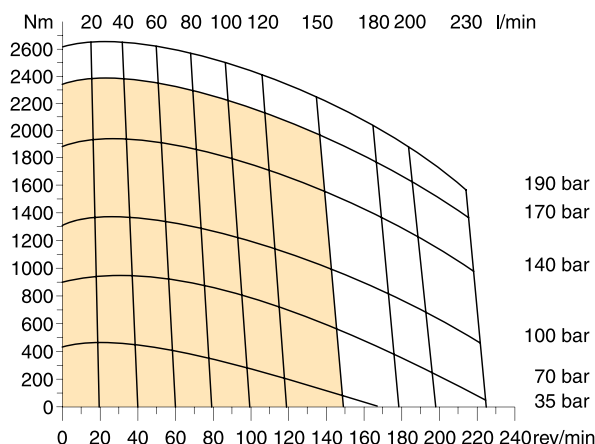
Intermittierende Werte maximal: 10% von jeder Betriebsminute.

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.

**TK 1000**



**Life Time**

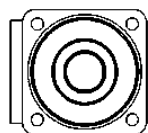
Die Lebensdauer der Radiallager ( $L_h$  in Stunden) lässt sich nach folgender Formel berechnen. Die Größe  $F_R$  ist durch die mechanische Festigkeit der Abtriebswelle begrenzt (siehe Diagramm). Das Maß "L" ist das Längenmaß vom Gehäuseflansch bis zum Angriffspunkt der Radialkraft  $F_R$ .

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  $F_R$ .

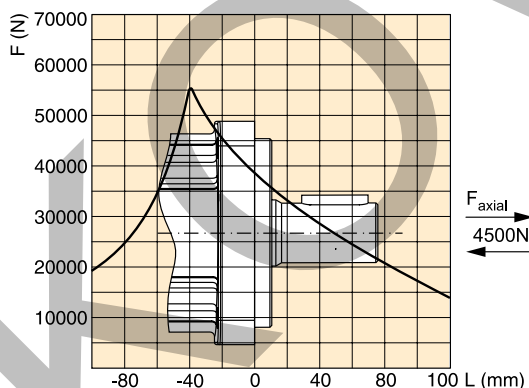
La durée de vie des roulements radiaux ( $L_h$  en heures) peut être calculée par les formules suivantes. La grandeur  $F_R$  est limitée par les résistances mécaniques de l'arbre de sortie (voir diagramme). La cote "L" est la longueur entre la bride du carter jusqu'au point d'appui de l'effort radial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

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  $F_R$ .

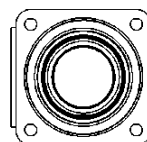
**Code K**



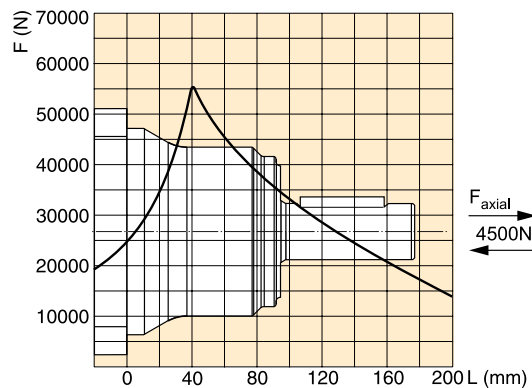
$$L_h = \frac{12 \cdot 10^6}{60 \cdot n} \left\{ \frac{F_a}{F_b} \right\}^{3.33} \quad F_{\text{Radial}} \text{ [N]}$$



**Code T**



$$L_h = \frac{12 \cdot 10^6}{60 \cdot n} \left\{ \frac{F_a}{F_b} \right\}^{3.33}$$



Life in hours / Lebensdauer in Stunden

Shaft speed / Abtriebswellendrehzahl

Allowable side load defined by above curve at a distance from mounting flange /

Erlaubte radiale Wellenbelastung als Funktion der Länge

Application side load / Anwendungsseitige Wellenbelastung

$L_h$  = [h]  
 $n$  = [rev/min]  
 $F_b$  = F [N]

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.

## Ordering Code

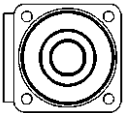
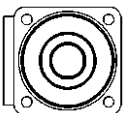
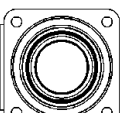
Torqmotor  
Series TK

TK								A	A	A	B
Serie Series Série Serie	Schluckvolumen Displacement Cylindrée Cilindrata	Gehäuse Housing Carter Corpo motore	Anschluss Ports Plan de raccorde- ment Conessioni	Welle Shaft Arbre Albero	Drehrichtung Direction of rotation Direction de rotation Direzioe di rotazione	Option					

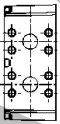
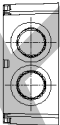
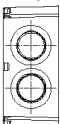
  

Code	cm <sup>3</sup> /rev
0250	250
0315	315
0400	400
0500	500
0630	630
0800	800
1000	1000





  

Code	Housing
K	
R <sup>1)</sup>	
T	


  

Code	Port
4	3/4 Split Flange Manifold 
5	1 5/16-12 SAE 
6	G3/4 

Code	Shaft
63	
32	 38.1
36	
64	 40

Code	Direction
0	 Standard
1	