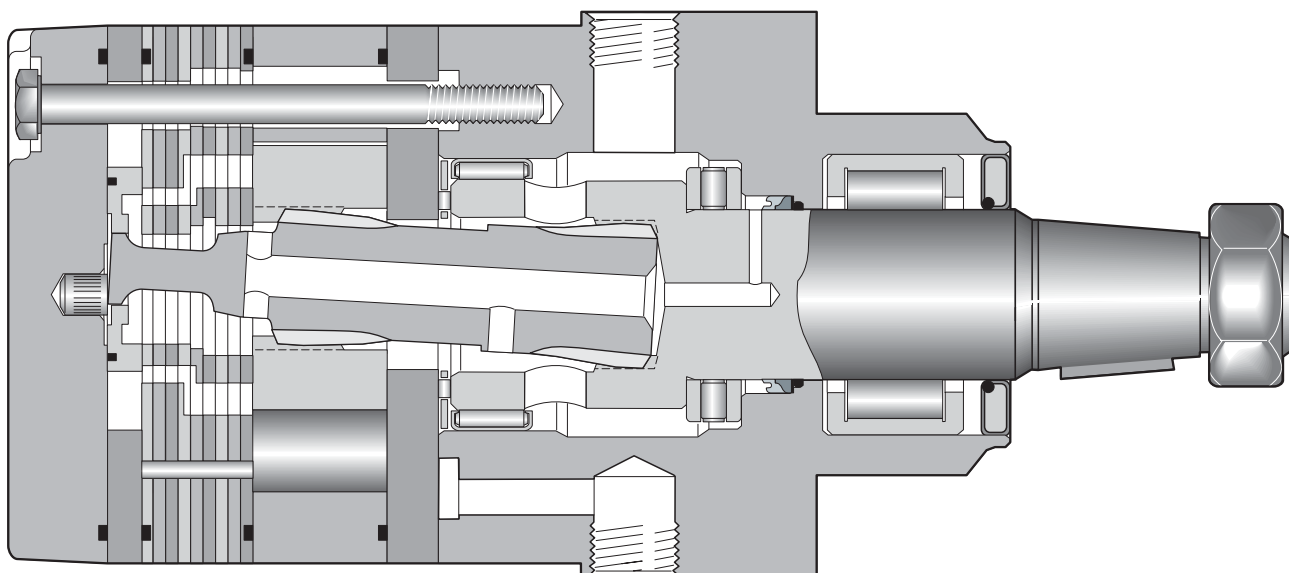
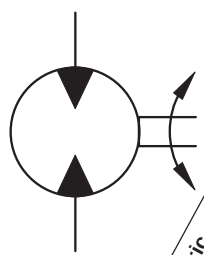


13 Displacements	(8.6 to 58.5 in ³ /rev)	
13 Schluckvolumen	141 . . . 959 cm ³ /rev	
13 Cylindrée		
13 Desplazamientos		
	Cont.	Int.
Maximum Pressure	(to 3000 psi)	(to 4000 psi)
Eingangsdruck	. . . 207 bar	. . . 276 bar
Pression entrée		
Presion Maxima		
Maximum Oil Flow	(to 30 gpm)	
Schluckstrom	. . . 114 lpm	
Débit d'huile		
Caudal Maximo de Aceite		
Maximum Speed	(660 rpm)	
Drehzahl	660 rpm	
Vitesse de rotation		
Velocidad Maxima		
	Cont.	Int.
Maximum Torque	(8,772 lb in)	(11,876 lb in)
MaxDrehmoment	991 Nm	1342 Nm
Couple		
Torque Maximo		
Maximum Side Load at Key	(to 4800 lb)	
Seitenlast	. . . 21360 N	
Charges latérales		
Carga Maxima Lateral		

A Rugged Motor for Heavy Duty, High Side Load Applications

This motor was designed for tough applications. A stout drive link with patented 60:40 spline geometry will transmit over 13,000 lb-in of torque. The 1-1/2" output shaft can support 7000 pounds of radial load. Efficiency is assured by the use of roller vanes and sealed commutator. Durability is maintained by continually washing the powertrain splines and shaft seal in cooling fluid.





Motor Series TH	cm³/rev in³/rev	rev/min	cont / int* l/min g/min	cont / int* bar psi	max bar psi	cont / int* Nm lb-in	max KW HP	cont / int* Nm lb-in
TH0140	141 8.6	660	76 95 20 25	207 276 3000 4000	300 4350	390 530 3455 4692	33 45	315 418 2791 3706
TH0170	169 10.3	554	76 95 20 25	207 276 3000 4000	300 4350	476 646 4216 5714	33 45	376 505 3331 4469
TH0195	195 11.9	477	76 95 20 25	207 276 3000 4000	300 4350	556 753 4919 6663	33 45	451 611 3989 5408
TH0240	238 14.5	393	76 95 20 25	207 276 3000 4000	300 4350	677 913 5991 8081	32 44	582 776 5152 6865
TH0280	280 17.1	334	76 95 20 25	207 276 3000 4000	300 4350	796 1073 7044 9499	31 42	675 870 5972 7699
TH0310	310 18.9	303	76 95 20 25	207 276 3000 4000	300 4350	964 1297 8533 11479	30 41	843 1117 7458 9889
TH0335	337 20.6	277	76 95 20 25	207 276 3000 4000	300 4350	924 1229 8184 10817	31 41	778 1005 6882 8893
TH0405	405 24.7	232	76 95 20 25	172 241 2500 3500	300 4350	942 1342 8336 11877	27 37	791 1145 7002 10133
TH0475	477 29.1	237	76 114 20 30	138 207 2000 3000	300 4350	887 1372 7853 12145	28 38	740 1120 6549 9909
TH0530	528 32.3	213	76 114 20 30	138 172 2000 2500	300 4350	983 1253 8701 11086	23 31	874 1091 7737 9657
TH0625	623 38.0	182	76 114 20 30	121 155 1750 2250	300 4350	986 1291 8725 11424	20 27	895 1165 7924 10312
TH0785	786 48.0	143	76 114 20 30	103 138 1500 2000	300 4350	1044 1428 9239 12636	17 23	991 1341 8772 11876
TH0960	959 58.5	118	76 114 20 30	69 103 1000 1500	300 4350	773 1268 6843 11227	12 16	763 1177 6752 10419

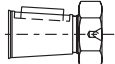
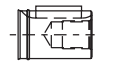
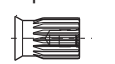
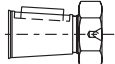
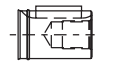
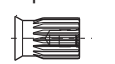
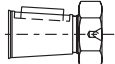
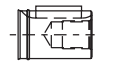
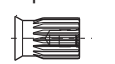
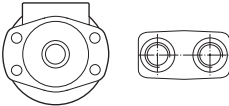
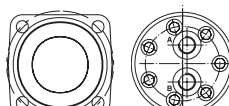
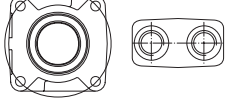
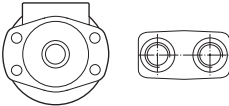
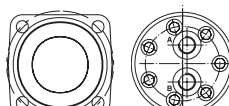
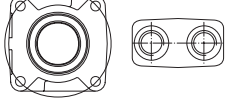
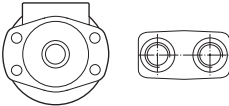
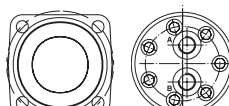
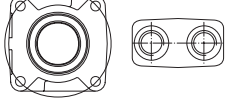
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Leistungsdaten sind gemessen mit SAE 10W40 bei einer Viskosität von 43,1 Cst bei 54°C. Geringfügige Abweichungen von den Katalogdaten sind möglich.

Datos tecnicos obtenidos con aceite 10W40 de 200 SUS de viscosidad a 54°C (130°F). Los datos proporcionados son valores típicos. Los valores exactos reales podrían tener una pequeña variación entre distintos motores.

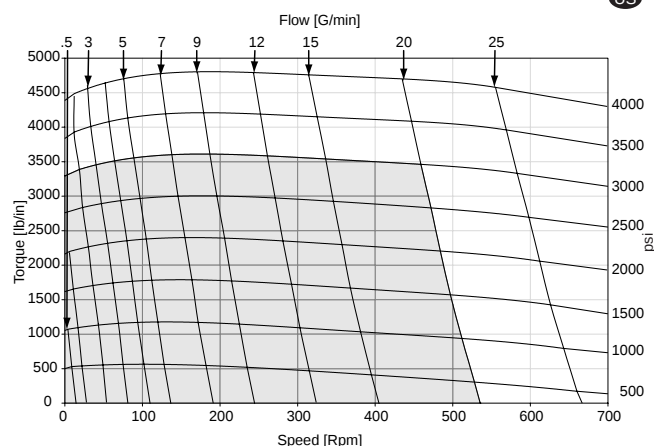
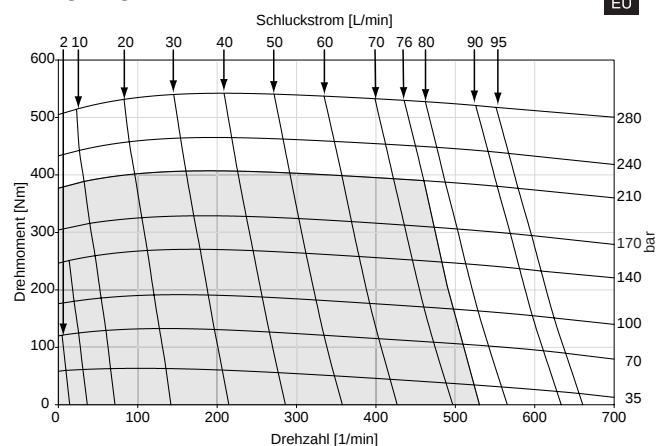
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Intermittierende Werte maximal 10% von jeder Betriebsminute.
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Capacidad de funcionamiento intermitente valida para 10% por cada minuto.

TH	XXXX	XX	XX	0	XXXX																																												
Series	Displacement Schluckvolumen Cylindrée Desplazamiento	Mounting/Ports Gehäuse/Anschluß Carter/Plan de raccordement Montaje/Lumbreras	Shaft Welle Arbre Eje	Rotation Drehrichtung Direction de rotation Rotacion	Options Opciones																																												
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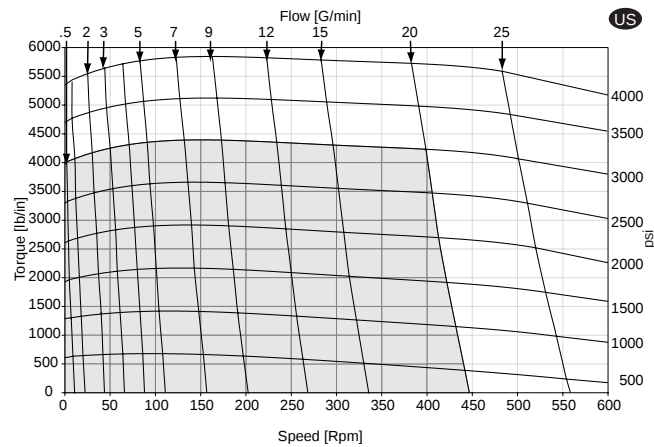
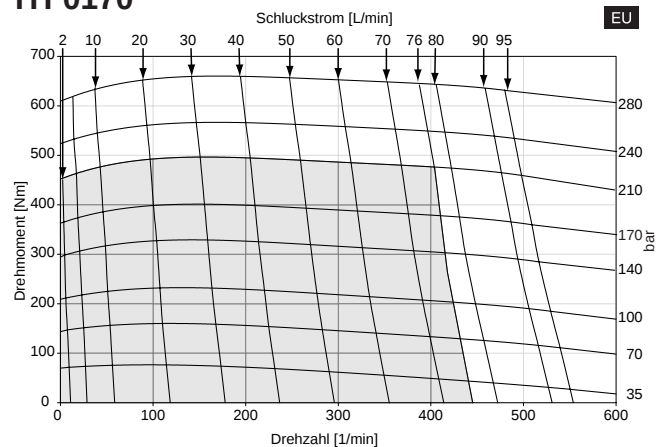
* Requires rear porting.
Nur Endanschluss möglich
Exige des orifices en arriere
Necesita lumbrera posterior

Consult factory for other available options, configurations ordering codes and lead times.

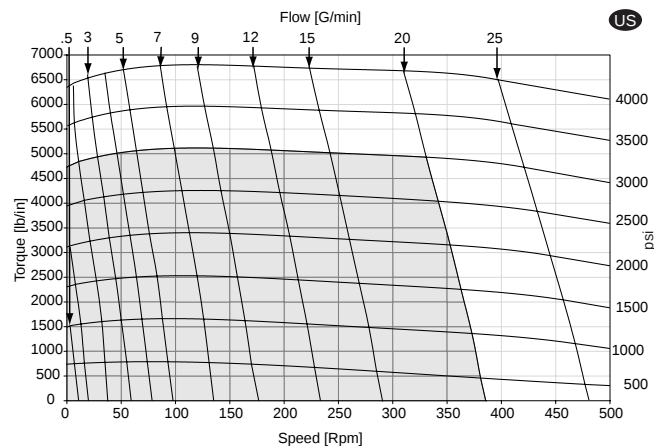
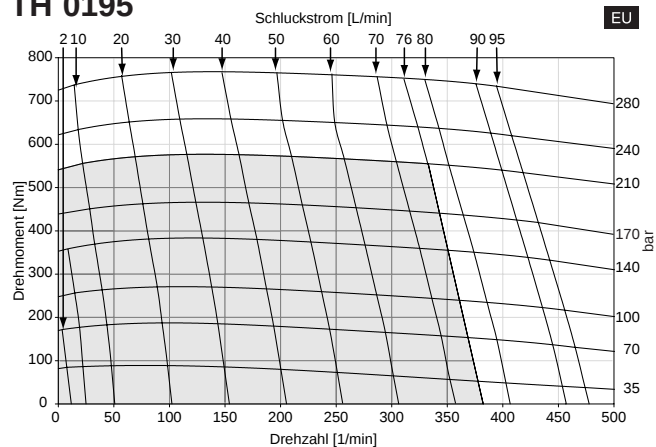
TH 0140



TH 0170



TH 0195



□ Cont.

□ Int.

Intermittent operation rating applies to 10% of every minute.

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

Performance data based on testing using 10W40 oil with a viscosity of 200 SUS at 54° C (130° F). Performance data is typical. Actual data may vary slightly from one production motor to another.

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pp 130-143 TH SD,p65

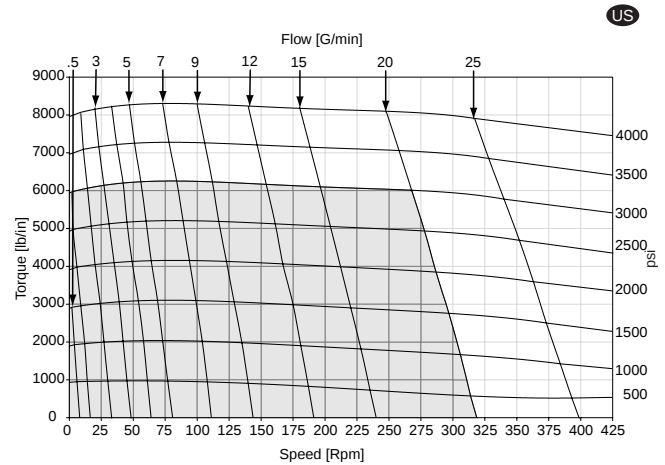
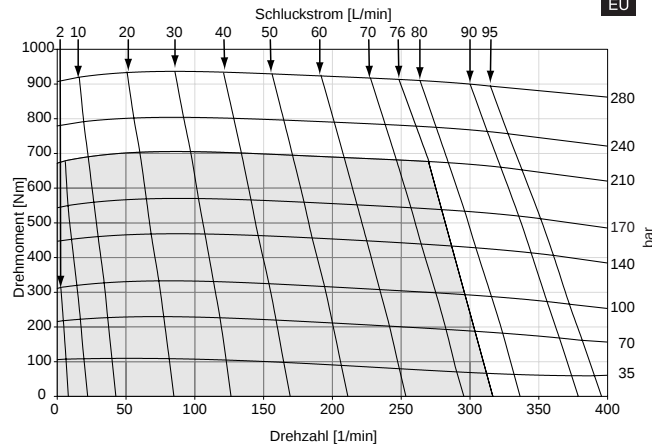
Intermittierende Werte maximal 10% von jeder Betriebsminute.

Capacidad de funcionamiento intermitente valida para 10% por cada minuto.

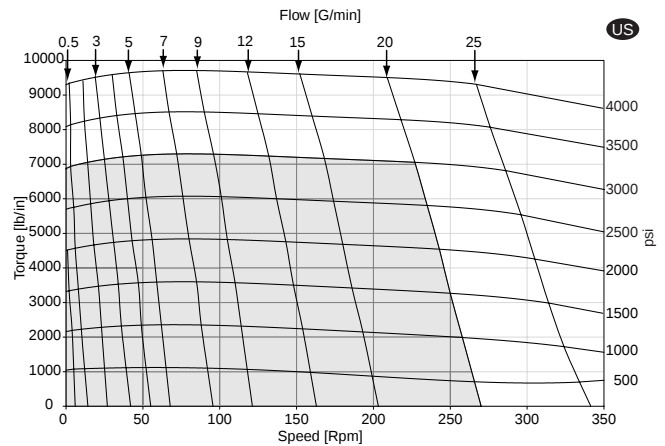
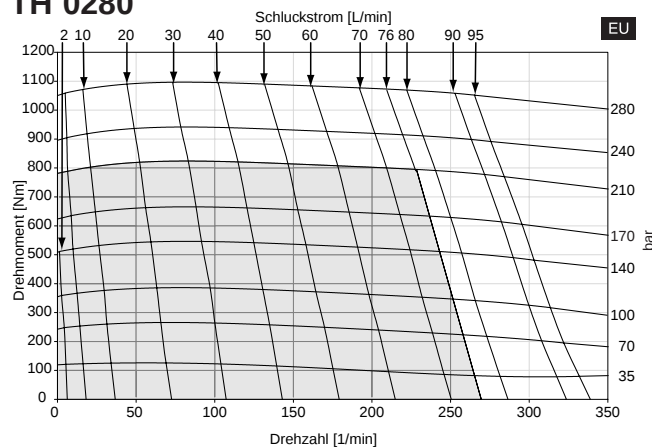
Leistungsdaten sind gemessen mit SAE 10W40 bei einer Viskosität von 43,1 Cst bei 54°C. Geringfügige Abweichungen von den Katalogdaten sind möglich.

Datos tecnicos obtenidos con aceite 10W40 de 200 SUS de viscosidad a 54°C (130°F). Los datos proporcionados son valores tipicos. Los valores exactos reales podrian tener una pequena variación entre distintos motores.

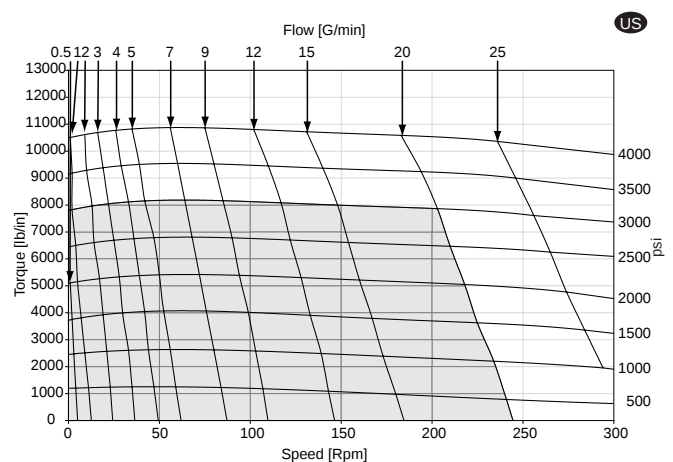
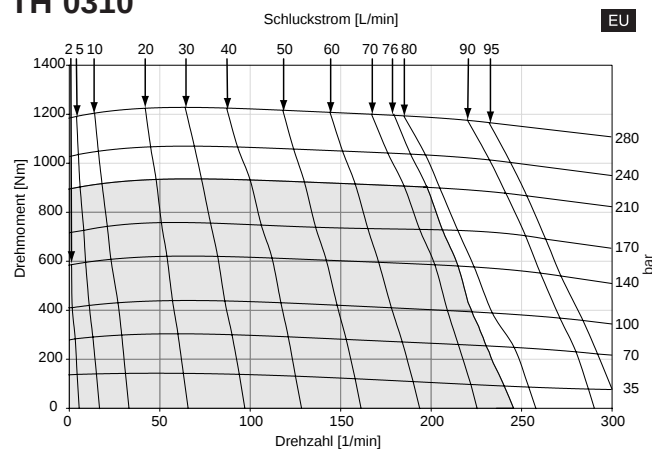
TH 0240



TH 0280



TH 0310



□ Cont.

□ Int.

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

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pp 130-143 TH SD.p65

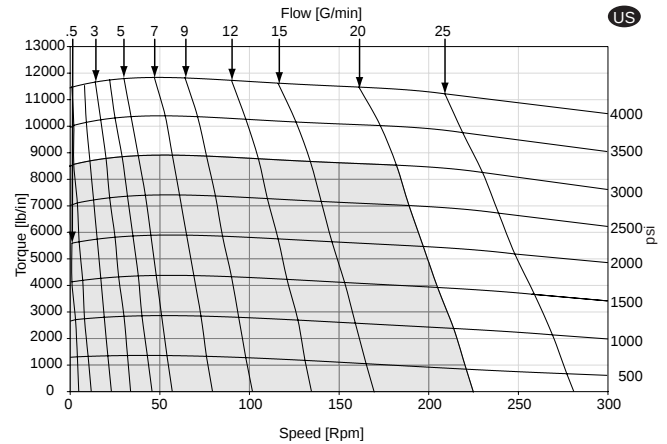
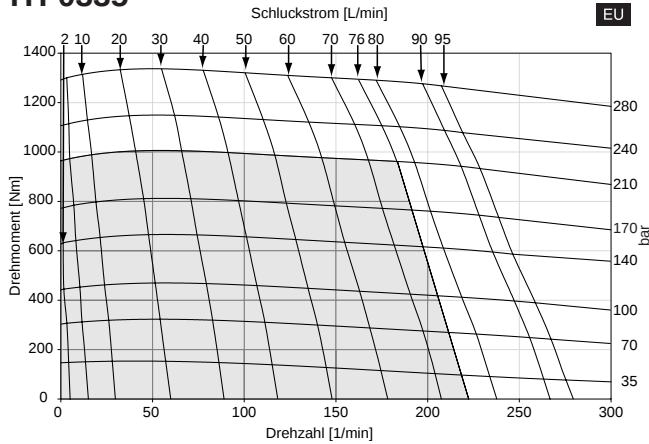
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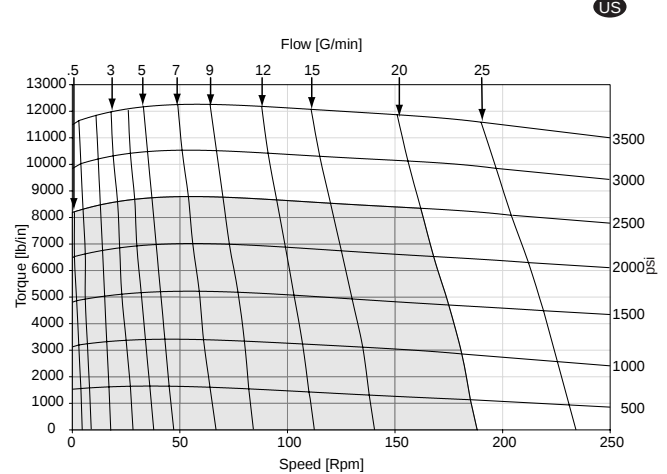
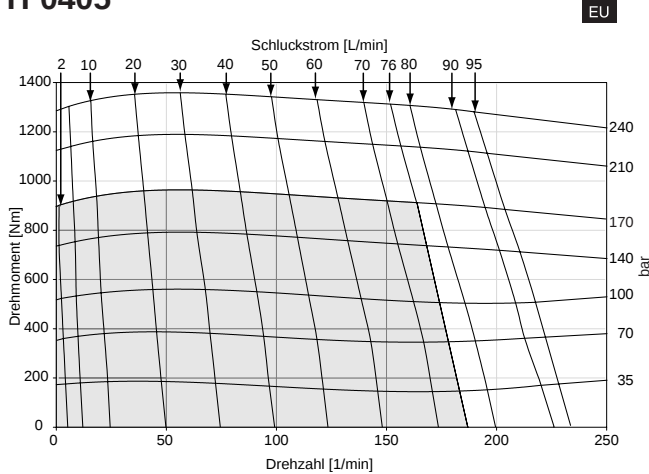
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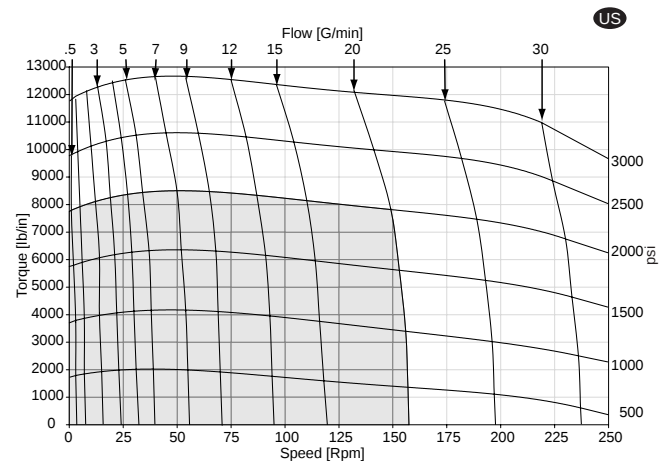
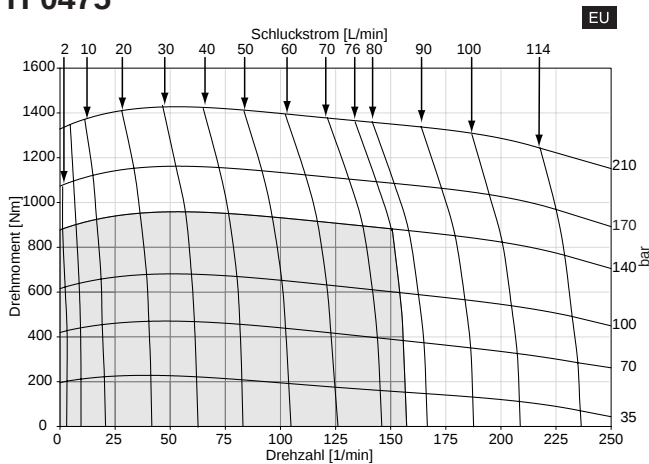
TH 0335



TH 0405



TH 0475



□ Cont.

□ Int.

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

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pp 130-143 TH SD,p65

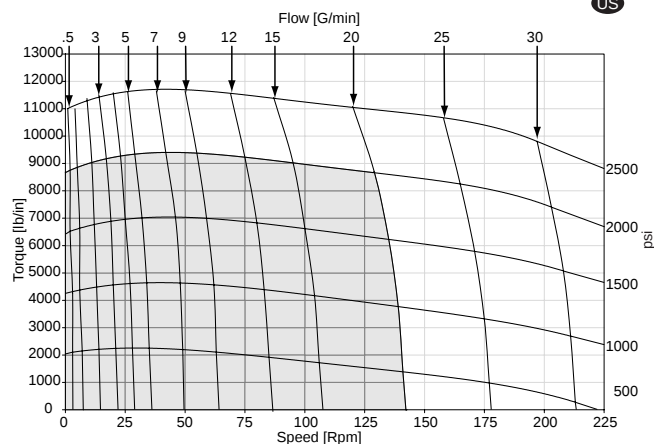
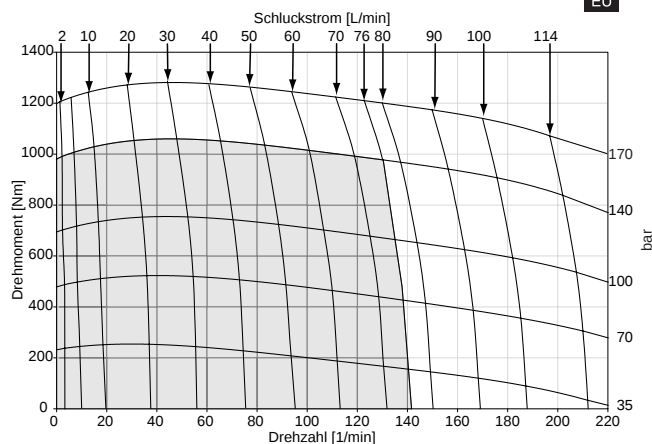
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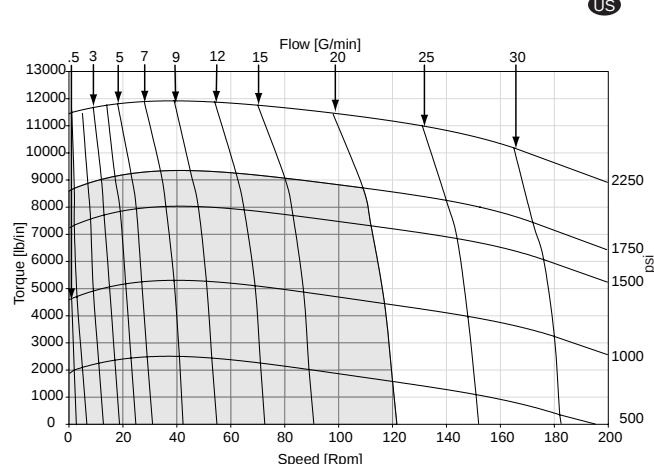
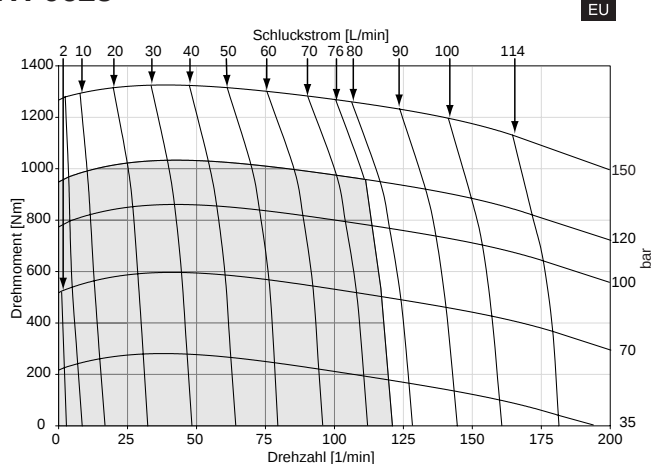
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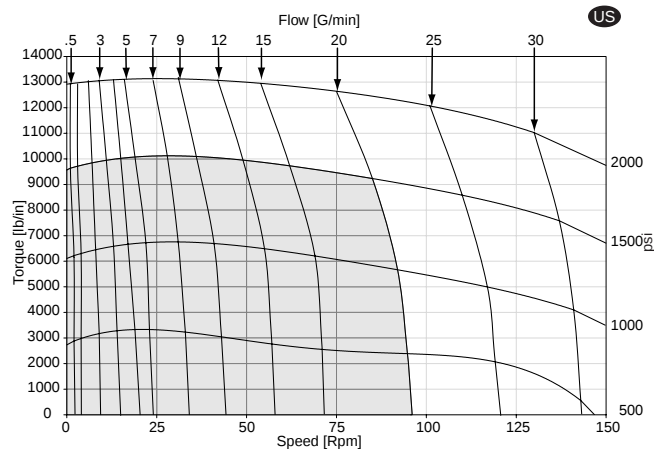
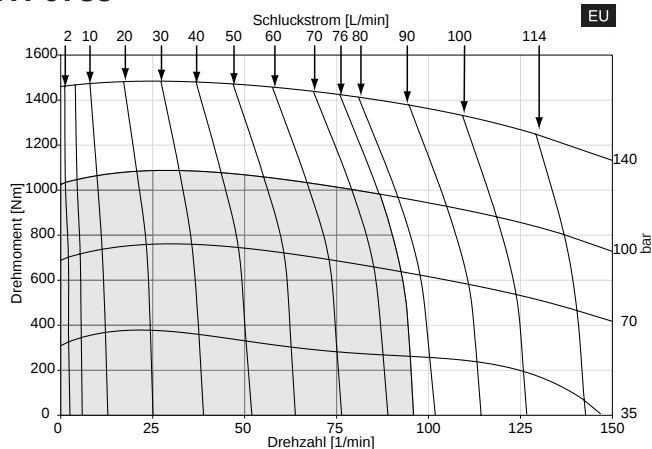
TH 0530



TH 0625



TH 0785



□ Cont.

□ Int.

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

Performance data based on testing using 10W40 oil with a viscosity of 200 SUS at 54° C (130° F). Performance data is typical. Actual data may vary slightly from one production motor to another.

Les données sur les performances sont basées sur des tests utilisant de l'huile 10W40 d'une viscosité de 200 SUS à 54°C (130°F). Ces données correspondent à des situations typiques. Les données réelles peuvent varier légèrement d'un moteur de production à l'autre.

pp 130-143 TH SD.p65

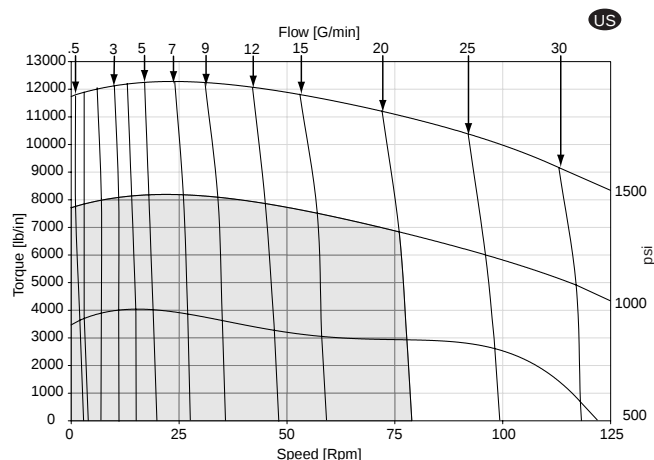
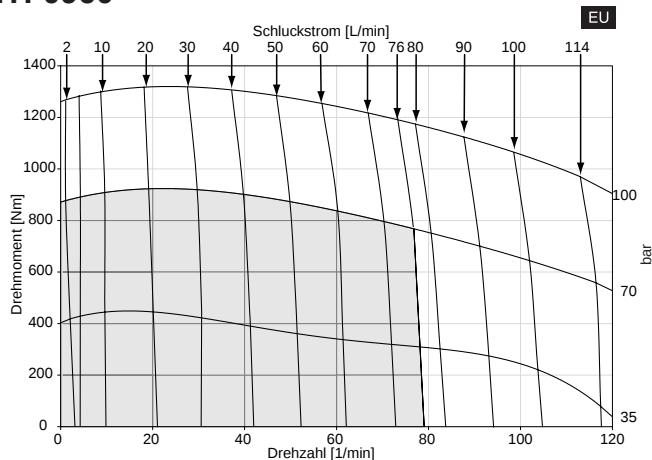
Intermittierende Werte maximal 10% von jeder Betriebsminute.

Capacidad de funcionamiento intermitente valida para 10% por cada minuto.

Leistungsdaten sind gemessen mit SAE 10W40 bei einer Viskosität von 43,1 Cst bei 54°C. Geringfügige Abweichungen von den Katalogdaten sind möglich.

Datos tecnicos obtenidos con aceite 10W40 de 200 SUS de viscosidad a 54°C (130°F). Los datos proporcionados son valores típicos. Los valores exactos reales podrían tener una pequeña variación entre distintos motores.

TH 0960



□ Cont.

□ Int.

Intermittent operation rating applies to 10% of every minute.

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

Performance data based on testing using 10W40 oil with a viscosity of 200 SUS at 54° C (130° F). Performance data is typical. Actual data may vary slightly from one production motor to another.

Les données sur les performances sont basées sur des tests utilisant de l'huile 10W40 d'une viscosité de 200 SUS à 54°C (130°F). Ces données correspondent à des situations typiques. Les données réelles peuvent varier légèrement d'un moteur de production à l'autre.

pp 130-143 TH SD,p65

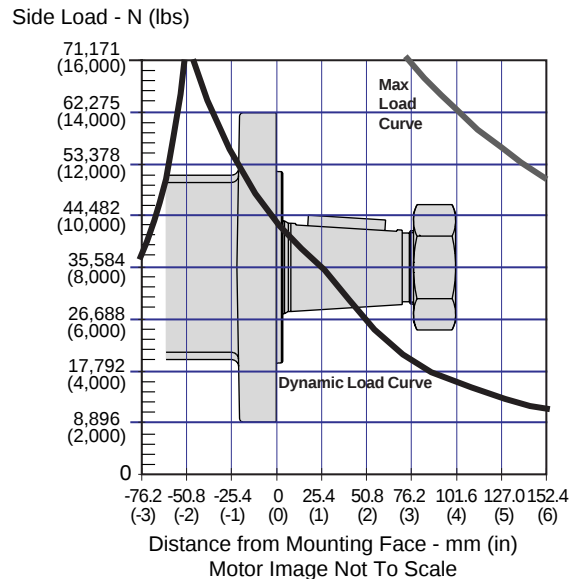
Intermittierende Werte maximal 10% von jeder Betriebsminute.

Capacidad de funcionamiento intermitente valida para 10% por cada minuto.

Leistungsdaten sind gemessen mit SAE 10W40 bei einer Viskosität von 43,1 Cst bei 54°C. Geringfügige Abweichungen von den Katalogdaten sind möglich.

Datos tecnicos obtenidos con aceite 10W40 de 200 SUS de viscosidad a 54°C (130°F). Los datos proporcionados son valores típicos. Los valores exactos reales podrían tener una pequeña variación entre distintos motores.

Flange Mount / Standardgehäuse
Monture à bride(s) / Montaje de brida



The dynamic side load curve is based on uni-directional steady state loads for L_{10} bearing life at 6×10^6 revolutions. Die zulässige auslegbare radiale Wellenbelastungskurve ist unter ruhenden, einseitig statisch gerichteten Lastverhältnissen auf eine L_{10} Lebensdauer mit 6×10^6 Umdrehungen kalkuliert.

La courbe de charge latérale permise se base sur des charges unidirectionnelles en régime permanent pour le roulement L_{10} à 6×10^6 révolutions.

La curva de valores admisibles de carga lateral está basada en cargas constantes para cojinetes L_{10} a 6×10^6 revoluciones.

Equation to Calculate the Expected Radial Bearing Life
Gleichung zur Ermittlung der Lagerlebensdauer

Equation to calculate the dynamic bearing life for a given load:
 Bestimmung der erlaubten radialen Wellenbelastung mit vorgegebener Last

Use F_a , F_b and S in equation to determine hours of L_{10} bearing life.
 Die Lebensdauer in Stunden ergibt sich durch einsetzen von F_a , F_b , und S in die nachstehende Formel.

$$L = \frac{6 \times 10^6}{60 \times S} \left\{ \frac{F_a}{F_b} \right\}^{3.33}$$

Where / Mit:

S = Shaft Speed RPM / Abtriebswellendrehzahl in min^{-1}

L = Life In Hours / Lebensdauer in Stunden

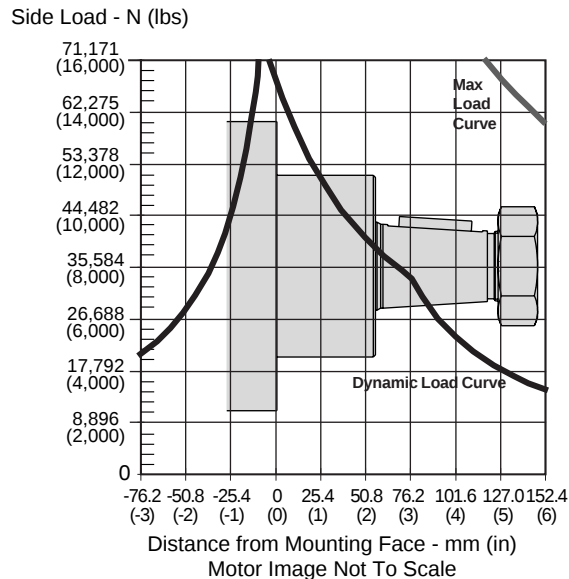
F_a = Dynamic side load defined by above curve at a distance from mounting flange. / Erlaubte radiale Wellenbelastung als Funktion der Länge

F_b = Application side load. / Anwendungsseitige Wellenbelastung

Note: Calculations are based on L_{10} bearing life per ISO 281.
 Auslegung basiert auf einer L_{10} Lebensdauer nach ISO 281.

pp 130-143 TH SD.p65

Wheel Mount / Radnabengehäuse
Monture à roue / Montaje de rueda



The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.

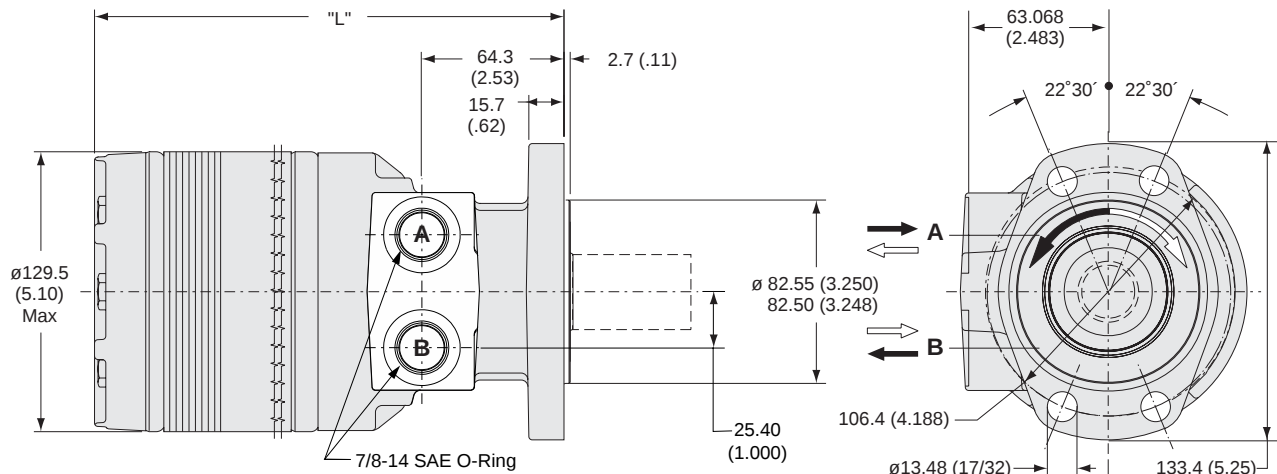
Die maximale radiale Wellenbelastungskurve ist definiert als maximale statische Last ohne Drehzahl. Sie gilt als Grenze und sollte keinesfalls überschritten werden.

La courbe de charge maximale est définie par la capacité de charge statique portante. Cette courbe ne devrait être dépassée en aucun moment y compris pour les charges par à-coups.

La curva de carga máxima queda definida por la capacidad de carga estática del cojinete. No se deben superar los valores de esta curva, ni siquiera con cargas provisorias de impacto.

Code: MS

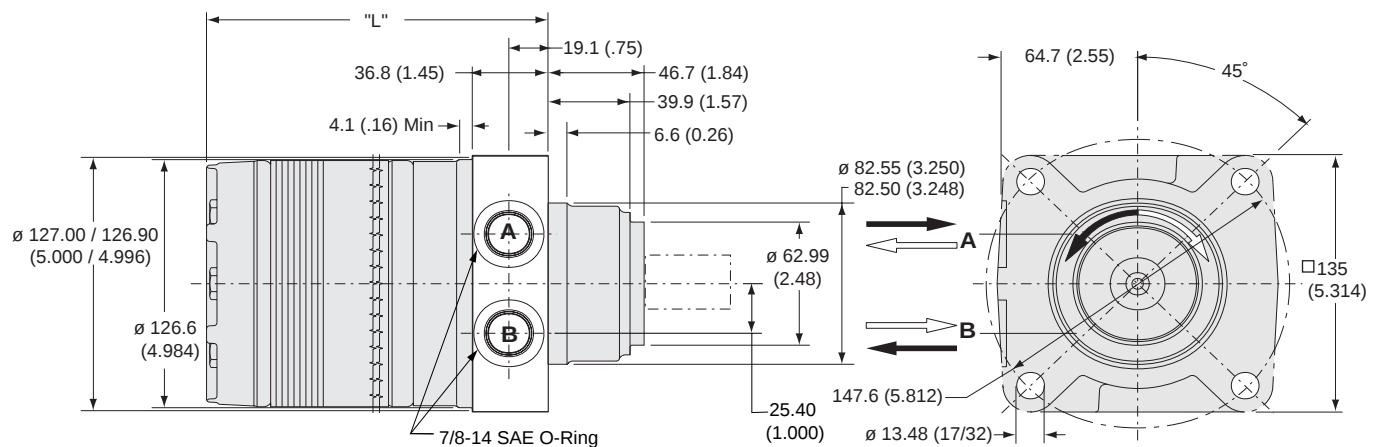
Magneto, 7/8-14 SAE O-Ring



Code MS	disp.	0140	0170	0195	0240	0280	0335	0405	0475	0530	0625	0785	0960
Weight/Gewicht	kg	14.7	14.9	15.2	15.5	15.9	16.3	16.9	17.6	18.3	19.0	20.6	22.3
Poids/Peso	(lb)	(32.3)	(32.8)	(33.4)	(34.2)	(35.1)	(35.9)	(37.3)	(38.7)	(40.4)	(41.9)	(45.4)	(49.1)
Length	"L" mm	216	219	222	227	232	238	245	254	260	270	289	308
	"L" (in)	(8.50)	(8.62)	(8.75)	(8.94)	(9.12)	(9.37)	(9.66)	(10.00)	(10.25)	(10.62)	(11.37)	(12.12)

Code: US

Wheel, Standard, 7/8-14 SAE O-Ring



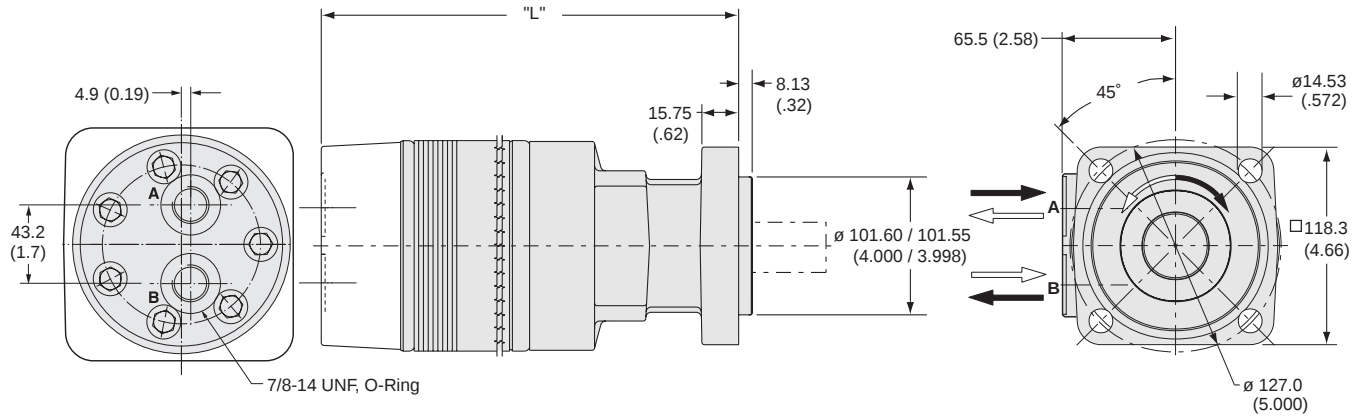
Code US	disp.	0140	0170	0195	0240	0280	0335	0405	0475	0530	0625	0785	0960
Weight/Gewicht	kg	16.9	17.2	17.4	17.8	18.2	18.6	19.2	19.8	20.6	21.3	22.9	24.5
Poids/Peso	(lb)	(37.3)	(37.8)	(38.4)	(39.2)	(40.1)	(40.9)	(42.3)	(43.7)	(45.4)	(46.9)	(50.4)	(54.1)
Length	"L" mm	173	177	180	184	189	196	203	212	218	227	246	265
	"L" (in)	(6.82)	(6.95)	(7.07)	(7.26)	(7.45)	(7.70)	(7.99)	(8.32)	(8.57)	(8.95)	(9.70)	(10.45)

English equivalents for metric specifications are shown in ().

pp 130-143 TH SD,p65

Code: PA

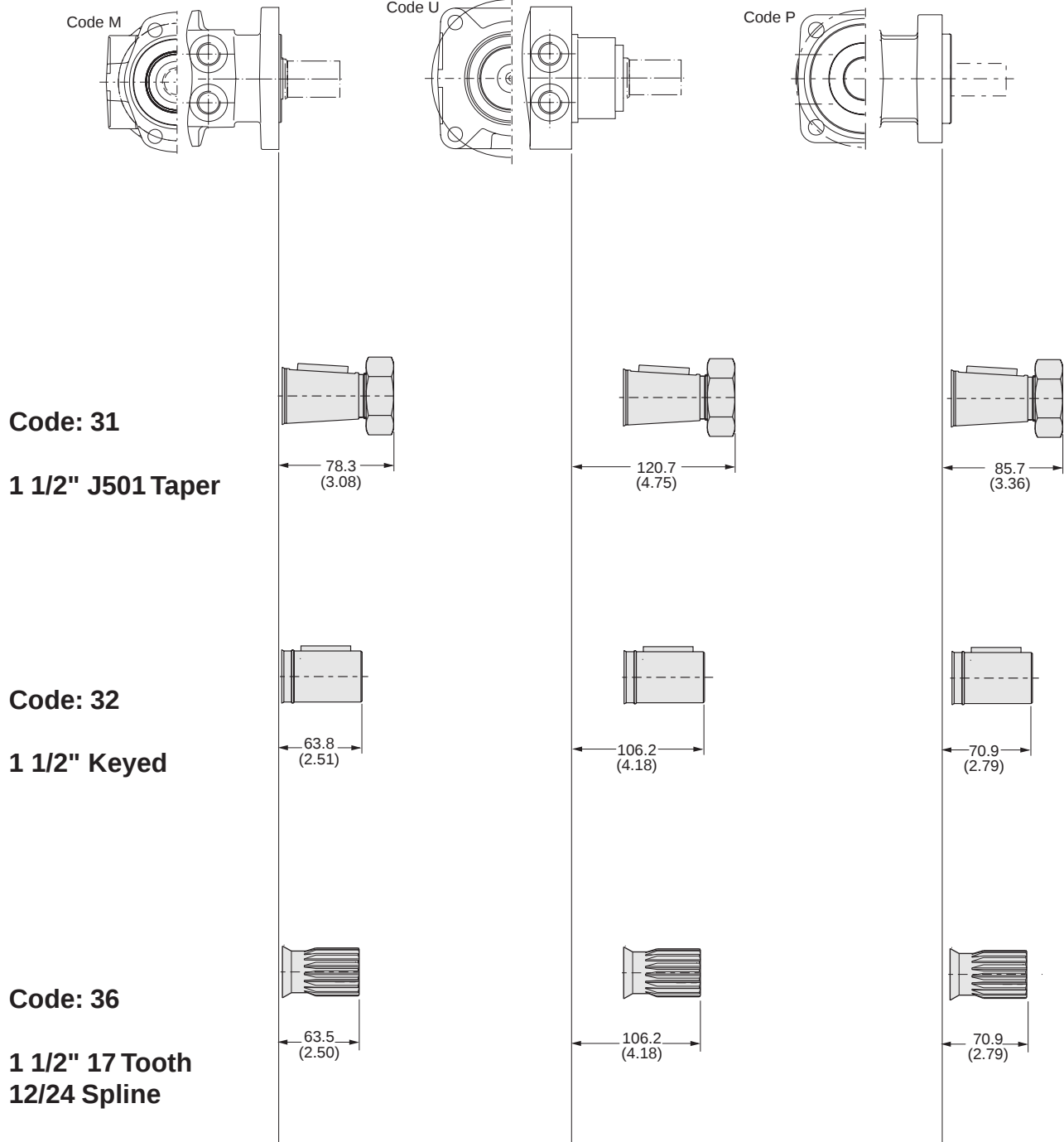
SAE "B" 4 Bolt, Rear 7/8"14 SAE O-Ring Axial



Code PA	disp.	0140	0170	0195	0240	0280	0335	0405	0475	0530	0625	0785	0960
Weight/Gewicht	kg	16.9	17.2	17.4	17.8	18.2	18.6	19.2	19.8	20.6	21.3	22.9	24.5
Poids/Peso	(lb)	(37.3)	(37.8)	(38.4)	(39.2)	(40.1)	(40.9)	(42.3)	(43.7)	(45.4)	(46.9)	(50.4)	(54.1)
Length	"L" mm	235	238	242	246	251	257	265	273	280	289	308	327
	"L" (in)	(9.26)	(9.38)	(9.51)	(9.70)	(9.88)	(10.13)	(10.43)	(10.76)	(11.01)	(11.39)	(12.14)	(12.89)

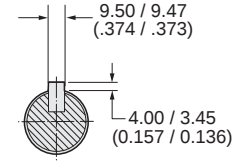
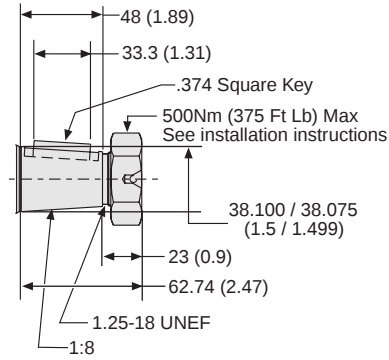
English equivalents for metric specifications are shown in ().

pp 130-143 TH SD.p65



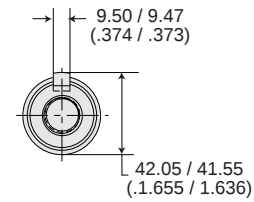
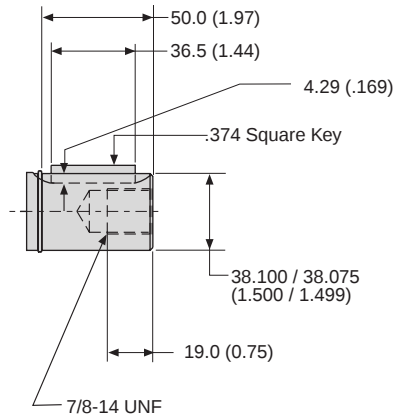
Code: 31

1 1/2" J501 Taper



Code: 32

1 1/2" Keyed



Code: 36

**1 1/2" 17 Tooth
12/24 Spline**

