



SECTION D

TORQMOTORS

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RBM MINI Series

PERFORMANCE CHART										
TYPE	DISPLACEMENT		PRESSURE (BAR)		FLOW (ltr/MIN)		TORQUE Nm		SPEED RPM	
	CC/REV	C/IN	CONT.	INT.	CONT.	INT.	CONT.	INT.	CONT.	INT.
RBM-12.5	12.9	0.8	100	140	20	25	16	22	1550	1938
RBM-20	20	1.2					25	36	1000	1250
RBM-32	31.8	2					41	57	629	786

PRICING					
MODEL	CC / REV	SHAFT DIAM	MOUNT TYPE	PORTS 3/18" BSPP	PRICE
RBM-12.5-31-G1-L	12.9	16mm	ROUND	SIDE	\$POA
RBM-12.5-31-G1-P	12.9		ROUND	REAR	\$POA
RBM-12.5-61-G2-L	12.9		2 BOLT	SIDE	\$POA
RBM-12.5-61-G2-P	12.9		2 BOLT	REAR	\$POA
RBM-20-31-G1-L	20		ROUND	SIDE	\$POA
RBM-20-31-G1-P	20		ROUND	REAR	\$POA
RBM-20-61-G2-L	20		2 BOLT	SIDE	\$POA
RBM-20-61-G2-P	20		2 BOLT	REAR	\$POA
RBM-32-31-G1-L	31.8		ROUND	SIDE	\$POA
RBM-32-31-G1-P	31.8		ROUND	REAR	\$POA
RBM-32-61-G2-L	31.8		2 BOLT	SIDE	\$POA
RBM-32-61-G2-P	31.8		2 BOLT	REAR	\$POA

Series	
Displacement	12.5 cc/rev 20 cc/rev 32 cc/rev
Shaft	31 = 5/8" Keyed 61 = 16mm Keyed
Mounting	G1 = Round G2 = SAE
Ports	P = Rear L = Side

CODING RBM - 12.5 - 31 G1 - P

NB: 5/8" Shaft also available on INDENT ORDER basis.



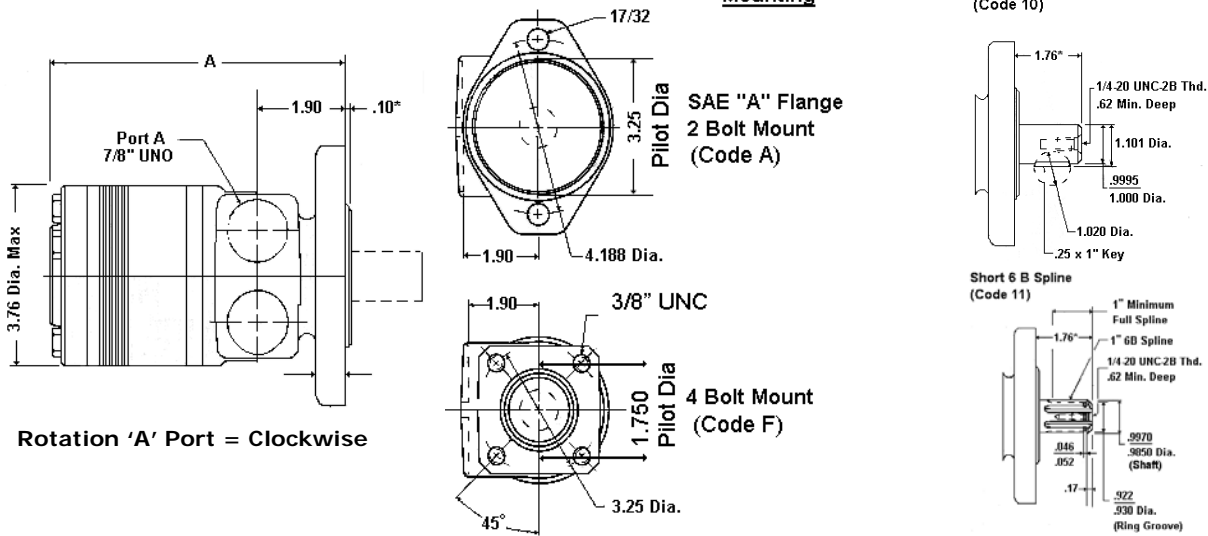
TB Series

Formerly MG Series

Low - Speed

High - Torque

Mounting



TorqMotor TB Series Roller Vane Motor

Torqmotors of the TB series provide low cost hydraulic power for medium-to-light-duty applications such as grain augers, spreaders or carwash brushes which call for dependable service.

The TB is fully interchangeable with industry standards in terms of porting, standard shafts and mountings. In addition, these versatile motors are compatible with many hydraulic systems with regards to pressure, torque and speed.

The TB zero-leak commutation valve provides greater, more consistent, volumetric efficiency.

Full flow lubrication maximises cooling and extends motors life up to 50%.

TB Series

[Formerly MG Series]



2 Bolt / 1" Keyed		4 Bolt / 1" Keyed	
Model	PRICE	Model	PRICE
TB-0045-AS-100-AAAB	\$POA	TB-0045-FS-100-AAAB	\$POA
TB-0050-AS-100-AAAB	\$POA	TB-0050-FS-100-AAAB	\$POA
TB-0065-AS-100-AAAB	\$POA	TB-0065-FS-100-AAAB	\$POA
TB-0080-AS-100-AAAB	\$POA	TB-0080-FS-100-AAAB	\$POA
TB-0100-AS-100-AAAB	\$POA	TB-0100-FS-100-AAAB	\$POA
TB-0130-AS-100-AAAB	\$POA	TB-0130-FS-100-AAAB	\$POA
TB-0165-AS-100-AAAB	\$POA	TB-0165-FS-100-AAAB	\$POA
TB-0195-AS-100-AAAB	\$POA	TB-0195-FS-100-AAAB	\$POA
TB-0230-AS-100-AAAB	\$POA	TB-0230-FS-100-AAAB	\$POA
TB-0260-AS-100-AAAB	\$POA	TB-0260-FS-100-AAAB	\$POA
TB-0295-AS-100-AAAB	\$POA	TB-0295-FS-100-AAAB	\$POA
TB-0330-AS-100-AAAB	\$POA	TB-0330-FS-100-AAAB	\$POA
TB-0365-AS-100-AAAB	\$POA	TB-0365-FS-100-AAAB	\$POA
TB-0390-AS-100-AAAB	\$POA	TB-0390-FS-100-AAAB	\$POA



SEAL KIT	List Price
SK000090	\$POA

MODEL	Displacement		Pressure BAR		Flow L/Min		Torque				Speed Max	Dim A
	CC	C/In	Cont	Int	Cont	Max	Nm		In/Lbs		RPM	
							Cont	Max	Cont	Max		
TB-0045	41	2.5	125	165	34	34	64	88	569	779	785	136
TB-0050	49	3	125	165	34	34	78	106	693	946	678	138
TB-0065	65	4	125	165	34	34	106	145	946	1284	511	141
TB-0080	82	5	125	165	34	34	134	183	1193	1624	409	144
TB-0100	98	6	125	165	45	45	159	216	1411	1917	454	147
TB-0130	130	8	125	165	45	57	220	197	1951	2632	430	154
TB-0165	163	10	125	155	45	57	273	345	2418	3062	343	160
TB-0195	195	11.9	125	145	45	57	340	399	3011	3537	287	166
TB-0230	228	13.9	103	138	45	57	316	427	2797	3782	246	173
TB-0260	260	15.9	100	131	45	57	349	465	3096	4117	260	179
TB-0295	293	17.9	97	125	45	57	383	498	3391	4415	191	185
TB-0330	328	20	93	114	45	57	413	509	3657	4505	171	192
TB-0365	370	22.6	86	105	45	57	440	540	3897	4783	151	200
TB-0390	392	24	83	100	45	57	428	524	3792	4642	143	205

The above units are our stock range, other shaft and port options are available by conversion. The conversions incur a cost penalty which is additional to the above prices. Spare Part Discounts Apply
NB: This cost penalty will be waived for build codes obtained from the factory for your specific requirements.

PART NO	CONVERSION OPTIONS		
	Code	Description	List Price
TB/11	11	1" 6B SPLINE SHAFT	\$POA
TB/09	09	1" CROSS HOLE SHAFT	\$POA



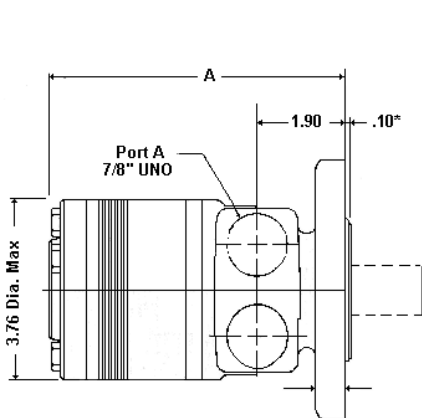
TE Series

Formerly MF Series

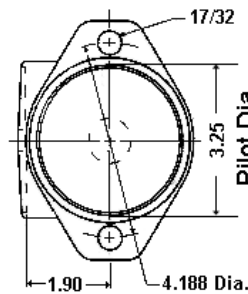
Low - Speed

High - Torque

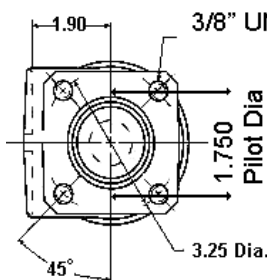
Mounting



Rotation 'A' Port = Clockwise

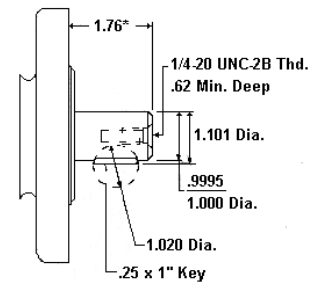


SAE "A" Flange
2 Bolt Mount
(Code A)

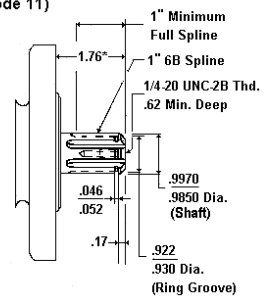


3/8" UNC
4 Bolt Mount
(Code F)

Short Woodruff Key (Code 10)



Short 6 B Spline (Code 11)



TorqMotor TE Series Roller Vane Motor

For powering conveyors, irrigation equipment and scissor lifts where moderate torque is required and durability is a must, the TE Torqmotor is ideal. The roller vane TE design provides reliable and efficient performance and long-term economy in a broad range of applications.

TE Series

[Formerly MF Series]



2 Bolt / 1" Keyed		4 Bolt / 1" Keyed	
Model	PRICE	Model	PRICE
TE-0045-AS-100-AAAB	\$POA	TE-0045-FS-100-AAAB	\$POA
TE-0050-AS-100-AAAB	\$POA	TE-0050-FS-100-AAAB	\$POA
TE-0065-AS-100-AAAB	\$POA	TE-0065-FS-100-AAAB	\$POA
TE-0080-AS-100-AAAB	\$POA	TE-0080-FS-100-AAAB	\$POA
TE-0100-AS-100-AAAB	\$POA	TE-0100-FS-100-AAAB	\$POA
TE-0130-AS-100-AAAB	\$POA	TE-0130-FS-100-AAAB	\$POA
TE-0165-AS-100-AAAB	\$POA	TE-0165-FS-100-AAAB	\$POA
TE-0195-AS-100-AAAB	\$POA	TE-0195-FS-100-AAAB	\$POA
TE-0230-AS-100-AAAB	\$POA	TE-0230-FS-100-AAAB	\$POA
TE-0260-AS-100-AAAB	\$POA	TE-0260-FS-100-AAAB	\$POA
TE-0295-AS-100-AAAB	\$POA	TE-0295-FS-100-AAAB	\$POA
TE-0330-AS-100-AAAB	\$POA	TE-0330-FS-100-AAAB	\$POA
TE-0365-AS-100-AAAB	\$POA	TE-0365-FS-100-AAAB	\$POA
TE-0390-AS-100-AAAB	\$POA	TE-0390-FS-100-AAAB	\$POA



SEAL KIT	List Price
SK000090	\$POA

MODEL	Displacement		Pressure BAR		Flow L/Min		Torque				Speed Max	Dim A
	CC	C/In	Cont	Int	Cont	Max	Nm		In/Lbs		RPM	
							Cont	Max	Cont	Max		
TE-0045	41	2.5	140	190	34	42	71	49	624	876	1024	136
TE-0050	49	3	140	190	34	50	90	127	796	1120	1020	138
TE-0065	65	4	140	190	45	57	125	176	1106	1558	877	141
TE-0080	82	5	140	190	45	57	160	220	1416	1947	695	144
TE-0100	98	6	140	190	45	57	190	264	1682	2337	582	147
TE-0130	130	8	140	190	45	57	255	352	2257	3116	438	154
TE-0165	163	10	140	190	45	57	310	436	2744	3846	348	160
TE-0195	195	11.9	140	190	45	57	390	528	3452	4673	292	166
TE-0230	228	13.90	120	165	57	75	380	514	3363	4554	328	173
TE-0260	260	15.9	110	155	57	75	400	550	3540	4870	287	179
TE-0295	293	17.9	100	145	57	75	428	582	3784	5180	256	185
TE-0330	328	20	100	135	57	75	443	600	3926	5312	228	192
TE-0365	370	22.6	95	125	57	75	467	648	4133	5728	203	20
TE-0390	392	24	85	120	57	75	445	628	3935	5562	191	205

The above units are our stock range, other shaft and port options are available by conversion. The conversions incur a cost penalty which is additional to the above prices. Spare Part Discount Applies
NB: This cost penalty will be waived for build codes obtained from the factory for your specific requirements.

PART NO	CONVERSION OPTIONS		
	Code	Description	List Price
TE/11	11	1" 6B SPLINE SHAFT	\$POA
TE/09	09	1" CROSS HOLE SHAFT	\$POA
TE/M	M	MANIFOLD PORT OPTION	\$POA
TE/U	U	WHEEL MOUNT	\$POA

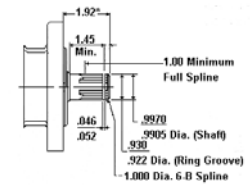
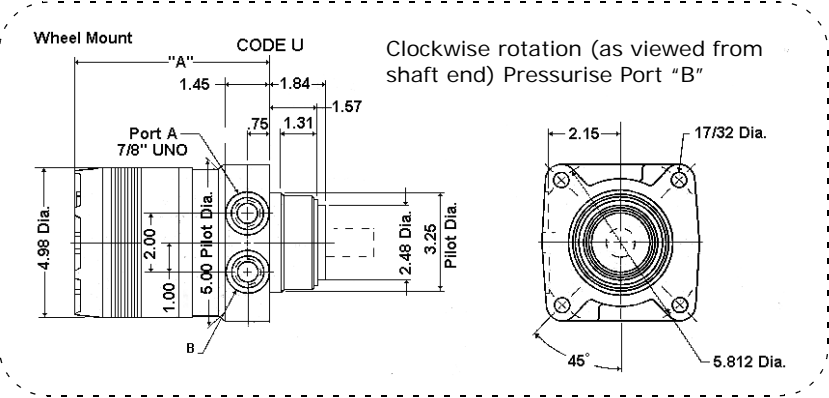
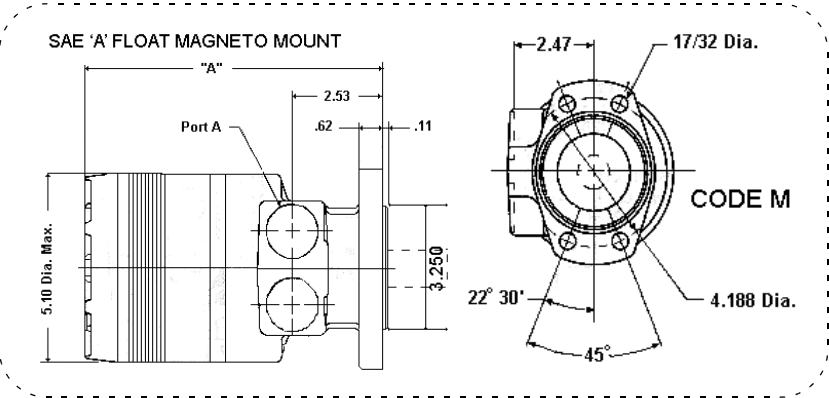


TF Series

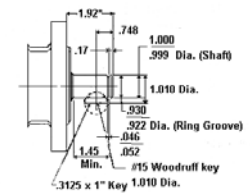
Formerly MB Series

Low - Speed

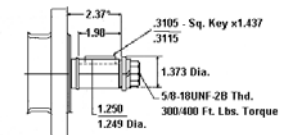
High - Torque



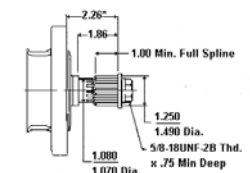
6B Spline (Code 01)



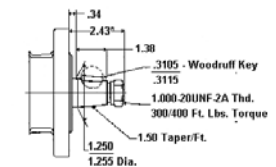
Woodruff Key (Code 02)



Straight Key (Code 03)



14 Tooth Spline (Code 05)



Tapered (Code 08)

Torqmotor TF Series Roller Vane Motor

In applications where medium-to-high torque and high efficiency over a long life are required, the TF excels.

Zero-leak valving, minimises cross-port leakage to keep volumetric efficiency high. Proper timing is maintained throughout the life of the motor, as a result, the TF better maintains speed at high pressures. The use of roller vanes reduces friction and minimises internal leakage in the TF to promote optimum work output.

TF Series

[Formerly MB Series]



Magneto 1 1/4 Keyed	PRICE	Wheel Mount 1 1/4 Tapered	LIST PRICE
Model		Model	
TF-0080-MS-030-AAAB	\$POA	TF-0080-US-080-AABP	\$POA
TF-0100-MS-030-AAAB	\$POA	TF-0100-US-080-AABP	\$POA
TF-0130-MS-030-AAAB	\$POA	TF-0130-US-080-AABP	\$POA
TF-0140-MS-030-AAAB	\$POA	TF-0140-US-080-AABP	\$POA
TF-0170-MS-030-AAAB	\$POA	TF-0170-US-080-AABP	\$POA
TF-0195-MS-030-AAAB	\$POA	TF-0195-US-080-AABP	\$POA
TF-0240-MS-030-AAAB	\$POA	TF-0240-US-080-AABP	\$POA
TF-0280-MS-030-AAAB	\$POA	TF-0280-US-080-AABP	\$POA
TF-0360-MS-030-AAAB	\$POA	TF-0360-US-080-AABP	\$POA
TF-0405-MS-030-AAAB	N/A	TF-0405-US-080-AABP	N/A
TF-0475-MS-030-AAAB	N/A	TF-0475-US-080-AABP	N/A

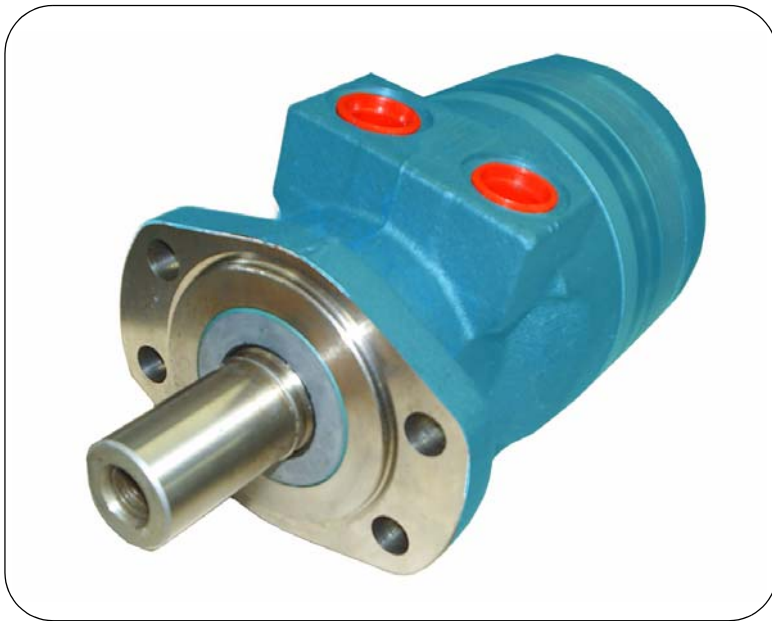


SEAL KIT	List Price
SK000092	\$POA

MODEL	Displacement		Pressure BAR		Flow L/Min		Torque				Speed Max	Dim A	
	CC	C/In	Cont	Int	Cont	Max	Nm		In/Lbs		RPM	Magneto	Wheel
							Cont	Max	Cont	Max			
TF-0080	81	4.9	207	276	46	57	220	296	1948	2621	693	191	146
TF-0100	100	6.1	155	241	57	76	197	318	1746	2813	749	191	146
TF-0130	128	7.8	138	207	57	76	229	356	2031	3148	593	194	149
TF-0140	141	8.6	138	207	57	76	254	393	2248	3477	530	196	151
TF-0170	169	10.3	138	207	57	76	317	489	2808	4324	444	199	154
TF-0195	197	12	138	207	57	76	364	562	3222	4971	381	202	157
TF-0240	238	14.5	138	207	76	95	427	670	3782	5928	394	207	162
TF-0280	280	17.1	138	207	76	95	509	794	4502	7029	334	211	167
TF-0360	364	22.2	190	190	76	95	594	880	5257	7788	258	221	176
TF-0405	405	24.7	128	172	76	95	655	916	5800	8106	231	225	180
TF-0475	477	29.1	113	138	76	95	681	851	6027	7528	195	234	189

The above units are our stock range, other shaft and port options are available by conversion. The conversions incur a cost penalty which is additional to the above prices. Spare Part Discount Applies.
NB: This cost penalty will be waived for build codes obtained from the factory for your specific requirements.

PART NO	CONVERSION OPTIONS		
	Code	Description	List Price
TF/01	01	1" 6B SPLINE SHAFT	\$POA
TF/02	02	1" KEYED SHAFT	\$POA
TF/05	05	1-1/4" 14 TOOTH SPLINE	\$POA



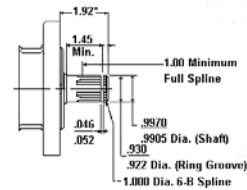
TG Series

Formerly ME Series

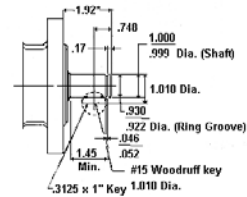
Low - Speed

High - Torque

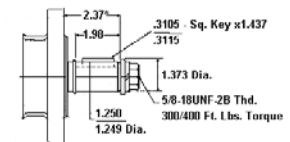
**6B Spline
(Code 01)**



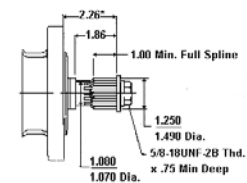
**Woodruff Key
(Code 02)**



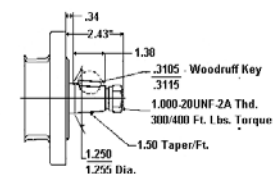
**Straight Key
(Code 03)**



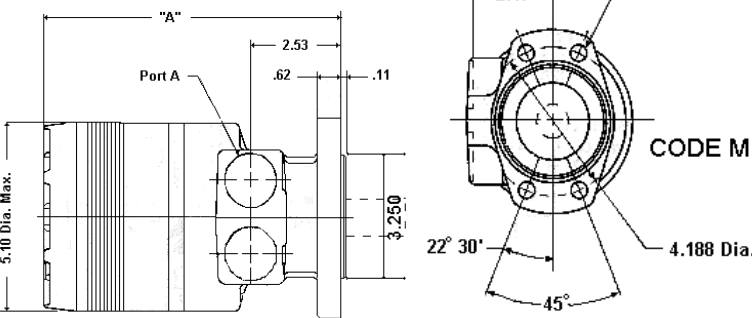
**14 Tooth Spline
(Code 05)**



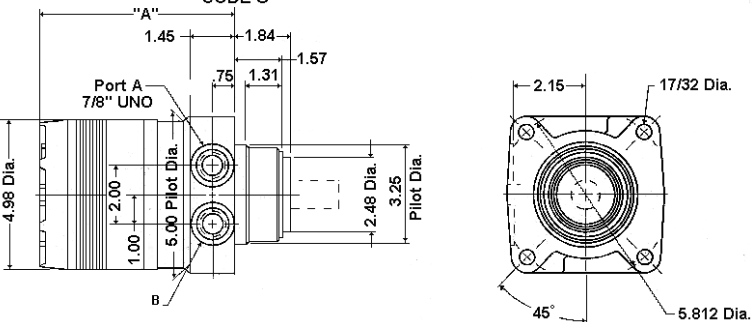
**Tapered
(Code 08)**



SAE 'A' FLOAT MAGNETO MOUNT



Wheel Mount



Torqmotor TG Series Roller Vane Motor

Truly the premier motor in its class, the TG Torqmotor provides high torque and maximum endurance under strenuous conditions. The TG is a proven top performer in applications like wheel drives for skid steer loaders, air-port ground support equipment and municipal sweepers.

The TG is simple and reliable. The design requires fewer parts compared to most competitive motors. The use of the roller vanes reduces friction and minimises internal leakage in the TG to promote optimum motor performance and life.

TG Series

[Formerly ME Series]



Magneto 1 1/4 Keyed	PRICE	Wheel Mount 1 1/4 Tapered	LIST PRICE
Model		Model	
TG-0140-MS-030-AAAB	\$POA	TG-0140-US-080-AABP	\$POA
TG-0170-MS-030-AAAB	\$POA	TG-0170-US-080-AABP	\$POA
TG-0195-MS-030-AAAB	\$POA	TG-0195-US-080-AABP	\$POA
TG-0240-MS-030-AAAB	\$POA	TG-0240-US-080-AABP	\$POA
TG-0280-MS-030-AAAB	\$POA	TG-0280-US-080-AABP	\$POA
TG-0335-MS-030-AAAB	\$POA	TG-0335-US-080-AABP	\$POA
TG-0405-MS-030-AAAB	\$POA	TG-0405-US-080-AABP	\$POA
TG-0475-MS-030-AAAB	\$POA	TG-0475-US-080-AABP	\$POA
TG-0530-MS-030-AAAB	\$POA	TG-0530-US-080-AABP	\$POA
TG-0625-MS-030-AAAB	\$POA	TG-0625-US-080-AABP	\$POA
TG-0785-MS-030-AAAB	\$POA	TG-0785-US-080-AABP	\$POA
TG-0960-MS-030-AAAB	N/A	TG-0960-US-080-AABP	\$POA



SEAL KIT	List Price
SK000092	\$POA

MODEL	Displacement		Pressure BAR		Flow L/Min		Torque				Speed Max	Dim A	
	CC	C/In	Cont	Int	Cont	Max	Nm		In/Lbs		RPM	Magneto	Wheel
							Cont	Max	Cont	Max			
TG-0140	140	8.6	211	281	76	95	390	530	3455	4692	660	196	150
TG-0170	169	10.3	211	281	76	95	476	646	4216	5714	554	199	154
TG-0195	195	11.9	211	281	76	95	556	753	4919	6663	477	202	157
TG-0240	237	14.5	211	281	76	95	677	913	5991	8081	393	207	161
TG-0280	280	17.1	211	281	76	95	796	1073	7044	9499	334	211	166
TG-0335	337	20.6	211	281	76	95	964	1297	8533	11479	277	218	173
TG-0405	405	24.7	176	246	76	95	942	1342	8336	11877	232	225	180
TG-0475	476	29.1	141	211	76	114	887	1372	7853	12145	237	234	188
TG-0530	529	32.3	141	176	76	114	983	1253	8701	11086	213	240	195
TG-0625	624	38	123	158	76	114	986	1291	8125	11424	182	250	204
TG-0785	786	48	106	141	76	114	1044	1428	9239	12636	143	267	223
TG-0960	985	58.5	70	106	76	114	773	1268	6843	11227	118	288	242

The above units are our stock range, other shaft and port options are available by conversion. The conversions incur a cost penalty which is additional to the above prices. Spare Part Discount Applies.

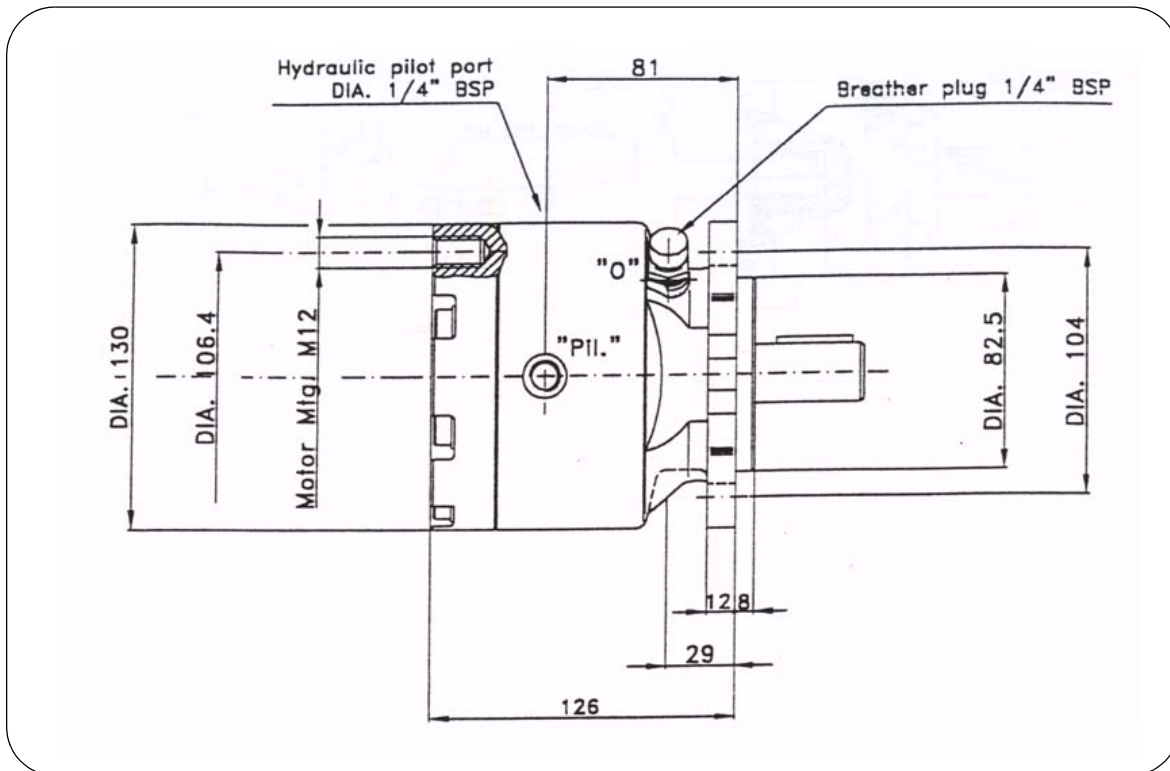
NB: This cost penalty will be waived for build codes obtained from the factory for your specific requirements.

PART NO	CONVERSION OPTIONS		
	Code	Description	List Price
TG/01	01	1" 6B SPLINE SHAFT	\$POA
TG/02	02	1" KEYED SHAFT	\$POA
TG/05	05	1-1/4" 14 TOOTH SPLINE	\$POA
TG/06	06	19 TOOTH SPLINE	\$POA
TG/19	19	1-3/8" TAPER SHAFT	\$POA



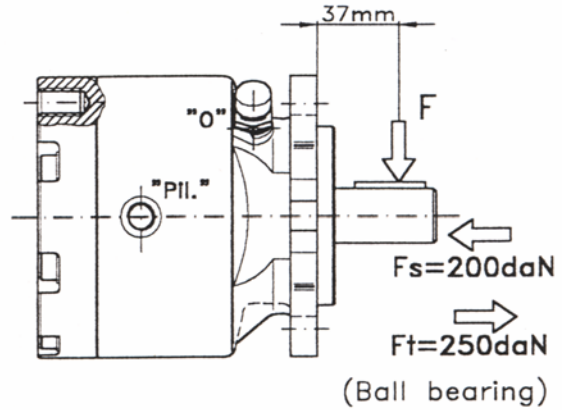
BTM are static brakes which use hydraulic pilot pressure for release. The braking action is obtained by a series of discs and springs acting onto the main piston. The brake housing is of spheroidal cast iron and extrusion proof seals are suitable for high pressures.

The brakes are to work with hydraulic mineral oil with viscosity ISO VG 150 (15°E at 50°C); Oil enters through the "Oil" port, the main piston opens the discs and unlocks the main shaft. Pilot opening oil pressures are shown in the following table. Change oil after first 50-60 working hours and then every 500 - 1500 hours depending on working conditions. The BTM brakes cannot work without oil. Fill the lubrication oil through port "O" **. For vertical mounting specify the need of the optional elbow filling connector. The BTM brakes are for application on various types of hydraulic motors.

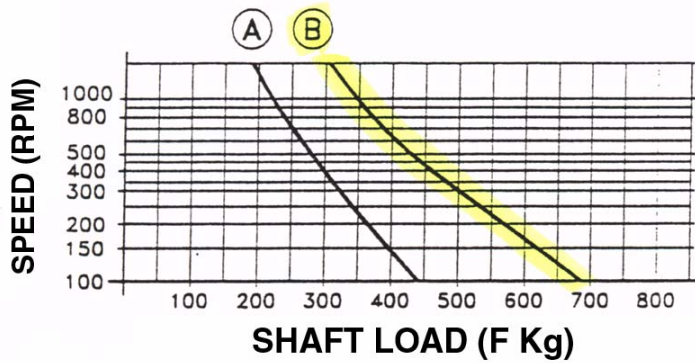


MODEL	STATIC TORQUE Nm	INPUT FLANGE	OUTPUT FLANGE	INPUT SHAFT	OUTPUT SHAFT	LIST PRICE
BTM-50-F1-E2-B2-U2-R	490	SAE 'A'	SAE 'A'	1" FEMALE	1" MALE	\$POA
BTM-50-F1-E5-B2-U7-R	490	SAE 'A'	SAE 'A'	1 1/4" FEMALE	1 1/4" MALE	\$POA

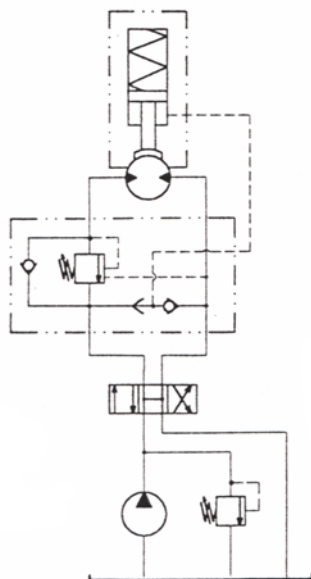
** LUBRICATION OIL ISO VG150 Horizontal Mount = 70 cc Vertical Mount = 130 cc
 Minimum Pilot Pressure = 20 BAR
 Maximum Pilot Pressure = 350 BAR



Max. radial shaft load (F) in relation to speed.
Expected life-time: 3000 working hours.

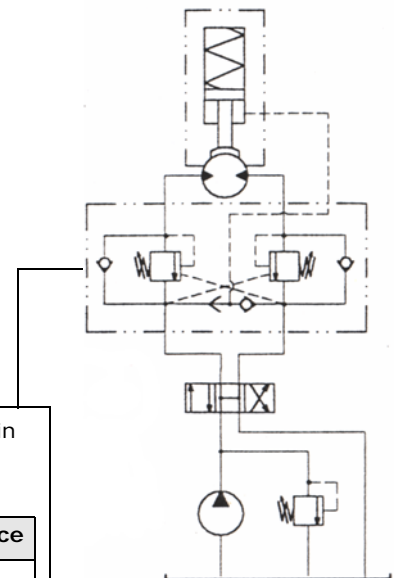


TYPICAL CIRCUITS



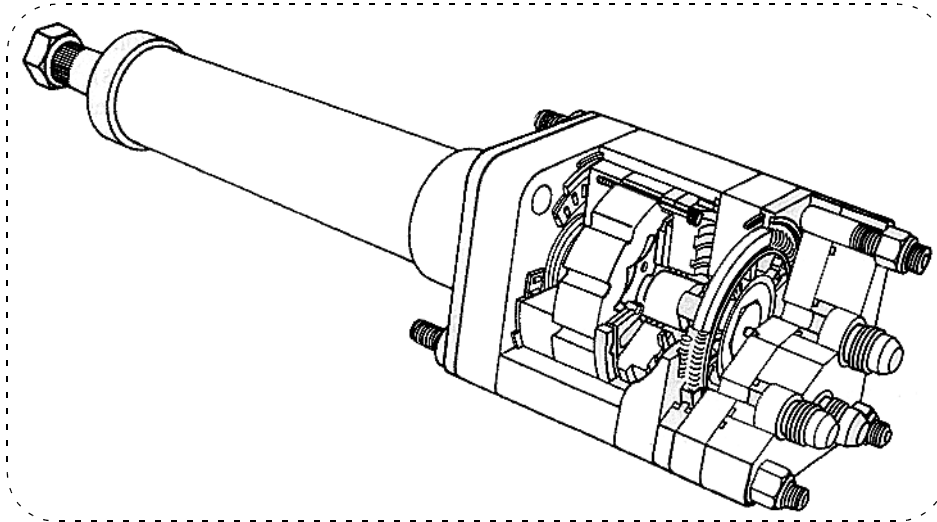
Double over-centre valve with built-in shuttle valve.

Model	List Price
SOC-DC-MF-141-I-4-21	\$POA



Hydraguide brand hydrostatic steering units were developed to meet the requirements of a broad range of off-highway applications.

The HGF Series is designed for light duty applications such as lawn and garden equipment, small agricultural equipment, small off-highway vehicles, some industrial material handling equipment and small ships.



HGF Series Features

Compact Size

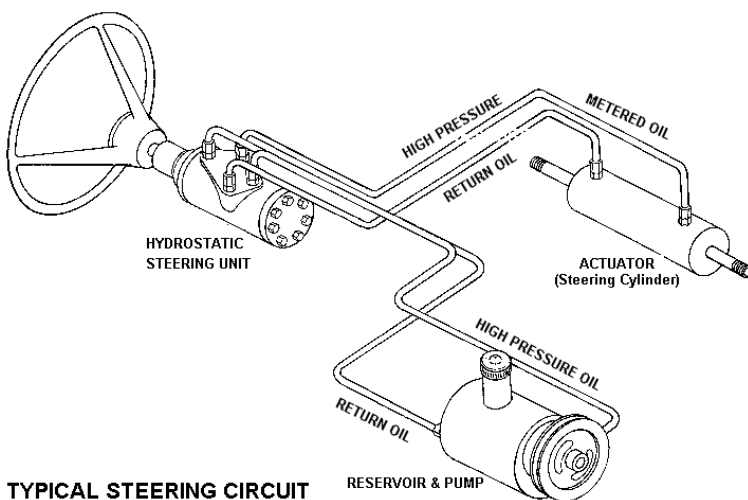
The compact size of the HGF permits mounting in tight spaces to add overall machine design flexibility.

Full-Pressure Shaft Seal

The Ross full pressure input shaft seal is able to withstand full system back pressure up to the pressure rating of the Hydraguide. This enables operation of auxiliary hydraulic functions downstream of steering.

Manual Emergency Steering

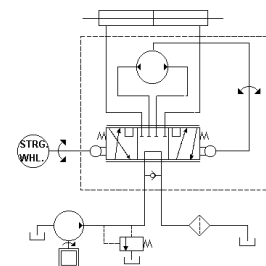
A ball check valve allows manual steering in emergencies when pump flow is interrupted.



Open Centre System

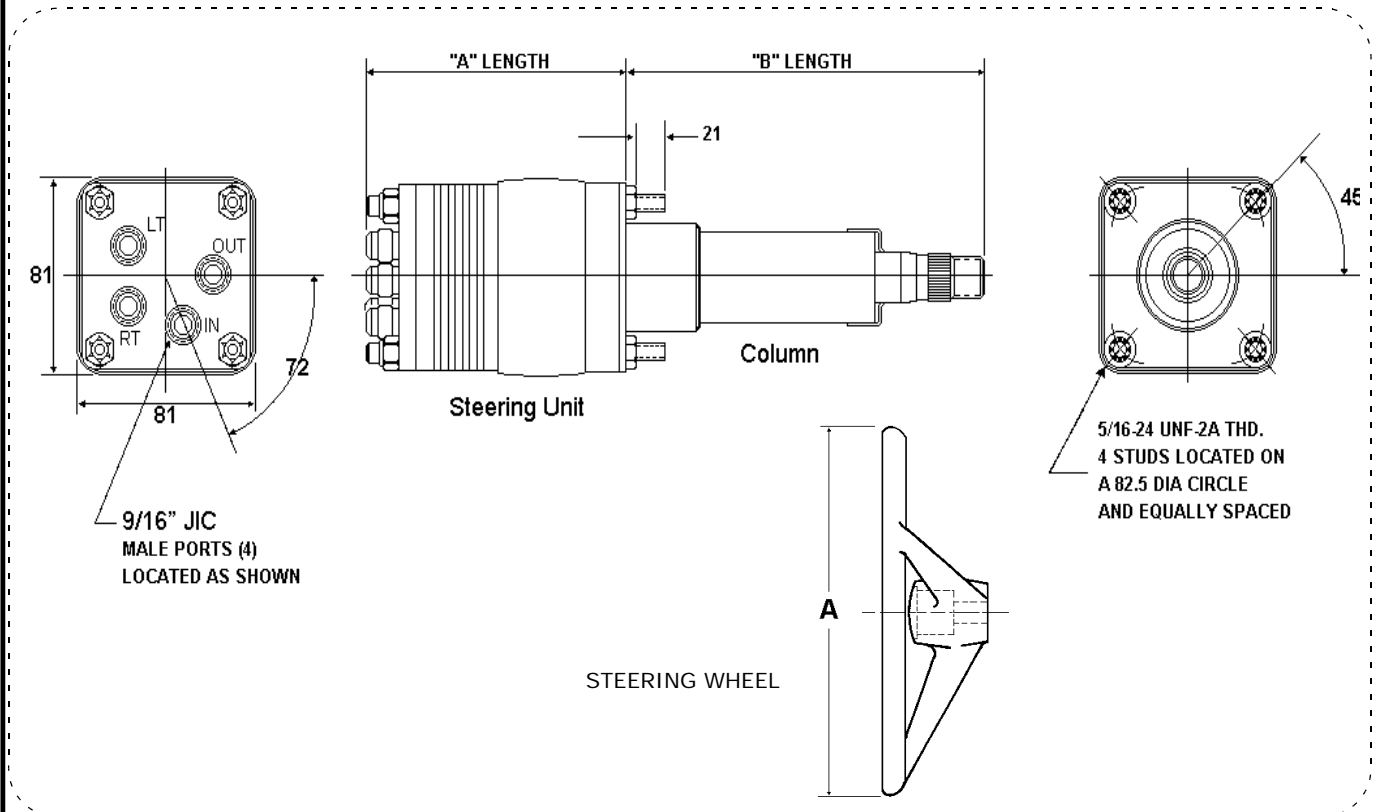
Open centre systems utilise a fixed displacement pump providing constant flow to the steering circuit.

Pump flow passes through the Hydraguide to the return circuit when the vehicle is not being steered.



POWER STEERING UNIT

HGF Open Centre (Standard)



For complete unit add: Steering Unit + Column + Steering Wheel

STEERING UNIT

Part No.		Displacement		Max. Press		Max. Flow		Flow @ 120 RPM		DIM	List Price
		CC	C/IN	BAR	PSI	L/MIN	GPM	L/MIN	GPM	A	
HGF08120	*	54	3.3	105.6	1500	30	8	6.47	1.71	122	\$POA
HGF10120		68	4.13	105.6	1500	30	8	8	2.15	125	\$POA
HGF12120	*	81	4.95	105.6	1500	30	8	9.73	2.57	129	\$POA
HGF16120		108	6.6	105.6	1500	60	8	13	3.4	134.6	\$POA
HGF20120		135	8.25	105.6	1500	30	8	16	4.3	140.7	\$POA

* = Indent Only

SEAL KIT = SK000097 \$POA

COLUMN

Part No.	DIM B	Price
SKF00078-0400	101.6	\$POA
SKF00078-0800	203.2	\$POA

STEERING WHEEL

Part No.	DIAM 'A'	Price
404264	330	\$POA
404265	381	\$POA

