

TG Hydraulic Torque Motor



Type		TG 195	TG 280	TG 405	TG 475	TG 530	TG 625
Geometric displacement (ccm)		196	296	405	462	540	647
Weight (kg)		12,3	13	13,7	14	14,6	15,5
Max speed (RPM)	Cont.	330	250	185	160	140	115
	Int.	425	315	220	195	170	138
Max torque (Nm)	Cont.	530	810	1010	1085	980	1015
	Int.	600	930	1180	1180	1240	1250
	Peak	750	1120	1360	1260	1380	1380
Max output (kW)	Cont.	15,5	18	15,5	14,5	11,5	10
	Int.	18	21	18	16,5	15	12
Max pressure drop (Bar)	Cont.	205	205	190	175	140	120
	Int.	240	240	225	190	175	155
	Peak	276	276	250	205	205	175
Max flow (L/min)	Cont.	70	80	75	75	75	75
	Int.	85	95	90	90	90	90

*Continuous pressure: Max. value of operating motor continuously

*Performance data based on testing using 10W40 oil with a viscosity of 200 SUS at 54° C . Performance data is typical.

TG series torque motor adapt the advanced Gerolore gear set, designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

CHARACTERISTICS FEATURES

- Advanced manufacturing devices for the Gerolore gear set, which use low pressure of start-up, provide smooth, reliable operation and high efficiency.
- The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offer capacities of high pressure and high torque in the wide of applications.
- Advanced design in disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.
- The new series motor is suitable for vehicles with greater loads and pressure drop.

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PERFORMANCE DATA

TG 195

Pressure (MPa)

		Pressure (MPa)						Max.cont.	Max.int.
		1.75	3.5	7	10.5	14	17.5	20.5	24
Flow (L/min)	2	39 8	88 4	132 4	286 3	370 2			
	4	42 16	85 14	188 13	270 11	361 10	427 9	506 6	
	8	43 35	90 32	192 29	291 28	367 27	450 25	529 23	600 19
	15	38 74	92 71	196 68	298 64	381 60	462 58	530 55	602 50
	25		82 124	188 121	283 117	377 113	456 108	528 103	605 92
	34		79 170	183 169	270 167	362 160	447 154	515 146	591 135
	45			163 223	259 218	352 212	441 208	510 199	593 189
	53			149 260	256 258	350 254	440 248	501 241	582 230
	60			132 299	248 292	336 284	432 276	497 272	575 263
	68	Max.cont.		120 336	230 332	330 327	412 319	486 310	570 301
	75			108 375	208 372	311 365	403 358	480 350	
	85	Max.int.			184 425	280 420	380 411	462 390	

TG 280

Pressure (MPa)

		Pressure (MPa)						Max.cont.	Max.int.
		1.75	3.5	7	10.5	14	17.5	20.5	24
Flow (L/min)	2	50 3	93 1						
	4	62 11	141 10	294 9	429 8	502 7	618 4		
	8	63 22	147 21	298 20	432 19	565 16	667 13	761 9	819 5
	15	66 48	144 47	305 45	427 43	568 39	671 33	810 28	894 20
	25	59 82	138 81	289 80	420 76	552 71	676 64	791 56	932 44
	34	48 113	130 112	297 110	393 107	562 102	689 96	805 86	926 73
	45		96 150	268 149	385 148	527 143	636 135	753 124	880 112
	53		76 177	242 176	383 175	524 173	631 165	758 152	900 138
	60		64 200	225 199	362 198	506 193	627 186	753 174	892 162
	68			200 225	333 224	470 222	630 212	750 201	882 194
	75	Max.cont.		178 251	322 250	464 247	610 240	741 232	870 215
	85			140 285	316 284	455 278	570 270	728 257	
	95	Max.int.		106 316	260 314	431 311	552 307	700 292	

TG 405

Pressure (MPa)

		Pressure (MPa)						Max.cont.	Peak
		1.75	3.5	7	10.5	14	17.5	19	22.5
Flow (L/min)	2	85 3	170 2						
	4	90 8	182 7	368 6	540 5	715 4	885 3		
	8	93 17	190 16	385 15	575 14.4	750 13	895 10	950 9	1155 7
	15	88 36	180 35	380 34	575 33	750 31	905 28	980 24	1165 20
	25	88 60	180 59	380 58	575 56	750 53	915 49	1010 44	1165 40
	34	75 83	165 83	365 82	560 81	750 77	915 72	1000 68	1180 60
	45		150 110	350 110	545 109	735 106	900 102	980 94	1165 86
	53		125 130	330 129	525 128	720 125	885 120	960 112	1150 100
	60		100 147	305 147	505 146	680 145	860 142	940 138	1125 130
	68			275 167	480 167	660 164	845 158	925 150	1100 140
	75	Max.cont.		250 184	455 183	635 180	820 176	900 170	1065 158
	85			225 209	415 208	600 206	785 202	865 194	
	90	Max.int.		160 220	365 218	575 216	770 210		

TG 475

Pressure (MPa)

		Pressure (MPa)						Max.cont.	Peak
		1.75	3.5	7	10.5	14	17.5	20.5	
Flow (L/min)	2	93 2	186 1						
	4	98 7	202 6	405 5	608 5	805 4			
	8	98 15	206 14	430 13	652 13	844 12	1005 10	1180 8	
	15	94 31	202 30	441 28	654 28	875 26	1056 23	1238 20	
	25	94 52	202 51	441 48	654 45	875 43	1056 39	1238 35	
	34	75 72	180 71	420 68	660 65	850 61	1085 55	1266 44	
	45		144 96	380 95	627 93	835 90	1062 84	1261 73	
	53		116 113	346 112	573 111	795 107	1008 102	1212 90	
	60		82 128	318 128	539 127	790 124	975 119	1186 110	
	68		58 146	272 145	520 144	740 141	955 136	1156 125	
	75	Max.cont.		230 161	480 160	702 158	920 153	1116 140	
	85			200 182	454 180	662 177	876 168		
	90	Max.int.		150 194	378 193	615 190	840 182		

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PERFORMANCE DATA

TG 530

		Pressure (MPa)					
		1.75	3.5	7	10.5	14	17.5
Flow (L/min)	2	105 2	198 2				
	4	125 6	231 5	470 5	688 4	932 4	1136 3
	8	134 13	238 13	496 12	749 11	966 11	1175 8
	15	122 27	230 26	505 26	750 25	981 24	1218 21
	25	100 44	225 43	500 42	774 41	986 39	1220 35
	34	80 62	212 61	481 60	748 58	977 54	1243 49
	45		173 82	437 82	714 81	936 79	1190 75
	53		142 97	416 97	678 96	938 94	1170 89
	60		106 110	380 110	664 109	896 108	1158 106
	68		85 125	357 124	616 124	870 123	1108 120
	75			318 138	600 137	826 135	1100 132
	85			292 154	538 153	780 152	
	90			214 169	486 168	755 168	
	Max. cont.						

TG 625

		Pressure (MPa)					
		1.75	3.5	7	10.5	12	15.5
Flow (L/min)	2	119 2	230 1				
	4	135 5	268 5	552 4	805 4	940 3	
	8	145 11	285 11	574 10	825 10	955 9	1255 7
	15	140 22	280 22	595 21	875 21	982 20	1276 16
	25	130 37	275 36	590 36	886 35	1005 34	1302 30
	34	115 51	260 51	580 50	890 49	1015 47	1310 44
	45		235 69	555 68	870 67	995 66	1280 63
	53		200 80	520 80	850 79	975 78	1250 76
	60		170 91	490 91	825 90	935 89	1215 88
	68		145 104	430 103	775 102	880 101	1185 99
	75			420 114	730 113	855 112	1130 110
	83			380 130	660 129	795 128	
	90			290 138	585 137	730 136	
	Max. cont.						

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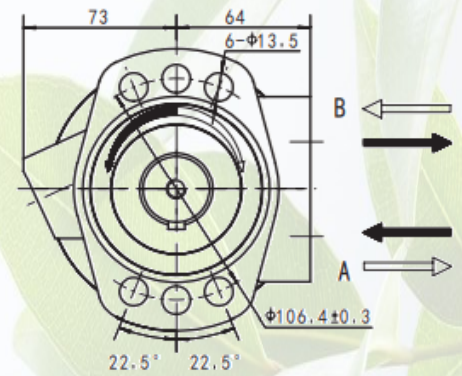
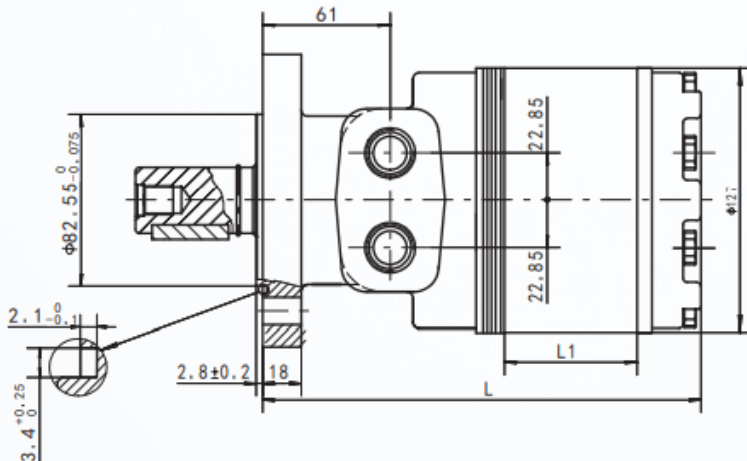
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OVERVIEW DRAWING

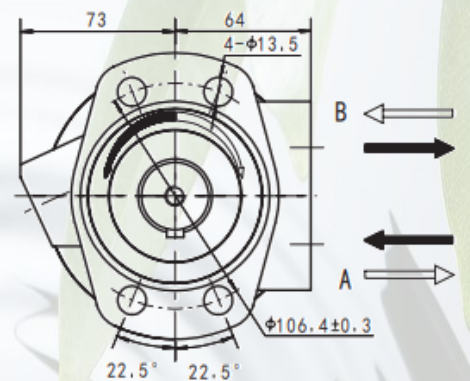
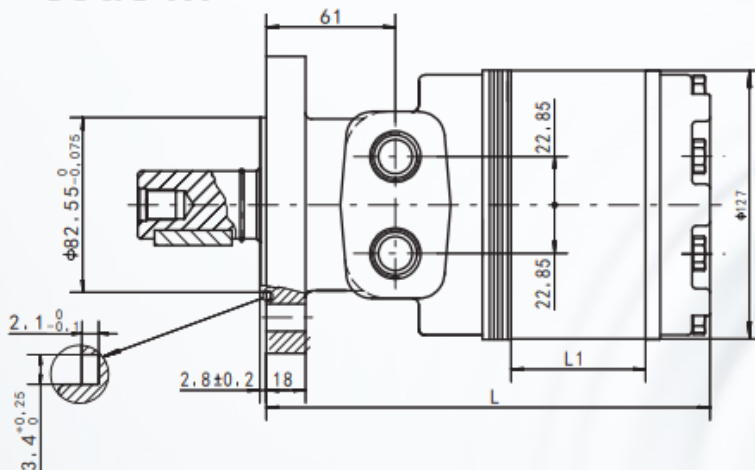
Code E

Magneto Mount 6-Hole



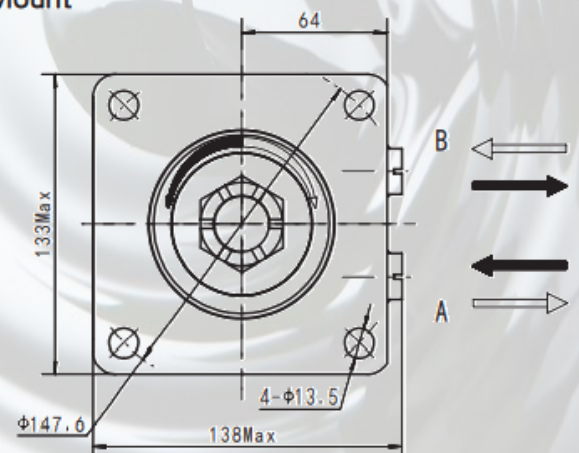
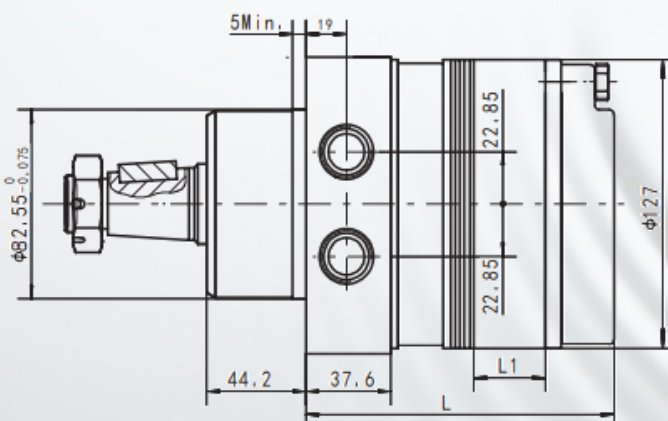
Code M

Magneto Mount 4-Hole



Code H

Wheel Mount



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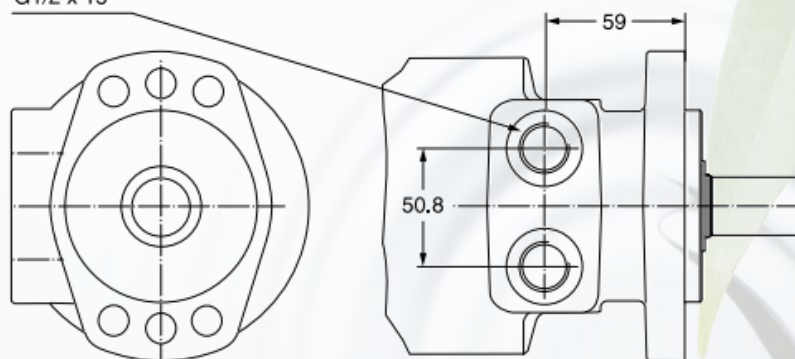
OVERWIEV DRAWING - continued

LENGTH (mm)	TG 195	TG 280	TG 405	TG 475	TG 530	TG 625
CODE E - L1	17	25,5	35,5	39,4	47,3	57
CODE E - L	163,5	172	182	186	194	204
CODE M - L1	17	25,5	35,5	39,4	47,3	57
CODE M - L	163,5	172	182	186	194	204
CODE H - L1	17	25,4	35,5	39,4	47,3	57
CODE H - L	125,5	134,5	144	148	156	166

PORTS

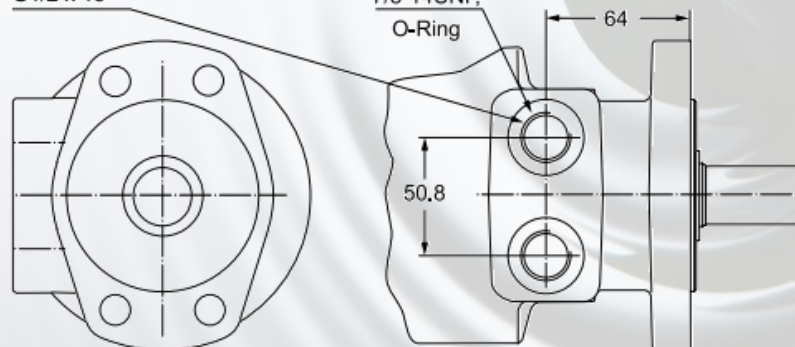
Code W

G1/2 x 15



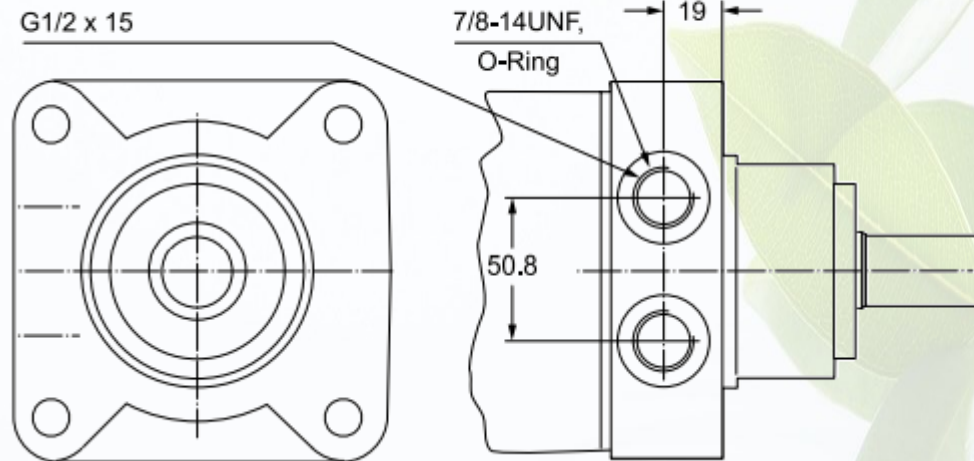
Code W

G1/2 x 15

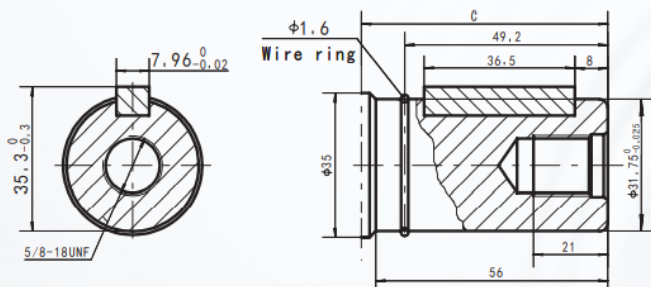


Code V

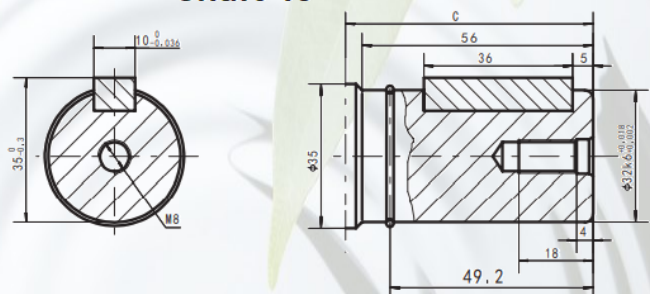
7/8-14UNF,
O-Ring



Shaft 46

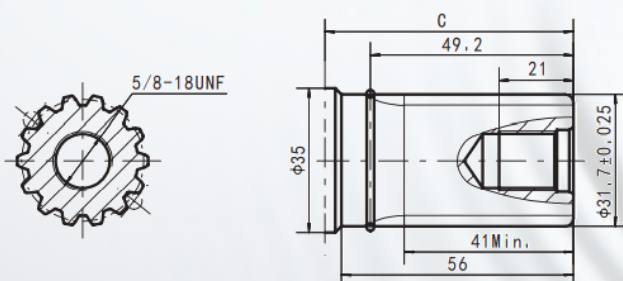


Shaft G2: Cylindrical shaft $\varnothing 31.75$
Parallel key 7.96x7x36.5



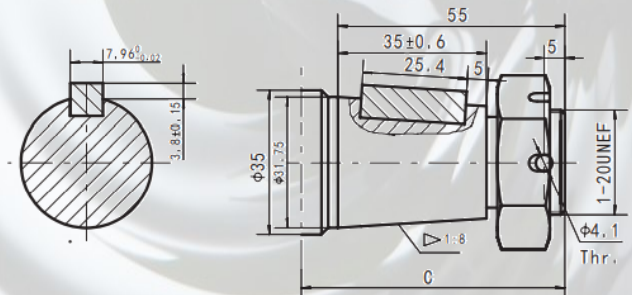
Shaft B1: Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36

Shaft 44



Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996

Shaft 08



Shaft T4: Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque: 200±10Nm

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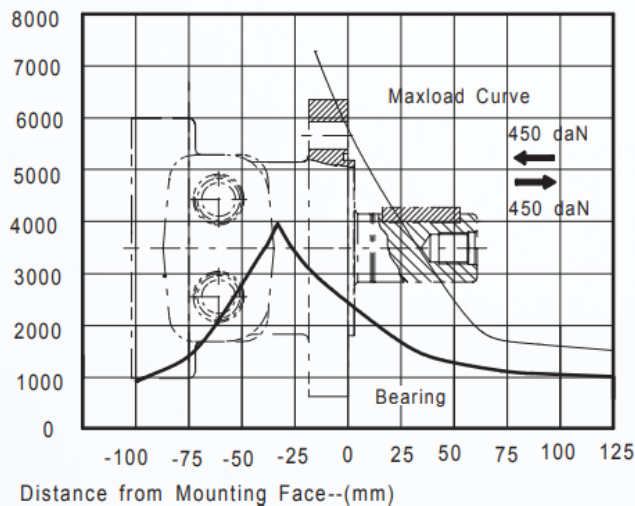
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AXIAL AND RADIAL FORCES

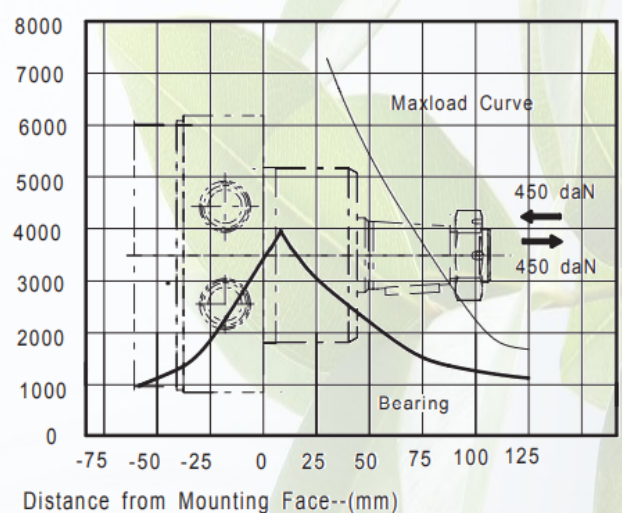
Code E,M mount

Side Load-(daN)



Code W - wheel mount

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at 12×10^6 revolutions.

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

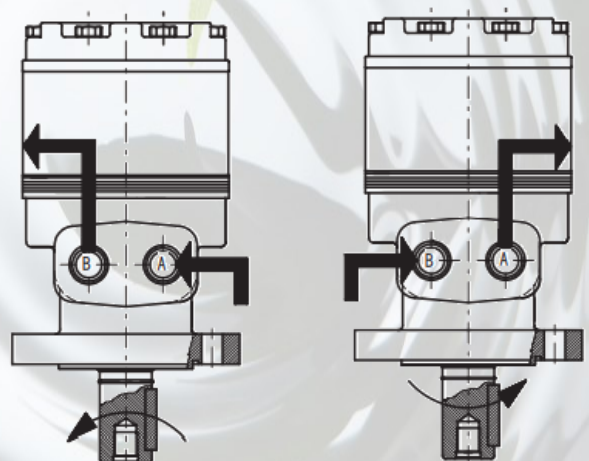
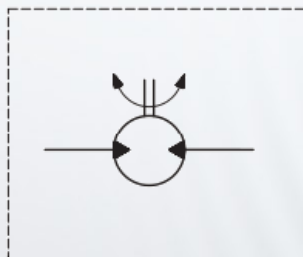
STANDARD DIRECTION OF SHAFT ROTATION

Direction of shaft rotation: Reverse timed

When facing shaft end of motor, shaft to rotate:

Clockwise when port "B" is pressurized.

Counter-clockwise when port "A" is pressurized.



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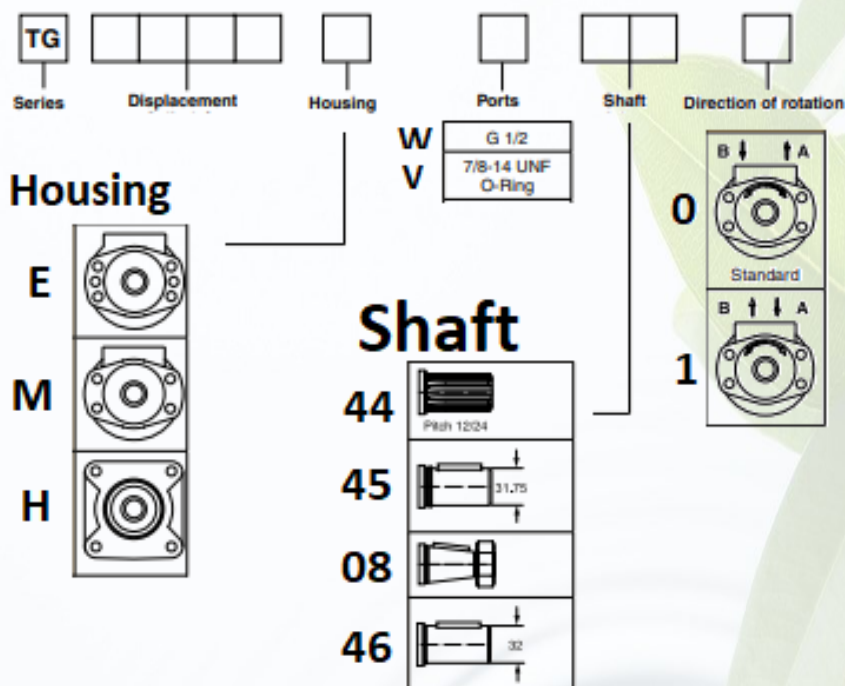
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ORDERING CODE



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