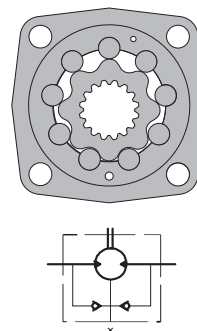




MA2K new series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.



Main Specification

Type		MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K
		65	80	100	125	160	200	250	315	400	475
Displacement	(cm ³ /rev)	65	80	100.9	129.8	158.8	193.4	242.5	304.3	390.8	485
Max.speed	(rpm)	cont.	835	800	742	576	477	385	308	246	191
		int(1)	990	980	924	720	713	577	462	365	287
Max.torque	(N·m)	cont.	185	235	295	385	455	540	660	765	845
		int(1)	245	345	445	560	570	665	820	885	925
Max.pressure drop	(bar)	cont.	205	210	210	210	205	205	205	210	155
		int(1)	275	310	310	310	260	260	260	240	170
		peak(2)	310	310	310	310	310	310	310	205	170
Max.flow	(L/min)	cont.	55	65	75	75	75	75	75	75	75
		int(1)	65	80	95	95	115	115	115	115	115
Max. Inlet pressure	(bar)	cont.	225	225	225	225	225	225	225	225	225
		int(1)	310	310	310	310	310	310	310	310	310
		peak(2)	310	310	310	310	310	310	310	310	310
Weight	(kg)		9.2	9.4	9.7	10	10.2	10.5	11	11.5	12

(1)Intermittent operation: The rating occur for max. 6 sec / min.

(2)Peak operation:The rating occur for max. 0.6 sec / min.

Type		MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K	MA2K
		65	80	100	125	160	200	250	315	400	475
Displacement	(in ³ /r)	4.0	4.9	6.2	7.9	9.7	11.8	14.8	18.6	23.8	29.6
Max.speed	(rpm)	cont.	835	800	742	576	477	385	308	246	191
		int(1)	990	980	924	720	713	577	462	365	287
Max.torque	(lb-in)	cont.	1637	2080	2611	3407	4027	4779	5841	6770	7478
		int(1)	2168	3053	3938	4956	5045	5885	7257	7832	8186
Max.pressure drop	(psi)	cont.	2973	3045	3045	3045	2973	2973	2973	3045	2248
		int(1)	3988	4495	4495	4495	3770	3770	3770	3480	2465
		peak(2)	4495	4495	4495	4495	4495	4495	4495	2973	2465
Max.flow	(gpm)	cont.	14.6	17.2	19.8	19.8	19.8	19.8	19.8	19.8	19.8
		int(1)	17.2	21.2	25.1	25.1	30.4	30.4	30.4	30.4	30.4
Max. Inlet pressure	(psi)	cont.	3265	3265	3265	3265	3265	3265	3265	3265	3265
		int(1)	4495	4495	4495	4495	4495	4495	4495	4495	4495
		peak(2)	4495	4495	4495	4495	4495	4495	4495	4495	4495
Weight	(lbs)		20.4	20.9	21.6	22.2	22.7	23.3	24.4	25.6	26.7

Performance Data

MA2K 65 [65 cm³/rev.]

Pressure (bar)

		Pressure (bar)					Max.cont.	Max.int.	Peak	
		3.5	7	10.5	14	17.5	20.5	24	27.5	31
Flow (L/min)	2	28 22	54 12	80 6						
	4	30 52	58 47	88 43	115 35	146 30	165 24	195 16		
	8	31 107	60 98	92 92	120 85	150 70	170 55	200 40	225 30	
	15	32 214	62 208	94 200	124 193	155 185	175 174	205 160	230 145	250 130
	22	32 320	65 315	95 308	125 296	157 286	178 275	206 260	232 242	254 230
	30	30 445	65 440	95 430	128 420	160 408	180 395	210 380	235 360	258 325
	38	28 565	62 560	95 550	130 540	165 526	185 512	216 495	240 470	260 420
	45	26 675	60 670	92 660	125 648	160 632	180 615	215 600	245 580	265 530
	55	23 835	55 825	88 810	120 790	155 770	175 745	210 720	235 690	255 640
	Max.cont.	65	20 990	50 980	84 965	112 945	150 935	170 910	205 880	230 860

MA2K 80 [80 cm³/rev.]

Pressure (bar)

		Pressure (bar)					Max.cont.	Max.int.	Peak	
		3.5	7	10.5	14	17.5	20.5	24	27.5	31
Flow (L/min)	2	29 18	54 9	86 3						
	4	35 45	75 41	112 38	145 35	172 28	208 22	218 14	236 3	
	8	35 90	75 85	114 80	148 76	175 72	212 64	230 55	260 46	280 40
	15	38 180	78 175	116 170	152 166	184 160	215 153	245 140	275 126	300 115
	22	36 265	75 260	114 255	150 250	185 242	220 234	250 220	285 205	315 185
	30	35 363	75 355	115 350	150 342	185 334	225 322	260 302	295 280	325 260
	38	34 460	72 452	112 442	155 430	190 418	230 405	265 385	300 360	335 335
	45	32 545	70 535	110 528	150 515	190 505	230 495	265 465	305 440	340 410
	55	30 670	68 660	110 650	150 635	190 620	230 605	270 575	305 540	335 510
	Max.cont.	65	25 800	65 790	105 778	145 755	180 740	225 728	260 690	295 650
Max.int.	75	22 910	63 900	102 880	145 860	180 850	225 830	260 790	290 750	
	80	20 980	60 970	100 955	140 920	175 900	220 875	250 840		

MA2K 100 [100.9 cm³/rev.]

Pressure (bar)

		Pressure (bar)						Max.cont.	Max.int.	Peak	
		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31
Flow (L/min)	2	15 14	32 10	68 5							
	4	18 36	42 34	92 32	130 28	170 22	205 14	230 5			
	8	20 74	45 73	90 70	135 66	180 60	210 52	240 42	280 26	310 15	
	15	20 142	45 140	90 137	135 134	185 129	220 120	260 105	305 92	345 78	390 65
	22	18 210	45 207	90 201	140 195	190 188	230 179	275 160	315 150	360 138	405 125
	30	16 290	42 288	88 282	142 276	195 268	240 258	285 242	330 230	375 212	425 195
	38	15 370	40 365	88 360	140 352	190 340	240 326	285 310	335 295	380 275	430 255
	45	15 440	40 435	86 430	140 422	190 410	240 395	285 380	340 365	385 345	440 320
	55	12 540	36 534	85 528	135 520	190 510	240 500	285 485	340 465	385 440	440 405
	Max.cont.	65	10 640	35 635	80 630	130 622	185 605	235 590	280 575	335 550	380 525
75		5 738	30 735	75 728	125 715	180 700	230 680	275 655	330 635	375 610	
85		3 838	25 835	75 830	125 820	175 805	225 785	270 760	320 730	370 690	
Max.int.	95		23 925	70 918	120 905	170 890	220 870	260 840	310 810		

MA2K 125 [129.8 cm³/rev.]

Pressure (bar)

		Pressure (bar)						Max.cont.	Max.int.	Peak	
		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31
Flow (L/min)	2	25 12	40 7								
	4	28	55	110	175	220	280	325			
		27	26	22	18	14	11	8			
	8	28	60	115	175	230	290	330	375	400	
		57	56	53	48	42	38	34	26	20	
	15	28	60	120	180	240	295	340	390	440	485
		113	112	110	105	98	92	86	80	72	65
	22	28	55	120	180	245	305	360	415	470	530
		165	163	160	155	150	144	138	130	115	100
	30	25	52	120	185	245	310	365	425	480	545
		228	224	222	210	212	206	198	188	178	165
	38	25	50	120	180	245	315	370	430	495	550
		288	285	282	275	268	260	252	242	230	215
	45	22	50	120	180	245	315	370	430	490	550
		345	343	338	332	325	315	305	292	280	265
	55	20	46	115	175	245	330	375	430	490	
420		418	414	408	400	390	378	365	346		
65	15	43	110	170	240	320	370	425	485		
	498	496	492	486	480	465	458	440	425		
Max.cont. 75	12	42	108	170	235	310	365	425			
	575	574	568	560	550	548	525	502			
Max.int. 85	8	40	105	165	230	310	360	420			
	653	652	645	636	625	616	600	578			
95		40	100	160	225	290	355	415			
		722	715	702	690	680	670	655			

□ cont.
■ int.

Torque (N•m) 225
Speed (rpm) 690

Performance Data

MA2K 160 [156.8 cm³/rev.]
Pressure (bar)

		Max.cont.								Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24	26	
Flow (L/min)	2	28	55	110	175						
	4	32	63	125	190	250	315	370			
	8	37	68	130	200	260	325	390	450	480	
	15	35	68	135	210	275	370	420	500	530	
	22	35	75	140	215	285	370	440	515	550	
	30	35	75	145	220	290	370	440	520	560	
	38	37	70	150	225	310	380	450	525	565	
	45	32	70	150	225	310	380	450	525	565	
	55	28	66	145	220	305	375	450	525		
	65	25	63	140	220	300	375	445			
Max.cont.	75	22	60	135	215	295	370	440			
	85	18	55	130	210	290	365	435			
	95	15	50	125	205	285	360	430			
	115		40	115	200	280	350	425			
Max.int.											

MA2K 200 [193.4 cm³/rev.]
Pressure (bar)

		Max.cont.								Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24	26	
Flow (L/min)	2	32	68	110	145						
	4	40	75	150	195	300	360				
	8	45	80	160	240	315	405	500	570	600	
	15	48	90	170	255	335	425	510	590	620	
	22	46	90	175	265	350	440	520	605	645	
	30	45	90	180	270	360	450	530	615	655	
	38	45	90	180	275	370	455	540	625		
	45	40	85	180	275	370	460	545			
	55	38	82	180	275	375	465	550			
	65	35	80	175	270	370	465	545			
Max.cont.	75	30	72	170	265	360	455	540			
	85	25	70	165	260	355	450	540			
	95	20	60	155	255	350	445	530			
	115		50	140	240	330	440	520			
Max.int.											

MA2K 250 [242.5 cm³/rev.]
Pressure (bar)

		Max.cont.								Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24	26	
Flow (L/min)	2	45	95								
	4	50	100	210	310	410	510	610			
	8	55	105	215	320	420	530	620	730	780	
	15	55	110	220	330	440	550	650	755	810	
	22	50	115	225	340	455	560	665	770		
	30	50	115	230	350	465	570	680	785		
	38	48	112	235	355	475	580	695	795		
	45	45	110	230	350	475	590	700			
	55	42	105	230	345	470	580				
	65	35	100	220	340	460	565				
Max.cont.	75	32	95	210	330	455	560				
	85	30	85	200	320	450	555				
	95	25	70	190	315	440	540				
	115		65	180	300	430					
Max.int.											

MA2K 315 [304.3 cm³/rev.]
Pressure (bar)

		Max.cont.								Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24		
Flow (L/min)	2	45	95								
	4	65	130	250	380	490					
	8	70	135	260	390	510	630	760	875		
	15	75	140	275	410	535	670	800	920		
	22	70	140	285	425	555	685	810	940		
	30	70	145	290	430	565	695	820			
	38	66	140	290	435	570	715	835			
	45	62	135	290	435	575	720	840			
	55	58	130	285	430	575	720				
	65	52	120	275	425	570	715				
Max.cont.	75	40	110	260	415	560	710				
	85	30	100	250	405	540					
	95	20	90	245	380	515					
	115		80	225	350						
Max.int.											

cont.
int.

Torque (N•m) 225
Speed (rpm) 361

Performance Data

MA2K 400 [390.8 cm³/rev.]

Pressure (bar)

Max.cont. Max.int.

1.75	3.5	7	10.5	14	15.5	17.5	19
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Flow (L/min)	2	70 4	145 2					
	4	80 9	170 9	345 8	500 7	660 6	740 5	
	8	85 19	175 18	355 17	520 16	680 14	765 13	910 10
	15	90 37	185 37	370 36	550 35	720 32	810 30	880 28
	22	95 55	190 55	380 54	565 52	750 48	830 46	900 44
	30	92 76	188 75	385 73	570 71	760 68	835 65	905 62
	38	90 96	185 94	385 92	575 90	765 86	840 84	930 80
	45	85 114	180 113	380 111	570 108	760 102		
	55	80 140	175 139	380 137	570 133	760 127		
	65	75 165	170 164	370 163	560 160	750 155		
	75	68 191	160 190	360 188	555 184	740 178		
	85	65 214	150 212	355 210	550 206	730 200		
	95	50 242	135 240	340 237	530 233	710 228		
	115		125 286	310 282	510 275			

cont.
int.

MA2K 475 [485 cm³/rev.]

Pressure (bar)

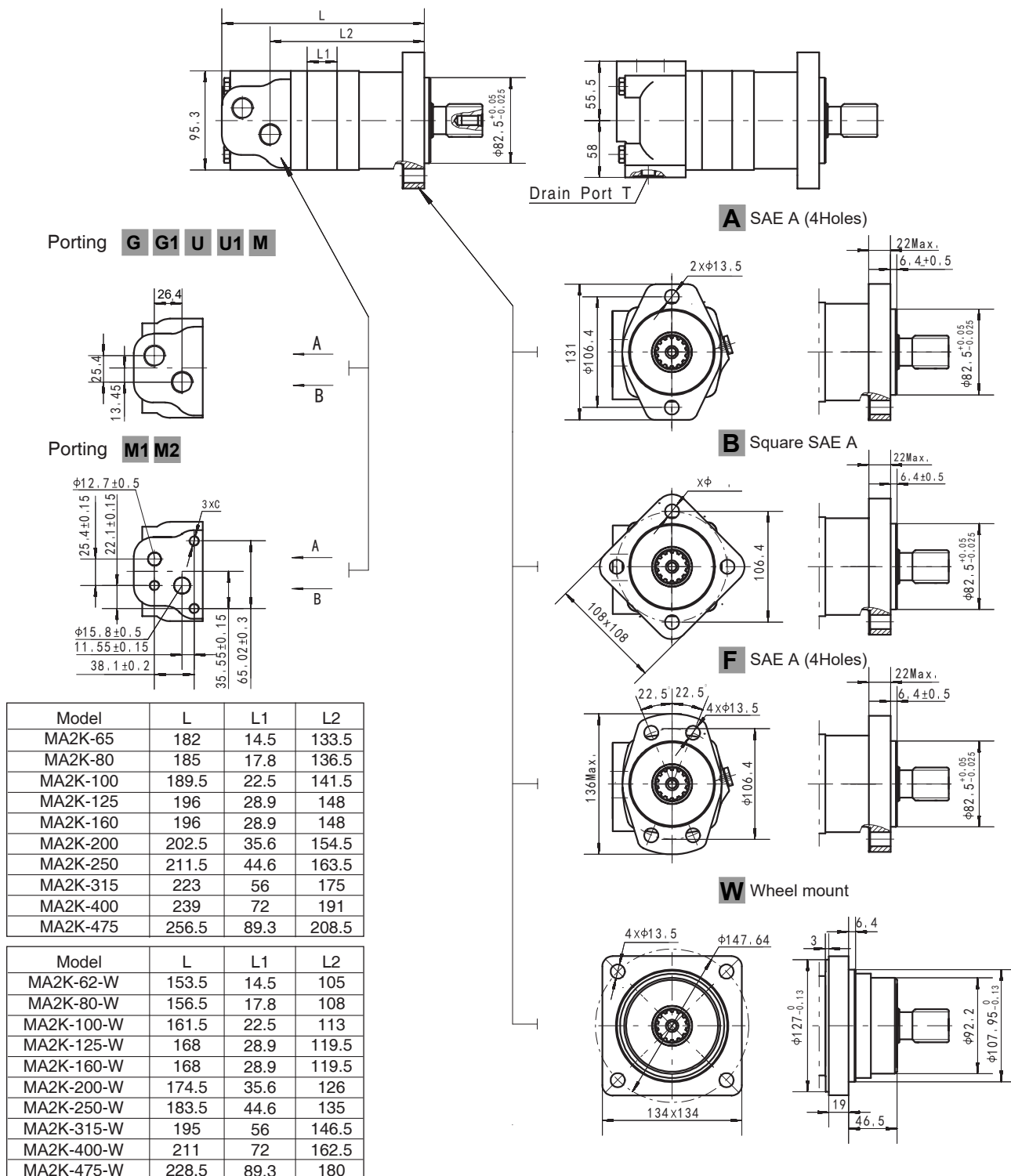
Max.cont. Max.int.

1.75	3.5	7	10.5	12	14
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Flow (L/min)	2	75 2	175 1				
	4	110 7	220 6	430 4	540 1		
	8	110 14	225 13	450 11	700 7		
	15	105 29	235 28	470 26	710 24	825 22	895 19
	22	105 44	240 43	480 42	720 40	835 37	915 34
	30	110 61	240 60	485 58	725 55	840 52	935 48
	38	110 77	235 75	480 73	720 70	840 68	930 65
	45	100 91	220 91	470 89	715 85	825 83	
	55	95 112	210 110	460 108	710 104	820 100	
	65	85 132	200 131	445 128	700 125	810 120	
	75	70 153	185 152	440 149	690 145	800 140	
	85	60 173	175 172	430 169	680 165	785 160	
	95	40 195	150 193	405 190	655 185		
	115		130 230	380 226	625 220		

Torque (N•m) 130
Speed (rpm) 230

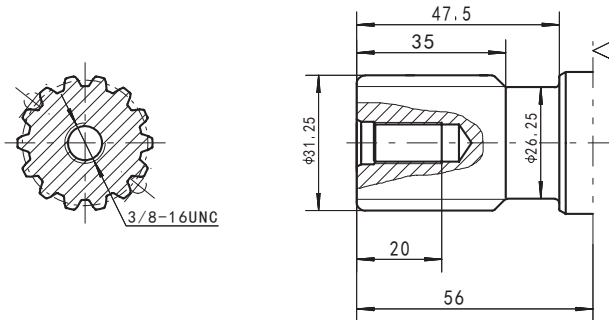
MA2K DIMENSIONS AND MOUNTING DATA



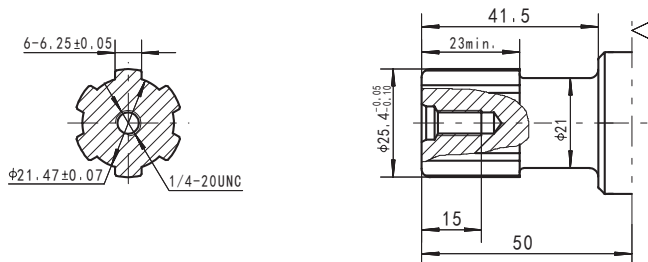
Code Mounting	G (Depth)	G1 (Depth)	U (Depth)	U1 (Depth)	M (Depth)	M1	M2
P(A,B)	G1/2 (15)	G1/2 (15)	7/8-14 O-ring (18)	7/8-14 O-ring (17)	M22 x 1.5 (15)	φ12.7, φ15.8	φ12.7, φ15.8
T	G1/4 (12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	G1/4 (12)
C			--			3/8-16UNC(15)	M10(15)

SHAFT EXTENSIONS FOR MA2K MOTORS

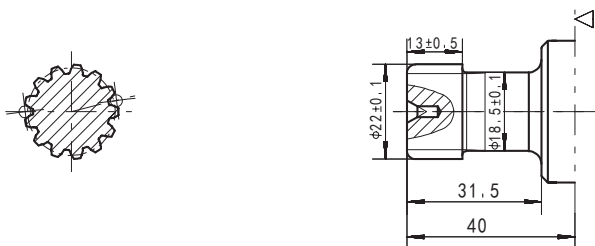
SA 1-1/4 Splined 14-DP 12/24



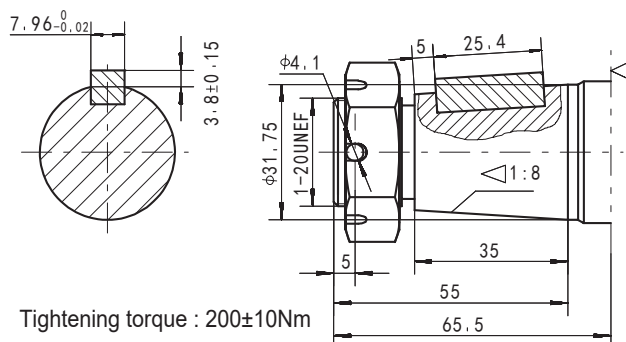
S Splined SAE 6B



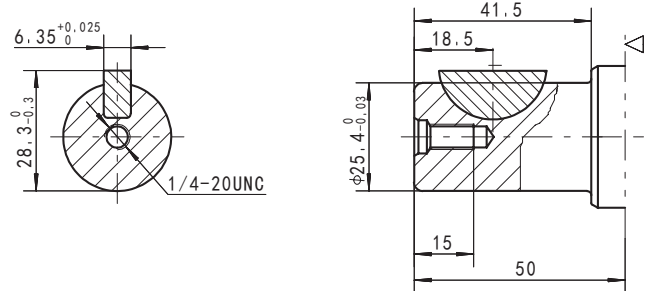
SB Splined 13-DP16/32



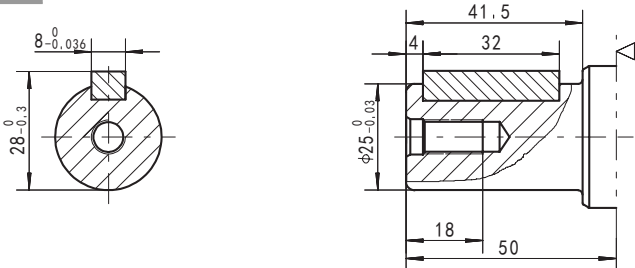
T Cone-shaft 31.75, Parallel key 7.96x7.96x25.4



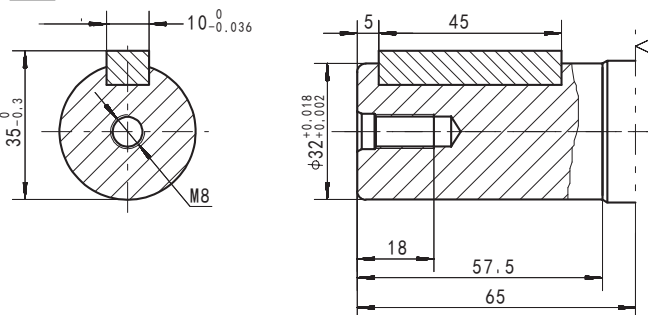
C1 Cylindrical shaft 25.4, Woodruff key 25.4x6.35



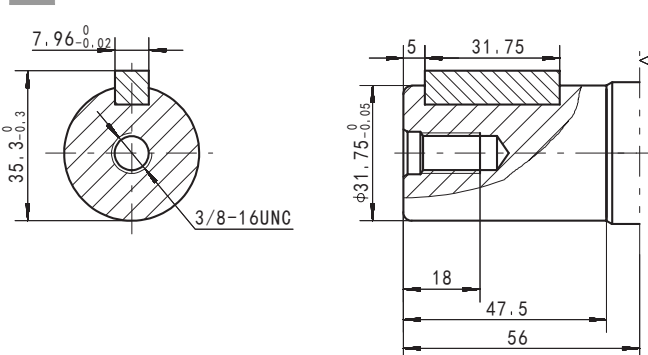
C2 Cylindrical shaft 25, Parallel key 8x7x32



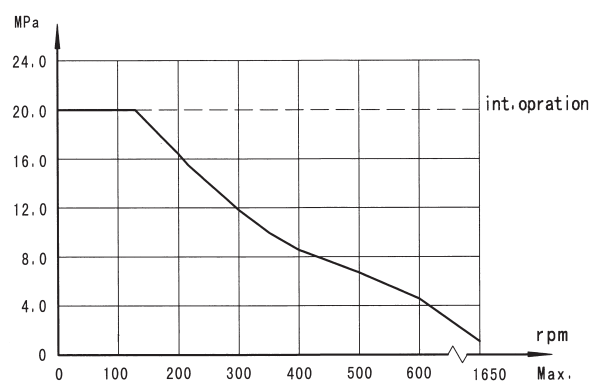
C Cylindrical shaft 32, Parallel key 10x8x45



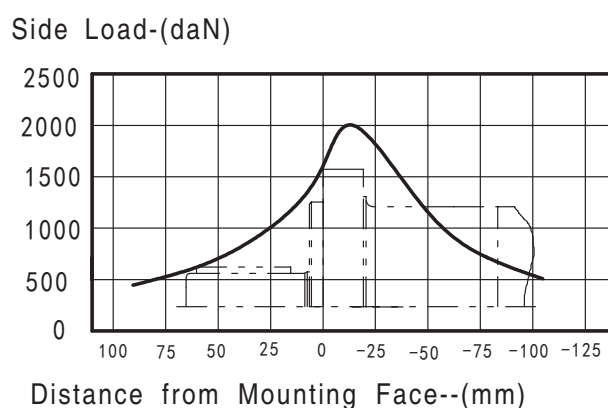
CO Cylindrical shaft 31.75, Parallel key 7.96x7.96x31.75



Permissible shaft seal pressure



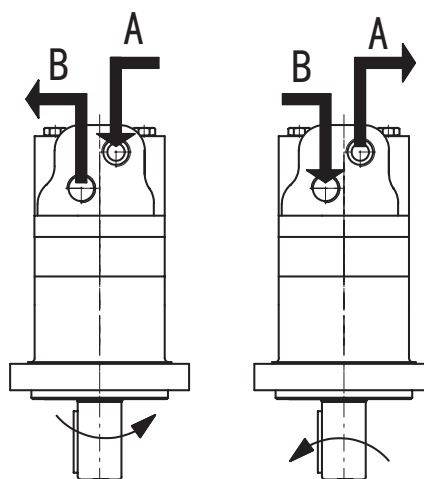
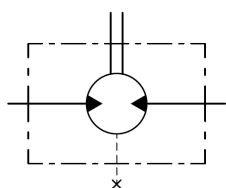
MA2K Standard Mounting Flange[E2]Radial Forces



The bearing curve represents allowable bearing loads for an B_{10} bearing life (2000 hours or 12×10^6 revolutions at 100rpm) at rated output torque.

Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.



Ordering Information

	1	2	3	4	5	6	7
MA2K							

Pos.1 Mounting Flange

- A** - Mount SAE A, 2 holes, pilot Φ 82.5×6.4
- B** - Square Mount SAE A, 4 holes, pilot Φ 82.5×6.4
- F** - Mount SAE A, 4 holes, pilot Φ 82.5×6.4
- W** - Wheel Mount

Pos.2 Displacement Code

- 65** - 65,0 cm³/rev [4.0 in³/rev]
- 80** - 80,0 cm³/rev [4.9 in³/rev]
- 100** - 100,9 cm³/rev [6.2 in³/rev]
- 125** - 129,8 cm³/rev [7.9 in³/rev]
- 160** - 158,8 cm³/rev [9.7 in³/rev]
- 200** - 193,4 cm³/rev [11.8 in³/rev]
- 250** - 242,5 cm³/rev [14.8 in³/rev]
- 315** - 304,3 cm³/rev [18.6 in³/rev]
- 400** - 390,8 cm³/rev [23.8 in³/rev]
- 475** - 485,0 cm³/rev [29.6 in³/rev]

Pos.3 Shaft Extensions

- C** - Cylinder shaft Φ 32 , Parallel key 10×8×45
- CO** - Cylinder shaft Φ 31.75 , Parallel key 7.96×7.96×31.75
- C1** - Cylinder shaft Φ 25.4 , Woodruff key Φ 25.4×6.35
- C2** - Cylinder shaft Φ 25 , Woodruff key 8×7×32
- SA** - 1-1/4 Splined 14-DP12/24
- S** - Splined SAE 6B
- SB** - Splined 13-DP16/32
- T** - Code-shaft Φ 31.75 , Parallel key 7.96×7.96×25.4

Pos.4 Porting

- G** - G1/2 / G1/4
- G1** - G1/2 / 7/16-20UNF
- U** - 7/8-14 O-ring / 7/16-20UNF
- U1** - 7/8-14 O-ring / G1/4
- M** - M22 × 1.5 / M14 × 1.5
- M1** - Φ 12.7 \ Φ 15.8 / 7/16-20UNF / 3/8-16UNC
- M2** - Φ 12.7 \ Φ 15.8 / G1/4 / M10

Pos.5 Painting

Omit - Grey

- B** - Black
- 00** - No Paint

Pos.6 Rotation

Omit - Standard Rotation

- R** - Reverses Rotation

Pos.7 Other function

Omit - Standard