



MOMT SERIES HYDRAULIC MOTOR

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

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in tapered roller bearings that permit high axial and radial forces. 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.

Main Specificaion

Type		MOMT 160	MOMT 200	MOMT 230	MOMT 250	MOMT 315	MOMT 400	MOMT 500	MOMT 630	MOMT 800
Geometric displacement (cm ³ /rev.)		161.1	201.4	232.5	251.8	326.3	410.9	523.6	629.1	801.8
Max. speed (rpm)	cont.	625	625	536	500	380	305	240	196	154
	int.	780	750	643	600	460	365	285	233	185
Max. torque (N•m)	cont.	470	590	670	730	950	1080	1220	1318	1464
	int.	560	710	821	880	1140	1260	1370	1498	1520
	peak	669	838	958	1036	1346.3	1450.3	1643.8	1618.8	1665
Max. output (kW)	cont.	27.7	34.9	34.7	34.5	34.9	31.2	28.8	25.3	22.2
	int.	32	40	40	40	40	35	35	27.5	26.8
Max. pressure drop (MPa)	cont.	20	20	20	20	20	18	16	14	12.5
	int.	24	24	24	24	24	21	18	16	13
	peak	28	28	28	28	28	24	21	19	16
Max. flow (L/min)	rated	80	100	100	100	100	100	100	100	100
	cont.	100	125	125	125	125	125	125	125	125
	int.	125	150	150	150	150	150	150	150	150
Max. inlet pressure (MPa)	cont.	21	21	21	21	21	21	21	21	21
	int.	25	25	25	25	25	25	25	25	25
	peak	30	30	30	30	30	30	30	30	30
Weight (kg)		19.5	20	20.4	20.5	21	22	23	24	25

- * Continuous pressure: Max. value of operating motor continuously.
- * Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- * Peak pressure: Max. value of operating motor in 0.6 second per minute.



Performance Data

MOMT 160 [161.1cm³/rev.]

		Pressure (MPa)						
		Max.cont.					Max.int.	
		4	8	10	12	16	20	24
Flow (L/min)	10	88	176	228	275	361	447	535
		60	59	58	56	54	50	44
Flow (L/min)	20	89	181	234	277	372	459	557
		121	120	117	114	109	103	95
Flow (L/min)	40	91	180	235	277	381	471	573
		249	246	243	236	230	223	212
Flow (L/min)	60	82	178	235	277	381	470	572
		371	367	362	356	349	340	330
Flow (L/min)	80	78	173	229	276	379	466	567
		492	489	485	478	470	462	447
Max.cont.	100	70	160	218	269	370	455	558
Max.int.		614	611	606	598	590	582	570
	125	58	148	211	261	359	448	552
		770	764	758	750	741	731	715

MOMT 200 [201.4cm³/rev.]

		Pressure (MPa)						
		Max.cont.					Max.int.	
		4	8	10	12	16	20	24
Flow (L/min)	10	124	233	289	340	454	560	669
		47	46	45	42	39	37	33
Flow (L/min)	20	125	239	298	347	468	576	696
		95	94	92	90	87	84	75
Flow (L/min)	40	120	241	296	352	475	589	716
		195	193	191	187	183	178	167
Flow (L/min)	60	116	237	295	352	478	589	718
		297	295	292	287	282	276	263
Flow (L/min)	80	108	231	289	350	474	586	716
		395	393	389	384	377	370	359
Max.cont.	100	99	227	286	344	471	580	712
		493	490	486	482	475	467	460
Max.int.	125	84	208	276	333	459	566	697
		615	611	607	602	595	588	572
Max.int.	150	70	194	260	324	447	554	682
		743	740	735	727	717	706	682

MOMT 250 [251.8cm³/rev.]

		Pressure (MPa)						
		Max.cont.					Max.int.	
		4	8	10	12	16	20	24
Flow (L/min)	10	138	286	355	419	559	689	824
		38	38	37	36	34	32	31
Flow (L/min)	20	143	296	364	432	580	708	853
		76	75	74	72	70	67	62
Flow (L/min)	40	139	301	372	440	593	723	884
		156	154	152	149	146	142	134
Flow (L/min)	60	132	294	372	441	592	727	888
		237	236	233	229	224	219	207
Flow (L/min)	80	128	283	364	433	587	721	887
		317	316	314	308	303	299	284
Flow (L/min)	100	126	282	355	427	582	716	879
		396	394	391	387	381	373	359
Max.cont.	125	116	260	340	414	568	703	864
Max.int.		495	492	488	483	476	469	454
	150	88	242	320	397	552	686	847
		592	589	585	580	572	565	545

MOMT 315 [326.3cm³/rev.]

		Pressure (MPa)						
		Max.cont.					Max.int.	
		4	8	10	12	16	20	24
Flow (L/min)	10	184	363	453	545	734	891	1062
		30	29	28	27	26	25	23
Flow (L/min)	20	189	380	472	562	757	917	1109
		60	59	58	56	54	52	50
Flow (L/min)	40	191	381	484	570	774	954	1149
		121	120	118	115	112	109	104
Flow (L/min)	60	189	376	493	573	772	962	1154
		183	181	179	175	172	168	158
Flow (L/min)	80	179	369	479	565	768	954	1153
		244	242	239	236	231	227	217
Flow (L/min)	100	169	357	467	562	758	942	1143
		305	304	301	298	294	289	276
Max.cont.	125	147	336	447	544	745	920	1127
Max.int.		380	378	375	371	367	362	349
	150	119	318	432	526	713	894	1097
		458	456	453	449	444	431	425

Torque (N*m) 552
Speed (rpm) 572



Performance Data

MOMT 400 [410.9cm³/rev.]

		Pressure (MPa)						
		3	6	9	12	15	18	21
Flow (L/min)	10	176	367	560	715	885	1050	1209
		24	23	22	21	20	19	18
	20	179	370	565	726	899	1071	1236
		49	48	47	44	42	40	38
	40	176	370	567	733	919	1091	1263
		96	95	93	90	87	83	79
	60	174	361	563	729	920	1095	1269
		145	143	139	135	131	127	121
Max.cont.	80	166	353	553	719	912	1084	1263
		193	191	188	184	180	176	170
Max.int.	100	150	339	538	708	896	1067	1252
		242	240	238	234	228	224	218
	125	135	309	524	688	873	1045	1221
		302	300	298	294	289	285	278
	150	126	292	508	666	852	1020	1197
		364	362	358	354	350	346	339

MOMT 500 [523.6cm³/rev.]

		Pressure (MPa)						
		3	6	9	12	14	16	18
Flow (L/min)	10	222	451	692	892	1050	1193	1340
		18	18	18	17	16	15	13
	20	231	464	714	918	1070	1220	1377
		37	36	35	34	33	32	30
	40	230	466	727	941	1094	1244	1422
		75	74	73	72	70	68	64
	60	225	457	714	941	1088	1245	1409
		113	112	111	109	107	105	101
Max.cont.	80	213	431	696	927	1076	1244	1401
		151	150	149	147	145	143	138
Max.int.	100	194	420	680	901	1063	1224	1383
		189	188	187	185	183	181	177
	125	182	398	641	877	1024	1199	1352
		237	236	235	233	231	229	225
	150	147	369	618	853	1004	1167	1325
		284	283	282	280	278	276	272

MOMT 630 [629.1cm³/rev.]

		Pressure (MPa)						
		3	6	9	10.5	12	14	16
Flow (L/min)	10	233	520	795	902	1074	1194	1363
		14	14	13	13	13	11	11
	20	237	554	837	953	1117	1239	1407
		28	27	27	26	26	24	22
	40	239	553	860	987	1171	1308	1483
		62	62	61	60	59	56	54
	60	223	544	863	978	1172	1318	1498
		94	94	92	91	90	86	82
Max.cont.	80	220	537	854	965	1172	1314	1497
		123	122	121	119	118	114	110
Max.int.	100	208	522	832	945	1156	1303	1488
		156	155	153	152	150	147	142
	125	201	499	810	931	1137	1292	1472
		196	196	194	192	191	187	183
	150	174	492	785	921	1121	1277	1454
		233	232	231	230	227	223	217

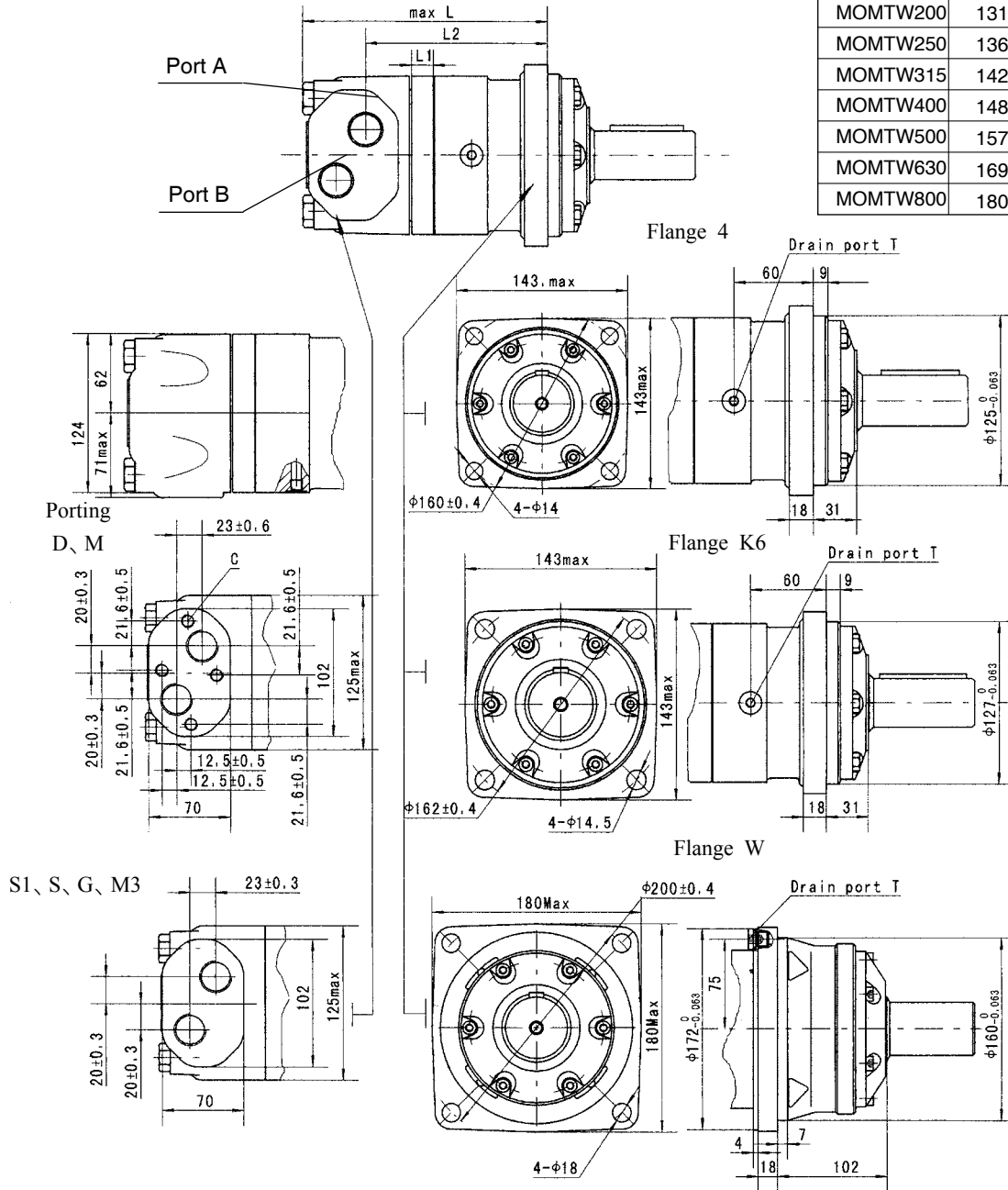
MOMT 800 [801.8cm³/rev.]

		Pressure (MPa)					
		3	6	9	10.5	12.5	13
Flow (L/min)	10	346	677	1003	1159	1365	1390
		12	12	11	11	11	10
	20	356	692	1034	1183	1404	1458
		24	24	24	23	22	18
	40	365	703	1066	1236	1459	1516
		50	50	49	48	46	40
	60	354	703	1060	1237	1464	1520
		74	73	71	71	68	63
Max.cont.	80	332	686	1050	1226	1464	1514
		99	98	98	96	93	86
Max.int.	100	305	654	1025	1207	1445	1506
		125	123	123	121	118	110
	125	280	622	989	1181	1422	1487
		154	153	153	150	149	140
	150	247	590	953	1156	1406	1476
		185	184	183	181	179	172

Torque (N•m) 1121
Speed (rpm) 227

MOMT DIMENSIONS AND MOUNTING DATA

Model	L	L1	L2
MOMTW160	127	17	77
MOMTW200	131	21	81
MOMTW250	136	14	86
MOMTW315	142	20	91
MOMTW400	148	27	98
MOMTW500	157	35	106
MOMTW630	169	47	118
MOMTW800	180	58	129

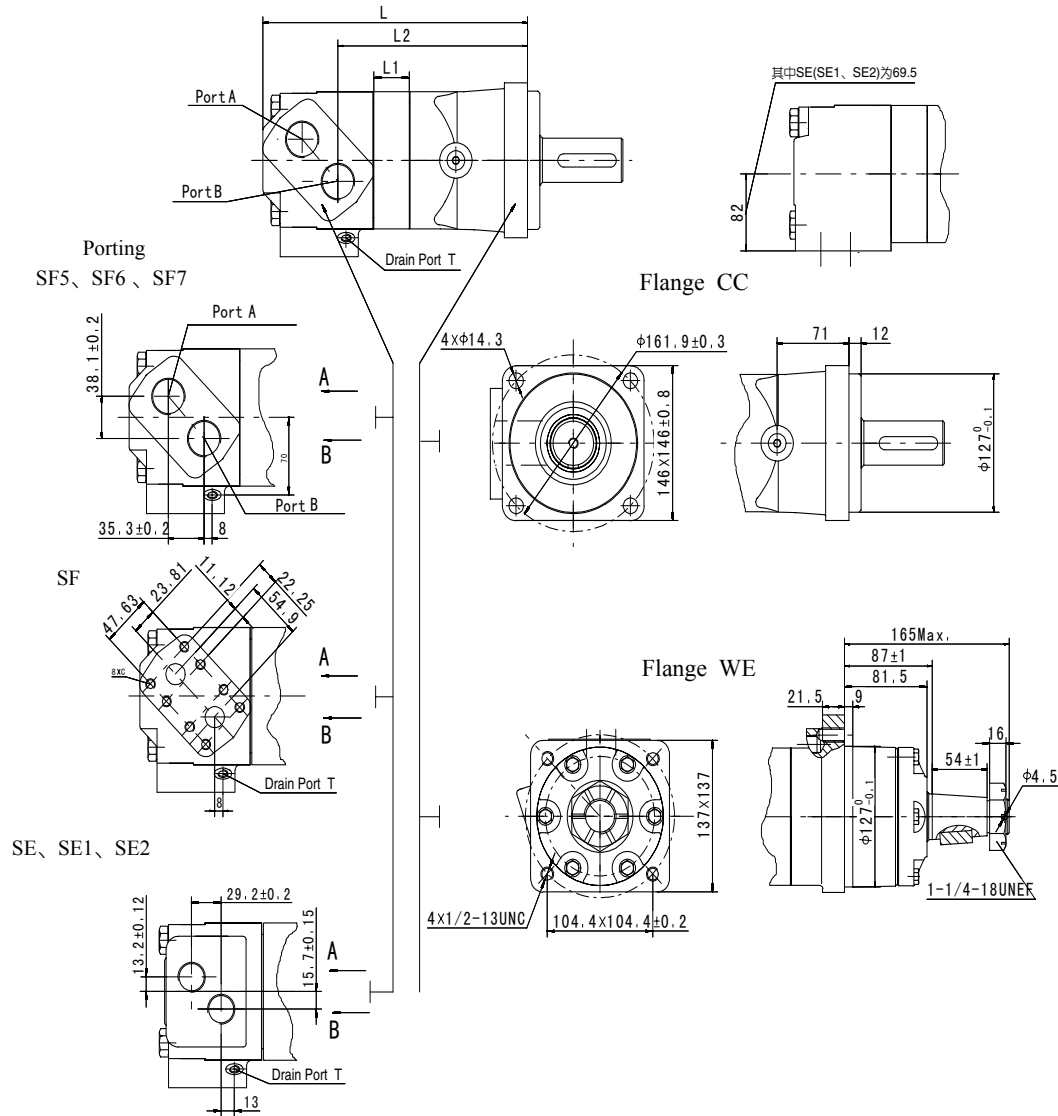


Model	L	L1	L2
MOMT160	193	17	142.5
MOMT200	197	21	146.5
MOMT250	204	14	152.5
MOMT315	210	20	158.5
MOMT400	217	27	165.5
MOMT500	225	35	173.5
MOMT630	237	47	185.5
MOMT800	248	58	196.5

Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

Note:1)The thickness of the stator and rotor for disp. from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp. from 250 to 800 is the dimension of L1 adding on 7mm.

MOMTE DIMENSIONS AND MOUNTING DATA

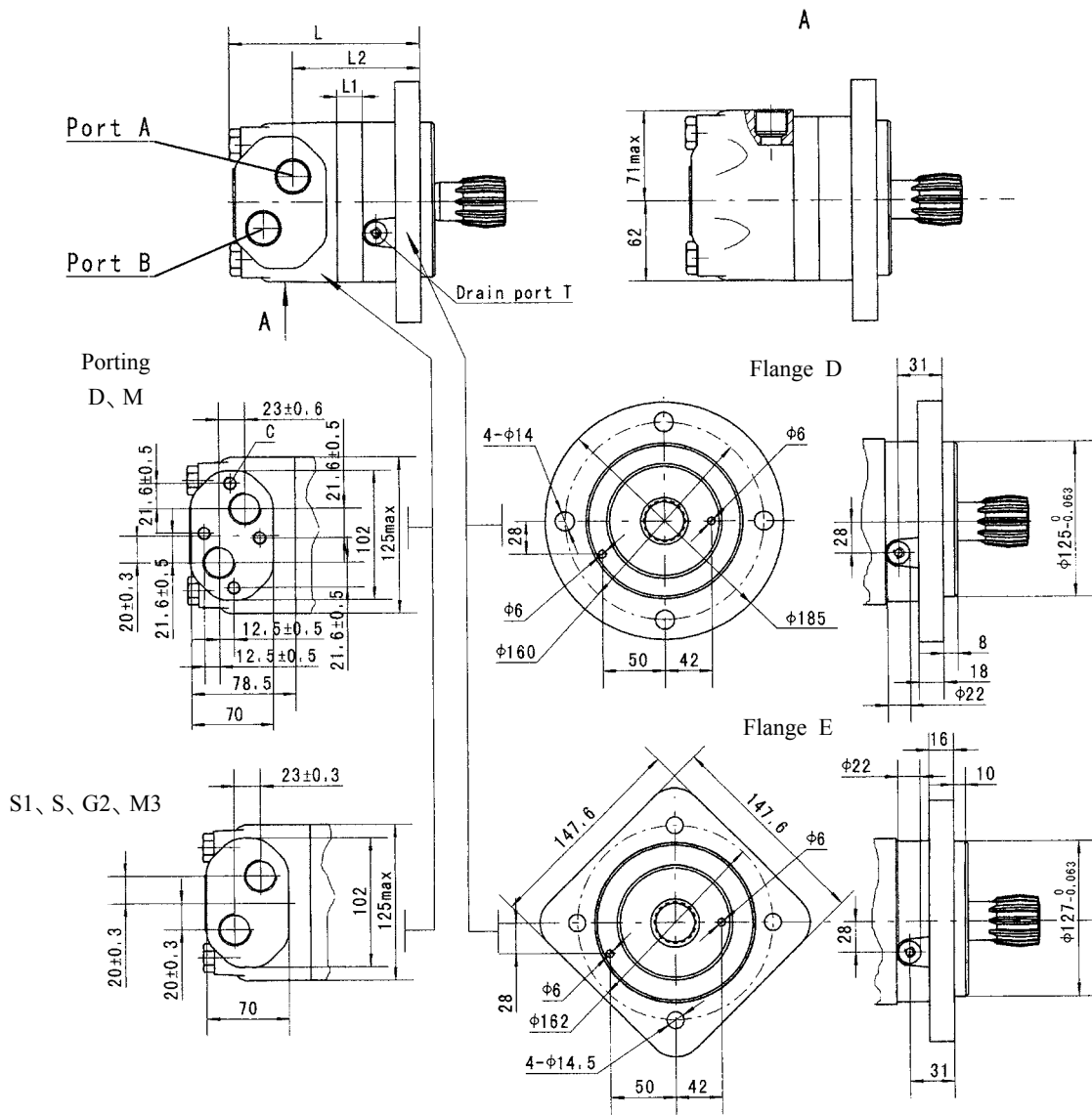


Model	L	L1	L2
MOMTE230	238.5	12	164.5
MOMTE250	240.5	14	166.5
MOMTE315	246.5	20	172.5
MOMTE400	253.5	27	179.5
MOMTE500	261.5	35	187.5
MOMTE630	273.5	47	199.5
MOMTE800	284.5	58	210.5

Note:1)The data for the port of SF (SF5 and SF6and sf7)
 2)The data for the port of SE (SE1 and SE2) and flange WE:L-70 and L2-59.
 3)The thickness of the stator and rotor for disp,from 315 to 800 is the dimension of L1 adding on 7mm.

Content	Code						
	SF5(depth)	SF6 (depth)	SF7 (depth)	SF (depth)	SE (depth)	SE1 (depth)	SE2(depth)
P(A,B)	1-5/16-12UN (18)	M33 x 2 (18)	G1 (18)	3/4" (18)	1-1/16-12UN (18)	1-1/16-12UN (18)	G3/4 (18)
T	7/16-20UNF (12)	M14 x 1.5 (12)	G1/4 (12)	7/16-20UNF (12)	9/16-18UNF (12)	7/16-20UNF (12)	G1/4 (12)
C	--	--	--	8 x 3/8-16UNC	--	--	--

MOMTS DIMENSIONS AND MOUNTING DATA

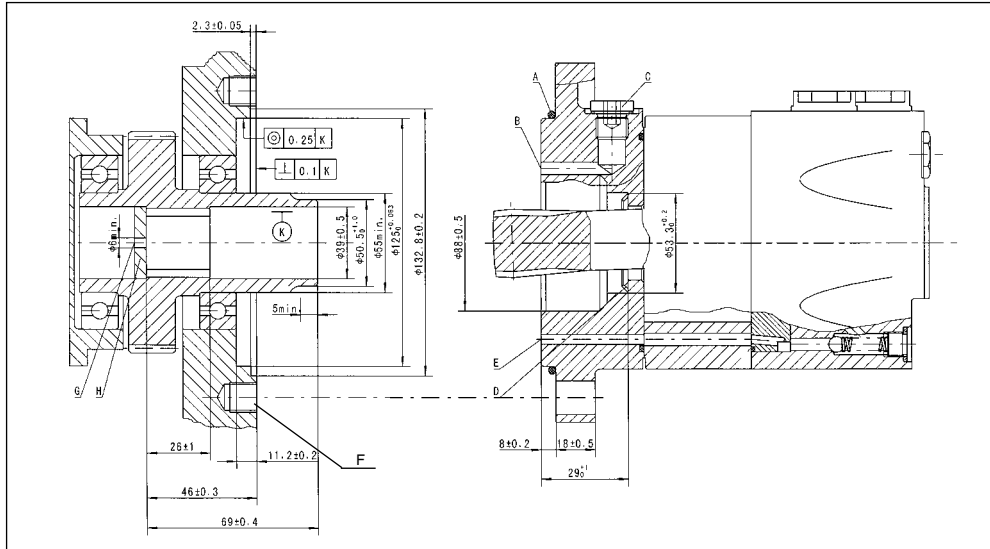


Model	L	L1	L2
MOMT160	148	17	96.5
MOMT200	152	21	100.5
MOMT250	157	14	109
MOMT315	163	20	115
MOMT400	170	27	122
MOMT500	178	35	130
MOMT630	190	47	142
MOMT800	201	58	153

Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
Mounting P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

Note: 1) The thickness of the stator and rotor for disp. from 160 to 200 is the dimension of L1 adding on 3mm.
2) The thickness of the stator and rotor for disp. from 250 to 800 is the dimension of L1 adding on 7mm.

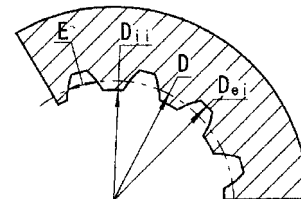
MOMTS MOUNTING DATA



- A: O-ring:125x3
- B: External drain channel
- C: Drain connection G 1/4;12 mm deep
- D: Conical seal ring
- E: Internal drain channel
- F: M12;min. 18mm deep
- G: Oil circulation hole
- H: Hardened stop plate

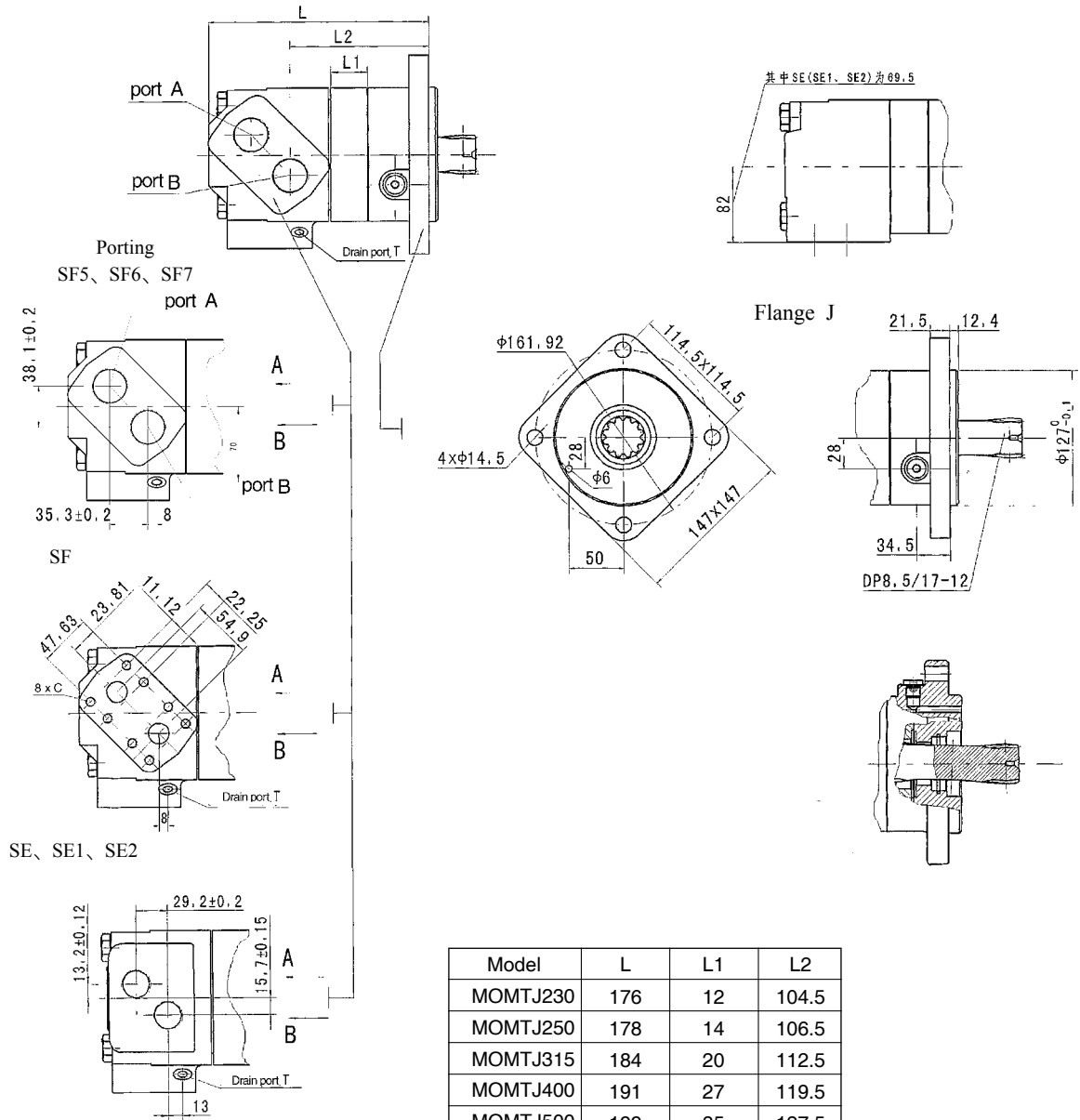
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Fillet Root Side Fit		mm
Number of Teeth	Z	16
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	$\phi 33.8656$
Major Dia.	D_{ei}	$\phi 38.4^{+0.25}_0$
Minor Dia.	D_i	$\phi 32.15^{+0.04}_0$
Space Width [Circular]	E	4.516 ± 0.037



Hardening Specification: HRC 62 ± 2
Effective case depth 0.7 ± 0.2

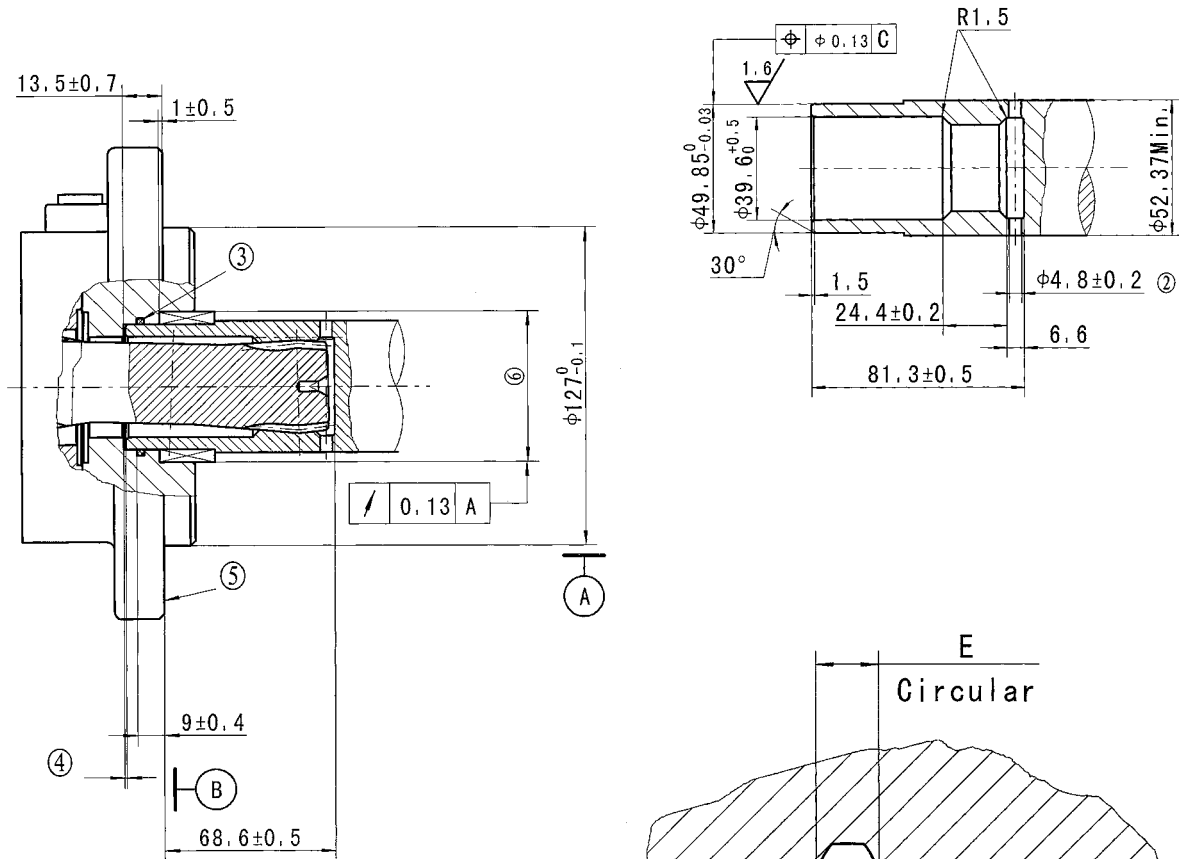
MOMTJ DIMENSIONS AND MOUNTING DATA



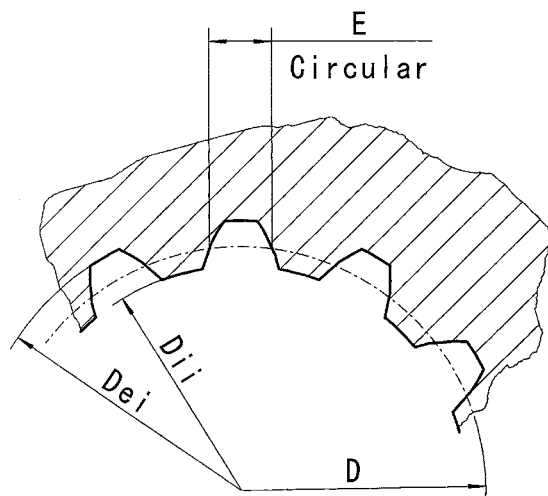
Note: 1) The data for the port of SF (SF5 and SF6 and SF7).
 2) The data for the port of SE (SE1 and SE2) and flange WE: L-70 and L2-59.
 3) The thickness of the stator and rotor is the dimension of L1 adding on 7mm.

Content	Code						
	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF (depth)	SE (depth)	SE1 (depth)	SE2 (depth)
Mounting							
P(A,B)	1-5/16-12UN (18)	M33 x 2 (18)	G1 (18)	3/4" (18)	1-1/16-12UN (18)	1-1/16-12UN (18)	G3/4 (18)
T	7/16-20UNF (12)	M14 x 1.5 (12)	G1/4 (12)	7/16-20UNF (12)	9/16-18UNF (12)	7/16-20UNF (12)	G1/4 (12)
C	--	--	--	8 x 3/8-16UNC	--	--	--

MOMTJ DIMENSIONS AND MOUNTING DATA



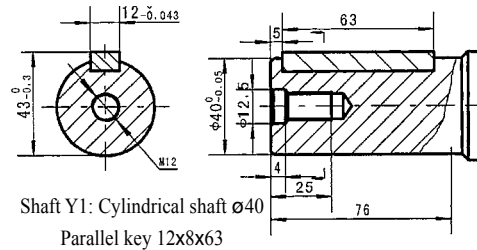
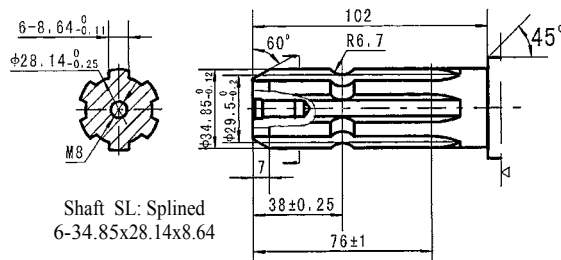
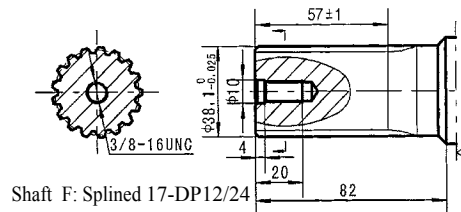
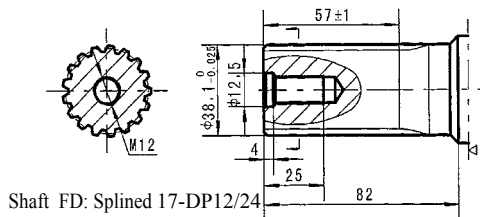
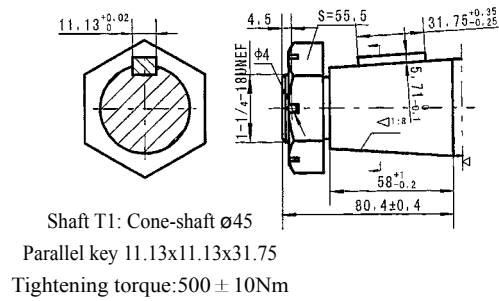
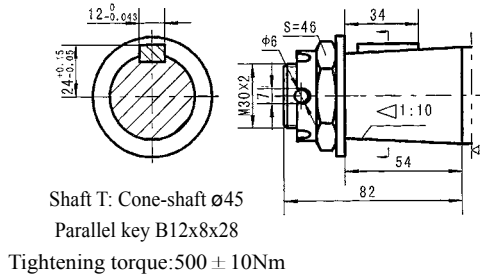
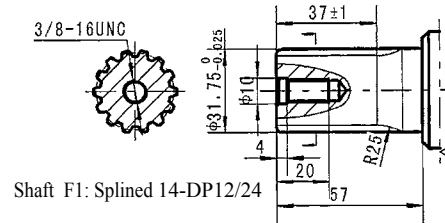
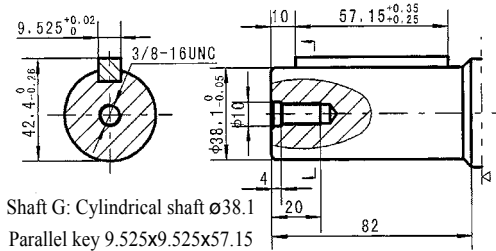
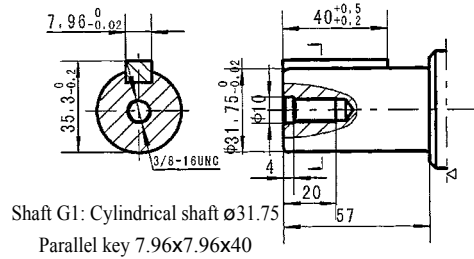
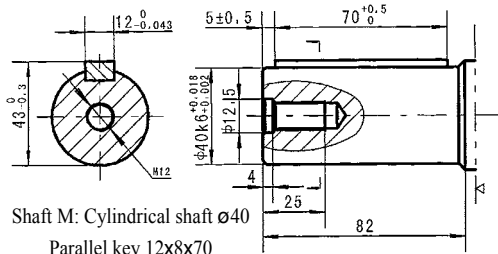
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT



Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	8.5/17
Pressure Angle	D	30°
Pitch Dia.	α_D	$\phi 35.858823$
Major Dia.	D_{ei}	$\phi 38.97_0^{+0.20}$
Minor Dia.	D_i	$\phi 33.3_0^{+0.18}$
Space Width [Circular]	E	5.866 ± 0.032
Dimension between two pins($\phi 4$)	M_e	$26.929-27.084$

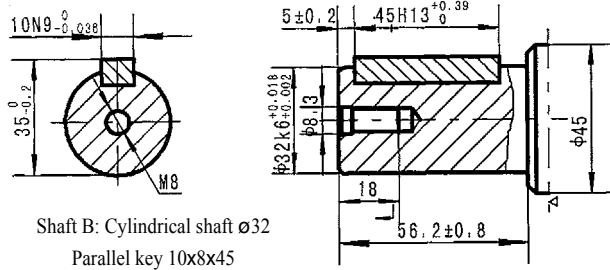
- ① Internal spline in mating part to be as follows: Material to be ASTM A304, 8620H. Carborize to a hardness of 60-64HRC with case depth (to 50HRC) of 0.75-1 [.030-.040] (dimensions apply after heat treat).
- ② Mating part to have critical dimensions as shown, Oil holes must be provided and open for proper oil circulation.
- ③ Some means of maintaining clearance between shaft and mounting flange must be provided.
- ④ Seal to be furnished with motor for proper oil circulation thru splines.
- ⑤ Similar to SAE "C" Four Bolt Flange
- ⑥ Counterbore designed to adapt to a standard sleeve bearing 50.010-50.038 [1.9689-1.9700] ID by 60.51-60.079 [2.3642-2.3653] O.D. (Oilite bronze sleeve bearing).
- C This surface to be diameter of output shaft.

SHAFT EXTENSIONS FOR MOMT(E) MOTORS

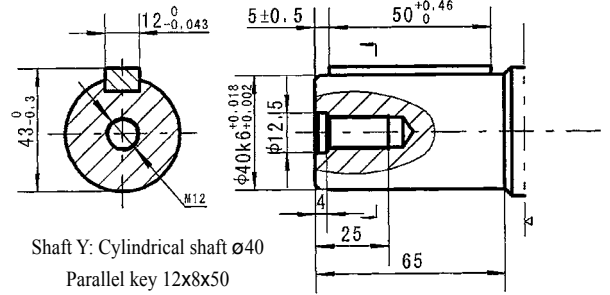


▷ Motor Mounting Surface

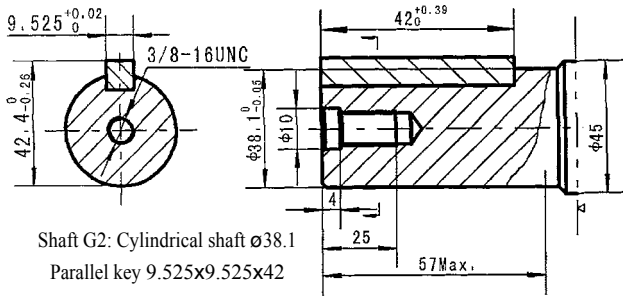
SHAFT EXTENSIONS FOR MOMT(E) MOTORS



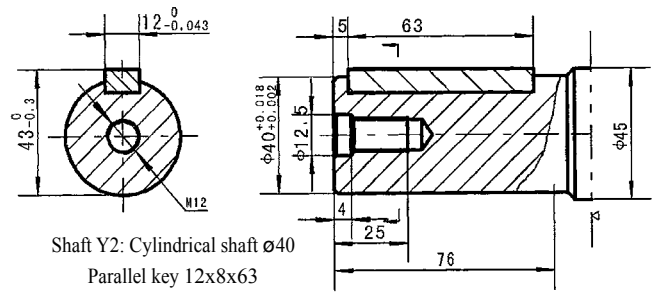
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



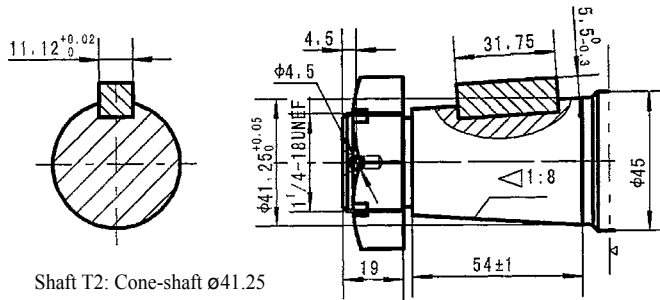
Shaft Y: Cylindrical shaft ø40
Parallel key 12x8x50



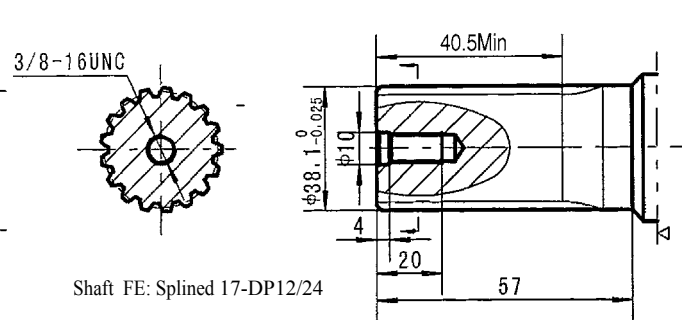
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42



Shaft Y2: Cylindrical shaft ø40
Parallel key 12x8x63



Shaft T2: Cone-shaft ø41.25
Parallel key 11.13x11.13x31.75
Tightening torque: 500 ± 10Nm

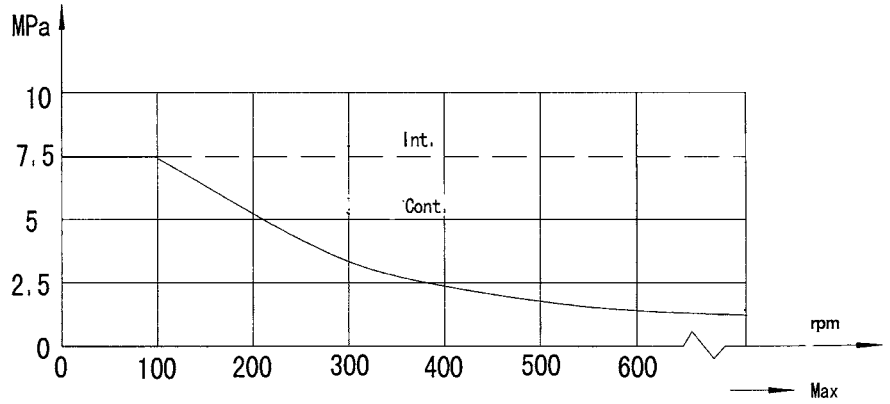
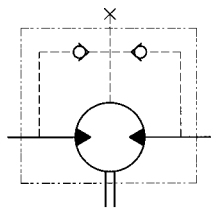


Shaft FE: Splined 17-DP12/24

▷ Motor Mounting Surface

MOMT Series Hydraulic Motor

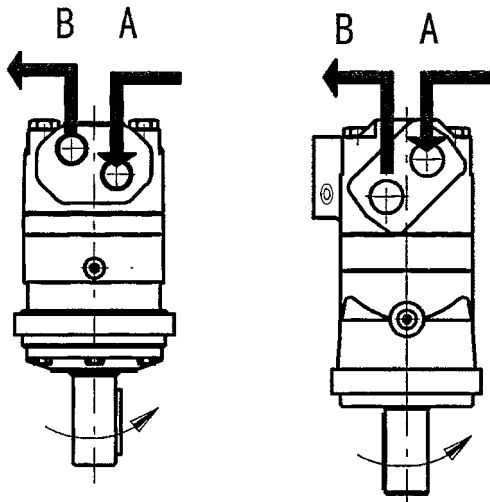
Permissible shaft seal pressure



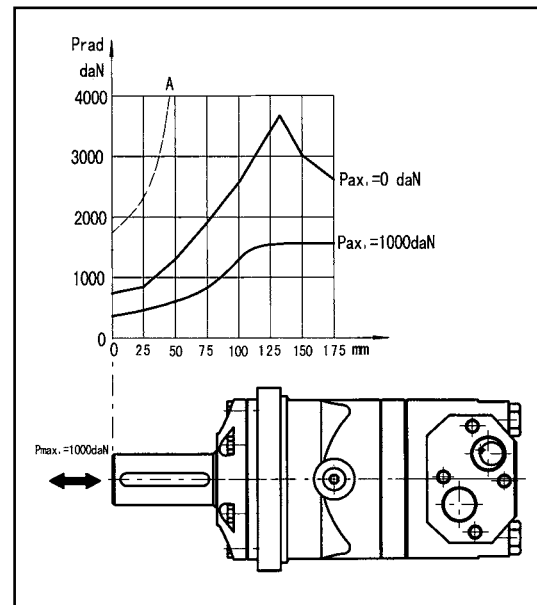
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Standard direction of shaft rotation: Standard

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



Axial and Radial forces



The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

Order Information

1 2 3 4 5 6 7 8

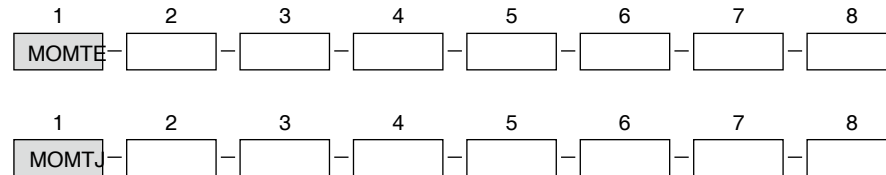
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1 2 3 4 5 6 7 8

MOMTS - [] - [] - [] - [] - [] - [] - []

Pos.1	2	3	4	5	6	7	8	
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function	
MOMT	160	4 4-Ø14 Square-flangeØ160, pilotØ125 × 9	M Shaft Ø40 , parrel key 12 × 8 × 70 G Shaft Ø38.1 ,parrel key 9.52 × 9.52 × 57.15 F Shaft Ø38.1 ,splined tooth 17-DP12/24 FD Shaft Ø38.1 ,splined tooth 17-DP12/24 T Cone-shaft 1:10 Ø45 ,parrel key B12 × 8 × 28	D G3/4 Manifold Mount,4-M10 , G1/4	Omit	Standard	Omit	Standard
	200							
	250	K6 4-Ø14.5Square-flangeØ162, pilotØ127 × 9	T1 Cone-shaft 1:8 Ø45 , parrel key 11.13 × 11.13 × 31.75	M M27 × 2 Manifold Mount,4-M10, M14 × 1.5	R	Opposite	B Black	F Free Running
	315	W 4-Ø18 Wheel-flangeØ200, pilotØ160 × 7	SL shaft Ø34.85,Splined key Splined key 6-34.85 × 28.14 × 8.64	S 1-1/16-12UN O-ring, 9/16-18UNF	Standard	Opposite	Omit B Black S Silver grey	LL Low Leakage F Free Running LS Low Speed
	400		G1 shaftØ31.75 , parrel key 7.96 × 7.96 × 40	S1 1-1/16-12UN O-ring, 7/16-20UNF				
	500		F1 Shaft Ø31.75,splined tooth 14-DP12/24	G G3/4,G1/4				
630	Dmit		Short shaft 16-DP12/24	M3				
800		E 4-Ø14.5 Square-flange Ø162, pilot Ø127 × 10						
MOMTS								

Order Information



Pos.1	2	3	4	5	6	7	8	
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function	
MOMTE	230	CC 4-Ø14.3 Square-flange Ø161.9, pilotØ127 × 12	G2 Shaft Ø38.1 ,parallel key 9.52 × 9.52 × 42 FE Shaft Ø38.1 ,splined tooth 17-DP12/24 Y1 ShaftØ40,parallel key 12 × 8 × 63 Y2 ShaftØ40,parallel key 12 × 8 × 63 T2 Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75	SF 3/4" , Manifold Mount,8-3/8-16UNC, 7/16-20UNF SF5 1-5/16-12UN O-ring,7/16-20 UNF SF6 M33 × 2,M14 × 1.5 SF7 G1,G1/4 SE 1-1/16-12UN O-ring,9/16-18UNF SE1 1-1/16-12UN O-ring,7/16-20 UNF SE2 G3/4,G1/4	Omit R	Standard Opposite	00 No paint Omit Blue B Black S Silver grey	Omit Standard LL Low Leakage F Free Running LS Low Speed
	250							
	315							
	400							
	500							
MOMTJ	630	WE 4-1/2-13UNC Wheel- flangeØ147.6, pilotØ127 × 9	T3 Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75					
	800							
		J 4-Ø14.5 Square-flange Ø161.9 pilot Ø127 × 12.4	Omit Short shaft 12-DP8.5/17					

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports . If the specification is not in the table or you have specific requirements, please contact us .