



MOMV SERIES HYDRAULIC MOTOR

MOMV 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.

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. 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.

Main Specificaion

Type		MOMV 315	MOMV 400	MOMV 500	MOMV 630	MOMV 800	MOMV 1000
Geometric displacement (cm ³ /rev.)		333	419	518	666	801	990
Max. speed (rpm)	cont.	510	500	400	320	250	200
	int.	630	600	480	380	300	240
Max. torque (N•m)	cont.	920	1180	1460	1660	1880	2015
	int.	1110	1410	1760	1940	2110	2280
	peak	1290	1640	2050	2210	2470	2400
Max. output (kW)	cont.	38.0	47.0	47.0	40.0	33.0	28.6
	int.	46.0	56.0	56.0	56.0	44.0	40.0
Max. pressure drop (MPa)	cont.	20	20	20	18	16	14
	int.	24	24	24	21	18	16
	peak	28	28	28	24	21	18
Max. flow (L/min)	cont.	160	200	200	200	200	200
	int.	200	240	240	240	240	240
Weight (kg)		31.8	32.6	33.5	34.9	36.5	38.6

- * 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

MOMV 315 [333cm³/rev.]

		Pressure (MPa)						
		3.5	7	10	14	18	20	24
Flow (L/min)	10	140	294	440	610	742	845	1000
		26	24	23	22	20	17	14
	20	153	314	466	636	787	895	1070
		55	54	53	52	51	48	44
	50	149	312	465	654	815	935	1112
		145	144	142	140	137	133	127
	75	143	304	458	642	816	940	1119
		220	218	215	211	207	202	195
	100	136	297	452	636	810	936	1108
		294	292	290	287	283	278	270
Max.cont.	125	123	286	442	626	799	921	1093
		368	366	364	361	357	352	345
	150	114	275	435	615	788	906	1078
		445	443	441	437	430	422	410
Max.int.	160	107	268	430	608	780	895	1070
		475	473	470	466	460	452	439
	200	82	249	412	593	758	871	1047
		596	594	590	584	576	565	544

MOMV 400 [419cm³/rev.]

		Pressure (MPa)						
		3.5	7	10	14	18	20	24
Flow (L/min)	10	183	385	568	776	968	1101	1292
		20	20	19	18	17	16	14
	20	196	398	590	815	1010	1152	1346
		44	44	43	42	40	39	37
	50	200	402	603	842	1040	1186	1430
		114	113	113	112	110	108	103
	75	195	394	596	838	1043	1188	1432
		175	173	170	166	163	1579	152
	100	172	385	593	827	1036	1184	1425
		236	235	233	231	227	223	215
Max.cont.	125	167	374	583	816	1021	1177	1413
		296	294	291	288	282	275	268
	150	158	361	559	801	1008	1165	1390
		355	354	352	349	344	335	324
Max.int.	175	143	346	553	784	989	1145	1377
		416	414	411	407	403	396	388
	200	118	331	536	770	969	1128	1356
		475	473	469	463	455	448	439
	240	82	301	506	740	943	1104	1332
		571	569	565	548	539	530	520

MOMV 500 [518cm³/rev.]

		Pressure (MPa)						
		3.5	7	10	14	18	20	24
Flow (L/min)	10	242	468	696	959	1190	1353	1607
		17	17	16	16	15	13	11
	20	245	501	738	1003	1232	1394	1658
		36	35	35	34	33	32	29
	50	240	500	758	1025	1270	1449	1743
		93	92	91	90	88	85	80
	75	233	498	752	1030	1288	1475	1766
		140	139	137	135	132	127	120
	100	228	491	748	1026	1289	1472	1760
		189	187	185	182	178	173	166
Max.cont.	125	220	483	742	1014	1280	1460	1745
		237	236	234	231	227	223	216
	150	201	465	723	1008	1250	1429	1736
		287	286	284	281	276	270	260
Max.int.	175	182	446	711	997	1238	1406	1715
		335	334	332	329	325	320	310
	200	161	423	676	974	1218	1385	1697
		384	383	381	378	374	366	354
	240	120	378	622	921	1172	1340	1650
		461	459	457	454	450	444	432

MOMV 630 [666cm³/rev.]

		Pressure (MPa)						
		3.5	6	9	12	15	18	21
Flow (L/min)	10	280	522	812	1100	1268	1549	1784
		14	13	13	12	12	11	10
	20	288	552	839	1101	1315	1607	1864
		28	28	27	27	26	24	22
	50	289	555	868	1137	1364	1682	1956
		72	72	71	69	68	66	62
	75	270	548	863	1120	1352	1680	1964
		109	108	106	104	102	99	94
	100	264	538	856	1093	1350	1674	1965
		146	145	143	141	138	135	130
Max.cont.	125	251	516	837	1071	1336	1659	1950
		184	183	181	179	177	173	168
	150	240	495	817	1063	1330	1650	1928
		221	220	219	217	215	212	205
Max.int.	175	210	485	796	1052	1300	1636	1908
		259	258	257	254	250	246	241
	200	182	469	751	1018	1280	1611	1883
		297	297	295	293	290	284	273
	240	130	416	712	978	1237	1563	1835
		358	357	355	351	346	340	332

Torque (N•m) 1340
Speed (rpm) 444

□ cont.
■ int.



Performance Data

MOMV 800 [801cm³/rev.]

Pressure (MPa) Max.cont. Max.int.

		2.5	5	8	10	13	16	18
Flow (L/min)	10	278 11	565 10	830 10	1095 9	1405 8	1712 8	1915 7
	20	282 23	571 22	845 22	1150 21	1456 20	1783 18	1994 16
	50	288 60	582 59	856 57	1162 56	1463 54	1790 52	2001 48
	75	269 91	580 90	855 89	1165 87	1465 84	1786 81	1993 77
	100	251 122	566 121	840 120	1140 118	1448 115	1767 111	1985 105
	125	242 153	535 152	824 150	1118 147	1427 143	1739 139	1976 133
	150	236 185	526 183	808 181	1102 178	1401 174	1714 169	1959 163
	175	215 216	504 214	793 212	1079 209	1377 206	1698 203	1936 196
	Max.cont. 200	197 247	468 245	765 243	1063 240	1362 237	1681 232	1913 225
	Max.int. 240	118 297	388 296	713 295	1020 293	1318 288	1637 283	1838 277

cont.
 int.

MOMV 1000 [990cm³/rev.]

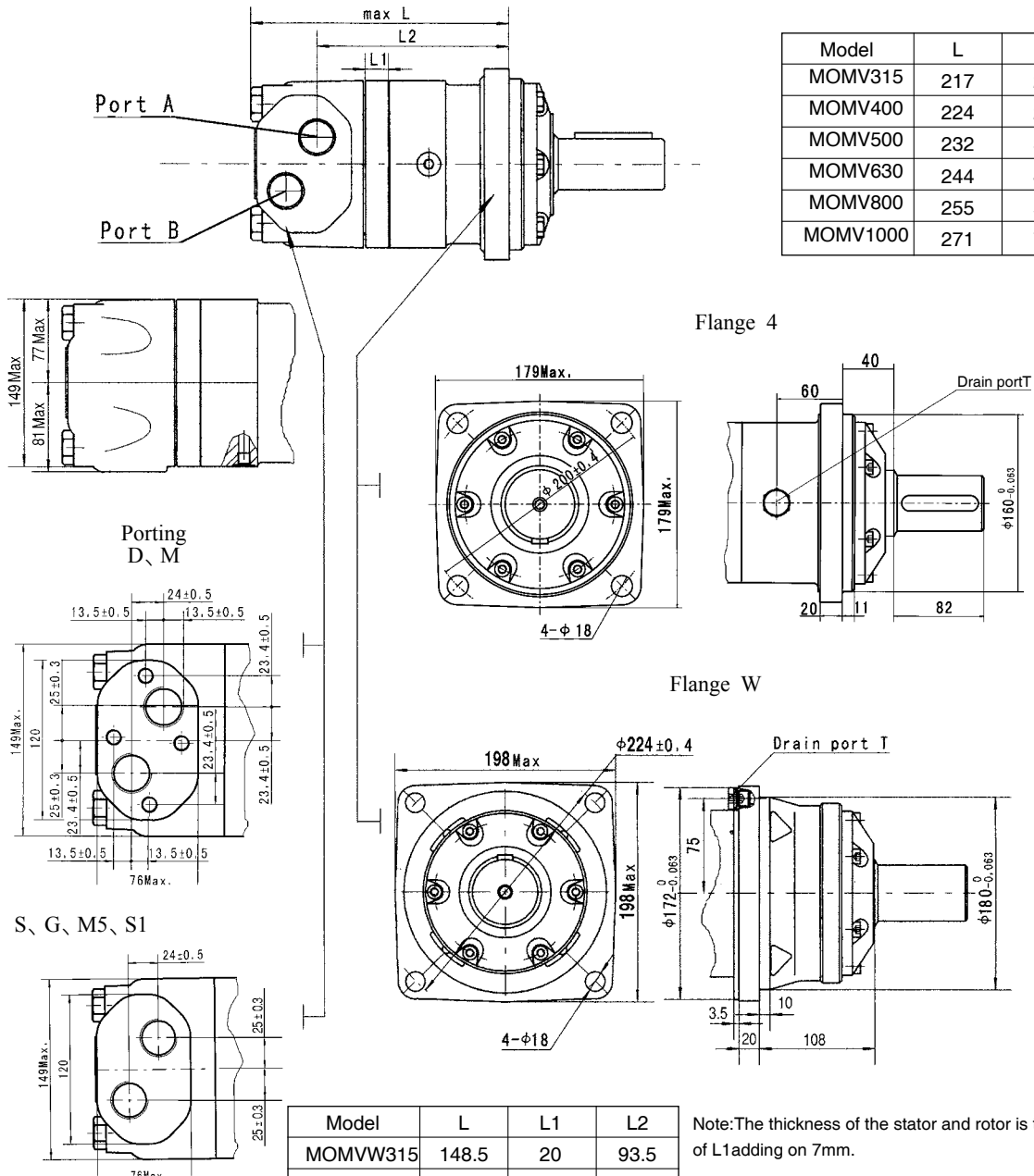
Pressure (MPa) Max.cont. Max.int.

		2.5	5	7	10	14	16
Flow (L/min)	10	312 9	640 9	971 9	1400 8	1978 7	2259 6
	20	320 28	648 27	978 26	1410 25	1980 23	2270 21
	50	326 47	655 46	992 45	1422 43	2015 41	2280 38
	75	318 72	642 71	987 70	1425 68	2003 66	2276 63
	100	309 98	634 97	983 95	1418 93	1994 90	2243 86
	125	303 123	624 122	975 120	1409 117	1988 114	2224 110
	150	278 149	602 148	961 146	1368 144	1963 140	2208 133
	175	264 174	580 172	946 170	1338 166	1925 162	2159 155
	Max.cont. 200	230 199	556 196	912 193	1300 190	1891 185	2105 178
	Max.int. 240	166 240	513 237	867 233	1267 229	1825 225	2034 218

Torque (N•m) 1825
Speed (rpm) 225



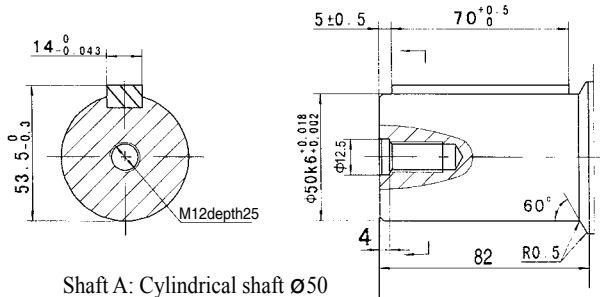
MOMV DIMINSIONS AND MOUNTING DATA



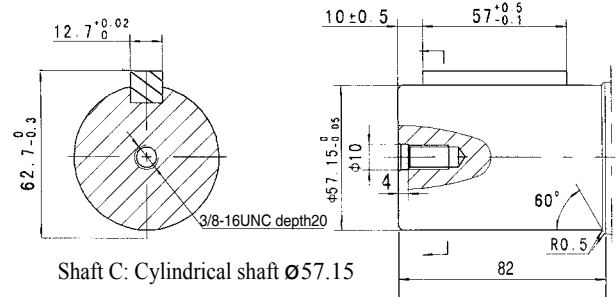
Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	S1 (depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)
C	4-M12 (10)	4-M12 (10)	--	--	--	--



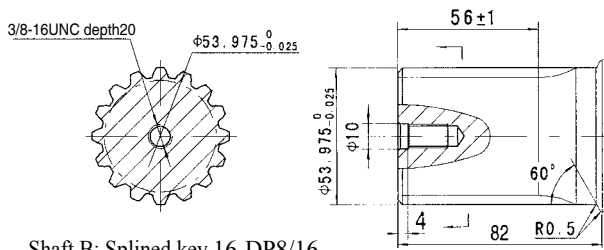
MOMV SHAFT EXTENSIONS DIMENSIONS DATA



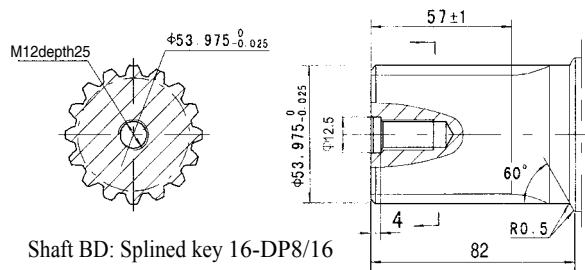
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



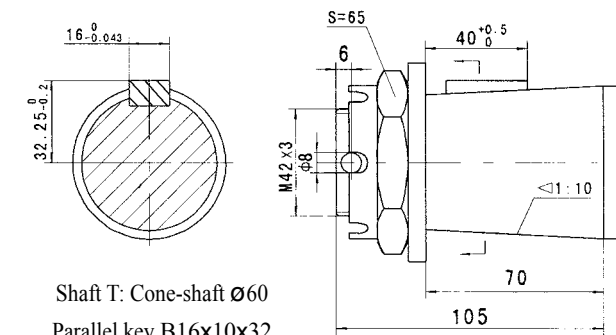
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



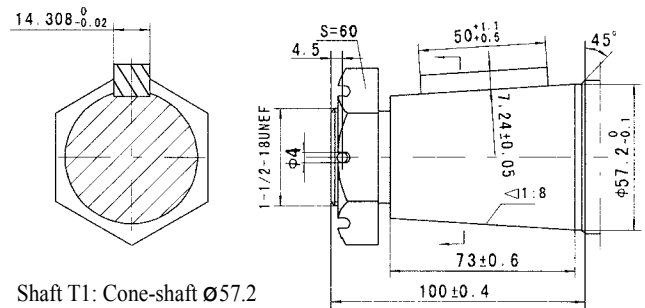
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key 16-DP8/16



Shaft T: Cone-shaft Ø60
Parallel key B16x10x32
Tightening torque: 750 ± 50Nm

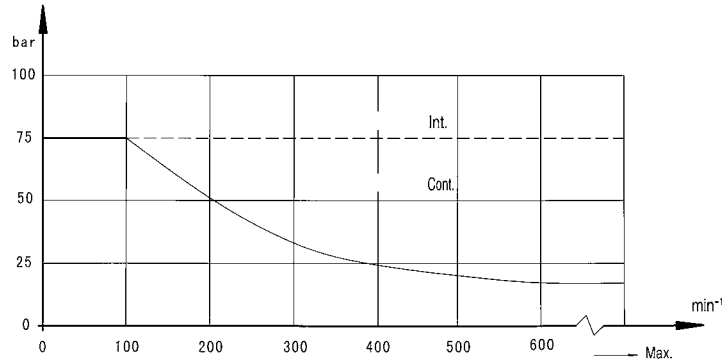
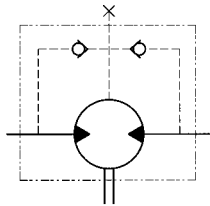


Shaft T1: Cone-shaft Ø57.2
Parallel key 14.308x14.308x50
Tightening torque: 750 ± 50Nm



MOMV Series Hydraulic Motor

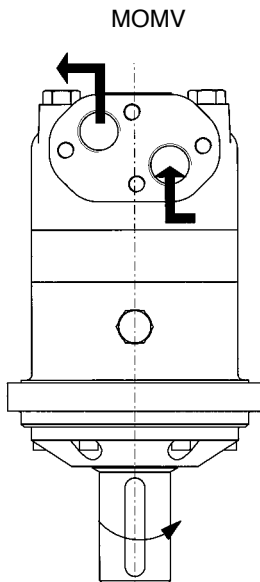
Permissible shaft seal pressure



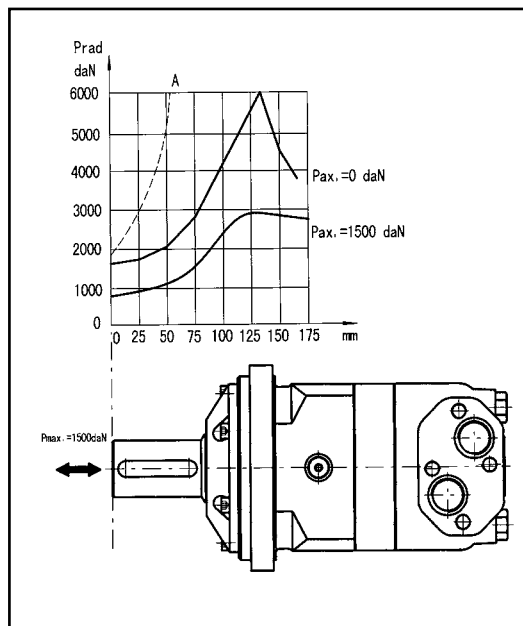
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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.

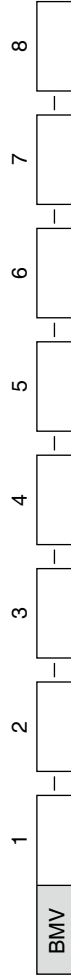


Axial and Radial forces



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



Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Port and drain port	Rotation direction	Paint	Unusually function
	315	4 4-Ø18 Square-flangeØ200, pilot Ø160 × 11	A Shaft Ø50 , parallel key 14 × 9 × 70	D G1 Manifold 4 × M12, G1/4 M M33 × 2 Manifold 4 × M12, M14 × 1.5	Omit Standard	00 No paint Blue Black Silver grey	Standard
	400		BD Shaft Ø53.975, splined key 16-DP8/16				
	500	W 4-Ø18 Wheel-flange Ø224, pilot Ø180 × 10	B Shaft Ø53.975, splined key 16-DP8/16	S 1-5/16-12UN, 9/16-18UNF G G1, G1/4	R Opposite	B S	Omit
Omit	630		C Shaft Ø57.15, parallel key 12.7 × 12.7 × 57.15				
	800		T Cone shaft Ø60, parallel key B16 × 10 × 32	M5 M33 × 2, M14 × 1.5 S1 1-5/16-12UN(18), 7/16-20UNF(12)			
	1000		T1 Cone shaft Ø60, parallel key 14.308 × 14.308 × 50.8				

Note: When the table is used, please fill the code of left rows in dash area 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.