

WINMAN WBMV Serisi Hidrolik Motor / WBMV Series Hydraulic Motor

Karakteristik Özellikler / Characteristic Features

WBMV 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.

Sharacteristic features:

*Advanced manufacturing devices for the Gerolor gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.

* The output shaft adapts in tapered roler bearings that permit high axial and raadial forces. The case can offer capacities of high pressure and high efficiency.

* 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 Specification

Type		WBMV WBMVE 315	WBMV WBMVE 400	WBMV WBMVE 500	WBMV WBMVE 630	WBMV WBMVE 800	WBMV WBMVE 1000
Geometric displacement (cm ³ /rev.)		333	419	518	666	801	990
Max. speed (rpm)	rated	335	270	215	170	140	105
	cont.	510	500	400	320	250	200
	int.	630	600	480	380	300	240
Max. torque (N*m)	rated	730	1020	1210	1422	1590	2015
	cont.	920	1180	1460	1660	1880	2015
	int.	1110	1410	1760	1940	2110	2280
	peak	1290	1640	2050	2210	2470	2400
Max. output (Kw)	rated	38	47	47	40	33	28.6
	cont.	46	56	56	56	44	40
Max. pressure drop (MPa)	rated	16	16	16	16	14	14
	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)	rated	110	110	110	110	110	110
	cont.	160	200	200	200	200	200
	int.	200	240	240	240	240	240
Max. inlet pressure (L/min)	rated	21	21	21	21	21	21
	cont.	21	21	21	21	21	21
	int.	25	25	25	25	25	25
	peak	30	30	30	30	30	30
	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 second per minute.

*Peak pressure : Max. value of operating motor in 0.6 second per minute.

WINMAN WBMV Serisi Hidrolik Motor / WBMV Series Hydraulic Motor
Performance Data
WBMV315[333cm³/rev.]

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

WBMV400[419cm³/rev.]

		Pressure (MPa)							
		3.5	7	10	14	18	20	24	
Flow (L/min)	10	183 20	385 20	568 19	776 18	968 17	1101 16	1292 14	
	20	196 44	398 44	590 43	815 42	1010 40	1152 39	1346 37	
	50	200 114	402 113	603 113	842 112	1040 110	1186 108	1430 103	
	75	195 175	394 173	596 170	838 166	1043 163	1188 1579	1432 152	
	100	172 236	385 235	593 233	827 231	1036 227	1184 223	1425 215	
	125	167 296	374 294	583 291	816 288	1021 282	1177 275	1413 268	
	150	158 355	361 354	559 352	801 349	1008 344	1165 335	1390 324	
	Max.cont	160	143 416	346 414	553 411	784 407	989 403	1145 396	1377 388
	Max.int	200	118 475	331 473	536 469	770 463	969 455	1128 448	1356 439
		240	82 571	301 569	506 565	740 548	943 539	1104 530	1332 520

WBMV500[518cm³/rev.]

		Pressure (MPa)							
		3.5	7	10	14	18	20	24	
Flow (L/min)	10	242 17	468 17	696 16	959 16	1190 15	1353 13	1607 11	
	20	245 36	501 35	738 35	1003 34	1232 33	1394 32	1658 29	
	50	240 93	500 92	758 91	1025 90	1270 88	1449 85	1743 80	
	75	233 140	498 139	752 137	1030 135	1288 132	1475 127	1766 120	
	100	228 189	491 187	748 185	1026 182	1289 178	1472 173	1760 166	
	125	220 237	483 236	742 234	1014 231	1280 227	1460 223	1745 216	
	150	201 287	465 286	723 284	1008 281	1250 276	1429 270	1736 260	
	Max.cont	160	182 335	446 334	711 332	997 329	1238 325	1406 320	1715 310
	Max.int	200	161 384	423 383	676 381	974 378	1218 374	1385 366	1697 354
		240	120 461	378 459	622 457	921 454	1172 450	1340 444	1650 432

WBMV630[666cm³/rev.]

		Pressure (MPa)							
		3.5	6	9	12	15	18	221	
Flow (L/min)	10	280 14	522 13	812 13	1100 12	1268 12	1549 11	1784 10	
	20	288 28	552 28	839 27	1101 27	1315 26	1607 24	1864 22	
	50	289 72	555 72	868 71	1137 69	1364 68	1682 66	1956 62	
	75	270 109	548 108	863 106	1120 104	1352 102	1680 99	1964 94	
	100	264 146	538 145	856 143	1093 141	1350 138	1674 135	1965 130	
	125	251 184	516 183	837 181	1071 179	1336 177	1659 173	1950 168	
	150	240 221	495 220	817 219	1063 217	1330 215	1650 212	1928 205	
	Max.cont	160	210 259	485 258	796 257	1052 254	1300 250	1636 246	1908 241
	Max.int	200	182 297	469 297	751 295	1018 293	1280 290	1611 284	1883 273
		240	130 358	416 357	712 355	978 351	1237 346	1563 340	1835 332

 Torque (N.m)1340
Speed (rpm)444

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Performance Data
WBMV800[801cm³/rev.]

		Pressure (MPa)							
		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	1165 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	
	160	215 216	504 214	793 212	1079 209	1377 206	1798 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

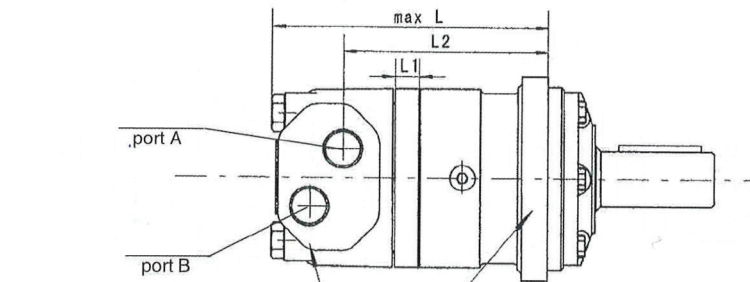
WBMV1000[990cm³/rev.]

		Pressure (MPa)						
		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	
	160	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

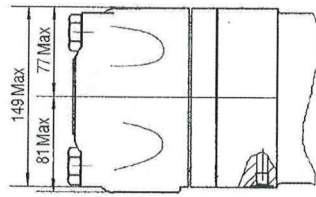
Torque (N.m)1825
Speed (rpm)225

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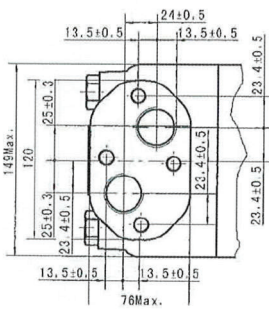
WBMV Dimensions And Mounting Data



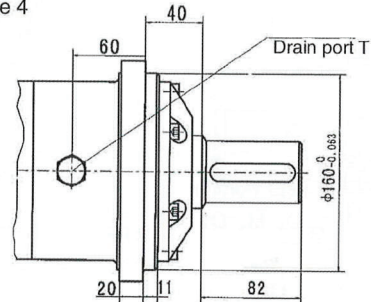
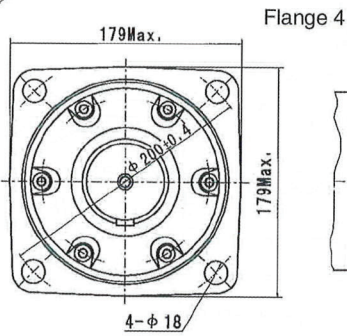
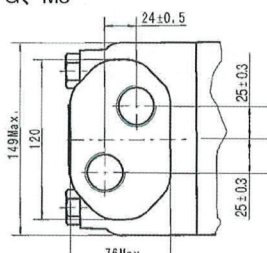
Model	L	L1	L2
WBMVW315	217	20	161.5
WBMVW400	224	27	168.5
WBMVW500	232	35	176.5
WBMVW630	244	47	188.5
WBMVW800	255	58	199.5
WBMVW1000	271	74	215.5



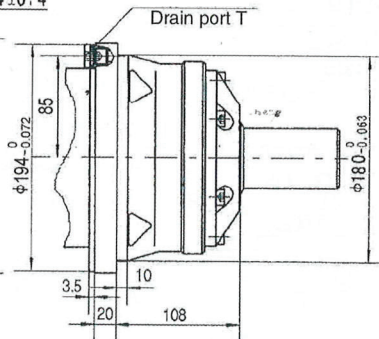
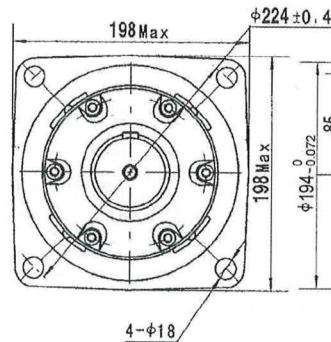
Porting
D, M, D1



Porting
S, G, M5



Flange W



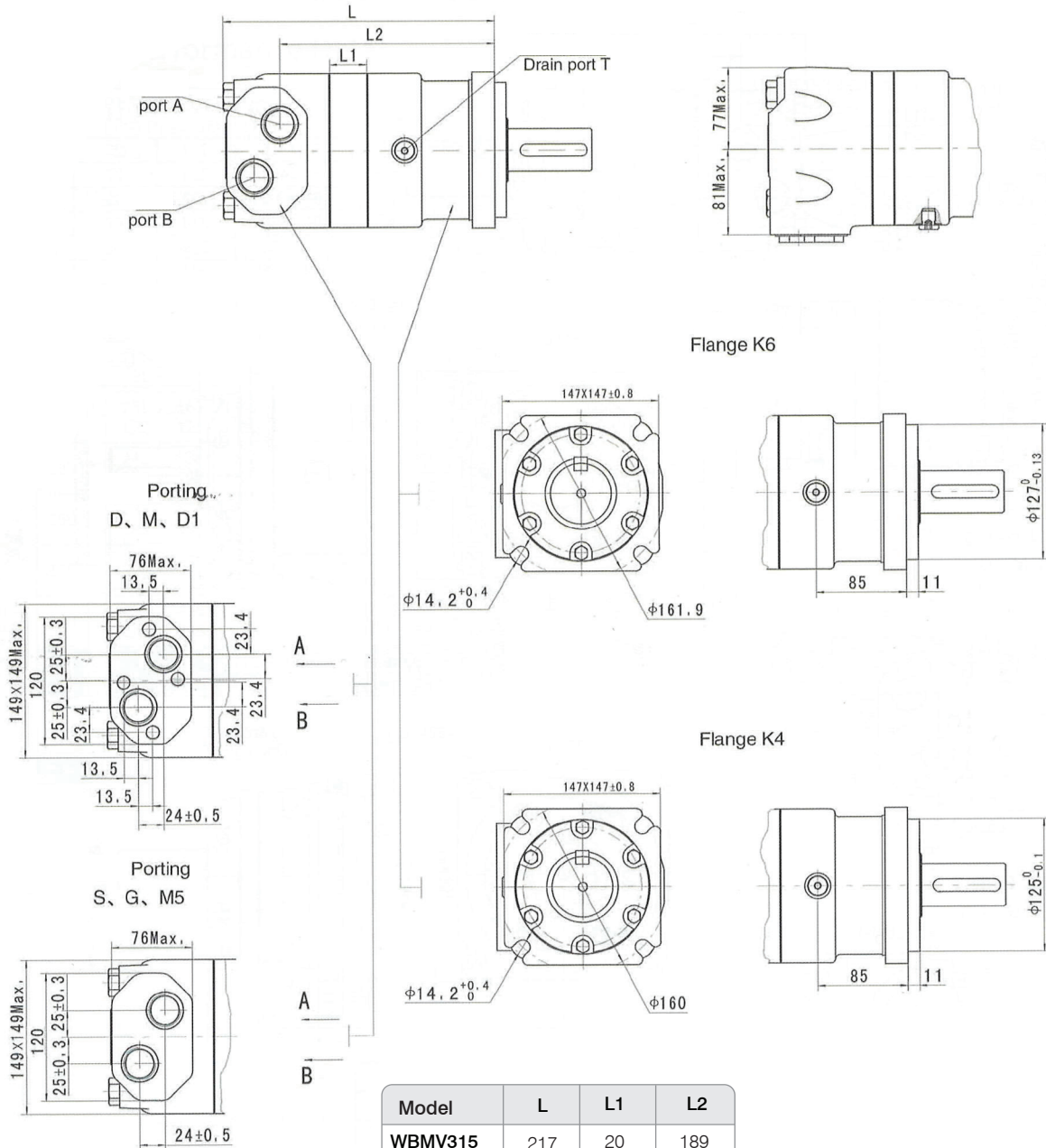
Model	L	L1	L2
WBMVW315	148.5	20	93.5
WBMVW400	155.5	27	100.5
WBMVW500	163.5	35	108.5
WBMVW630	175.5	47	120.5
WBMVW800	186.5	58	131.5
WBMVW1000	202.5	74	147.5

Note: The thickness of the stator and rotor is the dimensions of Ladding on 7 mm

Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	D1 (depth)
Mounting						
P(A,B)	G1(18)	M33X2(18)	1-5/16-12UN(18)	G1 (18)	M33X2(18)	G3/4(18)
T	G1/4(12)	M14X1.5(12)	9/16-18UNF(12)	G1/4(12)	M14X1.5(12)	G1/4(12)
C	4-M12(12)	4-M12(12)	—	—	—	4-M12(12)

WINMAN WBMVE Serisi Hidrolik Motor / WBMVE Series Hydraulic Motor

WBMVE Dimensions And Mounting Data

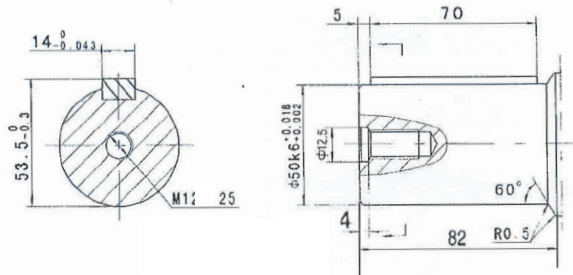


Note: The thickness of the stator and rotor is the dimensions of Ladding on 7 mm

Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	D1 (depth)
Mounting						
P(A,B)	G1(18)	M33X2(18)	1-5/16-12UN(18)	G1 (18)	M33X2(18)	G3/4(18)
T	G1/4(12)	M14X1.5(12)	9/16-18UNF(12)	G1/4(12)	M14X1.5(12)	G1/4(12)
C	4-M12(12)	4-M12(12)	-	-	-	4xM12(12)

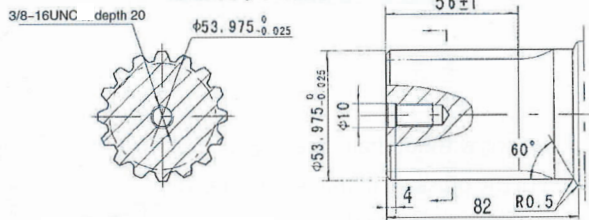
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WBMV Dimensions And Mounting Data

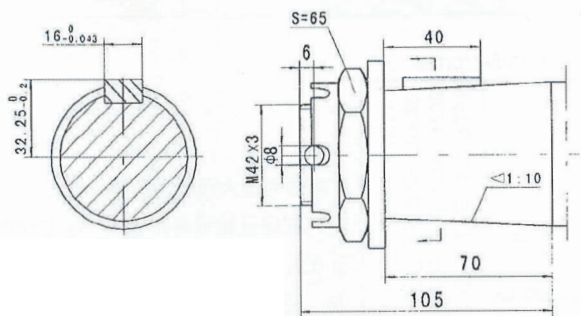


Shaft A: Cylindrical shaft Ø50

Parallel key 14x9x70



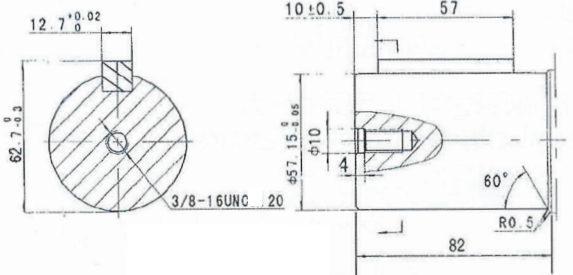
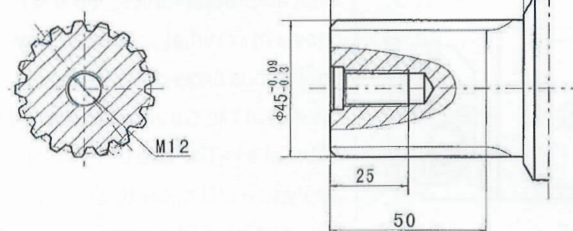
Shaft B: Splined key 16-DP8/16



Shaft T: Cone-shaft Ø60

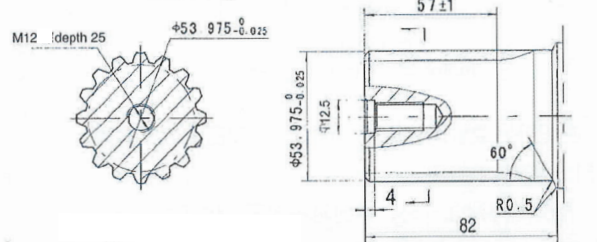
Parallel key 16x10x32

Tightening torque: 750±50Nm

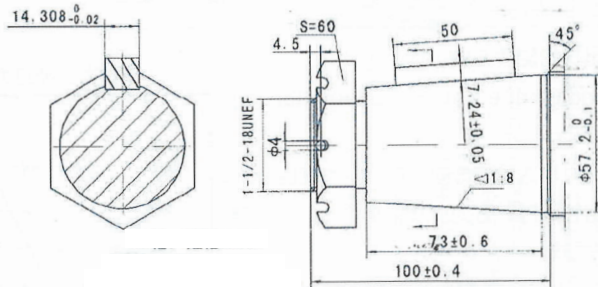


Shaft C: Cylindrical shaft Ø57.15

Parallel key 12.7x12.7x57



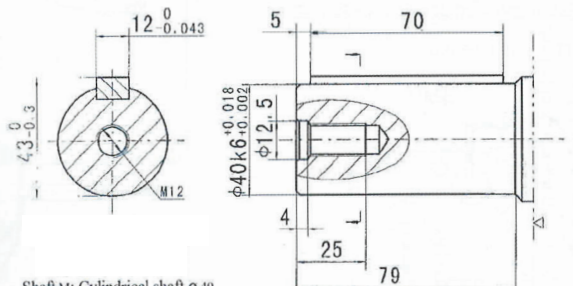
Shaft BD: Splined key 16-DP8/16



Shaft T1: Cone-shaft Ø57.2

Parallel key 14.308x14.308x50

Tightening torque: 750±50Nm



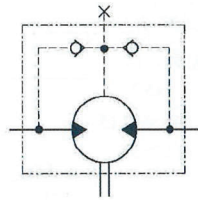
Shaft Y: Cylindrical shaft Ø40

Parallel key 12x8x50

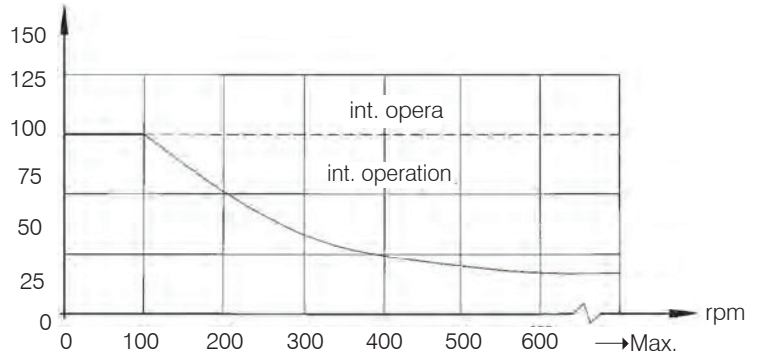
C : 17Zx2.5m x 30P x 5e

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Permissible Shaft Seal Pressure



motor illustrative diagram

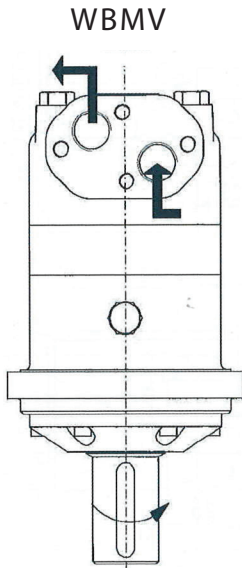


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

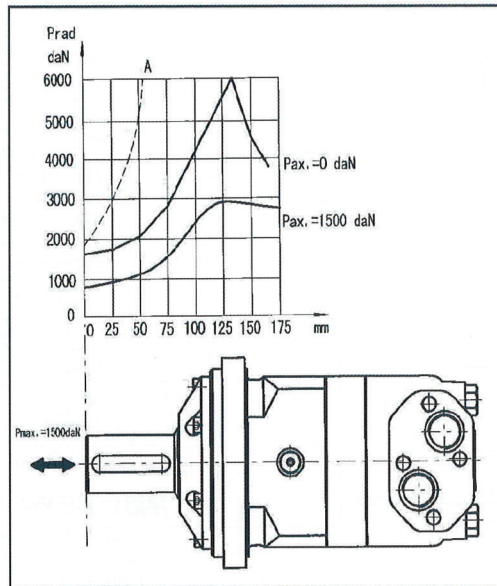
Direction of shaft rotation: Standard

Standard direction of shaft rotation:

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

Oil leakage flow of drain port
 The table below shows the Standard configured motor's maximum oil leakage flow of drain port when the drain return line pressure is lower than 0.5 to 1mpa.

Operating pressure difference (MPa)	Oil movement viscosity (mm ² /S)	Leakage flow of drain port (l./min.)
10	20	2.5
	35	1.5
14	20	5
	35	3

WINMAN WBMV Serisi Hidrolik Motor / WBMV Series Hydraulic Motor

Order Information



Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
Omit	315	4-Ø18 Square-flange Ø200, pilot Ø160x11 4-Ø18 Wheel-flange Ø224, pilot Ø180x10	A Shaft Ø50, parallel key 14X9X70	D G1 Manifold 4xm12,g1/4 M M33X2 Manifold 4xm12,M14X1.5 S 1-5/16-12UN, 9/16-18UNF G G1, G1/4 M5 M33X2,M14X1.5 D1 G3/4 manifold 4*M12, G1/4	Omit Standard R Opposite	00 Blue Black Silver grey	Standard Omit
	400		BD Shaft Ø53.975, splined key 16-DP8/16				
	500		B Shaft Ø53.975, splined key 16-DP8/16				
	630		C Shaft Ø7.15, parallel key 12.7x12.7x57.15				
	800		T Cone shaft Ø60, parallel key 16x10x32				
	1000		T1 Cone shaft Ø57.2 parallel key 14.308x14.308x50.8				
			Q shaft Ø45, splined key 17*2.5*30P*5e				

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.