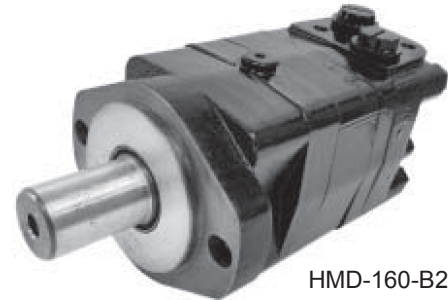


Features

- Orbital Hydraulic Motor with Disc Valve
- Medium pressure Motor
- Maximum Oil Temp.: 180°F (82°C)
- The HMD motor adapts the advanced roller gear set design with a disc distribution system to provide higher flow and pressure capabilities.



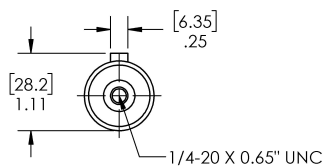
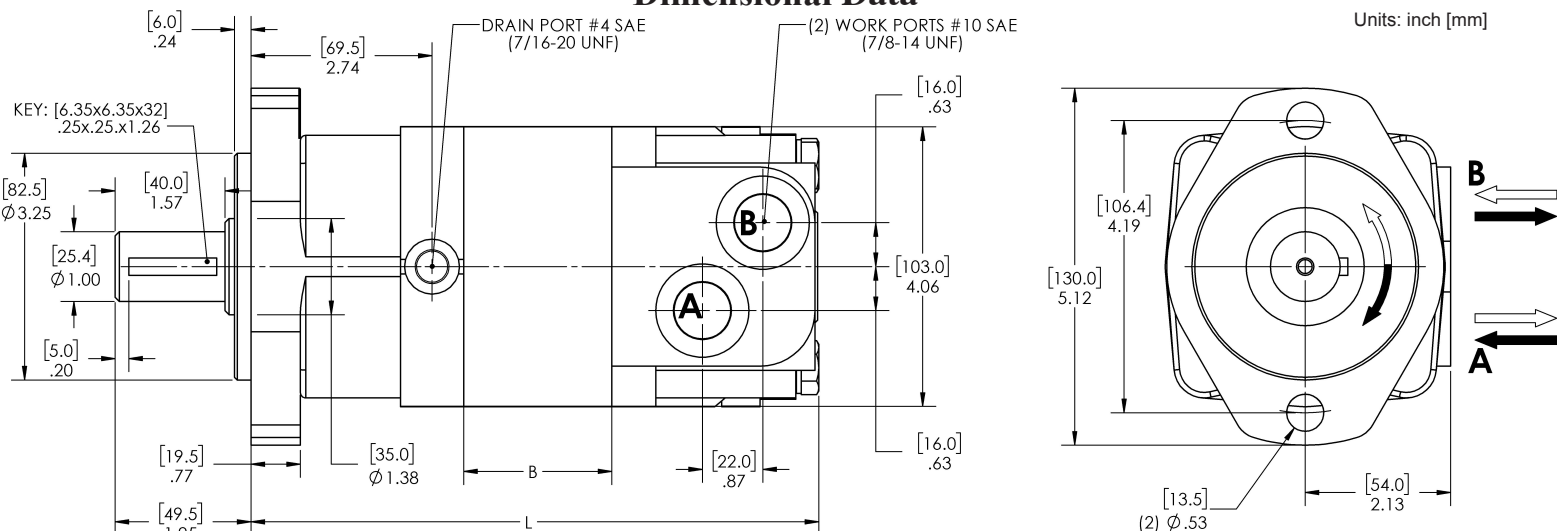
HMD-160-B2KS

Technical Data

TYPE		HMD080	HMD160	HMD200	HMD250	HMD315	HMD400
Displacement: in ³ / rev.		4.91	9.81	12.26	15.41	19.62	24.52
Maximum Speed: rpm	cont.	805	465	370	295	230	185
Maximum Torque: in/ lbs	cont.	2000	3991	4991	6053	7700	7195
	int.	2593	4947	5947	7478	9133	9036
Maximum Pressure: psi	cont.	2973	2973	2973	2900	2900	2248
	int.	3988	3770	3625	3625	3480	2755
Maximum Flow: gpm	cont.	17.2	19.8	19.8	19.8	19.8	19.8
Maximum Output: hp	cont.	21.5	24	11	8	22.8	14.8
Weight: lbs (kgs)		21.6 (9.80)	23.6 (10.7)	25.8 (11.1)	25.6 (11.6)	27.1 (12.3)	29.1 (13.2)

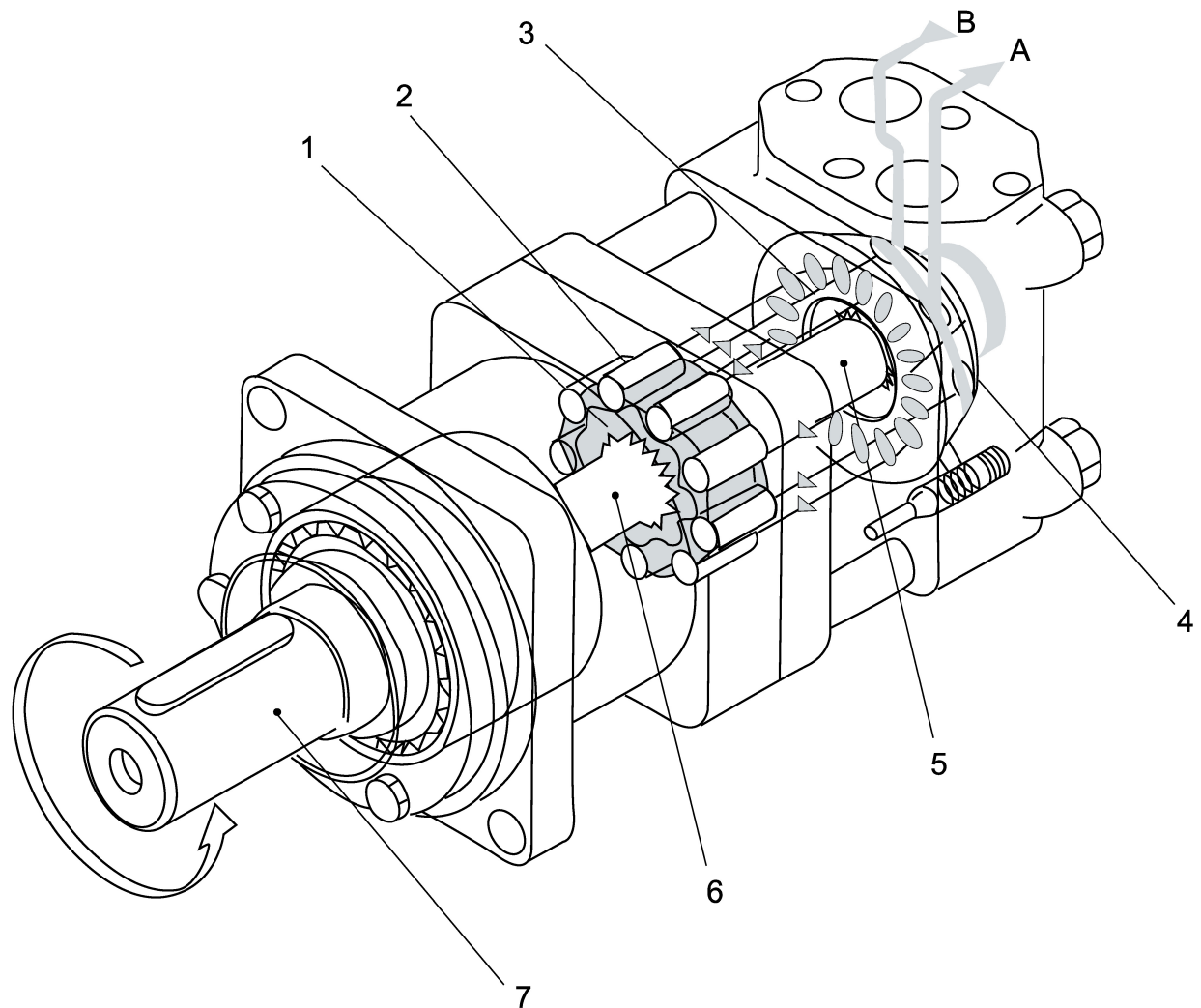
Continuous = maximum of continuous operation. Intermittent = maximum operating range for 6 seconds/min.

Dimensional Data



TYPE	HMD 080	HMD 160	HMD 200	HMD 250	HMD 315	HMD 400
L	6.69 [170]	7.24 [184.0]	7.52 [191.0]	7.87 [200.0]	8.35 [212.0]	8.90 [226.0]
B	0.43 [11]	0.98 [25]	1.26 [32]	1.61 [41]	2.09 [53]	2.64 [67]

Working Principle



1. Orbit Cam
2. Roll
3. Distributor
4. Auxiliary Plate
5. Distributor Shaft
6. Transmission Shaft
7. Output Shaft

High Pressure oil goes into the motor's housing through the inlet, passing the auxiliary plate, distributor, then the working space between the orbit cam and rolls. Pressed by the high pressure oil, orbit cam rotates from the high pressure side to the low pressure side. The orbit cam makes rotation and revolution against the rolls, at the same, high pressure oil is distributed continuously, thus, the output shaft can rotate continuously.

Performance Curves

HMD080

HMD80: 80.5 cm³/r (4.91 in³/r)

PRESSURE: PSI (BAR) →

MAX CONT. MAX INT.

		507 (35)	1015 (70)	1522 (105)	2030(140)	2538(175)	2973 (205)	3263(225)
TORQUE: in-ibf (Nm) SPEED SPECIFICATION								
FLOW: GPM (LPM)	1.32 (15)	309(35) 181 rpm	664(75) 177 rpm	1009(114) 170 rpm	1328(150) 165 rpm	1655(187) 158 rpm	1947(220) 151 rpm	2115(239) 141 rpm
	2.64 (30)	35(309) 363 rpm	664(75) 355 rpm	1018(115) 346 rpm	1345(152) 340 rpm	1682(190) 330 rpm	1965(222) 322 rpm	2124(240) 310 rpm
	5.28 (40)	292(33) 485 rpm	664(75) 479 rpm	1018(115) 464 rpm	1372(155) 453 rpm	1708(193) 444 rpm	2000(226) 437 rpm	2124(240) 415 rpm
	7.93 (50)	266(30) 610 rpm	646(73) 602 rpm	1000(113) 594 rpm	1354(153) 580 rpm	1682(190) 565 rpm	1974(223) 556 rpm	2098(237) 530 rpm
	10.57 (60)	248(28) 735 rpm	620(70) 724 rpm	974(110) 714 rpm	1328(150) 698 rpm	1664(188) 680 rpm	1947(220) 670 rpm	2080(235) 642 rpm
	MAX CONT. 13.21 (65)	239(27) 801 rpm	602(68) 790 rpm	956(108) 775 rpm	1310(148) 760 rpm	1646(186) 742 rpm	1903(215) 727 rpm	2062(233) 704 rpm
	MAX INT. 15.85 (80)	204(23) 988 rpm	584(66) 975 rpm	920(104) 955 rpm	1239(140) 938 rpm	15558(176) 915 rpm	1814(205) 897 rpm	1885(213) 870 rpm

HMD160

HMD160: 160.8 cm³/r (9.81 in³/r)

PRESSURE: PSI (BAR) →

MAX CONT. MAX INT.

		507 (35)	1015 (70)	1522 (105)	2030(140)	2538(175)	2973 (205)	3263(225)
TORQUE: in-ibf (Nm) SPEED SPECIFICATION								
FLOW: GPM (LPM)	1.32 (15)	620(70) 91 rpm	1301(147) 89 rpm	2018(228) 85 rpm	2655(300) 83 rpm	3310(374) 79 rpm	3930(444) 76 rpm	4221(477) 71 rpm
	2.64 (30)	637(72) 182 rpm	1328(150) 178 rpm	2036(230) 173 rpm	2691(304) 170 rpm	3363(380) 165 rpm	3929(444) 161 rpm	4222(477) 155 rpm
	5.28 (40)	655(74) 243 rpm	1336(151) 240 rpm	2036(230) 232 rpm	2744(310) 227 rpm	3416(386) 222 rpm	3992(451) 219 rpm	4240(49) 208 rpm
	7.93 (50)	628(71) 305 rpm	1301(147) 301 rpm	2000(226) 297 rpm	2708(306) 290 rpm	3363(380) 283 rpm	3956(447) 278 rpm	4186(473) 265 rpm
	10.57 (60)	602(68) 368 rpm	1266(143) 362 rpm	1947(220) 357 rpm	2655(300) 349 rpm	3328(376) 340 rpm	3912(442) 3335 rpm	4151(469) 321 rpm
	MAX CONT. 19.81 (75)	64(566) 463 rpm	1221(138) 456 rpm	1912(216) 448 rpm	2620(296) 439 rpm	3292(372) 429 rpm	3868(437) 420 rpm	4116(465) 407 rpm
	MAX INT. 23.78 (90)	531(60) 556 rpm	1177(133) 549 rpm	1841(208) 538 rpm	2478(280) 528 rpm	3115(352) 515 rpm	3682(416) 505 rpm	3762(425) 490 rpm

Performance Curves

HMD200

HMD200: 200.6 cm³/r (12.24 in³/r)

PRESSURE: PSI (BAR)



507 (35)	1015 (70)	1523 (105)	2030 (140)	2538 (175)	2973 (205)	3263(225)
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MAX CONT.

MAX INT.

TORQUE: in-ibf (Nm) SPEED SPECIFICATION

FLOW: GPM (LPM) MAX CONT. MAX INT.	3.96 (15)	770 (87) 73 rpm	1628(184) 71 rpm	2522(285) 68 rpm	3310(374) 66 rpm	4133(467) 63 rpm	4929(557) 61 rpm	5275(596) 56 rpm
	7.93 (30)	787(89) 145 rpm	1655(187) 142 rpm	2450 (287) 139 rpm	3354(379) 136 rpm	4195(474) 132 rpm	4956(560) 129 rpm	5301(599) 124 rpm
	10.57 (40)	814(92) 194 rpm	1655(187) 192 rpm	2540(287) 186 rpm	3425(387) 182 rpm	4266(482) 178 rpm	4991(564) 175 rpm	5301(599) 166 rpm
	13.21 (50)	778(88) 244 rpm	1610(182) 241 rpm	2495(282) 238 rpm	3380(382) 232 rpm	4195(474) 226 rpm	4956(560) 223 rpm	5230(591) 212 rpm
	15.85 (60)	743(84) 295 rpm	1548(175) 290 rpm	2433(275) 286 rpm	3310(374) 280 rpm	4151(469) 272 rpm	4912(555) 268 rpm	5186(586) 257 rpm
	19.81 (75)	681(77) 370 rpm	1504(170) 365 rpm	2389(270) 358 rpm	3265(369) 351 rpm	4106(464) 343 rpm	4867(550) 336 rpm	5142(581) 325 rpm
	23.78 (90)	601(68) 445 rpm	1460(165) 440 rpm	2301(260) 430 rpm	3088(349) 423 rpm	3841(434) 412 rpm	4513(510) 404 rpm	4708(532) 392 rpm

HMD250

HMD250: 252.6 cm³/r (15.41 in³/r)

PRESSURE: PSI (BAR)



507 (35)	1015 (70)	1523 (105)	2030 (140)	2538 (175)	2973 (205)	3263(225)
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MAX CONT.

MAX INT.

TORQUE: in-ibf (Nm) SPEED SPECIFICATION

FLOW: GPM (LPM) MAX CONT. MAX INT.	3.96 (15)	1008(114) 58 rpm	2071(234) 56 rpm	3168(358) 54 rpm	4151(469) 53 rpm	5168(584) 50 rpm	3336(377) 48 rpm	6567(742) 45 rpm
	7.93 (30)	1017(115) 116 rpm	2079(235) 113 rpm	3195(361) 110 rpm	4168(471) 108 rpm	5195(587) 105 rpm	6018(680) 103 rpm	6602(746) 100 rpm
	10.57 (40)	1017(115) 155 rpm	2079(235) 153 rpm	3142(355) 148 rpm	4186(473) 144 rpm	5230(591) 141 rpm	6053(684) 139 rpm	6646(751) 136 rpm
	13.21 (50)	1008(114) 194 rpm	2035(230) 192 rpm	3142(355) 189 rpm	4195(474) 185 rpm	5195(587) 180 rpm	6018(680) 175 rpm	6602(746) 169 rpm
	15.85 (60)	991(112) 234 rpm	1991(225) 231 rpm	3115(352) 228 rpm	4168(471) 224 rpm	5159(583) 219 rpm	5974(675) 214 rpm	6558(741) 208 rpm
	19.81 (75)	964(109) 295 rpm	1947(220) 290 rpm	3088(349) 285 rpm	4133(467) 279 rpm	5115(578) 273 rpm	5921(669) 267 rpm	6505(735) 260 rpm
	23.78 (90)	911(103) 354 rpm	1885(213) 350 rpm	3035(343) 342 rpm	4071(460) 334 rpm	5027(568) 326 rpm	5788(654) 320 rpm	6328(715) 310 rpm

Performance Curves

HMD315

HMD315: 321.5 cm³/r (19.62 in³/r)

PRESSURE: PSI (BAR) →

MAX CONT. MAX INT.

		507 (35)	1015 (70)	1522 (105)	2030(140)	2538(175)	2973 (205)	3263(225)
		TORQUE: in-ibf (Nm) SPEED SPECIFICATION						
FLOW: GPM (LPM)	1.32 (15)	1239(140) 45 rpm	2514(284) 44 rpm	3832(433) 43 rpm	5160(583) 41 rpm	6594(745) 40 rpm	7638(863) 38 rpm	8382(947) 35 rpm
	2.64 (30)	1239(140) 91 rpm	2549(288) 89 rpm	3868(437) 87 rpm	5187(586) 85 rpm	6620(748) 83 rpm	7665(866) 81 rpm	8417(951) 78 rpm
	5.28 (40)	1221(138) 121 rpm	2567(290) 120 rpm	3894(440) 116 rpm	5204(588) 113 rpm	6656(752) 111 rpm	7700(870) 109 rpm	8461(956) 106 rpm
	7.93 (50)	1204(136) 153 rpm	2576(291) 151 rpm	2885(439) 149 rpm	5195(587) 145 rpm	6620(748) 141 rpm	7665(866) 139 rpm	8414(951) 136 rpm
	10.57 (60)	1186(134) 184 rpm	2531(286) 181 rpm	3850(435) 179 rpm	5160(583) 175 rpm	6858(744) 17 rpm	7629(862) 166 rpm	8382(947) 160 rpm
MAX CONT.	19.81 (75)	1159(131) 231 rpm	2478(280) 228 rpm	3815(431) 224 rpm	5133(580) 220 rpm	6532(738) 214 rpm	7576(856) 210 rpm	8311(939) 204 rpm
MAX INT.	23.78 (90)	1106(125) 278 rpm	2407(272) 275 rpm	3727(421) 269 rpm	5045(570) 264 rpm	6355(718) 258 rpm	7311(826) 253 rpm	7957(899) 243 rpm

HMD400

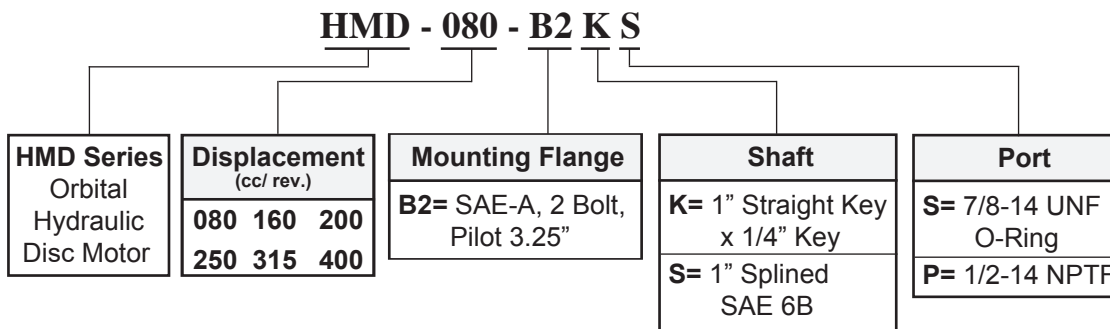
HMD400: 401.8 cm³/r (24.52 in³/r)

PRESSURE: PSI (BAR) →

MAX CONT. MAX INT.

		507 (35)	1015 (70)	1523 (105)	2030 (140)	2248 (155)	2538 (175)
		TORQUE: in-ibf (Nm) SPEED SPECIFICATION					
FLOW: GPM (LPM)	3.96 (15)	1522(172) 36 rpm	3071(347) 35 rpm	4620(522) 34 rpm	6239(705) 33 rpm	7133(806) 32 rpm	8195(926) 30 rpm
	7.93 (30)	1540(174) 73 rpm	3097(350) 71 rpm	4655(526) 69 rpm	6266(708) 68 rpm	7160(809) 66 rpm	8231(930) 64 rpm
	10.57 (40)	1531(173) 97 rpm	3115(352) 96 rpm	4682(529) 93 rpm	6284(710) 91 rpm	7195(813) 89 rpm	8275(935) 86 rpm
	13.21 (50)	1513(171) 122 rpm	3097(350) 121 rpm	4699(531) 119 rpm	6284(710) 116 rpm	7160(809) 113 rpm	8231(930) 110 rpm
	15.85 (60)	1486(168) 147 rpm	3035(343) 145 rpm	4620(522) 143 rpm	6239(705) 140 rpm	7089(801) 136 rpm	8178(924) 130 rpm
MAX CONT.	19.81 (75)	1451(164) 185 rpm	3000(339) 183 rpm	4575(517) 179 rpm	6195(700) 176 rpm	7000(791) 171 rpm	8107(916) 163 rpm
MAX INT.	23.78 (90)	1416(160) 223 rpm	2876(325) 220 rpm	4451(503) 215 rpm	6018(680) 211 rpm	6779(766) 206 rpm	7841(886) 196 rpm

Ordering Information



STOCK MOTORS
HMD-080-B2KSS
HMD-160-B2KSS
HMD-315-B2KS

HMD SEAL KIT: SK-HMD		
shaft seal dimension 35mm		
oil seal	35×48×4.72	1
dust seal	35×42×2	1
o-ring	23×2	1
	44×2	1
	71×2.65	1
	69.4×3.1	1
	84.4×3.1	2
bowl washer(≤100cc)	33×42×3.5	1
bowl washer(≥125cc)	34×42×4	1