FLUIDCO
HYDRAULIC SYSTEMS
Make it Happen!

BMR Series Geroler Gear Type – Hydraulic Orbital Motors – Axil Distribution Motors

Flange 4 = Ø13.5 Rhomb-flange, pilot Ø82.5x8 – Shaft F = Ø31.75 splined tooth 14-DP12/24

BMR SERIES HYDRAULIC MOTOR

BMR series motor adapt the advanced Geroler gear set design with shaft distribution flow, which can automatically compensate in operating with high pressure, provide reliable and smooth operation, high efficiency and long life.

Characteristic features:

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

*Shaft seal can bear high pressure of back and the motor can be used in parallel or in series.

*Special design in the driver-linker and prolong operating life

*Special design for distribution system can meet the requirement of low noise of unit.

*Compact volume and easy installation

Main Specification

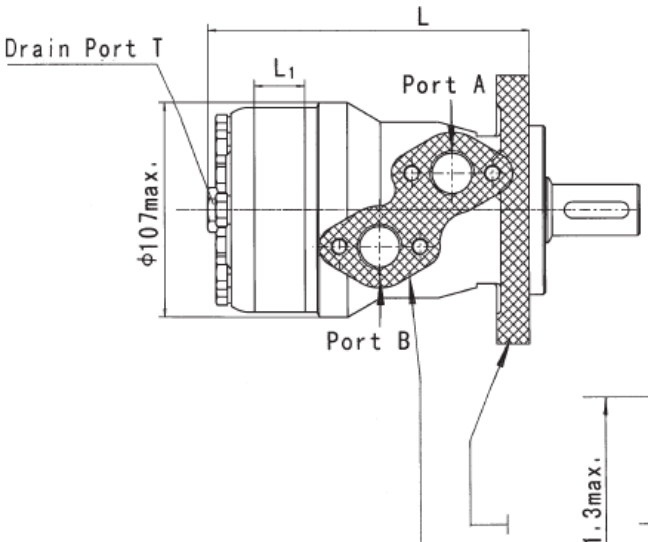
Technical data for BMR with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Type		BMR BMRS 36	BMR BMRS 50	BMR BMRS 80	BMR BMRS 100	BMR BMRS 125	BMR BMRS 160	BMR BMRS 200	BMR BMRS 250	BMR BMRS 315	BMR BMRS 375
Geometric displacement (cm^3/rev.)		36	51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	cont.	1085	960	750	600	475	378	310	240	190	155
	int.	1220	1150	940	750	600	475	385	300	240	190
Max. torque (N•m)	cont.	72	100	195	240	300	360	360	390	390	365
	int.	83	126	220	280	340	430	440	490	535	495
	peak	105	165	270	320	370	460	560	640	650	680
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	10.0	7.0	6.0	5.0
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	9.5	9.0	8.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	16.5	13	11	9	7
	int.	16.5	17.5	20	20	20	20	17.5	15	13	10
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	20	17.5	15
Max. flow (L/min)	cont.	40	50	60	60	60	60	60	60	60	60
	int.	45	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

* 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.

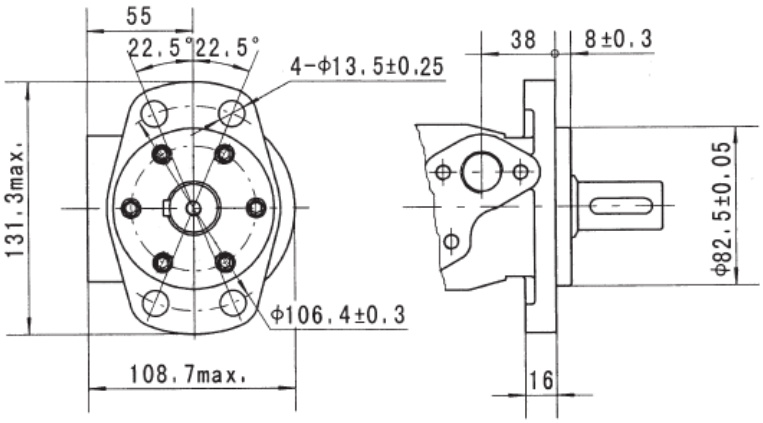
FLUIDCO
HYDRAULIC SYSTEMS
Make it Happen!

BMR DIMENSIONS AND MOUNTING DATA

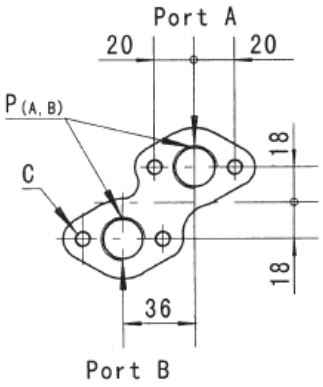


Model	L	L1
BMR50	140	10
BMR160	161.5	30.5

Flange 4



PORT



Mounting \ Code	D (depth)
P(A,B)	G1/2 (15)
C	4-M8 (13)
T	G1/4 (12)

Performance Data

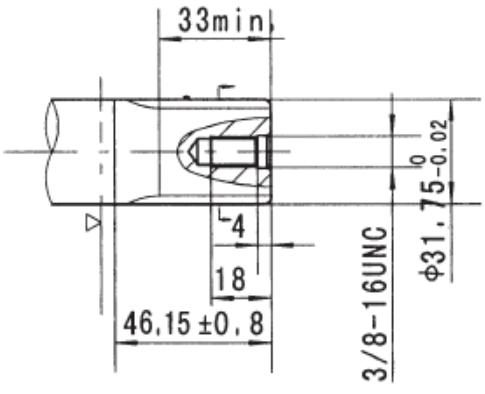
BMR 315 [317.5cm³/rev.]

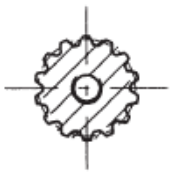
Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14 (Max.cont.)	16	17.5 (Max.int.)
5	215 / 13	302 / 11						
10	218 / 28	305 / 27	383 / 25	422 / 24	488 / 21	551 / 18	622 / 13	
20	215 / 60	303 / 59	380 / 57	418 / 55	485 / 52	549 / 49	620 / 45	660 / 42
30	204 / 91	296 / 89	375 / 86	413 / 84	480 / 81	542 / 78	613 / 72	654 / 67
40	196 / 122	287 / 120	368 / 117	410 / 112	477 / 106	539 / 100	609 / 94	650 / 85
50	176 / 154	270 / 151	356 / 147	393 / 140	461 / 131	526 / 120	597 / 109	645 / 100
60 (Max.cont.)	162 / 185	246 / 182	339 / 177	374 / 172	446 / 163	511 / 152	586 / 140	628 / 134
70	143 / 217	235 / 213	324 / 208	358 / 201	430 / 190	493 / 178	562 / 166	614 / 158
75 (Max.int.)	125 / 232	212 / 228	303 / 222	339 / 216	417 / 208	481 / 200	543 / 183	582 / 171

Torque (N•m) 481
Speed (rpm) **200**

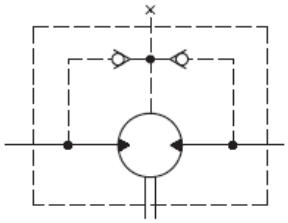
BMR SHAFT EXTENSIONS DIMENSIONS DATA





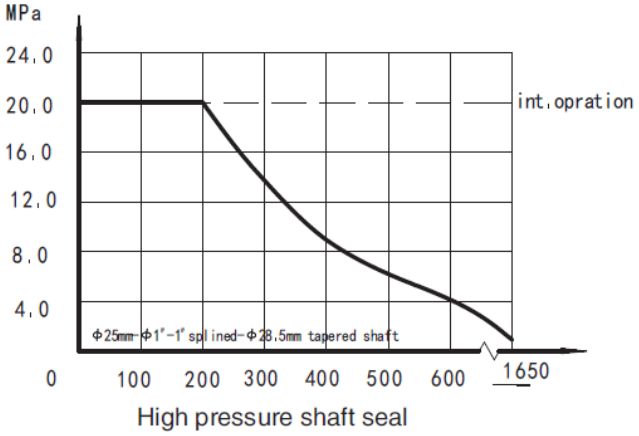
Shaft F: Splined
14-DP12/24

FLUIDCO
HYDRAULIC SYSTEMS
Make it Happen!

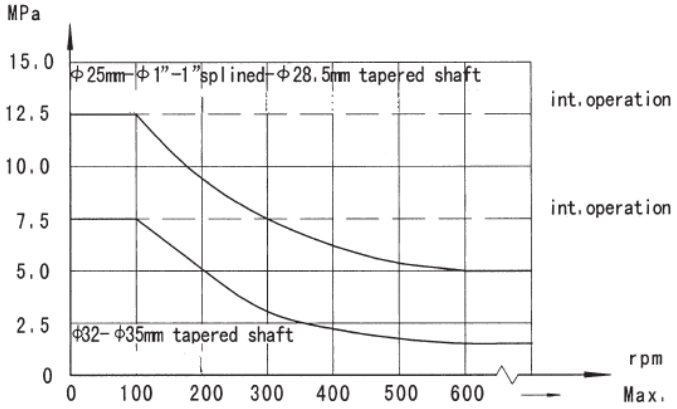


BMR、BMRS Series Hydraulic Motor

Permissible shaft seal pressure



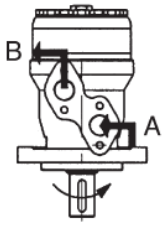
High pressure shaft seal



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.

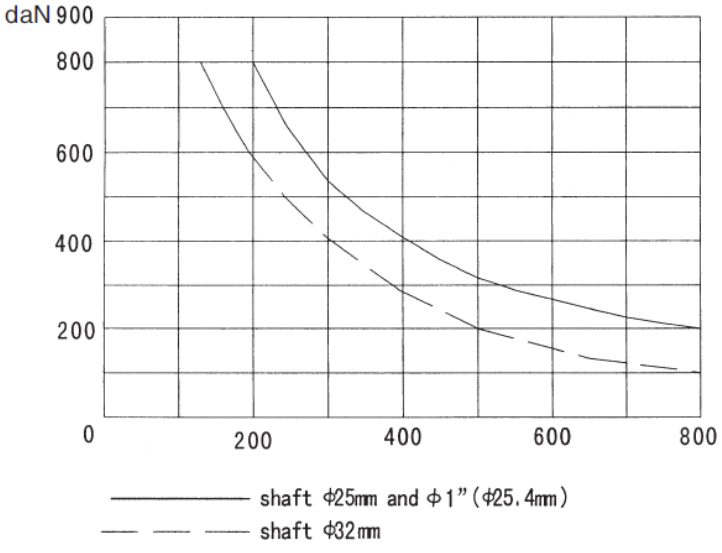
Direction of shaft ration : Standard

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

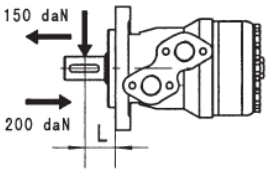


BMR

Status of the shaft's radial force
(Standard motor with journal bearing)



$$F_r = \frac{800}{n} \cdot \frac{25000}{95+L} \text{ daN}$$



F_r =Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)
Rhomb-flange L=30mm
Square-flange L=24mm

Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop (MPa)	Viscosity (mm2/s)	Oil flow in the drain line (L/min.)
10	20	2.5
	35	1.8
14	20	3.5
	35	2.8