



**Features**

BMR motor is a spool valve type motor.

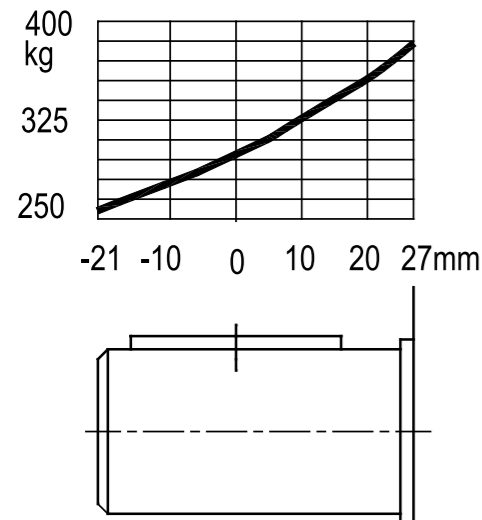
Characteristic features :

- It adapt the gerolor design. Combination efficiency is better than BMP motor.
- Credible design for shaft seal , which can bear high pressure and be used in parallel or in series.
- Direction of shaft rotation and speed can be controlled easily and smoothly.
- Best combination of efficiency and economy in medium duty applications.

**Specification cation Data**

(ml/r) Displacement		50	63	80	100	125	160	200	250	315	400	500
(LPM) Flow	Cont.	40	53	58	58	58	58	58	58	58	58	58
	Int..	46	58	68	68	68	68	68	68	68	68	68
(RPM) Speed	Cont.	750	760	653	551	440	344	276	220	175	140	110
	Int..	863	832	766	646	516	404	323	258	205	162	128
(Mpa) Pressure	Cont.	14	14	14	14	14	14	12.5	11	9	9	8
	Int..	17	17	17	17	17	17	15	13	11	10	9
(N*m) Torque	Cont.	89	112	142	178	223	285	318	350	360	418	464
	Int..	108	136	172	216	270	346	382	416	426	464	500

Shaft Side Load Capacity



- Max. pressure is the allowed pressure at the inlet port.
- A simultaneous maximum RPM and maximum pressure NOT recommended Maximum pressure or maximum RPM operation: 10% of every minute.
- Recommended fluids: Anti-wear type of hydraulic oil. Viscosity recommended 37-73 cSt. Recommended filtration ISO18/13.
- Maximum operating temperature recommended 80°C.
- Special high pressure capacity shaft seal ensures back pressure up to 10 Mpa. Recommended preferable back pressure 5 Mpa. Case drain line is recommended when back pressure higher than 5 Mpa.. The motor life is benefited from a case drain line.
- It is highly recommended that the motor runs at 30% of rated pressure for at least one hour before application of full load. Be sure the motor is filled with fluid prior to any load applications.

**BMR series Performance Data**

Continuous  
Intermittent

50 cc/r

		Δ Pressure Bar										
		28	55	69	97	110	124	138	155			
Flow LPM	7.6	18	37	46	64	72						
		152	147	142	134	124						
	15.1	18	37	47	66	75	84	93				
		298	290	276	265	261	245	243				
	22.7	17	37	47	66	75	84	93	105			
		450	438	434	419	410	407	389	373			
	30.3	14	35	44	64	74	83	92	104			
		603	590	583	564	554	545	536	520			
	37.9	14	34	44	64	73	83	92	104			
		750	738	732	713	702	696	682	661			
	45.4			43	62	72	81	91	102			
				875	859	844	835	819	804			

63cc/r

		Δ Pressure Bar										
		28	55	69	97	110	124	138	155			
Flow LPM	7.6	22	47	59	80	91						
		111	107	105	96	92						
	15.1	24	50	62	87	99	110	122				
		229	216	212	194	190	186	183				
	22.7	22	48	60	86	99	111	123	138			
		343	334	321	319	315	291	288	276			
	30.3	21	47	60	86	98	111	123	138			
		451	442	431	419	415	412	401	386			
	37.9	18	45	58	84	97	110	122	137			
		565	552	547	532	525	512	504	496			
	45.4	18	44	57	82	95	109	121	137			
		678	665	658	641	635	623	612	601			
53.0		42	55	81	95	107	120	135				
		778	771	753	746	733	723	711				
56.8		40	53	80	93	106	119	135				
		832	828	808	800	786	779	766				

80cc/r

		Δ Pressure Bar										
		28	55	69	97	110	124	138	155			
Flow LPM	7.6	30	61	77	106	119						
		90	83	80	70	63						
	15.1	30	62	78	109	124	140	155				
		185	179	175	166	162	156	150				
	22.7	29	61	77	109	124	140	155	174			
		275	267	265	253	248	240	232	221			
	30.3	27	60	76	106	124	139	155	174			
		387	359	354	343	338	333	324	313			
	37.9	26	58	74	106	122	138	153	173			
		480	450	446	435	428	420	412	399			
	45.4	24	58	72	105	121	136	152	172			
		552	543	537	523	515	509	500	487			
53.0		54	70	102	118	134	150	170				
		635	630	616	609	599	592	578				
56.8		52	69	101	117	133	149	168				
		680	673	660	650	642	634	619				

100cc/r

		Δ Pressure Bar										
		28	55	69	97	110	124	138	155			
Flow LPM	7.6	39	79	98	135	152	171					
		71	66	63	56	51	46					
	15.1	38	79	99	139	158	177	195				
		146	141	138	131	128	124	118				
	22.7	37	78	98	139	158	178	196	219			
		217	211	208	199	195	190	184	174			
	30.3	36	76	97	137	157	177	195	218			
		290	284	280	271	267	262	255	245			
	37.9	33	74	95	135	155	174	193	217			
		383	355	351	343	337	332	325	315			
	45.4	31	72	92	133	153	173	192	215			
		436	429	424	414	409	402	395	384			
53.0	27	69	90	130	150	170	189	213				
	510	501	497	487	482	475	469	456				
56.8		67	88	128	148	168	187	211				
		537	532	522	516	510	502	490				

160cc/r

		Δ Pressure Bar						
		28	55	69	97	110	124	138
Flow LPM	7.6	61	123	153	209	235	261	
		45	42	40	34	30	25	
	15.1	61	124	155	214	242	269	295
		95	91	90	85	82	78	73
	22.7	59	123	155	215	243	271	297
		140	136	134	129	125	121	114
	30.3	57	121	152	213	242	270	296
		187	183	181	175	172	166	159
	37.9	53	117	149	209	239	266	293
		234	230	227	222	218	211	203
	45.4	49	114	146	206	235	263	291
		282	277	274	269	265	257	248
53.0	45	109	141	201	230	259	287	
	329	323	321	316	311	305	296	
56.8		107	139	198	228	257	284	
		347	344	339	334	327	318	

200cc/r

		Δ Pressure Bar						
		28	55	69	97	110	124	138
Flow LPM	7.6	76	152	187	253	283		
		36	33	31	25	20		
	15.1	76	154	191	259	292	324	355
		77	73	73	68	65	61	55
	22.7	74	154	192	263	294	328	359
		113	110	109	104	100	95	87
	30.3	72	150	189	260	293	326	359
		151	148	146	142	139	132	123
	37.9	67	146	185	255	290	323	355
		189	186	184	181	176	166	156
	45.4	62	142	182	251	286	320	353
		228	224	222	219	213	204	192
53.0	56	137	176	246	291	315	348	
	266	261	259	256	251	242	229	
56.8		133	172	242	278	313	346	
		281	279	275	269	260	247	

27 Torque Nm  
510 Speed RPM

BMR series Performance Data

☐ Continuous  
 ☐ Intermittent

250 cc/r

		Δ Pressure Bar							
		28	55	69	97	110	114	125	127
Flow LPM	7.6	94	187	230	306				
		29	26	24	17				
	15.1	95	192	235	319	359	368		
		62	59	59	55	50	49		
	22.7	93	191	236	321	361	371	401	410
		91	89	88	82	78	76	72	71
	30.3	89	187	233	319	359	369	399	408
		122	120	119	113	108	106	101	99
	37.9	84	182	228	313	356	366	396	406
		152	150	148	143	136	134	127	125
	45.4	78	175	222	309	351	361	392	402
	183	180	179	173	166	163	156	153	
53.0	71	169	216	302	345	356	386	397	
	213	211	209	202	195	193	185	182	
56.8		165	212	298	341	352	383	394	
		226	224	217	209	207	200	197	

117 Torque Nm  
 23 Speed RPM

315cc/r

		Δ Pressure Bar							
		28	41	55	69	83	97	103	110
Flow LPM	7.6	117	176	230	283	329	366		
		23	22	21	19	16	11		
	15.1	119	180	237	289	342	391	416	
		49	48	48	47	47	44	41	
	22.7	116	178	237	290	342	391	417	441
		74	72	72	71	69	64	62	60
	30.3	110	172	232	285	339	390	414	438
		98	97	97	96	94	89	86	83
	37.9	105	166	226	280	334	385	410	435
		122	121	120	120	117	112	108	104
	45.4	98	159	216	271	326	379	404	428
	146	145	145	145	142	136	131	127	
53.0	89	151	209	264	318	371	397	423	
	171	170	170	169	165	159	154	150	
56.8			204	258	313	366	393	419	
			182	181	177	171	165	160	

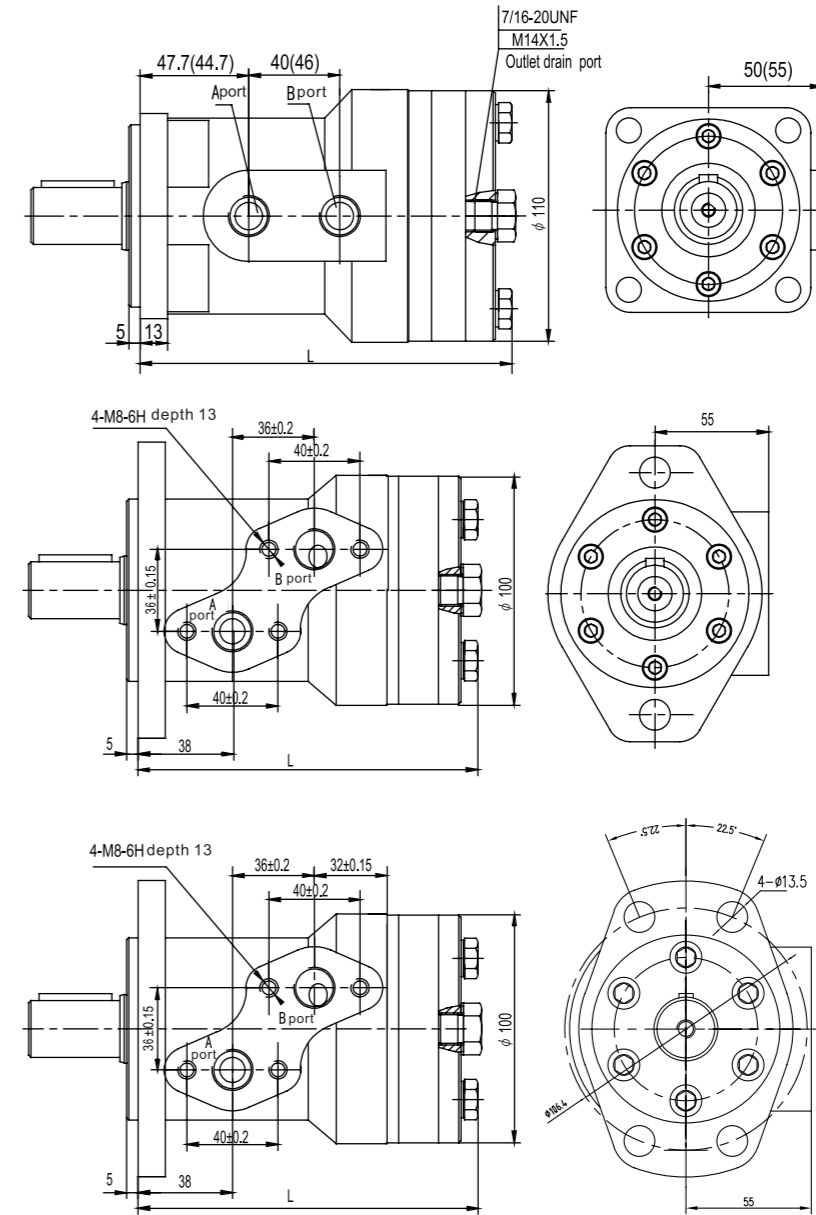
400cc/r

		Δ Pressure Bar						
		14	28	41	55	69	83	90
Flow LPM	7.6	71	150	224	290	356		
		18	17	17	16	14		
	15.1	70	152	229	302	365	429	458
		38	38	37	37	36	36	35
	22.7	69	150	228	302	365	427	456
		57	57	57	55	54	53	52
	30.3	62	140	220	295	358	423	455
		77	76	75	74	73	72	72
	37.9	53	134	212	288	353	419	452
		96	96	95	95	94	91	90
	45.4	40	129	204	272	339	408	444
	114	113	112	111	111	110	108	
53.0	28	115	194	267	330	400	435	
	133	132	131	130	129	128	125	
56.8				258	323	394	430	
				141	140	138	137	

Performance data is typical with N68 anti-wearhydraulic oil at 50°C temperature. Actual data may vary slightly from unit to unit in production.

Motors can run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed in the continuous area.

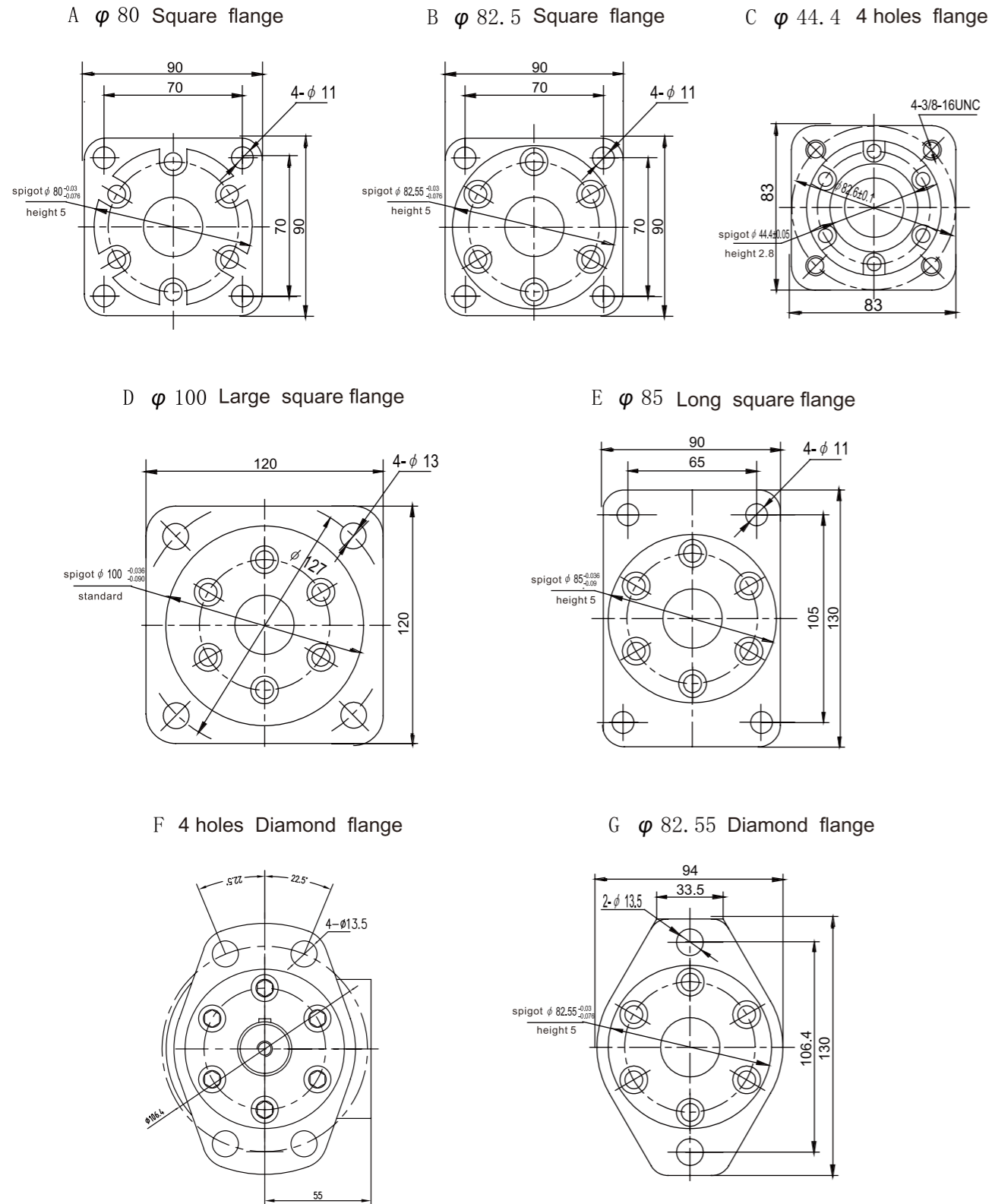
BMR Dimension and Mounting data



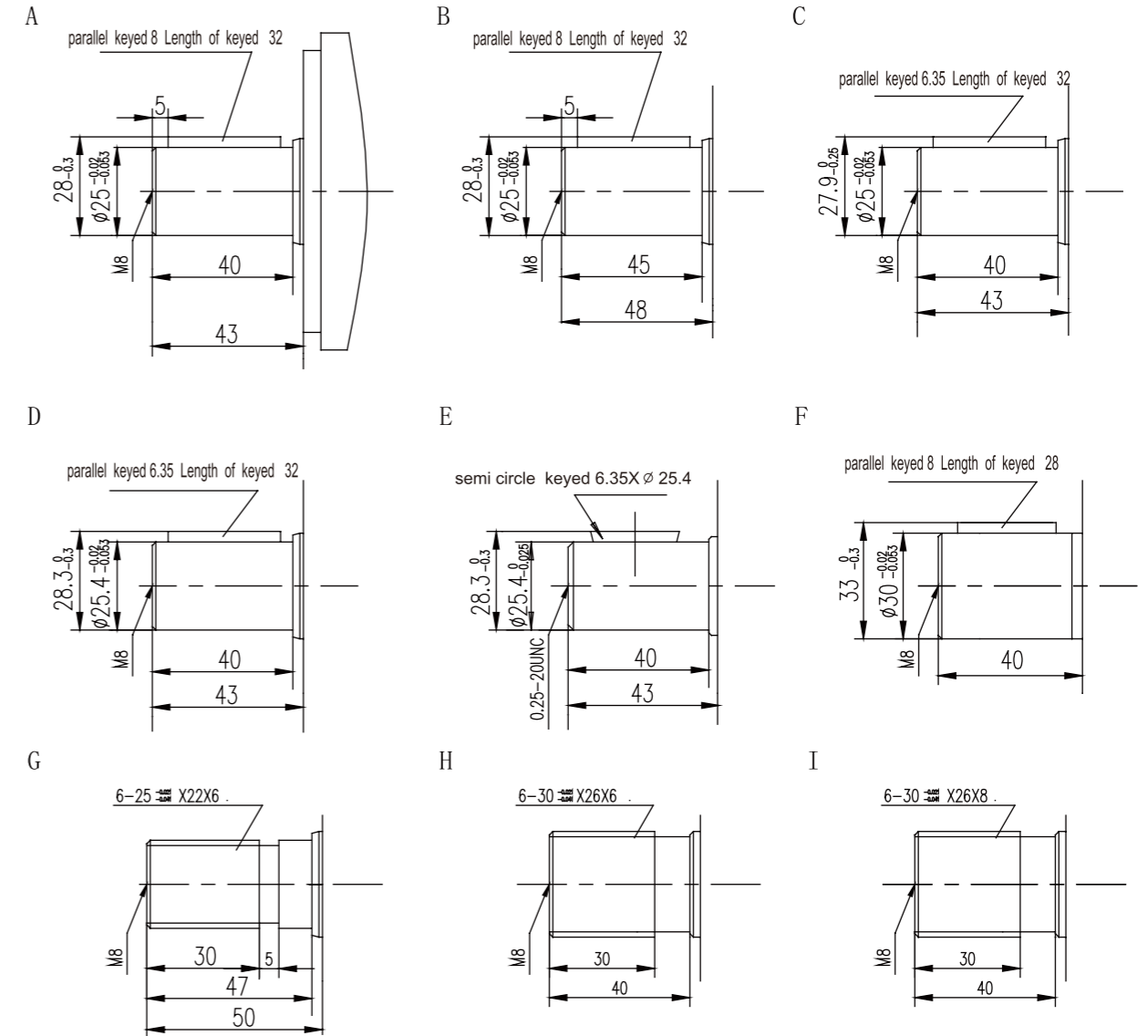
( ml/r) Displacement	50	63	80	100	125	160	200	250	315	400	500
L	148	149	152	155	160	168	174	183	194	209	227

Standard Direction of The Motor Rotation:  
 CW—When A Port pressurized, Viewed From the Shaft End.

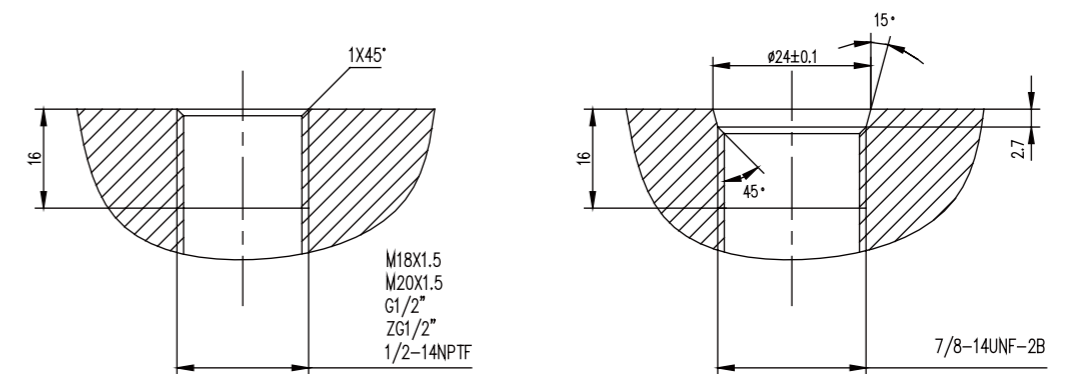
BMR Mounting Flange



BMR Shaft



BMR Port



**BMR**  
**Ordering Information**

Dimensions			Displacements											
Flange	Shaft	Port Size	50	63	80	100	125	160	200	250	315	400	500	
4 holes square flange, spigot $\phi 80$	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	222-0010	0011	0012	0013	001a	0014	0015	0016	0017	0018	0019	
	$\phi 25$ straight keyed 8	M18X1.5 external drain M14X1.5	222-0020	0021	0022	0023	002a	0024	0025	0026	0027	0028	0029	
2 holes diamond flange, spigot $\phi 82.55$	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	222-0030	0031	0032	0033	003a	0034	0035	0036	0037	0038	0039	
	$\phi 25$ straight keyed 8	M18X1.5 external drain M14X1.5	222-0040	0041	0042	0043	004a	0044	0045	0046	0047	0048	0049	
	$\phi 25$ straight keyed 6.35	G1/2" Internal Drain	222-0050	0051	0052	0053	005a	0054	0055	0056	0057	0058	0059	
	$\phi 25$ straight keyed 8	G1/2" Internal Drain	222-0060	0061	0062	0063	006a	0064	0065	0066	0067	0068	0069	
	$\phi 25$ straight keyed 6.35	G1/2" external drain M14X1.5	222-0070	0071	0072	0073	007a	0074	0075	0076	0077	0078	0079	
	$\phi 25$ straight keyed 8	G1/2" external drain M14X1.5	222-0080	0081	0082	0083	008a	0084	0085	0086	0087	0088	0089	
	$\phi 25.4$ straight keyed 6.35	G1/2" external drain M14X1.5	222-0150	0151	0152	0153	015a	0154	0155	0156	0157	0158	0159	
	$\phi 25.4$ straight keyed 6.35	G1/2" Internal Drain	222-0170	0171	0172	0173	017a	0174	0175	0176	0177	0178	0179	
	$\phi 25$ straight keyed 8	NPTF1/2 Internal Drain	222-0250	0251	0252	0253	025a	0254	0255	0256	0257	0258	0259	
	$\phi 25.4$ straight keyed 6.35 Center hole 0.2520UNC	NPTF1/2 Internal Drain	222-0280	0281	0282	0283	028a	0284	0285	0286	0287	0288	0289	
4 holes square flange, spigot $\phi 80$	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	222-0360	0361	0362	0363	036a	0364	0365	0366	0367	0368	0369	
	$\phi 25$ straight keyed 8	M18X1.5 external drain M14X1.5	222-0370	0371	0372	0373	037a	0374	0375	0376	0377	0378	0379	
4 holes square flange, spigot $\phi 80$ height 2.8	$\phi 25.4$ straight keyed 6.35 Center hole 0.2520UNC	0.875-14UNF conical opening seal internal drain	222-0450	0451	0452	0453	045a	0454	0455	0456	0457	0458	0459	
2 holes diamond flange,	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	222-0380	0381	0382	0383	038a	0384	0385	0386	0387	0388	0389	
	$\phi 25$ straight keyed 8	G1/2" Internal Drain	222-0390	0391	0392	0393	039a	0394	0395	0396	0397	0398	0399	
	$\phi 25.4$ straight keyed 6.35	G1/2" external drain M14X1.5	222-0400	0401	0402	0403	040a	0404	0405	0406	0407	0408	0409	
	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	222-0410	0411	0412	0413	041a	0414	0415	0416	0417	0418	0419	
	$\phi 25.4$ straight keyed 6.35	G1/2" Internal Drain	222-0420	0421	0422	0423	042a	0424	0425	0426	0427	0428	0429	
	$\phi 25$ straight keyed 8	NPTF1/2 external drain M14X1.5	222-0480	0481	0482	0483	048a	0484	0485	0486	0487	0488	0489	
2 holes diamond flange, spigot $\phi 82.55$ height 2.8	$\phi 25.4$ straight keyed 6.35	NPTF1/2 Internal Drain	222-0430	0431	0432	0433	043a	0434	0435	0436	0437	0438	0439	
	$\phi 25.4$ straight keyed 6.35 Center hole screw thread 0.2520UNC	0.875-14UNF conical opening seal internal drain	222-0440	0441	0442	0443	044a	0444	0445	0446	0447	0448	0449	
	$\phi 25$ straight keyed 8 Center hole screw thread 0.2520UNC	0.875-14UNF conical opening seal internal drain	222-0460	0461	0462	0463	046a	0464	0445	0446	0447	0448	0449	
	$\phi 25.4$ straight keyed 6.35 Center hole screw thread 0.2520UNC	1/2" BSP Internal Drain	222-0470	0471	0472	0473	047a	0474	0475	0476	0477	0478	0479	

**BMRS**  
**Ordering Information**

Dimensions			Displacements											
Flange	Shaft	Port Size	50	63	80	100	125	160	200	250	315	400	500	
4 holes square flange, spigot $\phi 80$	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	224-0010	0011	0012	0013	001a	0014	0015	0016	0017	0018	0019	
	$\phi 25$ straight keyed 8	M18X1.5 external drain M14X1.5	224-0020	0021	0022	0023	002a	0024	0025	0026	0027	0028	0029	
2 holes diamond flange, spigot $\phi 82.55$	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	224-0030	0031	0032	0033	003a	0034	0035	0036	0037	0038	0039	
	$\phi 25$ straight keyed 8	M18X1.5 external drain M14X1.5	224-0040	0041	0042	0043	004a	0044	0045	0046	0047	0048	0049	
	$\phi 25$ straight keyed 6.35	G1/2" Internal Drain	224-0050	0051	0052	0053	005a	0054	0055	0056	0057	0058	0059	
	$\phi 25$ straight keyed 8	G1/2" Internal Drain	224-0060	0061	0062	0063	006a	0064	0065	0066	0067	0068	0069	
	$\phi 25$ straight keyed 6.35	G1/2" external drain M14X1.5	224-0070	0071	0072	0073	007a	0074	0075	0076	0077	0078	0079	
	$\phi 25$ straight keyed 8	G1/2" external drain M14X1.5	224-0080	0081	0082	0083	008a	0084	0085	0086	0087	0088	0089	
	$\phi 25.4$ straight keyed 6.35	G1/2" external drain M14X1.5	224-0150	0151	0152	0153	015a	0154	0155	0156	0157	0158	0159	
	$\phi 25.4$ straight keyed 6.35	G1/2" Internal Drain	224-0170	0171	0172	0173	017a	0174	0175	0176	0177	0178	0179	
	$\phi 25$ straight keyed 8	NPTF1/2 Internal Drain	224-0250	0251	0252	0253	025a	0254	0255	0256	0257	0258	0259	
	$\phi 25.4$ straight keyed 6.35	NPTF1/2 Internal Drain	224-0280	0281	0282	0283	028a	0284	0285	0286	0287	0288	0289	
4 holes diamond flange, spigot $\phi 80$	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	224-0360	0361	0362	0363	036a	0364	0365	0366	0367	0368	0369	
	$\phi 25$ straight keyed 8	M18X1.5 external drain M14X1.5	224-0370	0371	0372	0373	037a	0374	0375	0376	0377	0378	0379	
4 holes diamond flange, spigot $\phi 80$ height 2.8	$\phi 25.4$ straight keyed 6.35 Center hole 1/4-20UNC	0.875-14UNF conical opening seal internal drain	224-0450	0451	0452	0453	045a	0454	0455	0456	0457	0458	0459	
2 holes diamond flange,	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	224-0380	0381	0382	0383	038a	0384	0385	0386	0387	0388	0389	
	$\phi 25$ straight keyed 8	G1/2" Internal Drain	224-0390	0391	0392	0393	039a	0394	0395	0396	0397	0398	0399	
	$\phi 25.4$ straight keyed 6.35	G1/2" external drain M14X1.5	224-0400	0401	0402	0403	040a	0404	0405	0406	0407	0408	0409	
	$\phi 25$ straight keyed 8	M18X1.5 Internal Drain	224-0410	0411	0412	0413	041a	0414	0415	0416	0417	0418	0419	
	$\phi 25.4$ straight keyed 6.35	G1/2" Internal Drain	224-0420	0421	0422	0423	042a	0424	0425	0426	0427	0428	0429	
	$\phi 25$ straight keyed 8	NPTF1/2 external drain M14X1.5	224-0480	0481	0482	0483	048a	0484	0485	0486	0487	0488	0489	
2 holes diamond flange, spigot $\phi 82.55$ height 2.8	$\phi 25.4$ straight keyed 6.35	NPTF1/2 Internal Drain	224-0430	0431	0432	0433	043a	0434	0435	0436	0437	0438	0439	
	$\phi 25.4$ straight keyed 6.35 Center hole screw thread 1/4-20UNC	0.875-14UNF conical opening seal internal drain	224-0440	0441	0442	0443	044a	0444	0445	0446	0447	0448	0449	
	$\phi 25$ straight keyed 8 Center hole screw thread 1/4-20UNC	0.875-14UNF conical opening seal internal drain	224-0460	0461	0462	0463	046a	0464	0445	0446	0447	0448	0449	
	$\phi 25.4$ straight keyed 6.35 Center hole screw thread 1/4-20UNC	1/2" BSP Internal Drain	224-0470	0471	0472	0473	047a	0474	0475	0476	0477	0478	0479	