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BMS Series Geroler Gear Type – Hydraulic Orbital Motors – Distribution Motors – 2 Hole

Flange E2 = Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5x6.3 – Shaft A = Ø25 Cylindrical Shaft, parallel key 8x7x32

BMS SERIES HYDRAULIC MOTOR

BMS series motor adapt the advanced Geroler gear set design 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 featutres:

* 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 offers capacities of high pressure and high torque in the wide of applications.
* Advanced design in disc distrbution flow, which can automatically compensate in operating with high volume efficiency and long life,provide smooth and reliable operation.

Main Specificaion

Type		BMS BMSE 80	BMS BMSE 100	BMS BMSE 125	BMS BMSE 160	BMS BMSE 200	BMS BMSE 250	BMS BMSE 315	BMS BMSE 375
Geometric displacement (cm³/rev.)		80.6	100.8	125	157.2	200	252	314.5	370
Max. speed (rpm)	cont.	800	748	600	470	375	300	240	200
	int.	988	900	720	560	450	360	280	240
Max. torque (N•m)	cont.	190	240	310	316	400	450	560	536
	int.	240	300	370	430	466	540	658	645
	peak	260	320	400	472	650	690	740	751
Max. output (kW)	cont.	15.9	18.8	19.5	15.6	15.7	14.1	14.1	11.8
	int.	20.1	23.5	23.2	21.2	18.3	17.0	18.9	17
Max. pressure drop (MPa)	cont.	17.5	17.5	17.5	15	14	12.5	12	10
	int.	21	21	21	21	16	16	14	12
	peak	22.5	22.5	22.5	22.5	22.5	20	18.5	14
Max. flow (L/min)	cont.	65	75	75	75	75	75	75	75
	int.	80	90	90	90	90	90	90	90
Max. inlet pressure (MPa)	cont.	25	25	25	25	25	25	25	25
	int.	30	30	30	30	30	30	30	30
Weight (kg)		9.8	10	10.3	10.7	11.1	11.6	12.3	12.6

* 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.

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Performance Data

BMS 125 [125cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5 (Max.cont.)	21	22.5 (Max.int.)
15	55 / **112**	120 / **110**	176 / **103**	245 / **96**	309 / **93**	349 / **90**	375 / **84**
30	55 / **222**	120 / **220**	175 / **217**	250 / **208**	324 / **200**	375 / **199**	408 / **190**
40	55 / **302**	120 / **298**	175 / **292**	250 / **284**	324 / **276**	370 / **268**	408 / **260**
50	50 / **379**	115 / **373**	176 / **368**	248 / **363**	320 / **350**	370 / **339**	406 / **328**
60	45 / **456**	113 / **448**	171 / **443**	245 / **439**	324 / **425**	368 / **406**	406 / **393**
Max.cont. 75	45 / **570**	110 / **563**	167 / **555**	240 / **546**	314 / **533**	370 / **515**	401 / **503**
Max.int. 90	40 / **685**	105 / **676**	162 / **670**	237 / **659**	309 / **644**	365 / **625**	398 / **610**

Torque (N•m) 309
Speed (rpm) **644**

BMS 160 [157.2cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5 (Max.cont.)	21	22.5 (Max.int.)
15	70 / **91**	140 / **88**	205 / **84**	305 / **78**	371 / **76**	430 / **74**	473 / **58**
30	75 / **185**	150 / **182**	214 / **176**	321 / **168**	380 / **164**	427 / **162**	490 / **152**
40	70 / **248**	150 / **244**	215 / **239**	320 / **229**	378 / **224**	425 / **217**	488 / **204**
50	65 / **312**	145 / **308**	215 / **304**	316 / **294**	378 / **288**	425 / **280**	482 / **270**
60	65 / **375**	145 / **371**	214 / **365**	315 / **357**	375 / **346**	424 / **336**	482 / **323**
Max.cont. 75	60 / **470**	138 / **465**	208 / **458**	311 / **447**	375 / **436**	420 / **426**	
Max.int. 90	56 / **564**	130 / **559**	200 / **551**	308 / **541**	370 / **526**	414 / **517**	

cont.
int.

BMS 200 [200cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5 (Max.cont.)	22.5 (Max.int.)
15	89 / **73**	190 / **71**	295 / **68**	400 / **64**	484 / **60**	608 / **52**
30	87 / **148**	190 / **146**	294 / **143**	399 / **140**	485 / **135**	600 / **127**
40	86 / **193**	188 / **191**	292 / **189**	397 / **186**	483 / **181**	594 / **172**
50	80 / **247**	184 / **245**	290 / **243**	395 / **240**	480 / **235**	590 / **226**
60	74 / **298**	178 / **295**	286 / **293**	390 / **290**	475 / **284**	582 / **273**
Max.cont. 75	58 / **372**	160 / **369**	275 / **365**	375 / **362**	460 / **358**	570 / **346**
Max.int. 90	49 / **440**	148 / **435**	260 / **430**	355 / **422**	445 / **411**	555 / **401**

BMS 250 [252cm³/rev.]

Pressure (MPa)

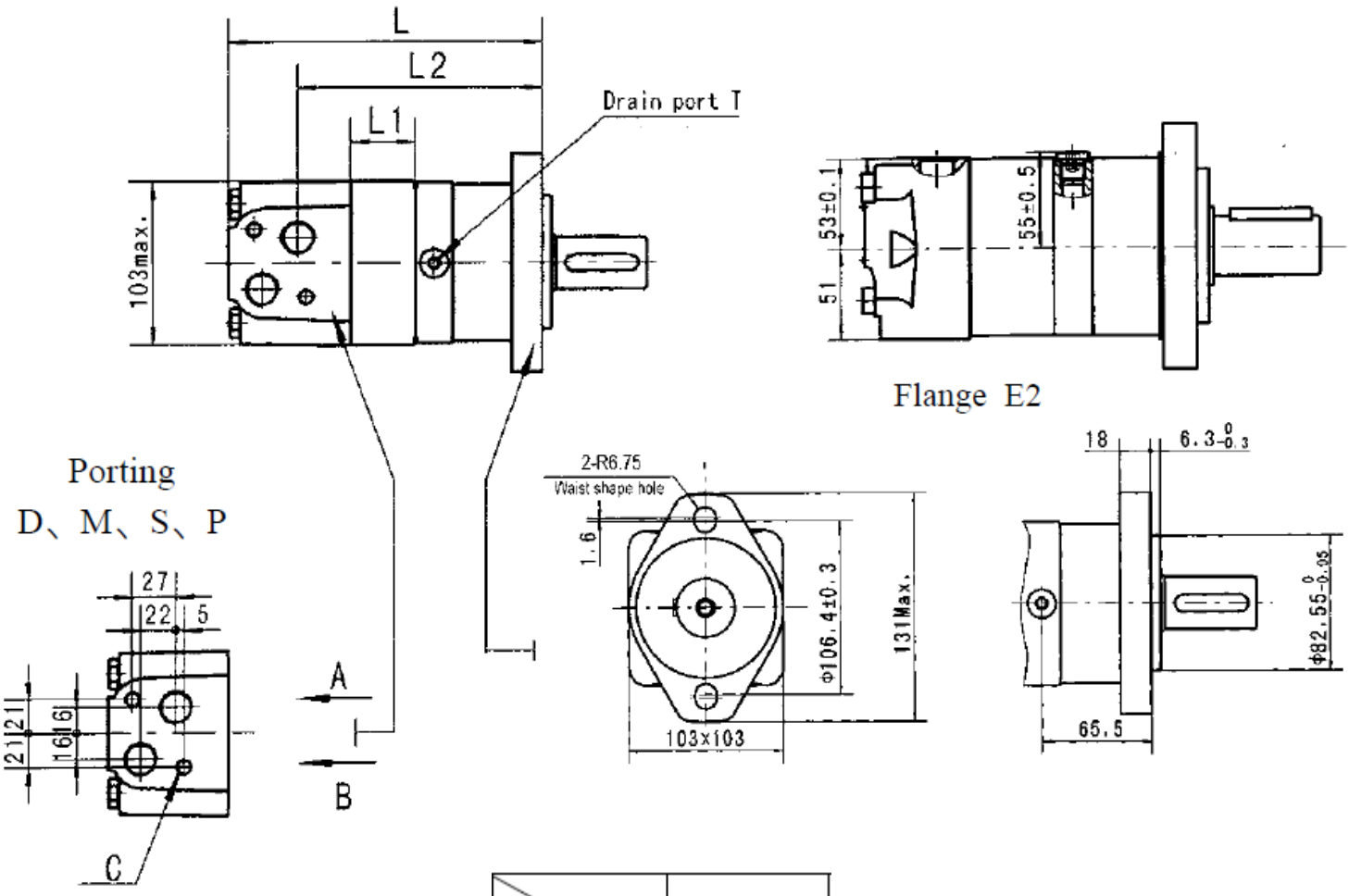
Flow (L/min)	3.5	7	10.5	14	17.5 (Max.cont.)	22.5 (Max.int.)
15	117 / **58**	230 / **55**	355 / 350	**52** / **51**	450 / **47**	652 / **46**
30	117 / **118**	225 / **117**	**112** / 348	446 / **109**	560 / **107**	657 / **106**
40	115 / **160**	225 / **156**	**152** / 345	442 / **150**	552 / **146**	650 / **142**
50	110 / **202**	220 / **200**	**198** / 340	438 / **196**	546 / **195**	645 / **192**
60	105 / **242**	220 / **239**	**237** / 338	435 / **234**	542 / **231**	642 / **229**
Max.cont. 75	95 / **300**	215 / **296**	**293** / 332	430 / **286**	537 / **282**	638 / **278**
Max.int. 90	90 / **360**	205 / **354**	**348**	420 / **340**	530 / **332**	632 / **326**

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BMS DIMENSIONS AND MOUNTING DATA

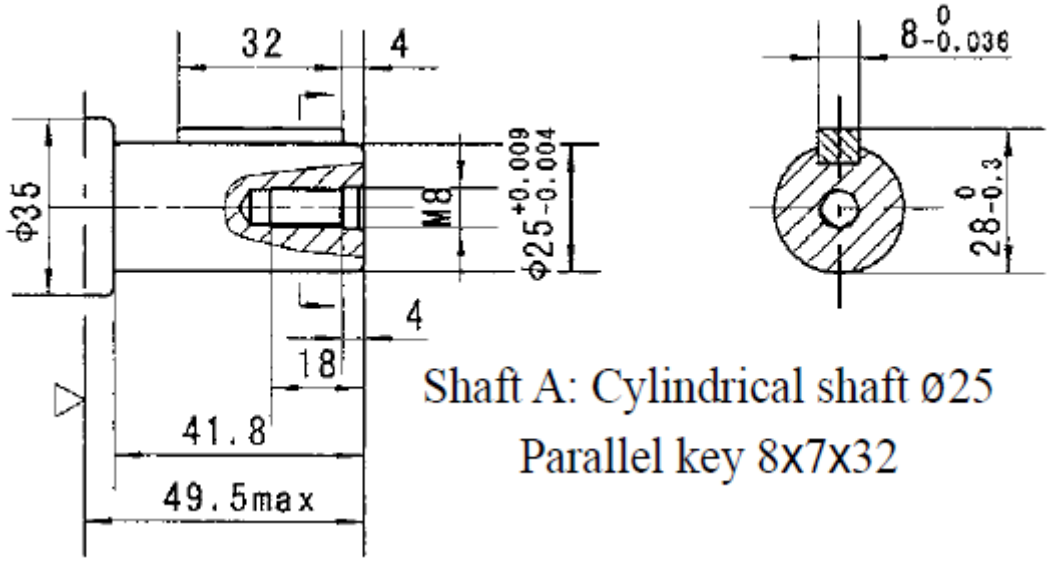
Model	L	L1	L2
BMS-160	181.5	27.5	137.7
BMS-200	189	35.1	145.2



Code / Mounting	D (depth)
P(A,B)	G1/2(18)
T	G1/4(12)
C	2-M10(13)

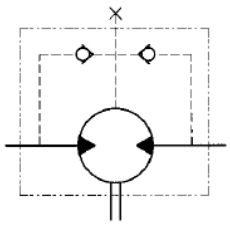
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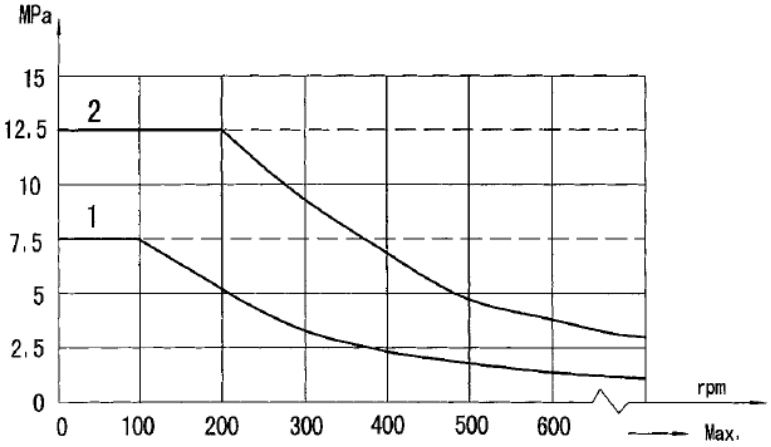
BMS SHAFT EXTENSIONS DIMENSIONS DATA



Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32

Permissible shaft seal pressure





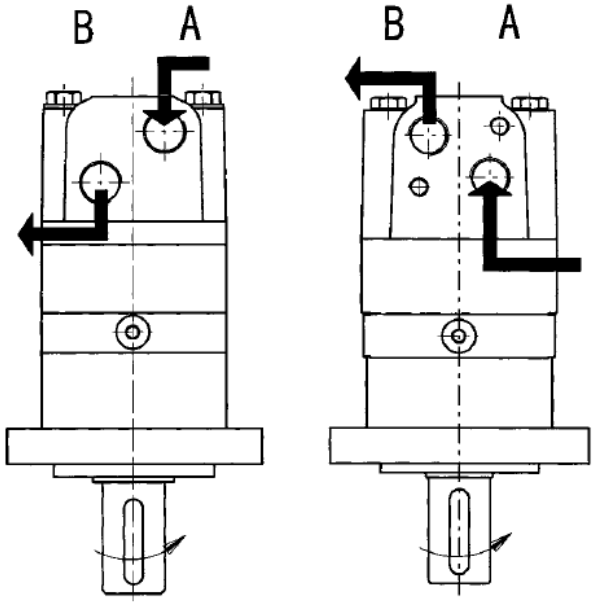
Note:1.Chart for standard shaft seal;
2.Chart for high pressure shaft seal.

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.

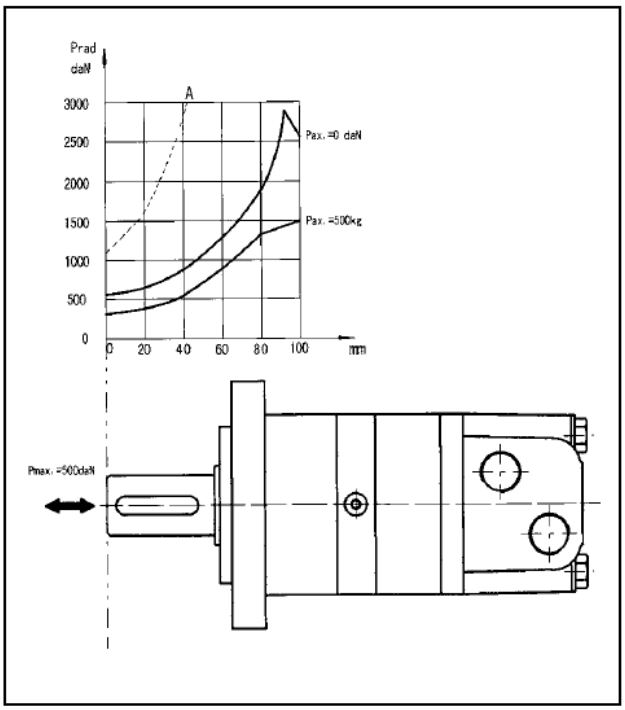
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Standard direction of shaft rotation: Standard

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.