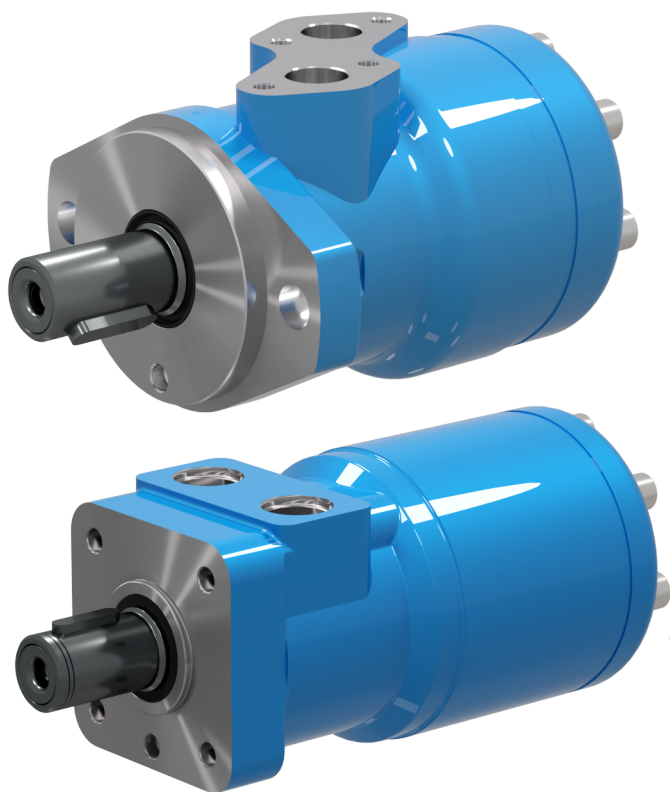




BREVINI®

Motion Systems



BR - BS Orbital Motors

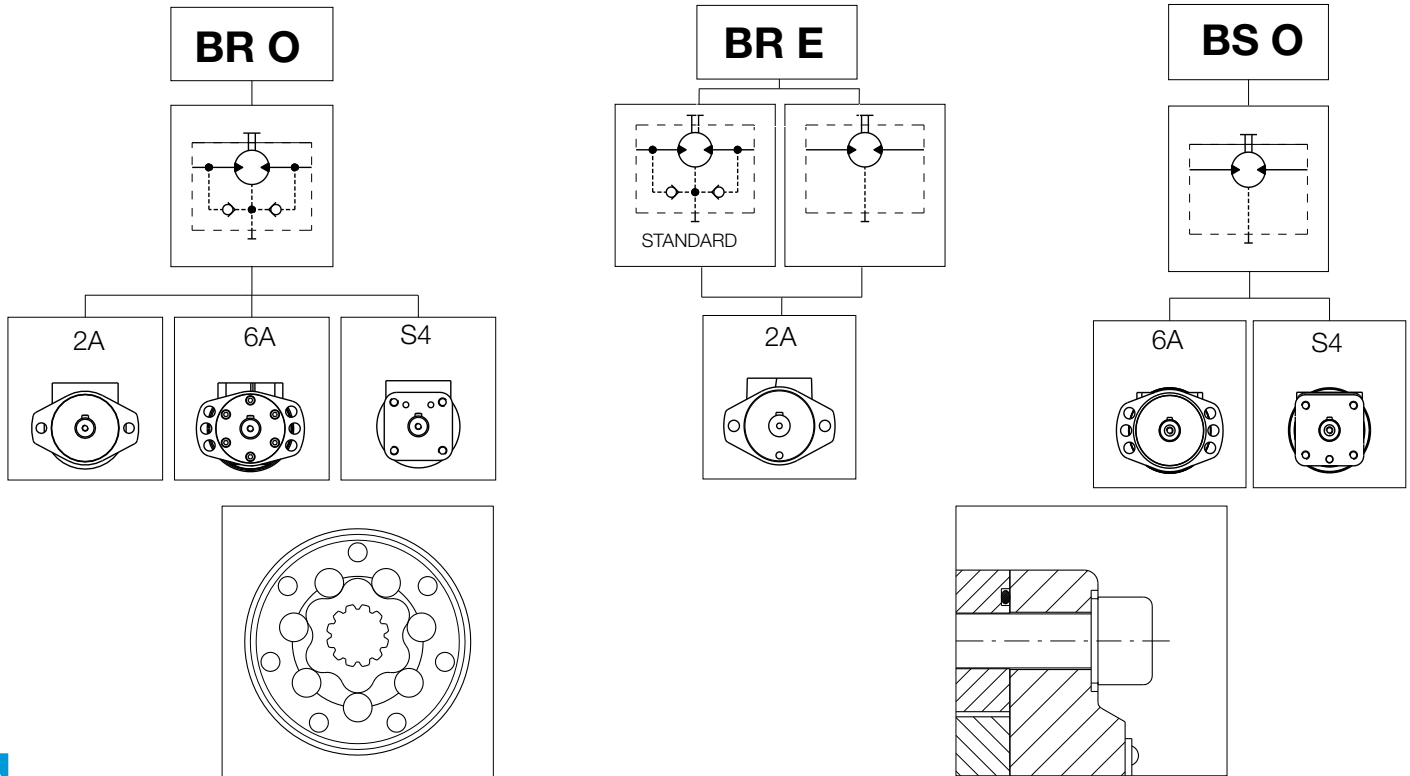


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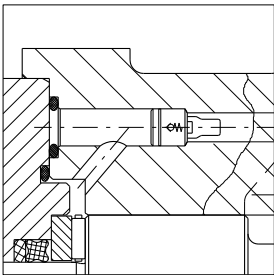
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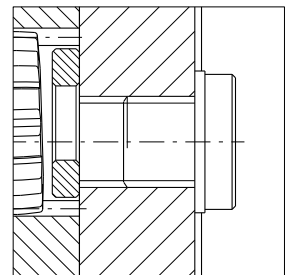


High-performance roller for improved efficiency and life.

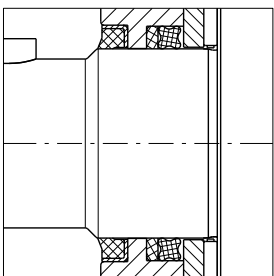
High resistance stainless steel screws capable of withstanding the stress induced by high pressure.



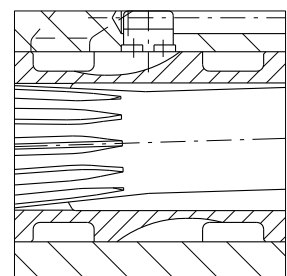
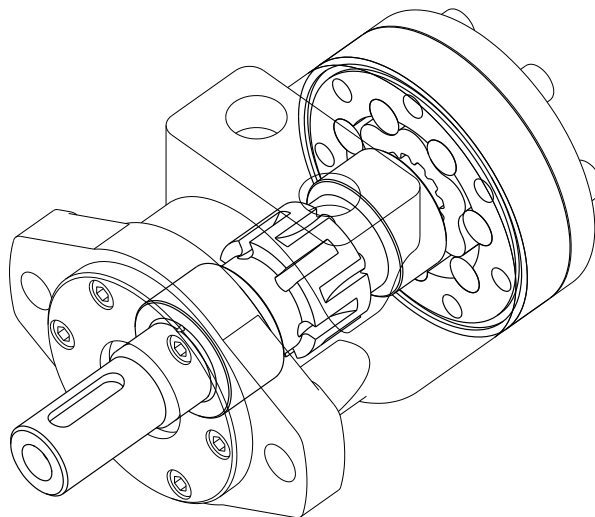
Built in check valves: to relieve case pressure to the low pressure side of the motor.



Case drain at rear (shown with plug).



Dust seal to protect the high pressure shaft seal from dust and debris.



Spool valve integral to the output shaft of new design features optimizing clearance geometry and so minimizing the oil slippage.

BR / BS MOTOR TECHNICAL DATA WITH CL250 AND LC254 PARALLEL KEYED SHAFT

Motor	Displacement	Max. input pressure			Max. differential pressure			Max. torque		Max. flow		Max. speed		Max. power	
	cm ³ /rev [in ³ /rev]	bar [psi]			bar [psi]			Nm [lbf·ft]		l/min [U.S. gpm]		rpm		kW [hp]	
BR-BS 050	51.6 [3.14]	Cont	175 [2537]	Cont	140 [2030]	Cont	103 [75.9]	Cont	40 [10.6]	Cont	775	Cont	6.8 [9.1]		
		Int ¹⁾	200 [2900]		175 [2540]		126 [92.8]		50 [13.2]		969		8.4 [11.2]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 065	64.9 [3.95]	Cont	175 [2537]	Cont	150 [2175]	Cont	140 [103.1]	Cont	50 [13.2]	Cont	770	Cont	9.2 [12.3]		
		Int ¹⁾	200 [2900]		185 [2682]		166 [122.3]		60 [15.9]		924		10.6 [14.2]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 080	80.4 [4.9]	Cont	175 [2537]	Cont	175 [2537]	Cont	197 [145.1]	Cont	60 [15.9]	Cont	746	Cont	13 [17.4]		
		Int ¹⁾	200 [2900]		200 [2900]		218 [160.6]		75 [19.8]		933		15 [20.1]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 100	100 [6.1]	Cont	175 [2537]	Cont	175 [2537]	Cont	237 [174.6]	Cont	60 [15.9]	Cont	600	Cont	13 [17.4]		
		Int ¹⁾	200 [2900]		200 [2900]		277 [204.1]		75 [19.8]		750		15 [20.1]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 130	125.7 [7.66]	Cont	175 [2537]	Cont	175 [2537]	Cont	300 [221.1]	Cont	60 [15.9]	Cont	477	Cont	12.5 [16.8]		
		Int ¹⁾	200 [2900]		200 [2900]		340 [250.5]		75 [19.8]		597		14.5 [19.4]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 160	160 [9.76]	Cont	175 [2537]	Cont	140 [2030]	Cont	296 [218.1]	Cont	60 [15.9]	Cont	375	Cont	10 [13.4]		
		Int ¹⁾	200 [2900]		175 [2540]		375 [276.3]		75 [19.8]		469		12.5 [16.8]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 200	200 [12.2]	Cont	175 [2537]	Cont	115 [1667]	Cont	297 [218.8]	Cont	60 [15.9]	Cont	300	Cont	8.5 [11]		
		Int ¹⁾	200 [2900]		140 [2030]		380 [280]		75 [19.8]		375		10 [13.4]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 250	250 [15.2]	Cont	175 [2537]	Cont	90 [1305]	Cont	297 [218.8]	Cont	60 [15.9]	Cont	240	Cont	7.1 [9.5]		
		Int ¹⁾	200 [2900]		120 [1740]		377 [277.8]		75 [19.8]		300		8.5 [11]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 315	314.5 [19.1]	Cont	175 [2537]	Cont	70 [1020]	Cont	300 [221.1]	Cont	60 [15.9]	Cont	191	Cont	5 [6.7]		
		Int ¹⁾	200 [2900]		100 [1450]		420 [309.5]		75 [19.8]		238		6.6 [8.8]		
		Peak ²⁾	225 [3262]		210 [3045]										
BR-BS 400	393 [23.9]	Cont	175 [2537]	Cont	55 [800]	Cont	292 [215.2]	Cont	60 [15.9]	Cont	153	Cont	4.1 [5.4]		
		Int ¹⁾	200 [2900]		85 [1230]		425 [313.2]		75 [19.8]		191		6.1 [8.1]		
		Peak ²⁾	225 [3262]		175 [2537]										

BR MOTOR TECHNICAL DATA WITH SD250 SPLINED SHAFT BS MOTOR TECHNICAL DATA WITH SE250 SPLINED SHAFT

Motor	Displacement	Max. input pressure			Max. differential pressure			Max. torque		Max. flow		Max. speed		Max. power	
	cm ³ /rev [in ³ /rev]	bar [psi]			bar [psi]			Nm [lbf·ft]		l/min [U.S. gpm]		rpm		kW [hp]	
BR-BS 050	51.6 [3.14]	Cont	175 [2537]	Cont	140 [2030]	Cont	103 [75.9]	Cont	40 [10.6]	Cont	775	Cont	6.8 [9.1]		
		Int ¹⁾	200 [2900]		175 [2540]		126 [92.8]		50 [13.2]		969		8.4 [11.2]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 065	64.9 [3.95]	Cont	175 [2537]	Cont	150 [2175]	Cont	140 [103.1]	Cont	50 [13.2]	Cont	770	Cont	9.2 [12.3]		
		Int ¹⁾	200 [2900]		185 [2682]		166 [122.3]		60 [15.9]		924		10.6 [14.2]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 080	80.4 [4.9]	Cont	175 [2537]	Cont	175 [2537]	Cont	197 [145.1]	Cont	60 [15.9]	Cont	746	Cont	13 [17.4]		
		Int ¹⁾	200 [2900]		200 [2900]		218 [160.6]		75 [19.8]		933		15 [20.1]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 100	100 [6.1]	Cont	175 [2537]	Cont	175 [2537]	Cont	237 [174.6]	Cont	60 [15.9]	Cont	600	Cont	13 [17.4]		
		Int ¹⁾	200 [2900]		200 [2900]		277 [204.1]		75 [19.8]		750		15 [20.1]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 130	125.7 [7.66]	Cont	175 [2537]	Cont	175 [2537]	Cont	300 [221.1]	Cont	60 [15.9]	Cont	477	Cont	12.5 [16.8]		
		Int ¹⁾	200 [2900]		200 [2900]		340 [250.5]		75 [19.8]		597		14.5 [19.4]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 160	160 [9.76]	Cont	175 [2537]	Cont	165 [2390]	Cont	350 [257.9]	Cont	60 [15.9]	Cont	375	Cont	11.8 [15.8]		
		Int ¹⁾	200 [2900]		200 [2900]		428 [315.4]		75 [19.8]		469		14.3 [19.1]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 200	200 [12.2]	Cont	175 [2537]	Cont	130 [1890]	Cont	335 [246.8]	Cont	60 [15.9]	Cont	300	Cont	9.7 [12.9]		
		Int ¹⁾	200 [2900]		165 [2390]		446 [328.7]		75 [19.8]		375		12 [16]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 250	250 [15.2]	Cont	175 [2537]	Cont	105 [1522]	Cont	347 [255.7]	Cont	60 [15.9]	Cont	240	Cont	8.3 [11.1]		
		Int ¹⁾	200 [2900]		135 [1957]		424 [312.4]		75 [19.8]		300		9.6 [12.8]		
		Peak ²⁾	225 [3262]		225 [3262]										
BR-BS 315	314.5 [19.1]	Cont	175 [2537]	Cont	85 [1232]	Cont	362 [266.7]	Cont	60 [15.9]	Cont	191	Cont	6 [8]		
		Int ¹⁾	200 [2900]		115 [1670]		484 [356.7]		75 [19.8]		238		7.6 [10.1]		
		Peak ²⁾	225 [3262]		210 [3045]										
BR-BS 400	393 [23.9]	Cont	175 [2537]	Cont	65 [942]	Cont	345 [254.2]	Cont	60 [15.9]	Cont	153	Cont	4.9 [6.5]		
		Int ¹⁾	200 [2900]		90 [1310]		450 [331.6]		75 [19.8]		191		6.5 [8.7]		
		Peak ²⁾	225 [3262]		175 [2537]										

¹⁾ Intermittent duty must not exceed 10% each minute.

²⁾ Peak duty must not exceed 1% each minute.

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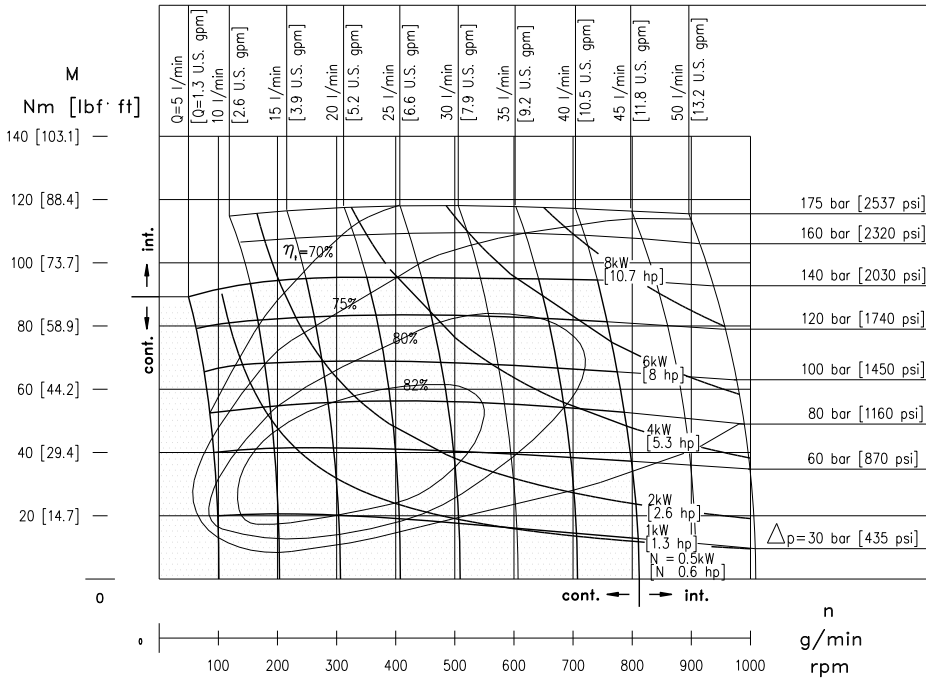


BR MOTOR TECHNICAL DATA WITH CL320, C3175 PARALLEL KEYED SHAFT AND CN320 TAPERED SHAFT

Motor	Displacement	Max. input pressure		Max. differential pressure		Max. torque		Max. flow		Max. speed		Max. power	
	cm ³ /rev [in ³ /rev]	bar [psi]		bar [psi]		Nm [lbf-ft]		l/min [U.S. gpm]		rpm		kW [hp]	
BR 050	51.6 [3.14]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	140 [2030] 175 [2540] 225 [3262]	Cont Int ¹⁾	103 [75.9] 126 [92.8]	Cont Int ¹⁾	40 [10.6] 50 [13.2]	Cont Int ¹⁾	775 969	Cont Int ¹⁾	6.8 [9.1] 8.4 [11.2]
BR 065	64.9 [3.95]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	150 [2175] 185 [2682] 225 [3262]	Cont Int ¹⁾	140 [103.1] 166 [122.3]	Cont Int ¹⁾	50 [13.2] 60 [15.9]	Cont Int ¹⁾	770 924	Cont Int ¹⁾	9.2 [12.3] 10.6 [14.2]
BR 080	80.4 [4.9]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int* Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int*	197 [145.1] 218 [160.6]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	746 933	Cont Int ¹⁾	13 [17.4] 15 [20.1]
BR 100	100 [6.1]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾	237 [174.6] 277 [204.1]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	600 750	Cont Int ¹⁾	13 [17.4] 15 [20.1]
BR 130	125.7 [7.66]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾	300 [221.1] 340 [250.5]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	477 597	Cont Int ¹⁾	12.5 [16.8] 14.5 [19.4]
BR 160	160 [9.76]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾	370 [272.6] 428 [315.4]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	375 469	Cont Int ¹⁾	12.5 [16.8] 14.3 [19.1]
BR 200	200 [12.2]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾	450 [331.6] 540 [397.9]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	300 375	Cont Int ¹⁾	13.4 [17.9] 14.4 [19.2]
BR 250	250 [15.2]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾	578 [425.9] 630 [464.3]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	240 300	Cont Int ¹⁾	13.8 [18.4] 14.2 [19]
BR 315	314.5 [19.1]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	135 [1960] 175 [2537] 210 [3045]	Cont Int ¹⁾	575 [423.7] 736 [542.4]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	191 238	Cont Int ¹⁾	9.6 [12.8] 11.5 [15.4]
BR 400	393 [23.9]	Cont Int ¹⁾ Peak ²⁾	175 [2537] 200 [2900] 225 [3262]	Cont Int ¹⁾ Peak ²⁾	115 [1670] 150 [2180] 175 [2537]	Cont Int ¹⁾	612 [451] 750 [552.7]	Cont Int ¹⁾	60 [15.9] 75 [19.8]	Cont Int ¹⁾	153 191	Cont Int ¹⁾	8.6 [11.5] 10.8 [14.4]

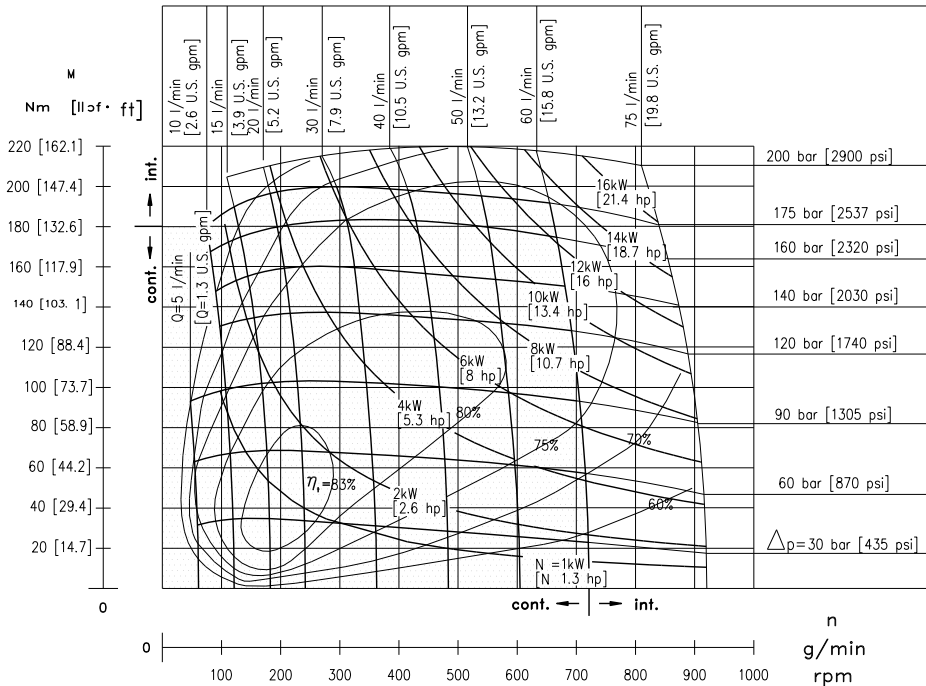
¹⁾ Intermittent duty must not exceed 10% each minute.²⁾ Peak duty must not exceed 1% each minute.Click **DANA** button to return to section indexClick **i** button to return to main index

BR - BS 50



Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

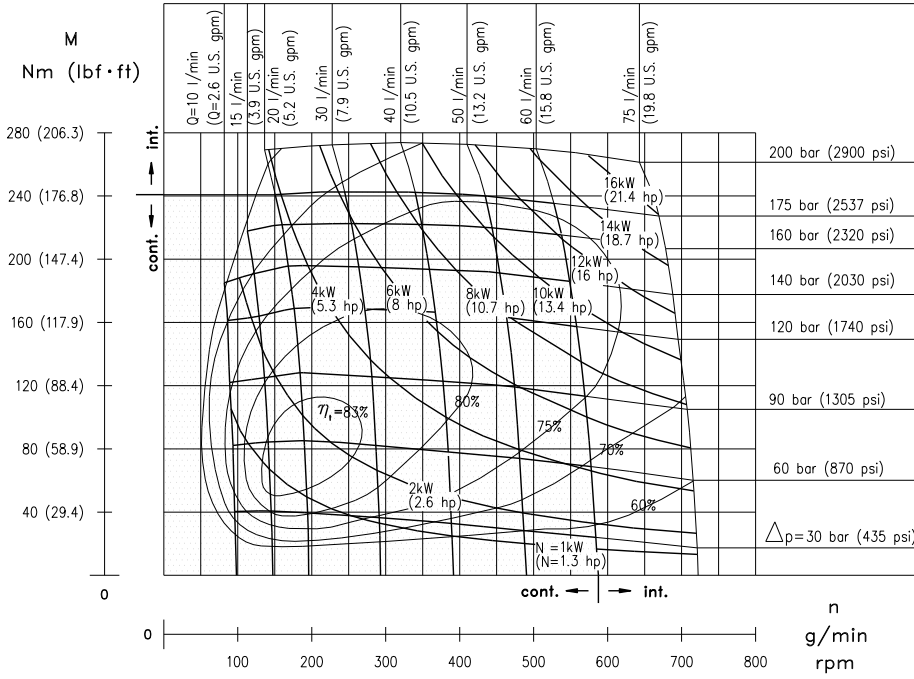
BR - BS 80



Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

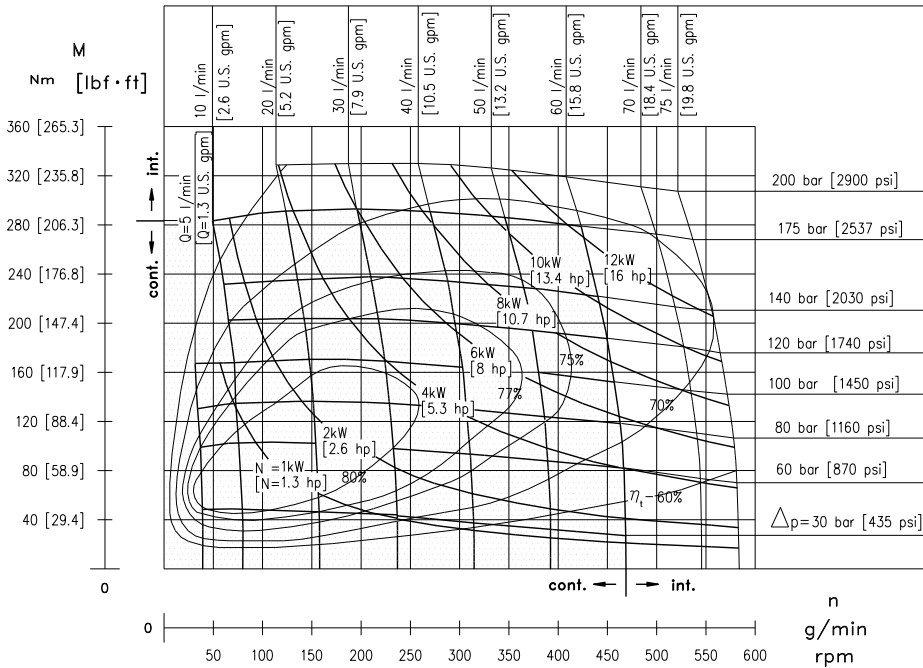


BR - BS 100



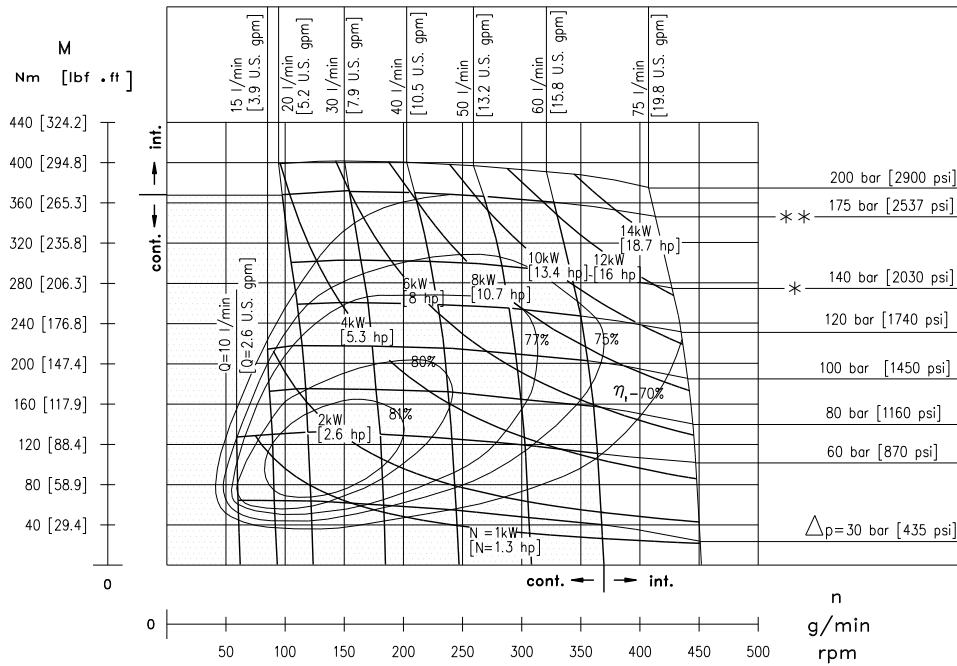
Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

BR - BS 130



Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

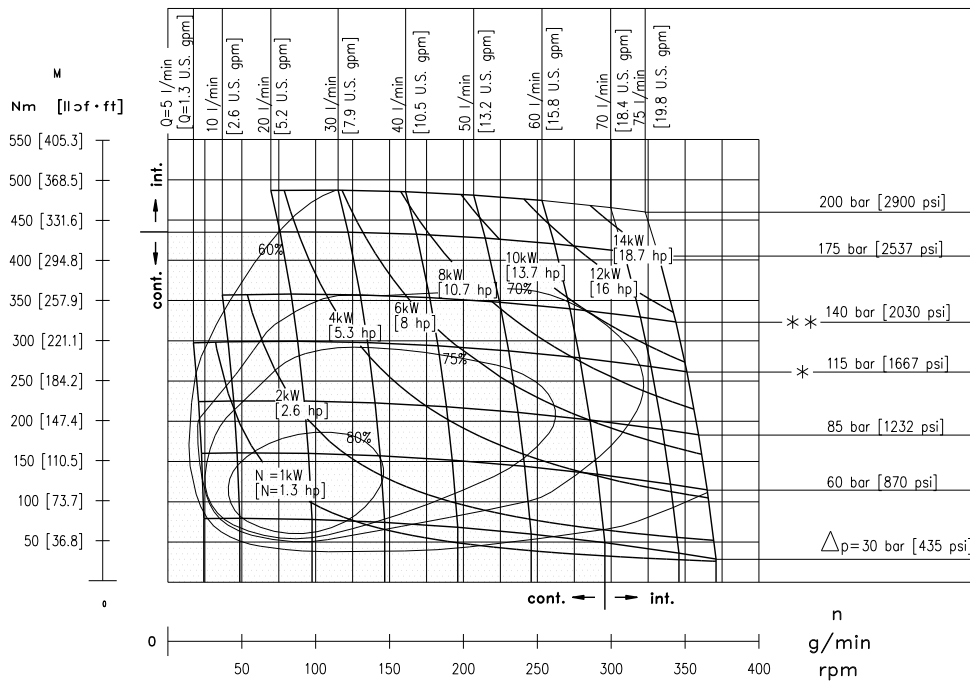
BR - BS 160



- * Constant maximum pressure for Ø25 shaft model.
- * Intermittent maximum pressure for Ø25 shaft model.

Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

BR - BS 200



- * Constant maximum pressure for Ø25 shaft model.
- * Intermittent maximum pressure for Ø25 shaft model.

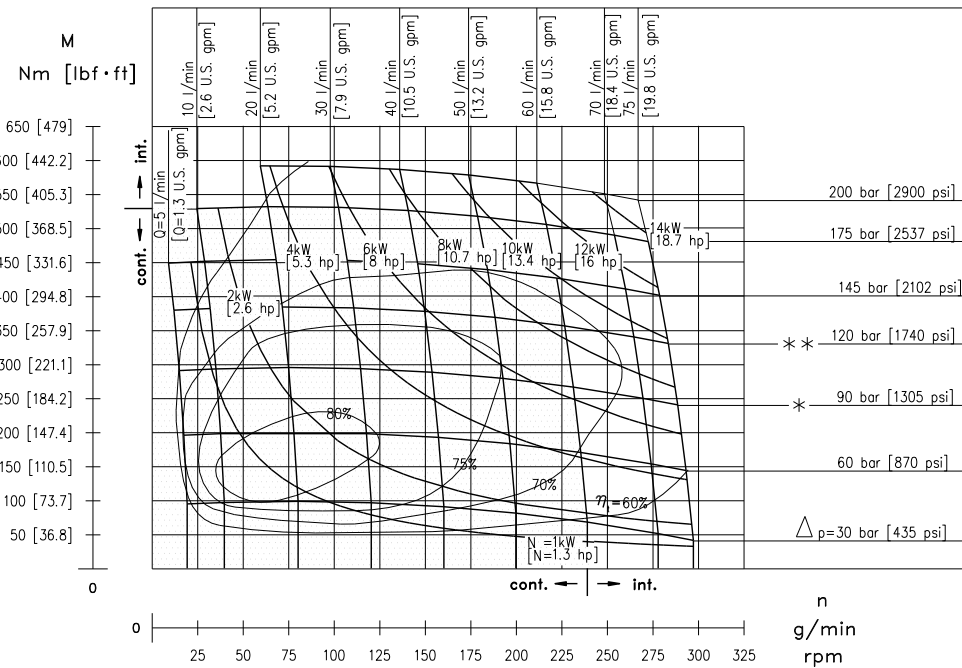
Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

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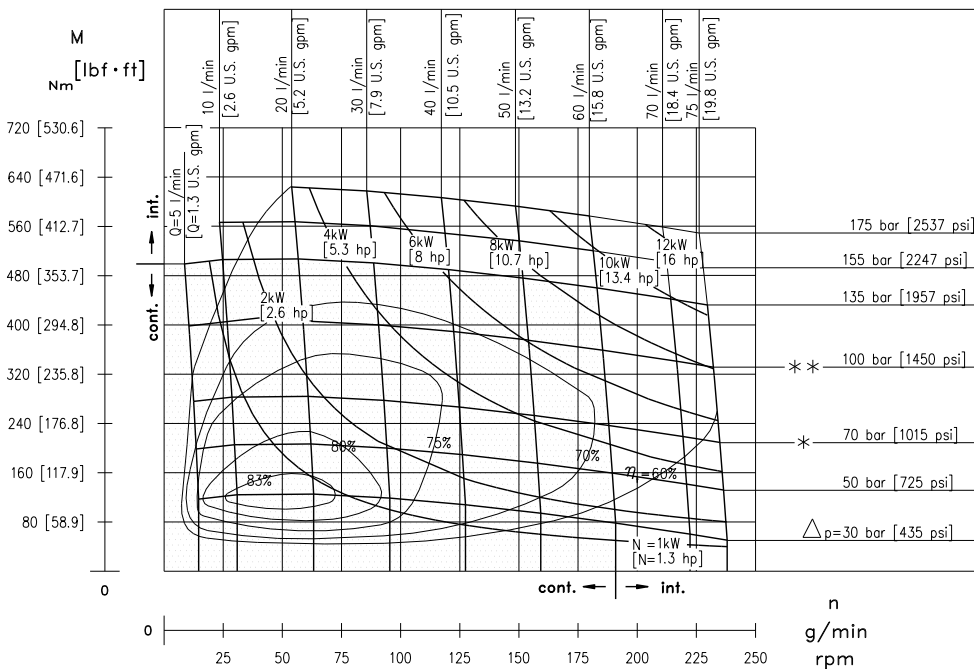
BR - BS 250



- * Constant maximum pressure for Ø25 shaft model.
- * Intermittent maximum pressure for Ø25 shaft model.

Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

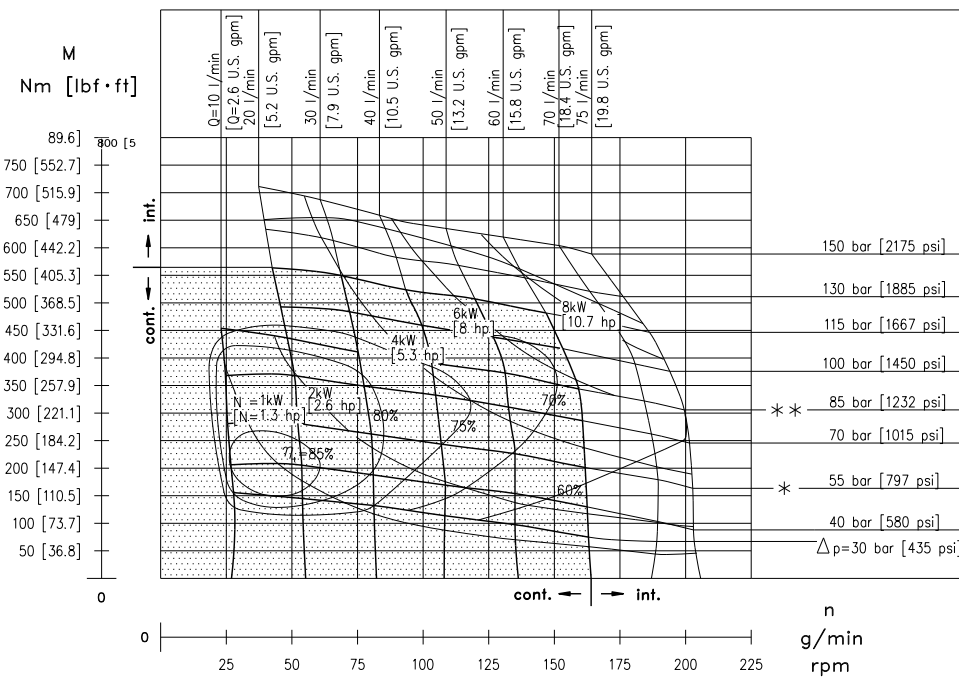
BR - BS 315



- * Constant maximum pressure for Ø25 shaft model.
- * Intermittent maximum pressure for Ø25 shaft model.

Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.

BR - BS 400



- * Constant maximum pressure for Ø25 shaft model.
- * Intermittent maximum pressure for Ø25 shaft model.

Exceeding continuous pressure values or exceeding flow values indicated, must not occur simultaneously.



Motor	Max back pressure with drain line bar[psi]		Max starting pressure in unloaded conditions bar[psi]	Min starting torque Nm[[bf-ft]		Oil flow in the drain line ⁵⁾ l/min [U.S. gpm]		Min speed ⁵⁾ rpm	
	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]		at Δp max at Δp max	Cont Int ¹⁾	75 [55.3] 95 [70.0]	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]		0.7 [0.2] 1.6 [0.4]
BR 050	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int ¹⁾	75 [55.3] 95 [70.0]	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	0.7 [0.2] 1.6 [0.4]	10
BR 065	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int ¹⁾	120 [88.4] 140 [103.1]	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	0.7 [0.2] 1.6 [0.4]	10
BR 080	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int ¹⁾	160 [118] 180 [133]	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	0.7 [0.2] 1.6 [0.4]	10
BR 100	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int ¹⁾	200 [147] 225 [166]	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	0.7 [0.2] 1.6 [0.4]	10
BR 130	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	9 [131]	at Δp max at Δp max	Cont Int ¹⁾	255 [188] 290 [214]	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	0.7 [0.2] 1.6 [0.4]	10
BR 160	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	7 [102]	at Δp max at Δp max	Cont Int ¹⁾	310 (250) [228 (184)] ³⁾ 360 (300) [265 (221)] ³⁾	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	0.7 [0.2] 1.6 [0.4]	10
BR 200	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int ¹⁾	390 (250) [287 (184)] ³⁾ 450 (320) [332 (236)] ³⁾	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	1.5 [0.4] 3.0 [0.8]	10
BR 250	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int ¹⁾	490 (250) [361 (184)] ³⁾ 560 (310) [413 (228)] ³⁾	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	1.5 [0.4] 3.0 [0.8]	10
BR 315	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int ¹⁾	470 (250) [346 (184)] ³⁾ 610 (300) [450 (221)] ³⁾	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	1.5 [0.4] 3.0 [0.8]	10
BR 400	Cont Int ¹⁾ Peak ²⁾	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int ¹⁾	510 (250) [376 (184)] ³⁾ 670 (320) [494 (236)] ³⁾	at Δp=100 bar [1450 psi] at Δp=140 bar [2030 psi]	1.5 [0.4] 3.0 [0.8]	10

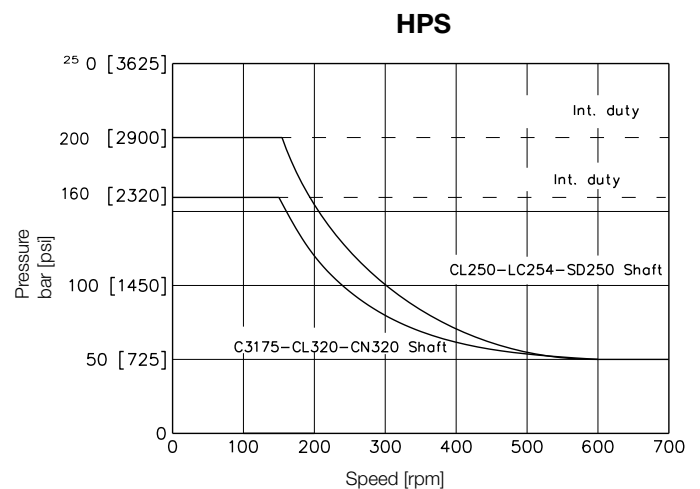
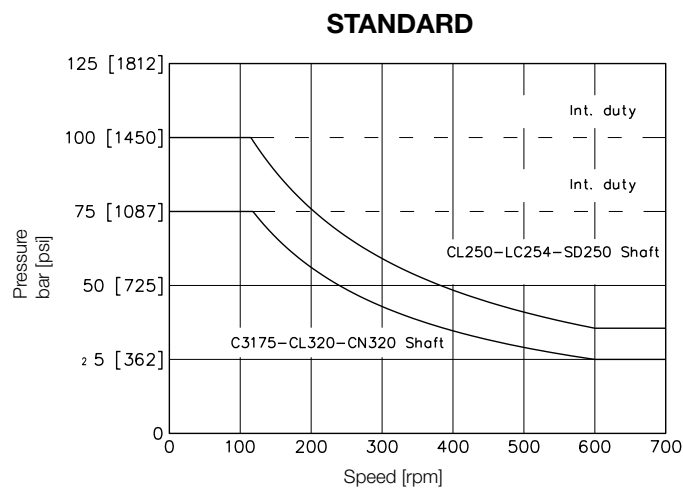
- ¹⁾ Intermittent duty must not exceed 10% each minute.
- ²⁾ Peak duty must not exceed 1% each minute.
- ³⁾ The values in brackets are referred to CL250/LC254/SD250 shaft.
- ⁴⁾ Oil Viscosity 37 cSt.
- ⁵⁾ For applications at lower rpm or at high radial loads pls. consult Brevini Fluid Power.

BR - BS

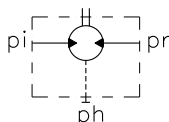
Max. Permissible Shaft Seal Pressure BR

Max. return pressure without drain line or max. pressure in the drain line. Motor are supplied in standard seal version (Standard chart) or in HPS seal version (HPS chart). For pressure and speeds not showed in the curve below, please contact Brevini Fluid Power.

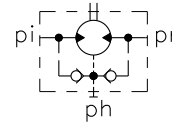
Note: Tachometer or Brake versions is not available with HPS seals.



ph = housing pressure
pi = inlet pressure
pr = outlet pressure



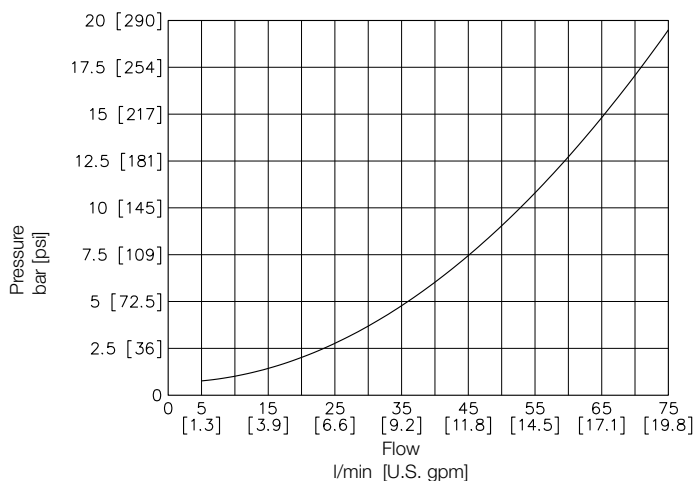
$$ph = \frac{pi + pr}{2} \text{ [bar]}$$



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Pressure Loss **BR**



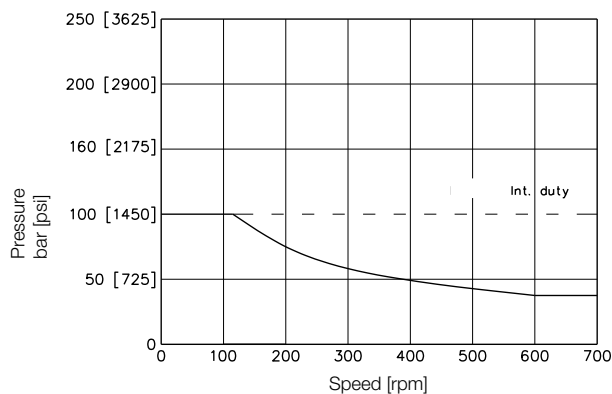
Curve according tests carried out with a relevant number of motors and using hydraulic oil with cinematic viscosity of 37 cSt at 45° C temperature.

Max. Permissible Shaft Seal Pressure **BS**

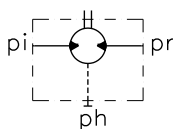
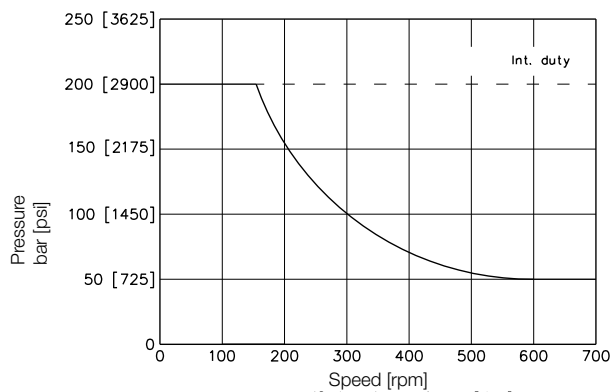
Max. return pressure without drain line or max. pressure in the drain line. Motor are supplied in standard seal version (Standard chart) or in HPS seal version (HPS chart).

For pressure and speeds not showed in the curve below, please contact Brevini Fluid Power.

STANDARD (QDR)



HPS



$$Ph = \frac{pi + pr}{2} \text{ [bar]}$$

ph = housing pressure
pi = inlet pressure
pr = outlet pressure

- The case pressure without drain line is the average between inlet and return pressure.
- As standard, BS motors are supplied with drain port (STANDARD).
- Max. permissible return (back) pressure with drain line 175 bar [2540 psi]

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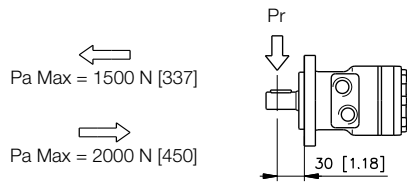
Shaft Load

BR

The permissible radial shaft load depends on

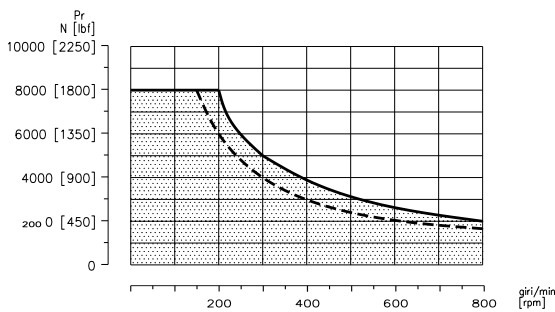
- Speed (n)
- Distance (L) from the point of load to the mounting flange
- Mounting flange version
- Shaft version

Radial load capacity (Pr) curve according to speed (n) and distance (L) from flange, valid for the 2-bolt flange type "2A" and 6-bolt flange type "6A".

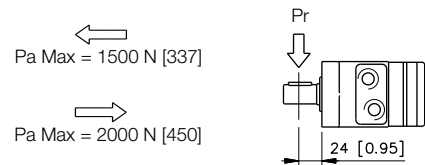


Shafts	2A Flange	6A Flange
CL250 LC254 SD250	$Pr = \frac{800}{n} \cdot \frac{250000}{95 + L} [N]$	$Pr = \frac{800}{n} \cdot \frac{250000}{95 + L} [N]$
C3175 CL320 CN320		$Pr = \frac{800}{n} \cdot \frac{187500}{95 + L} [N]$

This formula being valid for $n \geq 200$ rpm
For $n < 200$ rpm $Pr_{max} = 8000$ N [1800 lbf]



Radial load capacity (Pr) curve according to speed (n) and distance (L) from flange, valid for the 4-bolt flange type "S4".



Shafts	S4 Flange
CL250 LC254 SD250	$Pr = \frac{800}{n} \cdot \frac{242000}{97 + L} [N]$

This formula being valid for $n \geq 200$ rpm
For $n < 200$ rpm $Pr_{max} = 8000$ N [1800 lbf]

- The curve show the relation between (Pr) and (n)
- L= 30 mm [1.18 in] for motors with 2A and 6A flange
 - L= 24 mm [0.95 in] for motors with S4 flange

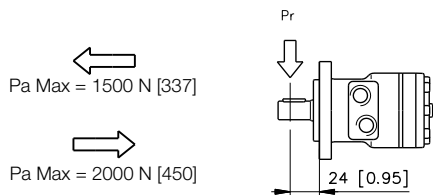
- For shafts C3175-CL320-CN320
- For shafts CL250-LC254-SD250

Shaft Load **BS**

The permissible radial shaft load depends on

- Speed (n)
- Distance (L) from the point of load to the mounting flange
- Mounting flange version

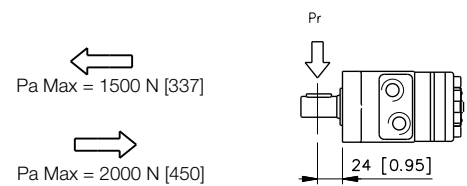
Radial load capacity (Pr) curve according to speed (n) and distance (L) from flange, valid for the 6-bolt flange type "6A".



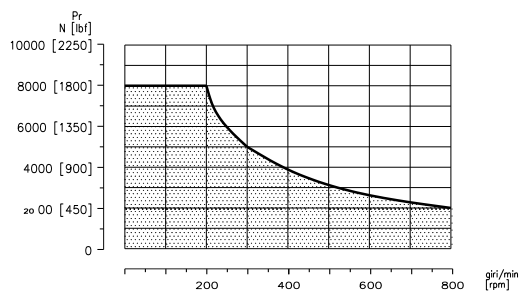
This formula being valid for $n \geq 200$ rpm
For $n < 200$ rpm $P_{rmax} = 8000$ N [1800 lbf]

Radial load capacity (Pr) curve according to speed (n) and distance (L) from flange, valid for the 4-bolt flange type "S4".

$$Pr = \frac{800}{n} \cdot \frac{242000}{97 + L} \text{ [N]}$$



This formula being valid for $n \geq 200$ rpm
For $n < 200$ rpm $P_{rmax} = 8000$ N [1800 lbf]



The curve show the relation between (Pr) and (n)
• $L = 24$ mm [0.95 in] for motors with S4 and 6A flange



The following alphanumeric digits system has been developed to identify all of the configuration options for the BR motors. Use the model code below to specify the desired features. All alphanumeric digits system of the code must be present when ordering. We recommend to carefully read the catalogue before filling the ordering code.

1	2	3	4	5	6	7	8	9	10	11	12
Series	Displacement	Version	Mount flange	Shaft end	Main port	Seal	Valve	Valve feature	Option	Version feature	Painting
BR	130	O	2A	CL250	M08	N	M081	028	xx	QDR	xx

1	Series	
BR	Orbital motor	

2	Displacement	
050	50 cm ³ /giro [3.05 in ³ /rev]	
065	65 cm ³ /giro [3.965 in ³ /rev]	
080	80 cm ³ /giro [4.88 in ³ /rev]	
100	100 cm ³ /giro [6.1 in ³ /rev]	
130	130 cm ³ /giro [7.93 in ³ /rev]	
160	160 cm ³ /giro [9.76 in ³ /rev]	
200	200 cm ³ /giro [12.2 in ³ /rev]	
250	250 cm ³ /giro [15.25 in ³ /rev]	
315	315 cm ³ /giro [19.21 in ³ /rev]	
400	400 cm ³ /giro [24.4 in ³ /rev]	

3	Version	
O	O Version (standard)	
E	E Version	

4	Mounting Flange	Version	
		O	E
2A	Oval 2 bolts (standard BR)	●	●
6A	Oval 6 bolts (standard BS)	●	-

● Available
- Not Available

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Shaft end		Version			
		O Flange			E Flange
		2A	6A	S4	2A
CL250	Ø25 mm [0.97 in] Parallel keyed (standard BR)	●	●	●	●
LC254	Ø25.4 mm [1 in] Parallel keyed (standard BS)	●	●	●	●
C3175	Ø31.75 mm [1.23 in] Parallel keyed	-	●	-	-
CN320	Tapered Shaft (special on request)	-	●	-	-
CL320	Ø32 mm [1.24 in] Parallel keyed	-	●	-	-
SD250	Splined Shaft (SAE 6B 1" 6T spline)	●	●	●	●
SE250	Splined Shaft (SAE 6B 1" 6T spline)	●	●	●	●

6

Main Port		Version	
		O	E
M08	1/2 G BSPP (40x8) Main Ports (standard BR)	●	-
R08	1/2 G BSPP (36x36) Main Ports	-	●

7

Seal	
N	NBR (standard)
V	FKM (Not available in HPS version)

8

Valve		Main port	
		M08	R08
xxxx	Not required (standard)	●	●
M081	VAF 08 - D pressure relief valve	●	-
M082	VAF 08 - D/AF pressure relief valve	●	-
M083	VAAF 31 anticavitation and Anti-Shock Valve	●	-
M084	AF shuttle-valve	●	-
M085	VCD 08 - S/AF overcentre Valve	●	-
M086	VCR1 08 - D/AF double-acting overcentre valve with shuttle valve	●	-
M087	VCR1 08 D/AF LDP double-acting overcentre valve with shuttle valve	●	-
R081⁽¹⁾	VAF E8 - D pressure relief valve	-	●
R082⁽¹⁾	VCD E8 - S/AF overcentre Valve	-	●
R083⁽¹⁾	1/2 G BSP VCR1 E8 - D/AF double-acting overcentre valve with shuttle valve P (36x36) Main Ports	-	●
R084⁽¹⁾	VCR1 E8 D/AF LDP double-acting overcentre valve with shuttle valve (36x36) Main Ports	-	●



¹⁾ Minimum quantity for order 20 pieces

- Available
- Not Available

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9		Valve											
Valve feature		xxxx	M081	M082	M083	M084	M085	M086	M087	R081	R082	R083	R084
000	Feature not necessary (standard)	●	-	-	-	●	-	-	-	-	-	-	-
028	Not Set 30÷70 bar [435 to 1015 psi]	-	●	●	-	-	-	-	-	-	-	-	-
017	Not Set 70÷200 bar [1015 to 2900 psi]	-	●	●	-	-	-	-	-	-	-	-	-
031	Not Set 50÷130 bar [725 to 1885 psi]	-	-	-	●	-	-	-	-	●	-	-	-
021	Not Set 100÷250 bar [1450 to 3625 psi]	-	-	-	●	-	-	-	-	-	-	-	-
020	Not Set 100÷200 bar [1450 to 2900 psi]	-	-	-	-	-	-	-	-	●	-	-	-
425	Pilot Ratio 4.25:1	-	-	-	-	-	-	●	●	-	-	●	●
800	Pilot Ratio 8:1	-	-	-	-	-	-	●	●	-	-	-	-
70D	Pilot Ratio 7:1 - Direction of rotation CW	-	-	-	-	-	●	-	-	-	-	-	-
35D	Pilot Ratio 3.5:1 - Direction of rotation CW	-	-	-	-	-	●	-	-	-	●	-	-
70S	Pilot Ratio 7:1 - Direction of rotation CCW	-	-	-	-	-	●	-	-	-	-	-	-
35S	Pilot Ratio 3.5:1 - Direction of rotation CCW	-	-	-	-	-	●	-	-	-	●	-	-

10		Option
xx	None	

11		Version Feature		Version	
		O	E		
QDR	QUAD-RING version with Rear drain 1/4" G (BSPP) (standard BR)	●	●		
HPS	High Pressure Seal (without Rear Drain)	●	●		
TC1	TAC/U tachometer (with sensor arrangement)	●	●		
TC4	TAC/M tachometer	●	-		
TC5	TAC/M-E tachometer (with sensor arrangement)	●	-		
SV0	Version without built-in check valves + Rear Drain - 1/4" G (BSPP)	-	●		
SVH	Version without built-in check valves + High Pressure Seal (without Rear Drain)	-	●		
SVA	Version without built-in check valves + High Pressure Seal + Rear Drain - 1/4"G (BSPP)	-	●		
FP0	Brake	●	-		
DPM	High Pressure Seal + Rear Drain - 1/4" G (BSPP)	●	●		

12		Painting
xx	Not Painted (standard)	
01	Black Painted RAL 9005	
02	Blue Painted RAL 5015	
05	Grey Painted RAL 7016	
06	Grey Painted RAL 7015	
22	Grey Painted RAL 7035	
23	Grey Painted RAL 7036	

● Available
- Not Available

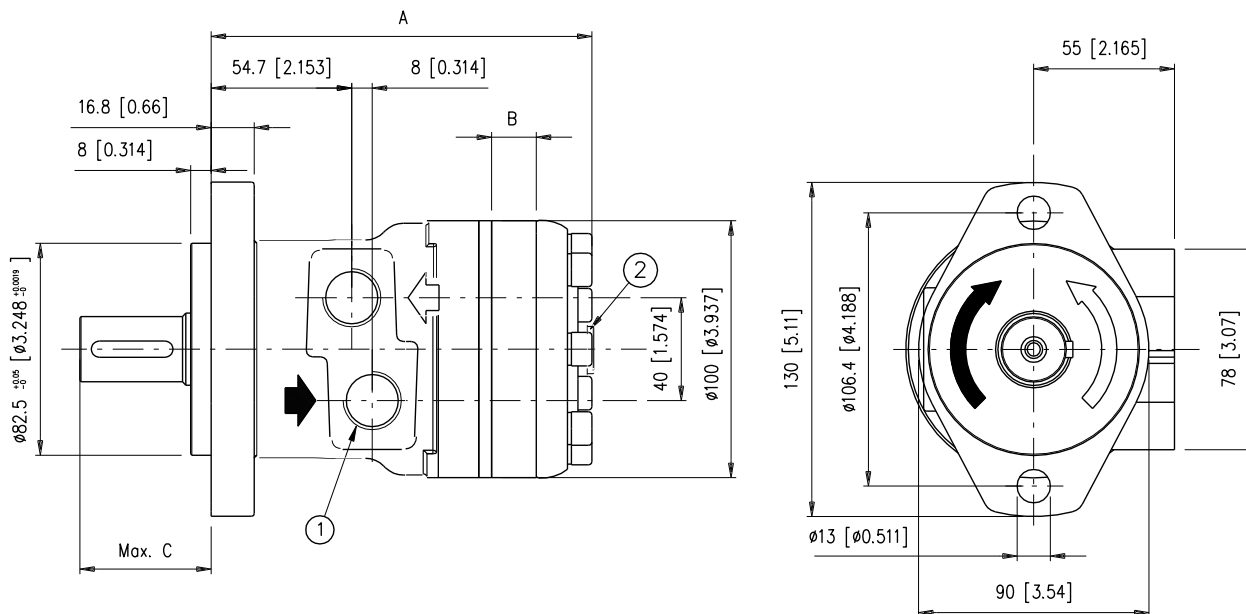
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BR O 2A M08



- ① No. 2 1/2 G (BSPP) main ports thread depth 18 mm [0.70 in]
- ② 1/4 G (BSPP) drain motor thread depth 15 mm [0.59 in] Max. Not in HPS version.

For shafts dimensions see page [E20](#)

SHAFT	CL250	LC254	SD250	
C	mm [in]	54 [2.12]	54 [2.12]	54 [2.12]

	BR O 050	BR O 065	BR O 080	BR O 100	BR O 130	BR O 160	BR O 200	BR O 250	BR O 315	BR O 400	
A	mm [in]	139.5 [5.49]	141.8 [5.58]	144.5 [5.68]	147.7 [5.81]	152.1 [5.98]	158.2 [6.22]	165.3 [6.50]	173.9 [6.84]	185.1 [7.28]	198.4 [7.81]
B	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight	kg [lb]	7.2 [15.8]	7.4 [16.3]	7.5 [16.5]	7.7 [16.9]	8 [17.6]	8.3 [18.2]	8.6 [18.9]	9.1 [20]	9.8 [21.5]	10.1 [22.2]

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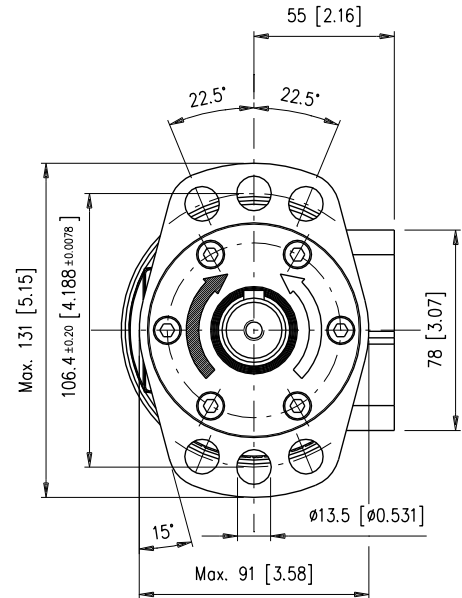
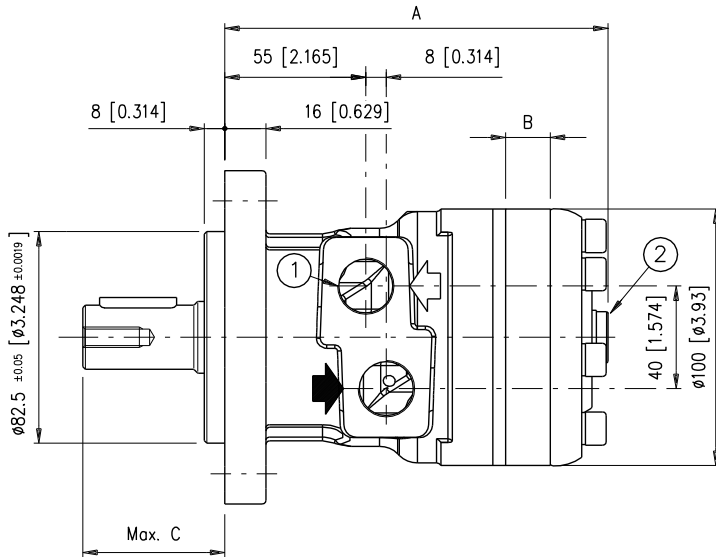
9

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BR O 6A M08



- ① No. 2 1/2 G (BSPP) main ports thread depth 18 mm [0.70 in]
 ② 1/4 G (BSPP) drain motor thread depth 15 mm [0.59 in]

For shafts dimensions see page



SHAFT	CL250	LC254	SD250	CL320	C3175	CN320	
C	mm [in]	55.3 [2.17]	55.3 [2.17]	55.3 [2.17]	68.3 [2.68]	59.1 [2.32]	68.5 [2.69]

	BR O 050	BR O 065	BR O 080	BR O 100	BR O 130	BR O 160	BR O 200	BR O 250	BR O 315	BR O 400	
A	mm [in]	139.5 [5.49]	141.8 [5.58]	144.5 [5.68]	147.7 [5.81]	152.1 [5.98]	158.2 [6.22]	165.3 [6.50]	173.9 [6.84]	185.1 [7.28]	198.4 [7.81]
B	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight	kg [lb]	7.3 [16] ¹⁾ 7.4 [16.3]	7.5 [16.5] ¹⁾ 7.6 [16.7]	7.6 [16.7] ¹⁾ 7.7 [16.9]	7.8 [17.1] ¹⁾ 9 [19.8]	8.1 [17.8] ¹⁾ 8.3 [18.2]	8.4 [18.5] ¹⁾ 8.6 [18.9]	8.7 [19.1] ¹⁾ 9 [19.8]	9.2 [20.2] ¹⁾ 9.5 [20.9]	9.9 [21.8] ¹⁾ 10.2 [22.4]	10.2 [22.4] ¹⁾ 10.5 [23.1]

1) The values are referred to CL250 / LC254 / SD250 shaft

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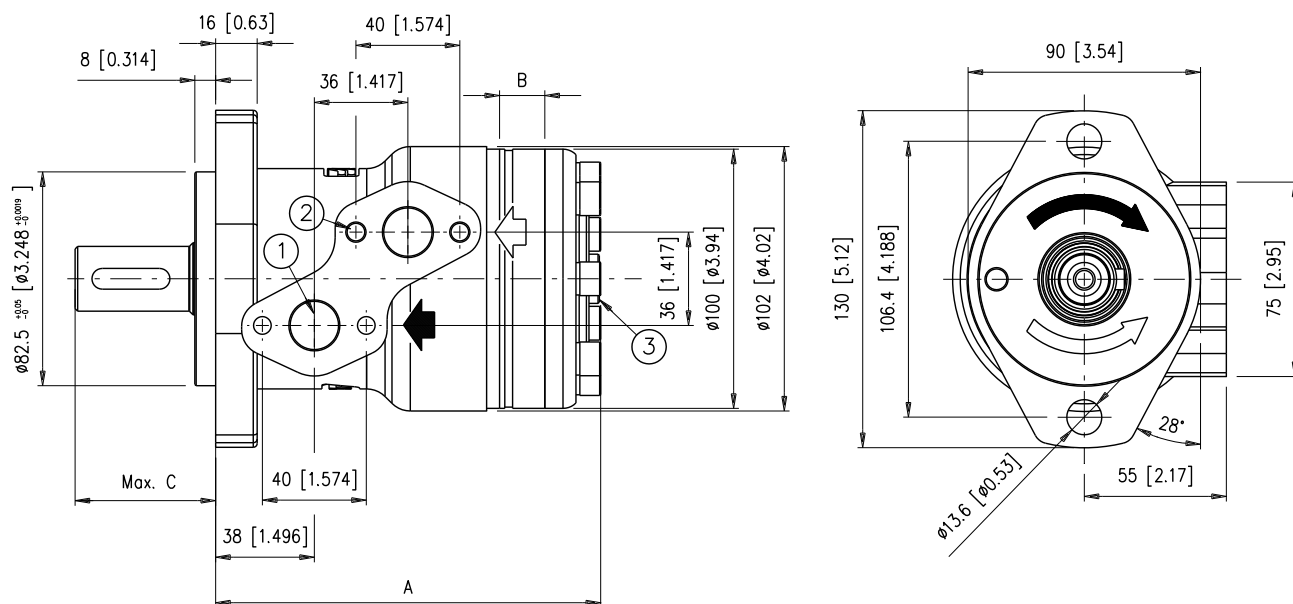
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BR E 2A R08



- ① No. 2 1/2 G (BSPP) main ports thread depth 18 mm [0.70 in]
- ② No. 4 M8 thread depth 15 mm [0.59 in]
- ③ 1/4 G (BSPP) drain motor thread depth 12 mm [0.472 in] (not in HPS version)

For shafts dimensions see page



SHAFT	CL250	LC254	SD250
C mm [in]	54 [2.12]	54 [2.12]	54 [2.12]

	BR E 050	BR E 065	BR E 080	BR E 100	BR E 130	BR E 160	BR E 200	BR E 250	BR E 315	BR E 400
A mm [in]	139.8 [5.50]	144.8 [5.70]	148.2 [5.83]	152.6 [6.01]	158.6 [6.24]	165.6 [6.52]	174.3 [6.86]	185.6 [7.31]	199.2 [7.84]	142.1 [5.59]
B mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight kg [lb]	7.2 [15.8]	7.4 [16.3]	7.5 [16.5]	7.7 [16.9]	8 [17.6]	8.3 [18.2]	8.6 [18.9]	9.1 [20]	9.8 [21.5]	10.1 [22.2]

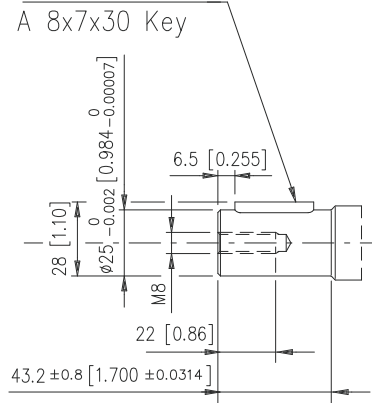
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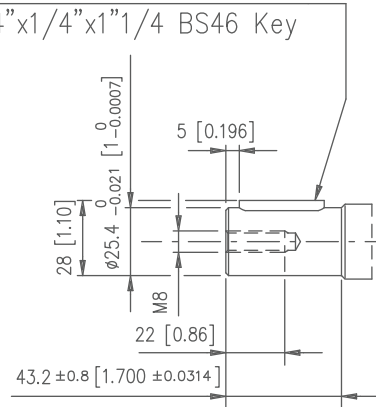


CL250 Cylindrical Shaft

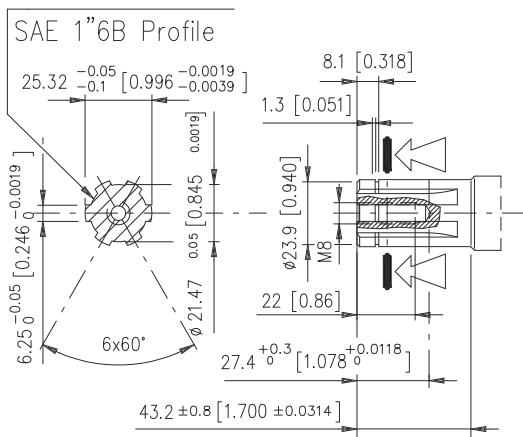
Max Torque Continuous 300 Nm [221.1 lbf-ft]

**LC254** Cylindrical Shaft

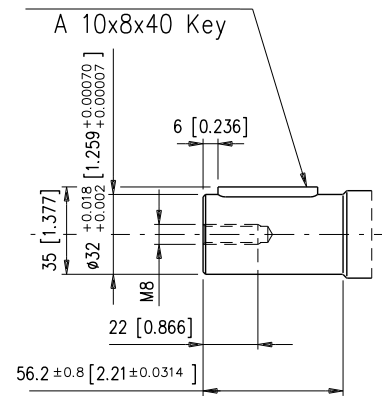
Max Torque Continuous 300 Nm [221.1 lbf-ft]

**SD250** Splined Shaft

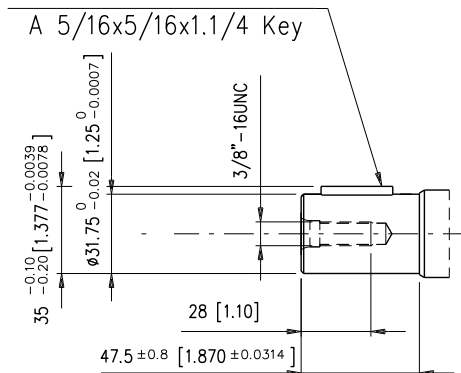
Max Torque Continuous 360 Nm [265.32 lbf-ft]

**CL320** Cylindrical Shaft

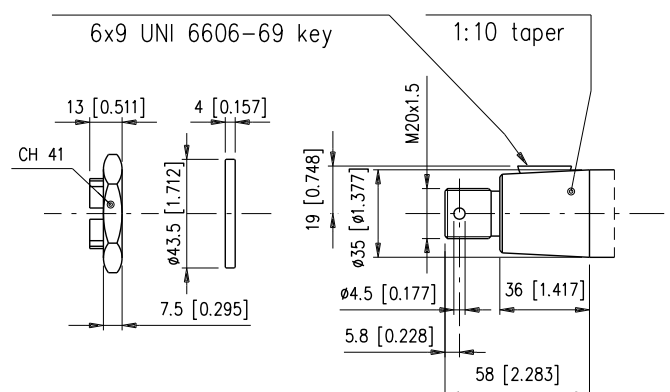
Max. Torque Continuous 768 Nm [566 lbf-ft]

**C3175** Cylindrical Shaft

Max. Torque Continuous 768 Nm [566 lbf-ft]

**CN320** Tapered Shaft

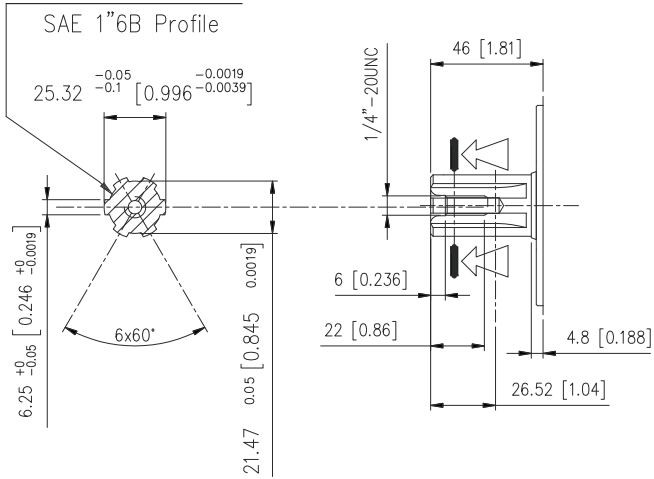
Max Torque Continuous 860 Nm [633.82 lbf-ft]

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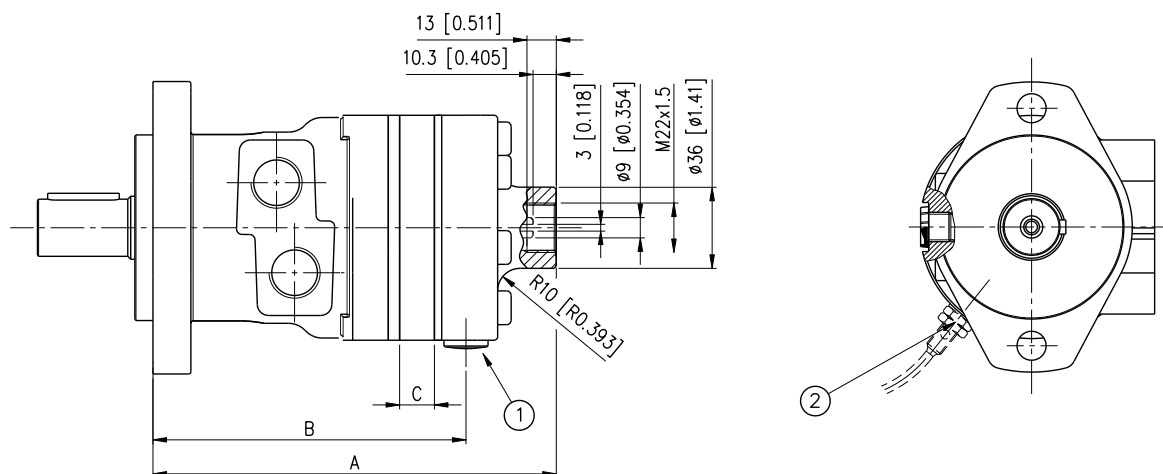
SE250 Splined Shaft

Max Torque Continuous 360 Nm [265.32 lbf-ft]



TC1 TAC/U tachometer

- 1) 1/4 G (BSPP) drain motor thread depth 12mm [0.472 in]
- 2) Sensor connection M8x1


WARNING:

Tacho shaft has a 6 times higher revolution speed than the motor shaft and opposite direction of rotation.

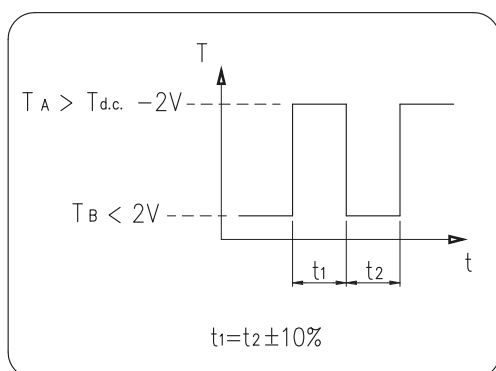
NOTE:

Axial or radial load on tacho shaft must be avoided. Max torque on tacho 1 Nm [0.737 lbf-ft].

The electronic sensor is not supplied: if required, please state it clearly on order form.

Max pressure admissible on the shaft seal with closed drain port 25 bar [362.5 psi].

		BR O 050	BR O 065	BR O 080	BR O 100	BR O 130	BR O 160	BR O 200	BR O 250	BR O 315	BR O 400
A	mm [in]	172 [6.77]	174.3 [6.86]	177 [6.96]	180.4 [7.10]	184.8 [7.27]	190.8 [7.51]	197.8 [7.78]	206.5 [8.12]	217.8 [8.57]	231.3 [9.10]
B	mm [in]	132 [5.19]	134.3 [5.28]	137 [5.39]	140.4 [5.52]	144.8 [5.70]	150.8 [5.93]	157.8 [6.21]	166.5 [6.55]	177.8 [7.00]	191.3 [7.53]
C	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight	kg [lb]	7.7 [16.9]	7.9 [17.4]	8 [17.6]	8.2 [18]	8.5 [18.7]	8.8 [19.3]	9.1 [20]	9.6 [21.1]	10.3 [22.7]	10.6 [23.3]

Output signal electronic tacho


- Number of pulses per revolution = 90 Inductive principle
- Output current PNP
- Voltage 10-65 V d.c.
- Max load 300 mA
- Max frequency 10000 Hz
- Temperature range -25C +85C
- Enclosure IP 67

Available versions:

- Sensor with 2 metres three wires cable (cod.424.0050.0000)
- Sensor with binder plug connection (cod.424.0060.0000) + binder connecting
- Plug with 5 metres three wires cable (cod.424.0080.0000)

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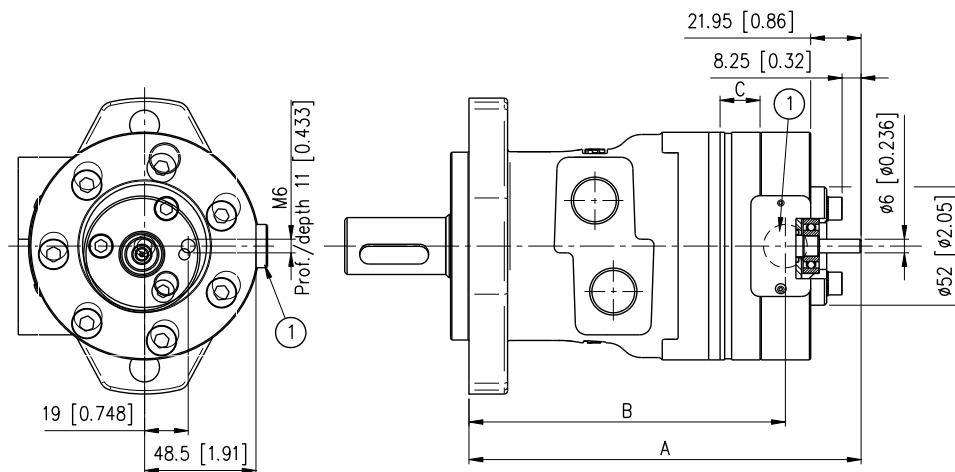
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TC4 TAC/M tachometer

1) 1/4 G (BSPP) drain motor thread depth 13 mm [0.511 in]

**WARNING:**

Tacho shaft has a 6 times higher revolution speed than the motor shaft and opposite direction of rotation.

NOTE:

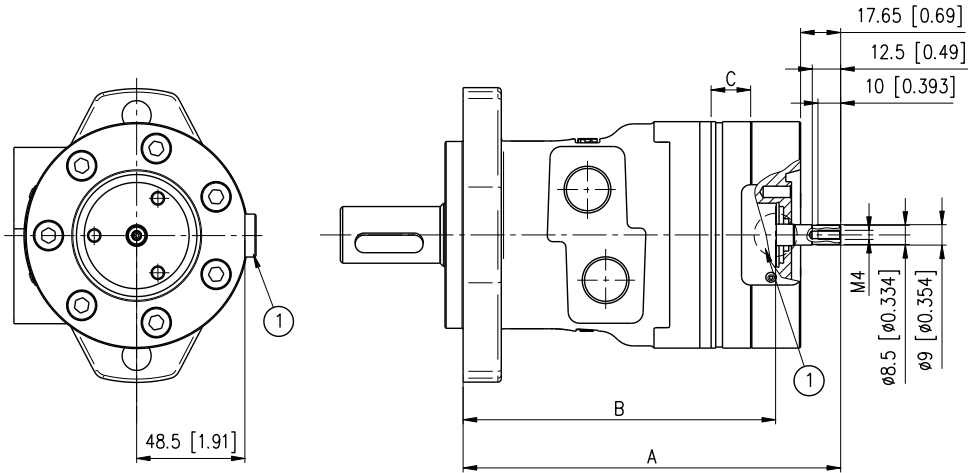
Axial or radial load on tacho shaft must be avoided.

BR

		BR O 050	BR O 065	BR O 080	BR O 100	BR O 130	BR O 160	BR O 200	BR O 250	BR O 315	BR O 400
A	mm [in]	162.2 [6.38]	164.5 [6.48]	167.2 [6.58]	170.5 [6.71]	175 [6.89]	181 [7.12]	188 [7.40]	196.6 [7.74]	208 [8.19]	221.5 [8.72]
B	mm [in]	129.3 [5.09]	131.6 [5.18]	134.3 [5.29]	137.7 [5.42]	142.1 [5.59]	148.1 [5.83]	155.1 [6.11]	163.8 [6.45]	175.1 [6.89]	188.7 [7.43]
C	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight	kg [lb]	7.7 [16.9]	7.9 [17.4]	8 [17.6]	8.2 [18]	8.5 [18.7]	8.8 [19.3]	9.1 [20]	9.6 [21.1]	10.3 [22.7]	10.6 [23.3]

TC5 TAC/M-E tachometer

1) 1/4 G (BSPP) drain motor thread depth 13 mm [0.511 in]

**WARNING:**

Tacho shaft has a 6 times higher revolution speed than the motor shaft and opposite direction of rotation.

NOTE:

Axial or radial load on tacho shaft must be avoided.

		BR O 050	BR O 065	BR O 080	BR O 100	BR O 130	BR O 160	BR O 200	BR O 250	BR O 315	BR O 400
A	mm [in]	157.9 [6.21]	160.2 [6.31]	162.9 [6.41]	166.2 [6.54]	170.7 [6.72]	176.7 [6.96]	183.7 [7.23]	192.3 [7.57]	203.7 [8.02]	217.2 [8.55]
B	mm [in]	129.3 [5.09]	131.6 [5.18]	134.3 [5.29]	137.7 [5.42]	142.1 [5.59]	148.1 [5.83]	155.1 [6.11]	163.8 [6.45]	175.1 [6.89]	188.7 [7.43]
C	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight	kg [lb]	7.7 [16.9]	7.9 [17.4]	8 [17.6]	8.2 [18]	8.5 [18.7]	8.8 [19.3]	9.1 [20]	9.6 [21.1]	10.3 [22.7]	10.6 [23.3]

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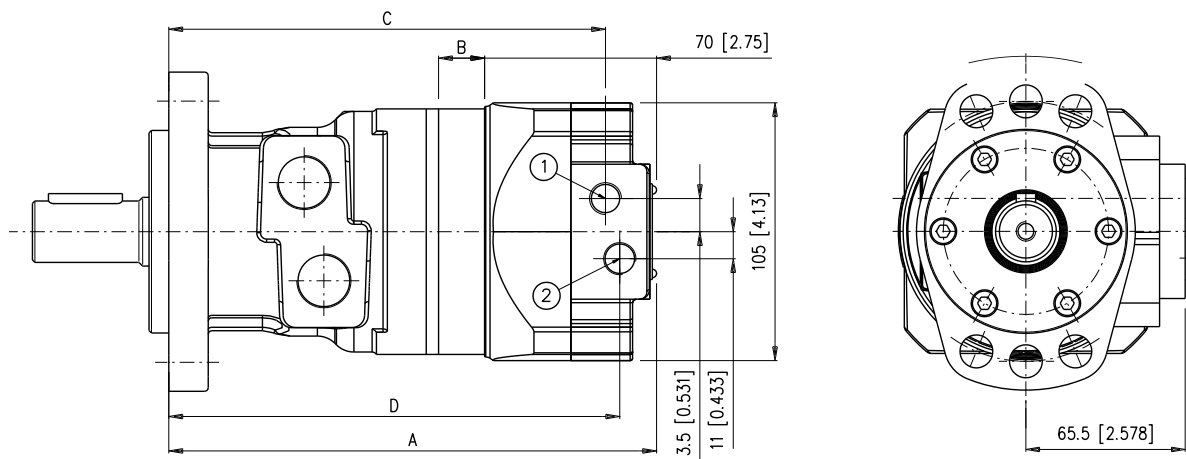
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FP0 Brake

- 1) 1/4 G (BSPP) brake releasing thread depth 13 mm [0.511 in]
- 2) 1/4 G (BSPP) drain motor thread depth 13 mm [0.511 in]



		BR O 050	BR O 065	BR O 080	BR O 100	BR O 130	BR O 160	BR O 200	BR O 250	BR O 315	BR O 400
A	mm [in]	187.9 [7.39]	190.2 [7.48]	192.9 [7.59]	196.3 [7.72]	200.7 [7.90]	206.7 [8.13]	213.7 [8.41]	222.4 [8.75]	233.7 [9.20]	247.2 [9.73]
B	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
C	mm [in]	169.9 [6.68]	172.2 [6.77]	174.9 [6.88]	178.3 [7.01]	182.7 [7.19]	188.7 [7.42]	195.7 [7.70]	204.4 [8.04]	215.7 [8.49]	229.2 [9.02]
D	mm [in]	173 [6.81]	175.3 [6.90]	178 [7.00]	181.4 [7.14]	185.8 [7.31]	191.8 [7.55]	198.8 [7.82]	207.5 [8.16]	218.8 [8.61]	232.2 [9.14]
Weight	kg [lb]	10.6 [23.4]	10.7 [23.6]	10.8 [23.8]	11 [24.3]	11.2 [24.7]	11.9 [26.2]	11.8 [26]	12.2 [26.9]	12.7 [28]	13.3 [29.3]

The brakes integrated in FP motors are holding brakes type (negative brake) and cannot be used for dynamic braking action.

Installation layout

The FP hydraulic motors must always have the drain port (on casing) directly connected with tank

If open circuit layout is needed, it is advisable to use a flow control valve on brake piston ports (in order to avoid dynamic braking), on overcentre valve and a open-centre directional valve.

Motor-brake features	
Minim release pressure	22 bar [319 psi]
Complete brake release pressure	25 bar [362.5 psi]
Max. brake pressure	160 bar [2320 psi]
Max. static torque	370 Nm [272.7 lbf-ft]
Max. motor speed	350 rpm

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Click **DANA** button to return to section index



The following alphanumeric digits system has been developed to identify all of the configuration options for the BS motors. Use the model code below to specify the desired features. All alphanumeric digits system of the code must be present when ordering. We recommend to carefully read the catalogue before filling the ordering code.

1	2	3	4	5	6	7	8	9	10	11	12
Series	Displacement	Version	Mount flange	Shaft end	Main port	Seal	Valve	Valve feature	Option	Version feature	Painting
BS	130	O	6A	CL254	S08	N	xxxx	000	xx	HPS	xx

1	Series	
BS	Orbital motor	

2	Displacement	
050	50 cm ³ /giro [3.05 in ³ /rev]	
065	65 cm ³ /giro [3.965 in ³ /rev]	
080	80 cm ³ /giro [4.88 in ³ /rev]	
100	100 cm ³ /giro [6.1 in ³ /rev]	
130	130 cm ³ /giro [7.93 in ³ /rev]	
160	160 cm ³ /giro [9.76 in ³ /rev]	
200	200 cm ³ /giro [12.2 in ³ /rev]	
250	250 cm ³ /giro [15.25 in ³ /rev]	
315	315 cm ³ /giro [19.21 in ³ /rev]	
400	400 cm ³ /giro [24.4 in ³ /rev]	

3	Version	
O	O Version (standard)	

4	Mounting Flange	
6A	Oval 6 bolts (standard BS)	
S4	4 bolts 3/8 16 UNC - Ø44.45 mm [Ø1.75 in]	

5

Shaft end

CL254	Ø25.4 mm [1 in] Parallel keyed (standard)
SE250	Splined Shaft (SAE 6B 1" 6T spline)

6

Main Port

S08	7/8" - 14 UNF SAE10 (standard)
SS8	1/2" - 14 NPTF
BFL	Manifold
MS8	1/2 G BSPP

7

Seal

N	NBR (standard)
V	FKM

8

Valve

xxxx	Not required (standard)
-------------	-------------------------

9

Valve feature

000	Feature not necessary (standard)
------------	----------------------------------

10

Option

xx	None
-----------	------

11

Version Feature

HPS	High Pressure Seal (without Rear Drain)
QDR	QUAD-RING version with Rear drain 1/4" G (BSPP)
QDS	QUAD-RING Version with Rear drain 7/16" 20UNF2B
DPS	High Pressure Seal with Rear drain 7/16" 20UNF2B
DPM	High Pressure Seal with Rear drain 1/4 G (BSPP)

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Painting

xx	Not Painted (standard BR)
01	Black Painted RAL 9005

¹⁾ Minimum quantity for order 20 pieces

Click  button to return to main index

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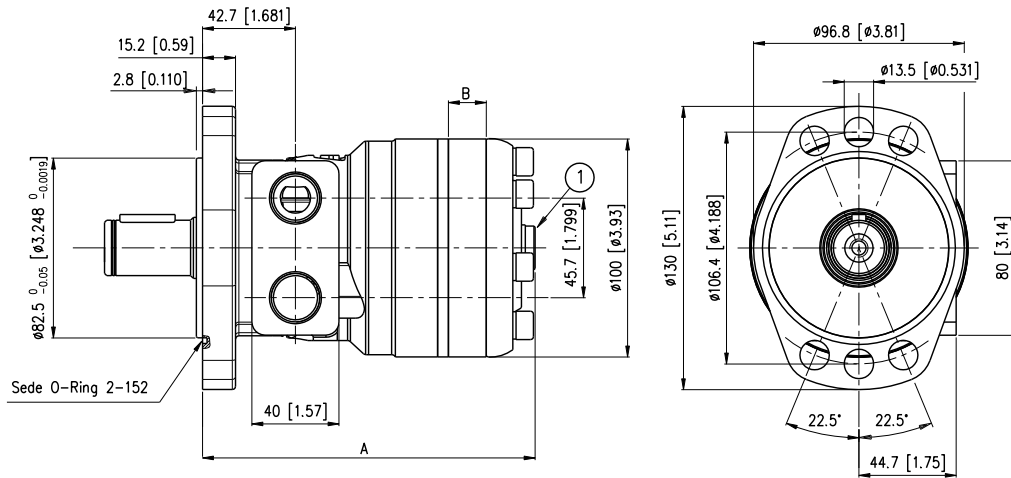
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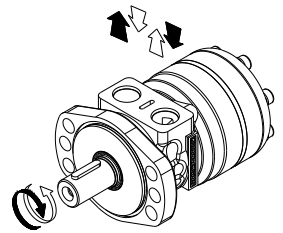
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BS O 6A

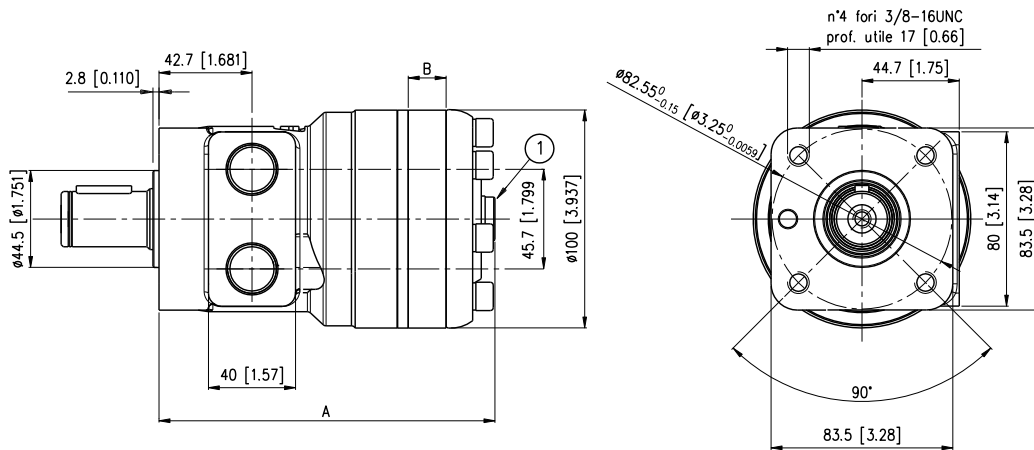


- 1) 1/4 G (BSPP) drain motor thread depth 15 mm [0.59 in] Max. Not in HPS version (XXX).
7/16" 20UNF2B drain motor thread depth 15 mm [0.59 in] Max. Not in HPS version (XXX).

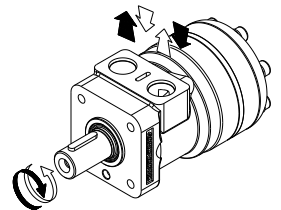


		BS 050	BS 065	BS 080	BS 100	BS 130	BS 160	BS 200	BS 250	BS 315	BS 400
A	mm [in]	143.7 [5.65]	146 [5.74]	148.7 [5.85]	152.1 [5.98]	156.5 [6.16]	162.5 [6.39]	169.5 [6.67]	178.2 [7.01]	189.5 [7.46]	203 [7.99]
B	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight	kg [lb]	6.8 [14.96]	7 [15.42]	7.1 [15.62]	7.4 [16.28]	7.7 [16.94]	8 [17.6]	8.4 [18.48]	8.9 [19.58]	9.6 [21.12]	9.9 [21.78]

BS O S4



- 1) 1/4 G (BSPP) drain motor thread depth 15 mm [0.59 in] Max. Not in HPS version (XXX).
7/16" 20UNF2B drain motor thread depth 15 mm [0.59 in] Max. Not in HPS version (XXX).



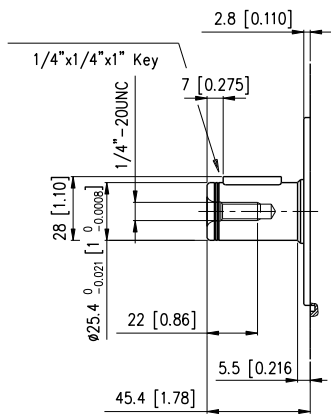
		BS 050	BS 065	BS 080	BS 100	BS 130	BS 160	BS 200	BS 250	BS 315	BS 400
A	mm [in]	145 [5.70]	147.3 [5.79]	150 [5.90]	153.5 [6.04]	158 [6.22]	164 [6.45]	171 [6.73]	179.5 [7.06]	191 [7.51]	204.5 [8.05]
B	mm [in]	9 [0.354]	11.3 [0.444]	14 [0.551]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Weight	kg [lb]	6.8 [14.96]	7 [15.42]	7.1 [15.62]	7.4 [16.28]	7.7 [16.94]	8 [17.6]	8.4 [18.48]	8.9 [19.58]	9.6 [21.12]	9.9 [21.78]

Click **DANA** button to return to section indexClick **i** button to return to main index

Shaft End

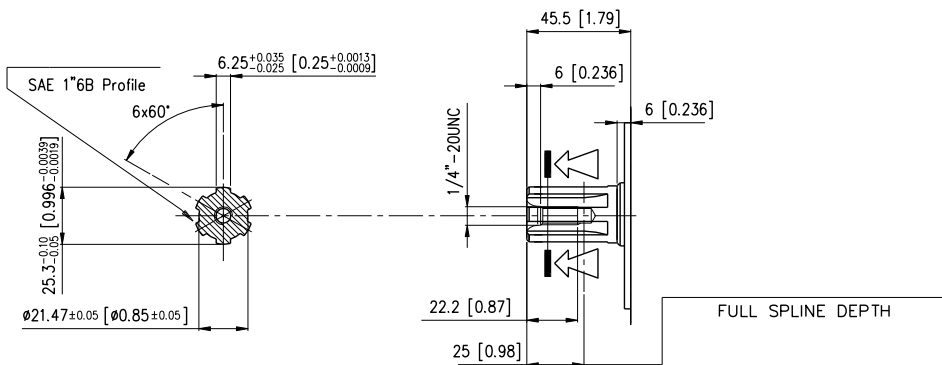
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CL254 Cylindrical Shaft



Max Torque Continuous 292 Nm [215.2 lbf-ft]

SE250 Splined Shaft



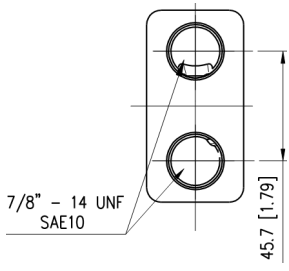
Max Torque Continuous 345 Nm [254.26 lbf-ft]



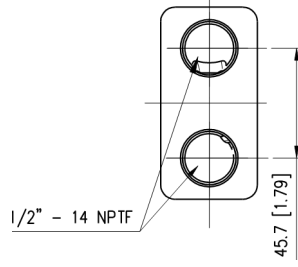
Main port

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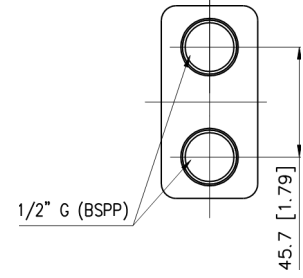
S08 Main Port



SS8 Main Port



MS8 Main Port



BFL Manifold

