

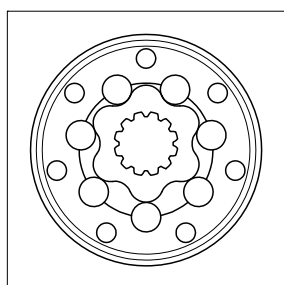
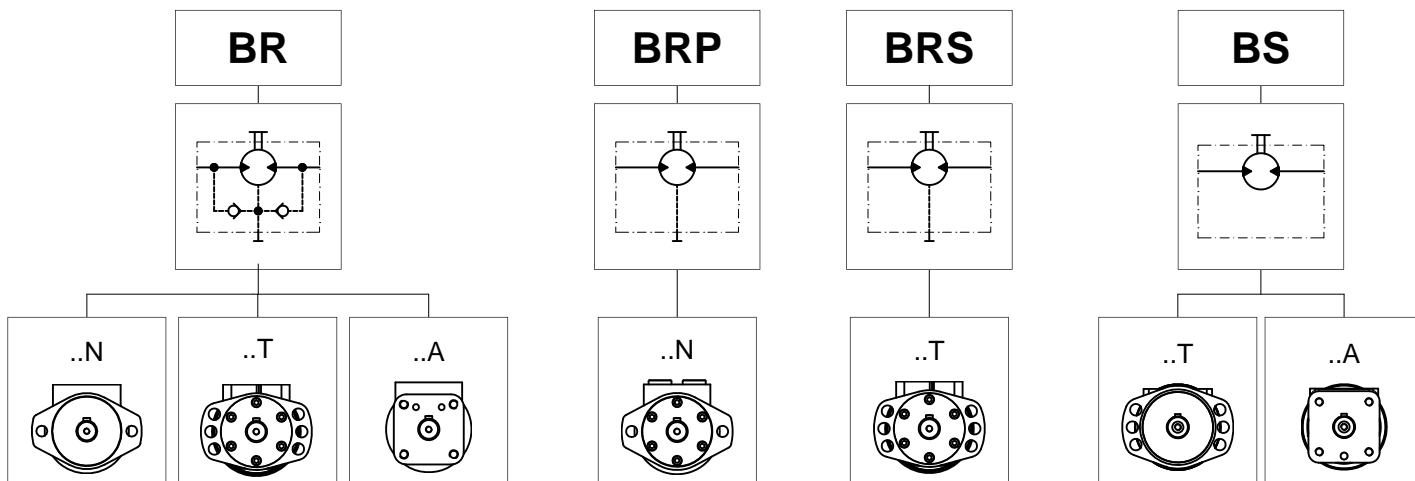
## BR - BS



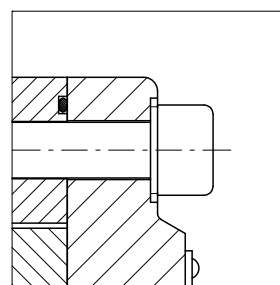
***MOTORI ORBITALI***

**HYDRAULIC MOTOR SERIES**

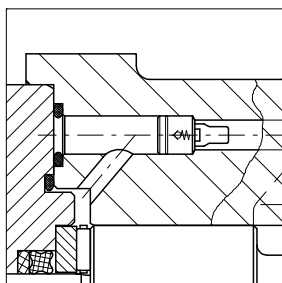
# CARATTERISTICHE DEL MOTORE MOTOR FEATURES



*Roller ad alto rendimento per elevate prestazioni e durata.  
High-performance roller for improved efficiency and life.*

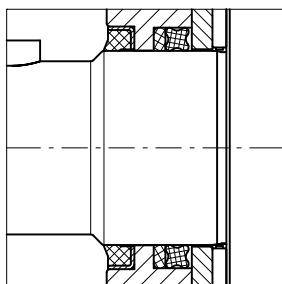


*Viti del coperchio posteriore in acciaio ad alta resistenza per sopportare gli sforzi indotti dall'alta pressione.  
High resistance stainless steel screws capable of withstanding the stress induced by high pressure.*



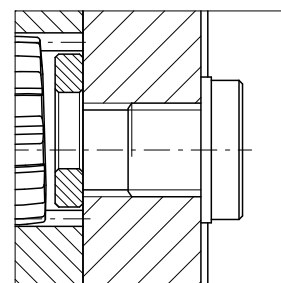
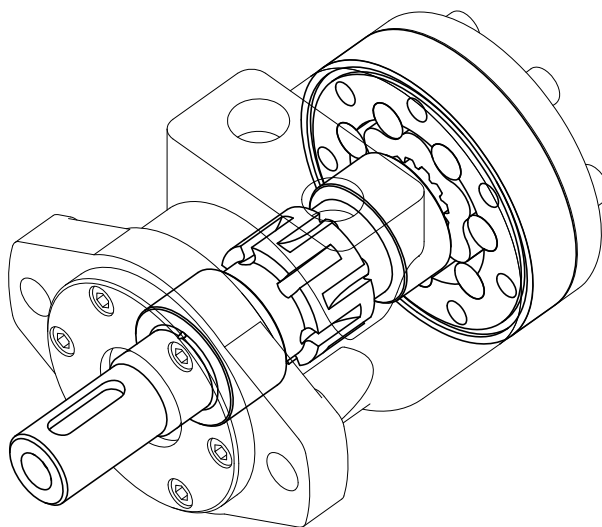
*Valvole di drenaggio incorporate: ricircolano allo scarico il fluido drenato internamente.  
Built in check valves: to relieve case pressure to the low pressure side of the motor.*

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



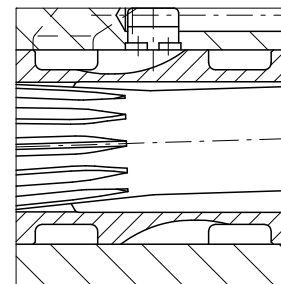
*Parapolvere per proteggere la guarnizione di tenuta dell'albero dalle impurità e guarnizione di tenuta ad alte prestazioni.  
Seal to protect the high pressure shaft seal from dust and debris.*

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



*Foro drenaggio posteriore per un facile collegamento.  
Case drain at rear (shown with plug).*

Case drain at rear (shown with plug).



*Valvola distributrice radiale ed albero in un solo pezzo con tolleranze ridotte al minimo per assicurare un drenaggio ridotto.  
Spool valve integral to the output shaft of new design features optimizing clearance geometry and so minimizing the oil slippage.*

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

Serie Series		Cilindrata Displacemet		Flangia Mounting		Alberi Shafts		Opzioni Options	
BR		130		N		C25.4			
CODICE CODE	Serie Series	CODICE CODE	Cilindrata Displacement	CODICE CODE	Flangia Mounting	CODICE CODE	Alberi Shafts	CODICE CODE	Opzioni Options
BR	Motore Motor	50	51.6 cm <sup>3</sup> /giro [3.14 in <sup>3</sup> /rev]	N	2 Fori 2 Bolts	C25	Cilindrico Ø25 mm Parallel keyed 0.975 in		Nessuna opzione Without options
BRP(*)	Motore Motor	65	64.9 cm <sup>3</sup> /giro [3.95 in <sup>3</sup> /rev]	T	2 o 4 Fori 2 or 4 Bolts	C25.4	Cilindrico Ø25.4 mm Parallel keyed 1 in	HPS	Guarnizione alta pressione High pressure seal
BRS	Motore Motor	80	80.4 cm <sup>3</sup> /giro [4.9 in <sup>3</sup> /rev]	A (*)	4 Fori filettati 4 thread Bolts	SD25	Scanalato 1" 6B 1" 6B Spline	TAC-U	Tachimetro Tachometer
		100	100 cm <sup>3</sup> /giro [6.1 in <sup>3</sup> /rev]			C32	Cilindrico Ø32 mm Parallel keyed 1.248 in	FP	Freno Brake
		130	125.7 cm <sup>3</sup> /giro [7.66 in <sup>3</sup> /rev]			C31.75(*)	Cilindrico Ø31.75 mm Parallel keyed 1.238 in	FKM	Guarnizioni VITON VITON Seals
		160	160 cm <sup>3</sup> /giro [9.76 in <sup>3</sup> /rev]			CN32(*)	Conico Taper	HPS DP	Guarnizione alta pressione + Drenaggio High pressure seal + Drain
		200	200 cm <sup>3</sup> /giro [12.2 in <sup>3</sup> /rev]						
		250	250 cm <sup>3</sup> /giro [15.2 in <sup>3</sup> /rev]						
		315	314.5 cm <sup>3</sup> /giro [19.1 in <sup>3</sup> /rev]						
		400	393 cm <sup>3</sup> /giro [23.9 in <sup>3</sup> /rev]						

(\*) Speciale a richiesta / Special on request

*In caso di caratteristiche non elencate, contattare Uff. Tecnico.*  
Please contact technical department for not listed features.

**CARATTERISTICHE TECNICHE**  
**TECHNICAL SPECIFICATIONS**

**DATI TECNICI PER MOTORE BR CON ALBERI CILINDRICI C25 E C25.4**  
**BR MOTOR TECHNICAL DATA WITH 0.975 IN AND 1 IN. PARALLEL KEYED SHAFT**

Motore Motor	Cilindrata Displacement cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	Pressione max ingresso Max. input pressure bar [psi]	Pressione diff. max. Max. differential pressure bar [psi]	Coppia max. Max. torque Nm [lbf-ft]	Portata max. Max. flow l/min [U.S. gpm]	Velocità max. Max. speed giri/min [rpm]	Potenza max. Max. horsepower kW [hp]
BR 50	51.6 [3.14]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup> 103 [75.9] 126 [92.8]	Cont Int <sup>(1)</sup> 40 [10.6] 50 [13.2]	Cont Int <sup>(1)</sup> 775 969	Cont Int <sup>(1)</sup> 6.8 [9.1] 8.4 [11.2]
BR 65	64.9 [3.95]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 150 [2175] 185 [2682] 225 [3262]	Cont Int <sup>(1)</sup> 140 [103.1] 166 [122.3]	Cont Int <sup>(1)</sup> 50 [13.2] 60 [15.9]	Cont Int <sup>(1)</sup> 770 924	Cont Int <sup>(1)</sup> 9.2 [12.3] 10.6 [14.2]
BR 80	80.4 [4.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int* Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int* 197 [145.1] 218 [160.6]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 746 933	Cont Int <sup>(1)</sup> 13 [17.4] 15 [20.1]
BR 100	100 [6.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> 237 [174.6] 277 [204.1]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 600 750	Cont Int <sup>(1)</sup> 13 [17.4] 15 [20.1]
BR 130	125.7 [7.66]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> 300 [221.1] 340 [250.5]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 477 597	Cont Int <sup>(1)</sup> 12.5 [16.8] 14.5 [19.4]
BR 160	160 [9.76]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup> 296 [218.1] 375 [276.3]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 375 469	Cont Int <sup>(1)</sup> 10 [13.4] 12.5 [16.8]
BR 200	200 [12.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 115 [1667] 140 [2030] 225 [3262]	Cont Int <sup>(1)</sup> 297 [218.8] 380 [280]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 300 375	Cont Int <sup>(1)</sup> 8.5 [11] 10 [13.4]
BR 250	250 [15.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 90 [1305] 120 [1740] 225 [3262]	Cont Int <sup>(1)</sup> 297 [218.8] 377 [277.8]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 240 300	Cont Int <sup>(1)</sup> 7.1 [9.5] 8.5 [11]
BR 315	314.5 [19.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 70 [1020] 100 [1450] 210 [3045]	Cont Int <sup>(1)</sup> 300 [221.1] 420 [309.5]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 191 238	Cont Int <sup>(1)</sup> 5 [6.7] 6.6 [8.8]
BR 400	393 [23.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup> 55 [800] 85 [1230] 175 [2537]	Cont Int <sup>(1)</sup> 292 [215.2] 425 [313.2]	Cont Int <sup>(1)</sup> 60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup> 153 191	Cont Int <sup>(1)</sup> 4.1 [5.4] 6.1 [8.1]

1) Le condizioni intermittenti non devono durare più del 10% di ogni minuto. Intermittent duty must not exceed 10% every minute.  
2) Le condizioni di picco non devono durare più del 1% di ogni minuto. Peak duty must not exceed 1% of every minute.

**DATI TECNICI PER MOTORE BR CON ALBERO SCANALATO SD25**  
**BR MOTOR TECHNICAL DATA WITH 1 IN. SPLINED SHAFT**

Motore Motor	Cilindrata Displacement cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	Pressione max ingresso Max. input pressure bar [psi]		Pressione diff. max. Max. differential pressure bar [psi]		Coppia max. Max. torque Nm [lbf-ft]		Portata max. Max. flow l/min [U.S. gpm]		Velocità max. Max. speed giri/min [rpm]		Potenza max. Max. horsepower kW [hp]	
		Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup>	103 [75.9] 126 [92.8]	Cont Int <sup>(1)</sup>	40 [10.6] 50 [13.2]	Cont Int <sup>(1)</sup>	775 969	Cont Int <sup>(1)</sup>	6.8 [9.1] 8.4 [11.2]
BR 50	51.6 [3.14]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup>	103 [75.9] 126 [92.8]	Cont Int <sup>(1)</sup>	40 [10.6] 50 [13.2]	Cont Int <sup>(1)</sup>	775 969	Cont Int <sup>(1)</sup>	6.8 [9.1] 8.4 [11.2]
BR 65	64.9 [3.95]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	150 [2175] 185 [2682] 225 [3262]	Cont Int <sup>(1)</sup>	140 [103.1] 166 [122.3]	Cont Int <sup>(1)</sup>	50 [13.2] 60 [15.9]	Cont Int <sup>(1)</sup>	770 924	Cont Int <sup>(1)</sup>	9.2 [12.3] 10.6 [14.2]
BR 80	80.4 [4.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int* Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int*	197 [145.1] 218 [160.6]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	746 933	Cont Int <sup>(1)</sup>	13 [17.4] 15 [20.1]
BR 100	100 [6.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	237 [174.6] 277 [204.1]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	600 750	Cont Int <sup>(1)</sup>	13 [17.4] 15 [20.1]
BR 130	125.7 [7.66]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	300 [221.1] 340 [250.5]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	477 597	Cont Int <sup>(1)</sup>	12.5 [16.8] 14.5 [19.4]
BR 160	160 [9.76]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	165 [2390] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	350 [257.9] 428 [315.4]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	375 469	Cont Int <sup>(1)</sup>	11.8 [15.8] 14.3 [19.1]
BR 200	200 [12.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	130 [1890] 165 [2390] 225 [3262]	Cont Int <sup>(1)</sup>	335 [246.8] 446 [328.7]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	300 375	Cont Int <sup>(1)</sup>	9.7 [12.9] 12 [16]
BR 250	250 [15.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	105 [1522] 135 [1957] 225 [3262]	Cont Int <sup>(1)</sup>	347 [255.7] 424 [312.4]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	240 300	Cont Int <sup>(1)</sup>	8.3 [11.1] 9.6 [12.8]
BR 315	314.5 [19.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	85 [1232] 115 [1670] 210 [3045]	Cont Int <sup>(1)</sup>	362 [266.7] 484 [356.7]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	191 238	Cont Int <sup>(1)</sup>	6 [8] 7.6 [10.1]
BR 400	393 [23.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	65 [942] 90 [1310] 175 [2537]	Cont Int <sup>(1)</sup>	345 [254.2] 450 [331.6]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	153 191	Cont Int <sup>(1)</sup>	4.9 [6.5] 6.5 [8.7]

**DATI TECNICI PER MOTORE BR CON ALBERI CILINDRICI C32, C31.75 E CONICO CN32**  
**BR MOTOR TECHNICAL DATA WITH 1.24 IN, 1.23 IN. PARALLEL KEYED SHAFT AND 1 1/4 IN. TAPERED SHAFT**

Motore Motor	Cilindrata Displacement cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	Pressione max ingresso Max. input pressure bar [psi]		Pressione diff. max. Max. differential pressure bar [psi]		Coppia max. Max. torque Nm [lbf-ft]		Portata max. Max. flow l/min [U.S. gpm]		Velocità max. Max. speed giri/min [rpm]		Potenza max. Max. horsepower kW [hp]	
		Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup>	103 [75.9] 126 [92.8]	Cont Int <sup>(1)</sup>	40 [10.6] 50 [13.2]	Cont Int <sup>(1)</sup>	775 969	Cont Int <sup>(1)</sup>	6.8 [9.1] 8.4 [11.2]
BR 50	51.6 [3.14]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup>	103 [75.9] 126 [92.8]	Cont Int <sup>(1)</sup>	40 [10.6] 50 [13.2]	Cont Int <sup>(1)</sup>	775 969	Cont Int <sup>(1)</sup>	6.8 [9.1] 8.4 [11.2]
BR 65	64.9 [3.95]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	150 [2175] 185 [2682] 225 [3262]	Cont Int <sup>(1)</sup>	140 [103.1] 166 [122.3]	Cont Int <sup>(1)</sup>	50 [13.2] 60 [15.9]	Cont Int <sup>(1)</sup>	770 924	Cont Int <sup>(1)</sup>	9.2 [12.3] 10.6 [14.2]
BR 80	80.4 [4.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int* Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int*	197 [145.1] 218 [160.6]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	746 933	Cont Int <sup>(1)</sup>	13 [17.4] 15 [20.1]
BR 100	100 [6.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	237 [174.6] 277 [204.1]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	600 750	Cont Int <sup>(1)</sup>	13 [17.4] 15 [20.1]
BR 130	125.7 [7.66]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	300 [221.1] 340 [250.5]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	477 597	Cont Int <sup>(1)</sup>	12.5 [16.8] 14.5 [19.4]
BR 160	160 [9.76]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	370 [272.6] 428 [315.4]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	375 469	Cont Int <sup>(1)</sup>	12.5 [16.8] 14.3 [19.1]
BR 200	200 [12.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	450 [331.6] 540 [397.9]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	300 375	Cont Int <sup>(1)</sup>	13.4 [17.9] 14.4 [19.2]
BR 250	250 [15.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	578 [425.9] 630 [464.3]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	240 300	Cont Int <sup>(1)</sup>	13.8 [18.4] 14.2 [19]
BR 315	314.5 [19.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	135 [1960] 175 [2537] 210 [3045]	Cont Int <sup>(1)</sup>	575 [423.7] 736 [542.4]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	191 238	Cont Int <sup>(1)</sup>	9.6 [12.8] 11.5 [15.4]
BR 400	393 [23.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	115 [1670] 150 [2180] 175 [2537]	Cont Int <sup>(1)</sup>	612 [451] 750 [552.7]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	153 191	Cont Int <sup>(1)</sup>	8.6 [11.5] 10.8 [14.4]

Motore Motor	Max press. di scarico con drenaggio aperto Max back pressure with drain line bar[psi]		Pressione max avviamento a vuoto Max starting pressure in unloaded conditions bar[psi]	Coppia min di spunto Min starting torque Nm[lbf-ft]			Portata di drenaggio <sup>4)</sup> Oil flow in the drain line <sup>4)</sup> l/min [U.S. gpm]		Velocità minima <sup>5)</sup> Min speed <sup>5)</sup> rpm
	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]		at Δp max at Δp max	Cont Int <sup>1)</sup>	75[55.3] 95[70.0]	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	0.7[0.2] 1.6[0.4]	
BR 50	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int <sup>1)</sup>	75[55.3] 95[70.0]	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	0.7[0.2] 1.6[0.4]	10
BR 65	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int <sup>1)</sup>	120[88.4] 140[103.1]	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	0.7[0.2] 1.6[0.4]	10
BR 80	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int <sup>1)</sup>	160[118] 180[133]	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	0.7[0.2] 1.6[0.4]	10
BR 100	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	10 [145]	at Δp max at Δp max	Cont Int <sup>1)</sup>	200[147] 225[166]	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	0.7[0.2] 1.6[0.4]	10
BR 130	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	9 [131]	at Δp max at Δp max	Cont Int <sup>1)</sup>	255[188] 290[214]	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	0.7[0.2] 1.6[0.4]	10
BR 160	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	7 [102]	at Δp max at Δp max	Cont Int <sup>1)</sup>	310(250)[228(184)] <sup>3)</sup> 360(300)[265(221)] <sup>3)</sup>	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	0.7[0.2] 1.6[0.4]	10
BR 200	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int <sup>1)</sup>	390(250)[287(184)] <sup>3)</sup> 450(320)[332(236)] <sup>3)</sup>	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	1.5[0.4] 3.0[0.8]	10
BR 250	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int <sup>1)</sup>	490(250)[361(184)] <sup>3)</sup> 560(310)[413(228)] <sup>3)</sup>	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	1.5[0.4] 3.0[0.8]	10
BR 315	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int <sup>1)</sup>	470(250)[346(184)] <sup>3)</sup> 610(300)[450(221)] <sup>3)</sup>	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	1.5[0.4] 3.0[0.8]	10
BR 400	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2538] 200 [2900] 225 [3263]	5 [72.5]	at Δp max at Δp max	Cont Int <sup>1)</sup>	510(250)[376(184)] <sup>3)</sup> 670(320)[494(236)] <sup>3)</sup>	at Δp=100bar[1450psi] at Δp=140bar[2030psi]	1.5[0.4] 3.0[0.8]	10

1) Le condizioni intermittenti non devono durare più del 10% ogni minuto. - Intermittent duty must not exceed 10% each minute.

2) Le condizioni di picco non devono durare più del 1% di ogni minuto. - Peak duty must not exceed 1% each minute.

3) I valori tra parentesi si riferiscono alla versione con albero C25/C25.4/SD25. - The values in brackets are referred to C25/C25.4/SD25 shaft.

4) Viscosità dell'olio 37 cSt. - Oil Viscosity 37 cSt.

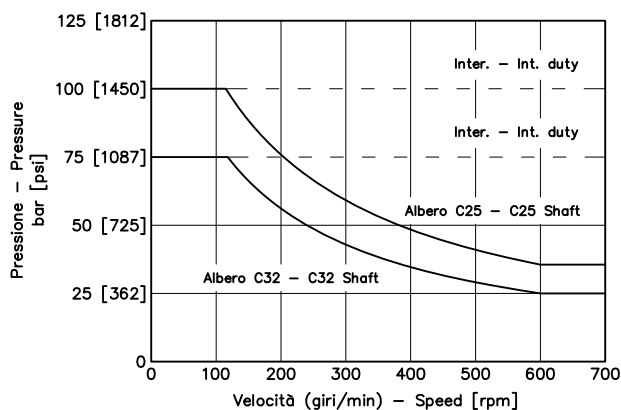
5) Per impieghi a velocità inferiori o con carichi radiali consultare la S.A.M. Hydraulik for applications at lower rpm or at high radial loads pls. consult S.A.M. Hydraulik.

## MASSIMA PRESSIONE AMMESSA SULLA GUARNIZIONE ALBERO MAX PERMISSIBLE SHAFT SEAL PRESSURE

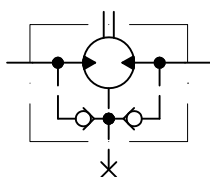
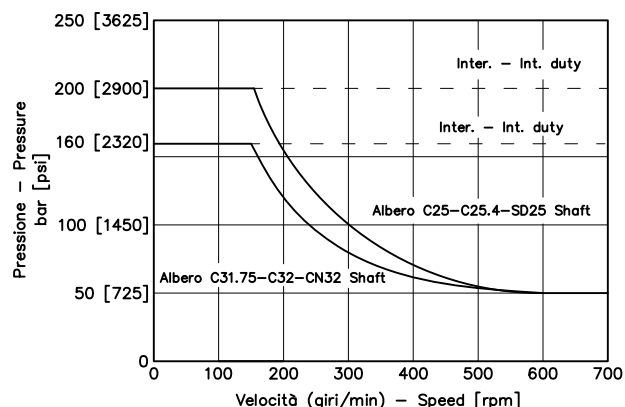
Pressione massima di scarico senza drenaggio o massima pressione nella linea di drenaggio. I motori sono forniti nella versione con guarnizioni standard (diagramma Standard) o nella versione con guarnizioni ad alta pressione (diagramma HPS). Per condizioni di pressione e velocità non contemplate dal presente grafico si consiglia di contattare la S.A.M. Hydraulik.

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 S.A.M. Hydraulik.

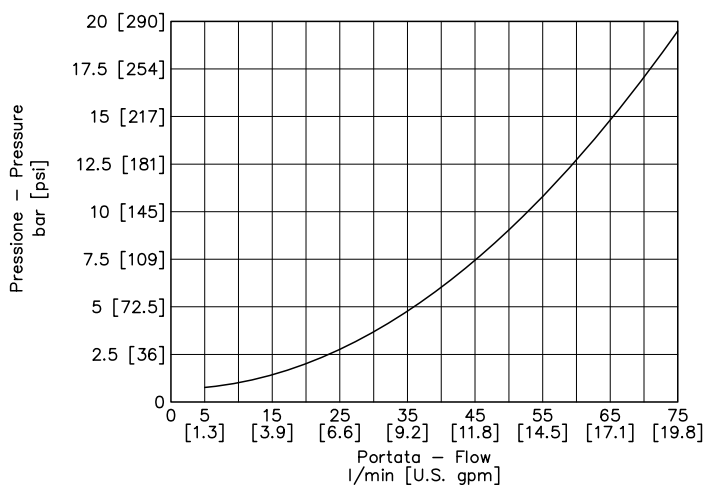
STANDARD



HPS

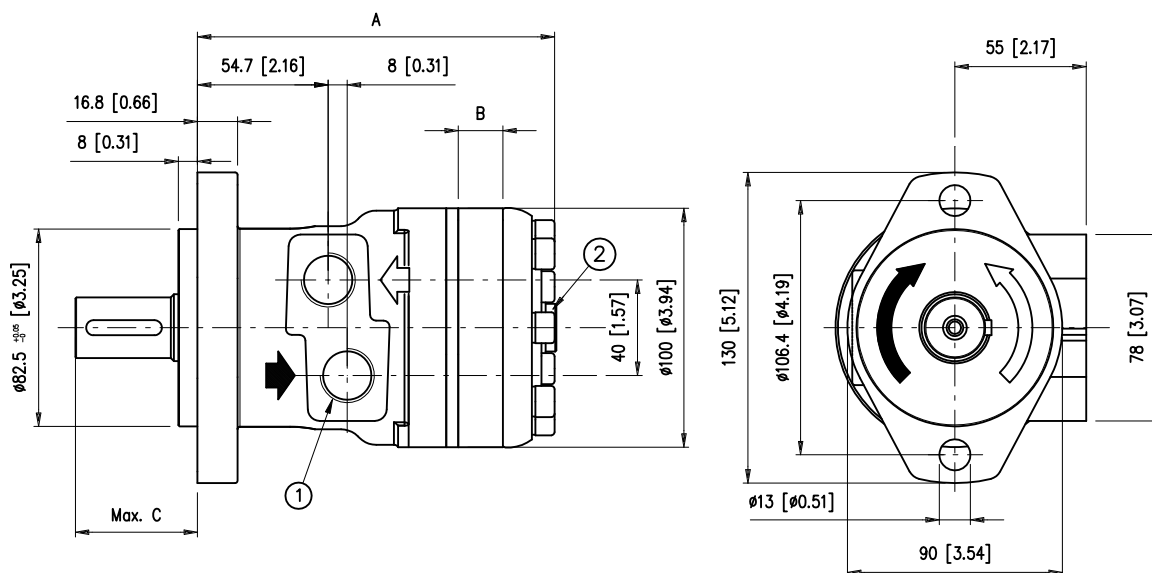


## PERDITE DI CARICO PER ATTRAVERSAMENTO PRESSURE LOSS



Il diagramma è stato ottenuto con prove eseguite su un numero significativo di motori, utilizzando un'olio avente una viscosità cinematica di 37 cSt alla temperatura di 45° C.

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

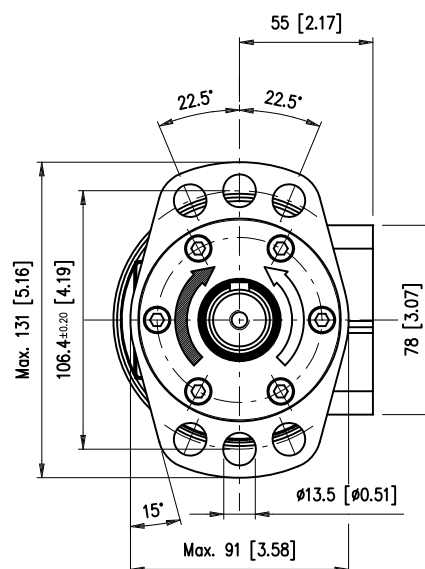
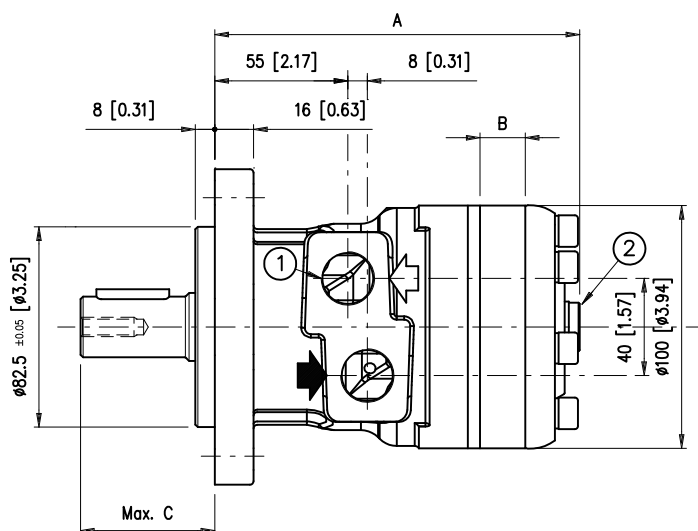


- 1) N° 2 fori di alimentazione 1/2 G (BSPP) profondità filetto 18 mm  
No. 2 1/2 G (BSPP) main ports thread depth 0.7 in
- 2) Drenaggio motore 1/4 G (BSPP) profondità filetto 15 mm Max. Non presente nella versione HPS  
1/4 G (BSPP) drain motor thread depth 0.6 in Max. Not in HPS version.

Per le dimensioni degli alberi vedere pagina E/14  
For shafts dimensions see page E/14

ALBERO SHAFT		C25	C25.4	SD25						
C	mm [in]	54 [2.1]	54 [2.1]	54 [2.1]						

		BR 50	BR 65	BR 80	BR 100	BR 130	BR 160	BR 200	BR 250	BR 315	BR 400
A	mm [in]	139.5 [5.5]	141.8 [5.53]	144.5 [5.7]	147.7 [5.81]	152.1 [5.99]	158.2 [6.23]	165.3 [6.51]	173.9 [6.85]	185.1 [7.29]	198.4 [7.81]
B	mm [in]	9 [0.35]	11.3 [0.44]	14 [0.55]	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]
Pesi 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]



- 1) N° 2 fori di alimentazione 1/2 G (BSPP) profondità filetto 18 mm  
No. 2 1/2 G (BSPP) main ports thread depth 0.7 in
- 2) Drenaggio motore 1/4 G (BSPP) profondità filetto 15 mm.  
1/4 G (BSPP) drain motor thread depth 0.6 in.

Per le dimensioni degli alberi vedere pagina E/14  
For shafts dimensions see page E/14

ALBERO SHAFT		C25	C25.4	SD25	C32	C31.75	CN32				
C	mm [in]	55.3 [2.18]	55.3 [2.18]	55.3 [2.18]	68.3 [2.69]	59.1 [2.33]	68.5 [2.7]				

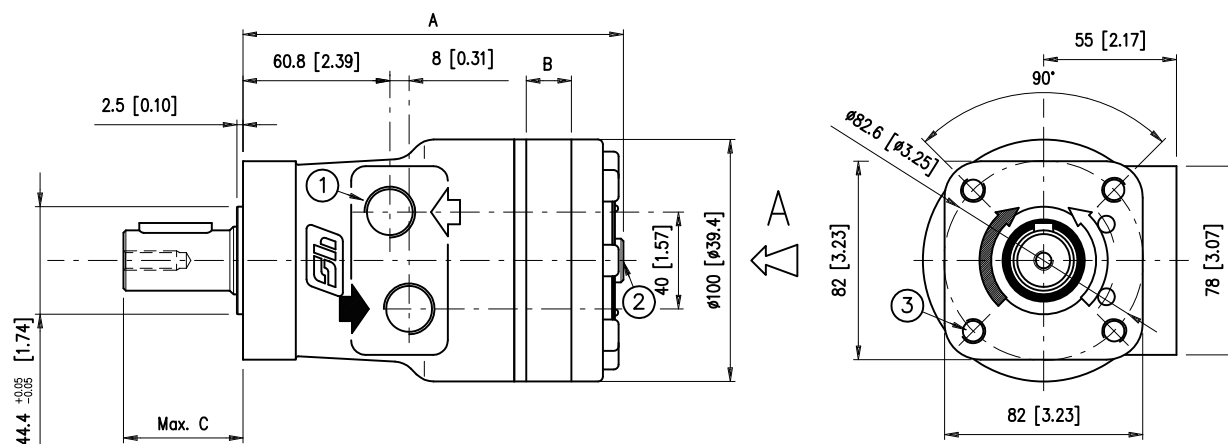
  

		BR 50	BR 65	BR 80	BR 100	BR 130	BR 160	BR 200	BR 250	BR 315	BR 400
A	mm [in]	139.5 [5.5]	141.8 [5.53]	144.5 [5.7]	147.7 [5.8]	152.1 [5.9]	158.2 [6.2]	165.3 [6.5]	173.9 [6.8]	185.1 [7.2]	198.4 [7.8]
B	mm [in]	9 [0.35]	11.3 [0.44]	14 [0.55]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
Pesi Weight	kg [lb]	7.3 [16] <sup>1)</sup>	7.5 [16.5] <sup>1)</sup>	7.6 [16.7] <sup>1)</sup>	7.8 [17.1] <sup>1)</sup>	8.1 [17.8] <sup>1)</sup>	8.4 [18.5] <sup>1)</sup>	8.7 [19.1] <sup>1)</sup>	9.2 [20.2] <sup>1)</sup>	9.9 [21.8] <sup>1)</sup>	10.2 [22.4] <sup>1)</sup>
		7.4 [16.3]	7.6 [16.7]	7.7 [16.9]	9 [19.8]	8.3 [18.2]	8.6 [18.9]	9 [19.8]	9.5 [20.9]	10.2 [22.4]	10.5 [23.1]

1) I valori si riferiscono alla versione con albero C25/C25.4/SD25 - The values are referred to C25/C25.4/SD25 shaft



**SPECIALE A RICHIESTA - SPECIAL ON REQUEST**



- 1) N° 2 fori di alimentazione 1/2 G (BSPP) profondità filetto 18 mm  
No. 2 1/2 G (BSPP) main ports thread depth 0.7 in
- 2) Drenaggio motore 1/4 G (BSPP) profondità filetto 15 mm.  
1/4 G (BSPP) drain motor thread depth 0.6 in.
- 3) N° 4 3/8" 16 UNC profondità filetto 17 mm  
No. 4 3/8" 16 UNC thread depth 0.66 in

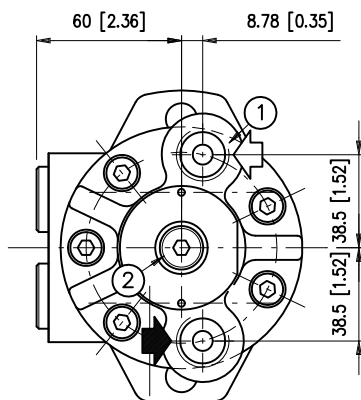
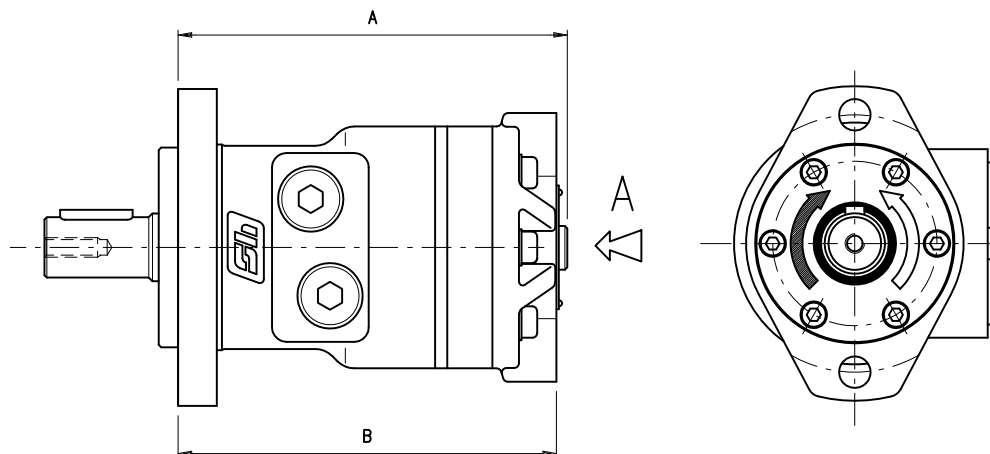
Per le dimensioni degli alberi vedere pagina E/14  
For shafts dimensions see page E/14

ALBERO SHAFT		C25	C25.4	SD25							
<b>C</b>	<b>mm [in]</b>	49.4 [1.94]	49.4 [1.94]	49.4 [1.94]							

		BR 50	BR 65	BR 80	BR 100	BR 130	BR 160	BR 200	BR 250	BR 315	BR 400
<b>A</b>	<b>mm [in]</b>	147.8 [5.76]	150.1 [5.85]	152.8 [5.95]	156.2 [6.09]	160.6 [6.26]	166.6 [6.49]	173.6 [6.77]	182.3 [7.1]	193.6 [7.55]	207.1 [8.08]
<b>B</b>	<b>mm [in]</b>	9 [0.35]	11.3 [0.44]	14 [0.55]	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]
<b>Pesi Weight</b>	<b>kg [lb]</b>	7.1 [15.6]	7.3 [16]	7.4 [16.3]	7.6 [16.7]	7.9 [17.4]	8.2 [18]	8.5 [18.7]	9 [19.8]	9.7 [21.3]	10 [22]

**SPECIALE A RICHIESTA - SPECIAL ON REQUEST**



Vista da A

View from A

- 1) N° 2 fori di alimentazione 1/2 G (BSPP) profondità filetto 16mm  
No. 2 1/2 G (BSPP) main ports thread depth 0.63in
- 2) Drenaggio motore 1/4 G (BSPP) profondità filetto 15mm  
1/4 G (BSPP) drain motor thread depth 0.60in

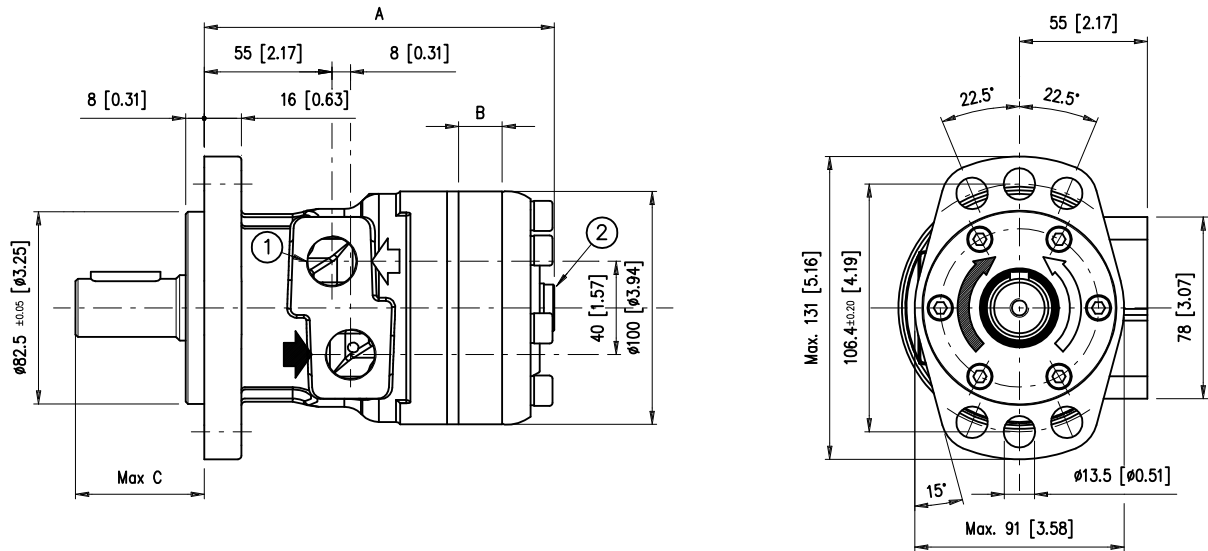
Per le dimensioni degli alberi vedere pagina E/14  
For shafts dimensions see page E/14

Per le dimensioni non indicate fare riferimento al disegno del motore BR...N o BR...T.  
Refer to BR...N or BR...T motor drawings for any dimension here not indicated.

ALBERO SHAFT		C25	C25.4	SD25	C32	C31.75	CN32			
C	mm [in]	55.3 [2.18]	55.3 [2.18]	55.3 [2.18]	68.3 [2.69]	59.1 [2.33]	68.5 [2.7]			

		BRP 50	BRP 65	BRP 80	BRP 100	BRP 130	BRP 160	BRP 200	BRP 250	BRP 315	BRP 400
A	mm [in]	146.9 [5.72]	149.2 [5.81]	151.9 [5.92]	155.3 [6.05]	159.7 [6.22]	165.7 [6.46]	172.7 [6.73]	181.4 [7.07]	192.7 [7.51]	206.2 [8.04]
B	mm [in]	9 [0.35]	11.3 [0.44]	14 [0.55]	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]
Pesi Weight	kg [lb]	7.2 [15.8] <sup>1)</sup> 7.3 [16]	7.4 [16.3] <sup>1)</sup> 7.5 [16.5]	7.5 [16.5] <sup>1)</sup> 7.6 [16.7]	7.7 [16.9] <sup>1)</sup> 7.9 [17.4]	8 [17.6] <sup>1)</sup> 8.2 [18]	8.3 [18.2] <sup>1)</sup> 8.5 [18.7]	8.6 [18.9] <sup>1)</sup> 8.9 [19.6]	9.1 [20] <sup>1)</sup> 9.4 [20.7]	9.8 [21.5] <sup>1)</sup> 10.1 [22.2]	10.1 [22.2] <sup>1)</sup> 10.4 [22.9]

1) I valori si riferiscono alla versione con albero C25/C25.4/SD25 - The values are referred to C25/C25.4/SD25 shaft



- 1) N° 2 fori di alimentazione 1/2 G (BSPP) profondità filetto 18mm  
No. 2 1/2 G (BSPP) main ports thread depth 0.7in
- 2) Drenaggio motore 1/4 G (BSPP) profondità filetto 15mm.  
1/4 G (BSPP) drain motor thread depth 0.6in.

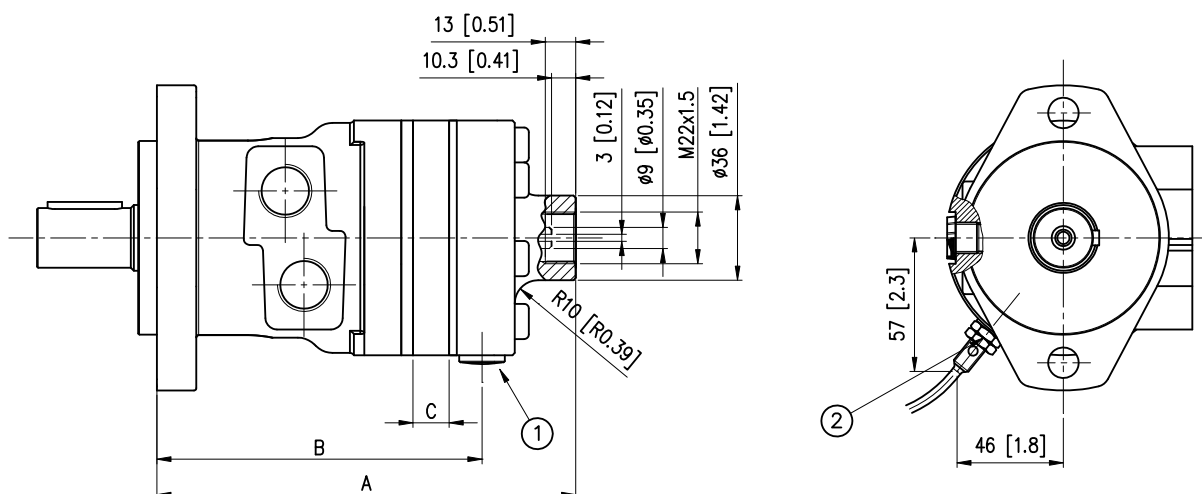
Per le dimensioni degli alberi vedere pagina E/14  
For shafts dimensions see page E/14

ALBERO SHAFT		C25	SD25	C32							
<b>C</b>	<b>mm [in]</b>	55.3 [2.18]	55.3 [2.18]	68.3 [2.69]							

		BRS 50	BRS 65	BRS 80	BRS 100	BRS 130	BRS 160	BRS 200	BRS 250	BRS 315	BRS 400
<b>A</b>	<b>mm [in]</b>	139.5 [5.5]	141.8 [5.53]	144.5 [5.63]	147.9 [5.76]	152.3 [5.93]	158.3 [6.17]	165.3 [6.44]	174 [6.78]	185.3 [7.22]	198.8 [7.75]
<b>B</b>	<b>mm [in]</b>	9 [0.35]	11.3 [0.44]	14 [0.55]	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]
<b>Pesi Weight</b>	<b>kg [lb]</b>	7.3 [16]	7.5 [16.5]	7.6 [16.7]	7.8 [17.1]	8.1 [17.8]	8.4 [18.5]	8.7 [19.1]	9.2 [20.2]	9.9 [21.8]	10.2 [22.4]

- 1) Drenaggio motore 1/4 G (BSPP) profondità filetto 12 mm  
1/4 G (BSPP) drain motor thread depth 0.47 in
- 2) Attacco sensore M8x1  
Sensor connection M8x1



**ATTENZIONE:**

- L'alberino contagiri ha velocità pari a 6 volte quella dell'albero primario del motore e senso di rotazione opposto.
- N.B.: Non sono accettati carichi assiali o radiali sull'albero contagiri. Coppia massima trasmissibile 1 Nm.
- Il motore viene fornito senza il sensore elettronico: se necessario, richiederlo in fase di ordinazione.
- Pressione massima ammessa sulla guarnizione dell'albero contagiri con drenaggio chiuso: 25 bar.

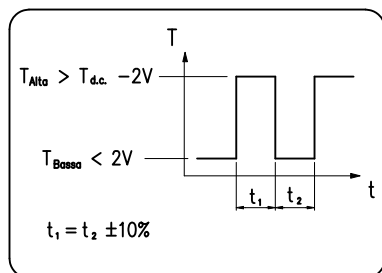
**WARNING:**

- 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 50	BR 65	BR 80	BR 100	BR 130	BR 160	BR 200	BR 250	BR 315	BR 400
<b>A</b>	<b>mm [in]</b>	172 [6.7]	174.3 [6.79]	177 [6.9]	180.4 [7.03]	184.8 [7.2]	190.8 [7.44]	197.8 [7.71]	206.5 [8.05]	217.8 [8.49]	231.3 [9.02]
<b>B</b>	<b>mm [in]</b>	132 [5.2]	134.3 [5.23]	137 [5.3]	140.4 [5.47]	144.8 [5.64]	150.8 [5.88]	157.8 [6.15]	166.5 [6.49]	177.8 [6.93]	191.3 [7.46]
<b>C</b>	<b>mm [in]</b>	9 [0.35]	11.3 [0.44]	14 [0.55]	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]
<b>Pesi Weight</b>	<b>kg [lb]</b>	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]

**CARATTERISTICHE TECNICHE SENSORE ELETTRONICO**  
**ELECTRONIC SENSOR TECHNICAL FEATURES**

Segnale in uscita versione elettronica  
Output signal electronic tacho



Numero d'impulsi per giro = 90  
Principio di funzionamento induttivo  
Funzione di uscita PNP  
Tensione nominale 10-65 V d.c.  
Caricabilità massima 300 mA  
Frequenza massima 10000 Hz  
Campo di temperatura -25C +85C  
Grado di protezione IP 67

Versioni disponibili:

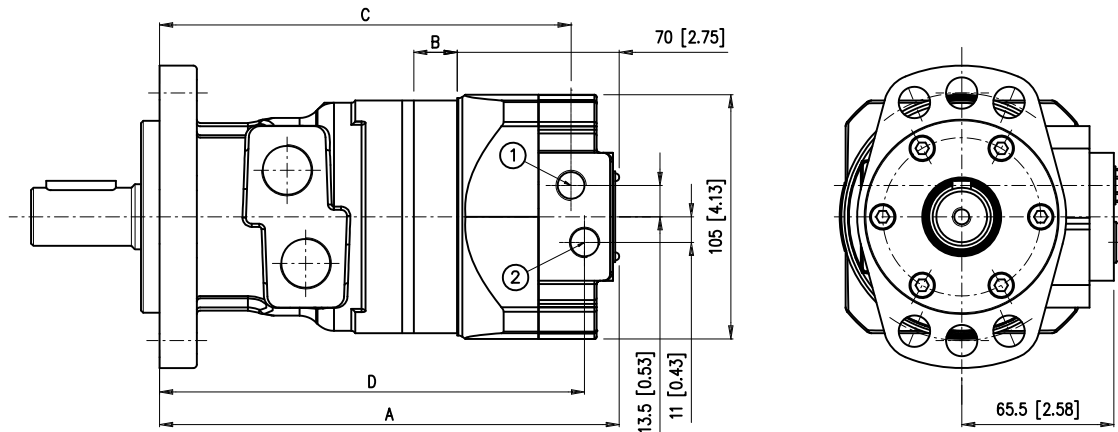
- Sensore con cavo a tre fili lunghezza 2 metri (cod. 424.0050.0000)
- Sensore con attacco per connettore tipo binder (cod. 424.0060.0000) + connettore tipo binder
- Con cavo a tre fili lunghezza 5 metri (cod. 424.0080.0000)

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)

- 1) Comando apertura freno 1/4 G (BSPP) profondità filetto 13mm  
1/4 G (BSPP) brake releasing thread depth 0.51in
- 2) Drenaggio motore 1/4 G (BSPP) profondità filetto 13mm  
1/4 G (BSPP) drain motor thread depth 0.51in



		BR 50	BR 65	BR 80	BR 100	BR 130	BR 160	BR 200	BR 250	BR 315	BR 400
<b>A</b>	<b>mm [in]</b>	187.9 [7.39]	190.2 [7.41]	192.9 [7.52]	196.3 [7.65]	200.7 [7.82]	206.7 [8.06]	213.7 [8.33]	222.4 [8.67]	233.7 [9.11]	247.2 [9.64]
<b>B</b>	<b>mm [in]</b>	9 [0.35]	11.3 [0.44]	14 [0.55]	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]
<b>C</b>	<b>mm [in]</b>	169.9 [6.69]	172.2 [6.71]	174.9 [6.82]	178.3 [6.95]	182.7 [7.12]	188.7 [7.35]	195.7 [7.63]	204.4 [7.97]	215.7 [8.41]	229.2 [8.94]
<b>D</b>	<b>mm [in]</b>	173 [6.81]	175.3 [6.83]	178 [6.94]	181.4 [7.07]	185.8 [7.24]	191.8 [7.48]	198.8 [7.75]	207.5 [8.09]	218.8 [8.53]	232.2 [9.06]
<b>Pesi Weight</b>	<b>kg [lb]</b>	8.2 [18]	8.4 [18.5]	8.5 [18.7]	8.7 [19.1]	9 [19.8]	9.3 [20.4]	9.6 [21.1]	10.1 [22.2]	10.8 [23.8]	11.1 [24.4]

## CARATTERISTICHE FRENO BRAKE FEATURES

I freni integrati nei motori FP sono freni di stazionamento a sbloccaggio idraulico (freni negativi) e non possono essere impiegati per frenare dinamicamente il carico.

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

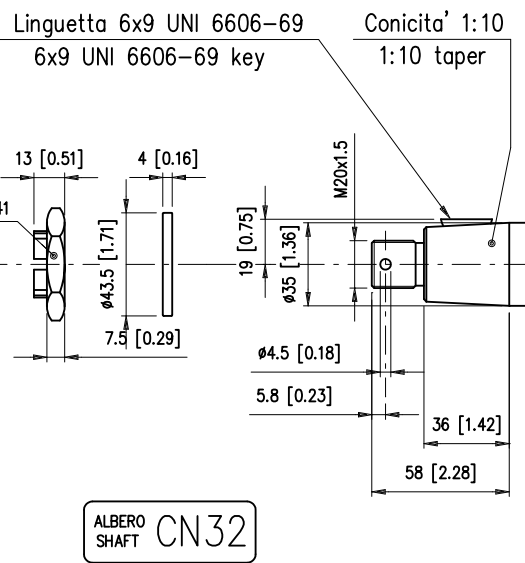
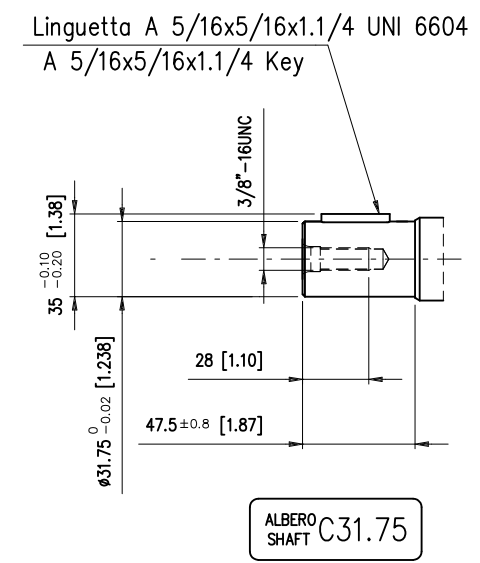
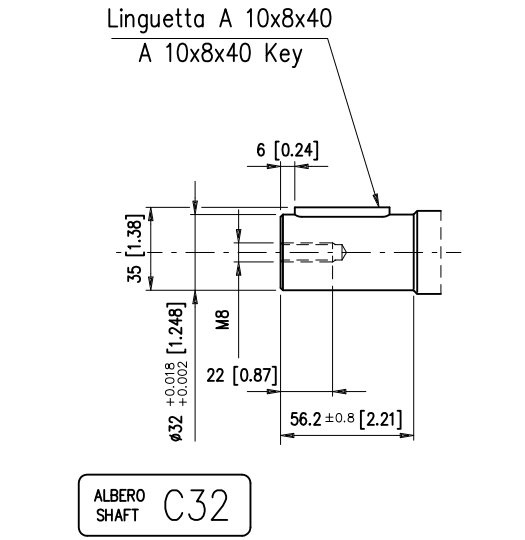
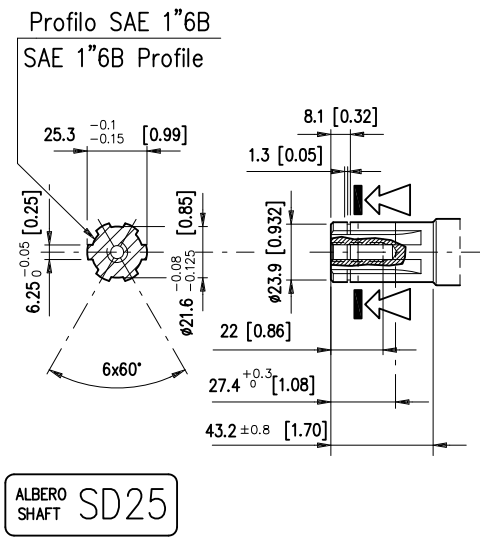
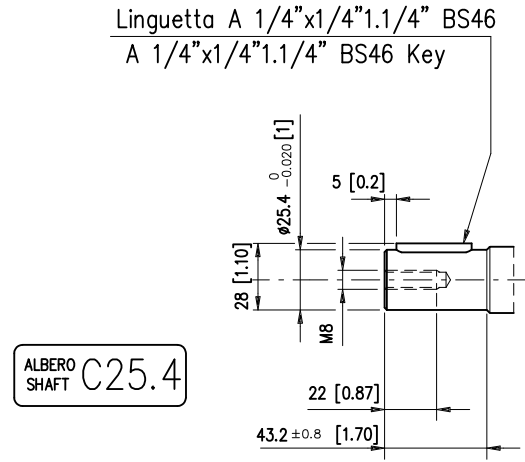
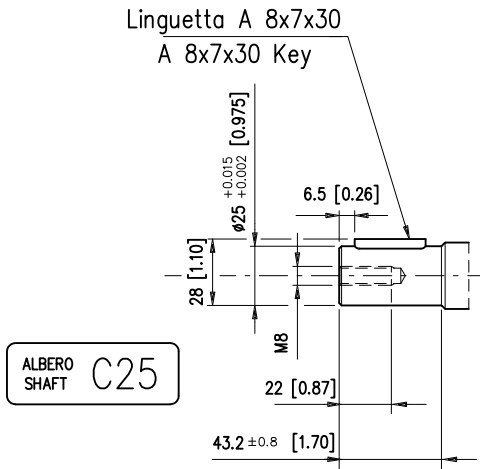
### Accorgimenti per l'installazione

- Il motore idraulico con freno posteriore FP richiede obbligatoriamente il collegamento del drenaggio motore, posto sul corpo freno, in serbatoio a scarico libero.
- Nel caso di funzionamento in circuito aperto è consigliato l'utilizzo di una valvola di ritardo chiusura freno ( per evitare il funzionamento dinamico dello stesso) di una valvola over-centre e di un distributore a centro aperto.

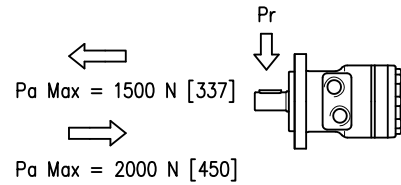
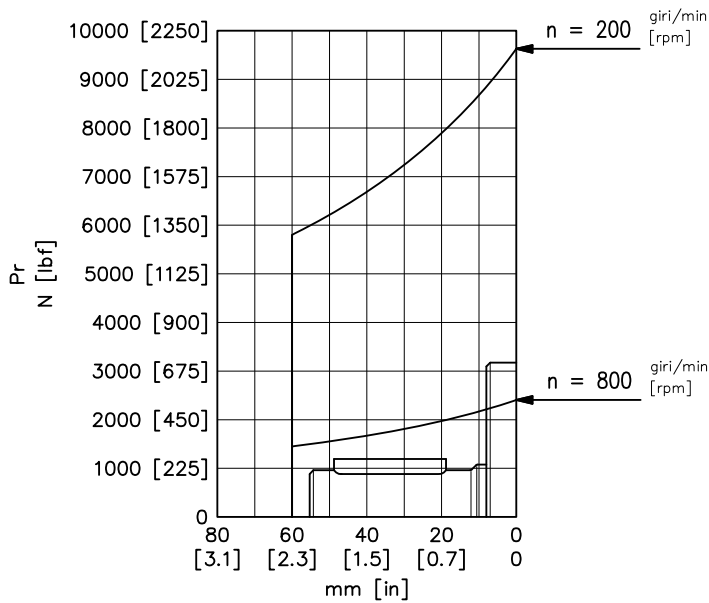
### Installation layout

- 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.

Caratteristiche del motore-freno		Motor-brake features
Pressione di apertura minima	22 bar [319 psi]	Minim release pressure
Pressione di freno libero	25 bar [362.5 psi]	Complete brake release pressure
Pressione massima sul freno	160 bar [2320 psi]	Max. brake pressure
Coppia massimastica	370 Nm [272.7 lbf-ft]	Max. static torque
Velocità massima motore	350 rpm	Max. motor speed



## Motore BR Motor



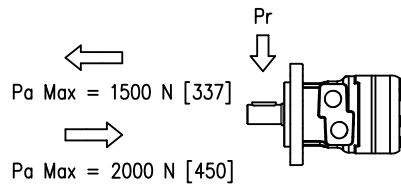
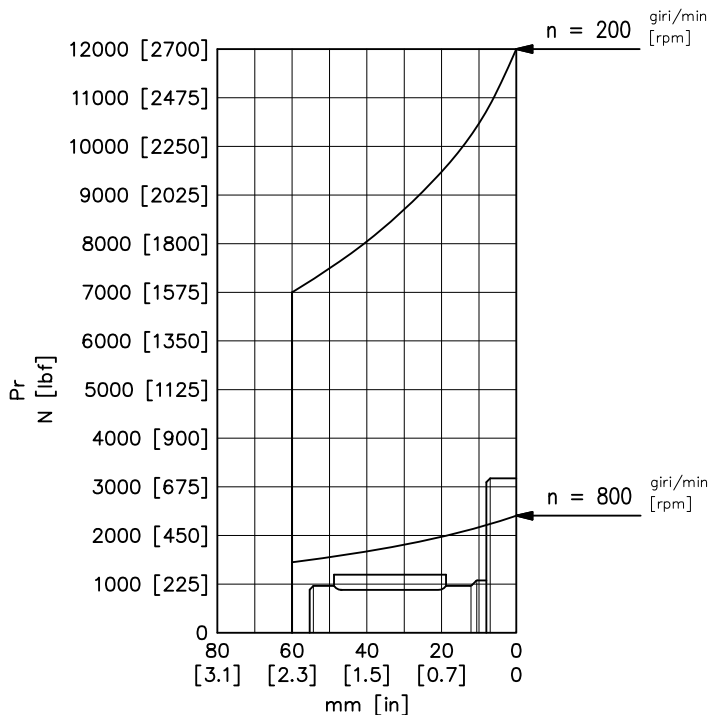
Formula utilizzabile per il calcolo del carico radiale massimo ammissibile ( $P_r$ ) ai vari numeri di giri, e alle varie distanze dalla flangia.

Calculating formula of max permissible radial load ( $P_r$ ) according to rpm and distance from flange.

$$P_r = \frac{800}{n} \cdot \frac{219000}{91 + L} [\text{N}]$$

$n \geq 200$  [giri / min][ rpm ]  
 $L \leq 68.5\text{mm}[2.67 \text{ in}]$

## Motore BRS Motor



Formula utilizzabile per il calcolo del carico radiale massimo ammissibile ( $P_r$ ) ai vari numeri di giri, e alle varie distanze dalla flangia.

Calculating formula of max permissible radial load ( $P_r$ ) according to rpm and distance from flange.

$$P_r = \frac{800}{n} \cdot \frac{219000}{91 + L} [\text{N}]$$

$n \geq 200$  [giri / min][ rpm ]  
 $L \leq 68.5\text{mm}[2.67 \text{ in}]$

Serie Series	Cilindrata Displacement	Flangia Mounting	Attacchi Porting	Alberi Shafts	Opzioni Options					
<b>BS</b>	<b>130</b>	<b>A</b>	<b>1/2" NPTF</b>	<b>C25.4</b>						
	CODICE CODE	Cilindrata Displacement	CODICE CODE	Flangia Mounting	CODICE CODE	Attacchi Porting	CODICE CODE	Alberi Shafts	CODICE CODE	Opzioni Options
	50	51.6 cm <sup>3</sup> /giro [3.14 in <sup>3</sup> /rev]	A	4 Fori 4 Bolts	7/8"	7/8"-14 UNF SAE10	C25.4	Cilindrico Ø 25.4 1 in Straight, 1/4" Key		Nessuna opzione Without options
	65	64.9 cm <sup>3</sup> /giro [3.95 in <sup>3</sup> /rev]	T(*)	2 o 4 Fori 2 or 4 Bolts	1/2" NPTF	1/2"-14 NPTF	SE25	Scanalato 1" 6B 1" 6B Spline	DP	Con Drenaggio Drain port
	80	80.4 cm <sup>3</sup> /giro [4.9 in <sup>3</sup> /rev]			BFL	Manifold	SE21	Scanalato 7/8" - Z13 7/8" - 13 Tooth Spline		
	100	100 cm <sup>3</sup> /giro [6.1 in <sup>3</sup> /rev]			G 1/2"	1/2 G BSPP (only flange A) (solo flangia A)				
	130	125.7 cm <sup>3</sup> /giro [7.66 in <sup>3</sup> /rev]								
	160	160 cm <sup>3</sup> /giro [9.76 in <sup>3</sup> /rev]								
	200	200 cm <sup>3</sup> /giro [12.2 in <sup>3</sup> /rev]								
	250	250 cm <sup>3</sup> /giro [15.2 in <sup>3</sup> /rev]								
	315	314.5 cm <sup>3</sup> /giro [19.1 in <sup>3</sup> /rev]								
	400	393 cm <sup>3</sup> /giro [23.9 in <sup>3</sup> /rev]								

(\*) Non ancora disponibile / Not yet available

In caso di caratteristiche non elencate, contattare Uff. Tecnico.  
Please contact technical department for not listed features.

**CARATTERISTICHE TECNICHE**  
**TECHNICAL SPECIFICATIONS**

**DATI TECNICI PER MOTORE BS CON ALBERO CILINDRICO C25.4**  
**BS MOTOR TECHNICAL DATA WITH 1 IN. PARALLEL KEYS SHAFT**

Motore Motor	Cilindrata Displacement	Pressione max ingresso Max. input pressure	Pressione diff. max. Max. differential pressure	Coppia max. Max. torque	Portata max. Max. flow	Velocità max. Max. speed	Potenza max. Max. horsepower						
	cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	bar [psi]	bar [psi]	Nm [lbf-ft]	l/min [U.S. gpm]	giri/min [rpm]	kW [hp]						
<b>BS 50</b>	51.6 [3.14]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>1)</sup>	103 [75.9] 126 [92.8]	Cont Int <sup>1)</sup>	40 [10.6] 50 [13.2]	Cont Int <sup>1)</sup>	775 969	Cont Int <sup>1)</sup>	6.8 [9.1] 8.4 [11.2]
<b>BS 65</b>	64.9 [3.95]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	150 [2175] 185 [2682] 225 [3262]	Cont Int <sup>1)</sup>	140 [103.1] 166 [122.3]	Cont Int <sup>1)</sup>	50 [13.2] 60 [15.9]	Cont Int <sup>1)</sup>	770 924	Cont Int <sup>1)</sup>	9.2 [12.3] 10.6 [14.2]
<b>BS 80</b>	80.4 [4.9]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int* Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int*	197 [145.1] 218 [160.6]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	746 933	Cont Int <sup>1)</sup>	13 [17.4] 15 [20.1]
<b>BS 100</b>	100 [6.1]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup>	237 [174.6] 277 [204.1]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	600 750	Cont Int <sup>1)</sup>	13 [17.4] 15 [20.1]
<b>BS 130</b>	125.7 [7.66]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup>	300 [221.1] 340 [250.5]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	477 597	Cont Int <sup>1)</sup>	12.5 [16.8] 14.5 [19.4]
<b>BS 160</b>	160 [9.76]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>1)</sup>	296 [218.1] 375 [276.3]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	375 469	Cont Int <sup>1)</sup>	10 [13.4] 12.5 [16.8]
<b>BS 200</b>	200 [12.2]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	115 [1667] 140 [2030] 225 [3262]	Cont Int <sup>1)</sup>	297 [218.8] 380 [280]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	300 375	Cont Int <sup>1)</sup>	8.5 [11] 10 [13.4]
<b>BS 250</b>	250 [15.2]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	90 [1305] 120 [1740] 225 [3262]	Cont Int <sup>1)</sup>	297 [218.8] 377 [277.8]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	240 300	Cont Int <sup>1)</sup>	7.1 [9.5] 8.5 [11]
<b>BS 315</b>	314.5 [19.1]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	70 [1020] 100 [1450] 210 [3045]	Cont Int <sup>1)</sup>	300 [221.1] 420 [309.5]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	191 238	Cont Int <sup>1)</sup>	5 [6.7] 6.6 [8.8]
<b>BS 400</b>	393 [23.9]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>1)</sup> Peak <sup>2)</sup>	55 [800] 85 [1230] 175 [2537]	Cont Int <sup>1)</sup>	292 [215.2] 425 [313.2]	Cont Int <sup>1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>1)</sup>	153 191	Cont Int <sup>1)</sup>	4.1 [5.4] 6.1 [8.1]

1) Le condizioni intermittenti non devono durare più del 10% di ogni minuto. Intermittent duty must not exceed 10% every minute.  
2) Le condizioni di picco non devono durare più del 1% di ogni minuto. Peak duty must not exceed 1% of every minute.



## DATI TECNICI PER MOTORE BS CON ALBERO SCANALATO SE25 BS MOTOR TECHNICAL DATA WITH 1 IN. SPLINED SHAFT

Motore Motor	Cilindrata Displacement cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	Pressione max ingresso Max. input pressure bar [psi]		Pressione diff. max. Max. differential pressure bar [psi]		Coppia max. Max. torque Nm [lbf-ft]		Portata max. Max. flow l/min [U.S. gpm]		Velocità max. Max. speed giri/min [rpm]		Potenza max. Max. horsepower kW [hp]	
		Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup>	103 [75.9] 126 [92.8]	Cont Int <sup>(1)</sup>	40 [10.6] 50 [13.2]	Cont Int <sup>(1)</sup>	775 969	Cont Int <sup>(1)</sup>	6.8 [9.1] 8.4 [11.2]
<b>BS 50</b>	51.6 [3.14]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	140 [2030] 175 [2540] 225 [3262]	Cont Int <sup>(1)</sup>	103 [75.9] 126 [92.8]	Cont Int <sup>(1)</sup>	40 [10.6] 50 [13.2]	Cont Int <sup>(1)</sup>	775 969	Cont Int <sup>(1)</sup>	6.8 [9.1] 8.4 [11.2]
<b>BS 65</b>	64.9 [3.95]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	150 [2175] 185 [2682] 225 [3262]	Cont Int <sup>(1)</sup>	140 [103.1] 166 [122.3]	Cont Int <sup>(1)</sup>	50 [13.2] 60 [15.9]	Cont Int <sup>(1)</sup>	770 924	Cont Int <sup>(1)</sup>	9.2 [12.3] 10.6 [14.2]
<b>BS 80</b>	80.4 [4.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>*</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>*</sup>	197 [145.1] 218 [160.6]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	746 933	Cont Int <sup>(1)</sup>	13 [17.4] 15 [20.1]
<b>BS 100</b>	100 [6.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	237 [174.6] 277 [204.1]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	600 750	Cont Int <sup>(1)</sup>	13 [17.4] 15 [20.1]
<b>BS 130</b>	125.7 [7.66]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	300 [221.1] 340 [250.5]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	477 597	Cont Int <sup>(1)</sup>	12.5 [16.8] 14.5 [19.4]
<b>BS 160</b>	160 [9.76]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	165 [2390] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup>	350 [257.9] 428 [315.4]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	375 469	Cont Int <sup>(1)</sup>	11.8 [15.8] 14.3 [19.1]
<b>BS 200</b>	200 [12.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	130 [1890] 165 [2390] 225 [3262]	Cont Int <sup>(1)</sup>	335 [246.8] 446 [328.7]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	300 375	Cont Int <sup>(1)</sup>	9.7 [12.9] 12 [16]
<b>BS 250</b>	250 [15.2]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	105 [1522] 135 [1957] 225 [3262]	Cont Int <sup>(1)</sup>	347 [255.7] 424 [312.4]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	240 300	Cont Int <sup>(1)</sup>	8.3 [11.1] 9.6 [12.8]
<b>BS 315</b>	314.5 [19.1]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	85 [1232] 115 [1670] 210 [3045]	Cont Int <sup>(1)</sup>	362 [266.7] 484 [356.7]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	191 238	Cont Int <sup>(1)</sup>	6 [8] 7.6 [10.1]
<b>BS 400</b>	393 [23.9]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	175 [2537] 200 [2900] 225 [3262]	Cont Int <sup>(1)</sup> Peak <sup>(2)</sup>	65 [942] 90 [1310] 175 [2537]	Cont Int <sup>(1)</sup>	345 [254.2] 450 [331.6]	Cont Int <sup>(1)</sup>	60 [15.9] 75 [19.8]	Cont Int <sup>(1)</sup>	153 191	Cont Int <sup>(1)</sup>	4.9 [6.5] 6.5 [8.7]

1) Le condizioni intermittenti non devono durare più del 10% di ogni minuto. Intermittent duty must not exceed 10% every minute.

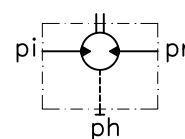
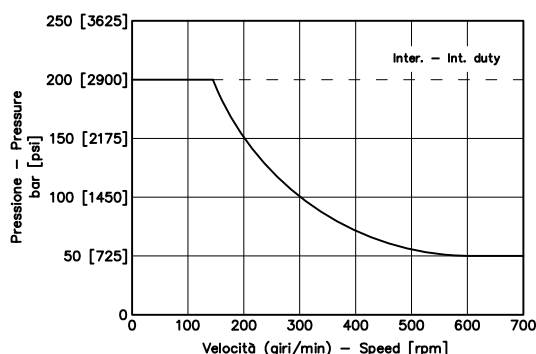
2) Le condizioni di picco non devono durare più del 1% di ogni minuto. Peak duty must not exceed 1% of every minute.

## PRESSIONE IN CARCASSA E DRENAGGIO CASE PRESSURE AND CASE DRAIN

# BS

La pressione ammissibile in carcassa è riportata nel grafico. Elevate pressioni in carcassa comportano basse velocità dell'albero. Se la massima pressione in carcassa è elevata, è necessario utilizzare il drenaggio.

Allowable case pressure is shown in the diagram below - diagram based on case pressure and shaft speed. Allowable case pressure is highest at low shaft speed. If max. allowable case pressure is exceeded, case drain line is needed.



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

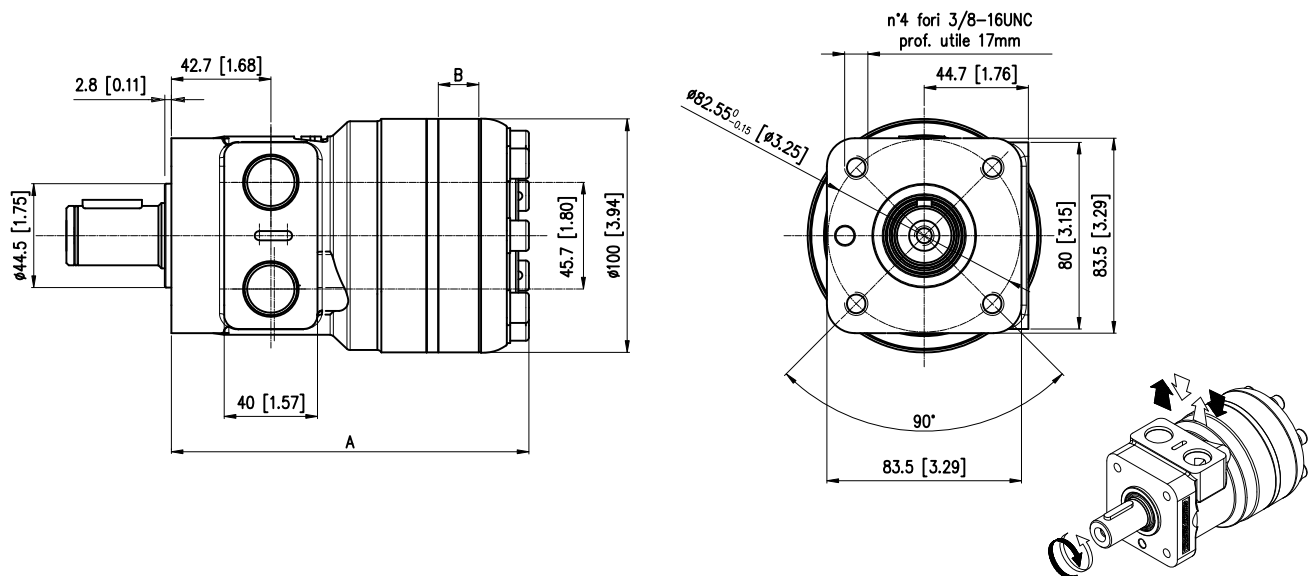
ph = pressione in carcassa  
pi = pressione di alimentazione  
pr = pressione di scarico

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

- La pressione in carcassa senza drenaggio è data dalla media tra pi e pr.
- Il motore BS è fornito senza drenaggio
- La massima pressione di scarico con drenaggio è di 175 bar Cont. - 200 bar Int. - 225 Peak
- The case pressure without drain line is the average between inlet and return pressure.
- As standard, BS motors are supplied without drain port.
- Max. permissible return (back) pressure with drain line 175 bar [2540 psi] Cont. - 200 bar [2900 psi] Int. - 225 bar [3260 psi] Peak.

# DIMENSIONI E PESI DIMENSIONS AND WEIGHT

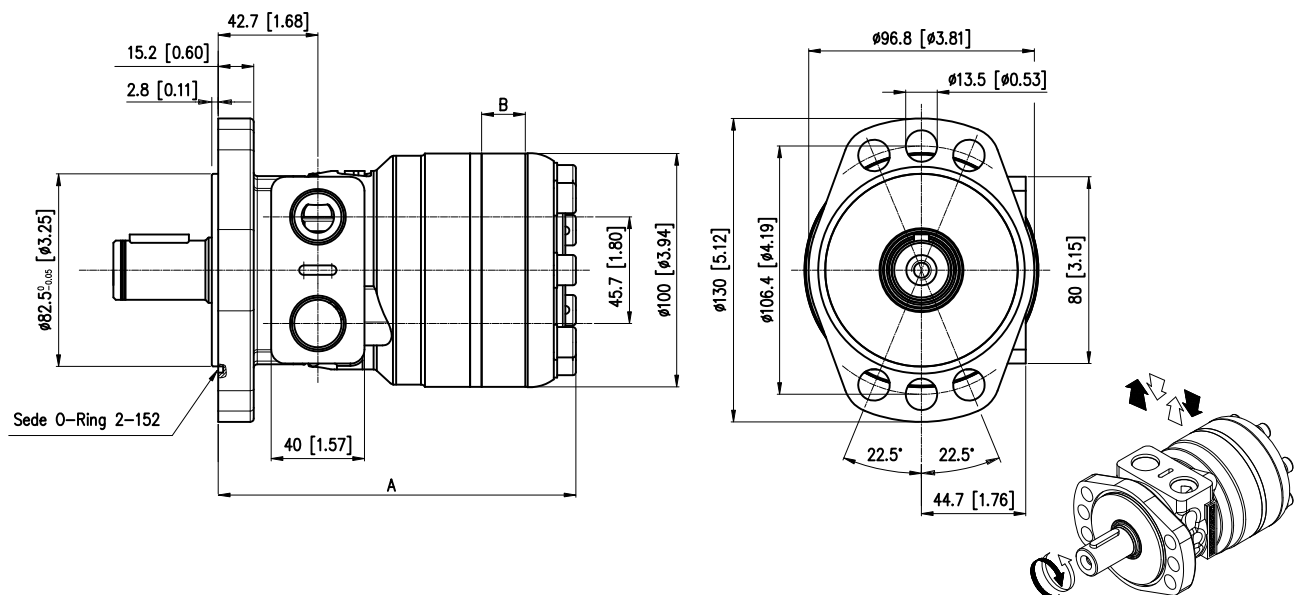
# BS...A



		BS 50	BS 65	BS 80	BS 100	BS 130	BS 160	BS 200	BS 250	BS 315	BS 400
<b>A</b>	<b>mm [in]</b>	145 [5.7]	147.3 [5.74]	150 [5.9]	153.5 [6]	158 [6.2]	164 [6.45]	171 [6.73]	179.5 [7.06]	191 [7.51]	204.5 [8.05]
<b>B</b>	<b>mm [in]</b>	9 [0.35]	11.3 [0.44]	14 [0.55]	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]
<b>Pesi Weight</b>	<b>kg [lb]</b>	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]

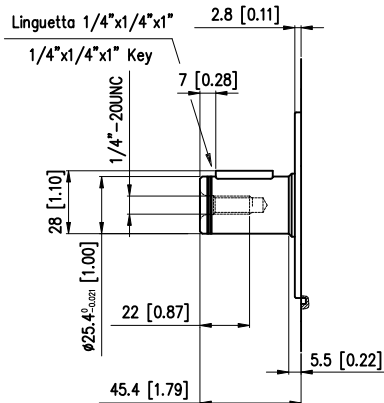
# DIMENSIONI E PESI DIMENSIONS AND WEIGHT

# BS...T

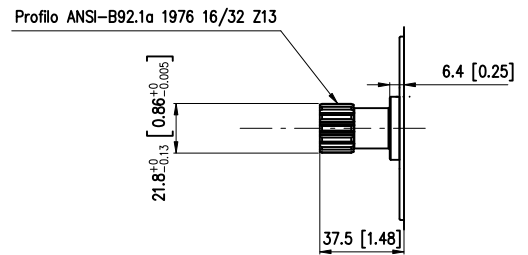


		BS 50	BS 65	BS 80	BS 100	BS 130	BS 160	BS 200	BS 250	BS 315	BS 400
<b>A</b>	<b>mm [in]</b>	143.7 [5.60]	146 [5.69]	148.7 [5.85]	152.1 [5.98]	156.5 [6.16]	162.5 [6.39]	169.5 [6.67]	178.2 [7.01]	189.5 [7.46]	203 [7.99]
<b>B</b>	<b>mm [in]</b>	9 [0.35]	11.3 [0.44]	14 [0.55]	17.4 [0.68]	21.8 [0.85]	27.8 [1.09]	34.8 [1.37]	43.5 [1.71]	54.8 [2.15]	68.38 [2.69]
<b>Pesi Weight</b>	<b>kg [lb]</b>	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]

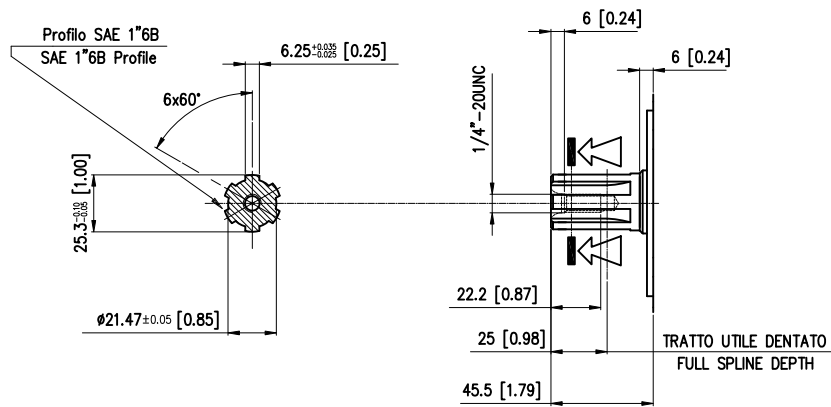
**Cilindrico C25.4**  
**Parallel C25.4**



**Scanalato SE21**  
**Splined SE21**

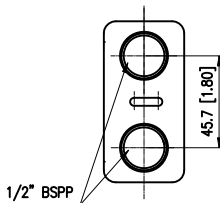


**Scanalato SE25**  
**Splined SE25**

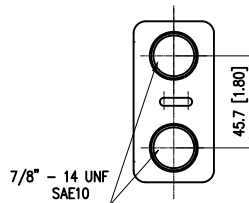


**ATTACCHI**  
**OPTIONS**

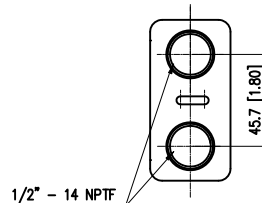
**G 1/2"**



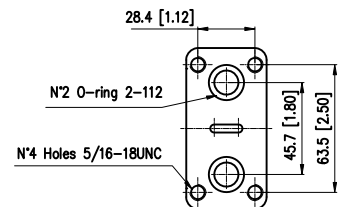
**7/8"**



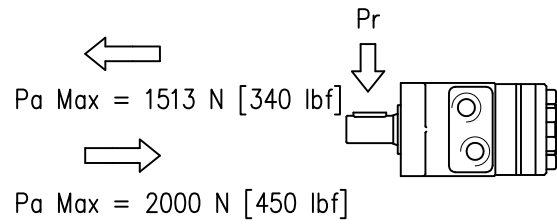
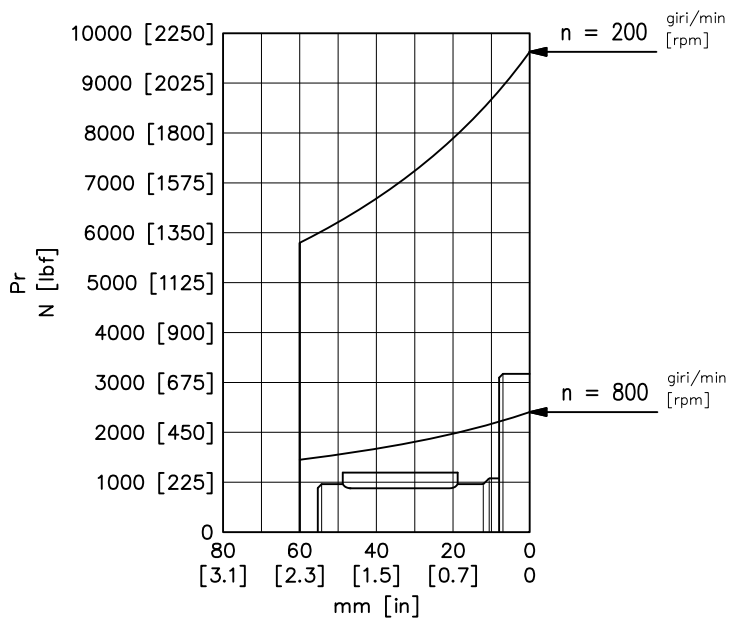
**1/2" NPTF**



**Manifold (BFL)**



Curva carico radiale in funzione della velocità e della distanza dalla flangia, valido per flangia 2-4 fori tipo "A-T"  
Radial load capacity (Pr) curve according to speed and distance from flange valid for the 2-4 bolts flange type "A-T"



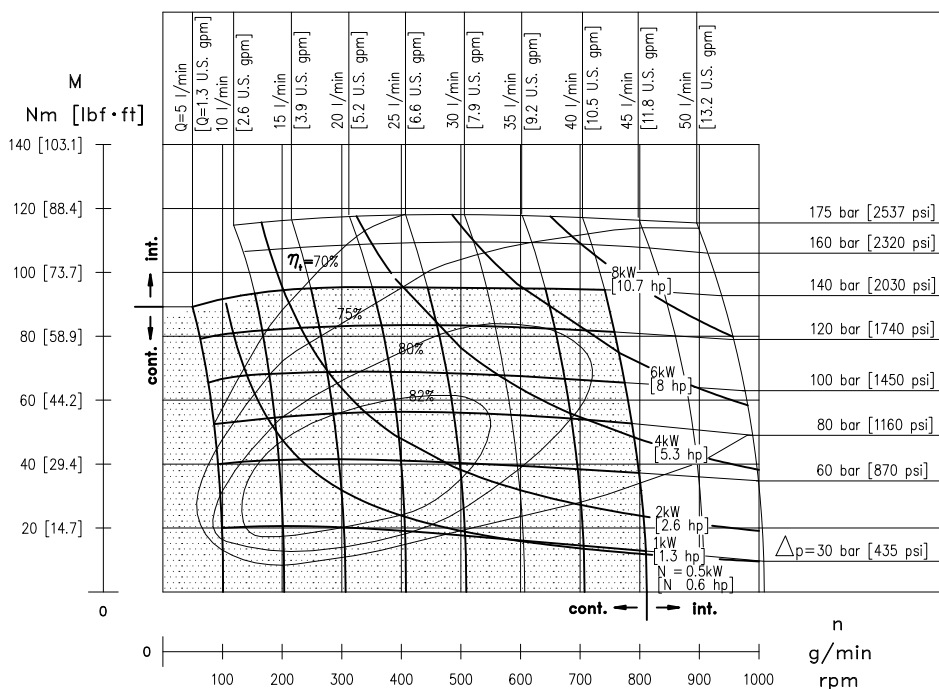
$$Pr = \frac{800}{n} * \frac{219000[49275]}{91[3.58]+L} \text{ N [lbf]}$$

$n \geq 200$  [rpm]

$L \leq 68.5[2.67]$  mm [in]

*N.B.: Nella formula usare 200 rpm se la velocità è inferiore a 200 rpm*  
N.B. In the above formula, use 200 rpm if the speed is below 200 rpm

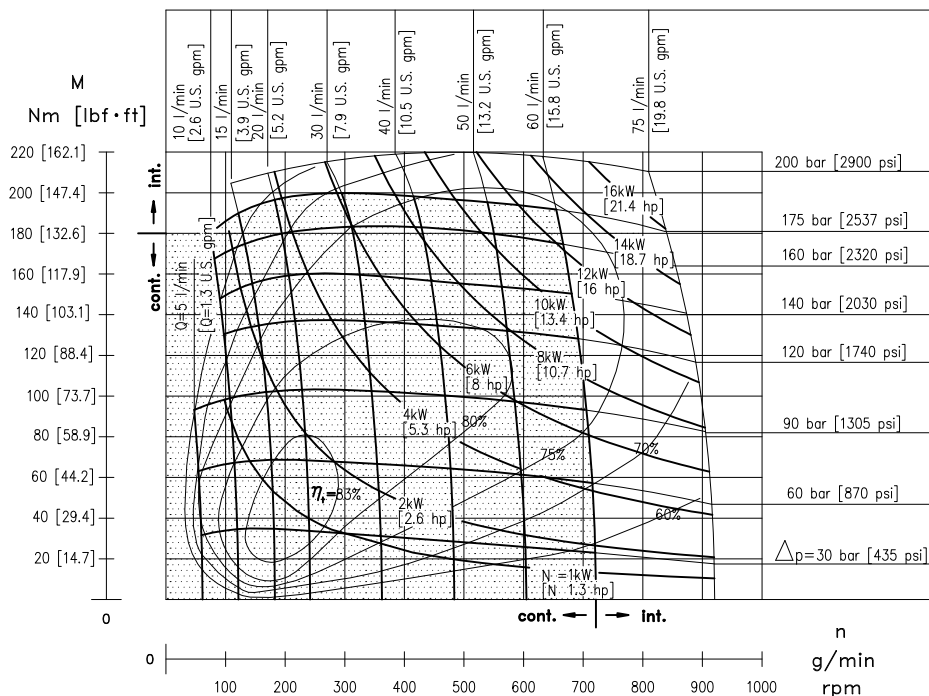
# BR-BS 50



*Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.*

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

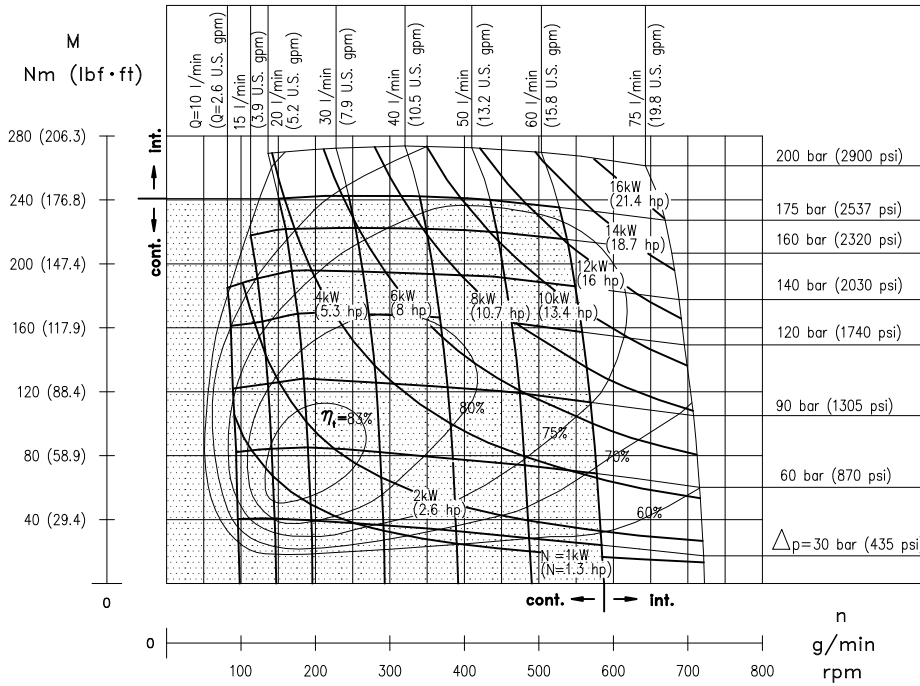
# BR-BS 80



*Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.*

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

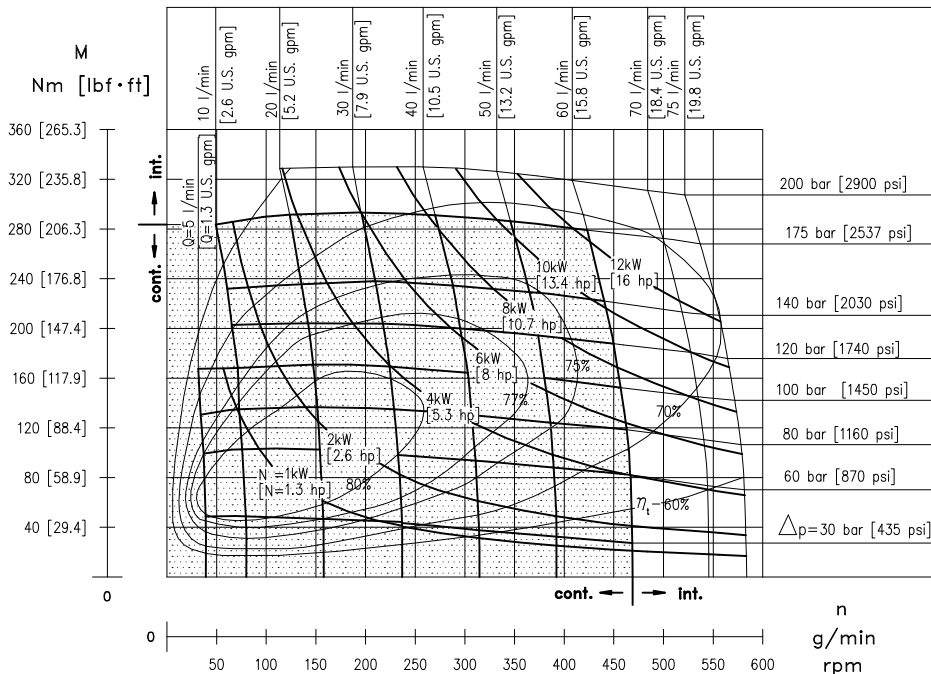
# BR-BS 100



*Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.*

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

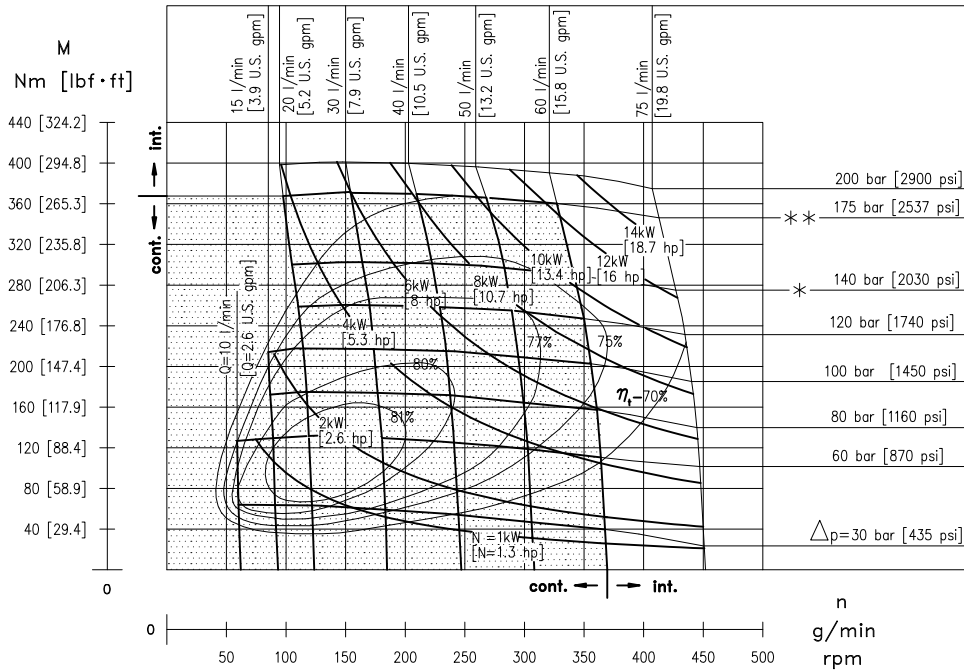
# BR-BS 130



*Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.*

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

# BR-BS 160



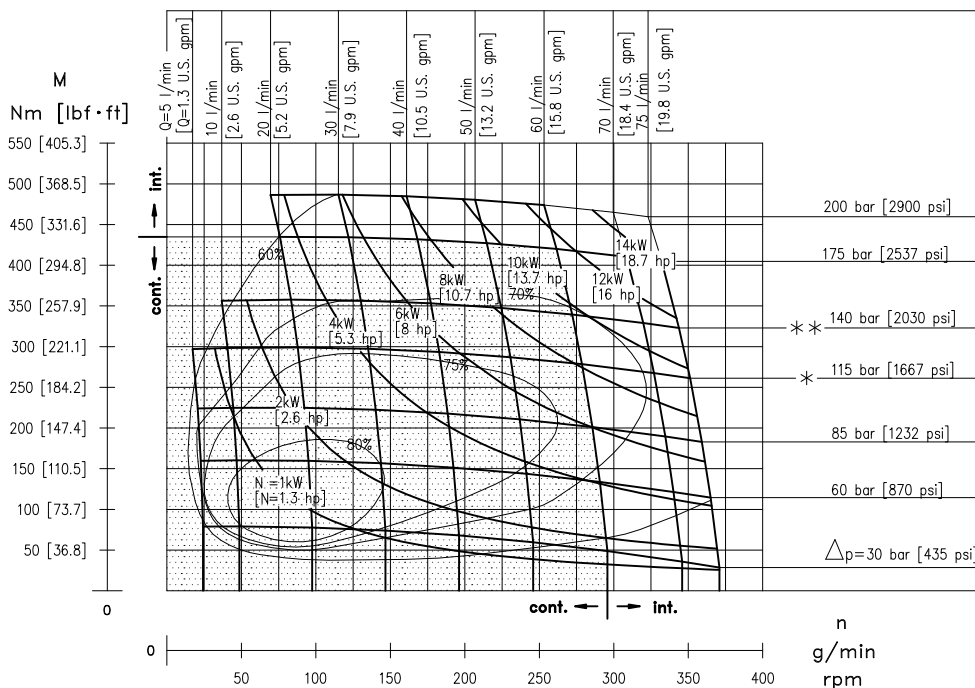
- \* Pressione massima continua per versione con albero Ø25.
- \*\* Pressione massima intermittente per versione con albero Ø25.

Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

- \* 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



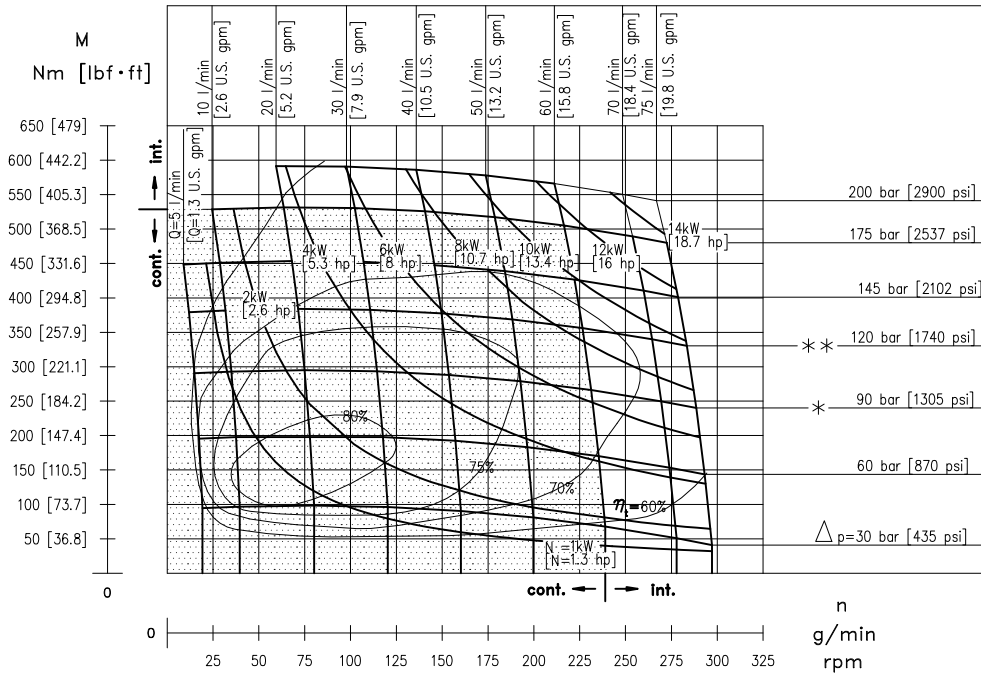
- \* Pressione massima continua per versione con albero Ø25.
- \*\* Pressione massima intermittente per versione con albero Ø25.

Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

- \* 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 250



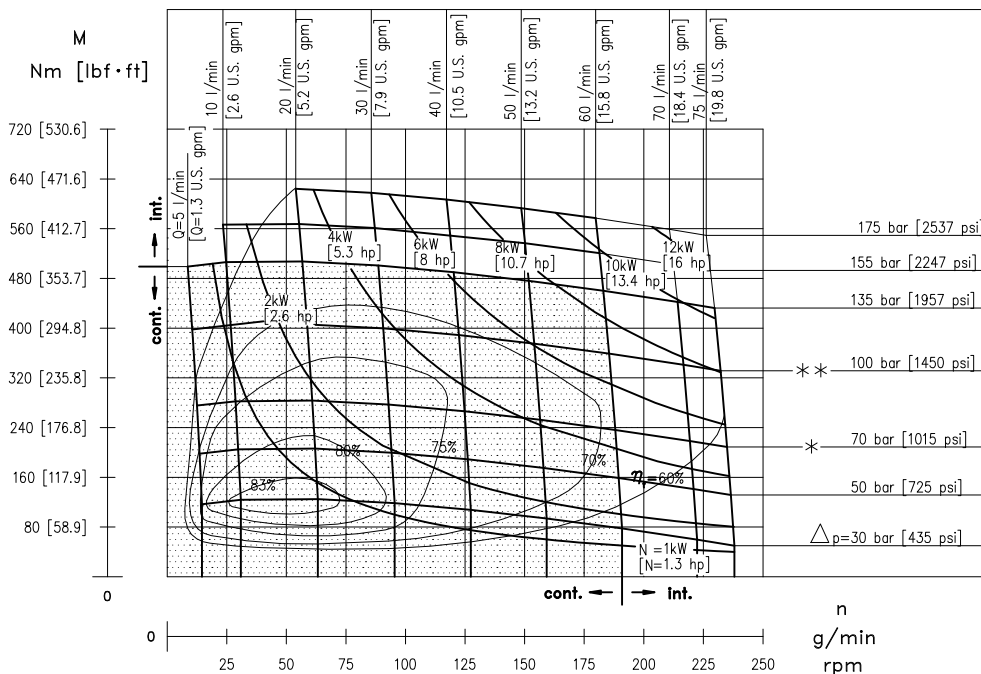
- \* Pressione massima continua per versione con albero Ø25.
- \*\* Pressione massima intermittente per versione con albero Ø25.

Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

- \* 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



- \* Pressione massima continua per versione con albero Ø25.
- \*\* Pressione massima intermittente per versione con albero Ø25.

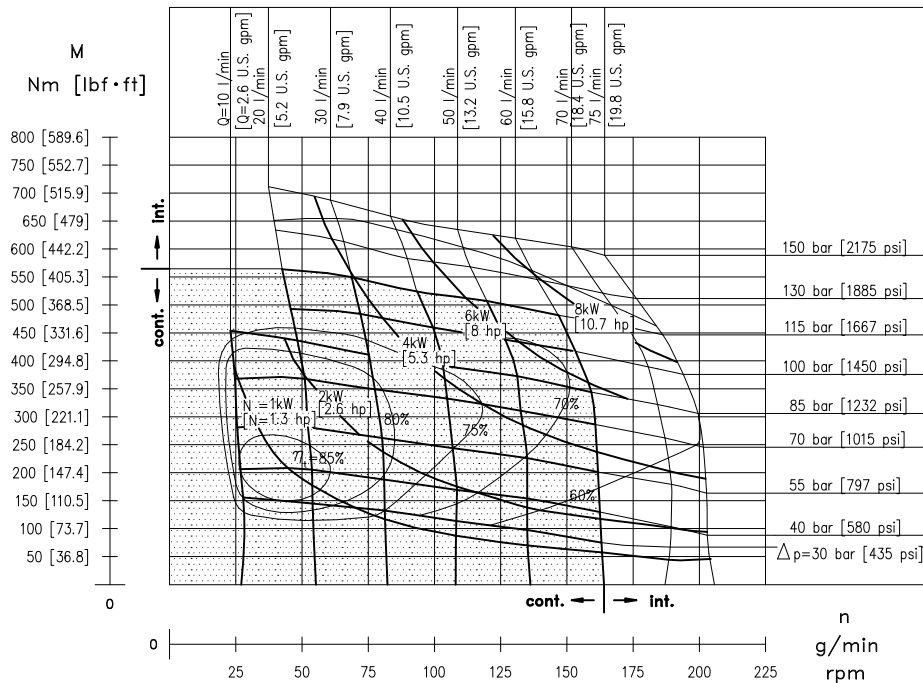
Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

- \* 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



\* Pressione massima continua per versione con albero Ø25.

\*\* Pressione massima intermittente per versione con albero Ø25.

Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

\* 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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### **Informazioni sul prodotto**

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