

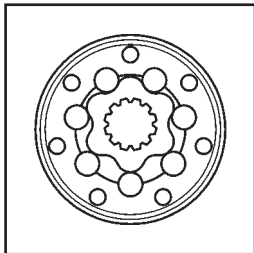
**BR**



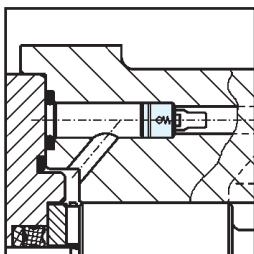
**MOTORI ORBITALI**

**HYDRAULIC MOTORS SERIES**

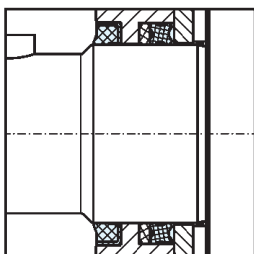
## CARATTERISTICHE DEL MOTORE MOTOR FEATURES



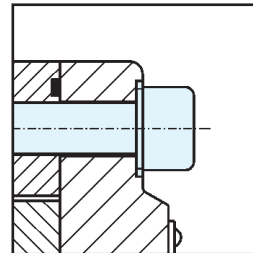
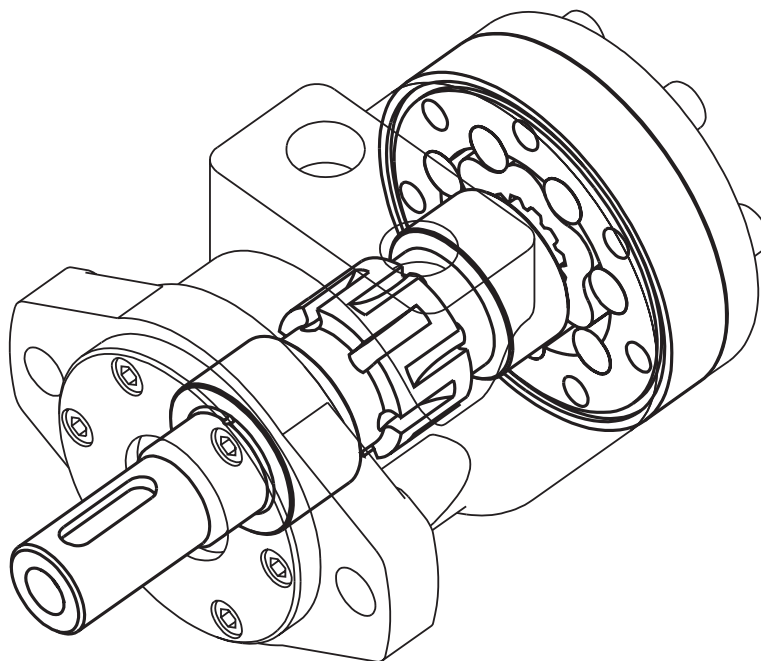
*Roller ad alto rendimento per elevate prestazioni e durata.*  
High-performance roller for improved efficiency and life.



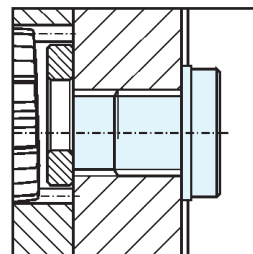
*Valvole di drenaggio incorporate: ricircolano allo scarico il fluido drenato internamente.*  
Built in check valves: to relieve case pressure to the low pressure side of the motor.



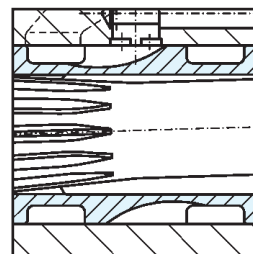
*Parapolvere per proteggere la guarnizione di tenuta dell'albero dalle impurità e guarnizione di tenuta ad alte prestazioni.*  
Seal to protect the high pressure shaft seal from dust and debris.



*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.



*Foro drenaggio posteriore per un facile collegamento.*  
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.

## CODICI DI ORDINAZIONE ORDERING CODES

Motore / Motor	Cilindrata / Displacement	Flangia / Flange	Albero / Shaft	Versione / Version
<b>BR</b>	<b>100</b>	<b>N</b>	<b>C25</b>	
<b>BR</b>	<b>100</b>	<b>T</b>	<b>C32</b>	
<b>BR</b>	<b>160</b>	<b>N</b>	<b>C25</b>	<b>HPS</b>

# CARATTERISTICHE TECNICHE TECHNICAL SPECIFICATIONS

Motore - Tipo Motor - Type	Cilindrata geometrica Geometric displacement (cm <sup>3</sup> /giro) (cu.cm./rev.)	Pressione max ingresso Max inlet pressure (bar)	Pressione differenz. max Max operating differential pressure (bar)	Coppia max Max torque (daNm)	Portata max Max flow (l/min)	Velocità max Max speed (min <sup>-1</sup> ) (rpm)	Potenza max Max horsepower (kw)
BR 50	49	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 140 Int. <sup>1)</sup> 175 Peak <sup>2)</sup> 225	Cont. 9,5 Int. <sup>1)</sup> 12 Peak <sup>2)</sup> 16	Cont. 40 Int. <sup>1)</sup> 50	Cont. 815 Int. <sup>1)</sup> 1020	Cont. 7 Int. <sup>1)</sup> 8,5
BR 80	81,5	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 20 Int. <sup>1)</sup> 21,5 Peak <sup>2)</sup> 25	Cont. 60 Int. <sup>1)</sup> 75	Cont. 735 Int. <sup>1)</sup> 920	Cont. 13 Int. <sup>1)</sup> 15
BR100	101,2	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 24 Int. <sup>1)</sup> 27 Peak <sup>2)</sup> 30	Cont. 60 Int. <sup>1)</sup> 75	Cont. 590 Int. <sup>1)</sup> 740	Cont. 13 Int. <sup>1)</sup> 15
BR130	125,7	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 29 Int. <sup>1)</sup> 33 Peak <sup>2)</sup> 36,5	Cont. 60 Int. <sup>1)</sup> 75	Cont. 475 Int. <sup>1)</sup> 595	Cont. 12,5 Int. <sup>1)</sup> 14,5
BR160	161,6	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 175 (140) <sup>3)</sup> Int. <sup>1)</sup> 200 (175) <sup>3)</sup> Peak <sup>2)</sup> 225	Cont. 37 (30) <sup>3)</sup> Int. <sup>1)</sup> 41 (37) <sup>3)</sup> Peak <sup>2)</sup> 45	Cont. 60 Int. <sup>1)</sup> 75	Cont. 370 Int. <sup>1)</sup> 460	Cont. 12,5 (10) <sup>3)</sup> Int. <sup>1)</sup> 14 (12,5) <sup>3)</sup>
BR200	201	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 175 (115) <sup>3)</sup> Int. <sup>1)</sup> 200 (140) <sup>3)</sup> Peak <sup>2)</sup> 225	Cont. 43 (30) <sup>3)</sup> Int. <sup>1)</sup> 49 (36) <sup>3)</sup> Peak <sup>2)</sup> 55	Cont. 60 Int. <sup>1)</sup> 75	Cont. 295 Int. <sup>1)</sup> 370	Cont. 11 (8,5) <sup>3)</sup> Int. <sup>1)</sup> 13 (10) <sup>3)</sup>
BR250	251,5	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 175 (90) <sup>3)</sup> Int. <sup>1)</sup> 200 (120) <sup>3)</sup> Peak <sup>2)</sup> 225	Cont. 53 (30) <sup>3)</sup> Int. <sup>1)</sup> 60,5 (38) <sup>3)</sup> Peak <sup>2)</sup> 67	Cont. 60 Int. <sup>1)</sup> 75	Cont. 235 Int. <sup>1)</sup> 295	Cont. 11 (7) <sup>3)</sup> Int. <sup>1)</sup> 12,5 (8,5) <sup>3)</sup>
BR315	315	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 135 (70) <sup>3)</sup> Int. <sup>1)</sup> 175 (100) <sup>3)</sup> Peak <sup>2)</sup> 210	Cont. 51 (30) <sup>3)</sup> Int. <sup>1)</sup> 63 (41) <sup>3)</sup> Peak <sup>2)</sup> 75	Cont. 60 Int. <sup>1)</sup> 75	Cont. 190 Int. <sup>1)</sup> 235	Cont. 9 (5) <sup>3)</sup> Int. <sup>1)</sup> 11 (6,5) <sup>3)</sup>
BR400	402	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	Cont. 115 (55) <sup>3)</sup> Int. <sup>1)</sup> 150 (85) <sup>3)</sup> Peak <sup>2)</sup> 175	Cont. 58 (30) <sup>3)</sup> Int. <sup>1)</sup> 69 (43) <sup>3)</sup> Peak <sup>2)</sup> 80	Cont. 60 Int. <sup>1)</sup> 75	Cont. 145 Int. <sup>1)</sup> 185	Cont. 7,5 (4) <sup>3)</sup> Int. <sup>1)</sup> 9 (6) <sup>3)</sup>

Motore - Tipo Motor - Type	Max. press. di scarico con drenaggio aperto Max. back pressure with drain line (bar)	Pressione max. avviamento a vuoto Max. starting pressure in unloaded conditions (bar)	Coppia min. di spunto Min. starting torque (daNm)	Portata di drenaggio <sup>4)</sup> Oil flow in the drain line <sup>4)</sup> (l/min)	Velocità minima <sup>5)</sup> Min. speed <sup>5)</sup> (giri/min) (rpm)
BR 50	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	10	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 7,5 Int. <sup>1)</sup> 9,5	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 0,7 1,6	10
BR 80	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	10	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 16 Int. <sup>1)</sup> 18	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 0,7 1,6	10
BR100	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	10	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 20 Int. <sup>1)</sup> 22,5	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 0,7 1,6	10
BR130	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	9	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 25,5 Int. <sup>1)</sup> 29	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 0,7 1,6	10
BR160	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	7	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 31 (25) <sup>3)</sup> Int. <sup>1)</sup> 36 (30) <sup>3)</sup>	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 0,7 1,6	10
BR200	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	5	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 39 (25) <sup>3)</sup> Int. <sup>1)</sup> 45 (32) <sup>3)</sup>	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 1,5 3	10
BR250	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	5	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 49 (25) <sup>3)</sup> Int. <sup>1)</sup> 56 (31) <sup>3)</sup>	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 1,5 3	10
BR315	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	5	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 47 (25) <sup>3)</sup> Int. <sup>1)</sup> 61 (30) <sup>3)</sup>	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 1,5 3	10
BR400	Cont. 175 Int. <sup>1)</sup> 200 Peak <sup>2)</sup> 225	5	at. $\Delta p$ max. at. $\Delta p$ max. Cont. 51 (25) <sup>3)</sup> Int. <sup>1)</sup> 67 (32) <sup>3)</sup>	at. $\Delta p$ = 100 bar at. $\Delta p$ = 140 bar 1,5 3	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.

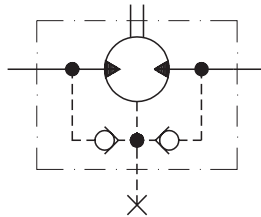
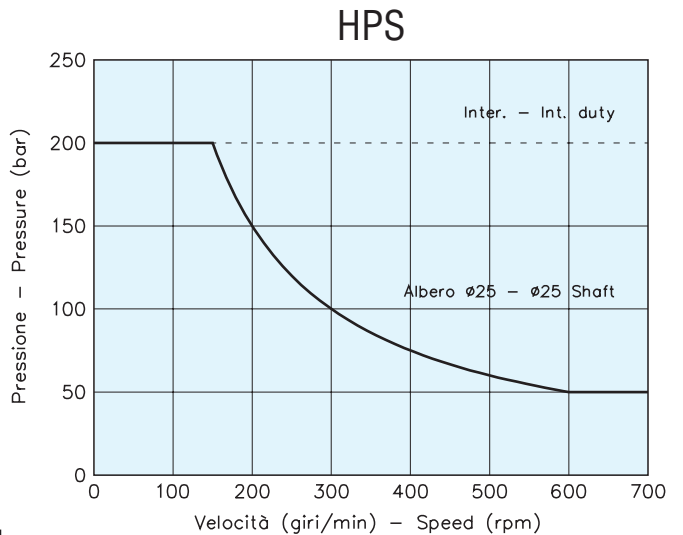
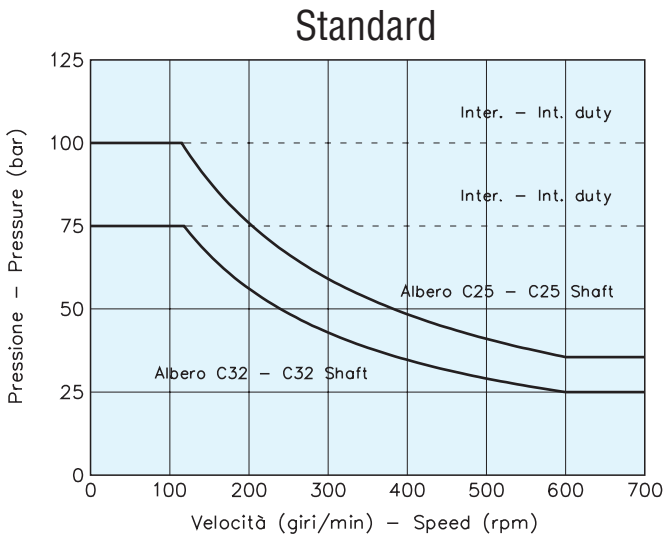
4) Viscosità dell'olio 37 cSt. - Oil Viscosity 37 cSt.

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

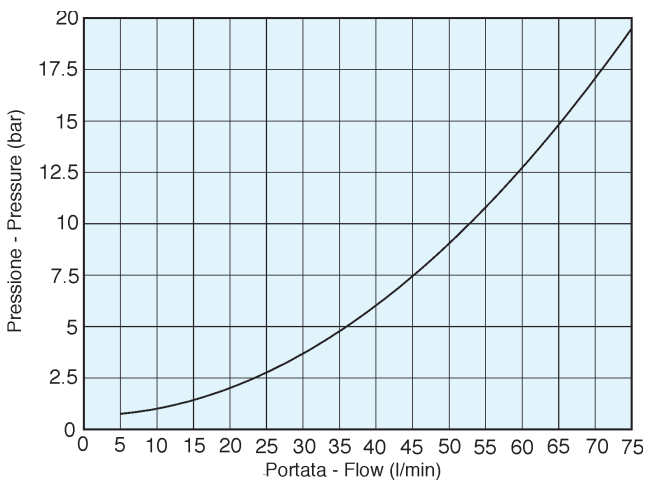
Pressione massima di scarico senza drenaggio o massima pressione nella linea di drenaggio. I motori sono forniti nella versione con guarnizioni standard (diagramma Standard) o nella versione con guarnizioni ad alta pressione (diagramma HPS). La versione HPS è disponibile solo con alberi C25, C25.4, SD25. 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). HPS version is available only for C25, C25.4 and SD25 shafts. For pressure and speeds not showed in the curve below, please contact S.A.M. Hydraulik.



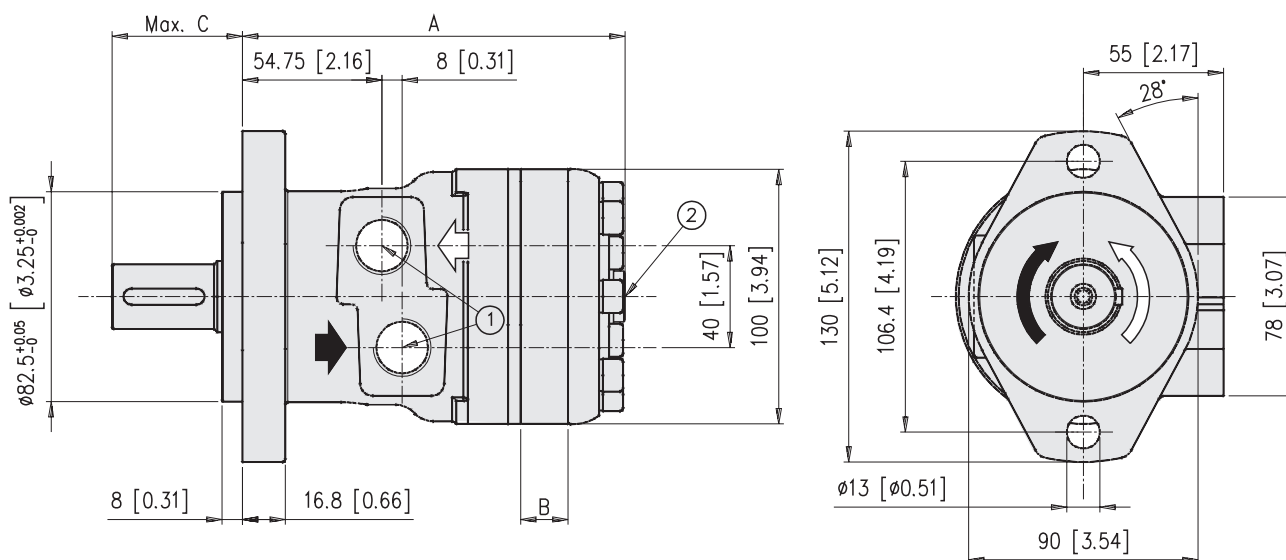
## PERDITE DI CARICO PER ATTRAVERSAMENTO PRESSURE LOSS

Perdite di carico per attraversamento.  
Pressure loss in the motor.



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.

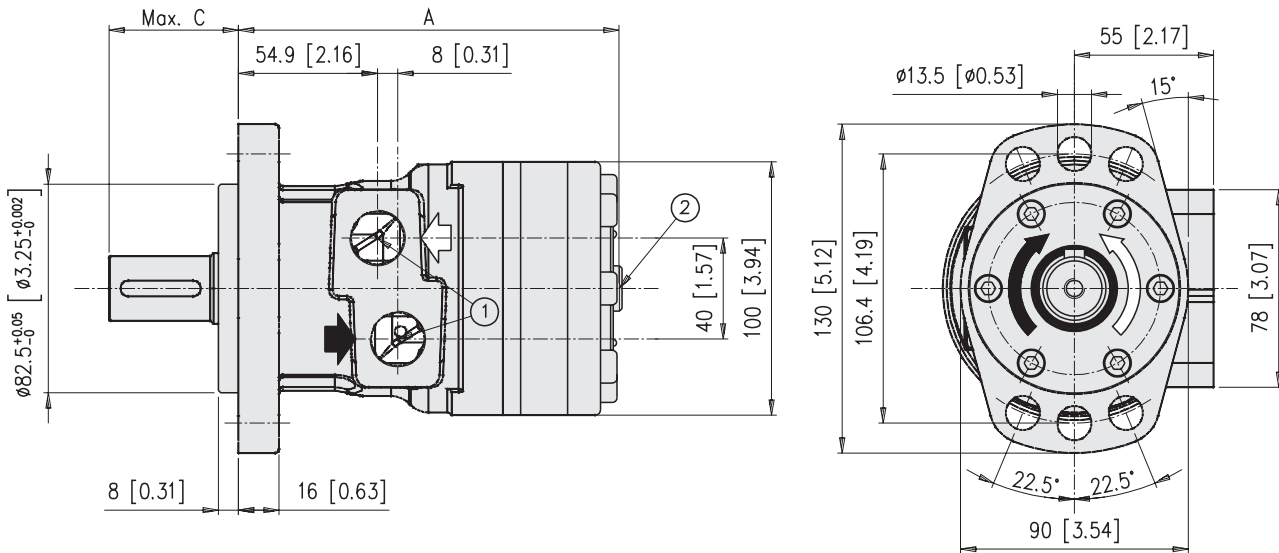


- ① **N° 2 fori d'alimentazione G1/2" profondità filetto 18 mm [0.71 in]**  
No. 2 G1/2" main parts; thread depth 18 mm [0.71 in]
- ② **Drenaggio motore G1/4" profondità filetto 15 mm [0.60 in] Max. Non presente nella versione HPS**  
G1/4" drain port; thread depth 15 mm [0.60 in] Max. Not in HPS version

*Per le dimensioni degli alberi vedere pagina F/9*

*For shafts dimensions see page F/9*

ALBERO/SHAFT	C25	C25.4	SD25						
C (mm)	55.3	55.3	55.3						
C (in)	2.18	2.18	2.18						
MOTORE/MOTOR	BR50	BR80	BR100	BR130	BR160	BR200	BR250	BR315	BR400
A (mm)	139.5	145.5	149	153.5	160	167.5	176.5	188	184.5
A (in)	5.49	5.73	5.87	6.04	6.30	6.59	6.95	7.40	7.26
B (mm)	9	15	18.7	23.2	29.6	37	46.1	57.7	54.4
B (in)	0.35	0.59	0.74	0.91	1.17	1.46	1.81	2.27	2.14
Pesi - Weight (kg)	7.2	7.5	7.7	8	8.3	8.6	9.1	9.8	10.1



- ① **N° 2 fori d'alimentazione G1/2" profondità filetto 18 mm**  
**No. 2 G1/2" main ports thread depth 0.70"**
- ② **Drenaggio motore G1/4" profondità filetto 15 mm**  
**G1/2" drain port thread depth 0.60"**

*Per le dimensioni degli alberi vedere pagina F/9*

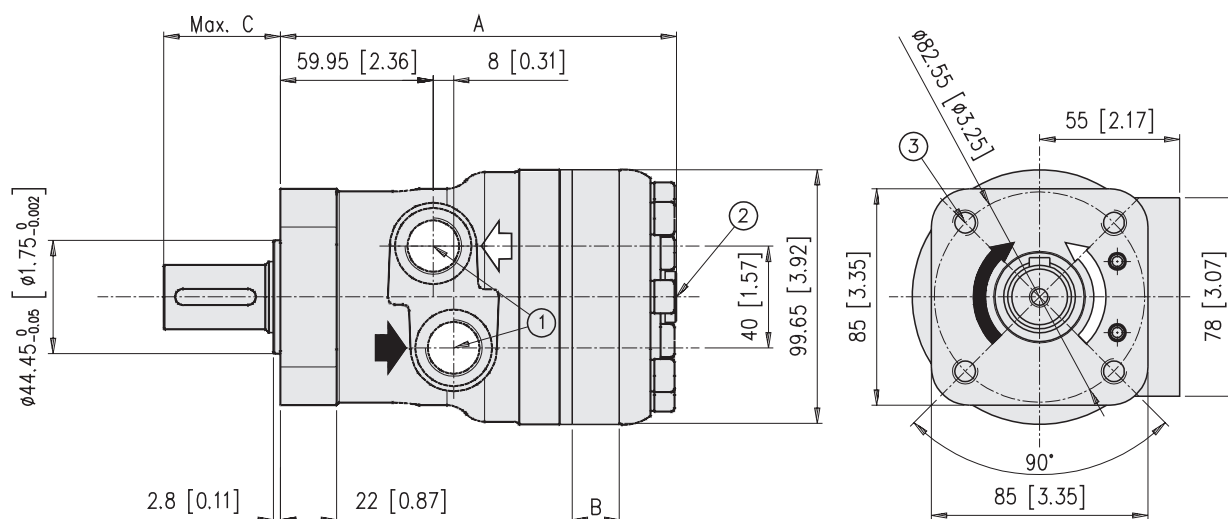
*For shafts dimensions see page F/9*

ALBERO/SHAFT	C25	C25.4	SD25	C31.75	C32	CN32
C (mm)	55.3	55.3	55.3	59.1	68.3	68.5
C (in)	2.18	2.18	2.18	2.33	2.69	2.70

MOTORE/MOTOR	BR50	BR80	BR100	BR130	BR160	BR200	BR250	BR315	BR400
A (mm)	139.5	145.5	149	153.5	160	169.5	176.5	188	184.5
A (in)	5.49	5.73	5.87	6.04	6.30	6.59	6.95	7.40	7.26
B (mm)	9	15	18.7	23.2	29.6	37	46.1	57.7	54.4
B (in)	0.35	0.59	0.74	0.91	1.17	1.46	1.81	2.27	2.14
Pesi - Weight (kg)	(7.3) <sup>1)</sup>	(7.6) <sup>1)</sup>	(7.8) <sup>1)</sup>	(8.1) <sup>1)</sup>	(8.4) <sup>1)</sup>	(8.7) <sup>1)</sup>	(9.2) <sup>1)</sup>	(9.9) <sup>1)</sup>	(10.2) <sup>1)</sup>
	7.4	7.7	9	8.3	8.6	9	9.5	10.2	10.5

1) 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.



- ① **N° 2 fori d'alimentazione G1/2" profondità filetto 18 mm**  
No. 2 G1/2" main ports thread depth 0.70
- ② **Drenaggio motore G1/4" profondità filetto 15 mm**  
G1/2" drain port thread depth 0.60"
- ③ **N° 4 3/8" 16 UNC profondità filetto 17 mm**  
No. 4 3/8" 16 UNC thread depth 0.65"

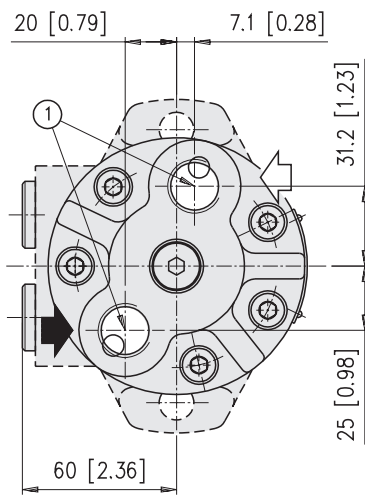
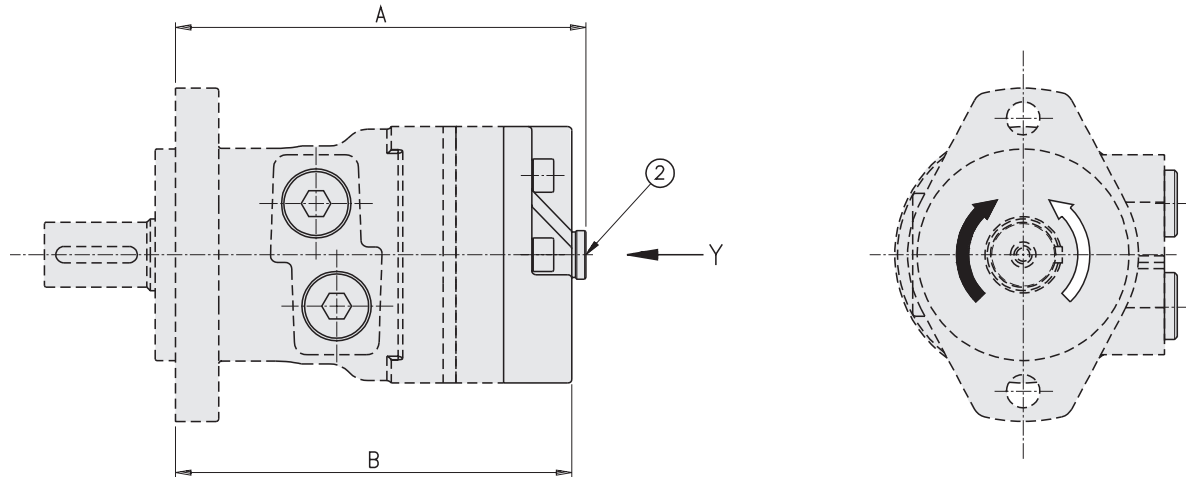
*Per le dimensioni degli alberi vedere pagina F/9*

*For shafts dimensions see page F/9*

ALBERO/SHAFT	C25	C25.4	SD25						
C (mm)	49.4	49.4	49.4						
C (in)	1.94	1.94	1.94						

	BR50	BR80	BR100	BR130	BR160	BR200	BR250	BR315	BR400
A (mm)	144.5	150.5	154	158.5	165	172.5	181.5	193	189.5
A (in)	5.60	5.83	5.97	6.14	6.40	6.69	7.03	7.48	7.34
B (mm)	9	15	18.7	23.2	29.6	37	46.1	57.7	54.4
B (in)	0.35	0.59	0.74	0.91	1.17	1.46	1.81	2.27	2.14
Pesi - Weight (kg)	7.1	7.4	7.6	7.9	8.2	8.5	9	9.7	10



Vista da Y  
View Y

- ① **N° 2 fori d'alimentazione G1/2" profondità filetto 16 mm**  
**No. 2 G1/2" main ports thread depth 0.63"**
- ② **Drenaggio motore G1/4" profondità filetto 15 mm**  
**G1/2" drain port thread depth 0.60"**

*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**

*Per le dimensioni degli alberi vedere pagina F/9*

**For shafts dimensions see page F/9**

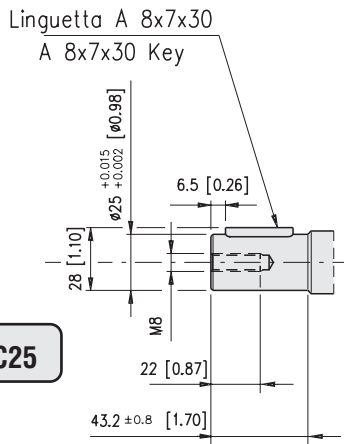
ALBERO/SHAFT	C25	C25.4	SD25	C31.75	C32	CN32
<b>C (mm)</b>	55.3	55.3	55.3	59.1	68.3	68.5
<b>C (in)</b>	2.18	2.18	2.18	2.33	2.69	2.70

MOTORE/MOTOR	BR50	BR80	BR100	BR130	BR160	BR200	BR250	BR315	BR400
<b>A (mm)</b>	150.5	156.5	160	164.5	171	178.5	187.5	199	196
<b>A (in)</b>	5.93	6.16	6.30	6.48	6.73	7.03	7.38	7.83	7.72
<b>B (mm)</b>	145	151	154.5	159	165.5	173	182	193.5	190.5
<b>B (in)</b>	5.71	5.94	6.08	6.26	6.52	6.81	7.17	7.62	7.50
<b>Pesi - Weight (kg)</b>	(7.2) <sup>1)</sup> 7.3	(7.5) <sup>1)</sup> 7.6	(7.7) <sup>1)</sup> 7.9	(8) <sup>1)</sup> 8.2	(8.3) <sup>1)</sup> 8.5	(8.6) <sup>1)</sup> 8.9	(9.1) <sup>1)</sup> 9.4	(9.8) <sup>1)</sup> 10.1	(10.1) <sup>1)</sup> 10.4

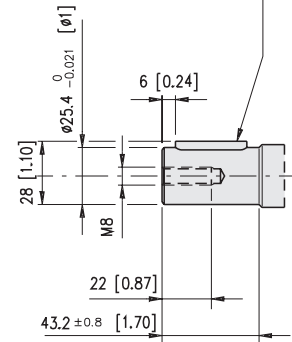
1) I valori tra parentesi si riferiscono alla versione con albero C25/C25.4/SD25. - The values in brackets are referred to C25/C25.4/SD25 shaft.



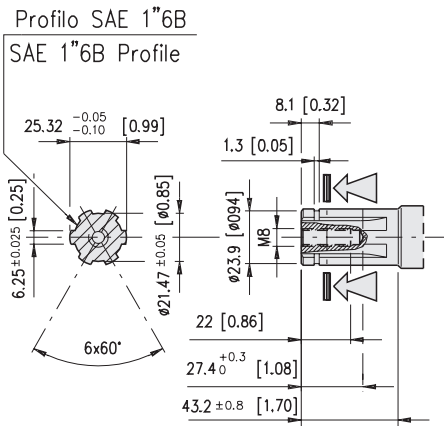


**ALBERO  
SHAFT C25**

Linguetta A 1/4"x1/4"x1.1/4" BS46  
A 1/4"x1/4"x1.1/4" BS46 Key

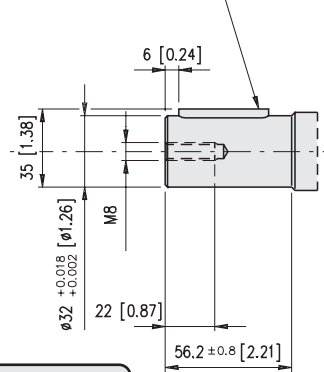


**ALBERO  
SHAFT C25.4**



**ALBERO  
SHAFT SD 25**

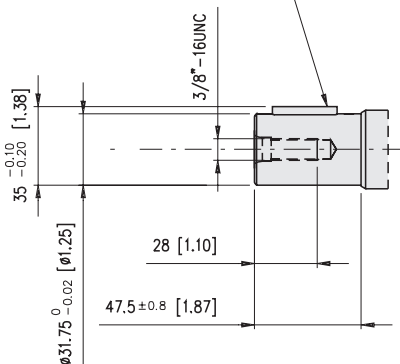
Linguetta A 10x8x40  
A 10x8x40 Key



**ALBERO  
SHAFT C32**

**SPECIALE A RICHIESTA - SPECIAL ON REQUEST**

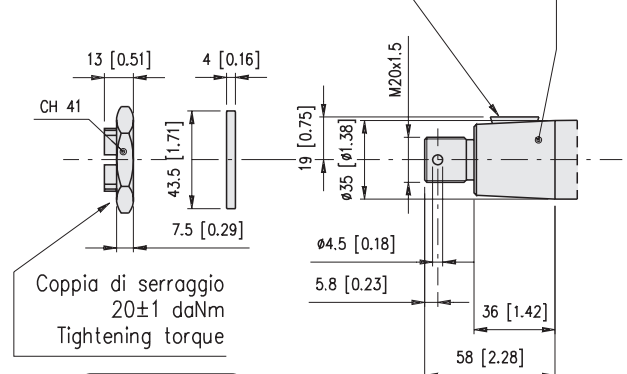
Linguetta A 5/16x5/16x1.1/4  
A 5/16x5/16x1.1/4 Key



**ALBERO  
SHAFT C31.75**

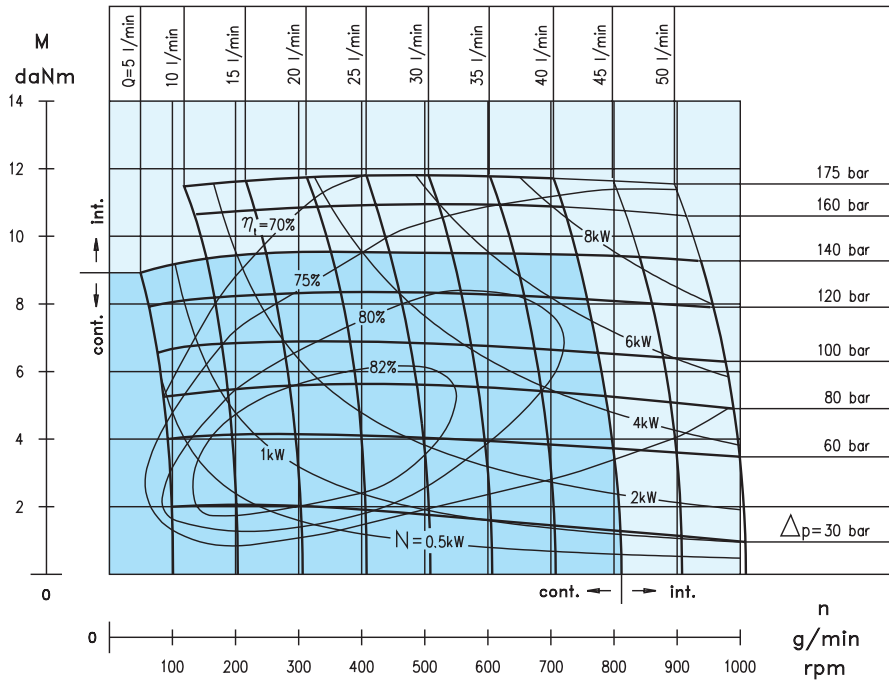
**SPECIALE A RICHIESTA - SPECIAL ON REQUEST**

Linguetta 6x9 UNI 6606-69  
6x9 UNI 6606-69 key



**ALBERO  
SHAFT CN 32**

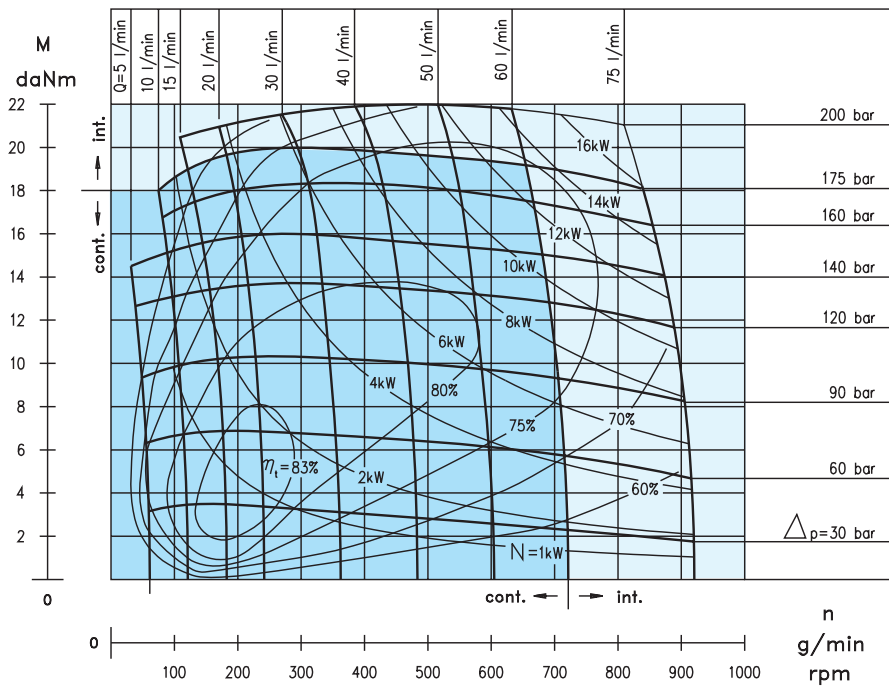
# BR 50



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

Intermittent pressure drop and oil flow must not occur simultaneously.

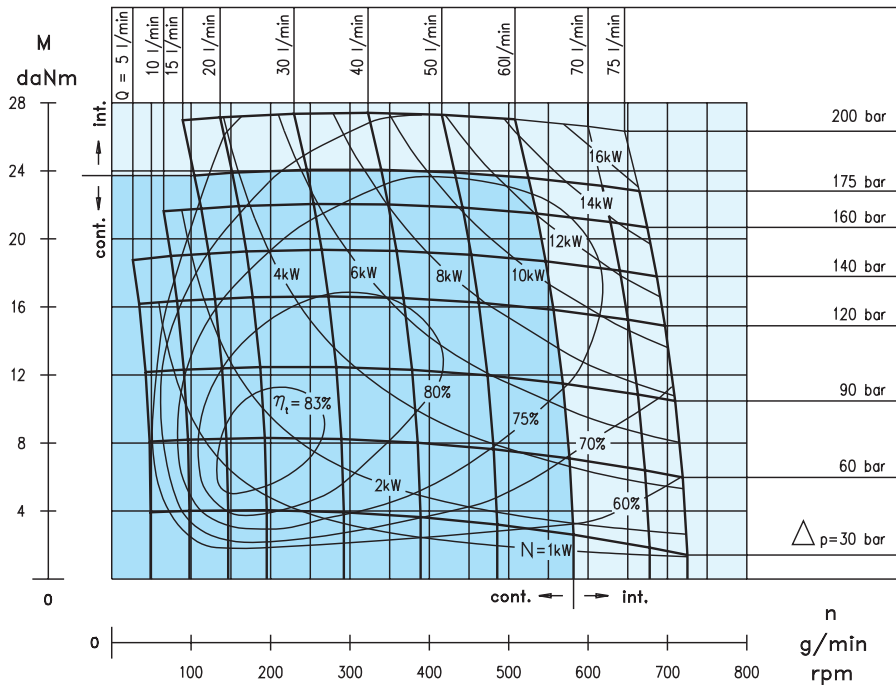
# BR 80



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

Intermittent pressure drop and oil flow must not occur simultaneously.

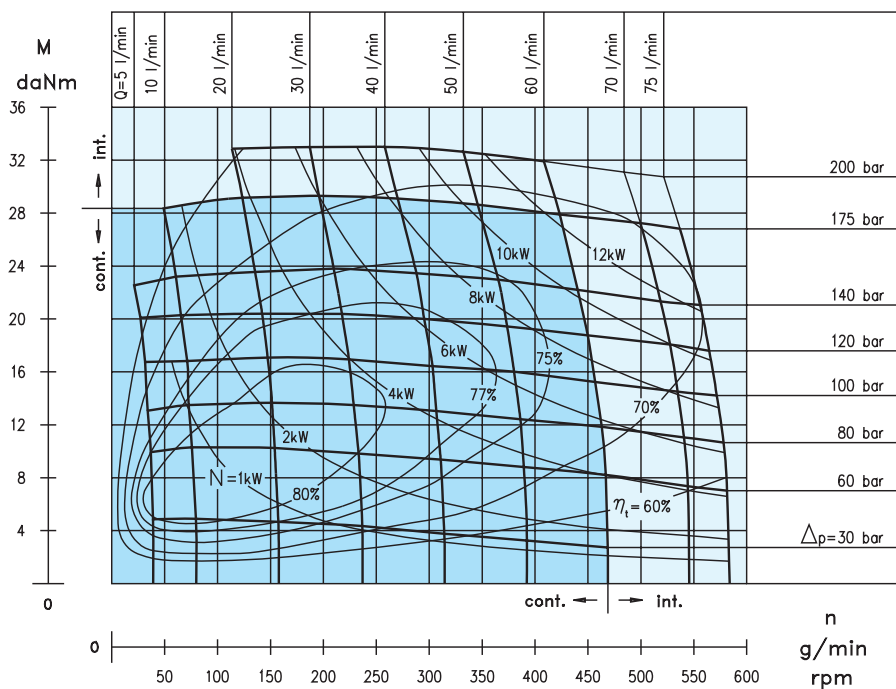
# BR 100



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

Intermittent pressure drop and oil flow must not occur simultaneously.

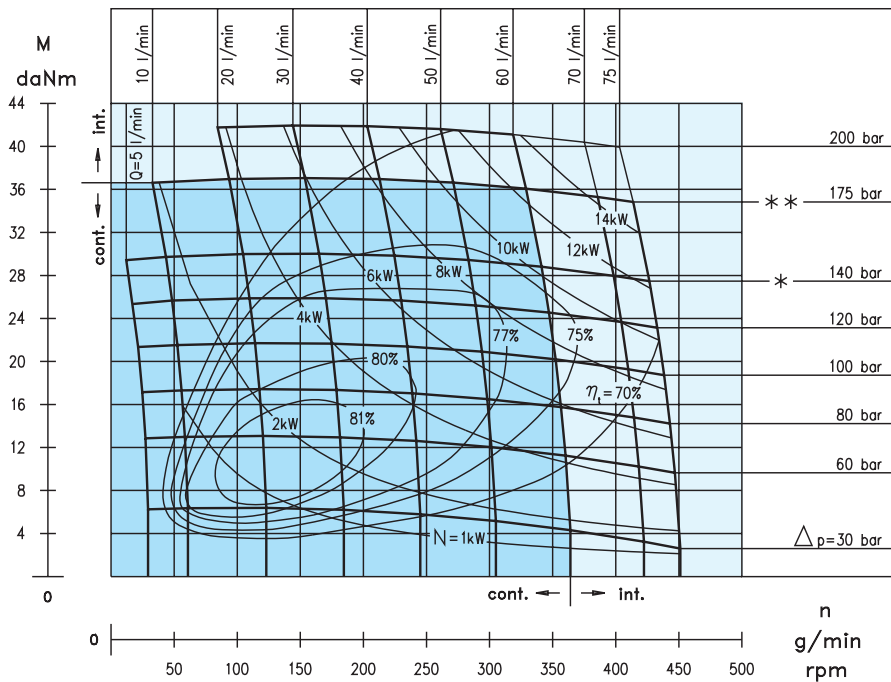
# BR 130



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

Intermittent pressure drop and oil flow must not occur simultaneously.

# BR 160



\* Pressione massima continua per versione con albero  $\varnothing 25$ .

\*\* Pressione massima intermittente per versione con albero  $\varnothing 25$ .

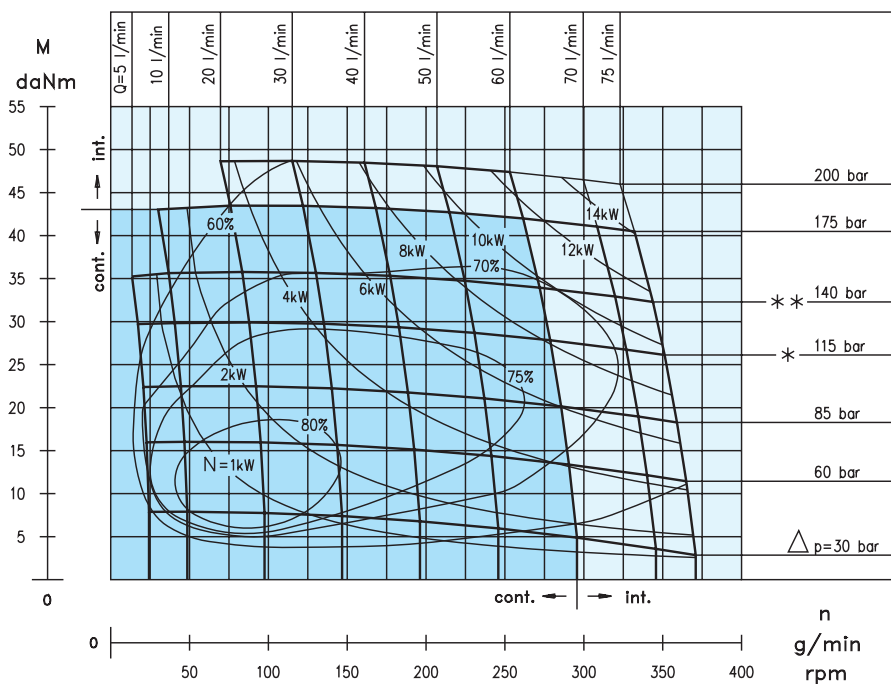
Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

\* Constant maximum pressure for  $\varnothing 25$  shaft model.

\*\* Intermittent maximum pressure for  $\varnothing 25$  shaft model.

Intermittent pressure drop and oil flow must not occur simultaneously.

# BR 200



\* Pressione massima continua per versione con albero  $\varnothing 25$ .

\*\* Pressione massima intermittente per versione con albero  $\varnothing 25$ .

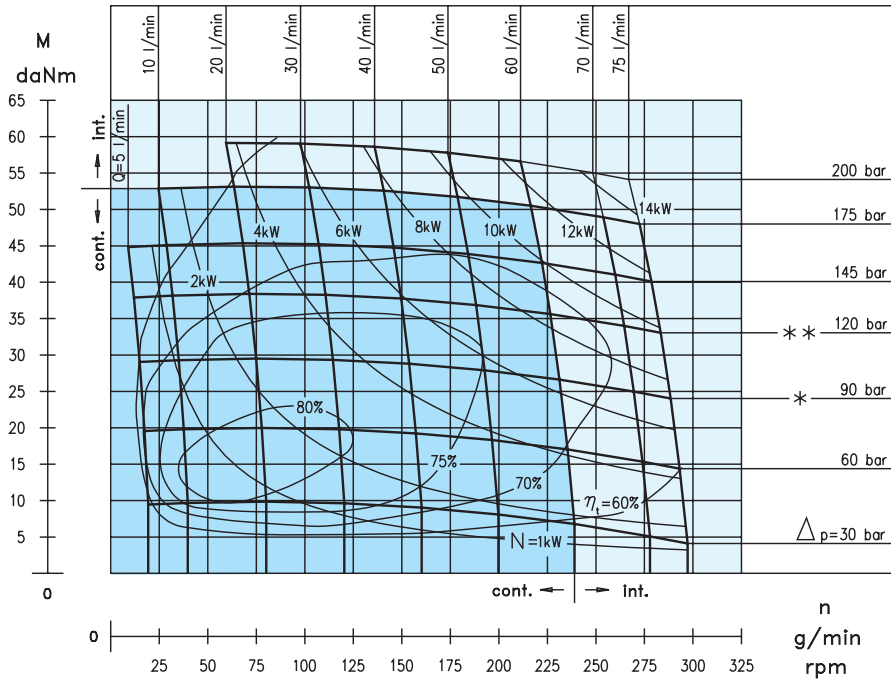
Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

\* Constant maximum pressure for  $\varnothing 25$  shaft model.

\*\* Intermittent maximum pressure for  $\varnothing 25$  shaft model.

Intermittent pressure drop and oil flow must not occur simultaneously.

# BR 250



\* Pressione massima continua per versione con albero  $\varnothing 25$ .

\*\* Pressione massima intermittente per versione con albero  $\varnothing 25$ .

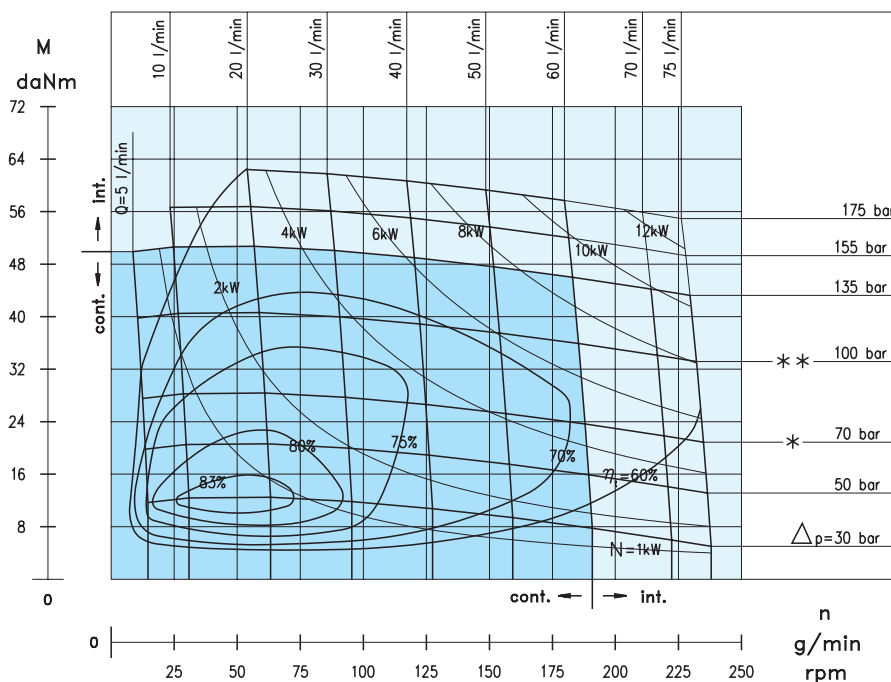
Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

\* Constant maximum pressure for  $\varnothing 25$  shaft model.

\*\* Intermittent maximum pressure for  $\varnothing 25$  shaft model.

Intermittent pressure drop and oil flow must not occur simultaneously.

# BR 315



\* Pressione massima continua per versione con albero  $\varnothing 25$ .

\*\* Pressione massima intermittente per versione con albero  $\varnothing 25$ .

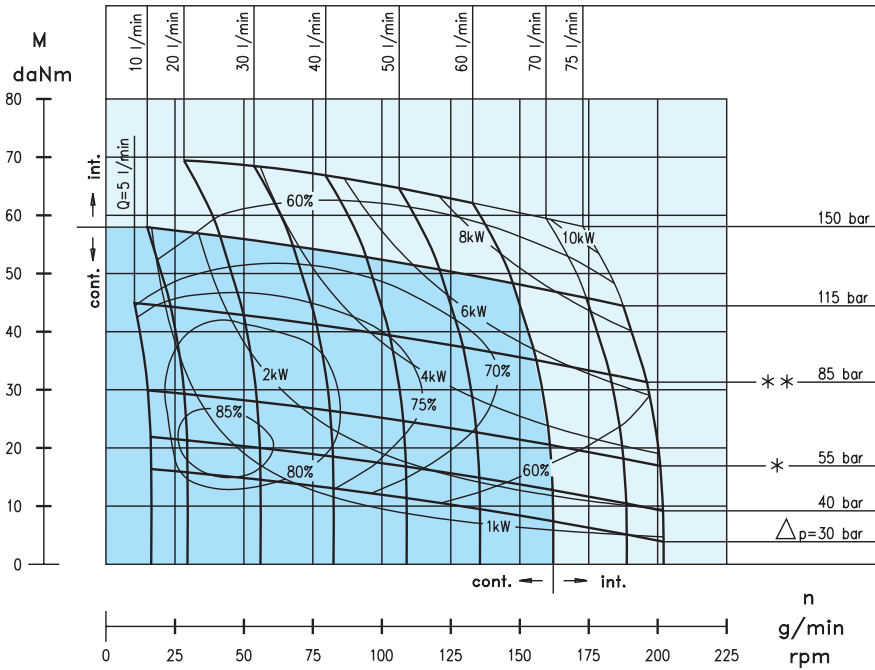
Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

\* Constant maximum pressure for  $\varnothing 25$  shaft model.

\*\* Intermittent maximum pressure for  $\varnothing 25$  shaft model.

Intermittent pressure drop and oil flow must not occur simultaneously.

# BR 400



\* Pressione massima continua per versione con albero  $\varnothing 25$ .

\*\* Pressione massima intermittente per versione con albero  $\varnothing 25$ .

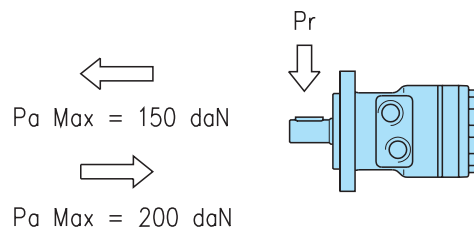
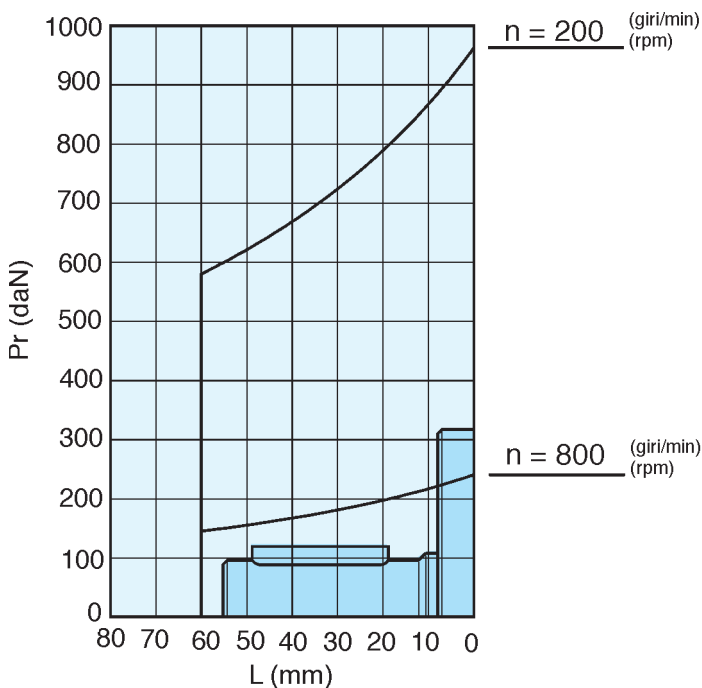
Pressioni e portate superiori a quelle ammesse in regime continuo non devono essere applicate contemporaneamente.

\* Constant maximum pressure for  $\varnothing 25$  shaft model.

\*\* Intermittent maximum pressure for  $\varnothing 25$  shaft model.

Intermittent pressure drop and oil flow must not occur simultaneously.

## CARICHI AMMESSI SULL'ALBERO SHAFT LOAD CAPACITY



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

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

$$Pr = \frac{800}{n} \cdot \frac{21900}{91 + L} \text{ [daN]}$$

$$n \geq 200 \text{ [giri/min] [RPM]}$$

$$L \leq 68.5 \text{ [mm]}$$