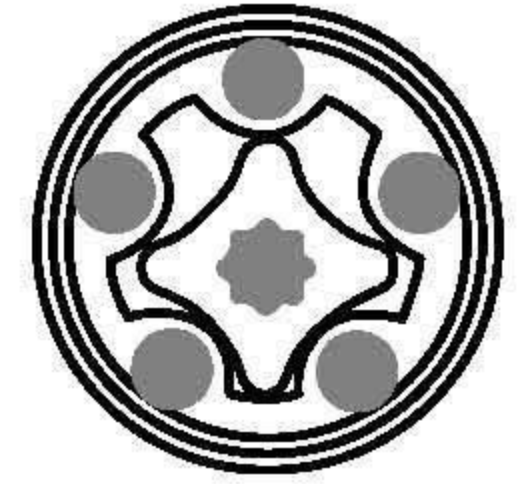


These units provide high output torque from a very small package. The motors are available in displacement from .50 in.<sup>3</sup>/rev. [8.2 cm<sup>3</sup>/rev.] to 3.05 in.<sup>3</sup>/rev. [50 cm<sup>3</sup>/rev.] The BMM motors are fixed displacement, gerotor type units that are known for compactness and economy. All BMM motors have built-in check valves assuring pressure on the shaft seal never exceeds pressure levels seen in the return line.



## Specifications

TYPE		BMM 8	BMM 12.5	BMM 20	BMM 32	BMM 40	BMM 50
Displacement (c.c/rev)		8.2	12.9	19.9	31.6	39.8	50.3
Max. speed (rpm)	Cont	1950	1550	1000	630	500	400
	Int(3)	2450	1940	1250	800	630	500
Max. Torque (da Nm)	Cont	1.1	1.6	2.5	4.1	4.2	4.6
	Int(3)	1.5	2.3	3.5	5.7	5.8	5.9
	Peak(4)	2.1	3.3	5.1	6.4	6.6	8
Max. output (Kw)	Cont	1.8	2.4	2.4	2.4	1.8	1.8
	Int(3)	2.6	3.2	3.2	3.2	3.0	2.1
Max. pressure drop (bar)	Cont	100	100	100	100	80	70
	Int(3)	140	140	140	140	110	90
	Peak(4)	200	200	200	200	140	125
Max. oil flow (l/min)	Cont	16	20	20	20	20	20
	Int(3)	20	25	25	25	25	25
Max. Inlet pressure (bar)	Cont	140	140	140	140	140	140
	Int(3)	175	175	175	175	175	175
	Peak(4)	225	225	225	225	225	225
Weight (kg)		1.9	2	2.1	2.2	2.3	2.4

(3) Intermittent operation rating applies to 6 sec. of every minute

(4) Peak load rating applies to 0.6 sec of every minute

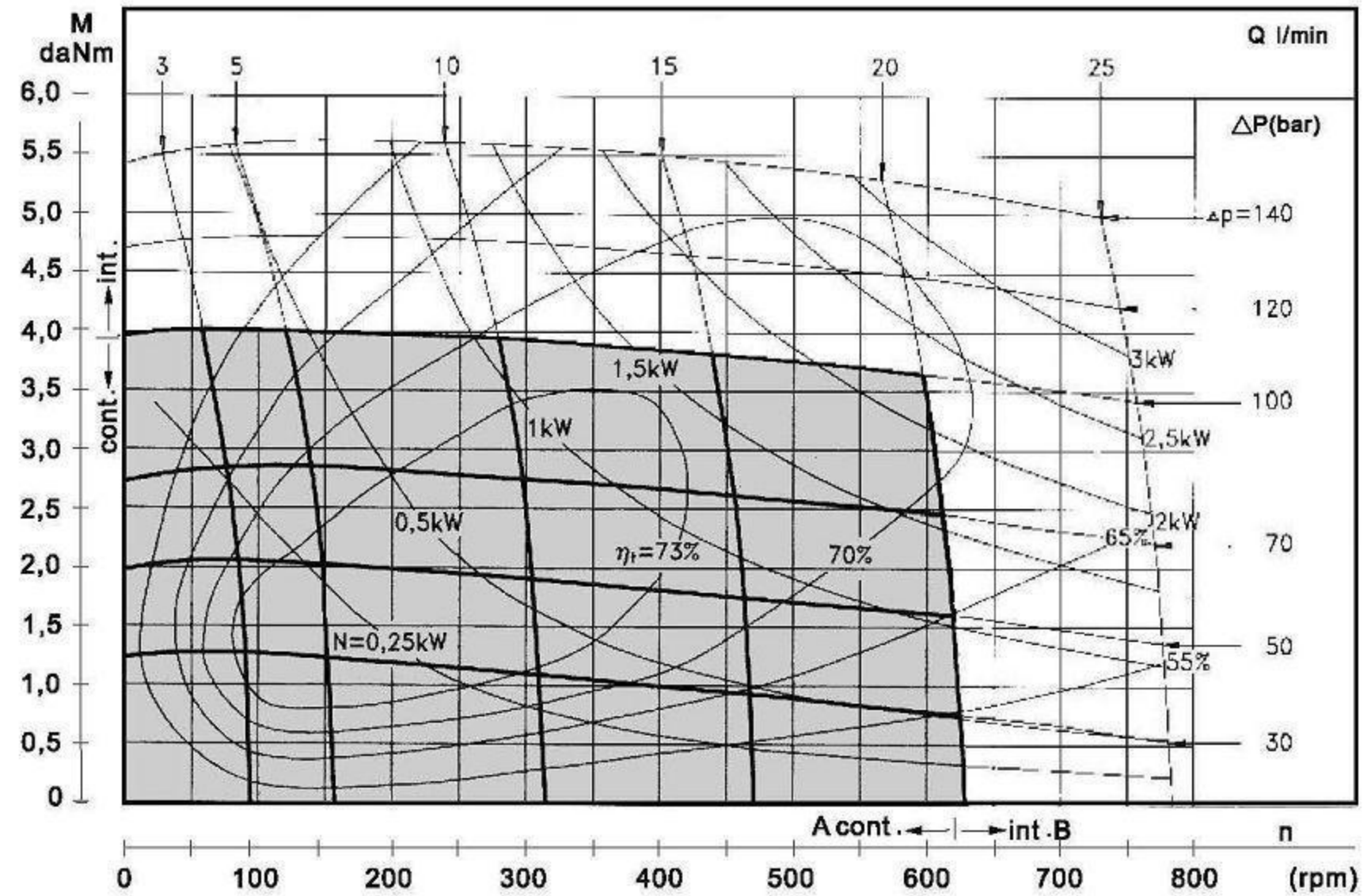
TYPE		BMM 8	BMM 12.5	BMM 20	BMM 32	BMM 40	BMM 50
Displacement (in.3/r )		0.5	0.79	1.21	1.93	2.43	3.07
Max. speed (rpm)	Cont	1950	1550	1000	630	500	400
	Int(3)	2450	1940	1250	800	630	500
Max. Torque (lb-in)	Cont	102	145	225	367	375	407
	Int(3)	133	204	310	504	513	522
	Peak(4)	186	292	453	566	584	708
Max. output (hp)	Cont	2.4	3.2	3.2	3.2	2.4	2.5
	Int(3)	3.5	4.3	4.3	4.3	4.0	2.8
Max. pressure drop (psi)	Cont	1430	1430	1430	1430	1200	1015
	Int(3)	2030	2030	2030	2030	1600	1300
	Peak(4)	2900	2900	2900	2900	2000	1815
Max. oil flow (gpm)	Cont	4.2	5.5	5.5	5.5	5.5	5.5
	Int(3)	5.5	6.6	6.6	6.6	6.6	6.6
Max. Inlet pressure (psi)	Cont	2030	2030	2030	2030	2030	2030
	Int(3)	2540	2540	2540	2540	2540	2540
	Peak(4)	3260	3260	3260	3260	3260	3260
Weight (lbs)		4.2	4.4	4.7	4.9	5.1	5.3



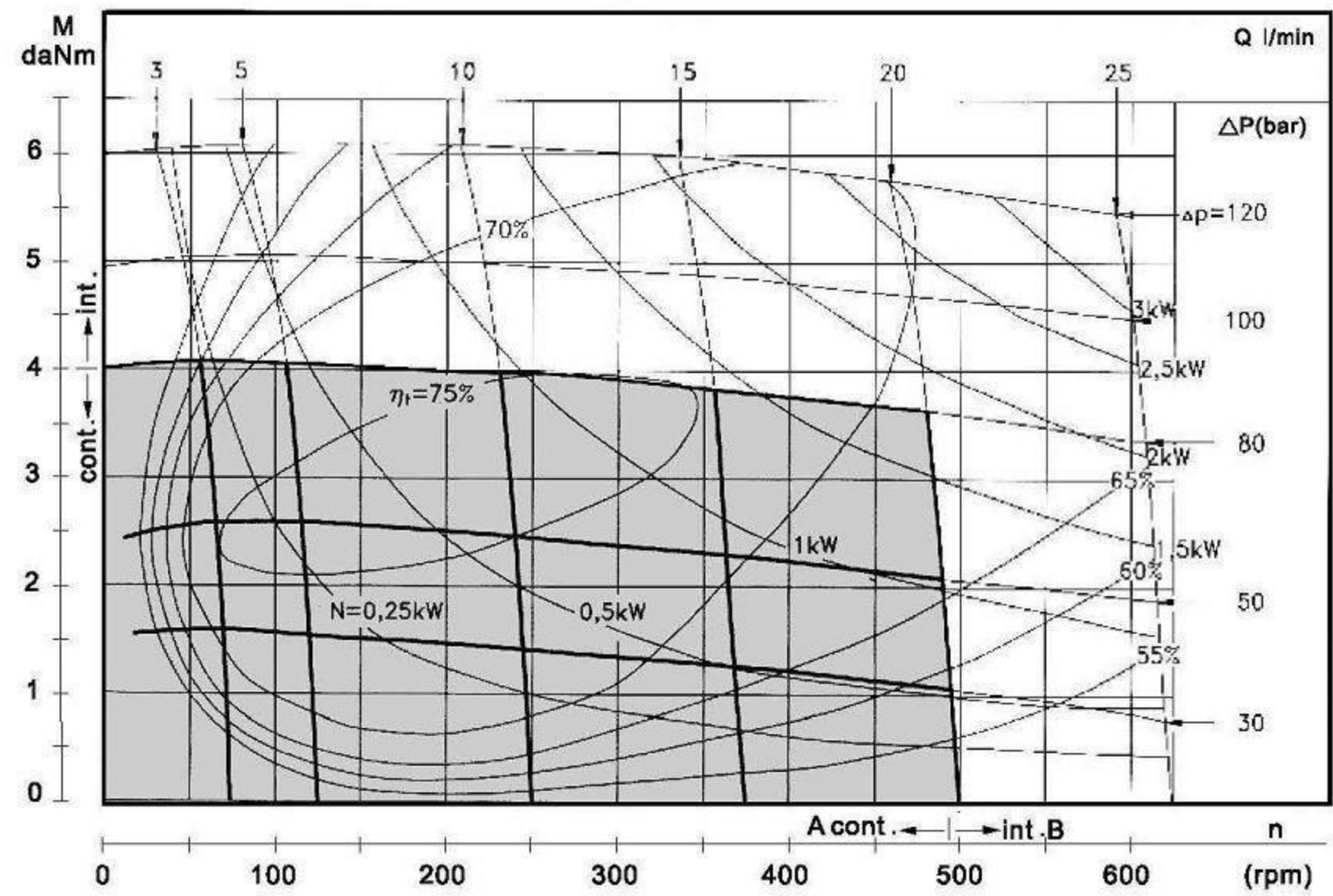
A : Continuous operation

B : Intermittent operation rating applies to 6 sec. of every minute.

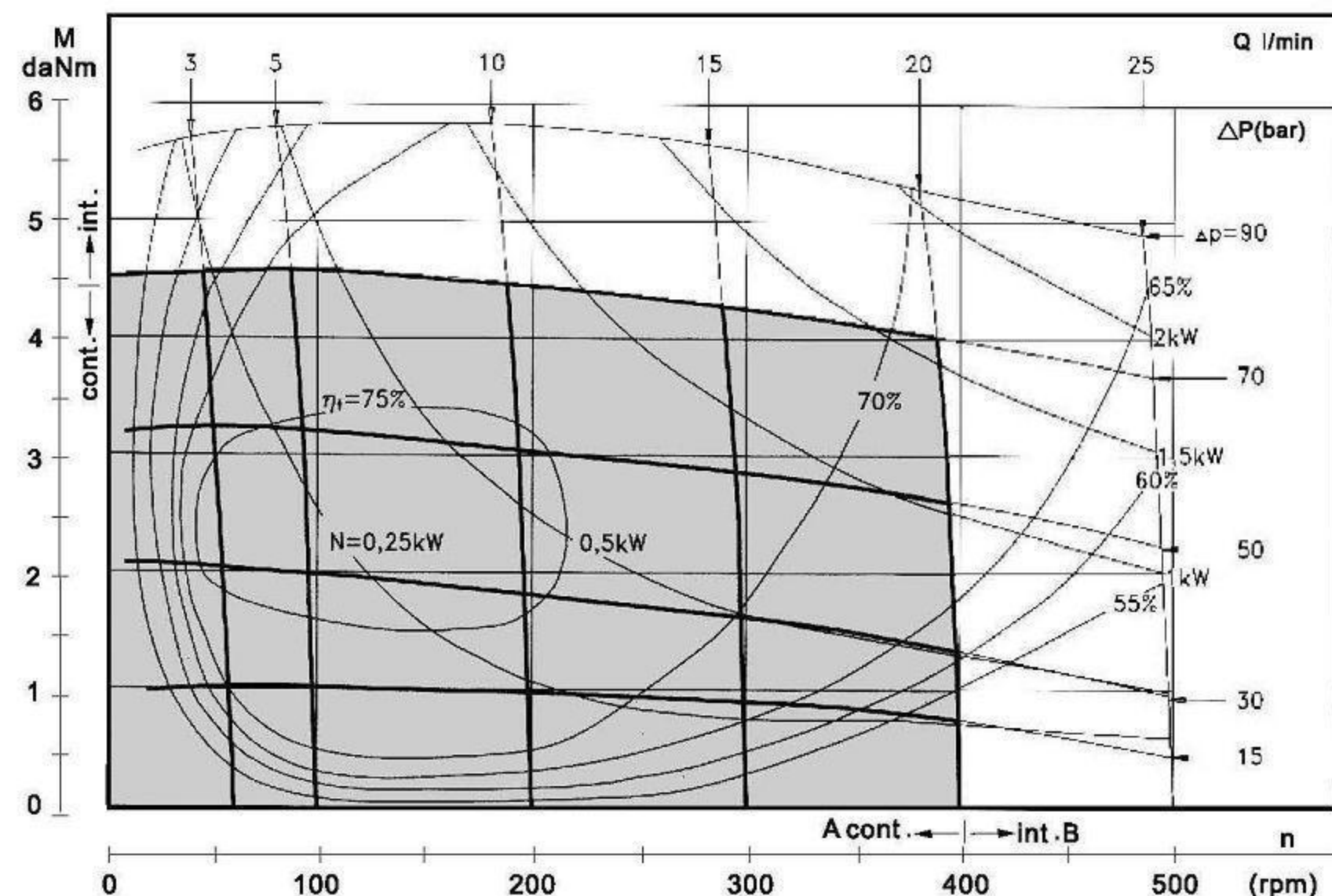
**BMM 32**



**BMM 40**



**BMM 50**

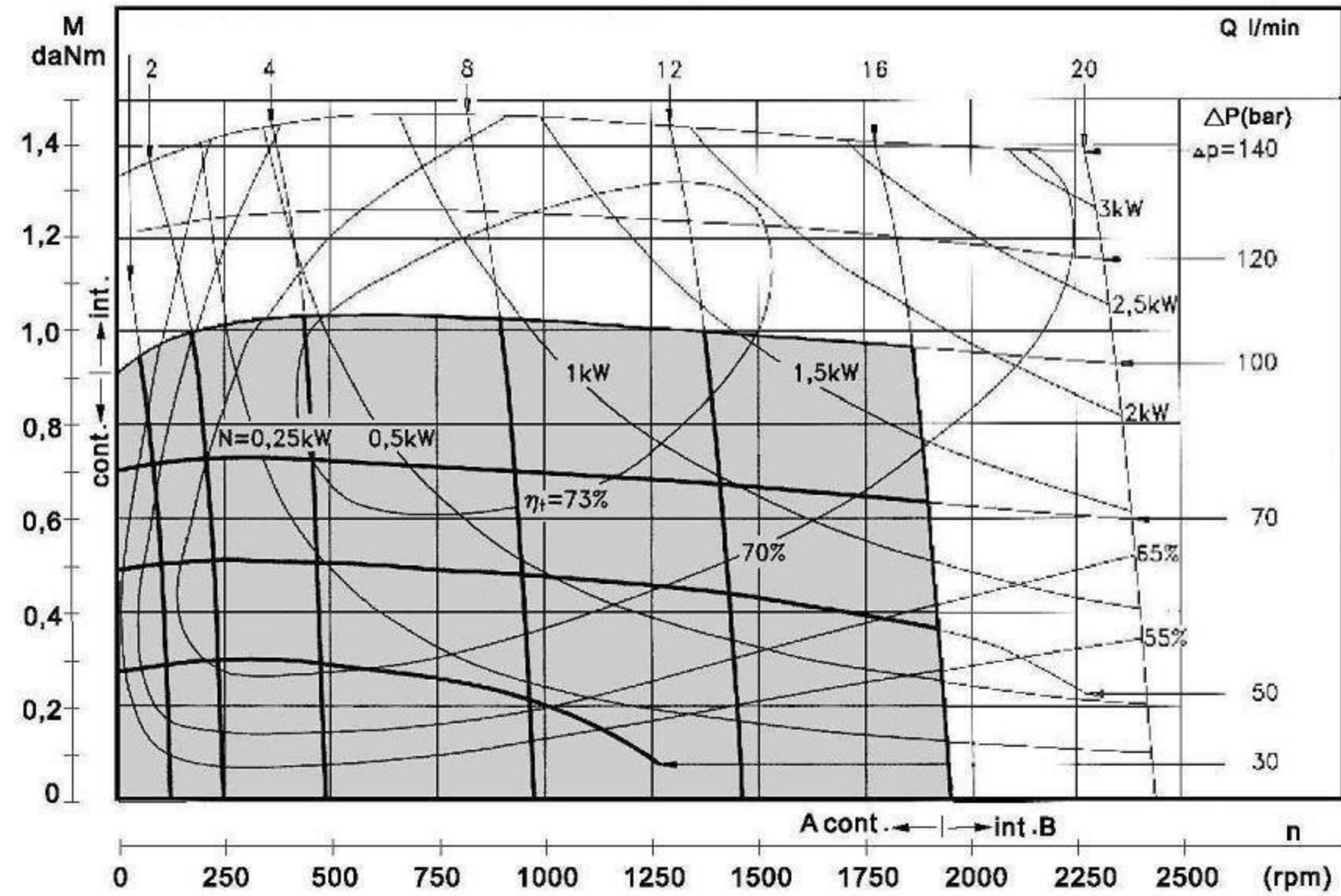




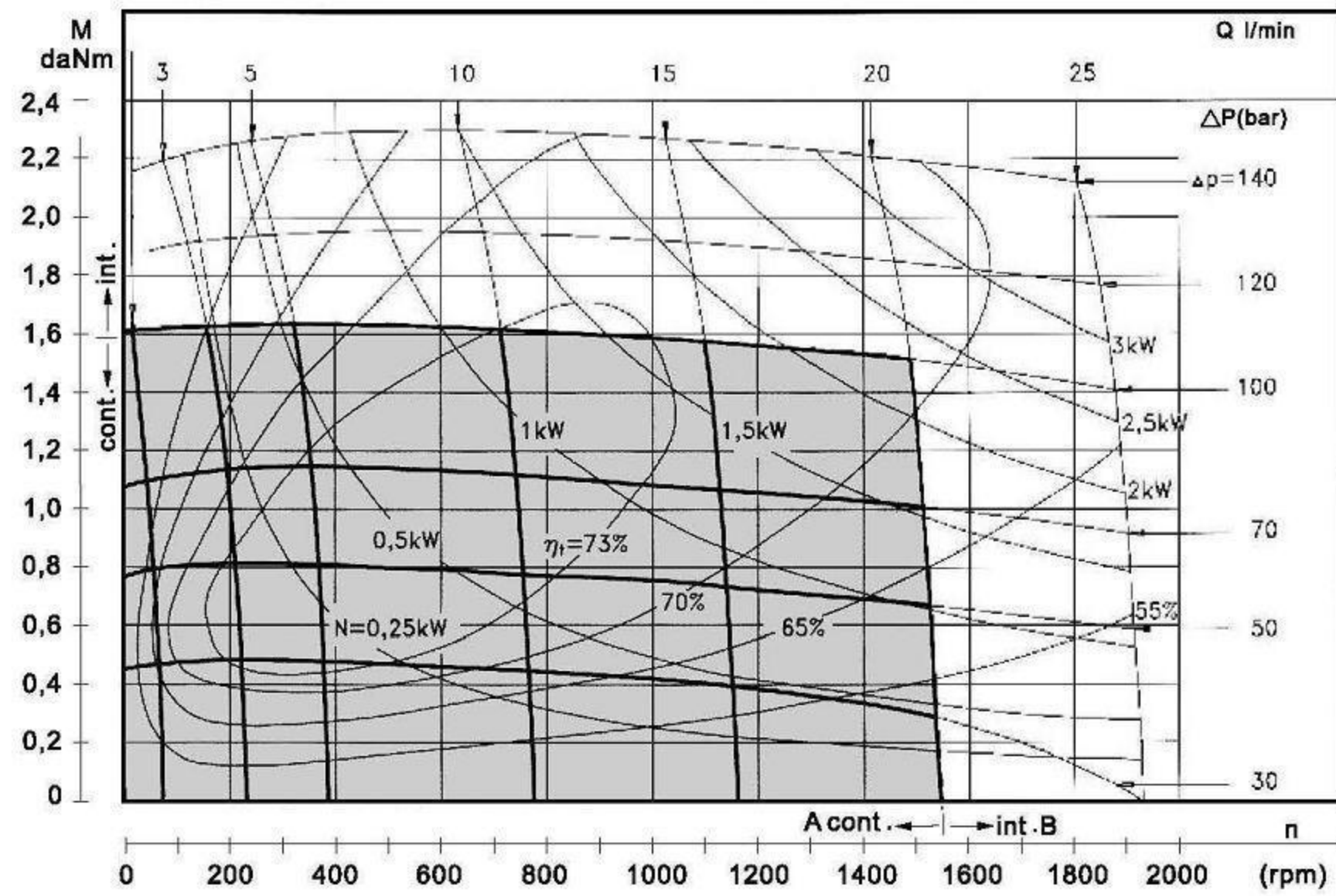
A : Continuous operation

B : Intermittent operation rating applies to 6 sec. of every minute.

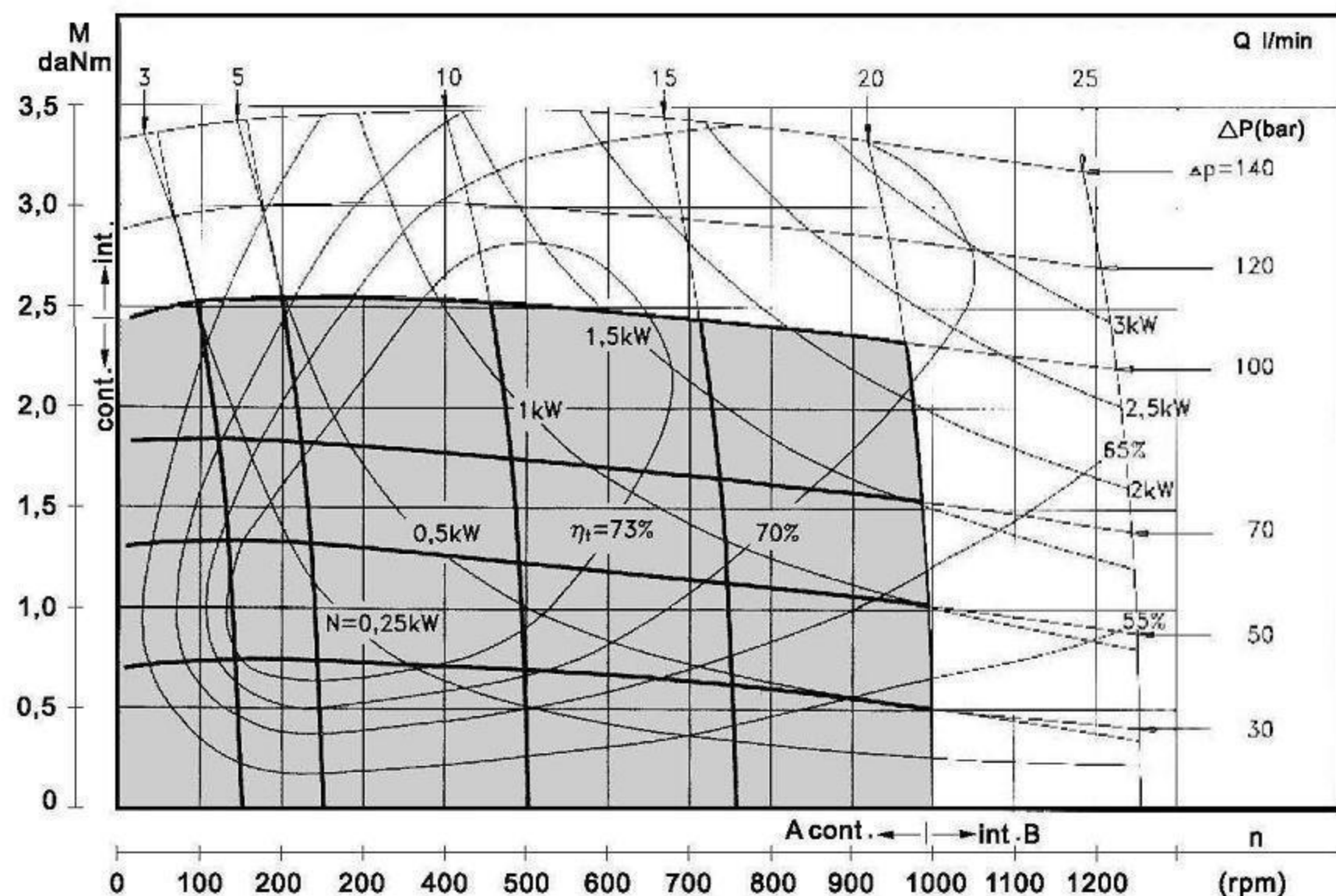
**BMM 8**



**BMM 12.5**

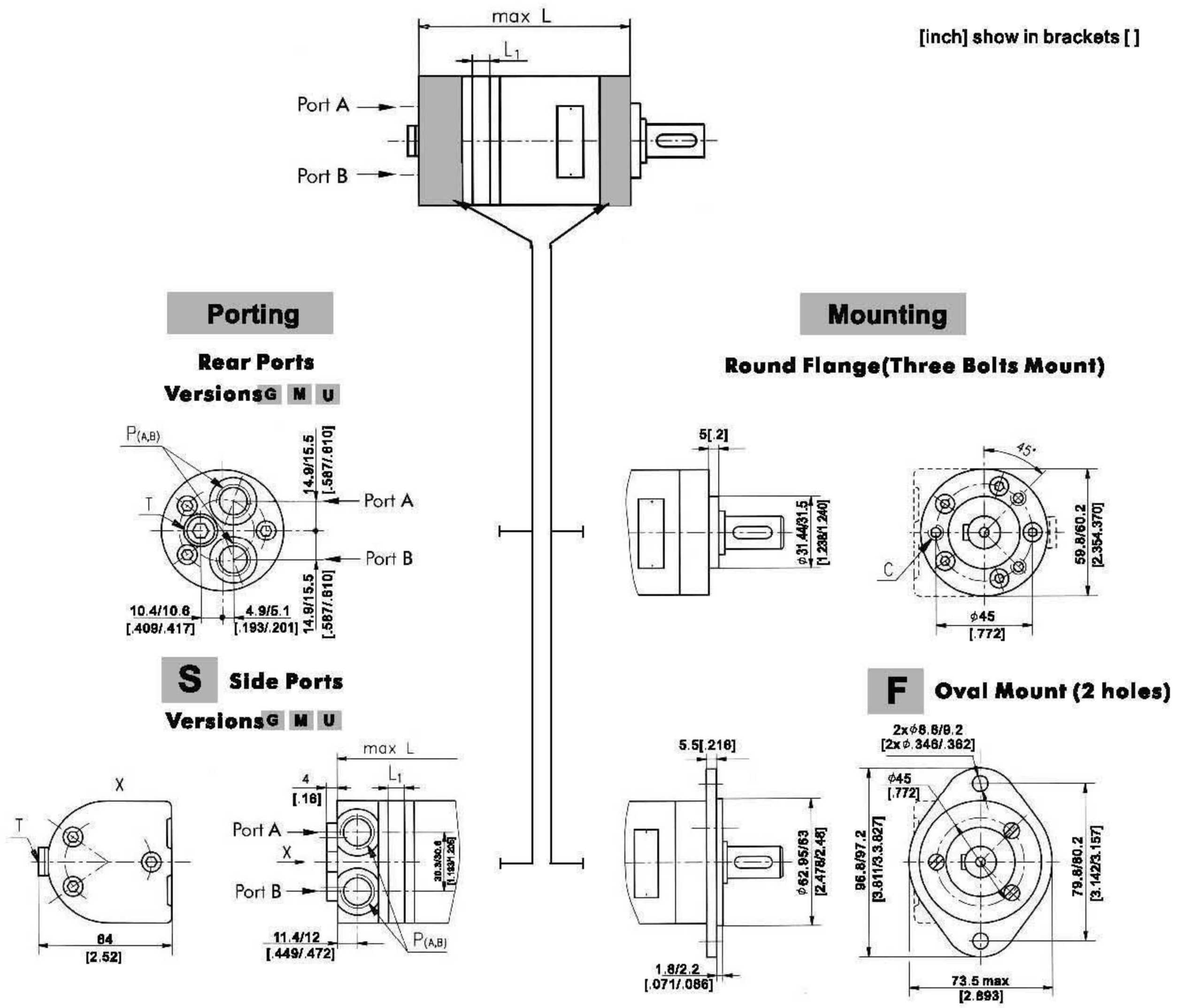


**BMM 20**





Dimensions and Mounting Data



Code	Versions		
	Omit	M	U
P(A,B)	2 x G 3/8	2 x M18 x 1.5	2 x 9/16 -18UNF
T	G 1/8	M10 x1	3/8 -24UNF
C	3 x M6-10	3 x M6-10	3 x 1/4 -28UNC

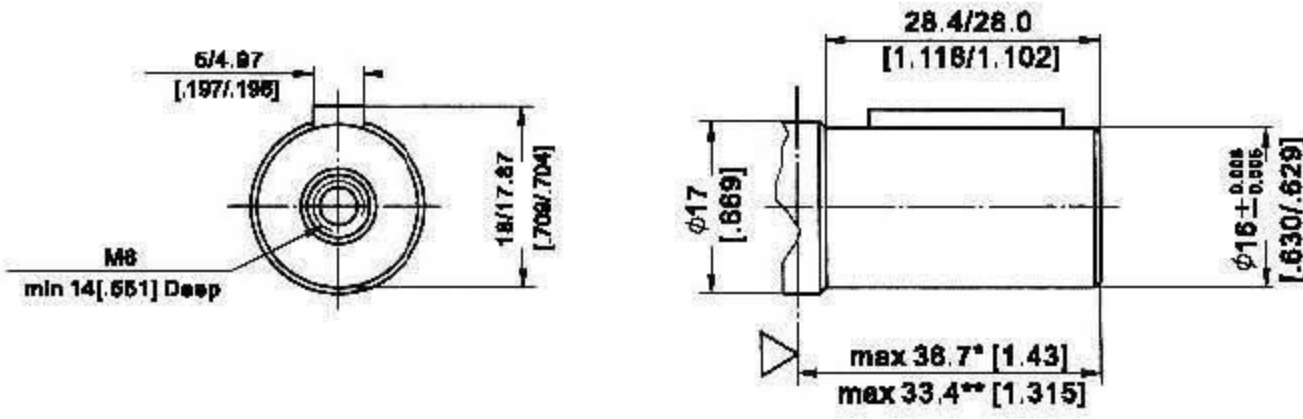
Type	Side Ports L <sub>max</sub> , mm[in]	Rear Ports L <sub>max</sub> , mm[in]	Type	Side Ports L <sub>max</sub> , mm[in]	Rear Ports L <sub>max</sub> , mm[in]	L <sub>1</sub> mm[in]
BMM 8	105[4.134]	104[4.094]	BMMF 8	109[4.291]	107[4.213]	3.5[0.138]
BMM 12.5	107[4.213]	106[4.173]	BMMF 12.5	111[4.370]	109[4.291]	5.5[0.217]
BMM 20	110[4.331]	109[4.291]	BMMF 20	114[4.488]	112[4.409]	8.5[0.335]
BMM 32	115[4.528]	114[4.488]	BMMF 32	119[4.685]	117[4.606]	13.5[0.531]
BMM 40	118[4.646]	117[4.606]	BMMF 40	122[4.803]	120[4.724]	17.0[0.669]
BMM 50	123[4.843]	122[4.803]	BMMF 50	127[5.000]	125[4.921]	21.5[0.827]



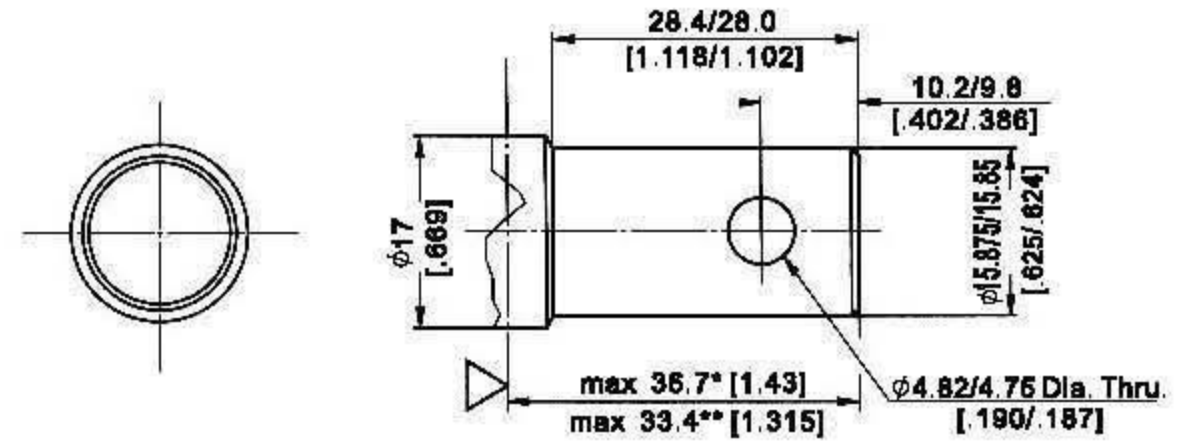
**Shaft Extensions**

[inch] show in brackets [ ]

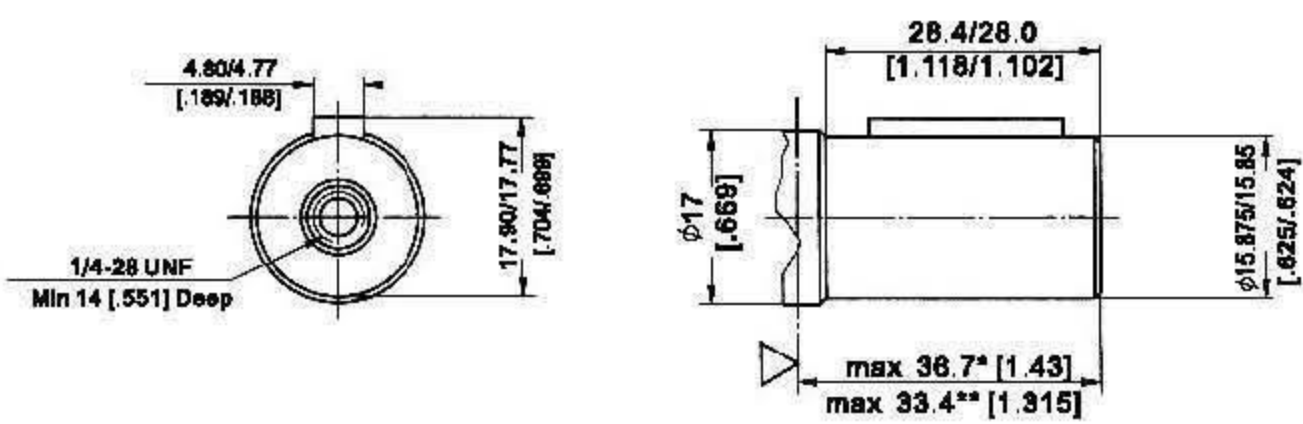
**C**  $\phi$  16 straight, Parallel key 5 x 5 x 16  
Max. Torque 345 in-lb [3.9daNm]



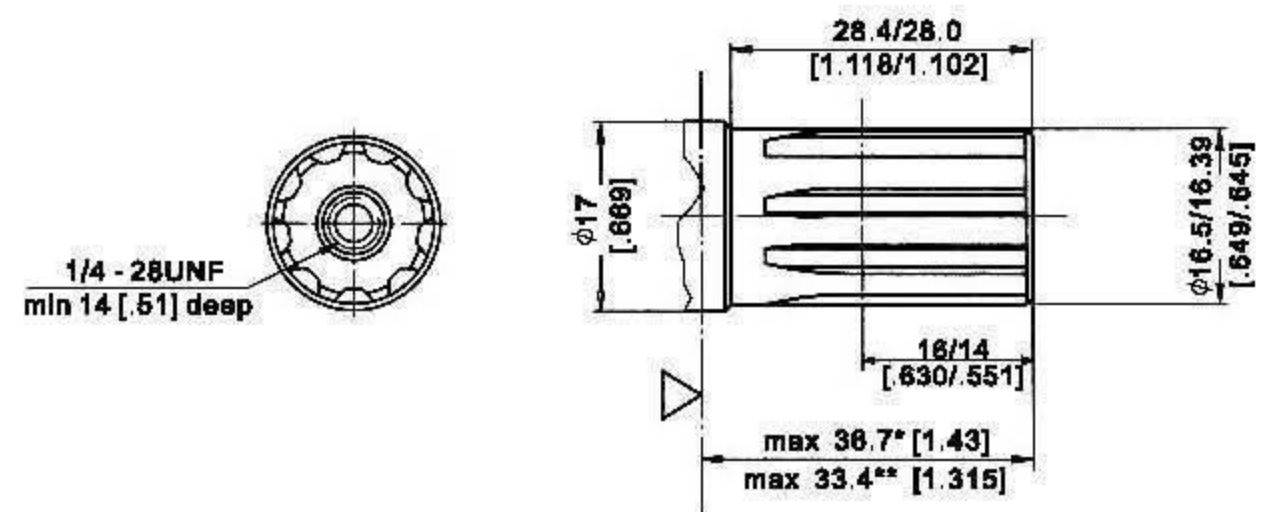
**H** 5/8" [15.8] straight, w/4.82[.19] Crosshole  
Max. Torque 345 in-lb [3.9daNm]



**CO** 5/8" [15.8] straight, Parallel key 3/16" x 3/16" x 3/4"  
Max. Torque 345 in-lb [3.9daNm]

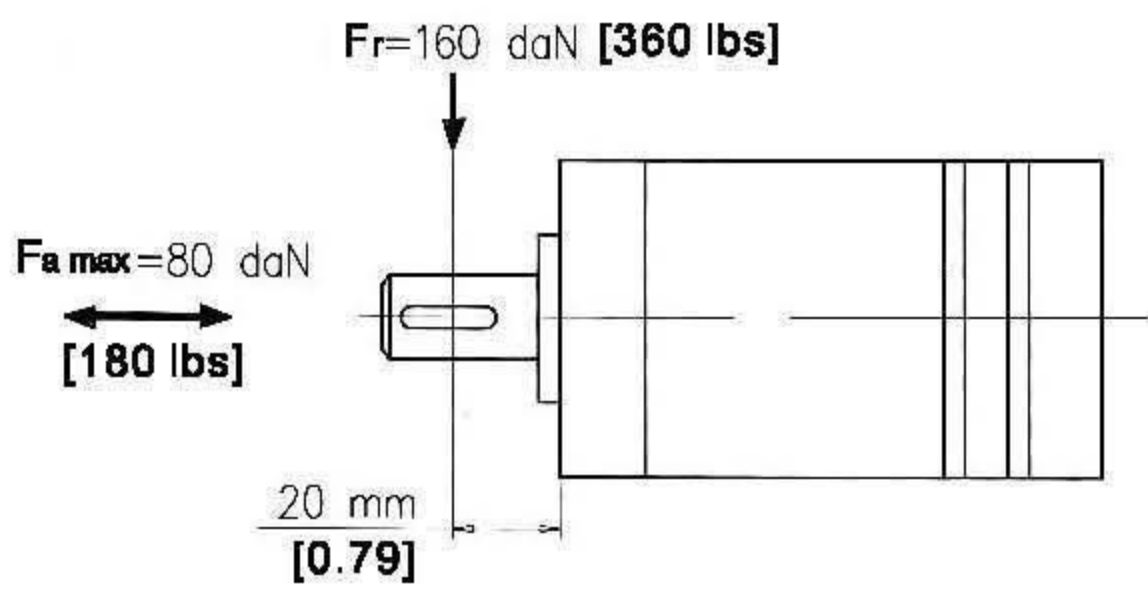


**S**  $\phi$  16.5 Splined B17 x 14  
Max. Torque 390 in-lb [4.4daNm]



- ▽ - Motor Mounting Surface
- \* - For Round Flange
- \*\* - For F Flange

**Permissible Shaft Loads**



The permissible radial shaft load [Prad] is calculated from the distance [L] between the point load application and the mounting surface:

$$F_{rad} = \frac{600}{n} \times \frac{13040}{61.5 + L}, \text{ [daN]}$$

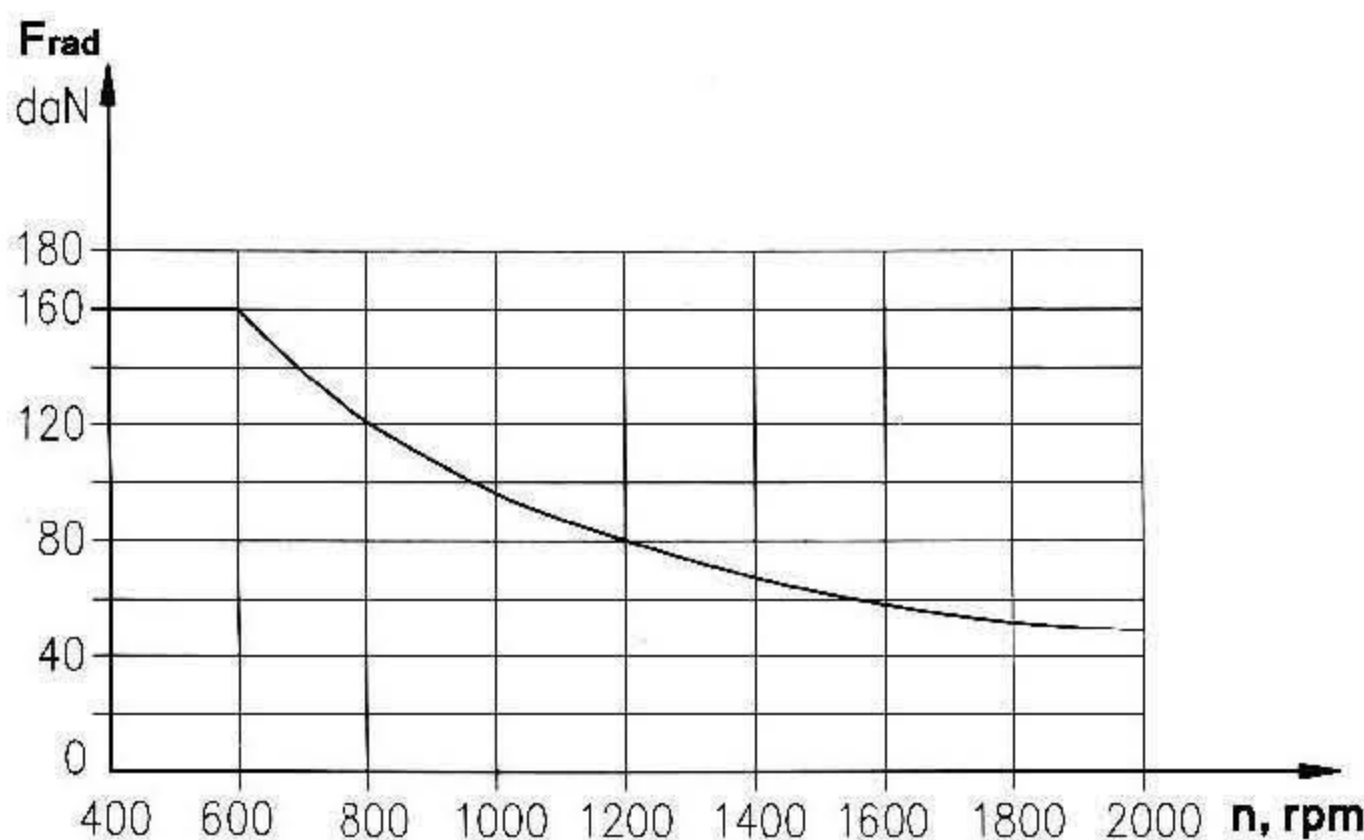
L in mm ;  $L \leq 80$

$$F_{rad} = \frac{600}{n} \times \frac{1155}{2.42 + L}, \text{ [lbs]}$$

L in inch;  $L \leq 3.12$

The drawing shows the permissible radial load when  $L = 20\text{mm}$  [0.79]

If the calculated shaft load exceeds the permissible, a flexible coupling must be used.





	1	2	3	4	5	6	7	8
BMM								

**Pos.1 Displacement Code**

- 8** - 8.2cc/0.5 [in.3/r]
- 12.5** - 12.9cc/0.79 [in.3/r]
- 20** - 20.0cc/1.21 [in.3/r]
- 32** - 31.8cc/1.93 [in.3/r]
- 40** - 40.0cc/2.43 [in.3/r]
- 50** - 50.0cc/3.07 [in.3/r]

**Pos.2 Shaft Extensions**

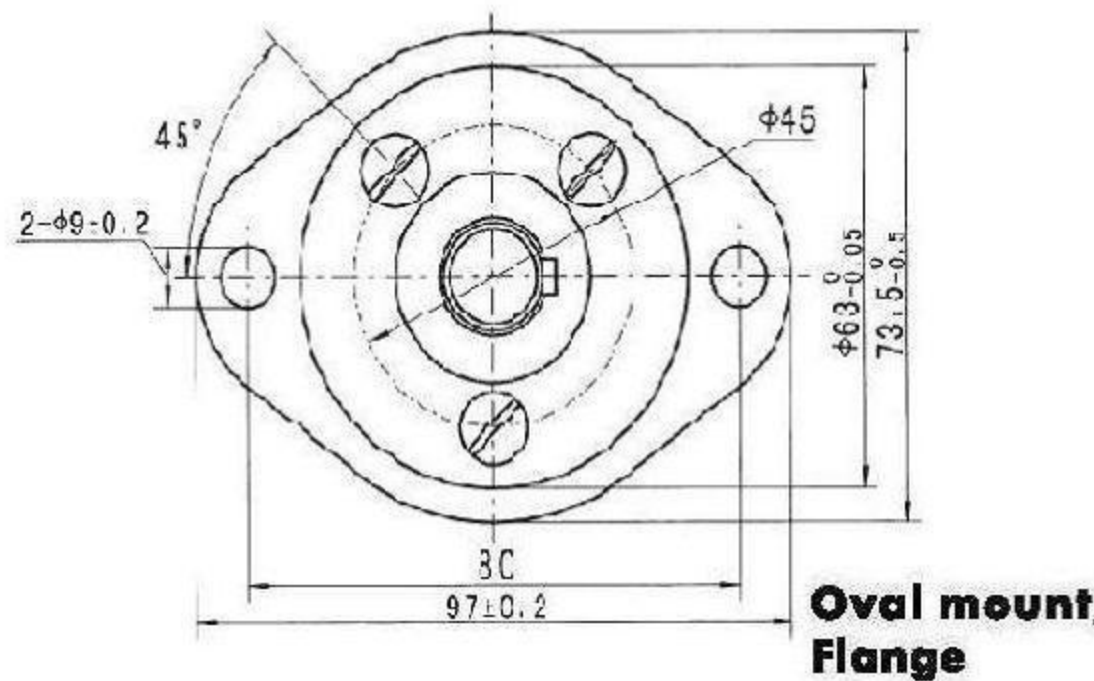
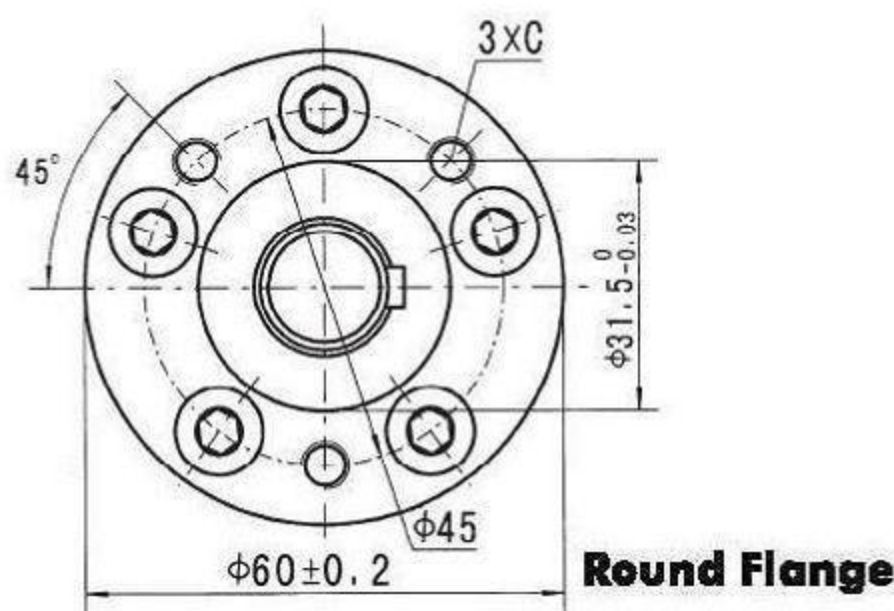
- C** -  $\phi$  16 straight, Parallel key 5 x 5 x 16
- CO** - 5/8" [15.8] straight, Parallel key 3/16" x 3/16" x 3/4"
- S** -  $\phi$  16.5 Splined B17 x 14
- H** - 5/8" [15.8] straight, w/4.82 [.19] Crosshole

**Pos.3 Port Type**

- Omit - Rear Port
- S** Side Port

**Pos.4 Mounting Flange**

- Omit - Round Flange (Three bolts mount)
- F** Oval mount, two holes



**Pos.5 Porting**

- Omit - 2 x G3/8, G1/8, BSP thread
- M** - 2 x M18x1.5; M10x1; metric thread
- U** - 2 x 9/16-18 UNF, O-ring, 3/8-24 UNF

**Pos.6 Painting**

- Omit - Grey
- B** - Black
- 00** - No Paint

**Pos.7 Rotation**

- Omit - Standard Rotation
- R** - Reverse Rotation

**Pos.8 Design Series**

- Omit - Factory Specified