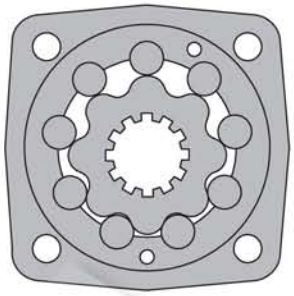
Part number:

HYDROMA HYDRAULICKÉ SYSTÉMY | HIDROMA SISTEMS UKŁADY HYDRAULICZNE | HYDROMA ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

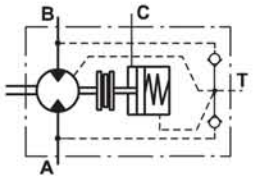
HYDRAULIC MOTOR-BRAKE MT/B

APPLICATION

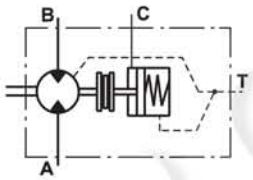
» Conveyors
» Metal working machines
» Agricultural machines
» Road building machines
» Mining machinery
» Food industries
» Special vehicles
» Plastic and rubber machinery etc.



With check valves



Without check valves "1"



CONTENTS

OPTIONS

» Model - Disc valve, roll-gerotor;
» Fully integrated friction disk brake;
» Side ports;
» Shafts - straight, splined and tapered;
» BSPP ports
» Other special features

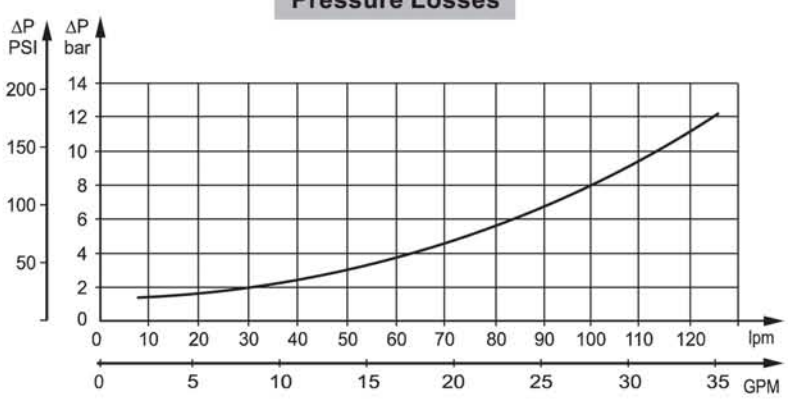
GENERAL

Max. Displacement, cm^3/rev [in^3/rev]	724,3 [44.2]
Max. Speed, [RPM]	780
Max. Torque, daNm [lb-in]	cont.: 130 [11505] int.: 148 [13100]
Max. Output, kW [HP]	40 [54]
Max. Pressure Drop, bar [PSI]	cont.: 200 [2900] int.: 240 [3450]
Max. Oil Flow, lpm [GPM]	150 [40]
Min. Speed, [RPM]	5
Permissible Shaft Loads, daN [lbs]	P_a=1000 [2248]
Pressure fluid	Mineral based- HLP(DIN 51524) or HM(ISO 6743/4)
Temperature range, °C [°F]	-40÷140 [-40÷284]
Optimal Viscosity range, mm^2/s [SUS]	20÷75 [98÷347]
Filtration	ISO code 20/16 (Min. recommended fluid filtration of 25 microns)

Oil flow in drain line

Pressure drop bar [PSI]	Viscosity mm^2/s [SUS]	Oil flow in drain line lpm [GPM]
140 [2030]	20 [98]	2,5 [.66]
	35 [164]	1,5 [.39]
210 [3045]	20 [98]	5 [1.32]
	35 [164]	3 [.79]

Pressure Losses



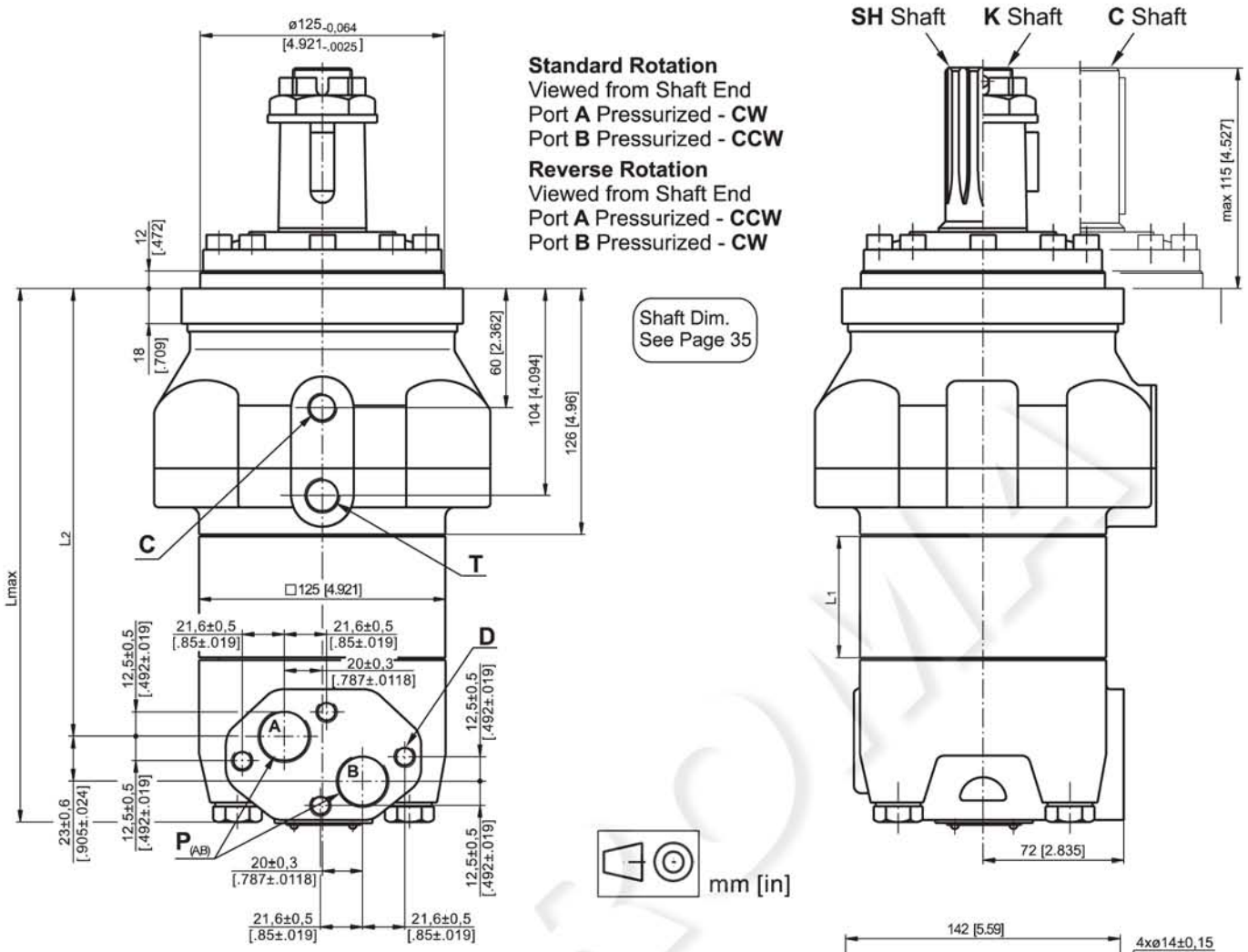
SPECIFICATION DATA

Type		MT/B 160	MT/B 200	MT/B 250	MT/B 315	MT/B 400	MT/B 500	MT/B 630	MT/B 725
Displacement, cm^3/rev [in^3/rev]		161,1 [9.83]	201,4 [12.29]	251,8 [15.36]	326,3 [19.90]	410,9 [25.06]	523,6 [31.95]	631,2 [38.5]	724,3 [44.2]
Max. Speed, [RPM]	Cont.	625	625	500	380	305	240	197	172
	Int.*	780	750	600	460	365	285	234	209
Max. Torque daNm [lb-in]	Cont.	47 [4160]	59 [5220]	73 [6460]	95 [8410]	108 [9560]	122 [10800]	130 [11505]	127 [11240]
	Int.*	56 [4960]	71 [6285]	88 [7790]	114 [10090]	126 [11150]	137 [12125]	148 [13100]	147 [13010]
Max. Output kW [HP]	Cont.	26,5 [36]	33,5 [45]	33,5 [45]	33,5 [45]	30 [40]	26,5 [36]	24,3 [33]	20,2 [27]
	Int.*	32 [43]	40 [54]	40 [54]	40 [54]	35 [45]	30 [40]	27,5 [37]	26,8 [36]
Max. Pressure Drop bar [PSI]	Cont.	200 [2900]	200 [2900]	200 [2900]	200 [2900]	180 [2600]	160 [2300]	140 [2030]	120 [1740]
	Int.*	240 [3450]	240 [3450]	240 [3450]	240 [3450]	210 [3050]	180 [2600]	160 [2300]	140 [2030]
Max. Oil Flow lpm [GPM]	Cont.	100 [26.5]	125 [33]	125 [33]	125 [33]	125 [33]	125 [33]	125 [33]	125 [33]
	Int.*	125 [33]	150 [40]	150 [40]	150 [40]	150 [40]	150 [40]	150 [40]	150 [40]
Max. Inlet Pressure bar [PSI]	Cont.	210 [3050]	210 [3050]	210 [3050]	210 [3050]	210 [3050]	210 [3050]	210 [3050]	210 [3050]
	Int.*	250 [3600]	250 [3600]	250 [3600]	250 [3600]	250 [3600]	250 [3600]	250 [3600]	250 [3600]
Max. Return Pressure with Drain Line,bar [PSI]	Cont.	140 [2030]	140 [2030]	140 [2030]	140 [2030]	140 [2030]	140 [2030]	140 [2030]	140 [2030]
	Int.*	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]
Max. Starting Pressure with Unloaded Shaft, bar [PSI]		10 [150]	10 [150]	10 [150]	10 [150]	10 [150]	10 [150]	10 [150]	10 [150]
Min. Starting Torque daNm [lb-in]	At max. pressure drop Cont.	34 [3010]	43 [3800]	53 [4690]	74 [6550]	84 [7435]	95 [8410]	95 [8410]	95 [8410]
	At max. pressure drop Int.*	41 [3630]	52 [4600]	63 [5580]	89 [7880]	97 [8585]	106 [9380]	110 [9735]	115 [10180]
Min. Speed**, [RPM]		10	9	8	7	6	5	5	5
Static Torque of Brake, daNm [lb-in]		143 [12657]							
Min. Brake Release Pressure***, bar [PSI]		32-35 [464-507]							
Max. Opening Pressure, bar [PSI]		280 [4060]							
Max. Pressure in Drain Line, bar [PSI]		5 [73]							
Weight, kg [lb]		27,5 [60.6]	28 [61.7]	28,5 [62.8]	29,5 [65]	30,5 [67.2]	31,5 [69.4]	31 [68.3]	32 [70.5]

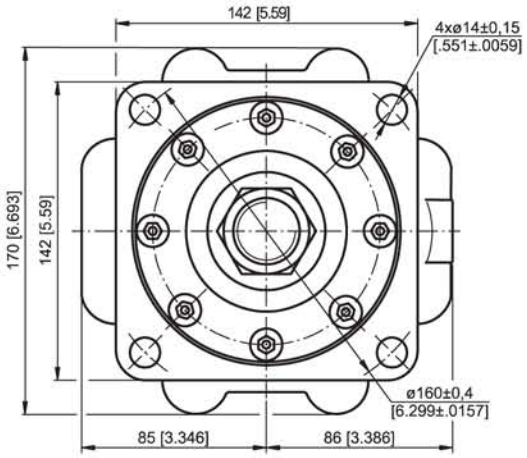
* Intermittierent operation: the permissible values may occur for max. 10% of every minute.
** For speeds lower than given, consult factory or your regional manager.
*** Motor-brakes must always have a drain line. The brake release pressure is the difference between the pressure in the brake release line and the pressure in the drain line.

1. Intermittent speed and intermittent pressure must not occur simultaneously.
2. Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
3. Recommend using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM (ISO 6743/4). If using synthetic fluids consult the factory for alternative seal materials.
4. Recommended minimum oil viscosity 13 mm^2/s [70 SUS] at 50°C [122°F].
5. Recommended maximum system operating temperature is 82°C [180°F].
6. To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

DIMENSIONS and MOUNTING DATA

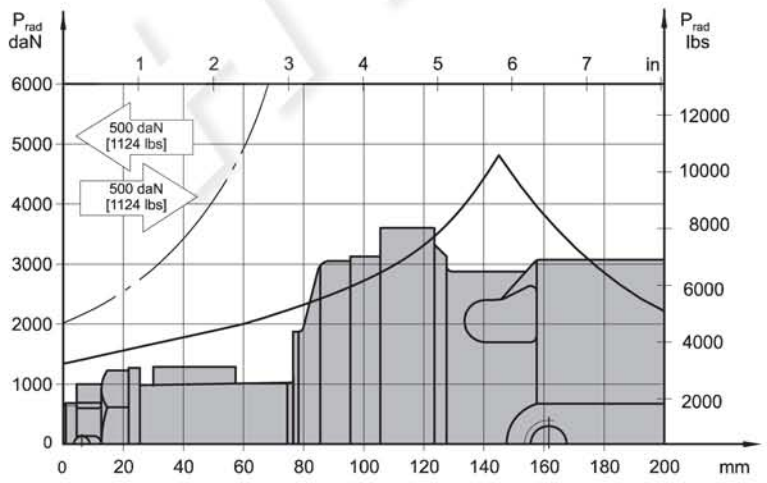


$P_{(A,B)}$ - 2xG3/4, 17 mm [.669] depth
C - Brake release port, G1/4, 12 mm [.472 in] depth
T - Drainage tap, G3/8, 13 mm [.512] depth
D - 4xM10, 10 mm [.394] depth



PERMISSIBLE SHAFT LOADS

The curve applies to a B10 bearing life of 3000 hours at 200 RPM.
Max. permissible radial shaft load with a safety factor of 3:1.



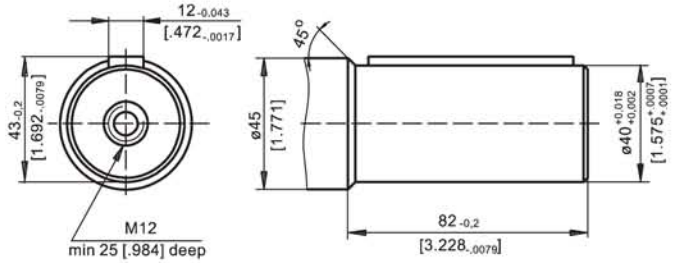
Warning: Drain line should always be used.

Type	*L1, mm [in]	L2, mm [in]	Lmax, mm [in]
MT/B 160	17 [.67]	178 [7.01]	228 [8.98]
MT/B 200	22 [.87]	183 [7.21]	233 [9.17]
MT/B 250	28,3 [1.11]	189,3 [7.45]	239 [9.41]
MT/B 315	37,5 [1.48]	198,5 [7.81]	248 [9.76]
MT/B 400	48 [1.89]	209 [8.23]	259 [10.2]
MT/B 500	62 [2.44]	223 [8.78]	273 [10.8]
MT/B 630	58 [2.28]	219 [8.62]	269 [10.6]
MT/B 725	67 [2.64]	228 [8.98]	278 [10.9]

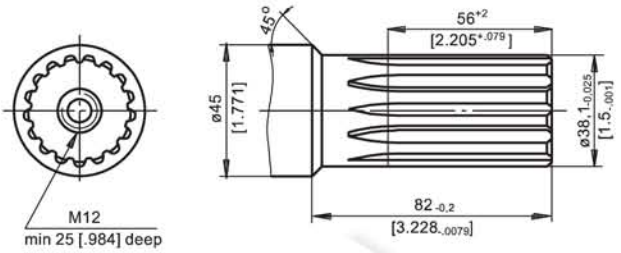
* The width of the gerotor is 3,5 mm [.138 in] greater than L_1.

SHAFT EXTENSIONS

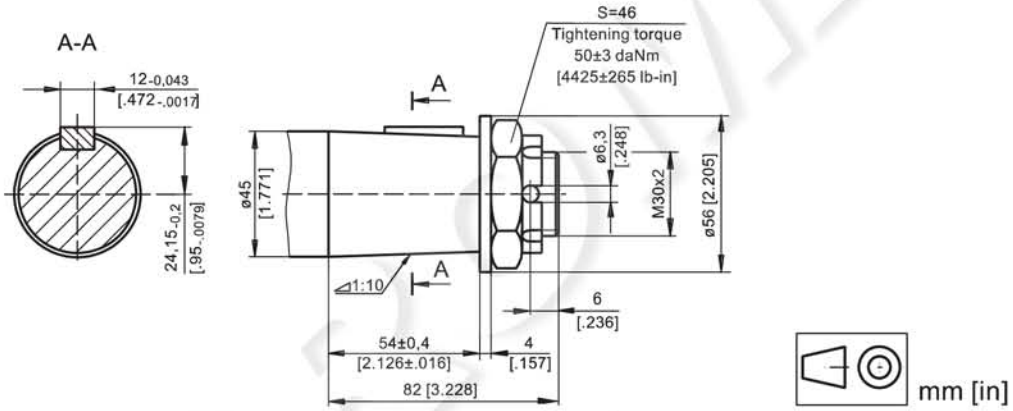
C -ø40 straight, Parallel key A12x8x70 DIN 6885
Max. Torque 123 daNm [10886 lb-in]



SH -ø1½" splined 17T, DP 12/24 ANSI B92.1-1976
Max. Torque 123 daNm [10886 lb-in]



K -tapered 1:10, Parallel key B12x8x28 DIN 6885
Max. Torque 210 daNm [18587 lb-in]



ORDER CODE

	1	2	3	4	5
M T / B					

Pos.1 - Displacement code

160	- 161,1 cm³/rev [9.83 in³/rev]
200	- 201,4 cm³/rev [12.29 in³/rev]
250	- 251,8 cm³/rev [15.36 in³/rev]
315	- 326,3 cm³/rev [19.90 in³/rev]
400	- 410,9 cm³/rev [25.06 in³/rev]
500	- 523,6 cm³/rev [31.95 in³/rev]
630	- 631,2 cm³/rev [38.50 in³/rev]
725	- 724,3 cm³/rev [44.20 in³/rev]

Pos.2 - Shaft Extensions*

C	- ø40 straight, Parallel key A12x8x70 DIN6885
SH	- ø1½" splined 17 DP12/24 ANS B922.1-76
K	- ø45 tapered 1:10, Parallel key B12x8x28 DIN 6885

Pos.3 - Check Valves

omit	- with check valves
1	- without check valves

Pos.4 - Special Features

Pos.5 - Design Series

omit - Factory specified

NOTES:
* The permissible output torque for shafts must not be exceeded!

The motor-brakes are mangano-phosphatized as standard.

MOTOR-BRAKE SPECIAL FEATURES

Special Feature Description	Order Code	Motor type						
		B/MR	BD/MR	MT/B	MT/BX	MTM/B	SW	TW
Low Leakage	LL	O	O	–	O	O	–	–
Low Speed Valving	LSV	O	O	–	O	O	–	–
Free Running	FR	–	O	–	–	O		–
Reinforced unit	HD	–	–	O	–	O	–	–
Reverse Rotation	R	O	O	O	O	O	–	–
Paint*	P	O	O	O	O	O	O	O
Corrosion Protected Paint*	PC	O	O	O	O	O	O	O
Special Paint**	PS	O	O	O	O	O	O	O
	PCS							
Check Valves		S	–	S***	S	–	S	S

O	Optional
–	Not applicable
S	Standard

* Colour at customer's request.
** Non painted feeding surfaces, colour at customer's request.
*** Without check valves for **"HD"** option.