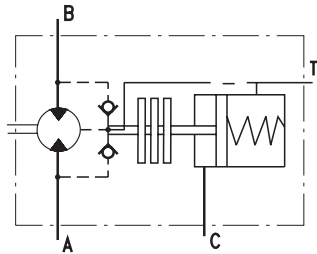


Product Tech News

Hydraulic motor-brakes type B/RW...

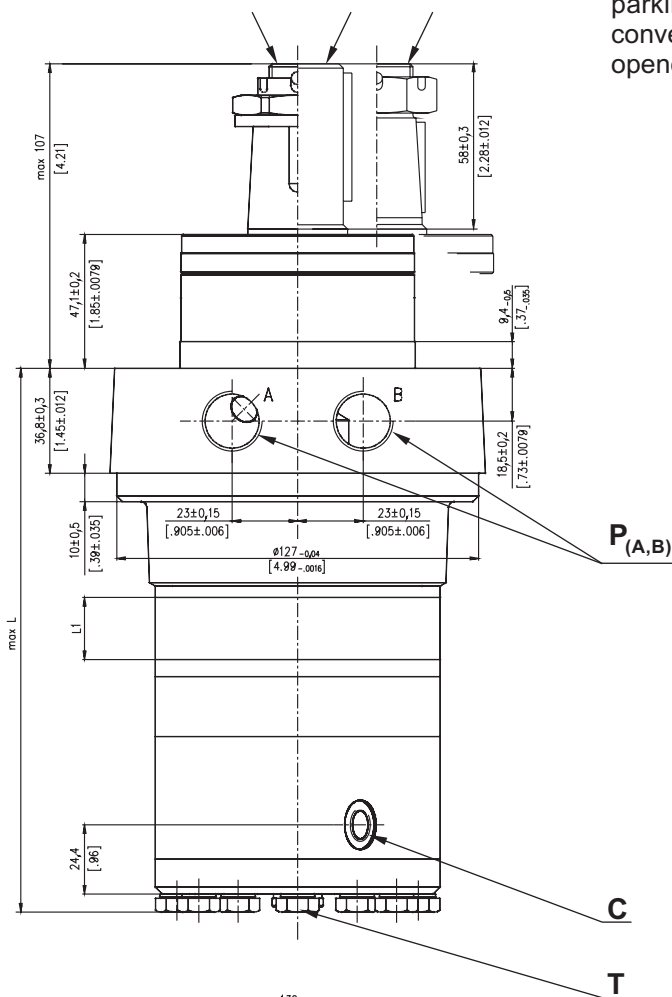


INTRODUCTION

The M+S Motor/Brakes are intended for hydraulic drive of operating systems, where the block and the release of the drive must be by means of hydraulic energy. The system has small overall dimensions and minimum weight. In the package are combined efficient hydraulic power of hydromotors type RW with a reliable integral hydraulic disc brake. The Motor-brake unit is designed for attachment to the free wheels of the low speed agricultural and transport machines with high load capacity.

The M+S Motor/Brakes are intended to operate as static or parking brakes. Typical applications include wheel drives, conveyors, rotators, positioners, winches, swing drives and door openers.

KB Shaft CB Shaft OB Shaft



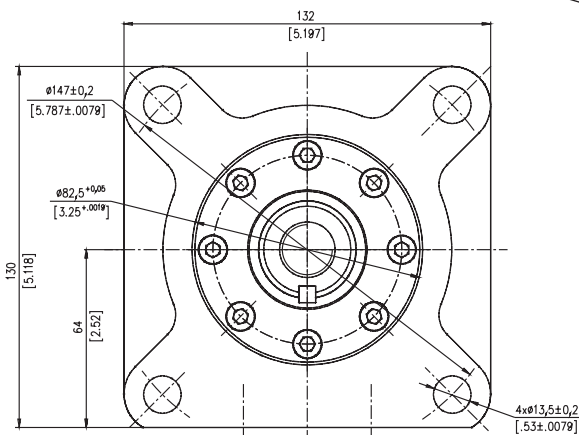
OUTLINE DIMENSIONS REFERENCE

Type	Lmax, mm [in]	L ₁ , mm [in]
B/RW 80	183 [7.2]	14,0 [.55]
B/RW 100	187 [7.4]	17,4 [.69]
B/RW 125	191 [7.5]	21,8 [.86]
B/RW 160	197 [7.8]	27,8 [1.09]
B/RW 200	204 [8.0]	34,8 [1.37]
B/RW 250	213 [8.4]	43,5 [1.71]
B/RW 315	224 [8.8]	54,8 [2.16]
B/RW 400	239 [9.4]	69,4 [2.73]

- P_(A,B): 2xG1/2 or 2xM22x1,5 - 17 mm [.67 in] depth
- C : G1/4 or M14x1,5 - 12 mm [.47 in] depth - release port
- T : G1/4 or M14x1,5 - 12 mm [.47 in] depth - drain port

Standard Rotation
Viewed from Shaft End
Port A Pressurized - CW
Port B Pressurized - CCW

Reverse Rotation
Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW



SPECIFICATION DATA

Type		B/RW 80	B/RW 100	B/RW 125	B/RW 160	B/RW 200	B/RW 250	B/RW 315	B/RW 400
Displacement, cm ³ /rev [in ³ /rev]		80,3 [4.9]	99,8 [6.09]	125,7 [7.67]	159,6 [9.74]	199,8 [12.19]	250,1 [15.26]	315,7 [19.27]	397 [24.23]
Max. Speed, [RPM]	cont.	500	500	475	375	300	240	190	150
	int.*	600	600	600	470	375	300	240	190
Max. Torque, daNm [lb-in]	cont.	19,5 [1726]	24,0 [2124]	30,0 [2655]	39,0 [3452]	45,0 [3983]	54,0 [4780]	55,0 [4868]	55,0 [4868]
	int.*	22,0 [1947]	28,0 [2478]	34,0 [3010]	43,0 [3805]	50,0 [4425]	57,0 [5045]	57,0 [5045]	57,0 [5045]
Max. Output, kW [HP]	cont.	8,4 [11.3]	10,8 [14.5]	12,5 [16.8]	11,5 [15.4]	11,0 [14.8]	10,0 [13.4]	9,0 [12.1]	7,0 [9.4]
	int.*	9,6 [12.9]	12,0 [16.1]	14,5 [19.4]	14,0 [18.8]	13,0 [17.4]	11,0 [14.8]	10,0 [13.4]	8,7 [11.7]
Max. Pressure Drop, bar [PSI]	cont.	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	135 [1960]	105 [1520]
	int.*	200 [2900]	200 [2900]	200 [2900]	200 [2900]	200 [2900]	185 [2680]	145 [2100]	115 [1670]
Max. Oil Flow, lpm [GPM]	cont.	40 [11]	50 [13]	60 [16]	60 [16]	60 [16]	60 [16]	60 [16]	60 [16]
	int.*	48 [13]	60 [16]	75 [20]	75 [20]	75 [20]	75 [20]	75 [20]	75 [20]
Max. Inlet Pressure, bar [PSI]	cont.	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]	175 [2540]
	int.*	200 [2900]	200 [2900]	200 [2900]	200 [2900]	200 [2900]	200 [2900]	200 [2900]	200 [2900]
Max. Starting Pressure with Unloaded Shaft, bar [PSI]		10 [145]	10 [145]	9 [130]	7 [100]	7 [100]	5 [73]	5 [73]	5 [73]
Min. Starting Torque, daNm [lb-in]	at max. press. drop cont.	15 [1330]	20 [1770]	25 [2210]	32 [2830]	41 [3630]	50 [4500]	50 [4500]	50 [4500]
	at max. press. drop int.*	17 [1505]	23 [2040]	28 [2500]	37 [3270]	46 [4070]	53 [4700]	52 [4600]	52 [4600]
Min. Speed**, [RPM]		10							
Static Torque of Brake, daNm [lb-in]		55 [4868]							
Min. Brake Release Pressure***, bar [PSI]		13±1 [189±14.5]							
Max. Opening Pressure, bar [PSI]		200 [2900]							

* Intermittent operation: the permissible values may occur for max. 10% of every minute.

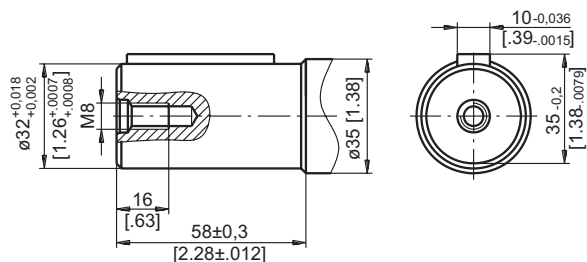
** Peak load: the permissible values may occur for max. 1% of every minute.

*** 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.

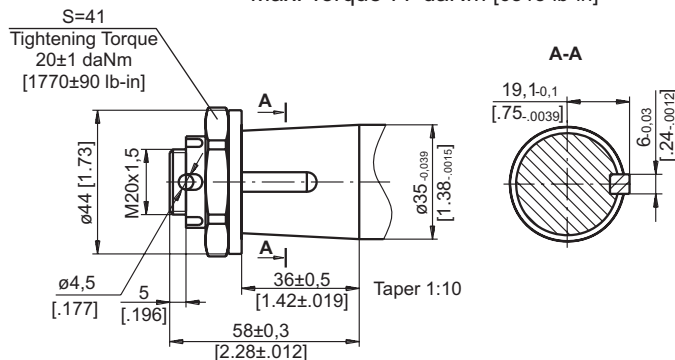
1. Intermittent speed and intermittent pressure drop must not occur simultaneously.
2. Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
3. Recommend using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM (ISO 6743/4).
If using synthetic fluids consult the factory for alternative seal materials.
4. Recommended minimum oil viscosity 13 mm²/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.

SHAFT EXTENSIONS

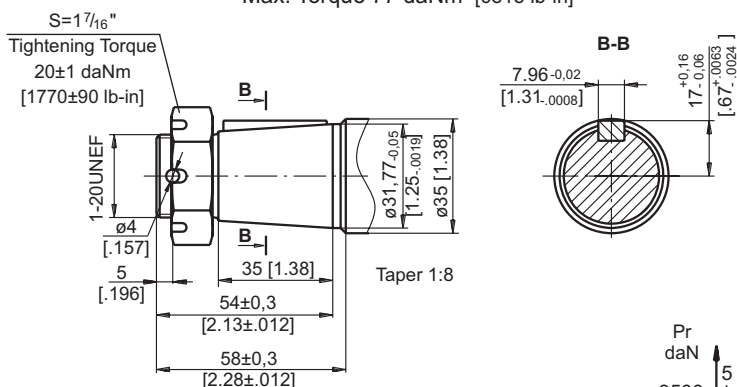
CB - $\varnothing 32$ straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm [6815 lb-in]



KB - tapered 1:10, Parallel key B6x6x20 DIN 6885
Max. Torque 77 daNm [6815 lb-in]

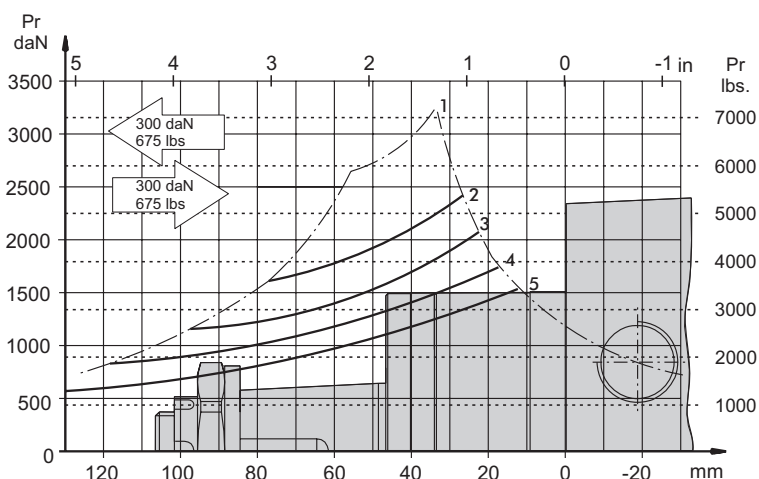


OB - tapered 1:8 SAEJ 501, Parallel key $\frac{5}{16} \times \frac{5}{16} \times 1\frac{1}{4}$ " BS46
Max. Torque 77 daNm [6815 lb-in]



PERMISSIBLE SHAFT LOADS

The curve applies to a B10 bearing life of 2000 hours.



1. Permissible radial shaft load
2. Drawing by n= 50 rpm
3. Drawing by n=100 rpm
4. Drawing by n=200 rpm
5. Drawing by n=400 rpm

ORDER CODE

B \ R W	1	2	3	4
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Pos.1 - Displacement code

80	- 80,3 cm ³ /rev [4.90 in ³ /rev]
100	- 99,8 cm ³ /rev [6.09 in ³ /rev]
125	- 125,7 cm ³ /rev [7.67 in ³ /rev]
160	- 159,6 cm ³ /rev [9.74 in ³ /rev]
200	- 199,8 cm ³ /rev [12.19 in ³ /rev]
250	- 250,1 cm ³ /rev [15.26 in ³ /rev]
315	- 315,7 cm ³ /rev [19.26 in ³ /rev]
400	- 397,0 cm ³ /rev [24.40 in ³ /rev]

Pos.2 - Shaft Extensions*

CB	- $\varnothing 32$ straight, Parallel key A10x8x45 DIN6885
KB	- $\varnothing 35$ tapered 1:10, Parallel key B6x6x20 DIN6888
OB	- $\varnothing 1\frac{1}{4}$ " tapered 1:8, Parallel key $\frac{5}{16} \times \frac{5}{16} \times 1\frac{1}{4}$ " BS46

Pos.3 - Ports

omit	- BSPP (ISO 228)
M	- Metric (ISO 262)

Pos.4 - Design Series

omit	- Factory specified
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NOTE:

- * The permissible output torque for shafts must not be exceeded!
- ** Color at customer's request.

The hydraulic motors are manganophosphated as standard.