Technical Catalogue
Catalogo Tecnico

EN / IT

RB2MF series

Hydraulic Piston Motors

Revortex

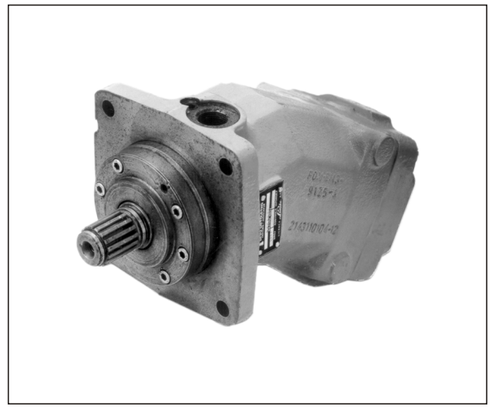
Innovation + High Performance + Durability

Revortex

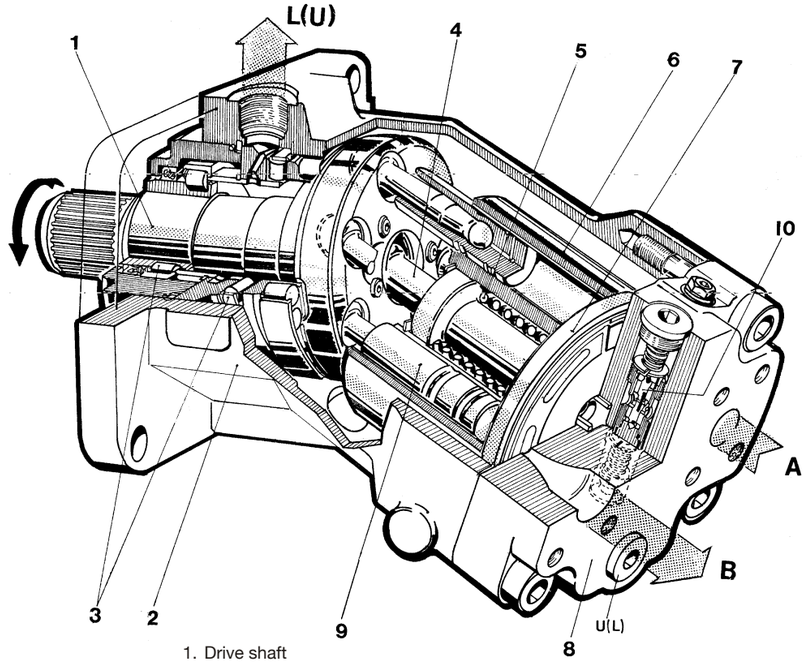
Axial piston motors RB2MF

HIGH PRESSURE - BENT AXIS TYPE - FIXED DISPLACEMENT

- Extremely compact design
- Mounting dimensions correspond to the dimensions of the variable displacement hydraulic motors
- Very robust and rugged rotary group, with shaft that may be loaded with radial forces
- Noiseless operation
- At request, it can be supplied with or without valve for flushing of housing i.e. system. The overall dimensions are not altered if the valve is installed
- These hydraulic motors are to be applied both in open-loop and closed loop hydraulic systems
- An increased efficiency within the whole speed and pressure ranges, inclusive of a high efficiency at starting, characterizes this hydraulic motor.



SECTION - MODE OF OPERATION (MOTOR WITH VALVE FOR FLUSHING OF HOUSING)



1. Drive shaft
2. Housing
3. Bearing
4. Middle shaft
5. Spring
6. Cylinder block
7. Division plate
8. Rider of division plate
9. Piston (7 pcs)
10. Flushing valve (on request)

Innovation+High Performance+Durability

1

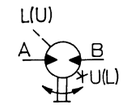
2

TEHNICAL DATA

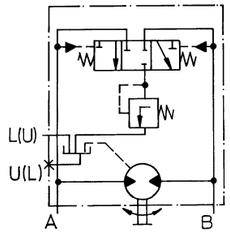
GENERAL

Symbol

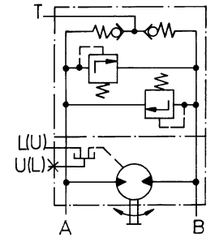
STANDARD



WITH FLUSHING VALVE



WITH VALVE BLOCK



ND	35	50	75	105
Rotation direction	clockwise and anticlockwise			
Mounting position	optional, with drain hole up			
Mass (kg)	15	18	28	32

HYDRAULIC

Pressure (bar)				
- peek (short time)*	500			
- max working	420			
- continuous**	250			
- in housing (back pressure permitted)	1,5			
Displacement (cm³ o)	34,7	50,2	74,9	104,9
Speed (r.p.m.)				
- continuous	3900	3600	3300	3000
- intermitent	4300	4000	3700	3400

Note: the speed indicated may be exceeded in some cases for short periods of time (e.g. at braking or running through curves), eith increased noise and reduced efficiency.

Working fluid - mineral hydraulic oil

viscosity (mm² s)	10...80
optimal viscosity range (mm² s)	15...20
max viscosity - intermittent for starting (mm² s)	1000
temperature (℃)	-20...+90

RECOMMENDATION

Oil working temperature	Viscosity
30...40℃	22 mm²/s - 40℃
60...70℃	68 mm²/s - 40℃
80...90℃	100 mm²/s - 40℃

FILTRATION: The fineness of filtering of10 µm is recommended. Filtering of 25 to 40 µm can be also applied. But wearing of the unit parts will be increased.

*Translent pressure over the max working pressure at which the unit will still function.

**Continuous pressure at which all parts of the unit are able to endure.

DESIGNATION

RB2MF * TF * / *

1 2 3

1 Nominal size ND:

35
50
75
105

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2 Supplementing:

- = standard

C = with flushing valve

W = with valve block With Pressure relief valves

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3 Drive shaft:

- = DIN 5482

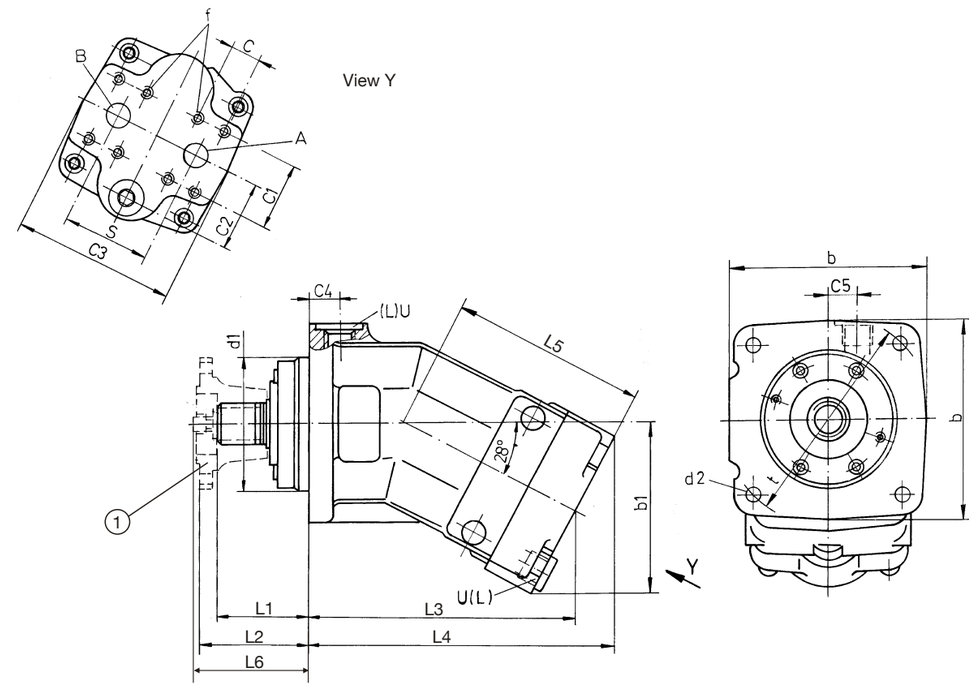
1 = DIN 5480

2 = SAE standard

Note: Coupling - on the request only (see page ⑥)

MOUNTING DRAWING (dimensions in mm)

MOTOR STANDARD AND MOTOR WITH FLUSHING VALVE



A, B = ports - ¯19 flange SAE 3/4" (NV 35, 50)
¯25 to flange SAE 1" (NV 75, 105)

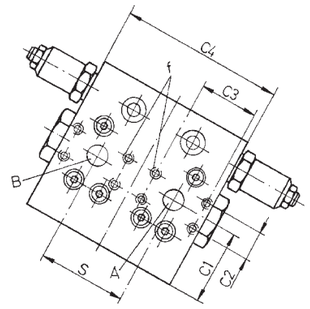
L = drain port M22x1,5

U = flushing port M22x1,5

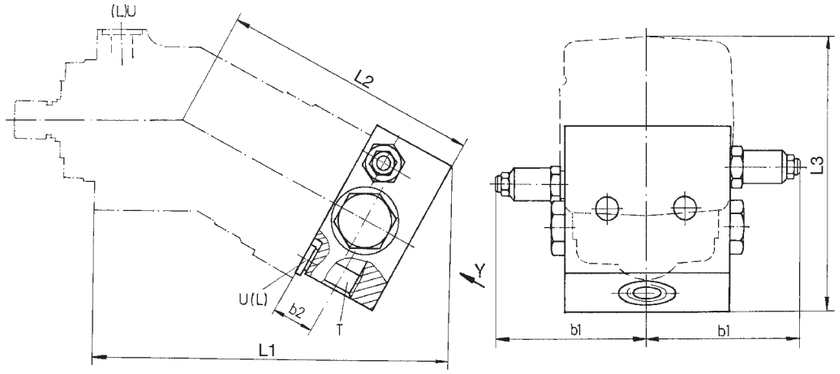
① = coupling

ND	□bb	1L	1L	2L	3L	4L	5d	L6	∅1d	∅2C		C1	C2	□C3	C4	C5	Sf		t
35	148	126	60,5	67,5	194,7	225	139	73	100	12	23,8	50,8	52,5	122	24	22	22	M10/16	160
50	150	130	74	81,5	202	232	147	85,5	100	12									160
75	170	148	77,5	87,5	244	278	178	92,5	115	14	27,8	57,2	56	145	31,5	22	22	M12/16	180
105	184	152	86,5	95,5	260,5	295	188	103,5	125	18						30	30		200

MOTOR WITH VALVE BLOCK
WITH PRESSURE RELIEF VALVES



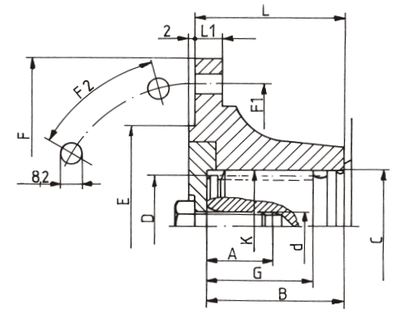
View Y



A, B = ports - ¯19 to flange SAE 3/4" (NV 35, 50)
¯25 to flange SAE 1" (NV 75, 105)
L = drain port M22x1,5
U = flushing port M22x1,5
T = return port M33x2

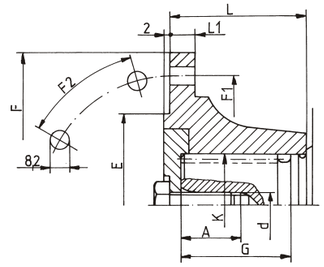
ND	L1	L2	L3	b1	b2	C1	C2	C3	C4	S	f
35	296	214	234	72,5	35	63	23,8	50,8	150	73	M10/16
50	303	222	235								
75	346	253	247	92,5	35	48	27,8	57,2	162	82	M12/16
105	363	263	254								

DRIVE SHAFT WITH COUPLING - DIN standard (dimensions in mm)



ND	K		A	B	C	D	d	E	F	F1	F2	G	L	L1
	DIN 5480g9	DIN 5482e9												
35	W25x1,25	B25x122	16	38,5	⊠ 25g6	⊠ 20g6	M8	⊠ 57h8	⊠ 99,5	⊠ 84	6x60°	29	45,5	10
50	W30x2	B30x27	21	42,5	⊠ 30,5g6	⊠ 25g6	M8	⊠ 57h8	⊠ 99,5	⊠ 84	6x60°	33	50	10
75	W35x2	B35x31	23	45,5	⊠ 35,5g6	⊠ 30g6	M10	⊠ 75h8	⊠ 114,5	⊠ 101,5	8x45°	36	55,5	12
105	W40x2	B40x36	26,5	50	⊠ 40,5g6	⊠ 35g6	M12	⊠ 75h8	⊠ 114,5	⊠ 101,5	8x45°	40	59	12

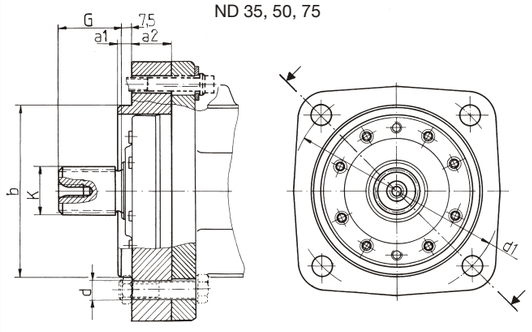
DRIVE SHAFT WITH COUPLING - SAE standard (dimensions in mm)



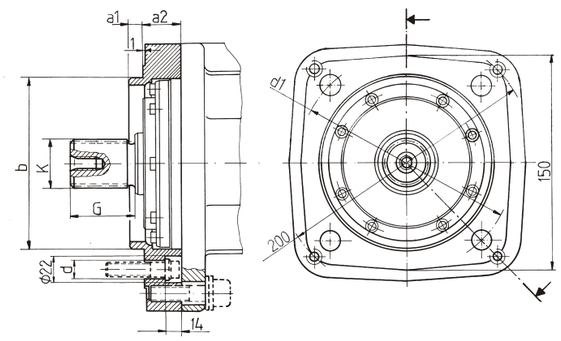
ND	K	A	G	d	E	F	F1	F2	L	L1
	SAE J498									
35	12/24; z=14	23	48	M10	⊠ 57h8	⊠ 99,5	⊠ 84	6x60°	45,5	10
50		23	48	M10	⊠ 57h8	⊠ 99,5	⊠ 84	6x60°	50	10
75		23	48	M10	⊠ 75h8	⊠ 114,5	⊠ 101,5	8x45°	55,5	12
105	16/32; z=23	26,5	48	M12	⊠ 75h8	⊠ 120	⊠ 101,5	8x45°	59	12

MEDFLANGE - SAE standard (dimensions in mm)

ND 35, 50, 75



ND 105



ND	K	G	a1	a2	d	d1	b
	SAE J498						
35	12/24; z=14	48	12,5	14,5	⊠ 14	⊠ 162	⊠ 127h8
50		48	12,5	24	⊠ 14	⊠ 162	⊠ 127h8
75		48	12,5	24,5	⊠ 14	⊠ 162	⊠ 127h8
105	16/32; z=23	48	10	29	⊠ 15	⊠ 162	⊠ 127h8

WARNING

Errors in the selection or use of the products and / or systems described, can cause serious personal injury and property damage.
It is critical that all aspects of the application and the operating conditions and products chosen are analyzed and re-examined.
Making own tests and evaluations, the user is the only one able to ensure compliance with performance, safety and cautionary use requirements.

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