

prva desetletka
HYDRAULICS

Aksijalno - klipni motori BMF Axial - piston motors BMF

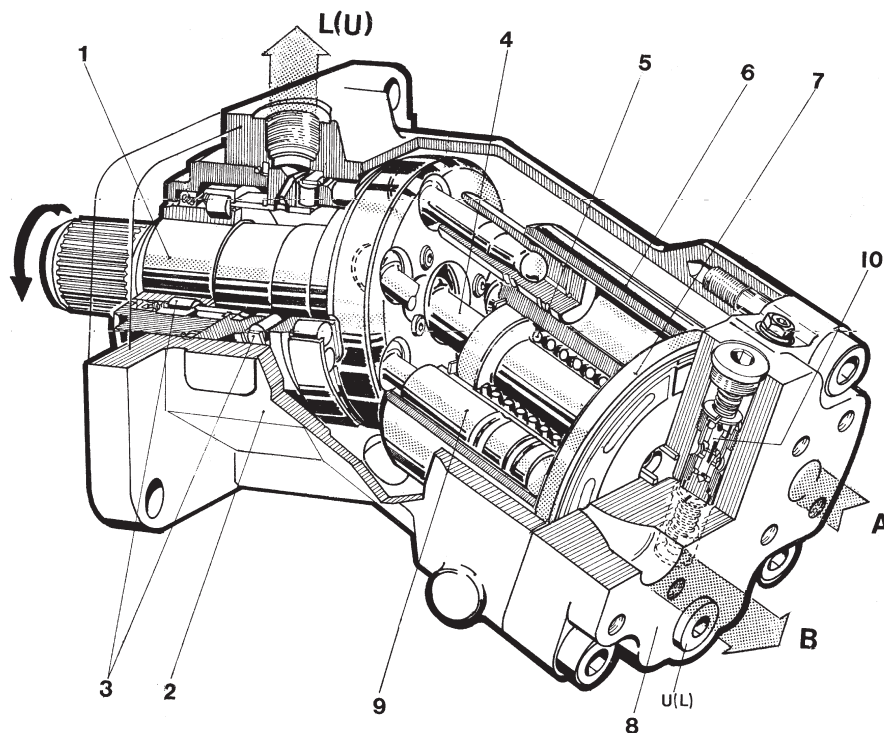
VISOKOG PRITISKA; STALNE RADNE ZAPREMINE
HIGH PRESSURE; FIXED DISPLACEMENT

- Izuzetno kompaktna konstrukcija
- Izvanredno snažan i neosetljiv pogonski mehanizam sa vratilom koje se može opteretiti radijalnim silama
- Nizak nivo šuma
- Po zahtevu, sa ili bez ventila za ispiranje kućišta odnosno sistema. Zbog toga je veoma lako prilagođavanje u slučaju temperaturnih promena. Ugradnjom ventila ne menjaju se spoljašnje dimenzije.
- Motori za primenu u otvorenim i zatvorenim hidrauličkim sistemima
- Povećani stepen korisnog dejstva u celokupnom području broja obrtaja i pritiska, uključujući i visok stepen korisnog dejstva kod startovanja
- Motoru se može dodati i ventilski blok visokog pritiska kombinovan sa slavinom za "kratko" spajanje strane visokog sa stranom niskog pritiska

- Extremely compact design
- 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
- An increased efficiency within the whole speed and pressure ranges, inclusive of a high efficiency at starting, characterizes this hydraulic motor.



PRESEK - PRINCIP RADA (MOTOR SA VENILOM ZA ISPIRANJE KUĆIŠTA) SECTION - MODE OF OPERATION (MOTOR WITH VALVE FOR FLUSHING OF HOUSING)



1. Pogonsko vratilo
2. Kućište
3. Ležaj
4. Centralna osovina
5. Opruga
6. Cilindarski blok
7. Razvodna ploča
8. Nosač razvodne ploče
9. Radni klip (7 kom.)
10. Ventil za ispiranje (po zahtevu)

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)

OZNAČAVANJE DESIGNATION

BMF * **TF** * / *

1 2 3

1 Nazivna veličina ND:
Nominal size ND:

35
50
75
105

2 Dodatni uređaji:
Supplementing:

- = standard
C = sa ventilom za ispiranje / with flushing valve
W = sa ventilskim blokom / with valva block

3 Pogonsko vratilo:
Drive shaft:

- = DIN 5482
1 = DIN 5480
2 = SAE standard

Napomena: Spojnica se isporučuje na zahtev (vidi str. 6)
Note: Coupling - on the request only (see page 6)

TEHNIČKE KARAKTERISTIKE

TECHNICAL DATA

OPŠTE / GENERAL

Symbol Symbol	STANDARD	SA VENT. ZA ISPIRANJE WITH FLUSHING VALVE	SA VENT. BLOKOM WITH VALVE BLOCK		
ND		35	50	75	105
Smer obrtanja Rotation direction		desni i levi clockwise and anticlockwise			
Položaj ugradnje Mounting position		proizvoljan, drenaž na najvišem nivou optional, with drain hole up			
Mass (kg)		15	18	28	32

HIDRAULIČKE / HYDRAULIC

Pritisak (bar) Pressure				
- max (kratkotrajno)* - peak (short time)*	500			
- max radni - max working	420			
- trajni** - continuous**	250			
- u kućištu dozvoljeni nadpritisak - in housing (back pressure permitted)	1,5			
Radna zapremina Displacement (cm ³ /o)	34,7	50,2	74,9	104,9
Broj obrtaja (min-1) Speed (r.p.m.)				
- max trajni - continuous	3900	3600	3300	3000
- max kratkotrajni - intermittent	4300	4000	3700	3400

Napomena: navedeni brojevi obrtaja mogu se u nekim slučajevima (npr. kod kočenja i vožnje u krivini) kratkotrajno prekoračiti pri čemu dolazi do povećanja buke i smanjenja koeficijenta korisnog dejstva.

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

Radna tečnost - mineralno hidrauličko ulje
Working fluid - mineral hydraulic oil

viskozitet viscosity (mm ² /s)	10...80
optimalni viskozitet optimal viscosity range (mm ² /s)	15...20
max viskozitet - kratko pri startu max viscosity - intermittent for starting (mm ² /s)	1000
temperatura temperature (°C)	-20...+90

PREPORUKA
RECOMMENDATION

Radna temperatura ulja Oil working temperature	Viskozitet Viscosity
30...40°C	22 mm ² /s - 40°C
60...70°C	68 mm ² /s - 40°C
80...90°C	100 mm ² /s - 40°C

FILTRIRANJE: Preporučuje se finoća filtriranja 10 μm. Može se primeniti i grublje 25 - 40 μm, ali se povećava istrošenje delova
FILTRATION: The fineness of filtering of 10 μm is recommended. Filtering of 25 to 40 μm can be also applied. But wearing of the unit parts will be increased.

*Kratkotrajni pritisak iznad max radnog (=nazivni pritisak) pri kome je motor funkcionalno sposoban
Transient pressure over the max working pressure at which the unit will still function.

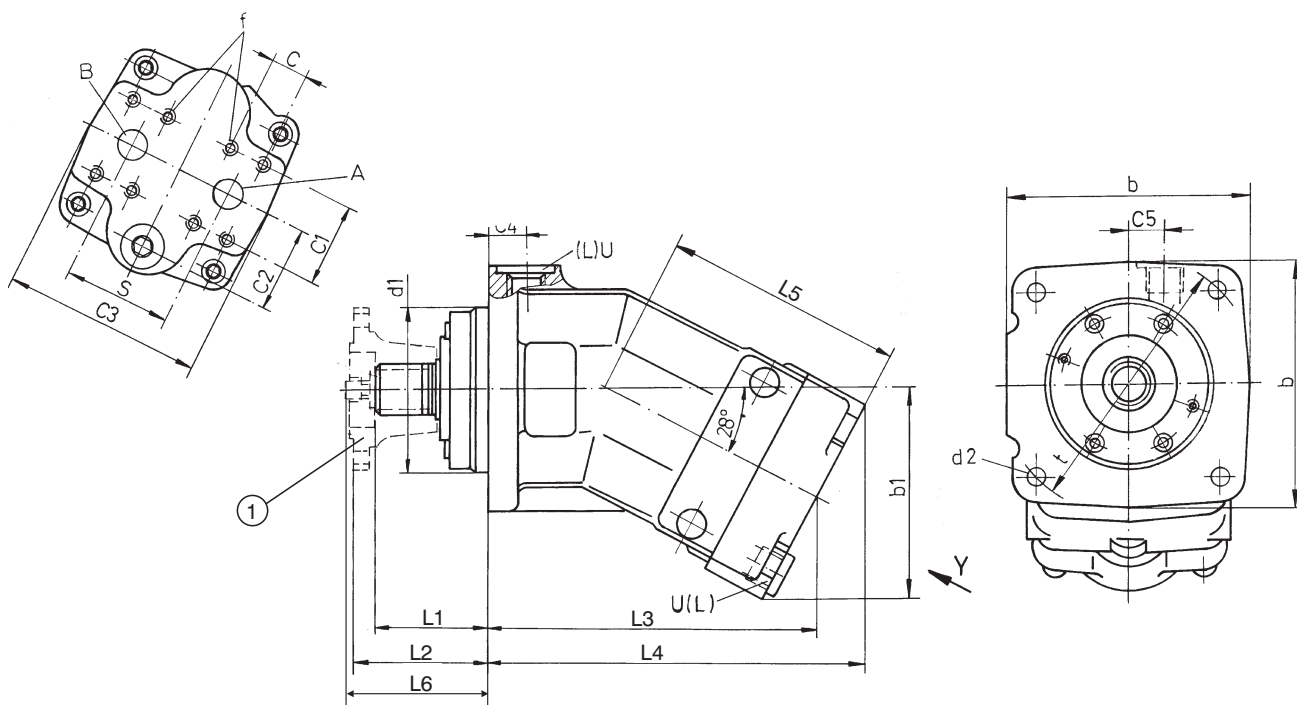
**Pritisak pri kome su svi delovi motora izdržljivi.

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

UGRADNI CRTEŽ (mere u mm)

MOUNTING DRAWING (dimensions in mm)

MOTOR STANDARD I MOTOR SA VENTILOM ZA ISPIRANJE
 MOTOR STANDARD AND MOTOR WITH FLUSHING VALVE



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

L = drenažni otvor/ drain port M22x1,5

U = otvor za ispiranje/ flushing port M22x1,5

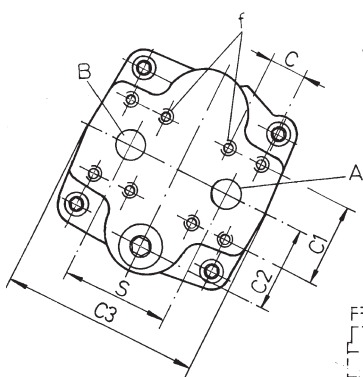
① = spojnica/ coupling

ND	□b	b1	L1	L2	L3	L4	L5	L6	Ød1	Ød2	C	C1	C2	□C3	C4	C5	S	f	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	30	30	M12/16	180
105	184	152	86,5	95,5	260,5	295	188	103,5	125	18										200

B

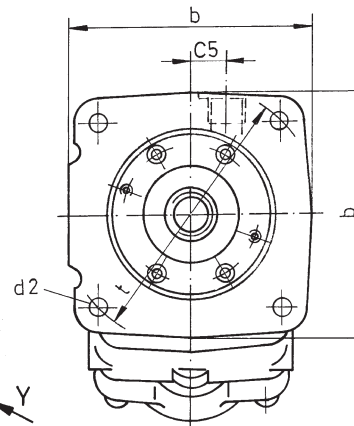
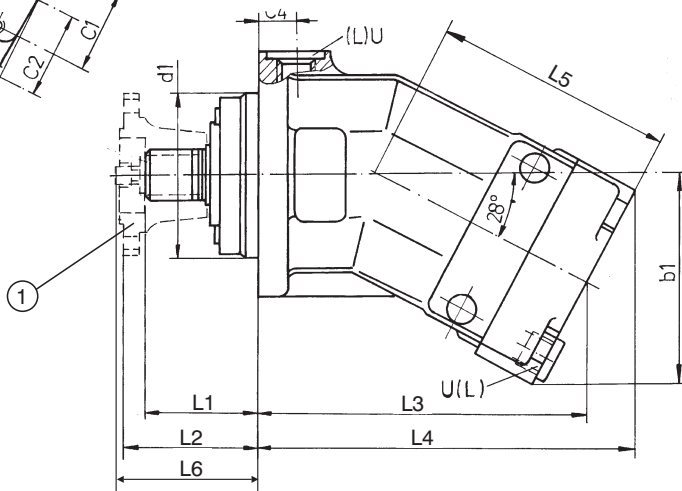
UGRADNI CRTEŽ (mere u mm)
MOUNTING DRAWING (dimensions in mm)

MOTOR STANDARD I MOTOR SA VENILOM ZA ISPIRANJE
 MOTOR STANDARD AND MOTOR WITH FLUSHING VALVE



Pogled Y
View Y

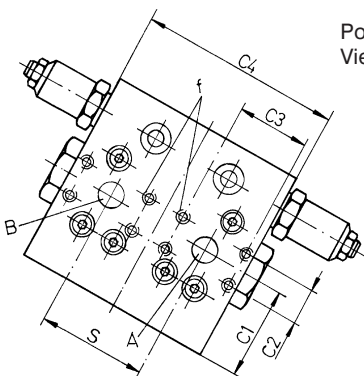
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 U = otvor za ispiranje/ flushing port M22x1,5
 ① = spojnica/ coupling



ND	□b	b1	L1	L2	L3	L4	L5	L6	Ød1	Ød2	C	C1	C2	□C3	C4	C5	S	f	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	30	22	180
105	184	152	86,5	95,5	260,5	295	188	103,5	125	18									200

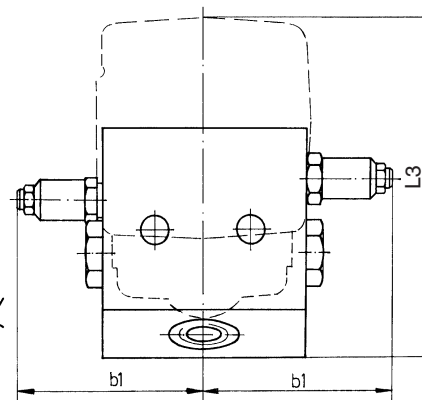
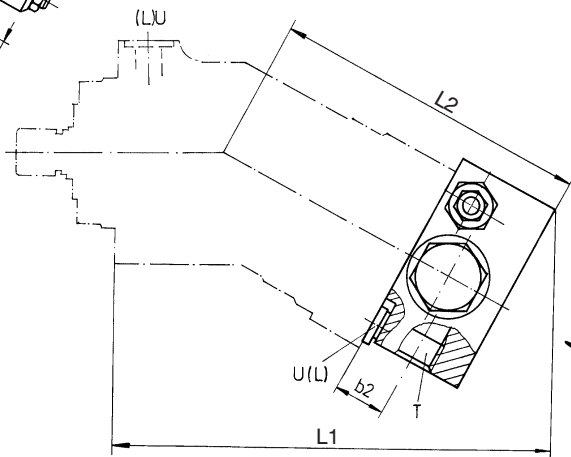
B

MOTOR SA VENTILSKIM BLOKOM
MOTOR WITH VALVE BLOCK



Pogled Y
View Y

A, B =priklučci/ ports - Ø 19 za prirubnicu/ to flange SAE 3/4" (NV 35, 50)
 Ø 25 za prirubnicu/ to flange SAE 1" (NV 75, 105)
 L = drenažni otvor/ drain port M22x1,5
 U = otvor za ispiranje/ flushing port M22x1,5
 T = povratni otvor/ return port M33x2



ND	L1	L2	L3	b1	b2	C1	C2	C3	C4	S	t
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								