

prva desetletka
HYDRAULICS

Aksijalno - klipne pumpe APF Axial - piston pumps APF

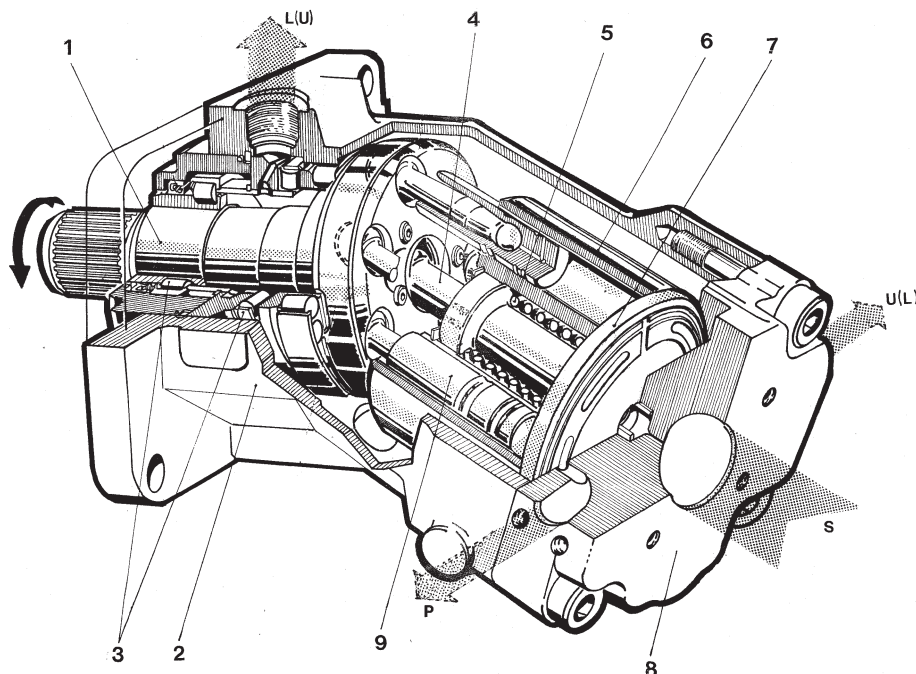
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VISOKOG PRITISKA; STALNE RADNE ZAPREMINE
HIGH PRESSURE; FIXED DISPLACEMENT

- Konstrukcija sa nagibnim blokom, za otvorene sisteme
- Pogonski mehanizam:
 - 7 klipova
 - pogonsko vratilo robusno uležišteno i sposobno za opterećenje radijalnim silama
 - cilindarski blok od čelika sa kliznim čaurama od ležišne legure
 - prethodno pritiskanje cilindarskog bloka na razvodnu ploču pomoću opruge
 - zglobna veza klipa i klipnjače bez zazora
- Nizak nivo šuma
- Ostvaren vrlo visok ukupni stepen korisnog dejstva(0,95)
- Bent axis pump, with 28° tilt angle, for use in open loop circuits
- Very robust and rugged rotary pump, with shaft that may be loaded with radial forces
- Extremely compact design, therefore, reduced installation space
- High efficiency
- 7 piston in all sizes
- Particular quiet operation
- For highest pressure range and seeds



PRESEK - PRINCIP RADA SECTION - MODE OF OPERATION



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.)
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)

OZNAČAVANJE DESIGNATION

APF * **TS** * * / *

1
 2
 3
 4

1 Nazivna veličina ND:
Nominal size ND:
35
50
75
105

3 Priključci:
Connection ports:
F = SAE prirubnica
flange to SAE standards
M = metrički navoj (po zahtevu)
metric thread (on request)

2 Smer obrtanja:
Rotation direction:
L= levi
anticlockwise
R= desni
clockwise

4 Pogonsko vratilo:
Drive shaft:
- = DIN 5482
1 = DIN 5480
2 = cilindrično
cylindrical


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

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TEHNIČKE KARAKTERISTIKE

TECHNICAL DATA

OPŠTE / GENERAL

ND	35	50	75	105
Simbol Symbol				
Smer obrtnja Rotation direction	desni i levi clockwise and anticlockwise			
Položaj ugradnje Mounting position	proizvoljan, drenaž na najvišem nivou optional, with drain hole up			
Mass (kg)	16	19	29	33

HIDRAULIČKE / HYDRAULIC

Pritisak (bar) Pressure				
- max (kratkotrajno)* - peak (short time)*	500			
- max radni - max working	420			
- trajni** - continuous**	250			
- ulazni dozvoljeni podpritisak - input permissible pressuration	0,027			
- ulazni dozvoljeni nadpritisak - input permissible depression	2,5			
- u kućištu dozvoljeni nadpritisak - inhousing (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	za otvoreni rezervoar (podpritisak 0,027 bar) without tank pressuration (0,027 bar)			
	2400	2200	2000	1800
	za otvoreni rezervoar (pritisak 0,6 bar) with tank pressuration (0,6 bar)			
	2800	2400	2200	2000
- min	neograničen unlimited			
Radna tečnost - mineralno hidrauličko ulje Working fluid - mineral hydraulic oil	PREPORUKA RECOMMENDATION			
viskozitet viscosity (mm ² /s)	10...80	Radna temperatura ulja Oil working temperature		Viskozitet Viscosity
optimalni viskozitet optimal viscosity range (mm ² /s)	15...20	30...40°C		22 mm ² /s - 40°C
max viskozitet - kratko pri startu max viscosity - intermittent for starting (mm ² /s)	1000	60...70°C		68 mm ² /s - 40°C
temperatura temperature (°C)	-20...+90	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 pumpa funkcionalno sposobna
Transient pressure over the max working pressure at which the unit will still function.

**Pritisak pri kome su svi delovi pumpe izdržljivi.
Continuous pressure at which all parts of the unit are able to endure.

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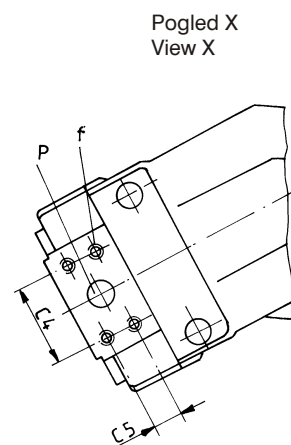
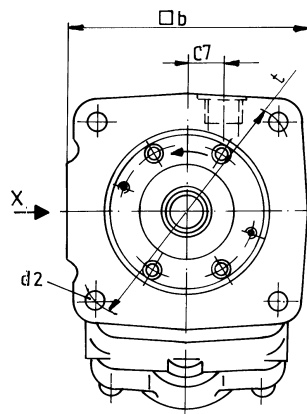
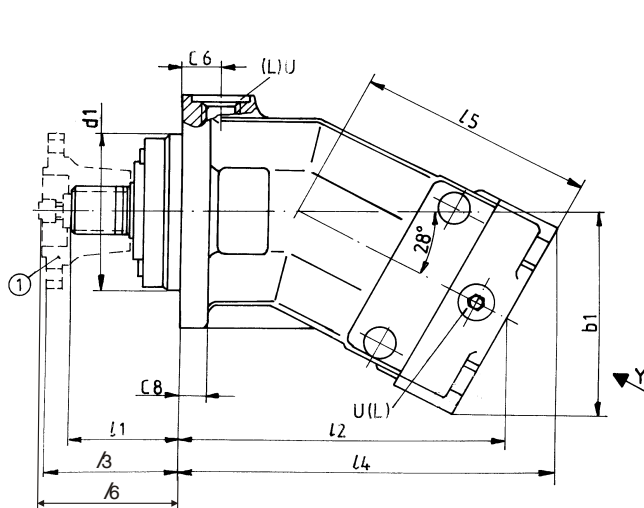
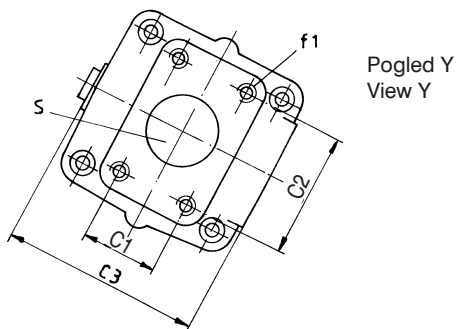
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UGRADNI CRTEŽ (mere u mm)
MOUNTING DRAWING (dimensions in mm)

PUMPE SA POGONSKIM VRATILOM - DIN standard
 PUMPS WITH DRIVE SHAFT - DIN standard



S = usisni otvor/ outlet port: prirubnica / flange SAE 2" (ND 35, 50)
 prirubnica / flange SAE 2. 1/4" (ND 75, 105)
 P = potisni otvor/ inlet port: prirubnica / flange SAE 3/4" (ND 35, 50)
 prirubnica / flange SAE 1" (ND 75, 105)

L = drenažni otvor/ drain port M 22x1,5
 U = otvor za ispiranje/ flushing port M 22x1,5
 (1) = spojnica/ coupling

ND	□b	b1	1	2	3	4	5	6	Ød1	Ød2	C1	C2	C3	C4	C5	C6	C7	C8	t	f	f1
35	148	125	60,5	200	67,5	230	145	73	100	12	42,9	77,8	124	50,8	23,8	24	22	20	160	M10/16	M12/16
50	150	124	74	215	81,5	235	158,5	85,5	100	12			125					18	160		
75	170	143,5	77,5	245,5	87,5	275,5	180	92,5	115	14	50,8	88,9	147	57,2	27,8	31,5	22	18	180		
105	184	144	86,5	265	95,5	291	193	103,5	125	18			149				20	200			

Napomena: Crtežom je prikazana pumpa levog smera (gledano sa čela pogonskog vratila). Kod pumpe desnog smera potisni otvor menja mesto - nalazi se na suprotnoj strani.

Note: Anticlockwise pumps are shown on this drawing. With clockwise pump suction and pressure ports interchange places.

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