

ZUPČASTE PUMPE TIP ZOL

Gear pumps type ZOL



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OPIS

Zupčaste pumpe sa vanjskim ozubljenjem tipa ZOL su prirubne konstrukcije, bez ugrađenog sigurnosnog ventila. Osovine su uležištene u klizne ležajeve, koji se podmazuju sa radnim medijem.

NAMJENA

Koriste se za transport neagresivnih, samopodmazujućih medija, koji ne sadrže veću koncentraciju abrazivnih čestica, kao što su: ulja za loženje (laka, teška), min. ulja, biljna i ulja animalnog porijekla, bitumeni, parafini i sl.

BRTVLJENJE

Pogonska osovina se brtvi sa mehaničkom brtvom ili radijalnom osovinskom brtvom na bazi PTFE.

RADNE KARAKTERISTIKE

Radni tlakdo 15 bar;
 Radna temperatura.....110 (250) °C;
 Kin. viskozitet.....do 1500 mm²/s;
 Br. okretaja.....do 1500 o/ min.

MATERIJALI

Tijelo pumpe, poklopac.....SL;
 Osovine.....uglj. čelik;
 Zupčanci.....uglj. čelik;
 Ležaji.....bronca, SL

DESCRIPTION

Gear pumps type ZOL are designed with exterior indented gears, flange mounted and without safety valve. Shafts are supported by means of sliding bearings, lubricated with working liquid.

ASSIGNMENT

ZOL pumps are used for transport of non aggressive, self priming fluids consisting no abrasive solids like fuel oils (diesel and heavy fuel oil, mineral oils, vegetable oils, animal oils, bitumen, parafin etc.

SEALING

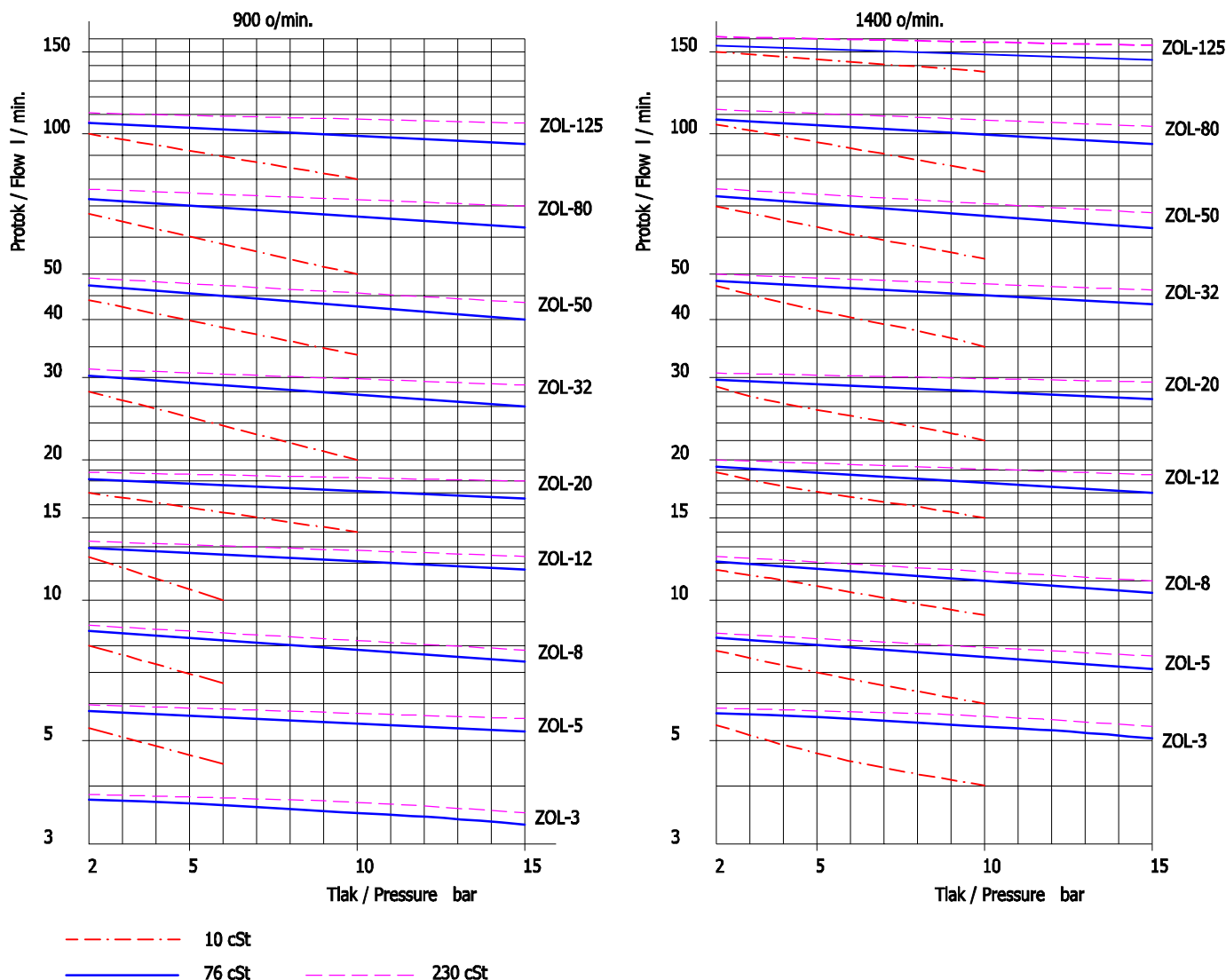
Driving shaft is sealed by radial shaft seal based on PTFE or by soft seal on request.

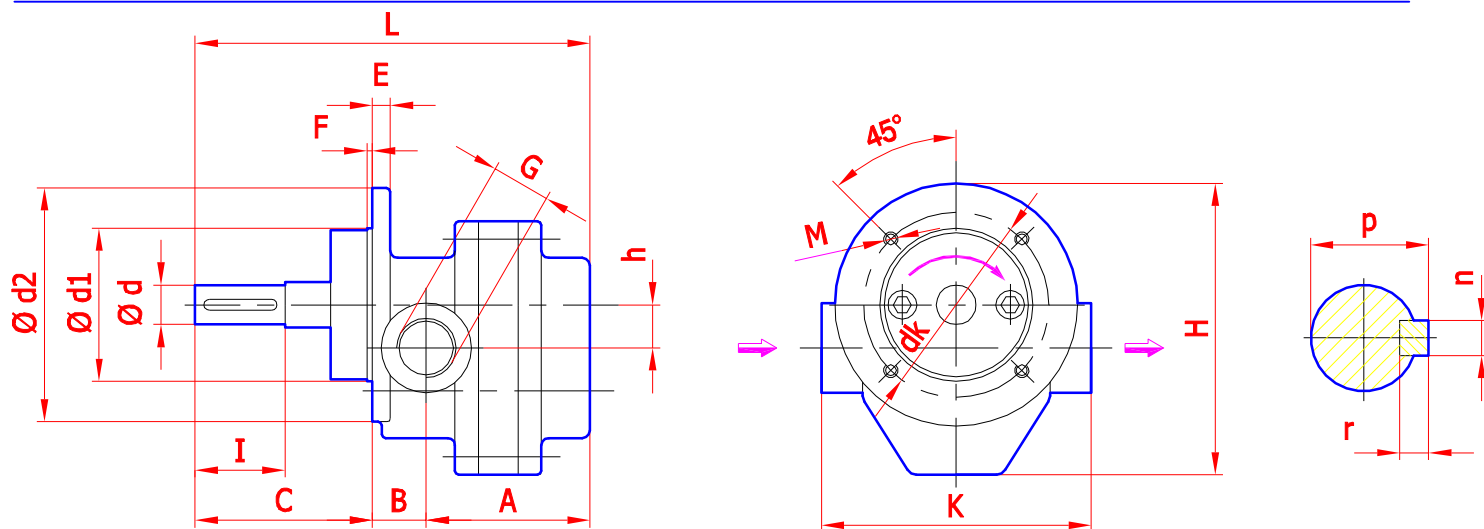
WORKING CHARACTERISTIC

Working pressure.....up to 15 bar;
 Working temperature.....110 (250) °C;
 Cinematic viscosity.....up to 1500 cSt;
 Rotating speed.....up to 1500 RPM.

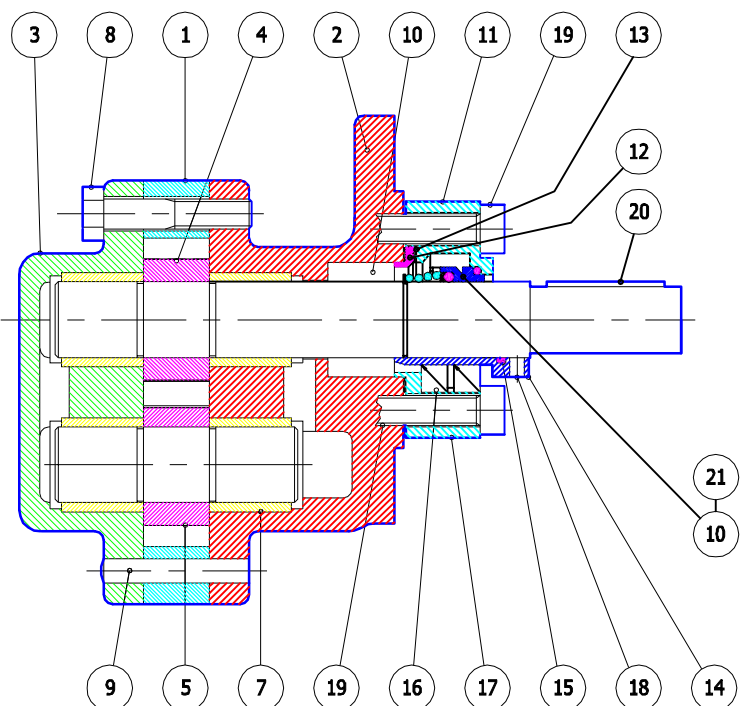
MATERIALS

Pump body, cover.....gray cast iron;
 Shafts.....carbon steel;
 Gears.....carbon steel;
 Bearings.....brass, nodular cast iron.

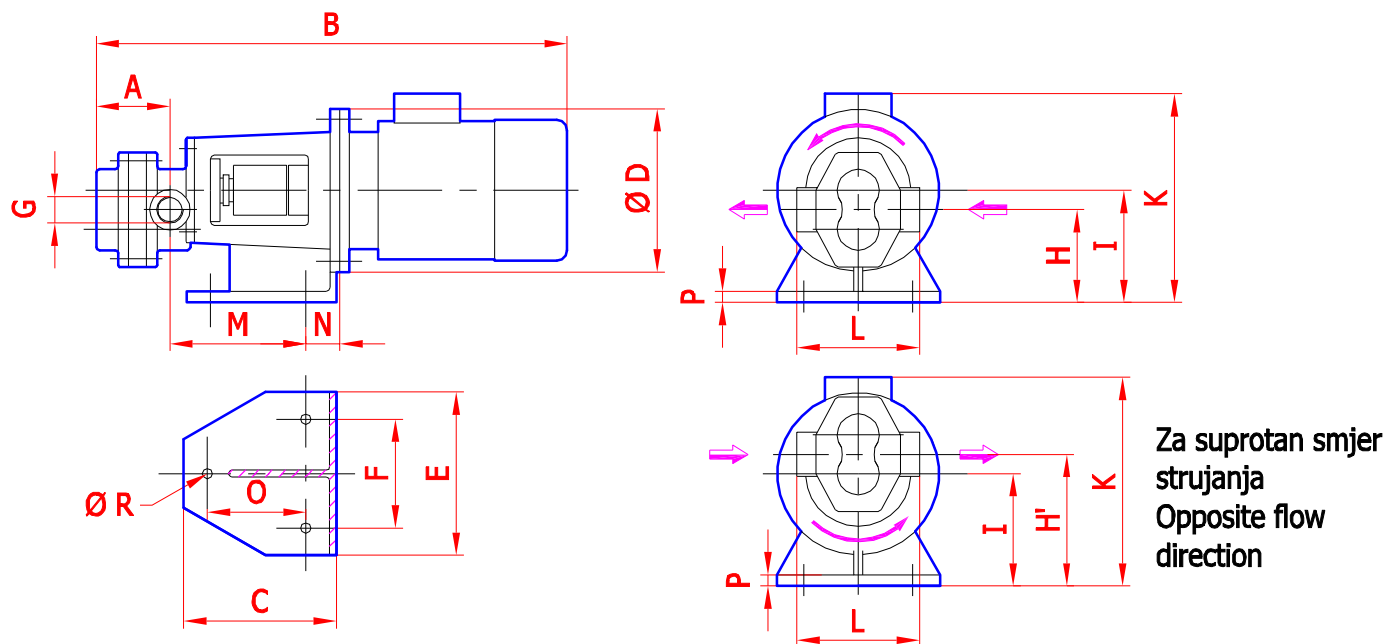




TIP PUMPE Pump type	A	B	C	d	dk	d1	d2	E	F	G	H	h	I	K	L	M	n	p	r	MASA Mass kg
ZOL - 3	61	25	70	12	85	70	112	9	3	1/2"	112	15	30	110	156	M6	4	13.6	4	3
ZOL - 5	66														161					3.2
ZOL - 8	74														169					3.3
ZOL - 12	83	30	98.5	22	103	85	135	10	3	1"	161.5	24	50	150	211.5	M8	6	24.5	6	7.3
ZOL - 20	91														219.5					7.8
ZOL - 32	104														232.5					8.6
ZOL - 50	118	47.5	110.5	35	135	115	175	12	3.5	1 1/2"	175	37	58	200	276	M8	10	38.3	8	20
ZOL - 80	133														291					22
ZOL-125	142														300					24



POZ/Pos	NAZIV / Name	TIP / Type	
		ZOLM	ZOLS
1	TJELO PUMPE / Pump body	+	+
2	POKLOPAC PREDNJI / Front cover	+	+
3	POKLOPAC ZADNJI / Back cover	+	+
4	POG. OSOV. SA ZUPČ./ Driving shaft with gear	+	+
5	GONJ. OSOV. SA ZUPČ./ Driven shaft with gear	+	+
6	BRTVA / Gasket	+	+
7	KLIZNI LEŽAJ / Sliding bearing	+	+
8	VIJAK / Screw	+	+
9	ZATIK / Pin	+	+
10	MEHANIČKA BRTVA / Mechanical seal	+	-
11	BRTVENA KOMORA / Seal chamber	+	-
12	PRSTEN / Ring	+	-
13	BRTVA / Gasket	+	+
14	ČAHURA / Bush	-	+
15	O-PRSTEN / O-ring	-	+
16	OSOV. RAD. BRTVA / Lip seal	-	+
17	PRSTEN / Ring	-	+
18	UVRTNI VIJAK / Screw	-	+
19	IMBUS VIJAK / Screw	+	+
20	KLIN / Key	+	+
21	USKOČNIK / Circlip	+	-



PUMPNII AGREGAT TIP Pump unit type	A	B**	C	D	E	F	G	H	H'	I	K	L	M	N	O	P	R
ZOL-3/80*	61	452															
ZOL-5/80*	66	457	132	Ø200	150	110	G1/2	95	125	110	236	110	92	69	-	10	Ø 12
ZOL-8/80*	74	465															
ZOL-12/80*	83	525									266						
ZOL-12/90*		570									270						
ZOL-20/80*	91	533	172	Ø200	180	130	G1	116	164	140	266	150	161	51	110	10	Ø 12
ZOL-20/90*		578															
ZOL-32/90*	104	591									270						
ZOL-32/100*		631	190	Ø250	200							300		162	60	115	14
ZOL-50/100*	118	675									320						
ZOL-50/112*		693	200	Ø250	200	150		123	197	160	332		183	69	130	14	
ZOL-80/112*	133	708					G1 1/2					200					
ZOL-80/132*		840	220	Ø300	270	220			143	217	180		348		202	69	140
ZOL-125/132*	142	849									440						
ZOL-125/160*		939	245	Ø350	320	270		183	257	220				228	73	158	20

* VELIČINA MOTORA / Motor size
 ** NAJVEĆA MJERA / Max. dimension

OZNAČAVANJE:
 Denomination:

ZOL XX- XX X

T - TEMPERATURA PREKO 110 °C / Temperature over 110 °C

VELIČINA PUMPE / Pump size

G - KOMORA ZA GRIJANJE / Heating chamber;

BRTVA / Seal; S - RAD. OSOV. / Lip seal; M - MEHANIČKA BRTVA/ Mechanical seal

TIP PUMPE / Pump type

DVOSTRUKE ZUPČASTE PUMPNE STANICE TIP DPS ZOL

Double gear pump units type DPS ZOL



OPIS

Dvostruka zupčasta pumpna stanica je sklop sastavljen od:

- pumpnih agregata sa zupčastim pumpama tipa ZOL;
- dvostrukog filtera tipa PDL (MPD);
- kuglastih ventila na usisnom i tlačnom cjevovodu;
- nepovratnih ventila ugrađenih na tlačnoj strani pumpe;
- manometra na tlačnom i manovakuumetra na usisnom cjevovodu;
- prekotlačnog ventila;
- postolja.

Filter štiti pumpu od mehaničkih nečistoća. Finoća mrežice se bira prema svojstvima radnog medija.

Prilikom rada sa medijem koji se mora zagrijavati, u filter mora biti ugrađen odgovarajući grijač (parni ili elektro), koji progrijava filter prije hladnog starta.

Prekotlačni ventil štiti pumpe i instalaciju od preopterećenja i podešava se na tlak 10 - 20% veći od max. radnog tlaka.

Višak medija se preko povratnog voda vraća u rezervoar.

DESCRIPTION

Double pump unit is consisted of:

- pump units with gear pumps type ZOL;
- double filter type PDL;
- ball valves in suction and delivery line;
- check valves in delivery line;
- man- vacuum gauge in suction line, and pressure gauge in delivery line;
- safety valve;
- base plate.

Filter protects pump from mechanical impurities. Mesh finness is selected according to working medium properties.

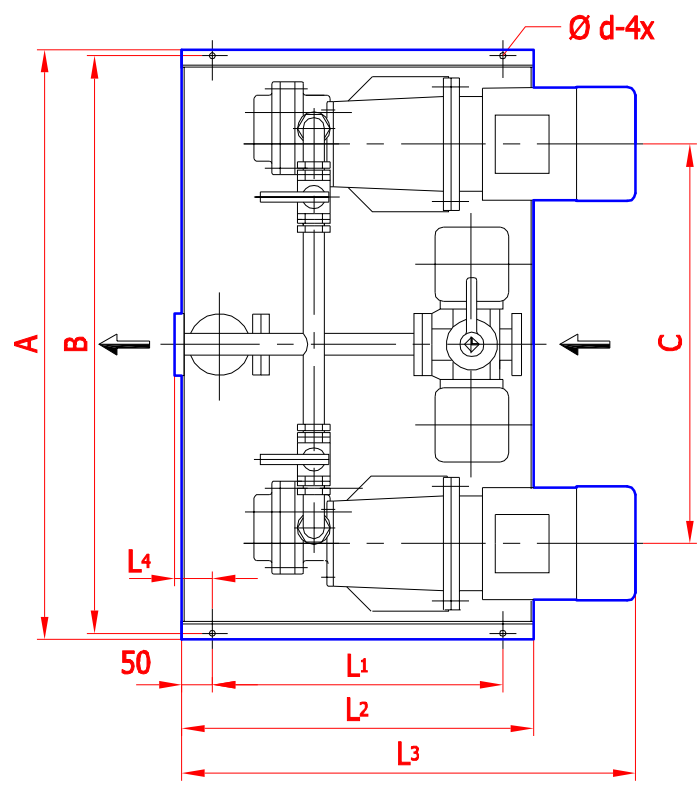
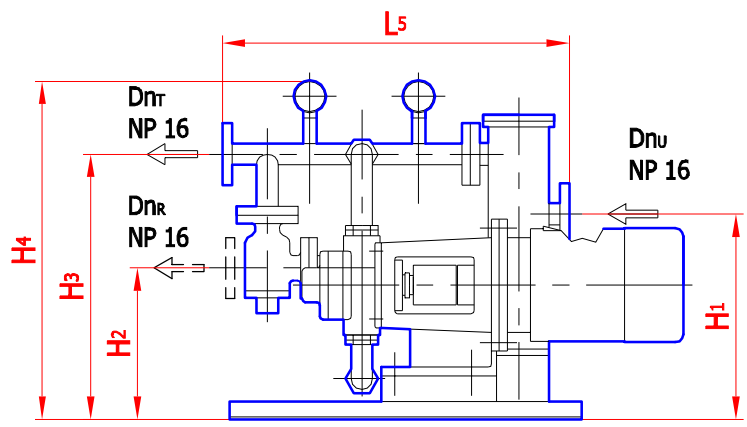
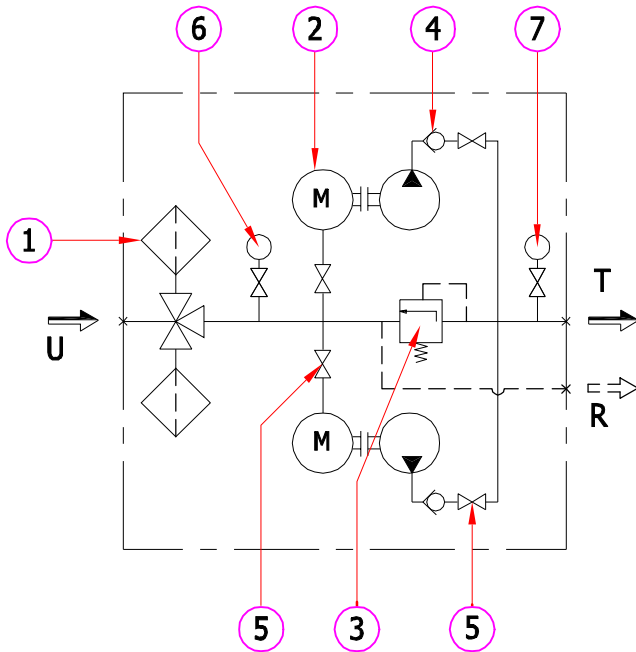
When pumping high viscous fluids wich should be heated before pumping, filter should be equipped with electrical or steam heater wich heats up residual fluid before cold start.

Safety valve protect pump and installation from overpressure and is normally adjusted to pressure 10 - 20% higher than working pressure. Fluid surplus is returned back to tank through return pipe line.

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- 1 - DVOSTRUKI FILTER / Double filter
- 2 - AGREGAT ZUPČASTE PUMPE / Gear pump unit
- 3 - SIGURNOSNI VENTIL / Safety valve
- 4 - NEPOVRATNI VENTIL / Check valve
- 5 - KUGLASTI VENTIL / Ball valve
- 6 - VAKUUMMETAR SA PRIKLJUČKOM / Vacuum gauge with connection
- 7 - MANOMETAR SA PRIKLJUČKOM / Manometer with connection
- U - PRIKLJUČAK NA USISNI VOD / Connection to the suction line
- T - PRIKLJUČAK NA TLAČNI VOD / Connection to the pressure line
- R - PRIKLJUČAK NA POVRATNI VOD / Connection to the return line

TIP Type	A	B	C	L ₁	L ₂	L ₃	L ₄	L ₅	H ₁	H ₂	H ₃	H ₄	Ø d	PRIRUBNICE/Flanges *			MASA Mass kg	
														USISNA Suction	TLAČNA Pressure	POVRAT. Return		
DPS ZOL-3						538												138
DPS ZOL-5	950	910	650	350	450	538	70	430	391	320	520	660	14	DN25	DN15	G 1/2	146	
DPS ZOL-8						566												150
DPS ZOL-12						728												219
DPS ZOL-20	1050	1010	700	400	500	777	160	590	391	350	550	603	14	DN32	DN25	DN25	221	
DPS ZOL-32						797												247
DPS ZOL-50						916												567
DPS ZOL-80	1444	1410	950	650	650	916	50	605	365	380	580	730	14	DN50	DN40	DN25	587	
DPS ZOL-125						1028												603

* DIMENZIJE PREMA DIN 2501 / NP16
Acc. to DIN 2501 / NP16