

PUMPE ZA TERMIČKA ULJA Thermic oil pumps



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NAMJENA

Koriste se u toplinskim postrojenjima za cirkulaciju ulja, koje ima ulogu prijenosa topline.

Termička ulja, koja se koriste kao radni medij, ne smiju sadržavati abrazivne sastojke, niti agresivne komponente koje bi štetno djelovale na materijale pumpe.

IZVEDBA

Pumpe za termička ulja su jednostepene, horizontalne centrifugalne pumpe, sa spiralnim jednodjelnim kućistem. Osovina je uležištena sa dva kuglična ležaja. Ležaj na strani pumpe se podmazuje radnim medijem, dok se ležaj na strani spojke podmazuje mašću.

Brtvljenje osovine je kombinirane izvedbe. Iza rotora se brtvi sa grafitnom pletenicom a nakon prednjeg ležaja sa radialnom osovinskom brtvom na bazi PTFE, koja je za temp. do 260 °C i tlak do 10 bar. Poslije ove brtve se nalazi otvor za kontrolu curenja. Zadnji ležaj se brtvi sa dvije osovinske brtve (viton).

KARAKTERISTIKE

Max. tlak u pumpi.....do 10 bar.
 Max. radna temperatura.....do 300 °C.
 Max. tlak na ulazu u pumpu.....do 5 bar.
 Radni medij.....termičko ulje.

MATERIJALI

Kućiste pumpe, rotor, nosač pumpe NL.
 Kućiste ležaja, poklopac ležaja SL.
 Osovina ugljični čelik.
 Brtve grafit, PTFE, viton.

ASSIGNMENT

These pumps are used in heating plants for circulating of oil with purpose of transporting thermal energy.

Thermic oil, wich is used as working fluid, must not have any abrasive elements, nor chemically aggressive components wich could damage pump materials.

PUMP PERFORMANCE

Thermic oil pumps are designed as single stage, horizontal centrifugal pumps with single spyral pump body. Shaft is lied on 2 ball bearings. Pump side bearing is lubricated with pumping fluid, while coupling side bearing is lubricated with grease.

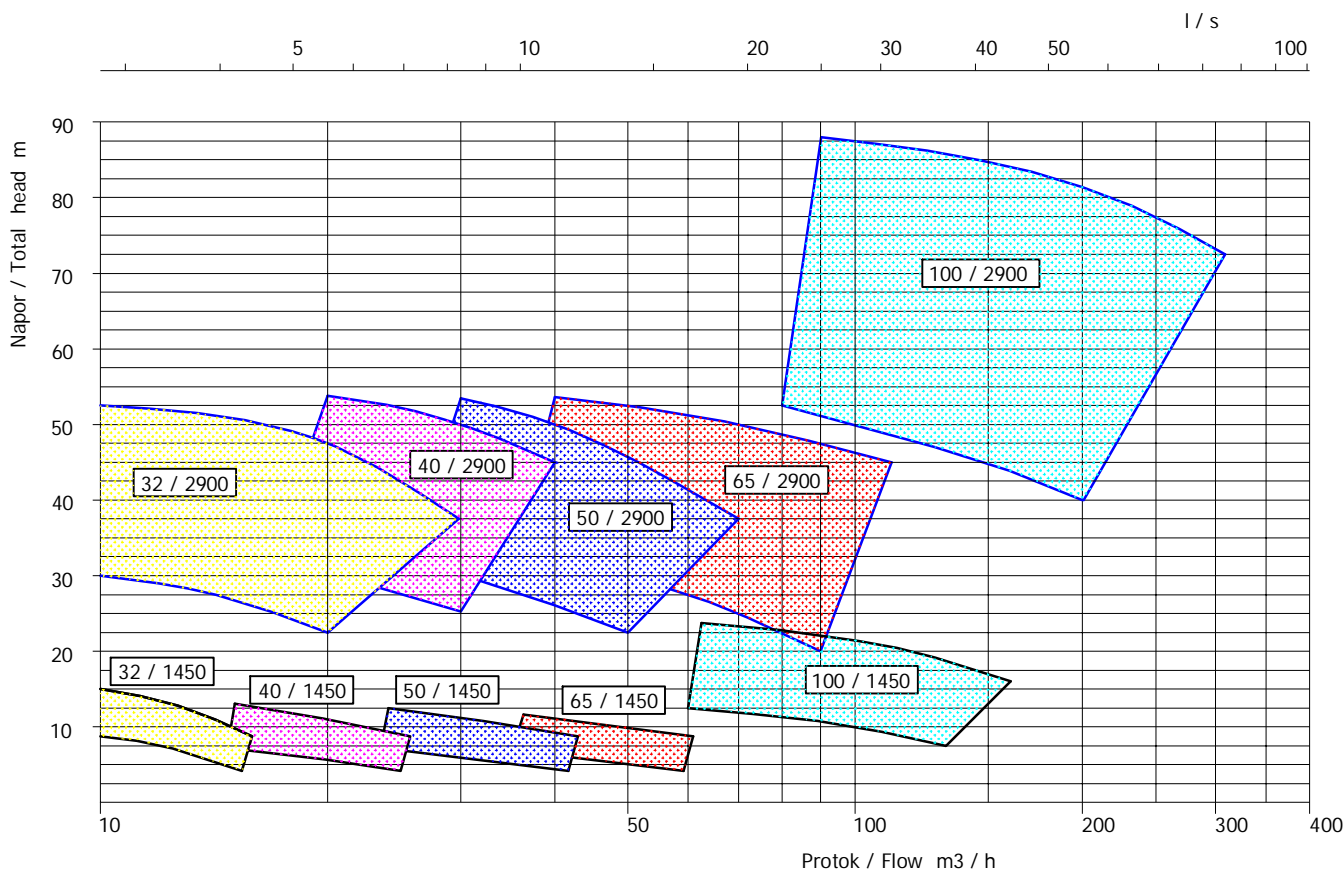
Shaft sealing is combined. Behind impeller the shaft is sealed by soft seal and behind the front bearing by radial shaft seal - lip seal with PTFE for temperatures up to 260°C and pressure up to 10 bar. Back bearing is sealed by 2 shaft seals.

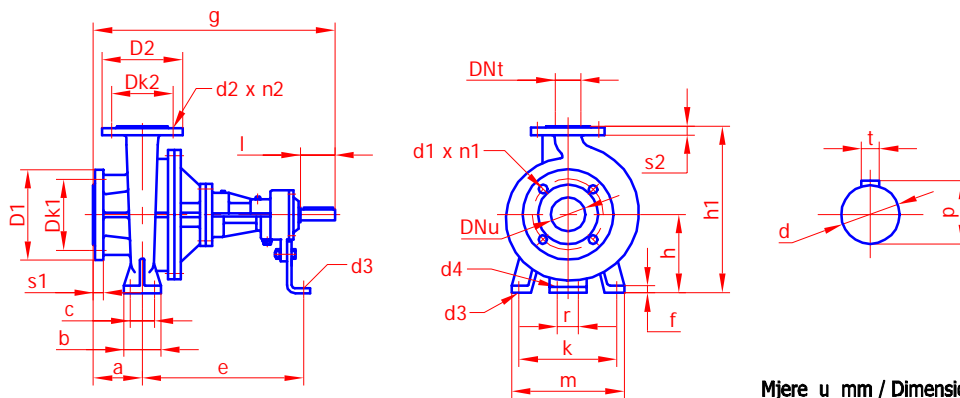
PERFORMANCES

Maximal pump pressure.....up to 10 bar
 Maximal working temperature.....up to 300 °C
 Maximal inlet pressure.....up to 5 bar
 Working fluid.....thermic oil

MATERIALS

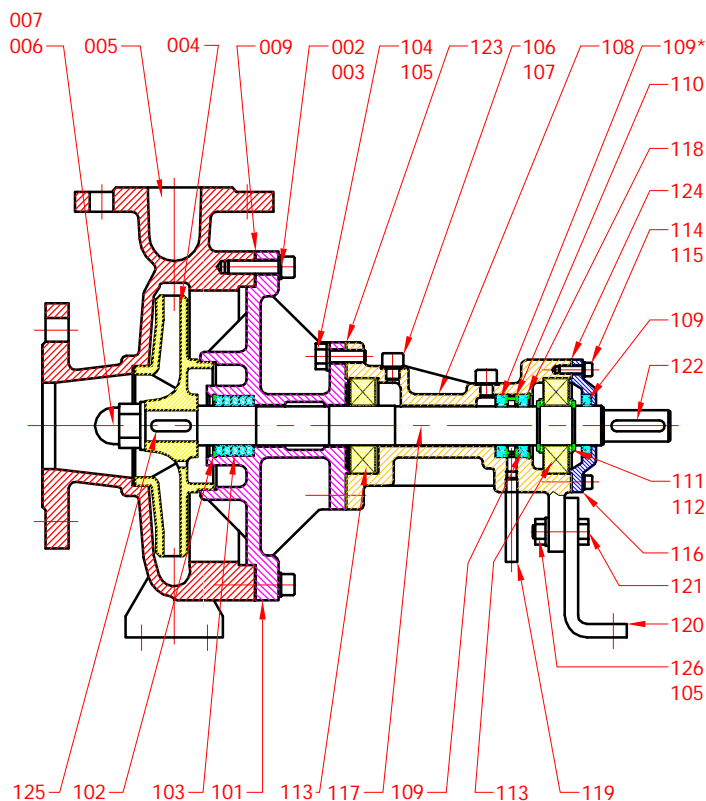
Pump casing, impeller, pump support.....Nodular cast iron
 Bearing casing, bearing cover.....Gray cast iron
 Shaft.....Carbon steel
 Seals.....Graphite, PTFE, viton





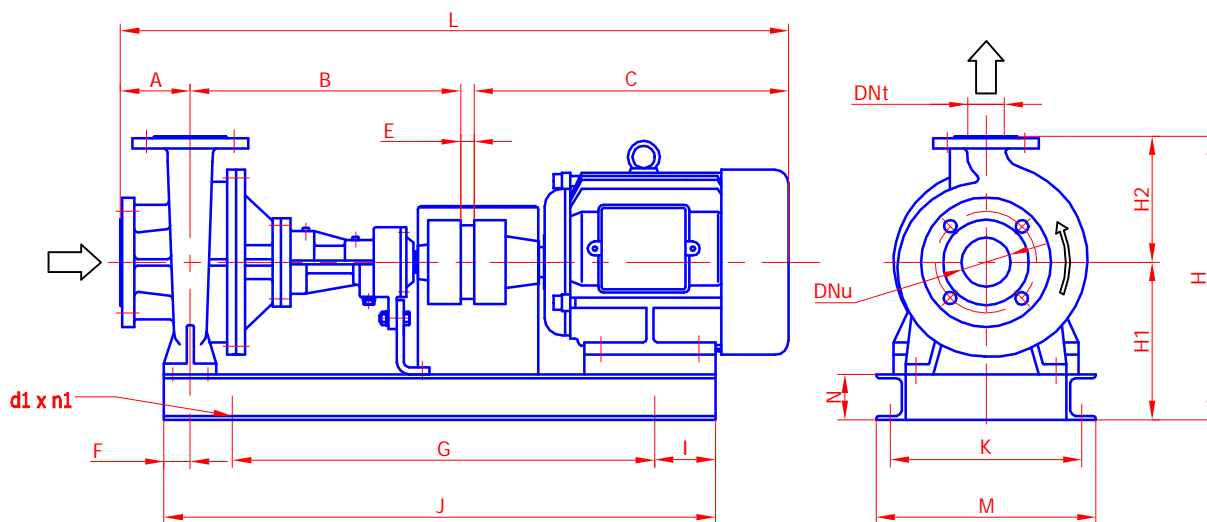
Mjere u mm / Dimensions in mm

TIP Type	VELIČINA Size	DNu	DNt	a	b	c	Dk1	D1	Dk2	D2	d	d1 x n1	d2 x n2	d3	d4	e	f	g	h	h1	k	l	m	p	r	s1	s2	t							
PTU	32 / 200	50	32	89	74	50	125	165	100	140	24	18x4	18x4	12	-	330	14	462	160	340	160	50	190	27	-	20	18	8							
	40 / 200	65	40	100			145	185	110	150																			210						
	50 / 200		50				125	165	230																										
	65 / 200	80	65	110	100	70	160	200	145	185																			483	170	400	230	280	22	20
	100 / 250	125	100	140	160	120	210	250	180	220																			32	18x8	18x8	18	14	340	18



SPISAK DIJELOVA / Item list

- 101 Nosač pumpe / Support
- 102 Uskočnik / Circlip
- 103 Brtvena pletenica / Soft seal
- 104 Vijak / Screw
- 105 Podloška / Washer
- 106 Imbus vijak / Screw
- 107 Podloška / Washer
- 108 Kućište ležaja / Bearing bracket
- 109 Osovinska brtva / Lip seal
- 109* Osovinska brtva (PTFE) / Lip seal (PTFE)
- 110 Prsten / Ring
- 111 Uskočnik / Circlip
- 112 Rastojni prsten / Distance ring
- 113 Kuglični ležaj / Ball bearing
- 114 Imbus vijak / Screw
- 115 Podloška / Washer
- 116 Poklopac / Cover
- 117 Vratilo / Shaft
- 118 Uskočnik / Circlip
- 119 Drenaža / Drain
- 120 Držač / Support
- 121 Vijak / Screw
- 122 Klin / Key
- 123 Brtva / Gasket
- 124 Brtva / Gasket
- 125 Klin / Key
- 126 Matica / Nut
- 002 Podloška / Washer
- 003 Imbus vijak / Screw
- 004 Rotor / Rotor
- 005 Kućište / Casing
- 006 Podloška / Washer
- 007 Matica / Nut
- 009 Brtva / Gasket



TIP AGREGATA Unit type			A	B	C max	DNu	DNT	d1	E	F	G	H	H1	H2	I	J	K	L max	M	N	n1	MA SA Mass kg	
TIP Type	VELIČINA Size	ROTOR-VEL. Rotor-size	EL. MOTOR* El. motor*																				
PTU	32 / 200	160 180 200	80	89	270	50	32		18	50	520	405	225	180	95	710	280	750	320	65		4	72
			90		325				805									75					
			100		365				829									85					
			112		383				847									95					
			132		515				979									135					
			90		325				816									80					
	100		365	840	65																		
	112		383	858	90																		
	132		515	990	100																		
	160		650	1125	140																		
	90		325	816	85																		
	100		365	840	95																		
	112	383	858	104																			
	132	515	990	146																			
	160	650	1125	198																			
	100	365	850	101																			
	112	383	868	110																			
	132	515	1000	162																			
	160	650	1135	260																			
	180	705	1190	290																			
	112	383	995	320																			
	132	515	1127	370																			
	160	650	1262	420																			
	180	705	1404	490																			
200	790	1530	525																				
225	865	1660	565																				
250	910	1790	625																				
280	1040	1920	805																				
315	1160	2050	1010																				

Mjere u mm / Dimensions in mm

* Veličina el. motora / El. motor size