

Description - working characteristic for pumps

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 kućištem. 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 radijalnom 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

Kućište pumpe, rotor, nosač pumpe NL.
Kućište 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

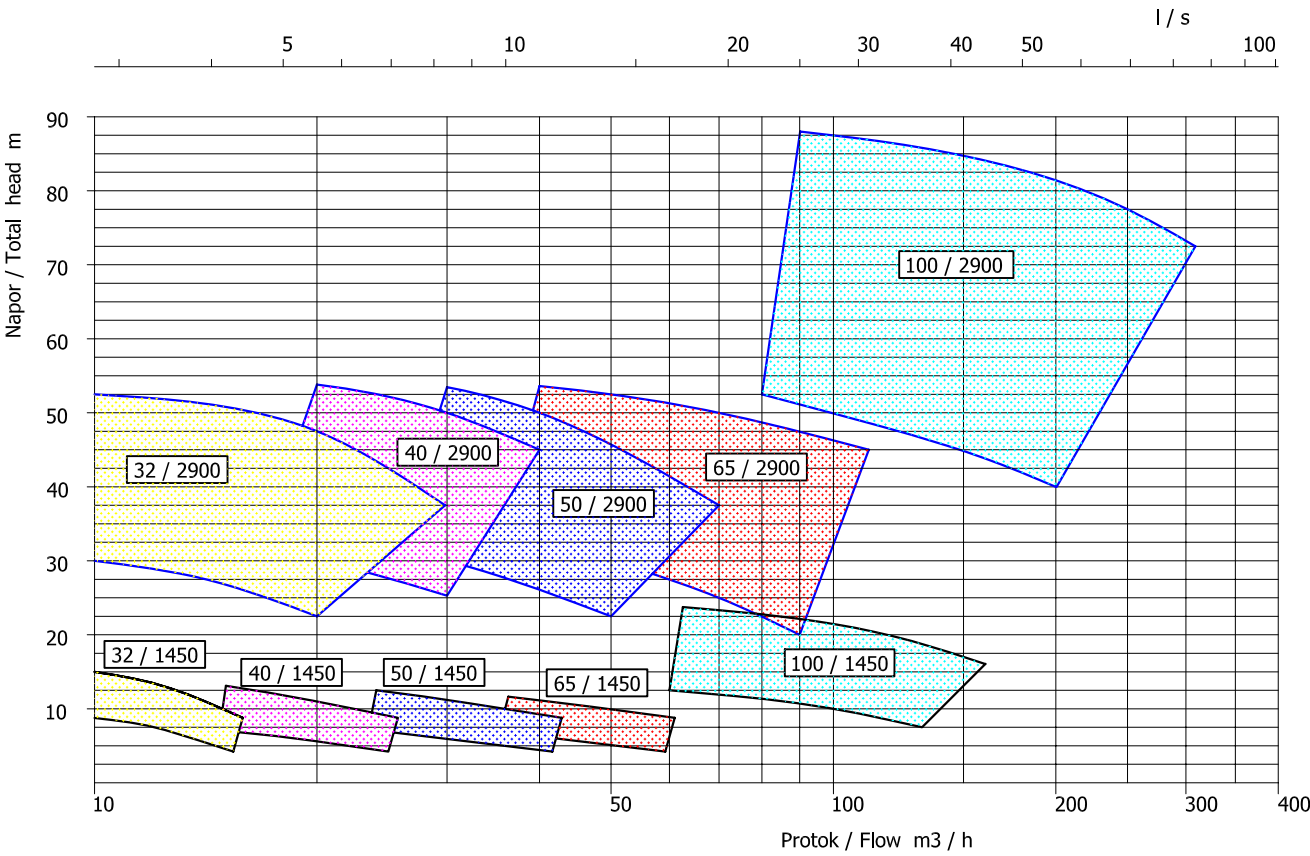
Thermic oil pumps are designed as single stage, horizontal centrifugal pumps with single spyral pump body. Shaft is lied on 2 ball bearings. Pump side bearing is lubricated with pumping fluid, while coupling side bearing is lubricated with grease.
Shaft sealing is combined. Behind impeller the shaft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

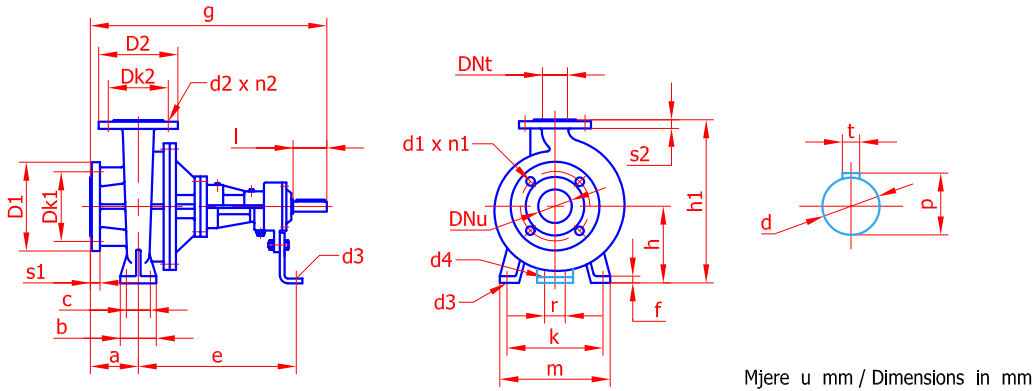
Maximal pump pressure.....up to 10 bar
Maximal working temperature.....up to 300 °C
Maximal inlet pressure.....up to 5 bar
Working fluid.....thermic oil

MATERIALS

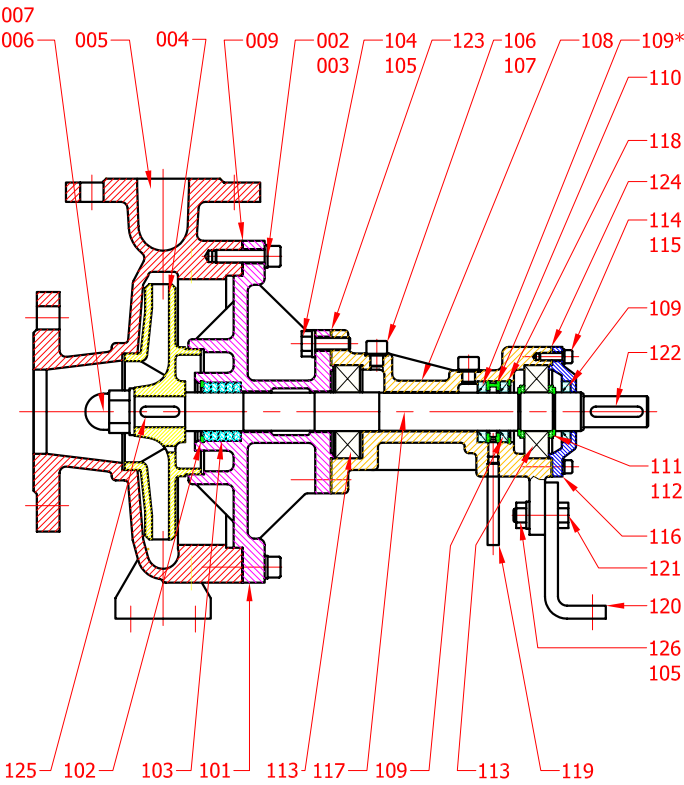
Pump casing, impeller, pump support.....Nodular cast iron
Bearing casing, bearing cover.....Gray cast iron
Shaft.....Carbon steel
Seals.....Graphite, PTFE, viton



Dimension sheme for pumps - cross section with list



		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																			
TIP Type	VELIČINA Size	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																			
PTU	40 / 200	65	40	100			145	185	110	150																			473	160	360	200	230	200	483	170	400	230	80	400	34.8	110	26	24	10		
	50 / 200		50				125	165	15	483																																				170	400
	65 / 200	80	65	110			100	70	160	200																			145	185	18x8	18x8	18	14	340	18	610	225	505	315	80	400	34.8	110	26	24	10
	100 / 250	125	100	140			160	120	210	250																			180	220																	



- 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