

## HOT WATER PUMPS

### Handled Liquids

SCP-HT pumps are specially designed for hot water and geothermal water application.

### Technical Data

Discharge Flange \_\_\_\_\_ DN 32.....DN 250 mm

Capacity \_\_\_\_\_ up to 1500 m<sup>3</sup>/h

Head \_\_\_\_\_ up to 160 m

Speed \_\_\_\_\_ up to 2900 rpm

Operating Temperature \_\_\_\_\_ up to +230 °C\*

Casing Pressure (Pmax) \_\_\_\_\_ 25 bar (40 bar)\*

(Pmax: Suction Pressure + Shut off Head)

(\* ) The Material of pumps differ according to the type of pumped liquid, operating temperature and pressure. Contact for detailed information.

### Design Features

- Horizontal, radially split volute casing type, single stage, end suction centrifugal pumps with closed impeller.

- Heavy duty shaft not in contact with the medium handled (dry shaft)

- For casing sealing, confined gaskets are used to prevent blow-out under pressure.

- Coupling misalignment due to thermal expansions are mainly reduced with centerline mounting design.

- Suction and discharge flanges conform to EN 1092-2 / PN 25. (EN 1092-1 / PN 25 for steel or stainless steel casing)

### Pump Designation

Pump Type \_\_\_\_\_

Discharge Nozzle (DN-mm) \_\_\_\_\_

Nominal Impeller Diameter (mm) \_\_\_\_\_



- Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the pipe system. (With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.)

- All impellers are balanced dynamically or statically according to ISO 1940 class 6.3.

- Axial thrust is balanced by impeller balancing holes system.

- Direction of rotation is clockwise viewed from drive end.

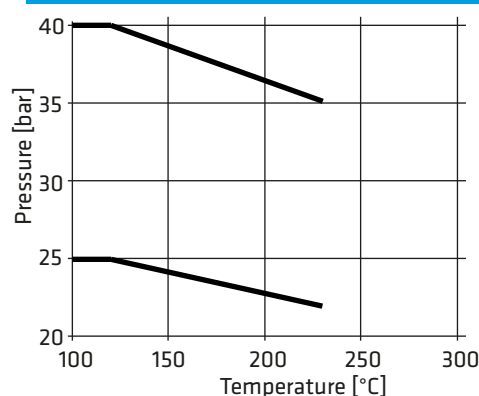
- Bearings of SCP-HT type pumps are always oil lubricated.

### Shaft Sealing

- Depending on request or requirement, pumps with soft packing or single, double and cartridge type mechanical seals can be supplied.

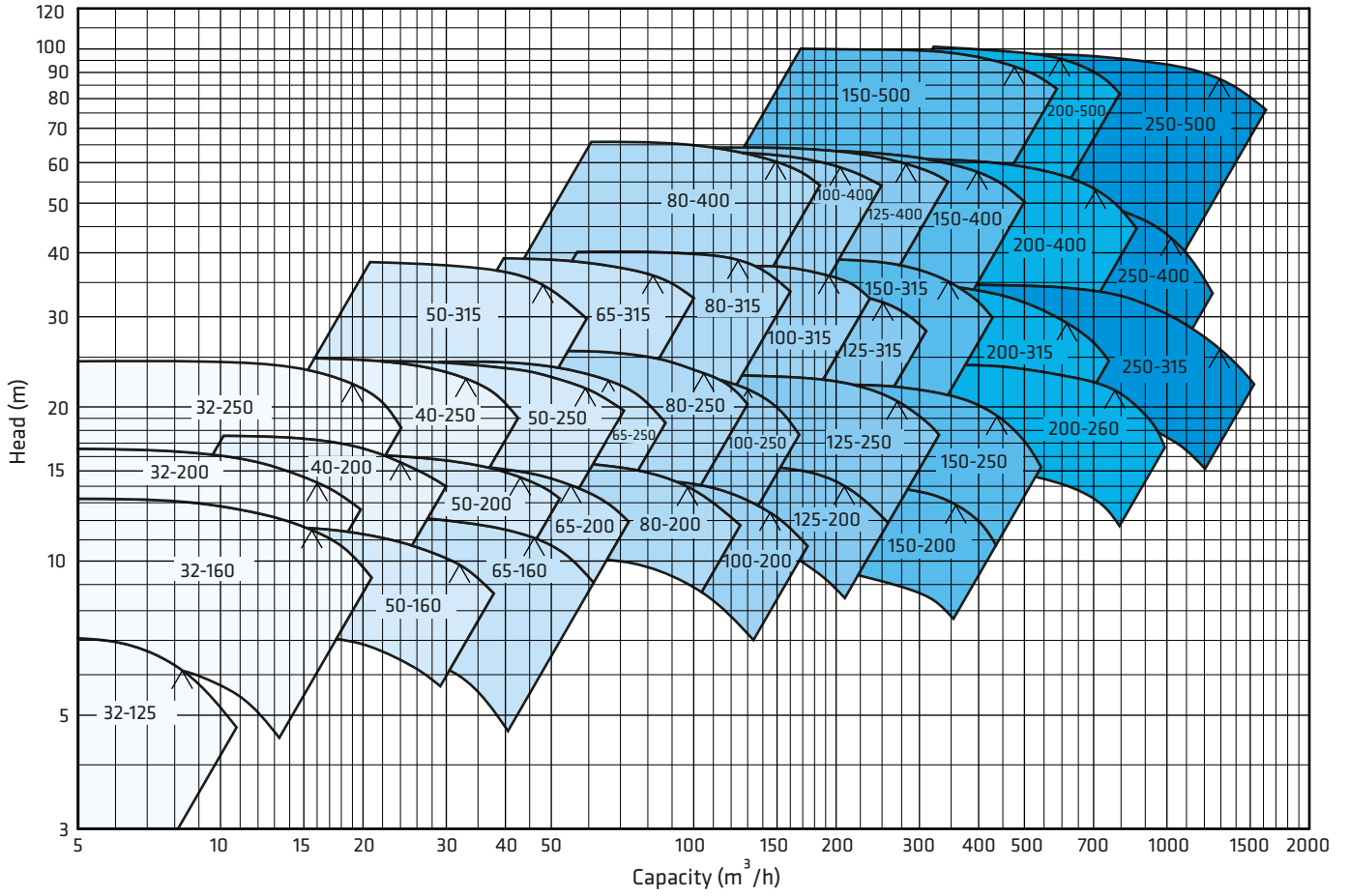
- External seal cooling system may be used if required.

### Pressure & Temperature Limits

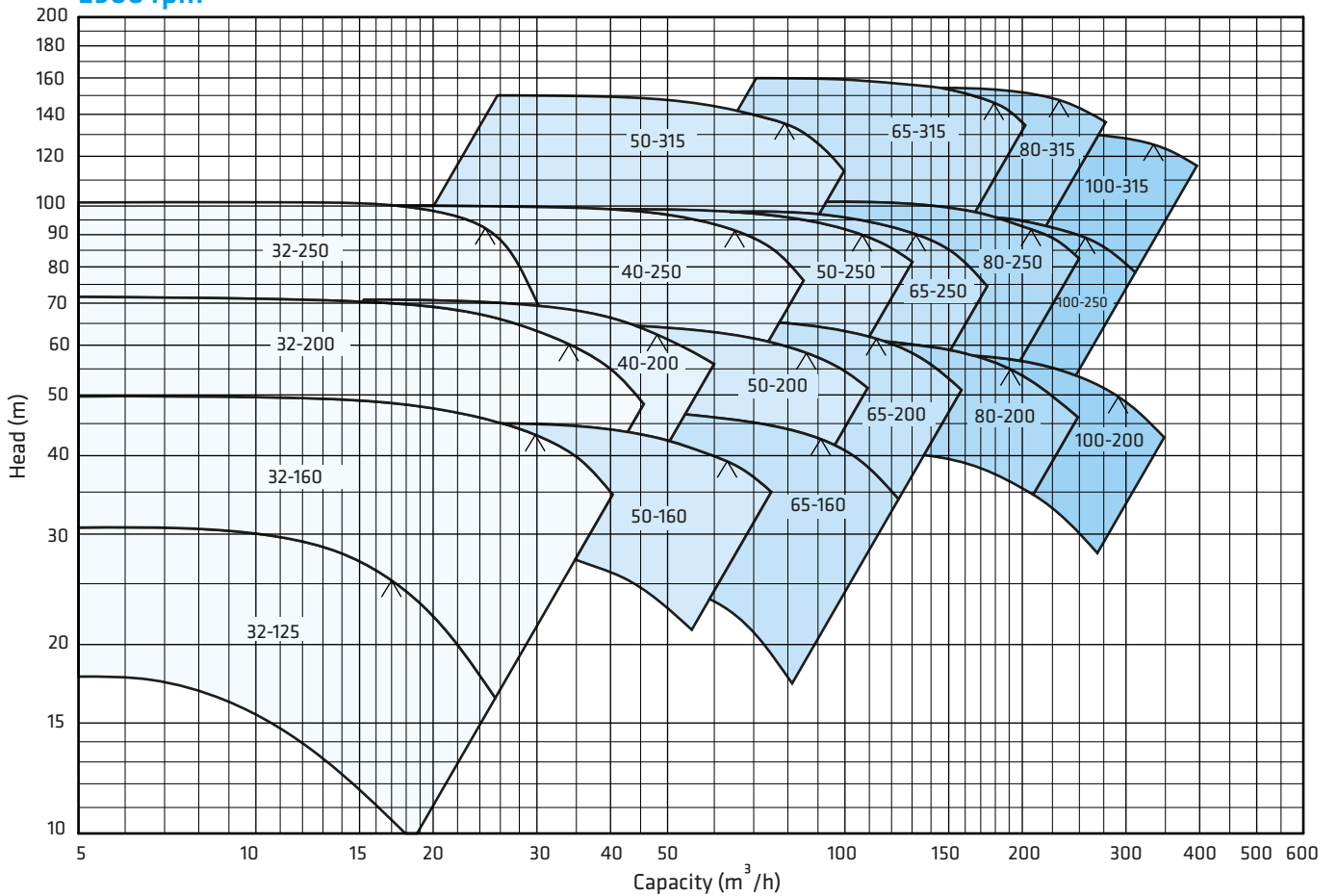


## SCP-HT 100 - 250

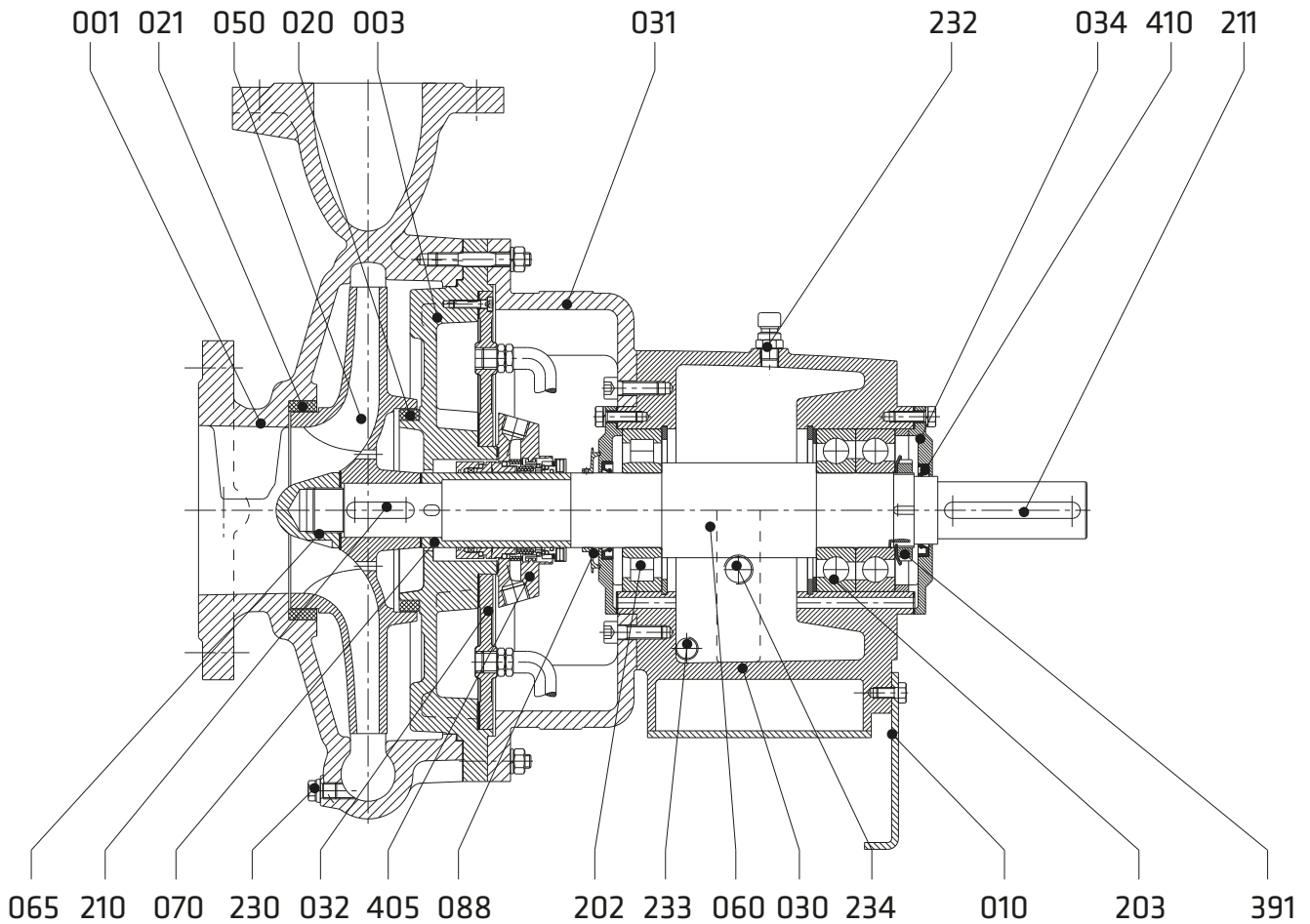
1450 rpm



2900 rpm

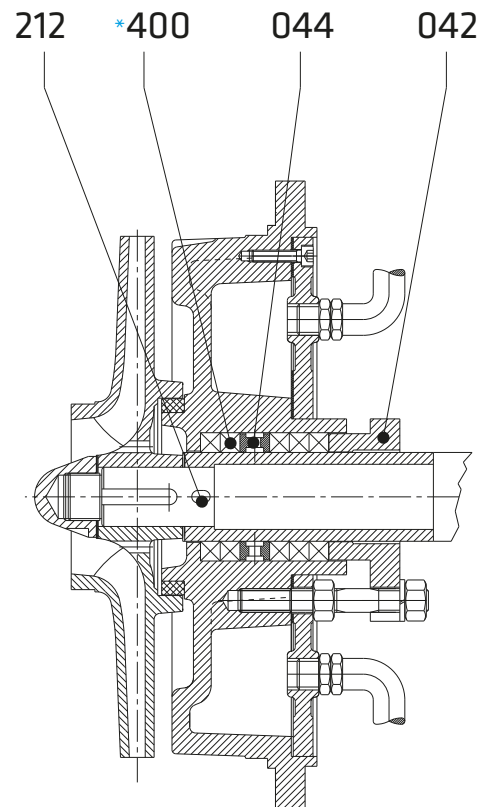


## Sectional Drawings



## Part List

001	Volute Casing
003	Casing Cover
010	Support Foot
020	Wear Ring (casing)
021	Wear Ring (casing cover)
030	Bearing Bracket
031	Bearing Bracket Lantern
032	Cooling - Heating jacket Cover
034	Bearing Cover
042	Gland
044	Lantern Ring
050	Impeller
060	Shaft
065	Impeller Nut
070	Shaft Protecting Sleeve
088	Thrower
202	Cylindrical Roller Bearing
203	Angular Contact Ball Bearing
210	Impeller Key
211	Key (coupling)
212	Shaft Sleeve Key
230	Drain Plug
232	Oil Filling Plug
233	Oil Drain Plug
234	Oil Sight Gauge
391	Shaft Nut
400*	Soft Packing Seal
405	Mechanical Seal
410	Lip Seal



Part List	10	30	20	60	6L	70	7L	8M	7D	7S	8N	80	80	8T	60	7L	7E	7D	
	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4500	1.4517	1.4469	1.4317	1.4008	1.4021	1.4021+QT	1.4301	1.4404	1.4460	1.4462	
Volute Casing		●	○	○	○	○	○	○	○	○	○	○							
Casing Cover		●	○	○	○	○	○	○	○	○	○	○							
Impeller	●	○	○	○	○	○	○	○	○	○	○	○					○		
Shaft													●	○	○	○		○	
Bearing Bracket	●	○	○	○	○	○	○												
Wear Ring	●	○	○	○	○	○	○	○	○	○	○	○							
Shaft Protecting Sleeve													●	○	○	○		○	
Mechanical Seal (*)	EN 12756																		

(\*) Optional :Depending on customer requirement or request different types and brands of mechanical seals are applicable.

● Standart manufacturing  
○ Optional

### Material Equivalents

Description	DIN / EN	AISI / SAE / ASTM	
Cast Iron	0.6025	EN-GJL-250 (GG25)	A48 Class 40B
Nodular Cast Iron	0.7040	EN-GJS-400-15 (GGG40)	A536 60-40-18
Cast Steel	1.0619	GP240GHGS-C25	A216 WCB
Chrome Nickel Cast Steel	1.4308	GX5CrNi19-10	A351 CF8
Chrome Nickel Cast Steel (low carbon)	1.4309	GX2CrNi19-11	A351 CF3
Chrome Nickel Molybdenum Cast Steel	1.4408	GX5CrNiMo19-11-2	A351 CF8M
Chrome Nickel Molybdenum Cast Steel (low carbon)	1.4409	GX2CrNiMo19-11-2	A351 CF3M
Austenitic Cast Steel	1.4500	GX7NiCrMoCuNb25-20	A351 CN7M
Austenitic - Ferritic Cast Steel (duplex)	1.4517	GX2CrNiMoCuN25-6-3-3	A890 CD4MCuN
Austenitic - Ferritic Cast Steel (super duplex)	1.4469	GX2CrNiMoN26-7-4	A890 CE3MN
Martenzitic Stainless Cast Steel	1.4317	GX4CrNi13-4	A352 CA6NM
Martenzitic Stainless Cast Steel	1.4008	GX7CrNiMo12-1	A217 CA15
Chrome Steel	1.4021	X20Cr13	A276 Type 420
Chrome Steel(heat treated)	1.4021	X20Cr13	A276 Type 420+QT
Chrome Nickel Steel	1.4301	X5CrNi18-10	A276 Type 304
Chrome Nickel Steel (low carbon)	1.4404	X2CrNiMo17-12-2	A276 Type 316L
Duplex (austenitic-ferritic) Steel	1.4460	X3CrNiMoN27-5-2	AISI 329
Duplex (austenitic-ferritic) Steel	1.4462	X2CrNiMoN22-5-3	UNS S32205

### Flange Dimensions

DNe/DNb	Suction & Discharge (PN 16)			
	Df	k	s	n
32	140	100	19	4
40	150	110	19	4
50	165	125	19	4
65	185	145	19	4
80	200	160	19	8
100	220	180	19	8
125	250	210	19	8
150	285	240	23	8
200	340	295	23	12
250	405	355	28	12
300	460	410	28	12

EN 1092 - 2

" n " number of holes