Materials

Standard materials of construction with ASTM designation.
Other API material classes are available on request.

Components	API class S5	API class S6	API class C6	API class A8
Volute casing	A 216 Gr. WCB	A 216 Gr. WCB	A 487 Gr. CA6NM	A 351 Gr. CF8M*
Impeller	A 216 Gr. WCB	A 743 Gr. CA6NM	A 753 Gr. CA6NM	A 743 Gr. CF8M*
Casing cover	A 216 Gr. WCB	A 216 Gr. WCB	A 487 Gr. CA6NM	A 351 Gr. CF8M*
Shaft	A 276 Type 410 H&T	A 276 Type 410 H&T	A 276 Type 410 H&T	AISI 329
Bearing bracket	A 216 Gr. WCB	A 216 Gr. WCB	A 216 Gr. WCB	A 216 Gr. WCB
Casing wear ring	Cr. Hard 400	Cr. Hard 400	Cr. Hard 400	CF8M Col. coated*
Impeller wear ring	1.4024.19	1.4024.19	1.4024.19	A 743 Gr. CF8M*
Gasket	Spiral wound SS 316 inserted Graphite			
Studs / Nuts	A 193 G.B7 / A 194 Gr.2H			

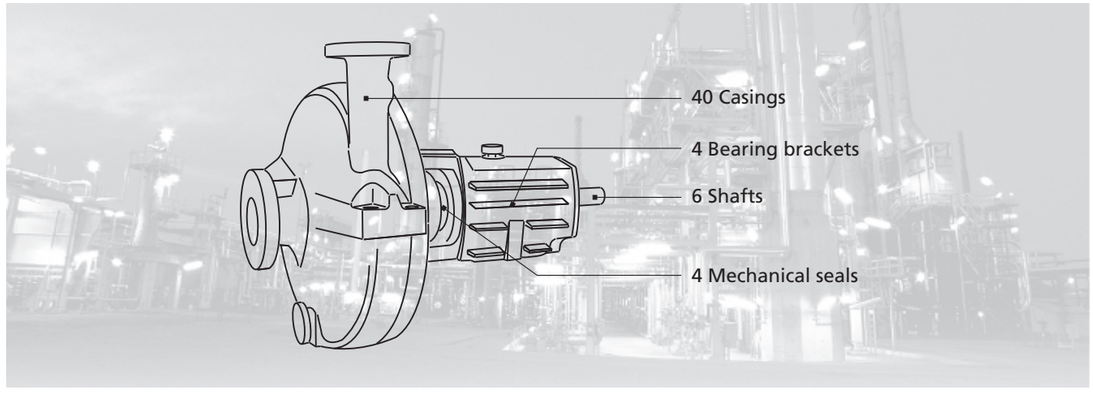
* CF3M available as alternative.

The interchangeability advantage

RPH pumps are designed to give "maximum interchangeability" advantage to the customer. A wide range of 52 hydraulics is covered just by 4 sizes of bearing bracket. Thus imparting maximum flexibility for inventory control.

The customer finally has

- Reduced no. of pump parts
- Only 4 sizes of mechanical seal
- Lower operating cost



KSB Service *fast & efficient..*

KSB Pumps Limited
Mumbai-Pune Road, Pimpri, Pune - 411 018. India.
Tel.: 020 2710 1000 Fax : 020 2742 6000 www.ksbindia.co.in

1316.021 - 85 Technical matter. Subject to change without notice.

Mktg. Service / 11-12 / 1000

Centrifugal, end suction process pumps - **RPH**

(Designed as per API 610, 10th edition)

Design

(As per API 610 / 10th edition)

RPH is a horizontal, single stage, radially split pump in back pull out design with end suction and top discharge. It has a single entry enclosed radial impeller.

These pumps are also available with inducer (on request).

Fields of applications

RPH pumps find extensive applications in

- Refineries
- Petrochemical industries
- Fertilizer industry
- Heavy duty oil and gas services

Operating data

Pump sizes	DN	25 to 250 mm
Capacity	Q	up to 1500 m^3/hr.
Head	H	up to 270 m
Pressure (Higher pressure rating on request)	P	up to 51 bar
Temperature (Higher / Lower temp. rating on request)	t	-70^{0}C to 450^{0}C

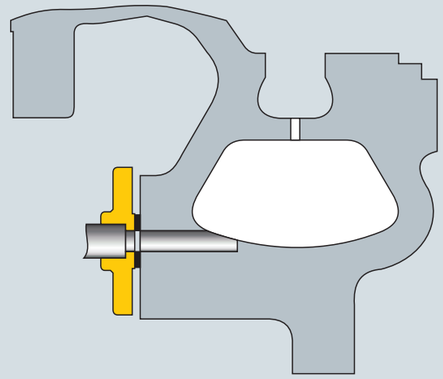
Special features

Finned bearing housing and air cooling with fan allow operation of the pump upto 315^{0}C without water cooling.

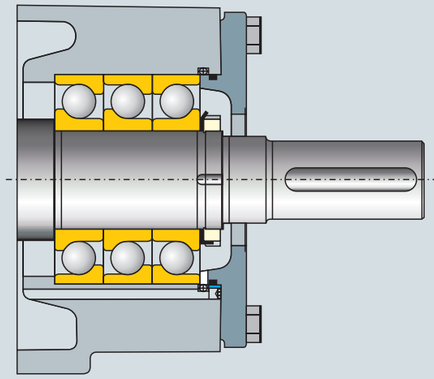
Since the seal chamber is designed in full compliance with API 682; the shaft seal as per API 682 can be fitted into the seal chamber as a standard.

Special design features

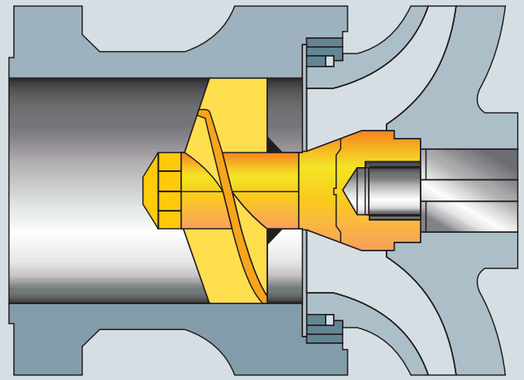
Flanged drain



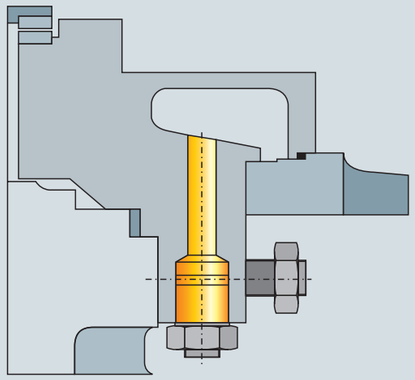
Triple bearing arrangement :
For high suction pressure



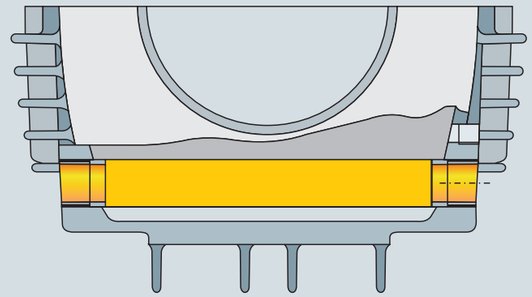
Inducer :
For very low NPSHr requirements



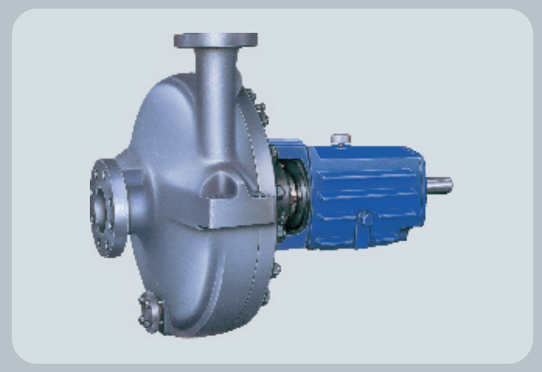
Cooled casing cover



Water cooled bearing bracket :
For extremely high temperatures



RPH - Ten good reasons for the right decision



1 **As cast fins and an optional fan**
Allow running of the pump up to 315°C without water cooling. Water cooling option available for extremely high temperature.

2 **Seal chamber**
Designed as per API 682 as a standard

3 **Volute casing**
Double volute for sizes DN 80 mm and above to minimize radial load and shaft deflection. ASME B 16.5 Class 300 RF flanges as a standard. Other ratings available on request.

4 **Impeller**
Designed for low NSS. Inducer option available on request. Positively locked impeller nut.

5 **Impeller nut**
Positively locked impeller nut.

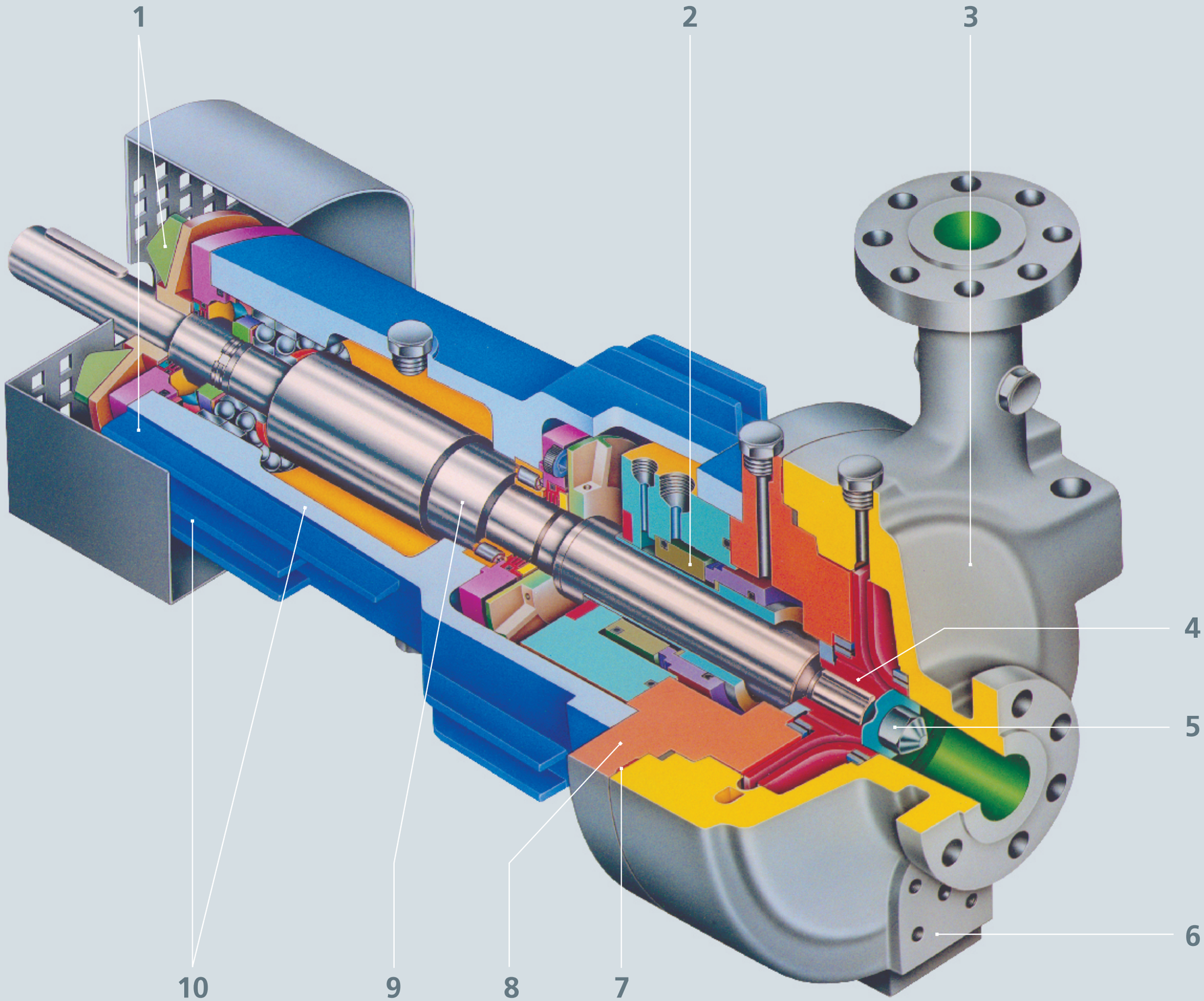
6 **Casing drain**
Ensures complete drain.

7 **Metal to metal fit**
Controlled compression SS 316 spiral wound gasket between casing and casing cover.

8 **Casing cover**
Cooled or heated as optional arrangement.

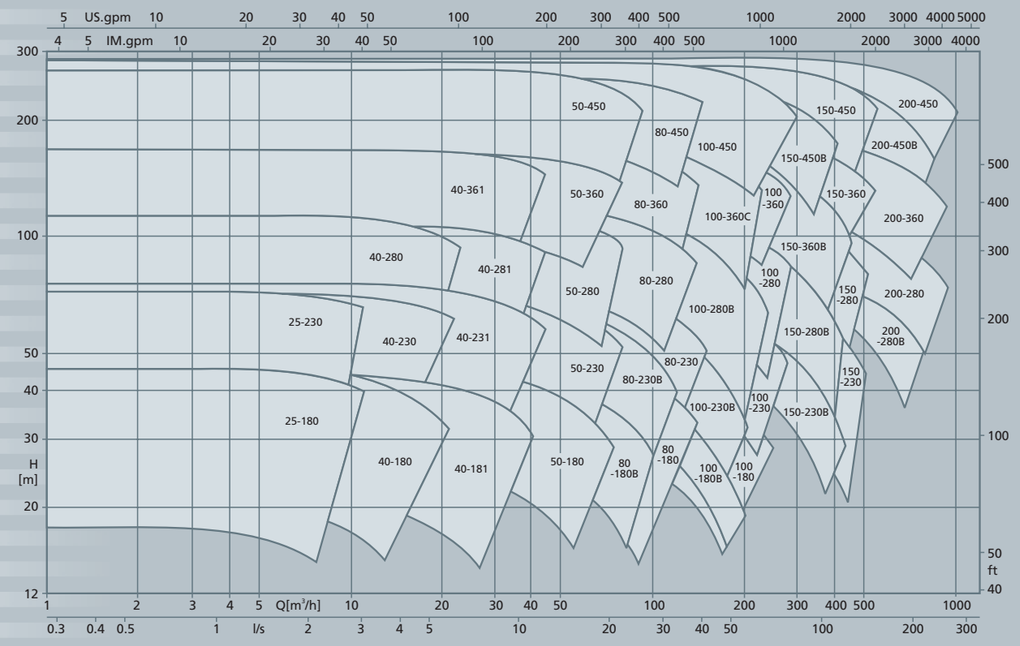
9 **Rigid and heavy shaft**
Ensures minimum shaft deflection as per API 610
Ensures max. seal and bearing life.

10 **Bearing bracket**
Rugged design to ensure low vibrations. Magnetic drain plug for a cleaner oil reservoir. Bearing isolator to enhance bearing life. As cast fins for convective heat transfer. Triplex bearing arrangement available as an option for high suction pressure.

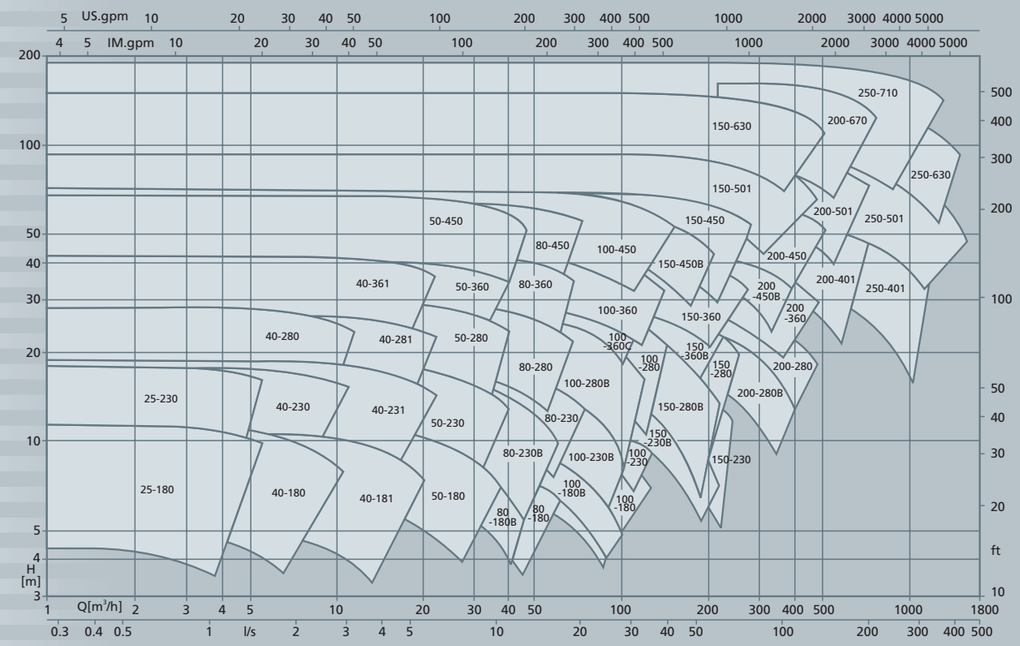


Performance range (50 Hz)

2900 1/min

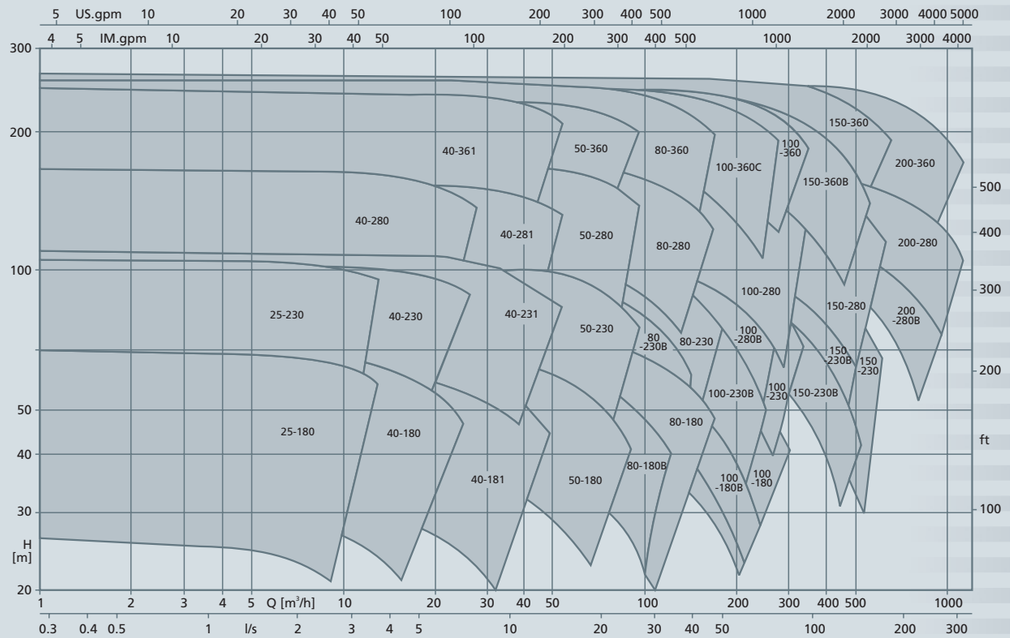


1450 1/min



Performance range (60 Hz)

3500 1/min



1750 1/min