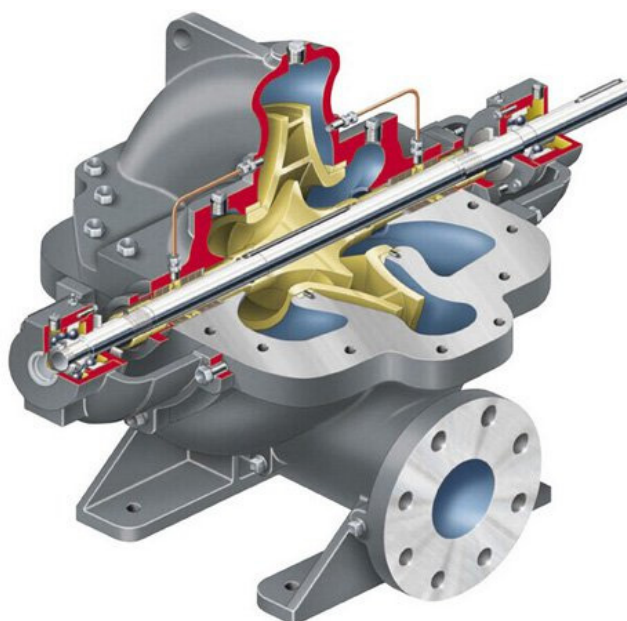


TECHNICAL&SCIENCE CHANGE THE FUTURE



**SPECIAL DESIGN FOR HEAVY INDUSTRY**

**API610 BBI TYPE, BETWEEN BEARING, AXIAL SPLIT,  
DOUBLE SUCTION PUMP**



## SBMC PUMP

SBMC is engaged in special centrifugal pumps, systems & solutions used in variable industries and applications.

We strive to supply sustainable equipment in heavy industry, using our advanced research and development technologies to make rotating equipment simple and steady.

SBMC is focusing on many industries, including as below:

- ◆ Oil & Gas industry
- ◆ Chemical & Petrochemical industry
- ◆ Power plant
- ◆ Food industry
- ◆ Water and wastewater treatment
- ◆ Seawater desalination
- ◆ Fertilizer industry
- ◆ General industry



## PUMP PARAMETERS

Design Standard	API610, 11 <sup>th</sup> / ISO 13709
Design Pressure	Up to 5.0 MPa
Nozzle Size	DN 150 ~ DN 1000
Flange Rating	ANSI B16.5 150lb, RF or HG / DIN / JIS std.
Capacity	Up to 18,000 m <sup>3</sup> /h
Head	Up to 440 m
Temperature	-40 ~ 200 °C
Speed	Up to 3600 rpm
Option	Vertical type is available

Applicable Cert      

## PUMP MATERIAL

Material selection ranged from API610 Standard Material Class S-5 to D-2 and others

- ◆ Carbon steel
- ◆ Martensitic Stainless steel - 12%Cr
- ◆ Austenitic stainless steel - 304/304L, 316/316L, 904L
- ◆ Duplex SS
- ◆ Super Duplex SS
- ◆ Hast-alloy - Hast-B, Hast-C
- ◆ Others material on request

## PUMP TYPICAL APPLICATION

- ◆ Fluid handling in oil refineries and petrochemical industry
- ◆ Crude oil transportation
- ◆ Quench & Cooling water
- ◆ Dewatering in mining
- ◆ Production oil transportation
- ◆ Power plant

## PUMP INFORMATION

WBA series pump is designed in accordance with standard of API610 11<sup>th</sup> and possible to be last revision up on requirement, single stage, foot or centerline support, double suction, axial split pump.

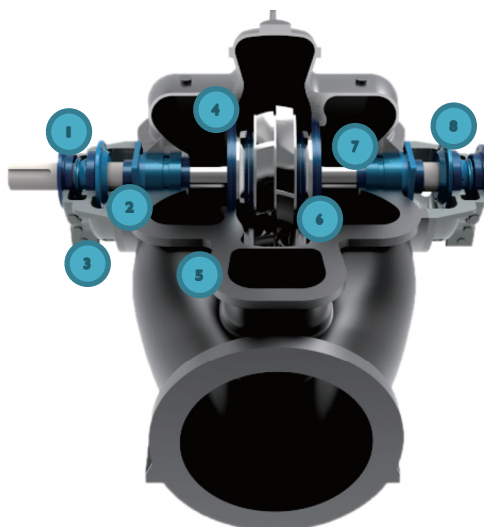
Pump bearings are in oil or oil mist lubrication, normally used in large capacity as water cooling or crude oil booster pump, max operating temperature is 150 °C;

Both casing and impeller wear rings are used for close impeller model to reduce the back flow, which makes the pumps work at high efficiency.

Double suction designed to lower down the process liquid inlet velocity for low NPSHr application and this design can properly balance the axial force and achieve a long bearing life.

Suction and discharge flanges are arranged on same horizontal level, which is special used for pipeline booster application.

## PUMP CROSS SECTION DRAWING AND FEATURES



### 1 Bearings

Oil-lubricated anti-friction bearings as standard for stable and long lifetime running. Oil-lubricated sleeve bearings and oil mist lubricated bearing available.

### 2 Mechanical Seal

API682, 4th cartridge single seal or dual unpressurized/pressurized seal with variable seal system as standard. Reliable and almost no leakage. Non-API seal and packing available.

### 3 Bearing Housing

Heavy duty design with high load capacity. Oil seal protection as standard.

### 4 Impeller

High hydraulic efficiency designed by CFD. Precision casting and Ceramic coating available. Double suction structure for low NPSHr available.

### 5 Mounting type

Foot support mounting type as standard. Center-line or near center-line support mounting for higher temperature available.

### 6 Wear Ring

Replaceable impeller and casing wear rings for easy maintenance.

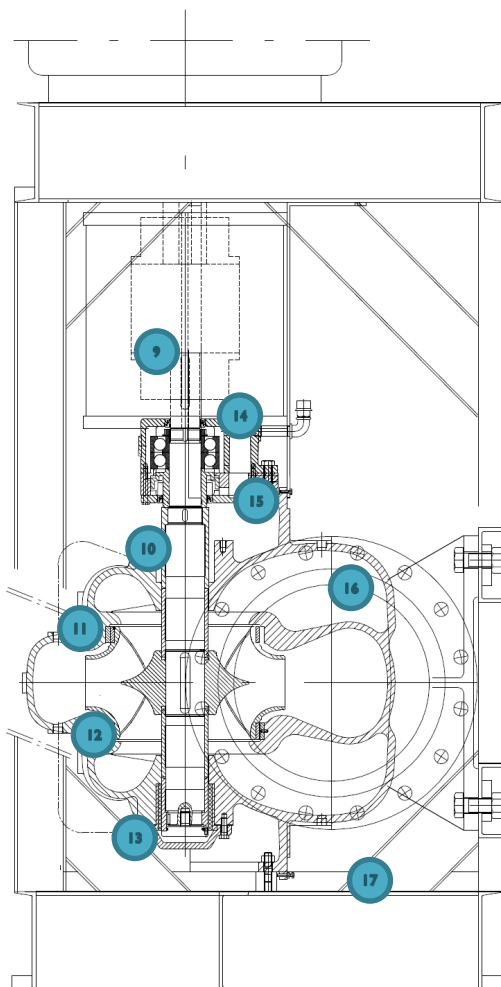
### 7 Rotor

Static and dynamic balanced rotor as standard. Life-design analysis for shaft strength to ensure stable and reliable running.

### 8 Condition Monitoring

Provision of flat mounting surface as standard. Temperature, vibration, pressure and displacement instruments available.

Vertical installation available

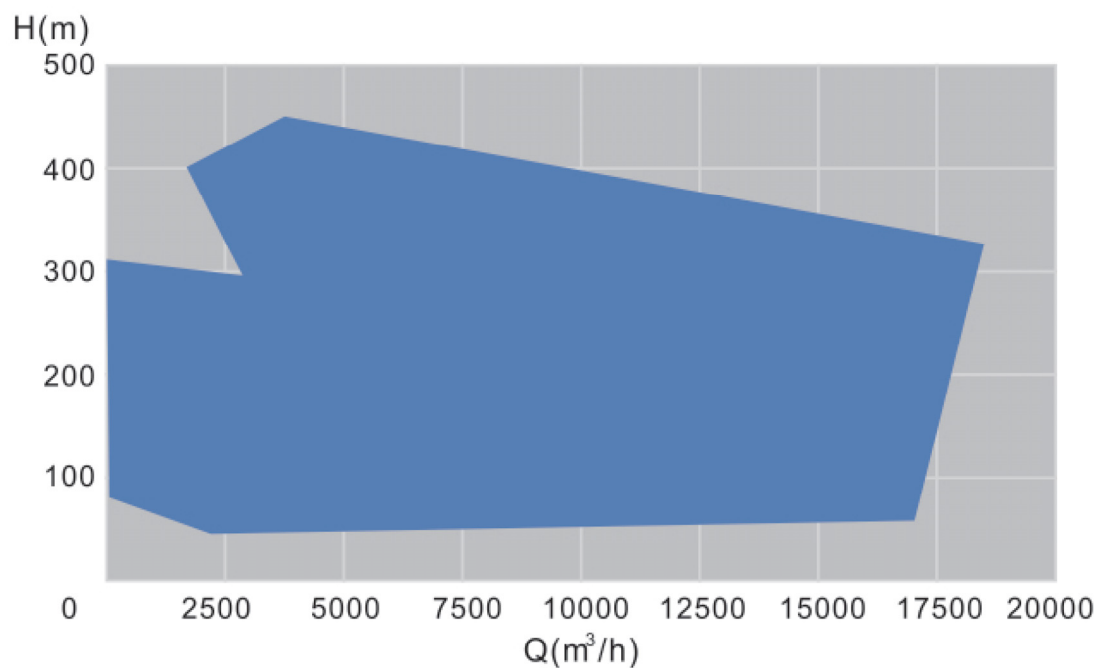


- 9 Shaft**  
Heavy duty shaft design for arduous service conditions.
- 10 Seal Type**  
Packing stuffing box or mechanical seal according to application requirements.
- 11 Wear Ring**  
Exchangeable wearing ring
- 12 Impeller**  
Double entry impeller. Principle axial thrusts are inherently hydraulic balanced.
- 13 Bearing at NDE**  
Sliding bearing lubricated by pumping medium or fluid from an external source with a long service time
- 14 Bearing at DE**  
Rolling bearing lubricated by grease, bearing the weight of rotor and balance the radial force.
- 15 Lubrication**  
Grease lubrication as standard. Oil lubrication with constant level oiler as available.
- 16 Casing**  
Provides high efficiency with ideal flow patterns
- 17 Separated Motor Support**  
Motor support as option.

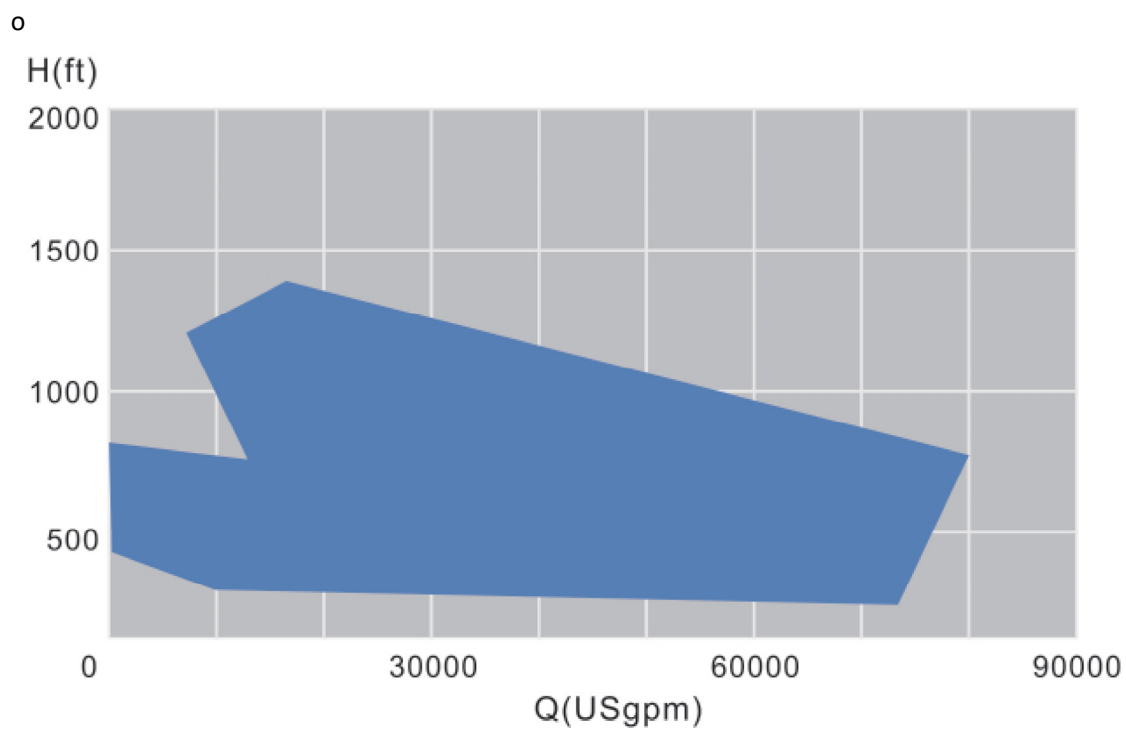


## PUMP PERFORMANCE RANGE

Metric Unit



US Unit



**SBMC**

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Certified: ISO 9001:2015, ISO 14001:2015(In process)