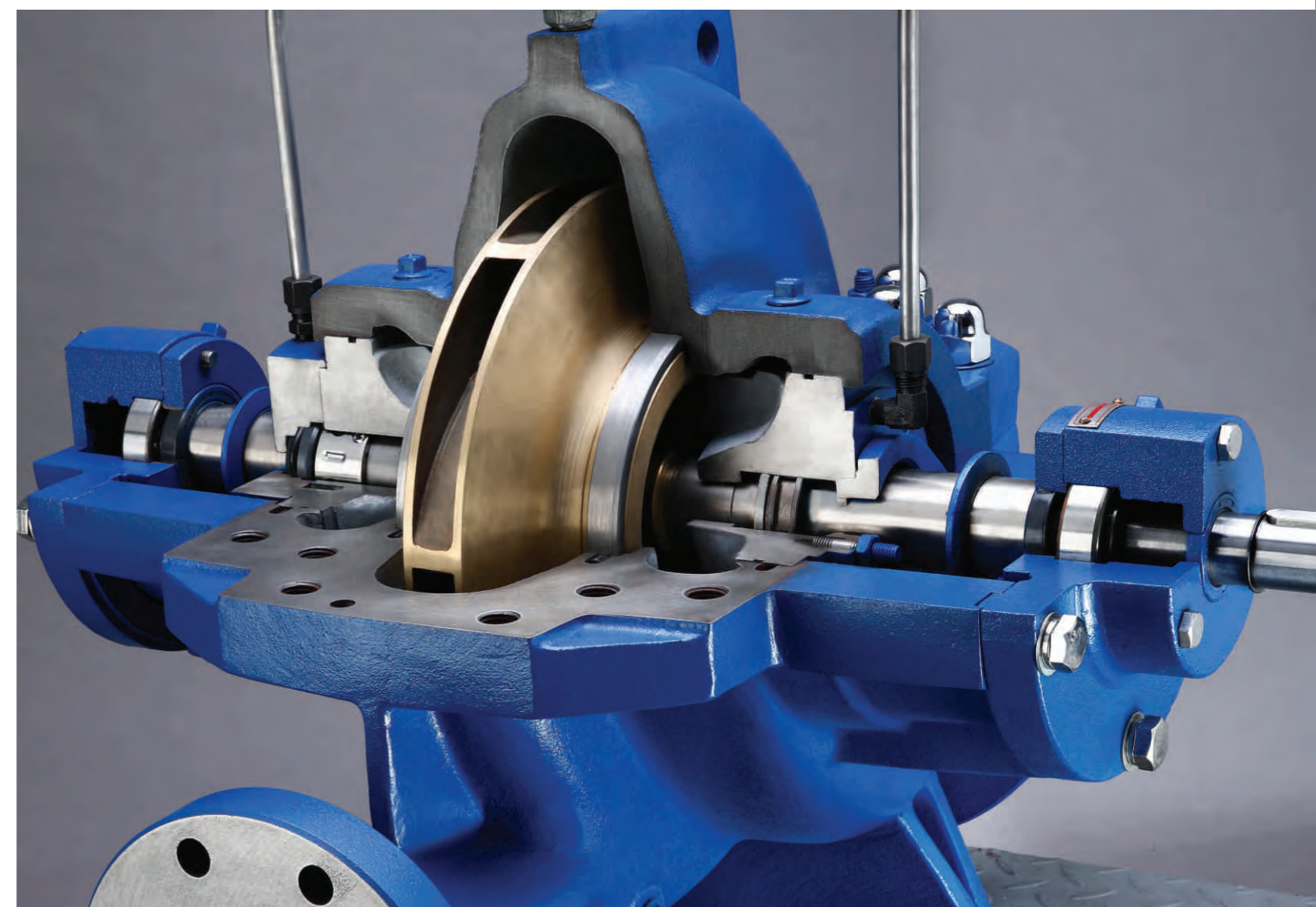


General Catalogue



NANFANG PUMP INDUSTRY CO., LTD.

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NANFANG PUMP INDUSTRY CO., LTD.

We feed the life attentively.



Water is vital for all known forms of life. As the population of the world continues to grow, so does the need for advanced, quality systems of water treatment, irrigation, drainage, and sewage treatment.

Industrial growth, so vital to economic stability all over the world, must also embrace responsible, safe, efficient waste disposal methods in order to comply with regulatory agencies and protect the environment in which we live from water and air pollution.

CNP has helped many companies attain this goal through decades of experience, incorporating sophisticated planning, engineering, and other support services to pumping stations around the world.

Innovative fluid handling solutions that enhance reliability while lowering energy consumption and maintenance costs, reduce carbon emissions, and provide value are what CNP has built its reputation on.

Pumping Water Pumping Honor

CNP is a leading global supplier of reliable products and innovative pumping solution for end users, and is active over 60 locations worldwide. We offer dense hydraulic coverage to meet your process needs. Better hydraulic fits can mean improved efficiency and longtime reliability and parts life.

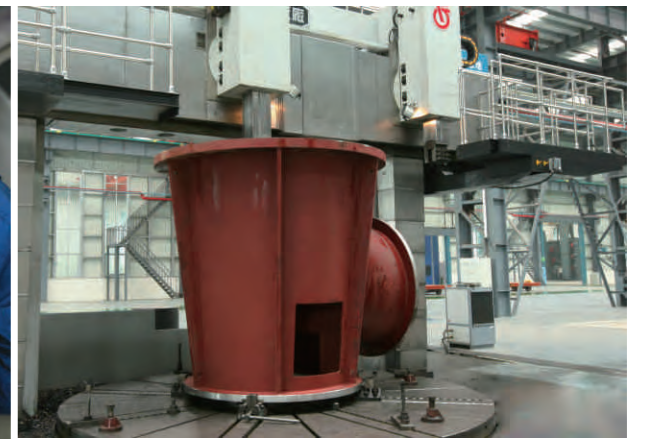
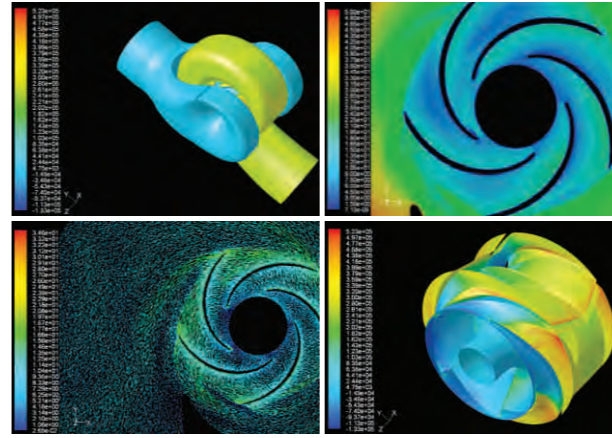
No matter what type of fluid you need to move, chances are that CNP pumps has a pump for your job. All of our pumps have three superior design characteristics: Design, Performance and Durability. Our engineering department, which includes an in-house pattern shop, designs each pump to be easy to install and easy to maintain. Our performance are engineered to meet or beat the competition in each category. For more than 50

years, we have provided very cost effective solutions by building our pumps to last. Durability by design is always the most cost effective solution.

From engineering and design to final assembly, each step of the manufacturing process is controlled by experienced people and state of the art equipments. Quality inspections are performed at every step of the manufacturing process. Pump testing is done in our new test facility consisting of a 8000m³ test pit and capable of testing up to 5000KW. All of these factors ensure you receive consistent quality every time.

We are experts in packing engineered pumps that meet your demanding applications.







Main Products

Centrifugal pumps for Petroleum, Heavy Duty Chemical, and Gas Industry Services(OH1, OH2, OH3, BB1, BB3, BB4, BB5, VS1, VS2, VS3, VS6, VS7)

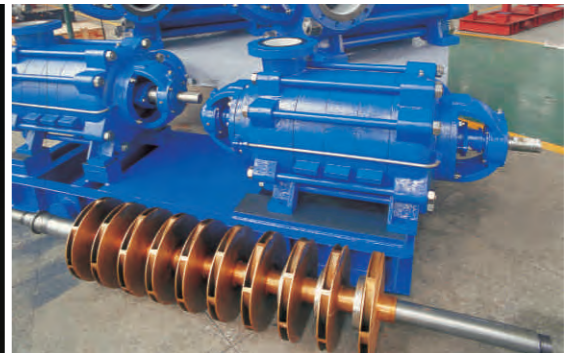
All kinds of clean water pump, Sewage water pump and Fire-fighting pump.

Low abrasive slurry and solids handling pump(Patent No.: ZL01213219.5)

Service for

- Crude Oil Pipeline
- Refinery Process
- Offshore Service
- Gas Liquor Pumping
- Industry Service
- City Water Supply
- Power and Steel Plants
- Sea Water
- Boiler Feed
- Irrigation
- Fire-fighting System
- Others



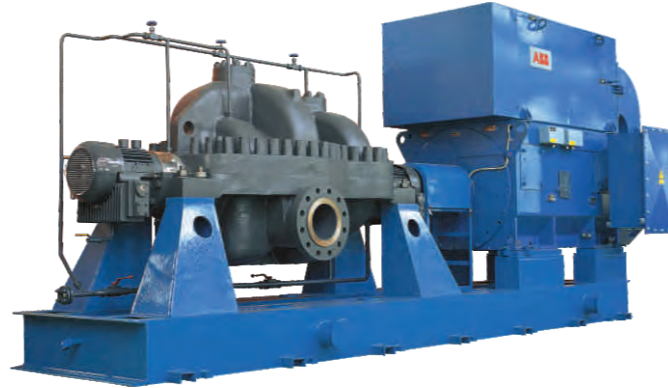


KDY, NDS

Multistage Heavy Duty Axially Split Casing Centrifugal Pump

KDY According to API610 BB3 type

NDS for water pumping



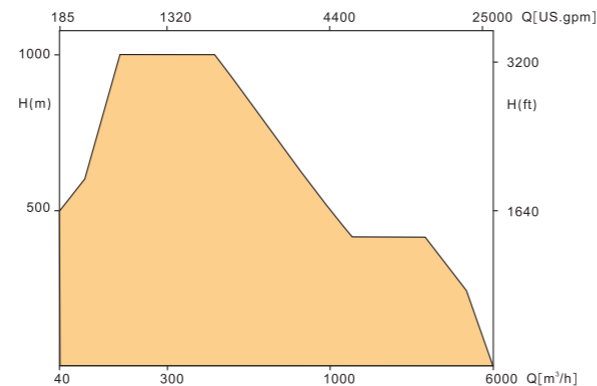
Application:

- ▶ Oilfields and Terminals
- ▶ Crude oil and oil product pipeline
- ▶ Water pipelines
- ▶ Fluid injection
- ▶ High pressure services
- ▶ Sea water pumping



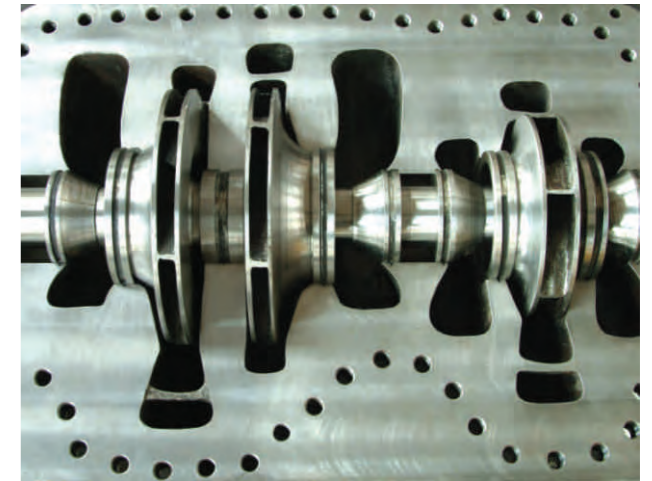
Performance Range:

- ▶ Capacity: Q up to 6000 m³/h
up to 26400 gpm
- ▶ Head: H up to 1200 m
up to 3500 feet
- ▶ Temperature: T up to 200 °C
up to 380 °F
- ▶ Speed: n 2900/1450/980 rpm
3500/1750/1180 rpm



Standard Material:

- ▶ According to API610.



Description:

Horizontal axially split casing, double volute multistage design. Impellers arranged in opposed groups, KSY is a double suction two stages pump for bigger capacity. KDY is a multistage single suction impeller pump for higher head, first stage double suction impeller design for low NPSH required.

Removable wear rings protect the casing and impeller. The impellers are statically and dynamically balanced. The pump comply with the API 610 specification latest edition in all technical details. Special antifriction bearings on both sides or sleeve bearings with ring or forced-feed lubrication (axial bearing as segmental thrust bearing).



TSY

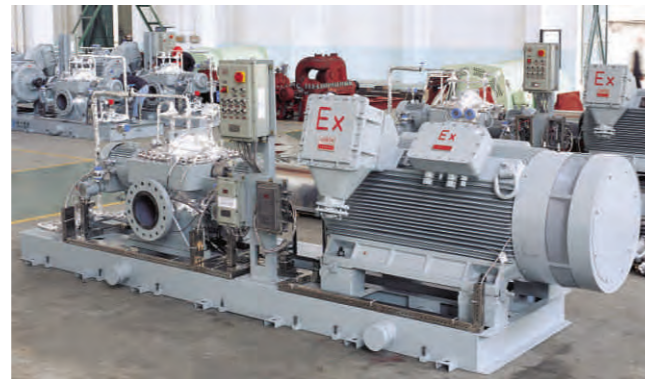
Single Stage Double Suction Split Case Centrifugal Pump

According to API610 BB1 type



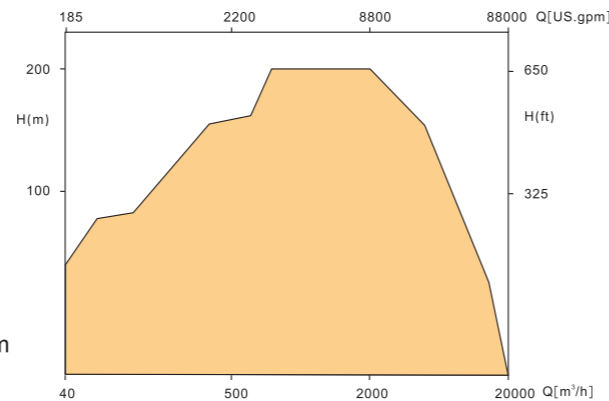
Application:

- ▶ Hydrocarbon and water transfer
- ▶ Petroleum refining, production and distribution
- ▶ Pipe line service
- ▶ Oil industry
- ▶ Other chemical liquid service



Performance Range:

- ▶ Capacity: Q up to 20000 m³/h
up to 88000 gpm
- ▶ Head: H up to 280 m
up to 800 feet
- ▶ Temperature: T up to 200 °C
up to 390 °F
- ▶ Speed: n 2900/1450/980/740/580 rpm
3500/1750/1180/890/710 rpm



Standard Material:

- ▶ According to API610.



Description:

The casing is axially split with the suction and discharge branches located in the lower half, this allows the complete pump rotor with bearings to be removed for maintenance without disturbing the pipe system and valves.

Heavy duty bearing design is suitable for any application. Cooling fan in thrust bearing is for heavy duty application such as high speed, high ambient temperature. There is connection for temperature and vibration monitoring instruments.



VTP

Vertical Turbine Pump

Type: VTC, VTM, VTA, VTCK, VT according to impeller and structure.

VTC

Vertical Multistage Turbine Pump



VTM

Vertical Mixed-Flow Pump



VTA

Vertical Axial-Flow Pump



VTCK (API610 VS6)

Vertical Can-Type Pump



VT

Vertical Condensate Pump



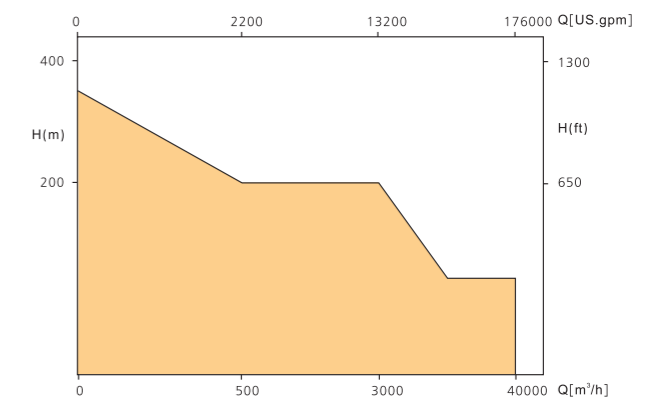
Application:

- ▶ Water supply
- ▶ Irrigation for deep well
- ▶ Mine dewatering
- ▶ Sprinkling and irrigation
- ▶ Industrial wet-pit sumps
- ▶ River/sea water circulation
- ▶ Fire-fighting
- ▶ Oil and chemical industry



Performance Range:

- ▶ Capacity: Q up to 40000 m³/h
up to 176000 gpm
- ▶ Head: H up to 400 m
up to 1200 feet



Standard Material:

- ▶ Bowl: Cast iron
- Stainless steel
- Ductile cast iron
- Bronze
- Duplex S.S
- ▶ Shaft: Stainless steel
- ▶ Impeller: Cast iron
- Bronze or stainless steel
- Duplex S.S
- ▶ Discharge head: Carbon steel or Stainless steel

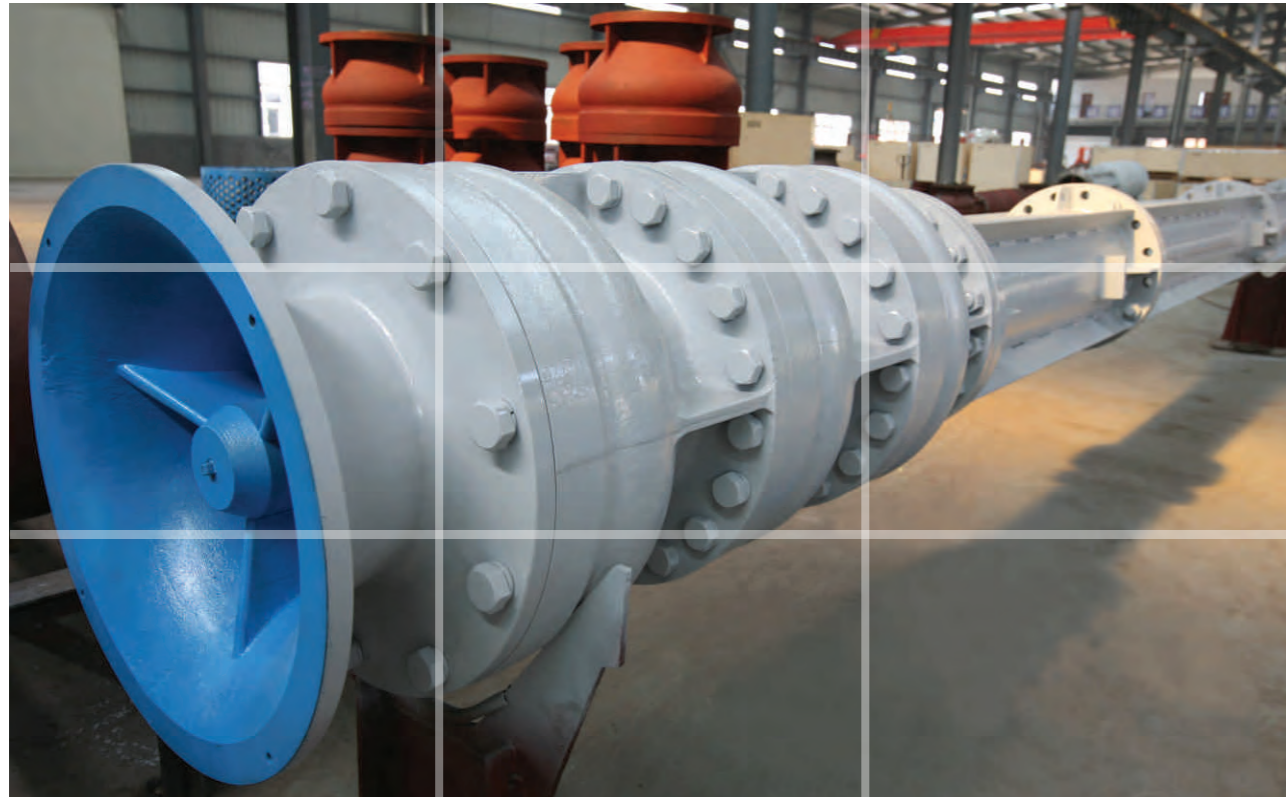
Description:

Vertical single stage or multistage pump with centrifugal or mixed or axial flow impeller design, vertical multistage pump with centrifugal impeller design, broad hydraulic coverage provides best selection to meet specific operating conditions. Fabricated or cast iron, surface or underground discharge head. Optional open or enclose line shaft construction optimizes the lifetime of shaft and bearing. It can be driven by VHS NEMA Standard motor, VSS motor or diesel engine through right angle gear box.

Hydraulic Design: there are two types of configuration impellers.

H - type --- High efficiency and energy saving impeller. This kind of impeller could meet long and continuous operation requirement. Compared with other impeller, this impeller's efficiency is improved by 2-3%.

Low - type --- Low NPSH and abrasive impeller. This kind of impeller is mainly used in low NPSH situation and pumping abrasive medium. It is compared with other pumps, the NPSH is reduced by 1 – 2 m. The operating life is improved by 50%, even 2 times.



NEMA RIGHT ANGLE GEAR BOX

Application:

- ▶ Irrigation
- ▶ Industry
- ▶ Municipal pump service
- ▶ Fire-fighting



Performance Range:

- ▶ Power: 20-1500 HP
- ▶ Speed: 580-3500 rpm
- ▶ Speed Ratios: 1:2-3:1

VHS

Vertical High Voltage Motor for VTP Pump

Application:

- ▶ For VTP and other vertical pumps driven

Performance Range:

- ▶ Power: up to 1000 KW
- ▶ Speed: 1480rpm, 980 rpm
- ▶ Voltage: 3000-11000 V



Description:

Water jacket cooling casing make noise level reduce and efficiency higher than standard IEC motor.
Motor with thrust bearing.
Motor with Non-reverse coupling to protect pump's back running by water hammer .

NSC

Single Stage Double Suction Split Case Pump

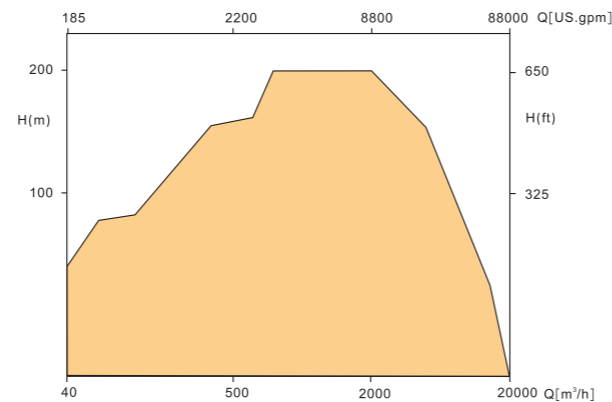
Application:

- ▶ Water Intake
- ▶ Water Transport and Municipal Supply
- ▶ Desalination
- ▶ Fire-fighting
- ▶ Irrigation and Drainage
- ▶ Water Treatment
- ▶ Industrial water services



Performance Range:

- ▶ Capacity: Q up to 25000 m³/h
up to 110000 gpm
- ▶ Head : H up to 280 m
up to 800 feet
- ▶ Temperature: T up to 200 °C
up to 390 °F
- ▶ Speed : n 2900/1450/980/740/580 rpm
3500/1750/1180/890/710 rpm



Standard Material:

- | | | | |
|-----------|--|--------------|--|
| ▶ Casing: | Cast iron
Ductile cast iron
Cast steel
Stainless steel or Duplex S.S. | ▶ Impeller: | Cast iron
Bronze
Duplex S.S
Stainless steel |
| ▶ Shaft: | C-steel
Cr-steel
Stainless steel | ▶ Wear ring: | Cast iron
Brass
Stainless steel |

Description:

The casing is axially split, which permits removal of the complete rotor which moving either piping or motor. Pumps generating high heads have double volute to reduce radial forces. Replaceable wear ring protect the casing at the impeller running clearances. Flange drilled to ISO, DIN, BS or ANSI.

The close double suction impeller gives practically zero axial forces. Each impeller is statically and dynamically balanced according to ISO 1940.

The NSC series pumps have a reduced number of parts and extensive interchangeability, which leads to minimum levels of inventory for customers and faster parts delivery.

Vertical installation is a standard option with the same upper and lower casing parts. It is mounted for a space-saving configuration or when apace is at a premium

Soft packing or mechanical seal, grease or oil lubricated bearing is optional. Oil lubrication is with constant level oiler.

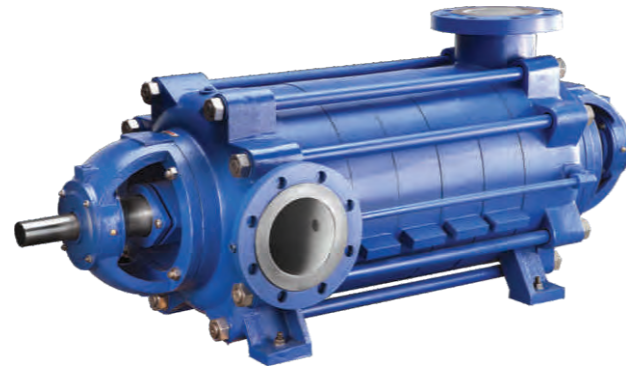


HMC

Multistage Horizontal Centrifugal Pump

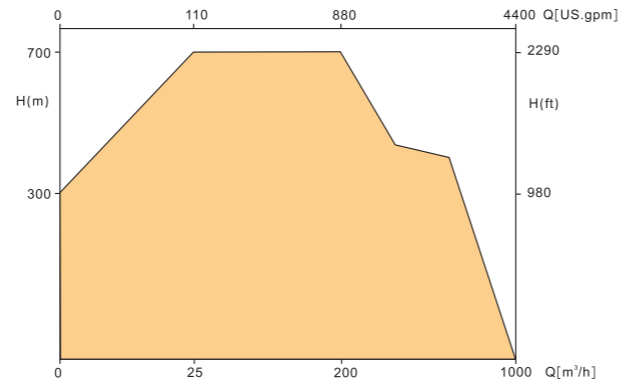
Application:

- ▶ Water plant
- ▶ Pressure boosting
- ▶ Fire fighting
- ▶ Sprinkling and irrigation
- ▶ General industrial services
- ▶ Mines
- ▶ Boiler feed
- ▶ Sea water



Performance Range:

- ▶ Capacity: Q up to 1000 m³/h
up to 40000 gpm
- ▶ Head: H up to 800 m
up to 2500 ft
- ▶ Temperature: T up to 120 °C
up to 230 °F
- ▶ Speed: n 2900/1450 rpm
3500/1750 rpm



Standard Material:

- | | | | | |
|-------------|-----------|-------------------|-----------------|--------------------------------|
| ▶ Casing: | Cast iron | Ductile cast iron | Cast steel | Stainless steel or Duplex S.S. |
| ▶ Impeller: | Cast iron | Bronze | Duplex S.S | Stainless steel |
| ▶ Shaft: | C-steel | Cr-steel | Stainless steel | |

Description:

Radially split, ring-sectional casing, multistage pump designed with modular interstage components. The balance device to compensate is for axial thrust. Optional packing seal and mechanical seal are for removable seals housings. Grease lubrication bearing is usually chosen. Multiple hydraulics is for each pump size optimizes efficiency across a vast range of applications. These pumps are particularly well suited for reverse osmosis and boiler feed application.

CA, CE, CF

Heavy Duty Petrochemical Process Pump

According to API610 OH1 and OH2 type

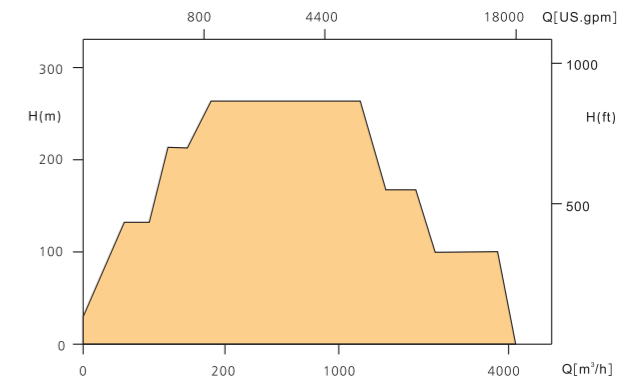
Application:

- ▶ Refineries
- ▶ Coal processing
- ▶ Petrochemical industry
- ▶ Paper and pulp industry
- ▶ Sea water
- ▶ Air condition
- ▶ Offshore industry
- ▶ Sugar industry



Performance Range:

- ▶ Size 25 up to 400 mm
- ▶ Capacity up to 2600 m³/h
- ▶ Head up to 250 m
- ▶ Working pressure up to 7.5 Mpa
- ▶ Operating temperature -80°C up to +450°C



Standard Material:

- ▶ According to API610 standard

Description:

Single stage, horizontal radially split volute casing pump with feet below and single entry radial impeller, end suction type. Full compliance with the latest edition of API610, heavy duty fan cooled bearing housing, heavy duty and non-grout baseplates for PAU and offshore application. Shaft sealing by packing or mechanical seals of any design (single or double working), connections for cooling, flushing or sealing liquid.

Standard pipework according to API682 plans. Cooling system for high temperature pumping. Flanges according to DIN or ANSI.

CA working pressure upto 2.5MPa, can be supplied with open impeller. (Code OH1)

CE working pressure upto 5.0MPa, can be supplied with open impeller. (Code OH2)

CF working pressure upto 7.5MPa. (Code OH2)

PUMPS FOR REVERSE OSMOSIS DESALINATION

Pump Type:

- Source Pump

Performance Range:

- Capacity: Q 10 ~ 4000 m³/h
- Head: H 5 ~ 250 m

Standard Material:

- Duplex S.S or Super Duplex S.S.

Description:

As one of the toughest applications in desalination, source pump requires to be highly corrosion resistant. CNP vertical turbine pump and split case pump could meet these demand.



Pump Type:

- Process Pump
 - a. Booster Pump b. Backwash Pump
 - c. Transfer Pump) d. Flushing Pump)

Performance Range:

- Capacity: Q 10 ~ 4000 m³/h
- Head: H 10 ~ 150 m

Standard Material:

- Duplex S.S or nonmetallic material.

Description:

According to the customer's requirement, CNP can offers end suction pumps, split case pumps and in-line pumps.

Pump Type:

- High-Pressure Feed Pump

Performance Range:

- Capacity: Q 10 ~ 2000 m³/h
- Head: H 500~ 1000 m

Standard Material:

- Duplex S.S or Super Duplex S.S.

Description:

The heart of the RO system is the high-pressure feed pump. CNP offers high-efficiency feed pumps, designed using the CFD (Computational Fluid Dynamics) technology to provide best pump performance. These critical pumps are manufactured in corrosion-resistant materials to ensure long performance life without degradation. According to the need of plant, it could use vertical multistage pump, horizontal multistage pump and axially heavy-duty split case multistage pump.



Pump Type:

- High-Pressure Booster Pump

Performance Range:

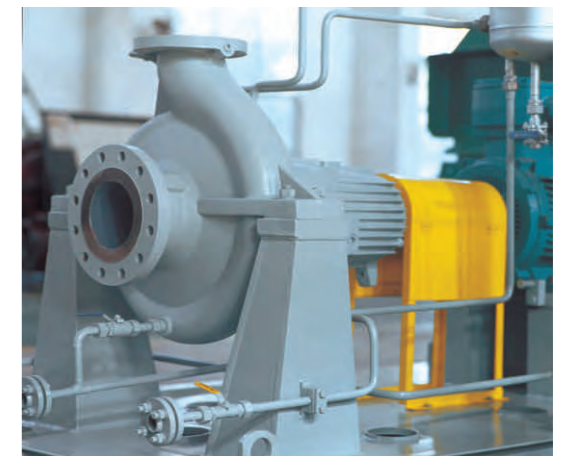
- Capacity: Q 10 ~ 2000 m³/h
- Head: H 10~ 100 m
- Working pressure: up to 7.5 MPa

Standard Material:

- Duplex S.S or Super Duplex S.S.

Description:

The high-pressure booster pump boosts the raw water from Pressure Exchange System to RO membrane feed. As the water from pressure exchange system is high pressure (above 5 Mpa), the heavy duty petrochemical process pump could bear above 6MPa pressure. The centerline support and heavy duty bearing assembly could assure the pump operating reliably.



HW

Mixed-Flow Pump

Application:

- ▶ Irrigation and drainage
- ▶ Industrial and urban drainage
- ▶ Sewage transport
- ▶ Drainage
- ▶ Lake desilting and drainage
- ▶ Sand river water transportation

Performance Range:

- ▶ Capacity: Q up to 8000 m³/h
up to 35220 gpm
- ▶ Head: H up to 25 m
up to 75 feet
- ▶ Temperature: T up to 80 °C
up to 176 °F
- ▶ Speed: n 2200/1800/1600/1450/1180 rpm
970/730/590/485/370 rpm

Standard material:

- | | | | | | |
|-------------|-----------------|-------------------|--------------|-----------------|-------------------|
| ▶ Bowl: | Cast iron | Ductile cast iron | ▶ Shaft: | C-steel | Cr-steel |
| | Cast steel | Stainless steel | | Stainless steel | |
| ▶ Impeller: | Cast iron | Ductile cast iron | ▶ Wear ring: | Cast iron | Ductile cast iron |
| | Stainless steel | | | Stainless steel | |

Description:

HW pump is compact structure, convenient installation and maintenance; Upper casing equipped with seal ring fit with inlet surface of impeller, there's suitable gap between axial and radical direction (usually if 0.3-0.6mm), axial gap can be adjusted through increasing or decreasing the gasket's thickness, which will promise the volume efficiency of pump. Usually adopt packing seal for shaft end, also mechanic seal can be adapted with the client's requirements. Pump shaft is supported by rolling bearing, the bearing can stand axial force and weight of rotor. Grease or oil Lubrication is used for the bearing of HW pump. HW pump is driven by connected horizontal motor of diesel engine, if need to change the speed, through transmission with belt or horizontal gear box.



NISO

End Suction Pump

Application:

- ▶ Water & Heat supply
- ▶ Air-condition system
- ▶ Boost system
- ▶ Fire protection system
- ▶ Insufflations & Irrigation
- ▶ Water supply for natatorium & fountain

Performance Range:

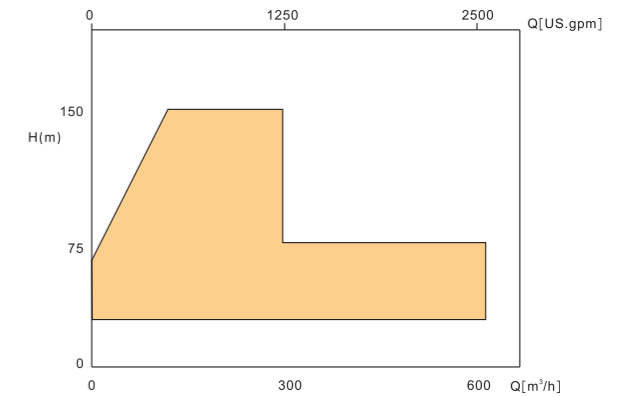
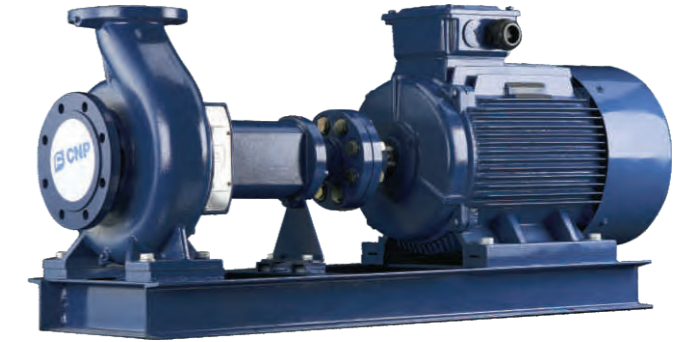
- ▶ Capacity: Q up to 520 m³/h
up to 2300 gpm
- ▶ Head: H up to 160 m
up to 530 feet
- ▶ Temperature: T up to 110 °C
up to 230 °F
- ▶ Speed: n 1450/2900 rpm
1750/3500 rpm

Standard Material:

- | | | | |
|-----------|-----------------|--------------|-----------------|
| ▶ Casing: | Cast iron | ▶ Impeller: | Stainless steel |
| | Stainless steel | | Bronze |
| ▶ Shaft: | Stainless steel | ▶ Wear ring: | Bronze |

Description:

Back-pull-out design, no need to disturb pump body and pipelines when servicing. All the models only use 4 kinds of pump shafts and bearing cover, make parts exchangeable. Impeller is optimum design, inlet is enlarged, no whirlpool, deduct the water pump NPSH efficiently, which makes pump work stable with little noise. Casing and casing cover use wearing neck ring structure, which makes pump easy to maintain, makes parts work longer. The replaceable seal ring, makes pump work efficiently in a long time.



TD

Close Coupling Vertical In-Line Centrifugal Pump

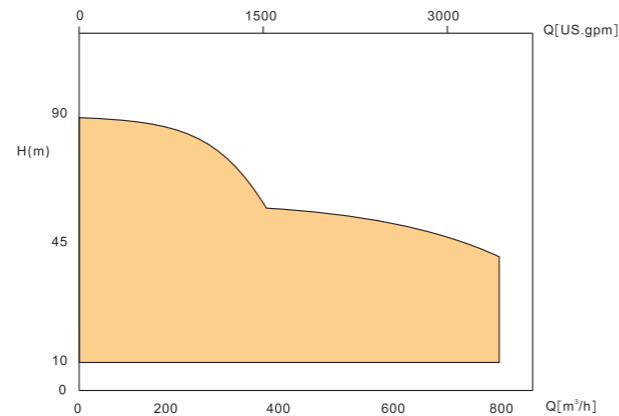
Application:

- ▶ Cooling water
- ▶ Water supply/distribution
- ▶ Fire protection
- ▶ Irrigation
- ▶ Metal manufacturing
- ▶ Boosting



Performance Range:

- ▶ Capacity: Q up to 750 m³/h
up to 3300 gpm
- ▶ Head: H up to 90 m
up to 300 feet
- ▶ Temperature: T up to 110 °C
up to 230 °F
- ▶ Speed: n 2900/1450 rpm
3500/1750 rpm



Standard Material:

- ▶ Casing: Cast iron
- ▶ Shaft: Stainless steel
- ▶ Impeller: Stainless steel
- ▶ Wear ring: Bronze
- ▶ Impeller: Bronze

Description:

Single stage close coupled in-line type, driven by TEFC standard motor according to IEC & DIN standard, top pull out design for fast and easy maintenance.

Mechanical seal according to DIN24960, self-lubrication, unbalance type, Carbon/Silicon Carbide is standard supply. Cast iron parts of the pump have a electrophoresis painting treatment.

Flange according to ISO7005-2/DIN2501 Pn16.

QW

Submersible Sewage Pump

Application:

- ▶ Raw water
- ▶ Municipal and industrial waste water
- ▶ Rain water
- ▶ Sewage works
- ▶ General industrial services
- ▶ Construction

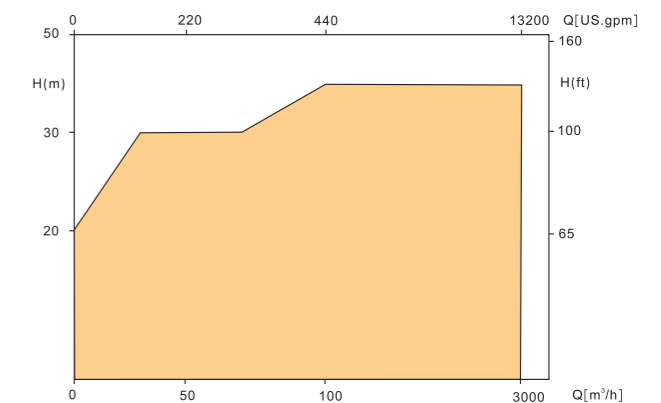


Performance Range:

- ▶ Capacity: Q up to 3000 m³/h
up to 150000 gpm
- ▶ Head: H up to 60 m
up to 180 feet
- ▶ Temperature: T up to 80 °C
up to 150 °F
- ▶ Speed: n 2900/1450/980 rpm
3500/1750/1180 rpm

Standard Material:

- ▶ Casing: Cast iron
- ▶ Shaft: Stainless steel
- ▶ Impeller: Cast iron
- ▶ Wear plate: Cast iron



Description:

Open single channel impeller with a hardened cutter for the CP series, non-clogging close impeller for QW series, Free standing or fixed installing. IP68 motor with double mechanical seal, overload and leakage sensor. Open jacket cooling system for optimum motor cooling, cable inlet with strain relief and anti-kink protection. Auto-coupling system and automatic type are on request.

Adjustable bottom plate as an anti-blockage device for the pumping of sewage containing solid or fibrous matter.

SP

Non-Clogging Self-Priming Sewage Pump

Application:

- ▶ Rain water and common sewage
- ▶ Industrial sewage water
- ▶ Wine and sugar industry
- ▶ Sewage water in the city



Performance Range:

- ▶ Capacity: Q up to 600 m³/h
up to 3000 gpm
- ▶ Head: H up to 36 m
up to 110 feet
- ▶ Temperature: T up to 40 °C
up to 80 °F
- ▶ Speed: n 2000 rpm

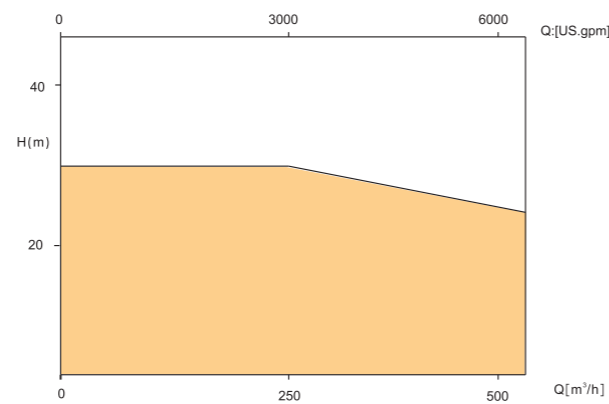


Standard Material:

- ▶ Pump casing is made of cast iron or ductile cast iron, impeller can be cast iron or stainless steel.

Description:

Back-pull-out construction convenient for maintenance and trouble shooting. Daily maintenance can be performed rapidly by common head tools, saving time and labor. Stable performance, reliable operation.



HYDRO 4000

Variable Speed Booster Pump System

Application:

- ▶ Residential building
- ▶ Commercial building
- ▶ AI facilities
- ▶ Industrial water supply



Performance Range:

- ▶ Capacity: Q up to 1400 m³/h
up to 6000 gpm
- ▶ Head: H up to 200 m
up to 650 feet
- ▶ Temperature: T up to 40 °C
up to 100 °F
- ▶ Speed: n 2900 rpm
3500 rpm



Standard Material:

- ▶ All the wet parts are made of 304 or 316 stainless steel

Description:

The system include pumps(2 to 5pumps), booster control panel with variable speed PID controller, pressure gauge, Valve, Pipe, water tank and base.

XB

Fire-Fighting Centrifugal Pump

Can be design according to NFPA20

Horizontal split case pump



Vertical turbine pump



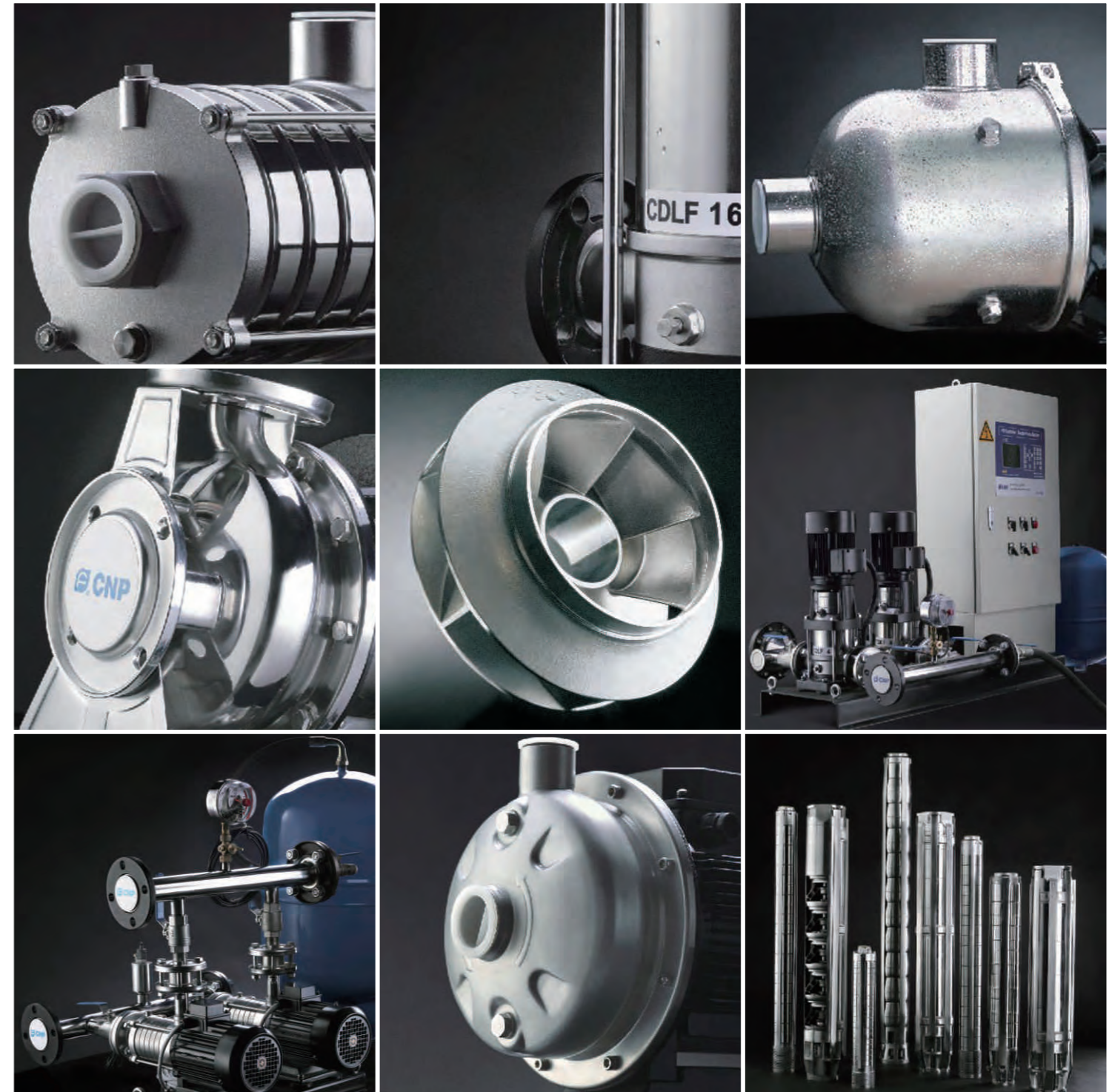
Stainless steel multistage pump



Control system



All Kinds of Stainless Steel Pumps



CNP is the first enterprise specializing in the research and large-scale production of stainless steel stamping welded centrifugal pump in China, and we are currently the professional manufacturer with the highest volume of production and marketing in that industry. We are also the industry's first to develop, produce, sell the pipeline layer equipment. It ranks first in the country in terms of product scope, sales volume, and production quality. Annual production is more than 400 thousand sets. The company has set up a complete network of marketing services to meet the requirements of overseas markets as well as domestic needs. The products have seen a wide range of application in the area of pressurization, industry, living water, cycling of air-conditioning water, heat supply, fire extinguishing system, pumping of underground water, treatment of sewage and waste water, chemical industry, desalination of sea water, and machine tool lubricating system, etc.