



APOLO

Pumps | Pumping Systems

PROCESS PUMPS AND SYSTEMS

CUSTOMER - SPECIFIC SOLUTIONS

PROCESS PUMPS AND PUMPING SYSTEMS

With over 160 years of company history, Apollo is one of the most experienced manufacturers of individual, reliable and high-quality pumps, system equipment and various systems in process engineering. We offer technically the best possible solutions to our international customers from the refineries, offshore, power plant and oil & gas industries. Due to our comprehensive product range, from product development to the production of system plants and process pumps, we can provide our customers with full support already in their planning phases.



ENGINEERING | FABRICATION

We use modern methods of design and development, such as 3D CAD/CAM for creating casting patterns and finite element analysis for components, as well as simulations of the entire unit. Additionally, we use continuous hydraulic design with CFD software to create innovative pumps and system applications.

Apollo has modern machines with a high degree of automation which allows for efficient cooperation between all divisions. This allows for fast processing times and high manufacturing flexibility, as well as location protection.

TESTING

All of our Products can be tested according to the current valid norms and standards at our testing facilities up to 10 000 m³/h capacity range and 4 200 m pressure head, as well as drive powers up to 4,4 MW and voltage levels between 400 V and 13 KV. It is also possible to use a frequency converter for speed control of pump units on the test field.

QUALITY

Apollo's quality management system follows the ISO 9001 standard and includes comprehensive tests, analyses, and documentation of all of their manufactured products. These products are designed, manufactured, and tested according to standards such as API 610, DIN EN ISO or ANSI. The tests include material and component tests - mechanical, metallurgical as well as lifetime control, and failure analyses.

«Everything from one source under one roof»

Apollo develops and supplies customized fluid systems for a wide range of customer requirements. The principle of manufacturing engineered systems in relation with process pumps is based on many years of experience and highly graduated personnel.



THE RIGHT PUMP UNIT SOLUTION FOR ANY REQUIREMENT

**ENERGY
INDUSTRY**



**OIL AND GAS
INDUSTRY**



**OFFSHORE /
ONSHORE**



**CHEMICAL
INDUSTRY**



**FERTILIZER
INDUSTRY**



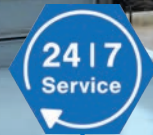
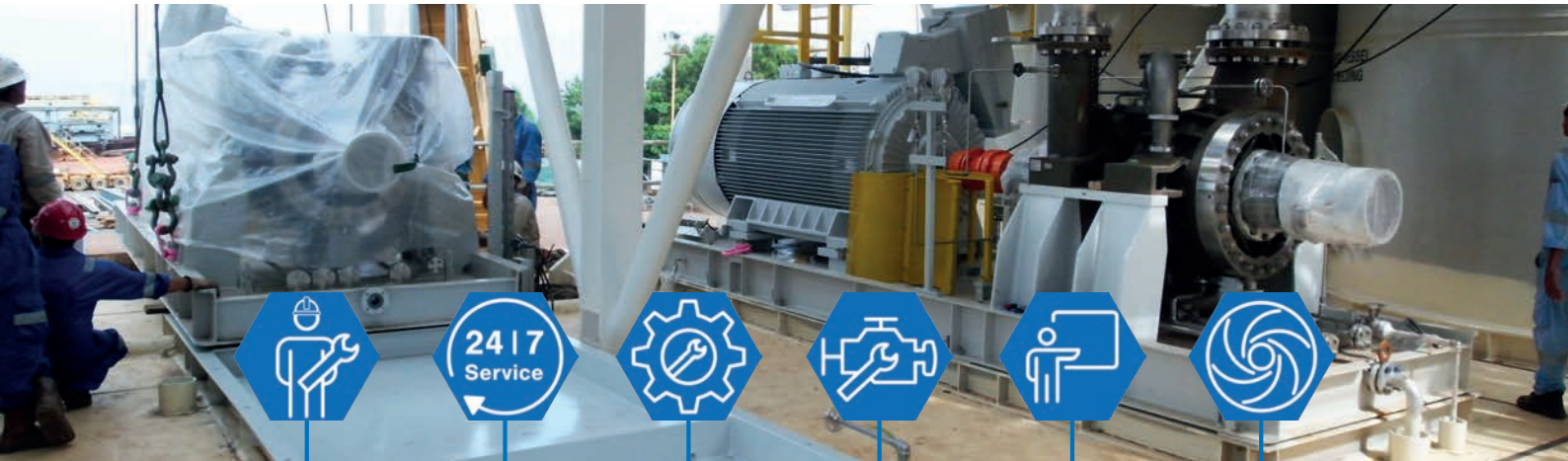
**WATER
INDUSTRY**



**RENEWABLE
ENERGY**



**GENERAL
INDUSTRY**



**COMMISSIONING /
COMPLETE
ASSEMBLY
ON SITE**



**24/7 SITE
SERVICE /
TECHNICAL
SUPPORT**



MAINTENANCE



**UPGRADE /
RETROFIT**



**EDUCATION
& TRAINING**

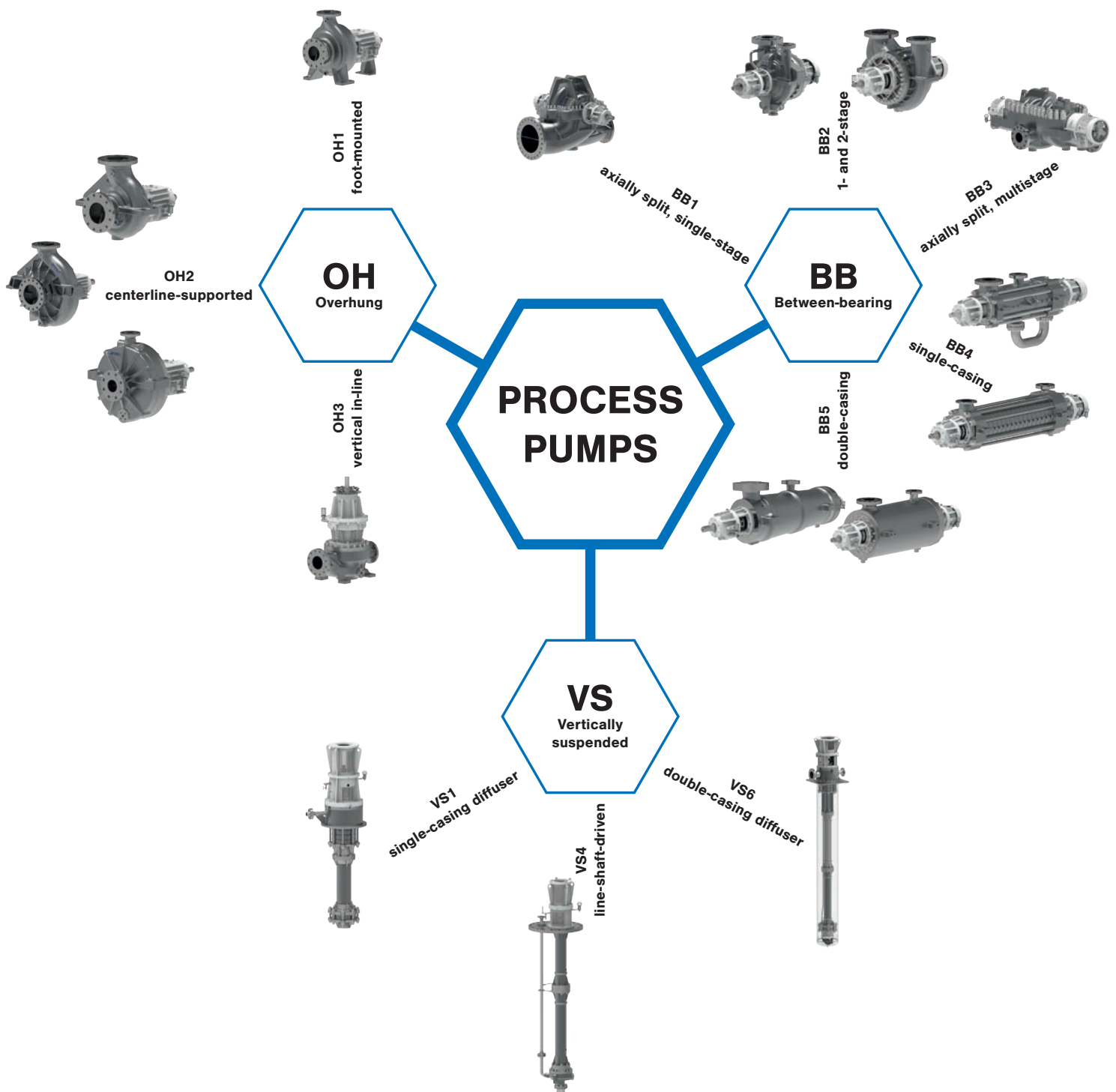


**SPARE
PARTS**

With the expertise gathered over many decades, we have specialized in the development and production of customer-specific pumps and pumping systems according to international industry standards as well as API 610. Based on synergies between pump manufacture and the in-house production of system technology and engineering plants, complete solutions can be provided from a single source.

HIGH QUALITY PROCESS PUMPS

Apollo develops and manufactures highly complex pumps and pumping systems for a wide range of industries and applications. The complete process chain can be offered, from engineering and mechanical processing to assembly, piping, electrical and control engineering. Customer-specific special requirements also present no problems at all.



OH1 - KRP / KRC

Horizontal, single-stage, radially split, heavy-duty foot-mounted pumps

Q (m ³ /h)	up to 2 800
H (m)	up to 250
P (bar)	up to 50 / 35
T (°C)	up to +220

OH2 - KRHL / KRPO / KGHL

Horizontal, single-stage/two-stage process pumps with semi-open impeller

Q (m ³ /h)	up to 45
H (m)	up to 350
P (bar)	up to 50
T (°C)	up to +450

BB1 - ZMK / ZMLK / ZMD

Heavy-duty, axially split, single-stage process pump, between-bearings version

Q (m ³ /h)	up to 10 000
H (m)	up to 200
P (bar)	up to 25
T (°C)	up to +150

BB2 - KGR / KGRD

Heavy-duty, radially split, two-stage process pump between-bearings version

Q (m ³ /h)	up to 1 600
H (m)	up to 640
P (bar)	up to 100
T (°C)	up to +400

OH2 - KRH / KRHA

Horizontal, single-stage, radially split, heavy-duty overhung pumps

Q (m ³ /h)	up to 5 000
H (m)	up to 320
P (bar)	up to 55 / 90
T (°C)	up to +450

OH3 - KRI / KRIL

Vertical, single-stage, radially split process pumps as inline version

Q (m ³ /h)	up to 800
H (m)	up to 270
P (bar)	up to 55
T (°C)	up to +250

BB2 - ZPR / ZPRA

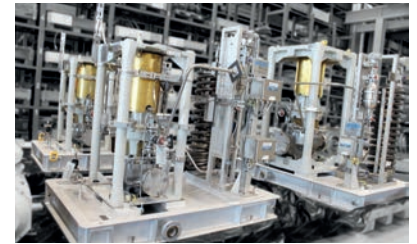
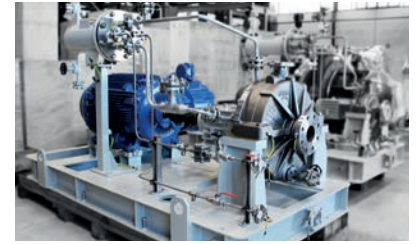
Horizontal, single-stage, double suction process pump, between-bearings version

Q (m ³ /h)	up to 4 000
H (m)	up to 450
P (bar)	up to 160
T (°C)	up to +450

BB3 - AMG

Horizontal, multistage, axially split high-pressure pump between-bearing version

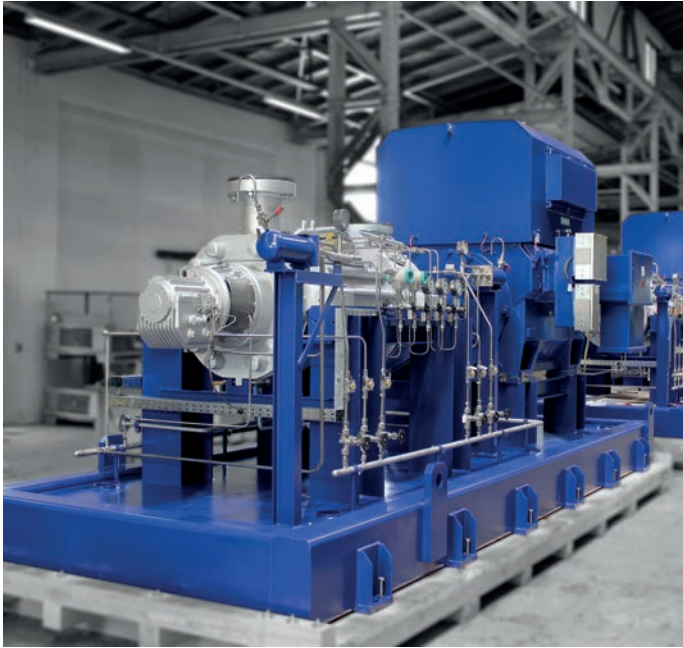
Q (m ³ /h)	up to 3 200
H (m)	up to 2 200
P (bar)	up to 265
T (°C)	up to +200



BB4 - HP / GP / GH / GM / GL

Horizontal, multistage high-pressure pump of ring-section or back-to-back design

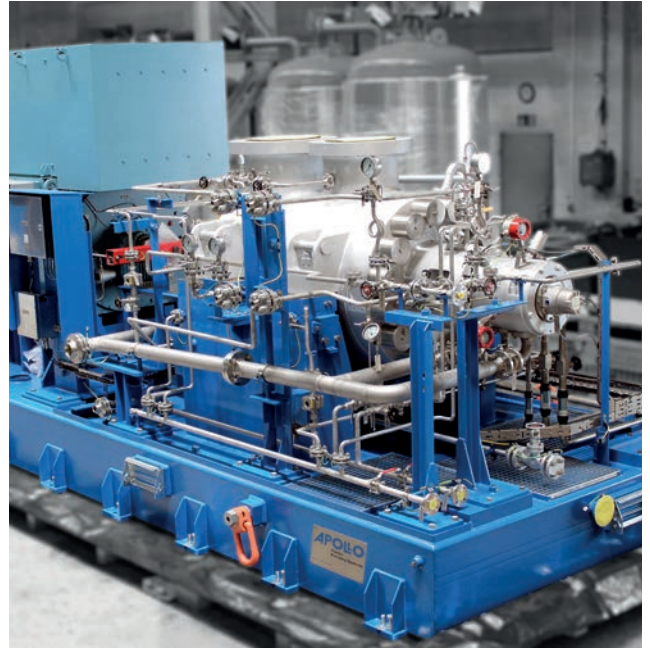
Q (m ³ /h)	up to 1 800
H (m)	up to 2 800
P (bar)	up to 300
T (°C)	up to +200



BB5 - TL / TG

Horizontal, multistage high-pressure pump of barrel design with inline rotor or back-to-back rotor

Q (m ³ /h)	up to 1 800
H (m)	up to 4 200
P (bar)	up to 450
T (°C)	up to +420



VS1

HPV / HPVX / GMV / GLV

Wet pit, vertically suspended, single-casing diffuser pumps

Q (m ³ /h)	up to 600
H (m)	up to 600
P (bar)	up to 63
T (°C)	up to +180



VS4

KRHV / KRCV / KRPOV

Vertically suspended, single-casing, volute, line-shaft-driven sump pumps

Q (m ³ /h)	up to 500
H (m)	up to 280
P (bar)	up to 50
T (°C)	up to +250



VS6

HPTV / GSTV / GLKV / GDTV

Double-casing, diffuser, vertically suspended pumps of can-type

Q (m ³ /h)	up to 3 200
H (m)	up to 1 400
P (bar)	up to 140
T (°C)	up to -140 / +260

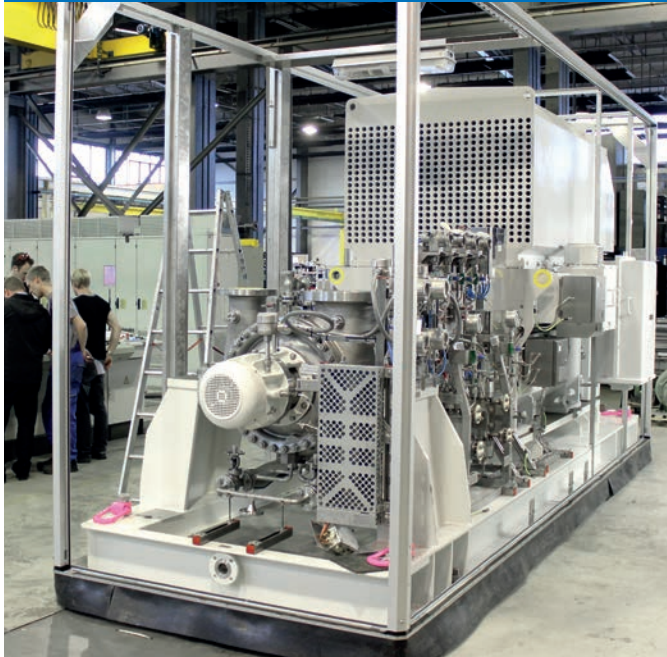


SULPHATE REMOVAL FEED PUMP

acc. to API 610 | BB2

at oil platform in the North Sea

- APOLLO pump type: **ZPR-150/500-618/CN**
- Pump power: 694 kW (555 m³/h of 341 m)
- Material: super duplex acc. to NORSOK

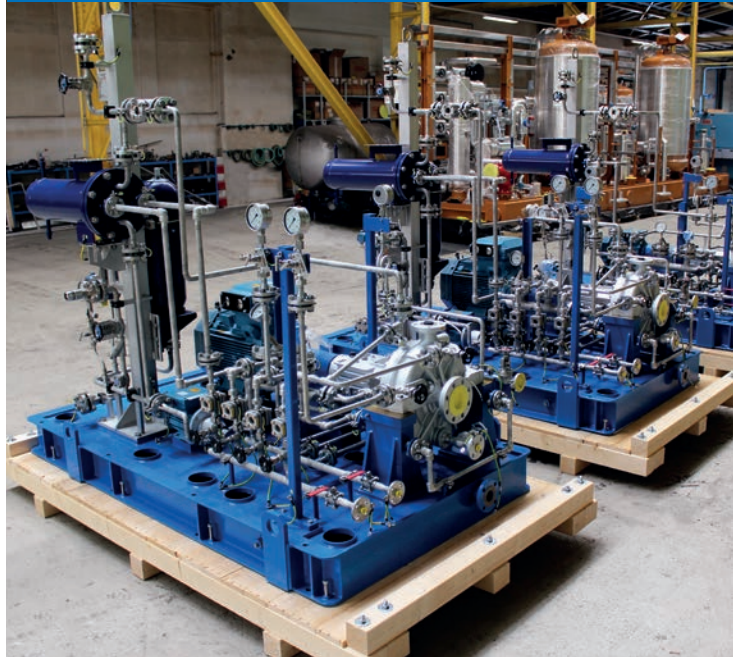


RELIEF K.O. DRUM PUMP

acc. to API 610 | OH2

at renewable process refinery complex

- APOLLO pump type: **KRH-40C/350-308/CN**
- Liquid: 200 °C Slop Oil
- with cooling equipment connected to the seal supply system and pump



SRP FEED PUMP

acc. to API 610 | BB2

at oil platform in the North Sea

- APOLLO pump type: **ZPRV-150/500-618/CN**
- special design as vertical BB2 pump
- Pump power: 448 kW (445 m³/h of 279 m)



HGO / HVGO FEED PUMP

acc. to API 610 | BB5

at renewable process refinery complex

- APOLLO pump type: **TGD-80D/8-399/CN**
- Liquid: 165 °C Heavy Vacuum Gas Oil
- Pump power: 1121 kW (168 m³/h of 2047 m)
- with lube oil system, Plan 53A system and cooling equipment, cartridge unit and with gear box





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