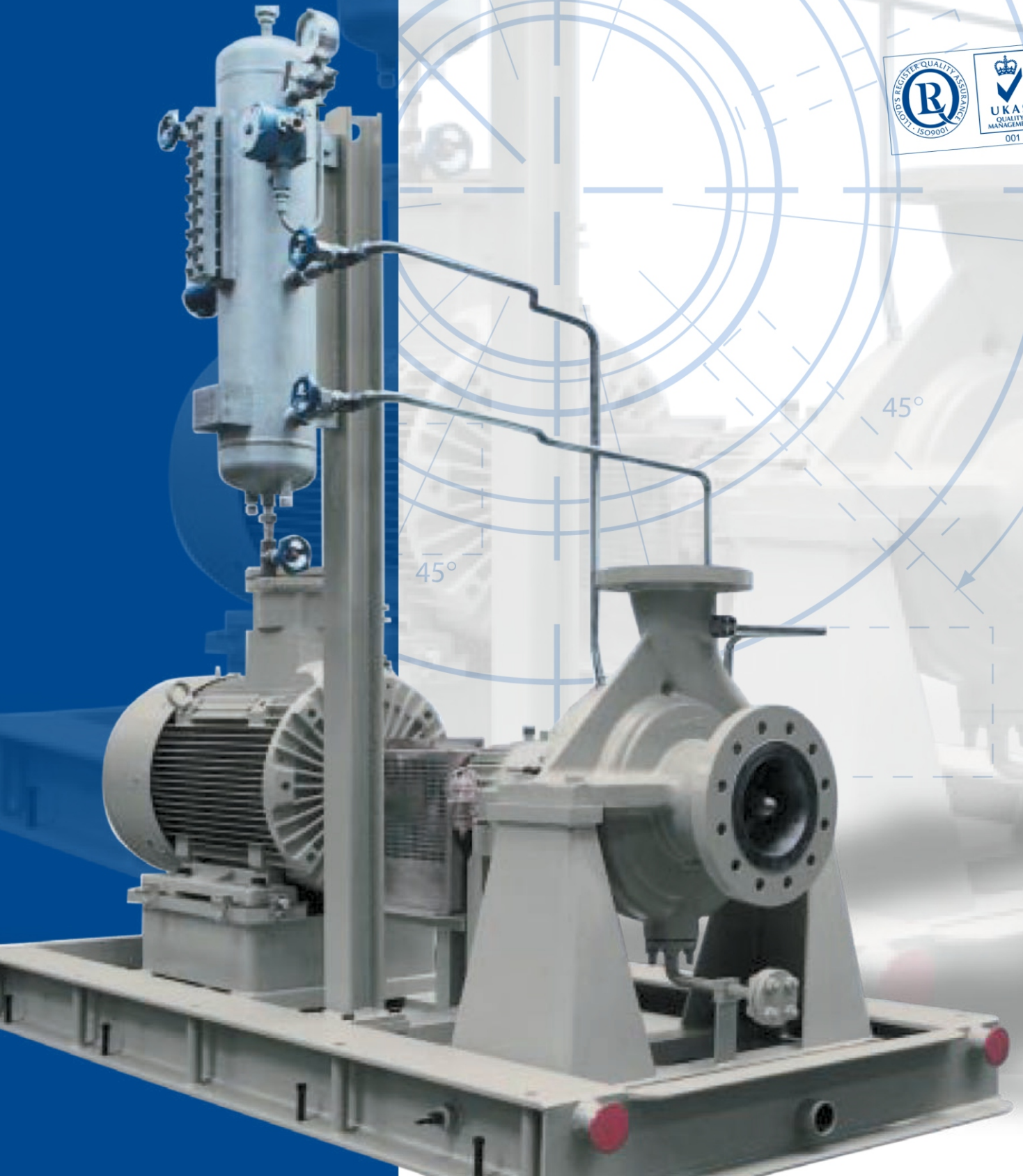


**RUHRPUMPEN**  
with innovations for the future

**SVN**

**Heavy Duty Process Pumps  
API 610 10<sup>th</sup> Edition**



## SVN Process Pump Designed to API 610 10<sup>th</sup> Edition for Heavy Duty Service

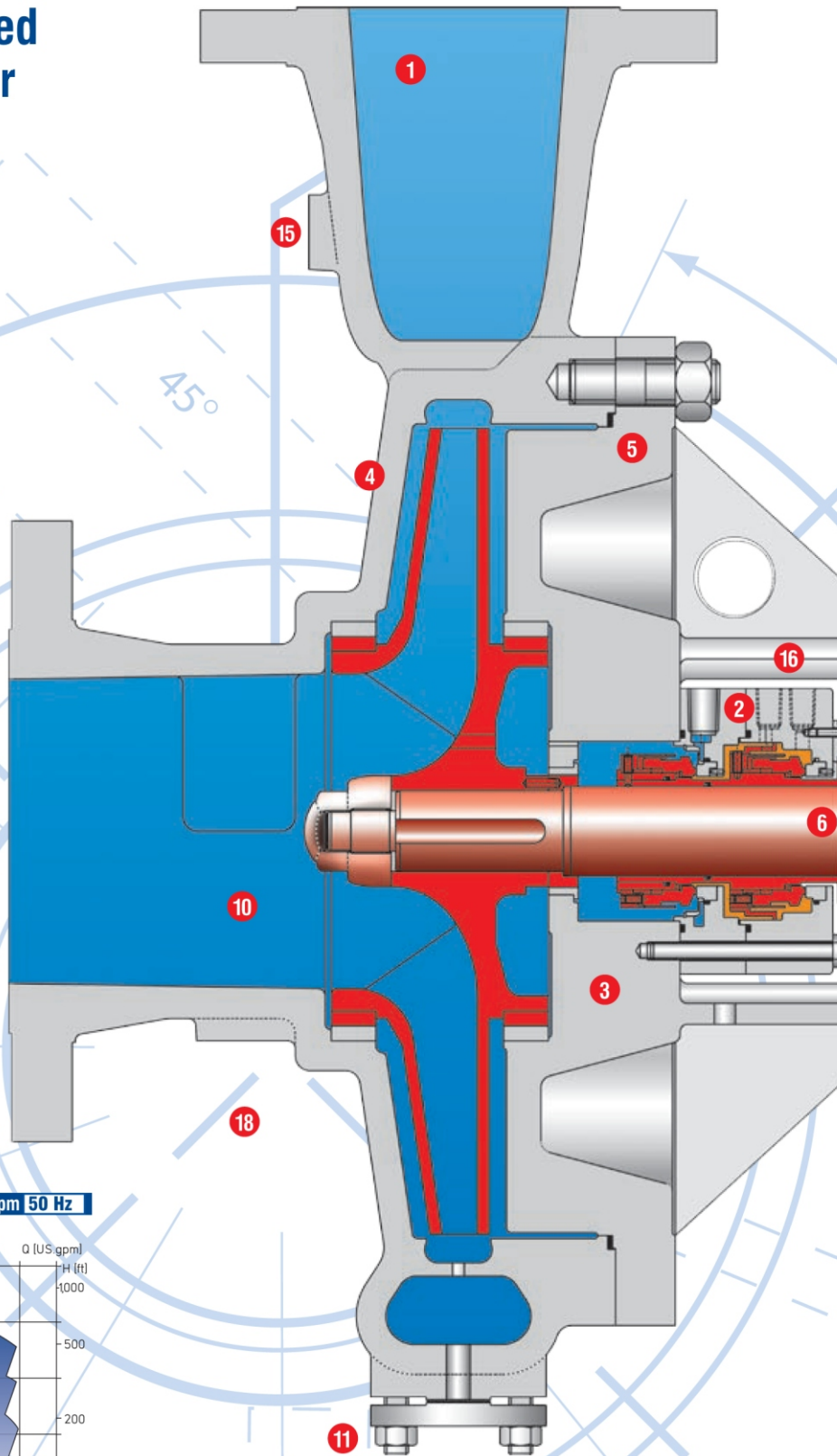
The RUHRPUMPEN Type SVN range is of heavy duty, horizontal overhung design. The single-stage SVN pumps are center line mounted, radially split with single suction impellers and single or double volutes. The design is accordance with the regulations of the API 610 10th Edition.

The range of SVN Pumps meets all the demands of single stage, process centrifugal pumps. It comprises of 55 sizes with only 4 bearing brackets, for the given speeds shown in the selection charts.

The range is designed for all process fluids and process conditions. It is in accordance with the specifications of API Standard 610, 10<sup>th</sup> Edition, combined with many years of experience in design, manufacture, quality assurance and operation of process pumps under heavy and medium duty conditions.

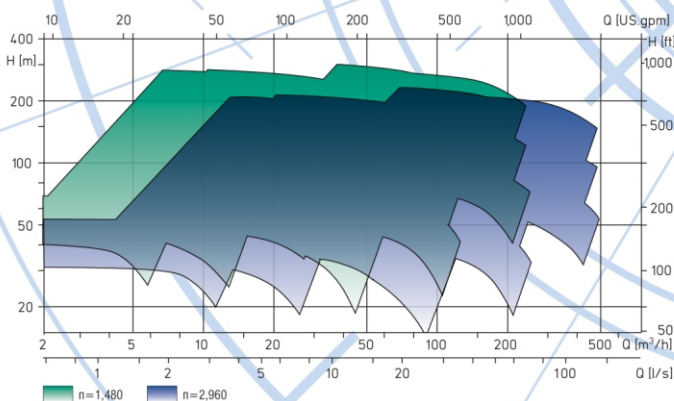
This pump line also conforms to the specifications of the standard ISO 9905 Class I.

To meet the most demanding requirements the SVN range is available in a wide spectrum of materials (see main material table and diagram working pressure-temperature in the technical brochure).



Selection Chart SVN

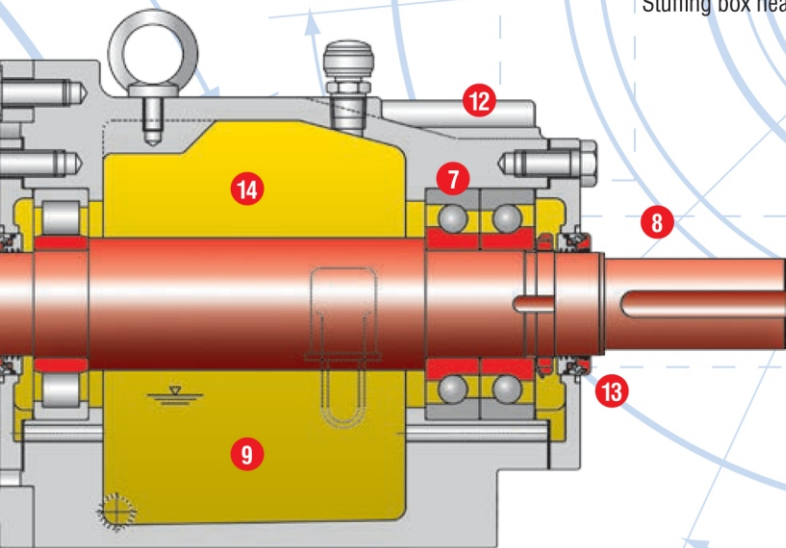
n = 1480/2960 rpm 50 Hz





## SVN Design Characteristics

- 1 55 volute casing pump sizes for 50 Hz and 60 Hz power supply with centerline discharge nozzles from 1 to 12", acc. to API 610, 10<sup>th</sup> Edition.
- 2 Mechanical seal chamber dimensions in full compliance with API 610 and API 682.
- 3 Alternatively cooling or heating of the seal chamber with piping connections.
- 4 Casing is centerline supported and features a back-pull-out design for easy maintenace. The casing as well as the fully welded, fabricated steel baseplates with driplate are designed for 4x API 610 nozzle forces and moments.
- 5 Casing/casing cover in metal-to-metal contact. Nonasbestos spirally wound gasket made of stainless steel/graphite foils totally enclosed.
- 6 Shaft deflection less than 0.03 mm in the area of the shaft seal because of proper assignment of bearing sizes and under use of double volutes. Low vibration values.
- 7 Antifriction bearings with an operating time of more than 25,000 h.
- 8 Bearing bracket fan cooling for high temperatures optional.
- 9 Bearing bracket water cooling with finned-tube insert optional. Easy access and cleaning. Stuffing box heating/cooling optional.
- 10 In case of low NPSH the installation of an inducer is possible.
- 11 Piping connections integrally flanged.
- 12 Oil mist lubrication optional.
- 13 Bearing bracket sealed with Labyrinth seals or equal.
- 14 Bearing lubrication alternatively with oil rings.
- 15 Auxiliary piping flanged to casing with special connectors (registered design). Integrated orifice possible.
- 16 Lap joint connection (registered design) to mechanical seal. Easy maintenance. Integrated orifice possible.
- 17 Bearing Bracket support as option.
- 18 Heating jacket for the suction area on special request.



## Centrifugal Pump SVN

### Range Application

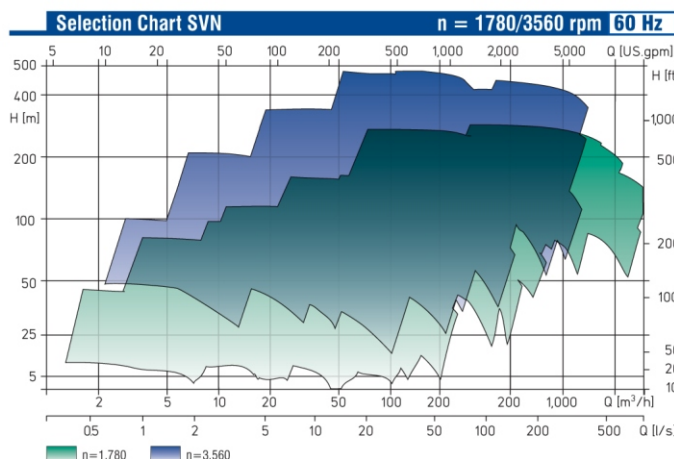
- Refineries
- Petrochemical Industry
- Oil and Gasfields
- Chemical Industry
- On/Offshore
- LPG plants

### Performance Range

Capacity	Q	2.5 to 2500 m <sup>3</sup> /h 10 to 11000 gpm
Head	H	6 to 480 m 20 to 1575 feet
Temperature	t	-80 to 450° C -110 to 850° F
Speed	n	1480/3560 min <sup>-1</sup>
Discharge pressure	P <sub>d</sub>	40 bar 580 psi (basic 260° C/ 500° F, max. 96 bar/1390 psi)
Discharge Nozzle Size	DN <sub>d</sub>	25 to 300 mm 1 to 12 "

Higher speeds and heads on request.

The SVN charts cover 55 pump sizes with several sets of impellers, especially designed for 50/60 Hz applications. Our continuous development process allows taylor-made hydraulics and designs to meet customer's requirements.





For over 50 years the name **RUHRPUMPEN** is synonymous world-wide with innovation and reliability for pumping technology.

45°



with innovations for the future

## Other RUHRPUMPEN Products



### SPN Type API 610 Vertical Heavy Duty

Vertical, single stage, single suction, radially split casing centrifugal inline process pumps, type SPN, for pumping i. e. chemical solution in a refinery. According to API 610, 9<sup>th</sup> Edition



### ADC Type API 610 High Pressure Decoking Pump

Double Casing Barrel BB5 Type, Coke-Cutting Pump in a Refinery in South America.



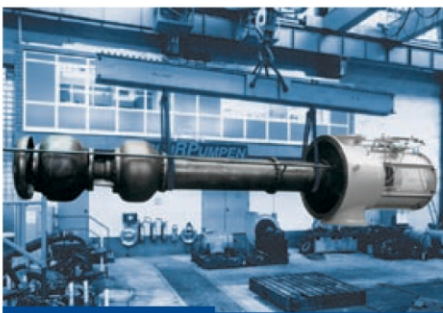
### ZM Type API 610 Pipeline Pump

Axially Split Single Stage BB1 Type, for Main Pipeline Pump operation in PR China.



### ZMS Type API 610 High Pressure Pipeline Pump

Axially Split Two Stage BB3 Type, for Main Pipeline Pump operation in Middle East.



### VLT Type API 610 Vertical Booster Pump

Vertical Double Casing (CAN) VS7 Type, for Booster Pipeline Pump operation in Near East.

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