CV A4 PUMP

CZ

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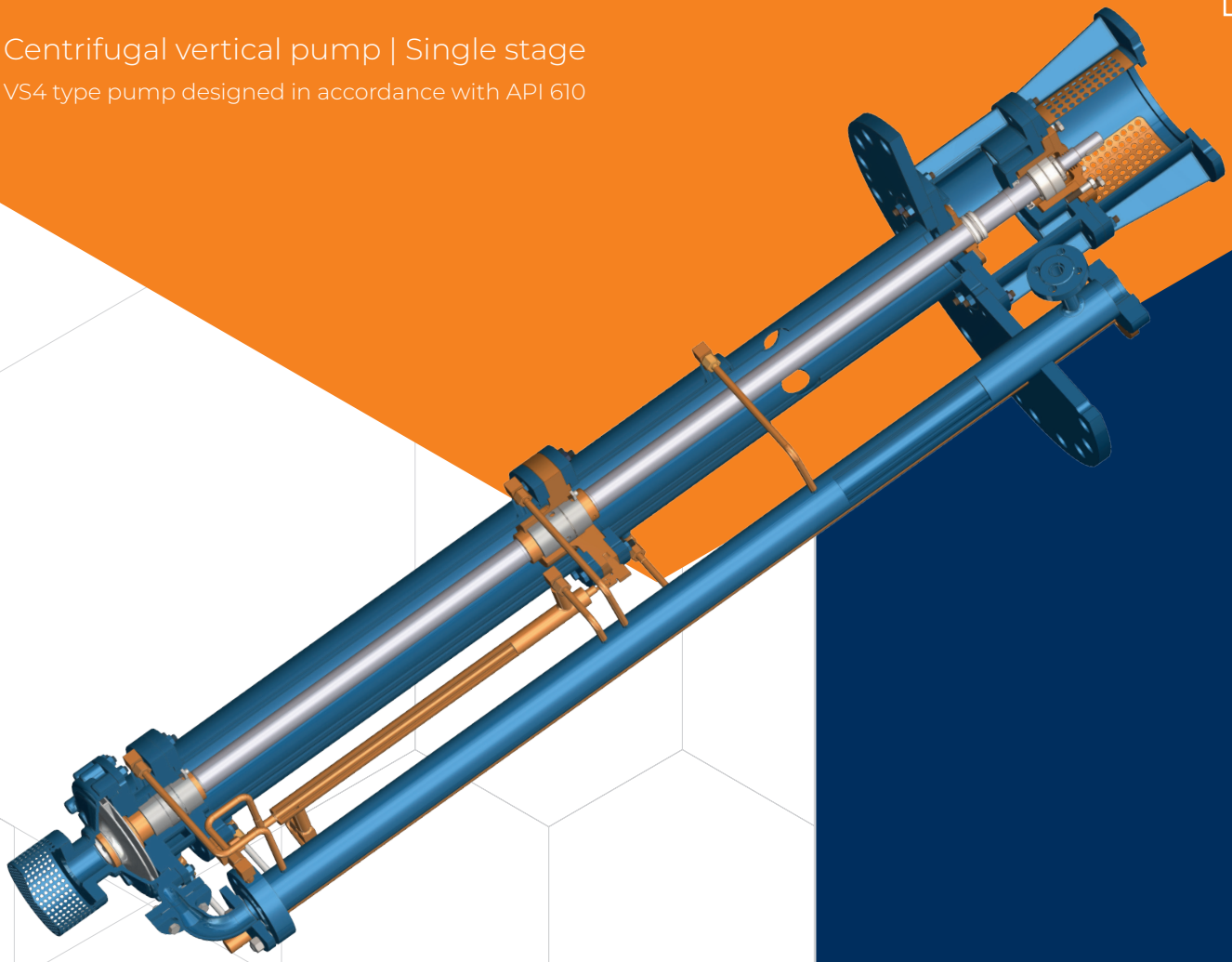
Centrifugal vertical pump | Single stage

VS4 type pump designed in accordance with API 610



RENETRA®

PUMP UNIT MANUFACTURER

KEY FEATURES

CS A4 pums are used in several types of industries where full compliance with API 610 11th is requested. They are used in aplications where mounting of the discharge and piping is well above the liquid level.

For oil & gas, petrochemical and chemical industries, refining,
paper and water services..

The CS A4´s are API 610 VS1 type pumps. Heavy duty design fully in accordance with API requirements..

RIGID LANTERN OF PUMP

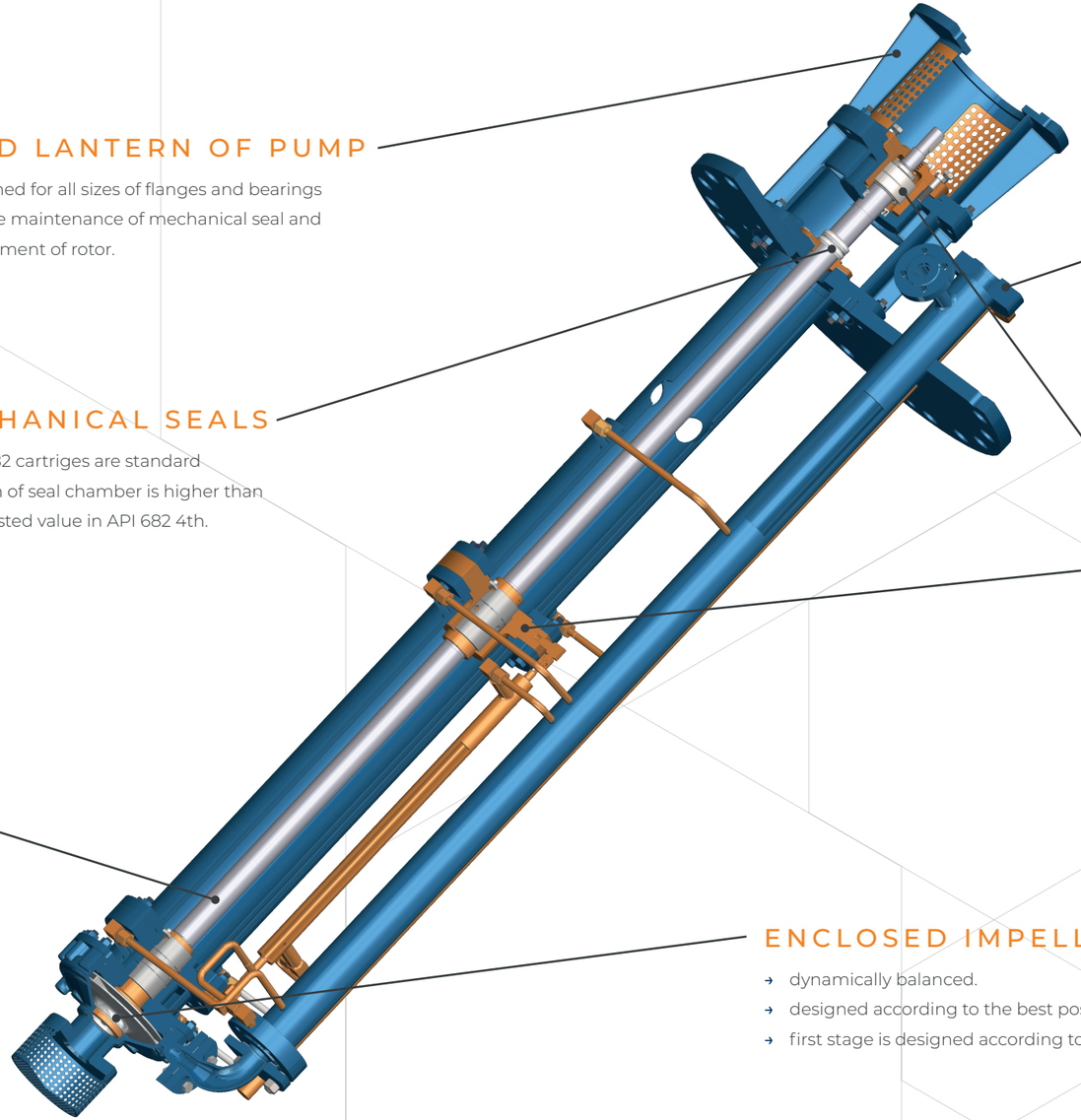
- designed for all sizes of flanges and bearings
- Simple maintenance of mechanical seal and adjustment of rotor.

MECHANICAL SEALS

- API 682 cartriges are standard
- length of seal chamber is higher than requested value in API 682 4th.

HEAVY DUTY SHAFT

- designed according to API specifications for good dynamical behavior of pump.
- smaller deflection to avoid excessive stress of mechanical seals, wear rings and bearings.



OUTLET FLANGE

- ASME B16.5 Class 300RF and ISO flanges are available

HEAVY DUTY SLIDING AND ANGULAR CONTACT BALL BEARINGS

- long life of bearings even under the most demanding operations.
- designed according to API long life specifications.
- Radial ball bearing can be supplied according to customers´ specifications.

ENCLOSED IMPELLER

- dynamically balanced.
- designed according to the best possible efficiency.
- first stage is designed according to the best possible NPSH3 value.

ADVANCED OPTIONS AND APPLICATIONS

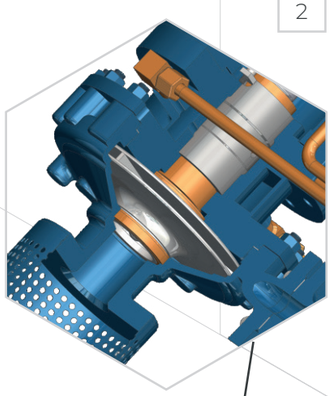
1 OPTIONAL INDUCER

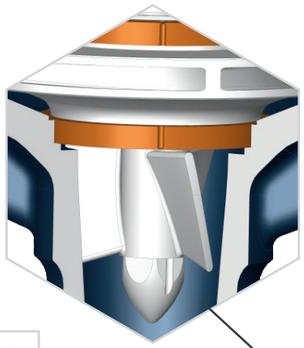
- For aplication where low NPSHR is required, an inducer can be mounted. Inducer is basically I an axial impeller with high specific speed and is designed specifically for requested flow.

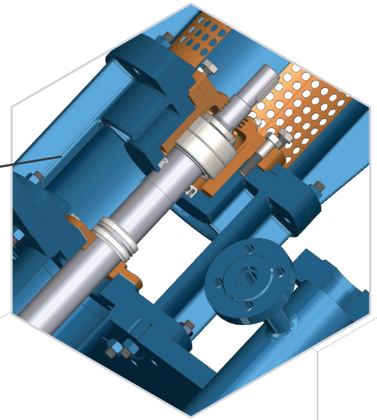
2 IMPELLERS

CV 4 pumps are available with 2 types of impellers:

- **enclosed impeller:** for pure or less contaminated liquid
- **semi opened impeller:** for more contaminated liquid







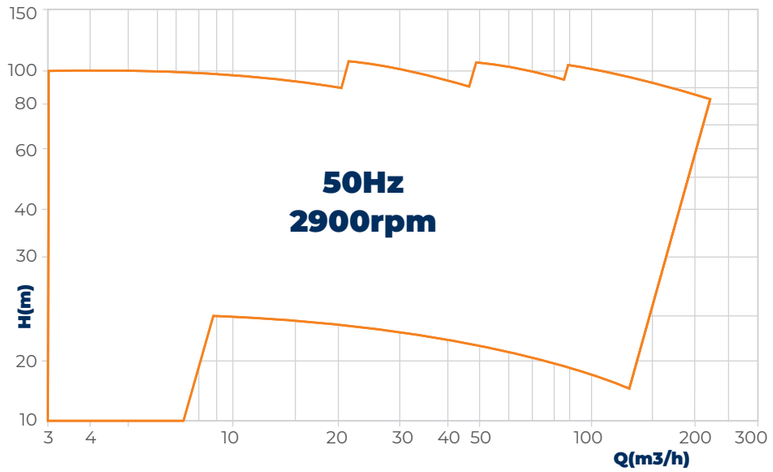
3 SUCTION BODIES

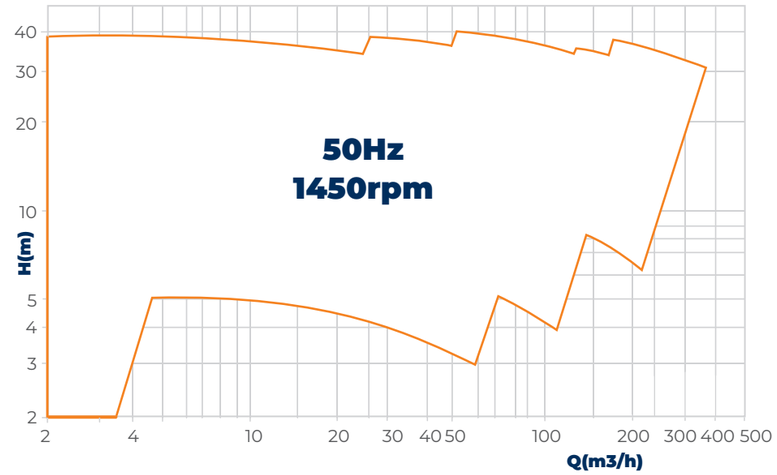
- Possibility of using a can or suction cone depend on customers´ specifications. Cone are usualy designed to prevent vortices, for pumps which are located in open Tanks. A can can be designed with semi spherical botom, with internal or with external drains.

4 BEARING SYSTEM OF LUBRICATION

- Designed for operating parameters fully in accordance with API 610 with robust angular contact ball bearing. Sliding bearings are located directly in correct places for good dynamic dehavior of pump. Oil bath, mist and purge for continuous bearing lubrication. Air fan for cooling of bearing housing is part of standard features. Water pipe cooling of oil filling for extreme ambient condition is optional.

PERFORMANCE RANGE CHARTS





RENETRA®

OPERATING PARAMETERS AND DIMENSIONS

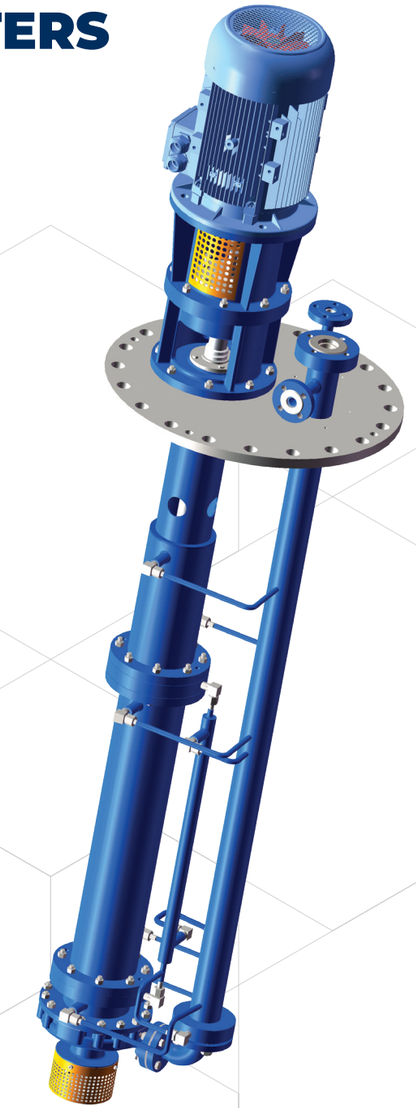
OPERATING FREQUENCY	→	50 HZ
OPERATING FLOW	→	up to 350 m^3/h
OPERATING HEAD	→	up to 110 m
OPERATING PRESSURES	→	up to 25 bar (at 20° C)
OUTLET FLANGES	→	up to 200 mm
OPERATING TEMPERATURES	→	up to 150° C

3D Model

EXAMPLE OF USING
OUR CV 25-200 A4 PUMP

Materials according to API 610 11th

MATERIAL CLASSES:
S-4, S-5, S-6, S-8, S-9,C-6,
A-7, A-8, D-1, D-2



We manufacture industrial pump units that we sell to customers worldwide and we also have our own team of research and development experts who use modern technologies, diagnostics and software (3D Solidworks, Solidworks Flow Simulation, FEAT software Solidworks Simulation, OpenFoam, Adash Vibration Analyzer).

We offer a broad portfolio of pumps even for the most demanding applications and most extreme use. We aim to be a reliable and professional partner in constructions of new investment units and refurbishments of already existing plants.

RENETRA s. r. o. is a holder of the quality certifcates ISO 9001:2016, ISO 14001:2016, ISO 18001:2008, TP TC 004/2011, TP TC 010/2011, TP TC 012/2011, ATEX 94/9/EC and the CE mark

Declaration of conformity

VERZE 01/18

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