

# VA

**HEAVY DUTY CANTILEVER SHAFT PUMPS FOR  
CORROSIVE, ENCRUSTING LIQUIDS AND SLURRY**

## **Industrial applications :**

- Fertilizer plants
- Iron and steel industry
- Chemical industry
- Petrochemical industry
- Hydrocarbon processing
- Various industrial applications

## **Benefits :**

- Heavy duty construction
- Ease of maintenance
- Adaptation for all hydraulic cells
- Can run dry
- No sealing system required



**ISO 9001 CERTIFIED GROUP**

 **Ensival Moret**  
A Moret Industries Company

## / Design

- Designed to accept all types of hydraulics: semi-open, open, or torque flow impellers : suitable for all kind of liquids.  
(Pump types : VAP / VO)
- Simple and robust design with ease of maintenance.
- Cantilever Design without submerged bearings and without shaft seal.
- Shaft guided by grease-lubricated roller bearings located above the base plate and sealed-off from contamination by a labyrinth ring.
- Construction with the bearing assembly under the base plate is possible.
- Discharge separate from the shaftline.
- Short in length (<1,8m). Can be extended by means of a suction pipe allowing the pump to operate with a liquid level under the impeller level.
- Bearing assembly is sealed-off to prevent bearing contamination by liquids or gases/vapors.
- Can run dry without risk of damage .
- Can be supplied with a V-Belt drive.

## / Performances and operating range :

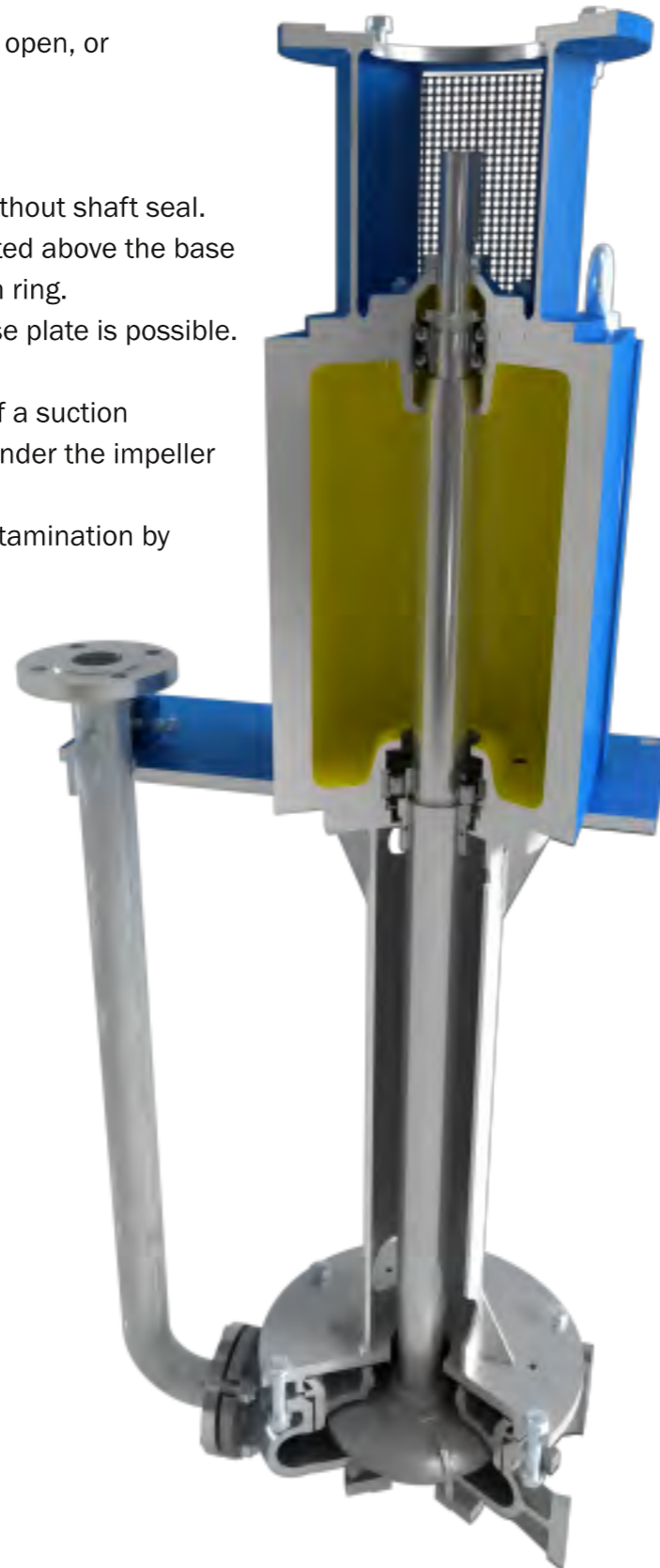
- Flow : up to 3500 m<sup>3</sup>/h (15.500 US gpm)
- Total head : up to 100 m (3287 ft)
- Maximum operating pressure : 20 bar (290 PSI)
- Operating temperature range :  
up to 120 °C (up to 248 °F)

## / Standard materials of construction :

- Cast iron, hard duplex iron, chromium iron.
- Stainless steel of all grades.
- Special alloys available upon request.

## / Additional Models :

- High temperature design up to 450 °C ( 850 °F).
- Design with heating jacket (Molten sulphur).
- Design for ammonium nitrate



## / HIGH RELIABILITY AND MINIMUM LIFE CYCLE COST

## Type of hydraulics units



### / Open impeller :

For contaminated liquids and slurry. Open impeller provides an efficient solids handling.



### / Semi-open impeller :

For liquids with low solids content, aerated or encrusting.

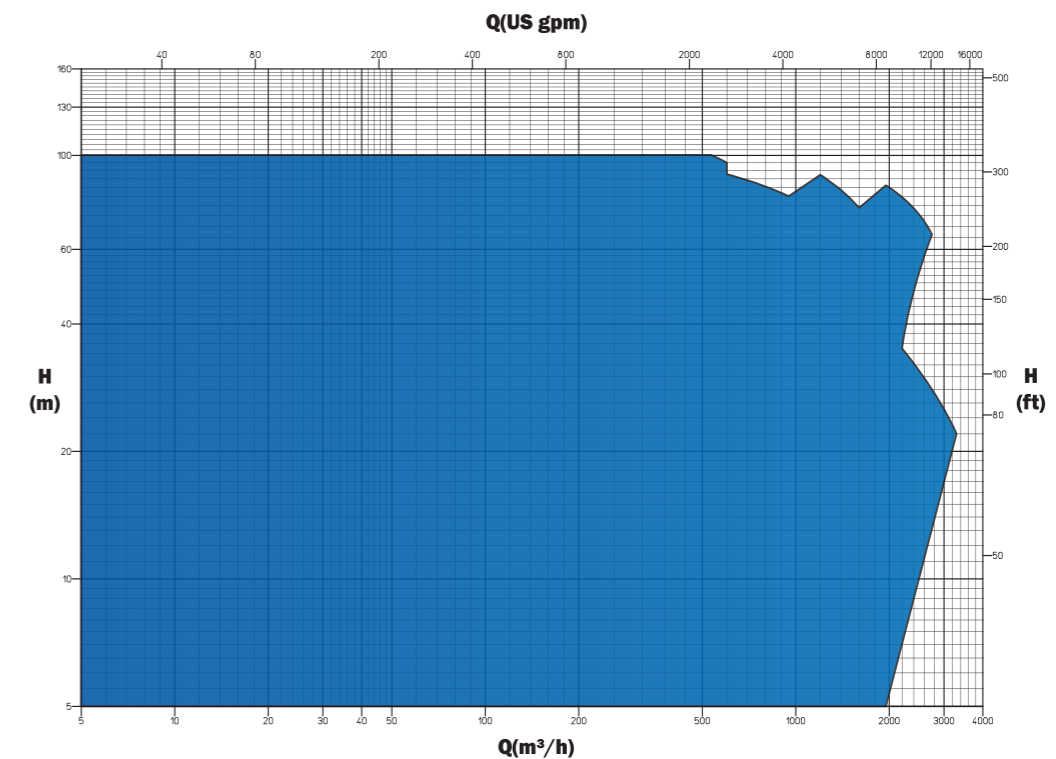


### / Recessed impeller pump :

For aerated liquid or containing large size solids (Non-clogging pump).

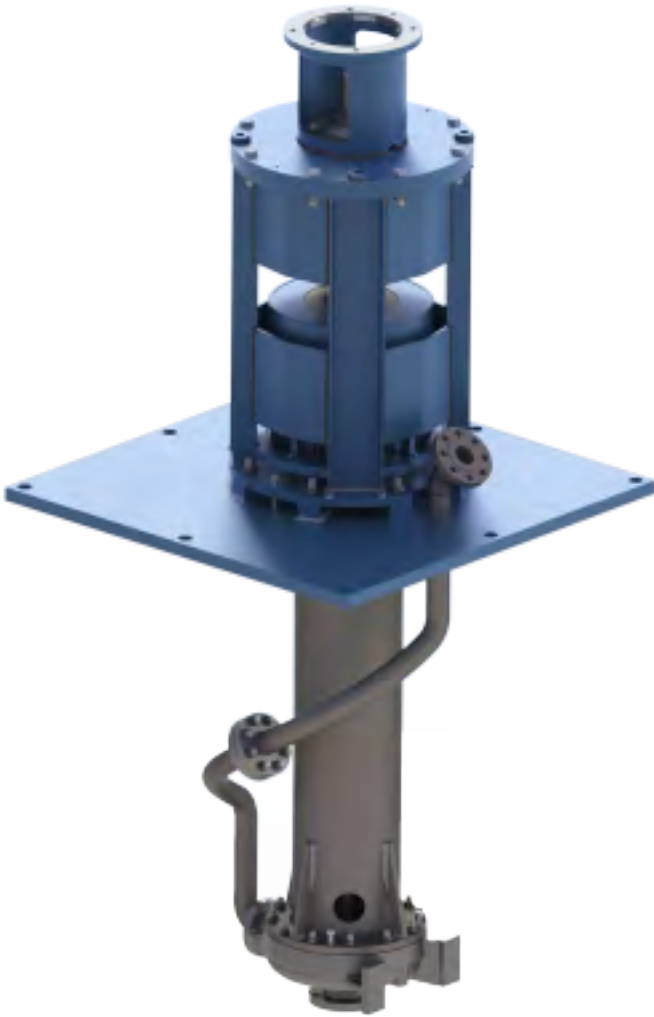
## / Other types of impeller upon request

## General hydraulic coverage



/ For higher performances in capacity and head, our team of engineers will be pleased to answer your requests.

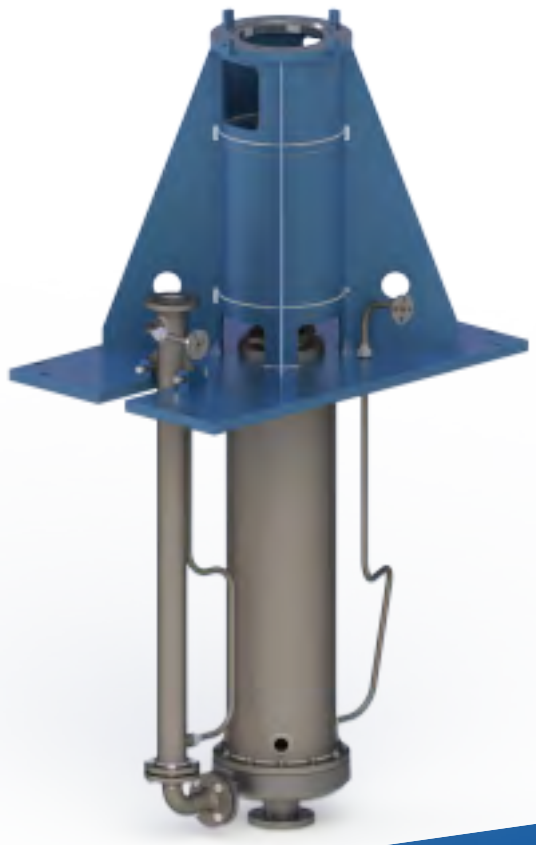
## High temperature design



- / Engineered design for high temperature applications**

- / Up to 450 °C - Higher temperature upon request**
- / Proven design with application up to 950 °C**
- / Fan-cooled bearing frame**
- / Precise selection of materials according to temperature requirements, coefficients of expansion and pumped fluid.**
- / Many options are available to suit plant requirements**

## Design with heating jacket



- / Specifically designed for molten sulfur applications**

- / Reliable and efficient design**
- / Suitable for clean or slightly contaminated molten sulfur**
- / Steam jacketed column and discharge pipe allow to maintain the required temperature. Jacketed casing and suction pipe are optional.**
- / Designed to provide long service life with minimal maintenance costs**
- / A range of horizontal pumps for molten sulfur is also available.**



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