

# CUP-OH2 ROW

SINGLE STAGE, API, END SUCTION PUMP

## PUMP OVERVIEW

The ClydeUnion Pumps CUP-OH2 pump is a heavy duty, single stage, radially split, overhung, end suction machine, designed and manufactured to the latest edition of API 610.

The CUP-OH2 pumps have stringent API noise and vibration limits which are met, due to a rigid pump body with 360° bearing support and heavy centreline mounting. Reliable operation at elevated temperatures is ensured due to a number of cooling methodologies complementing inherently cool running bearing modules. A back pull-out design allows the complete rotating assembly to be removed without disturbing the suction or discharge pipework. ClydeUnion Pumps legacy brands including HHS, DB10, SMK and H-OP provide the industry with a very comprehensive hydraulic coverage.

- Rigid shaft design with minimised deflection at the seal faces to below API 610 criteria, provides a longer mechanical seal life
- High rigidity baseplate designs are among the stiffest in the industry
- Bearing housing cooling fins provide optimum heat transfer
- API material options from S4 to D2 - NACE, low temperature and other material options available

## TYPICAL APPLICATIONS

- Petroleum / refinery
- Gas processing
- Offshore installation
- Desalination
- Petrochemical
- Nuclear / conventional power
- Jet fuelling systems



## TECHNICAL DATA

**Capacity:** up to 1,700 m<sup>3</sup>/hr / 7,500 USgpm

**Delivery head:** up to 350 m / 1,148 ft

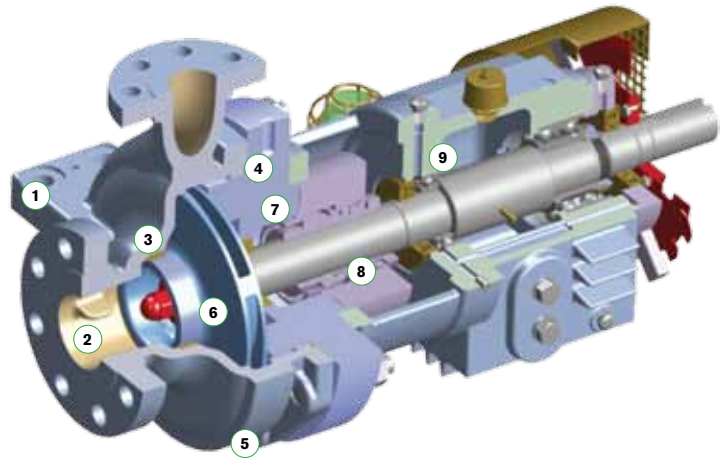
**Temperature:** up to 426 °C / 800 °F

**Speeds:** up to 4,000 rpm

**Flange drilling:** ANSI or BS

## FEATURES + BENEFITS

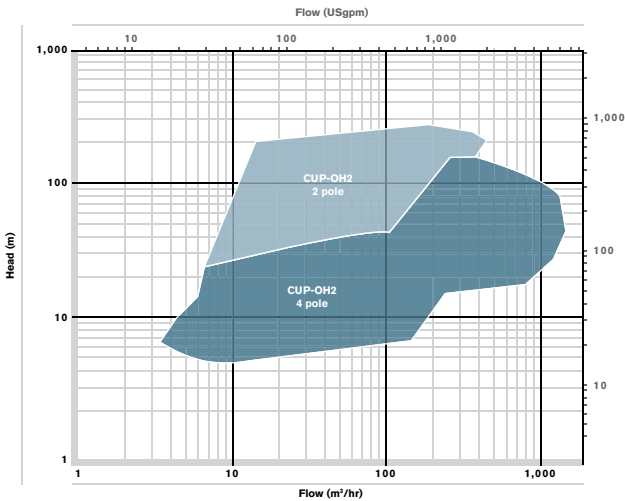
- 1 **Casing**  
Centreline mounted casings, API 610 nozzle loads
- 2 **Suction nozzle**  
Flow straightening vane reduces inlet swirl to ensure uniform flow into the impeller eye. Top suction nozzles available on selected sizes
- 3 **Wear rings**  
Renewable case and impeller wear rings. Rings are secured by tack welds as standard
- 4 **Casing to cover**  
Metal to metal fit with controlled compression gasket. Series 300 stainless steel flexible graphite gasket used as standard
- 5 **Casing drain**  
Casing can be fully drained, socket weld flange drains as standard
- 6 **Impeller**  
Designed to provide low suction specific speeds. Streamlined impeller locknut used for improved suction performance. Balance holes are optimised to ensure long bearing and seal life
- 7 **Seal chamber**  
API 610 and API 682 compliant. Space for dual seals, easy access for maintenance



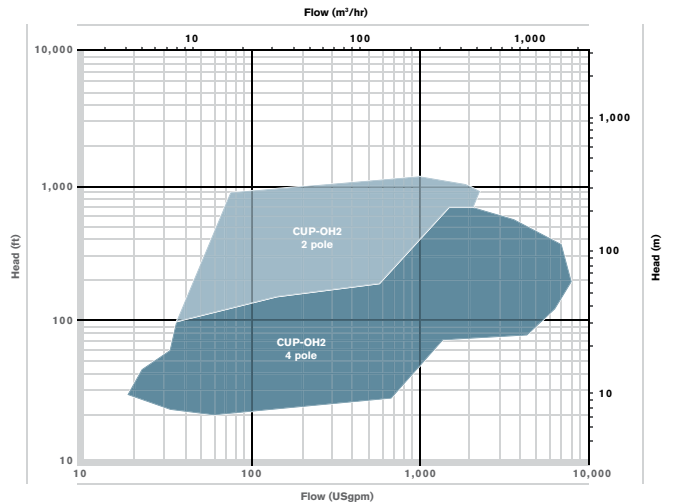
- 8 **Throat bushing**  
Close clearance design helps provide optimum seal chamber environment. Pressured in from high pressure side
- 9 **Radial bearings**  
Single row, deep groove bearings. Machined brass cages as standard

## RANGE COVERAGE CHARTS

50HZ RANGE CHART



60HZ RANGE CHART



These charts cover the standard pump range. Other engineering designs exist for extreme applications

# SPX

P: +44 (0)141 637 7141 F: +44 (0)141 633 2399 E: cu.sales@spx.com

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