

# CUP-0H2

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 centerline 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 minimized 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

## TYPICAL APPLICATIONS

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



## **TECHNICAL DATA**

Capacity: up to 7,500 USgpm / 1,700 m³/hr

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

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

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

**Flange drilling:** ANSI or BS

#### **FEATURES & BENEFITS**

## (1) Casing

Centerline mounted casings, API 610 nozzle loads

## <sup>2</sup> 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

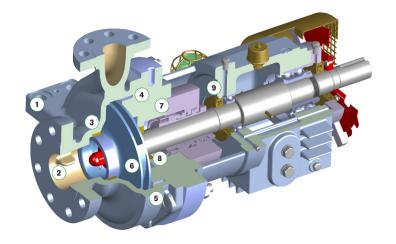
Casing can be fully drained, socket weld flange drains as standard

### 6 Impeller

Designed to provide low suction specific speeds. Streamlined impeller locknut used for improved suction performance. Balance holes are optimized 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

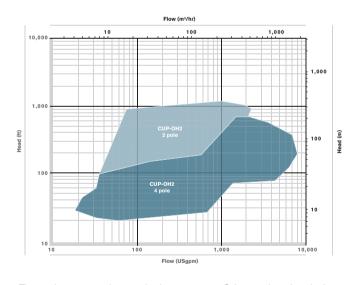
Close clearance design helps provide optimum seal chamber environment. Pressured in from high pressure side

## 9 Radial bearings

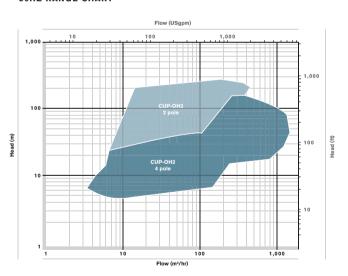
Single row, deep groove bearings. Machined brass cages as standard

#### RANGE COVERAGE CHARTS

#### **60HZ RANGE CHART**



## 50HZ RANGE CHART



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



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CUP-0418-US Version: 02/2014 Issued: 12/2014