

TECHNICAL DATA SHEET

# CUP-OH2

## 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

## 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 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



