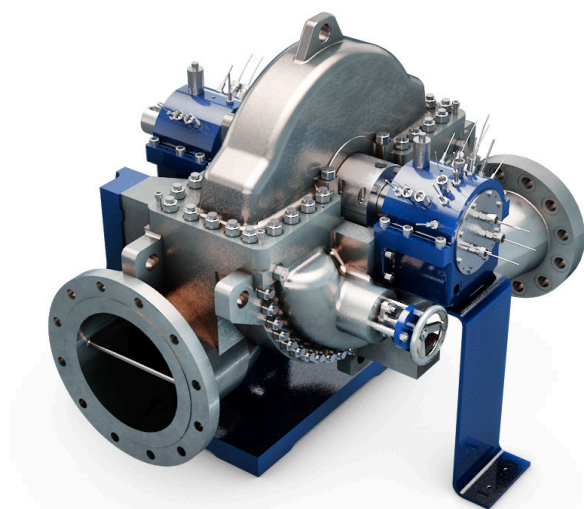


# MONO CBA (Curtis impeller between Bearing Axial flow)

Howden steam turbines for mechanical drives acc. API 611



With extensive experience in rotating equipment, of more than 160 years, Howden has engineered the latest steam turbine innovation - the MONO CBA (Curtis impeller between Bearing Axial flow).

The new single stage turbine meets API 611 standards (revision 5, 2008), a mandatory specification for mechanical drives, in the petrochemical, refinery and oil & gas markets.

The MONO CBA steam turbine features a two-stage curtis rotor, which is one-piece bladed design that fits securely on the shaft.

The rotor has inter-stage guide vanes, a second blade row and titanium shrouded blade tips. These features allow the MONO CBA to outperform single-stage technologies while operating at speeds as high as 9000 rpm.

## MONO CBA steam turbine:

Developed from our trusted and proven Kühnle, Kopp & Kausch product brand technology

Custom modular design to meet customer specifications

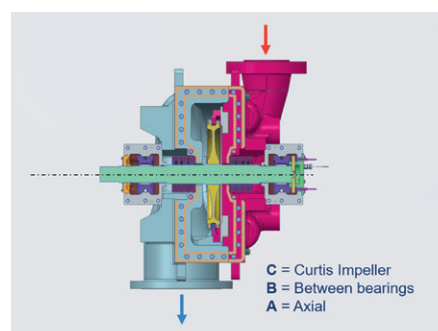
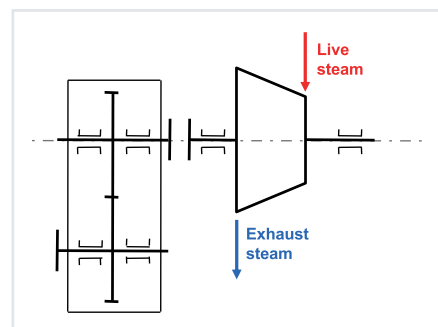
Available as bare-shaft assembly or full packaged solution

Stringent testing procedures

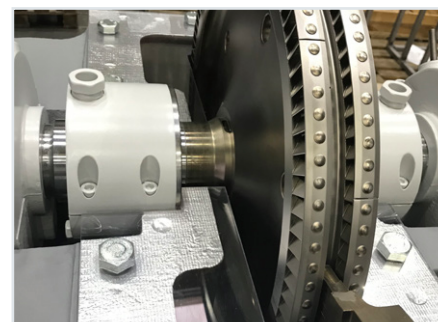
Simple installation and maintenance

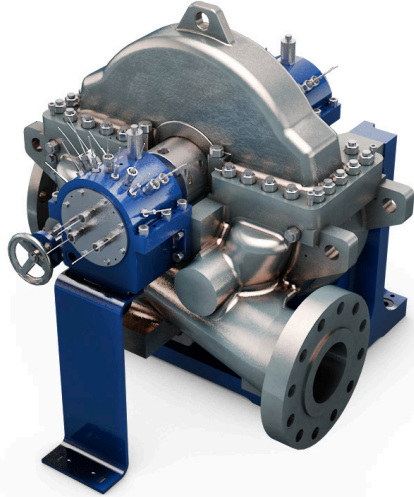
Journal bearings installed externally with a protective system

Enabled with our unique digital solution, Howden Uptime



Technical parameters	
Live steam pressure	max. 769 psia / max. 53 bar (a)
Live steam temperature	max. 824°F / max. 440°C
Exhaust steam pressure	14.5 – 145 psia / 1 – 10 bar (a)
Coupling power	up to 2,682 hp / up to 2.000 kW
Speed	according to API 611, up to 6,000 rpm (up to 9,000 rpm possible)





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**Howden steam turbines are designed to efficiently generate power out of steam, and our products are considered the most economical and flexible turbines that you can get.**

With the addition of MONO CBA to our portfolio, you have a range of options to suit your requirements including overhung design or in-between-bearings design for API 611 applications.

**Committed to quality**

We are a trusted service provider, driven to deliver timely solutions that enable our customers to achieve their goals. As part of this, we actively listen to our customers and combine this with our technical expertise to deliver dependable solutions.

We understand that our products are an essential part of our customers' processes and reliability is crucial. All our steam turbines are designed to our very highest quality standards and adhere to ISO 9001 and ISO 14001.

Our regional sales and service centres located around the world ensure our customers have a local Howden specialist to respond to specific customer needs. We deliver superior customer service at the local level, in all regions.

**Features**

- Turbine Casing
- Rotor and Turbine shaft
- Carbon ring sealing
- Prime coating
- Base frame\*
- Gear\*
- Oil system\*
- Trip and control valves\*
- Cabling\*
- C3 or C4 coating\*
- Turbine control panel or control components\*
- Functional test

\* optional feature