



*Specialist for Pumping Technology*



# **JET WATER PUMP**

## **HYDRAULIC DECOKING SYSTEMS**

# Hydraulic Decoking Systems Jet Water Pump



Ruhrpumpen has modified the existing barrel type process pumps to a strong Decoking Jet Water Pump Line.

## DESIGN

Horizontal barrel pump, BB5 type according to API 610 latest edition.

<b>No. of stages</b>	up to 12
<b>Impeller</b>	Individually secured at the shaft, with separate shrink fit One keyway per impeller outside shrink fit area
<b>Shaft</b>	Stepped shaft
<b>Bearing</b>	Radial, sleeve Axial Kingsbury Thrust Bearing JHJ 9" (229 mm)
<b>Lubrication</b>	Forced feed, shaft driven or by external lube oil pump
<b>Flanges</b>	Suction 300# up to 2500#, Discharge 2500#
<b>Drain</b>	Casing drain
<b>Vent</b>	Not applicable
<b>Balancing line</b>	With flow transmitter

## HYDRODYNAMICS

<b>Suction side</b>	Single suction
<b>Suction specific speed</b>	Version A with 11,000 Version B with 9,500
<b>Hydrodynamic design impeller</b>	Closed impeller design Protected shaft with hydrodynamic optimized flow ways
<b>Rotor</b>	Wet stiff rotor design, minimized rotor span

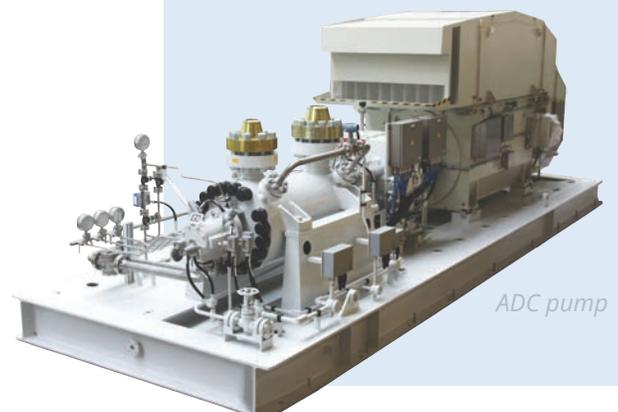
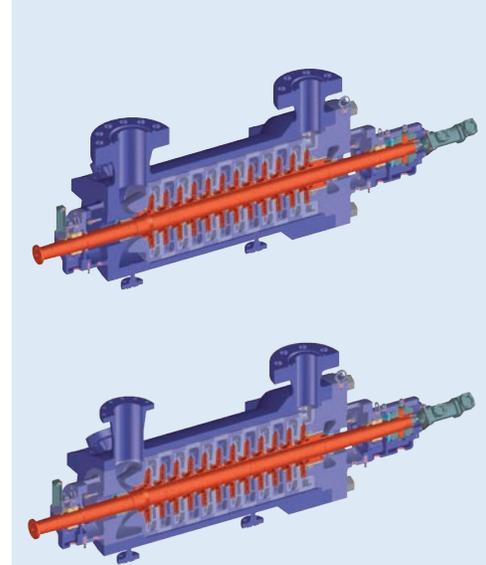
## MATERIALS

<b>Material class</b>	Per API 610, C6 modified for Decoking NACE version available
<b>Standard barrel</b>	F6NM (Ca6Nm forged), NACE version available
<b>Impeller</b>	Ca6Nm, coated with DLC, first stage 17-4 pH
<b>Diffuser</b>	Ca6Nm
<b>Impeller rings</b>	Ca15 (with hardness difference acc. API) coated with DLC
<b>Shaft</b>	17-4 pH

## OPERATING LIMITS

Differential Head	max. 3600 m (11811 ft) for flange class 2500#
Cutting Pressure	up to 350 bar (5076 psi)
Flow	up to 400 m <sup>3</sup> /h (1761 gpm)
Speed	up to 4500 min <sup>-1</sup> (4500 rpm)
Power	up to 5000 kW (6705 HP)
Temperature	standard 65 °C (149 °F) / extended 95 °C (203 °F)

*\*For operation outside this range, please contact a Ruhrpumpen representative.*



ADC pump