

# CUP-FK

## MULTI-STAGE BARREL RADIALLY SPLIT PUMP

### PUMP OVERVIEW

CUP-FK, a radially split, barrel case, multi-stage diffuser pump designed for high pressure, high temperature and high speed applications. A world leading product with features such as optimum hydraulic design, sustainable efficiency, full cartridge withdrawal, and the inherent ability to withstand thermal shock, the CUP-FK range pump offers reliable operation and low through life cost of ownership.

The CUP-FK range has been designed to produce an advanced pump with reduced whole life costs. All the pump internals can be withdrawn quickly without disturbing pump alignment or pipework. This helps save time and makes maintenance straightforward.



### TYPICAL APPLICATIONS

- Super-critical power plants
- Sub-critical power plants
- Combined cycle power plants
- Cogeneration plants
- Industrial / refinery boiler feed

### TECHNICAL DATA

**Capacity:** up to 2,800 m<sup>3</sup>/hr / 12,300 USgpm

**Delivery head:** up to 5,000 m / 16,400 ft

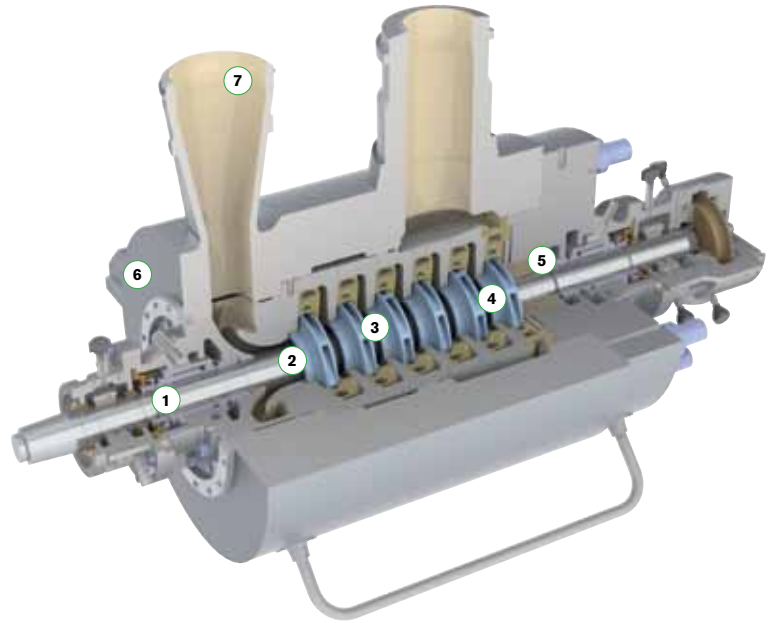
**Temperature:** up to 250 °C / 480 °F

**Speeds:** up to 7,000 rpm

**Flange drilling:** ANSI or BS

## FEATURES + BENEFITS

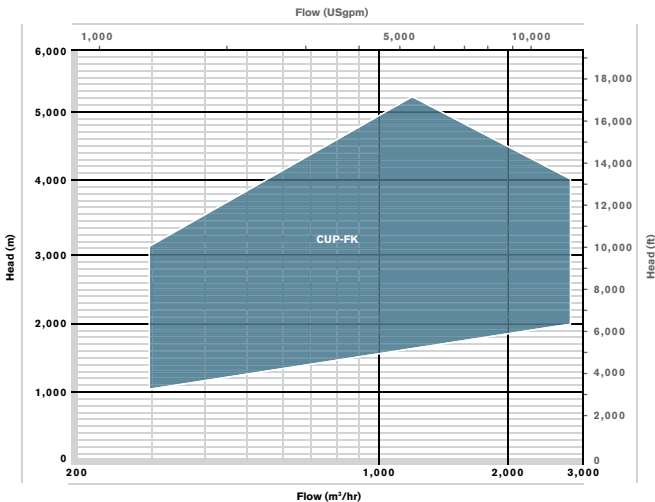
- 1 Mechanically stiff shaft**  
 Large shaft-to-impeller diameter proportions.  
 Short span between bearings. High critical speeds and low static deflection
- 2 Optimum NPSH performance**  
 Optimised by computational fluid dynamics. First stage impeller with inlet designed specifically for improved cavitation erosion providing extended life
- 3 Optimised hydraulic performance**  
 Proven range. Precision cast components, repeatable performance and advanced manufacturing techniques
- 4 Replaceable wearing parts**  
 Available for ease of maintenance. Casing wear ring material and geometry is selected for anti-galling properties
- 5 Hydraulic thrust balance**  
 Balance drum removes the requirement for axial alignment. Extended pump performance with ability to handle transients and flow changes without wear
- 6 Centreline mounting**  
 Reduced effect of thermal growth at elevated process temperatures. Maintains pump to driver alignment at all operating temperatures. High strength fabricated steel baseplate accommodates all static and dynamic loads and reduces noise transmission. Capable of supporting pumpsets grout free



- 7 Connection options**  
 Flanged branch. Welded branch. Interstage tapping. Orientation to suit station pipework. Kicker stage connection

## RANGE COVERAGE CHART

### 50HZ RANGE CHART



*This chart covers the standard pump range. Other engineering designs exist for extreme applications*

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