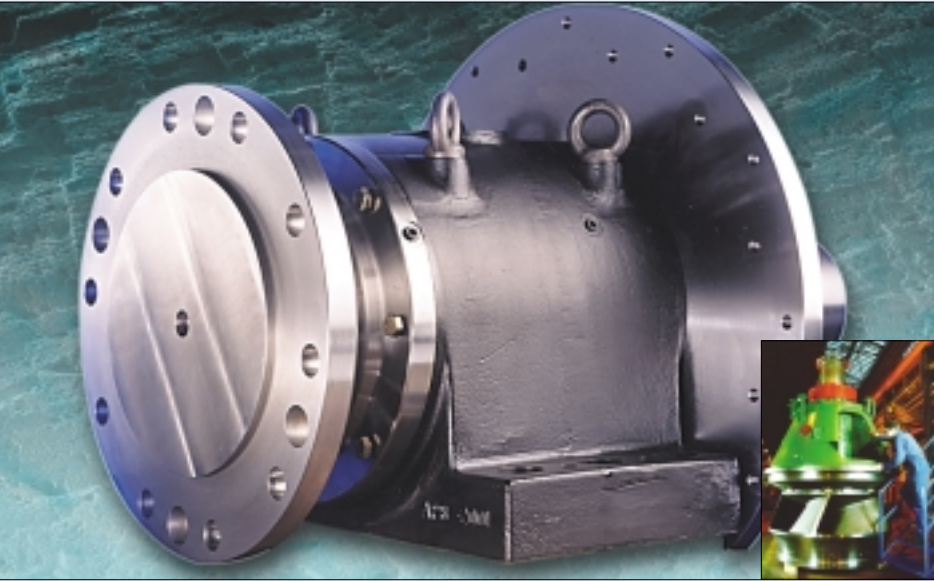


# SKF Reliability Systems



## Customised housings solution

Twelve weeks were all that were needed for SKF to design and supply a housing solution for use in a Chinese power station.

When Weir Pumps of Cathcart, Glasgow, manufactured four vertical circulating water pumps for a nuclear power station in China, it turned to SKF to design and supply a suitable vertical bearing housing assembly. Each pump unit has a 3.1 MW drive motor, a speed-reducing gearbox and an intermediate bearing, shaft and housing system.

SKF was given only twelve weeks to design and supply the bearings, housings, shafts and interfaces; to allow the completed assemblies to be fitted in place by the main site contractor. Using SKF experience of safety factors in bearing housings, major time savings were gained in developing the housing design.

The space allowed for the bearing arrangement was similar to that for a standard SKF SD split plummer block housing. This was used in a modified design to provide maximum shaft support in a cost effective solution, without compromising the sealing or operational capability.

The SKF design solution includes a pair of SKF taper roller bearings with 180mm bore, fully sealed and lubricated to allow operating speeds of up to 990 rev/min to be achieved.

The housing is manufactured from SG iron, which offers greater strength than conventional cast iron, coated with an epoxy polyamide paint finish resistant to 100% humidity and site temperatures of  $-4^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ . As a result of these choices, the bearing life expectancy, originally specified to be 40,000 hours, has a predicted lifetime in excess of 176,000 hours.

The design, procurement, component inspection and final assembly were all performed at the SKF Reliability Systems' service centre workshop prior to delivery as a finished unit.

For further information on how SKF Engineering solutions can benefit your company, please contact your SKF Reliability Systems representative or visit us on-line at [www.skf.co.uk/reliability](http://www.skf.co.uk/reliability)

## Engineering solutions

Proactive Reliability Maintenance (PRM)

Integrated Maintenance Solutions (IMS)

Condition monitoring services

Maintenance services

Refurbishment services

Training courses



### ■ Proactive Reliability Maintenance (PRM)

- Proactive Reliability Maintenance™
- Fan reliability programme

### ■ Integrated Maintenance Solutions (IMS)

- Integrated Maintenance Solution™
- Integrated Maintenance Solutions for the paper industry

### ■ Condition monitoring services

- On-site condition monitoring services
- CoMo-Link remote diagnostics
- Lubrication analysis service
- Keeping the power flowing

### ■ Maintenance services

- Precision mechanical services
- Bearing installation
- Bearing failure analysis

### ■ Refurbishment services

- Bearing refurbishment service
- Bearing refurbishment for railway taper bearing units
- The vital link in clip chain refurbishment

### ■ Engineering solutions

- Getting bearings on the London Eye
- SKF on board the world's largest pipeline laying ship
- Where there's a wheel there's a way
- An open and shut case for SKF
- Customised housings solution
- SKF bearings can stand the heat
- SKF bearing solution gets many fans
- Where there is muck, there is brass
- Design and project engineering
- Technical consultancy

### ■ Training courses

- Industrial bearing maintenance and service
- Balancing with Microlog™
- Machinery Analysis I
- Machinery Analysis II
- Fundamentals of machine condition
- Intro to PRISM<sup>4</sup> for Windows™
- Intro to Microlog™ system
- Intro to PRISM<sup>4</sup> on-line systems
- Intro to Machine Analyst™
- Intro to the MARLIN® system

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