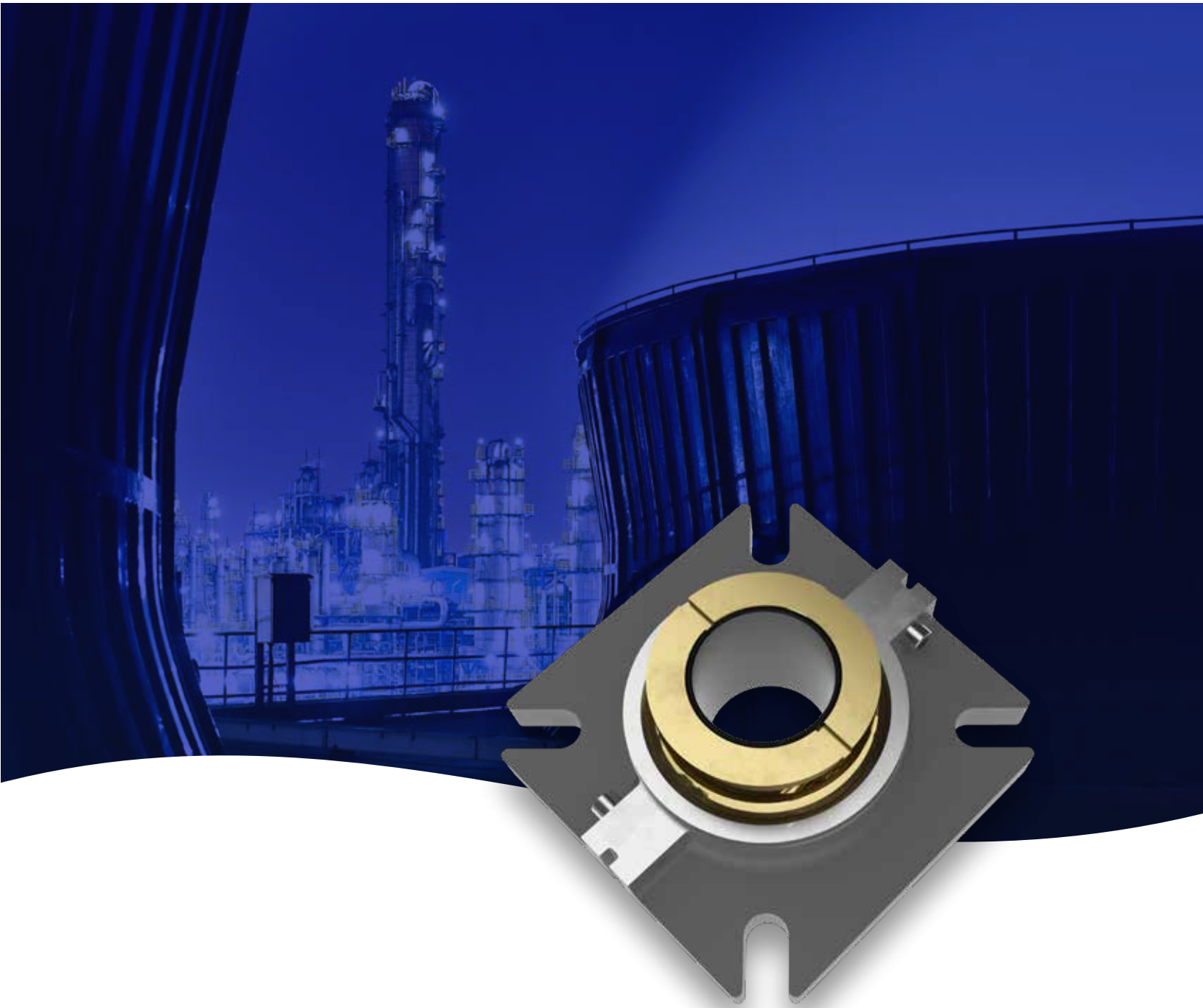




XLC Series Self-aligning Split Bearing

Bearing Solutions for Air-cooled Heat Exchanger Fans



Experience In Motion

Rotating equipment upgrade specialists



Induced and forced-draft, air-cooled heat exchangers require radial bearing support below the fan blade hub. This bearing environment is characterized by high temperatures and poor accessibility, leading to safety concerns for maintenance personnel. These challenges are often the root causes of the premature failure of traditional rolling-element bearings. Furthermore, replacement of these bearings requires complete disassembly of the fan and the use of heavy lifting equipment, greatly increasing equipment downtime and maintenance costs.

Flowserve developed the XLC extended-life, composite journal bearing to address the industry's needs for improved safety and reliability while reducing maintenance costs. The XLC bearing's composite surface has self-lubricating properties, enabling it to run without additional lubrication. Moreover, fully split components facilitate maintenance without dismantling or disturbing the equipment. The result is an increase in overall equipment reliability, shorter bearing change-out times and reduced risk to personnel.



XLC bearing upgrade benefits

Increased reliability based upon a robust design with a self-aligning bearing. Accommodates shaft thermal expansion by allowing freedom of movement in the axial direction. No moving parts reduces potential failure modes.

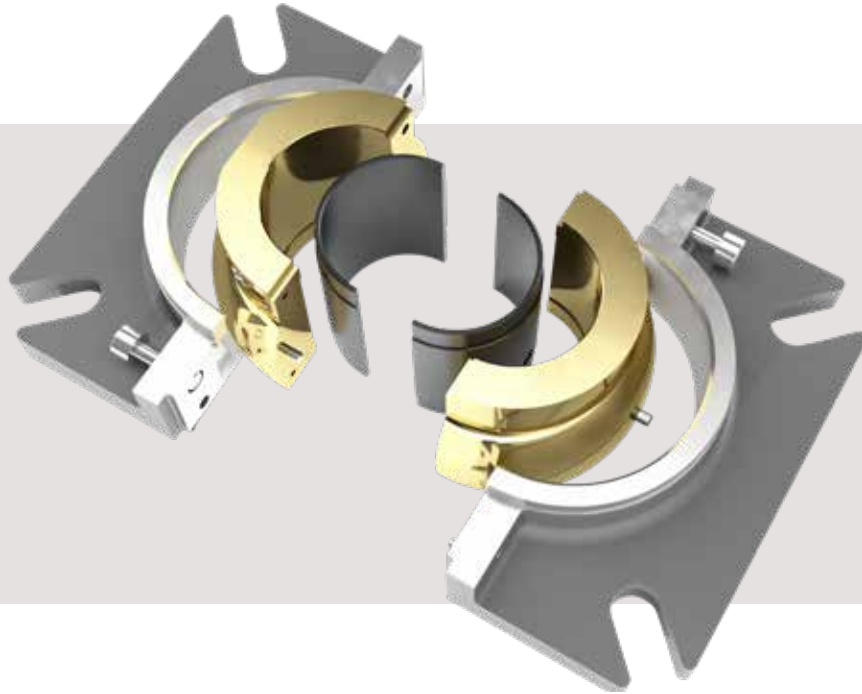
XLC composite bearing material is extremely durable, eliminating lubrication requirements and reducing maintenance costs.

Split design enables rapid change-out, reducing exposure time to hazards such as working at height, in elevated temperatures and around heavy lifting equipment.

In-situ replacement minimizes process disruption.

Compatible with condition monitoring equipment to enable planned maintenance and avoid unplanned downtime. Standard 1/4-28 mounting feature to accommodate accelerometer.

The Flowserve XLC upper radial bearing solution increases reliability of air-cooled heat exchangers.



Self-aligning spherical joint gives flexibility to handle parallel misalignment over twice the allowable level for the equipment.

Designed to last through multiple bearing change-outs, the bronze bearing carrier assembly has features to provide anti-rotation and protect against galling caused by vibration.

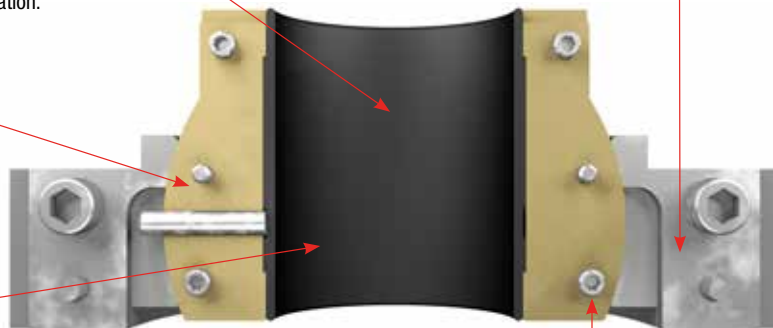
XLC composite material delivers long life in adverse conditions.

Self-lubricating and wear-resistant properties of the carbon fiber-reinforced thermoplastic enable XLC bearings to operate without grease supply, unlike roller bearings.

Maintenance-friendly, fully split design

Split components enable installation around the shaft without disassembling the equipment.

Semi-cartridge clamshell reduces the number of installed components to four.



Replaceable composite insert reduces repair costs.

Available repair kits for each size provide all components needed to quickly repair the XLC bearing in the field.

Integral pry groove

Allows easy replacement without damaging critical surfaces

Retained fasteners

Prevent dropped or misplaced bolts

Operating parameters

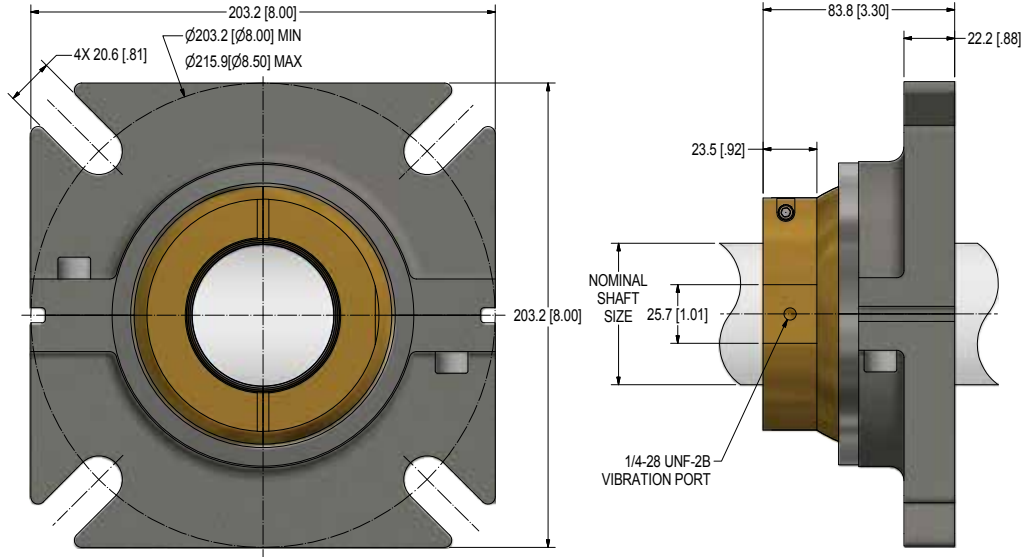
- Temperature: -40 to 149°C (-40 to 300°F)
- Maximum speed: 400 rpm
- Shaft sizes: 50 to 75 mm (2.000 to 3.000 in)

Materials of construction

- Housing: 316 stainless steel
- Carrier: Bronze
- Journal bearing: Carbon fiber-reinforced thermoplastic



XLC standard dimensions, mm [in]



Nominal Shaft Size, in	Shaft Size, in	Standard Assembly Number
2 7/16	2.4355 – 2.4375	B0421385
2 11/16	2.6855 – 2.6875	B0421386
2 15/16	2.9355 – 2.9375	B0421387

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