

# Compressor bearing suitable for V94.2 / SGT-2000E gas turbine

Sulzer provides design and manufacturing of new gas turbine components in both hot and cold sections. We focus on lifetime extension and performance improvement of your equipment. We have unique insight into designing a high quality product that is compatible and interchangeable with the original equipment.

The Sulzer design is a 100% reversible drop-in replacement for the conventional V94.2 / SGT5-2000E compressor radial/axial bearing. It offers a maximum axial load bearing capacity of 30 tons as compared to 20 tons for the conventional design. The lubrication oil supply of the individual axial bearing pads is guaranteed over the entire load range by dedicated supply channels. The radial bearing is an inserted sleeve that can be replaced as necessary, obviating the requirement of re-babbiting the complete bearing housing in case of damages to the radial bearing.



## Axial bearing pads

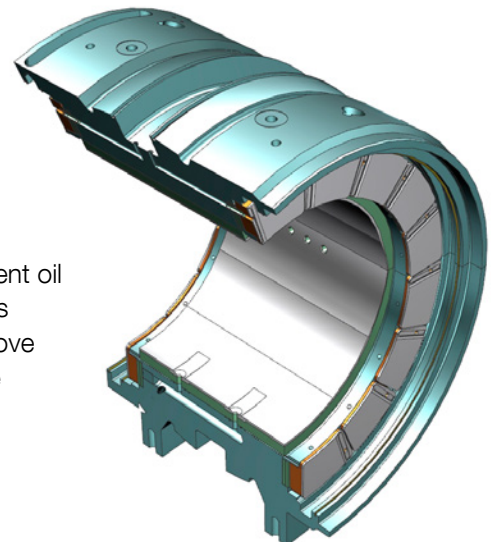
For the required cooling, the improved design of the axial bearings is of the LEG-type (Leading Edge Groove). In this design, the lubricating oil is delivered directly at the position where it has to be: upfront at the leading edge of each individual pad. In addition, the load bearing capability of the array of pads has been optimized by a 16-pad design.

## Pad support springs

The design is virtually unchanged. However, the individual spring plates are replaced by two sets of halve rings at each side. The dimensions of these set of rings are optimized for optimal stress, pad load and compliance distribution.

## Oil supply to the pads

To assure ample oil flow to every individual pad, each pad has an independent oil supply channel from the main oil supply channel in the ball surface. The oil is transferred from the channels in the bearing body into the leading edge groove of the pads by O-ring sealed transfer pipes that can pivot at both ends. The O-rings prevent lateral metal-to-metal contacts.

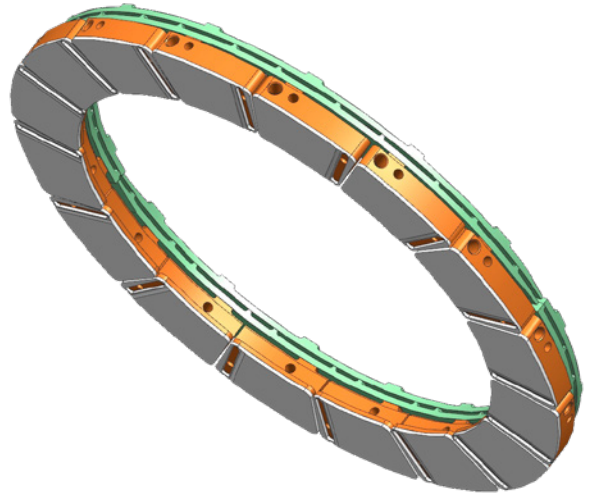


## Replaceable radial liner sleeve

Replaceable liners are incorporated into the design, since they can be refurbished faster, cheaper and more reliable than integral babbit layers.

## Radial bearing

The radial bearing is designed as a separate bearing sleeve to increase serviceability of the design and to be able to supply the correct oil flow quantity for the radial bearing.



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