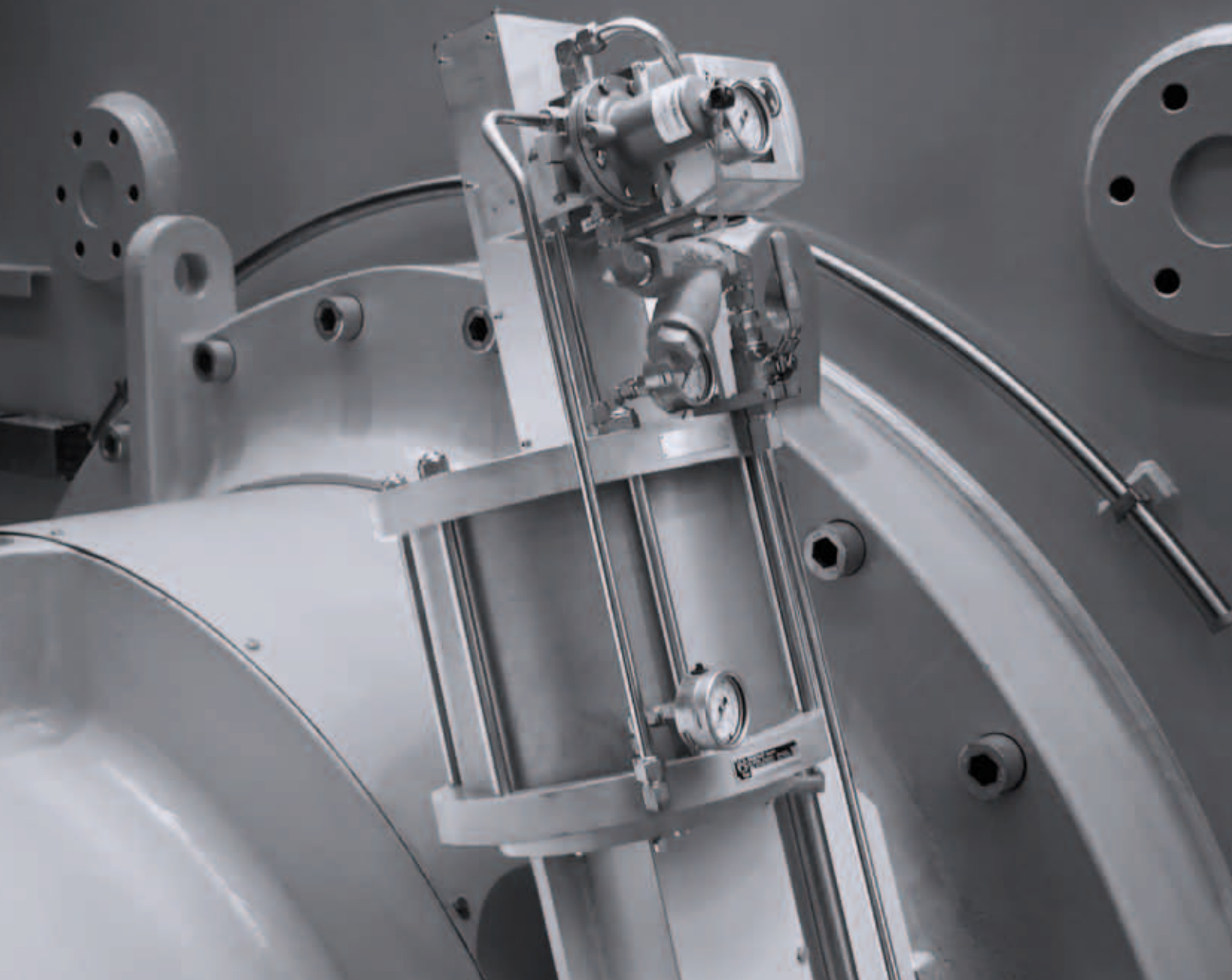


Guide Vane Actuating Unit

Retrofit for isotherm turbocompressors



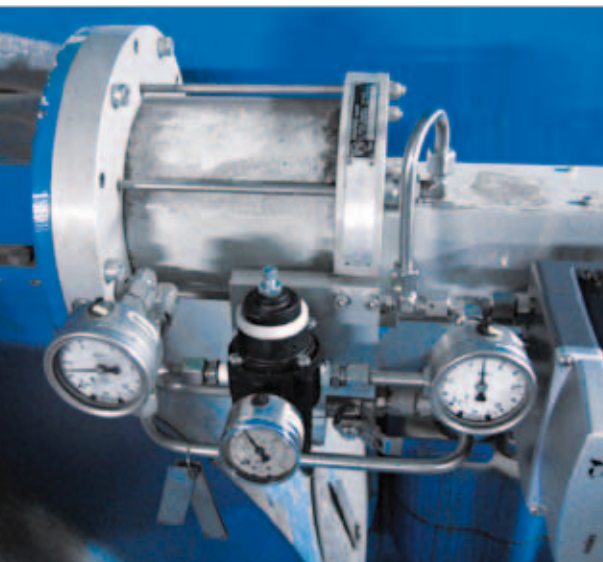
Guide Vane Actuating Unit

Optimised for maximum reliability

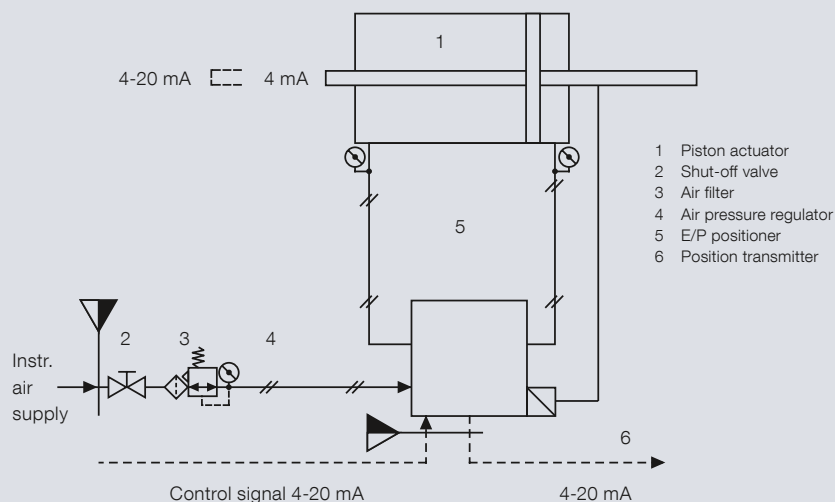


Assembly of guide vane actuating unit

As the previous actuating units for the guide vane adjustment at RIK turbo-compressors did not prove the expected long-term reliability, MAN PrimeServ developed a new actuator with an electro-pneumatic positioning unit. The new guide vane actuating unit has been installed on all RIK turbocompressors since 2005. It is operating fully satisfactorily in more than 150 field installations and recommended as a “plug & play” solution to all customers with previous installations of RIK turbocompressors.



Horizontal installation of the guide vane actuating unit consisting of actuator and positioner



Schematic drawing of guide vane actuating unit

Challenge

The operation of adjustable guide vanes in a turbo-compressor in general requires a reliable and accurate drive system. Easy installation and configuration, as well as low energy consumption and low maintenance costs are state-of-the-art requirements. As the previous solution for RIK turbocompressors did not prove the expected long-term reliability, MAN PrimeServ developed a new guide vane actuating unit.

Solution

The new guide vane actuating unit of compact design consists of a linear pneumatic actuator and intelligent positioner. It is specifically designed for MAN turbomachines and ensures a reliable and trouble-free guide vane adjustment for all isotherm turbocompressors type RIK. The new design has already proven its reliability in more than 150 field installations since 2005 where it operates fully satisfactorily.

The unit is designed to replace former types of guide vane actuating units on isotherm turbocompressors type RIK very easily by “plug & play”. It is therefore

recommended to all customers who had RIK turbo-compressors installed up to 2004.

Advantages

- reliable and robust design for operation in harsh environmental conditions
- “Plug & play” retrofit to existing installations
- easy installation and configuration
- economic replacement remedy and quick delivery
- suitable for all adjustable guide vanes at the inlet position and at intermediate compressor stages
- minimised process variability due to excellent dynamic and static control performance, high speed of response and accurate internal measurements
- vane position indicator on positioner allows operator to check guide vane position easily
- proximity sensors (standard) and mechanical limit switches (optional)
- all moving parts are enclosed for maximum safety and reliability
- low energy and instrument air consumption
- low maintenance costs

