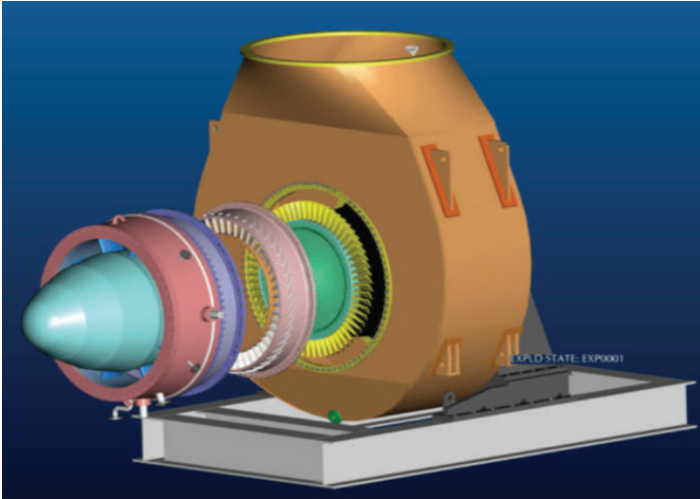


LOW-EROSION RERATE AND REDESIGN OF FCCU EXPANDER



A large U.S. refinery operates an Ex48 FCC expander that was previously rerated in 2001. Because of a change in FCC operating plans, the expander was significantly oversized. In 2005, RMS received an order to rerate this expander for current operating conditions and to redesign the flowpath to minimize erosion.

To minimize rotor blade and stator erosion, RMS provided new-technology stator and rotor blade airfoil designs. The RMS designs were optimized for erosion using extensive computational fluid dynamics (CFD) flow and erosion modeling. Our CFD modeling predicts the industry's lowest rotor blade erosion rate for this expander frame size.

RMS also incorporated platform seals on the rotor blade to increase stress margins, and to reduce corrosion potential at the critical blade attachment area. To insure adequate cooling, RMS added wheel space temperature monitoring.

The full upgrade and rerate included the supply of the following major components by RMS:

- Rotor Blades
- Exhaust Casing
- Intake Casing
- Integral Stator Shroud
- Intermediate Casing
- Exhaust Diffuser
- Cooling & Sealing Console

RMS has installed low-erosion technology in Ex38 and Ex48 FCC expanders. This technology can be applied to the full range of installed expanders. Reach out to RMS today to see how RMS can support all of your expander needs.

For more information:

Contact RMS

Email: RMS@rotatingmachinery.com

Tel: 484-821-0702

Headquarters

2760 Baglyos Cir.
Bethlehem, PA 18020

Houston Office

16676 Northchase Dr., Ste 400
Houston, TX 77060

rotatingmachinery.com

Tel: 484-821-0702

Parts: rms@rotatingmachinery.com



Rotating Machinery Services, Inc. | 2760 Baglyos Circle, Bethlehem, PA 18020 | Tel: 484-821-0702