SUCCESS STORY

TAMAR 610-AGS seal
Top entry SPLIT reactor mixer
Application and Issue:

Customer manufactures flame retardant material in a reactor at 80°C.

The reactor is subjected to “sniffer” tests allowing a max 200ppm emission value.

Due to the nature and high viscosity of the material, the shaft experiences high run out.

In addition, leakage of barrier fluid into the tank was a source of contamination to the process.

The large shaft size, heavy gear and motor along with expensive downtime, made seal replacement a very long and expensive issue.

Operational Parameters:
- Sealed gasses: Toluene
- Working Temperature: 80°C (176°F)
- Shaft Dia.: 125mm (5”)
- Speed: 100rpm
- Pressure: 0.5 bar (8 psi)
The solution

TAMAR 610-AGS split seal with a nitrogen flush ring:

- Eliminate use of a liquid based, face type seal - Eliminate seal barrier fluid

- Online constant injection system – a sealing barrier that holds the back of the air pressure

- Split seal design - eliminate the need of dismantling the mixer for seal repair

- Nitrogen flush – a customer request that will act as a safety mechanism for toluene leakage
**Installation procedure**

**Step 1:** Install the seal on the bearing tower (the mixer was dismantled in order to take the old seal out)

**Step 2:** Run the shaft through the seal and head out to the field
Start up and operation

After installing the drive, final step was to connect the boosters and nitrogen flush. Operational emission test shows less than 50ppm!
Join the success!

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