



Reliable

Smart

Simple

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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