SUCCESS STORY

TAMAR 610-AG seal
Top entry reactor mixer
Customer manufactures a silicon powder material in a reactor **at 400f**.

New reactor installed 1 year ago, and **has not been able to run the unit once without failure** of the double liquid mechanical seal almost immediately.

Due to the abrasive nature of the material, the mixer has no steady rest bearing at the bottom of the shaft causing **high run out**.

In addition, **leakage of barrier** fluid into the tank was a source of **contamination to the process**.
Recommendation and solution:

- Eliminate use of a liquid based, face type seal - Eliminate seal barrier fluid
- Stabilize shaft movement
- Our recommendation was the use of a patented TAMAR nitrogen seal. Existing reactor used nitrogen blanket.
Installation procedure

**Step 1:** modify existing seal housing to accept our glide bearing bushing - This will stabilize the shaft, and close running I.D. Tolerance will allow nitrogen flush to help keep out solids as the gas passes through

**Step 2:** Install the TAMAR seal and nitrogen control panel
After installing the drive, final step was to run cooling water. Due to temperature, the TAMAR seal has an internal cooling chamber to dissipate heat. No cross over of water into vessel, water was sourced from existing cooling lines from old seal reservoir tank. Finally, Add nitrogen lines to seal: one for booster and one for flush.
Start up and operation

customer has been able to run product weekly for the first time in their reactor
Result – more applications to come

Pictures of another existing unit the customer wishes to install TAMAR seals - powder leakage through A packed unit.
Join the success!

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