SUCCESS STORY

Chocolate mixer seal installation

Strauss Elite - Israel
APPLICATION AND ISSUE:

Customer manufactures chocolate in mixers that were sealed using specially designed “lip-seals”. The seals wear down within a few weeks, and leaks start without having the ability to adjust or maintain the sealing arrangement. WE STRONGLY URGED THAT A DIFFERENT APPROACH BE TAKEN TO SOLVE THE PROBLEMS.
Recommendations:
Tamar has recommended installing a positive pressure Tamar seal that is 24/7 active and maintainable in addition to constant “air-flush” that will keep away the product from the sealing area and atmosphere.

Main challenge:
The gear of the mixer is tightly close to the sealing area, not allowing an installation of a standard seal due to lack of space.
Solution:

Calculation design and installation of an “Internal” seal that will be placed within the area of the former “lip-seals” sealing arrangement.

- Internal shaft sleeve
- Active sealant injection box for minimum air consumption
- Air flush injection jacket
- Active “Rotor-Stator” seal face
Installation Procedure:

After modifications of the existing parts in Tamar’s facility (mainly funnel), the installation was done “on site”

1. Mounting of the “stator” parts and air flush jackets
2. Mounting of the shaft sleeve
Installation Procedure:

3. Installation of the funnel on the shaft

Seal appearing through the funnel

Air flush port
Preparations for start-up:

4. Pre-filling (injection) and pressurizing of the sealant

5. Adjustment of the air flush pressure and flow rate (unit supplied with the seal)
Maintanance requirements:

- Occasional sealant level check-ups (once a week, by visualization)

- Occasional air flush flow rate check ups (once a week, by visualization)

- Sealant booster refill/refresh – commonly once every 4-6 months upon need

- Seal life expectancy – minimum of 24 months, with seal inner components refresh (sealant and sealing rings) after 12 months (mid life) upon need.
Results:

Smooth start-up and clean, leak free first batch operation!
Join the success!

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