DR.PUMP
& ENGINEERING
CO., LTD

When the pump fails!

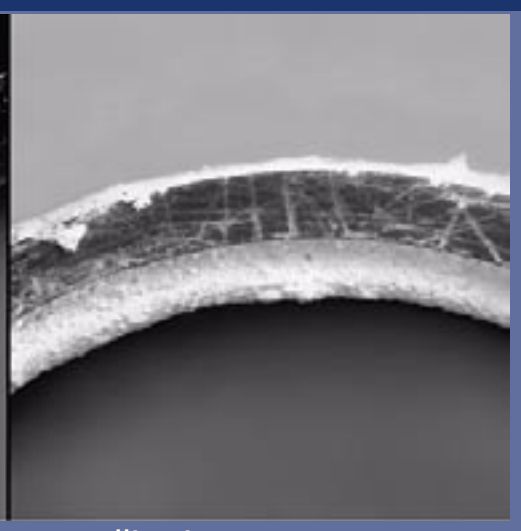
ROTATING MECHANICAL SEAL FAILURE SYMPTOMS

Sealing surfaces – Symptoms:

Carbonization & crystallization

4a23

Carbonization



Crystallization

- Symptom
  - Carbonization or crystallization of the product
- Causes
  - Excessive temperatures
  - Dirty product (carbonization)
  - Limited space in seal chamber
  - Pump cooling jacket not efficient
  - Product evaporation (crystallization)
- Causes of problems
  - Insufficient environment controls
  - Product hardened, saturated or carbonized
  - Surpassed RPM and temperature limits
- Solutions
  - Correct environment controls
  - Operate within the permitted operating limits
  - Understanding product behavior