DR.PUMP
& ENGINEERING
CO., LTD

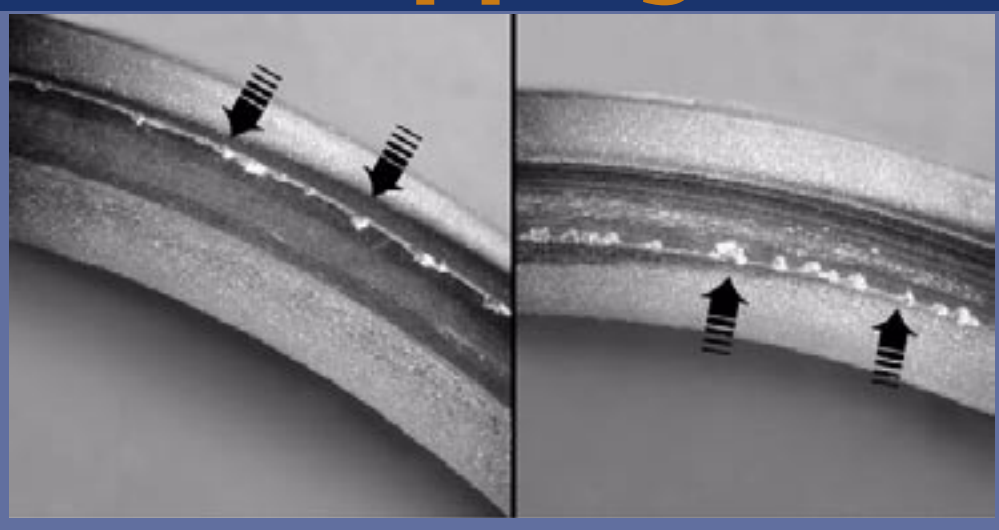
When the pump fails!

ROTATING MECHANICAL SEAL FAILURE SYMPTOMS

Sealing surfaces – Symptoms:

Chipping

4a22



Chipping at the outer diameter Chipping at the inner diameter

- Symptom
  - Chipping at the outer / inner diameter
- Causes
  - Opening of area due to evaporation / vibration
  - Cavitation
  - Product hardening and saturation
  - Overpressure
- Types of failure
  - Insufficient environment control
  - Incorrect application
  - Product hardened and saturated
  - Surpassed PV* and temperature limits
  - Operating conditions
  - Insufficient lubrication of sealing surfaces
- Solutions
  - Appropriate environment controls
  - Check operating conditions
  - Consideration of evaporation curve
  - Operate within the permitted operating limits

* PV – Pressure characteristics of sliding surfaces