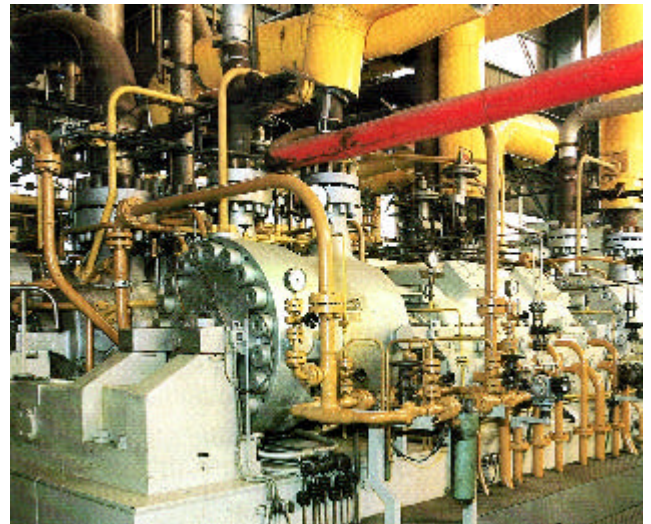
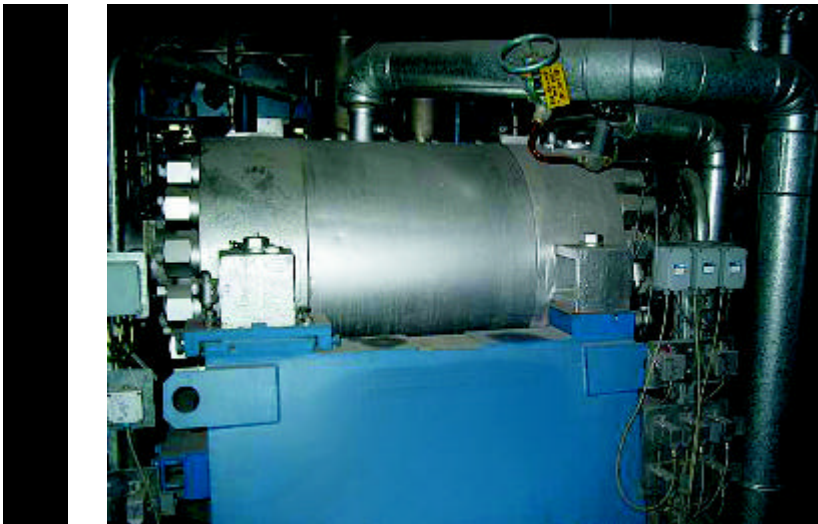




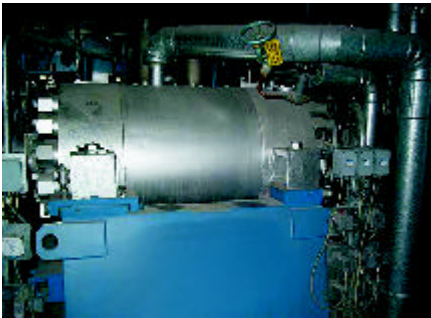
Wear Indicator for Wet Seals



Malfunction detected immediately
- find out the direct connection with
the change of operating parameters!

Applications:
Turbo compressors,
Circulation pumps, etc.

Do you have **seal wear problems?**



The Operators Difficulties On-site:

The leakage fluid under pressure is usually separated by condensate drains and led into a collecting tank. Condensate drains are fault sensitive.

Malfunction can lead to damming of the liquid. Thus dirt from the tank pollutes the seal and accelerates the wearing process considerably. A faulty drain can also lead to dangerous gas blow-off.

Conventionally, there is no possibility to detect malfunction and its negative side effects right in time.

Problems with the Wear of Mechanical or Floating Seals?

You recognize the seal condition from the leakage amount

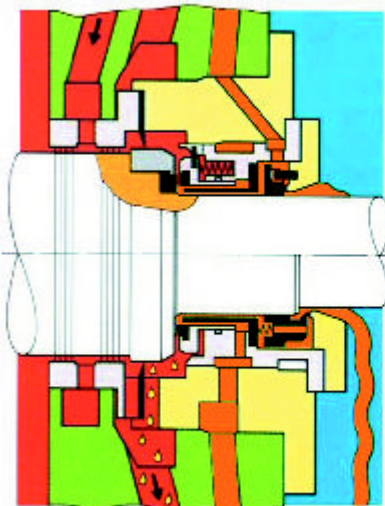
- How high is the leakage amount?
- Has it always been that high?
- Since when has the leakage amount increased?
- Has the increase been gradual or rapid?
- Has the rapid increase occurred simultaneously with a change of the operation mode?

Only if you know the answers to the questions above you are able to solve your seal problem effectively and permanently.

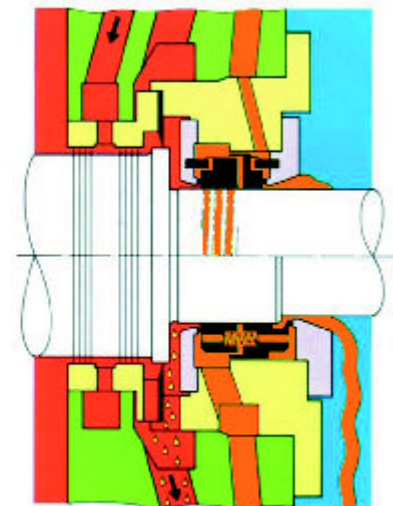
The WEAR INDICATOR for wet seals gives you all the answers you need.

kmo turbo has developed a control unit for optimized draining with intelligent monitoring functions.

Mechanical Seal:



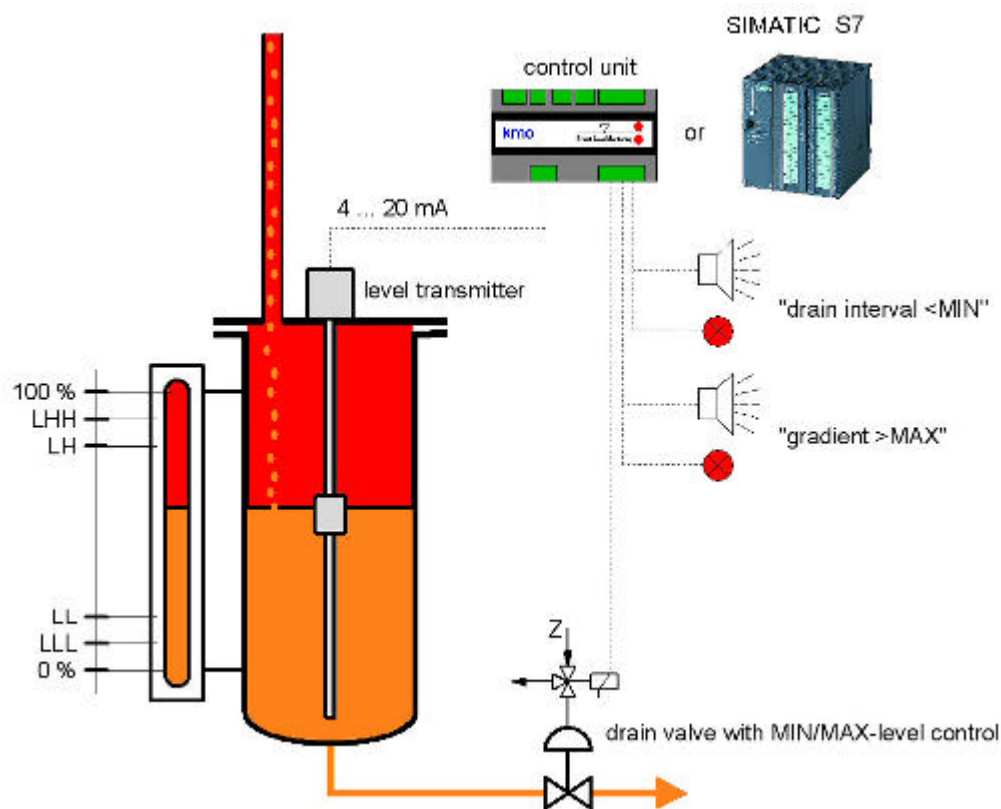
Floating Seal:



Interval and gradient monitoring signals malfunction

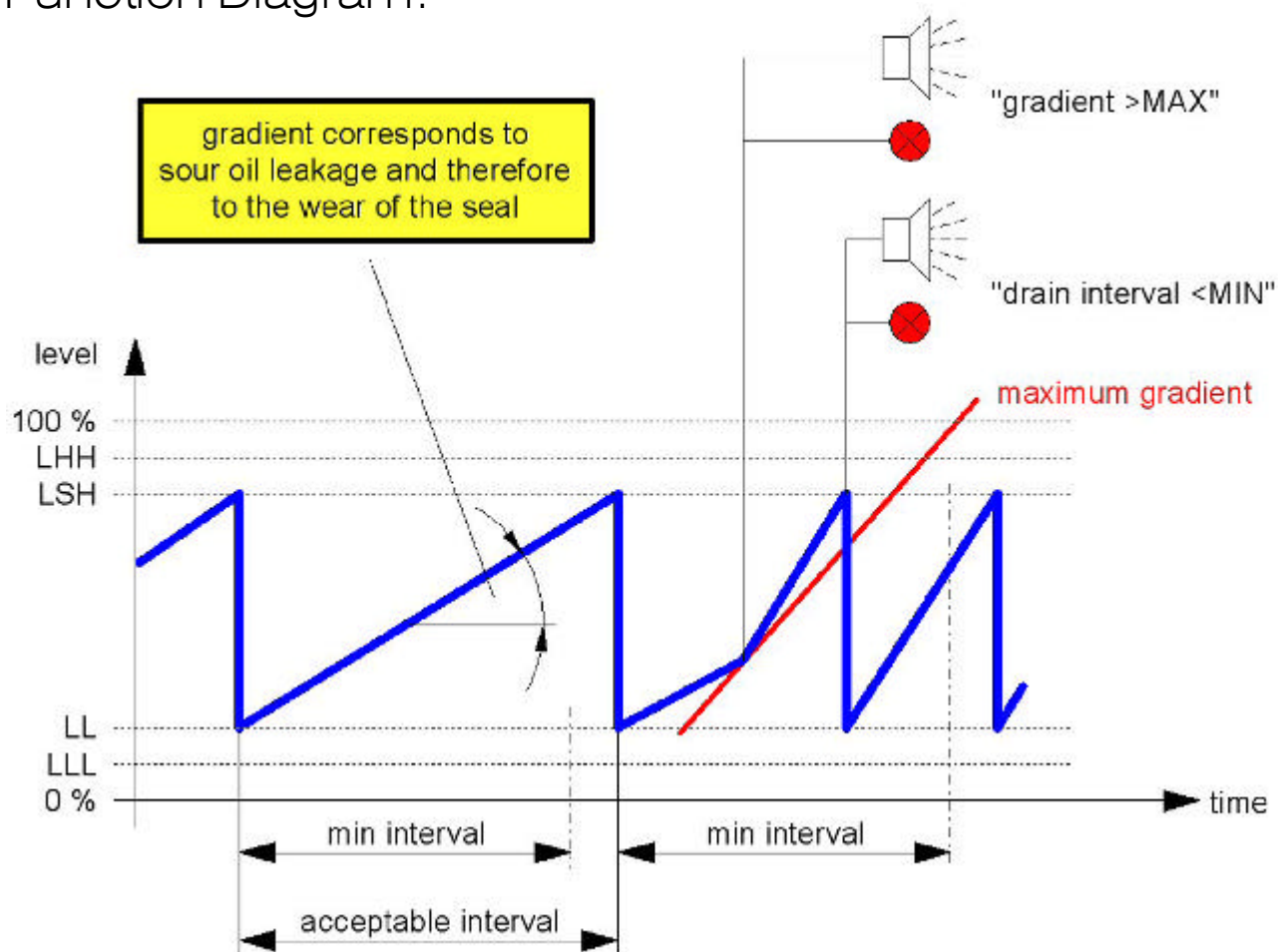
Functions of the kmo turbo WEAR INDICATOR:

- A level signal is recorded in a YT-diagram; the gradient angle represents the wear condition of the seal at each time.
- Opening and closing of the drain valve depending on the collecting tank level.
- Function monitoring of the draining by additional level limits.
- Monitoring of the duration of drain intervals.
- Recording of drain intervals for a long-term-trend of the leakage amount.
- Monitoring of the gradient (rate of level change).



Frequently there is a direct connection between seal damage and a change of operating parameters. By monitoring the gradient a failure is signalled immediately. This allows to draw direct conclusions regarding the cause of the trouble.

Function Diagram:



Control Unit

The WEAR INDICATOR is available as a ready-to-use, stand-alone monitoring unit, as well as a SIMATIC S7 function module.

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