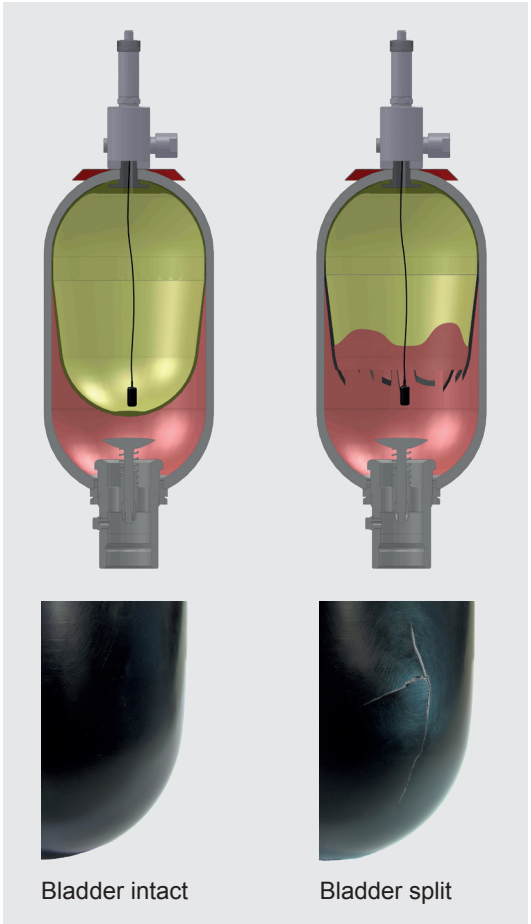
HYDAC

TECHNEWS
Accumulators

Bladder Integrity System - BIS



Bladder intact

Bladder split

DESCRIPTION

A bladder accumulator consists of a fluid section and a gas section with the bladder acting as a gas-proof screen.
The bladder is the crucial component between the gas and fluid. Deformation of the bladder and the effects of temperature and aggressive media on the elastomer material can destroy the bladder.

To date there has been **no means** of **directly monitoring** bladder integrity in individual bladder accumulators, particularly in accumulator stations where the testing is very time-consuming and costly.

BIS = BLADDER INTEGRITY SYSTEM

HYDAC has developed the **B**ladder **I**ntegrity **S**ystem, or **BIS** for short, to meet this challenge.
It consists of:

- BIS bladder
- BIS adapter
- Electronic component BIS 1000

The **BIS** detects fluid which has penetrated the bladder and transmits a signal. A split is therefore detected in the bladder. In addition, the temperature and pressure can be monitored electronically (current loop/HART).

The **BIS** is available together with a bladder accumulator as initial equipment. The type code "D = with BIS bladder" must be quoted when ordering.
The following versions are available:

BIS-basic - DA
BIS-ATEXia - DB
BIS-ATEXd - DC
BIS-ATEXd+ - DD/DE

A retrofit version is also available, both for HYDAC bladder accumulators and for other brands of bladder accumulator.

ADVANTAGES

- Identifies defective bladder during operation
  → Planned repair / maintenance intervals
  → Reduction in downtimes

Advantages of integrated pressure and temperature measurement:

- Pressure and temperature monitoring of the accumulator during operation
- Accurate adjustment of p_0 and simultaneous temperature indication

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