



# SmartCheck

Vibration analysis  
on any pump



# Online Vacuum Pump Monitoring for a long service life

Depending on the field of application, a failure of a vacuum pump can result in a down-situation of an entire production line. To protect you against such costly downtimes and expensive repairs, the **SmartCheck vibration sensor** measures the vibration characteristics, thereby effectively and constantly monitoring your vacuum pumps in real-time. Upon request, Leybold handles complete monitoring ensuring your **maximum system availability**. This allows for a **condition-oriented maintenance** by the operator and protects reliably against unscheduled production downtimes as well as expensive repairs. Maintenance costs are sustainably reduced.

Through the SmartCheck, application related influences like the formation of deposits or the ingress of dust and pump-specific bearing wear, imbalances and misalignments can be detected efficiently and cost effectively. **Monitoring is performed continuously in real-time**. Both slow developments of damages and rapidly progressing errors are reliably discovered.



Critical operating conditions are discerned immediately and are visually displayed. Additionally, the measurement system is capable of outputting a warning or an alarm with an analogue or digital

output signal to a higher-level controller when certain thresholds are exceeded. An automatically generated message will immediately be shown. **In case of an alarm, an automated message may also be sent directly Leybold After Sales.** The measurement data is analyzed by trained technicians of the company and if required necessary measures are initiated in time. This facilitates operation and ensures round-the-clock **carefree protection on 365 days a year.**



## Benefits

- Condition oriented maintenance intervals and reduced costs
- Complete service from a single source (consulting, commissioning, remote servicing, maintenance contracts and training)
- Reliable real-time monitoring on the machine
- Optional process monitoring (recording of different process parameters and their correlation with vibration signals)
- LED error indication
- Readout of measurement data through the web server directly on the sensor or centrally in the network
- Easy integration in controllers and the control station (analogue and digital inputs and outputs)
- Unique price-to-performance ratio

# Technical Features

## Measurement Tasks:

The SmartCheck is among other things capable of detecting the following application influences and damages:

- Formation of deposits
- Intake of particles
- Damage to rolling bearings

## Available for:

You are utilizing a measurement system optimized by the pump manufacturer. The SmartCheck is delivered with a measurement task specifically adapted to the type of pump. The SmartCheck is currently already available for:

- DRYVAC
- Roots Blower (WH, WS, WA)
- SCREWLINE
- Additional pump types upon request (including third-party products)

## After Sales:

We are pleased to offer the following services:

### Complete Service (SLA 24/7):

We will handle the entire monitoring of the pumps for you:

- Commissioning
- Remote monitoring on 365 days a year
- Regular condition reports
- Reduced conditions for the hardware

### Service OnDemand:

If required, send us your recorded measured data.

We will then evaluate these for you:

- Reports upon request at a fixed price
- Conclusive recommendations for action in connection with further operation of the pumps



# Overview

## Vibration Sensors:

Each vibration sensor is – depending on the type of pump – delivered pre- programmed according to your individual, desired measurement task.

P/N	Description
5600901V	SmartCheck DRYVAC
5600902V	SmartCheck Roots WH
5600903V	SmartCheck Roots WS
5600904V	SmartCheck Roots WA
5600905V	SmartCheck SCREWLINE

## After Sales Services:

P/N	Description
AS 9110	Vibration monitoring SLA 24/7
AS 9112	Vibration monitoring OnDemand



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