










-  *"We want to buy pumps, install them and then forget them."*
-  *"70% of lifecycle cost of a pump is associated with lost production resulting from unscheduled downtime."*
-  *"Advanced technology plays a decisive role in today's pump industry, however system solutions, providing reliable, concise information regarding machine condition, that result in planned service are rapidly becoming more important."*
-  *"A basic requirement for us is monitoring the condition of hermetically tight pumps."*
-  *"It is fundamentally important to reduce the total lifecycle costs for liquid pumps. These costs include initial investment, spare parts and cost of lost production due to unscheduled downtime."*
-  *"Fully automatically operation and continuous monitoring of machines and systems are important application trends in today's process industry."*
-  *"Today automatic diagnostic systems provide increased safety for critical applications, especially when availability of on-site service personnel is being reduced."*



You will find more addresses of our  
 ■ affiliated sales companies and  
 ● representations  
 on our homepage [www.lewa.de](http://www.lewa.de)

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The HERBERT OTT-GROUP consists of the OTT HOLDING INTERNATIONAL GMBH, the LEWA producing company in Leonberg and ten affiliated sales companies in the USA, Singapore, China, Brazil, Switzerland, Germany, Spain, Austria, France and Italy. Parallel and of equal status these sales companies market equipment complementary to LEWA products from other, leading manufacturers, stock complete machines and spare parts. Also they offer competent consultation and qualified service locally.

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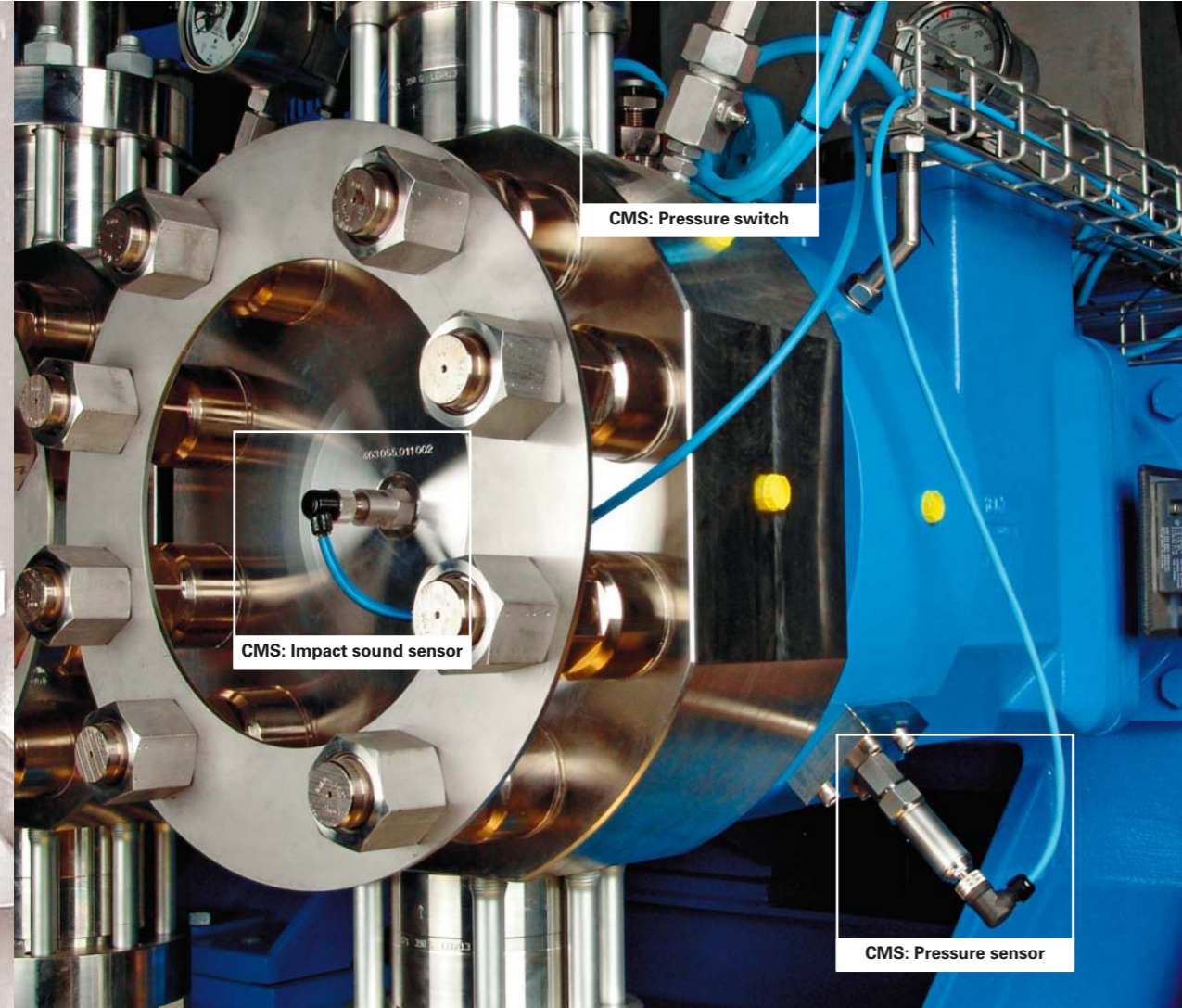
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**LEWA CMS**  
 Condition Monitoring System offers  
 the most economic operation



- Reduce lifecycle costs
- Reduce machine downtime



## LEWA CMS: Condition Monitoring System – Minimum Downtime

With LEWA CMS, pump lifecycle cost is lowered by reducing machine downtime, accomplished by progressing from preventive to condition oriented maintenance and further reducing the risk of pump breakdown.

- Parts are replaced only when their condition deteriorates.
- Potential failures are recognised at an early stage to allowing for planned action, avoiding unplanned reaction.
- Costs due to production loss are reduced because downtimes can be scheduled and the required spare parts, are on hand. Teardown surprises are all but eliminated.
- Goal-oriented maintenance results from clear, accurate condition diagnosis.
- Cooperation with the LEWA service department is optimised.



LEWA CMS monitors the complete function of the pump head including any valve leakage- continuously and automatically.

### LEWA CMS - flexible application

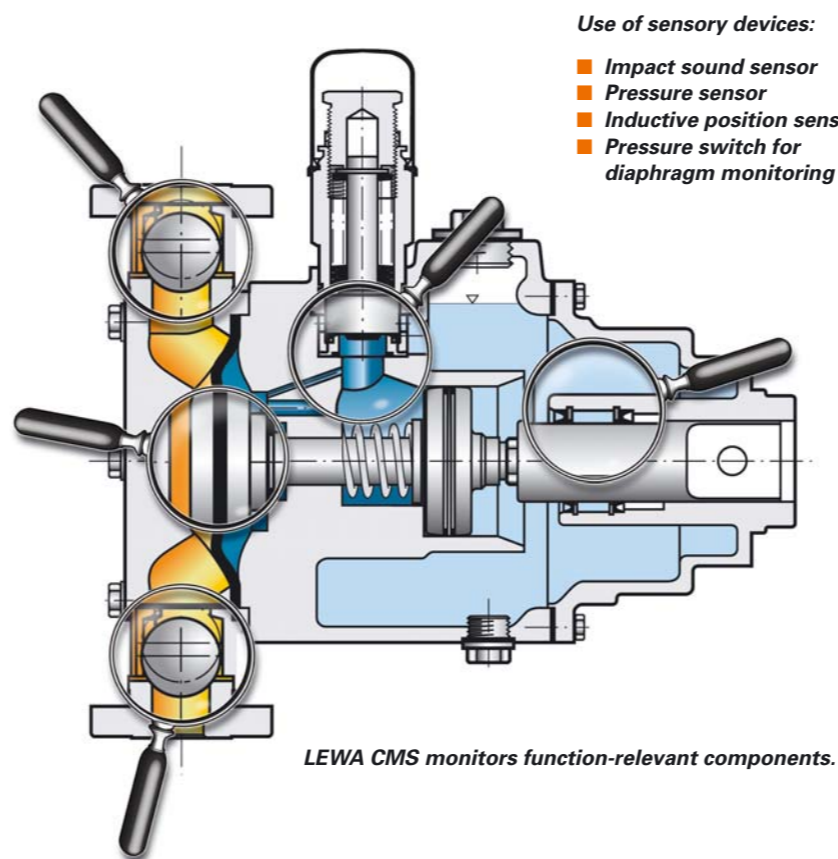
- Applicable to a wide range of metering and process pumps for differing fluids and operating parameters
- Link-up to the process guiding system (Ethernet, RS 485)
- Can be retrofitted to LEWA pumps already supplied
- Applicable for simplex and multiplex machines
- Suitable for operation in hazardous environments

### LEWA CMS – user-friendly operation

- Permanent, automatic signal evaluation
- Intelligent error detection with plain text messages due to expert knowledge in electronics
- Differentiation of pre-alarm, alarm and shutdown conditions

### LEWA CMS – precise failure signalling

- Displays suction and discharge valve leak rate from 1%
- Complete breakdown of suction or discharge valve
- Blocked lines
- Operating pressure deviation
- Displays hydraulic leakage from 1%
- Diaphragm damage

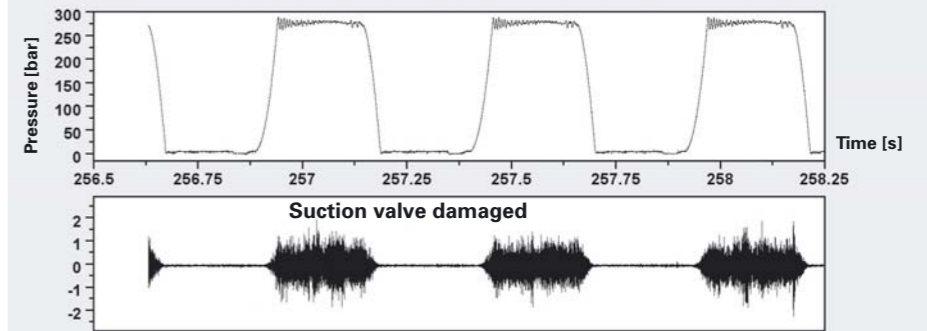


LEWA CMS monitors function-relevant components.



At pump commissioning the initial (prime) condition of all monitored parameters is recorded and stored as reference data. During operation the current condition of corresponding parameters is compared to the reference data.

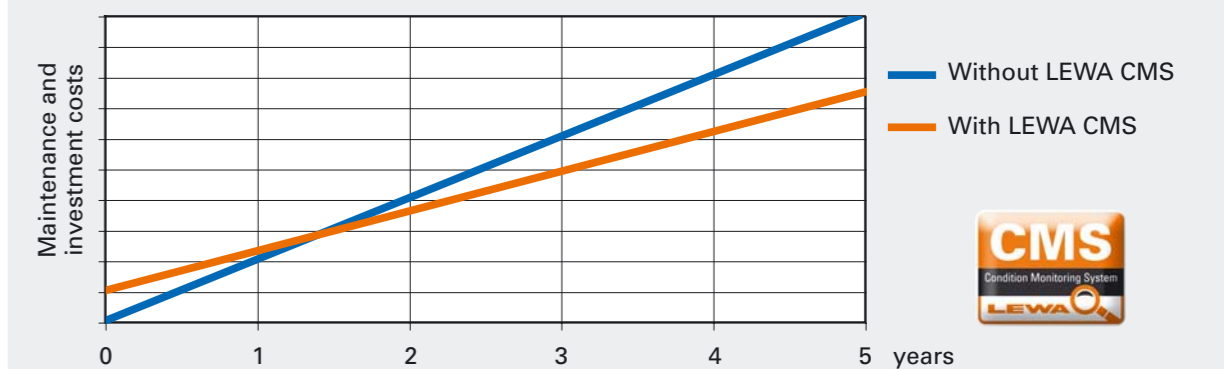
### Diagnosis of the impact sound signal from a damaged suction valve indicates potential automatic failure



### The intelligent signal evaluation supplies clear plain text messages

	Suction valve not fully closed!	Suction valve not fully open!	Suction blocked!	Discharge blocked!
	Diaphragm rupture!	Discharge valve not fully closed!	Discharge valve not fully open!	
	Suction valve leak!	Discharge valve leak!	Hydraulic leak!	
	Operating pressure too low!	Operating pressure too high!		
	System OK!			

### Amortisation period of LEWA CMS (example)



LEWA CMS pays off in a short time

