

PRODUCT BROCHURE

WRS Energie + Druckluft GmbH WWW.WRS-ENERGIE.DE



# COMPRESSED AIR AND KINAL COMPRESSED AIR AND LEAKAGE MANAGEMENT

# with the ANALYZAIR®



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**GET YOUR SEAL OF APPROVAL** 

COMPRESSED AIR AND LEAKAGE MANAGEMENT

# WHY COMPRESSED AIR AND LEAKAGE MANAGEMENT?

Compressed air is the most expensive form of energy in a company. With the compressed air and leakage management by WRS, you can secure margins and the future viability of your site. In more than 100 customer projects worldwide, compressed air costs have been reduced by an average of 30%.

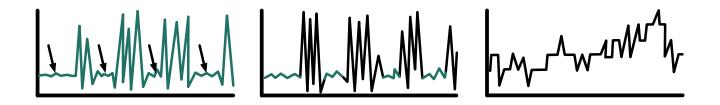


# WRS IS YOUR PARTNER

- Manufacturer-independent company
- Compressed air specialist
- Personal contact person
- ✓ Web-based software application with the ANALYZAIR<sup>®</sup>
- ✓ Interface to existing energy management systems (EnMS)

# MODERN AI-TECHNOLOGY WITH THE LEAKWATCH

Modern AI algorithms are used to detect anomalies and derive suitable recommendations for action. The globally unique LeakWatch is an algorithm for detecting leakage losses and basic consumption. The LeakWatch is a component of the AnalyzAir®.



#### 1. Behavioral patterns

The LeakWatch precisely analyzes the behavioral pattern of data. The specially developed algorithm is trained to recognize both leakage and basic consumption patterns. Typical time windows in which such behavioral patterns can be identified include weekends, downtimes, shift changes or break times. The LeakWatch can be used for any number of sensors.

#### 2. Cluster formation

The LeakWatch marks the areas that are identified as leaks or basic consumption. Several clusters are formed. Your contact person helps you select the right cluster. The LeakWatch then works automatically.

#### 3. Leakage index

The LeakWatch calculates a leakage index. This leakage index is displayed in the live dashboard and evaluated in compressed air reports. If a limit is exceeded, you receive a warning text message immediately.

The leakage index can be exported to the existing EnMS.

## COMPATIBLE WITH EXISTING ENMS

The AnalyzAir® is compatible with all common energy management systems (EnMS) and compressor control systems. If there is no data acquisition yet, data transmission with the LogAir-Box data logger from WRS is an option. This data logger transmits the data via NarrowBand IoT (special IoT mobile radio standard).

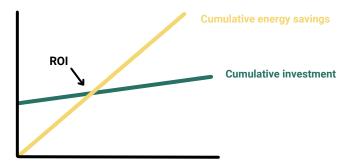


# **AN OVERVIEW OF OUR OFFERS**

THREE STEPS TO YOUR GOAL - THIS IS HOW WE SHAPE YOUR PATH TO SUCCESS AND FOCUS ON YOUR INDIVIDUAL REQUIREMENTS. A specialized engineer will carry out the preliminary analysis at your premises. A personal quotation is prepared for you and discussed with you. A compressed air expert is permanently at your disposal. Appropriate implementation measures are carried out on request.

## **STEP 1: PRE-ANALYSIS**

A specialized engineer carries out a preliminary analysis of the compressed air system. From this evaluation, the potential is calculated and an ROI calculation is prepared. The results are summarized in an individual offer and a suitable sensor concept is derived.



Discover our portfolio in a non-binding initial consultation via Teams.

Scan and book an appointment:



### **STEP 2: COMPRESSED AIR AND LEAKAGE MANAGEMENT**

#### **INSTALLATION AND LAUNCH**

Our specialists install the sensors, configure the software interfaces to your energy management system and set up the AnalyzAir®. Depending on the size of the system, installation takes 1-3 days. There is no need to shut down the compressors - you can produce as normal.

#### **POTENTIAL ANALYSIS**

In the potential analysis, the entire compressed air system is analyzed and a specific catalog of measures is drawn up. Sensor data is collected and automatically evaluated over a period of 4 weeks. A specialist engineer evaluates the results and presents them in person.

#### TRAINING AND INSTRUCTION

Your personal contact will instruct you in an individual training course. You will get to know the possibilities of AnalyzAir®. Alarm management is configured individually for you.

#### **ANALYZAIR®**

The sensor data is continuously analyzed by our AI algorithms. You can track the key figures in the dashboard. The compressed air reports provide an overview of the status quo and changes at the desired interval. Suitable recommendations for action are derived from this. You receive real-time alerts via SMS, Teams or email.

## **STEP 3: REALIZATION**

- Locate leaks
- Repair leaks
- Implement heat recovery
- Planning extended measurement concepts
- Implement volume flow sensors
- Adapt control system
- Install sensors
- Train employees
- · New planning and recommendations

Your seal of approval with certificate for the introduction of compressed air and leakage management





# CONCRETE APPLICATION EXAMPLES

Compressed air and leakage management from WRS has saved an average of 30% in compressed air costs in more than 100 customer projects worldwide. Get an insight into four specific application examples:

#### I. MONITOR COMPRESSED AIR HUMIDITY

A 50 kW compressed air system produces over 100 liters of condensate every day. It is therefore important to monitor the humidity of the compressed air in order to prevent consequential damage to materials and machines. Junker Filter GmbH from Sinsheim uses a pressure dew point sensor to monitor the humidity of the air. An alarm is sent to the production manager via SMS if there is too much moisture in the compressed air system or if there is any indication of this. This prevents downtime at an early stage.

**Downtime prevented** 

#### II. CO2 REDUCTION THROUGH COMPRESSED AIR MANAGEMENT

Faurecia, a company of the FORVIA Group, is a global technology leader in the automotive industry.

In order to achieve internal CO2 targets and to create transparency in compressed air management, WRS Energie + Druckluft GmbH was commissioned to analyze the compressed air supply. The aim was to create transparency in compressed air management in order to eliminate pressure losses and to optimize and reduce the energy consumption of the compressors.

- 12% CO2 emissions for compressed air

#### III. INTRODUCTION OF COMPRESSED AIR LEAKAGE MANAGEMENT

Leakage losses are a significant cost driver in almost every compressed air system. By introducing a leakage management system, significant cost reductions of over 50% have been achieved. Production manager Sebastian Rauch is very satisfied with the result and continues to rely on the AnalyzAir® from WRS.

## IV. IMPROVED EFFICIENCY AND WASTE HEAT CONCEPT

Around 95% of the electrical energy used is lost in the form of waste heat from the compressors. Linde Material Handling GmbH uses this waste heat for a holistic heat concept.

The compressed air and leakage management system from WRS has improved the efficiency of the compressed air system by over 30%. This corresponds to savings of over 70,000 euros.

- 54% leakage losses

+ 30% efficiency improvement

You can find further practical examples on our homepage: **WWW.WRS-ENERGIE.DE** 

# **ABOUT WRS**

In 2021, the two founders Dominik Wahl and Lennard Schwidurski started out with the founding idea of operating compressed air systems more efficiently. It was clear that this should work through the use of real measurement data and artificial intelligence. A prototype was developed during his engineering studies. In 2023, the cooperation with the University of Stuttgart in the field of AI development was launched as part of the Invest-BW program.

#### **Press reviews**

"LESS MONEY DISAPPEARING INTO THIN AIR" - VDI Nachrichten

"COMPRESSED AIR START-UP CAN REALLY GET GOING"

- Heilbronner Stimme

#### **Customer reviews**

**"WE DID NOT EXPECT THESE RESULTS"** - Production manager Mastel Aluminium-Halbzeuge GmbH

## "THE INNOVATIVE TECHNOLOGY FROM WRS HAS COMPLETELY CONVINCED US"

- CEO Junker Filter GmbH

SCAN QR-CODE & MAKE AN APPOINTMENT





## CONTACT

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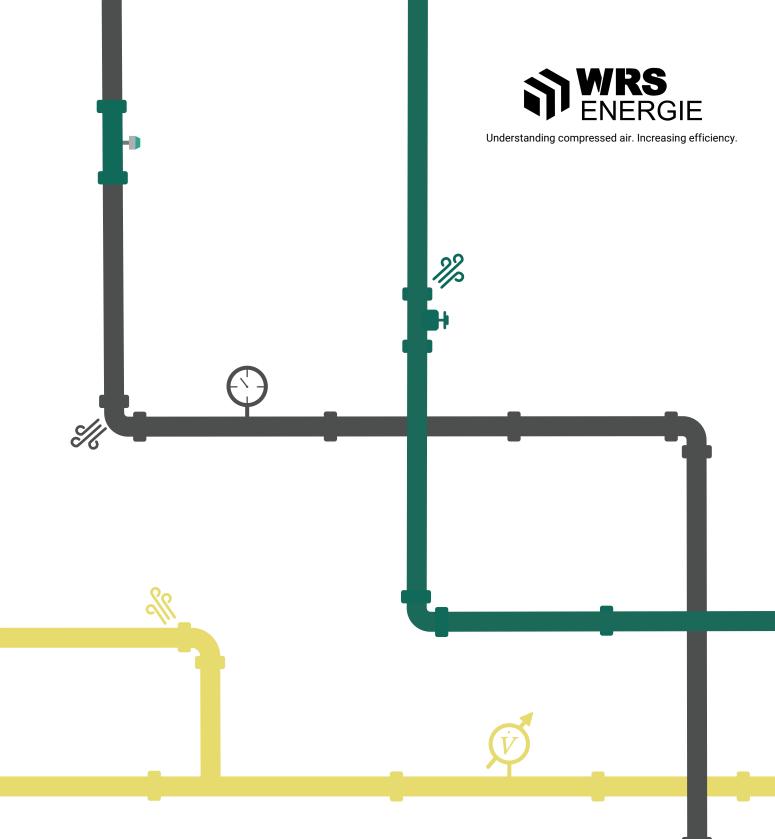
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## START REDUCING COMPRESSED AIR COSTS NOW!

For more information: WWW.WRS-ENERGIE.DE



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WRS Energie + Druckluft GmbH is a manufacturer-independent company.