

COMPRESSED AIR ENERGY SAVING SOLUTIONS

GENERAL CATALOG



WISE Air 4.0[®]

MEASUREMENT SOLUTIONS:

- Compressor Master Controllers
- Smart Flow Sensors
- Dew Point Sensors
- Power Meters
- Real Time Smart Monitoring Software



Leaks Pro[™]
Professional Leakage Management Solutions

LEAKAGE MANAGEMENT SOLUTIONS

- Dynamic Noise Discrimination Leak Detectors
- Leakage Management Softwares
- Dual Seal Push Fit Connectors
- High Resistant Polyurethane Tubes
- Variable Air Flow Gun



System[®]

COMPRESSED AIR MANAGEMENT SERVICES

- Audits & Measurements
- Leak Detections & Repairs
- Air Quality Testing
- Compressed Air Training
- Project Management
- Performance Validations of Compressors, Dryers & Filtration Systems

Asia Regional Office

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COMPRESSED AIR

A Gold Mine We Will Help You Dig



Being the fourth most important utility in numerous industries, how well you manage the consumption of compressed air can decide the fate of your business. This utility that makes several industries run happens to be among the costliest ones too. However, compressed air might not be as expensive as its mismanagement can make it. Many manufacturing industries around the world spend more than needed on compressed air only because they are using the inefficient equipment. On top of that, maintenance service providers can often deliver less desirable services that add to your costs in the long term.

This practice has become a trend and while most customers are knowledgeable about the use of compressed air and its equipment, they might not be aware of the certifying standards or minimum accepted performance level of various compressed air systems. Such lack of information tricks them into buying inefficient equipment and receiving service packages that only make matters worse. There had to be someone who would change things for customers and side with them. Hidhay did it.

Founder

Hiday is a compressed air specialist who has the in-depth knowledge of the compressed air industry. He founded the Systemel Group, and with his passion and dedication to the industry and his company, he has made it one of the best in Asia and Europe.

Experience of the Company

Founded in 2002, Systemel Group has been serving its customers for more than 17 years now. It all started in Coimbatore, India with a vision of bringing clarity, efficiency and improvement to the then conditions of the compressed air systems. During these years, the company has served a variety of industries from food processing and Iron & Steel to automotive and Textile. In short, we have made things better for our customers anywhere where compressed air serves crucially for their production and manufacturing processes.

We have also been proudly awarded ISO 9001-2008 for our quality process with UKAS Standards. Today, we serve Asia and Europe in the following regions and are expecting to be in more parts of the world with our group companies

- Systemel Technologies Europe ApS, Denmark
- Systemel Energy Solutions (India) Pvt. Ltd, India
- Systemel Engineering Controls, India



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Measurements

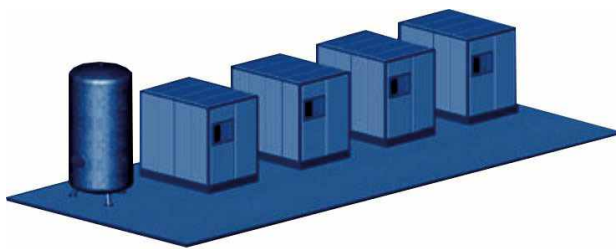
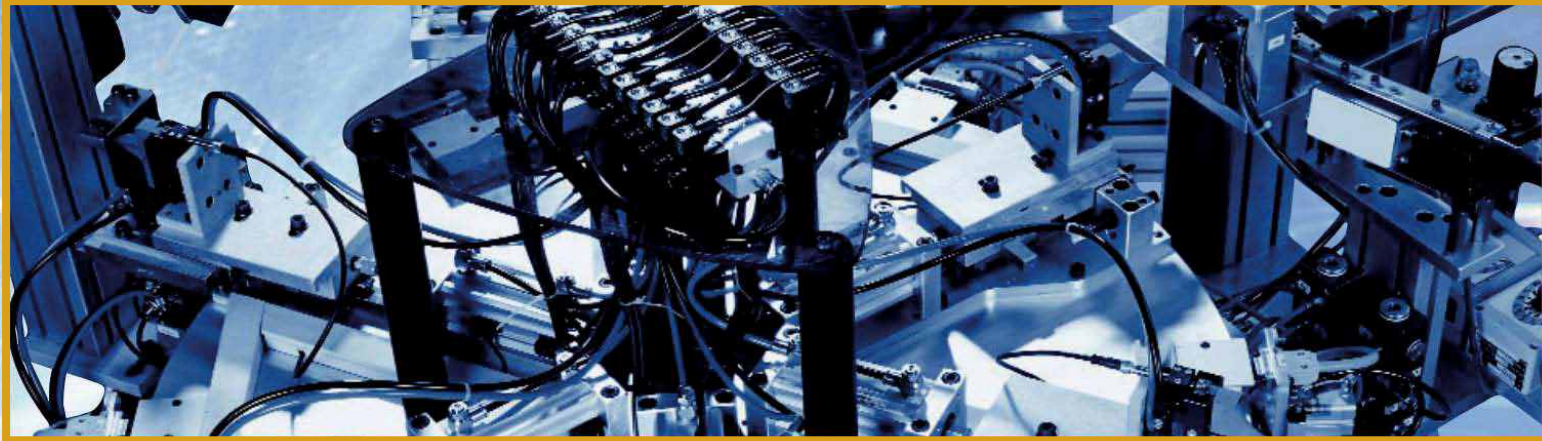
Compressor Master Controllers

While during the generation of compressed air...

The compressors can only be switched in sequence

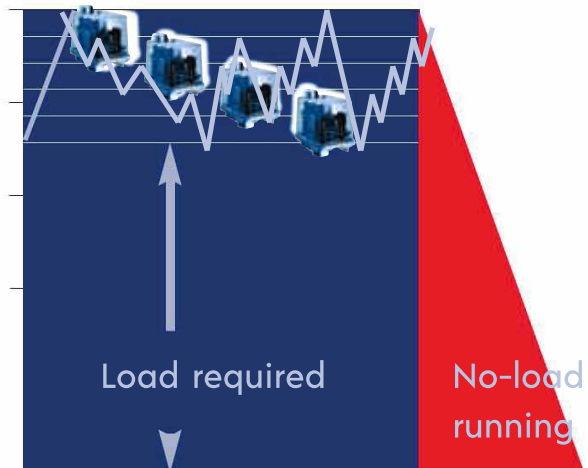
The compressors are subject to excessive wear due to frequent changes in load

Too much energy is wasted



While everything is optimized for cost saving in production, the compressors in most compressed air stations are controlled according to fixed sequences. Manual pressure switches and simple electronic controllers are used to switch the compressors. The pressure in the network is significantly higher than required in production. This leads to high energy costs and excessive wear on the compressors due to frequent changes of load.

As production is optimized, the greater is the variations in the demand for compressed air. The savings realized in production is lost in generation of compressed air.



Measurements

Compressor Master Controllers

With **WISE Air 4.0** at the compressed air station it...

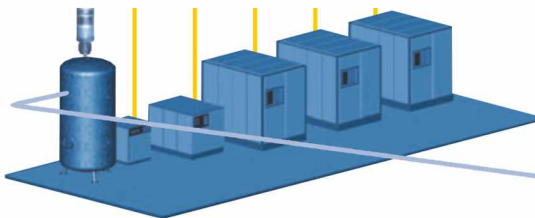
Controls the compressors flexibly according to the air consumption

Holds constant pressure in the network

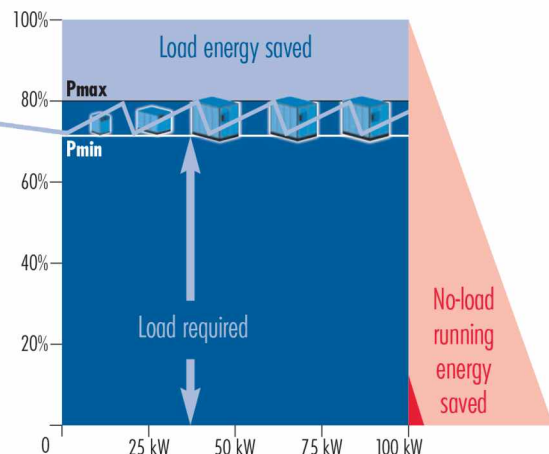
Reduces idle running by up to 99%



The right selection and control of the compressors reduces load changes, which delivers up to 27% in saving due to less wear.



WiseAir 4.0, the control system for air compressors, provides an overview of production and transforms the economic efficiency of your company's compressed air system. Different compressor capacities are utilised according to the consumption of compressed air and are also operated within a common pressure band. The network pressure matches the demand required in production.



Measurements

Compressor Master Controllers

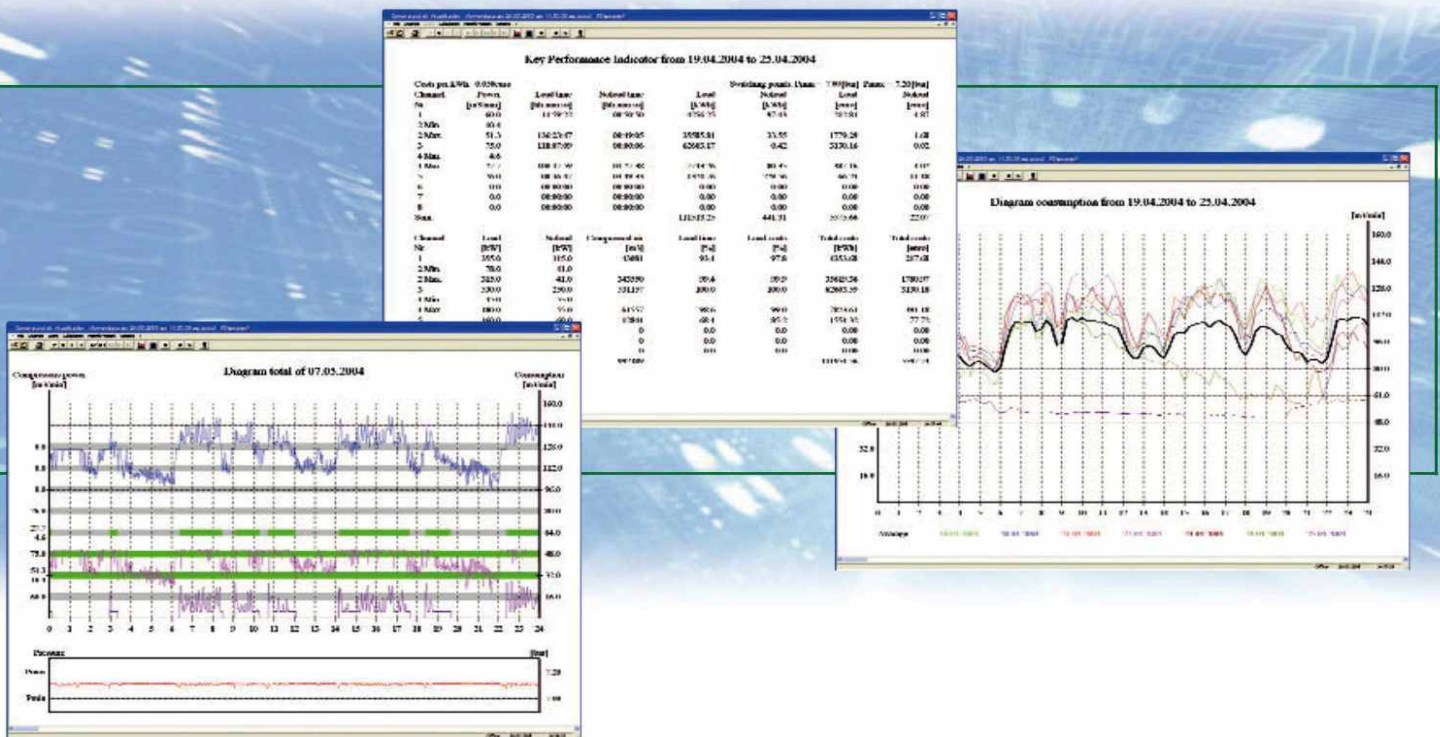
The costs of compressed air is automatically reduced.

LOW INVESTMENT COSTS

for a range of different compressors sizes and the WiseAir 4.0 compressor control system, instead of having all the compressors of the same size

MEANS INCREASED SAVINGS

Improvements are brought about in all areas of compressed air generation, since the compressors are switched as little as possible and therefore increase life and lower energy costs.



Visualisation of Compressed Air

The visualisation of the compressed air, shows the condition of the compressors such as load, motor running, fault report and compressor readiness. Together with the indication of the actual consumption of compressed air and the pressure diagram, this program allows you to have an overview of your compressed air station with one look.

You can assure yourself of the correct automatic function of the compressor management system WiseAir at any time.

Accounts of energy consumption are possible for any freely selectable period. The Alarm and Service reports of the compressors and auxiliary engines are stored into the monthly alarm and service report. As an option, there is a communication module, that allows you to send SMS or e-mail of alarm or service message, to every desired address by using an Internet connection.

Alarm and Service Management

WISEAIR compressor management				Alarm+Service-Report				02 - 2005			
SIEMENS				Alarm report				Service report			
Unit	Status	Phase	Time	Unit	Status	Phase	Time	Unit	Status	Phase	Time
01	OK	1	02.02.05	01	OK	1	02.02.05	01	OK	1	02.02.05
02	OK	2	02.02.05	02	OK	2	02.02.05	02	OK	2	02.02.05
03	OK	3	02.02.05	03	OK	3	02.02.05	03	OK	3	02.02.05
04	OK	4	02.02.05	04	OK	4	02.02.05	04	OK	4	02.02.05
05	OK	5	02.02.05	05	OK	5	02.02.05	05	OK	5	02.02.05
06	OK	6	02.02.05	06	OK	6	02.02.05	06	OK	6	02.02.05
07	OK	7	02.02.05	07	OK	7	02.02.05	07	OK	7	02.02.05
08	OK	8	02.02.05	08	OK	8	02.02.05	08	OK	8	02.02.05
09	OK	9	02.02.05	09	OK	9	02.02.05	09	OK	9	02.02.05
10	OK	10	02.02.05	10	OK	10	02.02.05	10	OK	10	02.02.05
11	OK	11	02.02.05	11	OK	11	02.02.05	11	OK	11	02.02.05
12	OK	12	02.02.05	12	OK	12	02.02.05	12	OK	12	02.02.05
13	OK	13	02.02.05	13	OK	13	02.02.05	13	OK	13	02.02.05
14	OK	14	02.02.05	14	OK	14	02.02.05	14	OK	14	02.02.05
15	OK	15	02.02.05	15	OK	15	02.02.05	15	OK	15	02.02.05
16	OK	16	02.02.05	16	OK	16	02.02.05	16	OK	16	02.02.05
17	OK	17	02.02.05	17	OK	17	02.02.05	17	OK	17	02.02.05
18	OK	18	02.02.05	18	OK	18	02.02.05	18	OK	18	02.02.05
19	OK	19	02.02.05	19	OK	19	02.02.05	19	OK	19	02.02.05
20	OK	20	02.02.05	20	OK	20	02.02.05	20	OK	20	02.02.05
21	OK	21	02.02.05	21	OK	21	02.02.05	21	OK	21	02.02.05
22	OK	22	02.02.05	22	OK	22	02.02.05	22	OK	22	02.02.05
23	OK	23	02.02.05	23	OK	23	02.02.05	23	OK	23	02.02.05
24	OK	24	02.02.05	24	OK	24	02.02.05	24	OK	24	02.02.05
25	OK	25	02.02.05	25	OK	25	02.02.05	25	OK	25	02.02.05

All WiseAir 4.0 units are supplied standard with:

- Pressure transducer 0-16 bar
- Shows compressed air consumption in display
- Compressor selection optimized according to compressed air consumption
- Programming control via key pad
- Only one pressure differential for all compressors
- Input for compressor error monitoring
- Input for compressor motor status
- Inputs for compressor operation status
- Manual compressor sequence option
- Remote ON/OFF function + RS 485 interface

Multifunction timer for:

- Compressors ON/OFF
- 3 switching sequences
- 3 pressure profiles
- Output to switch on ancilliary equipment



WiseAir CN (Compressor Network) and MASTER

The compressors are managed through RS-485 modules. Each module has two analogue inputs 4-20mA for measuring the current and the temperature as well as one analogue output for the predefined pressure value.

Up to 42 analogue inputs on WISEAIR Master and up to 68 analogue inputs on WISEAIR CN.

Technical data

Mains voltage	230V AC 50Hz
Compressor rating	0.1-200 m ³ /min
Pressure Range	0-16 bar
Minimum Pressure Differential	0.3 bar
Inputs and Outputs	24V DC
Cable cutouts	M16 x1.5

Ordering Code:

WiseAir 4.0	Controlled Compressors	Compressor Connections	3- Colour LED for Compress or Status	Connection of a Frequency Regulated Compressor	Minimum Pressure Error Message	Suitable for Slave Operation	Analog Output Compressed Air Consumption / Pressure Range
2	2	2	2	optional	optional	-	-
4	3	4	4	yes	yes	yes	yes
8	8	8	8	yes	yes	yes	yes
master	16	Over 2s-485 Module	-	yes	yes	yes	yes
cn	32	Over 2s-485 Module	-	yes	yes	yes	yes