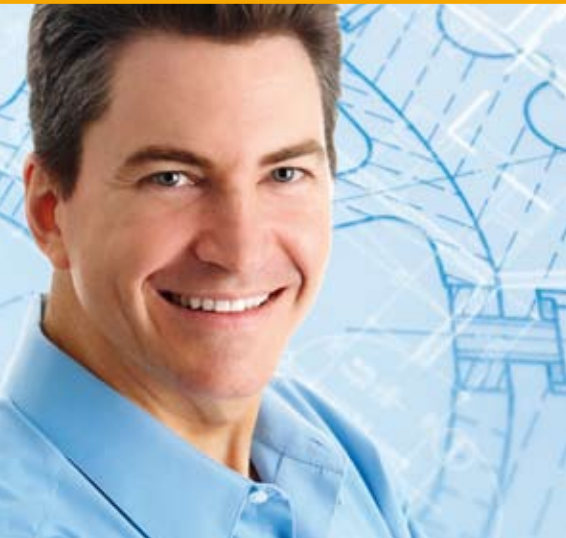


# TURBOCOMPRESSORS

Volumetric flow rate: 25 – 350 m<sup>3</sup>/min



**DYNAMIC**

A white line-art icon of a turbine or compressor, positioned below the word "DYNAMIC".

# INTELLIGENTE DRUCKLUFT MADE IN GERMANY

## ALMiG Kompressoren GmbH

A name that guarantees top-grade technology in the compressed air sector. ALMiG has emerged from a company with a long tradition whose products in the compressed air industry have always stood for quality, innovation and consideration of its customers.

Today ALMiG is an extremely flexible company which can react fast to special customer requests. It stands by its customers as a competent partner, giving advice and practical support.

It goes without saying that as one of the leading suppliers of advanced compressed air systems, our commitment to continuous research and development forms the basis for all the plants we manufacture.

They meet the acceptance criteria in compliance with:

- ISO 1217-3 Annex C-1996
- ASME
- OSHA

and comply with the CE guidelines.

Even the most stringent acceptance criteria such as:

- DET NORSKE VERITAS
- GERMANISCHER LLOYD
- BUREAU VERITAS
- LLOYD's REGISTER OF SHIPPING
- ABS

is a matter of course for us.

The company ALMiG is certified in compliance with:

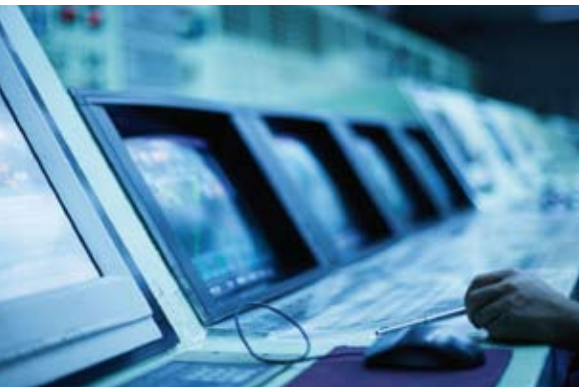
- IRIS 02
- ISO 9001: 2008
- ISO 14001: 2004

**Our motto is:**

If you have stopped improving, you have stopped being good!

## Oil-free compressed air, reliable in operation and convincingly economical

- 100% oil-free compressed air
- economical compressor operation at clearly defined costs
- minimal maintenance cost
- compact design with an extremely high delivery volume
- user-friendly microprocessor control for reliable compressor monitoring
- also available with sound enclosure



## INGENIOUS MODULAR SYSTEM

**DYNAMIC P I**  
200–355



motor outputs ranging from  
200–355 kW

**DYNAMIC P II**  
315–560



motor outputs ranging from  
315–560 kW

**DYNAMIC P III**  
450–800



motor outputs ranging from  
450–800 kW

**DYNAMIC P IV**  
710–1200



motor outputs ranging from  
710–1200 kW

**DYNAMIC P V**  
900–2000



motor outputs ranging from  
900–2000 kW

- Simple installation, minimal assembly effort
- Three-stage compression for excellent efficiency
- Inlet guide vane as standard for optimising economic viability
- Controlled using microprocessor
- High-quality choice of material for low-wear operation
- Minimal vibration and low noise
- Available with and without sound enclosure
- Operating pressure of 3 bar to 10 bar\*

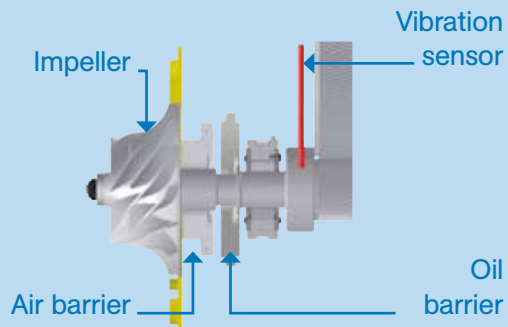
\* Other pressure ranges on request



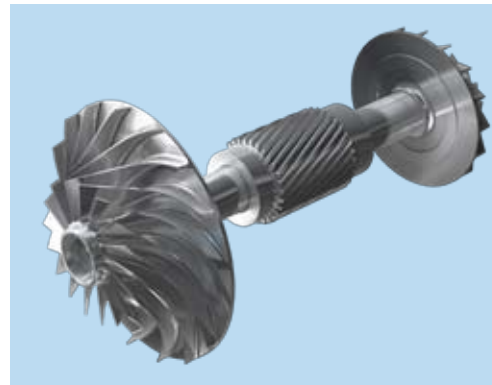
- Intake filter** 1 generously dimensioned, good preliminary air separation
- Drive motor** 2 highly efficient drive motor, efficiency up to 97%
- Inlet valve** 3 Air inlet before first stage; with inlet guide vane as standard
- Baseplate** 4 Split basic frame for cooler and oil reservoir
- Control panel with Air Control T** 5 user-friendly for safe and economical regular processes
- Air end** 6 inspection of gear and bearings is feasible without effort owing to the horizontal division of the housing
- Impeller** 7 Milled from solid material, no wear, not susceptible to particles and corrosion
- Combined journal and thrust bearing** 8 impellers optimally centred in all conceivable operating states
- Compressed air intermediate and after coolers** 9 with withdrawable tube bundles. Water flows in the tubes making cleaning extremely easy

## It's the details that matter:

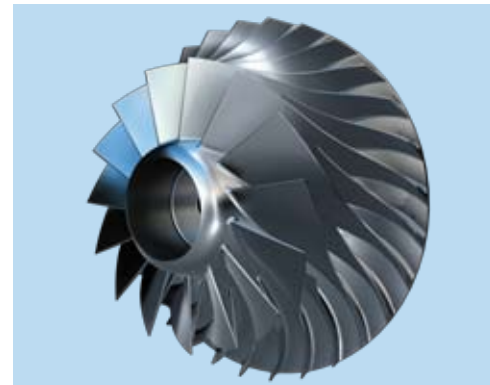
Carbon sealing rings for 100% oil-free compressed air



Rotor assembly



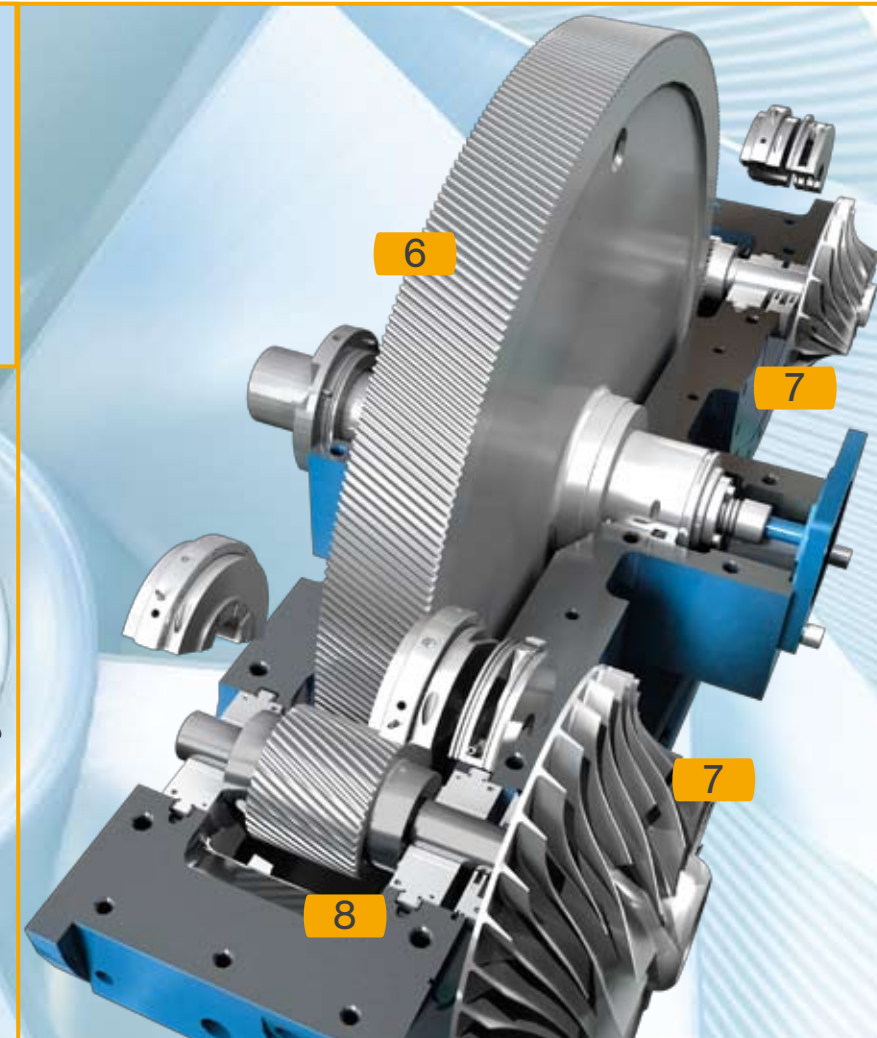
Stainless steel impeller



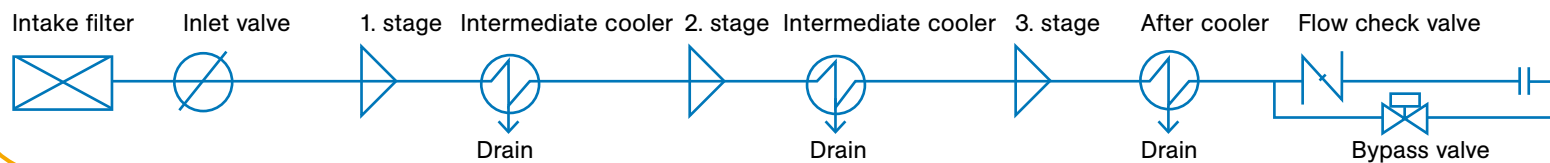
Combined journal and thrust bearing



# DESIGN, TECHNOLOGY, HIGHLIGHTS



Air flow chart



This flow chart also applies to the DYNAMIC

# TO INCREASE ECONOMIC EFFICIENCY

If air consumption fluctuates the optional inlet guide vane ensures a constant operating pressure.

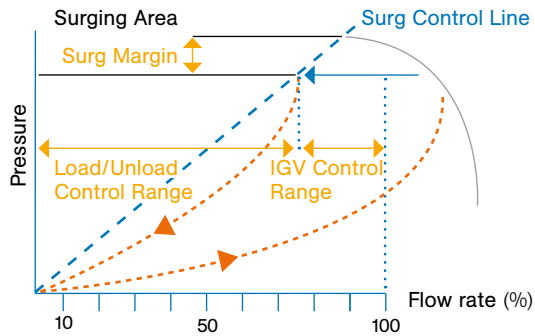
If the consumption of compressed air drops radically the plant is controlled in load / no-load operation between 2 pressure points. This means: Energy savings and protection from pump action.

The user-friendly Air Control T microprocessor control system captures all relevant plant data (pressure, temperature, cooling water etc.) and visualise them by means of graphic display. Data transmission with an RS 485 bus enables easy connection to centralised control technologies, e.g. via Modbus or Profibus.

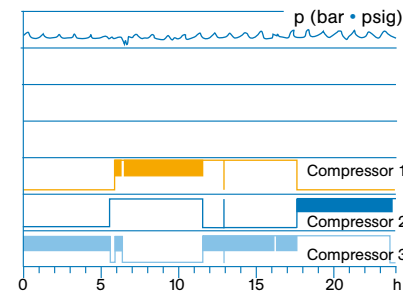
The following measurement graphs show that there is an enormous energy-saving potential!

Only on the basis of facts can decisions be made. Therefore: **analyse first, then decide.**

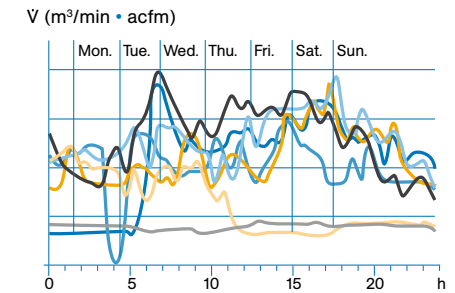
This is reason enough to allow the specialists from ALMiG to determine your current compressed air consumption and, with the help of accurate measurements, develop the optimum system solution together with you.



Operating conditions/Pressure - daily profile



Air flow - weekly profile



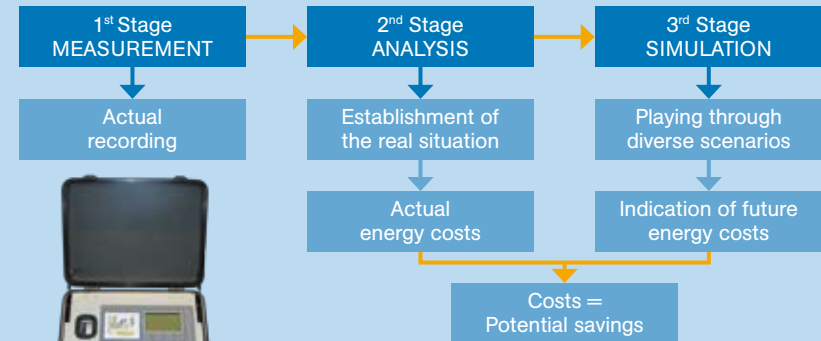
Inlet guide vane (IGV)



Air Control T microprocessor control system

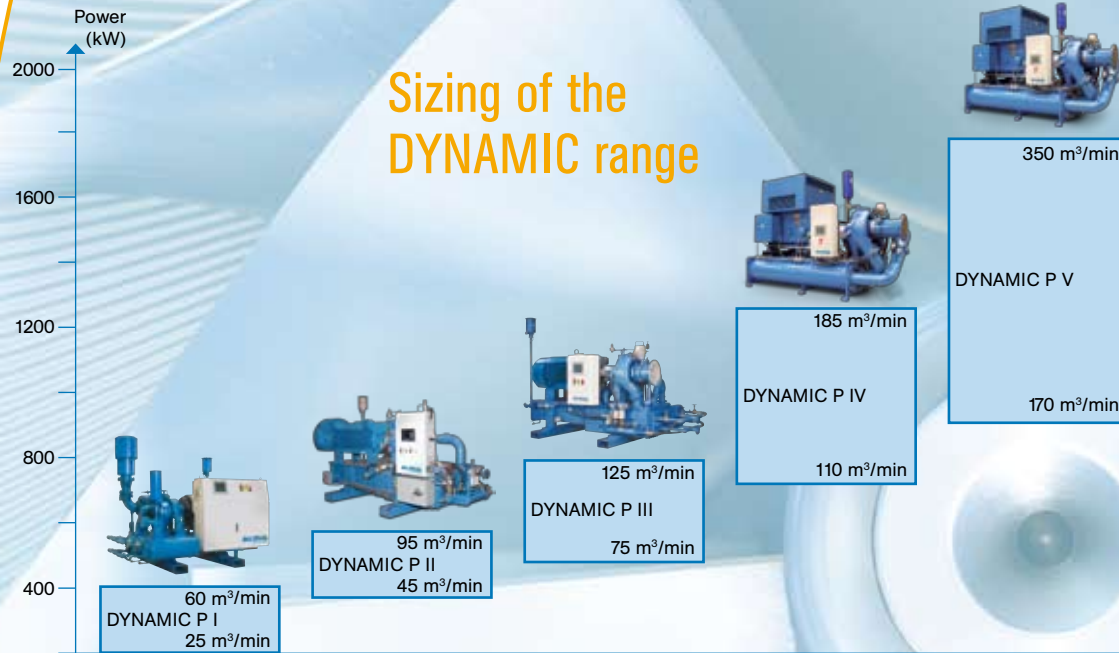


EBS Energy Balancing System



Basis for planning investments and RoI

# FACTS AND FIGURES



Installation size	Dimensions (mm)*			Weight (kg)*
	Length	Width	Height	
I without panelling	2910	1832	2568	4550
I with panelling	4400	2480	2568	5950
II without panelling	3632	2057	1905	6575
II with panelling	5400	2160	2870	8310
III without panelling	3175	2160	2160	7260
III with panelling	5260	2200	2920	9005
IV without panelling	4597	2210	2337	11567
IV with panelling	on request			
V without panelling	4597	2210	2337	13063
V with panelling	on request			

\* Dimensions and weight may vary depending on version

## Energy-efficient drying for your oil-free compressed air



Saving energy is the key. DYNAMIC and ALM-HOC are perfectly matched to one another for every kW class, offering the maximum possible scope for saving energy

ALM-HOC series pressure dew points of down to  $-40^{\circ}\text{C}$

In the ALM-HOC (heat of compression) series, the compressed air is only dried using compression heat, with no additional energy supplied.

The ALM-HOC series offers:

- Pressure dew points of down to  $-40^{\circ}\text{C}$
- Great economic viability thanks to flow-optimised fittings for minimum differential pressures
- Efficient cooling from the partial flow of the cold compressed air volume flow

ALM-HOC	volume flow	Length	Width	Height	Weight
	$\text{m}^3/\text{min}$	mm	mm	mm	kg
1900	28.3	1800	2400	1350	1850
2600	38.3	2100	2500	1550	2300
3300	48.3	2100	2500	1700	2650
3800	56.7	2400	2500	1650	2900
4700	69.2	2500	2620	1800	3450
5600	83.3	2800	2700	1850	3900
6700	100.0	3000	2750	1950	4400

Pressure dew points of down to  $-40^{\circ}\text{C}$

• Volume flow at  $20^{\circ}\text{C}$  and 1 bar (absolute), operating pressure 7 bar (overpressure) and an adsorption temperature of  $35^{\circ}\text{C}$  (saturated).

• Water-cooled drier / larger drier on request

Correction factor F depending on operating pressure in bar (overpressure)					
5	6	7	8	9	10
0.75	0.87	1.00	1.12	1.25	1.37

Example of how to calculate size

Inlet volume flow  $V_{\text{eff}}$  : 30  $\text{m}^3/\text{min}$

Operating pressure: 8 bar (overpressure)

Correction factor F : 1.12

$$V_{\text{corr}} = \frac{V_{\text{eff}}}{F} = \frac{30}{1.12} = 26.8 \text{ m}^3/\text{min}$$

Size selected: ALM-HOC 1900

# INTELLIGENTE DRUCKLUFT MADE IN GERMANY

## In line with the customer's needs

With our innovative system concepts we offer customised solutions for almost all applications. Our endeavour lies not only in supplying compressors, we

offer ourselves as a competent system provider capable of offering solutions to all users of compressed air. That does not only apply to the consultation and installa-

tion phase of your new compressor(s), but naturally continues in all areas of service, maintenance and visualisation.  
**Challenge us!**

Screw compressors 2,2 – 500 kW	Piston compressors 1,5 – 55 kW	Turbocompressors 200 – 2000 kW	Blower 1,5 – 55 kW	Complete accessories	Control, regulate, monitor
<ul style="list-style-type: none"> <li>• Fixed speed</li> <li>• With energy-saving speed control</li> <li>• Oil-free, with water injection</li> <li>• Oil-free, 2-stage</li> </ul> <p>Available drive types:</p> <ul style="list-style-type: none"> <li>• V-belt</li> <li>• Gearbox</li> <li>• Direct</li> </ul>	<ul style="list-style-type: none"> <li>• Oil-lubricated</li> <li>• Oil-free</li> <li>• Normal pressure, medium pressure, high-pressure</li> <li>• Booster</li> <li>• Mobile / stationary</li> </ul> <p>Available drive types:</p> <ul style="list-style-type: none"> <li>• V-belt</li> <li>• Direct</li> </ul>	<ul style="list-style-type: none"> <li>• Oil-free</li> <li>• Radial, 3-stage compression</li> <li>• With / without sound-absorbing housing</li> </ul> <p>Available drive types:</p> <ul style="list-style-type: none"> <li>• Gearbox</li> </ul>	<ul style="list-style-type: none"> <li>• Fixed speed</li> <li>• With energy-saving speed control</li> </ul> <p>Available drive types:</p> <ul style="list-style-type: none"> <li>• V-belt</li> <li>• Direct</li> </ul>	<ul style="list-style-type: none"> <li>• Refrigerant dryers</li> <li>• Desiccant dryers, heatless and heat-regenerative</li> <li>• HOC (heat of compression)</li> <li>• Activated carbon adsorbers</li> <li>• Filters, all particle sizes</li> <li>• Condensate management</li> <li>• Heat recovery systems</li> <li>• Pipework Systems</li> </ul> <p>All components are optimally matched to the compressors</p>	<ul style="list-style-type: none"> <li>• Base load changeover controls</li> <li>• Consumption-related controls</li> <li>• Visualisation (we display your compressed airstation on the PC)</li> <li>• Telemonitoring (the hotline of your compressed air station)</li> </ul>

## Our quality standards mean you can rely on our machines



ISO 9001



ISO 14001



IRIS



Your expert advisor