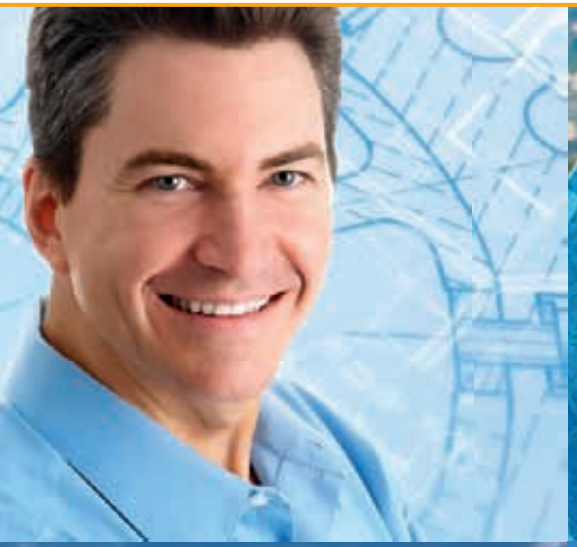
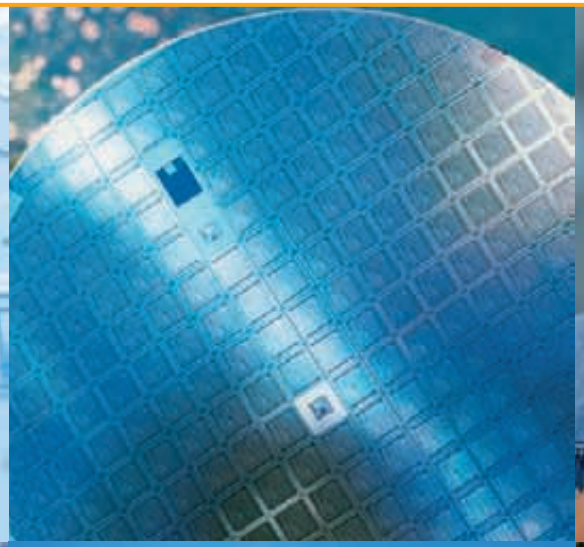
www.almig.de

ALMiG since 1923

# TURBOCOMPRESSORS

oil-free

Volumetric flow rate: 11.5 – 180 m³/min



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 for its customers.

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

As one of the leading suppliers of advanced compressed air systems, our commitment to continuous research and development forms the basis for all our products. ALMiG compressors are all manufactured in accordance with

- IRIS
- ISO 9001: 2000
- ISO 14001: 2004

They meet the conditions for acceptance in compliance with:

- VDI 2045
- ISO 1217-3 annex C-1996
- ASME
- OSHA

and conform to the CE guidelines.

Compliance with the most stringent acceptance conditions, such as

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

is a matter of course for us.

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 panelling

# INGENIOUS MODULAR SYSTEM

## DYNAMIC 75 - 100

Installation size I

smallest turbocompressor in its class

two-stage compression

drive by means of „Inverter Technology“

controlled via microprocessor

motor outputs ranging from 75 to 110 kW

## DYNAMIC 120 - 220

Installation size II

easy to install, minimal maintenance costs

two-stage compression

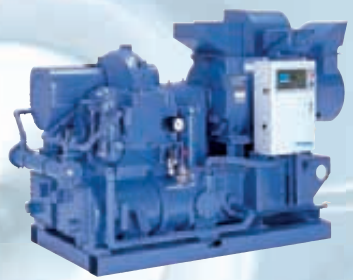
controlled via microprocessor

inlet guide vane (optional) to further increase economic efficiency

motor outputs ranging from 132 to 250 kW

## DYNAMIC 230 - 370

Installation size III



easy to install, minimal maintenance costs

two-stage compression

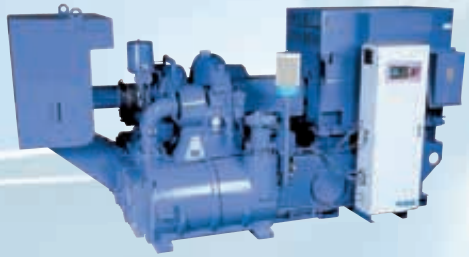
controlled via microprocessor

inlet guide vane (optional) to further increase economic efficiency

motor outputs ranging from 250 to 400 kW

## DYNAMIC 400 - 1000

Installation size IV



easy to install, minimal maintenance costs

two-, three- and four-stage compression

controlled via microprocessor

inlet guide vane (standard) to further increase economic efficiency

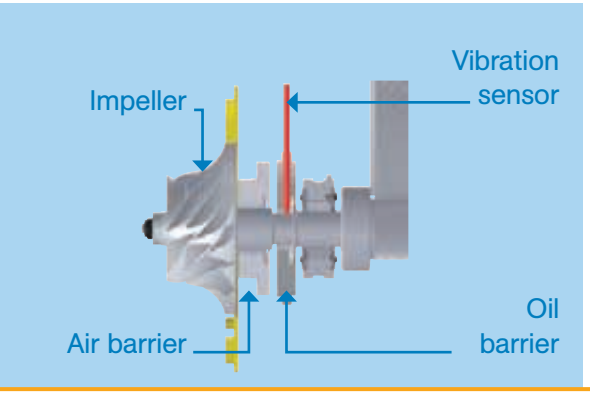
motor outputs ranging from 355 to 1000 kW

ISO 9001 ISO 14001 IRIS Certification ABS

## It‘s the details that matter:

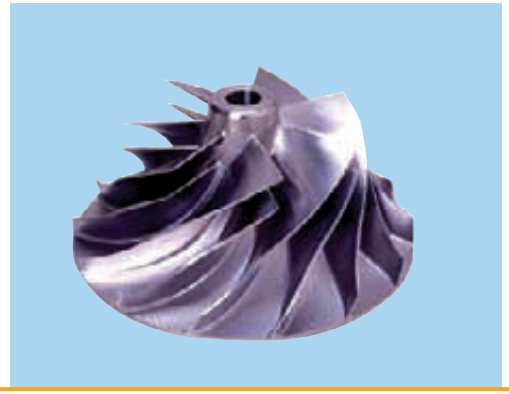
| | | |
|---|---|---|
| Intake filter | 1 | generously dimensioned, good preliminary air separation |
| Drive motor | 2 | highly efficient drive motor, efficiency up to 97 % |
| Inlet valve | 3 | air intake upstream of first stage, from installation size II optionally with intake diffuser |
| Base frame | 4 | complete housing with compressed air coolers and oil reservoir |
| Switching cabinet with Air Control T | 5 | user-friendly for safe and economical regular processes |
| Drive unit | 6 | inspection of gear and bearings is feasible without effort owing to the horizontal division of the housing |
| Impeller | 7 | made from solid material, no wear, not susceptible to particles and corrosion |
| Multi segment slide 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 |

Labyrinth sealing systems
for 100 % oil-free compressed air

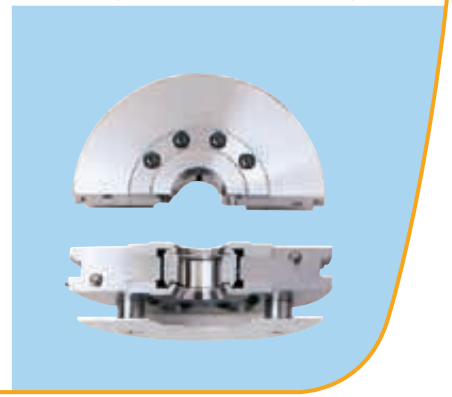



Bladed wheel

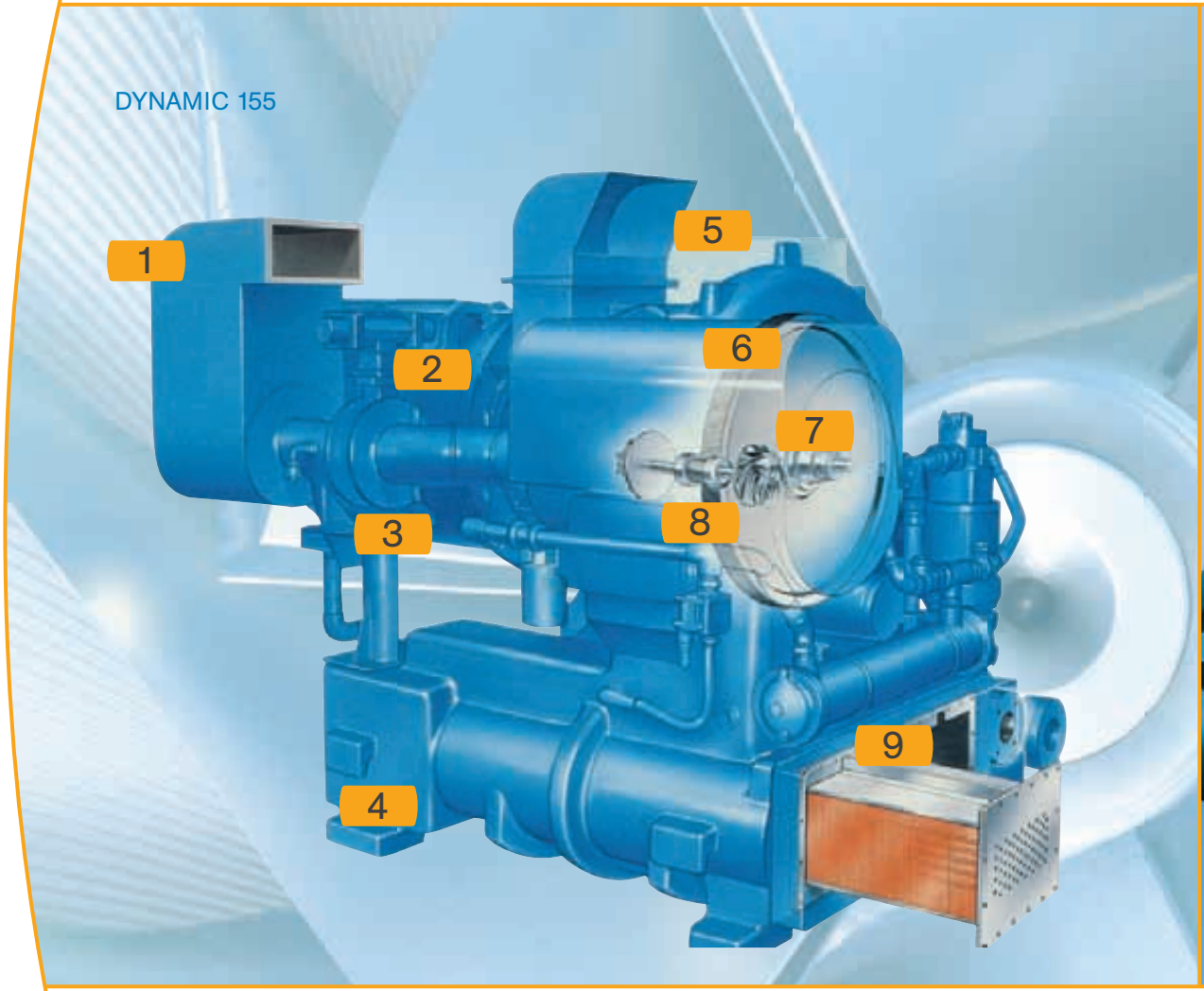
Titanium impeller

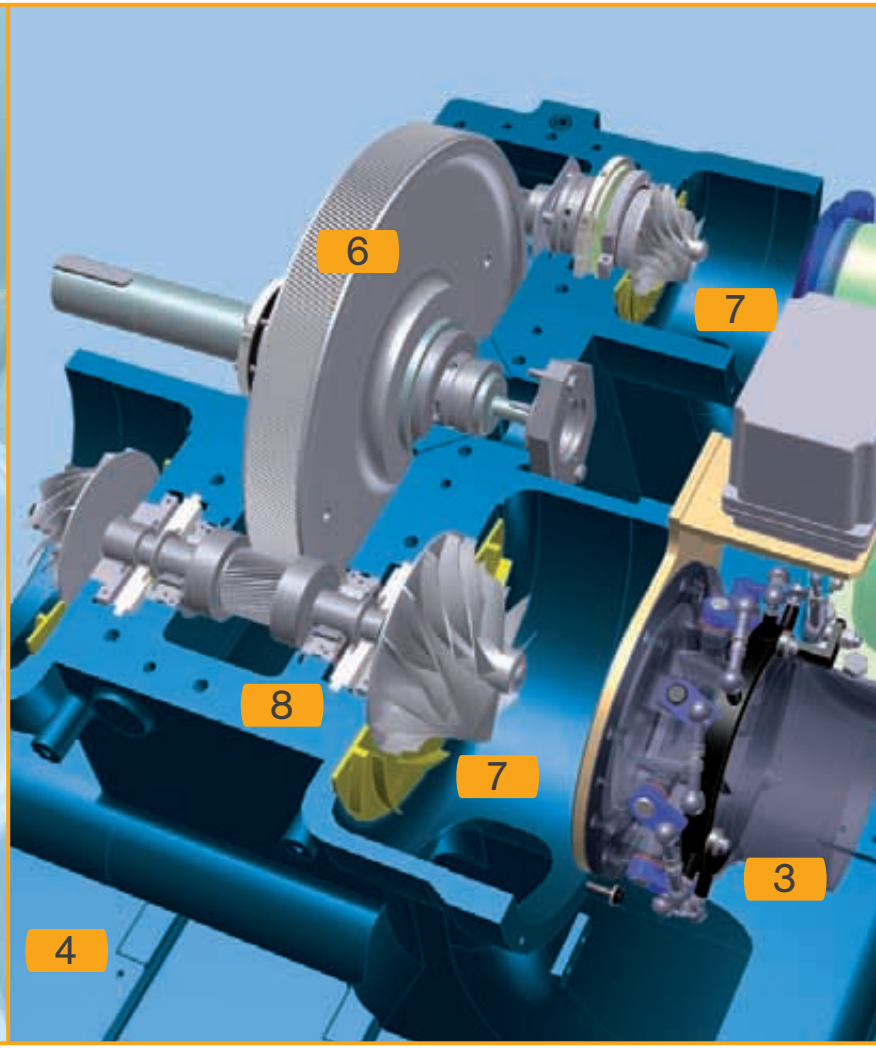


Multi segment slide bearing

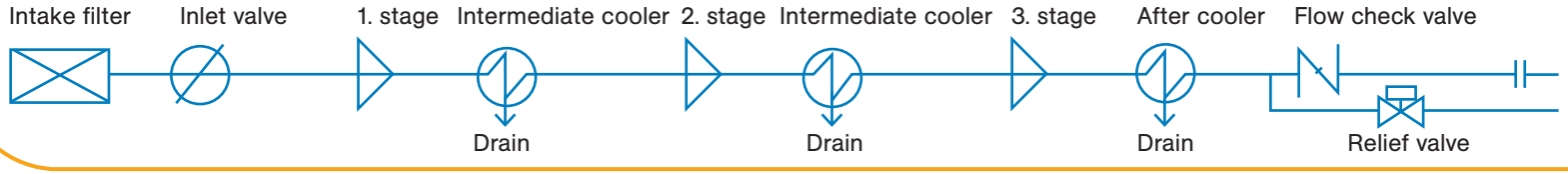


# DESIGN, TECHNOLOGY, HIGHLIGHTS




## Air flow chart




This flow chart also applies to the DYNAMIC 400 - 1000 series

# TO INCREASE ECONOMIC EFFICIENCY

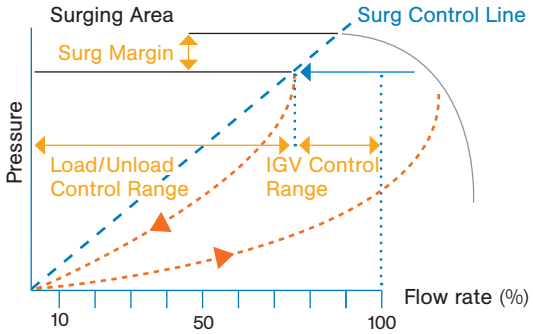
If air consumption fluctuates the optional inlet guide vane ensures a constant operating pressure.
If the consumption of compressed air drops radically the plant is controlled in load / no-load operation between 2 pressure points. This means: Energy savings and protection from pump action.

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.

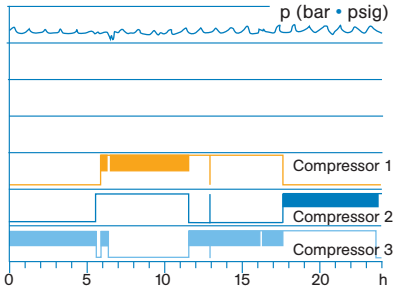
**The following measurement graphs show that there is an enormous energy-saving potential!**

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

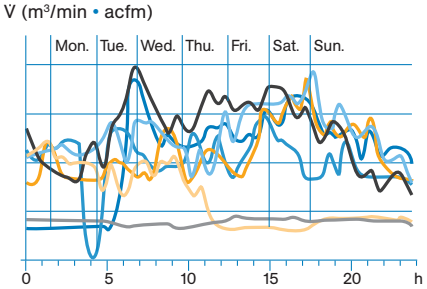
This is reason enough to allow the specialists from ALMiG to determine your current compressed air consumption and, with the help of accurate measurements, develop the optimum system solution together with you.




Operating conditions/Pressure - daily profile



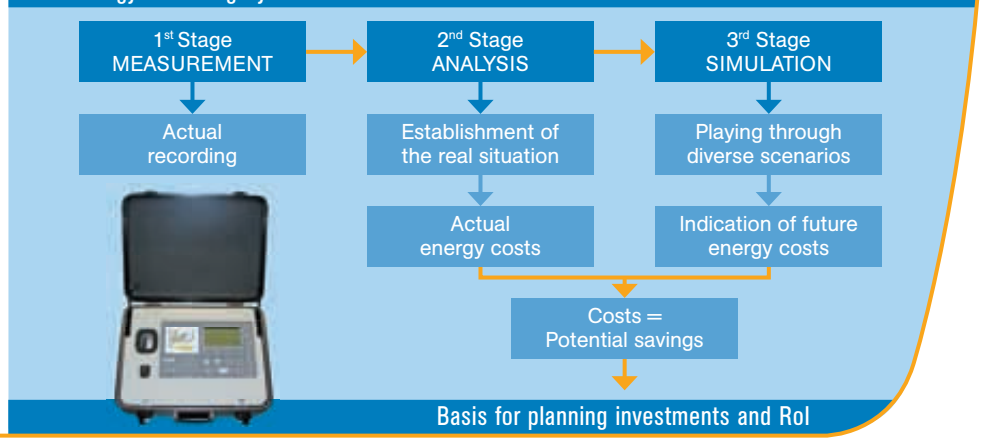

Air flow - weekly profile



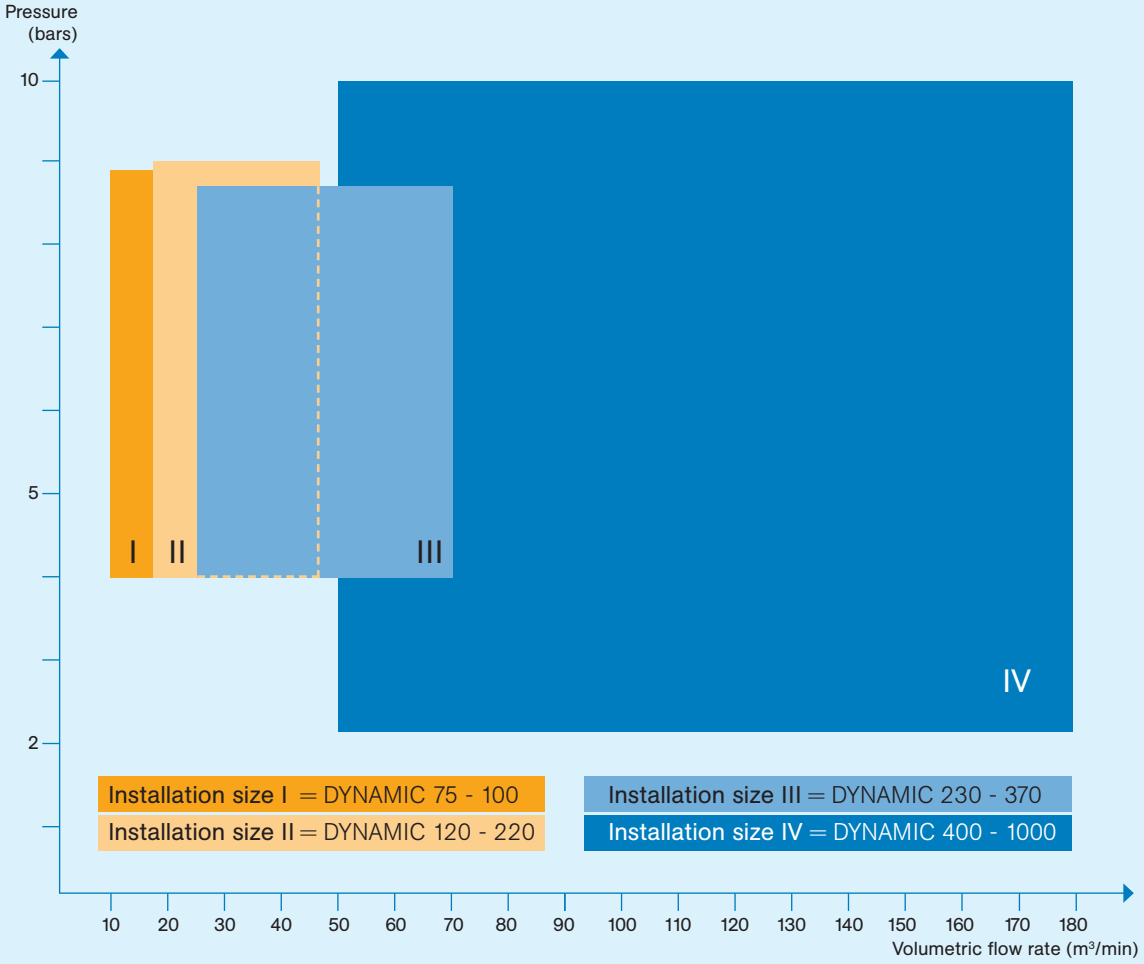

## Inlet guide vane (IGV)

## Air Control T microprocessor control system


## EBS Energy Balancing System



# FACTS AND FIGURES




| Installation size I | Dimensions (mm) | | | Weight (kg) |
|---|---|---|---|---|
| | Length | Width | Height | |
| without panelling | 2385 | 1400 | 1400 | 2300 |
| with panelling | 2385 | 1400 | 1525 | 2600 |

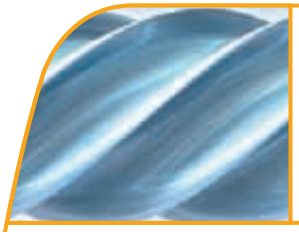
| Installation size II | Dimensions (mm) | | | Weight (kg) |
|---|---|---|---|---|
| | Length | Width | Height | |
| without panelling | 3000 | 1650 | 1900 | 4800 |
| with panelling | 3000 | 1650 | 2025 | 5700 |

| Installation size III | Dimensions (mm) | | | Weight (kg) |
|---|---|---|---|---|
| | Length | Width | Height | |
| without panelling | 4200 | 2450 | 2100 | 7600 |
| with panelling | 4400 | 2450 | 2200 | 8800 |

| Installation size IV | Dimensions (mm) | | | Weight (kg) |
|---|---|---|---|---|
| | Length | Width | Height | |
| without panelling | 5200 | 2540 | 2800 | 13500 |
| with panelling | 5300 | 2540 | 2900 | 14500 |

ALMiG since 1923

www.almig.de



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

### Screw compressors

- constant speed
  2.2 – 500 kW/5 – 13 bars
- variable speed-controlled and direct drive
  2.2 – 355 kW/5 – 13 bars
- oil-free, with water injection
  15 – 80 kW/5 – 13 bars

### Piston compressors

- oil-free, up to 10 bars
  1.1 – 4 kW
- for normal pressure
  up to 10 bars
  1.5 – 15 kW
- for medium pressure
  up to 15 bars
  1.5 – 15 kW
- for high pressure
  up to 40 bars
  2.2 – 45 kW
- as a booster for an input pressure
  up to 15 bars
  and an output pressure
  up to 40 bars
  2.2 – 30 kW

### Turbocompressors

- for oil-free compressed air
  65 – 1000 kW
  two-stage up to 9 bars
  three-stage up to 10 bars

### Blower

- at constant speed
  1.5 – 55 kW
  300 – 1000 mbars
- with speed control and direct drive
  3 – 55 kW
  300 – 1000 mbars

### Complete accessories

- refrigerant dryers
  0.27 – 100 $m^3$/min
- desiccant dryers
  0.08 – 145 $m^3$/min
- activated carbon adsorbers
  0.08 – 145 $m^3$/min
- filters, all particle sizes
  0.5 – 225 $m^3$/min
- complete condensate management up to 120 $m^3$/min

### Control, regulate, monitor

- base load changeover controls
- consumption-related controls
- visualisation (we bring your compressed air to the PC)
- tele-monitoring (the hotline of your compressed air station)


Your expert advisor

Leaflet_DYNAMIC_GB_02/10