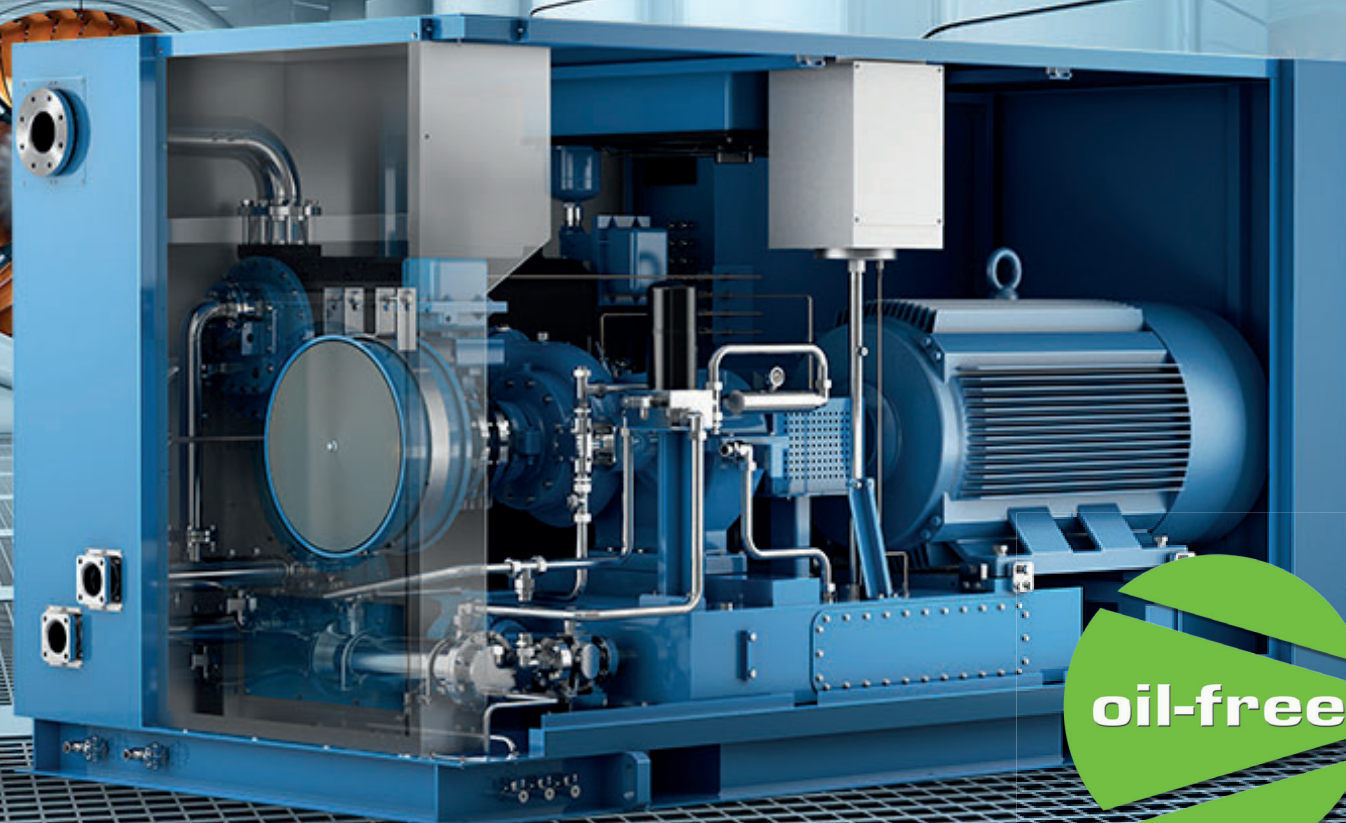


# DYNAMIC 185-250

## OIL-FREE CENTRIFUGAL COMPRESSORS



oil-free

# TURBO COMPRESSORS DYNAMIC 185-250

A winner in the life cycle cost comparison

The DYNAMIC series combines decades of experience and enthusiasm for compressed air technology in an extremely reliable and energy-efficient series.

The turbo compressors of the DYNAMIC 185-250 series are suitable for a wide range of applications where 100% oil-free compressed air is required in larger quantities - from 185 kW to 250 kW drive power at a final compression pressure of up to 8.6 bar.

The simple and compact design of the compressor unit offers high reliability and ensures safe operation even under demanding conditions. The titanium impellers are designed for optimum efficiency and a long service life.

The DYNAMIC compressors are easy to install, operate and maintain and have a compact footprint.

The turbo compressors of the DYNAMIC series replace oil-free screw compressor as a base load machine and impress with lower total cost of ownership.

## Advantages:

- 100 % oil-free compressed air
- Titanium impellers designed for optimum efficiency and reliability
- Lowest total cost of ownership
- Fully enclosed with sound insulation housing

## Energy efficient

Wear-free Titanium impeller, IE4 motor and modern control system for minimum energy consumption.

## Oil-free

The system supplies 100% oil-free compressed air of class 0 (according to ISO 8573) confirmed by TÜV Rheinland.

## Quick & easy maintenance

Optimised design with wear-free compression principle offers low maintenance and few downtimes.

## Application

Industry

## Power output

185 - 250 kW

Volume flow according to ISO 1217 (Annex C-2009)

35.1 - 43.6 m³/min

## Operating pressure

6.2 - 8.6 bar

## Cooling

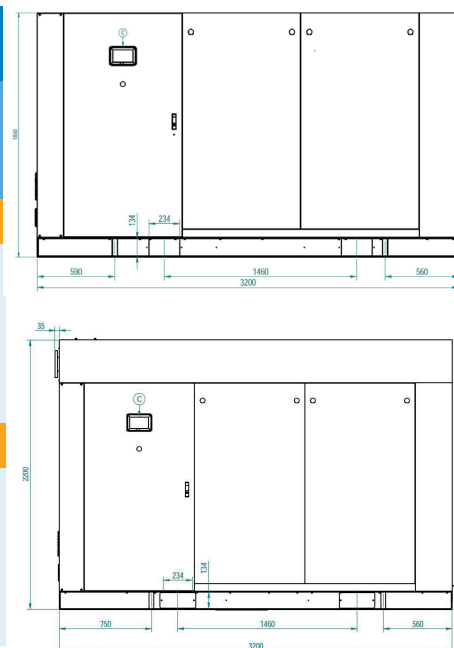
Water-cooled

Air-cooled

## Drive

Gear

DYNAMIC	Operating overpressure	Volume flow	Rated motor power	Dimensions (L x W x H)
		at max. operating pressure		
Model	bar	m³/min	kW	mm
50 Hz - Water cooling				
250-8.6	8.6	41.6	250	3200 x 1850 x1850
220-6.9	6.9	43.6	220	
200-8.6	8.6	35.3	200	
185-6.9	6.9	35.1	185	
50 Hz - Air cooling				
250-7.9	7.9	41.4	250	3200 x 2000 x 2200
220-6.9	6.9	42.8	220	
200-7.9	7.9	35.4	200	
185-6.2	6.2	35.1	185	







#### Inlet and relief valve

#### Efficient water cooling

Also available with air cooling

**100% oil-free compressed air**  
certified according to ISO 8573 class 0

#### Highly efficient coolers

provide excellent heat exchange performance

#### Optimised enclosure design

The separate cooling air flow is designed for the control cabinet to ensure that all components operate under optimal conditions

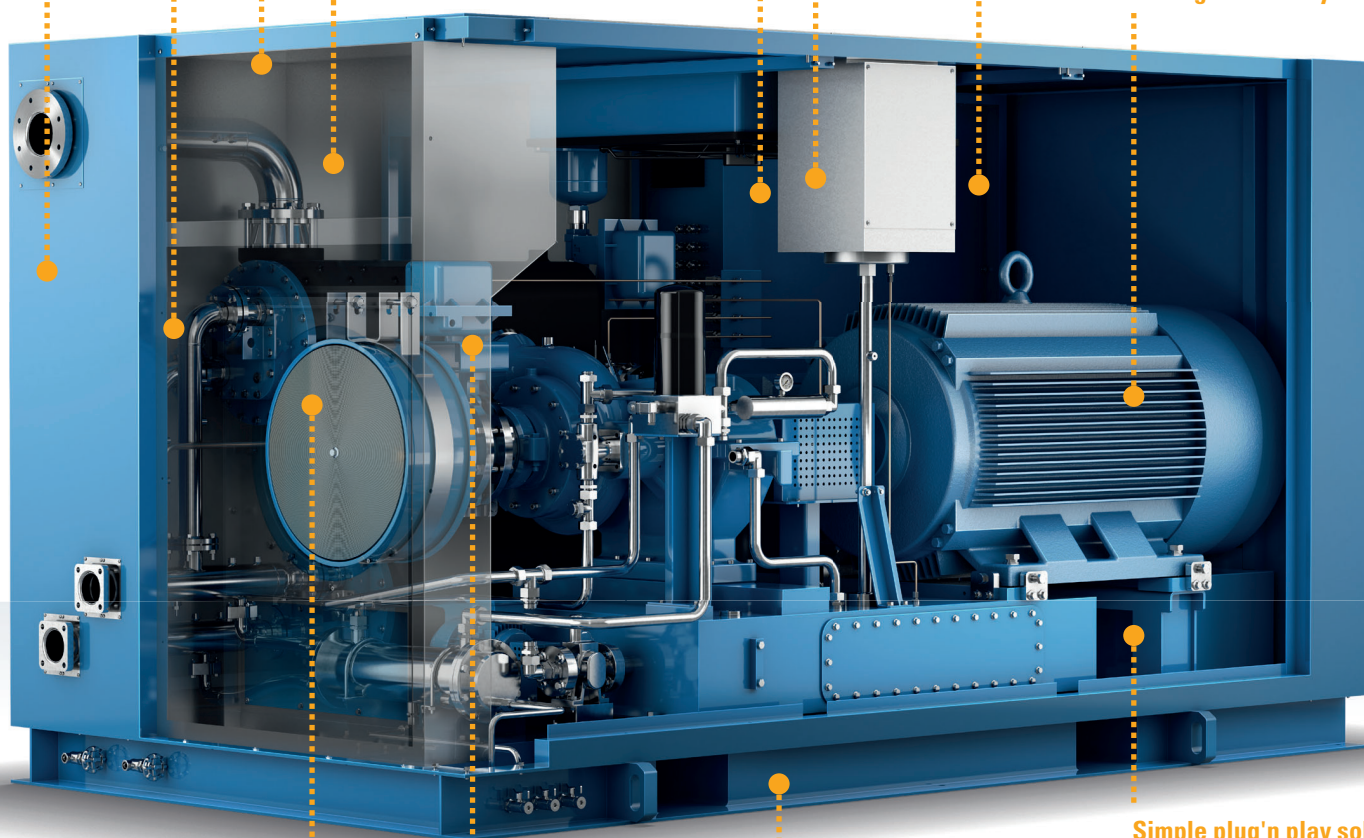
#### Energy efficient control

3 control modes to optimise energy costs of compressor operation for different conditions, IoT connectivity enabled

#### Fully enclosed with sound insulation housing

Low noise level (75 dB(A))

#### IE4 High Efficiency Motor



#### Integrated intake filter

#### Small footprint

#### Simple plug'n play solution

Easy replacement of an existing screw compressor with an ALMiG DYNAMIC turbo compressor

#### Oil mist separator

Integrated into the housing to ensure that the oil mist does not contaminate the surroundings or the compressor

- + Clean, oil-free compressed air according to ISO 8573-1 Class 0
- + Wear-free impeller
- + PLC-based control systems
- + Easy to maintain
- + Low life cycle costs

## Equipment

### Features and advantages

- The DYNAMIC turbo compressors are among the most efficient compressors on the market
- 100% oil-free compressed air according to ISO 8573
- 2-stage compression
- Above-average service life
- Low maintenance costs
- Low-wear hydrodynamic multi-segment plain bearing
- Permanently high and consistent performance
- Wear-free impeller
- On-site maintenance possible due to horizontally split gearbox housing
- IE4 Motor

### Standard equipment

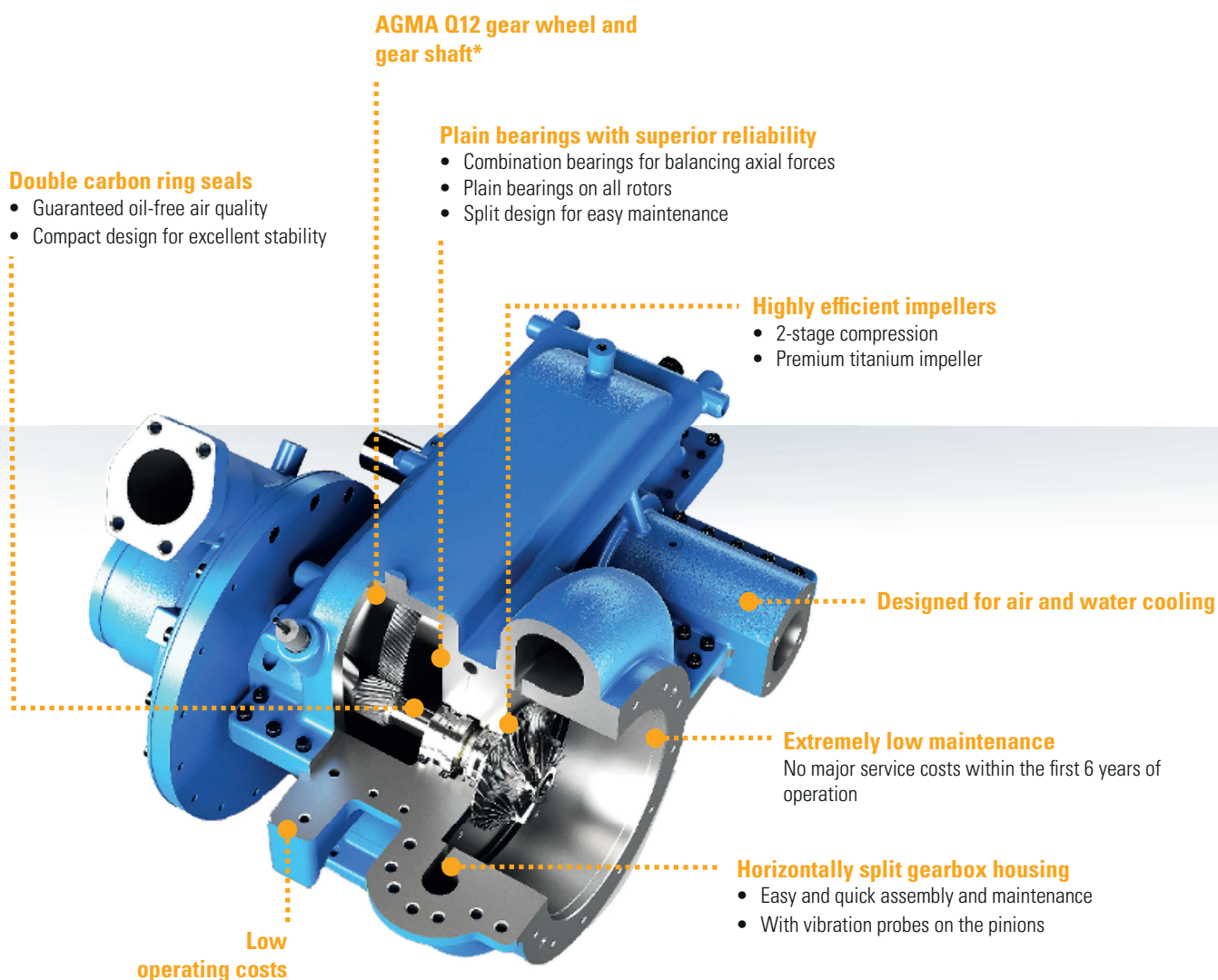
- Modern premium control
- Cooling water connection
- Integrated aftercooler
- Sound insulation bonnet

### Options

- Filter monitoring
- IoT-capable control
- Higher-level control
- HOC solution with dryer
- Vibration monitoring
- Drive power monitoring

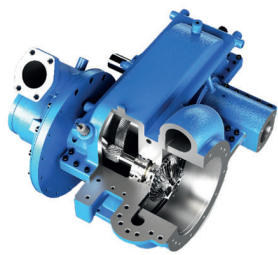
On request, turnkey compressor stations and special plants are possible.

## DYNAMIC 185-250 Compressor airend



\*American Quality Gear Manufacturing Standards

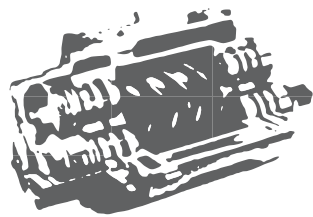
Comparison DYNAMIC vs. dry-running screw and oil-lubricated screw



DYNAMIC  
(Oil-free)



Dry-running screw  
(oil-free)



Oil lubricated  
screw



Total life cycle costs



Wear  
rotor



Wear-free (titanium)

Wearing rotors

Wearing rotors



Total operating  
costs



Approx. ~12% higher opera-  
ting costs in 5 years



Approx. ~12% higher opera-  
ting costs in 5 years

Minimal operating costs  
through maximum efficiency



Planned  
Downtime



Up to 360 h



Up to 360 h

Less than 80 h



Costs - Exchange  
Compressor stage



Necessary ~ 5 years



Necessary ~ 5 years

Not necessary



Compressed air treat-  
ment by oil separation



Not necessary



Treatment necessary

Not necessary



The direct comparison shows that with DYNAMIC from ALMiG, there are significantly lower costs over the life of the compressor compared to a dry-running or an oil-lubricated screw.



## Service - Anytime. Worldwide.

High-quality products from ALMiG deserve first-class service.

We offer you the complete service programme: comprehensive advice, ensuring availability, increasing economic efficiency and exploiting energy-saving potential. Reliability, fast response times and competent advice are our top priorities. We offer a nationwide network of highly qualified ALMiG service technicians and specially trained and authorised service partners. In this way, we ensure the operational reliability of your compressed air station at all times, both at home and abroad.

- Consulting, planning and installation
- Measurements of compressed air consumption and quality
- Maintenance contracts
- Original spare parts
- Further training, including energy-saving and compressed air seminars



Reachability around the clock:  
Service hotline: +49 180 52587 00

## Areas of application



Mining



Food industry



Textile industry



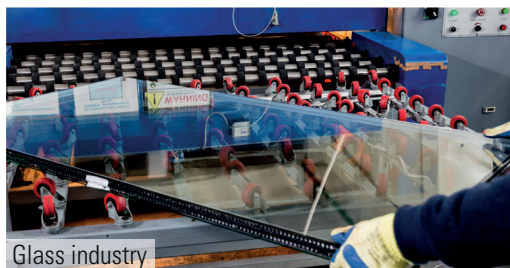
Large-scale industry



Electronics industry



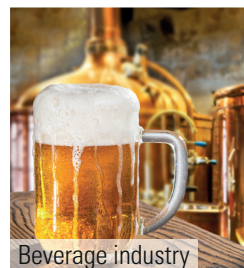
Pharmacy



Glass industry



Automotive



Beverage industry

## We are close to our customers - worldwide

