

Atlas Copco



# Booster & Aircube

Customer Day 2024



# Industries & Applications

## Manufacturing Industry

### Plastic forming



Air and N2 is blown into a mold to form the plastic

### Laser Cutting



Air or N2 as blow off gas remove molten material

### Safety



Pressure-checks are done from 20 till 420bar on brakes, injection systems, valves, fittings.

### N2 storage



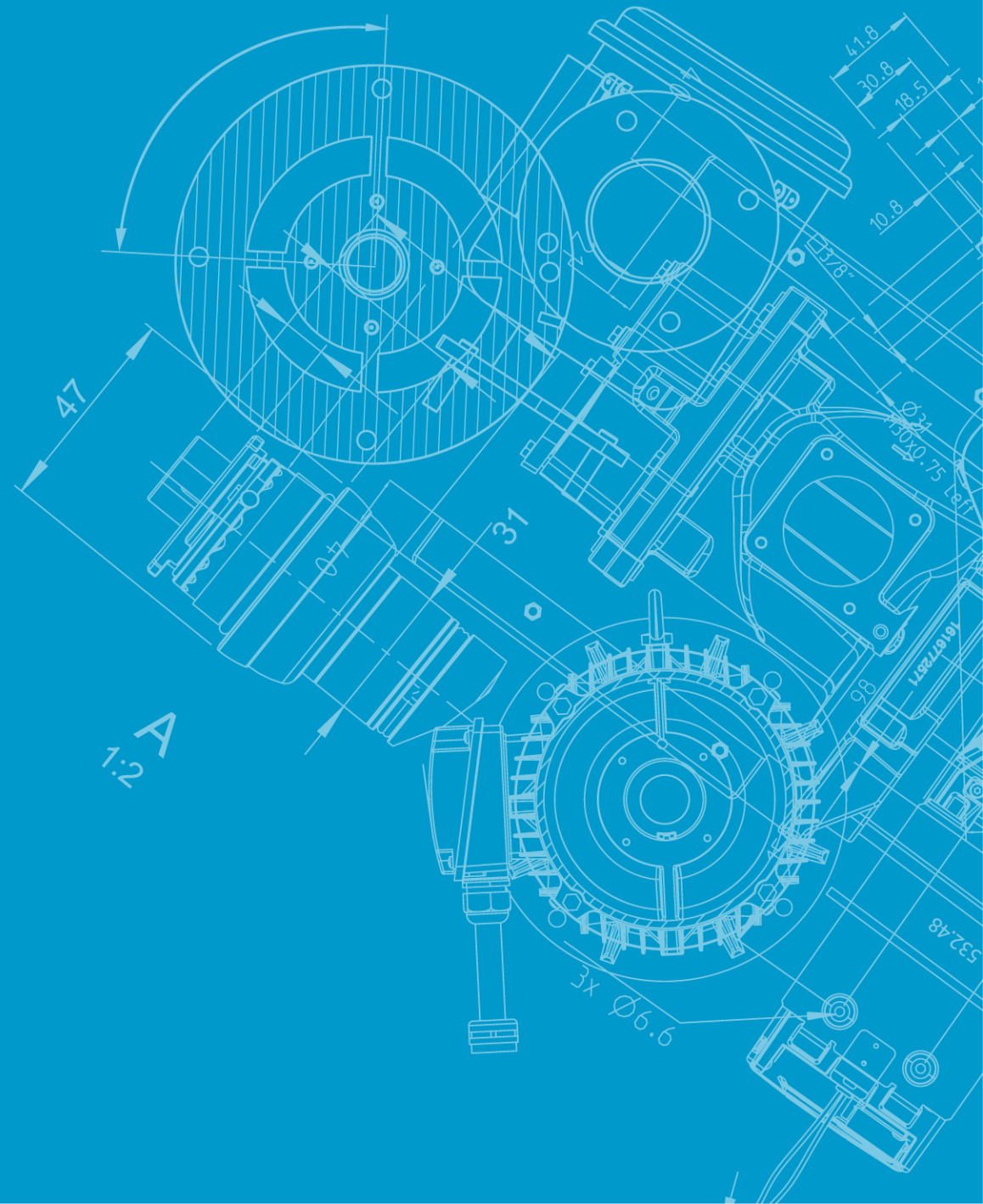
N2 needs to be compressed to high pressure for bottling

### Industrial cleaning



Air up to 300bar is used for pressure washing to remove waste from surfaces

# Product Portfolio



# Industrial Air product portfolio



COMPRESSOR (SYSTEMS) CONTROLS



PSA oxygen generators  
2-200Nm<sup>3</sup>/h @93%purity

OXYGEN



Membrane N<sub>2</sub> generators  
3-172Nm<sup>3</sup>/h @97%purity

NITROGEN



PSA N<sub>2</sub> generators  
10-400Nm<sup>3</sup>/h@99.5%purity



High pressure N<sub>2</sub> packages  
7-83Nm<sup>3</sup>/h @99.99%purity



Oil-injected boosters  
40-300bar 24-46l/s 7.5-15kW

BOOSTERS



Desiccant dryers  
1-335l/s



Refrigerant dryers  
7-400l/s



Membrane dryers  
3-55l/s



Oil/water separators  
12-2500l/s



Drains  
50-16000l/s



Filters  
9-300l/s



After coolers  
8-650l/s



Air receivers  
120-10.000 l.

AIR TREATMENT



Oil-injected pistons  
8-40bar 1-144l/s 1.5-45kW



Oil-free pistons  
10bar 1-24l/s 0.55-7.5kW



Oil-injected screw compressors  
3.5-13bar 5-385l/s 2-110kW



Oil-free scroll compressors  
8-10bar 2-20l/s 1.5-22kW



Oil-free WIS compressors  
13bar 22-155l/s 15-55kW



Aircube Solutions

24th November 2023

COMPRESSED AIR



# Atlas Copco One-Stop Solution

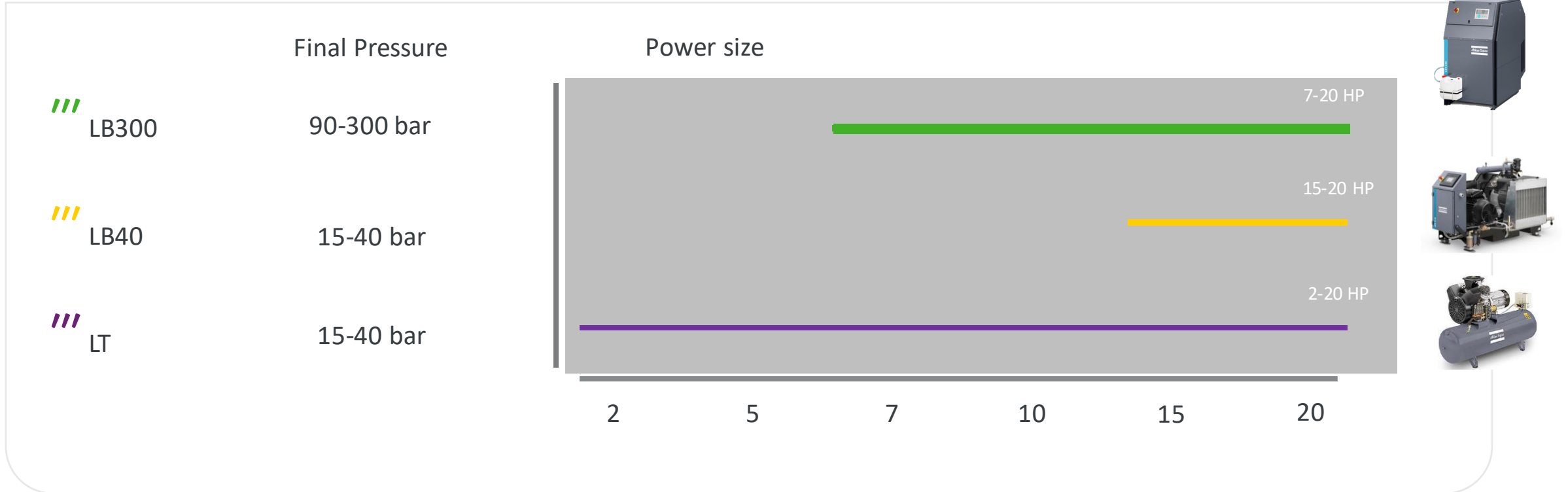
## Complete solution

- Compressor
- Dryers
- Filters
- Nitrogen Generator
- High Pressure Dryers
- High Pressure Filters
- Boosters



# Product portfolio High pressure

## Industrial segment



# The product



# Product highlights



## Silent

- Low vibration operation
- Soundproof design



## Low total cost of ownership

- Energy efficient
- Long service intervals
- Short service time



## Reliable

- High Industrial quality
- Suitable for continuous operations





# Silent

## Soundproof design



**baffles**



**Block**



**Motor separated  
from the block**

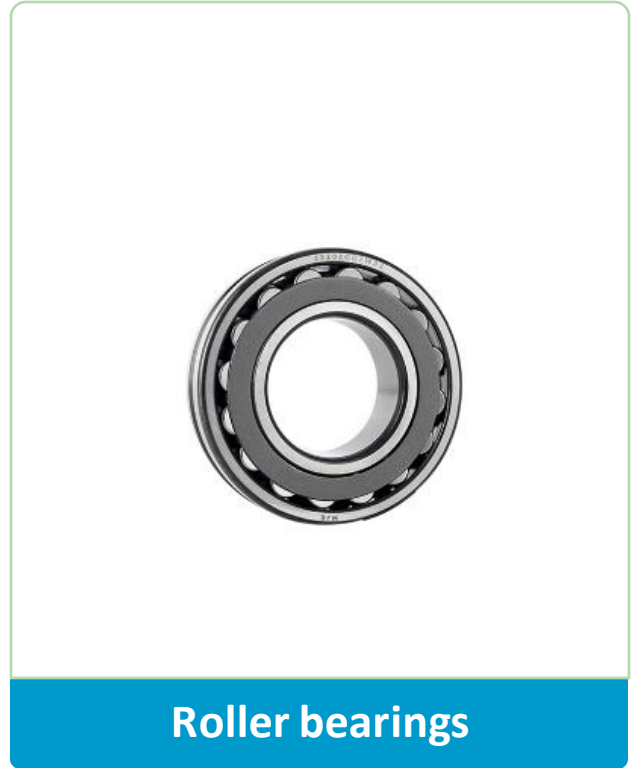
**Baffles**

**Motor**



# Low total cost of ownership

Energy efficient



# Low total cost of ownership

Long service intervals



**Corrosion resistant  
coolers**



**Wear-resistant  
piston ring**



**Plasma-nitrided  
Cylinders**

# Reliable

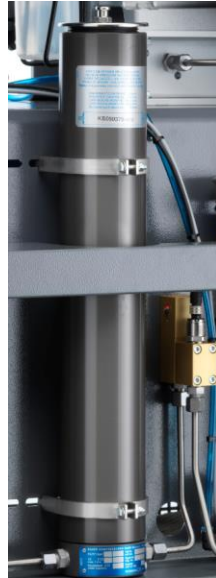
High Industrial quality



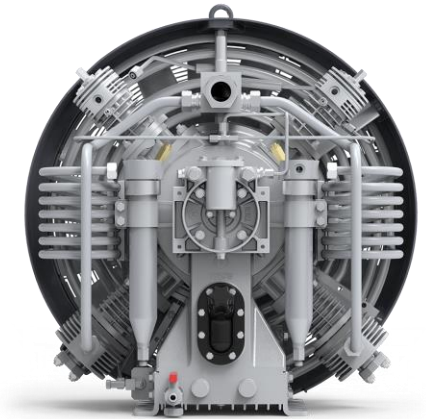
Intermediate & final  
oil & water separators



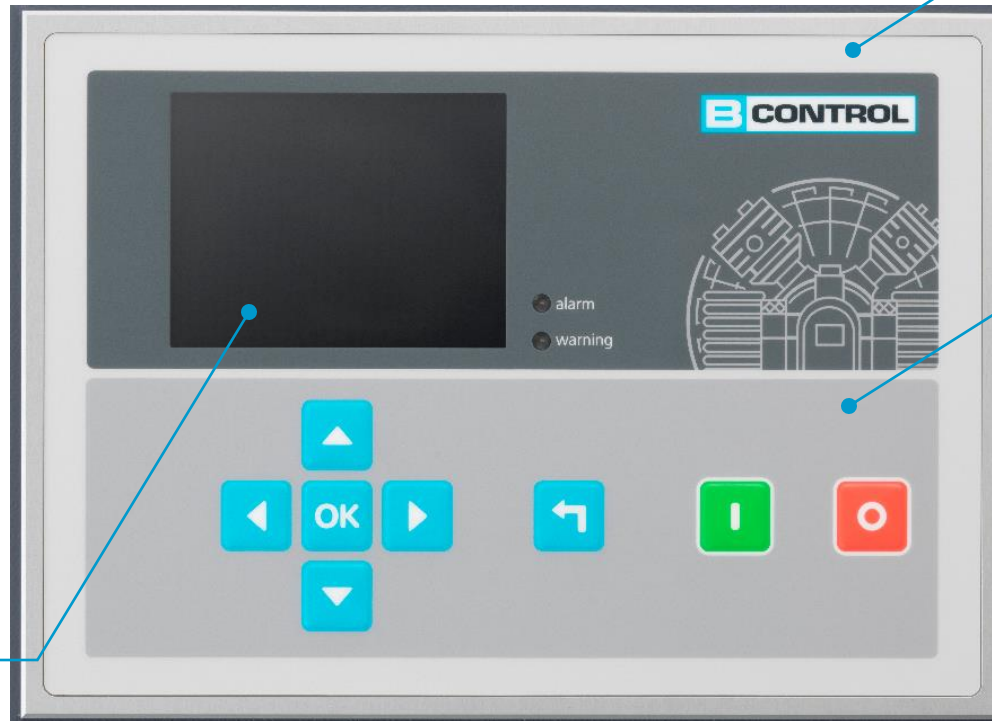
Integrated filter  
system



Robust reliable &  
durable piston block



# Control



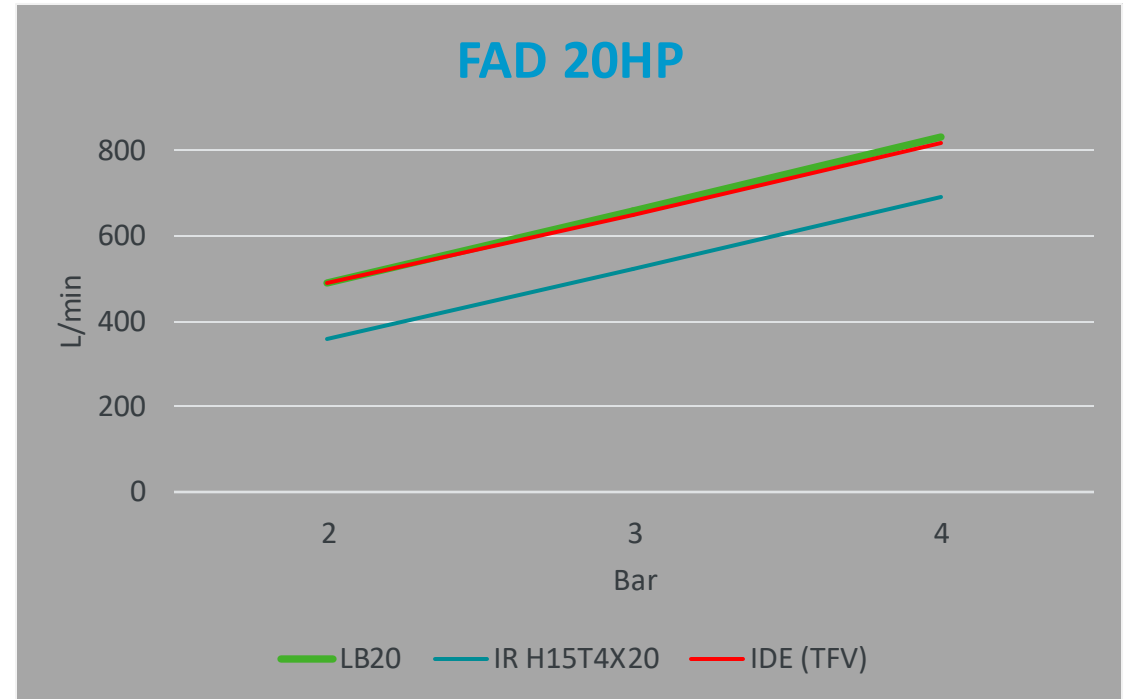
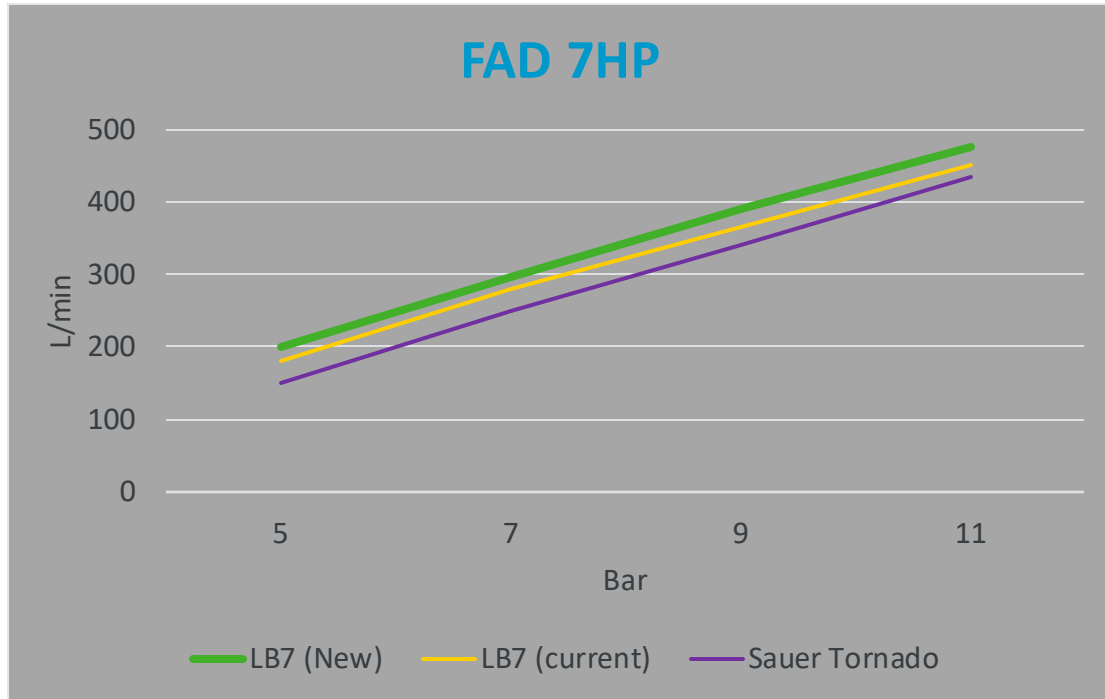
Color display

## Basic function monitoring

- Service intervals
- In & outlet pressure
- Temp monitoring last stage

Automatic shut down  
when values exceeds  
permissible limits

# Performance



# Footprint

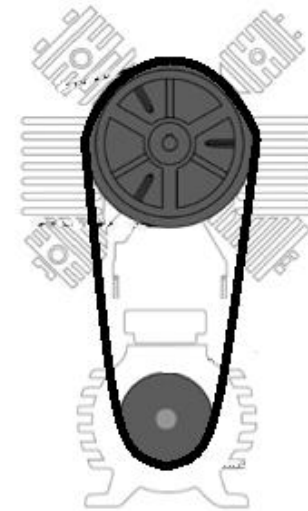


## Small footprint

- Vertical design

## Same dimension for all power sizes

- 1480 x 830 x 1520
- 1,12m<sup>2</sup>



# Noise level



45 dB



60 dB



67 dB



70 dB



85 dB



100 dB



125 dB



LB7-300

70 dBa

LB10-300

71 dBa

LB15-300

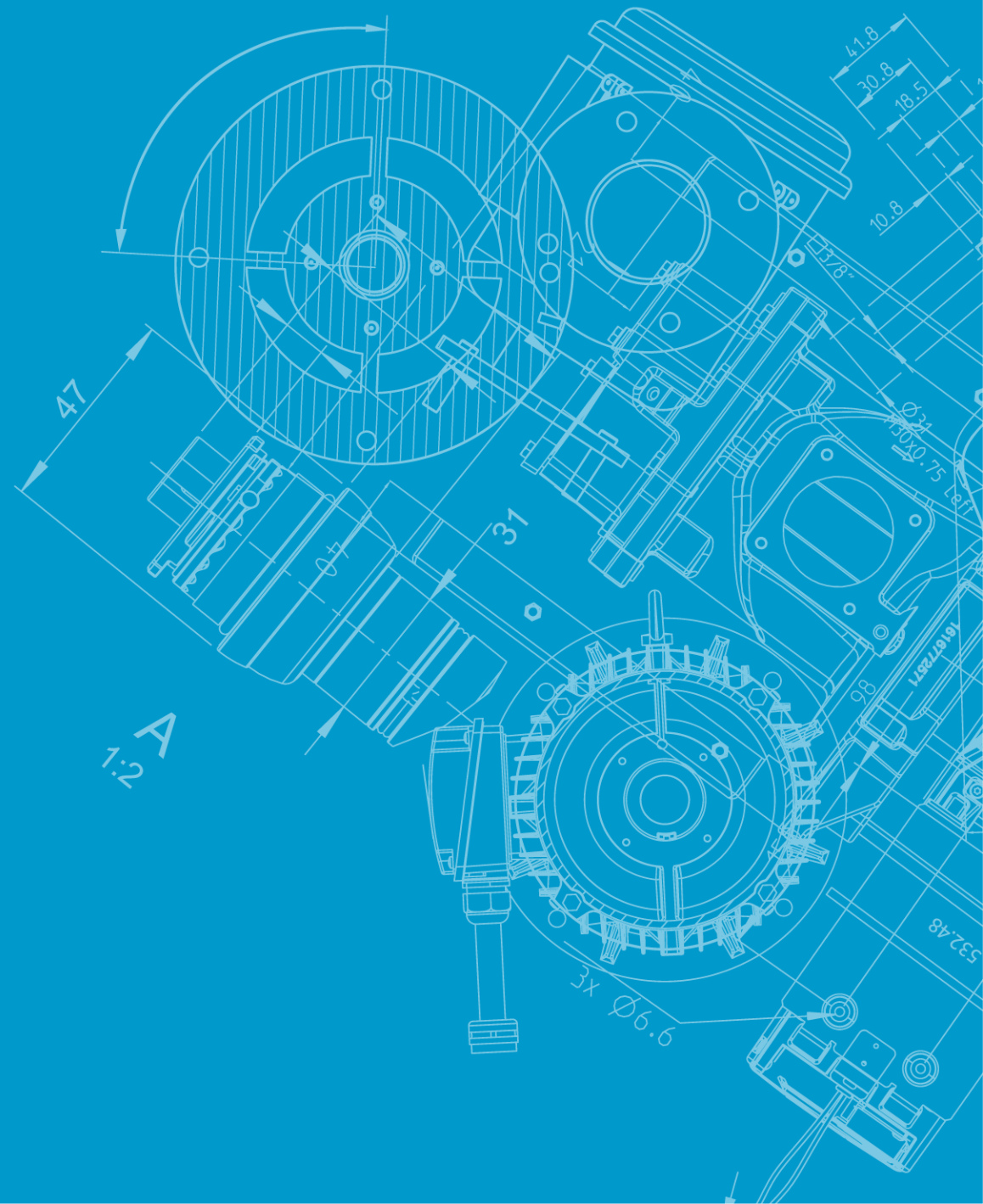
73 dBa

LB20-300

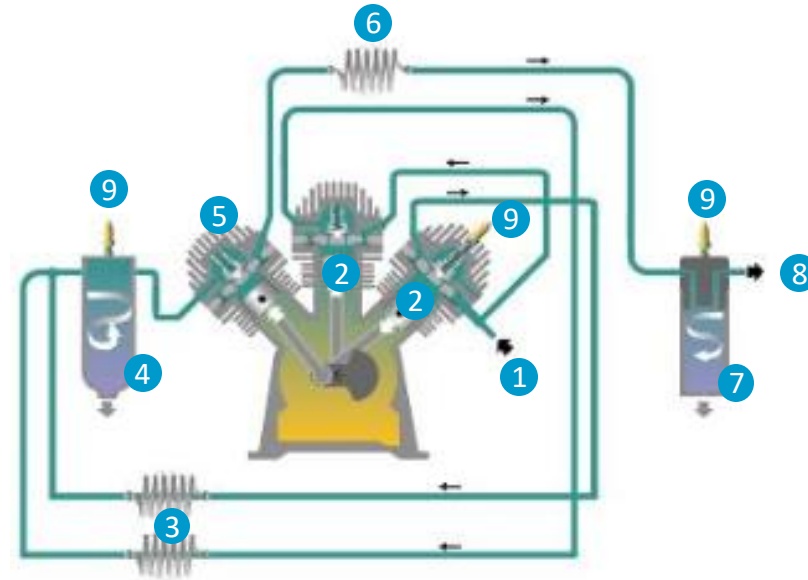
75 dBa



# Technology



# The flow



## Booster

- Piston technology
- Starts from pre-compressed air

1. Inlet (5 till 11 bar)
2. First stage compression
3. Intercooler
4. Intermediate separator
5. Second stage compression
6. Aftercooler
7. Final separator
8. Outlet
9. Safety valves
10. Filter

# Variants & options

- Standalone for Air & Nitrogen
- Integrated N2 Skid

## Voltage variants

- 230/50-60Hz
- 400V/50Hz
- 380V/60Hz
- 460V/60Hz

## Certification

- CE
- ASME

## Options

- In- & outlet filters



**HP outlet filter 100 & 350Bar**  
Special version of coalescing  
filters and dust filters

# THE LB300

## Summary

### Product

- Silent
- Energy efficient
- Long service intervals
- Reliable
- Designed for 100% duty cycle



# Installation

## Air configuration

### What

Compressor + booster + AT

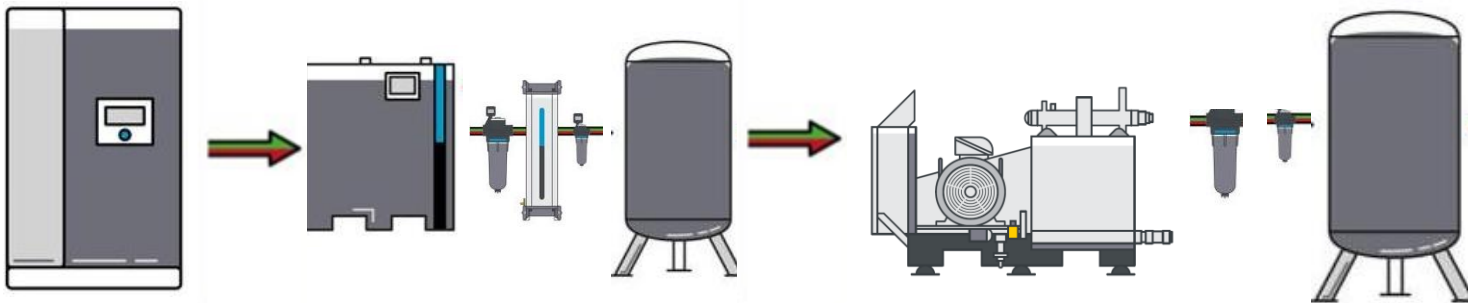
### Applications

PET molding, Surge protection, leakage testing,...

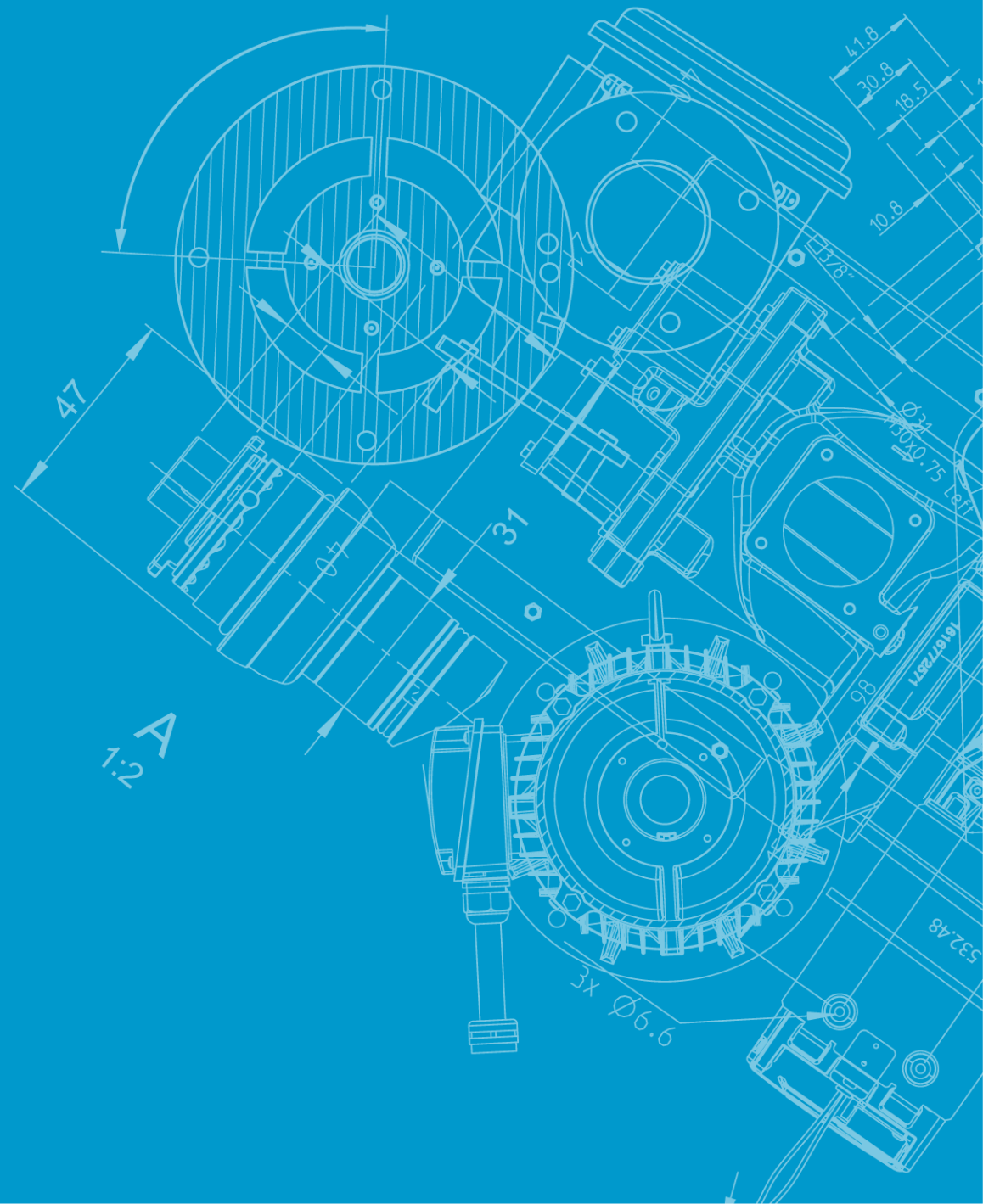
### Field test

PET blowing installation Turkey

- Commissioned Jan 2022 - >2000 load hours
- Increased performance & reduced energy consumption

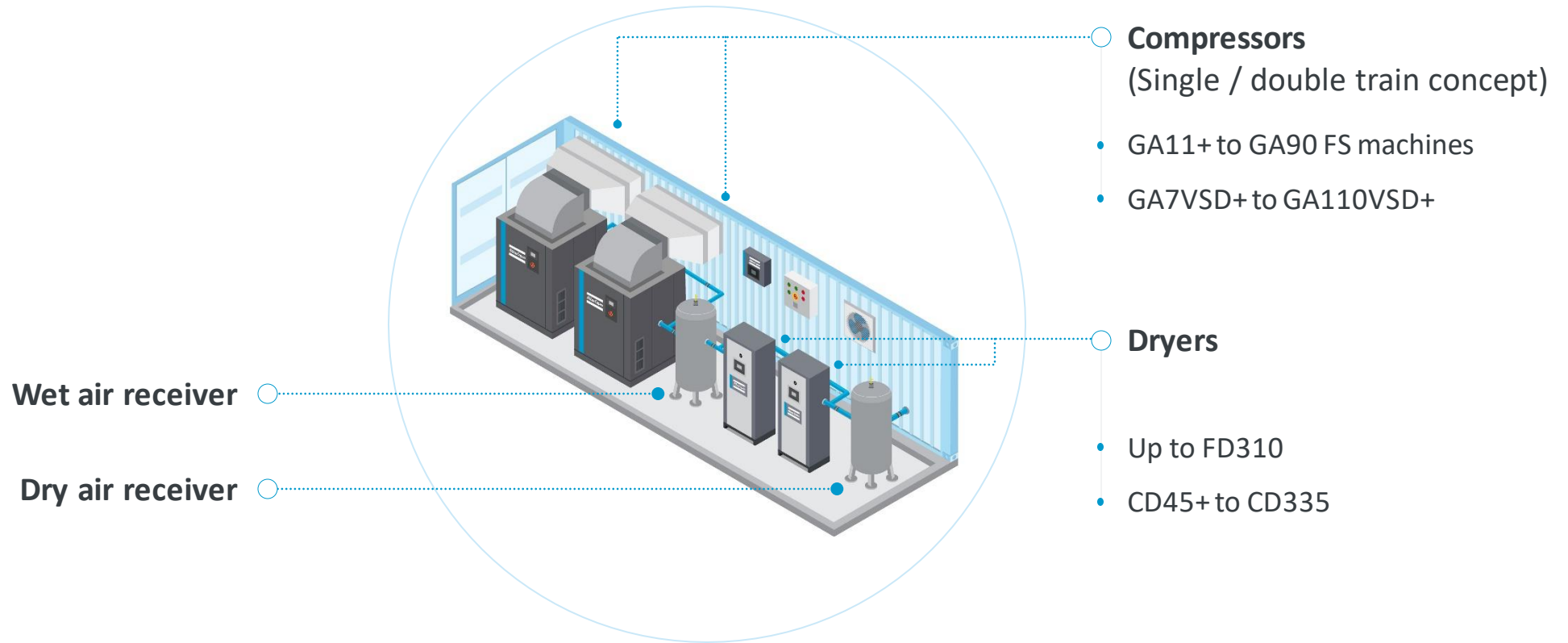


# Air Cube



# AIRCUBE

## Equipment configurations

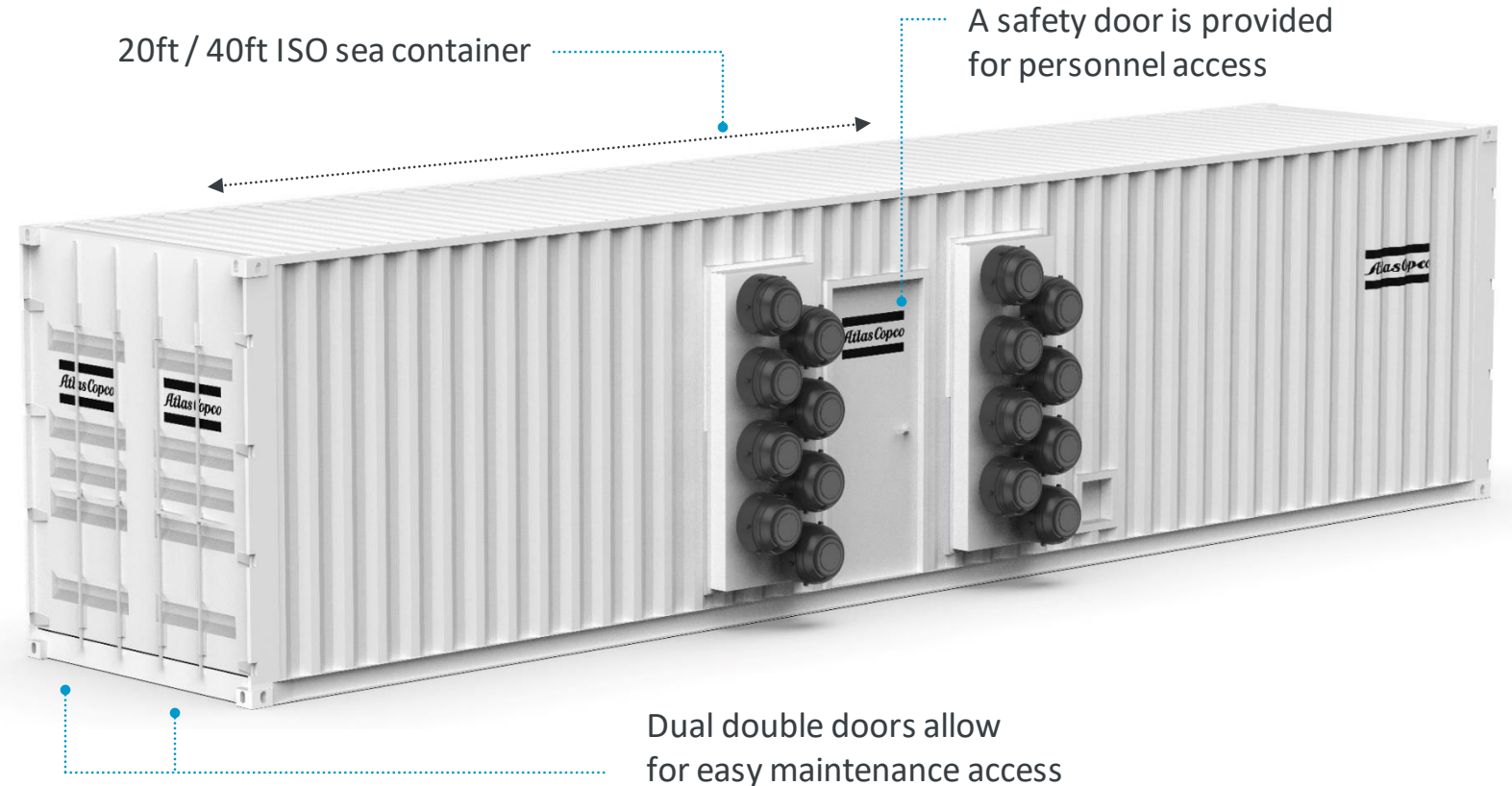


More than 20,000 combinations

30 options for every Container Combination

# AIRCUBE – Standard scope of supply

## Container specifications



As a safety precaution, Safety door can be opened from the inside even if it is locked from the outside

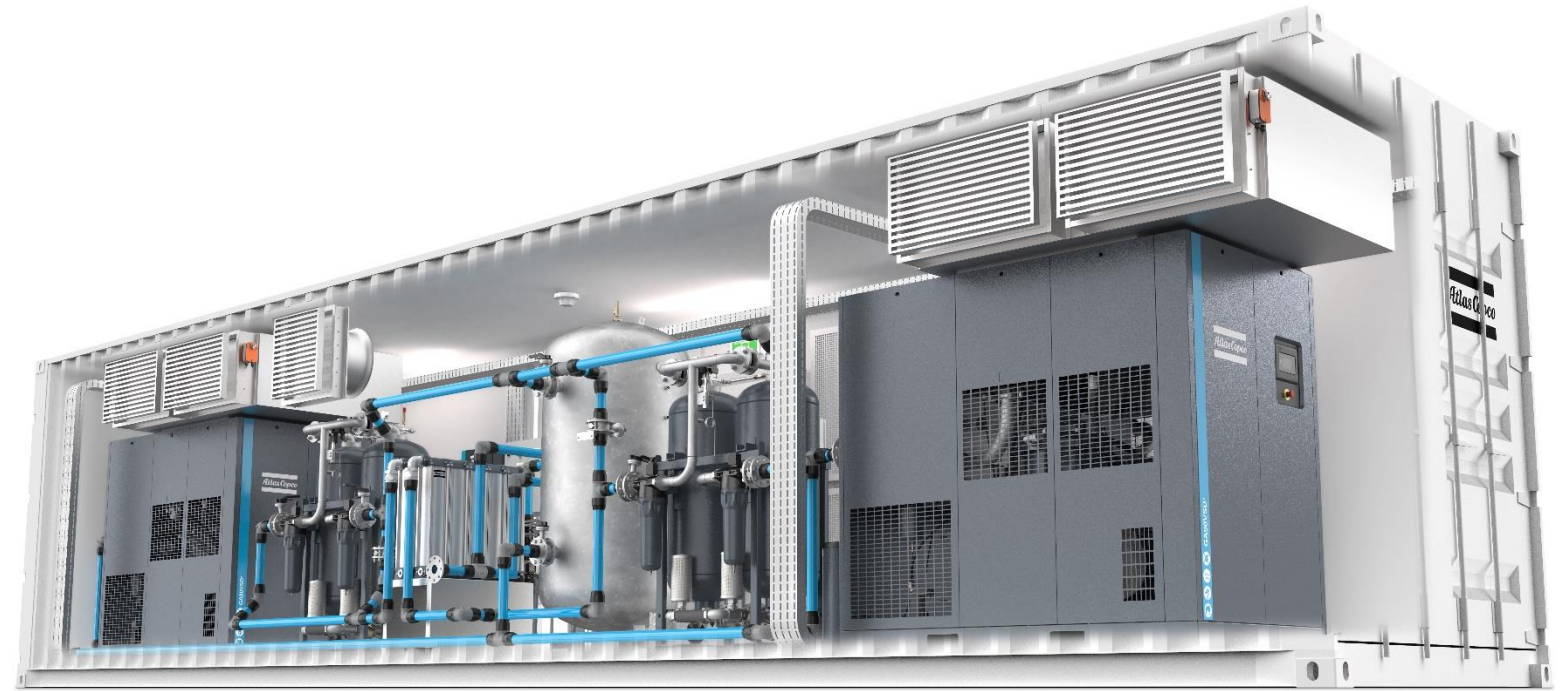
For 40 ft containers, a second access door can be ordered as an option (Not part of standard scope)



# AIRCUBE – Standard scope of supply

## Climatic conditions suitability and Ventilation

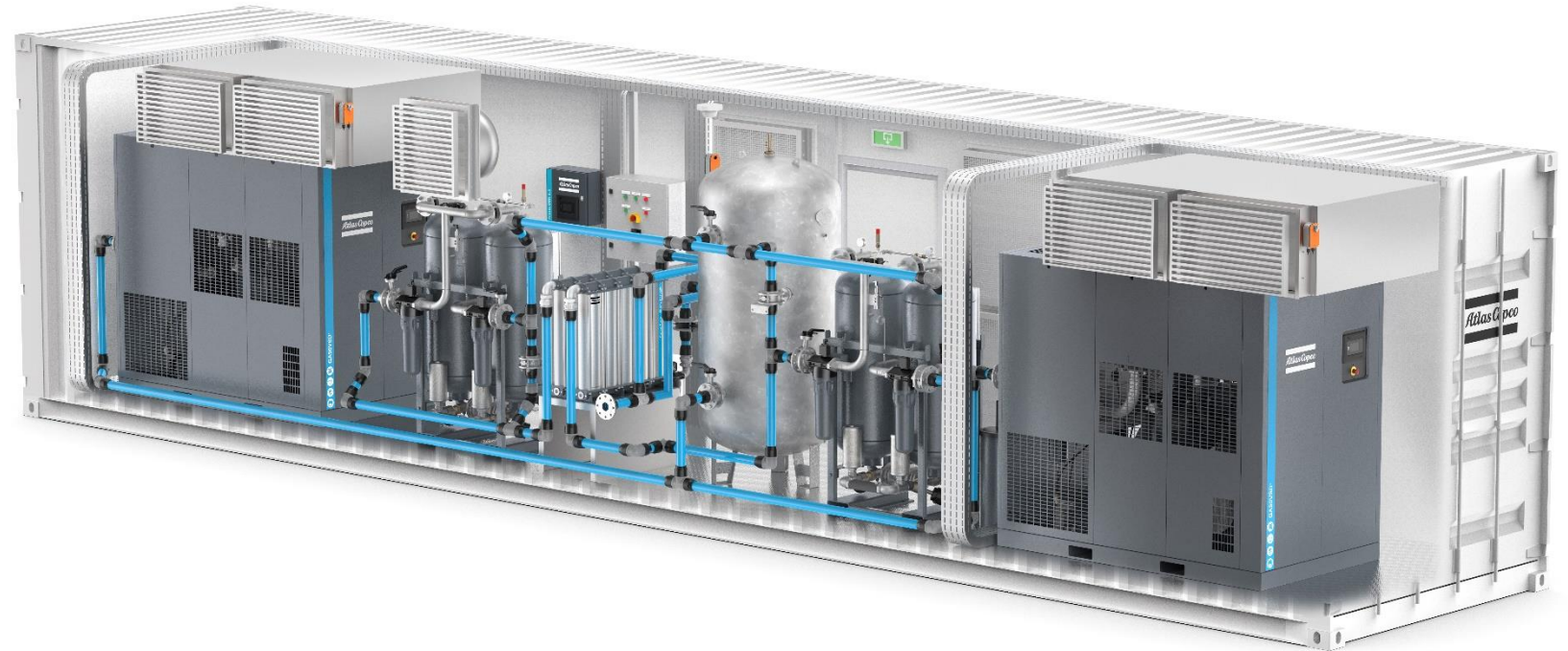
Basic scope  
is suitable for  
0 °C to +45 °C  
Ambient Conditions



# AIRCUBE – Standard scope of supply

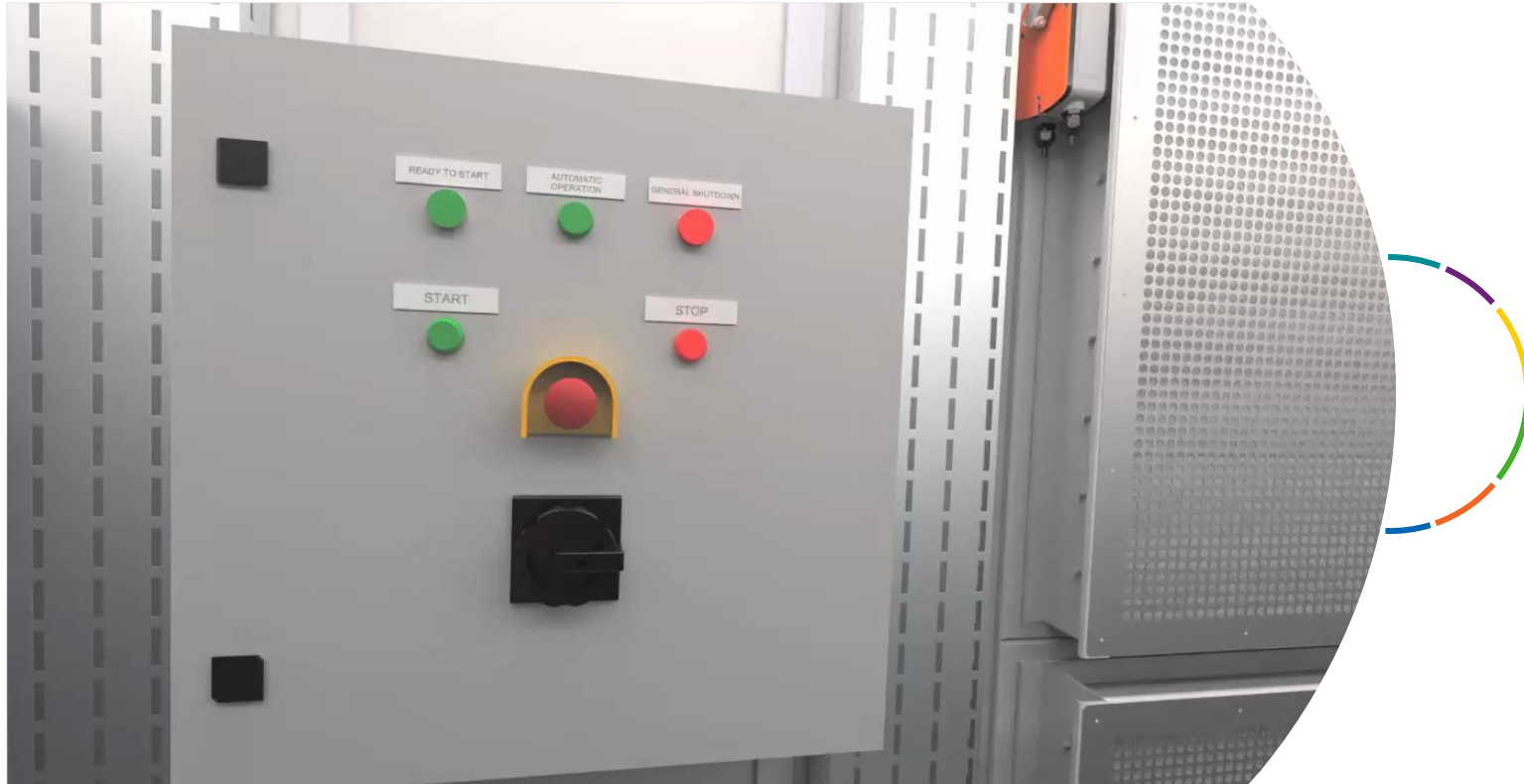
Basic scope

Aluminium  
AIRnet piping



# AIRCUBE – Standard scope of supply

## Electrical, Certification and Inspection Scope



- Main power distribution (single tie-in)
- Power isolation switch
- Lighting
- CE-certified
- Performance tested compressors - **Unwitnessed**
- Functional test on the complete package - **Unwitnessed**



WANT TO KNOW MORE?  
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*Atlas Copco*

