Compressor Systems
Made in Germany

All new SCROLL Series

SCROLL 4 - 15

Oil-Free compressor series

ALMiG
Compressor Systems

Scroll Series

Index

ALMiG Product Identity

ALMiG
Compressor Systems

High Efficiency, Low Noise, Best Performance

Product Identity

Your next scroll compressor:

- **All ALMiG compressors have passed a two hours test run, to guarantee its quality and to confirm its technical parameters. No ALMiG compressor leaves the factory untested. This is part of our quality promise**
- **The compressor comes ready to run at the point of installations**
- **Thanks to isolated panels, the compressor is exceptionally well sound insulated**
- **Powder coating protects the canopy against harmful environmental influences**

High Efficiency, Low Noise, Best Performance

Product Identity

Modular design & high quality components

Quality starts with the selection of the right materials and components. We go one step further and develop modules, which make it easier for assembly, operation and maintenance of the unit:

- **Canopy**
- **Motor-Airend-Unit**
- **Electric cabinet**
- **Cooler-Fan-Unit**

Service friendliness comes as standard with ALMiG.

- **Direct access to all serviceable components from only one side. This means the other side could be placed closer to the wall**
- **No doors or pillars blocking the way, easy removeable panels**

Why Scroll ?

Why Scroll ?

Technology

	Oil Free Recip.	Oil Lube Recip.	Rotary Vane	Oil Lube Screw	Scroll
Air Quality	High	Low	Middle	Middle	**High**
Initial Cost	High	Low	Middle	Middle	**Middle**
Reliability	Low	Low	Middle	High	**High**
Noise Level	High	High	Low	Middle	**Low**
Op. Cost	High	High	Middle	Middle	**Low**
Maintenance Interval	Short	Short	Short	Short	**Long**
Maintenance Cost	High	Low	High	High	**Low**
Overhaul Interval	Low	Middle	High	Middle	**High**
Overhaul Cost	High	Middle	Low	High	**High**
Service Requirement	Low	Middle	High	Middle	**Middle**
Vibration	High	High	Low	Low	**Low**

Scroll ➔ Air Quality + Reliability + Low Noise Level + Total Cost

Why Scroll ?

Comparison...

... with technical oilfree systems using filtration

As an alternative to SCROLL oil-free air, compressed air can also be generated with oil-lubricated systems and reduction of residual oil content by filtration.

If a customer choses technical oilfree air, he must be aware of:

- **high risk of oil contamination**
- **reduced energy efficiency**
- **extended maintenance efforts**

Why Scroll ?

Comparison...

... with technical oilfree systems using filtration

- Oil leaks possible at any time; no failsafe is fast enough to prevent it.
- Careful maintenance of oil-lubricated systems is extremely important for preventing oil from entering the network.
- The entire compressed air network may be contaminated.
- Oil vapours are only filtered out if active carbon filters are replaced on an ongoing basis (careful maintenance). Caution: very short service life!
- Production downtime & rejected parts are possible
- Product & Company reputation may be spoiled completely, in case of contamination of food or beverage products with industrial oil
- Problems & additional costs of disposing condensate

Market & Applications

ALMiG
Compressor Systems

Scroll Technology

Market Size

EMEA Market Size

ø 10.000 units per year

Well established technology in the compressed air industry

Scroll Technology

Applications

- Electronics
- Cosmetics
- Solar
- Food & Beverage
- Medical & Hospitals
- Pharmaceutical
- Laboratories
- Chemical
- Textile









Scroll Technology

Applications

In particular, the following industries are in focus for Scroll applications

- **Food, Beverage & Dairy Industry**
  - **Processing, packing, cleaning**
  - **Milking robots**
- **Medical & Pharmaceutical Industry**
  - **Laboratories in general**
  - **Biotech applications**
  - **Dental facilities**
- **General Industries**
  - **Testing facilities**
  - **Laser cutting**
- **Others**
  - **Schools, colleges, universities**
  - **Sauna applications in the wellness industry**

Product Range
&
Technical Specification

ALMiG
Compressor Systems

Product Range
Scroll

SCROLL

SCROLL 4
SCROLL 8
SCROLL 11
SCROLL 15

0,41 m³/min — **Flow** — **1,64 m³/min**

Technical Specification

Scroll 4

Pressure	**8 bar g**
FAD @8bar	**0,41 m³/min**
Drive System	**Belt**
Motor Size	**3,7kW (5 HP)**
Cooling	**Air-cooled**
Controller	**Air Control S**
Noise Level	**57 dB(A)**
Footprint	**0,38 m² (640 x 600 x 895)**
Weight	**170 kg**

Technical Specification

Scroll 8

Pressure	**8 bar g**
FAD @8bar	**0,82 m³/min**
Drive System	**Belt**
Motor Size	**2x 3,7kW (5 HP)**
Cooling	**Air-cooled**
Controller	**Air Control S+**
Noise Level	**59 dB(A)**
Footprint	**0,77 m² (1020 x 750 x 1745)**
Weight	**440 kg**

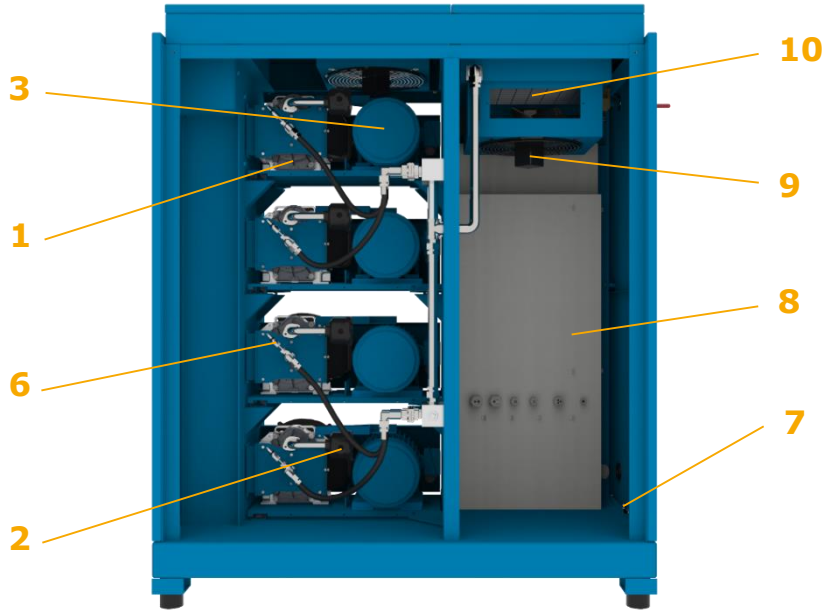
Technical Specification

Scroll 11 - 15

Pressure	**8 bar g**
FAD @8bar	**SCROLL 11 - 1,23 m³/min** **SCROLL 15 - 1,64 m³/min**
Drive System	**Belt**
Motor Size	**SCROLL 11 - 3 x 3,7kW (5 HP)** **SCROLL 15 - 4 x 3,7kW (5 HP)**
Cooling	**Air-cooled**
Controller	**Air Control S+**
Noise Level	**SCROLL 11 - 61 dB(A)** **SCROLL 15 - 63 dB(A)**
Footprint	**1,20 m² (1600 x 750 x 1930)**
Weight	**SCROLL 11 - 650 kg** **SCROLL 15 - 720 kg**

Compressor in Detail

1. Airend
2. Air filter
3. Drive Motor
4. Compressed air outlet
5. Controller
6. Temperature sensor
7. Condensate outlet
8. Electrical cabinet
9. Compressed air cooling Fan
10. Compressed air cooler
11. Belt drive cover
12. Fan - internal heat transfer



Features, Advantages & Benefits

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Features, Advantages & Benefits

Scroll Series

Features

Oilfree scroll airend Technology
Configurable up to 4 scroll elements
Compact design
Full enclosure incl. sound absorbing material

Advantages

Zero oil usage within the whole system
Buffer for future air demands
Very small footprint
Low noise level of 57 – 63 dB(A)

Benefits

100% guaranteed oilfree air
Lower investment costs
Reduced factory floor costs
Safe operational environment

Features, Advantages & Benefits

Airend

Features

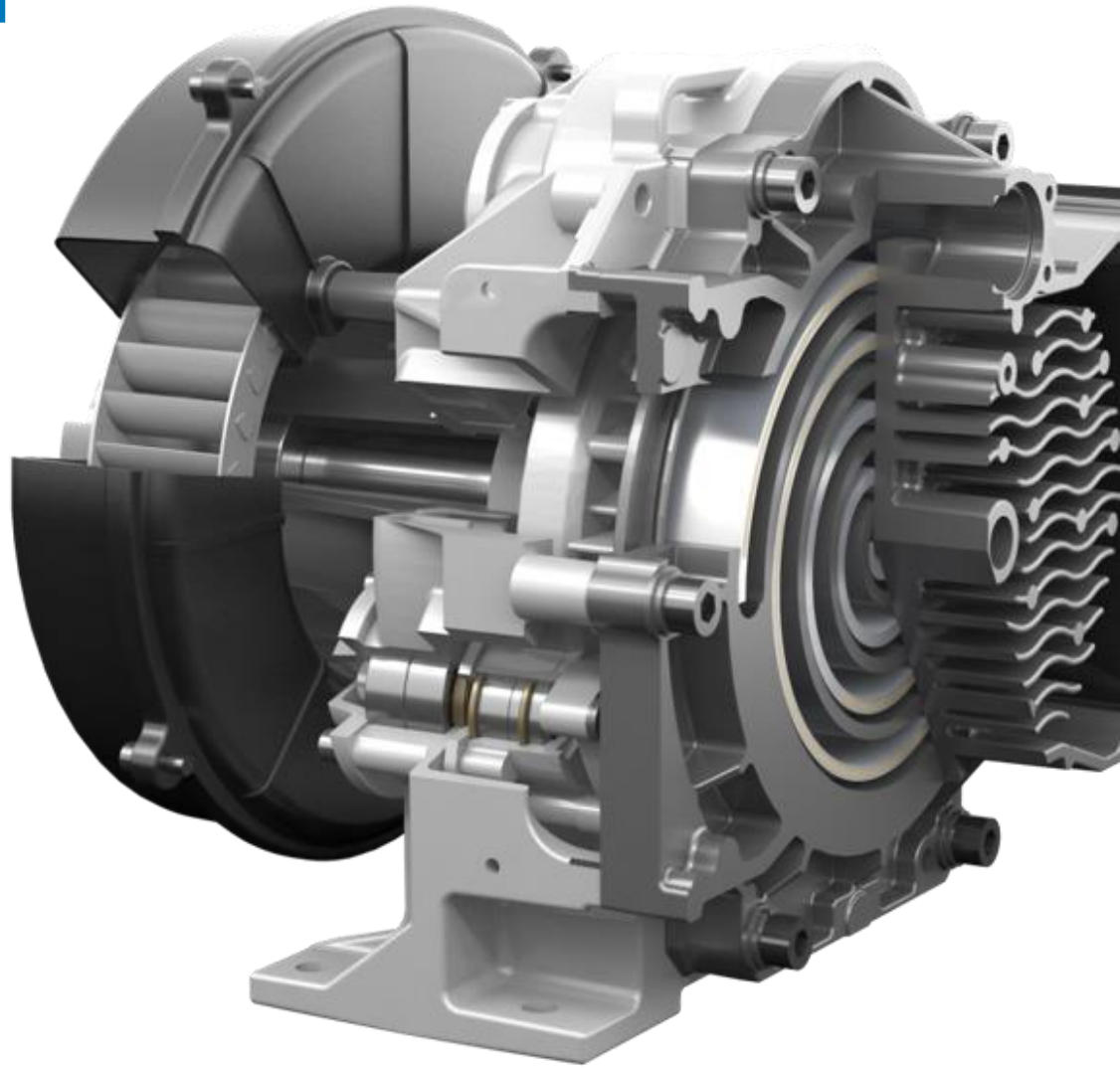
Scroll airend design
Integrated cooling fan
Simple design
Inlet filter attached to airend

Advantages

100% oil-free air
Low operation temperature
Easy to maintain
Improved inlet pressure drop

Benefits

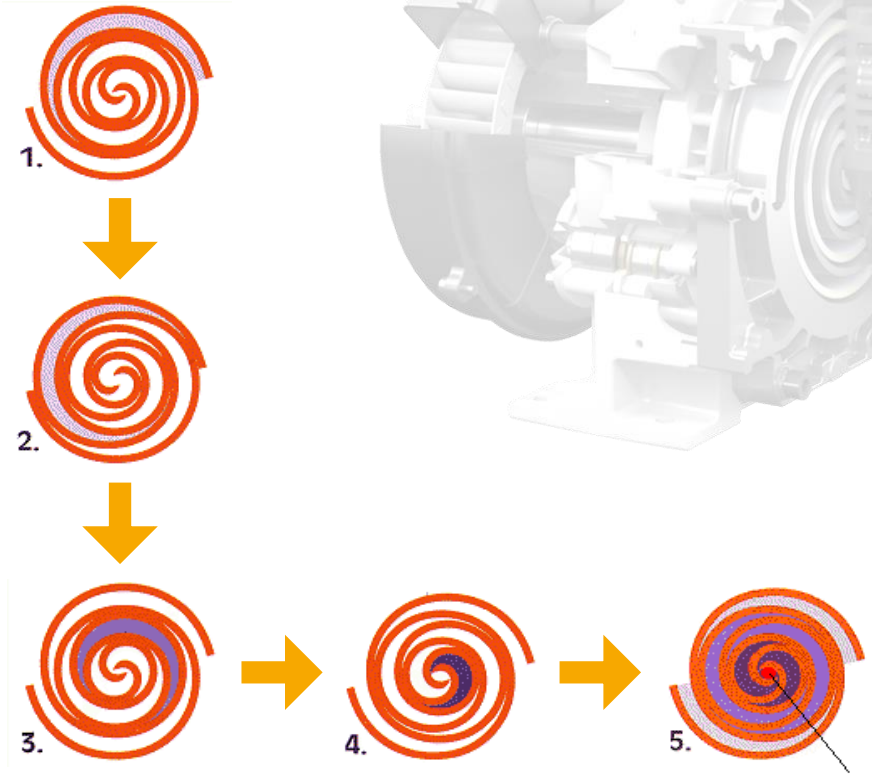
Zero contamination risk
High reliability
Lower service costs
Energy efficient operation

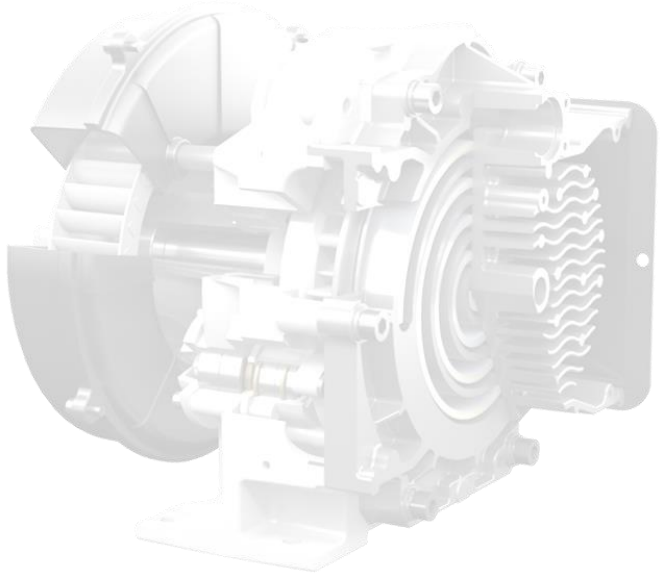


Features, Advantages & Benefits

How it works

1. Intake
2. Compression start
3. Compression stroke
4. Compression complete
5. Exhaust





Features, Advantages & Benefits

Drive System

Features

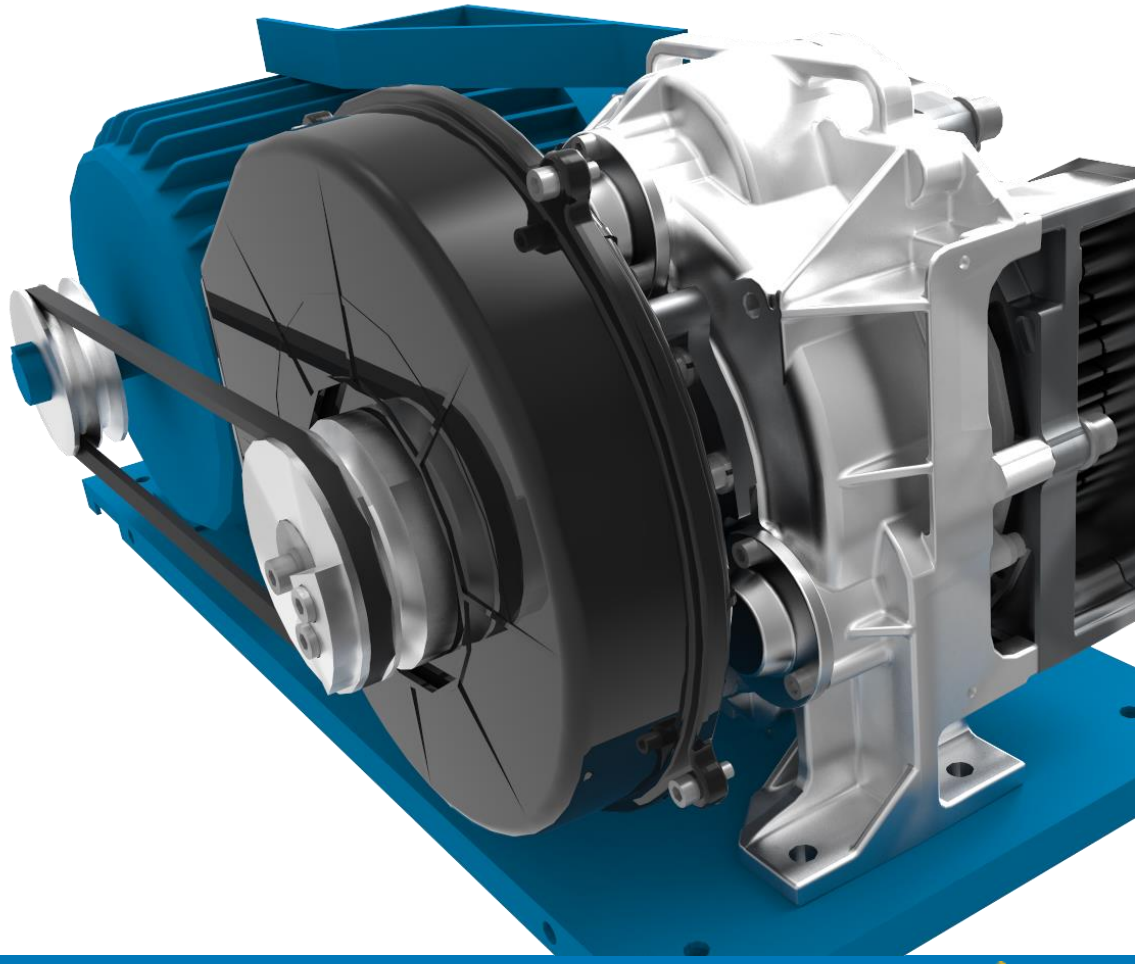
Motor-Airend base plate assembly
Premium efficiency IE3 motor
Belt drive

Advantages

Easy Exchange & Expansion
Less losses in the motor
No gear ➔ No Oil

Benefits

Quick service / assembly
Energy cost savings
No risk of oil contamination



Features, Advantages & Benefits

Layout

Features

Airend cooling inlet at the bottom (Scroll 4)
Build in temperature sensors
Safety valve
Standard Condensate discharge

Advantages

Coldest possible air
Prevents unit from overheating
Protects compressor from overpressure
No condensate in the system

Benefits

High efficient cooling
Improved reliability
Safe operation
Longer station lifetime

Features, Advantages & Benefits

Cooling Flow

Features, Advantages & Benefits

AirControl S

Features

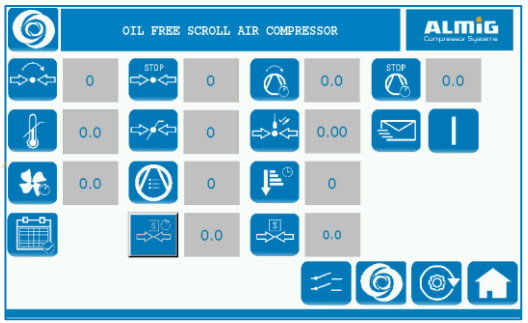
- Microprocessor Controller
- Monochrome display
- Navigation via buttons
- Easy menu structure
  - Home Page
  - Settings page
  - Information page
  - Maintenance & alarm page
- Usage of symbols only

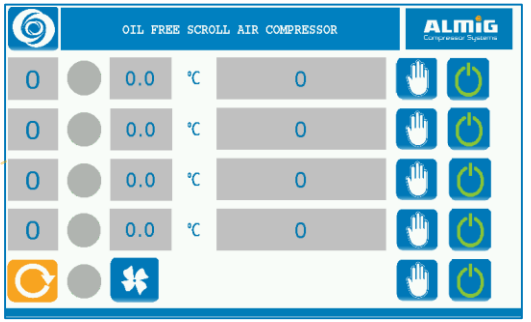
Features, Advantages & Benefits

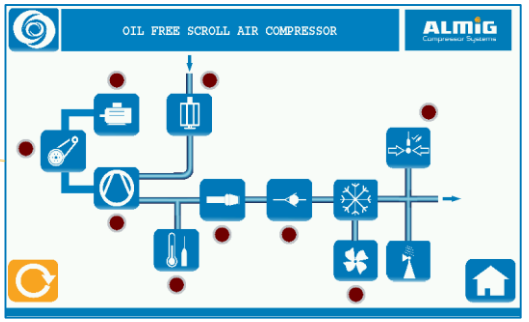
AirControl S+

Features

- Large colour touch screen interface
- Scroll control by air demand
- Easy menu structure
  - Home Page
  - Settings page
  - Information page
  - Maintenance & alarm page
- Usage of symbols only







Technical Comparison

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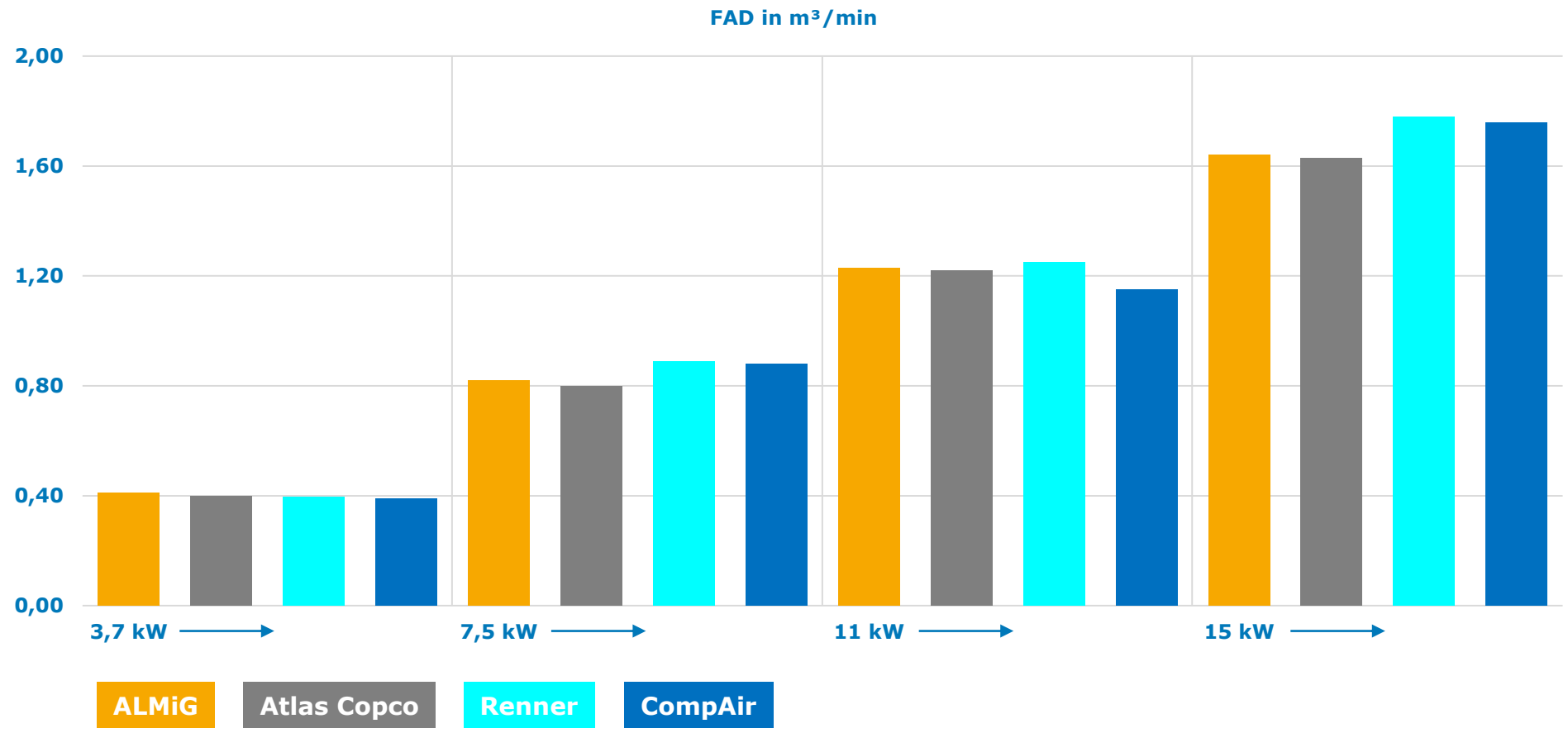
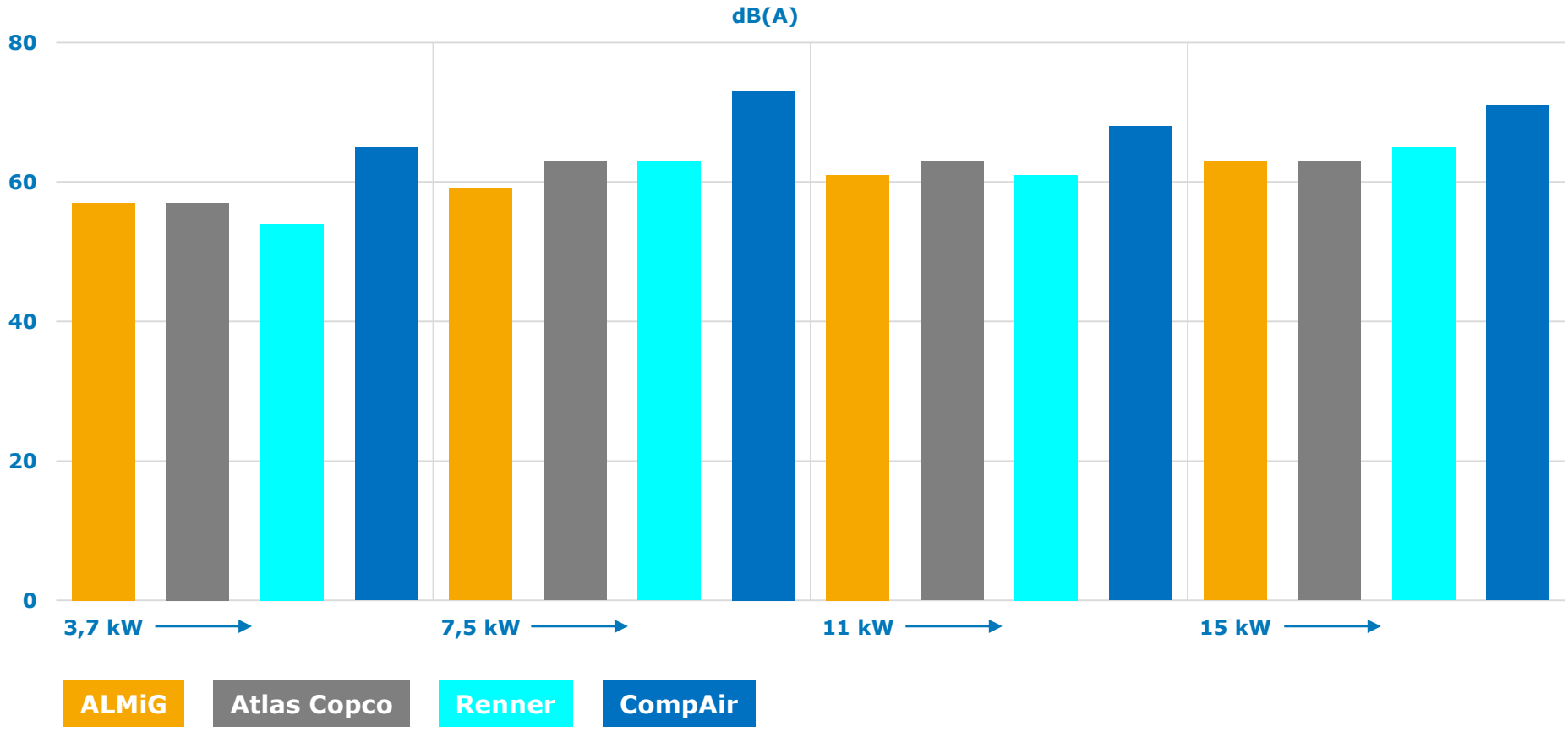
Technical Comparison

Volume Flow



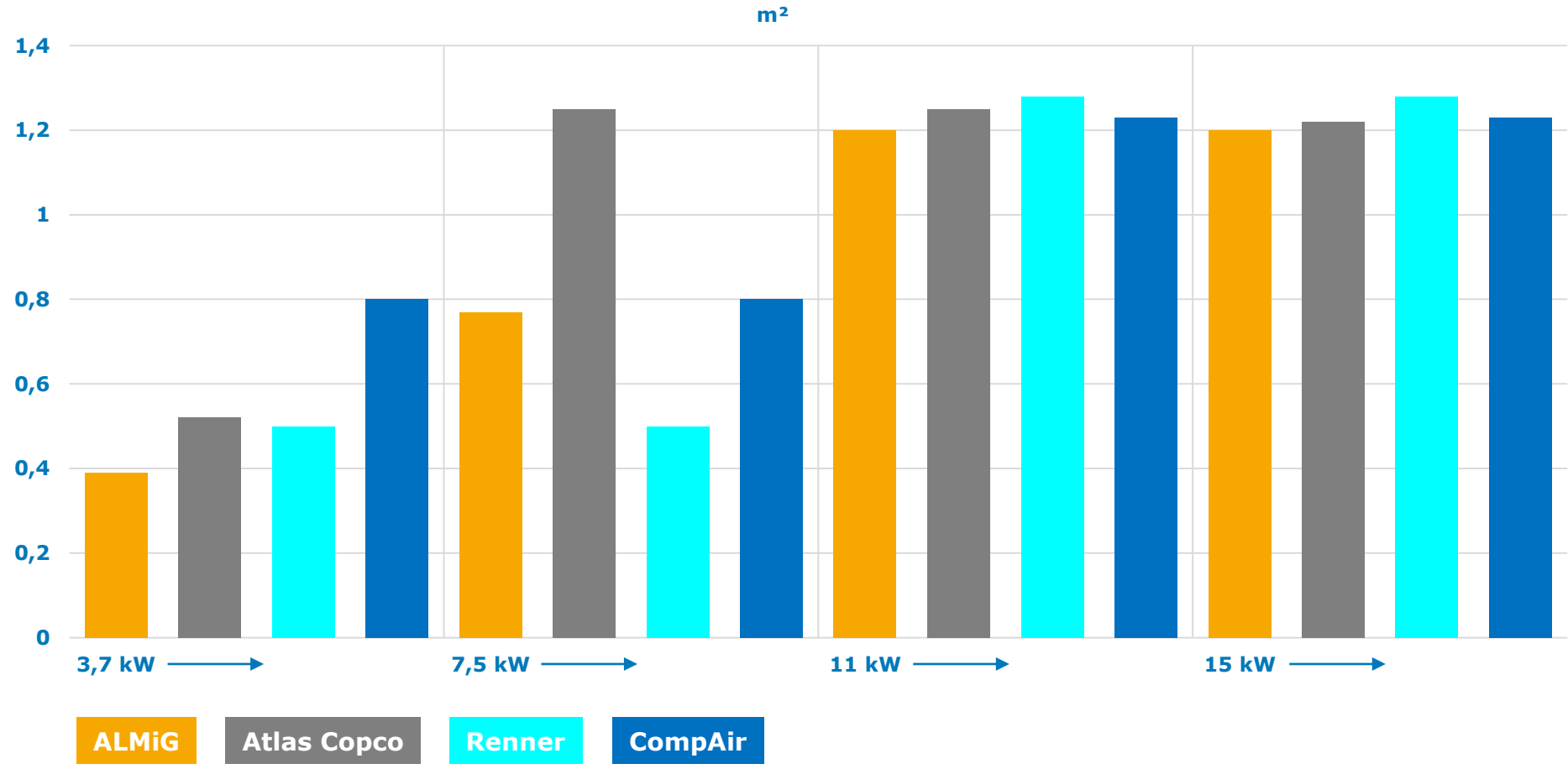
Technical Comparison

Noise Level



Technical Comparison

Footprint



Service & Warranty

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Service Comparison

	Routine Service	Filtration	Cost of Oil	100 % Duty ?	Low Duty Cycle
Scroll	- Minimal Service on air filters and belts. No oil separation or inlet valves. - No costly filter replacements which cuts maintenance cost.	- Cuts extra energy costs needed to maintain pressure due to filtration - Lowers the need for downstream filtration and costly element replacement	- Oil cost is eliminated because no oil is required	- YES	- Can be oversized without costly maintenance or harm to scroll airend
Screw	- Uses costly oil filtration and separation which drives both parts and labour costs	- Relies on downstream filtration for less oil contamination	- High cost of mineral or synthetic oil	- YES	- Light run cycles can create a multitude of expensive maintenance problems that can ultimately lead to failures

Service

Lifecycle Costs

Scroll 04 oil free scroll compressor		Typical 4kW oil lubricated screw compressor	
Initial Investment	Enter your price	Initial Investment	Enter your price
5 Years Life Cycle Parts	1.507 €	5 Years Life Cycle Parts	2.885 €
5 Years Life Cycle Service	1.040 €	5 Years Life Cycle Service	1.300 €
5 Years Life Cycle Total	__ €	5 Years Life Cycle Total	__ €

Scroll saves you 1.638 € in maintenance costs

Scroll saves you __ € in total lifecycle costs

Scroll Series can save you time, money and rework

Warranty
AirCare

Certified warranty, covered by ALMiG

ALMiG AirCare offers you a free of charge, 5 years warranty extension

- **The use of genuine ALMiG parts will protect your investment**
- **Authorised partners will deliver the best possible service**
- **Full warranty on:**
  - **ALMiG Compressors**

  +

  - **ALMiG Heat recovery modules**
  - **ALMiG Refrigerant dryers**
  - **ALMiG Adsorption dryers**
  - **ALMiG Oil / Water separators**
  - **ALMiG Condensate drains**
  - **ALMiG Filters**

Options

SCROLL Series

Options

Available options

xxx

Summary

SCROLL Series

Summary

- Full competitive range of scroll compressors
- Configurable up to 4 scroll elements
- 100% oilfree air
- High efficient IE3 drive motor
- Small Footprint
- Very low noise level
- Touch screen controller
- Air demand control
- Low service costs
- Attractive warranty program

Thank you!