

SIMPLEXX Series

SIMPLEXX 132 - 275

Oil-free Compressor Series



SIMPLEXX Series

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ALMiG Product identity

High efficiency, low noise-level, powerful

Product identity

Your next screw compressor:

- No ALMiG compressor leaves the factory without first being tested. This is part of our quality promise.
- The compressor is delivered to the installation site ready for operation.
- The compressor has exceptionally good sound insulation thanks to insulated plates.
- The standard operating temperature range is 5-45 ° C.
- A powder coating protects the housing from damaging external influences.

High efficiency, low noise-level, powerful

Product identity

An intelligent and modular system concept starts with a well thought-out basic frame.

- **Robust and solid, for industrial use**
- **The installation is not directly on the floor, instead it is on vibration-damping elements.**
 - **No transmission of plant vibrations**
 - **Protection against corrosion by soil moisture**
- **Easy handling of the unit thanks to accessibility for forklift trucks from all sides (please note centre of gravity)**
- **No change in footprint when adding heat recovery, water cooling or an integrated refrigeration dryer to the unit**

SIMPLEXX Overview

SIMPLEXX Series

Overview

Application **100% oil-free compressed air for industry (pharmaceutical, food, chemical, etc.)**

Performance **SIMPLEXX 132 – 275 LK
SIMPLEXX 132 – 250 LK SC
SIMPLEXX 132 – 275 WK
SIMPLEXX 132 – 250 WK SC**

Operating pressure **4 – 10,4 bar**

Control system **Air Control HE**

Cooling **Air cooled (LK)
Water cooled (WK)**

SIMPLEXX Series

Overview LK (air cooled)

SIMPLEXX 132 LK
SIMPLEXX 145 LK



SIMPLEXX 160 LK
SIMPLEXX 200 LK



SIMPLEXX 250 LK
SIMPLEXX 275 LK



19,2 m³/min

Volume flow

40,40 m³/min

SIMPLEXX Series

Overview WK (water cooled)

SIMPLEXX 132 WK
SIMPLEXX 145 WK



SIMPLEXX 160 WK
SIMPLEXX 200 WK



SIMPLEXX 250 WK
SIMPLEXX 275 WK



19,9 m³/min

Volume flow

41,30 m³/min

SIMPLEXX Series

Overview LK SC (Speed-controlled)

SIMPLEXX 132 LK SC



SIMPLEXX 160 LK SC



SIMPLEXX 250 LK SC



21,10 m³/min

Volume flow

40,50 m³/min

SIMPLEXX Series

Overview WK SC (Speed-controlled)

SIMPLEXX 250 WK SC



SIMPLEXX 160 WK SC



SIMPLEXX 132 WK SC



21,10 m³/min

Volume flow

40,50 m³/min

Technology in detail

SIMPLEXX Series

SIMPLEXX LK / WK

Working pressure 4 – 10.4 bar(g)

Motor 132 / 145 / 160 / 200 / 250 / 275 kW
IE3 Premium Efficiency (IP55)

Drive system Fixed speed transmission

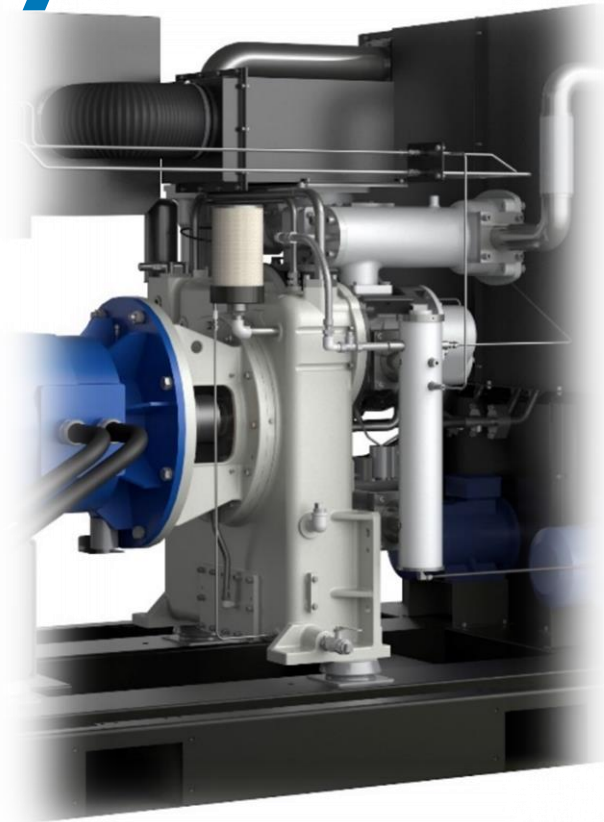
Cooling Air cooled (Standard)
Water cooled (Optional)

Ambient temperature. 5 – 45° C
10.4 bar(g) air cooled: max. 40° C

Control System Air Control HE

Noise Level 66 – 73 dB(A)

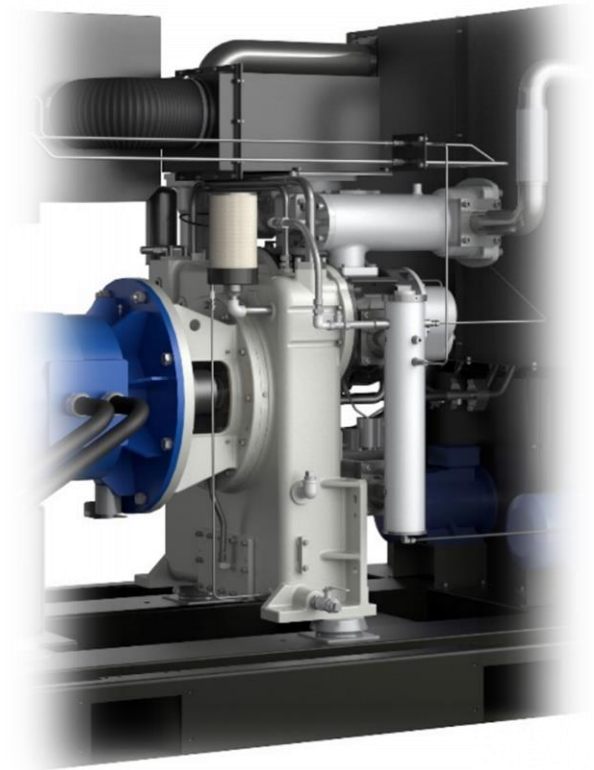
Footprint 6,6 m² (3880 x 1700 x 1995) air cooled (132 / 145 / 160 kW)
8,2 m² (4300 x 1900 x 2180) air cooled (200 / 250 / 275 kW)
4,4 m² (2855 x 1545 x 1845) water cooled (132 / 145 / 160 kW)
5,1 m² (3150 x 1600 x 2180) water cooled (200 / 250 / 275 kW)



SIMPLEXX Series

SIMPLEXX LK SC / WK SC

Working pressure	4 – 8,6 bar(g) 4 – 10.4 bar(g)
Motor	132 / 160 / 250 kW IE3 Premium Efficiency (IP55)
Drive system	Transmission with variable speed
Cooling	air cooled (Standard) water cooled (Optional)
Ambient Temperature	5 – 45° C
Control System	Air Control HE
Noise Level	66 – 76 dB(A)
Footprint	6,6 m ² (3880 x 1700 x 1995) air cooled (132 / 160 kW) 8,2 m ² (4300 x 1900 x 2180) air cooled (250 kW) 4,4 m ² (2855 x 1545 x 1845) water cooled (132 / 160 kW) 5,1 m ² (3150 x 1600 x 2180) water cooled (250 kW)



Features, performance & advantages

SIMPLEX Baureihe

Features:

- 2-stage dry-running screw compressor
- Fixed and variable speed control
- AC HE control installed as standard
- Modular design concept

Performance:

- 100 % oil - free
- Efficient compressed air on demand
- Small footprint
- Low noise level
- Easy to use

Advantages:

- Risk-free operation
- Energy cost savings
- Easy installation and low noise level
- Easy operation due to the control system based on the latest technology



Features, performance & advantages

Compressor stage

Features:

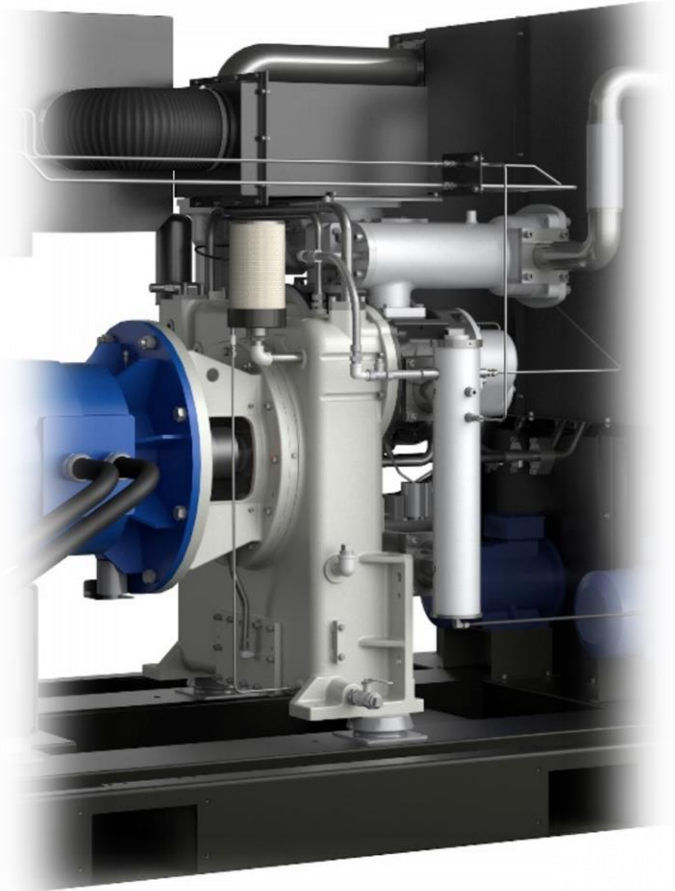
- Two-stage dry screw compressors
- Low and high pressure stage
- Controlled by timing gear
- Optimised rotor profiles
- With cooling jacket
(fluid-cooled with LK , water-cooled with WK)
- 2nd stage stainless steel + durable rotor coating

Performance:

- Guaranteed 100% oil free air
- Individually replaceable stages + Improved lifetime
- Optimised speed and pressure ratio
- Improved specific energy consumption
- Special shaft sealing structure for high reliability and operational safety

Advantages:

- Risk-free oil-free air for critical applications
- Low service costs
- Highly energy-efficient operation
(low specific energy consumption)
- High operational reliability



Features, performance & advantages

Drive

Features:

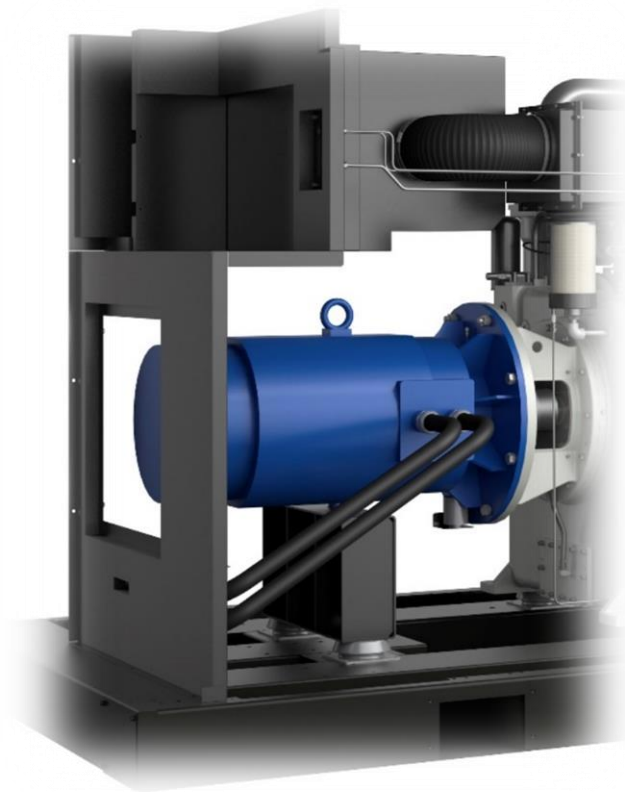
- IE3 motor (fixed speed models)
- Permanent magnet motor (for speed-controlled models) for high efficiency even at low load
- Separate inlet for the engine cooling air
- Mounting on an anti-vibration base

Performance:

- The high-efficiency motors achieve an efficiency of up to 96 % is achieved
- The innovative ventilation system ensures that the engine always receives cool air for cooling
- The anti-vibration underlay ensures fewer vibrations and thus a reduced noise level

Advantages:

- Energy savings
- Lower service costs
- Long service life
- Low noise level



Features, performance & advantages

Air intake

Features:

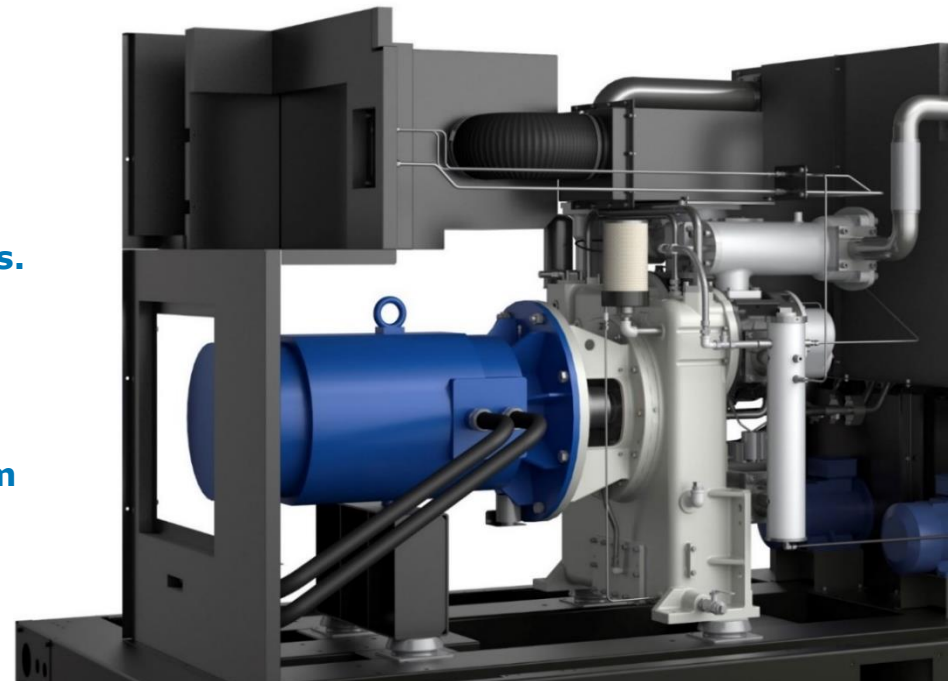
- Newest generation of filters installed
- Separate air supply
- Sound-absorbing mats between inlet and filtration

Performance:

- Large filtration area = lower pressure loss
- With the help of the separate air supply, the compressor always receives the coolest possible air
- The sound adsorption of the mats also reduces noise from other internal components.

Advantages

- Saving energy costs
- High volume flow & longer compressor life
- Low noise level in the entire compressor room due to the sound-insulating components



Features, performance & advantages

Compressed-air circuit

Features:

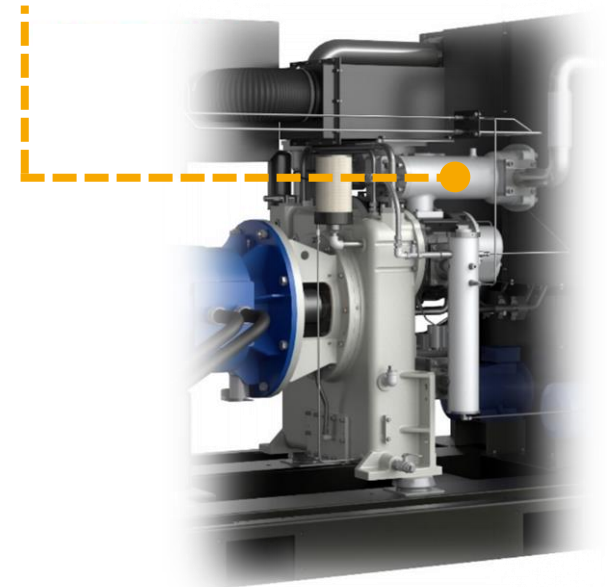
- Short pipelines with large diameters
- Unique silencer
- High-efficiency separator (air-cooled) before unloading

Performance:

- Minimum pressure loss
- The innovative silencer provides a large noise reduction in a wide frequency band
- Before the compressed air leaves the compressor, it is separated from any condensate and this is discharged

Advantages:

- Energy-efficient operation due to minimal pressure loss
- Low noise level (comparable to a passing passenger car)
- The condensate from the separation can be discharged into the drainage system without filtration



Features, performance & advantages

Compressed-air circuit

Features:

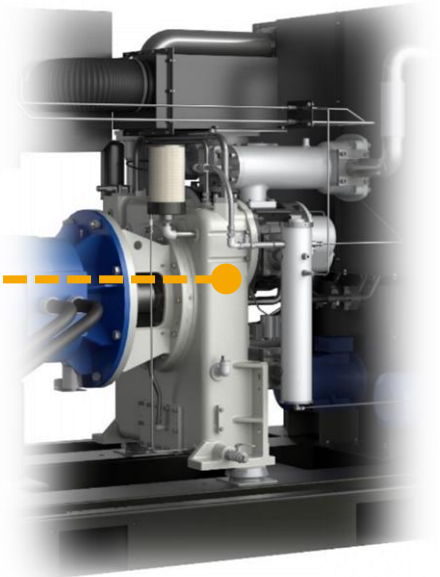
- Closed fluid circuit which does not come into contact with the compressed air
- The high-efficiency fluid pump is co-driven by the main engine
- Internal fluid filters
- Fluid cooling by air or water

Performance:

- Constant lubrication before, during and after operation
- Reduced risk of oil leakage because of the internal piping design
- The oil always stays clean, as it does not come into contact with other materials.
- Low lubricant quantity: 25 (WK) / 35 (LK) litres of fluid at 132-160kW
- Low lubricant quantity: 35 (WK) / 51 (LK) litres of fluid at 200-275kW

Advantages:

- Less wear on the timing gears means longer gearbox life
- Maintenance-free compressed air line, as no hoses have been installed
- Lower oil and disposal costs



Features, performance & advantages

Air-cooling

Features:

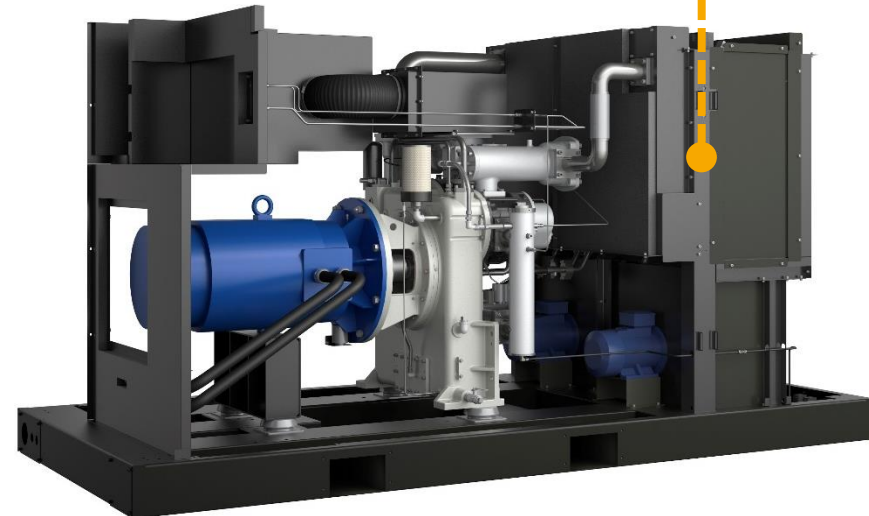
- 3-BOX air-cooling system
- Diagonally arranged cooler

Performance:

- Division into three separately functioning boxes:
 - Inlet air box
 - Motor cooling air suction box
 - Cooler box
- The angled position of the cooler reduces the risk of corrosion due to drain stagnation

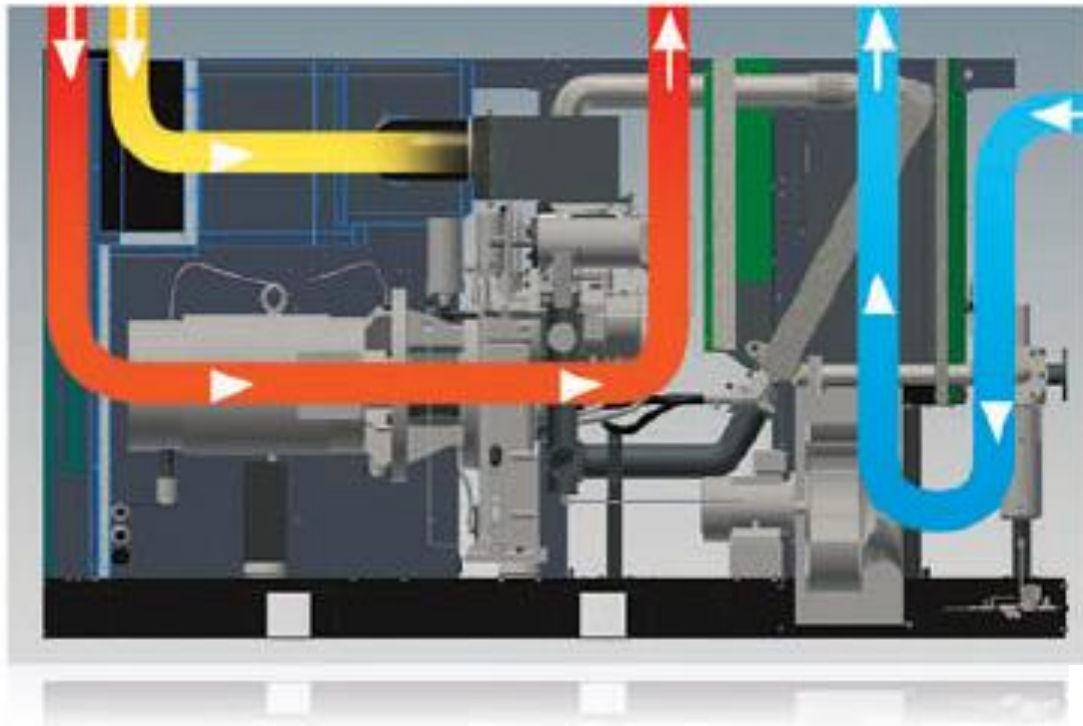
Advantages:

- Ambient temperature of 45° C as standard
- Reduced downtime and service costs






Features, performance & advantages

3-BOX air-cooling system



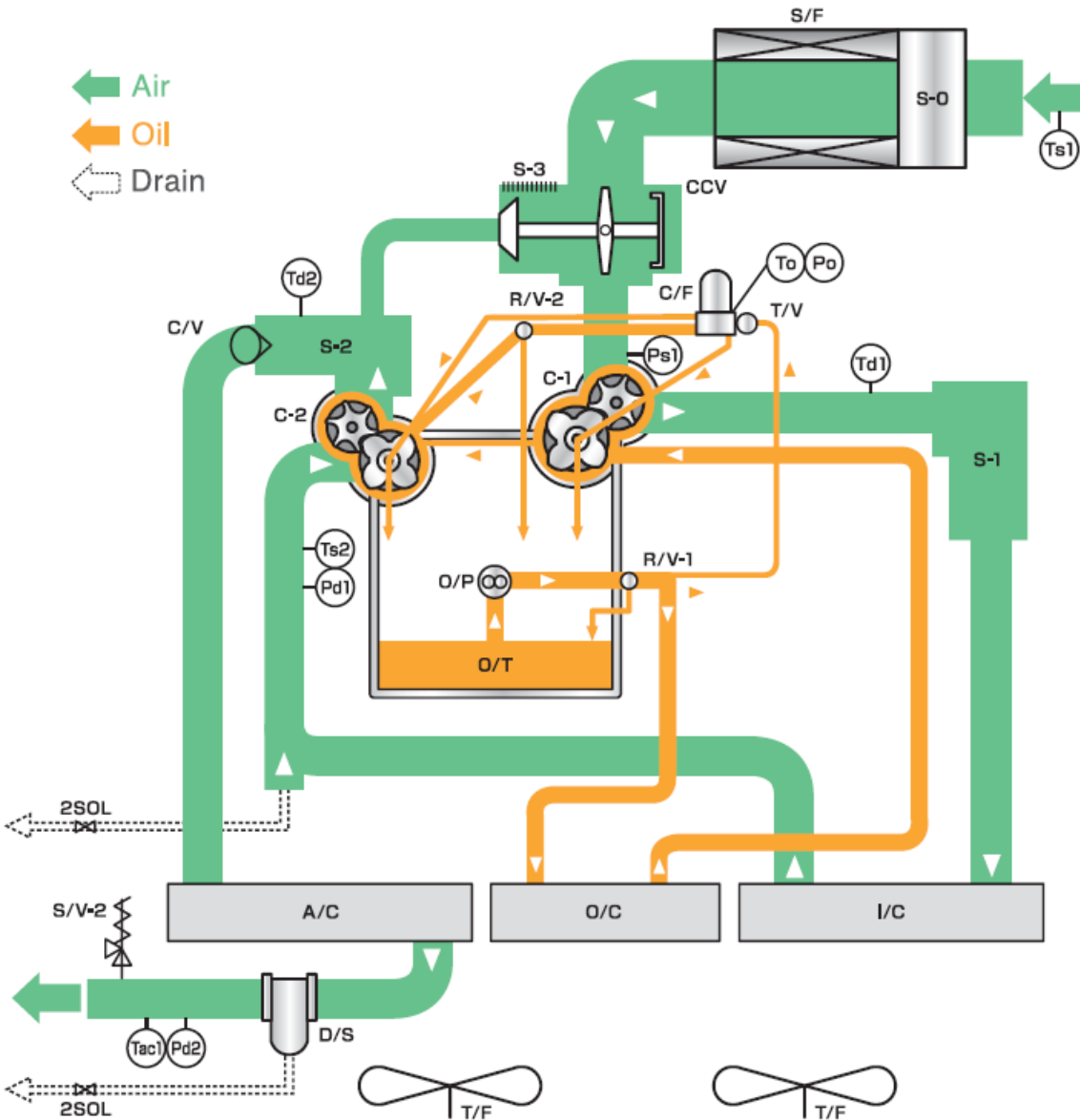
Features:

The SIMPLEX is divided into three separate "boxes". This ensures effective cooling and high reliability. The box system is also decisive for the very low sound emission. This means that the unit can also be operated at 45° C over a longer period of time.

-  Inlet Air suction box
-  Motor cooling Air suction box
-  Cooler box

Model: Air cooling

← Air
← Oil
← Drain



Shortcut	Description
2SOL	Two way solenoid valve
A/C	After-cooler
C/V	Flap valve
C-1	Stage 1 Compressor
C-2	Stage 2 Compressor
CCV	Control valve power
D/S	Separator
E/C	Exhaust air purifier
F/S	Flow monitor
I/C	Intercooler
O/C	Fluid cooler
O/F	Fluid filter
O/P	Fluid pump
O/T	Fluid Tank
Pd2	2nd outlet pressure sensor
Po	Fluid-pressure sensor
Ps1	1st intake pressure sensor
R/V-1	Overpressure valve
S/F	Intake filter
S/V-2	Safety valve
S-0	Intake silencer
S-2	Silencer relief
S-3	Blow-off silencer
Tac1	Compressor outlet temperature sensor
Td1	1. discharge temperature sensor
Td2	2. discharge temperature sensor
To	Fluid-temperature sensor
Ts1	1. Temp. Sensor
Ts2	2. Temp. sensor

Features, performance & advantages

Water cooling

Features:

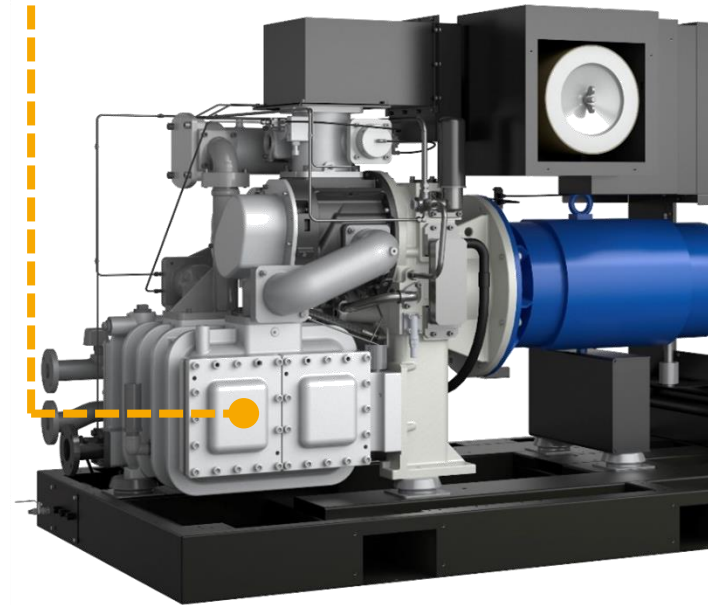
- Plate fin cooler for water cooling
- Sturdy and industrially manufactured pressure vessel
- Stainless steel piping
- Air outlet temperature: Cooling water temperature + 8° C

Performance

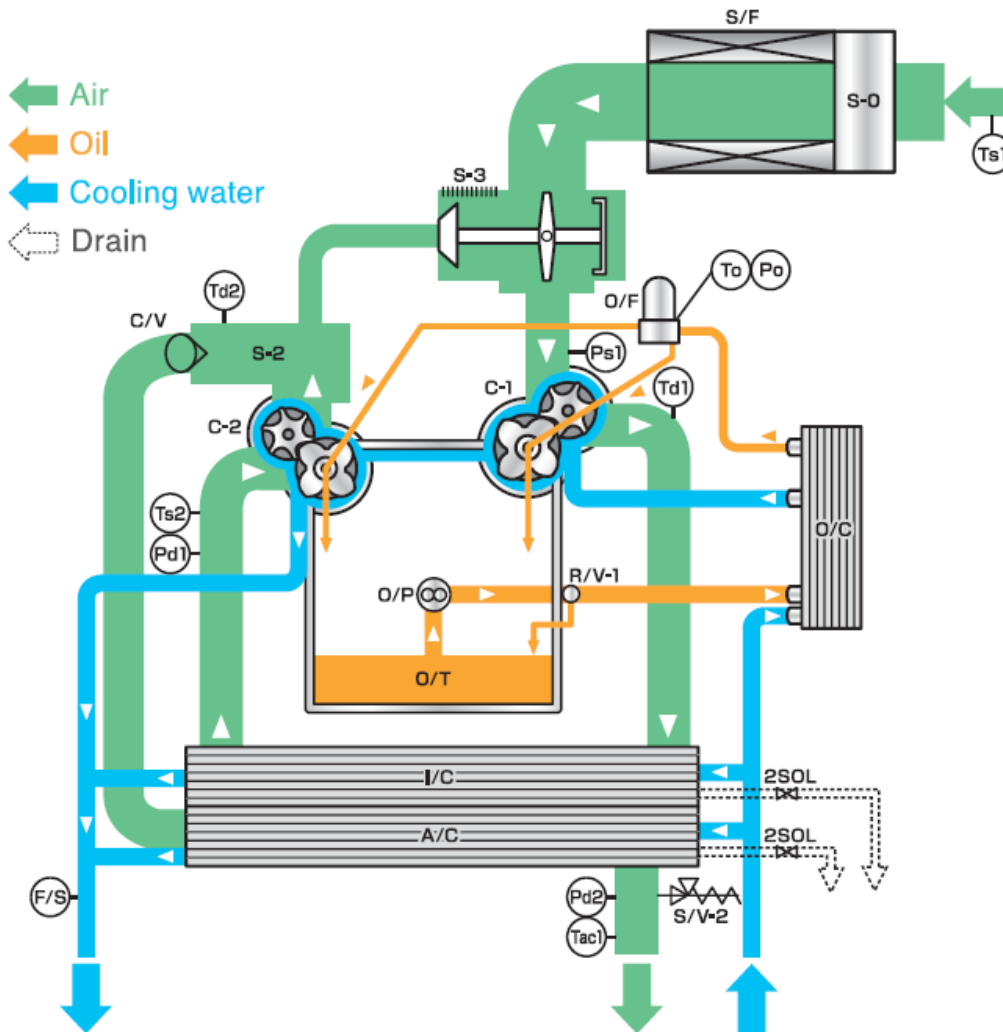
- Up to 80% less pressure loss compared to conventional water coolers
- Complies with ASME requirements
- No risk of corrosion

Advantages

- Highly efficient operation
- Allows enough margin to maintain operation at water temperatures of up to 40° C
- High reliability
- Cost efficiency



Model: Water Cooling



Shortcut	Description
2SOL	Two way solenoid valve
A/C	After cooler
C/V	Flap valve
C-1	Stage 1 Compressor
C-2	Stage 2 Compressor
E/C	Exhaust air purifier
F/S	Flow monitor
I/C	Intercooler
O/C	Fluid cooler
O/F	Fluid filter
O/P	Fluid pump
O/T	Fluid Tank
Pd2	2nd outlet pressure sensor
Po	Fluid-pressure sensor
Ps1	1st intake pressure sensor
R/V-1	Overpressure valve
S/F	Intake filter
S/V-2	Safety valve
S-0	Intake silencer
S-2	Silencer relief
S-3	Blow-off silencer
Tac1	Compressor outlet temperature sensor
Td1	1. discharge temperature sensor
Td2	2. discharge temperature sensor
To	Fluid-temperature sensor
Ts1	1. Temp. sensor
Ts2	2. Temp. sensor

Features, performance & advantages

AirControl HE (High End)

Features:

- Large colour touchscreen display
- Start screen, graphics, error history, code access
- Permanent data logging
- Base load control
- Web server as a standard

Performance:

- All functions are clearly displayed
- Easy overview of the entire compressor status
- It is possible to create your own reports at any time
- Connect up to 10 compressors

Advantages:

- Ready to go within seconds
- Quick access to all the information you need
- Cost-effective monitoring and calculation option
- Energy-efficient sequential operation



Weitere Informationen in der ausführlichen Steuerungspräsentation

Warranty

Warranty

AirCare

Certified warranty, covered by ALMiG

ALMiG AirCare offers you a free 5-year warranty extension.

- The use of ALMiG original parts protects your investment.
 - Best service by authorized partners
 - Full warranty for:
 - ALMiG Compressors
- +**
- ALMiG Heat recovery modules
 - ALMiG Air Dryer
 - ALMiG Adsorption dryer
 - ALMiG Oil-water separator
 - ALMiG Condensate drain
 - ALMiG Filter



Overview

SIMPLEX Series

Summary

- **100% oil-free compressed air**
- **IE3 Motor as Standard (Option IE4)**
- **Speed control**
- **Competitive specific performance**
- **Water and air cooling**
- **Modern control system**
- **Operational reliability**
- **Low service costs**
- **Attractive warranty programme**



THANK YOU FOR YOUR ATTENTION!

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