

COMPRAG®

positive displacement



CATALOG
#1

STATIONARY
Screw Compressors
D-series

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Design features of screw compressors



version (D)
standard version
on base frame

Space-saving design.

All other components of the compressed air system can be selected as required.

This Catalogue is valid from 01.02.2021.

All previous catalogues lose their validity with the publication of the new catalogue. Technical characteristics, specifications and details published in this catalogue are subject to change without notice. The latest catalogue version is available for download on our web page www.comprag.com

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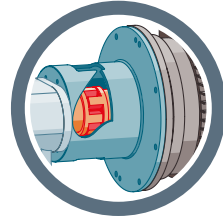
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D-SERIES COMPRESSORS WITH 1:1 DIRECT DRIVE

Comprag D-Series direct drive air compressors are designed for applications where durability, efficiency and reliability are essential.



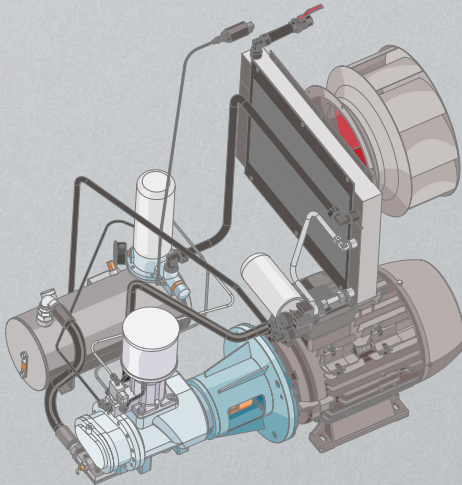
D-Series compressors are fitted with a large screw unit with direct one-to-one drive in order to avoid loss through belt- or gear drives.



DIRECT DRIVE ADVANTAGES

Direct driven air compressors are typically compared with belt driven compressors when choosing the right equipment for an application.

In a direct drive compressor, the motor is connected with the air-end by a flexible coupling and transferring power directly and effectively. In contrast to a belt driven compressor, where a belt is adapted for the power transmission, a direct driven compressor operates more efficiently, with no power loss from a belt drive system. In addition, a direct drive compressor has fewer moving parts, is less subject to failure and possesses long operational life due to reduced wear and tear.



**FEWER
MOVING
PARTS**



**LESS
WEAR & TEAR**



**MORE
EFFICIENT**



**REDUCES
ENERGY
COSTS**



SCREW COMPRESSORS D-SERIES WIDTH DIRECT DRIVE 1:1 with drive power 11-15 kW, capacity up to 2,3 m³/min

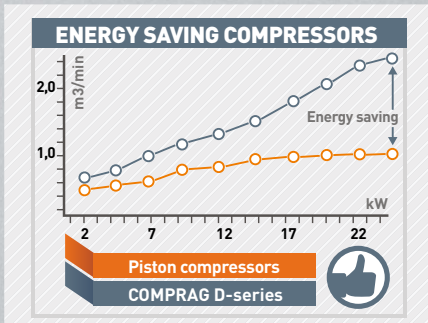
D-Series are oil filled screw compressors designed for smooth and economical production of compressed air in industrial plants. They feature a compact, logically laid-out design and are simple to use.



version (D)



Features:



- Modern, energy-efficient air-end.
- Microprocessor controlled for optimal cost-effective compressor operation.
- Through intelligent design of all key components, internal pressure losses are kept to a minimum, resulting in noticeable savings in total energy consumption.
- Through the use of an effective oil separation system, a residual oil content in compressed air of maximum 3 mg/m³ is attained.
- i-Log controller for more setting and control options a group mode control via several i-Log controllers and connection to a higher-level master controller or a control room via MODBUS.
- All filters and separators are easy to reach for economical service.

Screw compressors offer significant energy savings in the 7.5 kW to 22 kW motor power range of compressors when compared to piston compressors. For the same electrical power consumption, the specific cost per cubic meter of compressed air is significantly lower when using D-Series compressors.

Design and technical characteristics

D-Series screw oil-filled compressors produce industrial compressed air, up to class 4-4-4 to ISO 8573-1:2010.

New compressor design: Professional controller (A), Reliable electric motor (B), Screw air-end (C), Oil separator tank (D) and Comprag made control valves (E).

Professional controller i-Log (A)

The professional controller **i-Log** controls operation of the compressor in automatic mode, and also provides the user with necessary information on the working pressure, temperature of the air oil mixture, compressor's operation time, need for servicing, etc.

The professional controller allows a group mode control via several **i-Log** controllers and connection to a higher-level master controller or a control room via MODBUS.



Reliable electric motor (B)



D-Series compressors are fitted with quality electric motors with a high efficiency coefficient and world-class bearings from leading manufacturers.

The motors are not overloaded, but have a power reserve and overheat protection for windings.

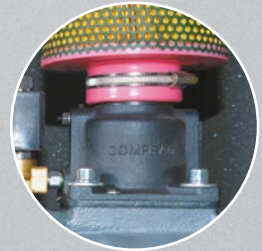
Screw air-end (C)



The air-end has a contemporary energy-efficient screw shape.

This increases compressor efficiency and reduces maintenance and replacement costs.

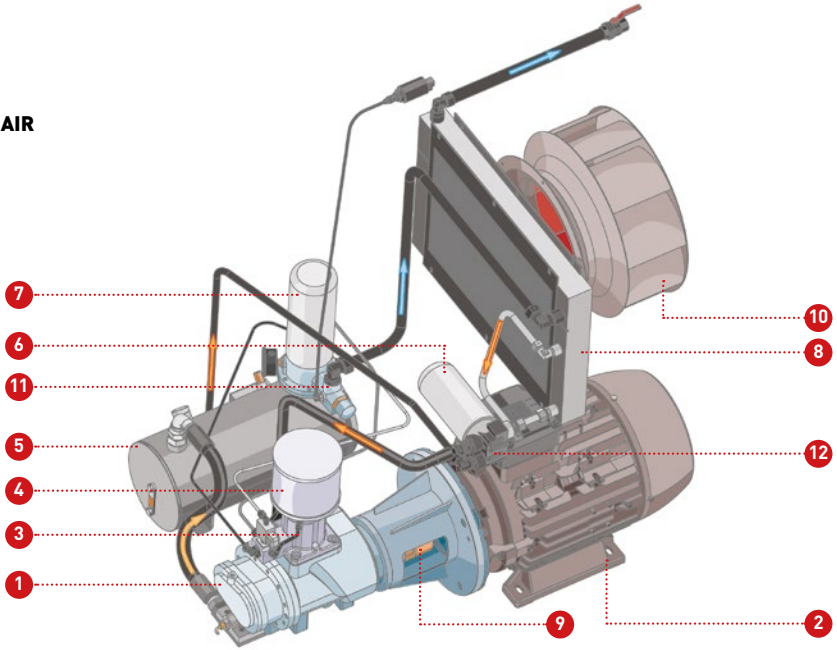
Control valve (E)



Comprag made control valves. Minimum pressure loss, improved unloading time adjustment.

Flow chart of compressor

- -OIL
- -OIL+AIR
- -AIR



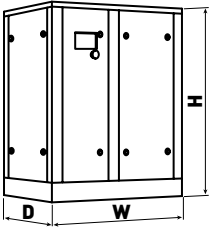
- | | | |
|---------------------|-----------------------|----------------------------|
| 1. Screw air-end | 5. Separation vessel | 9. Coupling |
| 2. Electric motor | 6. Spin-On oil filter | 10. Cooling Fan |
| 3. Air intake valve | 7. Internal separator | 11. Minimum pressure valve |
| 4. Air filter | 8. Heat exchanger | 12. Thermostatic valve |

Table of models D-Series

Article	Model	Drive power (kW)	Max. working pressure (bar)	Capacity* (m ³ /min)	Rated voltage (phase/V/Hz)	Sound pressure level** dB(A)	Screw connection
11300021	D-1108	11	8	1,5	3/380-420/50	72	1/2"
11300022	D-1110		10	1,3		72	
11300031	D-1508	15	8	2,3	3/380-420/50	72	1/2"
11300032	D-1510		10	2,1		72	

* Measured according to ISO 1217; ** Measured according to ISO 3744

Dimensions D-Series



Model	Height H (mm)	Width W (mm)	Depth D (mm)	Weight (kg)
D-11	1280	1190	810	400
D-15	1280	1190	810	420

SCREW COMPRESSORS D-SERIES WIDTH DIRECT DRIVE 1:1 with drive power 18-22 kW, capacity up to 3,6 m³/min

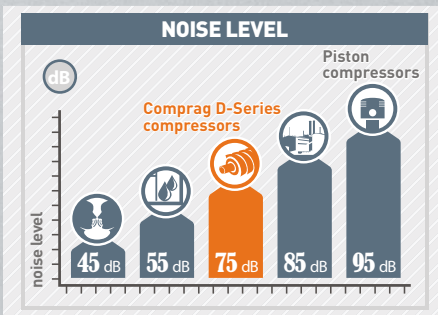
D-Series are oil filled screw compressors designed for smooth and economical production of compressed air in industrial plants. They feature a compact, logically laid-out design and are simple to use.



version (D)



Features:



- Modern, energy-efficient air-end.
- Microprocessor controlled for optimal cost-effective compressor operation.
- Through intelligent design of all key components, internal pressure losses are kept to a minimum, resulting in noticeable savings in total energy consumption.
- Through the use of an effective oil separation system, a residual oil content in compressed air of maximum 3 mg/m³ is attained.
- i-Log controller for more setting and control options a group mode control via several i-Log controllers and connection to a higher-level master controller or a control room via MODBUS.
- All filters and separators are easy to reach for economical service.

Comprac D-Series compressors are noise-and vibration-insulated and can be installed in any industrial premises in close proximity to the consumer. This eliminates the need to install costly noise insulation and to run long compressed air lines, thereby reducing pressure losses and increasing system efficiency.

Design and technical characteristics

D-Series screw oil-filled compressors produce industrial compressed air, up to class 4-4-4 to ISO 8573-1:2010.

New compressor design: Professional controller (A), Reliable electric motor (B), Screw air-end (C), Oil separator tank (D) and Comprag made control valves (E).

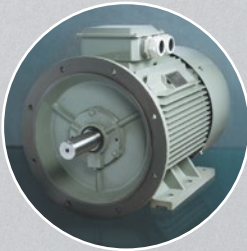
Professional controller i-Log (A)

The professional controller **i-Log** controls operation of the compressor in automatic mode, and also provides the user with necessary information on the working pressure, temperature of the air oil mixture, compressor's operation time, need for servicing, etc.

The professional controller allows a group mode control via several **i-Log** controllers and connection to a higher-level master controller or a control room via MODBUS.



Reliable electric motor (B)



D-Series compressors are fitted with quality electric motors with a high efficiency coefficient and world-class bearings from leading manufacturers.

The motors are not overloaded, but have a power reserve and overheat protection for windings.

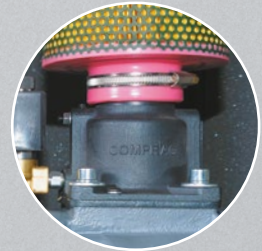
Screw air-end (C)



The air-end has a contemporary energy-efficient screw shape.

This increases compressor efficiency and reduces maintenance and replacement costs.

Control valve (E)



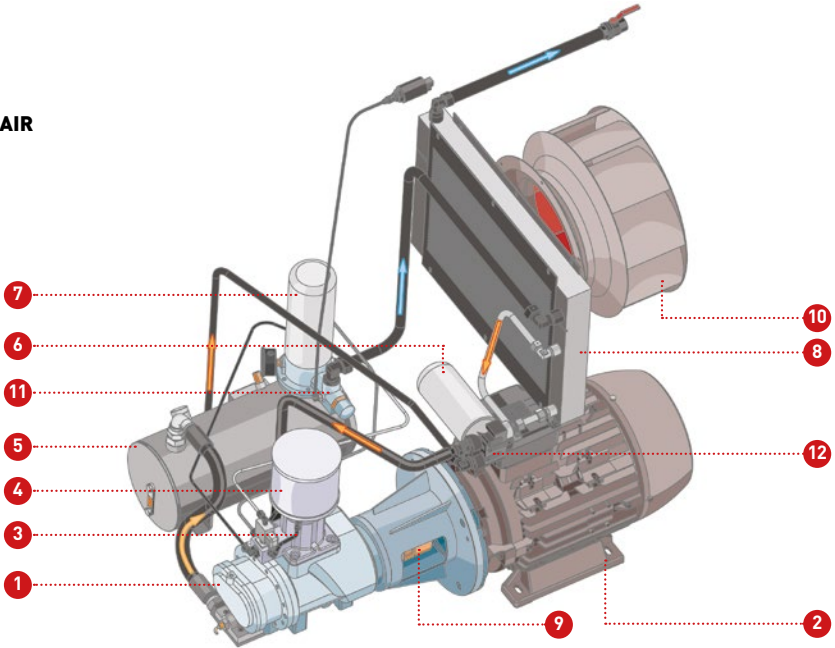
Comprag made control valves. Minimum pressure loss, improved unloading time adjustment.

Flow chart of compressor

● -OIL

● -OIL+AIR

● -AIR



1. Screw air-end
2. Electric motor
3. Air intake valve
4. Air filter

5. Separation vessel
6. Spin-On oil filter
7. Internal separator
8. Heat exchanger

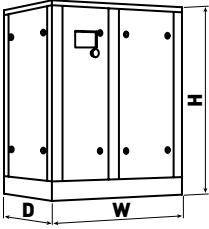
9. Coupling
10. Cooling Fan
11. Minimum pressure valve
12. Thermostatic valve

Table of models D-Series

Article	Model	Drive power (kW)	Max. working pressure (bar)	Capacity* (m ³ /min)	Rated voltage (phase/V/Hz)	Sound pressure level** (dB(A))	Screw connection
11300041	D-1808	18	8	2,9	3/380-420/50	72	3/4"
11300042	D-1810		10	2,6		72	
11300051	D-2208	22	8	3,6	3/380-420/50	72	3/4"
11300052	D-2210		10	3,2		72	

* Measured according to ISO 1217; ** Measured according to ISO 3744

Dimensions D-Series



Model	Height H (mm)	Width W (mm)	Depth D (mm)	Weight (kg)
D-18	1280	1300	940	450
D-22	1280	1300	940	480

SCREW COMPRESSORS D-SERIES WIDTH DIRECT DRIVE 1:1 with drive power 30-37 kW, capacity up to 6,2 m³/min

D-Series are oil filled screw compressors designed for smooth and economical production of compressed air in industrial plants. They feature a compact, logically laid-out design and are simple to use.

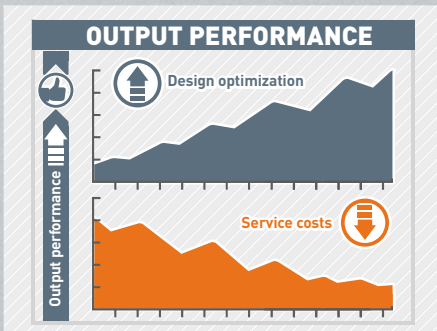


version (D)



Features:

D-Series compressors have been developed to offer an optimal balance between performance, energy saving solutions, and offer increased servicing intervals to reduce your running costs. D-Series compressors are most efficient in class.



- Modern, energy-efficient air-end.
- Microprocessor controlled for optimal cost-effective compressor operation.
- Through intelligent design of all key components, internal pressure losses are kept to a minimum, resulting in noticeable savings in total energy consumption.
- Through the use of an effective oil separation system, a residual oil content in compressed air of maximum 3 mg/m³ is attained.
- i-Log controller for more setting and control options a group mode control via several i-Log controllers and connection to a higher-level master controller or a control room via MODBUS.
- All filters and separators are easy to reach for economical service.

Design and technical characteristics

D-Series screw oil-filled compressors produce industrial compressed air, up to class 4-4-4 to ISO 8573-1:2010.

New compressor design: Professional controller (A), Effective and reliable electric motor (B), Screw air-end (C), Effective separation system (D).

Professional controller i-Log (A)

The professional controller **i-Log** controls operation of the compressor in automatic mode, and also provides the user with necessary information on the working pressure, temperature of the air oil mixture, compressor's operation time, need for servicing, etc.

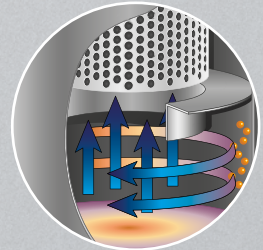
The professional controller allows a group mode control via several **i-Log** controllers and connection to a higher-level master controller or a control room via MODBUS.



Reliable electric motor (B)

Screw air-end (C)

Separation system (D)



D-Series compressors are fitted with quality electric motors with a high efficiency coefficient and world-class bearings from leading manufacturers.

The motors are not overloaded, but have a power reserve and overheat protection for windings.

The air-end has a contemporary energy-efficient screw shape.

This increases compressor efficiency and reduces maintenance and replacement costs.

D-Series compressors are fitted with an effective three-phase separation system. Most of the oil is separated under centrifugal force in the separator tank. Some of the oil is separated by gravitational force during movement of oil inside the separator.

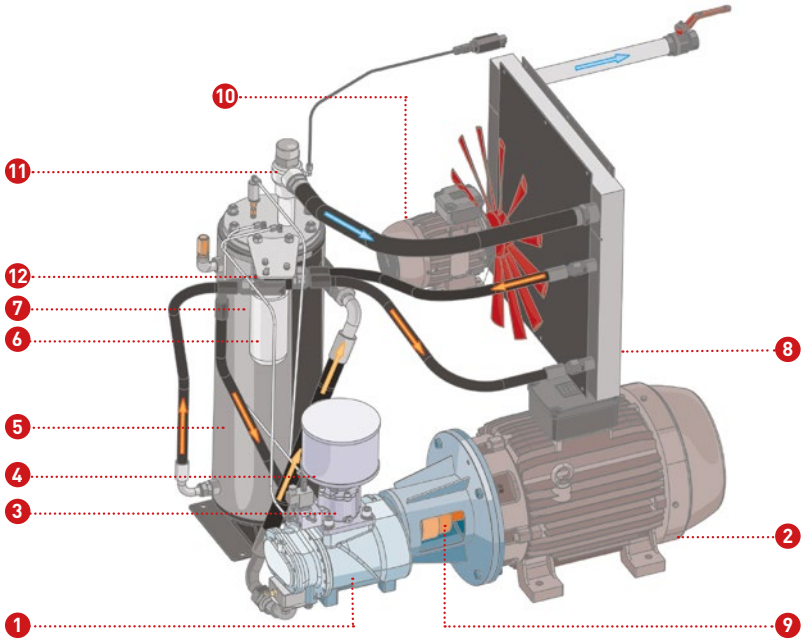
The remaining amount of oil is separated by a quality separation element. The total amount of oil in compressed air at the outlet of the compressor does not exceed 3 mg/m³.

Flow chart of compressor

● -OIL

● -OIL+AIR

● -AIR



- 1. Screw air-end
- 2. Electric motor
- 3. Air intake valve
- 4. Air filter

- 5. Separation vessel
- 6. Spin-On oil filter
- 7. Internal separator
- 8. Heat exchanger

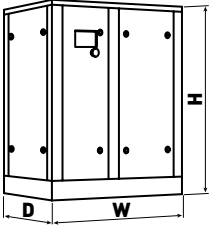
- 9. Coupling
- 10. Cooling Fan
- 11. Minimum pressure valve
- 12. Thermostatic valve

Table of models D-Series

Article	Model	Drive power (kW)	Max. working pressure (bar)	Capacity* (m ³ /min)	Rated voltage (phase/V/Hz)	Sound pressure level** (dB(A))	Screw connection
11300061	D-3008	30	8	5,0	3/380-420/50	72	1.1/4"
11300062	D-3010		10	4,5		72	
11300071	D-3708	37	8	6,2	3/380-420/50	72	1.1/4"
11300072	D-3710		10	5,6		72	

* Measured according to ISO 1217; ** Measured according to ISO 3744

Dimensions D-Series



Model	Height H (mm)	Width W (mm)	Depth D (mm)	Weight (kg)
D-30	1500	1400	1000	725
D-37	1500	1400	1000	760

SCREW COMPRESSORS D-SERIES WIDTH DIRECT DRIVE 1:1 with drive power 45-55 kW, capacity up to 9,1 m³/min

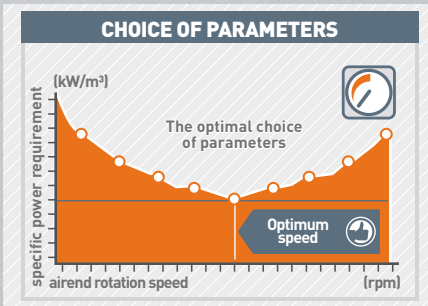
D-Series are oil filled screw compressors designed for smooth and economical production of compressed air in industrial plants. They feature a compact, logically laid-out design and are simple to use.



version (D)

Features:

The rotation speed of the helical screw rotor unit is selected on the basis of the specific optimal performance. All compressor components have been designed according to parameters chosen for optimal performance and low operating costs. Comprag D-Series offer some of the lowest specific production costs of compressed air.



- Modern, energy-efficient air-end.
- Microprocessor controlled for optimal cost-effective compressor operation.
- Through intelligent design of all key components, internal pressure losses are kept to a minimum, resulting in noticeable savings in total energy consumption.
- Through the use of an effective oil separation system, a residual oil content in compressed air of maximum 3 mg/m³ is attained.
- i-Log controller for more setting and control options a group mode control via several i-Log controllers and connection to a higher-level master controller or a control room via MODBUS.
- All filters and separators are easy to reach for economical service.

Design and technical characteristics

D-Series screw oil-filled compressors produce industrial compressed air, up to class 4-4-4 to ISO 8573-1:2010.

New compressor design: Professional controller (A), Effective and reliable electric motor (B), Screw air-end (C), Effective separation system (D).

Professional controller i-Log (A)

The professional controller **i-Log** controls operation of the compressor in automatic mode, and also provides the user with necessary information on the working pressure, temperature of the air oil mixture, compressor's operation time, need for servicing, etc.

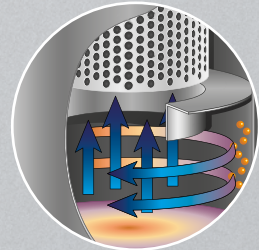
The professional controller allows a group mode control via several **i-Log** controllers and connection to a higher-level master controller or a control room via MODBUS.



Reliable electric motor (B)

Screw air-end (C)

Separation system (D)



D-Series compressors are fitted with quality electric motors with a high efficiency coefficient and world-class bearings from leading manufacturers.

The motors are not overloaded, but have a power reserve and overheat protection for windings.

The air-end has a contemporary energy-efficient screw shape.

This increases compressor efficiency and reduces maintenance and replacement costs.

D-Series compressors are fitted with an effective three-phase separation system. Most of the oil is separated under centrifugal force in the separator tank. Some of the oil is separated by gravitational force during movement of oil inside the separator.

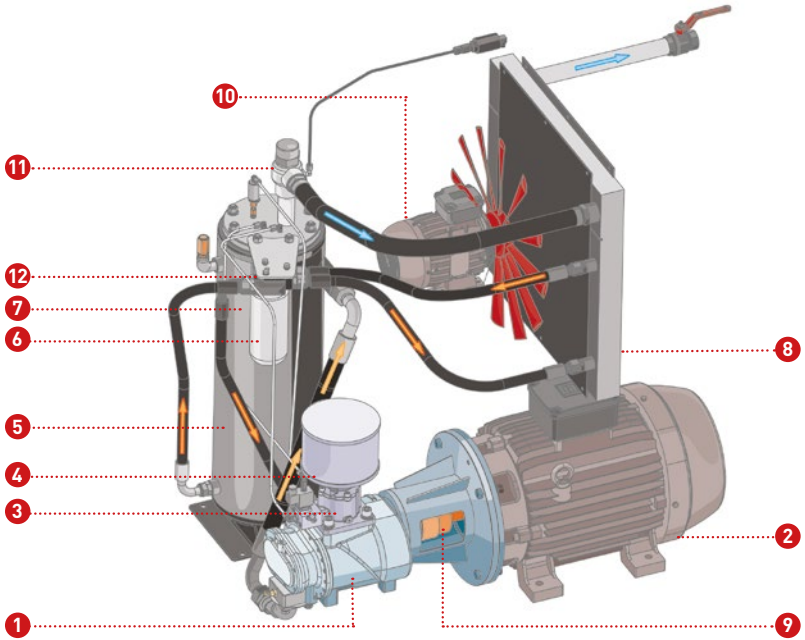
The remaining amount of oil is separated by a quality separation element. The total amount of oil in compressed air at the outlet of the compressor does not exceed 3 mg/m³.

Flow chart of compressor

● -OIL

● -OIL+AIR

● -AIR



- 1. Screw air-end
- 2. Electric motor
- 3. Air intake valve
- 4. Air filter

- 5. Separation vessel
- 6. Spin-On oil filter
- 7. Internal separator
- 8. Heat exchanger

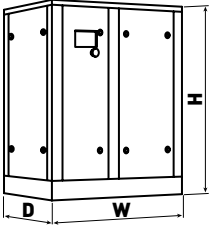
- 9. Coupling
- 10. Cooling Fan
- 11. Minimum pressure valve
- 12. Thermostatic valve

Table of models D-Series

Article	Model	Drive power (kW)	Max. working pressure (bar)	Capacity* (m ³ /min)	Rated voltage (phase/V/Hz)	Sound pressure level** (dB(A))	Screw connection
11300081	D-4508	45	8	7,0	3/380-420/50	75	1.1/2"
11300082	D-4510		10	6,2		75	
11300091	D-5508	55	8	9,1	3/380-420/50	75	1.1/2"
11300092	D-5510		10	8,5		75	

* Measured according to ISO 1217; ** Measured according to ISO 3744

Dimensions D-Series



Model	Height H (mm)	Width W (mm)	Depth D (mm)	Weight (kg)
D-45	1500	1650	1250	1010
D-55	1500	1650	1250	1175

SCREW COMPRESSORS D-SERIES WIDTH DIRECT DRIVE 1:1 with drive power 75-90 kW, capacity up to 15,4 m³/min

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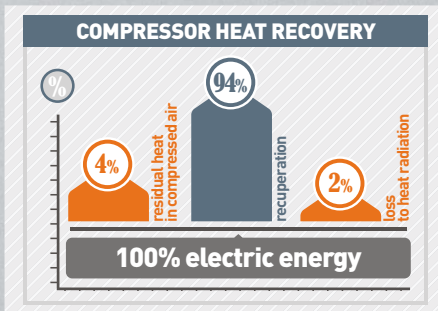


version (D)



Features:

Up to **94%** of the electric energy expended in driving a compressor may be used again in the form of recuperated heat. D-Series compressors allow heated air to be used efficiently by recovering it for production or storage facilities.



- 100%** - electric energy consumed by compressor
- 4%** - residual heat in compressed air
- 2%** - loss to heat radiation

- Modern, energy-efficient air-end.
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Design and technical characteristics

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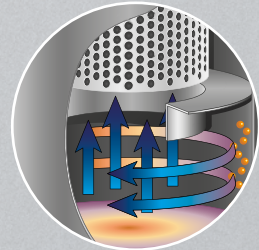
The professional controller allows a group mode control via several **i-Log** controllers and connection to a higher-level master controller or a control room via MODBUS.



Reliable electric motor (B)

Screw air-end (C)

Separation system (D)



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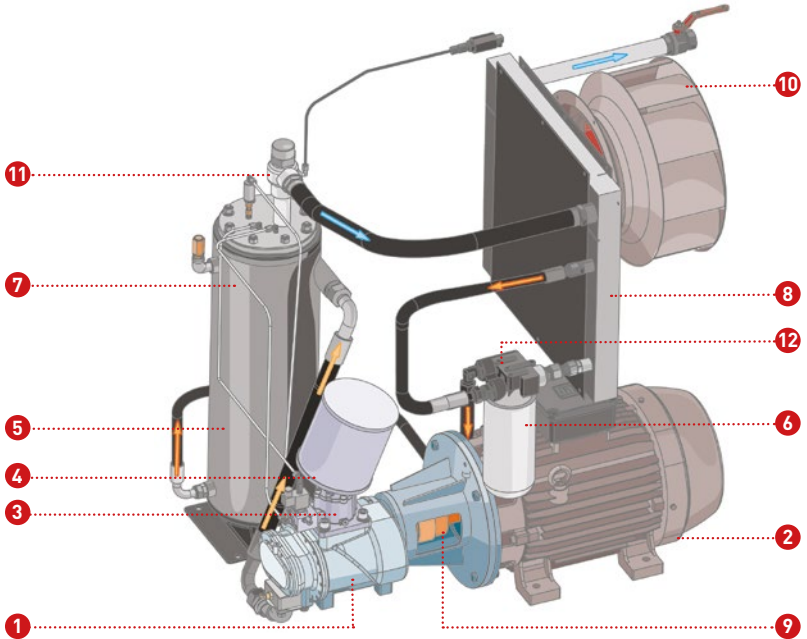
The remaining amount of oil is separated by a quality separation element. The total amount of oil in compressed air at the outlet of the compressor does not exceed 3 mg/m³.

Flow chart of compressor

● -OIL

● -OIL+AIR

● -AIR



1. Screw air-end
2. Electric motor
3. Air intake valve
4. Air filter

5. Separation vessel
6. Spin-On oil filter
7. Internal separator
8. Heat exchanger

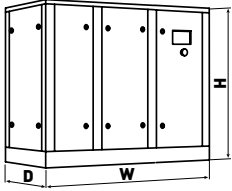
9. Coupling
10. Cooling Fan
11. Minimum pressure valve
12. Thermostatic valve

Table of models D-Series

Article	Model	Drive power (kW)	Max. working pressure (bar)	Capacity* (m ³ /min)	Rated voltage (phase/V/Hz)	Sound pressure level** dB(A)	Connection
11300101	D-7508	75	8	12,8	3/380-420/50	75	DN 50
11300102	D-7510		10	11,3		75	
11300111	D-9008	90	8	15,4	3/380-420/50	75	DN 50
11300112	D-9010		10	13,4		75	

* Measured according to ISO 1217; ** Measured according to ISO 3744

Dimensions D-Series



Model	Height H (mm)	Width W (mm)	Depth D (mm)	Weight (kg)
D-75	1800	2700	1260	2050
D-90	1800	2700	1260	2150



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