RENNER Kompressoren

Screw compressors

RS 132 – 315 D / RS 355 DW
RSF 110 – 315 D / RSF 355 DW

with direct drive

MADE IN GERMANY

Motor power: 110 – 355 kW

RENNER GmbH Kompressoren – success rooted in tradition.

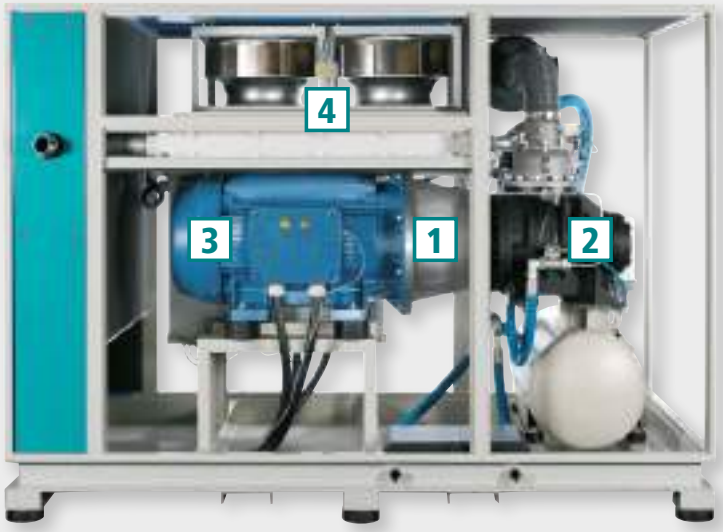
RENNER GmbH Kompressoren have been known for reliable compressed air for more than 25 years. As a family owned business with fast decision-making processes, we set the benchmarks in developing, manufacturing and selling efficient screw compressors and complete compressed air stations.

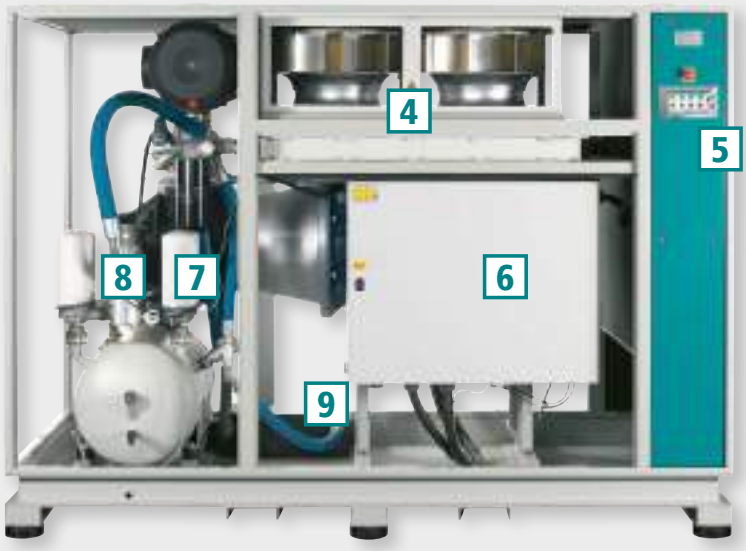
RENNER has more than 180 employees to provide you with first-class technical advice, robust compressor engineering, and reliable service in virtually more than one hundred countries.

We offer fast maintenance services in Germany and all over the world through our large distributor network. You can rely on the high quality standards of our oil-injected screw compressors as well as in the segments of oil-free compressed air and piston compressors. We are proud to assist you as a competent sales and service partner worldwide!

RENNER – the expert in screw compressors.

Easy removable service panels ensure excellent accessibility to all control- and maintenance-related components.





1 Direct drive – soft start, almost zero loss power transmission

2 Air end – efficient and effective to the highest standards

3 Electric motor – economical and robust

4 Cooler unit – large surface area, highest performance and effectiveness for quieter running

5 Electronic control – intelligent, fast response with full digital monitoring (two variants possible)

6 Control cabinet – optionally with integrated, energy saving frequency converter

7 Separation system – guarantees consistent compressed air quality

8 Oil circuit – works efficiently with long maintenance intervals

9 Plate heat exchanger – innovative and economic heat recovery

RENNER compressors – easy installation and cost-efficient maintenance.

RENNER direct driven compressors in detail

Drives and electrics

Direct drive – the compressor block is directly connected to the drive motor. The almost loss-free power transmission guarantees reliable, high-performance compressor operation. The regular maintenance requirement is reduced to lubrication of the motor. All the electronic components are brand products of leading manufacturers. The control cabinet is integrated in the system and is situated in the cooled-off air flow. All machines are equipped with the electronic control RENNERtronic Touch as standard or optionally with the RENNERtronic Plus Touch.

Air end block – reliable centrepiece

The centrepiece of the compressor is the air end, which is constructed and manufactured with the most modern production methods in Germany. The optimal air end for your compressor can be used on a modulating basis. In units with variable speed control, where the operating pressure changes, adjustments can also be made on the frequency converter to optimally adjust the speed of the compressor to the compressor performance. The unit is thus precisely designed to the customer's compressed air requirements and power is used economically.

Electric motor

Only electric motors from well-known manufacturers of protection class IP55 are used. As a standard, the drive motors are monitored an proven both thermally (via the thermistor of the motor) as well as electronically (overload protection via the frequency converter). The load on the motor is reduced on starting and during operations due to the direct drive combined with a high quality, maintenance-free shaft coupling with a modern isolating element. The drive motors of compressors with variable speed control are equipped with antistatic bearing shields as standard.

Cooler unit

Compressors up to 160 kW are equipped with two parallel radial fans with a high residual thrust. Compared to a traditional cooling system, the radial fans require less drive energy and operate quietly and powerfully. RENNER compressors with more than 160 kW are equipped with an effective axial fan. Variable speed control is optionally available. When it comes to conception and design, we work closely with German fan manufacturers for the best cooling air flow and vibration-free operation. The units can be optionally equipped with air inlet filter mats for applications with a high level of ambient dust exposure. With generously sized oil and compressed air aftercoolers as well as integrated oil temperature control, the units run perfectly even at high ambient temperatures. The compressors can be operated with open doors without overheating.

RENNER direct driven compressors in detail

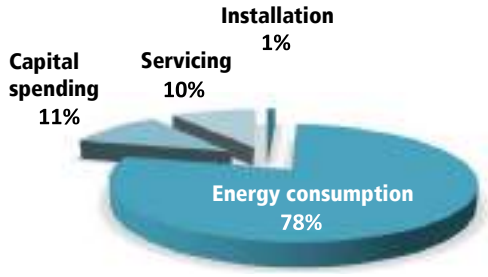
Control

Compressed air supply must be reliable and economical. This is guaranteed with an intelligent control both for single compressors as well as for RENNER compressed air stations. Compressors of other manufacturers can also be connected to our controls. Please see page 7 for detailed information on the controls.

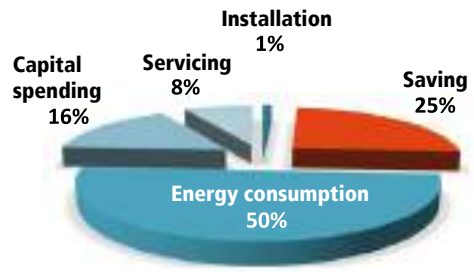
Frequency converter

The frequency converter minimises idle times and optimises supply with fluctuating compressed air requirements. Start-up peaks are avoided and the compressor's delivery rate is controlled continuously – that saves electricity costs! The total costs for your compressed air supply are significantly reduced and investment costs are amortised in the shortest possible time.

Fixed speed compressors:



RENNER's RSF compressors with variable speed control (savings after 5 years):



Oil separation system

Compressors up to 160 kW are equipped with external separators which can be changed in a simple spin-off/spin-on process. Larger units have an internal separator cartridge. Due to the excellent separation efficiency of the system as a whole, the compressors can be used in the pressure range of 5.0 to 15.0 bar. Special pressures on request.

Oil circuit

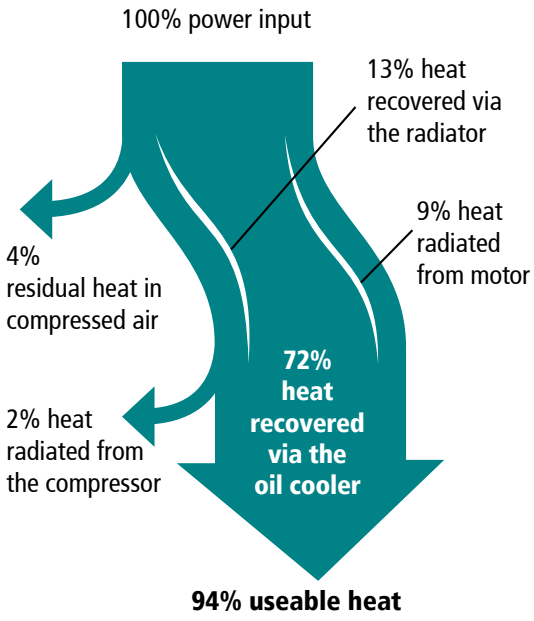
The amount of oil in the units is determined in such a way as to extend the oil change intervals (depending on ambient conditions). An oil level sensor is integrated as standard and is read by the controller. All the units in this series have a horizontal oil separation vessel in which the oil is separated from the compressed air highly efficiently at low speeds. The large surface area of the oil in a horizontal oil separation vessel is a major factor in the prevention of foam build-up.

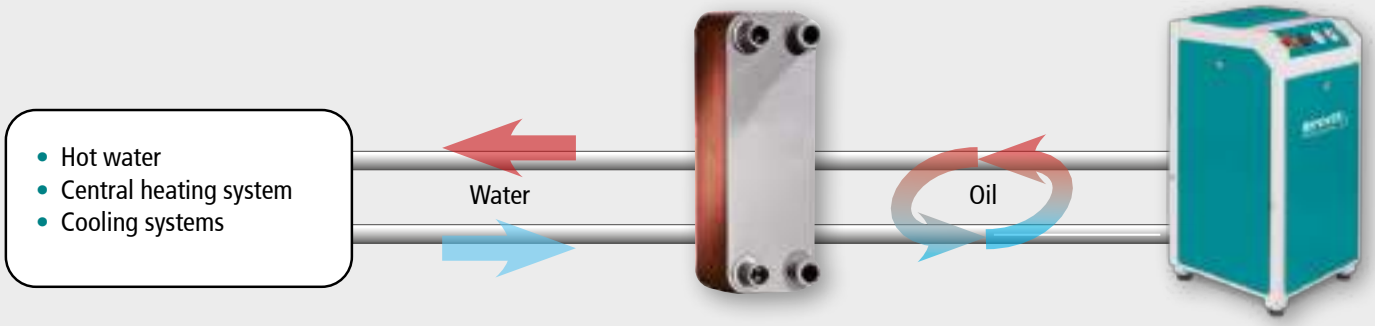
Optional: internal and external heat recovery.

When using screw compressors, a large amount of heat is also generated in addition to the actual main product – compressed air. With RENNER heat recovery, you can regain up to 94% of the energy you have already used as heat in the form of hot air, industrial water or hot water. This makes perfect sense ecologically and saves a lot of money!
Heat recovery via plate heat exchanger: the heat exchangers feature a very simple installation, the integration into the existing water cycle is done by an installer. No external energy is required for the operation.

- For RENNER screw compressors 7.5 – 250 kW
- Standard: inlet temp. 15°C, outlet temp. 65°C (industrial water)
  or
  inlet temp. 35°C, outlet temp. 65°C (reflux heating)
- Other temperature ranges available on request
- Safety heat exchanger (drinking water)
- Retrofitting available on request

Useable heat with optimally matched heat recovery:





Integrated heat exchanger

External heat exchanger

RENNERtronic Touch

Smartphone-like operation:
Intuitively operable touchscreen on state-of-the-art technology.

Events history:
The last 50 messages are displayed including date and time.

Pressure and temperature diagram:
Extensive statistics on pressure and temperature diagrams with hourly scaling.

Scheduler with six channels:
This can be used to switch the four pressure bands, four potential-free relay contacts or the compressor.

USB port:
Updates can be easily uploaded using a USB stick.

Replacing the control:
RENNERtronic Touch (4.3" touchscreen) and RENNERtronic Plus Touch (7" touchscreen) are easily interchangeable.

Service indicator:
Maintenance message will be shown when the set operating hour intervals is reached or at the latest after one year.

Display of compressor utilisation:
Recording of operating and load hours as well as the percentage load for compressors with variable speed control.

Different code levels:
Parameter access is restricted depending on the code level and the compressor is thus protected against unauthorised access.

Flexible inputs and outputs:
Freely assignable and inscribable digital inputs as well as four potential-free outputs.

Control of frequency converters:
The direct connection via RS485 bus interface eliminates the need for a separate converter display. Exchange of information in **plain text.**

! RENNERtronic Plus Touch with additional functions

The RENNERtronic Plus Touch fulfils **all the functions of the RENNERtronic Touch.** But it can do even more!

7" touchscreen:
Overview a multitude of information simultaneously and clearly.

Scheduler with eight channels:
In addition to the above-mentioned functions, priorities for Base Load Change Over can also be assigned via the scheduler.

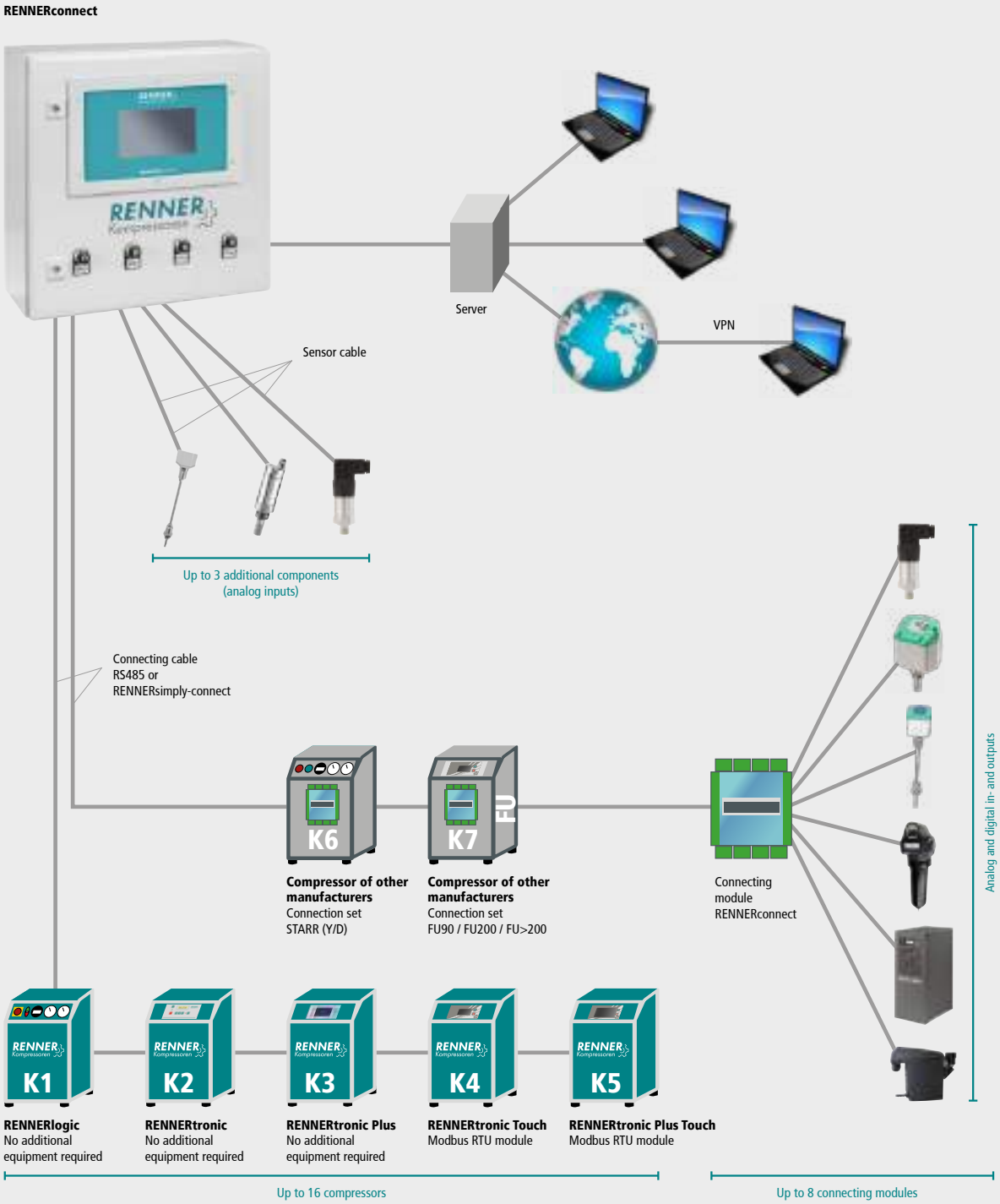
Pressure and temperature diagram:
Extensive statistics on pressure and temperature diagrams with daily, weekly and monthly scaling.

Base Load Change Over:
The software is equipped with an extensive Base Load Change Over. This is connected via an additional interface module (Modbus). This allows you to control up to eight additional compressors. The compressors are connected with a network cable.

RENNERconnect with 7“ touchscreen

Does your compressed air station work economically? RENNERconnect is a higher level, intelligent control system for optimal management and monitoring of your compressed air station. RENNERconnect contributes to efficiency and is highly reliable. Intelligent, air-demand based connection of the compressors provides not only a high energy savings potential, but also ensures increased operational reliability of your compressors. The control can be operated intuitively and safely via the integrated touchscreen.

Connectivity:



Features of the RENNERconnect:

1) Regardless of the compressor type, up to 16 compressors can be controlled:
   - RENNER compressors
   - Compressors of other manufacturers
   - Standard compressors with load and idle control

2) All compressors operate in a common, narrow pressure band, which means:
   - All compressors are activated at the same switch on/off pressure.
   - Pressure band can be reduced to a minimum.
   - High potential for energy savings, as pressure can be reduced maximally.
   - Older compressor stations can be operated more economically.

3) All compressors are connected via RS485-bus-system.

4) RENNERconnect can connect to various additonal components in your compressor room and monitor them (e.g. dryer, drain, dew point sensor, flow sensor, additional pressure sensors).

5) DIN ISO 50001: The control system can be used as energy management tool according to DIN ISO 50001 (section 4.6.1. monitoring, measurement, analysis). Contact us, we gladly provide you with information!

6) Extremely low switching frequency (extends the service life of all mechanical components of the compressors).

7) Particularly low energy cost due to constant calculation of air consumption which ensures an efficient use of compressor capacity.

Advantages of RENNERconnect:

- Compressors with RENNERtronic, RENNERtronic Touch, RENNERtronic Plus, RENNERtronic Plus Touch or RENNERlogic can be directly connected to RENNERconnect.
- Compressors of other manufacturers can be connected by simply applying a compact connecting module.
- Maximum energy savings (up to 40%) by avoiding expensive idle time and load / idle switching cycles, pressure optimization by 4 adjustable pressure bands and by reduction of maximum pressure.
- The use of the RENNERconnect enables the reduction of switch-on processes and idle times. This reduces maintenance costs and increases the service life of intake controls, compressor air-ends, contactors and motors.
- RENNERconnect matches the use of the compressors automatically with the demand for compressed air in order to generate just the right amount needed for production.

Industry 4.0

Connect your central network control system via modbus with RENNER compressors and benefit from extensive possibilities of network data exchange in real time. Whether you want to focus on status monitoring, look at fault reports, or retrieve service messages, all information is available and ready to be gathered. Communication interfaces of the control systems are used between the individual RENNER compressors and secure full access as well as full control of the compressed air station.

Intelligent interconnectedness of the components enables communication between compressed air production, air treatment as well as their optimal adjustment to achieve maximum efficiency.

RENNER Kompressoren

Screw compressors

RS 132 – 315 D / RS 355 DW direct drive
with electronic control RENNERtronic Touch

RS 132 – 315 D / RS 355 DW

Model	Free air delivery m³/min[1]								Motor power		Compressed air outlet	Noise level	Dimensions L x W x H	Weight
	7.5 bar		10 bar		13 bar		15 bar							
	m³/min	cfm	m³/min	cfm	m³/min	cfm	m³/min	cfm	kW	HP	inch / DIN-flange	dB(A)[2]	mm	kg
RS 132 D	23.61	834	20.43[3]	721[3]	16.15[3]	570[3]	15.10[3]	533[3]	132	180	G2½	79	2905 x 1450 x 1995	3150
RS 160 D	27.95[3]	987[3]	25.04[3]	884[3]	19.52[3]	689[3]	18.82[3]	664[3]	160	220	G2½	79	2905 x 1450 x 1995	3180
RS 185 D	34.18[3]	1207[3]	27.17[3]	959[3]	22.89[3]	808[3]	*	*	185	250	DN 100	79	3663 x 2100 x 2338	4700
RS 200 D	36.30[3]	1282[3]	30.67[3]	1083[3]	–	–	–	–	200	270	DN 100	79	3663 x 2100 x 2338	4900
RS 220 D	–	–	–	–	29.68[3]	1048[3]	26.08[3]	921[3]	220	300	DN 100	79	3663 x 2100 x 2338	4950
RS 250 D	44.42	1569	35.80[3]	1264[3]	30.14[3]	1064[3]	*	*	250	340	DN 100	79	3663 x 2100 x 2338	5100
RS 280 D	49.96[3]	1764[3]	44.35	1566	34.15	1206	33.05	1167	280	380	DN 150	81	3665 x 2100 x 2370	5500
RS 315 D	56.07[3]	1980[3]	44.55	1573	38.90[3]	1374[3]	*	*	315	420	DN 150	81	3665 x 2100 x 2370	5600
RS 355 DW	–	–	50.10[3]	1769[3]	43.56	1538	*	*	355	480	DN 150	79	3665 x 2100 x 2370	6200

[1] according to ISO 1217 Annex C [2] according to DIN EN ISO 2151:2009 [3] with gearbox
* on request W = water-cooled

Options	Part no.
Electronic control RENNERtronic Plus Touch	23836
Intake air filters for RS 132 – 160 D (not retrofittable)	15153
Intake air filters for RS 200 – 315 D / RS 355 DW (not retrofittable)	15154
Ball valve G2", PN 16	10513
Ball valve G2½", PN 16	10526
Ball valve DN 100, PN 16	19959
Ball valve DN 150, PN 16	06446
Flange expansion joints DN 100, PN 16 at compressed air outlet (for tension reduction and vibration damping in tubes)	00122
Flange expansion joints DN 150, PN 16 at compressed air outlet (for tension reduction and vibration damping in tubes)	00123
IE4 motor	on request
Standstill heater – additional heater 2.2 kW, 230 V / 50 Hz, IP54, for all types, controllable (from 280 kW – 2 pc. required)	00124
Tropical-modification up to 47°C ambiant temperature	on request
Water-cooling system	on request
Heat recovery	on request
Packaging	on request

Screw compressors

RSF 110 – 315 D / RSF 355 DW direct drive
with variable speed control and electronic control RENNERtronic Touch

RSF 110 – 315 D / RSF 355 DW

Model	Free air delivery (REflex)[1][2]												Motor power		Compressed air outlet	Noise level	Dimensions L x W x H	Weight
	min.		max. at 6 bar		max. at 8 bar		max. at 10 bar		max. at 13 bar		max. at 15 bar				inch / DIN-flange			
	m³/min	cfm	m³/min	cfm	m³/min	cfm	m³/min	cfm	m³/min	cfm	m³/min	cfm	kW	HP		dB(A)[3]	mm	kg
RSF 110 D – 6-8 bar	5.00	176	20.10	710	18.00	636	–	–	–	–	–	–	110	150	G2	79	2905 x 1450 x 1995	2950
RSF 110 D – 6-15 bar	3.85	136	17.80	629	17.80	629	16.10	569	14.00	494	12.90	456	110	150	G2	79	2905 x 1450 x 1995	2950
RSF 132 D – 6-9 bar	5.90	208	25.70	908	22.90	809	–	–	–	–	–	–	132	180	G2½	79	2905 x 1450 x 1995	3210
RSF 132 D – 6-15 bar	5.00	176	22.54	796	21.56	761	19.20	678	16.20	572	15.50	547	132	180	G2½	79	2905 x 1450 x 1995	3210
RSF 160 D – 6-10 bar	5.90	208	28.10	992	26.90	950	25.00	883	–	–	–	–	160	220	G2½	79	2905 x 1450 x 1995	3650
RSF 160 D – 6-15 bar	5.80	205	25.80	911	25.50	901	23.36	825	20.00	706	18.82	665	160	220	G2½	79	2905 x 1450 x 1995	3650
RSF 200 D – 6-13 bar	5.60	198	39.30	1388	34.40	1215	31.30	1105	24.30	858	–	–	200	270	DN 100	82	3663 x 2100 x 2338	5120
RSF 250 D – 6-8 bar	12.13	428	49.30	1741	44.50	1572	–	–	–	–	–	–	250	340	DN 100	82	3663 x 2100 x 2338	5530
RSF 250 D – 6-15 bar	5.60	198	39.70	1402	39.20	1384	37.90	1338	31.20	1102	29.56	1044	250	340	DN 100	82	3663 x 2100 x 2338	5530
RSF 315 D – 6-10 bar	11.80	417	56.10	1981	54.00	1907	46.90	1656	–	–	–	–	315	420	DN 150	82	3665 x 2100 x 2370	5700
RSF 315 D – 6-15 bar	10.30	364	43.00	1519	42.90	1515	42.80	1511	39.20	1384	36.00	1271	315	420	DN 150	82	3665 x 2100 x 2370	5700
RSF 355 DW – 10-13 bar	11.80	417	–	–	–	–	52.20	1843	44.30	1564	–	–	355	480	DN 150	79	3665 x 2100 x 2370	*
RSF 355 DW – 13-15 bar	10.30	364	–	–	–	–	–	–	42.70	1508	39.60	1398	355	480	DN 150	79	3665 x 2100 x 2370	*

[1] according to ISO 1217 Annex E [2] REflex function: pressure range continuously variable [3] according to DIN EN ISO 2151:2009
* on request W = water-cooled

Options	Part no.
Electronic control RENNERtronic Plus Touch	23836
Intake air filters for RSF 110 – 160 D (not retrofittable)	15153
Intake air filters for RSF 200 – 315 D / RSF 355 DW (not retrofittable)	15154
Ball valve G2", PN 16	10513
Ball valve G2½", PN 16	10526
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Permanent magnet motor (PM-motor)	on request
IE4 motor	on request
Standstill heater – additional heater 2.2 kW, 230 V / 50 Hz, IP54, for all types, controllable (from 280 kW – 2 pc. required)	00124
Tropical-modification up to 47°C ambiant temperature	on request
Water-cooling system	on request
Heat recovery	on request
Packaging	on request

RENNER Kompressoren

COMPRESSED AIR FOR ALL APPLICATIONS

RENNER GmbH Kompressoren, a family run business established in 1994, develops and assembles economical and energy-efficient compressors. A broad range of compressed air accessories are also part of the product portfolio. The structure and size of the company ensure flexible decisions and short lead times, thus providing optimal focus on the requirements of the customers.

THE RENNER MANUFACTURING AND SUPPLY PROGRAMME:

We can supply you with the right compressor for any application – guaranteed.

SCREW COMPRESSORS:

- From 2.2 to 355 kW
- Up to 40 bar, e.g. for manufacture of PET bottles
- Compact systems with air receiver, refrigeration dryer, and variable speed control
- Heat exchanger integrated or as an external box
- Special applications: gas compression, operation of drilling devices, rail, and special-purpose vehicles
- Customized models designed to customer specifications

OIL-FREE COMPRESSORS:

- SCROLL compressors for oil-free compressed air from 1.5 to 30.0 kW
- Water-injected screw compressors for oil-free compressed air in breathing air quality from 18.5 to 120 kW

oil-free Made in Germany · SCROLLline Industry · SCROLLline SuperSilent

PISTON COMPRESSORS:

- From 1.5 to 11.0 kW
- Stationary or mobile, with or without sound insulation

CONTROL SYSTEMS:

- Compressor control systems
- Superordinate control systems
- State-of-the-art web server monitoring Industry 4.0

COMPRESSED AIR ACCESSORIES:

- Air filters, air receivers, refrigeration dryers, adsorption dryers, condensate drains, and oil-water-separators

Your RENNER distributor:

RENNER GmbH · Kompressoren

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DIN EN ISO 9001
REG.-NR. Q1 0205013

RS(F) 110 – 355 D - EN - 08/2022 - PDF