

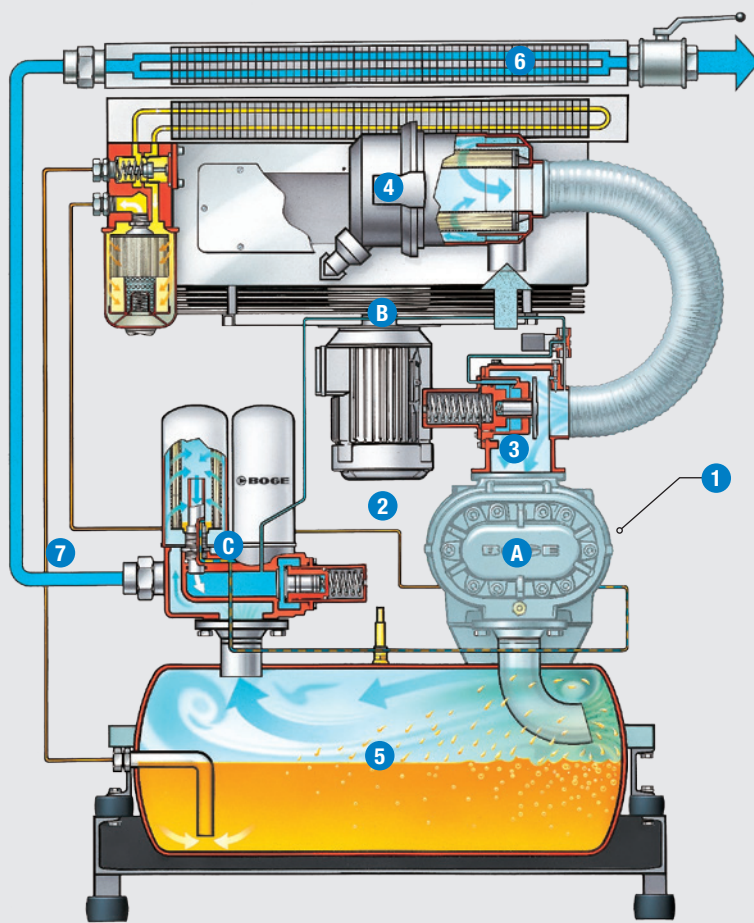
BOGE AIR. THE AIR TO WORK.



# BOGE S series S-3



# Top quality has surpassed itself again: The new generation BOGE S series.



## Details of new generation:

- A** New BOGE effience airend
- B** New cooling fan design
- C** Optimised oil separation

## Proven benefits of the BOGE S series:

- 1** Highly efficient IE3 motor
- 2** Intelligent cooling air circulation
- 3** Valveless oil circuit with multifunction suction regulator
- 4** Suction filter with micro paper element
- 5** Highly effective oil separation system with horizontal receiver
- 6** Self-sufficient cooling system with separate fan
- 7** Internal pipework made from steel tubing
- 8** Integrated switch cabinet
- 9** Maintenance-friendly design

## Intelligent design provides an edge:

The BOGE S series wins you over with its sophisticated design concept, highest quality workmanship and maximum cost-efficiency. Each component is the culmination of decades of expertise by our engineers – giving it an edge is evident in everyday use.

## The ideal lubricant for your BOGE S-3: BOGE SYPREM S.

The advantages:

- Fully synthetic coolant and lubricant
- Reduced oil vaporisation, therefore lower consumption and oil carryover into the compressed air system
- Longer service life: changing intervals of up to 9000 operating hours can be achieved
- Viscosity index 55 for optimal temperature characteristics and wide operating temperature range
- Prevents deposits from forming, thus increases service life of compression stage and filtration media

The use of BOGE SYPREM S makes it possible to increase the guarantee period to five years within the framework of the BOGE best**cair** guarantee programme. Further information is available at: [www.boge.com](http://www.boge.com).

**One of the best has been improved upon:** The S series has set standards in efficient and reliable compressed air production. Now, BOGE has made one of the best screw compressor ranges on the market even better. While retaining the proven design philosophy, the efficiency, smooth running properties and the sound pressure levels have been significantly optimised. You can look forward to the best S series of all time!

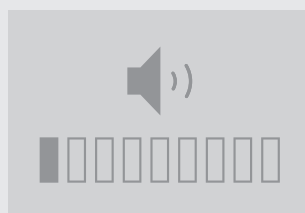


The depicted machine is the super-silenced version



#### EVEN MORE EFFICIENT

The new generation BOGE S series has the most efficient airend ever employed by BOGE – the BOGE effilence. Included as standard in every machine in the S-3 series, BOGE's effilence enhances the increased air delivery and improved oil separation system to the high level of efficiency achieved by the new compressor generation.



#### EVEN QUIETER

As well as the innovative BOGE effilence airend, the new designed fan makes the BOGE S-3 series quieter than ever. Its speed has been halved resulting in reduced noise levels – while the cooling air has been improved at the same time to provide a consistent cooling performance. The result speaks for itself: the quietest S series of all time!



#### EASY TO CONTROL

As an optional extra, for the S series, the new modular **focus** control 2.0 makes its debut\*: This most advanced control system within the industry not only spoils users with an intuitive user interface. In addition to efficiency displays and the BOGE leakage monitor, it even offers RFID access for the first time.

\* standard with **focus** control



#### PROVEN DESIGN

Irrespective of the modification incorporated, the proven design of the S series has still been retained: providing the advantages of the efficient cooling air circulation, the effective optimised oil separation system with a horizontal receiver and the premium quality of one of the most reliable screw compressors on the market.

# Efficiency on a large scale:

## The **BOGE SLF**.



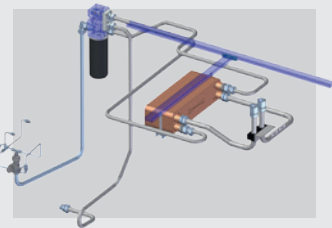
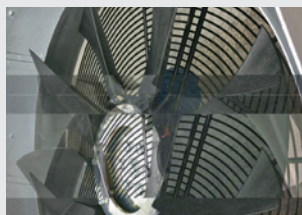
Effective FAD: 1.19 – 35.74 m<sup>3</sup>/min, 43 – 1262 cfm

Pressure range: 7.5 – 13 bar, 110 – 190 psig

Rated power: 22 – 200 kW, 30 – 270 HP



**Frequency control drive  
and cooling fan +  
integrated heat recovery:**  
Your extra bonus in efficiency.



### **ABSOLUTELY DEMAND-ORIENTED**

The frequency converter is primarily integrated to control motor and airtend speeds in order to produce the momentary air demand requirement at the required pressure.

### **MAXIMUM EFFICIENCY**

Frequency control is ideal where shift/production patterns create a fluctuating demand for compressed air or where there is a small storage volume or in a multiple installation for peak load operation. Built in frequency control continuously adjusts the volume flow to the actual demand ensuring minimised idling times and pressure fluctuations providing an energy efficient solution.

### **INTELLIGENT FAN CONTROL**

From the S 61-3 up we offer variable cooling air flow via frequency-controlled fan as an option. It ensures that it only ever works as hard as necessary. These machines achieve a significant efficiency advantage.

### **HIGH EFFICIENCY**

The centrepiece of the integrated DUOTHERM BPT heat exchanger is a plate heat exchanger through which passes hot oil around +85°C from the oil circuit. The counter-flow water passing through the heat exchanger is heated up to around +70°C – and can then be used as heating or production water.

**Operating within the specific optimal range:** In combination with the direct drive and frequency control, the SLF machines provide an extremely flexible system that adapts spontaneously to changes in the compressed air demand. If the pressure value changes, the air delivery is also synchronised automatically! This means that the machine supplies only the precise amount of compressed air that is actually needed at the time.

BOGE Model***	Max. pressure**		Effective free air delivery *		Motor power				Dimensions <sup>1)</sup> silenced	Dimensions <sup>2)</sup> super silenced	Compressed air outlet	Weight silenced kg	Weight super silenced kg
	bar	psig	m <sup>3</sup> /min	cfm	Main drive		Fan motor		WxDxH	WxDxH			
					kW	HP	kW	HP	mm	mm			
SLF 30-3	7.5	110	1.24 - 4.05	43.8 - 143.0	22	30	0.75	1.0	1830x966x1450	–	G 1¼	775	–
SLF 30-3	8	115	1.20 - 3.94	42.4 - 139.1	22	30	0.75	1.0	1830x966x1450	–	G 1¼	775	–
SLF 30-3	10	150	on request	on request	22	30	0.75	1.0	1830x966x1450	–	G 1¼	775	–
SLF 30-3	13	190	on request	on request	22	30	0.75	1.0	1830x966x1450	–	G 1¼	775	–
SLDF 30-3	7.5	110	1.24 - 4.05	43.8 - 143	22	30	0.75	1.0	1830x966x1730	–	G 1¼	899	–
SLDF 30-3	8	115	1.20 - 3.94	42.4 - 139.1	22	30	0.75	1.0	1830x966x1730	–	G 1¼	899	–
SLDF 30-3	10	150	on request	on request	22	30	0.75	1.0	1830x966x1730	–	G 1¼	899	–
SLDF 30-3	13	190	on request	on request	22	30	0.75	1.0	1830x966x1730	–	G 1¼	899	–
SLF 40-3	7.5	110	1.34 - 5.47	47.3 - 193.2	30	40	0.75	1.0	1830x966x1450	–	G 1¼	845	–
SLF 40-3	8	115	1.30 - 5.31	45.9 - 187.5	30	40	0.75	1.0	1830x966x1450	–	G 1¼	845	–
SLF 40-3	10	150	1.30 - 4.75	45.9 - 167.7	30	40	0.75	1.0	1830x966x1450	–	G 1¼	845	–
SLF 40-3	13	190	1.26 - 4.21	44.5 - 148.7	30	40	0.75	1.0	1830x966x1450	–	G 1¼	845	–
SLDF 40-3	7.5	110	1.34 - 5.47	47.3 - 193.2	30	40	0.75	1.0	1830x966x1730	–	G 1¼	1055	–
SLDF 40-3	8	115	1.30 - 5.31	45.9 - 187.5	30	40	0.75	1.0	1830x966x1730	–	G 1¼	1055	–
SLDF 40-3	10	150	1.30 - 4.75	45.9 - 167.7	30	40	0.75	1.0	1830x966x1730	–	G 1¼	1055	–
SLDF 40-3	13	190	1.26 - 4.21	44.5 - 148.7	30	40	0.75	1.0	1830x966x1730	–	G 1¼	1055	–
SLF 40-3 BLUEKAT	7.5	110	1.34 - 5.47	47.3 - 193.2	30	40	0.75	1.0	2470x966x1955	–	G 1¼	1171	–
SLF 40-3 BLUEKAT	8	115	1.30 - 5.31	45.9 - 187.5	30	40	0.75	1.0	2470x966x1955	–	G 1¼	1171	–
SLF 40-3 BLUEKAT	10	150	1.30 - 4.75	45.9 - 167.7	30	40	0.75	1.0	2470x966x1955	–	G 1¼	1171	–
SLF 40-3 BLUEKAT	13	190	1.26 - 4.21	44.5 - 148.7	30	40	0.75	1.0	2470x966x1955	–	G 1¼	1171	–
SLF 51-3	7.5	110	2.37 - 7.37	83.7 - 260.3	37	50	1.1	1.5	2043x1065x1455	2043x1065x1950	G 1½	1250	1300
SLF 51-3	8	115	2.30 - 7.16	81.2 - 252.9	37	50	1.1	1.5	2043x1065x1455	2043x1065x1950	G 1½	1250	1300
SLF 51-3	10	150	2.25 - 6.43	79.5 - 227.1	37	50	1.1	1.5	2043x1065x1455	2043x1065x1950	G 1½	1250	1300
SLF 51-3	13	190	2.12 - 5.12	74.9 - 180.8	37	50	1.1	1.5	2043x1065x1455	2043x1065x1950	G 1½	1250	1300
SLF 61-3	7.5	110	2.47 - 8.14	87.2 - 287.0	45	60	1.5	2.0	2043x1065x1455	2043x1065x1950	G 1½	1380	1430
SLF 61-3	8	115	2.40 - 7.90	84.4 - 279.0	45	60	1.5	2.0	2043x1065x1455	2043x1065x1950	G 1½	1380	1430
SLF 61-3	10	150	2.30 - 7.00	81.2 - 247.2	45	60	1.5	2.0	2043x1065x1455	2043x1065x1950	G 1½	1380	1430
SLF 61-3	13	190	2.14 - 5.78	75.6 - 204.1	45	60	1.5	2.0	2043x1065x1455	2043x1065x1950	G 1½	1380	1430
SLF 75-3	7.5	110	2.27 - 9.88	80.2 - 349.0	55	75	2.2	3.0	2043x1065x1455	2043x1065x1950	G 1½	1498	1548
SLF 75-3	8	115	2.20 - 9.60	77.7 - 339.0	55	75	2.2	3.0	2043x1065x1455	2043x1065x1950	G 1½	1498	1548
SLF 75-3	10	150	2.10 - 8.50	74.2 - 300.2	55	75	2.2	3.0	2043x1065x1455	2043x1065x1950	G 1½	1498	1548
SLF 75-3	13	190	2.18 - 7.26	77.0 - 256.4	55	75	2.2	3.0	2043x1065x1455	2043x1065x1950	G 1½	1498	1548
SLF 101-3	7.5	110	5.25 - 14.38	184.5 - 507.8	75	100	3.0	4.0	2414x1315x1760	2414x1315x2255	G 2½	2112	2172
SLF 101-3	8	115	5.10 - 13.96	180.1 - 493.0	75	100	3.0	4.0	2414x1315x1760	2414x1315x2255	G 2½	2112	2172
SLF 101-3	10	150	4.94 - 11.83	174.5 - 417.8	75	100	3.0	4.0	2414x1315x1760	2414x1315x2255	G 2½	2112	2172
SLF 101-3	13	190	3.68 - 10.69	130.0 - 377.5	75	100	3.0	4.0	2414x1315x1760	2414x1315x2255	G 2½	2112	2172
SLF 125-3	7.5	110	5.13 - 16.17	181.2 - 571.0	90	125	4.0	5.5	2414x1315x1760	2414x1315x2255	G 2½	2162	2222
SLF 125-3	8	115	4.98 - 15.70	175.9 - 554.4	90	125	4.0	5.5	2414x1315x1760	2414x1315x2255	G 2½	2162	2222
SLF 125-3	10	150	4.93 - 14.93	174.1 - 527.2	90	125	4.0	5.5	2414x1315x1760	2414x1315x2255	G 2½	2162	2222
SLF 125-3	13	190	4.79 - 12.80	169.2 - 452.0	90	125	4.0	5.5	2414x1315x1760	2414x1315x2255	G 2½	2162	2222
SLF 181-3	7.5	110	8.12 - 22.80	286 - 805	132	180	4.0	10.0	3145x1910x2145	3145x1910x2645	DN 80	3200	3300
SLF 181-3	10	150	7.97 - 19.70	281 - 696	132	180	4.0	10.0	3145x1910x2145	3145x1910x2645	DN 80	3200	3300
SLF 181-3	13	190	8.12 - 16.10	287 - 586	132	180	4.0	10.0	3145x1910x2145	3145x1910x2645	DN 80	3200	3300
SLF 221-3	7.5	110	8.67 - 28.80	306 - 1017	160	220	4.0	10.0	3145x1910x2145	3145x1910x2645	DN 100	4500	4600
SLF 221-3	10	150	8.51 - 25.10	300 - 885	160	220	4.0	10.0	3145x1910x2145	3145x1910x2645	DN 100	4500	4600
SLF 221-3	13	190	8.26 - 21.30	292 - 752	160	220	4.0	10.0	3145x1910x2145	3145x1910x2645	DN 100	4500	4600
SLF 271-3	7.5	110	8.67 - 36.50	306 - 1289	200	270	7.5	10.0	3145x1910x2145	3145x1910x2645	DN 100	4700	4800
SLF 271-3	10	150	8.51 - 32.6	300 - 1151	200	270	7.5	10.0	3145x1910x2145	3145x1910x2645	DN 100	4700	4800
SLF 271-3	13	190	8.26 - 27.5	292 - 971	200	270	7.5	10.0	3145x1910x2145	3145x1910x2645	DN 100	4700	4800

\* Free air delivery for the complete package in accordance with ISO 1217, Appendix E, at 20°C ambient temperature and maximum pressure. Emitted sound pressure values from 64 dB(A) according to DIN EN ISO 2151:2009

\*\* Max. pressure of the compressor, the 7.5 bar indications are to be provided as reference values. The machines are shipped standard in 8 bar.

\*\*\* The SLF 221 and 271 machines belong to the S-2 series

<sup>1)</sup>super-silenced on the intake side <sup>2)</sup>super-silenced on the intake and on the exhaust air side  
The shown performance data refer to compressors with standard equipment.

**The new premium airend from BOGE: BOGE effilence is the most efficient air-end ever employed by BOGE. Its name stands for two of its hallmarks: efficient compression (efficiency) and incomparably quiet operation (silence). This wholly BOGE developed and built airend will guarantee highest standard state-of-the-art technology: take advantage now of a new level of efficiency!**



## BOGE effilence: The design benefits.

### Extremely small blow hole

The very small radius of the secondary rotor teeth means that the blow hole is very small, thus ensuring high efficiency.

### Axial suction

An axial suction that has been calculated with flow simulation software takes place right from the BS 102: for maximum intake and therefore higher volumetric efficiency.

### Circumferential speeds

The speed design point has been optimised and is clearly lower when compared to previous stages. As a result, efficiency losses caused by splashing are reduced. The stages do not only offer a quieter operation, but also increased running-life, as the bearing service life depends on the size as well as on the rotations performed.

### Very small manufacturing tolerances

Due to the low tolerances the stage has a long service life, is efficient and quiet. Efficiency losses through gap and blow hole are minimized; the rattling noise through backlash, particularly during no-load times, do not occur any more.

### Flow-optimized outlet shape

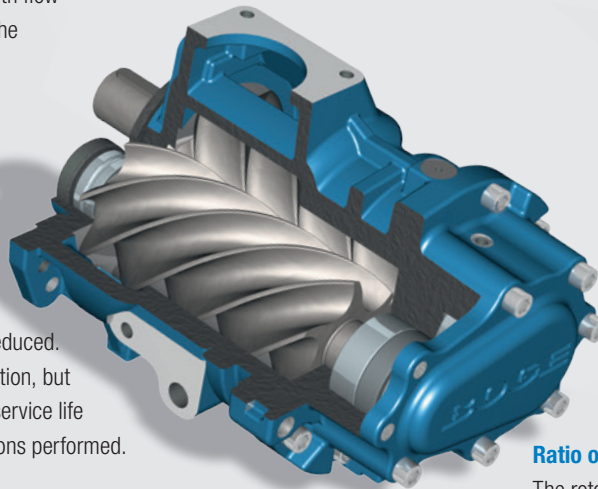
The design is optimised for outlet pressures from 8 to 9 bar. This prevents overcompression and backflow that causes high losses.

### Large bearings

The high-quality bearings have been selected in the largest possible size. This leads to a calculated service life twice as long as previous models.

### 5:6 profile

The 5:6 screw profile of the rotors developed by BOGE (5 teeth primary rotor, 6 teeth secondary rotor) ensures low differential pressure between the chambers and therefore only minimal flow rate losses. Due to the innovative profile geometry with low leakage between the rotors, the blow hole is extremely small, ensuring a high volumetric efficiency.



### Ratio of rotor length to rotor diameter

The rotor profile is optimally designed to achieve the ideal ratio of internal compression combined with the minimum rotor deflection.

### Oil injection

The oil injection is designed for an optimum cooling effect and minimum splash losses.

### BOGE Compressed Air Systems GmbH & Co. KG

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