BWV Series

Oil-free Screw Blower

FSCURTIS

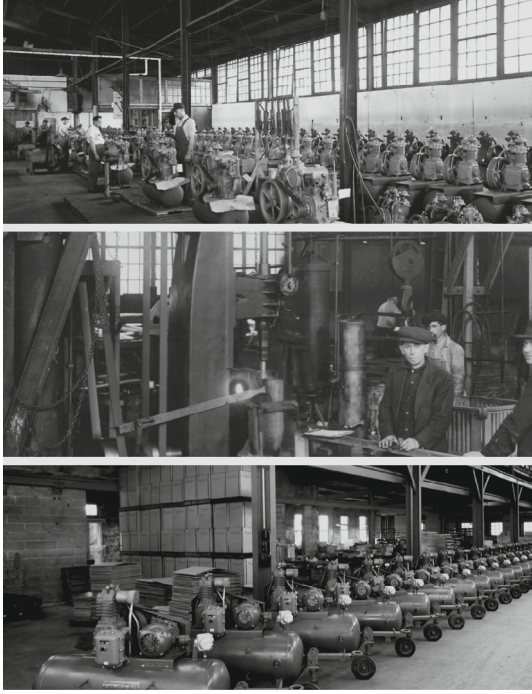
Pursuing Excellence,
Enriching Life

oil-free CLASS 0 ISO 8573-1

FS CURTIS

SOME COMPANIES ARE
FOUNDED ON HARD WORK.
OTHERS ARE FOUNDED ON IDEALS.

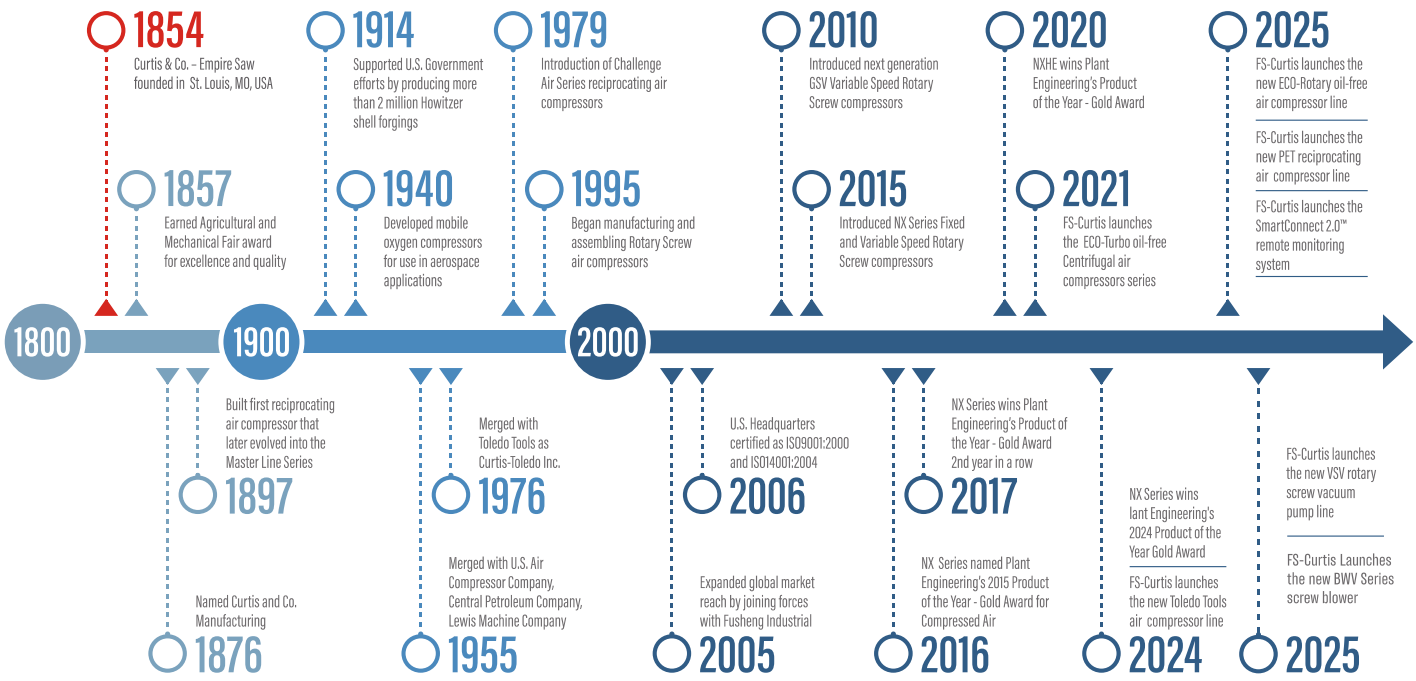
**FS-CURTIS WAS
FOUNDED ON BOTH.**



A HISTORY of Excellence

One hundred and seventy years ago, the FS-Curtis way of doing business was established through two key commitments: a dedication to building quality products and a dedication to responsive customer service.

Over the decades, the company and its products have evolved through innovation and new technologies. But those commitments to quality and service remain unchanged. Today, just as in 1854, FS-Curtis customers can depend on our products for reliable, long-term service. Equally as important, they can rely on getting the same from our people.



ENERGY-SAVING AND RELIABLE, EVEN BETTER TO SATISFY INDUSTRIAL APPLICATIONS

Environmentally friendly wastewater treatment

- Lower energy cost to run an aeration blower (aeration blowers account for approximately 70% of a wastewater treatment plant's total energy consumption)
- Lower maintenance costs and shorter downtime for maintenance.
- Wider operating ranges of flow and pressure.

Pneumatic conveying/fermentation applications

- Lower energy costs (blower energy consumption accounts for approximately 70% of a wastewater treatment plant's total energy consumption)
- Lower maintenance costs, resulting in shorter downtime for maintenance.
- Wider operating ranges of flow and pressure.

Textile Printing and Dyeing

- Adjustable flow rate to better match fibre characteristics.
- Better energy efficiency and reliability, enabling continuous 24-7 operation at low cost.
- Low noise level, allowing for installation at the point of use.

AREAS OF APPLICATION





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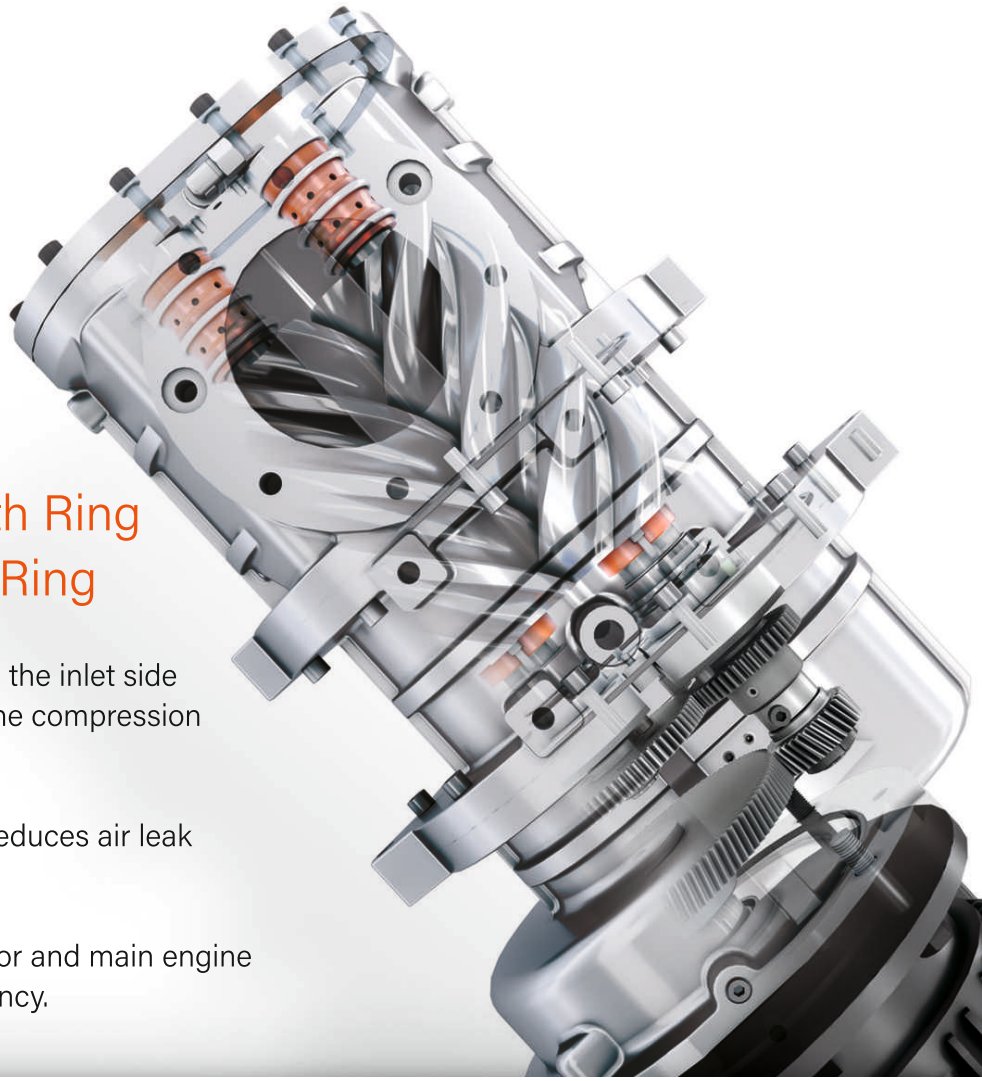
ISO 8573-1:Class 0

Certified Oil-Free Product



Oil loop Seal: Labyrinth Ring
Air loop Seal: Carbon Ring

- Double-layer spiral labyrinth ring on the inlet side provides efficient sealing, keeping the compression chamber clean and oil-free.
- Carbon ring on the discharge side reduces air leak and improves volumetric efficiency.
- Direct connection between the motor and main engine achieves higher transmission efficiency.

Product Features

Low Noise and High Reliability

Unique air inlet duct and reasonable layout ensure continuous and stable operations without pressure fluctuations. There is far lower noise.

Permanent Magnet Frequency conversion for Greater Energy Saving

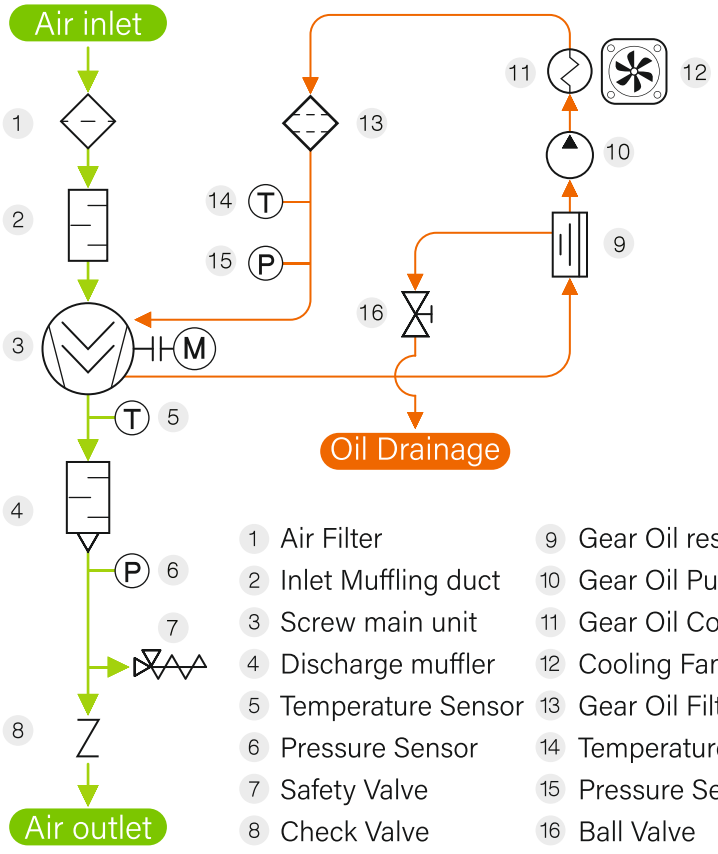
The combination of a high-efficiency permanent magnet motor and a high-precision frequency converter requires no large starting current, ensures smooth linear operation, and significantly saves energy.

Lightweight and Simple Unit Configuration

Complete modular design ensures light weight, minimal wearing parts, enabling economical and easy maintenance.

Flow Chart

Air | Gear oil



1 Air Filter
2 Inlet Muffling duct
3 Screw main unit
4 Discharge muffler
5 Temperature Sensor
6 Pressure Sensor
7 Safety Valve
8 Check Valve
9 Gear Oil reservoir
10 Gear Oil Pump
11 Gear Oil Cooler
12 Cooling Fan
13 Gear Oil Filter
14 Temperature Sensor
15 Pressure Sensor
16 Ball Valve

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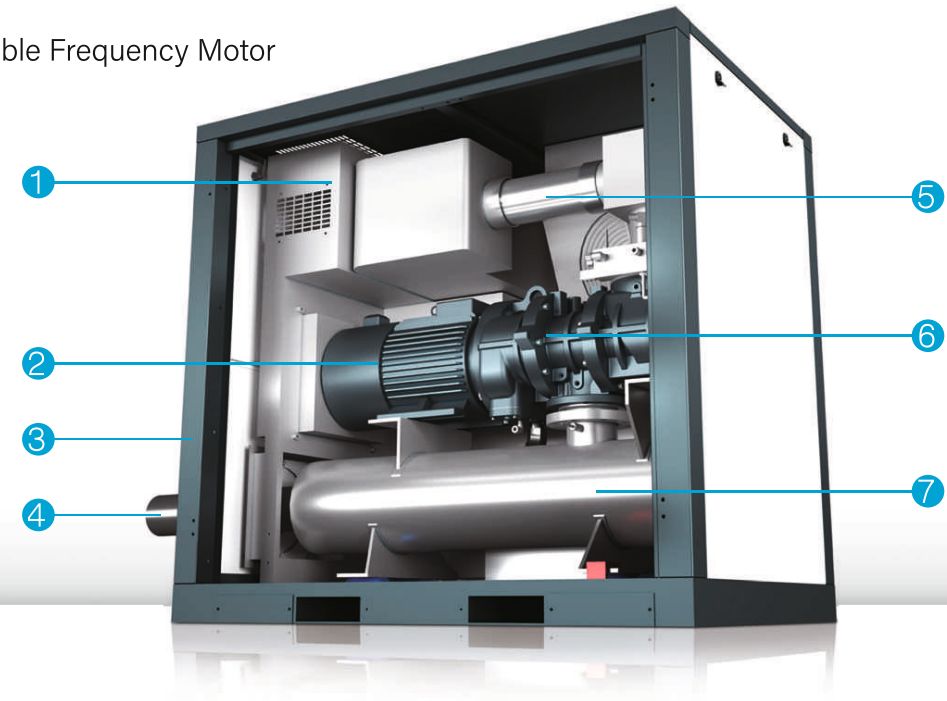
Considerate and Efficient Overall Design

PACKAGE DESIGN

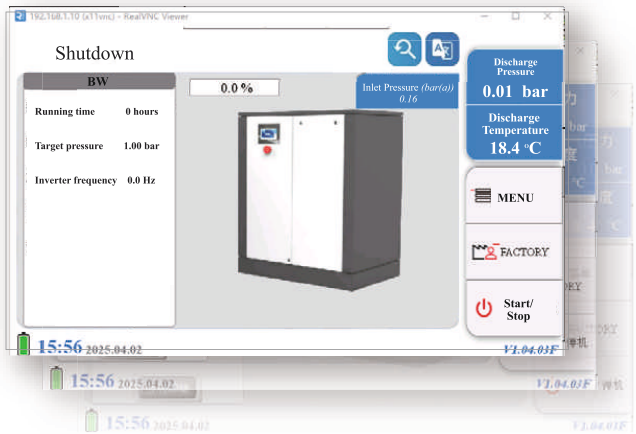
1. Air Inlet
2. Permanent Magnet Variable Frequency Motor
3. Soundproof Cover
4. Air outlet
5. Inlet muffling duct
6. Screw main unit
7. Discharge muffler



CONTROL SYSTEM/Intelligent Control System

The large color touchscreen design makes operation as simple as using a tablet, enabling intelligent IoT control.

- Intuitive and interactive user interface with multi-language support
- Superior anti-interference performance
- Remote on/off function
- RS 485 communication for sequential control of multiple units
- Main motor and fan motor current monitors
- Equipped with CAN network communication interface

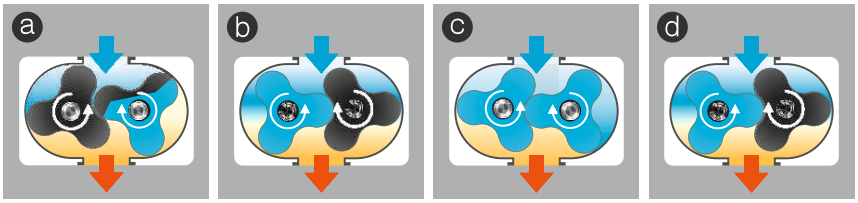


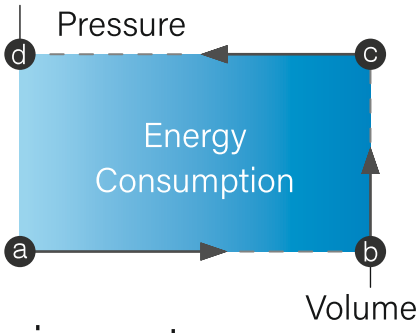
Why choose an oil-free screw blower?

Roots blower - air carriers. There is no change in the cavity volume, commonly referred to as (external compression)

The corresponding stages in the figure below are:

- ⓐ→ⓑ Air Intake: Air is drawn into the blower from the atmosphere or a pipeline.
- ⓑ→ⓒ Compression: Air is pushed to the pressure side by the blower and mixes with the air leak from the discharge side.
- ⓒ→ⓓ Discharged air: Air is further pushed to the discharge side by the blower, and the gas is discharged through the pipeline.

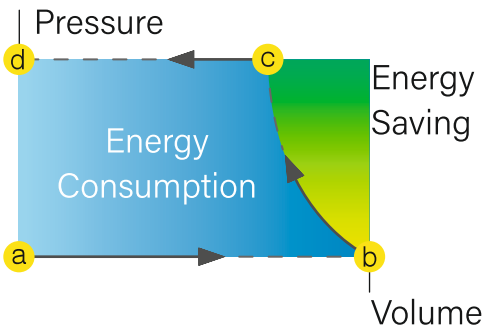


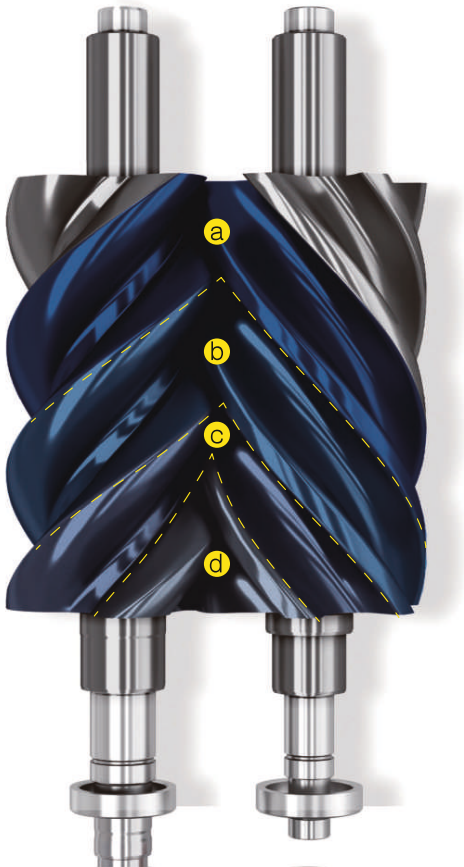


The higher the pressure required by the equipment, the more energy-efficient the screw blower is as compared to the Roots blower:

At a pressure of 0.5 bar, energy savings can reach up to 25%, and at pressures of 0.8 bar and above, energy savings exceed 35%.

- ⓐ→ⓑ Air is drawn into the blower from the atmosphere or a pipeline.
- ⓑ→ⓒ Air is pushed to the pressure side by the blower. The air volume decreases, causing the pressure to increase.
- ⓒ→ⓓ Compressed air is discharged.





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BWV Series Permanent Magnet Variable Frequency Oil-Free Screw Blower – Specifications

Model	Power	Pressure	Air Volume	Length	Width	Height	Weight	Air Outlet size
	kW	bar	m^3/min	mm	mm	mm	kg	
BWV15	15	0.6	12.1	1500	1000	1400	960	DN125
		0.8	9.6					
		1.0	7.7					
		1.2	6.9					
BWV18	18	0.6	15.3	1500	1000	1400	980	DN125
		0.8	12.7					
		1.0	9.6					
		1.2	8.2					
BWV22	22	0.6	18.7	1500	1000	1400	1000	DN125
		0.8	15.6					
		1.0	12.9					
		1.2	11.0					
BWV30	30	0.6	21.5	1500	1000	1400	1100	DN125
		0.8	17.9					
		1.0	16.1					
		1.2	13.6					
BWV37	37	0.6	32.7	1700	1100	1450	1200	DN150
		0.8	24.7					
		1.0	20.4					
		1.2	16.9					
BWV45	45	0.6	38.0	1700	1100	1450	1250	DN150
		0.8	33.6					
		1.0	25.9					
		1.2	22.8					
BWV55	55	0.6	41.0	1700	1100	1450	1350	DN150
		0.8	38.3					
		1.0	32.2					
		1.2	28.0					
BWV75	75	0.6	62.0	2300	1500	2150	2700	DN250
		0.8	54.0					
		1.0	47.7					
		1.2	40.6					
BWV90	90	0.6	76.6	2300	1500	2150	2800	DN250
		0.8	65.3					
		1.0	51.1					
		1.2	45.5					
BWV110	110	0.8	69.0	2300	1500	2150	3000	DN250
		1.0	56.0					
		1.2	49.0					

*For more detailed specifications, please contact

FSCURTIS

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