4 - 11 KW

Screw Air Compressor Range

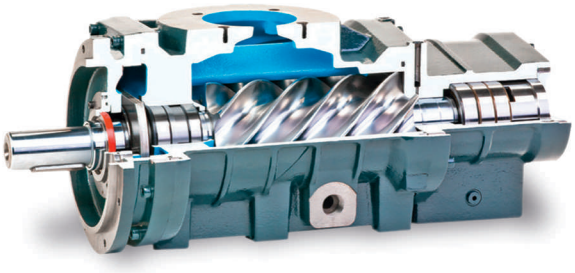
firstAIR

Compressors! No compromises.

FAS 4 - 11KW

The FAS product range includes air cooled, single stage silenced and packages screw compressors in the power range of 4 - 11kW. These compressors are designed for industrial application and 24x7 continuous duty. All models are driven by highly efficient IE3 efficiency class electric motors.

As an option, FAS compressors are available with pre-assembled accessories like
- Air receiver
- Refrigeration Dryer
- Pre & post down stream filters



EXCELLENT QUALITY

High quality components in combination with decades of experience in building air ends ensure durability with constantly high efficiency.

INTEGRATED OIL SEPARATOR IN THE OIL TANK

The large oil tank is equipped with all necessary connections and safety installations and therefore ensures the highest operational safety. The internal high efficiency oil separator guarantees excellent compressed air quality with a remaining oil content of < 3mg/m^3.

Through an inspection glass the oil level can be controlled at all times. Service can be conducted quickly and safely – the inlet neck as well as the oil drain valve can be easily accessed.

HIGH PERFORMANCE SUCTION FILTER

In all models a high performance suction filter is installed. Sucked particles are filtered in two stages: first by centrifugal forces and second by a high efficiency filter element.

ELECTRIC MOTOR

The driving motor conforms to energy efficiency class IE3, protection class IP55, insulation class F and is thus most suited for rugged, continuous duty industrial application, with highest efficiency.

HIGH EFFICIENCY COOLING

The cooling system for both air and oil is designed in a way that the compressor can efficiently operate even at high ambient temperature of 45°C.

CONFIGURATION TABLE

Machine Model	FAS-4 – 11B Base Mounted	FAS-4 – 11T Tank Mounted	FAS-4 – 11A UltraPack	FAS-4 – 11D Skid mounted with Dryer
Air compressor unit	✓	✓	✓	✓
Refrigerated air dryer			✓	✓
Pre-filter			✓	✓
Post-filter			✓	✓
Air receiver		✓	✓	

TECHNICAL DATA

Machine Model		FAS-4	FAS-6	FAS-8	FAS-11	FAS-11(HE)
Cooling Type		Air-cooled				
Working pressure/Free Air Delivery CFM	7 kg/cm² (g)	19	28	39	62	76
	8 kg/cm² (g)	18	26	36	58	67
	10 kg/cm² (g)	14	23	34	53	59
	12 kg/cm² (g)	12	18	29	49	54
	14 kg/cm² (g)	11	15	25	42	48
	16 kg/cm² (g)	9	13	21	35	40
Electric Motor	Power (kW)	4	5.5	7.5	11	11
	Starting method	Star-Delta				
	Voltage/ Frequency (V/Hz)	400V, 50Hz				
	Protection Level	IP 55				
	Insulation Class	F Class				
	Motor Efficiency	IE3				
Drive		Belt Driven				
Noise (dBA)		65 +/- 3		68 +/- 3		
Oil Carryover (ppm)		≤ 3				
Discharge temperature (after cooler) (°C)		≤ Ambient temperature+15°C				
Lubricant Capaticy (L)		6		8		
Outlet (inch)		G1/2		G3/4		

Machine Model - Base Mounted		FAS-4B	FAS-6B	FAS-8B	FAS-11B	FAS-11 (HE)B
External Dimension	Length (mm)	660		800	880	
	Width (mm)	600		800	830	
	Height (mm)	890		995	1075	
Weight (kg)		230	240	280	300	350

Machine Model - Tank Mounted		FAS-4T	FAS-6T	FAS-8T	FAS-11T	FAS-11 (HE)T+
Tank Volume (L)		300 L				500L
External Dimension	Length (mm)	1650		1650	1650	2174
	Width (mm)	800		900	900	900
	Height (mm)	1533		1638	1716	1716
Weight (kg)		340	405	390	410	520

Machine Model - Ultra Pack		FAS-4A	FAS-6A	FAS-8A	FAS-11A	FAS-11 (HE)A+
Tank Volume (L)		300 L				500L
External Dimension	Length (mm)	1650		1650	1650	2174
	Width (mm)	800		900	900	900
	Height (mm)	1533		1638	1716	1716
Weight (kg)		378	405	445	465	575

The data & performance were recorded in accordance with latest ISO 1217 standard.
The sound level was measured in accordance with PNEUROP/CAGI standard.
Tank mounted & Ultrapack models are also available with 500L tank, details on request.
Due to continous engineering improvements, above features are subject to change without prior notice.

firstAir

Compressors! No compromises.

Email: info@firstair.in
www.india.firstaircompressor.com

FS Compressors India Pvt. Ltd.
Plot No. S-3, Phase-II, Chakan MIDC, Village,
Sawardari, Khed, Maharashtra 410501

Distributor

Leaflet_firstAir_EN_03/17

15 - 250 KW

Screw Air Compressor Range

firstAIR

Compressors! No compromises.

FAS 15 - 250 KW

The FAS product range includes air cooled, single stage silenced and packaged screw compressors in the power range of 15 - 250kW. These compressors are designed for industrial application and 24x7 continuous duty. All models are driven by highly efficient IE3 efficiency class electric motors.

FEATURES & BENEFITS

FEATURES

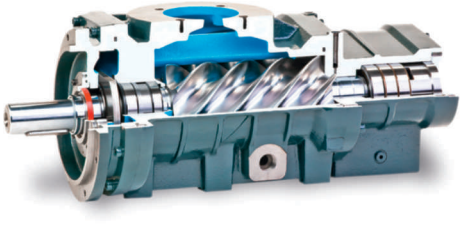
- Compact and accessible design
- Reliable EUCOMP airend technology
- IE3 premium efficiency drive
- Optimum assembly of air-end and motor
- Generous designed aluminium cooler

ADVANTAGES

- Small footprint + easy to maintain
- Proven technology with high volume flow
- Developed for high loads
- Low speed operation
- Ambient temperatures up to 45°C

BENEFITS

- Quick installation and low service costs
- High reliability for demanding industries
- Durable and energy cost saving operation
- Long lifetime
- Risk free operation



EXCELLENT QUALITY

High quality components in combination with decades of experience in building air ends ensure durability with constantly high efficiency.

INTEGRATED OIL SEPARATOR IN THE OIL TANK

The large oil tank is equipped with all necessary connections and safety installations and therefore ensures the highest operational safety. The internal high efficiency oil separator guarantees excellent compressed air quality with a remaining oil content of < 3mg/m³.

Through an inspection glass the oil level can be controlled at all times. Service can be conducted quickly and safely – the inlet neck as well as the oil drain valve can be easily accessed.

HIGH PERFORMANCE SUCTION FILTER

In all models a high performance suction filter is installed. Sucked particles are filtered in two stages: first by centrifugal forces and second by a high efficiency filter element.

ELECTRIC MOTOR

The driving motor conforms to energy efficiency class IE3, protection class IP55, insulation class F and is thus most suited for rugged, continuous duty industrial application, with highest efficiency.

HIGH EFFICIENCY COOLING

The cooling system for both air and oil is designed in a way that the compressor can efficiently operate even at high ambient temperature of 45°C.

CONTROLLER

With the intelligent compressor control, you have full control over the operating status: maintenance indication and fault indication. The control also features fully automatic full load, idle and intermittent control as well as remote on/off and direction control

TECHNICAL DATA - FIX SPEED COMPRESSOR

Machine Model		FAS-15	FAS-18	FAS-22	FAS-30	FAS-37	FAS-45	FAS-55	FAS-75
Cooling Type		Air-cooled							
Working pressure/kg/cm² Free Air Delivery CFM	5 kg/cm² (g)	108	131	145	212	263	304	415	540
	7 kg/cm² (g)	95	117	129	191	237	280	378	487
	8 kg/cm² (g)	85	106	127	184	222	268	339	459
	10 kg/cm² (g)	72	92	120	170	205	244	311	413
	12 kg/cm² (g)	69	85	106	148	187	222	286	362
	14 kg/cm² (g)	57	71	92	124	154	191	237	311
	16 kg/cm² (g)	51	60	78	102	134	171	207	279
Electric Motor	Power (kW)	15	18.5	22	30	37	45	55	75
	Starting method	Star-Delta							
	Voltage (V), Frequency (Hz)	400V, 50Hz							
	Protection Level	IP 55							
	Insulation Class	F Class							
	Motor Efficiency	IE3							
Drive		Belt Driven						Direct Driven	
Noise (dBA)		70 +/-3			72 +/-3			75 +/-3	
Oil Carryover (ppm)		≤3							
Outlet (inch)		3/4"	1-1/4"		1-1/2"			2"	
External Dimension	Length (mm)	880	1050		1000		1400	2250	
	Width (mm)	830	880		1250		1100	1344	
	Height (mm)	1075	1260		1310		1600	1694	
Weight (kg)		400	500	570	850	880	1080	2150	2250

Machine Model		FAS-90	FAS-110	FAS-132	FAS-160	FAS-185	FAS-200	FAS-220	FAS-250
Cooling Type		Air-cooled							
Working pressure/kg/cm² Free Air Delivery CFM	5 kg/cm² (g)	622	812	975	1123	1254	1377	1430	1660
	7 kg/cm² (g)	565	742	890	1014	1130	1240	1289	1501
	8 kg/cm² (g)	537	700	848	975	1074	1183	1218	1483
	10 kg/cm² (g)	480	600	742	869	968	1067	1130	1434
	12 kg/cm² (g)	434	540	646	759	876	936	1042	1278
	14 kg/cm² (g)	374	466	554	653	752	805	897	1098
	16 kg/cm² (g)	350	408	487	572	653	706	777	936
Electric Motor	Power (kW)	90	110	132	160	185	200	220	250
	Starting method	Star-Delta							
	Voltage (V), Frequency (Hz)	400V, 50Hz							
	Protection Level	IP 55							
	Insulation Class	F Class							
	Motor Efficiency	IE3							
Drive		Direct Driven							
Noise (dBA)		75 +/-3	82 +/-3					85 +/-3	
Oil Carryover (ppm)		≤3							
Outlet (inch)		2"	DN80					DN100	
External Dimension	Length (mm)	2250	2600		2900			3750	
	Width (mm)	1344	1750		1600			2150	
	Height (mm)	1694	1850		1800			2100	
Weight (kg)		2450	3050	3250	4050	4300	4450	5000	5200

The data & performance were recorded in accordance with latest ISO 1217 standard.
The sound level was measured in accordance with PNEUROP/CAGI standard.
Water cooled options available, details on request.
VFD with Star-Delta bypass option available, details on request.
Tank mounted & Ultrapack models are also available for 15-22 Kw with 500L tank, details on request.
Due to continous engineering improvements, above features are subject to change without prior notice.

ENERGY SAVINGS ARE SMART SAVINGS

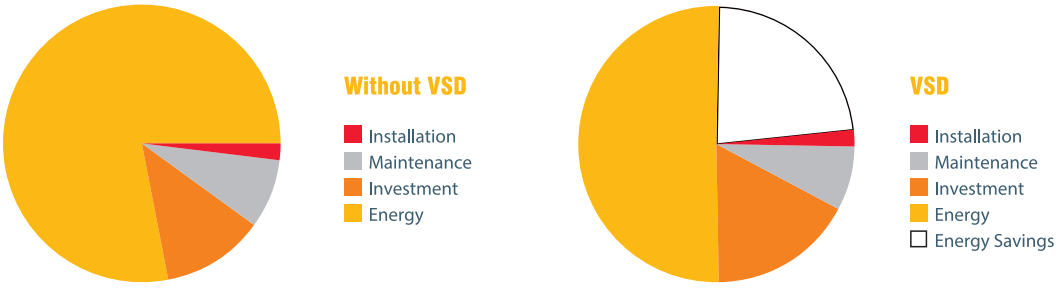
Take control of your energy savings with our optional Energy Management System, which includes the controller, variable-speed drive, and air end to create greater overall efficiency. This innovative design maximizes energy savings and reduces overall operating costs.

INTELLIGENT VARIABLE SPEED DRIVE

One of the ways in FAS Series compressors maximizes energy savings is with a variable speed drive (VSD). The VSD allows you to match your energy usage to current system demands, eliminating the need to overpressure the system, so you'll save money by not wasting energy.

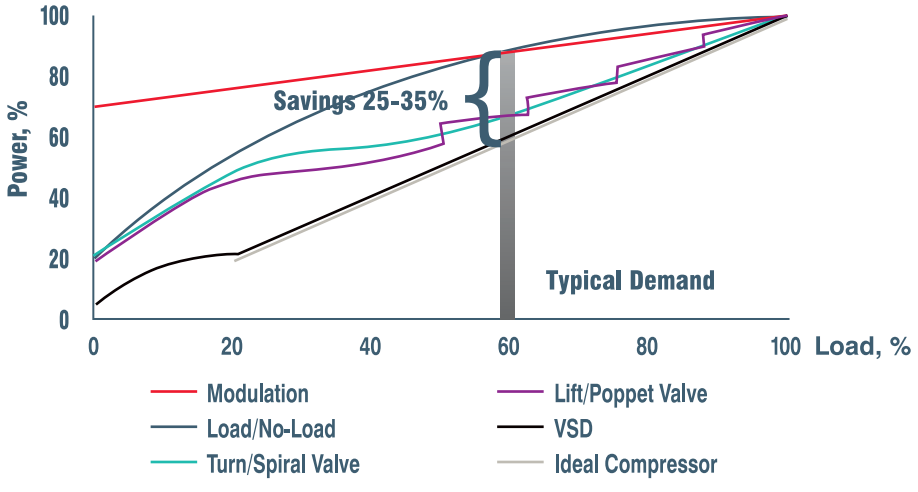
In addition, the softstarting capability of firstAir' VSD reduces inrush current requirements, decreasing your power demand — and, of course, increasing your energy savings

FAS SERIES WITH
VSD LIFE CYCLE
COSTS OVER 5 YEARS



- The VSD — time-proven directly coupled design — offers faster response and greater operational efficiency
- Variable operation slows air end speed, which lowers energy costs and reduces noise
- Matching the operating speed with changes in demand reduces component wear
- The VSD enhances quality by stabilizing air pressure at ± 0.1 kg/cm²
- Built-in DC choke protects against harmonic disturbances and eliminates the need to source additional corrective devices

ENERGY SAVINGS WITH VSD
COMPARING LOAD/NO-LOAD
POWER CONSUMPTION



TECHNICAL DATA - VFD COMPRESSOR

Machine Model		FASV-15	FASV-18	FASV-22	FASV-30	FASV-37	FASV-45	FASV-55	FASV-75
Cooling Type		Air-cooled							
Working pressure/kg/cm² Free Air Delivery CFM	5 kg/cm² (g)	43-108	52-131	58-145	85-212	105-263	121-304	166-415	216-540
	7 kg/cm² (g)	38-95	47-117	52-129	76-191	95-237	110-280	151-378	195-487
	8 kg/cm² (g)	34-85	42-106	51-127	74-184	89-222	107-268	136-339	184-459
	10 kg/cm² (g)	29-72	37-92	48-120	68-170	82-205	98-244	124-311	165-413
	12 kg/cm² (g)	28-69	34-85	42-106	59-148	75-187	89-222	114-286	145-362
	14 kg/cm² (g)	23-57	28-71	37-92	49-124	61-154	76-191	95-237	124-311
	16 kg/cm² (g)	20-51	24-60	31-78	41-102	54-134	69-171	83-207	112-279
Electric Motor	Power (kW)	15	18.5	22	30	37	45	55	75
	Starting method	VFD							
	Voltage (V), Frequency (Hz)	400V, 50Hz							
	Protection Level	IP 55							
	Insulation Class	F Class							
	Motor Efficiency	IE3							
Drive		Belt Driven						Direct Driven	
Noise (dBA)		70 +/-3			72 +/-3			75 +/-3	
Oil Carryover (ppm)		≤ 3							
Outlet (inch)		3/4"	1-1/4"		1-1/2"		2"		
External Dimension	Length (mm)	960	1140		1000		1400	2250	
	Width (mm)	930	880		1250		1100	1344	
	Height (mm)	1075	1260		1310		1600	1694	
Weight (kg)		425	530	600	900	930	1120	2220	2350

Machine Model		FASV-90	FASV-110	FASV-132	FASV-160	FASV-185	FASV-200	FASV-220	FASV-250
Cooling Type		Air-cooled							
Working pressure/kg/cm² Free Air Delivery CFM	5 kg/cm² (g)	249-262	325-812	390-975	449-1123	501-1254	551-1377	572-1430	664-1660
	7 kg/cm² (g)	226-565	297-742	356-890	406-1014	452-1130	496-1240	516-1289	600-1501
	8 kg/cm² (g)	215-537	280-700	339-848	390-975	430-1074	473-1183	487-1218	593-1483
	10 kg/cm² (g)	192-480	240-600	297-742	348-869	387-968	427-1067	452-1130	574-1434
	12 kg/cm² (g)	174-434	216-540	258-646	304-759	350-876	374-936	417-1042	511-1278
	14 kg/cm² (g)	150-374	186-466	222-554	261-653	301-752	322-805	359-897	439-1098
	16 kg/cm² (g)	140-350	163-408	195-487	229-572	261-653	283-706	311-777	374-936
Electric Motor	Power (kW)	90	110	132	160	185	200	220	250
	Starting method	VFD							
	Voltage (V), Frequency (Hz)	400V, 50Hz							
	Protection Level	IP 55							
	Insulation Class	F Class							
	Motor Efficiency	IE3							
Drive		Direct Driven							
Noise (dBA)		75 +/-3	82 +/-3					85 +/-3	
Oil Carryover (ppm)		≤ 3							
Outlet (inch)		2"	DN80					DN100	
External Dimension	Length (mm)	2250	2600		2900			3750	
	Width (mm)	1344	1750		1600			2150	
	Height (mm)	1694	1850		2350			2100	
Weight (kg)		2520	3150	3350	4200	4450	4600	5300	5500

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Sawardari, Khed, Maharashtra 410501

Distributor

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FSCURTIS

ER Series

Oil-Free Screw Compressor

ER 15-120

eCOOL TECHNOLOGY

ER-series

Air compressors provide clean, good quality oil-free compressed air with injected water into compression process.

High efficiency

The injected water of ER-series is the functions of sealant and coolant.

Sealant : Injected water can reduce leakage between rotors and housing, which improved the compressor efficiency by 15% as compared to dry screw compressor.

Cooling : Injected water is mixed with compressed air and efficiently cool down and dissipate heat generated in compression process. The compression is near to isothermal compression.

High reliability

The start of the art design on airends of ER series provide good air quality perfect performance and high reliability. Oil free air is the trend of global world compressor market. Environment friendly, availability are important issues to customers.

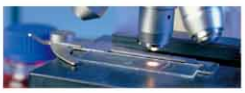
Low maintenances intervals

Professional engineering design and precise machining with long bearing life. The maintenance interval is enlarged.

Oil-free Air Compressor application industries:

Fu Sheng products Quick and good service

"All-in-one": simple installation, high quality and low total cost investment

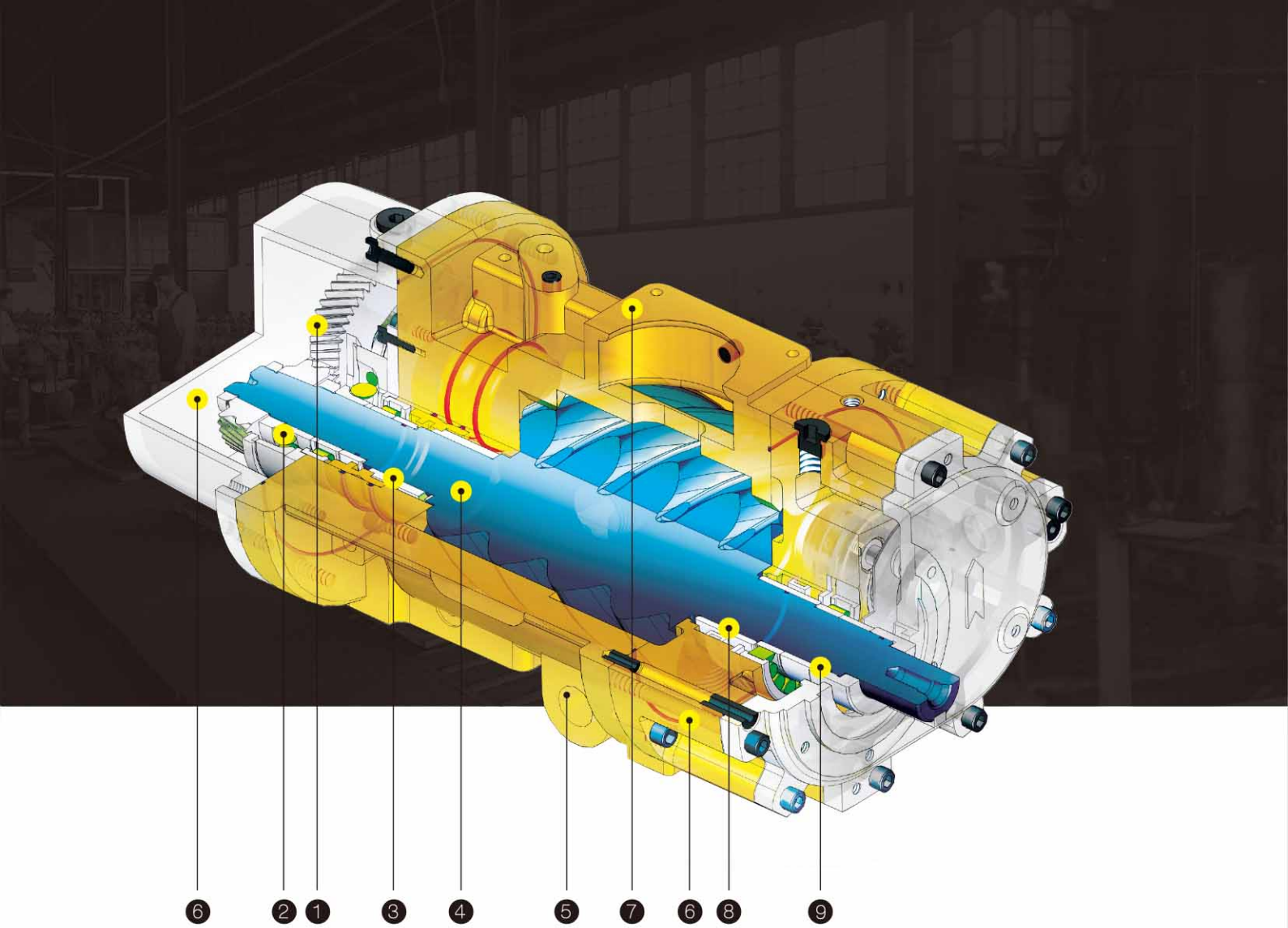


Medical Air Supply 100% Oil-free clean air

Small number of component parts and consumable material Low maintenance cost

Instrument Air Highly Efficient Air Supply

- Drying
- Agitation
- Air blowing
- Painting dressing
- Chemical analysis
- Instrument control
- Bacteria cultivation
- Petrochemical industry
- Steel and Hi-tech industries
- Food and Chemical industries
- Powdered substance conveyance
- Papermaking and Textile industries
- Electronics and Appliance industries
- Pharmaceutical and Medical industries



1. Timing gear
2. Bearing
3. Seal(discharge)
4. Male/female rotor
5. Main water injection port
6. Oil box
7. Suction position
8. Seal(suction)
9. Seal(shaft)

Advantages of ER air-end

- Direct coupling driven, low power loss
- 100%, oil-free compressed air, ensure clean air and safety.
- Splashing oil lubrication on bearings, better than grease lubrication.
- Variable speed drive technology, ensure stable system pressure and energy saving.

Dry air

Low viscosity injected water is easily separated from compressed air. The separated compressed air is in 100% RH and can be easily dried by dryer.

Reliable sealing system

The airends of ER series are supported by precise roller bearings with oil lubrication. The compression chamber and bearing chamber is separated by a buffer chamber with oil seal and water seal. The leakage from oil side into compression chamber is avoided.

Low noise

With injected water, the airend can be run in much lower speed compare to dry screw compressor with lower noise. The new design enclosure ensure the compressor is operated in low noise.

Environmental protection

Alloys and special surface treatment are applied to prevent any corrosion on the airend and components. Injected water is filtered by high quality water filter to ensure clean, good quality water.

Isothermal compression

Heat generated in compression process is taken by injecting water into compression chamber. Water film seals the gaps between rotors and housing to reduce internal leakage. The compression is nearly isothermal compression in optimum efficiency. For theoretically adiabatic compression, inlet air at 20℃ can be compressed at 7 bar(g) with over 250℃ temperature. With injected water as coolant, the temperature of compression chamber can be cool down to 40℃ in high efficiency and isothermal.

ER 15-120 Specification

Model		ER15A	ER22A	ER30A	ER37A	ER30W
F.A.D. (m^3/min) (ISO 1217 / Annex C)	7 bar(g)	2.2	3.4	4.7	5.8	4.7
	8 bar(g)	2.1	3.1	4.4	5.3	4.4
	9 bar(g)	2.0	3.0	4.3	5.0	4.3
Horsepower	kW (HP)	15(20)	22(30)	30(40)	37(50)	30(40)
Voltage	V	220 / 380 / 440				
Pressure control method	_	Inverter constant pressure control				
Intake pressure & temp.	_	2~40℃ at atmospheric pressure				
Drive method	_	Direct coupling				
Discharge temperature	℃	Air cooling:< ambient temp. +24℃				Water cooling: < cooling water temp. +14℃
Cooling water flow	L/min	_				100
Outline dimension	mm	1900	1900	2100	2100	2100
	mm	1100	1100	1200	1200	1200
	mm	1750	1750	1850	1850	1400
Weight	kg	970	1000	1370	1370	1170
Air outlet	inch	1	1	1 1/2	1 1/2	1 1/2

Model		ER37W	ER55W	ER75W	ER90W	ER120W
F.A.D. (m^3/min) (ISO 1217 / Annex C)	7 bar(g)	5.8	9.5	12.3	16.0	19.7
	8 bar(g)	5.3	8.8	11.8	15.0	19.2
	9 bar(g)	5.0	8.1	11.3	14.0	17.5
Horsepower	kW (HP)	37(50)	55(75)	75(100)	90(120)	120(160)
Voltage	V	220 / 380 / 440				
Pressure control method	_	Inverter constant pressure control				
Intake pressure & temp.	_	2~40℃ at atmospheric pressure				
Drive method	_	Direct coupling				
Discharge temperature	℃	Water cooling:< cooling water temp. +14℃				
Cooling water flow	L/min	125	192	250	300	400
Outline dimension	mm	2100	2500	2500	3200	3200
	mm	1200	1400	1400	1500	1500
	mm	1400	1500	1500	1700	1700
Weight	kg	1200	1700	1850	2900	3000
Air outlet	inch	1 1/2	2	2	2 1/2	2 1/2

ER Series
Oil-Free Screw Compressor

Clean, good quality injected water with precise water filter, to filter impurities in the air.

ER-series features

FS-Curtis inverter control unit

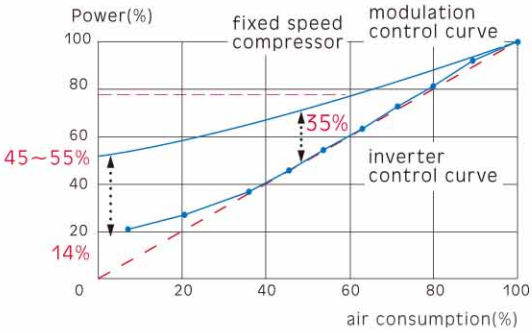
- Microprocessor intelligent control.
- Complete protection functions capability.
- Color touch screen, easy and convenient operating.
- Working pressure is constantly sustained within ± 0.1 bar.

Except power saving VSD compressor unit also ensures:

- Reduced starting current.
- Stable, constantly compressed air.
- Extended compressor unit service life.
- Electrical motor power factor improved.
- Elimination of high star delta start current.

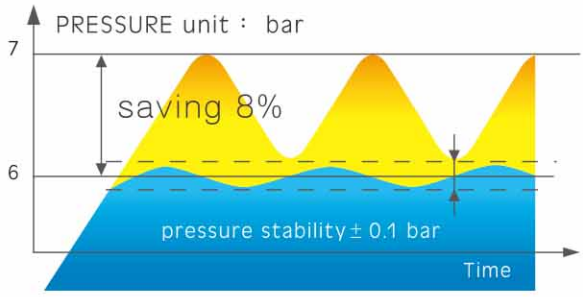
Linear operating and output

- Power saving up to 35% as compared to traditional modulation control compressors.
- Linear inverter control output can be achieved, depending on the demanded of load. (20~100%)



Stable pressure compressed air system

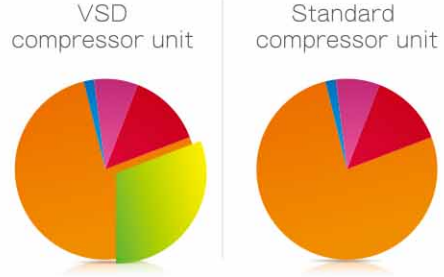
- Fast response to air demand change keeps working pressure constant within ± 0.1 bar.
- Saving up to 8% energy that is additionally required in traditional load/unload control compressor units due to pressure difference setting of 1 bar.



VSD compressor unit saving benefits

VSD compressor unit operating service life period can ensure operational cost savings as high as 35% .

- Maintenance 9%
- Installation 2%
- Purchasing cost 12%
- Energy consumption 42%
- Saving 35% (end user benefit)



FSCURTIS®

ER Series Oil-Free Screw Compressor

ER 15-120

Distributor/Sales Representative

ER-202003-112A000-E3