



**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.

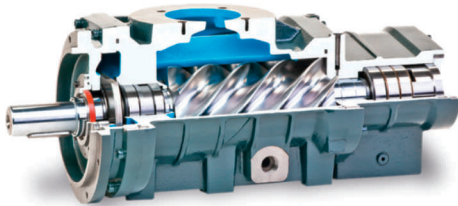
## FEATURES & BENEFITS



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

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

- 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 <math>< 3\text{mg}/\text{m}^3</math>.

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



## ENERGY SAVINGS ARE SMART SAVINGS

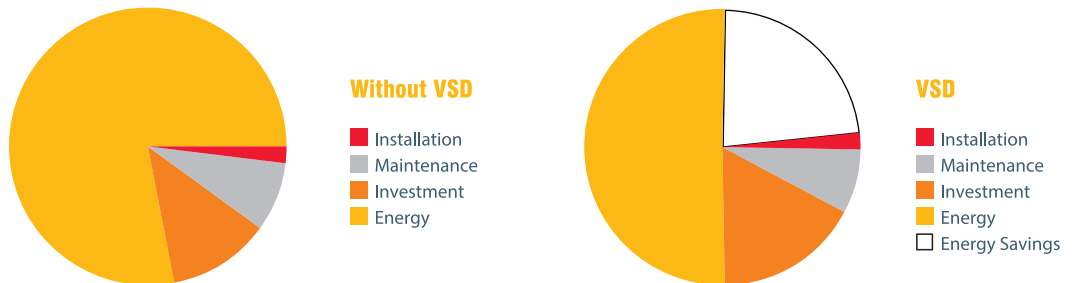
Take control of your energy savings with our optional Energy Management System, which includes the controller, variable-speed drive, and air end to create greater overall efficiency. This innovative design maximizes energy savings and reduces overall operating costs.

## 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.

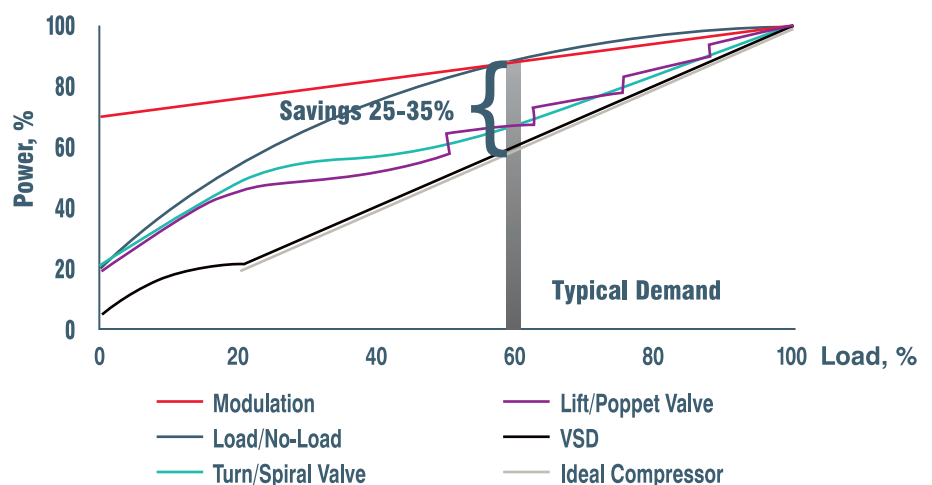
In addition, the softstarting capability of firstAir' VSD reduces inrush current requirements, decreasing your power demand — and, of course, increasing your energy savings

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  $\pm 0.1$  kg/cm<sup>2</sup>
- 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/cm <sup>2</sup> Free Air Delivery CFM	5 kg/cm <sup>2</sup> (g)	43-108	52-131	58-145	85-212	105-263	121-304	166-415	216-540
	7 kg/cm <sup>2</sup> (g)	38-95	47-117	52-129	76-191	95-237	110-280	151-378	195-487
	8 kg/cm <sup>2</sup> (g)	34-85	42-106	51-127	74-184	89-222	107-268	136-339	184-459
	10 kg/cm <sup>2</sup> (g)	29-72	37-92	48-120	68-170	82-205	98-244	124-311	165-413
	12 kg/cm <sup>2</sup> (g)	28-69	34-85	42-106	59-148	75-187	89-222	114-286	145-362
	14 kg/cm <sup>2</sup> (g)	23-57	28-71	37-92	49-124	61-154	76-191	95-237	124-311
	16 kg/cm <sup>2</sup> (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/cm <sup>2</sup> Free Air Delivery CFM	5 kg/cm <sup>2</sup> (g)	249-262	325-812	390-975	449-1123	501-1254	551-1377	572-1430	664-1660
	7 kg/cm <sup>2</sup> (g)	226-565	297-742	356-890	406-1014	452-1130	496-1240	516-1289	600-1501
	8 kg/cm <sup>2</sup> (g)	215-537	280-700	339-848	390-975	430-1074	473-1183	487-1218	593-1483
	10 kg/cm <sup>2</sup> (g)	192-480	240-600	297-742	348-869	387-968	427-1067	452-1130	574-1434
	12 kg/cm <sup>2</sup> (g)	174-434	216-540	258-646	304-759	350-876	374-936	417-1042	511-1278
	14 kg/cm <sup>2</sup> (g)	150-374	186-466	222-554	261-653	301-752	322-805	359-897	439-1098
	16 kg/cm <sup>2</sup> (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

The data & performance were recorded in accordance with latest ISO 1217 standard.

The sound level was measured in accordance with PNEURO/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 continuous engineering improvements, above features are subject to change without prior notice.