



**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



# 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/cm <sup>2</sup><br>Free Air Delivery CFM | 5 kg/cm <sup>2</sup> (g)  | 108         | 131    | 145    | 212     | 263    | 304     | 415           | 540    |
|  | 7 kg/cm <sup>2</sup> (g)  | 95          | 117    | 129    | 191     | 237    | 275     | 378           | 487    |
|  | 8 kg/cm <sup>2</sup> (g)  | 85          | 106    | 127    | 184     | 222    | 268     | 339           | 459    |
|  | 10 kg/cm <sup>2</sup> (g) | 72          | 92     | 120    | 170     | 205    | 244     | 311           | 413    |
|  | 12 kg/cm <sup>2</sup> (g) | 69          | 85     | 106    | 148     | 187    | 222     | 286           | 362    |
| 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/cm <sup>2</sup><br>Free Air Delivery CFM | 5 kg/cm <sup>2</sup> (g)  | 622           | 812     | 975     | 1123    | 1254    | 1377    | 1430    | 1660    |
|  | 7 kg/cm <sup>2</sup> (g)  | 565           | 742     | 890     | 1014    | 1130    | 1240    | 1289    | 1501    |
|  | 8 kg/cm <sup>2</sup> (g)  | 537           | 700     | 848     | 975     | 1074    | 1183    | 1218    | 1483    |
|  | 10 kg/cm <sup>2</sup> (g) | 480           | 600     | 742     | 869     | 968     | 1067    | 1130    | 1434    |
|  | 12 kg/cm <sup>2</sup> (g) | 434           | 540     | 646     | 759     | 876     | 936     | 1042    | 1278    |
| 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 PNEURO/PCAGI 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.

## ENERGY SAVINGS ARE SMART SAVINGS

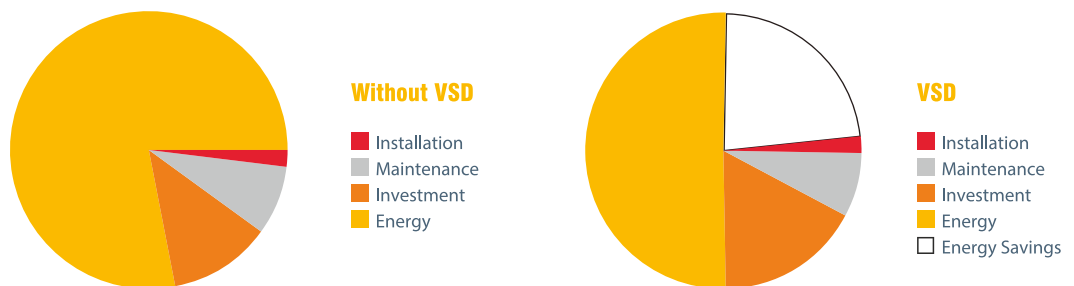
Take control of your energy savings with our optional Energy Management System, which includes the controller, variable-speed drive, and air end to create greater overall efficiency. This innovative design maximizes energy savings and reduces overall operating costs.

## 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.

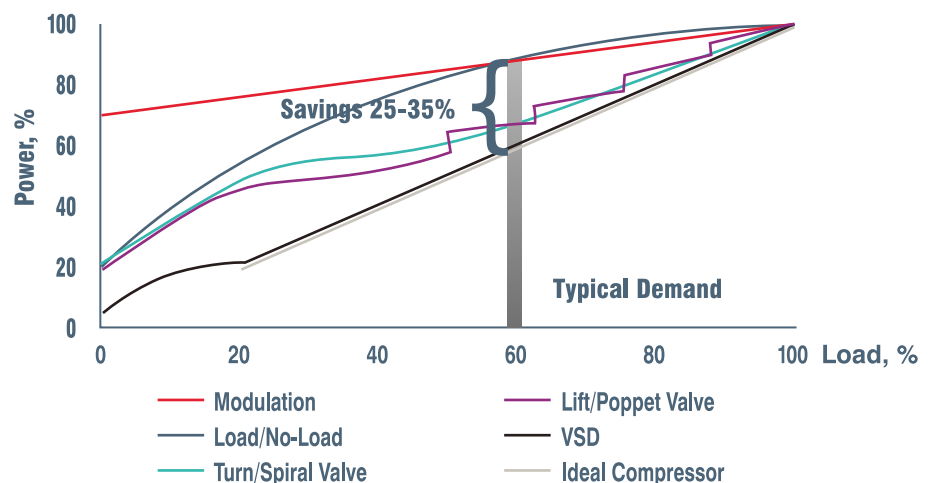
In addition, the softstarting capability of firstAir' VSD reduces inrush current requirements, decreasing your power demand — and, of course, increasing your energy savings

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><br>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  | 110-275  | 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 |
| 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><br>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 |
| 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.

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FS Compressors India Pvt. Ltd.

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**Distributor**

Errors and omissions excepted.

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