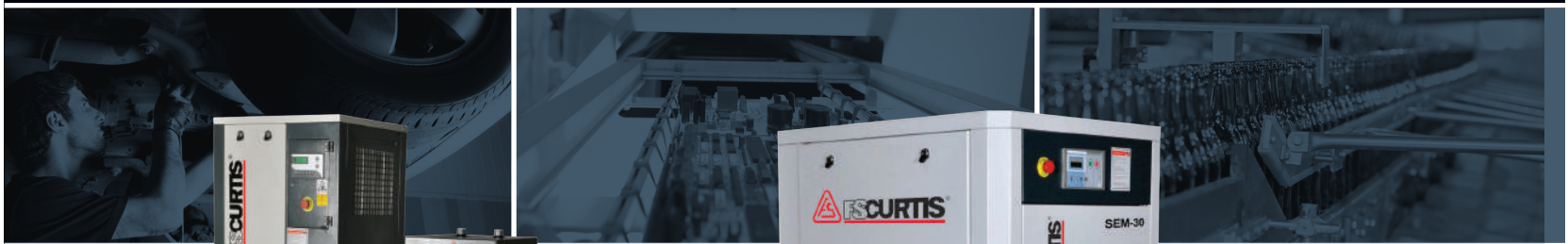




# SEG SERIES SEM SERIES SEMTV SERIES

ROTARY SCREW AIR COMPRESSORS

5-100 HP



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

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

# A HISTORY OF EXCELLENCE

1854

1897

1940

1976

1979

1995

2005

2010

2016

Curtis & Co. –  
Empire Saw  
founded in St.  
Louis, MO, USA

Built first  
reciprocating  
air compressor  
that later evolved  
into the Master  
Line Series

Designed and  
developed  
mobile oxygen  
compressors  
to be used in  
Aerospace  
applications

Merged with  
Toledo Tools as  
Curtis-Toledo  
Inc.

Introduction  
of Challenge  
Air Series  
reciprocating  
air compressors

Began manu-  
facturing  
and assembling  
Rotary Screw  
Air compres-  
sors

Expanded  
global market  
reach by joining  
forces with  
Fusheng  
Industrial

Commenced  
Indian  
operations

Introduced  
Booster  
Compressors

## REAL-WORLD PRODUCTS

Take more than a century of experience building quality compressors, add in a staff that's listening to the needs of the market, and the result is a product lineup that's built for tough working conditions. No wonder so many customers around the world depend on FS-Curtis compressors day in and day out.

## REAL-WORLD PEOPLE

When you're successful, we're successful. That's why FS-Curtis listens. Trust and dependability are the foundations of our past and the fabric of our future, so you can count on being treated with the personal touch you deserve.



# SEG, SEM & SEMV SERIES FEATURES AT A GLANCE

## **dBA SHIELD NOISE REDUCTION**

Designed for whisper-quiet operation.

- Extra-thick sound insulation reduces noise
- Can be installed in applications where a quiet setting is important
- Generously sized vibration isolation reduces low-frequency noise transmissions
- High-quality sound-attenuation foam

## **QUALITY COMPONENTS**

Built to the highest levels of dependability and reliability.

- Multiple function inlet and discharge valve reduces connections by up to 90 percent
- Exclusive airend rotor profile results in higher air delivery at low power consumption
- All components are generously sized and selected for the utmost in reliability
- Can be used in harsh environments
- Constructed for years of trouble-free operation
- User-friendly AIMS controller features easy-to-read display and informative menus

## **eCOOL® TECHNOLOGY**

Exclusive system protection.

- The ultimate in system protection and reliability
- Protects critical components from compressor-generated heat
- Extends component life and reduces downtime

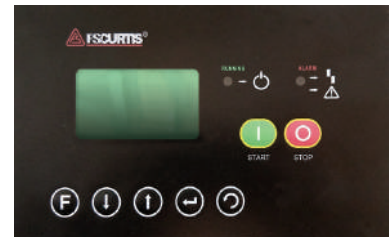
## **SUPERIOR PACKAGE DESIGN**

Designed for low cost of ownership and easy service.

- Space-saving compact design
- Pulsation-free air
- 100% continuous duty
- Extended service intervals
- More CFM per horsepower
- Improved air quality
- Energy efficiency at full load delivers more air for the money
- Optional dryer gives full system design in a smaller footprint
- Exclusive FS-Curtis airends utilize the latest rotor profile to maximize efficiency

## AIMS CONTROLLER

Using your SEM Series compressor is a breeze thanks to the AIMS Controller. The easy-to-read, informative menu structure simplifies operation, plus the many features provide protection and ease maintenance. Warning/alarm and shutdown functions give you dual-level protection. You can connect it to your computer for software updates. And onboard diagnostics and integrated service timers simplify routine maintenance.



## EASY TO WORK WITH

Just as you get personal attention from FS-Curtis when selecting equipment, you're also supported worldwide by great people. You can count on the global FS-Curtis staff and representatives to listen to your needs and work with you to develop the solution that's best for your situation. Our people are committed to serving you well and FS-Curtis provides extensive training in the field and at our St. Louis headquarters to ensure that you have the support you need.

## **eCOOL® TECHNOLOGY—**

### A COOL INNOVATION

Compressors generate heat. FS-Curtis' exclusive eCOOL technology provides protection from heat. By combining smart compressor layout with intelligent component selection, eCOOL technology maximizes cooling airflow for greater energy efficiency, improved reliability and extended service life.

#### EXTENDED SERVICE LIFE

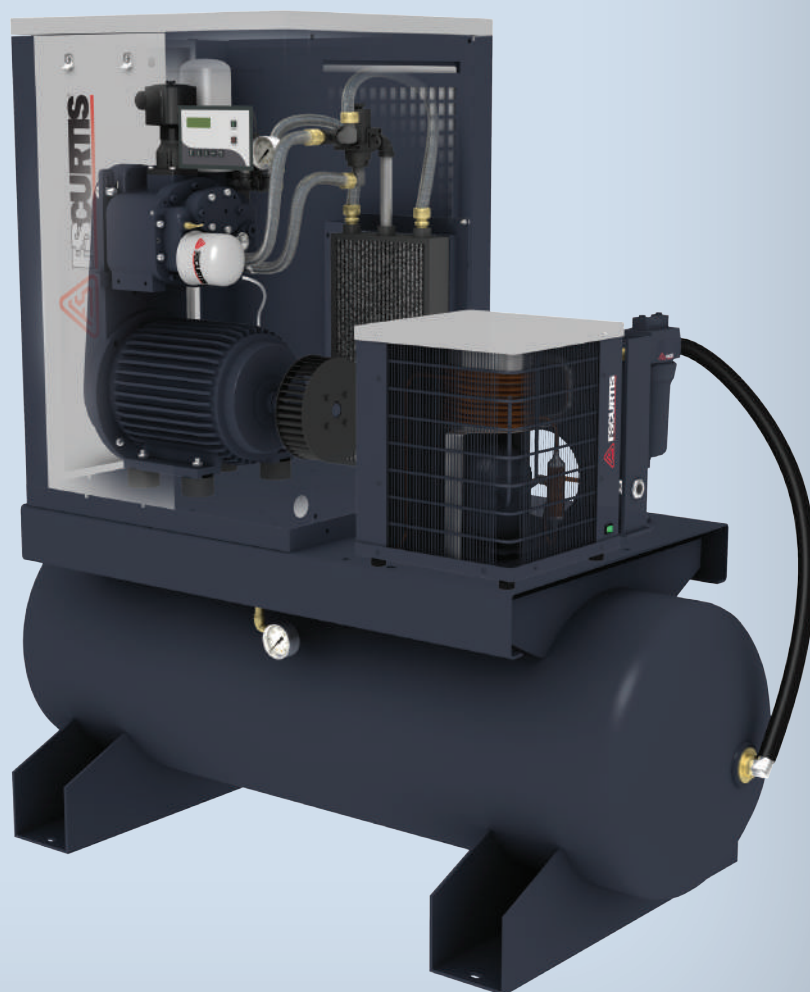
eCOOL technology reduces thermal stress and increases service life up to 50% longer for motors and electrical components and up to 30-50% longer for bearings, hoses and seals.



# HIGH-PERFORMANCE LEGENDARY RELIABILITY

## QUIET, EFFICIENT AND EFFECTIVE

Stable air pressure, steady airflow, and quieter, continuous-duty operation are just a few of the advantages you get with FS-Curtis rotary screw compressors. These smart, compact units also offer better air quality with less oil carryover than reciprocating models. Simple controls and diagnostics make them easy to use and service, too. It all adds up to an extremely reliable machine that can run 100% continuous duty, delivering more airflow and better efficiency in a space-saving design — making the SEG Series ideal for automotive, light industrial and other applications that require reliable performance in demanding conditions.



# TECHNICAL DATA

| MODEL   | CAPACITY (CFM) |      |        |      |        |      |        |      | MOTOR |     | SOUND LEVEL | DIMENSIONS       | WEIGHT<br>(Base Mtd.) |
|---------|----------------|------|--------|------|--------|------|--------|------|-------|-----|-------------|------------------|-----------------------|
|         | 7 bar          |      | 8 bar  |      | 10 bar |      | 12 bar |      | HP    | KW  | dBA         | LxWxH - MM.      | Kgs.                  |
|         | m3/min         | cfm  | m3/min | cfm  | m3/min | cfm  | m3/min | cfm  |       |     |             |                  |                       |
| SEG-5   | 0.55           | 19.4 | 0.5    | 17.7 | 0.4    | 14.1 | 0.35   | 12.4 | 5     | 4   | 65          | 660 x 580 x 900  | 302                   |
| SEG-7.5 | 0.85           | 30   | 0.8    | 28.3 | 0.7    | 24.7 | 0.6    | 21.2 | 7.5   | 5.5 | 65          |                  | 306                   |
| SEG-10  | 1.18           | 41.7 | 1.08   | 38.2 | 0.95   | 33.6 | 0.8    | 28.3 | 10    | 7.5 | 69          | 750 x 670 x 1000 | 310                   |
| SEG-15  | 1.65           | 58.3 | 1.53   | 54   | 1.4    | 49.5 | 1.21   | 42.7 | 15    | 11  | 69          |                  | 360                   |

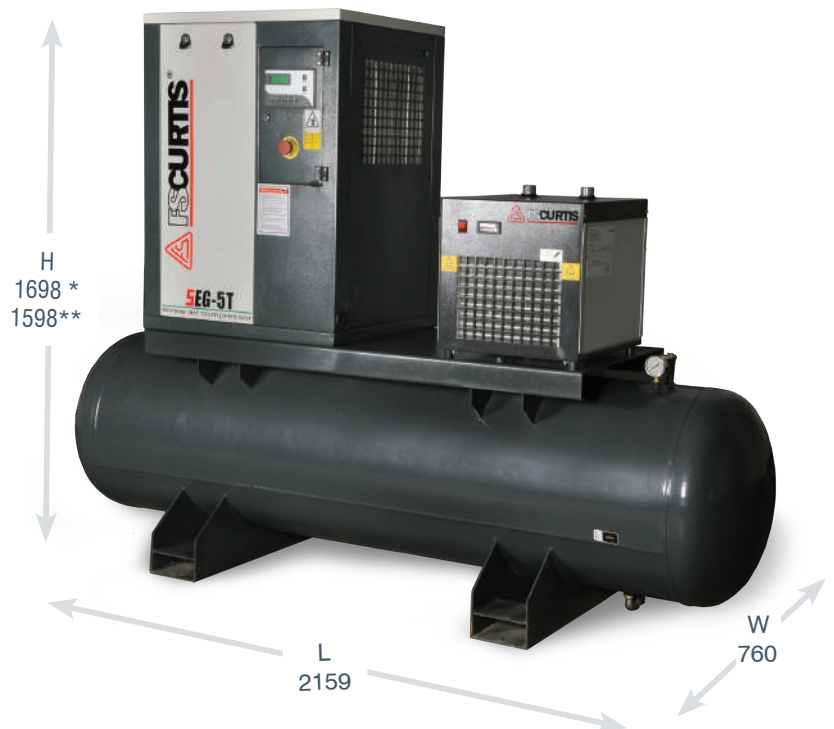
- \* Custom design versions available on request.
- \* FAD measured as per latest version of ISO 1217.
- \* Noise level measured as per latest version ISO 2151 in free field condition.

## STANDARD FEATURES

- Powder-coat painted enclosure
- Laminated oil-proof sound insulation
- Washable cabinet pre-filtration panels
- AIMS alphanumeric controller
- Encapsulated airend
- 24VDC control voltage transformer
- Spin-on oil filter and air/oil separator
- TEFC IP54/55 motor
- Multi-function inlet valve
- Closed inlet starting
- Vibration isolators
- Full-voltage motor starter (5-7.5HP, 4-5.5kW)
- Wye-Delta motor starter (10-15HP, 7.5-11kW)
- Factory fill synthetic lubricant
- Air-cooled oil cooler
- Air-cooled after cooler (10-15HP, 7.5-11kW)

## OPTIONAL FEATURES AND EQUIPMENT

- Tank mounted and refrigerated dryer mounted models
- Automatic and time solenoid condensate drains



\* SEG10 & SEG15  
 \*\* SEG5 & SEG7.5

# STEADY, PROVEN PERFORMANCE

## SMART COMPACT DESIGN

Big things come in small packages, and FS-Curtis SEM Series air compressors deliver big performance in a compact design. Built to handle continuous duty in tough conditions, the SEM Series efficiently produces stable air pressure with a high flow of quality air. SEM Series compressors save time and money through easy-to-use controls, simple diagnostics and reduced maintenance. For quiet, steady performance and all the power you need, count on dependable FS-Curtis SEM Series air compressors.



# TECHNICAL DATA

| MODEL   | CAPACITY FAD |     |        |     |        |     |        |     | MOTOR |    | SOUND LEVEL<br>dBA<br>+/- 3 | DIMENSIONS<br>LxWxH - MM. | WEIGHT<br>(Base Mtd.)<br>Kgs. |
|---------|--------------|-----|--------|-----|--------|-----|--------|-----|-------|----|-----------------------------|---------------------------|-------------------------------|
|         | 7 bar        |     | 8 bar  |     | 10 bar |     | 12 bar |     | HP    | KW |                             |                           |                               |
|         | m3/min       | cfm | m3/min | cfm | m3/min | cfm | m3/min | cfm |       |    |                             |                           |                               |
| SEM-20  | 2.6          | 92  | 2.3    | 81  | 2      | 71  | 1.7    | 60  | 20    | 15 | 75                          | 1080 x 880 x 1298         | 480                           |
| SEM-25  | 3.2          | 113 | 2.9    | 102 | 2.6    | 92  | 2.3    | 81  | 25    | 18 |                             |                           | 520                           |
| SEM-30  | 3.7          | 130 | 3.5    | 123 | 3.3    | 116 | 3.0    | 106 | 30    | 22 |                             |                           | 600                           |
| SEM-40  | 5.3          | 187 | 5      | 176 | 4.6    | 162 | 4.0    | 141 | 40    | 30 |                             |                           | 880                           |
| SEM-50  | 6.6          | 233 | 6.3    | 222 | 5.7    | 201 | 5.1    | 180 | 50    | 37 |                             | 1280 x 1100 x 1600        | 920                           |
| SEM-60  | 8.1          | 286 | 7.5    | 265 | 7.1    | 251 | 6.1    | 215 | 60    | 45 |                             | 1400 x 1100 x 1600        | 1080                          |
| SEM-75  | 10.4         | 367 | 9.6    | 339 | 8.5    | 300 | 7.6    | 268 | 75    | 55 |                             | 1750 x 1300 x 1780        | 1750                          |
| SEM-100 | 14.1         | 498 | 12.8   | 452 | 11.6   | 410 | 10.3   | 364 | 100   | 75 |                             |                           | 2200                          |

- \* SEM20-50 are available on discharge pressure of 14 bar.
- \* Noise level measured as per latest version ISO 2151 in free field condition.
- \* FAD measured as per latest version of ISO 1217.
- \* Units available up to 500 HP, Details available on request.

### STANDARD FEATURES

- Powder-coat painted enclosure
- Laminated oil-proof sound insulation
- Four keyed side panels
- Washable cabinet pre-filtration panels
- AIMS alphanumeric controller
- BSA airend
- 220V AC control voltage transformer
- Spin-on oil filter
- High efficiency air/oil separator
- Premium efficiency TEFC (IP54/55) motor
- Wye-Delta motor starter
- Multi-function inlet valve
- Closed inlet starting
- Multi-function discharge valve
- Vibration isolators
- Factory fill synthetic lubricant
- Air-cooled oil cooler and aftercooler

### OPTIONAL EQUIPMENT

- Moisture separator with automatic drain
- Air treatment and energy management systems
- Dewpoint to 3° C refrigerated air dryers
- Dewpoint to -100° C desiccant air dryers
- Particulate and coalescing filters and oil/water separators



# ENERGY EFFICIENT

## INTELLIGENT BY NATURE

The SEMV design sits on the sturdy and robust SEM fixed speed compressor with a smart variable speed drive which will ensure that the compressor delivers only as much air as required by the system at constant pressure.

The compressor comes with a motor suitable for VSD and a state of electronic controller.





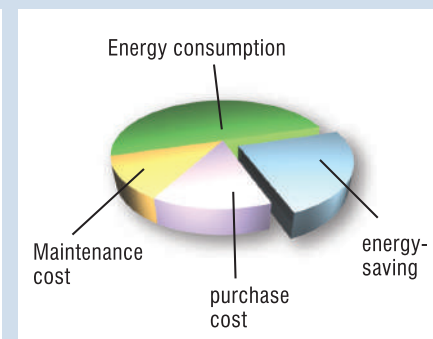
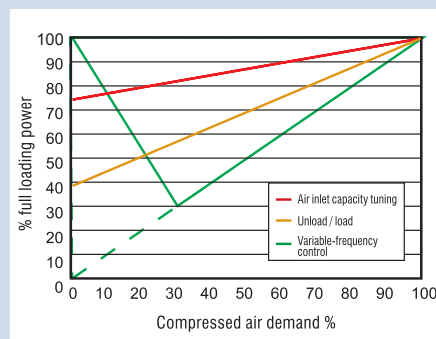
# TECHNICAL DATA

| MODEL   | CAPACITY / FAD in CFM |     |                   |     |                    |     |                    |     | MOTOR<br>HP | SOUND LEVEL<br>dBA | DIMENSION<br>L x W x H in mm | WEIGHT<br>KG |
|---------|-----------------------|-----|-------------------|-----|--------------------|-----|--------------------|-----|-------------|--------------------|------------------------------|--------------|
|         | CFM at 7.5 Bar(g)     |     | CFM at 8.5 Bar(g) |     | CFM at 10.5 Bar(g) |     | CFM at 12.5 Bar(g) |     |             |                    |                              |              |
|         | Min                   | Max | Min               | Max | Min                | Max | Min                | Max |             |                    |                              |              |
| SEMV20  | 46                    | 92  | 41                | 81  | 36                 | 71  | 30                 | 60  | 20          | 75 ± 3             | 1240 x 880 x 1298            | 614          |
| SEMV25  | 56.5                  | 113 | 51                | 102 | 46                 | 92  | 41                 | 81  | 25          |                    | 1240 x 880 x 1298            | 621          |
| SEMV30  | 65                    | 130 | 62                | 123 | 58                 | 116 | 53                 | 106 | 30          |                    | 1240 x 880 x 1298            | 630          |
| SEMV40  | 93.5                  | 187 | 88                | 176 | 81                 | 162 | 71                 | 141 | 40          |                    | 1470 x 980 x 1450            | 955          |
| SEMV50  | 116.5                 | 233 | 111               | 222 | 101                | 201 | 90                 | 180 | 50          |                    | 1470 x 980 x 1450            | 970          |
| SEMV60  | 143                   | 286 | 133               | 265 | 126                | 251 | 108                | 215 | 60          |                    | 1460 x 1460 x 1680           | 1920         |
| SEMV75  | 183.5                 | 367 | 170               | 339 | 150                | 300 | 134                | 268 | 75          |                    | 2250 x 1465 x 1755           | 2220         |
| SEMV100 | 249                   | 498 | 226               | 452 | 205                | 410 | 182                | 364 | 100         |                    | 2250 x 1455 x 1755           | 2250         |

- \* Units available upto 500HP. Details on request.
- \* Noise level measured as per latest version ISO 2151 in free field condition.
- \* FAD measured as per latest version of ISO 1217.

## ENERGY SAVING CONTROL

Variable frequency drive ensures that your compressor consumes only as much power, as is necessary for the actual compressed air demand of your system. The optimally selected frequency drive device ensure that the rotational speed of the compressor is reduced (or increased) to provide the exact capacity of compressed air needed by you, while operating at a set pressure. In addition, the variable frequency inverter also ensure a “soft-start” of the motor, thereby preventing current peaks on the electrical system during motor starting.



# COMPRESSED AIR ACCESSORIES

Accessories play a vital role in  
the compressed air installation.

Choose your desired  
accessories from the wide  
range available for every need.



# TECHNICAL DATA

## REFRIGERATION DRYERS

| Model  | Nominal Capacity |       | Maximum Pressure | Electrical Connection | Air Connection | Dimensions      | Net Weight | Model   | Nominal Capacity |                | Maximum Pressure      | Electrical Connection | Air Connection | Dimensions | Net Weight |
|--------|------------------|-------|------------------|-----------------------|----------------|-----------------|------------|---------|------------------|----------------|-----------------------|-----------------------|----------------|------------|------------|
|        | cfm              | bar g |                  |                       |                |                 |            |         | cfm              | bar g          |                       |                       |                |            |            |
| GD-002 | 20               | 16    | 220V             | 415V                  | In / Out       | L x W x H in mm | kg         | GD-025  | 250              | 16             | 415V/<br>3ph/<br>50hz | 2" BSP(F)             | 900x900x1230   | 160        |            |
| GD-004 | 40               | 16    |                  |                       | 1/2" BSP(F)    | 360x500x500     | 45         | GD-030  | 300              | 16             |                       | 2" BSP(F)             | 900x900x1230   | 160        |            |
| GD-006 | 60               | 16    |                  |                       | 1/2" BSP(F)    | 360x500x500     | 47         | GD-040  | 400              | 16             |                       | 2" BSP(F)             | 750x1000x1400  | 180        |            |
| GD-008 | 80               | 16    |                  |                       | 1" BSP(F)      | 450x600x695     | 80         | GD-050  | 500              | 16             |                       | 2" BSP(F)             | 750x1000x1400  | 225        |            |
| GD-010 | 100              | 16    |                  |                       | 1" BSP(F)      | 450x600x695     | 85         | GD-060  | 600              | 16             |                       | 2" BSP(F)             | 750x1000x1400  | 250        |            |
| GD-015 | 150              | 16    |                  |                       | 1" BSP(F)      | 700x700x920     | 120        | GD-075  | 750              | 16             |                       | 3" NB ASME Flg        | 900x1300x1625  | 300        |            |
| GD-020 | 200              | 16    |                  |                       | 1 1/2" BSP(F)  | 700x700x920     | 130        | GD-0100 | 1000             | 16             |                       | 3" NB ASME Flg        | 900x1300x1625  | 350        |            |
|        |                  |       |                  |                       | 1 1/2" BSP(F)  | 700x700x920     | 140        | GD-0125 | 1250             | 16             |                       | 4" NB ASME Flg        | 900x1300x1625  | 425        |            |
|        |                  |       |                  |                       |                | GD-0150         | 1500       | 12.5    | 5" NB ASME Flg   | 1300x1800x1900 |                       | 650                   |                |            |            |
|        |                  |       |                  |                       |                | GD-0200         | 2000       | 12.5    | 6" NB ASME Flg   | 1300x1800x1900 |                       | 800                   |                |            |            |
|        |                  |       |                  |                       |                | GD-0250         | 2500       | 12.5    | 6" NB ASME Flg   | 1300x1800x1900 |                       | 850                   |                |            |            |

\* Nominal capacity at 35°C ambient, 45°C inlet temperature, 7 bar(g) inlet pressure and corresponding pressure dew point of 4°C.  
 \* The dryer model name is subject to change without notice  
 \* Technical data for dessicant dryers available on request.

## DOWN STREAM FILTERS

| Filter Model | Pipe Size | Capacity at 7 bar g |      | Approx Weight |
|--------------|-----------|---------------------|------|---------------|
|              |           | m <sup>3</sup> /min | cfm  | kg            |
| FFA05        | G1/2      | 0.66                | 23   | 1.34          |
| FFA08        | G1/2      | 0.96                | 34   | 1.45          |
| FFA10        | G1/2      | 1.32                | 47   | 1.46          |
| FFA15        | G3/4      | 1.98                | 70   | 1.72          |
| FFA20        | G1        | 3.30                | 116  | 4.1           |
| FFA40        | G1 1/2    | 5.70                | 201  | 4.52          |
| FFA60        | G1 1/2    | 9.00                | 318  | 5.01          |
| FFA75        | G1 1/2    | 13.32               | 470  | 7.45          |
| FFA125       | G2        | 17.46               | 616  | 10.53         |
| FFA175       | G2 1/2    | 26.16               | 923  | 12.58         |
| FFA250       | G3        | 37.50               | 1324 | 29.15         |
| FFA300       | G3        | 46.62               | 1645 | 32.29         |

| Filter Grade | Particle Removal Down To | Oil Removal Down To     | Nominal Initial Pressure Drop |
|--------------|--------------------------|-------------------------|-------------------------------|
| P            | 3 micron                 | -                       | 0.03 bar g                    |
| U            | 1 micron                 | 0.1 mg/m <sup>3</sup>   | 0.05 bar g                    |
| H            | 0.01 micron              | 0.01 mg/m <sup>3</sup>  | 0.09 bar g                    |
| C            | -                        | 0.003 mg/m <sup>3</sup> | 0.10 bar g                    |

| Pressure Factor | 1    | 2    | 3   | 4    | 5    | 6    | 7   | 8    |
|-----------------|------|------|-----|------|------|------|-----|------|
|                 | 0.25 | 0.38 | 0.5 | 0.65 | 0.75 | 0.88 | 1.0 | 1.13 |

| Pressure Factor | 9    | 10   | 11   | 12   | 13   | 14   | 15  | 16   |
|-----------------|------|------|------|------|------|------|-----|------|
|                 | 1.25 | 1.38 | 1.51 | 1.63 | 1.75 | 1.88 | 2.0 | 2.13 |

\* Filters are suitable for a maximum working pressure of 16 bar (g)  
 \* Filters for higher flow and pressure available on request.

## VERTICAL AIR RECEIVERS

Capacity : 0.5 – 12.0 m<sup>3</sup>  
 Working pressure : upto 40 bar (g)  
 Design : As per ASME sec viii Divn I / IS : 2825 / CE / equivalent



- **FS-Curtis works with you to develop the solution that's best for your situation.**
- **Our people are committed to serving you well.**
- **Our distributors use genuine FS-Curtis parts, lubricants and filter kits to maximize the service life of your equipment.**
- **We are dedicated to maximizing your productivity, and that includes maximizing your uptime.**

**Through the dependability of our people and our quality-focused manufacturing, FS-Curtis will continue to be a trusted name serving even more markets through our ever-growing global presence.**



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