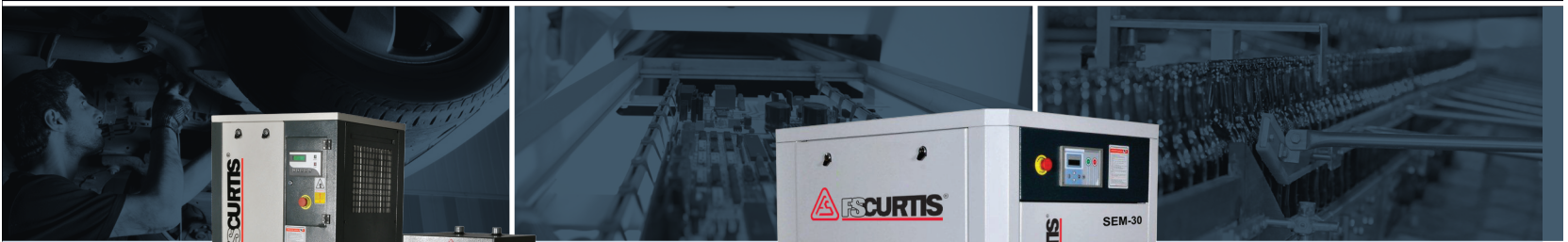




# SEG SERIES SEM SERIES SEMTV SERIES

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

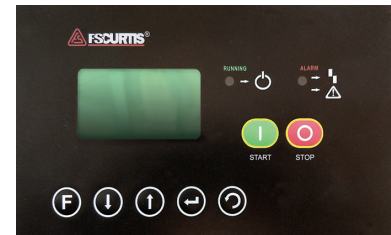
## **SUPERIOR PACKAGE DESIGN**

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.

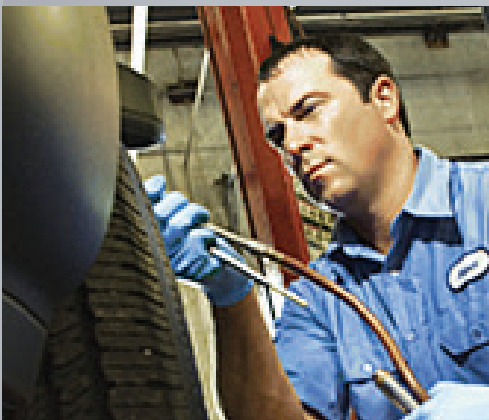
## **eCOOL® TECHNOLOGY—**

### 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.

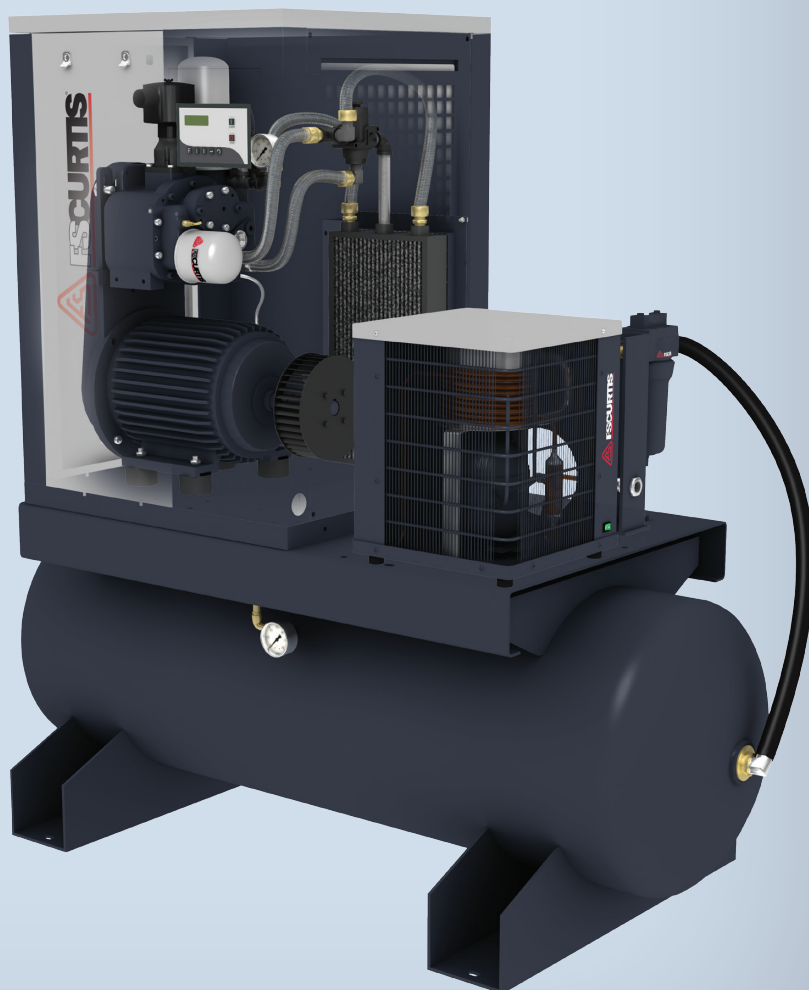




# HIGH-PERFORMANCE LEGENDARY RELIABILITY

## 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 (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

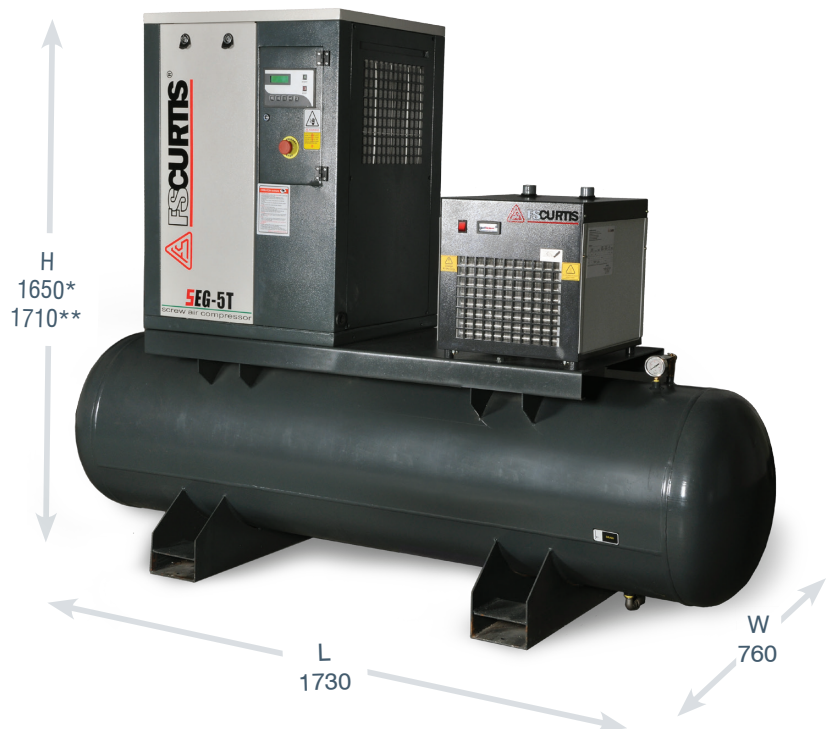
- \* Custom design versions available on request.
- \* FAD measured as per latest version of ISO 1217.
- \* Noise level measured as per latest version ISO 2151 in free field condition.

## 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 dBA +/- 3	DIMENSIONS LxWxH - MM.	WEIGHT (Base Mtd.) 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.



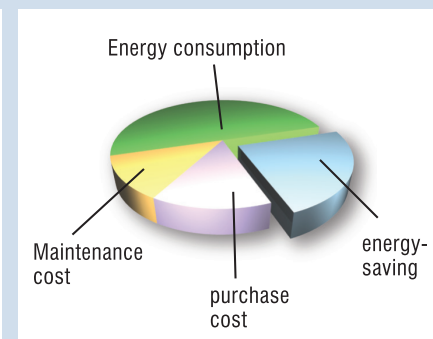
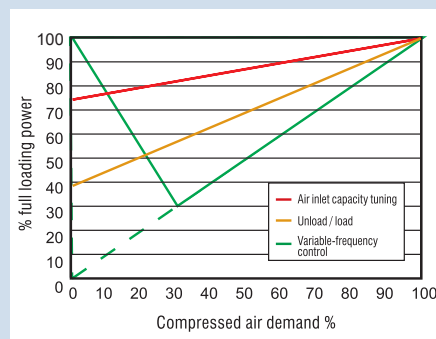
# TECHNICAL DATA

MODEL	CAPACITY / FAD in CFM								MOTOR HP	SOUND LEVEL dBA	DIMENSION L x W x H in mm	WEIGHT 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	1121
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	1/2" BSP(F)	360x500x500	45	GD-025	250	16	415V/ 3ph/ 50hz	2" BSP(F)	900x900x1230	160	
GD-004	40	16			1/2" BSP(F)	360x500x500	47	GD-030	300	16		2" BSP(F)	900x900x1230	160	
GD-006	60	16			1" BSP(F)	450x600x695	80	GD-040	400	16		2" BSP(F)	750x1000x1400	180	
GD-008	80	16			1" BSP(F)	450x600x695	85	GD-050	500	16		2" BSP(F)	750x1000x1400	225	
GD-010	100	16			1" BSP(F)	700x700x920	120	GD-060	600	16		2" BSP(F)	750x1000x1400	250	
GD-015	150	16			1 1/2" BSP(F)	700x700x920	130	GD-075	750	16		3" NB ASME Flg	900x1300x1625	300	
GD-020	200	16			1 1/2" BSP(F)	700x700x920	140	GD-0100	1000	16		3" NB ASME Flg	900x1300x1625	350	
									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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