# **Rotary Screw Vacuum Systems**

4-150 kW = 5-200 Horsepower



- Reliable
- Quiet
- Smooth, pulse-free operation
- Energy efficient



### **Sullair Capabilities**

#### Sullair Leadership

Since 1965, Sullair has been recognized around the world as an innovator and a leader in rotary screw compression and vacuum technology. For more than 40 years, Sullair has designed and manufactured its own rotors and air end assemblies at the corporate headquarters in Michigan City, Indiana.

The award-winning rotary screw design sets the industry standards and delivers the quality and reliability one expects from a leader.

### **Sullair Technology**

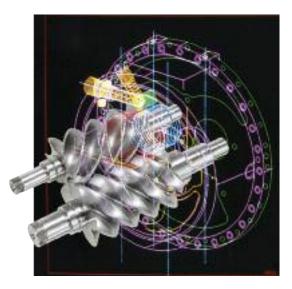
Utilizing the most modern technologies, equipment and advanced manufacturing techniques, Sullair designs, manufactures, assembles, and tests the most advanced compressed air and vacuum products in the industry. Sullair products are known around the world for their universally applicable design, outstanding craftsmanship and superior quality.

#### **Sullair's Statistical Process Control**

Our Statistical Process Control (SPC) system monitors rotor quality standards to assure consistent compressor and vacuum performance.

#### Sullair's Commitment to Innovation

Underlying Sullair's leadership is a dedication to excellence and a commitment to innovation. We are constantly exploring new ideas and seeking new ways to meet industry's need for increasingly energy efficient compressed air and vacuum solutions.









### Sullair's Vacuum System

#### **Industry Leading Technology**

Sullair's state-of-the-art vacuum packages deliver smooth, pulse-free operation and long term reliability. The vacuum systems are constructed with high-quality components to ensure optimal performance and dependability. In addition to being engineered to deliver reduced noise levels, the packages are designed for

simple maintenance. The systems can be customized to fit nearly any customer need.

#### **Superior Operating Efficiency**

Sullair vacuum systems incorporate proven rotary screw technology to deliver stable vacuum at unrivaled efficiencies. The package's constant control system ensures optimal

performance throughout the operating range. In addition, Sullair systems do not require water to operate – all acquisition, treatment and disposal costs are eliminated. Comparisons with competitive technology demonstrate a 50% operating cost advantage for the Sullair Vacuum Systems – a fact that's tough to ignore.

### **Hospital Suction Packages (HSP)**

#### A Vacuum System You Can Count On

Sullair's Hospital Suction Packages (HSP) are specifically designed to provide continuous vacuum for hospital applications. Manufactured from Sullair's proven rotary screw vacuum system, these pumps meet or exceed the requirements for packaged vacuum pumps per NFPA 99, Health Care Facilities recommendations. Simplex packages have a capacity range from 78 to 1000 acfm (2.2 to 28.3 m³/min); duplex packages are available from 78 to 300 acfm (2.2 to 8.5 m³/min) per pump. HSP systems are so dependable, they are warranted for two years.

#### **Cost Effective**

Requiring less power than conventional pumps, HSP systems offer low operating costs. The inherent high efficiency of the rotary screw mechanism, combined with 0 to 100% capacity control which matches throughput to demand, provides significant energy savings.

#### **Duplex Hospital Suction Package**

VS-10 and VS-12 models are designed for hospital applications (HSP) that meet or exceed NFPA 99 standard for Health Care Facilities.



# The Sullair Vacuum System is a Complete Package

#### **Complete Packaged System**

- No additional components to purchase
- Reduces start-up time and costs
- Entire package is tested
- Simplifies installation
- Built-in full-voltage starter

#### Instrumentation and Monitoring

- Simplified and reliable electro mechanical panel
- Takes the guesswork out of maintenance
- Inlet filter ΔP
- Sump separator ΔP
- Discharge temperature
- Injection pressure gauge\*

#### **Capacity Modulation**

- Matches capacity to demand
- Stabilizes system vacuum
- Reduces wear caused by start/stop

#### High Pressure Shutdown Switch

- Eliminates activating pressure relief device
- · Prevents loss of fluid

#### Protective Shutdown System

- Shuts down machine before major damage occurs:
  - High temperature shutdown
  - Low oil pressure shutdown\*
- Increases productivity and equipment life

#### **Options**

- Enclosure
- Dual control
- NEMA 4
- Power failure auto restart
- TEFC or ODP premium efficiency motors

Consult factory for additional options.



#### Air Inlet Filter

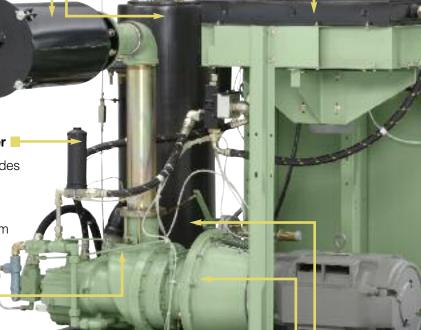
- Protects pump from contamination
- Horizontally mounted
- Includes NPT or flanged suction pipe connections

### Highly Efficient Air-Fluid Separation

- Replaceable cartridge-type element
- Reduces fluid carryover
- Lowers make-up fluid cost
- Reduces labor costs and downtime
- Two-stage separation on 50 hp to 200 hp (36.8 kW to 147 kW)

#### **Cooling Alternatives**

- Air- or water-cooled models, excluding VS-10 (air-cooled only)
- Choose most cost effective method for your environment
- Eliminates need for costly seal water treatment and disposal on aircooled models



### Spin-On Fiberglass Fluid Filter

 Aircraft-quality media provides better filtration

• Up to 20% more efficient

 Lengthens life of the vacuum pump

#### Air End ("The Pump")

 Longer average bearing life, designed for 100,000+ hours of service

### Motor and Vacuum Pump are Flange Mounted (VS-10 through VS-20)

- 5% energy savings over belt drive
- Eliminates maintenance expense associated with V-belts
- Provides positive alignment
- Optimizes bearing life of air end (pump) and motor

# Select One of Two Long-Life Fluids for Factory Fill

- SRF—one-year or 4000-hours
- Sullube—one-year or 8000-hours
- Both result in fewer fluid changes
- Both reduce fluid disposal costs, downtime and associated labor costs

### **Applications Throughout Industry**

(Left) Operators at an aluminum casting manufacturer inspect molding while vacuum is applied.

(Right) A machine operator at a plastics manufacturer removes a thermoformed shipping container for automobile headlights from a rotary vacuum press.





(Left) A plastics manufacturer uses vacuum during the extrusion process to rid PVS pipe of process contaminants.

(Right) This envelope converter at an envelope plant, uses vacuum from the centralized RSVS system for spacing, folding & delivering.





(Left) Furniture manufacturers use vacuum in place of traditional clamping methods to avoid damage.

(Right) A room in the Intensive Care Unit at a Hospital, where vacuum is used for patient care.





# **Specifications**

60Hz Motor Frequency							Enclosed Dimensions and Weight								
Model	Motor		Capacity*		Inlet	Discharge	Length		Width		Height		Weight		
	hp	kW	acfm	m³/min	in	Connection in	in	mm	in	mm	in	mm	Ibs	kg	
VS-10	5	3.7	78	2.21	2.5	3	66	1676	36	914	54	1372	890	404	
VS-10	7.5	5.5	120	3.4	2.5	3	66	1676	36	914	54	1372	940	426	
VS-10	10	7.4	145	4.11	2.5	3	66	1676	36	914	54	1372	970	440	
VS-10	15	11	195	5.52	2.5	3	66	1676	36	914	54	1372	970	440	
VS-12	15	11	245	6.94	2.5	3	66	1676	36	914	54	1372	1400	635	
VS-12	20	14.7	310	8.78	2.5	3	66	1676	36	914	54	1372	890	404	
VS-16	30	22.1	430	12.18	4	3	72	1829	48	1219	62	1575	2495	1132	
VS-16	40	29.4	540	15.29	4	3	72	1829	48	1219	62	1575	2695	1191	
VS-16	50	36.8	630	17.84	4	5	72	1829	48	1219	62	1575	3135	1422	
VS-20	60	44.1	810	22.94	5	5	84	2134	48	1219	63	1600	3820	1733	
VS-20	75	55.2	1035	29.31	5	5	84	2134	48	1219	63	1600	3820	1733	
VS-25	75	55.2	1350	38.23	6**	6**	110	2794	72	1828	84	2133	6560	2975	
VS-25	100	73.5	1695	48	8**	8**	110	2794	72	1828	84	2133	7050	3198	
VS-32	100	73.5	1671	47.32	8**	8**	110	2794	72	1828	96	2438	9400	4264	
VS-32	125	91.9	2083	59	8**	2 x 8**	110	2794	72	1828	96	2438	9600	4354	
VS-32	150	110.3	2500	71	8**	2 x 8**	151	3835	72	1828	96	2438	9850	4468	

50Hz Motor Frequency								Enclosed Dimensions and Weight								
Model	M	otor	Capacity*		Inlet	Discharge	Length		Width		Height		Weight			
	kW	hp	m³/min	acfm	in	Connection in	mm	in	mm	in	mm	in	kg	lbs		
VS-10	3.7	5	2.21	78	2.5	3	1676	66	914	36	1372	54	404	890		
VS-10	5.5	7.5	3.4	120	2.5	3	1676	66	914	36	1372	54	426	940		
VS-10	7.4	10	4.11	145	2.5	3	1676	66	914	36	1372	54	440	970		
VS-10	11	15	5.52	195	2.5	3	1676	66	914	36	1372	54	440	970		
VS-12	11	15	6.94	245	2.5	3	1676	66	914	36	1372	54	635	1400		
VS-12	14.7	20	8.78	310	2.5	3	1676	66	914	36	1372	54	635	1400		
VS-16	30	22.1	12.18	430	4	3	1829	72	1219	48	1575	62	1132	2495		
VS-16	40	29.4	15.29	540	4	3	1829	72	1219	48	1575	62	1191	2695		
VS-16	50	36.8	17.84	630	4	5	1829	72	1219	48	1575	62	1422	3135		
VS-20	60	44.1	22.94	810	5	5	2134	84	1219	48	1600	63	1733	3820		
VS-20	75	55.2	29.31	1035	5	5	2134	84	1219	48	1600	63	1733	3820		
VS-32	100	73.5	47.32	1671	8**	8**	2794	110	1828	72	2438	96	4264	9400		
VS-32	125	91.9	59	2083	8**	2 x 8**	2794	110	1828	72	2438	96	4354	9600		
VS-32	150	110.3	71	2500	8**	2 x 8**	3835	151	1828	72	2438	96	4468	9850		

<sup>\*</sup> To 28 inches Hg (711 mm Hg), based on standard sea level conditions.

\*\* Flange mount.

Data subject to change without notice.

# **Sullair's Compressed Air Products**

### www.sullair.com



Fundamental to Sullair's leadership is a dedication to reduce not only the amount of natural resources consumed to create energy, but to minimize environmental impact, in both the manufacture and use of all our products. We are constantly exploring new ideas and seeking new technologies to meet the ever-increasing need for high quality, energy-efficient compressed air products and environmental sustainability.



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