# **Air Solutions Are Our Core Business**

For the lowest total cost of ownership, Sullair provides an air system designed to lower operating cost, improve reliability and maximize return on investment.













Sullair offer air systems to help compressed air users reduce their energy costs and improve their productivity by analyzing, managing and controlling total compressed air systems. Information on the compressed air system tailored to your specific needs can be obtained by contacting your local Sullair Distributor. To acquire local distributor contact information, see the below.



Always air. Always there.

SULLAIR WORLD HEADQUARTERS, 3700 East Michigan Boulevard, Michigan City, IN 46360 SULLAIR ASIA













# Sullair Rotary Screw Air Compressors WS18-WS75 • 18-75kW





# The Only Air Compressor Manufacturer to Concentrate Exclusively on Rotary Screw Technology

Since its founding in 1965, Sullair has been recognized around the world as an innovator in rotary screw compression and vacuum technology. With more than 40 - year expertise, Sullair is leading innovation in this field. Utilizing the most modern technologies, equipment and advanced manufacturing techniques, Sullair designs, manufactures, assembles, and tests the most innovative 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. WS series (18-75kW) compressor, which are environmental, reliable, quiet, with excellent performance and easy to be maintained, has been provided by sullair. These machines have redefined industry standards for continuous duty compressors in the 18-75kW range.









# With Sullair, You Are Buying Customer Service

At Sullair, Total Customer Satisfaction is a cornestone of our corporate philosophy. We offer:

- Maintenance and service
- Customer training
- · Energy efficient products
- Sullair parts



#### **Energy Saving Certification**

Parts of WS air compressors get to the evaluating values of energy conservation of GB19153-2009. And some get to the class I of it. That means better benefits.



# With Sullair, You Are Not Just Buying a Compressor.

Your also receive worldwide leadership in rotary screw technology and global capabilities. Sullair serves the compressed air needs of manufacturing, textile, mining and energy-related businesses etc, around the world.

Sullair's international network of field offices, authorized distribution centres and licensees respond to the needs of Sullair customers in every corner of the world. They are rapidly and directly.

#### WS

# Features and Benefits That Set Sullair Apart

#### **Standart Features**

- Low restriction inlet valve for better cfm
   performance
- Low life cycle costs including long-life bearings, rotors, and the air end
- Nema 4 standard and excellent motor cooling design characteristics for longer motor life
- WS microprocessor standard
- Optimalair™ air filter provides 10 times better filtration than other filters
- Sullube™ -8000-hour non-varnishing, biodegradable compressor fluid and less than 2 ppm fluid carryover
- Sequenced standard
- Smallest footprint in its class
- · Quietest in its class, as low as 67 dBA
- Environmental, health, and safety design features

#### **Quiet Design**

This Sullair series incorporates many design features to reduce the noise of the machine.

- Air end, motor and receiver tank are mounted on rubber isolator
- · Insulate intake and exhaust louvers
- · Low-noise fan

In fact, these compressors are so quiet they can be installed anywhere in your facility.

#### Options

- · Choice of air- or water-cooled
- · Other motors
- · Air end with VCC or VSD control system

#### The Smallest Footprint in Its Class

This Sullair WS series compressors meet the need for a smaller footprint.

- More compact than any similar compressor on the market
- All the maintenance is performed from one side, reducing the amount of clearance and floor space typically required



# WS 18-75 Series Compressors

#### 5-Year Warranty on Sullair Air End

In normal ambient condition, when used according to Sullair recommendations, we guarantee the Air ends:

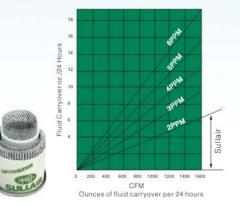
- No quality problems for 5 years
- · No change in performance for 5 years



5-YEAR WARRANTY ON SULLAIR AIR END

#### Air Quality is One of the Best in the Industry

- · Better than other air compressors' claim carryover
- A sump design, which allows use of oversized dual nested separators
- · Higher efficiency, lower carryover and energy saving



# Sullair Sullube Fluid

- Longer life, up to 8000 hours, 8 times the life of mineral oils
- Bio-degradable, can be disposed without any treated
- High flash point, low oil carry over ,non-varnish performance, corrosion protection, non-foaming, no toxicity, higher thermal conductivity



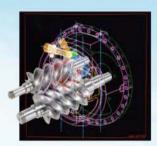
#### Sullair Deluxe Microprocessor Controller

- Temperature, pressure and other parameters can be displayed and warned all at times
- Dual RS485 ports, with standard Mod-bus
- · No need to have more lead-lag for sequenced
- · Records make maintenance and analysis easily





# **WS 18-75 Series Compressors**



#### Air End

- The screw rotors are manufactured by matching with excellent efficiency
- The rotary screw design delivers the quality and reliability
- Patented rotor design, low noise and excellent bearings (longer life for 100,000 hours) ensures the air end longer life
- BFR (Bearing Fluid Reservoirs) ensure fluid is available at startup and on load

#### Cooling

- Air-cooled units have updraft coolers, which is bigger than usual to better cooling effect
- Centrifugal fan with high efficiency, which proves good machine ventilation and lower noise
- High cooling efficiency, longer life for lubricants and lower running cost

#### **Water Separator**

- · Aluminium shell improves reliability
- Drained automatically, high efficiency and energy saving

#### Fluid Filter

- Aircraft-quality media provides better filtration
- Twice dust capacity more than common media
- In an inverted position to minimize lubricant loss during filter changes

#### **Oil-air Separator**

- Big tank for Oil-air Separator, more classes separation to good separation result
- The pressure decreased lowly and saving almost 1% power

#### Air Filter

- Optimalair ™ media provide the best efficiency
- Improve the efficiency of compressor by lower air inlet restriction
- High dust capacity, treble of common media at least refresh easier
- Guarantee oil high lever protection against pollution, extend the live of parts

#### Inlet Volve

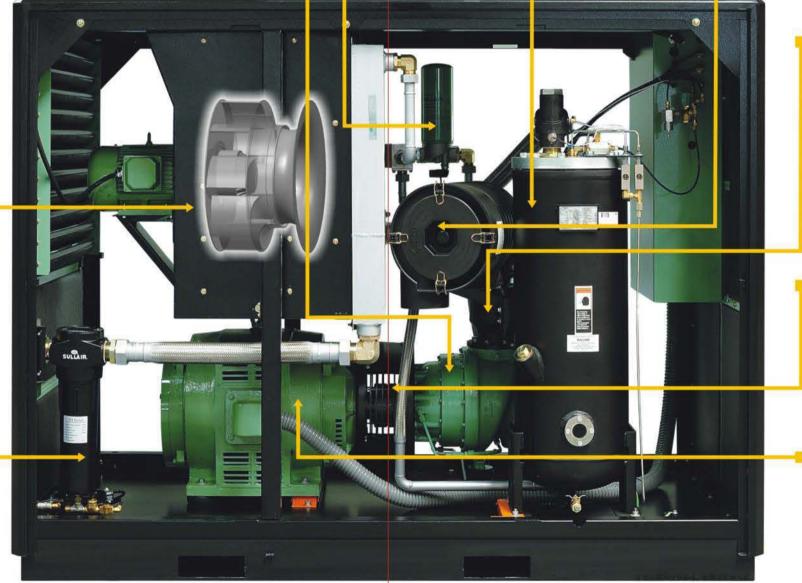
- Decrease the times of load and unload and low running cost
- · Longer life for seldom impulsive load
- Match compressor output with demand0%-100% adjustment
- · Matching to the output need and energy savings

#### Flexible Couple

- Avoiding impulsive load, high efficient driving and reliable operation
- Install or remove the element radially and easy of maintenance for shaft seal

#### Flexible Couple

- F class insulation with temperature rise B and better cooling effect
- · Excellent bearings for longer life

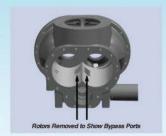




# Sullair WS Compressors with Variable Capacity Control

#### **Sullair Variable Capacity Control**

The motor and air end run at optimum speed and therefore maintain optimum efficiency throughhout the full variable outrange. Sullair VCC compressors react instantly to rapid changes in demand. The effective rotor length is progressively reduced as the demand is reduced which provides the most efficient part-load control system to 50% output. This system is extremely simple and provides a cost effective, energy-efficient control alternative.



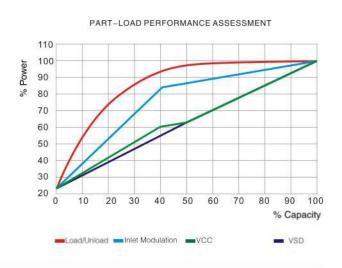


# Variable Speed Drive Is the Superior Alternative to Other Compressor Control Systems.

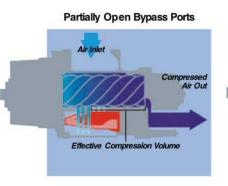
The chart below is a representation of nominal control systems for generic comparative purposes.

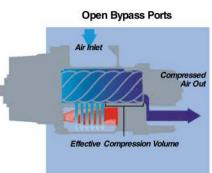
#### Sullair Variable Capacity Control Can:

- Match compressor output with demand exactly, 50%– 100% adjustment
- · Up to less 17% power
- · Offers stable output



# Closed Bypass Ports Air Inlet Compressed Air Out Effective Compression Volume





# **Sullair WS Compressors with Variable Speed Drive**

#### **High Efficiency Variable Frequency Motor**

- · Adopts special electromagnetic design
- Adopts special enameled wire for variable frequency motors
- Adopts special cooling design
- · Effectively avoids low frequency resonance



#### **VSD Controller**

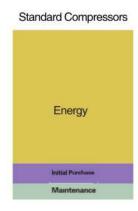
- Integrated design with excellent performance
- · Modular design ensures flexibility
- High quality PID controller ensures the stabilization
- An innovative cooling concept and coated electronic modules increase service life
- Strong communication function with Profibus DP, Profinet, USS/Modbus RTU
- Integrated USB interface
- Simple unit replacement and quick copying of parameters using the MMC memory card

#### Soft Start is Standard

- No need other soft starters and no need to control the number of hot or cold starts
- Unlimited starts and stops save electrical costs
- · Avoids high electrical current at start-up



Your Compressed Air System Can Improve Your Bottom Line: 35% Energy Savings in the First Five Years



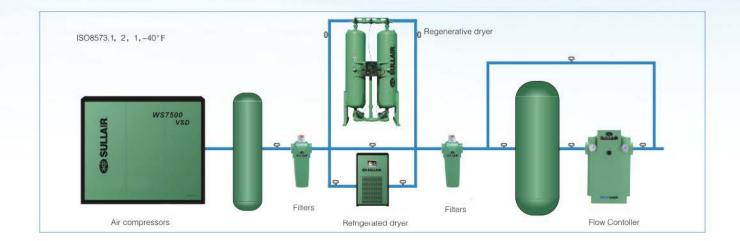
Sullair's VSD Compressors



# **Sullair Stationary Air Power Systems**

Sullair's air system include: compressor, refrigerated dryer or desiccant dryer, filters and flow controller. You can select the air quality level to meet your plant air or process requirements.

sullair guarantees it... and that's good as gold. The air from this Sullair System meets the most stringent ISO standard (ISO8573.1, Class 1 for oil vapor and Class 2 for particulate) for air quality.



## **A Concern for Enviroment**

Sullair not only focuses on conservation and committed to providing air compressors but also is a concern for the environment.

- · Fully-sealed protection pan
- · Low fluid capacity and no disposal issues
- · Low noise for rubber isolators



# **Technical Specifications**

#### WS1800-7500

	Motor	7.6bar	Max. working pressure 7.6bar 8.6bar 10.6bar 12.6bar				Discharge
Model	HP k\	N	Capac	Weight-kg	Connection		
1800	25 18	8 3.2	2.9	2.6	2.2	610	Rc1-1/2
2200	30 22	2 3.75	3.55	3.1	2.7	680	Rc1-1/2
3000	40 30	5.1	4.75	4.1	3.4	820	Rc1-1/2
3700	50 37	7 6.8	6.3	5.8	5.1	1020	Rc1-1/2
4500	60 45	5 8.5	7.8	6.9	5.65	1249	G2
4500PS	60 45	5 8.6	7.8	1 2 -	-	1249	G2
5500	75 55	5 10.5	9.5	8.6	7.6	1297	G2
5500P/PS	75 55	5 11.2	10	-	=	1297	G2
7500	100 75	5 13.5	12.5	11.1	-	1350	G2
7500P/PS	100 75	5 14.7	13.7	12.4	10.8	1488	G2

WS	1800–750	0

	Mo	tor	7.6bar	Max. workin 8.6bar	g pressure 10.6bar	12.6bar		Discharge
Model	HP kW		Capacity-m³/min *				Weight-kg	Connection
1800VSD	25	18	_	1.0-3.0	0.8-2.6	0.7-2.2	610	Rc1-1/2
2200VSD	30	22	-	1.2-3.6	1.0-3.1	0.9-2.8	680	Rc1-1/2
3000VSD	40	30	-	1.6-4.75	1.4-4.25	1.2-3.7	820	Rc1-1/2
3700VSD	50	37	2.3-6.8	2.1-6.3	1.9-5.8	1.7-5.1	1020	Rc1-1/2
4500VSD	60	45	1.95-8.5	1.92-7.93	1.9-6.9	1.78-5.65	1249	G2
5500VSD	75	55	2.52-10.6	2.54-9.85	2.13-8.6	2.09-7.73	1297	G2
7500VSD	100	75	3.23-13.5	3.29-12.55	2.79-11.1	-	1350	G2
7500P VSD	100	75	3.55-14.8	3.55-13.7	2.71-12.0	2.71-10.8	1488	G2
7500PS VSD	100	75	1.78-14.8	1.78-13.7	1.36-12.0	1.36-10.8	1488	G2

Di	m	en	si	on	s(	m	m)

Model	Length	Width	Height	Pipe Connection
1800、2200	1350	800	1350	2
3000、3700	1574	875	1562	≥
4500、5500、7500	2300	1180	1750	G1-1/4

<sup>1.</sup> WS18-37, WS45-75<sub>0</sub>

<sup>2.</sup> GB3853 (ISO1217C)。