

# REFRIGERATED DRYERS

Cycling

30 – 6,000 scfm





# THE IMPORTANCE OF CLEAN, DRY COMPRESSED AIR

Water jeopardizes everything you want your compressed air system to do. Failure to remove this water ruins product and fouls process. That's why it is vital to have a reliable air treatment system in place to help protect your equipment and your operations.

Sullair Refrigerated Air Dryers reliably remove harmful moisture and contaminants from compressed air, helping protect your compressed air system, machinery and downstream tools.

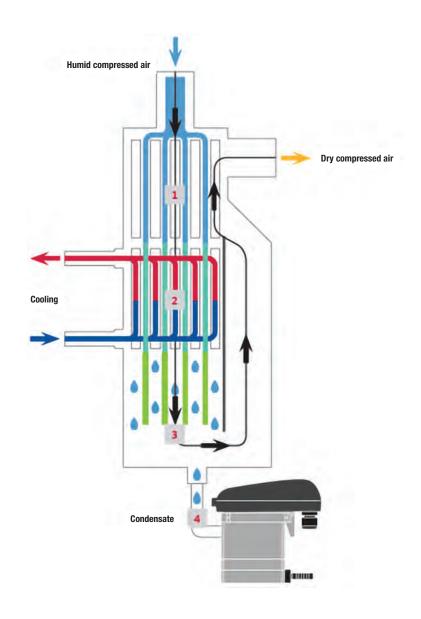
#### How?

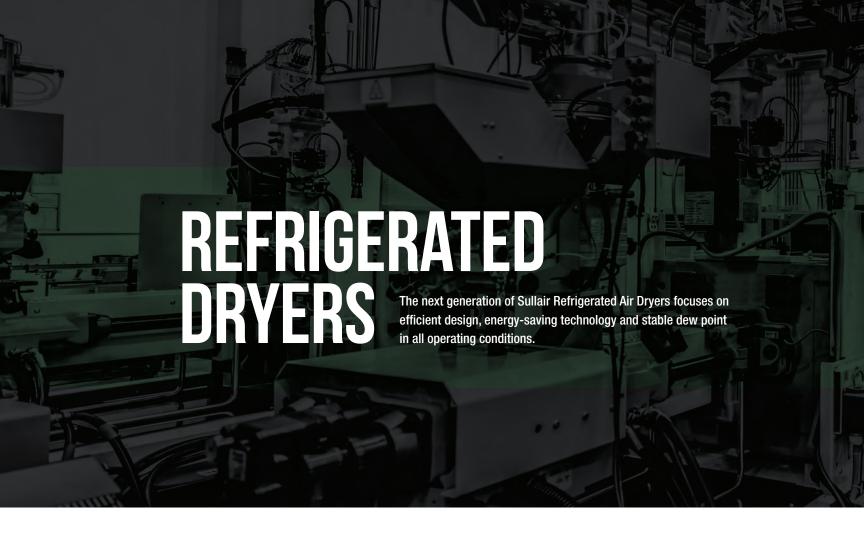
- 1. Saturated compressed air enters the system and is precooled in the air/air heat exchanger.
- 2. Then, precooled air moves downstream through the air/refrigerant heat exchanger. The heat exhanger's vertical profile design reduces condensed moisture by nearly 99% using gravitational force.
- To reliably prevent separated droplets from reentering the airstream, condensate collects in a large reservoir with subsequent recirculation where flow velocity is significantly reduced.
- **4.** Accumulated condensate is then discharged from the dryer via drain.

The dried, cold process air passes back through the heat exchanger to be reheated — reducing relative air humidity and recovering up to 60% cooling capacity.

#### **Cycling**

Cycling dryers are ideal for operations with variable flow rates. Sullair cycling dryers use solenoid valves that close during low demand periods and trap the refrigerant in the fully insulated heat exchanger acting as a thermal mass. Once the mass is chilled to a pre-determined temperature, the dryer is switched off for maximum energy savings.





### SULLAIR REFRIGERATED AIR DRYERS ARE BUILT FOR DURABLE PERFORMANCE, OPTIMUM RELIABILITY AND MAXIMUM ENERGY SAVINGS

- Unique heat exchanger designed for minimum pressure drop and gravitational self-cleaning
- Hot gas bypass designed for stable dew point in all operating conditions
- Integrated SULLIMAX<sup>TM</sup> Drain for reliable condensate discharge and maximum energy savings
- Energy-saving technology
  - Oversized condensers
  - Smaller high-performance compressors
- Easy-open panels for simplified service

### SULLAIR REFRIGERATED AIR DRYERS ARE AVAILABLE IN THE FOLLOWING CONFIGURATIONS:

- SRC Sullair Refrigerated Cycling Dryer 30 to 500 scfm
- SRV Sullair Refrigerated Variable Speed Dryer 800 to 6000 scfm





#### **SRC SERIES**

### SULLAIR REFRIGERATED CYCLING DRYERS 30 – 500 scfm

- Vertical profile heat exchanger
  - Minimum pressure drop
  - Gravitational self-cleaning
- Independent operation controller and valve for maximum dew point stability
- Cold trap design
- High-efficiency performance
- Integrated Sullair SULLIMAX<sup>™</sup> Drain
- Easy-open panels for simplified service





#### **SRV SERIES**

### SULLAIR REFRIGERATED VARIABLE SPEED DRYERS 800 – 6000 scfm

- Vertical profile heat exchanger
  - Minimum pressure drop
  - Gravitational self-cleaning
- Variable Speed Technology for maximum energy savings
- Variable compressor and fan for maximum dew point stability
- High-efficiency performance
- Integrated Sullair SULLIMAX<sup>TM</sup> Drain
- Easy-open panels for simplified service

# **SULLAIR CYCLING** REFRIGERATED DRYERS





	SRC SERIES	SRV SERIES
Flow Rates scfm	30 – 500	800 – 6,000
Max Inlet Air Temperature $^{\circ}\!F$	160	160
Max Inlet Operating Pressure psig	SRC 30 – 50: 232	200
	SRC 75 – 500: 200	
Standard Outlet Pressure Dew Point $^{\circ}\!\mathit{F}$	35 – 45	35 – 45
ISO 8573-1:2010 Air Quality Class	Class 4 – 5	Class 4 – 5
Standard Condensate Drain	SULLIMAXTM	SULLIMAXTM

Sullair Refrigerated Dryers come with a 2-year bumper-to-bumper and 5-year heat exchanger warranty.



For more than 50 years, Sullair has been on the leading edge of compressed air solutions. We were one of the first to execute rotary screw technology in our air compressors, and our machines are famous all over the world for their legendary durability. As the industry moves forward, Sullair will always be at the forefront with quality people, innovative solutions, and air compressors that are built to last.

Sullair was founded in Michigan City, Indiana in 1965, and has since expanded with a broad international network to serve customers in every corner of the globe. Sullair has offices in Chicago and manufacturing facilities in the United States and China — all ISO 9001 certified to ensure the highest quality standards in manufacturing. In addition, Sullair Suzhou and Shenzhen facilities are ISO 14001 and OHSAS 18001 certified.

Sulliar is A Hitachi Group Company



These are the pillars that drive the quality of Sullair compressed air solutions. It's a promise we keep with every machine we make.

### RELIABILITY

Customers who work with Sullair have found that the intangibles make all the difference—things like trust, confidence, and peace of mind. They go to work every day having full faith in their equipment, as well as the knowledge that dedicated distributors and Sullair personnel have their back every step of the way.

### **DURABILITY**

Bulletproof. Built to last. However you spin it, Sullair compressed air solutions are in it for the long haul, driven by innovative designs pioneering the air treatment industry. And ready to stand the test of time.

#### **PERFORMANCE**

Sullair is constantly innovating to improve our compressed air solutions. For our compressed air treatment line, this means more energy efficiency. With air treatment being a vital part of your entire compressed air system, Sullair is committed to helping you protect your equipment and manage your operating expenses.

# SRC SERIES CYCLING REFRIGERATED DRYERS



#### **FREQUENCY: 60 Hz**

Model #	FLOW RATE (scfm)	CONNECTION SIZE (NPT)	PRESSURE DROP (psid)	Power Consumption — Load (kW)	Height (in)	Width (in)	Depth (in)	Weight (Ibs)
SRC 30	30	1/2"	1.16	0.27	29	14	17	64
SRC 50	50	1/2"	1.6	0.39	29	14	17	75
SRC 75	75	1″	1.89	0.48	29	14	17	79
SRC 100	100	1¼″	2.47	0.58	32	19	18	82
SRC 125	125	11⁄4″	2.18	1	32	19	18	101
SRC 150	150	1¼″	2.9	1.05	32	19	18	110
SRC 200	200	1½″	2.18	1.1	35	22	23	121
SRC 250	250	1½″	2.61	1.39	35	22	23	139
SRC 300	300	2″	1.31	1.64	38	22	25	203
SRC 350	350	2″	1.89	2.19	38	22	25	207
SRC 400	400	2½″	1.02	2.48	44	26	29	331
SRC 500	500	2½″	1.89	2.97	44	26	29	335

CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE													
Operating Pressure psig	Operating Pressure psig         60         80         100         120         140         160         180         200												
Correction Factor	0.79	0.91	1	1.07	1.13	1.18	1.23	1.27					

CAPACITY CORRECTION FACTORS FOR DIFFERING AMBIENT AIR TEMPERATURES													
Ambient Air Temperature 𝒯         80         90         100         105         110         115         120													
Correction Factor	1.11	1.09	1	0.94	0.87	0.78	0.69						

CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES													
Inlet Air Temperature ${}^{\circ}\!\mathit{F}$	90	100	110	120	130	140	150	160					
Correction Factor	1.16	1	0.82	0.68	0.61	0.52	0.45	0.4					

Required pre-filtration µm 1

**Recommended post-filtration**  $\mu m$  0.01

**Standard Operating Voltage** 

SRC 30–200 115V/1PH SRC 250–500 230V/1PH Optional Operating Voltage 575V Standard Outlet Pressure Dew Point  $^{\circ}F$  37–45 ISO 8573-1:2010 Air Quality Class Max inlet air temperature  $^{\circ}F$  160

inlet air temperature  $^{\circ}F$  160 Min/max ambient temperature  $^{\circ}F$  34/120

 $\ \, \textbf{Max inlet pressure} \,\, \textit{psig} \\$ 

**SRC 30–50** 232 **SRC 75–500** 200





# SRV SERIES VARIABLE SPEED REFRIGERATED DRYERS



#### **FREQUENCY: 60 Hz**

Model #	FLOW RATE (scfm)	CONNECTION SIZE (NPT)	PRESSURE DROP (psid)	Power Consumption — Load (kW)	Height (in)	Width (in)	Depth (in)	Weight (lbs)
SRV 800	800	3" Flange	2.9	2.8	58	31	39	534
SRV 1000	1000	3" Flange	2.8	4.1	58	31	39	608
SRV 1250	1250	3" Flange	3.6	5	58	31	39	686
SRV 1500	1500	4" Flange	2.8	5.8	69	45	47	1021
SRV 1750	1750	4" Flange	1.9	6.4	69	45	47	1202
SRV 2000	2000	4" Flange	2.6	8	69	45	47	1202
SRV 2500	2500	4" Flange	3.6	10.1	69	45	47	1349
SRV 3000	3000	6" Flange	2.8	11.2	71	51	69	1850
SRV 3750	3750	6" Flange	3.8	13.8	71	51	69	2090
SRV 4000	4000	8" Flange	2.8	15.4	74	55	87	2350
SRV 5000	5000	8" Flange	4.1	17.1	74	55	87	2670
SRV 6000	6000	8" Flange	3.2	22.3	96	61	86	3660

CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE													
Operating Pressure psig	Operating Pressure psig         60         80         100         120         140         160         180         200												
Correction Factor	0.79	0.91	1	1.07	1.13	1.18	1.23	1.27					

CAPACITY CORRECTION FACTORS FOR DIFFERING AMBIENT AIR TEMPERATURES													
Ambient Air Temperature F         80         90         100         105         110         115         120													
Correction Factor	1.11	1.09	1	0.94	0.87	0.78	0.69						

CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES													
Inlet Air Temperature ${}^{\circ}\!\mathit{F}$	90	100	110	120	130	140	150	160					
Correction Factor	1.16	1	0.82	0.68	0.61	0.52	0.45	0.4					

Required pre-filtration  $\mu m$  1
Recommended post-filtration  $\mu m$  0.

MODBUS ready

0.01

Standard Operating Voltage\*

460V/3PH 37-45

Standard Outlet Pressure Dew Point  $\,^{\circ}\!\mathcal{F}$ 

Class 4–5

ISO 8573-1:2010 Air Quality Class Max inlet air temperature  $^{\circ}\!\mathit{F}$ 

160

Min/max ambient temperature  $^{\circ}$ F

100

Max inlet pressure psig

34/115 200





<sup>\* 575</sup>V line transformer shipped loose to be installed by your distributor

FOR MORE INFORMATION, CONTACT YOUR LOCAL AUTHORIZED SULLAIR DISTRIBUTOR.



