

# REFRIGERATED DRYERS

Cycling; High-Temperature; Non-Cycling

10 - 10,000 scfm ■ .28 - 283.2 m³/min



# 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 exchanger'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.

#### **Non-Cycling**

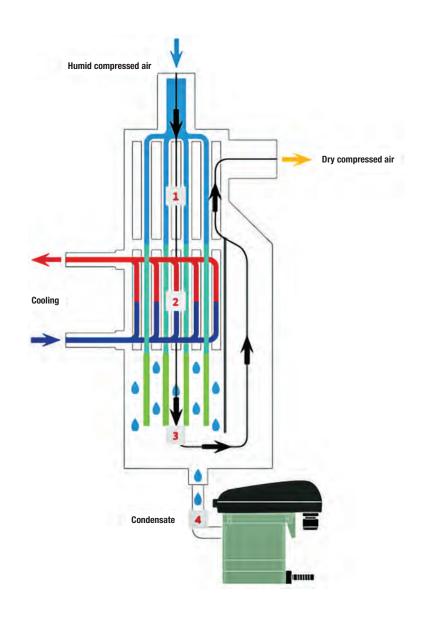
Ideal for running at full load

- Maintain constant energy consumption no matter flow or air demand
- Hot gas bypass maintains a stable dew point in varying operating conditions and controls refrigerant amount circulating

#### **Cycling**

Ideal for operations with variable flow rates

- Solenoid valves close in low demand periods trapping refrigerant in a fully insulated heat exchanger
- This creates a thermal mass which switches off the dryer when a pre-determined temperature is reached for energy savings





## SULLAIR REFRIGERATED AIR DRYERS ARE BUILT FOR DURABLE PERFORMANCE, OPTIMUM RELIABILITY AND FEATURE:

- 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 providing simplified access for routine maintenance and service

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

- SR Sullair Refrigerated Dryer 10 to 480 scfm
- SR+ Sullair Refrigerated+ Dryer 20 to 10,000 scfm
- SRHT Sullair Refrigerated High Temperature Dryer 20 to 350 scfm
- SRC Sullair Refrigerated Cycling Dryer 30 to 500 scfm
- SRV Sullair Refrigerated Variable Speed Dryer 800 to 6000 scfm



<sup>\*</sup> Optional on SR models

# **NON-CYCLING DRYERS**

## IDEAL FOR RUNNING AT FULL LOAD



### **SR SERIES**

#### **SULLAIR NON-CYCLING REFRIGERATED DRYERS** 10 - 480 scfm

- Vertical profile heat exchanger
  - Minimum pressure drop
  - Gravitational self-cleaning
- Hot gas bypass designed for stable dew point in all operating conditions
- Easy-open panels for simplified service
- Compact design
- Timer solenoid drain

### SRHT SERIES

#### **SULLAIR REFRIGERATED HIGH TEMPERATURE DRYERS** 20 - 350 scfm

- Maximum operating temperature up to 210°F
- Vertical profile aluminum heat exchanger
  - Minimum pressure drop
  - Gravitational self-cleaning
- Hot gas bypass designed for stable dew point in all operating conditions
- Integrated SULLIMAX<sup>TM</sup> drain\*
- Integrated pre-filter
- Integrated pre-cooler

### **SR+ SERIES**

#### **SULLAIR NON-CYCLING REFRIGERATED+ DRYERS** 20 - 10,000 scfm

- Vertical profile heat exchanger
  - Minimum pressure drop
  - Gravitational self-cleaning
- Hot gas bypass designed for stable dew point in all operating conditions
- Easy-open panels for simplified service
- - High-efficiency performance
  - Oversized condensers
  - Integrated SULLIMAX<sup>TM</sup> drain
    - Large cross section of flow channels for low velocities and reduced power input
    - Easy-open panels for simplified service
    - \* SRHT 20-40 offer timer solenoid drain ontion

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

# **CYCLING DRYERS**

## IDEAL FOR OPERATIONS WITH VARIABLE FLOW RATES



**SRC Series** 

INTEGRATED
SULLIMAX DRAIN
TRUE ZERO LOSS

### **SRC SERIES**

## SULLAIR REFRIGERATED CYCLING DRYERS 30 – 500 scfm

- Vertical profile heat exchanger
  - Minimum pressure drop
  - Gravitational self-cleaning
- Easy-open panels for simplified service
- Independent operation controller and valve for maximum dew point stability
- Cold trap design

### **SRV SERIES**

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

- Vertical profile heat exchanger
  - Minimum pressure drop
  - Gravitational self-cleaning
- Easy-open panels for simplified service

**SRV Series** 

- Variable Speed Technology for maximum energy savings
- Variable compressor and fan for maximum dew point stability

	SR SERIES	SR+ SERIES	SRHT	SRC SERIES	SRV SERIES
Flow Rates scfm	10 – 480	20 – 10,000	20 – 350	30 – 500	800 - 6,000
Max Inlet Air Temperature $^{\circ}\!F$	130	160	210	160	160
Max Inlet Operating Pressure psig	SR 10 – 50: 232	SR+ 20 - 50: 232	200	SRC 30 - 50: 232	200
	SR 75 – 480: 200	SR+ 75 – 10,000: 200	200	SRC 75 – 500: 200	200
Standard Outlet Pressure Dew Point ${}^\circ\! F$	37 – 41	37 – 38	45 – 50	35 – 45	35 – 45
ISO 8573-1:2010 Air Quality Class	Class 4 - 5	Class 4 – 5	Class 5 – 6	Class 4 - 5	Class 4 – 5
Standard Condensate Drain	Timer Solenoid	SULLIMAX™	SULLIMAX™	SULLIMAX™	SULLIMAX™
Options	SULLIMAX™ Condensate Drain	PC Connection Kit**	Timer Solenoid Condensate Drain	_	PC Connection Kit

<sup>\*\*</sup> Available on SR+ models 600 scfm and up. Ships loose with unit.



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, the Sullair Suzhou facility is ISO 14001 and OHSAS 18001 certified.

Sulliar is A Hitachi Group Company

## RELIABILITY. DURABILITY. PERFORMANCE.

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.

## SR SERIES SULLAIR 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)
SR 10	10	3/8"	1.5	0.19	17	12	14	46
SR 15	15	3/8"	2	0.2	17	12	14	49
SR 20	20	1/2"	0.6	0.21	19	15	20	55
SR 35	35	1/2"	1.3	0.29	19	15	20	62
SR 50	50	1/2"	2.2	0.3	19	15	20	71
SR 75	75	1"	2.6	0.45	29	14	17	75
SR 100	100	1¼"	2.2	0.7	29	14	18	86
SR 125	125	1¼"	3.5	0.97	29	14	18	88
SR 150	150	1¼"	4.9	1	29	14	18	90
SR 175	175	1½"	2.8	1.05	35	22	23	119
SR 220	220	1½"	3.6	0.91	35	22	23	123
SR 300	300	2"	2	1.15	38	22	25	207
SR 375	375	2"	2.9	2.07	38	22	25	212
SR 480	480	2½"	2.2	2.25	44	26	29	317

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 $^{\circ}\!\mathcal{F}$	80	90	100	110	115					
Correction Factor	1.1	1.07	1	0.83	0.7					

	CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES									
Inlet Air Temperature $^{\circ}\!\mathit{F}$	90	100	110	120	130					
Correction Factor	1.11	1	0.8	0.65	0.53					

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

Certified to UL/CSA Standards Standard Opertating Voltage

 SR 10–150
 115V/1PH

 SR 175–480
 230V/1PH

 Standard outlet pressure dew point °F
 37–45

ISO 8573-1:2010 Air Quality ClassClass 4–5Max inlet air temperature  $^{\circ}F$ 130°FMin/max ambient temperature  $^{\circ}F$ 34°F/115°F

Max inlet pressure psig

**SR 10–50** 232 **SR 75–480** 200





## SR+ SERIES SULLAIR 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)
SR+ 20	20	1/2"	0.4	0.26	29	14	17	62
SR+ 30	30	1/2"	1	0.27	29	14	17	64
SR+ 50	50	1/2"	2.2	0.39	29	14	17	75
SR+ 75	75	1"	2.2	0.48	29	14	17	79
SR+ 100	100	11/4"	2	0.58	32	19	18	82
SR+ 125	125	1¼"	2.6	1	32	19	18	101
SR+ 150	150	11/4"	3.3	1.05	32	19	18	110
SR+ 200	200	1½"	1.7	115 V - 1.10 230 V - 1.10 460 V - 1.22	35	22	23	121
SR+ 250	250	1½"	3.6	230 V - 1.39 460 V - 1.38	35	22	23	139
SR+ 300	300	2"	1.5	230 V - 1.64 460 V - 1.41	38	22	25	203
SR+ 350	350	2"	1.9	230 V - 2.19 460 V - 1.8	38	22	25	207
SR+ 400	400	2½"	1	230V - 2.48 460 V - 2.7	44	26	29	331
SR+ 500	500	2½"	1.5	2.97	44	26	29	355
SR+ 600	600	3" Flange	2.2	2.65	58	31	39	529
SR+ 800	800	3" Flange	2.9	3.25	58	31	39	534
SR+ 1000	1000	3" Flange	2.8	4.6	58	31	39	608
SR+ 1250	1250	3" Flange	3.6	5.6	58	31	39	686
SR+ 1500	1500	4" Flange	2.8	6.4	69	45	47	1021
SR+ 1750	1750	4" Flange	1.9	7.5	69	45	47	1186
SR+ 2000	2000	4" Flange	2.6	8.6	69	45	47	1190
SR+ 2500	2500	4" Flange	3.6	9.8	69	45	47	1349
SR+ 3000	3000	6" Flange	2.8	12.2	71	51	69	1830
SR+ 4000	4000	8" Flange	2.8	15.7	74	55	87	2330
SR+ 5000	5000	8" Flange	4.1	23.5	74	55	87	2650
SR+ 6000	6000	8" Flange	3.2	23.7	96	61	85	4040
SR+ 7500	7500	8" Flange	4.5	26.6	96	61	85	4430
SR+ 8000	8000	10" Flange	2.8	35	96	61	107	5280
SR+ 10,000	10,000	10" Flange	3.8	40.7	96	61	107	5990

**SR+ Specs continued on the next page.** 





## SR+ SERIES SULLAIR REFRIGERATED+ DRYERS



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

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 ${}^{\circ}\!\mathcal{F}$	Ambient Air Temperature °F         80         90         100         105         110         115         120										
Correction Factor	1.1	1.09	1	0.94	0.87	0.78	0.69				

CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES										
Inlet Air Temperature ${}^{\circ}\!\mathit{F}$	Inlet Air Temperature °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**  $\mu m$  0.01

SR+ 20–200 (115V)

Certified to UL/CSA Standards
SR+ 125–500 (230V)

Certified to UL/CSA Standards
SR+ 250–500 (460V)

Certified to UL/CSA Standards

**Standard Operating Voltage** 

SR+ 20-200 115V/1PH SR+ 200-400 230V/1PH SR+ 250-10,000 460V/3PH **Optional Operating Voltage** 575V Standard outlet pressure dew point  ${}^{\circ}\!\mathit{F}$ 37-45 ISO 8573-1 2010 Air Quality Class Class 4-5 Max inlet air temperature °F 160 Min/max ambient temperature  ${}^{\circ}\!\mathit{F}$ 34/120

**Max inlet pressure** *psig* 

**SR+ 20–50** 232 **SR+ 75–500** 200

MODBUS ready \*

\* 600–10,000 scfm units only





## **SRHT SERIES**

### **SULLAIR REFRIGERATED HIGH TEMPERATURE 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)
SRHT 20	20	1/2"	1.5	0.21	25	17	16	82
SRHT 30	30	1/2"	2.8	0.28	25	17	16	88
SRHT 40	40	1/2"	2.9	0.31	25	17	16	90
SRHT 50	50	1/2"	4.1	0.46	25	17	16	93
SRHT 75	75	1"	3.8	0.77	45	16	18	112
SRHT 100	100	1¼"	3	0.88	52	20	20	134
SRHT 150	150	1¼"	5	1.1	52	20	20	146
SRHT 200	200	1½"	3.3	1.55	55	22	23	165
SRHT 250	250	1½"	5.1	1.82	55	22	23	185
SRHT 300	300	2"	4.1	2.6	59	28	31	291
SRHT 350	350	2"	4.5	2.7	59	28	31	304

<sup>\*</sup> At 45°F Outlet PDP

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 ${}^{\circ}\!\mathcal{F}$	Ambient Air Temperature F         80         90         100         105         110         115         120									
Correction Factor										

CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES									
Inlet Air Temperature ${}^{\circ}\!F$	140	160	170	180	195	210			
Correction Factor	1.26	1.13	1.07	1	0.9	0.81			

200

Integrated aftercooler

**Pre-filter included** 

**Certified to UL/CSA standards** 

**Standard Operating Voltage** 

**Max inlet pressure** *psig* 





## 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 (lbs)
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	11⁄4"	2.47	0.58	32	19	18	82
SRC 125	125	1¼"	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	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 ${}^{\circ}\!\mathit{F}$	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 µm 1

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

**UL/CSA Certified** 

**Standard Operating Voltage** 

 $\begin{array}{c} \text{SRC 30-200} & 115\text{V/1PH} \\ \text{SRC 250-500} & 230\text{V/1PH} \\ \text{Optional Operating Voltage} & 575\text{V} \\ \text{Standard Outlet Pressure Dew Point }^{\mathcal{F}} & 37-45 \\ \text{ISO 8573-1:2010 Air Quality Class} & \text{Class 4-5} \\ \text{Max inlet air temperature }^{\mathcal{F}} & 160 \\ \text{Min/max ambient temperature}^{\mathcal{F}} & 34/120 \\ \end{array}$ 

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

**SRC 30–50** 232 **SRC 75–500** 200





## SRV SERIES VARIABLE SPEED REFRIGERATED DRYERS



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

Model #	FLOW RATE (scfm)	CONNECTION SIZE	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	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		

1

Required pre-filtration µm

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

**MODBUS** ready

Standard Operating Voltage\*460V/3PHStandard Outlet Pressure Dew Point °F37-45ISO 8573-1:2010 Air Quality ClassClass 4-5Max inlet air temperature °F160Min/max ambient temperature °F34/115Max inlet pressure psig200





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

## SULLAIR REFRIGERATED DRYERS

