

# **REFRIGERATED DRYERS**

## Cycling; High-Temperature; Non-Cycling

10 – 10,000 scfm 🔳 .28 – 283.2 m³/min



**AUTHORIZED DISTRIBUTOR** 



# 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.
- 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



## REFREGERATED DRVERS The next generation of Sullair Refrigerated Air Dryers focuses on efficient design, energy-saving technology and stable dew point in all operating conditions.

## 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>™</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



\* Optional on SR models

# **NON-CYCLING DRYERS** IDEAL FOR RUNNING AT FULL LOAD



**SR+ SERIES** 

20 - 10,000 scfm

Vertical profile heat exchanger

Minimum pressure drop

Gravitational self-cleaning

in all operating conditions

High-efficiency performanceOversized condensers

■ Integrated SULLIMAX<sup>TM</sup> drain

SULLAIR NON-CYCLING REFRIGERATED+ DRYERS

Hot gas bypass designed for stable dew point

Easy-open panels for simplified service

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

- 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 option

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

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# **CYCLING DRYERS** IDEAL FOR OPERATIONS WITH VARIABLE FLOW RATES



INTEGRATED SULLIMAX DRAIN TRUE ZERO LOSS

**SRC Series** 

## **SRC SERIES**

## SULLAIR REFRIGERATED CYCLING DRYERS

30 – 500 scfm

Vertical profile heat exchanger

THED FOR ESTIMATION

- 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
- 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 ${}^{\circ\!\mathcal{F}}$	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

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

# ABOUT Sullair

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.

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### 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

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### 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	21⁄2"	2.2	2.25	44	26	29	317

CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE												
<b>Operating Pressure</b> 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 ${}^{\circ}\!F$	80	90	100	110	115					
<b>Correction Factor</b> 1.1 1.07 1 0.83 0.										

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

Required pre-filtration µm	1
Recommended post-filtration µm	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 ${}^{o}\!F$	37–45
ISO 8573-1:2010 Air Quality Class	Class 4–5
Max inlet air temperature ${}^{\circ\!arsigma}$	130°F
Min/max ambient temperature $^{\circ\!arsigma}$	34°F/115°F
Max inlet pressure psig	
SR 10–50	232
SR 75–480	200





## SR+ SERIES SULLAIR REFRIGERATED+ DRYERS

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### 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+ 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	1¼"	2	0.58	32	19	18	82
SR+ 125	125	1¼"	2.6	1	32	19	18	101
SR+ 150	150	1¼"	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	21⁄2"	1	230V - 2.48 460 V - 2.7	44	26	29	331
SR+ 500	500	21⁄2"	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.





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## SR+ SERIES SULLAIR REFRIGERATED+ DRYERS

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### **FREQUENCY: 60 Hz**

CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE												
<b>Operating Pressure</b> 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				
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CAPACITY CORRECTION FACTORS FOR DIFFERING AMBIENT AIR TEMPERATURES											
Ambient Air Temperature $^{\mathscr{P}}$	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 $^{\circ\!F}$	90	100	110	120	130	140	150	160				
<b>Correction Factor</b>	1.16	1	0.82	0.68	0.61	0.52	0.45	0.4				

**Required pre-filtration** µm 1 **Recommended post-filtration** µm 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 cULus Certified Control Panel SR+ 600-10,000 **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 °F 37-45 ISO 8573-1 2010 Air Quality Class Class 4-5 Max inlet air temperature °F 160 Min/max ambient temperature °F 34/120 Max inlet pressure *psig* SR+ 20-50 232 SR+ 75-500 200 **MODBUS ready \*** 

\* 600–10,000 scfm units only





### 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

\* At 45°F Outlet PDP

CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE											
<b>Operating Pressure</b> 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 ${}^{\circ\! \not\vdash}$	80	90	100	105	110	115	120				
Correction Factor	1.22	1.11	1	0.94	0.89	0.83	0.78				

CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES										
Inlet Air Temperature °F	140	160	170	180	195	210				
Correction Factor	1.26	1.13	1.07	1	0.9	0.81				

Integrated aftercooler	
Pre-filter included	
Certified to UL/CSA standards	
Standard Operating Voltage	
SRHT 20-150	115V/1PH
SRHT 200-350	230V/1PH
<b>Recommended post-filtration</b> $\mu m$	0.01
Standard outlet pressure dew point ${}^{\circ\!F}$	45–50
ISO 8573-1:2010 Air Quality Class	Class 6
Max inlet air temperature $^{\circ\!F}$	210°F
Min/max ambient temperature $^{\circ\!arsigma}$	34°F/ 120°F
Max inlet pressure <i>psig</i>	200





## SRC SERIES cycling refrigerated dryers

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### 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	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	21⁄2"	1.02	2.48	44	26	29	331
SRC 500	500	21⁄2"	1.89	2.97	44	26	29	335

CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE											
<b>Operating Pressure</b> <i>psig</i>	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 $^{\circ\!F}$	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 % 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 µm	0.01
UL/CSA Certified	
Standard Operating Voltage	
SRC 30–200	115V/1PH
SRC 250–500	230V/1PH
Optional Operating Voltage	575V
Standard Outlet Pressure Dew Point ${}^{o\!\!\!\!/}$	37–45
ISO 8573-1:2010 Air Quality Class	Class 4–5
Max inlet air temperature °F	160
Min/max ambient temperature °F	34/120
Max inlet pressure <i>psig</i>	
SRC 30–50	232
SRC 75–500	200





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### FREQUENCY: 60 Hz

Model #	FLOW RATE (scfm)	CONNECTION Size	PRESSURE DROP (psid)	Power Consumption — Load (kW)	Height (in)	Width (in)	Depth (in)	Weight (Ibs)
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											
<b>Operating Pressure</b> 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 $^{\circ\!F}$	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 °F 90 100 110 120 130 140 150 16											
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 µm	0.01
MODBUS ready	
Standard Operating Voltage*	460V/3PH
Standard Outlet Pressure Dew Point °F	37–45
ISO 8573-1:2010 Air Quality Class	Class 4–5
Max inlet air temperature ${}^{\circ\!arsigma}$	160
Min/max ambient temperature $^{\circ\!F}$	34/115
Max inlet pressure psig	200

\* 575V line transformer shipped loose to be installed by your distributor





AUTHORIZED DISTRIBUTOR



# **SULLAIR REFRIGERATED DRYERS**





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