

# Solutions for compressed air problem...



**Refrigerated air dryer**

## Working Principle

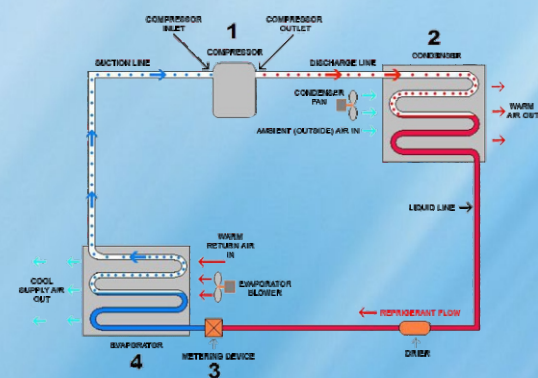
Saturated compressed air enters to the Air to Air heat exchange, where it is pre cooled by out going cold dry air. Highly effective pre cooler reduces the temperature considerably, and enables to use smaller & economical refrigeration system. Then the pre cooled, relatively low temperature compressed air enters to Air to Refrigerant heat exchanger, where it is cooler down to +3C (Pressure Dew point). At this temperature, Moisture in vapour form condensed to liquid form, and separated from the compressed air by moisture separator and discharged to drain port through automatic drain value. The cold dry compressed air passes back to Air to Air Heat exchange, and again temperature by exchanging heat with incoming warm air. The dry air coming out from the dryer is ready to use for instrumentation and process air application.

**APPLICATION :** •Automobile •Beweries & distilleries •Cement •CNC Matching •CMM Machines •Chemical •Food Processing •Foundry •General Instrumentation •Hospital •Packaging •Paper •Painting •Pharmaceutical •Power Plant •Printing •Rice Mills •Sugar •Textile •Tool room etc.....

## Specification of Dryer

Model	Capacity cfm	Condenser	Max Pressure (Kg / Cm)	Power Supply A.C	Connection BSP	Dimensions (mm)		
						L	W	H
SRAD - 001	10	A	16	230V. 1 Ø	½"	500	400	550
SRAD - 002	20	A	16	230V. 1 Ø	½"	500	400	550
SRAD - 004	40	A	16	230V. 1 Ø	½"	500	400	550
SRAD - 006	60	A	16	230V. 1 Ø	1"	550	530	730
SRAD - 008	80	A	16	230V. 1 Ø	1"	550	530	730
SRAD - 010	100	A	16	230V. 1 Ø	1½"	750	700	900
SRAD - 015	150	A	16	230V. 1 Ø	1½"	750	700	900
SRAD - 020	200	A	16	230V. 1 Ø	1½"	750	700	900
SRAD - 025	250	A	16	440V. 3 Ø	2"	800	900	1150
SRAD - 030	300	A	16	440V. 3 Ø	2"	800	900	1150
SRAD - 040	400	A	16	440V. 3 Ø	3"	900	1400	1375
SRAD - 050	500	A	16	440V. 3 Ø	3"	900	1400	1375
SRAD - 060	600	A	16	440V. 3 Ø	3"	900	1400	1375

## Schematic Diagram



## SALIENT FEATURES

CFC free, eco-friendly refrigerant for all models

Constant dew point at all Vary load

Two Stage effective moisture separation

Lower Power consumption

Built with necessary protectors for electrical & refrigeration system

Most modern refrigerant

System components and

Pressure switches.

Automatic maintenance free and user friendly

Compact Design requires less floor space

## Air System Installation Diagram





## MOISTURE / OIL SEPARATORS



- ✿ Flow upto 1000 cfm
- ✿ Optional Auto Drain
- ✿ High Performance Elements

## MOISTURES SEPARATORS

Moisture Separators remove moisture from the compressed air by coalescence. The condensed moisture will be drained out periodically by manual / auto drain

## OIL REMOVING FILTERS

Oil removing filters remove oil content from the compressed air by absorption. The condensed oil will be drained out periodically by manual / auto drain.

## HOUSING

Upto 50 cfm filters housing are made up of Aluminium die cast material.  
100 cfm and above housing are made up of M.S / C.S / S.S materials

## SPECIFICATION

Model	Flow Rate (cfm)	Port Size (BSP/NB)	Dimensions (mm)	
			Width	Height
SEST/SERF - 002	20 cfm	½" BSP	90	150
SEST/SERF - 003	35 cfm	½" BSP	110	190
SEST/SERF - 005	50 cfm	1" BSP	145	300
SEST/SERF - 010	100 cfm	1½" BSP	260	570
SEST/SERF - 020	200 cfm	2" BSP/NB	290	650
SEST/SERF - 035	350 cfm	2" BSP/NB	370	800
SEST/SERF - 050	500 cfm	2½" BSP/NB	370	800
SEST/SERF - 075	750 cfm	3" BSP/NB	450	900

## APPLICATIONS

1. Automobile 2. Breweries & Distilleries 3. Cement 4. CVC Machining 5. CMM Machines 6. Chemical 7. Food Processing 8. Foundry 9. General Instrumentation 10. Hospital 11. Packaging 12. Paper 13. Painting 14. Pharmaceutical 15. power Plants 16. Printing 17. Rice mills 18. Sugar 19. Textiles 20. Tool Rooms etc





## HEATLESS AIR DRYERS

### ALD SERIES

#### Features :

- ☼ Auto Drain on Pre-Filter
- ☼ Sub Micro Grade Pre Filter
- ☼ Dew Point -40° C
- ☼ Aesthetic Look

## Specification

Model	Capacity CFM	Power of 230v A.C	Dimension in mm L * B * H	In / Out B.S.P	Cycle Time in Min.	Pressure Max. Bar
ALD - 05	05	20 Walts	220 * 100 * 670	½"	2	12
ALD - 10	05	20 Walts	220 * 100 * 670	½"	3	12
ALD - 20	05	20 Walts	220 * 100 * 670	½"	3	12
ALD - 30	05	20 Walts	220 * 100 * 670	½"	3	12
ALD - 40	05	20 Walts	220 * 100 * 670	½"	3	12

## THEORY OF OPERATION

Wet air from the compressor Outlet First enters the Pre Filter. Here water and particulars are separated and will be drained out through the auto drain valve

### DRYING CYCLE :

Then the clean air with water vapour passes through the desiccant filled tower in the upward direction. Here it is dried completely and then passes to the outlet through one after filter.

The purpose of after filter is to remove desiccant fines and allows clean dry air to the user end.

### REGERATION CYCLE ::

During this cycle 10% of air from the outlet is allowed to pass in the downward direct on through the opposite Tower. This removes all the water particles and will be exhaust to atmosphere through one muffler. The drying and regeneration cycles are continuous and the dryer will pass uninterrupted moisture free air to the used end.

## SALIENT FEATURES

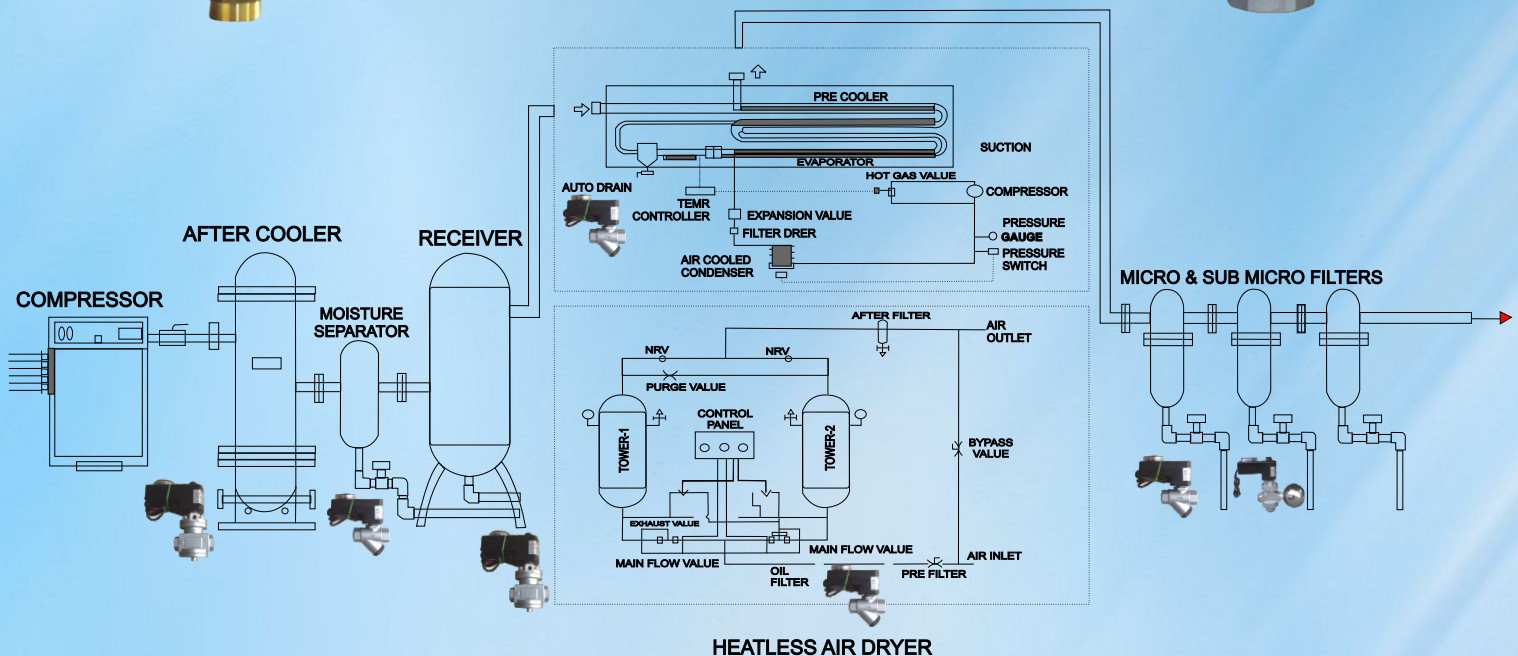
- ◎ MOISTURE FREE COMPRESSED AIR
- ◎ CONTINUOUS DUTY LOW OPERATING COST
- ◎ ON LINE OUTLET PRESSURE INDICATOR
- ◎ HIGH QUALITY DESICCANT EASY TO INSTALL
- ◎ HIGH PRECISION PNEUMATIC TUBING
- ◎ LOW PRESSURE DROP
- ◎ MIMIC FRONT PANEL
- ◎ NON-CORROSIVE METALLIC TUBING
- ◎ LOWER POWER CONSUMPTION



# AUTOMATIC DRAIN VALVES



REFRIGERATED AIR DRYER



SPECIFICATIONS	SADV - 01	SADV - 02	SADV - 03	SADV - 04	SADV - 05	SADV - 06
						
Value OFF Time	1 -128 min	1 -128 min	1 -128 min	1 -128 min	1 -128 min	1 -128 min
Value ON Time	4 Seconds	4 Seconds	4 Seconds	4 Seconds	4 Seconds	4 Seconds
Max. Temp.	75°C	75°C	75°C	75°C	75°C	75°C
Max. Pressure	16 Bar	16 Bar	40 Bar	70 Bar	16 Bar	16 Bar
In / Out Ports	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP	½" BSP
Power	220V AC	220V AC	220V AC	220V AC	220V AC	220V AC
Valve Material	Aluminium Die Cast	Aluminium Die Cast	Aluminium / Brass	Gun Metal	Aluminium Die Cast	Aluminium Die Cast
Max. Condensate Discharge / Cycle	0.07 Lit. @ 7 Bar	0.4 Lit. @ 7 Bar	0.03 Lit. @ 7 Bar	0.4 Lit. @ 40 Bar	0.4 Lit. @ 7 Bar	1.2 Lit. @ 7 Bar
Orifice	2.3 mm	12.5 mm	1.5 mm	15 mm	12.5 mm	25 mm
Type	Direct Operated	Pilot Operated	Direct Operated	Pilot Operated Pilot Pressure 7 Bar	Pilot Operated	Pilot Operated

### Applications

- ♦ Dryers
- ♦ Moisture Separators
- ♦ Filters
- ♦ After Coolers
- ♦ Receivers
- ♦ Drop Legs

### Salient features

- ♦ Reliable Electronic Circuitry
- ♦ High Grade Epoxy Resin for Absolute Timings
- ♦ Power and Drain Status Indication
- ♦ Variable Cycle Time
- ♦ Designed Specially to Drain Sludge and Dust Laden Condensate

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**DEALER**