

SWIFT EQUIPMENT INDUSTRIES



















# Refrigeration Type Air Dryer



#### Principal of Operation - SRD Series

Compressed air enters the air to air heat exchanger where it is pre-cooled by outgoing cold dry air. Pre-cooling makes it possible to use a smaller (More Economical) refrigeration unit. The pre-cooled air enters the air to freon heat exchanger where it is cooled down to +3C. At this temperature, water condenses into liquid droplets, which are removed from the air stream by a very efficient demister and automatically discharged by a automatic drain valve. The cold dry compressed air passes back through the secondary side of air to air heat exchanger where it is reheated by the incoming warm air. Reheating the outgoing compressed air increases the volume of the air enabling it to do more work and it also prevents downstream pipe sweating. Heat exchanger has no extended surface or sharp corners that collect dust, dirt or oil residue. Any dust, dirt and oil will be washed from the air system along with the condensed moisture at the De-mister.



- Digital Controller
- Pressure upto 70 Kg/cm2
- Large Condenser for High Ambient Temperature
- Advanced 3 in 1 Integral Heat Exchanger

Model	Flow cfm	Power KW	Refrigerant	END Con.	Dime	ension(1 w	mm) D	Weight Kg(Apx.)
SRD 20	20	0.36	R134a	1/2"BSP	490	380	500	55
SRD 40	40	0.36	R134a	1/2"BSP	490	380	500	55
SRD 60	60	0.53	R134a/R22	1"BSP	700	510	610	85
SRD 80	80	0.80	R134a/R22	1"BSP	700	510	610	90
SRD 100	100	0.85	R134a/R22	1"BSP	700	510	610	90
SRD 150S	150	1.10	R134a/R22	1"BSP	700	510	610	90
SRD 150B	150	1.10	R134a/R22	1"BSP	1000	615	680	130
SRD 200	200	1.44	R134a/R22	1½"BSP	1150	760	810	135
SRD 250	250	1.44	R134a/R22	1½"BSP	1150	760	810	135
SRD 300	300	2.20	R134a/R22	2"NB	1150	760	810	250
SRD 400	400	2.60	R134a/R22	2"NB	1250	890	1250	270
SRD 500	500	2.80	R134a/R22	2½"NB/F	1250	890	1250	295
SRD 650	650	3.60	R134a/R22	3"NB/F	1250	890	1250	365
SRD 800	800	4.00	R134a/R22	3"NB/F	1450	1060	1300	385
SRD 1000	1000	4.80	R134a/R22	3"NB/F	1450	1060	1300	400
SRD 1200	1200	5.05	R134a/R22	4"NB/F	1250	1400	1750	595
SRD 1350	1350	5.80	R134a/R22	4"NB/F	1250	1400	1750	650
SRD 1500	1500	6.20	R134a/R22	5"NB/F	1200	1650	1800	780
SRD 1650	1650	7.25	R134a/R22	5"NB/F	1200	1650	1800	850
SRD 1800	1800	9.57	R134a/R22	6"NB/F	1200	1800	1800	1050
SRD 2000	2000	10.07	R134a/R22	6"NB/F	1200	1800	1800	1085



## **Principal of Operation - SWC Series**

Owing to the dedication of our dilight professionals, we have earned a reputed name in manufacturing and supplying the finest quality assortment of water chiller used in different industries for cooling purposes, offered chiller is highly praised by the clients for their different quality features like in-built pump and efficient performance. Apart from this, we provide this **WATER CHILLER** in variegated sizes designs and specifications.

#### **Features:**

- Easy Installation
- Highly Flexible
- Increased Effectiveness

## **Operating Voltages:**

- 220 Volt AC / 50 Hz
- 380/400 Volt AC / 50 Hz



Model	Capacity	Refrigerant	Din H	nension ( W	mm) D	Weight Kg (Apx.)
SWC 01	1 TR	R-22/134	700	760	800	150
SWC 02	2 TR	R-22/134	900	710	830	230
SWC 03	3 TR	R-22/134	900	710	830	260
SWC 04	4 TR	R-22/134	1150	810	1000	300
SWC 05	5 TR	R-22/134	1150	810	1000	400
SWC 7.5	7 TR	R-22/134	1400	1250	1250	550
SWC 10	10 TR	R-22/134	1200	1000	1200	680
SWC 15	15 TR	R-22/134	1200	1200	1600	850
SWC 20	20 TR	R-22/134	2400	1250	1800	1000



### **Principal of Operation - SHD Series**

#### **Selection Example**

Requirment:

Flow Pressure: 175 cfm
Working Pressure: 6 kg/cm²
Inlet Air Temperature: 45°C

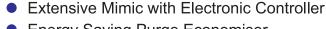
Referring the Graphs: Factor(T)= 0.9

Factor(P)= 0.88

Dryer Capacity Required : Flow Volume 175
Factor(T) x Factor(P) 0.9 x 0.88

= 220.9 cfm

Pre-filteration: The moisture laden compressed air passes through the pre filter, here moisture load is reduced through coalescence. Condensation is removed completely, small level of water condensation is purged through the valve ADV2. Drying: (Please refer figure) The Towers are filled with Activated Alumina as Desiccant (Molecular sieve Available as option). When air passes through Tower 1 which consists of "Dry" Desiccant, it gets completely dried, and passes through check valve and after filter at the after filter, Desiccant fines are removed, Therefore dry compressed air passes out at the outlet. Regeneration: (Please refer figure) Regeneration



- Energy Saving Purge Economiser
- Stainless Steel Filters Catridges
- Fabrication Code : 15 2825
- Dew Point Then -40°C

### **Optional**

- Fabrication Code : ASME SEC VIII DIV I
- Dew Point Based Changeover

takes place in 2 stages (a) De-Pressurisation (b) By passing Dry Air. Tower II consists of fully moist desiccant at pressure. this is suddenly De-pressuriesd by opening the purge valve. Water molecules seep out of the desiccant and appear on the surface. "Super Dry" purga air passes through the regeneration "Nozzle" and the desiccant bed thereby completely carrying away the water molecules. Tower II gets regeneration and is ready for the next Drying cycle after the re-pressurisation.



Model Inlet Flow cfm		End Connection	Dimension (mm) H W D			Weight Kg (Apx.)	
SHD-40	40	½" BSP	1300	700	700	185	
SHD-60	60	3/4" BSP	1500	800	800	250	
SHD-80	80	3/4" BSP	1700	900	900	300	
SHD-100	100	1" BSP	2000	750	650	380	
SHD-150	150	1" BSP	2050	750	650	440	
SHD-200	200	1½" BSP	2100	750	650	550	
SHD-300	300	2" NB/F	1640	1200	1300	620	
SHD-400	400	2" NB/F	1975	1200	1300	700	
SHD-500	500	21/2" NB/F	1860	1200	1300	850	
SHD-600	600	2" NB/F	2200	1200	1300	950	
SHD-800	800	3" NB/F	1925	1500	1500	1265	
SHD1000	1000	3" NB/F	2350	1500	1500	1575	







#### AIR FILTER

- Flow upto 2000 cfm
- Pressure upto 100 kg/cm²
- Element type
- Automatic/Manual Drain
- Oil / Moisture Separator

#### **Compressed Air Filters**

Swift filter SFM & SFO Series is the right solution for compressed air applications and ideal for moisture & Oil Separators

#### Swift Moisture Separator-SFM

Series SFM removes moisture from the compressed air by coalscence.

The condensed moisture is drained periodically by manual/Automatic drain

# Swift Oil Separator-SFO

Series SFO removes hydrocarbons from compressed air and adsorbs the Vapour particles of oil. The Condensed oil particles are drained out by manual/Automatic drain.

# SUBMICRONS FILTER

- Flow upto 2000 cfm
- Oil, Moisture and Particulars Removal
- Coalescing
- Particle Removal 0.01 Micron
- Max. Oil Carryover 0.003 mg/m³

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#### AIR RECEIVER

Product Description **SWIFT EQUIPMENT** is the leading supplier of air receiver tanks. **Air Receiver Tanks** available with us is an exclusive range of vertical air receiver that are extremely effective in condensing the moisture and other impurities in the compressed air. Once this is Done, The air passed through other processors for further processing.



# HEAT EXCHANGER AIR COOLED AFTER COOLER

**SWIFT AIR COOLED** Heat exchanger's also known as Fin Fan heat exchangers are typically used in applications where water is not available or the desired process outlet temperature can be achieved given the maximum ambient temperatures.



#### WATER COOLED AFTER COOLER

Water Cooled units unit can usually be mounted in a vertical or horizontal configuration. Standard models are with copper tubes and steel shells, while there are options available water and stainless steel for highpressure gases. The hot compressed air flows through the tubes while the cooling water flows in the opposite direction around the tubes. The result is cooler air with limited pressure drop.



#### AUTOMATIC DRAIN VALVE

Designed specially to drain sludge and rust laden condensate in compressor room equipment and pipeline.

Reliable all Digital electronic circuitry encapsulated in high grade epoxy resin for absolute time control.

Easy settings for variable cycle time with power and drain status indicator.

Certification from many evaluating agencies.

#### **Industry Served**

- Textiles
- Automobiles
- Foundry
- Medical
- Pet Blowing
- Food & Beverges
- Powder Coating
- Printing Industries
- Laser Cutting

#### **Our Other Range of Products**

- Refrigeration Dryer
- Heatless Dryer
- Water Chiller
- Air Receiver
- Filter
- Automatic Drain



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