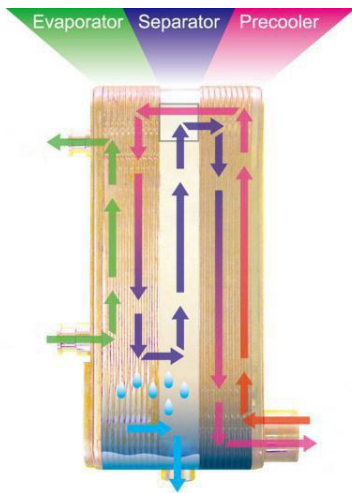


Refrigerated Compressed Air Dryers

SCD, APD, BPD SERIES 0.8-133m³/min (28-4695 cfm)



HIGH QUALITY COMPRESSED AIR



No demister type 3-in-1 Heat Exchanger



SCD Series Refrigerated Air Dryer 0.8-28m³/min (28-988CFM)

DURABLE AND SUPERIOR DESIGN

- No demister type 3-IN-1 Stainless Steel heat exchanger combines precooler, evaporator and separator to avoid the clogging problem and ensure superior reliability.
- All stainless steel plates and separator with copper brazed plate heat exchanger has rigorous mechanical strength, ensures high corrosion resistance to protect critical equipment who rely on high quality compressed air.
- Compact and optimized heat exchanger reduces the amount of refrigerant, lower electrical power consumption and operation cost. Large air/air channel ensure low pressure drop.

STABLE LOW DEW POINT

- Advanced hot gas bypass valve provides constant low dew point temperature even at varying levels of compressed air and prevents freezing inside the heat exchanger.

LOW PROFILE, COMPACT STRUCTURE

- High ground clearance with their low profile design, machine feet increase ground clearance and therefore help to protect the unit's internal components.

FOR HIGH TEMPERATURE ENVIRONMENT

- Large air-cooled condenser combined with generously sized heat exchanger enable the dryer working well even in conditions such as high ambient temperature and high inlet temperature.

SIMPLE CONTROL, EASY MAINTENANCE

- Models 48-420: Lighted On/Off switch and colour change dew point indicator allows the user to check system status at-a-glance.
- Model 510-1500: Dew point control. On/Off- display on central operating panel. Timer drain/electronic level- controlled drain.

RELIABLE CONDENSATE DRAINAGE

- Electronic timed drain valve with strainer, optional zero-loss level controlled or pneumatic drain.

SAFETY FIRST, ENVIRONMENTAL FRIENDLY

- Heat Exchanger is PED approved
- Electronic components comply with CE standard
- Premium air-conditioning refrigerant compressors with CFC free R407C refrigerant

APD Series Tropical Type Refrigerated Air Dryer 6.7-150m³/min (237-4695CFM)

Through rigorous testing of component configurations, SCALA pinpointed the optimal balance between efficiency and durability to ensure product longevity in hot and high humidity conditions – with the result being a product that will excel in any climate.

- Compact Cross Flow Aluminium Heat Exchanger
- Advanced Thermal Sensors and Controls
- Safeguards against Load Variance
- Precision Pressure Dew Point

PCR ALUMINUM HEAT EXCHANGER

- The high performance PCR Cross Flow Heat Exchanger provides superior heat transfer with no internal piping or gaskets, assuring maintenance free operation under the most challenging conditions.
- The cross-flow design allows the air-to-air heat exchanger to pre-cool the hot incoming air, transferring heat to the cold air returning from the evaporator.
- Pre-cooling the inlet air reduces cooling load on the refrigerant, decreasing the size and energy consumption of the refrigeration circuit and increasing total system longevity.
- Cabinet is constructed from two-tone galvanized sheet metal, designed with ease of access in mind, protecting internal components from the elements and simplifying routine maintenance.

CONDENSER

- High Fin Tube Condenser is coated with blue plastic film specially designed to prevent corrosion from Ammonia, Water, and Ferrous oxide, common in operating environments, caused by waste water and facility contamination.

HOT GAS BYPASS VALVE

- Standard Hotgas Bypass Valves are replaced with advanced mechanical designs, allowing linear control of system dew point within +/- 0.10 ° C variance, preventing ice formation, fluctuations in outlet moisture.

CONTROL PANEL

- Advanced control panel allows quick access to real time data and diagnostics to ensure dryer operates at customer's precise requirements .
- NEW FEATURE: After an automatic shutdown, an intergrated heat sensing switch restarts the machine when temperatures return to normal - reducing downtime and maintaining consistent performance.

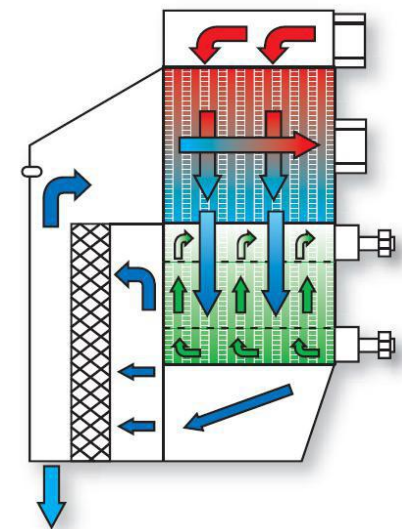
COMPRESSOR

- scroll compressors, which are hermetically sealed and equipped with anti-vibration mounts and overload protection. Scroll compressors reduce full load energy consumption by 20% compared to piston designs and improve the longevity of the refrigeration circuit.

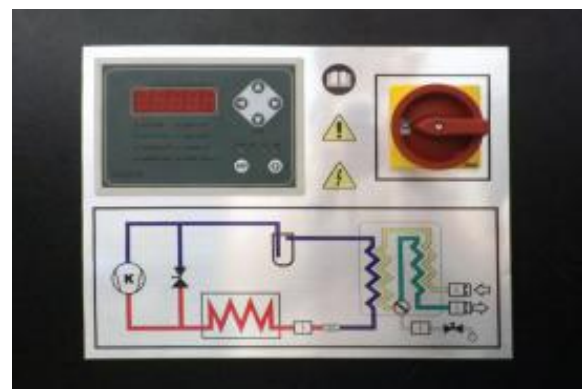
SAFETY FIRST — ENVIRONMENTAL FRIENDLY

- Utilizes CFC R407C refrigerant in compliance with the Montreal Protocol
- Heat Exchanger is PED approved
- Electronic components comply with CE standard

LOW ENERGY CONSUMPTION



PCR Aluminum Heat Exchanger



1097T and above: Control Panel

CONSISTENT PERFORMANCE



Stainless Steel Heat Exchanger



Hot gas Bypass Valve

BPD Series High Inlet Temperature Refrigerated Dryer 0.8-7m³/min (28-247CFM)

Through rigorous testing of component configurations, SCALA pinpointed the optimal balance between efficiency and durability to ensure product longevity in hot and high humidity conditions.

BPD Series high inlet temperature refrigerated air dryers are designed for piston air compressors or screw air compressor with high exhaust temperature.

PROVEN PERFORMANCE

- Stainless steel, cross flow heat exchangers optimize heat transfer and service life. Smooth, non-fouling channels promote low pressure drop.
- Stainless steel inlet and outlet connections promote corrosion free service
- Compact design saves floor space.

NO AFTER COOLER DESIGN

- Effectively removes condensate from 0 to 100% flow conditions without moisture carry-over
- Furnished with a timed electric condensate drain, Includes a Y-strainer to protect the valve from rust and scale.

OPTIMIZED AIR CONDENSER

- High Fin Tube Condenser is coated with blue plastic film specially designed to prevent corrosion in operating environments caused by waste water and facility contamination.
- The high efficiency fan is located on the top of dryer, this up-flow ventilation brings better cooling effect in hot and humid environment.

STABLE LOW DEW POINT

- Standard Hotgas Bypass Valves are replaced with advanced mechanical designs, allowing linear control of system dew point within +/- 0.10 °C variance, preventing ice formation, fluctuations in outlet moisture.

SIMPLE CONTROL, EASY MAINTENANCE

- Lighted On/Off switch and colour change dew point indicator allows the user to check system status at-a-glance.

ENVIRONMENTAL FRIENDLY

- Premium air-conditioning refrigerant compressors with CFC free R407C refrigerant.

International Air Quality Class Standards

ISO 8573-1 AIR QUALITY STANDARD

ISO 8573-1, the international standard for compressed air quality, defines the amount of contamination permissible in compressed air.

The ISO standard identifies three primary forms of contamination in compressed air systems – solid particles, water and oil. Contaminants are classified and assigned a quality class, ranging from Class 0, the highest purity level, to Class 6, the most relaxed.

SF series refrigerated air dryers offer the perfect balance between technology and simplicity to dry compressed air systems to ISO 8573-1 Air Quality Class 4 to 5 - pressure dew points.



OPTION PRE-FILTRATION

SF series – M grade filtration – removes solid and oil contaminants from the air stream before entering the dryer.

ISO Air Quality Class:

- Solids – Class 2
- Remaining Oil – Class 2
- Removes solids 1.0 micron and larger
- Remaining oil content < 0.1 mg/m³

OPTION AFTER-FILTRATION

SF series – H grade filtration – provides high efficiency oil removal protecting downstream equipment.

ISO Air Quality Class:

- Solids – Class 1
- Remaining Oil – Class 1
- Removes 99.999+% of solids ≤ 0.01 micron
- Remaining oil content < 0.01 mg/m³

Product Specifications -SCD Series

Model	Rated Flow 3°C Dew point			Rated Flow 7°C Dew point			Refrigerant	Power	Voltage
	m³/h	m³/min	cfm	m³/h	m³/min	cfm		kw	
SCD48	48	0.8	28	57.6	0.96	34	R407C	0.6	230/1/50
SCD78	78	1.3	46	93.6	1.56	55	R407C	0.6	230/1/50
SCD102	102	1.7	60	122.4	2.04	72	R407C	0.68	230/1/50
SCD144	144	2.4	85	172.8	2.88	102	R407C	0.68	230/1/50
SCD186	186	3.1	109	223.2	3.72	131	R407C	0.83	230/1/50
SCD252	252	4.2	148	302.4	5.04	178	R407C	0.83	230/1/50
SCD330	330	5.5	194	396	6.6	233	R407C	1.1	230/1/50
SCD390	390	6.5	230	468	7.8	275	R407C	1.1	230/1/50
SCD420	420	7	247	504	8.4	296	R407C	1.13	230/1/50
SCD510	510	8.5	300	612	10.2	360	R407C	1.5	230/1/50
SCD660	660	11	388	792	13.2	466	R407C	2.3	400/3/50
SCD840	840	14	494	1008	16.8	593	R407C	3	400/3/50
SCD1080	1080	18	635	1296	21.6	762	R407C	3.8	400/3/50
SCD1320	1320	22	777	1584	26.4	932	R407C	3.8	400/3/50
SCD1680	1680	28	988	2016	33.6	1186	R407C	4.5	400/3/50

Rated Flow Capacity – Compressed air inlet: 7 barg and 35°C; ambient air temperature: 35°C; . At rated conditions, pressure drop is less than 0.35bar.

Correction Factor For Different Working Conditions

Operating Pressure -F1 bar	4	5	6	7	8	9	10	11	12	13	16
Factor 1	0.77	0.86	0.93	1	1.05	1.08	1.1	1.12	1.13	1.14	1.16
Inlet Temperature - F2 °C	30	35	40	45	50	55	60				
Factor 2	1.2	1	0.91	0.82	0.6	0.5	0.4				
Ambient Temperature - F3 °C	25	30	35	40	45	50					
Factor 3	1.15	1.11	1	0.95	0.9	0.8					
Pressure Dew Point - F4 °C	3	5	7	10							
Factor 4	1	1.1	1.21	1.38							

Model	Inlet/ Outlet	Dimensions (mm)			Weight	Recommended Filters	
	BSP-F	L	W	H	kg	Prefilter	After Filter
SCD48	1/2"	395	460	500	30	SF0045M	SF0045H
SCD78	3/4"	420	460	518	35	SF0070M	SF0070H
SCD102	3/4"	500	500	610	40	SF0070M	SF0070H
SCD144	1"	520	560	660	45	SF0125M	SF0125H
SCD186	1"	520	560	660	50	SF0125M	SF0125H
SCD252	1"	600	610	700	55	SF0180M	SF0180H
SCD330	1 1/2"	600	610	700	62	SF0265M	SF0265H
SCD390	1 1/2"	600	610	700	68	SF0265M	SF0265H
SCD420	1 1/2"	725	629	730	78	SF0370M	SF0370H
SCD510	2"	650	708	820	90	SF0515M	SF0515H
SCD660	2"	800	660	952	140	SF0515M	SF0515H
SCD840	2"	800	660	952	170	SF0745M	SF0745H
SCD1080	2"	900	1150	1425	220	SF0745M	SF0745H
SCD1320	2-1/2"	900	1150	1425	260	SF1060M	SF1060H
SCD1680	3"	900	1150	1425	300	SF1280M	SF1280H

Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.

Product Specifications -APD Series

Model	Rated Flow 3°C Dew point			Rated Flow 7°C Dew point			Refrigerant	Power	Voltage
	m³/h	m³/min	cfm	m³/h	m³/min	cfm		kw	
APD402T	402	6.7	237	480	8	282	R407C	1.13	230/1/50
APD552T	552	9.2	325	660	11	388	R407C	2.3	400/3/50
APD750T	750	12.5	441	900	15	530	R407C	3	400/3/50
APD882T	882	14.7	519	1056	17.6	621	R407C	3.8	400/3/50
APD1098T	1098	18.3	646	1320	22	777	R407C	4	400/3/50
APD1500T	1500	25	883	1800	30	1059	R407C	5	400/3/50
APD1770T	1770	29.5	1041	2124	35.4	1250	R407C	6	400/3/50
APD2250T	2250	37.5	1324	2700	45	1589	R407C	7	400/3/50
APD2652T	2652	44.2	1560	3180	53	1871	R407C	8	400/3/50
APD3000T	3000	50	1765	3600	60	2118	R407C	9.8	400/3/50
APD3498T	3498	58.3	2058	4200	70	2471	R407C	11.3	400/3/50
APD4350T	4350	72.5	2559	5220	87	3071	R407C	15	400/3/50
APD4980T	4980	88.5	3124	6372	106.2	3749	R407C	17	400/3/50
APD5880T	5880	103	3636	7416	123.6	4363	R407C	19	400/3/50
APD7980T	6720	133	4695	9576	159.6	5634	R407C	22.5	400/3/50

Rated Flow Capacity – Compressed air inlet: 7 barg and 35°C; ambient air temperature: 35°C; . At rated conditions, pressure drop is less than 0.26bar.

Correction Factor For Different Working Conditions

Operating Pressure -F1 bar	4	5	6	7	8	9	10	11	12	13	14
Factor 1	0.77	0.86	0.93	1	1.05	1.08	1.1	1.12	1.13	1.14	1.15
Inlet Temperature - F2 °C	35	40	45	50	55	60	65				
Factor 2	1.21	1.1	1	0.8	0.7	0.6	0.55				
Ambient Temperature - F3 °C	25	30	35	40	45	50					
Factor 3	1.15	1.11	1	0.95	0.85	0.75					
Pressure Dew Point - F4 °C	3	5	7	10							
Factor 4	1	1.1	1.21	1.38							

Model	Inlet/ Outlet	Dimensions (mm)			Weight	Recommended Filters	
	BSP-F	L	W	H	kg	Prefilter	After Filter
APD402T	1.1/2"	470	800	800	85	SF0370M	SF0370H
APD552T	2"	760	800	1175	125	SF0515M	SF0515H
APD750T	2"	760	800	1175	150	SF0745M	SF0745H
APD882T	2"	760	800	1175	180	SF0745M	SF0745H
APD1098T	DN80	760	1450	1500	280	SF1060M	SF1060H
APD1500T	DN80	760	1450	1500	300	SF1280M	SF1280H
APD1770T	DN80	760	1450	1500	330	SF1280M	SF1280H
APD2250T	DN100	810	1450	1500	450	SF1650M	SF1650H
APD2652T	DN100	810	1450	1500	500	SFL2200M	SFL2200H
APD3000T	DN100	1000	2100	1650	600	SFL2200M	SFL2200H
APD3498T	DN100	1000	2100	1650	650	SFL2900M	SFL2900H
APD4350T	DN150	1000	2100	1650	800	SFL3700M	SFL3700H
APD4980T	DN150	1000	2100	1650	900	SFL4400M	SFL4400H
APD5880T	DN200	1150	3200	2100	1150	SFL5100M	SFL5100H
APD7980T	DN200	1150	3200	2100	1450	SFL6600M	SFL6600H

Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.

Product Specifications -BPD Series

Model	Rated Flow 3°C Dew point			Rated Flow 7°C Dew point			Refrigerant	Power	Voltage
	m³/h	m³/min	cfm	m³/h	m³/min	cfm		kw	
BPD48	48	0.8	28	57.6	0.96	34	R407C	0.6	230/1/50
BPD78	78	1.3	46	93.6	1.56	55	R407C	0.6	230/1/50
BPD102	102	1.7	60	120	2	72	R407C	0.68	230/1/50
BPD144	144	2.4	85	174	2.9	102	R407C	0.68	230/1/50
BPD186	186	3.1	109	222	3.7	131	R407C	0.83	230/1/50
BPD252	252	4.2	148	300	5	178	R407C	0.83	230/1/50
BPD330	330	5.5	194	396	6.6	233	R407C	1.1	230/1/50
BPD390	390	6.5	229	468	7.8	275	R407C	1.13	230/1/50
BPD420	420	7	247	504	8.4	296	R407C	1.13	230/1/50

Rated Flow – Compressed air inlet: 7 barg and 50°C; ambient air temperature: 35°C . At rated conditions, pressure drop is less than 0.2bar.

Correction Factor For Different Working Conditions

Operating Pressure -F1 bar	4	5	6	7	8	9	10	11	12	13	16
Factor 1	0.77	0.86	0.93	1	1.05	1.08	1.1	1.12	1.13	1.14	1.16
Inlet Temperature - F2 °C	35	40	45	50	55	60	70	80			
Factor 2	1.25	1.15	1.08	1	0.88	0.75	0.68	0.6			
Ambient Temperature - F3 °C	25	30	35	40	45	50					
Factor 3	1.15	1.11	1	0.92	0.85	0.75					
Pressure Dew Point - F4 °C	3	5	7	10							
Factor 4	1	1.1	1.21	1.38							

Model	Inlet/ Outlet	Dimensions (mm)			Weight	Recommended Filters	
	BSP-F	L	W	H	kg	Prefilter	After Filter
BPD48	1/2"	400	480	700	32	SF0045M	SF0045H
BPD78	3/4"	400	480	700	37	SF0070M	SF0070H
BPD102	3/4"	500	500	710	42	SF0070M	SF0070H
BPD144	1"	520	560	760	47	SF0125M	SF0125H
BPD186	1"	520	560	760	52	SF0125M	SF0125H
BPD252	1"	600	610	800	58	SF0180M	SF0180H
BPD330	1 1/2"	600	610	800	65	SF0265M	SF0265H
BPD390	1 1/2"	725	629	900	78	SF0265M	SF0265H
BPD420	1 1/2"	725	629	900	82	SF0370M	SF0370H

Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.

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