

R e f r i g e r a t e d A i r D r y e r s



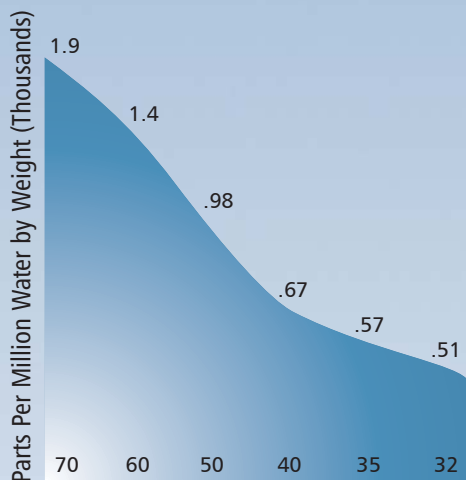
S m a r t C y c l e[®] & C o l d T r a p[®]

Smart Cycle® Dual Mode Demand Control

Airtek's award winning Smart Cycle and Cold Trap refrigerated air dryers come with Dual Mode operation. They can run in a full "cycling" (on/off) mode or "non-cycling" demand mode. They deliver compressed air 2 times drier than conventional dryers with as little as half the energy. The standard control panel includes a Digital Dew Point Temperature Readout, with Diagnostic Display for alarms and protective shutdown annunciation. Common alarm and a dry contact signal: high dew point, low refrigerant, refrigeration system overload, sensor fault, and high / low refrigerant pressure. The panel also includes a Demand Drain Control and Mode Selector. Available options include: Control Center, dual hour meters, a PLC interface and a remote control panel.

The dryers are available in two configurations. The SC or standard Smart Cycle package uses a high efficiency mechanical separator for liquid collection, whereas the CT or Cold Trap configuration utilizes a two-stage, combination Moisture Separator/Cold Coalescer to deliver virtually oil free compressed air.

The full-cycling "Thermal Bank" (Start/Stop) mode is usually selected for operation when less than full load is expected from the air compressor (i.e. third shift, weekends, etc.). When operating in the "Thermal Bank" cycling mode the refrigeration compressor turns on or off in response to the temperature of the compressed air exiting the main heat exchanger. When the temperature of the compressed air falls to the low setpoint, the Smart Cycle controller starts the off cycle sequence. The sequence generates a "Thermal Bank" of cold storage in the main heat exchanger. "Thermal Banking" prevents frequent cycling and reduces the dew point spikes inherent to "mass only" types of cycling dryers. When the compressed air temperature rises to the controller's upper setpoint, the refrigeration compressor turns back on.

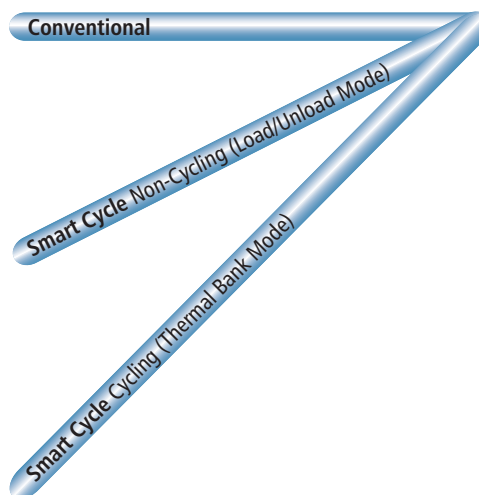


Dew Point °F

PPM Water vs. Dew Point

Compressed Air @ 100 PSIG

Airtek air dryers are designed to eliminate chronic expenses caused by dirty, wet compressed air.



0% Load 50% Load 100% Load

Energy Use Comparison

"Smart Cycle" vs. Non-Cycling

The refrigeration compressor restarts in an unloaded condition. Load is introduced after the motor is up to speed. The combination of a loadless restart, along with the generous cold storage created by the Thermal Banking process, prevents short cycling, reduces dew point spikes, and prolongs compressor life while delivering maximum performance and energy savings.

Airtek's unique non-cycling Load/Unload mode is usually selected when extremely tight dew point is desired. When operating in the Load/Unload mode, the refrigeration compressor switches from a loaded condition to an unloaded condition. This condition is determined by the temperature of the compressed air that flows over a patented temperature probe located in the main heat exchanger.

When the temperature of the compressed air falls to the low setpoint, the Smart Cycle controller signals the unloader valve to open. The compressor will continue to run but it will be running in an unloaded condition and its energy consumption is reduced by about 50%.

When the temperature of the compressed air rises to the upper setpoint, the Smart Cycle controller signals the unloader valve to close and the compressor resumes full-load operation.

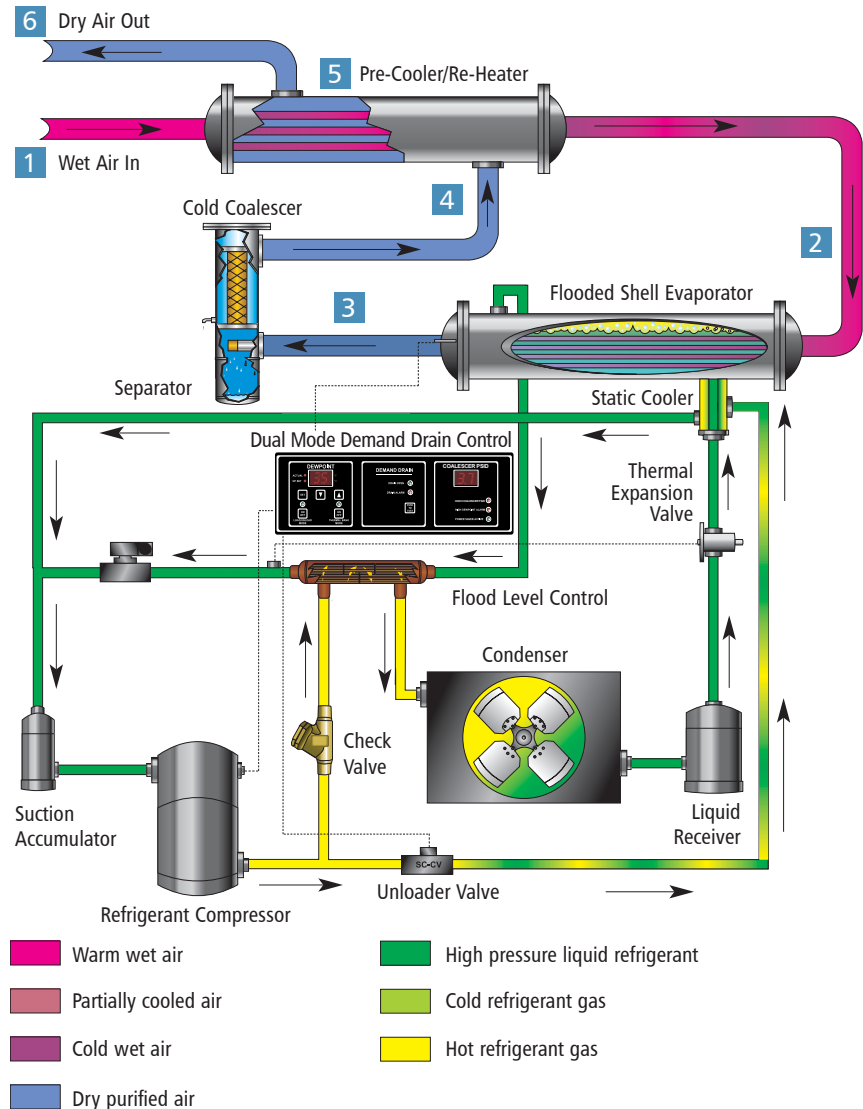
Dew point and controller setpoints are adjustable in both modes, but in order to keep the relative humidity of the compressed air below levels that could damage air operated equipment and/or processes, we recommend that the unit be set at the lowest possible temperature.

Because Smart Cycle and Cold Trap dryers can produce temperatures 20°F to 30°F colder than possible with conventional dryers, they deliver compressed air that is twice as dry. The compressor does less work when unloaded and no work when OFF, consequently Smart Cycle and Cold Trap dryers use much less energy. There is simply no other refrigerated air dryer anywhere, or at any price, that can match Smart Cycle performance, efficiency and versatility.



Smart Cycle® & Cold Trap® Flow Schematic

- 1 Saturated compressed air enters the tubes of the oversized air to air heat exchanger where it is pre-cooled by cold, dry air returning through the shell from the freon to air evaporator. Pre-cooling saves energy by reducing the heat load on the refrigeration system.
- 2 After the compressed air has been pre-cooled, it flows into the tube side of the flooded shell evaporator where the temperature is lowered to approximately +34°F. The temperature reduction forces water and oil vapor to condense. The Smart Cycle controller holds the air temperature between +33°F and +39°F, regardless of conditions or load.
- 3 The mixture of cold compressed air and condensed liquid then flows into the mechanical moisture separator.
- 4 The compressed air then returns through the shell side of the air to air exchanger and exits the dryer. On units with Cold Coalescer (shown here) the compressed air flows from the first stage moisture separator up through the second stage cold coalescing element where 99.99+% of the remaining aerosols and mists are removed. With a remaining hydrocarbon content of less than .001 PPM, the compressed air is now considered to be virtually oil free.
- 5 After the aerosols and mists have been removed by the CT's cold coalescer, the purified compressed air returns through the shell side of the air to air heat exchanger where its volume is increased by reheating.
- 6 The processed air then re-enters the main distribution system as a clean and efficient utility. As a result of re-heating, downstream piping will not sweat.



Smart Cycle® and Cold Trap® Performance Guarantee

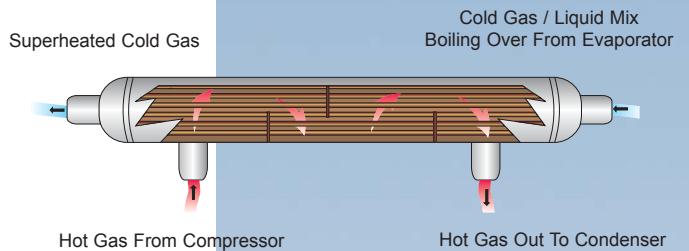
Airtek Smart Cycle and Cold Trap refrigerated air dryers are Guaranteed to hold temperature of compressed air at +33°F to +39°F at all operating conditions up to the maximum capacity of the dryer.

All Airtek Smart Cycle and Cold Trap refrigerated air dryers shall be equipped with a standard Digital Readout to prominently display the guaranteed compressed air temperature on the control panel.

It's because of this patented refrigeration system that the SC/CT dryer is offered with the industry's only guaranteed performance at all operating conditions

Patented Flood Level Control

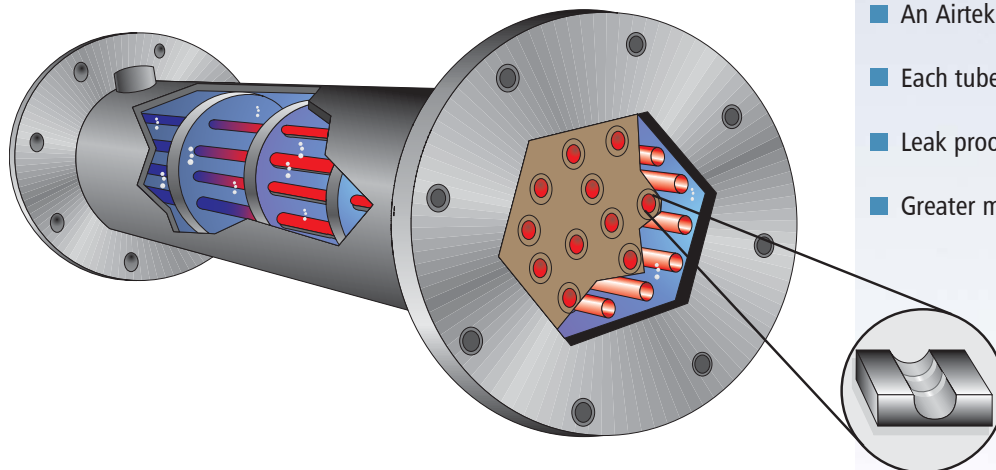
- Improves performance by doubling the effective surface area of the main evaporator.
- Protects the compressor from refrigerant “floodback” which is a major cause of compressor failure on competitors’ dryers.
- Ensures proper oil return to the compressor which is another major cause of compressor failure on competitors’ dryers.
- Eliminates the need to attempt precision adjustments on the thermostatic expansion valve.



Tube & Shell Heat Exchangers

All Airtek Smart Cycle and Cold Trap dryers use non-fouling, tube and shell heat exchangers. They are simple, reliable and time proven. Optimum heat transfer is achieved by directing the flow of raw compressed air through straight, smooth tubes where it is surrounded by cold air in the pre-cooler/reheater and colder liquid refrigerant in the evaporator. This envelope of cold allows the dryer to achieve and maintain desired low temperature within minutes of start up.

The patented Flood Level Control allows the evaporator to be fully activated while protecting the compressor from floodback. The fully active, flooded evaporator eliminates evaporator hot spots and assures a consistent low temperature at all load conditions from 0 - 100%. Because the tubes have no extended surfaces, bends or curves to trap and collect sediment, energy consuming flow restrictions are eliminated. The self cleaning heat exchangers also eliminate the need for a pre-filter and pressure drop is kept to a minimum. Removable end bonnets allow for in-line service should it be required. Competitive dryers direct their flow of dirty air through the shell of the heat exchanger, where dirt and oil get trapped. Since these heat exchangers are not cleanable, efficiency suffers and energy consuming pressure drop begins to build immediately after being placed in service.



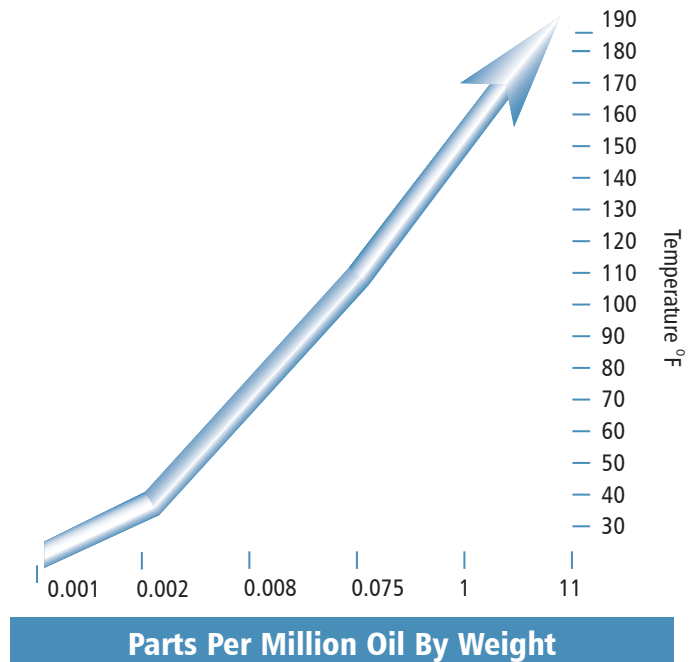
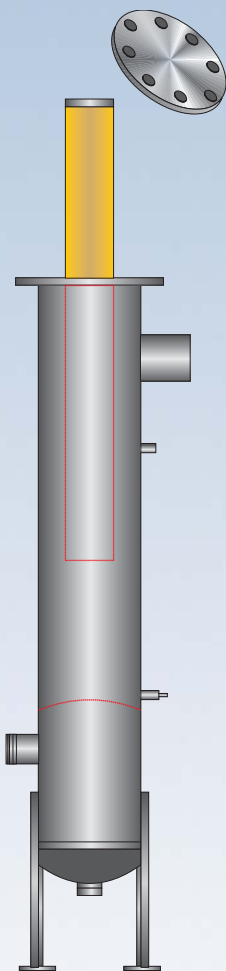
Grooved Tube Sheets

- An Airtek exclusive
- Each tube sheet hole has precision milled grooves
- Leak proof joints
- Greater mechanical strength

Cold Trap[®] Difference

Airtek's Cold Trap (CT) configuration combines the advantages of Smart Cycle performance and energy savings, with the oil removing efficiency of a built-in, two-stage, cold coalescer. "Cold Trapping" or coalescing at the lowest possible temperature removes as much as 100 times more oil than typical coalescing at higher temperatures.

The temperature of the compressed air entering the Cold Trap's combination moisture separator/cold coalescer is precisely held between +33°F and +39°F by the Smart Cycle controller. At these low temperatures the compressed air contains high concentrations of condensed liquid. A coalescer can only remove liquid, it cannot remove vapor. At +35°F, as much as 100 times more oil will be in a liquid state than would be if air were at +100°F. Therefore, at the lower temperature, 100 times more oil is available for the coalescer to catch and remove.



PPM Oil vs. Temperature

Typical Air Compressor Oil 100 PSIG

The Airtek Cold Trap design prolongs element life by removing bulk liquids in the first stage mechanical separator and aerosols in the second stage cold coalescing element. Because the element is not exposed to bulk contaminants, pressure drop is kept to a minimum further conserving energy.

The Smart Cycle control incorporates a panel mounted digital readout that displays the actual temperature of the compressed air measured at the inlet of the Cold Trap. Because the Cold Trap is 99.99+% efficient, the temperature displayed is the actual dew point.

The element can be easily replaced without disturbing insulation, air lines or drain piping. It simply lifts out of the top of the filter housing. A panel mounted differential pressure gauge monitors element condition, and a panel mounted light alerts the operator to element expiration.

The Airtek Cold Trap design can save as much as \$4,176 per year in energy cost on a typical 100 HP compressor system. See pages 8 & 9 for "Pressure Drop, the Hidden Cost of Compressed Air".

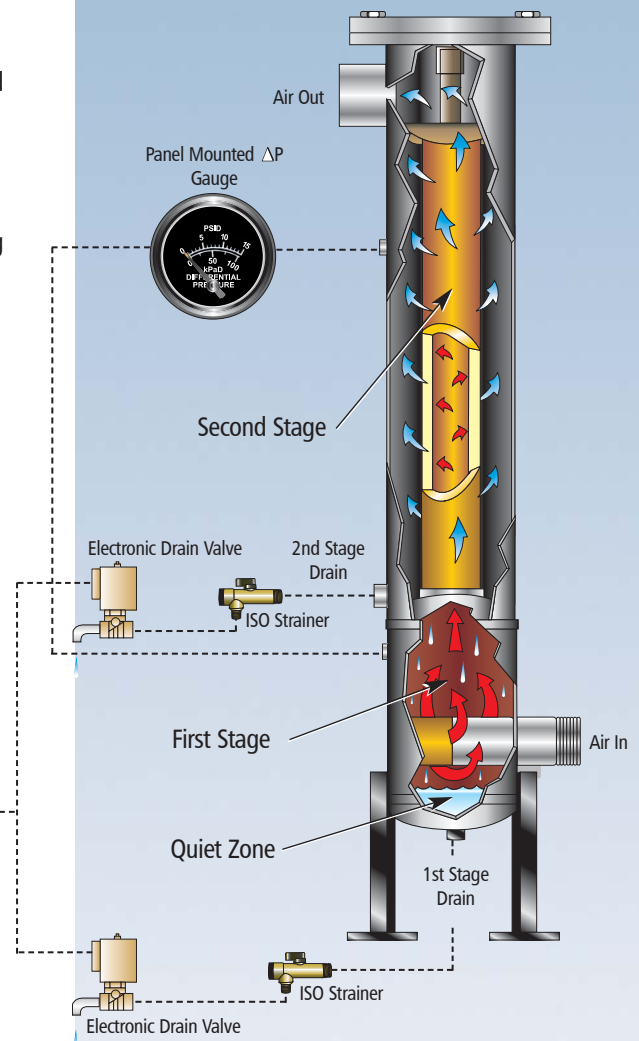
Cold Trap[®] Design

- Wet compressed air enters the first stage of the Cold Trap at +33°F to +39°F. A patented probe monitors the temperature of the compressed air.
- The tangential inlet and pre-coalescer screen diffuse the entering air causing bulk liquid and gross contaminants to impinge on the chamber wall and fall to the sump. The large quiet zone and internal drain directors combine to prevent re-entrainment and ensure proper 1st stage separation.
- The pre-cleaned compressed air flows up into the 2nd stage cold coalescer. The high efficiency, borosilicate fiber coalescing element removes 99.99+% of the remaining aerosols and mists.
- The compressed air exits the Cold Trap's cold coalescer with a hydrocarbon content of less than .001 PPM by weight and is now considered to be virtually oil free.
- Individual demand drains for both first and second stage assure unattended maximum reliability demand draining with absolutely "Zero Air Loss".
- A panel mounted differential pressure gauge monitors element condition.
- The element can be replaced by removing the top plate without disturbing the insulation or piping.



Maximum Reliability Demand Drain

All Airtek Smart Cycle and Cold Trap Dryers are equipped with factory installed "Zero Air Loss" electronic drains, assuring unattended, maximum reliability demand draining with absolutely no air loss. A large orifice solenoid valve is automatically opened by a level switch assuring complete drainage. The Demand Drain eliminates fouling, pressure loss and manual adjustments associated with timed drains. Fail to drain alarm with remote contacts is standard.



Cold Trap[®] Minimizes Pressure Drop

Pressure drop results when a gas (compressed air) flows through a system's components. These components include: coolers, separators, receivers, dryers, filters and piping. The degree to which components restrict air flow results in a reduction of line pressure. For example, a flow of 500 SCFM at 100 PSIG will lose 0.742 PSI for each 100 feet of travel through 2.5" pipe. Forcing that much air through a 2" pipe would result in a pressure drop of 1.92 PSI per 100 feet. Excessive pressure drop burns energy and wastes money. With this in mind, it is important to exercise care when selecting system components, piping size and system layout.

A conventional 500 SCFM refrigerated air dryer will cause a pressure drop of approximately 5 PSIG when treating its full capacity of 500 SCFM at 100 PSIG. Determining the pressure drop through either a coalescer or a particulate filter is a bit more complicated.

Pressure drop through a new, clean dry filter is typically less than 1 PSIG. As the element collects water, dirt and oil, the pressure drop steadily increases. The elements are usually changed out when the pressure drop reaches 10 PSIG to 15 PSIG. Over the life of these filter elements, the average pressure drop per filter is about 7.5 PSIG. Adding the 5 PSIG loss through a conventional refrigerated air dryer, the total pressure drop across a typical installation can easily exceed 20 PSIG.

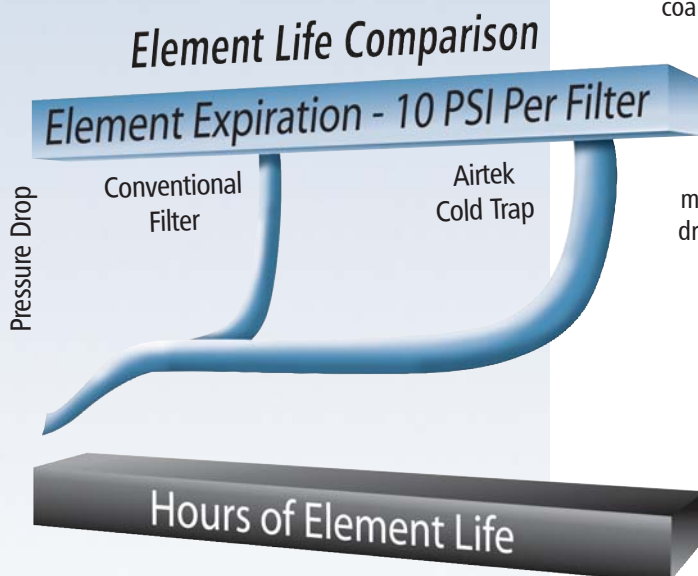
Each pound of pressure drop costs 1/2% of the total cost to run the air compressor. At \$0.08 per KWH and 8000 hours per year, a 100 HP compressor would cost about \$57,600 per year to operate. The 20 PSIG of pressure drop through two filters and a conventional refrigerated air dryer would cost \$5,760 each year.

Pressure drop through Airtek's Cold Trap refrigerated air dryer to process the same air flow from the 100 HP air compressor would average only 5.5 PSIG. The cost of pressure drop would be reduced to \$1,584, a savings of \$4,716 each year.

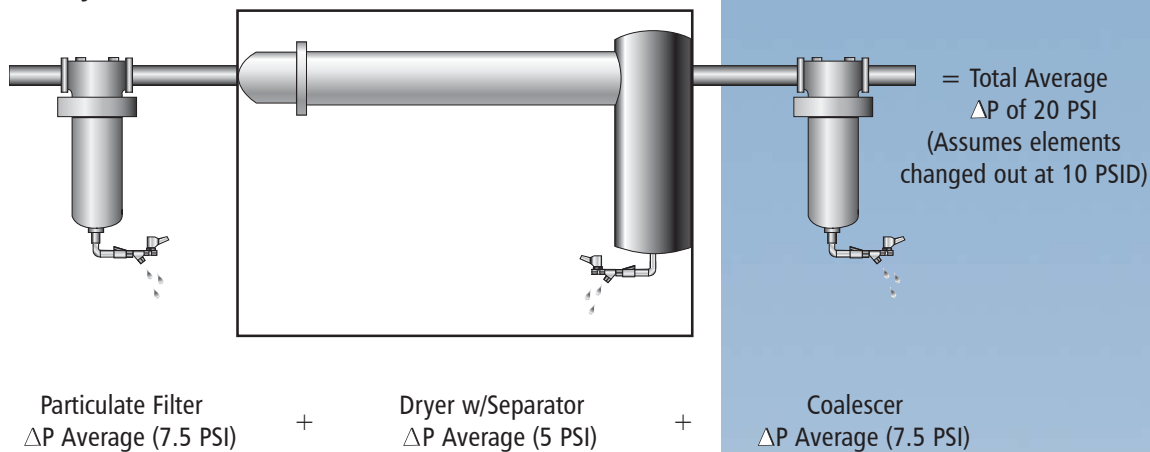
This highly efficient operation is achieved by using Airtek's unique, built-in, two stage cold coalescing filter instead of a conventional moisture separator. Airtek's Cold Trap minimizes pressure drop by separating bulk liquids and larger particles in the 1st stage, prior to air reaching the coalescer element. Because the element is exposed only to clean aerosols and mists, it takes a long time for it to get dirty enough to create significant pressure drop.

Significantly lower energy costs result from lower pressure drop.

This, along with higher filtration efficiency and cycling operation, make Airtek's Cold Trap refrigerated dryers the very best choice for clean, dry and efficient compressed air.

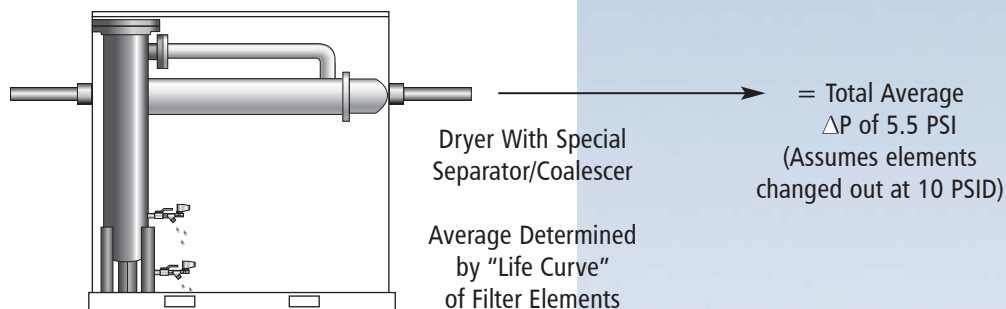


Conventional System



PRESSURE DROP...THE HIDDEN COST OF COMPRESSED AIR				
ITEM	CONVENTIONAL		AIRTEK COLD TRAP®	
	ΔP Range PSID	ΔP Average PSID	ΔP Range PSID	ΔP Average PSID
PARTICULATE PREFILTER	1 - 15	7.5	0	0
DRYER	3 - 5	5.0	4 - 13 <small>INCLUDES COLD COALESCE</small>	5.5 <small>INCLUDES COLD COALESCE</small>
COALESCING AFTER FILTER	1 - 15	7.5	0	0
TOTAL	5 - 35	20	4 - 13	5.5

Airtek's Cold Trap®



EXAMPLE: Cost of Pressure Drop, 100 HP Compressed Air System				
KW	= BHP X .746 .90	ANNUAL POWER COST	= KW X \$/KWH X HRS/YR	
	= 108 X .746 .90		= 90 X \$.08 X 8000	
	= 90 KW		= \$57,600.00	
1 PSIG PRESSURE DROP = 1/2% OF TOTAL POWER COST				
= .005 X \$57,600.00				
= \$288.00				
CONVENTIONAL SYSTEM		AIRTEK COLD TRAP®		
20 PSIG ΔP	= \$288.00 X 20 PSIG	5.5 PSIG ΔP	= \$288.00 X 5.5 PSIG	
	= \$5,760.00		= \$1,584.00	
SAVINGS = COST OF ΔP CONVENTIONAL - COST OF AIRTEK COLD TRAP®				
= \$5,760.00 - \$1,584.00				
= \$4,176.00 PER YEAR				

Smart Cycle® & Cold Trap® Enclosures

Airtek cabinets are good looking, rugged enclosures that protect dryer components.

Five - Year Limited Warranty

Due to the patented design features that focus on product reliability, all Airtek Refrigerated Dryers are covered by the industry's most extensive warranty package, which remains in effect for a period of five years. Consult the warranty procedures manual for details.



SC/CT 40-250

Powder coated metal cabinet
40 to 260 SCFM



SC/CT 330-650

Powder coated metal cabinet
330 to 650 SCFM



SC/CT 800-2500

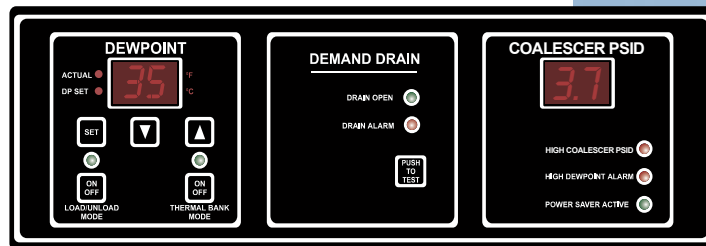
Upper powder coated cabinet (standard)
Powder coated side panels (optional)
820 to 2500 SCFM

Note: SC/CT 3,000 Open Frame Not Shown
SC/CT 4,000-50,000 See Magnum Brochure

Useful Instrumentation

Airtek Smart Cycle and Cold Trap Dryers are the only refrigerated air dryers in the world that are equipped with a Digital Readout of the the actual temperature of the compressed air measured at the evaporator discharge.

Standard Instrumentation on all SC and CT Dryers



- Digital Dew Point Temperature Readout
- Load/Unload Mode Selector Switch
- Thermal Bank Mode Selector Switch
- Mode Indicator Light
- Adjustable Dew Point Control
- Power Saver Active Light
- High Dew Point Alarm
- Demand Drain Controller with Alarm and Dry Contacts
- Diagnostic Code Display Panel
- Includes Shutdowns with Common Alarm and a Dry Contact Alarm for:
 - High Dew Point
 - Low Freon Level
 - Low Refrigerant Pressure
 - High Refrigerant Pressure
 - Sensor Fault

SC Panel B



Standard on SC330 to SC3000

- Air Pressure In Gauge
- Air Pressure Out Gauge

Additional Features

CT Panel B



Standard on CT330 to CT3000

- Air Pressure In Gauge
- Air Pressure Out Gauge
- Differential Pressure Gauge

SC Panel C



- Digital Readout Air In Temperature
- Digital Readout Ambient or Water In Temperature
- Warning Light High Inlet Temperature
- Warning Light High Ambient or Water In Temperature

Optional

CT Panel C



- Warning Light - Coalescer PSID (CT Only)
- Air Pressure In Gauge
- Air Pressure Out Gauge (SC Only)

Optional Instrumentation

- Remote Control Panel: Provides remote dew point readout, diagnostic codes, load/unload, Thermal Bank Mode Selector and on/off button.
- 4 - 20 mA output for dew point readout interface.
- PLC Interface: Includes 4 - 20 mA readout, high dew point, mode select relays and compressor status
- Dual Hour Meters displays power-on time and compressor load time.
- Control Center with "Auto" mode selection. Included with the Control Center is a communications port making StarWatch™ Services accessible (Available on SC/CT400 and larger). See page 12.

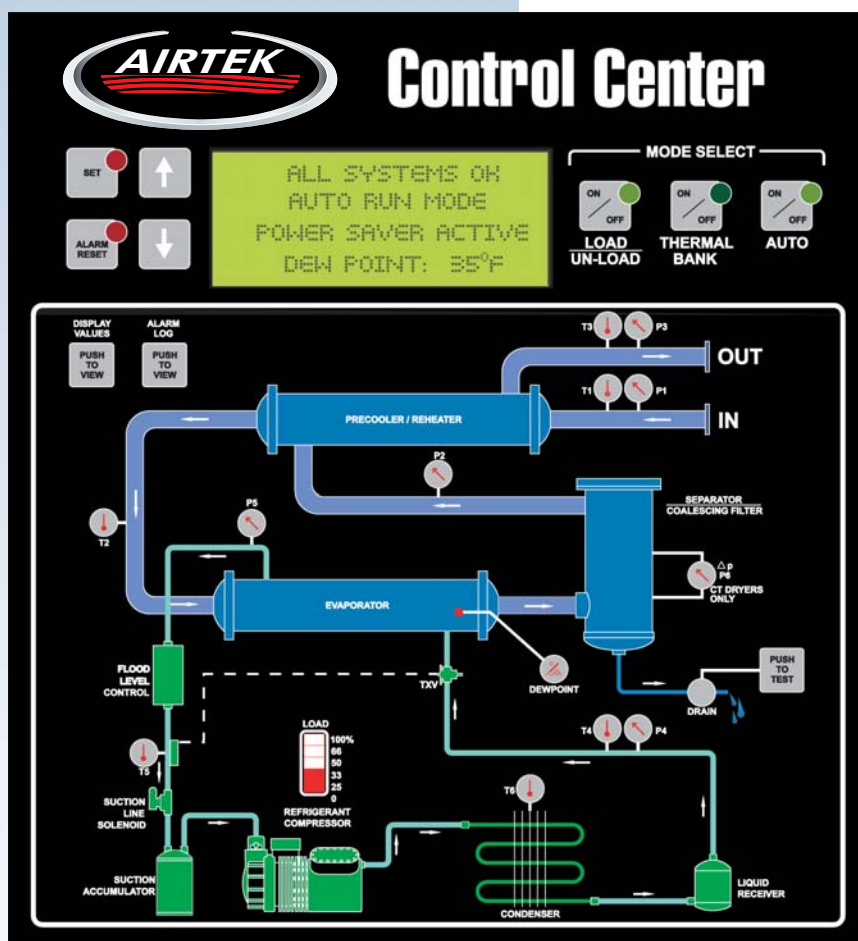
Available Control Center

Airtek's optional Control Center (SC/CT 400 to SC/CT 3000) features a complete complement of data acquisition functions. The easy to use Control Center affords superior dryer control along with digital telemetry, for remote analysis of performance. The Control Center features an "Auto" mode that will switch between standard Load/Unload and Thermal Bank operation as demand dictates. The Auto Mode Selection innovation will greatly expand the dryer's functionality and utility.

The Control Center has a distinctive "Flow Schematic" with active indicators. Dryer operation is easily viewed and ascertained. Should any parameter be outside a normal value, the system schematic annunciates by flashing the source area of the problem, as well as specifically stating details in the LCD display. A Load Capacity Meter (LCM) shows the percent-of-burden at which the system is performing at any given moment.

The Control Center will indicate all data pertinent to dryer operations. But that's just the surface... In depth information is available with just a touch of a button. Easily navigated menus show dozens of detailed operational data. Every detail can be studied (or adjusted if appropriate), to get an indication of dryer condition, as well as the quality of the performance.

Included with every Control Center is a communications port making *StarWatch™ Services* accessible. Airtek can monitor and analyze every moment of operation, 24-7; it can be done wirelessly. When *StarWatch™* is active on an installation, it will be as if an Airtek factory employee is right in your plant, advising your Process Engineer.



RemoteWatch™ software is standard with the Control Center. This allows you to monitor from any PC every detail of operation including all alarms.

Engineering Data Specifications

MODEL	CAPACITY SCFM @ 100 PSIG (Nm ³ /min@6.9 Bar)	STANDARD ELECTRICS	Avail. KW	Oper. KW	SC ΔP PSIG (Bar)	CT ΔP PSIG (Bar)	REF. H.P.	Max. PSI (Bar)	DIMENSIONS				APPROX. WEIGHT LBS (KG)	CONN. IN/OUT
									L (mm)	W (mm)	H (mm) SC	H (mm) CT		
SC/CT 40	40 (1.1)	115 - 1 Ph	0.62	0.49	1.4 (0.10)	2.9 (.20)	1/3	200 (13.8)	34 (864)	15 (381)	23 (584)	23 (584)	170 (77)	1"
SC/CT 60	60 (1.6)	115 - 1 Ph	0.95	0.76	1.9 (0.13)	3.4 (.23)	1/2	200 (13.8)	34 (864)	15 (381)	23 (584)	23 (584)	186 (84)	1"
SC/CT 80	80 (2.1)	115 - 1 Ph	0.95	0.88	2.5 (0.17)	4.0 (.28)	1/2	200 (13.8)	35 (889)	20 (508)	32 (813)	32 (813)	224 (102)	1"
SC/CT 100	100 (2.7)	115 - 1 Ph	1.42	0.97	1.5 (0.10)	3.0 (.21)	3/4	200 (13.8)	35 (889)	20 (508)	32 (813)	32 (813)	241 (109)	1-1/2"
SC/CT 130	130 (3.5)	115 - 1 Ph	1.42	1.13	1.9 (0.13)	3.4 (.23)	3/4	200 (13.8)	35 (889)	20 (508)	32 (813)	32 (813)	265 (120)	1-1/2"
SC/CT 165	165 (4.4)	115 - 1 Ph	1.42	1.27	2.4 (0.17)	3.9 (.27)	3/4	200 (13.8)	35 (889)	20 (508)	32 (813)	32 (813)	265 (120)	1-1/2"
SC/CT 220	220 (5.9)	208/230 - 1 Ph	1.80	1.49	4.3 (0.30)	5.8 (.40)	1	200 (13.8)	47 (1194)	22 (559)	38 (965)	38 (965)	390 (177)	2"
SC/CT 250	260 (6.9)	208/230 - 1 Ph	2.14	1.70	4.9 (0.34)	6.4 (.44)	1-1/2	200 (13.8)	47 (1194)	22 (559)	38 (965)	38 (965)	480 (218)	2"
SC/CT 330	330 (8.8)	208/230 - 1 Ph	2.14	1.88	3.1 (0.21)	4.6 (.32)	1-1/2	200 (13.8)	55 (1397)	28 (711)	52 (1321)	52 (1321)	715 (324)	2"
SC/CT 400	400 (10.7)	460 - 3 Ph	2.77	2.50	1.8 (0.12)	3.3 (.23)	2	200 (13.8)	55 (1397)	28 (711)	52 (1321)	52 (1321)	925 (420)	2-1/2"
SC/CT 500	520 (13.9)	460 - 3 Ph	4.22	3.40	2.4 (0.17)	3.9 (.27)	3	200 (13.8)	55 (1397)	28 (711)	52 (1321)	52 (1321)	940 (426)	2-1/2"
SC/CT 650	650 (17.4)	460 - 3 Ph	4.22	3.60	3.6 (0.25)	5.1 (.35)	3	200 (13.8)	55 (1397)	28 (711)	52 (1321)	52 (1321)	940 (426)	2-1/2"
SC/CT 800	820 (22.0)	460 - 3 Ph	4.94	4.27	2.2 (0.15)	3.7 (.26)	4	200 (13.8)	74 (1880)	41 (1041)	61 (1549)	61 (1549)	1620 (735)	3" FLG
SC/CT 1000	1050 (28.1)	460 - 3 Ph	6.74	5.95	3.4 (0.23)	4.9 (.34)	5	200 (13.8)	74 (1880)	41 (1041)	61 (1549)	61 (1549)	1800 (816)	3" FLG
SC/CT 1200	1250 (33.5)	460 - 3 Ph	6.74	6.28	3.6 (0.25)	5.1 (.35)	5	200 (13.8)	74 (1880)	41 (1041)	61 (1549)	61 (1549)	1850 (839)	3" FLG
SC/CT 1500	1600 (42.9)	460 - 3 Ph	7.74	7.10	3.5 (0.24)	5.0 (.34)	7-1/2	200 (13.8)	78 (1981)	48 (1219)	61 (1549)	61 (1549)	2200 (998)	4" FLG
SC/CT 2000	2050 (54.9)	460 - 3 Ph	10.36	7.63	2.9 (0.20)	4.4 (.30)	10	150 (10.4)	96 (2438)	48 (1219)	59 (1499)	74 (1880)	3000 (1361)	6" FLG
SC/CT 2500	2500 (66.8)	460 - 3 Ph	13.30	9.99	3.7 (0.26)	5.2 (.36)	15	150 (10.4)	102 (2591)	54 (1372)	67 (1702)	83 (2108)	3370 (1529)	6" FLG
SC/CT 3000	3200 (85.4)	460 - 3 Ph	13.30	11.40	3.6 (0.25)	5.1 (.35)	15	150 (10.4)	108 (2743)	66 (1676)	77 (1956)	83 (2108)	4015 (1821)	6" FLG

SC/CT 4,000 - 50,000 See Magnum Brochure

SC prefix designates Smart Cycle Configuration.

CT prefix designates Cold Trap configuration.

Notes:

1. Rated conditions meet recommended Standard NFPA/T3.27.2-198 (ANSI B93, 45M) and CAGI Standard No. ADF 100 for Class H 33°F - 39°F (1°C - 4°C) pressure dew point, are based on 100 PSIG (6.9 Bar) inlet air pressure, 100°F (38°C) inlet air temperature, 85°F (29°C) cooling water temperature and 100°F (38°C) Ambient air temperature. Maximum air side pressure drop is 5 psi (0.3 Bar). See actual pressure drop listed for each model.
2. For non-standard voltages, see options on pages 14 and 15.
3. Due to continuing research and development, specifications and dimensions are subject to change without notice.
4. All CT Dryers are heavier depending on size of dryer. Consult factory for exact weight.

INLET AIR PRESSURE CORRECTION						
A	PSI BAR	50 3.5	75 5.2	100 6.9	125 8.6	150 10.3
	FACTOR	0.8	0.9	1	1.02	1.05

AMBIENT AIR TEMPERATURE CORRECTION						
B	TEMP °F °C	90 32	100 38	110 43	-	-
	FACTOR	1.05	1	0.9	-	-

INLET AIR TEMPERATURE CORRECTION						
C	TEMP °F °C	80 27	90 32	100 38	110 43	120 49
	FACTOR	1.5	1.22	1	.83	.69

EXAMPLE CONDITION	
SC/CT 500 CORRECTED FOR:	
Inlet Pressure.....	125 PSIG / 8.6 BAR
Inlet Temperature.....	120° F / 49° C
Ambient Temperature.....	110° F / 43° C

EXAMPLE CALCULATIONS	
CORRECTED CAPACITY	= STANDARD CAPACITY X (A) X (B) X (C)
	= 520 SCFM (13.9 Nm ³ /min) X (1.02) X (.9) X (.69)
	= 329 SCFM (8.8 Nm ³ /min)

Smart Cycle® Available Equipment

	SC 40-100	SC 130/165	SC 220/250	SC 330	SC 400	SC 500	SC 650	SC 800/1000	SC 1200/1500	SC 2000	SC 2500	SC 3000
CONTROLS:												
Smart Cycle	S	S	S	S	S	S	S	S	S	S	S	S
Thermal Bank (Cycling)	S	S	S	S	S	S	S	S	S	S	S	S
Load/Unload (Non-Cycling)	S	S	S	S	S	S	S	S	S	S	S	S
Control Center	NA	NA	NA	NA	O	O	O	O	O	O	O	O
Remote Control	O	O	O	O	O	O	O	O	O	O	O	O
PLC Interface	O	O	O	O	O	O	O	O	O	O	O	O
Dual Hour Meters	O	O	O	O	O	O	O	O	O	O	O	O
DIGITAL READOUT:												
Dew Point Temperature	S	S	S	S	S	S	S	S	S	S	S	S
Ambient Air Temperature	O	O	O	O	O	O	O	O	O	O	O	O
Inlet Air Temperature	O	O	O	O	O	O	O	O	O	O	O	O
Diagnostic Displays	S	S	S	S	S	S	S	S	S	S	S	S
LIGHTS:												
Power Saver Active	S	S	S	S	S	S	S	S	S	S	S	S
Dryer Run	S	S	S	S	S	S	S	S	S	S	S	S
Mode Indicator	S	S	S	S	S	S	S	S	S	S	S	S
Drain Open	S	S	S	S	S	S	S	S	S	S	S	S
Drain Alarm	S	S	S	S	S	S	S	S	S	S	S	S
High Ambient Temperature	O	O	O	O	O	O	O	O	O	O	O	O
High Inlet Temperature	O	O	O	O	O	O	O	O	O	O	O	O
GAUGES:												
Air Pressure In	O	O	O	S	S	S	S	S	S	S	S	S
Air Pressure Out	O	O	O	S	S	S	S	S	S	S	S	S
COOLING:												
Air	S	S	S	S	S	S	S	S	S	NC	NC	NC
Water	O	O	O	O	O	O	O	O	O	S	S	S
Remote Air Cooled Condenser (Available on Magnum Series Dryer)	NA	NA	NA	NA	NC	NC	NC	NC	NC	O	O	O
ELECTRONICS:												
115V - 1 Ph	S	S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
208/230V - 1 Ph	NC	NC	S	S	O	NA	NA	NA	NA	NA	NA	NA
208/230V - 3 Ph	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
460V - 3 Ph	NA	NA	O	O	S	S	S	S	S	S	S	S
575V - 3 Ph	NA	NA	O	O	O	O	O	O	O	O	O	O
Other voltages	O	O	O	O	O	O	O	O	O	O	O	O
CABINET:												
Full Metal	S	S	S	NA	NA	NA	NA	O	O	O	O	O
Fiberglass	NA	NA	NA	S	S	S	S	NA	NA	NA	NA	NA
Upper Metal	NA	NA	NA	NA	NA	NA	NA	S	S	S	S	S
Side Panels	NA	NA	NA	NA	NA	NA	NA	O	O	O	O	O
Weather Resistant	NA	NA	O	O	O	O	O	O	O	NA	NA	NA
DRAINS:												
Demand Drain	S	S	S	S	S	S	S	S	S	S	S	S
Electronic Timed	O	O	O	O	O	O	O	O	O	O	O	O
FILTERS:												
Coalescer	O	O	O	O	O	O	O	O	O	O	O	O
Particulate	O	O	O	O	O	O	O	O	O	O	O	O
Adsorber	O	O	O	O	O	O	O	O	O	O	O	O

LEGEND: S = Standard; O = Optional; NA = Not Available/Applicable; NC = No Charge

NOTE: SC/CT 4,000 - 50,000 See Magnum Brochure

Due to continuing research and development, specifications and dimensions are subject to change without notice.

Cold Trap® Available Equipment

	CT 40-100	CT 130/165	CT 220/250	CT 330	CT 400	CT 500	CT 650	CT 800/1000	CT 1200/1500	CT 2000	CT 2500	CT 3000
CONTROLS:												
Smart Cycle	S	S	S	S	S	S	S	S	S	S	S	S
Thermal Bank (Cycling)	S	S	S	S	S	S	S	S	S	S	S	S
Load/Unload (Non-Cycling)	S	S	S	S	S	S	S	S	S	S	S	S
Remote Control	O	O	O	O	O	O	O	O	O	O	O	O
Control Center	NA	NA	NA	NA	O	O	O	O	O	O	O	O
PLC Interface	O	O	O	O	O	O	O	O	O	O	O	O
Dual Hour Meters	O	O	O	O	O	O	O	O	O	O	O	O
DIGITAL READOUT:												
Dew Point Temperature	S	S	S	S	S	S	S	S	S	S	S	S
Ambient Air Temperature	O	O	O	O	O	O	O	O	O	O	O	O
Inlet Air Temperature	O	O	O	O	O	O	O	O	O	O	O	O
Diagnostic Displays	S	S	S	S	S	S	S	S	S	S	S	S
LIGHTS:												
Power Saver Active	S	S	S	S	S	S	S	S	S	S	S	S
Dryer Run	S	S	S	S	S	S	S	S	S	S	S	S
Mode Indicator	S	S	S	S	S	S	S	S	S	S	S	S
Drain Open	S	S	S	S	S	S	S	S	S	S	S	S
Drain Alarm	S	S	S	S	S	S	S	S	S	S	S	S
High Ambient Temperature	O	O	O	O	O	O	O	O	O	O	O	O
High Inlet Temperature	O	O	O	O	O	O	O	O	O	O	O	O
GAUGES:												
Air Pressure In	O	O	O	O	O	O	O	O	O	O	O	O
Air Pressure Out	O	O	O	S	S	S	S	S	S	S	S	S
Coalescer ΔP	S	S	S	S	S	S	S	S	S	S	S	S
COOLING:												
Air	S	S	S	S	S	S	S	S	S	NC	NC	NC
Water	O	O	O	O	NC	NC	NC	NC	NC	S	S	S
Remote Air Cooled Condenser (Available on Magnum Series Dryer)	NA	NA	NA	NA	NA	NA	NA	NA	NA	O	O	O
ELECTRONICS:												
115V - 1 Ph	S	S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
208/230V - 1 Ph	NC	NC	S	S	O	NA	NA	NA	NA	NA	NA	NA
208/230V - 3 Ph	NA	NA	NA	NA	NC	NC	NC	NC	NC	NC	NC	NC
460V - 3 Ph	NA	NA	O	O	S	S	S	S	S	S	S	S
575V - 3 Ph	NA	NA	O	O	O	O	O	O	O	O	O	O
Other voltages	O	O	O	O	O	O	O	O	O	O	O	O
CABINET:												
Full Metal	S	S	S	NA	NA	NA	NA	O	O	O	O	O
Fiberglass	NA	NA	NA	S	S	S	S	NA	NA	NA	NA	NA
Upper Metal	NA	NA	NA	NA	NA	NA	NA	S	S	S	S	S
Side Panels	NA	NA	NA	NA	NA	NA	NA	O	O	O	O	O
Weather Resistant	NA	NA	O	O	O	O	O	O	O	NA	NA	NA
DRAINS:												
Demand Drain	S	S	S	S	S	S	S	S	S	S	S	S
Electronic Timed	O	O	O	O	O	O	O	O	O	O	O	O
FILTERS:												
Coalescer	S	S	S	S	S	S	S	S	S	S	S	S
Particulate	O	O	O	O	O	O	O	O	O	O	O	O
Adsorber	O	O	O	O	O	O	O	O	O	O	O	O

LEGEND: S = Standard; O = Optional; NA = Not Available/Applicable; NC = No Charge

NOTE: SC/CT 4,000 - 50,000 See Magnum Brochure

Due to continuing research and development, specifications and dimensions are subject to change without notice.



Patents: Refrigerated Dryers 5, 207, 072; 5,099, 5,062, 571. Twin Tower Dryers Using Multi-Port Feature, 6,099,620. The equipment indicated in the catalog is meant for use in operating "compressed air driven" apparatuses. At no time should any Airtek equipment be used for breathing air situations unless all government regulations regarding breathing air are met.

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