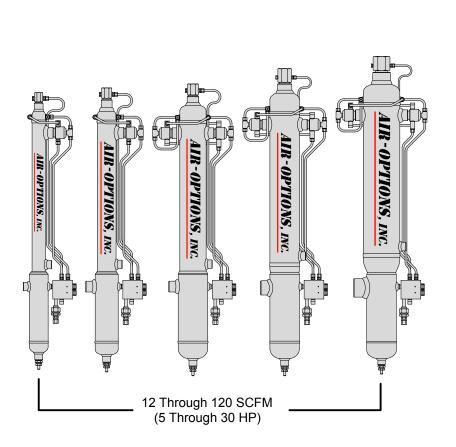
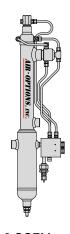


## Compressed Air Dryers



Max. SCFM	Dimensions. H x W x D	Wt. Lbs.
6	26.00 X 7.00 X 3.75	12
12	40.00 X 7.00 X 3.75	21
25	42.00 X 9.50 X 5.00	27
40	44.50 X 12.50 X 5.50	39
80	46.50 X 12.50 X 5.50	58
120	49.00 X 14.50 X 5.50	64
150	81.00 X 19.38 X 19.38	361
200	81.00 X 19.38 X 19.38	378
250	85.50 X 23.75 X 19.38	452
300	85.50 X 23.75 X 19.38	459
350	85.50 X 23.75 X 19.38	467
400	85.50 X 23.75 X 19.38	474
500	85.50 X 23.75 X 19.38	481



6 SCFM (1-1/2 HP)

AIR-OPTIONS, INC.  Pantent Pending
150 Through 500 SCFM (35 Through 100 hp)

#### Specifications

Dew Point @ Max. CFM: 38° F
Max. Pressure: 200 PSI
Max. Temp. (8 Thru 120): 400° F
Max. Temp. (150 Thru 500): 365° F
Construction: All Welded
Internals: Steel

www.Air-Options.com

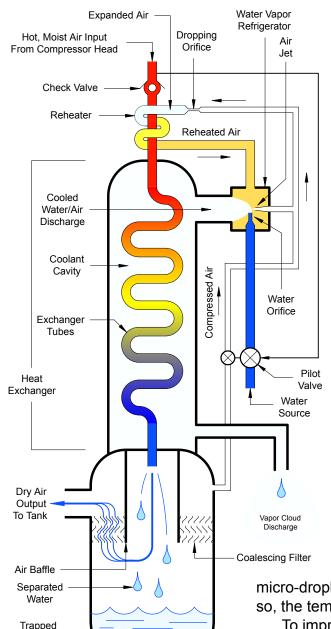
P.O. Box 35984

Houston, Texas 77235

Ph.: 713-721-9619 Fax.: 713-726-1931

E.Mail: Info@Air-Options.com

AIR-OPTIONS, INC.



Water

Water

Reservoir

Drain Valve

### 3 Through 500 SCFM

# Elliott Cycle Refrigerated Compressed Air Dryers

Air-Options dryers represent an important advancement in water removal technology. There durable, low cost, low maintenance construction provide a number of significant improvements over other types of dryers. These dryers are specifically designed to provide a long lasting solution for day-to-day compressed air operations. All of these rugged dryers are manufactured in the USA to our stringent requirements. This allows Air-Options to offer the longest dryer warranty in the industry. When you purchase an Air-Options dryer you have purchased the full support and experience of one of the nations cutting edge compressed air companies.

#### Air-Options

dryers utilize the Elliott refrigeration cycle. This is a highly reliable process that uses tap water, compressed air and the heat of compression, which the compressor generates. Compressed air is channeled from the "cool" end of the heat exchanger to the air jet and discharged into the coolant cavity. A perpendicular needle of tap water is introduced into the expanding air jet. This has the effect of atomizing the water into

micro-droplets. Some of the micro-droplets evaporate and, in doing so, the temperature of the discharge is cooled.

To improve the evaporation process, a portion of the compressed air is directed to a dropping orifice and allowed to expand to match the coolant cavity pressure. As the compressed air expands, its temperature and water vapor content lowers. The air then flows through a re-heater, which raises the temperature. The re-heated air, which now has a low relative humidity, is introduced into the water/air discharge. The introduction of this "dry" air aids in the evaporation of the micro-droplets and forces a lower discharge temperature.

The dryer body consists of a tube-in-shell heat exchanger with a built-in water separator. Hot, moist air from the compressor head is introduced into the air input, where it flows through the exchanger tubes. A cooled vapor cloud discharged from the Elliott cycle refrigerator is introduced into the coolant cavity. The cloud then flows through the heat exchanger, where it cools the outside of the exchanger tubes, and out the coolant discharge. When the hot, moist air comes in contact with the inside of the cooled exchanger tubes the water vapor condenses onto the inside walls of the tubes. The condensed water runs down the inside of the tubes along with the air flow and drips into the water reservoir. The dried air flows around the lower end of the air baffle, through the coalescing filter, and out the dried air output. The trapped water is periodically vented through the drain valve.