Mist Eliminator

AIRTEK

PREMIUM PRODUCTS FOR INDUSTRY

Depth of Bed Coalescing Filter

Mist Eliminator

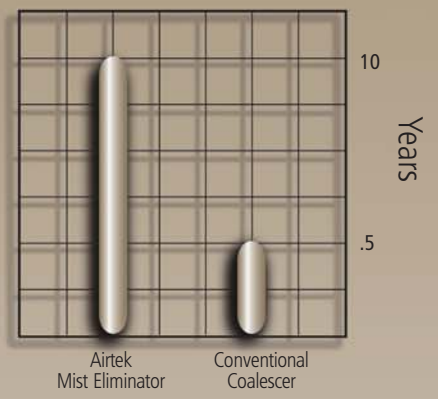
Airtek Mist Eliminators trap, collect and remove liquids and soluble particulate matter from compressed air. Airtek Mist Eliminators utilize "depth of bed" coalescing technology instead of conventional "pressure drop" technology. By using a bed depth twenty-four times greater than a conventional cartridge type filter, the Airtek Mist Eliminator achieves 100% efficiency in removing particles greater than 3 microns. Remaining particles 3 microns and less in size will be filtered to an efficiency of 99.98% down to a particle size of 0.1 micron.

Airtek Mist Eliminators function at this high level of efficiency with a minimum of pressure drop. Over its 8-15 year element life, the Mist Eliminator will produce an average pressure drop of 0.5 PSI. At $.08/kwh, the cost to overcome the pressure drop for a typical 100 HP compressor would be $144.00 per year.

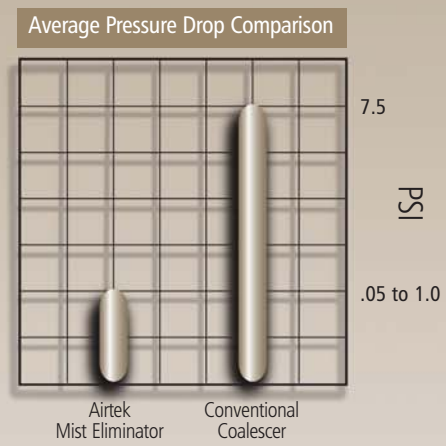
Compare this to a conventional "pressure drop" coalescing filter that, over its expected 6 month life, has an average pressure drop of 7.5 PSI. The cost of power to overcome this pressure drop for a typical 100 HP air compressor would be $2,160.00 per year.

In a typical 100 HP compressed air system, the Airtek Mist Eliminator would save $2,016.00 in energy cost alone, each year per filter. Since Airtek Cycling and Non-Cycling Refrigerated Dryers do not require pre-filters, this savings could more than double to $4,176.00 when used with an Airtek Refrigerated Air Dryer.

Element Life Comparison



Average Pressure Drop Comparison



PRESSURE DROP...THE HIDDEN COST OF COMPRESSED AIR			
Item	*ΔP Range PSID*	*ΔP Average PSID*	*Expected Element Life*
Conventional Filter/ Coalescer	1-15	7.5	6 months
Airtek Mist Eliminator	0.5-1.0	0.5	8 to 15 years (Average 10 years)

EXAMPLE: Cost of Pressure Drop, 100 HP Compressed Air System

KW = BHP X .746 / .90

= 108 X .746 / .90

= 90 KW

ANNUAL POWER COST = KW X $/KWH X HRS/YR

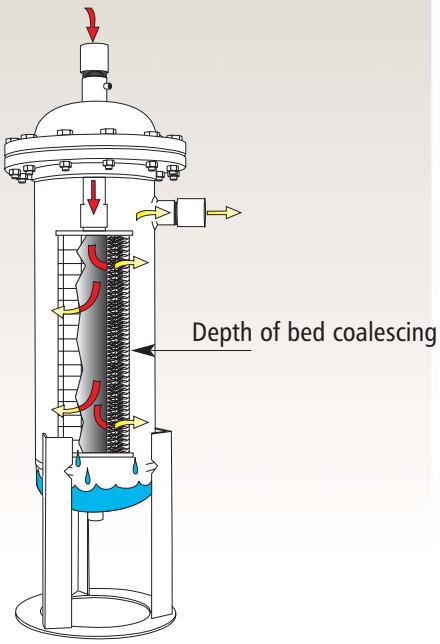
= 90 X $.08 X 8000

= $57,600.00

1 PSIG PRESSURE DROP = 1/2% OF TOTAL POWER COST
= .005 X $57,600.00
= $288.00

Annual pressure drop cost per conventional filter	= $288.00 X 20 PSIG = $5,760.00	*Annual pressure drop cost per Mist Eliminator*	= $288.00 X 5.5 PSIG = $1,584.00
Number of filters required per conventional system	2	*Number of Mist Eliminators required per system*	1
Pressure drop cost per filter	$2,160.00	*Pressure drop cost per filter*	$144.00
Total ΔP cost per system	$4,320.00	*Total ΔP cost per system*	$1,461.00

SAVINGS = COST OF ΔP CONVENTIONAL FILTER (-) COST OF MIST ELIMINATOR ΔP
= $5,760.00 - $1,584.00
= $4,176.00 PER YEAR



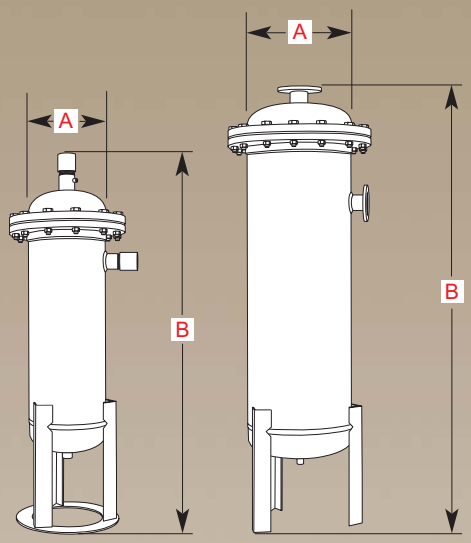
Due to the advanced depth of bed technology, low pressure drop and self-cleaning design, Airtek Mist Eliminator elements can be expected to last 8 to 15 years. With its thick bed of glass fiber and higher loading capability, Airtek Mist Eliminators make excellent pre-filters. They reduce liquid loading, preventing liquid slugs from contaminating downstream equipment.

Engineering Data Specifications

Mist Eliminator

MODEL	Capacity SCFM @ 100 PSIG (Nm^3/min@6.9 Bar)	Connection In/Out In (mm)	Dimensions OD In (mm) A	Dimensions Length In (mm) B	Net Weight Lbs (Kg)	Maximum Pressure PSIG (bar)	Replacement Element Number
AME-01	125 (3.5)	2" NPT (50.8)	14 (356)	51.75 (1314.5)	430 (195)	150 (10.3)	AME-01-E
AME-02	250 (7.1)	2" NPT (50.8)	14 (356)	55.75 (1416.1)	450 (204)	150 (10.3)	AME-02-E
AME-03	500 (14.1)	2.5" NPT (63.5)	14 (356)	67.75 (1720.9)	500 (227)	150 (10.3)	AME-03-E
AME-04	800 (22.7)	2.5" NPT (63.5)	14 (356)	81.75 (2076.5)	720 (327)	150 (10.3)	AME-04-E
AME-05	1100 (31.1)	4" FLG (101.6)	16 (406)	81 (2057.4)	720 (327)	150 (10.3)	AME-05-E
AME-06	1500 (42.5)	4" FLG (101.6)	18 (357)	83.375 (2117.7)	835 (379)	150 (10.3)	AME-06-E
AME-07	2000 (56.6)	4" FLG (101.6)	24 (610)	83.5 (2121.0)	1055 (479)	150 (10.3)	AME-07-E
AME-08	2400 (68.0)	4" FLG (101.6)	24 (610)	95.5 (2425.7)	1195 (542)	150 (10.3)	AME-08-E
AME-09	3000 (85.0)	4" FLG (101.6)	24 (610)	105.5 (2679.7)	1300 (590)	150 (10.3)	AME-09-E
AME-10	4500 (127.4)	6" FLG (152.4)	24 (610)	162 (4114.8)	2125 (964)	150 (10.3)	AME-10-E
AME-11	6000 (169.9)	8" FLG (203.2)	30 (762)	168 (4267.2)	3210 (1457)	150 (10.3)	AME-11-E
AME-12	8000 (266.5)	8" FLG (203.2)	30 (762)	192 (4876.8)	3395 (1540)	150 (10.3)	AME-12-E
AME-13	10000 (283.2)	10" FLG (254.0)	30 (762)	225 (5715.0)	3615 (1640)	150 (10.3)	AME-13-E

• ASME code standard on all models. • All dimensions and weights subject to change without notice.



NOTE: Maximum operating temperature of housing is 450°F (232°C). Consult factory when inlet temperature exceeds 120°F (49°C) for application assistance.

Sizing

Maximum air flow at 100 PSIG (6.9 bar) is indicated in the specifications table. To determine maximum air flow at pressures other than 100 PSIG (6.9 bar) multiply flow @ 100 PSIG (6.9 bar), by multipler from the sizing table that corresponds to the minimum operating pressure at the inlet of the filter.

Sizing Chart	
Minimum Inlet Pressure PSIG (6.9 Bar)	*Multiplier*
20 (1.4)	0.30
30 (2.1)	0.39
40 (2.8)	0.48
60 (4.2)	0.65
80 (5.6)	0.82
100 (7.0)	1.00
120 (8.4)	1.17
150 (10.5)	1.43

Options

- Automatic condesate drains
  - Demand Drain
  - Pneumatically operated
  - Electrically operated
- Precision pressure differential gauge (0-5 PSID)

Airtek Mist Eliminator

5 Year Equipment Warranty
5 Year Element Life Guarantee

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