



MIS-1500

MIS Series Features

- Low pressure differential P 0.5 - 1.0 psi @ rated capacity under typical conditions.
- Long service life.
- Pressure vessel ASME U Stamped National Board Registered.
- CRN available upon request.
- Low pressure drop, maximum filter area and dirt capacity.
- Hinged flange and lift lug standard on closure flanges.
- Service access without breaking connections.
- Rugged enameled steel.
- Connections sizes from 2 to 10-inch ANSI flange.
- Standard differential pressure gauge on all models.
- Optional zero-loss auto drain.
- White enamel interior coating.

MIS Series Elements

- High efficiency pleated construction.
- High efficiency needled polyester outer layer particulate removal.
- Two stage borosilicate glass coalescing media.
- Unique threaded element "design" (patent pending) requires no internal loose parts and no internal housing center core.
- The filter element will collect particles greater than 1 micron with 99.5% efficiency. Particles 0.5 micron in size will be filtered at an efficiency of 99.3%.
- Special HE (958 media) element available for 0.1 micron particles filtered at an efficiency of 99.99%.

The **Aircel MIS Mist Eliminator (300 - 8000 scfm)** provides a full line of mist eliminators to effectively remove oil, solids and water from your compressed air system. In addition, this technology can serve as an efficient prefilter and contaminant separator for refrigerated and desiccant compressed air dryers. By reducing the liquid loading potential and preventing liquid slugs from reaching the dryer, it will extend the life of your refrigerated dryer's heat exchanger or the life of desiccant in regenerative dryers.

The Aircel MIS Mist Eliminator features an element with patent pending urethane threaded end. This unique design requires no internal loose parts and no internal housing center core. This provides easy, hassle-free element changeout and reduces the overall initial unit shipping weight, saving on freight costs. The element is designed with optimum pleat spacing and fin depth to provide unsurpassed low differential pressure, dirt holding capacity, and efficiency. Filtration efficiency and permeability are based on independent laboratory testing by Interbasic Resources, Inc.

Sustainable Energy Savings

Pressure Drop Reduces Compressor HP 4% per 8 PSI Drop

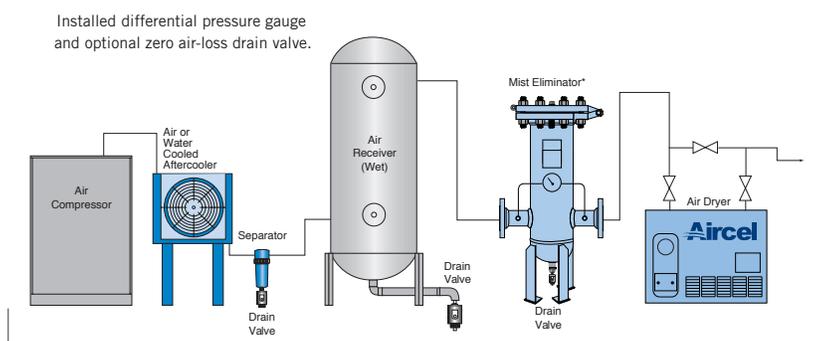
For every 8 psi pressure drop, compressor horsepower efficiency will be reduced by 4%. Therefore, the annual energy cost to run a typical 100 hp compressor with 85% efficiency compressor/motor can be figured as follows:

- Conventional Filter: \$0.07/KW-hr x 8760 hours x 103.3 KW x 4% = \$2533.74
- Mist Eliminator: \$0.07/KW-hr x 8760 hours x 103.3 KW x 0.5% = \$316.72
(1 psi pressure drop = 0.5% compressor HP reduced)

That's a savings of \$2217.02 per year.

MIS SERIES Recommended Installation

Locating a mist eliminator downstream from the compressor effectively lengthens the maintenance cycle on all elements, significantly reducing costs of system maintenance.

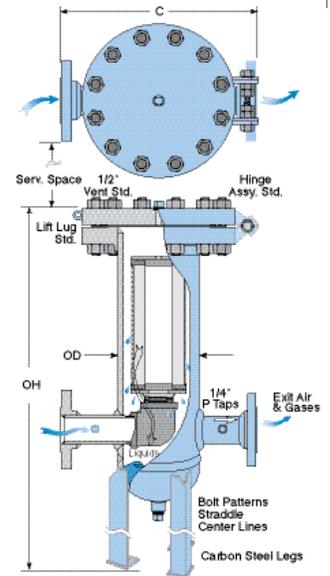


MIS SERIES TECHNICAL SPECIFICATIONS



MIS SERIES Model Comparison

Model	Capacity ¹ (SCFM)	Conn. (ANSI)	OH (in)	OD (in)	C (in)	Service Space (in)	Weight (lbs)	Maximum Pressure (psig)	Optional Zero Air- Loss Drain	Element Model Number
MIS-300	300	2"	36	8-5/8	16	10	120	250	C/F	MIS-300E
MIS-500	500	2"	40	8-5/8	16	16	150	250	C/F	MIS-500E
MIS-1000	1000	3"	48	8-5/8	20	20	180	250	C/F	MIS-1000E
MIS-1500	1500	4"	52	10-3/4	20	20	300	250	C/F	MIS-1500E
MIS-2000	2000	4"	54	10-3/4	20	24	325	250	C/F	MIS-2000E
MIS-3000	3000	6"	60	12-3/4	24	26	400	250	C/F	MIS-3000E
MIS-4500	4500	6"	64	12-3/4	24	26	500	250	C/F	MIS-4500E
MIS-6500	6500	8"	78	16	28	36	850	250	C/F	MIS-6500E
MIS-8000	8000	10"	88	20	32	36	1200	250	C/F	MIS-8000E



¹ Capacity rated at 100 psig operating pressure, 100°F inlet temperature.
 Maximum working pressure: 250 psig Cover style: Blind flange
 Operating temperature range: -20°F to 200°F Carbon steel leg height: 12" (included in OH dimension above)
 Due to a continuous program of product improvement, specification and dimensions are subject to change without notice.

C/F - Consult Factory

MIS SERIES Capacity Correction Factors

To Size the Mist Eliminator Capacity for Actual Conditions

$$\text{Adjusted Capacity} = \text{scfm} \times C1 \times C2$$

To calculate the capacity of a given mist eliminator based on non-standard operating conditions, multiply the standard capacity by the appropriate correction factor.

EXAMPLE:

Mist Eliminator Model: MIS-1000
 Standard Capacity: 1000 scfm
 Actual Operating Conditions: 80 psig inlet pressure: C1 = 0.83
 120°F inlet temperature: C2 = 0.94
 Adjusted Capacity = 1000 scfm x 0.83 x 0.94 = **780 scfm**

To Select the Mist Eliminator for Actual Conditions

$$\text{Adjusted Capacity} = \text{scfm}/C1/C2$$

To choose a mist eliminator based on a given flow at non-standard operating conditions, divide the given flow by the appropriate correction factors.

EXAMPLE:

Given Flow: 1000 scfm
 Actual Operating Conditions: 80 psig inlet pressure: C1 = 0.83
 120°F inlet temperature: C2 = 0.94
 Adjusted Capacity = 1000 scfm / 0.83 / 0.94 = **1282 scfm**
 Adjusted Mist Eliminator Model Size: MIS-1500

The published standard capacities for compressed air mist eliminators are based on 100 psig inlet pressure and 100°F inlet temperature. When these conditions vary, a given mist eliminator will be able to filter either more or less compressed air than its standard capacity. There are two ways in which this information can be used. The first is to start with a specific mist eliminator size and recalculate

its capacity based on the known operating conditions using the correction factors given below. The other, with a given set of operating conditions, is to select the proper mist eliminator size based on applying the correction factors to the flow rate. Examples based on applying the correction factors are shown below.

Capacity correction factors for differing system air pressure (C1)

System Pressure (psig)	20	40	60	80	100	12	140	160	180	200	220	240	250
Correction Factor	0.30	0.48	0.65	0.83	1.00	1.17	1.35	1.52	1.70	1.87	2.05	2.22	2.31

Capacity correction factors for differing system air temperature (C2)

System Temperature (°F)	-20	0	20	40	60	80	100	120	140	160	180	200
Correction Factor	1.52	1.41	1.31	1.22	1.14	1.07	1.00	0.94	0.88	0.83	0.79	0.75