THE APPLICATION DRYER

A New Generation of Air Dryers

Dry Air - Guaranteed

The Application Dryer with patented technology will eliminate water from your compressed air. Using a completely new approach it dries and filters all the contaminants at the point of use.

Contaminants in Compressed Air

The three contaminants found in compressed air are water, oil and dirt. Water is the most common. Water in the vapour form is a gas and is harmless however when it condenses into a liquid it causes severe problems to all compressed air applications.

Water

This enters the air system via the compressor intake in the form of vapour. As the air is compressed it heats up. It then leaves the compressor and passes through the pipe work where it starts to cool. The cooling of the air causes water vapour to condense into liquid.

Oil

This enters the air system in two ways. One is in the form of air borne aerosols via the compressor intake and the other is from the compressor itself. Oil is used in most compressors as a coolant and lubricant to protect the compressor and increase the air throughput.

Dirt

Dirt enters the air system via the compressor intake and also as pipe scale from the distribution pipework (particularly from steel pipework systems). This dirt is abrasive and, over time, has a detrimental effect on all equipment that uses compressed air.

Cost of Contamination in Compressed Air

Compressed air is the most widely used power source in industry today. It has many benefits over other forms of power however it can be expensive if care is not taken.

One of the main costs associated with a compressed air system is contamination in the compressed air. It leads to equipment failure, downtime and can even result in product rejection, all of which can be very expensive.

By taking the trouble to eliminate the contaminants before the compressed air enters the equipment these costs can be significantly reduced.

A Simple Solution

The Application Dryer range of products are designed to remove all the contaminants from your compressed air supply before it enters your equipment. In doing so your equipment will last longer, downtime will be reduced and fewer products will be rejected. All in all you will save money.

The genius of the Application Dryer is its simplicity. It uses no electricity, no refrigerant, no desiccant, no heat, no purge air, no chemicals and no motors, fans, timers, valves or switches. And it makes no noise.

The Principle - Four Stages of Drying

1. Centrifugal Spin

Bulk contamination water, oil and dirt enter and are spun in a circular manner as the air flows vertically downward. This spinning action, which is naturally created by the patented element design, forces heavy particles outward where they contact the inside of the bowl and drain to the bottom.

2. Inverse-Flow

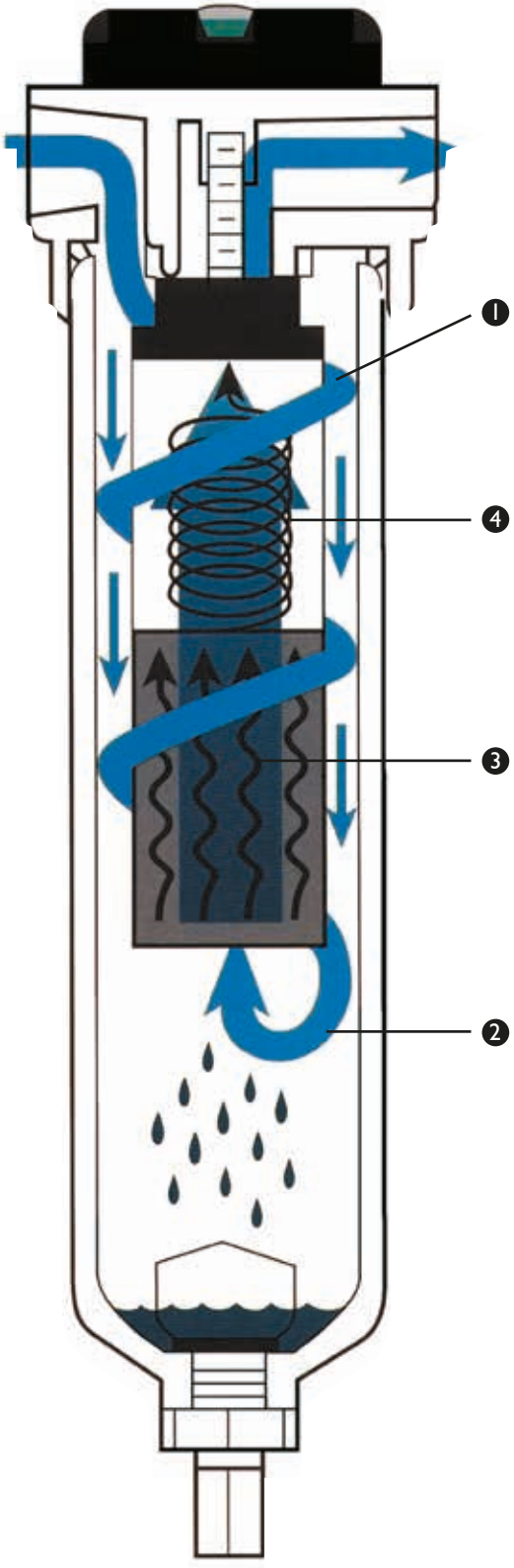
The patented inverse-flow process creates a condition where the air changes direction by 180° from vertically downward to vertically upward. This process prevents the re-entrainment of contamination which normally occurs. Contamination, which is flowing vertically downward, is not capable of reversing direction and must separate from the air flow, falling to the bottom of the bowl. This separation effectively pre-filters the air of contaminants thereby extending the life of the filter element.

3. Stainless Steel Element

This first filter media which the pre-cleaned air enters is a deep bed of finely interwoven stainless steel mesh wires. These wires have an extremely striated outer surface and will hold aerosols and liquid droplets which have survived the Inverse-Flow and Centrifugal Spin processes. These small droplets will collect on the wire media, forming larger droplets which will fall into the drain area. This stage also filters oil and dirt to 3 micron with 99% efficiency.

4. Friction Drying

Consisting of interwoven cotton, polyester and stainless steel material, this final filter media captures sub-micron water droplets which have bypassed the stainless steel wire mesh. The cotton holds the water particles and allows them to re-enter the air stream as a harmless vapour. This stage also filters oil and dirt to 1 micron.



The Eliminizer© Application Dryer protects critical applications at the point of use from water and dirt.

The Eliminizer incorporates patented inverse flow technology and is engineered specifically to remove condensed liquids and dirt greater than 1.0 micron. This dryer utilises a stainless steel and cotton element to solve the majority of application problems, and is most effective when installed as close as possible to the application. The Eliminizer is available with polycarbonate, metal or stainless steel bowls with connections from ¼" to 1" and can handle flows up to 150 SCFM.

Polycarbonate Bowl
Model 3P-060-PP4-FI

Metal Bowl
Model 3P-060-MP4-FI

Stainless Steel Bowl
Model 3P-060-SP4-F

Result:
Installation of the Eliminizer will produce clean, dry air at the point of use.

When the application needs clean, dry, oil-free air at the point of use, install an Eliminizer© Combo Application Dryer.

The Eliminizer Combo incorporates the clean, dry air of the Eliminizer with a high efficiency borosilicate coalescer. This multi stage unit is designed for water and dirt removal in the first stage and oil aerosol removal to 0.01 micron in the second stage.

Polycarbonate Bowl
Model 3P-060-PP4-DCI

The Eliminizer Combo is available with polycarbonate, metal or stainless steel bowls with connections from ¼" to 1" and can handle flows up to 150 SCFM.

This allows the installation of coalescers in high-contamination loading applications without high element replacement rates.

Metal Bowl
Model 3P-060-MP4-DCI

Stainless Steel Bowl
Model 3P-060-SP4-DC

Result:
Installation of the Eliminizer Combo will produce clean, dry, oil-free air at the point of use.

For low-flow applications that require dew point suppression, the Eliminator II desiccant dryer sets the standard for clean, dry air.

The patented Eliminator II desiccant dryer is a multi-housing point of use manually regenerating dryer. Specifically engineered for low flow applications, the Eliminator II is best suited for intermittent air flow in the range of 0.1 - 7 SCFM.

The Eliminator II is equipped with an oil extractor first stage cartridge that combines the patented Inverse-Flow technology with a deep bed of activated carbon for oil vapour removal. The second stage housing contains a bed of activated alumina for dew point suppression to -40°C along with an indicator for easy analysis of the desiccant bed.

Model
E4000-P

Result:

Installation of the Eliminator II will produce clean, dew point suppressed air to critical applications.

The Stealth is a filter/dryer that provides clean, dry air the same as an Eliminizer application dryer.

The Stealth has all the cleaning and drying properties of the Eliminizer, has a metal bowl and a manual drain. It incorporates patented inverse flow to remove condensed liquids and dirt greater than 1 micron. The Stealth is available with or without a pressure regulator/gauge. Connections are 1/2" BSP and maximum flow is 60 scfm.

Model
STLH-6950

Result:

Installation of the Stealth will provide clean, dry, regulated (with optional regulator) air at the point of use.

The Eliminex© Separator removes bulk contamination from main line applications with very low pressure drop.

Model 1M-700-P16-FI

The Eliminex incorporates patented inverse-flow technology to provide 3 micron filtration for the protection of compressor room dryers and plant systems. It is frequently installed prior to refrigerated air dryers, downstream of aftercoolers, or in branch legs of distribution systems.

The Eliminex is designed with patented flow patterns and filter elements and will reduce the migration of liquid water and dirt into downstream applications. It comes with a metal bowl, connections from ¾" to 6" flange and can handle flows up to 5,500 SCFM.

Result:

Installation of the Eliminex will reduce the migration of water and dirt to downstream components.

Model 1M-5500-MFFX

The Eliminex© Combo removes water, dirt and oil aerosols from compressed air.

The Eliminex Combo combines the technologies of an Eliminex and a coalescing filter in a two stage unit. It is designed to eliminate condensed liquids in the main line and reduce carryover of oil aerosols greater than 0.01 micron in size. This combination unit is frequently installed before refrigerated dryers or downstream of aftercoolers. It is available with connections from ¾" to 2", can handle flows up to 700 SCFM and generates extremely long element life.

Result:

Installation of the Eliminex Combo will eliminate harmful contamination in the main line extending the life of downstream components.

Model 1M-300-P12-DCI

Product Selection

Below is a guide to help you select the correct product for your application.

Requirement	Product	Applications
Clean, Dry Air at the Point of Use	Eliminizer or Stealth	Vacuum, Injection Moulding, CNC Equipment, Robotics, Assembly Automation, Paper Manufacturing, Saw Mills, Bottling / Brewing, Cement Plants, Wood Working, Construction, Mining, Packaging Equipment, Material Handling, Automotive Assembly, Air Tools, Shot Blasting, Metal Casting.
Clean, Dry, Oil-Free Air at the Point of Use	Eliminizer Combo	Spray Painting, CMM, Dental Equipment, Instrument Air, Air Logic, Printing Presses, Blow Moulding, Silk Screening, Clean Rooms, Food Processing Equipment, Photographic Labs, Plasma Cutting Machines, Powder Coating, Textile Production Equipment
Clean, Dry Air with Dew Point Suppression	Eliminator II	Air Logic, Instrument Air, Photographic Labs, Air Gauging Equipment, CMM, Spray Painting
Main Line Water Removal	Eliminex	Compressor House Main Line, Branch Legs, Inlet to Vacuum Pumps, Shot Blasting
Main Line Water, Dirt & Oil Removal	Eliminex Combo	Compressor House Main Line, Branch Legs, Pre-Filter to Refrigeration Dryer or Desiccant Dryer

Sizing & Positioning

For the best results the selected product should be sized and positioned correctly for the application.

Sizing

Each product should be sized to match the air flow of the application to which it is being fitted. If this is not known then the connection or pipe size can be used as an indication. For reduced pressure drop and increased element life, use the optimum rather than maximum air flow rates.

Positioning

The Eliminizer, Eliminizer Combo, Eliminator II and Stealth are all point of use dryers and should be fitted on the air inlet of the application to be protected. If this is not possible (e.g. an air tool) the unit should be fitted at the nearest available location and not more than 5 metres from the application.

The Eliminex and Eliminex Combo are mainline separators and as such should be fitted in the mainline where required. If there is no after cooler, the unit should be at least 8 metres from the compressor.

Typical Plant With Available Dryer Options

This Eliminex will remove bulk water and dirt. Alternatively an Eliminex Combo could be used to remove oil as well.

ELIMINEX

COMPRESSOR

ELIMINIZER

Air exiting the compressor is hot and oily. It starts to cool immediately causing water to condense and pick up dirt and scale from the receiver and pipework.

ELIMINIZER COMBO

Application Dryers are fitted at the point of use to guarantee clean, dirt, oil free air to the different applications around the factory.

ELIMINATOR II

STEALTH

CONTAMINATION REMOVAL CODE

WATER **OIL** **DIRT**

Questions & Answers

How can an Application Dryer guarantee dry air?

By using the physical properties of compressed air to mechanical advantage, the Application Dryer dries and cleans the air at the point-of-use, immediately before the inlet of a machine or tool. In other words, the air is dried immediately prior to being used, eliminating condensation.

What advantage(s) can the Application Dryer possibly have over a compressor room dryer?

The Application Dryer was designed to eliminate many of the problems that exist in typical systems that run through a compressor room dryer. The primary advantage is its guaranteed effectiveness at the point of use. Other advantages include: easy installation, cost effectiveness (inexpensive to purchase and to operate), simplified maintenance, greater reliability than either refrigeration or desiccant dryers; and no need for any other type of filter at the point of use.

Does the Application Dryer lower the dew point of the compressed air?

Only by a few degrees because that's all that's necessary to ensure clean, dry air at the point of use. Remember, there is no need to waste energy lowering the dew point any further since the system does not need to transport dry air around the plant. With the Application Dryer's design, air is dried right where it's used. Now, if an application specifically calls for dew point reduction, the Eliminator II will reduce the pressure dew point to -40° celsius.

If Application Dryers are so effective, why sell mainline separators?

The Eliminex mainline separator removes bulk water and dirt preventing contamination of the entire pneumatic distribution system, thereby increasing element life and enabling each Application Dryer downstream to work more efficiently. Mainline units can function as a pre-filter to a compressor room dryer or as a separator to an aftercooler.

With all these advantages, why doesn't every distributor sell the Application Dryer?

People resist change. Distributors have been selling the idea of dew point reduction with expensive refrigeration and desiccant dryers in the compressor room since the 1950s. Our approach is to dry the compressed air and remove the contamination as close as possible to the application. The benefits are clear to see and it is extremely cost effective.

How can I try an Application Dryer at minimum risk?

Give us your toughest problem area. You can test the performance of a single Application Dryer at minimum cost on a critical tool or machine with a history of water problems. We know the results will convince you that the Application Dryer is not only effective but a whole new approach to providing dry air to pneumatic applications.

Eliminizer

Model Number	Optimum Flow (scfm)	Maximum Flow (scfm)	Port Size (BSPP)	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Bowl Material	Max.Oper. Pressure (psi)	Max.Oper. Temp (°C)
3P-020-PP2-F	10	20	1/4”	0.9	190	76	66	P	150	50
3P-035-PP2-F	17	35	1/4”	2.3	292	95	95	P	150	50
3P-035-PP3-F	17	35	3/8”	2.3	292	95	95	P	150	50
3P-035-PP4-F	17	35	1/2”	2.3	292	95	95	P	150	50
3P-060-PP4-F	30	60	1/2”	2.3	292	95	95	P	150	50
3P-090-PP6-F	45	90	3/4”	3.2	393	127	127	P	150	50
3P-150-PP8-F	75	150	1”	3.2	393	127	127	P	150	50
3P-020-MP2-F	10	20	1/4”	0.9	190	76	66	M	200	80
3P-035-MP4-F	17	35	1/2”	1.8	292	95	95	M	150	80
3P-060-MP4-F	30	60	1/2”	1.8	292	95	95	M	150	80
3P-090-MP6-F	45	90	3/4”	3.2	393	127	127	M	150	80
3P-150-MP8-F	75	150	1”	3.2	393	127	127	M	200	80
3P-060-SP4-F	30	60	1/2”	1.7	283	83	83	S	150	50

For differential pressure indicator add suffix 'I' to part number (not available on stainless steel version).
P=Polycarbonate; M=Aluminium; S=316 Stainless Steel; Max. Pressure Drop of 5 psi; Automatic drain valve is standard.

Eliminizer Combo

Model Number	Optimum Flow (scfm)	Maximum Flow (scfm)	Port Size (BSPP)	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Bowl Material	Max.Oper. Pressure (psi)	Max.Oper. Temp (°C)
3P-020-PP2-DC	10	20	1/4”	2.7	190	170	66	P	150	50
3P-060-PP2-DC	30	60	1/4”	3.6	292	210	95	P	150	50
3P-060-PP3-DC	30	60	3/8”	3.6	292	210	95	P	150	50
3P-060-PP4-DC	30	60	1/2”	3.6	292	210	95	P	150	50
3P-090-PP6-DC	45	90	3/4”	6.3	393	275	127	P	150	50
3P-150-PP8-DC	75	150	1”	6.3	393	275	127	P	150	50
3P-020-MP2-DC	10	20	1/4”	2.2	190	170	66	M	200	80
3P-060-MP4-DC	30	60	1/2”	4	292	210	95	M	150	80
3P-090-MP6-DC	45	90	3/4”	6.8	393	275	127	M	150	80
3P-150-MP8-DC	75	150	1”	6.8	393	275	127	M	200	80
3P-060-SP4-DC	30	60	1/2”	3.8	283	178	83	S	150	50

For differential pressure indicator add suffix 'I' to part number (not available on stainless steel version).
P=Polycarbonate; M=Aluminium; S=316 Stainless Steel; Max. Pressure Drop of 5 psi; Automatic drain valve is standard.

Eliminator II

Model Number	Optimum Flow (scfm)	Maximum Flow (scfm)	Port Size (BSPP)	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Bowl Material	Max.Oper. Pressure (psi)	Max.Oper. Temp (°C)
E4000-P	7	10	1/2”	5.8	483	432	120	M	150	40
N4000-P	7	10	1/2”	5.5	483	356	120	M	150	40

E4000-P comes with a pressure regulator; N4000-P comes without a pressure regulator.

M=Metal (Aluminium); Dew Point of -40°C; Maximum Pressure Drop of 5 psi; Automatic drain valves is standard.

Stealth

Model Number	Optimum Flow (scfm)	Maximum Flow (scfm)	Port Size (BSPP)	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Bowl Material	Max.Oper. Pressure (psi)	Max.Oper. Temp (°C)
STLH-6900	30	60	1/2"	1.8	292	95	95	M	200	80
STLH-6950-PB	30	60	1/2"	2.0	327	156	96	M	200	80

M = Aluminium, both options fitted with manual drain. STLH-6950-PB includes regulator / gauge.

Eliminex

Model Number	Optimum Flow (scfm)	Maximum Flow (scfm)	Port Size (BSPP)	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Bowl Material	Max.Oper. Pressure (psi)	Max.Oper. Temp (°C)
1P-120-MP6-F	60	120	3/4"	3.2	394	127	127	M	200	80
1P-175-MP8-F	87	175	1"	3.2	394	127	127	M	200	80
1M-300-P12-F	150	300	1 1/2"	13.2	686	198	198	M	200	80
1M-300-P16-F	150	300	2"	13.2	686	198	198	M	200	80
1M-400-P12-F	200	400	1 1/2"	16.8	762	216	216	M	200	80
1M-700-P16-F	350	700	2"	16.8	762	216	216	M	200	80
1M-2500-MFDX	1250	2500	3" Flange	113.4	1219	464	407	S	150	50
1M-2500-MFEX	1250	2500	4" Flange	120.2	1219	518	407	S	150	50
1M-5500-MFFX	2750	5500	6" Flange	163.3	1524	594	407	S	150	50

M=Metal (Aluminium); S=Epoxy Coated Steel; Maximum Pressure Drop of 1 psi; Automatic drain valve is standard.

Eliminex Combo

Model Number	Optimum Flow (scfm)	Maximum Flow (scfm)	Port Size (BSPP)	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Bowl Material	Max.Oper. Pressure (psi)	Max.Oper. Temp (°C)
1P-090-MP6-DC	45	90	3/4"	6.8	482	154	117	M	200	80
1P-150-MP8-DC	75	150	1"	6.8	482	254	117	M	200	80
1M-300-P12-DC	150	300	1 1/2"	26.3	686	419	198	M	200	80
1M-300-P16-DC	150	300	2"	26.3	686	419	198	M	200	80
1M-400-P12-DC	200	400	1 1/2"	32.7	863	482	216	M	200	80
1M-700-P16-DC	350	700	2"	33.6	863	482	216	M	200	80

M=Metal (Aluminium); Maximum Pressure Drop of 2.5 psi; Automatic drain valve is standard.

Elements

Eliminizer and Eliminex: Take the first 5 characters of the part number (e.g. 3P-060 for a 3P-060-PP4-FI)

First Stage of Combos: Take the first 5 characters of the part number (e.g. 3P-060 for a 3P-060-PP4-DCI)

Second Stage of Combos: Take the first 5 characters of the part number and replace the `P' or `M' with a `C' (e.g. 3C-060 for a 3P-060-PP4-DCI)

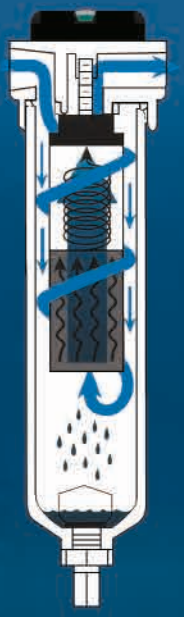
Stealth: 3P-060

Eliminator II: 4P-060 (first stage) and DE401 (second stage)

Clean Dry Air

The application dryer is the simplest and most effective solution to the problem of water in compressed air systems.

- *Clean dry air guaranteed*
- *Easy to install and service*
- *No moving parts*
- *No electricity or purge air required*
- *Flows from 1 - 5500 SCFM*
- *Less than 1 psi pressure drop*
- *Filtration to 3, 1 or 0.01 micron*



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