



ADVANCED AIR SYSTEM<sup>SM</sup>  
TECHNOLOGY



**FOR CLEAN DRY AIR, NOTHING BEATS AN RTi ELIMINIZER® APPLICATION DRYER.**

Made in U.S.A.

PATENTED

**RTi Eliminer®**  
APPLICATION DRYER

**1 CENTRIFUGAL SPINNING**

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

**2 INVERSE-FLOW**

RTi's patented *Inverse-Flow* process creates a condition where the air, which is spinning rapidly as it flows vertically downward, changes direction 180 degrees and begins to flow 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 sump area at the bottom of the bowl. This separation effectively pre-filters the air of bulk contaminants, thereby extending the life of the RTi filter element.

**3 STAINLESS STEEL MEDIA: FILTRATION TO 3 MICRON.**

The 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 small aerosols and liquid droplets which have survived the *Inverse-Flow* mechanical separation and centrifugal spinning processes. These small droplets will collect on the wire media, forming larger droplets which will fall into the drain area.

**4 FRICTION DRYING & FILTERED AIR TO 1 MICRON**

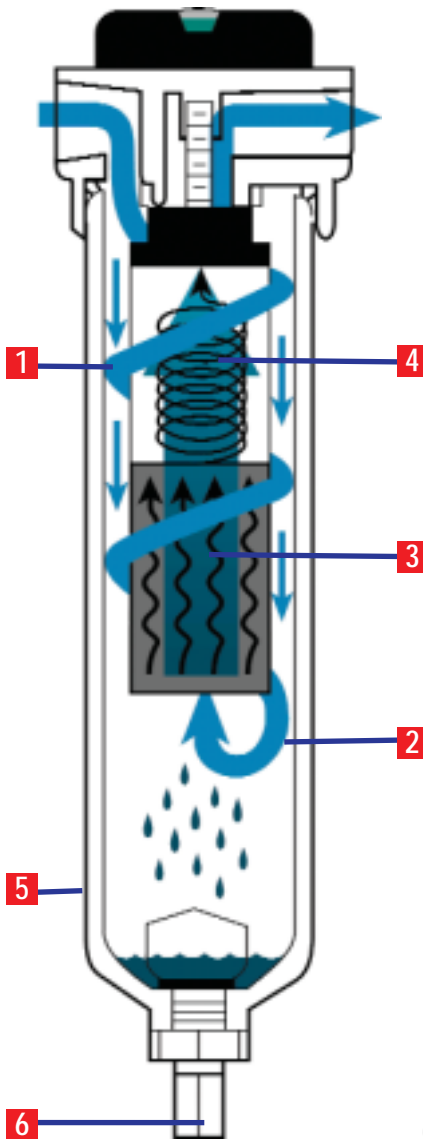
Consisting of a cotton and polyester blend interwoven with stainless steel material, the final filter media captures sub-micron water droplets which have passed through the stainless steel wire mesh and delivers filtered air to 1 micron. Cotton holds sub-micron water particles and allows them to re-enter the airstream as a harmless vapor.

**5 RUGGED BOWL ASSEMBLY**

The RTi Eliminer® features polycarbonate bowls with bowl guards as well as, powder coated metal bowls and high-pressure, high-temperature, food grade, and 316 stainless steel options.

**6 LARGE DRAIN SELECTION TO MEET YOUR NEEDS**

High-quality automatic drains are standard on all RTi Eliminer® Application Dryers. Brass petcock, ball valve, and electronic drains are also available.



**THE RTi ELIMINIZER® APPLICATION DRYER FILLS THE VOID BETWEEN COALESCERS AND REFRIGERATED DRYERS.**

Engineered specifically to remove condensed liquids from air streams prior to pneumatic applications, the RTi Eliminer® Application Dryer is designed with four separate modes of filtration in a single housing.

Contaminated compressed air enters the housing spinning rapidly downward. This spinning motion forces contamination to the inside of the bowl assembly where it drains to the bottom of the bowl. The air

then changes direction from vertically downward to vertically upward. This flow inversion further removes contamination prior to entering the filter element. The now pre-filtered air is passed through a stainless steel mesh and finally through a bed of cotton, polyester and stainless steel material where friction drying takes place.

**Patented RTi Technology**

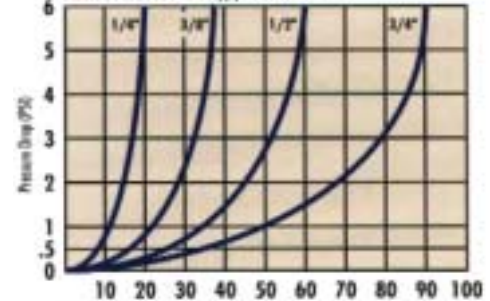
The RTi Eliminer® Application Dryer utilizes RTi's patented *Inverse-Flow* technology which pre-cleans the compressed air prior to its flowing into a deep bed of coalescent and absorptive media. As a result the RTi

Eliminer® Application Dryer is a point-of-use dryer/filter that fills the void between coalescers and refrigerated dryers.

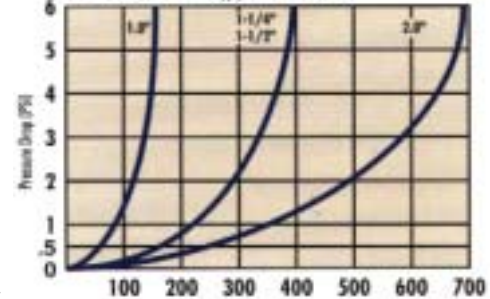
**Finally Clean, Dry Air**

The RTi Eliminer® is designed to remove condensed liquids from compressed air no matter how contaminated the air system. RTi Eliminer® units are available with 1/4 inch through 1 inch port sizes available which can handle flows to 150 SCFM.

Standard 1 Micron Element, Supply Pressure: 100 PSIG



Standard 1 Micron Element, Supply Pressure: 100 PSIG



**MORE THAN JUST A SEPARATOR/FILTER, THE RTi ELIMINEX® IS THE MAIN**

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**RTi Eliminex®**

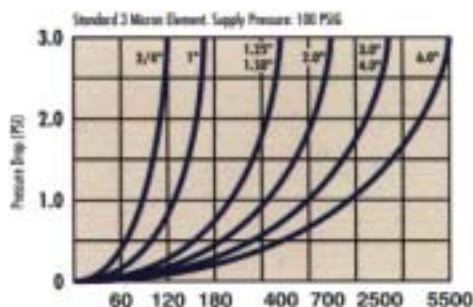
**SEPARATOR/FILTER**



**MORE THAN JUST A SEPARATOR, RTi'S PATENTED ELIMINEX® SEPARATOR/FILTER PROVIDES 3 MICRON FILTRATION WITH VERY LOW PRESSURE DROP.**

Using RTi's exclusive, and patented, *Inverse-Flow* technology and a deep bed of stainless steel mesh media, the RTi Eliminex® Separator/Filter eliminates condensed liquids in the main line. As a result, downstream dryers and filters perform better and last longer. The RTi Eliminex® Separator/Filter can be installed in com-

pressor room applications or on branch legs of larger systems. Units come in four ports from 1/2" to 6" flange models, with flows ranging from 60 SCFM to 5,500 SCFM.



**▼ COST-EFFECTIVE ALTERNATIVE SOLUTION FOR OPERATIONS**

An RTi Eliminex® can work with our RTi Elimimizer® and/or Elimimizer® Combo application dryers to provide a lower cost alternative to other dryer systems.

**▼ 3 MICRON FILTRATION IN YOUR MAIN LINE**

The patented RTi Eliminex® Separator/Filter removes bulk water and dirt under the most extreme, adverse conditions with a reusable, extremely long life 304 Stainless Steel element. This is a heavy duty main line unit with exceptional high flow capacity.

**▼ FOR SPECIAL APPLICATIONS**

No main line unit can out-perform the RTi Eliminex® with a 304 Stainless Steel Element. For applications to 5500 SCFM, use it as a pre-filter to a refrigerated dryer or as a separator after an aftercooler.

**▼ REDUCES MAINTENANCE COSTS AND DOWN-TIME**

With an RTi Eliminex® installed in your mainline, every device downstream works more efficiently, reducing wear and maintenance as well as extending the life of your valuable machinery and equipment. The Eliminex® also features a washable filter element.

**▼ RUGGED BOWL ASSEMBLY**

The RTi Elimimizer® features polycarbonate bowls with bowl guards as well as, powder coated metal bowls and high-pressure, high-temperature, food grade, and 316 stainless steel options.

**▼ LARGE DRAIN SELECTION TO MEET YOUR NEEDS**

High-quality automatic drains are standard on all RTi Eliminex® Separator/Filters. Brass petcocks, ball valves, and electronic drains are also available.

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## RTi Oil Extractor

ODOR/FUME REMOVER

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## RTi Coalescer

0.01µm COALESCER

### 1 STAINLESS STEEL

The four stage Oil Extractor element utilizes stainless steel mesh to pre-filter out dirt contaminants.

### 2 COTTON / POLYESTER / STAINLESS STEEL FIBER

Friction drying and filtered air to 1.0 micron; interwoven cotton, polyester, and stainless steel material. This stage captures smaller water droplets, and particulate that have bypassed the stainless steel wire mesh. Final filtration to 1.0 micron.

### 3 CARBON

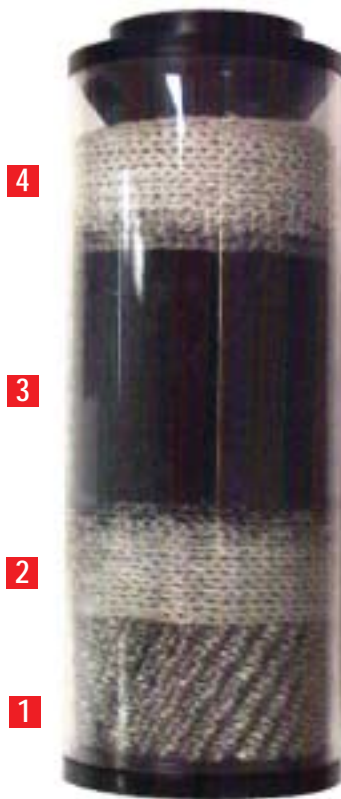
While passing through the layer of carbon, oil and oil odor are trapped. The Oil Extractor will free your compressed air lines from oil that could harm, destroy, or misalign your sensitive applications. Filter efficiency is to 0.003 ppm oil carry-over.

### 4 COTTON/POLYESTER/STAINLESS STEEL FIBER

This final layer is used to prevent any carbon dust from migrating into the airstream.

### 5 0.01 MICRON COALESCER

This high grade coalescing filter can be installed in a wide range of units, allowing for applications in different areas. Coalescing elements remove oil up to 0.01 micron with 99.99998% efficiency.



## RTi COALESCERS AND OIL EXTRACTORS ARE THE SOLUTION FOR YOUR OILY COMPRESSED AIR.

Removing oil and oil odor from air lines has never been simpler with RTi Coalescers and Oil Extractors. Our coalescing units can remove oil aerosols down to 0.01 micron. By using a porous borosilicate media, oil in compressed air is removed. RTi Coalescers are available in polycarbonate or metal bowls in port sizes from 1/4" to 6" R.F.S.O. flanges with flows to 5500 SCFM.

### Carbon Power

Oil Extractors combine the filtering of an RTi Eliminer<sup>®</sup> with the power of activated carbon. After passing through stainless steel mesh and cotton/poly stages, the water and dirt-free compressed air travels through a bed of carbon. The carbon absorbs oil aerosols from the air. A final stage of cotton/poly/stainless steel fiber ensures no carbon particles enter the air. Oil Extractors are available in polycarbonate or metal bowls in port sizes from 1/4" to 1" and flows to 150 SCFM.

### A Powerful, Oil Fighting Combination

When oil is plaguing your system, RTi Coalescers and Oil Extractors are the problem solvers. By combining them, RTi has the ultimate oil and oil odor fighting tool. RTi's Oil Extractor Combo uses an Oil Extractor element in its first stage and a Coalescer element in its second stage. The Oil Extractor Combo will remove water, dirt, oil, and oil odor to 0.01 micron. Oil Extractor Combo units are available in polycarbonate or metal bowls in port sizes from 1/4" to 1" and flows to 150 SCFM.

### Use Upstream RTi Products

Make sure to install RTi Eliminer<sup>®</sup> Mainline Separators up stream to remove bulk contaminants. This will preserve the life of your Coalescer or Oil Extractor element and give you the clean, oil-free results you demand.

**FOR CLEAN, DRY, OIL-FREE AIR, CHOOSE THE RTi ELIMINEX® COMBO OR THE RTi ELIMINIZER® COMBO.**



The RTi Eliminex® Combo and RTi Eliminizer® Combo are available with either a metal bowl or a polycarbonate bowl (shown) with a metal bowl guard. The coalescer unit is also available separately.

**99.99998% OIL-FREE AT 0.01 MICRON**  
**WHEN YOU NEED CLEAN, DRY, OIL-FREE AIR IN THE MAINLINE OR AT POINT-OF-USE APPLICATION, YOU NEED THE RTi ELIMINEX® COMBO OR ELIMINIZER® COMBO.**

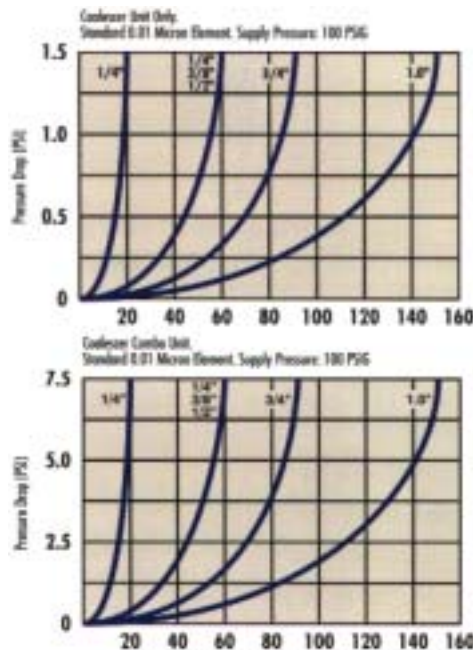
The RTi Eliminex® Combo Separator/Coalescer and the RTi Eliminizer® Combo Application Dryer/Coalescer incorporates the clean, dry air of the Eliminex®/Eliminizer® with a high efficiency coalescer for oil aerosol removal to 0.01 micron with up to 99.99998% efficiency at point of use applications requiring clean, dry, oil-free air.

RTi's Combo unit uses the RTi Eliminex® or Eliminizer® as a pre-filter that allows the coalescer to perform the sole task it was designed for: the removal of oil aerosols. In addition, the very effective pre-filtering allows the coalescer to perform better with a longer life.

**Greater Flexibility/ Better Performance**

With the RTi combo units, you can now install coalescers in high-flow, high-contamination loading applications with better overall performance and without high element replacement rates. There's just no better single-unit solution for oil aerosol removal.

RTi Eliminex® Combo units are available with 1/4 inch through 6 inch port sizes which can handle flows up to 2100 SCFM. High flow models are available up to 5000 SCFM. RTi Eliminizer® Combo units are available with 1/4 inch through 1 inch port sizes which can handle flows to 150 SCFM. High flow models are available up to 300 SCFM.



Made in U.S.A. PATENTED  
**RTi Eliminex® Combo**  
 SEPARATOR/FILTER & COALESCER

Made in U.S.A. PATENTED  
**RTi Eliminizer® Combo**  
 APPLICATION DRYER & COALESCER

**FIRST STAGE: 99.97% CONDENSATE-FREE**  
**SECOND STAGE: OIL-FREE TO 0.01 MICRON AT 99.9998% EFFICIENCY.**

- ▼ **CONSISTENT PRESSURE FLOW**  
 All RTi combos are not affected by slugs, like other coalescer units.
- ▼ **SINGLE UNIT SOLUTION FOR OIL-FREE AIR**  
 There's no need to pre-filter the combo unit because our exclusive RTi Eliminex® or RTi Eliminizer® elements pre-filter the air to 3 or 1 micron respectively.
- ▼ **EASY SERVICEABILITY**  
 Easy to read indicators show when air flow through the element is being restricted by particulate contamination. All RTi products feature automatic float drains and convenient spin-off, spin-on cartridges for easy, "no tools required" serviceability.
- ▼ **MORE EFFICIENT AND EFFECTIVE OPERATION**  
 With its unique two-stage filtration/ coalescing process, RTi combo units deliver filtration to 0.01 micron with an efficiency of 99.99998% eliminating dirt, water, oil and oil aerosols from the air stream.

- ▼ **HIGH-EFFICIENCY FIRST STAGE**  
 The first stage in RTi combo units separates contaminants from the air stream allowing only pre-filtered air to enter the coalescing element, greatly extending coalescer element life.

- ▼ **RUGGED BOWL ASSEMBLY**  
 The RTi Eliminizer® features polycarbonate bowls with bowl guards as well as, powder coated metal bowls and high-pressure, high-temperature, food grade, and 316 stainless steel options.

- ▼ **LARGE DRAIN SELECTION TO MEET YOUR NEEDS**  
 High-quality automatic drains are standard on all RTi combo units. Brass petcocks, ball valves, and electronic drains are also available.

**THE RTi ELIMINATOR® II IS A SUPERIOR DESICCANT DRYER SYSTEM.**

Made in U.S.A. PATENTED  
**RTi Eliminator® II**  
 APPLICATION  
 DESICCANT DRYER

**1 STAGE ONE: DRY, OIL-FREE AIR**  
 RTi's exclusive, patented *Inverse-Flow* process delivers 100% removal of oil and water liquid contaminants, plus oil vapor removal to 0.003 ppm! A filter change/DP indicator is included.

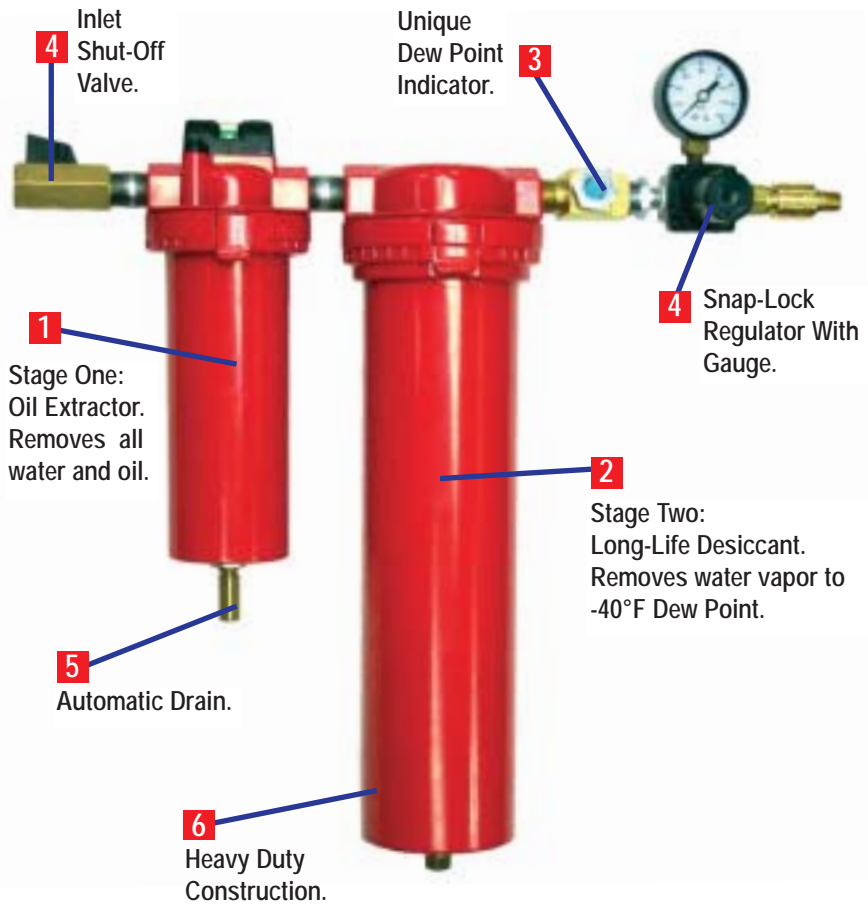
**2 STAGE TWO: LONG-LIFE DESICCANT MEDIA**  
 RTi's exclusive pre-filter dramatically extends desiccant efficiency for longer cartridge life. Replacing the desiccant media is simple, and removing the patented spin-off, spin-on element takes only seconds. The desiccant cartridge also features a coalescing final filter for 1 micron dust removal.

**3 UNIQUE DEW-POINT INDICATOR ELIMINATES GUESSWORK**  
 RTi's exclusive dew-point indicator lets you know when the desiccant cartridge needs to be replaced. When the color changes to pink, you know the desiccant media needs to be replaced.

**4 ATTENTION TO DETAIL - INLET SHUT-OFF VALVE AND SNAP-LOCK REGULATOR**  
 Every RTi Eliminator® II ships with an inlet shut-off valve and a snap-locking regulator for easy servicing and precise air pressure settings that lock in place with finger-tip control.

**5 AUTOMATIC DRAIN**  
 The first-stage unit includes a reliable automatic float drain to remove liquids that build up in the bowl. Our exclusive manual override feature is standard on all E4000 and N4000 float drains.

**6 HEAVY DUTY CONSTRUCTION**  
 Designed for safety and durability, including: solid metal bowls, automatic drains, stainless steel components, inlet shut-off valve, regulator and 0-160 psi gauge with precision snap-lock feature for hassle-free pressure setting, and mounting brackets.



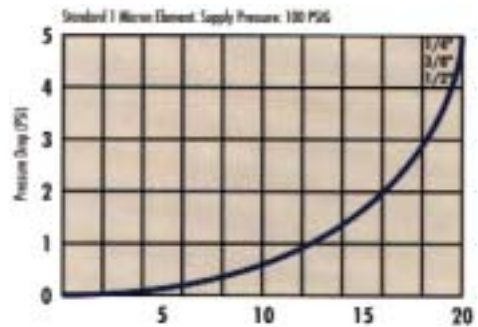
**FOR LOW FLOW APPLICATIONS THAT REQUIRE A DESICCANT UNIT, THE RTi ELIMINATOR® II APPLICATION DESICCANT DRYER SETS THE STANDARD FOR CLEAN, DRY AIR.**

The RTi Eliminator® II Application Desiccant Dryer is a multi-stage, multi-housing point-of-use, manually regenerated desiccant dryer. Specifically engineered for low-flow applications not exceeding 20 SCFM, the RTi Eliminator® II is best suited for intermittent air flow in the range of 0.1 - 7 SCFM. It's also intended to be installed as close as possible to the point where the air is to be used.

**More than just a desiccant dryer, The RTi Eliminator® II is the right tool for the job.** The RTi Eliminator® II is equipped with an Oil Extractor first stage cartridge that combines RTi's patented *Inverse-Flow* technology with a deep bed of activated carbon for oil vapor removal. The second stage cartridge contains a bed of activated alumina for dew point suppression along with an

indicator for easy analysis of the desiccant bed. It also includes a final filter for the removal of desiccant dust which is built into the cartridge. The result: clean, dry, oil-free, dust-free air at your critical application.

The RTi Eliminator® II Application Desiccant Dryer is available with 1/4, 3/8, and 1/2 inch port sizes which can handle flows ranging from 0.1 SCFM to 20 SCFM and comes equipped with a snap-lock regulator, gauge and inlet ball valve as standard fixtures.



**RTI OFFERS AN EXTENSIVE LINE OF ACCESSORIES AND SPECIAL UNITS TO MEET YOUR NEEDS.**



External Tank Drain

Automatic Brass Drain

Manual Brass Petcock Drain

Electronic Drain

## Drains



R30

R16

35-128 SCFM Compact Lubricator

196-374 SCFM High Flow Lubricator

## Regulators

## Lubricators



Mounting Bracket for 20 SCFM units

## Brackets



Mounting Bracket for 1/2" units



## Stainless Steel Units



## Food Grade Units

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**RTI Accessories**  
DRAINS, REGULATORS, & MORE

Made in U.S.A. PATENTED

**RTI Food Grade**  
COATING FOR APPLICATIONS

Made in U.S.A. PATENTED

**RTI Stainless Steel**  
FOR HARSH ENVIRONMENTS

### ▼ DRAINS

These small but important items ensure that filtered contaminants are removed from the units. Drains come in varieties of shapes, sizes, and features. RTI units can be fitted with automatic float drains, manual brass petcock drains, tank drains, or electronic drains. With our wide variety of drains available, you can choose the best drain to suit your needs.

### ▼ REGULATORS

Regulators provide a steady stream of air at a constant pressure. RTI regulators use a self-relieving diaphragm design.

### ▼ LUBRICATORS

Various pneumatic devices require clean air and oil to operate. After filtering out harmful contaminants, use a lubricator to add an adjustable amount of oil to the compressed air line, thus lubricating your expensive application.

### ▼ BRACKETS

RTI offers an assortment of durable and handy mounting brackets for many different products. They provide a hassle-free means to mount your unit.

### ▼ STAINLESS STEEL UNITS

RTI introduces 316 Stainless Steel units available in Eliminox®, Elimimizer®, Coalescer, Oil Extractor, and combo models. These steel units can stand up to harsh chemicals that would otherwise destroy polycarbonate or aluminum units.

### ▼ FOOD GRADE UNITS

RTI aluminum units are now available with a food grade coating. Concerns over paint chips contaminating food are dismissed with this fully approved USDA paint. Custom and Grade 1 products are also available.

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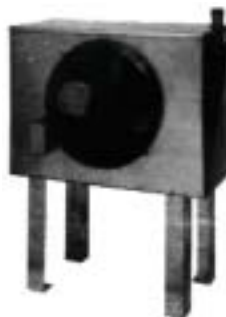
**RTi Dryers & Coolers**  
TEMPERATURE AND DEW POINT CONTROL

▼ **AFTERCOOLERS**

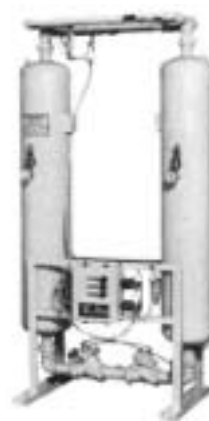
RTi's Aftercoolers are the solution to hot compressed air that contain large amounts of water vapor. Aftercoolers lower the temperature of the air out of a compressor, converting water vapor into liquid water which can be easily filtered.



PRA75A



PA150



PH180A

▼ **REFRIGERATED DRYERS**

RTi non-cycling Refrigerated Air Dryers remove moisture, oil vapor, and other contaminants from compressed air lines. The dew point is reduced to approximately 39°F by cooling and built in separation. These dryers are designed for maximum efficiency and life of service.

**WITH ANY COMPRESSED AIR SYSTEM, YOU NEED THE RIGHT DRYER OR AFTERCOOLER TO ENSURE CLEAN, DRY AIR DOWNSTREAM.**

Your compressor is the most vital part of your air line. However, it is the biggest contaminator of your system. Compressing air by decreasing volume and increasing pressure produces hot air. Vaporized water, oil, and dirt are entrained inside this hot air.

**Start Off With an Aftercooler**

Aftercoolers reduce the compressed air temperature in the line coming from the compressor. Some of the water will condense and then can be effectively removed. For every 20°F that air is cooled, approximately half of the water vapor will condense into liquid, which can be removed with an RTi Eliminex.

**Utilize a Refrigerated Dryer**

Refrigerated dryers have the capability of reducing the dew point to approximately 39°F. Both water and air-cooled configurations are available, making RTi refrigerated dryers both economic and long-lasting.

**Great Combination**

High Inlet Temperature Dryers (HT) combine an aftercooler, refrigerated dryer, separator, and drain into one unit. This multi-tasking unit uses a low velocity, low pressure drop centrifugal separator for removing the maximum amount of moisture. HT Dryers can handle inlet air temperatures of 200°F and pressures of 175 PSIG.

**For Those Tough Applications**

RTi Heatless Twin Tower Desiccant Dryers have the ability to provide extremely low dew points, from -40°F to -100°F.

**An Alternative, Cost-Effective Solution**

For low air flows, RTi's new DRAD-8 and DRAD-15 twin tower desiccant dryers are the solution. These units are Heatless Twin Tower Desiccant Dryers and are capable of

▼ **HIGH INLET TEMPERATURE DRYERS**

RTi combines an aftercooler, refrigerated dryer, separator, and drain into one effective unit. The High Inlet Temperature Dryer can handle high temperatures and pressure to cool air and remove vaporized contaminants.

▼ **HEATLESS TWIN TOWERS**

Heatless Twin Tower Dryers use desiccant to provide dewpoints as low as -100°F. These dryers should be installed for extremely moisture sensitive applications where compressed air drying by other methods has proved inadequate.

▼ **NEW DRAD UNITS**

RTi's research and development staff has produced a new twin tower desiccant dryer perfect for flows less than 15 SCFM. These units use a purge air system and activated alumina to lower dew point and dry your compressed air. Proper pre and post-filtration is required.

▼ **THE COMPRESSOR ROOM IS THE HEART OF YOUR AIR LINE**

The compressor pumps out an enormous amount of compressed air everyday. However, contaminants are trapped in that air. Make sure you utilize aftercoolers, dryers, and mainline separators, like the RTi Eliminex® in the compressor room to ensure clean air downstream.

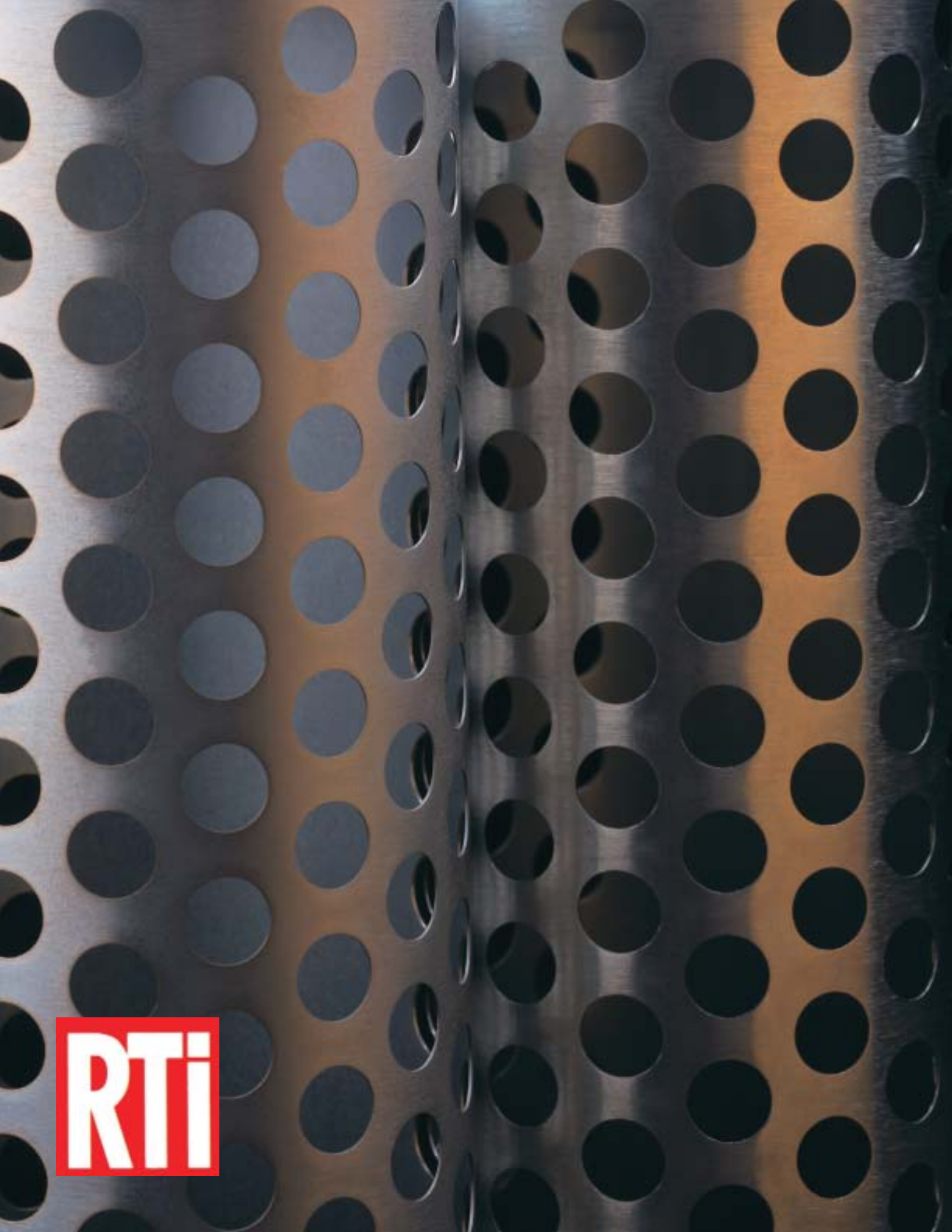


DRAD-8

handling flows up to 15 SCFM. They utilize a simplistic, low maintenance design.

**Always Remember Maintenance**

Compressor rooms need to be well ventilated and kept as close to room temperature as possible. Make sure to maintain your compressor regularly to avoid adding extra contaminants to the air stream. Be sure to use a RTi Eliminex® Mainline Separator after the air has been cooled. By using a combination of maintenance, aftercoolers, dryers, and filters, your air will be free from water, dirt, and oil allowing your company to avoid costly downtime.



**RTi**