



# PRODUCT CATALOG

Superior Filtration Products. Pure & Simple.

**FILTERS | DRYERS | DRAINS | ACCESSORIES**

[tsunami.us.com](http://tsunami.us.com)





# COMBINING QUALITY AND CUTTING-EDGE TECHNOLOGY



## OPTIMIZED CONTENT

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- Find in-depth information on the products you need.
- Get up-to-date information on new product releases and upcoming events.
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## ONLINE VIDEOS

Tsunami Compressed Air Solutions™ offers over fifty online videos.

- Sales training and demonstration videos.
- View step-by-step installation instructions.
- General knowledge as well as tips and tricks on compressed air best practices.

Visit our YouTube channel or video library at:  
[tsunami.us.com](http://tsunami.us.com)



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For over 35 years, Tsunami Compressed Air Solutions™, has set the industry standard for quality compressed air filtration and drying solutions. While we strive to bring cutting-edge technology to the world of pneumatics, we continue to focus on the core principles that built the foundation of our successful business: quality, value, and world-class customer service.

At Suburban Manufacturing Group, our mission is to build value for our customers by producing quality, innovative, application-based products. Suburban is an engineering driven organization that partners with customers to design and develop unique and specific fluid power products.

Today, we distribute thousands of fluid power solutions worldwide right from our U.S. manufacturing facility located in Monticello, Minnesota.

Suburban Manufacturing Group is an ISO 9001-2015 Certified Manufacturer.





# THE #1 RULE OF COMPRESSED AIR

For Every 20°F that Compressed Air is Cooled, the Air Loses 50% of its ability to Hold Moisture in Vapor Form (Humidity) and is Dropped Out as a Liquid.

## UNDERSTANDING AIR DRYING AND AIR FILTRATION... THERE IS A DIFFERENCE!

### AIR DRYING | The Removal of Water Vapor (Humidity) from Compressed Air

Typically, this is accomplished in one of four ways:

- Desiccant (molecular sieve, activated alumina, silica gel)
- Membrane
- Refrigeration
- Deliquescent

### WHEN TO USE COMPRESSED AIR DRYERS

Air dryers should be used when you want to remove or reduce the humidity levels in your compressed air system to meet or exceed the air quality requirements for the compressed air demands of your tools, equipment, or applications.

### AIR FILTRATION | The Removal of Particulates, Water, Oil Droplets, and Aerosols

This is most effective when done in stages:

- Water separator - removes bulk water, oil, and large particulates (down to 10 micron)
- Coalescing filter - removes oil, aerosols and fine particulates (down to .01 micron)
- Activated carbon filter - removes oil vapors; eliminates odors and taste (down to .003ppm)

### WHERE TO PLACE COMPRESSED AIR FILTRATION

- The further away from the compressor, the more effective your filtration will work
- On or near the equipment, directly connected to air supply connection (IMPORTANT)
- In front of all air dryers as pre-filters
- Water separators should be placed at all air tool drops with regulators

## IMPORTANT THINGS TO KNOW

- Proper control of air pressure throughout your facility can help save 10-15% of your compressed air energy costs.
- Repairing an audible air leak can save you \$50 or more per year in energy used to drive your compressor.
- When sizing a compressor for manufacturing, it is important to calculate total machine air consumption as well as total air consumed by machine operators and other personnel.
- Proper control of air volume (CFM) will make all your air drying and filtration technology perform at their rated capacity. Most pieces of equipment have a manufacturer's specification of volume consumption along with the recommended operating pressure.
- Improper use of volume can cause an "over-flowing" of the rated capacity of your dryer or filtration which causes a carry over of moisture and contaminants.
- Many OSHA approved blow off guns can consume up to 35 CFM, the equivalent of a 10 Hp compressor.
- Many color changing indicators used with desiccant systems do not begin to change color before 20% rH.



A hand holds a purple Suna oil can. The label on the can reads: "CAUTION: Immediately Oil Lubrifier When Sawing Drops & Cracking Below & Care Lead to Monitor Maintenance". In the foreground, two purple capacitors are shown, mounted on a black PCB with gold-colored pins.

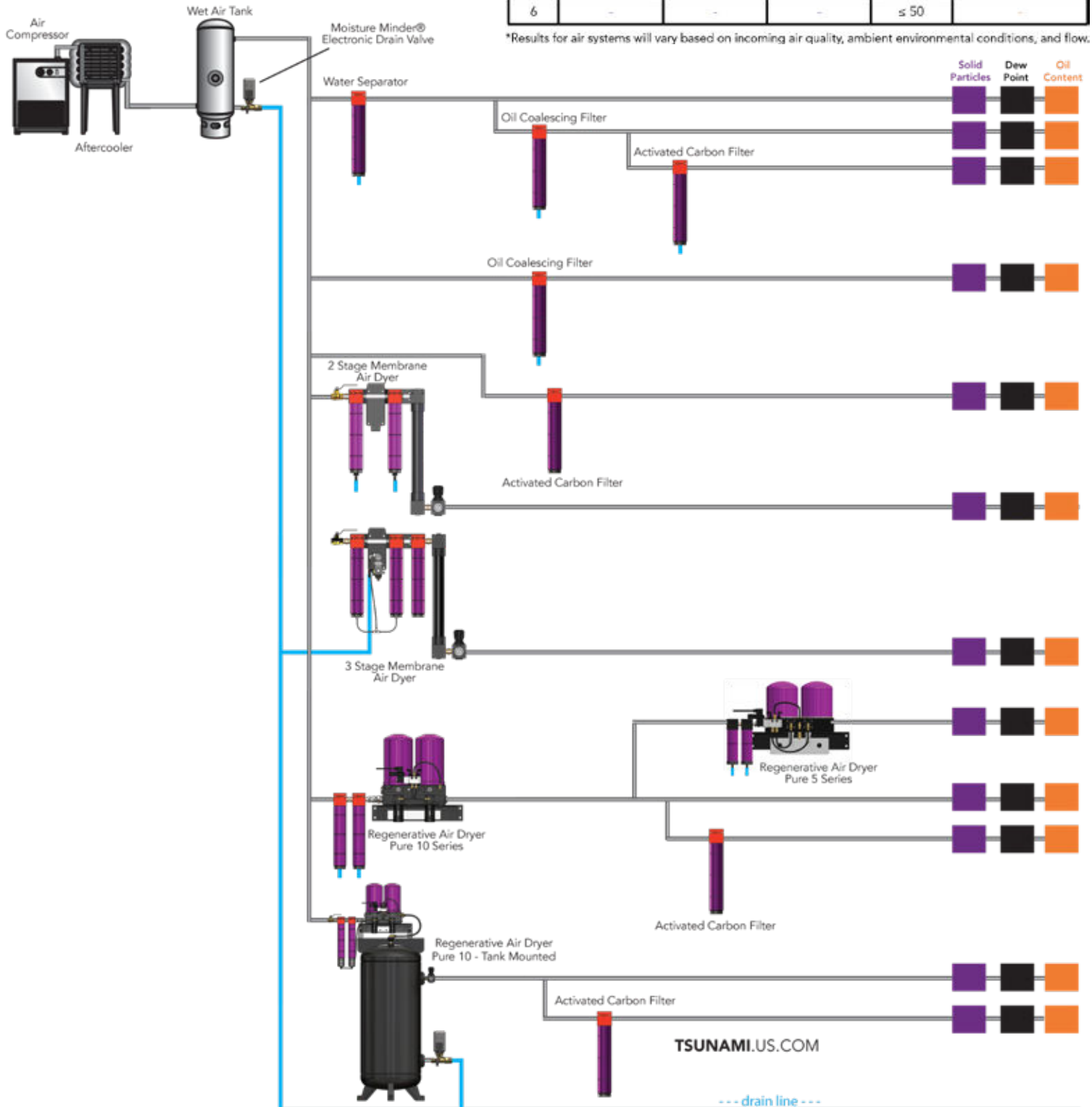


# THE TSUNAMI GUIDE TO ISO 8573-1:2010 STANDARDS

## ISO 8573-1:2010 Standards

Class	Solid Particles, max. number of particles per m <sup>3</sup>			Pressure Dew Point °F	Oil Content (liquid, aerosol, oil vapor) mg/m <sup>3</sup>
	0.1 µm < d ≤ 0.5 µm	0.5 µm < d ≤ 1.0 µm	1.0 µm < d ≤ 5.0 µm		
0	In accordance with the unit operator's or supplier's specifications, stricter requirements than class 1				
1	≤ 20,000	≤ 400	≤ 10	≤ -94	≤ 0.01
2	≤ 400,000	≤ 6,000	≤ 100	≤ -40	≤ 0.1
3	-	≤ 90,000	≤ 1,000	≤ -4	≤ 1
4	-	-	≤ 10,000	≤ 37	≤ 5
5	-	-	≤ 100,000	≤ 45	> 5
6	-	-	-	≤ 50	-

\*Results for air systems will vary based on incoming air quality, ambient environmental conditions, and flow.





# PROPER SHOP AIR SET UP

## FILTRATION:

The further away from the air compressor, the more effective your air filtration will work. Compressed air filters should sit as close to the equipment as possible to catch condensed liquid in the piping.

## DRYERS:

For all compressed air systems, using some form of drying technology near the compressor is essential to an effectively designed air system. An air dryer is the final touch to prevent water from entering your equipment or application.

For applications requiring even dryer air, the ideal placement would be right before the point-of-use. This allows the compressed air to drop in temperature so the water vapor can be converted to liquid moisture and captured by the air filters; allowing for the dryer to remove any lingering humidity.

## DRAINS:

There are three locations automatic drains are required to be present in order for an efficient, well-running system:

### 1 Compressed air receiver tank:

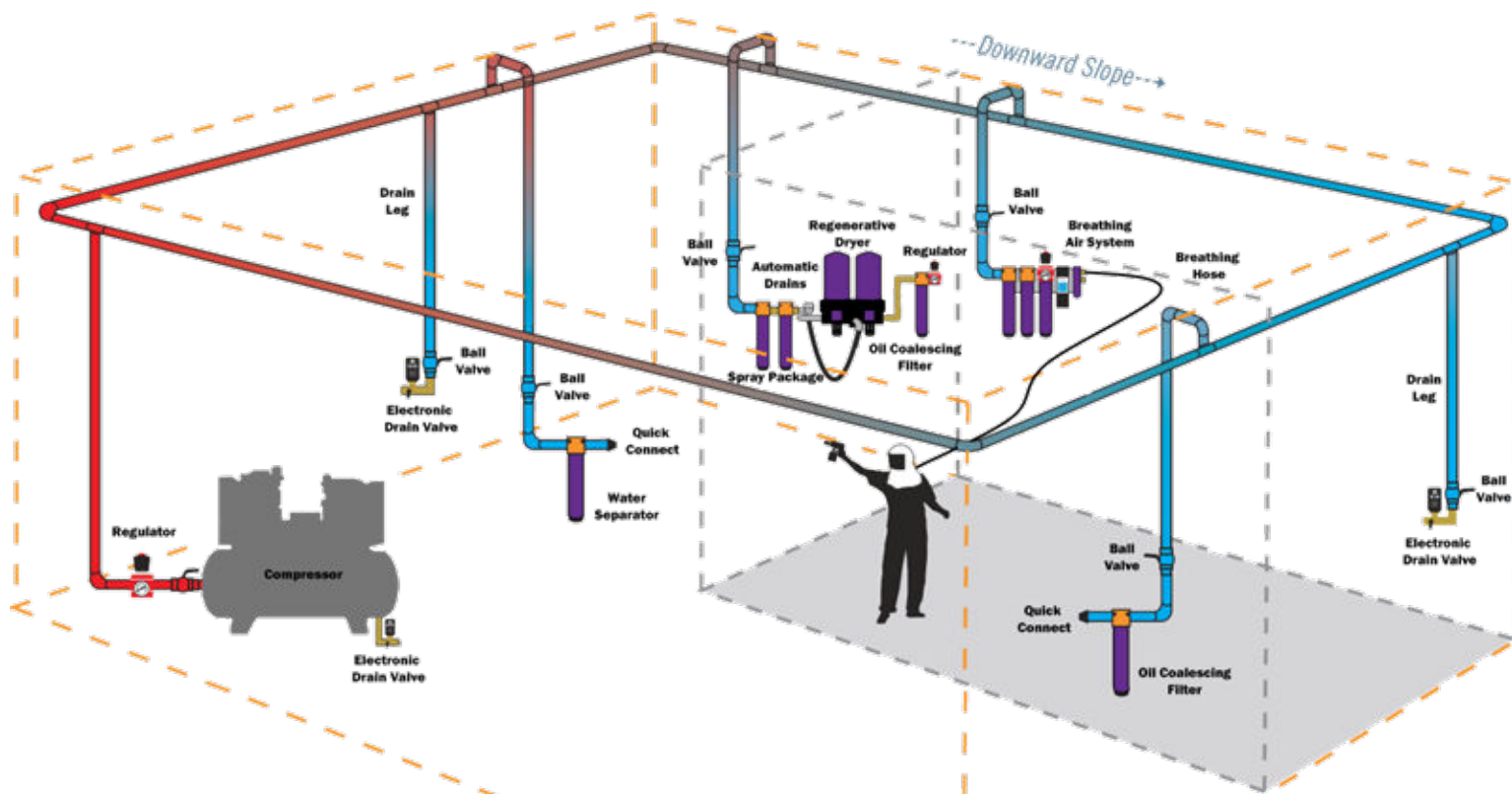
This allows for the draining of liquid that will condense in the tank and cause corrosion to the internal reservoir as well as take up valuable storage space for your compressed air volume.

### 2 Anywhere there is a drip leg throughout the air piping:

Placing an automatic drain on those drip legs removes collected moisture thereby preventing it from being recaptured by the air stream. Catching and draining the liquid in the air pipes will ease the work of the air filters downstream.

### 3 On all air filters and air dryers:

Automatic drains are recommended over manual drains in the event the operator forgets to drain the systems; not to mention, not manually draining them often enough could prevent moisture carryover.





# AIR DRYERS

Tsunami Regenerative Drying Systems use proprietary technology to provide extremely clean and dry air.

- Low relative humidity - down to .01% RH
- Dew points down to -80°F
- Easy, low-cost maintenance - under \$100/year average
- Includes Tsunami Water Separator and Oil Coalescing Filter with automatic drains

## HOW IT WORKS

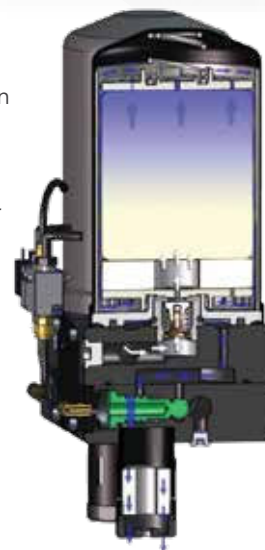
### The Drying Process

- 1 Pre-filtered air enters the dryer and is channeled through the desiccant tower(s).
- 2 Wet air passes through the tower(s) where molecular sieve desiccant draws water vapor in while under pressure.
- 3 After flowing through the desiccant, the now dry air is sent downstream.
- 4 After two minutes, the control timer sends out a pilot signal shifting the internal piston. When the piston shifts, air is redirected from the tower(s) to the opposite side.



### The Regeneration Process

- 1 A small amount of air from the dry outlet on the opposite tower(s) percolates up through the regeneration orifice and back through the desiccant filled tower(s).
- 2 The desiccant is dried as the sweep air passes back through the media.
- 3 With the use of this air, the tower(s) discharge water vapor through the mufflers.
- 4 After two minutes, the control timer sends out a pilot signal shifting the internal piston. When the piston shifts, flow is reversed and this tower(s) begins drying the air.



## HOW DO WE STACK UP?



### TSUNAMI REGENERATIVE DRYER

- Can handle high inlet temperature up to 150°F
- Performs well with high demand surge flows
- No Aftercooler Required
- Complete with 2-stage pre-filters & automatic drains
- Dew points ... down to -80°F and lower
- No refrigerant to maintain
- Works great with low flow rates
- Minimal maintenance required:  
Change oil coalescing element every six months

VS



### REFRIGERANT DRYER

- Max inlet temperature 100°F
- Moisture will carry over during high demand surge flows
- Requires Aftercooler
- Must purchase pre-filters and automatic drains separately
- Dew points ... 35-50°F
- Refrigerant to maintain
- Low flow rates may allow water carry over at separator
- Regular maintenance required:  
Clean heat exchanger | Electric motor | Refrigerant compressor



# ULTRA REGENERATIVE DRYERS

## ULTRA SERIES REGENERATIVE DRYERS INCLUDE:

- ✓ 2-stage Pre-filtration\*; Water Separator, Oil Coalescing Filter
- ✓ Regenerative Dryer
- ✓ Moisture Minder® Automatic Drains
- ✓ Programmable Logic Control (PLC)
- ✓ Heater pads available for cold temp applications



3-Year Warranty on  
Tsunami Ultra Drying Systems

\* All Ultra Series Dryers come with oversized water filters and a special coalescing element to accommodate for expansion



Replacement elements:  
21999-0228  
21999-0202-Z-SP

## ULTRA SERIES WALL-MOUNTED

Ultra series wall-mounted regenerative dryers are designed as complete packages. Systems can be configured in multiple variations allowing for pre-filtration to be installed on the left or right side of the unit. Dual inlet/outlet ports allow for bypass of the dryer where breathing air is required.

## ULTRA SERIES TANK-MOUNTED

The optimal solution for any facility; simply connect shop air into the inlet fitting and out the regulator. It's that simple. Tank-mounted dryers provide absolute ease of installation. A built-in bypass system allows the dryer to be shutoff for maintenance or service without stopping production.



21999-0830

## ULTRA SERIES RAIL-MOUNTED

Tsunami rail mounted regenerative dryers are built to withstand the largest surges of contamination. Similar to other Tsunami drying systems, these dual-inlet units are built as complete packages.



In addition to our complete line of standard products, Tsunami has engineered customizable dryers to meet air cleanliness requirements for a variety of industries and applications. Call 1.800.782.5752 or visit [tsunami.us.com](https://tsunami.us.com) to learn more.

21999-0750



Dryer flow rates based on 100°F at 175 PSI with an outlet pressure of 100 PSI.\*

Lower inlet pressure and higher temperatures affect the performance and quality of the downstream air.

\*minimum recommended inlet pressure 80 PSI

Max pressure 175 PSI, max temperature 150°F

5/32 hex key required for piston bolts

## WALL-MOUNTED DRYERS

ITEM #	MAX CFM	SIZE	TOWERS	DRAIN	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0710	40	10 HP	2	Pneumatic	1" NPT	73 lbs	30" x 30" x 12"
21999-0715	60	15 HP	3	Pneumatic	1" NPT	93 lbs	30" x 36" x 12"
21999-0720	80	20 HP	4	Pneumatic	1" NPT	118 lbs	30" x 36" x 12"
21999-0730	120	30 HP	4	Pneumatic	1" NPT	118 lbs	30" x 36" x 12"

Parts sent globally will include a -G with the part number.

## TANK-MOUNTED DRYERS

ITEM #	MAX CFM	SIZE	TOWERS	DRAIN	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0810	40	10 HP	2	Pneumatic	1" NPT	335 lbs	69" x 51" x 27"
21999-0815	60	15 HP	3	Pneumatic	1" NPT	358 lbs	69" x 51" x 27"
21999-0820	80	20 HP	4	Pneumatic	1" NPT	381 lbs	69" x 51" x 27"
21999-0830	120	30 HP	4	Pneumatic	1" NPT	381 lbs	69" x 51" x 27"

## RAIL-MOUNTED DRYERS

ITEM #	MAX CFM	SIZE	TOWERS	DRAIN	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0740	160	40 HP	8	Pneumatic	1" NPT	267 lbs	66" x 36" x 21"
21999-0750	200	50 HP	8	Pneumatic	1" NPT	267 lbs	66" x 36" x 21"
21999-0755	300	75 HP	12	Pneumatic	1" NPT	428 lbs	66" x 36" x 42"
21999-0760	400	100 HP	16	Pneumatic	1" NPT	534 lbs	66" x 36" x 42"

125 HP and 150 HP available on request. Call for details.



# PURE REGENERATIVE DRYERS

SIMPLE. ECONOMICAL. EFFECTIVE.

- ✓ 2-stage Pre-filtration; Water Separator, Oil Coalescing Filter
- ✓ Regenerative Air Dryer
- ✓ Solenoid Valve Timer
- ✓ Automatic Drains
- ✓ Heater pads available for cold temp applications



1-Year Warranty on  
Tsunami Pure Drying Systems Utilizing  
Pneumatic Drains

## PURE SERIES WALL-MOUNTED

Pure systems utilize a simple timed control valve for cycling & Tsunami pre-filtration to assure removal of water, oil and particulates before entering the dryer.



Pure Series dryers are available with either float or Moisture Minder® pneumatic drains.

Dryer flow rates based on 100°F at 175 PSI with an outlet pressure of 100 PSI.\*

Lower inlet pressure and higher temperatures affect the performance and quality of the downstream air.

\*minimum inlet pressure 80 PSI



## WALL-MOUNTED DRYERS

ITEM #	MAX CFM	SIZE	TOWERS	POWER	DRAIN	PORT SIZE (NPT)	WEIGHT	DIMENSIONS (HWD)
21999-1134	5	1 HP	2	120v	Float	¼" inlet ½" outlet	42 lbs	15" x 22" x 8"
21999-1134-MM	5	1 HP	2	120v	Pneumatic	¼" inlet ½" outlet	42 lbs	18" x 22" x 8"
21999-1138	10	3 HP	2	120v	Float	¼" inlet ½" outlet	42 lbs	15" x 22" x 8"
21999-1138-MM	10	3 HP	2	120v	Pneumatic	¼" inlet ½" outlet	42 lbs	18" x 22" x 8"
21999-1105	15	5 HP	2	120v	Float	¼" inlet ½" outlet	42 lbs	15" x 22" x 8"
21999-1105-MM	15	5 HP	2	120v	Pneumatic	¼" inlet ½" outlet	42 lbs	18" x 22" x 8"
21999-1140	25	7.5 HP	2	120v	Float	½" inlet ½" outlet	50 lbs	26" x 25" x 8"
21999-1140-MM	25	7.5 HP	2	120v	Pneumatic	½" inlet ½" outlet	50 lbs	29" x 25" x 8"
21999-1010	40	10 HP	2	120v	Float	½" inlet 1" outlet	60 lbs	26" x 25" x 8"
21999-1010-220	40	10 HP	2	220v	Float	½" inlet 1" outlet	60 lbs	29" x 25" x 8"
21999-1010-MM	40	10 HP	2	120v	Pneumatic	½" inlet 1" outlet	62 lbs	26" x 25" x 8"
21999-1010-MM-220	40	10 HP	2	220v	Pneumatic	½" inlet 1" outlet	62 lbs	29" x 25" x 8"
21999-1010-MM-24	40	10 Hp	2	24v	Pneumatic	½" inlet 1" outlet	62 lbs	29" x 25" x 8"
21999-1020	80	20 HP	4	120v	Float	1" NPT	112 lbs	27" x 36" x 9"
21999-1020-MM	80	20 HP	4	120v	Pneumatic	1" NPT	112 lbs	30" x 36" x 9"
21999-1030	120	30 HP	6	120v	Float	1" NPT	150 lbs	27" x 48" x 9"
21999-1030-MM	120	30 HP	6	120v	Pneumatic	1" NPT	150 lbs	30" x 48" x 9"



# PURE REGENERATIVE DRYERS CONT.

## PURE SERIES TANK DRYERS

The Pure Series Tank-Mounted dryers come as a complete package with tank attachments to support air flow. The **Pure-5T** comes with a 1-gallon tank to maximize laminar air flow and the **Pure-10T** sits atop a 60-gallon storage tank for increased dry air storage.

## TSUNAMI PORTABLE DRYERS

Tsunami's Portable Dryers are designed to give you ultimate mobility. These user friendly designs provide Tsunami world class air quality in a portable package.



## TANK DRYERS

ITEM #	MAX CFM	SIZE	TOWERS	POWER	DRAIN	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-1105-T	15	5 HP	2	120v	Pneumatic	¼" inlet ¼" outlet	50 lbs	17" x 24" x 8"
21999-1105-T-MM	15	5 HP	2	120v	Pneumatic	¼" inlet ¼" outlet	51 lbs	20" x 24" x 8"
21999-0955	40	10 HP	2	120v	Pneumatic	½" NPT	190 lbs	72" x 36" x 23"
21999-0955-220	40	10 HP	2	220v	Pneumatic	½" NPT	190 lbs	72" x 36" x 23"

## MOBILE/PORTABLE DRYERS

ITEM #	MAX CFM	SIZE	TOWERS	POWER	DRAIN	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-1100	15	5 HP	2	120v	Float	¼" inlet ¼" outlet	51 lbs	23" x 25" x 12"
21999-1100-MM	15	5 HP	2	120v	Pneumatic	¼" inlet ¼" outlet	51 lbs	23" x 25" x 12"
21999-0945	40	10 HP	2	120v	Float	½" NPT	150 lbs	53" x 33" x 22"



# MEMBRANE DRYERS

## SIMPLE AIR DRYING TECHNOLOGY

Tsunami Membrane Dryers provide an economical solution for supplying clean, dry air without the need for electricity. The molecular makeup of the hollow tubes allows water vapor to pass. The greater the pressure differential between the inlet and outlet pressures, the drier the air downstream.

- ✓ Low relative humidity - down to .01% RH
- ✓ Great dew point suppression - up to 140°F swing
- ✓ Easy, low-cost maintenance - \$160/year
- ✓ Includes Tsunami Water Separator and Oil Coalescing Filter pre-filtration with automatic drains

## HOW IT WORKS The Drying Process

- 1 The molecular makeup of the hollow tubes allows certain gases to pass through the membrane quicker than the desired gas.
- 2 As compressed air travels through the hollow tubes, water vapor passes through the membrane pores.
- 3 The water vapor collects within the housing until it is removed.
- 4 A fixed orifice at the bottom of the hollow tubes allows dry air to pass up the housing, around the hollow tubes, to sweep the water vapor out the sweep holes at the top of the housing.



### MEMBRANE DRYER

- Includes:
- 2-Stage Pre-filtration
  - Outlet Regulator



20 CFM  
21999-0357

Max Pressure: 175 psi

Max Temperature: 100°F

ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0889	15	¼" NPT	9 lbs	22" x 12" x 3½"
21999-0357	20	½" NPT	16½ lbs	23" x 20" x 4½"
21999-0355	Membrane Core Replacement			

### PRECISION MEMBRANE DRYER

- Includes:
- 3-Stage Pre-filtration
  - Electronic Drain
  - Outlet Regulator



20 CFM  
21999-0524

Max Pressure: 175 psi

ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0957	15	¼" NPT	12 lbs	24½" x 18½" x 5½"
21999-0524	20	½" NPT	22 lbs	23" x 23½" x 5½"
21999-0355	Membrane Core Replacement			

# CORE DESICCANT DRYER

## "CORE" AIR DRYING TECHNOLOGY

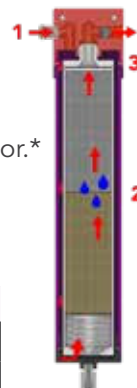
The Tsunami CORE Series Desiccant Air Dryer provides world class air dryness at an affordable price, designed solely for intermittent, lower pressure point-of-use applications.

- ✓ 2-stage Pre-filtration with Automatic Drains
- ✓ Desiccant Air Dryer - 20% longer media life
- ✓ Corrosion-resistant interior
- ✓ Super easy maintenance
- ✓ Removes liquids, oils, particulates and humidity, dew points down to -80°F

## HOW IT WORKS The Drying Process

- 1 Filtered air enters the dryer inlet & travels downward around the cartridge.
- 2 The air then enters the cartridge & travels through the dual layered desiccant media, which removes water vapor.\*
- 3 The dry air passes through a 10 micron filter disk before exiting the dryer outlet.

\*The CORE cartridge combines two media types to eliminate dusting and "tunneling" of air flow through the media; improving performance of the desiccant media.



ITEM #	DESCRIPTION	PORT SIZE (NPT)	DRAIN	MAX PSI	MAX °F	WEIGHT	DIMENSIONS (IN)
21999-1225	Desiccant Air Dryer System with Pre-Filtration - 25 CFM	½ INLET / OUTLET	Float	200	175	25 lbs	22 x 13 x 7
21999-1235	Desiccant Air Dryer without Pre-Filtration - 25 CFM	½ INLET / OUTLET	Float	200	175	14 lbs	22 x 5 x 7



# AFTERCOOLER

FOR LOWERING HIGH HEAT FROM AIR COMPRESSORS

The Tsunami Aftercooler delivers exceptional air cooling, critical for applications sensitive to moisture contamination. By significantly reducing the moisture load entering downstream dryers, the Aftercooler optimizes dryer performance, extends equipment life, and minimizes costly downtime. Engineered for challenging environments with high ambient temperatures, the Tsunami Aftercooler ensures reliable and efficient compressed air supply for demanding applications, maximizing system uptime and productivity.

- ✓ Cool and condenses water vapor into liquid moisture for easy removal
- ✓ High volume fan
- ✓ Bar & plate heat exchanger
- ✓ Pre-cools hot compressed air before entering dryers



## WALL-MOUNTED AFTERCOOLER

The Tsunami Aftercooler's wall-mount design eliminates the need for extended piping runs and floor space-consuming stands, streamlining installation and maximizing workspace. With 6 wall-mounting configurations, you gain complete control over installation, enabling efficient water removal and minimizing the risk of corrosion, freezing, and contamination.

- ✓ 6 wall-mounting configurations allow for optimal performance & spacial requirements
- ✓ Ability to choose approach temperature based on wall-mounting configuration
- ✓ Increase floor and operating space with wall-mount
- ✓ For mobile applications, spray foam, mobile paint equipment, and mobile tire rigs



There are six installation configurations for the Tsunami Aftercooler. Choose the best option that fits the space available to you and specific application goals.

### GOOD

Performance: 15 - 20°F  
4.3" AIR COOLING CLEARANCE

#### 1 Horizontal, Parallel to Wall



Dimensions:  
22.5" x 11.75" x 10.25"

#### 2 Vertical, Parallel to Wall



Dimensions:  
11.75" x 28" x 10.25"

### BETTER

Performance: 10 - 15°F  
6.6" AIR COOLING CLEARANCE

#### 3 Horizontal, Parallel to Wall



Dimensions:  
22.5" x 11.75" x 12.5"

#### 4 Vertical, Parallel to Wall



Dimensions:  
11.75" x 28" x 12.5"

### BEST

Performance: 5 - 10°F  
UNOBSTRUCTED AIR COOLING CLEARANCE

#### 5 Horizontal, Perpendicular to Wall



Dimensions:  
22.5" x 7.25" x 14.25"

#### 6 Vertical, Parallel to Wall



Dimensions:  
7.25" x 28" x 14.25"



# AIR FILTRATION

FOR THE SURGES ORDINARY FILTERS CAN'T HANDLE

Tsunami filters are machined from the highest quality materials and are anodized inside and out to ensure ultimate durability against corrosion and trapped contaminants. Our cutting-edge technology is rigorously tested to outperform your expectations regardless of the industry or application.

- 1 Filter heads machined from 6061 Aircraft Aluminum
- 2 Oversized tube length allows both gravity and velocity to assist in the removal of water and air contaminants
- 3 Removable bottom cap provides ease of service and machined drain port provides various drain capabilities



- R Filter packages can be ordered in reverse flow, right to left, and have a “-R” at the end of the part number
- Wrench icon Filtration service parts can be found on pages 18-19 or by searching the unit part number online at [tsunami.us.com](http://tsunami.us.com)

## WATER SEPARATORS

The Tsunami Water Separator removes water, up to one quart per minute, and filters particulate down to 10 micron.

### HOW IT WORKS

- 1 Air enters the filter & travels down a small diameter tube causing an increase in velocity.
- 2 The air reaches the bottom of the inner tube then is redirected 180° up the outer tube allowing gravity and a slower velocity to capture bulk liquids.
- 3 Velocity increases again as air is forced through small orifice baffles before entering the stainless steel mesh element.
- 4 Centrifugal force is used to capture any remaining liquids before exiting the filter.
- 5 Liquids are automatically ejected through the drain.



Max Pressure: 250 psi (20-120 CFM) 200 psi (300-800 CFM) Max Temperature: 175°F

ITEM #	MAX CFM	DRAIN TYPE	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0390	20	Float	¼" NPT	1½ lbs	8½" x 2" x 2"
21999-0390-ED	20	Electronic	¼" NPT	2½ lbs	11½" x 2" x 2"
21999-0390-MM	20	Pneumatic	¼" NPT	2 lbs	10½" x 2" x 2"
21999-0131	50	Float	½" NPT	3½ lbs	14½" x 2½" x 2½"
21999-0131-ED	50	Electronic	½" NPT	6 lbs	17½" x 5½" x 4"
21999-0131-MM	50	Pneumatic	½" NPT	6 lbs	17" x 2½" x 2½"
21999-1034	120	Float	¾" NPT	9lbs	16" x 3½" x 3½"
21999-1034-ED	120	Electronic	¾" NPT	9½ lbs	18" x 6" x 4½"
21999-1034-MM	120	Pneumatic	¾" NPT	9lbs	18" x 3½" x 3½"
21999-0082	120	Float	1" NPT	9 lbs	16" x 3½" x 3½"
21999-0082-ED	120	Electronic	1" NPT	9½ lbs	18" x 6" x 4½"
21999-0082-MM	120	Pneumatic	1" NPT	9 lbs	18" x 3½" x 3½"
21999-1150	225	Float	1½" NPT	12 lbs	22" x 4½" x 6½"
21999-1150-ED	225	Electronic	1½" NPT	13 lbs	25" x 4½" x 6½"
21999-1150-MM	225	Pneumatic	1½" NPT	14 lbs	26" x 4½" x 10"
21999-1096	300	Float	1½" NPT	12 lbs	28" x 4½" x 6½"
21999-1096-ED	300	Electronic	1½" NPT	13 lbs	31" x 4½" x 6½"
21999-1096-MM	300	Pneumatic	1½" NPT	14 lbs	32" x 4½" x 10"
21999-1160	450	Float	2" NPT	19 1/2	26" X 5½" X 5½"
21999-1160-ED	450	Electronic	2" NPT	20 1/2	28" X 5½" X 5½"
21999-1160-MM	450	Pneumatic	2" NPT	21 1/2	29" X 5½" X 5½"
21999-1120	600	Float	2" NPT	20 lbs	31" x 5½" x 5½"
21999-1120-ED	600	Electronic	2" NPT	21 lbs	34" x 5½" x 5½"
21999-1120-MM	600	Pneumatic	2" NPT	22 lbs	35" x 5½" x 5½"
21999-0960	800	Float	3" NPT	45 lbs	35½" x 6" x 6"
21999-0960-ED	800	Electronic	3" NPT	46 lbs	35½" x 6" x 10"
21999-0960-MM	800	Pneumatic	3" NPT	46 lbs	35½" x 6" x 8½"



# OIL COALESCING FILTERS

The Oil Coalescing Filter removes bulk oils, aerosols, and particulates down to .01 micron/ppm aerosols.

## HOW IT WORKS

- 1 Air enters the filter and passes through the element from the center to the outside.
- 2 As the air travels through the fibrous layers, oil aerosols are captured and coalesce.
- 3 The non-wicking outer drain layer separates the bulk liquids from the air flow.
- 4 Gravity slows the bulk liquids to drip into the drain sump off the filter where they are automatically removed.



Replace element every six months

Max Pressure: 250 psi (20-120 CFM) 200 psi (300-800 CFM)

Max Temperature: 175°F

ITEM #	MAX CFM	DRAIN TYPE	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0390-Z-FD	20	Float	¼" NPT	1½ lbs	8½" x 2" x 2"
21999-0390-Z-ED	20	Electronic	¼" NPT	2½ lbs	11½" x 2" x 2"
21999-0390-Z-MM	20	Pneumatic	¼" NPT	2 lbs	10½" x 2" x 2"
21999-0131-Z-FD	50	Float	½" NPT	3½ lbs	14½" x 2½" x 2½"
21999-0131-Z-ED	50	Electronic	½" NPT	4½ lbs	17½" x 5½" x 4"
21999-0131-Z-MM	50	Pneumatic	½" NPT	4 lbs	17" x 2½" x 2½"
21999-1034-Z-FD	120	Float	¾" NPT	5 lbs	16" x 3½" x 3½"
21999-1034-Z-ED	120	Electronic	¾" NPT	6 lbs	18" x 6" x 4½"
21999-1034-Z-MM	120	Pneumatic	¾" NPT	5½ lbs	18" x 3½" x 3½"
21999-0082-Z-FD	120	Float	1" NPT	5 lbs	16" x 3½" x 3½"
21999-0082-Z-ED	120	Electronic	1" NPT	6 lbs	18" x 6" x 4½"
21999-0082-Z-MM	120	Pneumatic	1" NPT	5½ lbs	18" x 3½" x 3½"
21999-1150-Z-FD	225	Float	1½" NPT	11 lbs	22" x 4½" x 10"
21999-1150-Z-ED	225	Electronic	1½" NPT	12 lbs	25" x 4½" x 10"
21999-1150-Z-MM	225	Pneumatic	1½" NPT	12 lbs	26" x 4½" x 10"
21999-1096-Z-FD	300	Float	1½" NPT	10½ lbs	28" x 4½" x 6½"
21999-1096-Z-ED	300	Electronic	1½" NPT	11½ lbs	31" x 4½" x 6½"
21999-1096-Z-MM	300	Pneumatic	1½" NPT	12½ lbs	32" x 4½" x 10"
21999-1160-Z-FD	450	Float	2" NPT	16 1/2	26" X 5½" X 5½"
21999-1160-Z-ED	450	Electronic	2" NPT	17 1/2	28" X 5½" X 5½"
21999-1160-Z-MM	450	Pneumatic	2" NPT	18 1/2	29" X 5½" X 5½"
21999-1120-Z-FD	600	Float	2" NPT	17 lbs	31" x 5½" x 5½"
21999-1120-Z-ED	600	Electronic	2" NPT	18 lbs	34" x 5½" x 5½"
21999-1120-Z-MM	600	Pneumatic	2" NPT	19 lbs	35" x 5½" x 5½"
21999-0960-Z-FD	800	Float	3" NPT	45 lbs	43" x 6" x 6"
21999-0960-Z-ED	800	Electronic	3" NPT	46 lbs	43" x 6" x 6"
21999-0960-Z-MM	800	Pneumatic	3" NPT	46 lbs	43" x 6" x 6"

# ACTIVATED CARBON FILTERS

The Activated Carbon Filter removes oil vapor down to .003 ppm, removing odor and taste from the air.

## HOW IT WORKS

- 1 Air enters the filter and passes through the element from the outside to the center.
- 2 As the air travels through the activated carbon layers, oil vapors are captured and held through the process of adsorption.
- 3 No liquids should be present at this stage, therefore, there is no drain.



Replace element every six months

Max Pressure: 250 psi

Max Temperature: 175°F

ITEM #	MAX CFM	DRAIN TYPE	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0390-AC	20	-	¼" NPT	1½ lbs	8" x 2" x 2"
21999-0131-AC	50	-	½" NPT	3½ lbs	14½" x 2½" x 2½"
21999-1034-AC	120	-	¾" NPT	9 lbs	16" x 3½" x 3½"
21999-0082-AC	120	-	1" NPT	9 lbs	16" x 3½" x 3½"

## FILTER DRAIN OPTIONS

Tsunami water separators and oil coalescing filters are designed to accommodate multiple drain types for specific application needs. Draining options include float drains, our patented Moisture Minder® Electronic Drain and our patent pending pneumatic filter drain.



### FLOAT DRAIN

Standard with all filters.



### MOISTURE MINDER® EDV

A fixed strainer screen removes contaminants before reaching the valve orifice.



### MOISTURE MINDER® FILTER DRAIN

Requires an intermittent pilot signal to operate. Designed to spin on corresponding size filter housing.



# FILTRATION PACKAGES

## PACKAGE 1

Includes:

- Water Separator
- Lubricator



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0416	20	¼" NPT	2½ lbs	9½" x 4½" x 2½"
21999-0247	50	½" NPT	7 lbs	18" x 6" x 5"
21999-0248	120	1" NPT	12 lbs	19½" x 8" x 5½"

## PACKAGE 3

Includes:

- Water Separator
- Oil Coalescing Filter



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0424	20	¼" NPT	3 lbs	9½" x 5" x 2½"
21999-0251	50	½" NPT	9½ lbs	18" x 6½" x 5"
21999-0252	120	1" NPT	14 lbs	19½" x 8" x 5½"

## PACKAGE 5

Includes:

- Water Separator
- Oil Coalescing Filter
- Activated Carbon Filter



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0421	20	¼" NPT	4 lbs	9½" x 8" x 2½"
21999-0255	50	½" NPT	13½ lbs	17" x 13" x 3½"
21999-0255-R	50	½" NPT	13½ lbs	17" x 13" x 3½"
21999-0256	120	1" NPT	21 lbs	21" x 13" x 6½"

"-R" indicates right to left flow

## PACKAGE 7

Includes:

- Oil Coalescing Filter
- Regulator



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0969	20	¼" NPT	2 lbs	10½" x 4" x 3½"
21999-0494	50	½" NPT	6 lbs	18½" x 6½" x 6"
21999-0967	120	1" NPT	12 lbs	21" x 8" x 5½"

## PACKAGE 2

Includes:

- Water Separator
- Regulator
- Lubricator



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0415	20	¼" NPT	3 lbs	10½" x 5½" x 3½"
21999-0249	50	½" NPT	10½ lbs	18" x 13" x 6½"
21999-0249-R	50	½" NPT	10½ lbs	18" x 13" x 6½"
21999-0250	120	1" NPT	16 lbs	21" x 13" x 6½"

"-R" indicates right to left flow

## PACKAGE 4

Includes:

- Water Separator
- Oil Coalescing Filter
- Regulator



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0677	20	¼" NPT	3½ lbs	9½" x 6½" x 3½"
21999-0253	50	½" NPT	12 lbs	17" x 13" x 4½"
21999-0253-R	50	½" NPT	12 lbs	17" x 13" x 4½"
21999-0254	120	1" NPT	18 lbs	21" x 13" x 6½"

"-R" indicates right to left flow

## PACKAGE 6

Includes:

- Water Separator
- Oil Coalescing Filter
- Activated Carbon Filter
- Regulator



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0678	20	¼" NPT	5 lbs	10½" x 9" x 3½"
21999-0257	50	½" NPT	15½ lbs	18½" x 17" x 4½"
21999-0257-R	50	½" NPT	15½ lbs	18½" x 17" x 4½"
21999-0258	120	1" NPT	25 lbs	21" x 18" x 6½"
EDV Models Available:		20 SCFM: 21999-0457	50 SCFM: 21999-0291	

## PACKAGE 8

Includes:

- Water Separator
- Regulator



ITEM #	MAX CFM	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0414	20	¼" NPT	2½ lbs	10½" x 4" x 3½"
21999-0679	50	½" NPT	8 lbs	18" x 6½" x 6"
21999-0968	120	1" NPT	12 lbs	21" x 8" x 5½"

"-R" indicates right to left flow



# BREATHING AIR SYSTEMS

Tsunami Breathing Air Systems are the optimal solution when Grade D breathing air is required. The complete system features industry-leading Tsunami 3-stage filtration along with continuous carbon monoxide monitoring that can be used in any SAR (Supplied Air Respirator) system.

- 3-stage Tsunami filtration system with automatic float drains
- Easy-to-read digital carbon monoxide alarm
- CO monitor calibration made easy with Autocal®
- Meets OSHA Grade D breathing air quality specifications



SINGLE-USER SYSTEM (1 USER)



MULTI-USER SYSTEM (1-4 USERS)

## BREATHING AIR PANELS

ITEM #	DESCRIPTION	MAX CFM	PORT SIZE	DRAIN	MAX PSI	MAX °F	DIMENSIONS (HWD)
21999-0265	Multi-User Breathing Air System - USA (10ppm)	50	½ NPT	Float	250	175	16" x 18" x 5"
21999-0980	Single-User Breathing Air System - USA (10ppm)	20	¼ NPT	Float	250	175	13" x 12" x 5"
21999-0265-CA	Multi-User Breathing Air System - Canada (5ppm)	50	½ NPT	Float	250	175	16" x 18" x 5"
21999-0980-CA	Single-User Breathing Air Panel - Canada (5ppm)	20	¼ NPT	Float	250	175	13" x 12" x 5"

Calibration videos available on our website



# BREATHING AIR ACCESSORIES

## GFG BREATHING AIR ACCESSORIES

ITEM #	DESCRIPTION
21999-0264	Calibration Kit for CO Monitor (GFG 7735-101)
21999-0263	CO Monitor for Tsunami Breathing Air Panel (GFG RAM 744 (10ppm) - USA)
21999-0263-CA	CO Monitor for Tsunami Breathing Air Panel (GFG RAM (5ppm) - Canada)
21999-0267	110/120v Wall Pack Adaptor Replacement
1450004	Replacement CO Sensor (RAM 744)





# AUTOMATIC DRAINS

Neglecting to consistently drain condensate and contamination will result in endless headaches and costly downtime. Inadequate or forgotten draining dramatically wears on filtration systems causing them to become ineffective and damaging to critical equipment and processes. Tsunami offers a variety of drain styles to assure timely and effective draining for your facility.

## PNEUMATIC PISTON DRAINS

### HOW IT WORKS

#### 1 PILOT SIGNAL RECEIVED

Condensation enters left hand, or water inlet of valve.

#### 2 PILOT SIGNAL FROM UNLOADER

Piston shifts, closing off drain port. As piston moves, it will open up the stainless ball check allowing condensate to be forced into pressurized discharge reservoir.

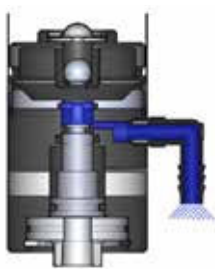
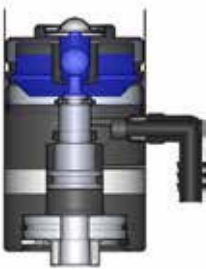
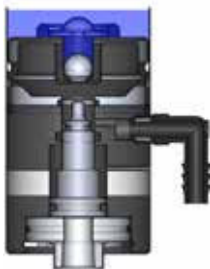
#### 3 VALVE AT REST

When pilot signal is relieved, piston returns to relaxed position. The ball check closes preventing zero pressure loss in the system. The drain port opens and the stored condensate is ejected.

### MOISTURE MINDER® 1



### MOISTURE MINDER® FILTER DRAIN



### MOISTURE MINDER® PNEUMATIC DRAIN

Powered by a pneumatic pilot signal. Drain Minder Cotroller can be used to cycle pneumatic drains.



ITEM #	MAX PSI	PORT SIZE	WEIGHT	DIMS (HWD)
152-0000	250	¼" NPT	2 lbs	5" x 5½" x 2"
21999-0317	Pneumatic Drain Installation Kit			
21999-0300	Universal Strainer w/ 50 mesh screen			

### MOISTURE MINDER® FILTER DRAIN

Designed to spin on the corresponding size Tsunami filter tube.



ITEM #	FILTER SIZE	MAX PSI	WEIGHT	DIMS (HWD)
21999-0792	20 CFM	250	1 lbs	4" x 3" x 2"
21999-0795	50 CFM	250	1 lbs	4" x 3½" x 3½"
21999-0805	120/240 CFM	250	1½ lbs	4" x 3½" x 3"



# ELECTRONIC DRAINS

## MOISTURE MINDER® ELECTRONIC DRAIN VALVE (EDV)

The Moisture Minder® EDV incorporates a self-cleaning feature where a fixed strainer screen is used to capture contaminants before reaching the valve orifice. Opening the manual ball valve automatically flushes the strainer screen clean. The drain is compatible with various types of media and conforms to the NEMA 4 standard.

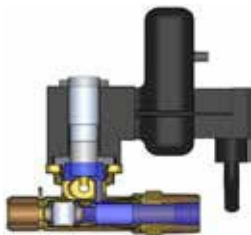
- 1 Adjustable Timer: OFF: 0.5 - 45 minutes ON: 0.5 - 10 seconds
- 2 Internal screen and ball valve allows for self cleaning
- 3 Dual Size Inlet: Accommodates 1/4" I.D. or 1/2" OD NPT thread sizes
- 4 1/4 turn ball valve allows for self cleaning without disassembling
- 5 IP65 Rating



### HOW IT WORKS

#### 1 TIMER ACTUATES

Condensation enters through the inlet side of valve. Debris is captured inside the internal strainer.



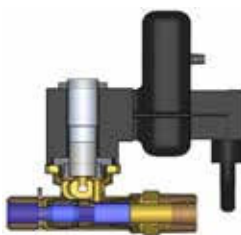
#### 2 DEBRIS IS EJECTED

When valve activates condensate flows thru strainer up to the orifice and out the back discharge port. Debris is captured by internal strainer which prevents fouling.



#### 3 SELF CLEANING

Only open 1/4" ball valve to clean strainer or to manually drain the tank.



## MOISTURE MINDER® ELECTRONIC DRAIN VALVE

ITEM #	POWER	DUAL SIZE INLET	MAX PSI	WEIGHT	DIMENSIONS (HWD)
21999-0177	115v AC / 60Hz	1/4" ID & 1/2" OD	230	1 lb	5 1/2" x 3 1/2" x 3 1/2"
21999-0177-230	220v AC / 60Hz	1/4" ID & 1/2" OD	230	1 lb	5 1/2" x 3 1/2" x 3 1/2"
21999-0177-24	24v DC	1/4" ID & 1/2" OD	230	1 lb	5 1/2" x 3 1/2" x 3 1/2"
21999-0177-12	12v DC	1/4" ID & 1/2" OD	150	1 lb	5 1/2" x 3 1/2" x 3 1/2"
21999-0316	Electronic Drain Installation Kit				

## DRAIN MINDER II CONTROLLER

Provides the pilot signal every .5 to 45 minutes to multiple pneumatic drains.

ITEM #	DESCRIPTION
144-0001	Drain Minder II Controller - 110v
144-0001-12	Drain Minder II Controller - 12v



## FLOAT DRAIN REPLACEMENT

Includes 3 float drains and o-rings for replacement in Tsunami filters.

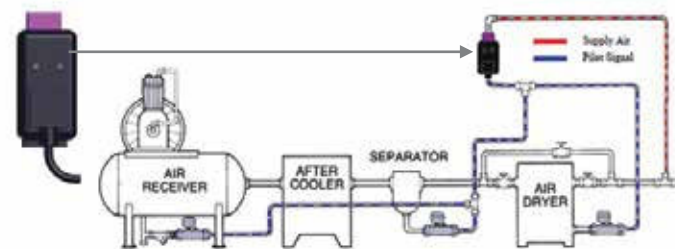
ITEM #	DESCRIPTION
21999-0868	Float Drain 3-Pack



### HOW IT WORKS

#### DRAIN MINDER II AUTOMATIC TIMER

The Drain Minder II can deliver the pilot signal needed to operate the Moisture Minder pneumatic drain valves when no other intermittent pilot signal is available. The control is installed in the typical system by teeing into a filtered air supply and connecting the supply line to the inlet side of the controller solenoid.





# COMPRESSED AIR ACCESSORIES

## AIR MONITORING EQUIPMENT

Tsunami Air Monitoring Equipment provides the ability to verify that the air system tested is supplying the quality of compressed air cleanliness required for the application.

- A** Air Prep Kit
  - Includes Air Survey Monitor and CFM Test Kit
- B** Air Survey Monitor
  - Measures humidity, dew point, and air temperature
  - Easy to read LCD screen
  - Includes sensor filtration
- C** CFM Test Kit (3 - 30 CFM)
  - Measure the CFM usage at any tool
  - Easy to read graph
  - Complete with regulator and female coupler



## COMPRESSED AIR ACCESSORIES

ITEM #	DESCRIPTION	WEIGHT	DIMENSIONS (LWH)
21999-0938	Air Prep Kit (A)	8.5 lbs	13" x 17" x 4"
21999-0440	Air Survey Kit (B)	5.5 lbs	13" x 17" x 4"
21999-0447	CFM Test Kit (C)	5 lbs	13" x 17" x 4"

## ULTRA-FLO SPRAY HOSE

The extremely lightweight Tsunami Ultra-flo Spray Hose is designed to bring both longevity and performance to the toughest applications. Engineered for high-temperature exposure, this lay-flat hose features a proprietary internal coating which prevents breakdown caused by heat and harmful chemicals. The Ultra-Flo Spray Hose is also equipped with an anti-static strip to reduce or eliminate static build-up.



## ULTRA-FLO SPRAY HOSE

ITEM #	HOSE LENGTH	HOSE QUANTITY	NPT	HOSE I.D.	WEIGHT
21999-0495	5'	1	1/4" Male	3/8"	2 lbs
21999-0449	35'	1	1/4" Male	3/8"	4.5 lbs
21999-0450	50'	1	1/4" Male	3/8"	5.5 lbs
21999-0783	35'	10 pack	1/4" Male	3/8"	4.5 lbs each
21999-0784	50'	5 pack	1/4" Male	3/8"	5.5 lbs each

## HIGH-FLOW COUPLERS

### 10 PACK

Prevost Venting-Action couplers are designed to eliminate hose whip.



ITEM #	DESCRIPTION
21999-0831	1/4" Female (sold in 10 pack)
21999-0832	1/4" Male (sold in 10 pack)

## HIGH-FLOW PLUGS

### 10 PACK



ITEM #	DESCRIPTION
21999-0833	1/4" Female (sold in 10 pack)
21999-0834	1/4" Male (sold in 10 pack)

## BLOW GUN

### 10 PACK

Nylon Tip OSHA Compliant Blow Gun



ITEM #	DESCRIPTION
21999-0835	1/4" Inlet (sold in 10 pack)



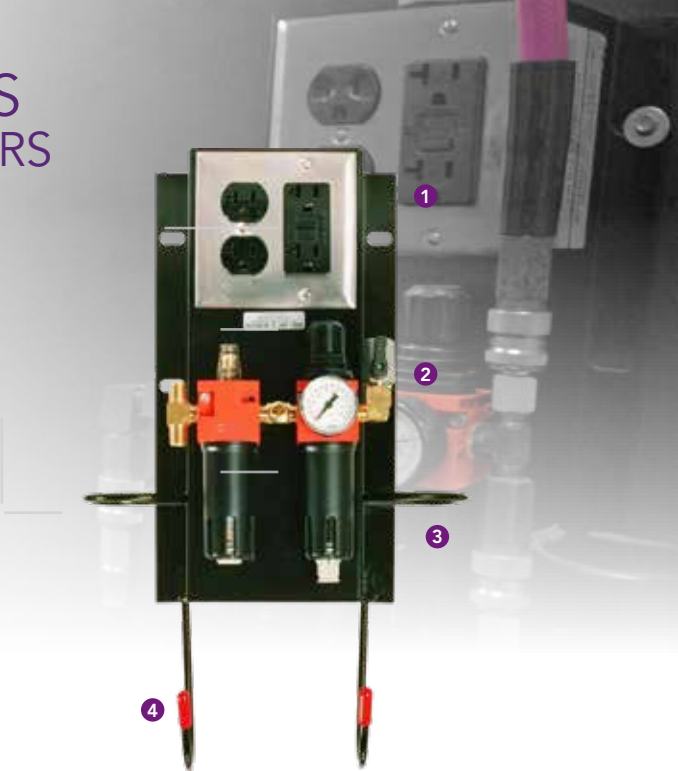
# COMPRESSED AIR ACCESSORIES

## FILTERS, REGULATORS, AND LUBRICATORS

### UTILITY STATION - INDUSTRIAL GRADE

The Industrial Grade Utility Station is designed to eliminate problems that are found in commercial grade boxes. The unit is easily installed and adapts to any machine or work area.

- 1 Electrical outlets equipped with 20 amp industrial GFI protection. Outlets are located above air service to prevent moisture damage.
- 2 Air service available through 2 ports: one non-lubricated for parts blow off; one lubricated for pneumatic tool applications.
- 3 Powder coated finish for durability regardless of the application.
- 4 Hooks to hang and organize hoses and cords.



### UTILITY STATION - INDUSTRIAL GRADE

ITEM #	POWER	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0081	110/120v AC - 20 amp	¼" NPT	8 lbs	18" x 12" x 6"

### REGULATORS WITH GAUGE

232 max PSI, 122°F max temp

ITEM #	MAX FLOW	PORT SIZE	WEIGHT	DIMENSIONS (HWD)
21999-0870	25 SCFM	¼" NPT	1 lbs	4" x 2" x 3"
21999-0871	89 SCFM	½" NPT	2 lbs	5" x 2½" x 3½"
21999-0872	160 SCFM	1" NPT	3½ lbs	7½" x 3" x 4½"



### LUBRICATORS

ITEM #	MAX FLOW	PORT SIZE	RESEVOIR	WEIGHT	DIMENSIONS (HWD)
21999-0298	25 CFM	¼" NPT	50 mL	1 lb	6½" x 2" x 2"
21999-0195	153 CFM	½" NPT	150 mL	2 lbs	8" x 2½" x 2½"
21999-0196	565 CFM	1" NPT	380 mL	2½ lbs	10" x 3" x 3"
21999-0361	565 CFM	1" NPT	1088 mL	5lbs	17" x 3½" x 3½"



### ACCESSORIES

ITEM #	DESCRIPTION
4338228	Pressure Gage - (0-200 PSI) - fits ¼" back mount - ¼" NPT & ½" NPT Regulators
21999-0946	Pressure Gage - (0-200 PSI) - fits ¼" back mount - 1" NPT Regulators
8825701	Filter-Regulator-Lubricator - ¼" NPT - 25 SCFM (F/R/L)
21999-0874	Regulator Rebuild Kit 50 Series - adjustment knob and replacement bottom end

Multiple configurations available upon request.



# SERVICE PARTS

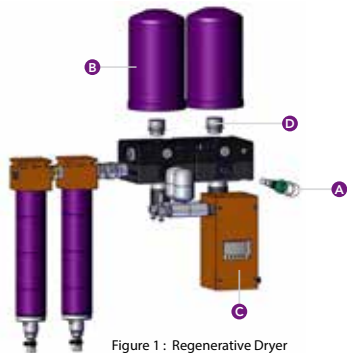


Figure 1 : Regenerative Dryer



Figure 2 : Filtration Hardware

## REGENERATIVE DRYER

ITEM #	DESCRIPTION
A 21999-0707	Piston Replacement Kit for Regenerative Dryer
A 21999-1149	Dryer Piston O-Ring Service Kit - 12 Pistons
B 21999-0976	Tower Replacement (Purple) - Pure-1, 3, 5 Dryers only
B 21999-0976-BK	Tower Replacement (Black) - Pure-1, 3, 5 Dryers only
B 21999-0349	Tower Replacement (Purple) - Pure-7, 10, & Ultra Series
B 21999-0349-BK	Tower Replacement (Black) - Pure-7, 10, & Ultra Series
C 21999-0672-10	PLC for 10HP Regenerative Dryer
C 21999-0672	PLC for Regenerative Dryer (15HP or larger)
C 21999-1139	PLC, Rail Dryer Controller, 4 MM Pneumatic Drains, 120VAC
C 21999-1141	PLC, Rail Dryer Controller, 4 MM Pneumatic Drains, 24VDC
C 21999-0672-BK	PLC - Custom Dryer
- 21999-0951	Pneumatic Timer Dryer Control - 2 outputs
- 21999-1149	Dryer Piston O-Ring - 12 Pistons
- 21999-0714	Power Supply - Regenerative Dryer
- 21999-0714-G	Global Power Supply - Regenerative Dryer
- 21999-1133	PLC Direct Current (DC) Power Cord; 6' 18 AWG Flying Leads, Barrel Connector
- 21999-0941	Timer Valve Assembly for 110v Dryer
- 21999-0797	Air Valve Replacement
- 21999-0797-12	Air Valve Replacement - 12v
- 21999-0504	12v DC Timer / Coil Assembly
- 21999-1012-24	24v DC Timer / Coil Assembly
- 610928-01	110v AC Timer / Coil Assembly
- 610934-01	220/230v AC Timer / Coil Assembly

ITEM #	DESCRIPTION
D 21999-0650-15	Tower Mounting Stud/Regen Valve (.015") - Pure-7, 10, Ultra
D 21999-0650-24	Tower Mounting Stud/Regen Valve (.024") - Pure-7, 10, Ultra
D 21999-0650-30	Tower Mounting Stud/Regen Valve (.030") - Pure-7, 10, Ultra
D 21999-0650-45	Tower Mounting Stud/Regen Valve (.045") - Pure-7, 10, Ultra
D 21999-0650-60	Tower Mounting Stud/Regen Valve (.060") - Pure-7, 10, Ultra
D 21999-0650-80	Tower Mounting Stud/Regen Valve (.080") - Pure-7, 10, Ultra
D 21999-0650-90	Tower Mounting Stud/Regen Valve (.090") - Pure-7, 10, Ultra
D 21999-1108-12	Tower Mounting Stud/Regen Valve (.012") - Pure-1, 3, 5
D 21999-1108-15	Tower Mounting Stud/Regen Valve (.015") - Pure-1, 3, 5
D 21999-1108-18	Tower Mounting Stud/Regen Valve (.018") - Pure-1, 3, 5
D 21999-1108-30	Tower Mounting Stud/Regen Valve (.030") - Pure-1, 3, 5
- 21999-1157	Muffler Replacement - Pure-1, 3, 5 Only
- 21999-0700	Muffler Replacement - Pure-7, 10, & Ultra Series
- 21999-1046	Muffler Core Replacement - Pure-10, & Ultra Series only
- 21999-1165	Single Tower Dryer Heater 120 VAC - Pure-10 & Larger
- 21999-0890	Tsunami Dryer Heater 12 Vdc
- 21999-0937	Tsunami Dryer Heater 24 Vdc
- 21999-0712	Energy Saver Kit (Ultra dryer accessory only)
- 21999-1038	Modular Dryer Subassembly Repl. - Ultra/Pure 10-20-30
- 21999-1135	Upgrade Kit; Pure-5 to Pure-5T

## INSTALLATION AND SERVICING



The Tsunami Learning Center hosts a wide range of informational blogs and videos including installation walk-throughs, step-by-step servicing, best practices, and more!

Visit [tsunami.us.com](https://tsunami.us.com) to download catalogs and cut sheets, watch videos, and search for products.

Still have questions? Reach out to our sales team!



# SERVICE PARTS CONT.

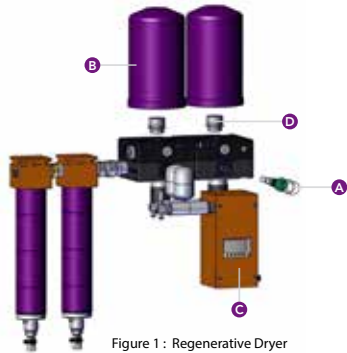


Figure 1 : Regenerative Dryer

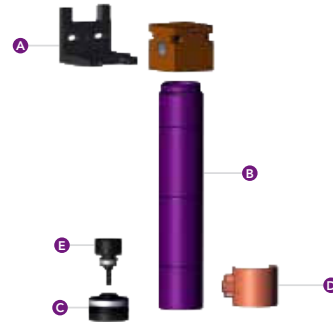


Figure 2 : Filtration Hardware

## CORE DRYER

ITEM #	DESCRIPTION
- 21999-1230	Desiccant Cartridge Replacement
- 21999-1146	Moisture Indicator - Replace Annually
- 21999-1124	CORE Series Dryer End Cap
- 21999-1077-PL	Outer Tube Replacement
- Q215-5716	Head Quad Ring Replacement

## FILTRATION HARDWARE

ITEM #	DESCRIPTION
- 21999-0201	Drain Tube Kit - 10 Pack
A 21999-0867	Mounting Bracket - 20 Series
A 21999-0144	Mounting Bracket - 50 & 120 Series
A 21999-1126	Mounting Bracket - 225/300/450/600 Series

## OUTER TUBE REPLACEMENT

ITEM #	DESCRIPTION
B 21999-0386	Outer Tube - 20 Series
B 21999-0125	Outer Tube - 50 Series
B 21999-0078	Outer Tube - 120 / 240 Series
B 21999-1077-PL	Outer Tube - 225/300 Series
B 21999-1087-PL	Outer Tube - 450/600 Series
B 21999-0962-PL	Outer Tube - 800 Series

## BOTTOM CAP REPLACEMENT

ITEM #	DESCRIPTION
C 21999-0388	Bottom Cap - 20 Series
C 21999-0127	Bottom Cap - 50 Series
C 21999-0182	Bottom Cap - 120 / 240 Series
C 21999-1148	Bottom Cap - 225 Series
C 21999-1078	Bottom Cap - 300 Series
C 21999-1158	Bottom Cap - 450 Series
C 21999-1088	Bottom Cap - 600 Series
C 21999-0961	Bottom Cap - 800 Series

## HEATER WRAPS

\*240 Series requires two wraps

ITEM #	DESCRIPTION
D 163-0644	20 / 50 Series - 110 / 120v AC, 100W
D 163-0648	20 / 50 Series - 12v DC, 75W
D 163-0646	20 / 50 Series - 24 DC, 100W
D 163-0649	120 / 240 Series - 110 / 120v AC, 150W
D 163-0651	120 / 240 Series - 12v DC, 50W
D 163-0650	120 / 240 Series - 24v DC, 120W
D 163-0656	800 Series - 120v DC, 150W

## FILTER ACCESSORIES

ITEM #	DESCRIPTION
21999-0821	Condensation Collection Kit



# SERVICE PARTS CONT.



Figure 3 : Water Separator



Figure 4 : Oil Coalescing Filter



Figure 5 : Activated Carbon Filter

## WATER SEPARATOR

ITEM #	DESCRIPTION
21999-0846	20 Series Water Separator Service Kit/ Pure-5 Regenerative Dryers - Includes A, B, C, D, E
21999-0227	50 Series Water Separator Service Kit/ Pure-10 Regenerative Dryers - Includes A, B, C, D, E
21999-0228	120 / 240 Series Water Separator Service Kit (240 requires x 2) Includes A, B, C, D, E
21999-1098	225/300 Series Water Separator Service Kit - Includes A, B, C, D, E
21999-1121	450/600 Series Water Separator Service Kit - Includes A, B, C, D, E
21999-1005	800 Series Water Separator Service Kit - Includes A, B, C, D, E

## OIL COALESCING FILTER

ITEM #	DESCRIPTION
21999-0394	20 Series Oil Coalescing Filter Service Kit / Pure-5 Regenerative Dryers - Includes A, B, C, D, E
21999-0202	50 / 120 / 240 / Pure-10 Series (240 requires x 2) - Includes A, B, C, D, E
21999-0202-Z-SP	Ultra Model Regenerative Dryer Oil Coalescing Service Kit
21999-1099	225/300 Series Filter Service Kit - Includes A, B, C, D, E
21999-1122	450/600 Series Filter Service Kit - Includes A, B, C, D, E
21999-1069	800 Series Filter Service Kit - Includes A, B, C, D, E
21999-0823	Pack of 5 (A) Elements - 20 Series Coalescing Element/ Pure-5 Series
21999-0825	Pack of 5 (A) Elements - 50 / 120 / 240 / Pure-10 Series (240 requires x 2)
21999-0828	Pack of 5 (A) Elements - Ultra Model Regenerative Dryer Coalescing Element

## ACTIVATED CARBON

ITEM #	DESCRIPTION
21999-0395	20 Series/ Pure-5 Regenerative Dryers - Includes A, B, C, D, E
21999-0200	50 Series/ Pure-10 Regenerative Dryers - Includes A, B, C, D, E
21999-1072	120 Series/ Ultra Regenerative Dryers - Includes A, B, C, D, E
21999-0824	Pack of 5 (A) Elements - 20 Series/ Pure-5 Regenerative Dryers Activated Carbon Element
21999-0826	Pack of 5 (A) Elements - 50 Series/ Pure-10 Regenerative Dryers Activated Carbon Element

## ANNUAL MAINTENANCE KITS

ITEM #	DESCRIPTION
21999-0818	20 Series Annual Maintenance Kit - Includes (2) Biannual Coalescing and Activated Carbon Element Kits with O-rings
21999-0819	50 Series Annual Maintenance Kit - Includes (2) Biannual Coalescing and Activated Carbon Element Kits with O-rings
21999-1110	120 Series Annual Maintenance Kit - Includes (2) Biannual Coalescing and Activated Carbon Element Kits with O-rings



# DRYER STATS

## AIR CONSUMPTION AVERAGES FOR TSUNAMI DRYERS\*

Unit	Max CFM	# of Towers	Orifice	CFM Consumption	Cycle Time for Tower Shifting	Total Time Tower is Drying	# of Towers Drying	# of Towers Regenerating
21999-1134	5	2	.012	.3	2 min	120 sec	1	1
21999-1138	10	2	.015	.5	2 min	120 sec	1	1
21999-1105	15	2	.018	1	2 min	120 sec	1	1
21999-1140	25	2	.024	1.25	2 min	120 sec	1	1
21999-1010	40	2	.030	2.2	2 min	120 sec	1	1
21999-1020	80	4	.030	4.4	2 min	120 sec	2	2
21999-0710	40	2	.030	2.2	2 min	120 sec	1	1
21999-0715	60	3	.045	4	1 min	120 sec	2	1
21999-0720	80	4	.030	4.4	2 min	120 sec	2	2
21999-0730	120	4	.060	8	45 sec	135 sec	3	1
21999-0810	40	2	.030	2.2	2 min	120 sec	1	1
21999-0815	60	3	.045	4	1 min	120 sec	2	1
21999-0820	80	4	.030	4.4	2 min	120 sec	2	2
21999-0830	120	4	.060	8	45 sec	135 sec	3	1
21999-0740	160	8	.045	8	2 min	120 sec	4	4
21999-0750	200	8	.060	16	45 seconds	135 seconds	6	2
21999-0755	300	12	.060	24	45 seconds	135 seconds	9	3
21999-0760	400	16	.060	32	45 seconds	135 seconds	12	4

\*Based on 120 PSI inlet pressure

## FLOW VOLUME THROUGH AN ORIFICE

The charts below indicate the volume of air consumed per orifice during the regeneration process; also known as "sweep air".

		Orifice Diameter						
		0.015"	0.018"	0.030"	0.045"	0.060"	0.080"	.090"
Dryer Inlet Pressure	100 PSI	0.4	0.6	1.5	3.4	6	10.7	13.5
	125 PSI	0.5	0.7	1.9	4.1	7.3	13	16.4
	150 PSI	0.6	0.8	2.2	5	8.6	15.3	19.5
	175 PSI	0.7	0.9	2.5	5.6	10	17.6	22.3

### NOTES:



## NOTES:



# CONTACT YOUR TSUNAMI REPRESENTATIVE

Our team is waiting to answer questions, provide clarification, and schedule a demo!



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