# COLLECT WITH CONFIDENCE



# DUST COLLECTOR REGENERATIVE DRYER

Improvements in pulse efficiency can create a costreducing ripple effect throughout dust collector systems; increasing bag life and lowering energy costs associated with compressed air consumption (CFM).

Tsunami's world-class drying technology is configured specifically for dust collectors to offer a clean air package designed to maximize system performance and reduce operating costs like nothing before.

By pretreating and storing ultra clean, dry compressed air, pulse jet systems can eliminate the introduction of moisture that prematurely cakes up on filters or bags. This means more effective and less frequent pulsing.

#### INCREASE BAG LIFE BY UP TO 70%

Dew points down to -40°F eliminate cake build-up on bags caused by humid air and moisture from supercooling during pulses. This results in a lower differential pressure and longer bag life.

#### REDUCE CARBON FOOTPRINT

More effective and less frequent pulsing reduces maintenance costs and save companies thousands in compressed air energy generation.

#### **EXTEND EQUIPMENT LIFE**

Ultra dry air stops corrosion from shortening the life of pulse valves and prevents freeze up in cold environments.

#### PLUMB AND PLAY

Tsunami dryers are built as complete packages and come ready to plumb directly in and out of the system.

## EXPERIENCE "SUPERCOOLING" YOURSELF

Ever wonder why your keyboard duster bottle gets cold enough to require a freezer burn warning label?

"Supercooling" explains the process occurring when air cools through rapid expansion. This effect converts vapor to liquid in dust collector applications as high volumes of compressed air are exhausted through pulse valves.

Next time there are crumbs in your keyboard, notice the temperature change of the air and bottle as you pull the trigger.

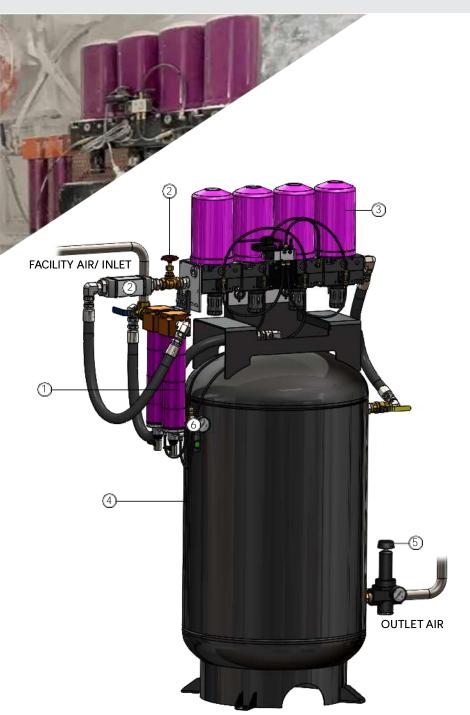












### **HOW IT WORKS**

#### ① PRE-FILTRATION

Air travels into Tsunami's patented zeromaintenance water separator where water is removed and particles are filtered out, down to 10 micron. Before exiting the pre-filters, the oil coalescing element removes oil aerosols down to .001 ppm and particulates down to .01 micron.

#### ② FLOW METER & RESTRICTOR VALVE

A gate valve and flow meter, integrated before the inlet of the dryer, helps prevent the collector from overrunning the system.

#### ③ REGENERATIVE DRYER

Pretreated air enters the regenerative dryer where dew points and relative humidity are lowered as low as -40°F and .01% rH. The self-regenerating towers remove water vapor, preventing moisture creation during the supercooling process. A small amount of dry air is reverse-flowed to dry out the humid desiccant while the bulk of the air is stored in a receiver tank.

#### (4) RECEIVER TANK

The storage of ultra clean, dry air is essential to the dust collector system, supplying additional volume to support the high surges of flow experienced during pulsing.

#### (5) HIGH FLOW REGULATOR

To accommodate for these spikes in demand, a high-flow regulator is utilized on the tank outlet port.

#### (6) AIR QUALITY TEST PORT

Allows for quick access to monitor air quality conditions.

### ORDFRING & SIZING INFORMATION

PART #	DESCRIPTION	SYSTEM PRESSURE	COLLECTOR FLOW RATE (CFM)	TANK SIZE
21999-1031	2 Tower - Dust Collector Regenerative Dryer	150 120 80	35 22 18	60 Gallon
21999-1032	4 Tower - Dust Collector Regenerative Dryer	150 120 80	70 45 30	80 Gallon







