**TSUNAMI WATER SEPARATOR**

The Tsunami water separator is a high quality filtration product which can be used to remove liquids and dirt particulates from compressed air systems with a capacity of up to 240 SCFM (Standard Cubic Feet per Minute).

The technology accomplishes its goal by taking the inlet air down through the inner tube and reverses direction when it hits the baffle plate. When this happens, the air velocity is slowed in the larger area of the outer tube which allows gravity to remove the bulk liquids. The air then travels upwards through the stainless steel mesh where the remaining water molecules are coalesced into larger droplets of liquid. The liquid is then drop to the bottom and are removed through the float drain.

The water separator consists of a unit head, outer tube, inner tube, baffle plate, coalescing stainless steel mesh and a bottom cap with float drain.

- **Head:**
  - The head is machined from 6061 aircraft aluminum and is anodized for corrosion resistance. In addition, the head is powder coated for **maximum corrosion protection**.
  - **Port sizes:**
    - 20 series - ¼" NPT inlet / outlet
    - 50 series - ½" NPT inlet / outlet
    - 120 series - 1" NPT inlet / outlet
    - 200 series - 1½"
    - 240 series - 1¾"

- **Stainless Steel Mesh:**
  - The stainless steel mesh is a non-corroding material that retards rusting and breakdown of the weave.

- **Outer Tube and Inner Tube:**
  - The inner tubes are machined from 6061 aircraft aluminum which provides exceptional durability for most rugged applications. The tubes are anodized both inside and out to prevent corrosion from air system contaminants.

- **Float Drain:**
  - The float drain is a critical component to this unit as its sole responsibility is to remove the liquids and contaminants.
  - Electronic and Pneumatic drains are recommended for air systems with dirty, rusty, or oily conditions.

**OIL COALESCING FILTER**

**How It Works**

Once the aerosol is captured by a fiber, it coalesces with other captured aerosols to form a bulk liquid which is forced by the air flow to the outer surface of the filter media. A non-wicking drain layer attached to the outer surface of the filter media separates the oil and water liquid from the air flow and drains the liquid via gravity to the sump of the filter housing preventing entrainment.

**Construction**

Tsunami coalescing media is made of 100% borosilicate glass micro fibers bonded together with a resin binder. In the standard configuration, chemical-resistant polypropylene cores and layers intimately support the coalescing media. A non-wicking drain layer is in intimate contact with the outside of the outer support core.

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*Scanning Electron Micrograph of Coalescing Media @ 500X magnification*
**DYNAMIC TECHNOLOGY VS. OLD TECHNOLOGY**

**TSUNAMI WATER SEPARATOR**
- Dynamic technology
- 30 Day money back performance guarantee
- Flow rated under heavy, wet conditions

**Heads:**
- Machined from 6061 aircraft aluminum, anodized, maximum corrosion protection

**Water Separation:**
- Air flows thru center air channel tube to the bottom of Tsunami
- It hits the baffle plate depositing the liquid and particulate in the large drain sump
- The air is then redirected 180° and flows up thru the oversized Stainless Steel mesh element
- Any remaining water droplets and aerosols to 10 micron are forced to the outside and will run down to the drain sump.
- Up-flow gravity separation
- Performance is 100% consistent at all flows

**Barrel:**
- Oversize length and diameter
- Machined from 6061 aircraft aluminum
- Mil Spec anodized inside and out for corrosion resistance
- Large drain sump
- Can handle large surges of water

**Bottom Cap:**
- Mil Spec anodized for corrosion resistance
- Elevated sump for sediment to accumulate (extended drain life)
- Easy to remove for servicing float drain

**Float Drain Standard:**
- Easy to service
- Easy to install; low maintenance

**STANDARD FILTER**
- 1940’s technology
- No guarantee for product performance offered
- Most filters are flow rated dry in a laboratory

**Heads:**
- Made of die cast aluminum
- Interior not coated, causes corrosion.

**Water Separation:**
- Water separation is created by centrifugal motion (spinning the air)
- Does not work well with intermittent or low flows. Allows moisture carryover
- Need high continuous flow for best performance.
- Short separation distance between air inlet and filter element, moisture carries over
- Short element life

**Elements:**
- Very small
- Plug Easily
- High pressure drop
- Frequent replacement required

**Plastic Bowls:**
- Requires metal bowl guards for safety
- Compressor oils will cause cracking
- Unable to support multiple draining options
- Unable to handle large surges of water

**Aluminum Die Cast Bowls:**
- Internal corrosion

**Drains:**
- Manual drains are standard on most filters
- Float drains are optional
- Location of float drains in one piece filter bowls cause premature drain failure
- Difficult replacement