



MRC - MOISTURE REJECTION CLOSURE

Mounted in the intake and exhaust openings of a vessel, the Zazz MRC vent system removes moisture from engine compartment intake combustion air, but also performs as weather closure and fire suppressant containment device. At only 6.375 inches (162mm) deep, the MRC requires minimal duct space.

The MRC's moisture rejecting Air-Foils pivot to open and close the intake and exhaust vents. That means you won't need bulky metal plates or doors to close your vents. The MRC meets ABS regulations for marine weather closures, and is capable of withstanding over 55 PSI of direct spray in the closed position.

In the event of a fire, the MRC closes to help contain fire suppressant inside the engine compartment.

The MRC is constructed of stainless steel and aluminum to comply with United States Coast Guard 46 CFR 116.610 (b), which states: "a ventilation duct, and materials incidental to installation must be made of noncombustible material." 46 CFR 116.610 (c) states "combustibles and other foreign materials are not allowed within ventilation ducts".

The open-and-close action can be controlled by several methods. The MRC can be easily operated by hand, via a cable-operated locking handle. Units can also be controlled with a remote electric actuator.

Computer simulations demonstrate that our patent pending Air-Foil™ design removes 99.3% of moisture at 15 microns or larger, with under .9 inches of pressure drop.

Materials:

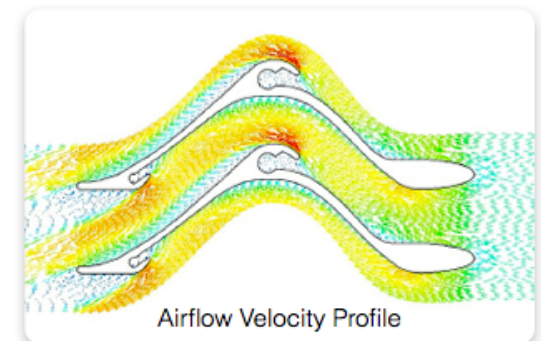
- 5052 Marine Grade Aluminum Frame
- MIL-SPEC Anodized 6061 T6 Aluminum Air-Foils
- 304 & 316 Stainless Steel Hardware
- Non-Metallic Self Lubricating Bearings (rated to 428 °F short term, 266 °F long term)

More Info:

- Removes 99.3% of moisture from intake air
- Helps to contain fire suppressant
- MRC acts as an ABS-compliant weather closure
- Approved for Fi-Fi Class 1 Vessels with Deluge Systems
- Only 6.375" (162mm) deep
- Frames can be anodized or painted
- USCG 46 CFR 116.610 (b) and (c) compliant
- Heat resistant to 1076°F (580°C)
- Suitable for new construction or retrofit applications



PATENT PENDING



Airflow Velocity Profile

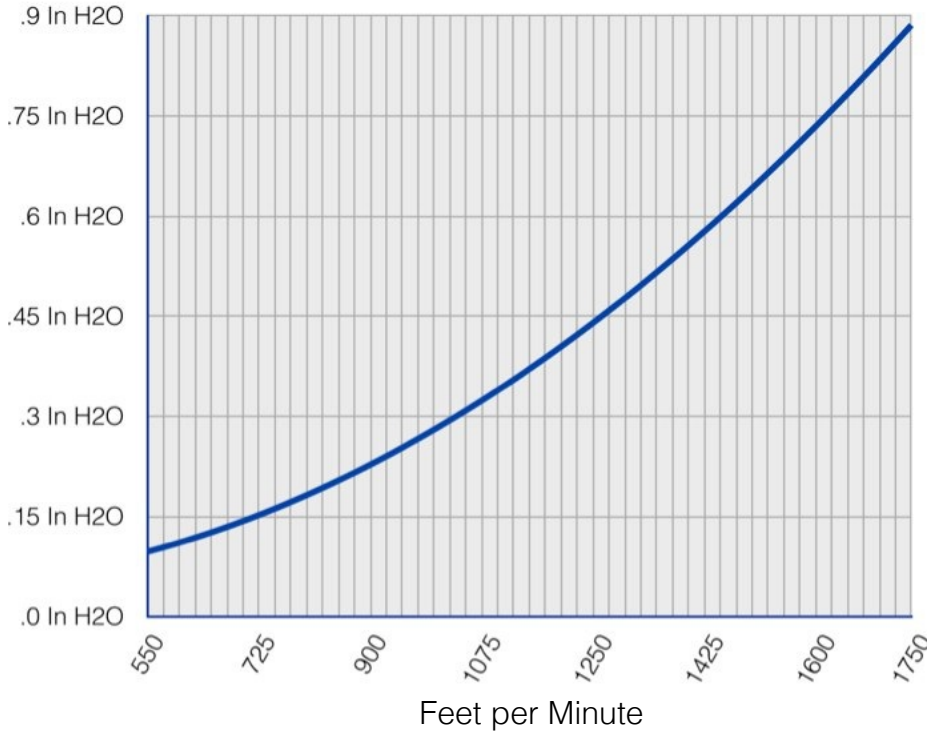


Manual Closure Handle



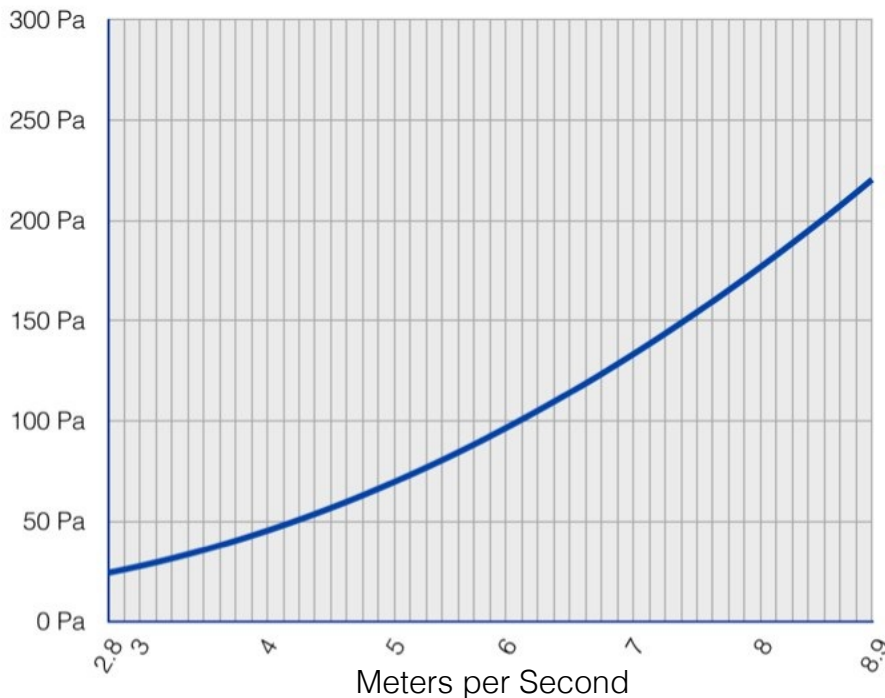
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MRC Air-Foil Pressure Drop



The MRC Air-Foil™ is carefully designed for pressure drop that is lower than many (if not most) impingement type separators on the market.

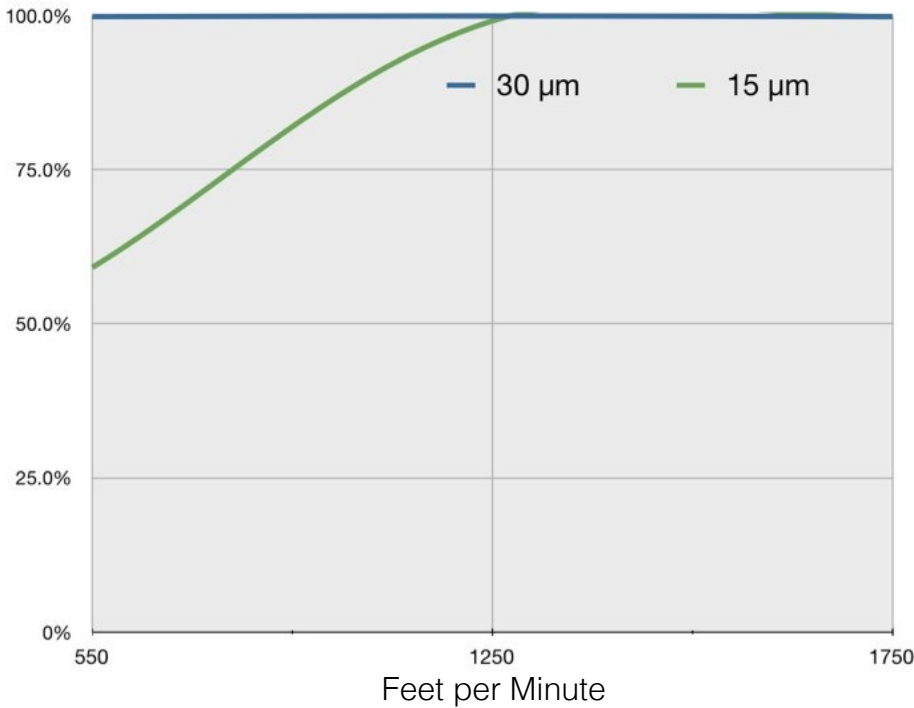
The Zazz Air-Foil™ design has a 15% lower pressure drop than wider 7" (179 mm) profiles and a 45% lower drop than narrower 4.25" (108 mm) profiles used by other manufacturers.





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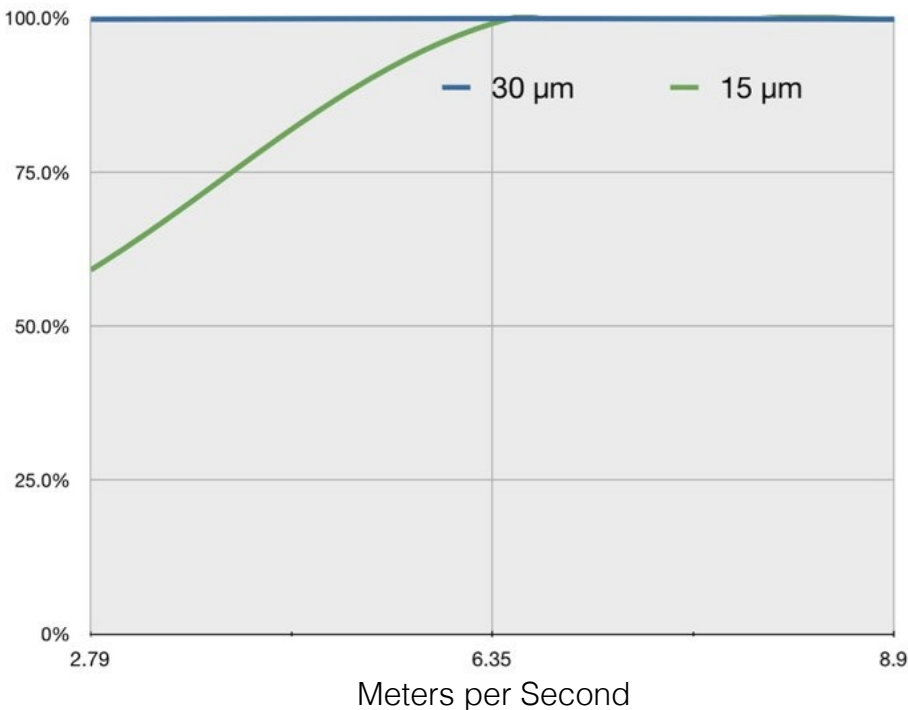
MRC Moisture Capture



As air velocity increases, so does the efficiency of any impingement separator. However, there is a limit.

After extensive testing and computer modeling, Zazz Engineering has determined that air velocities exceeding 1750 Ft/Min. (8.9 M/Sec.) reduced the effectiveness of any impingement separator.

When this critical velocity is reached, any moisture captured simply remains suspended, and cannot drain. This will quickly flood the separator, causing moisture and/or particles to pass through.



Moisture capture performance for the Zazz MRC Air-Foil has been modeled and tested with droplet sizes of 15 and 30 microns, and the results are outstanding.