



**AmericanAirFilter®**  
**Type W RotoClone®**  
*Wet Centrifugal Collector*

# AmericanAirFilter®

## Type W RotoClone®

*Collects More Dust for Fewer Dollars*

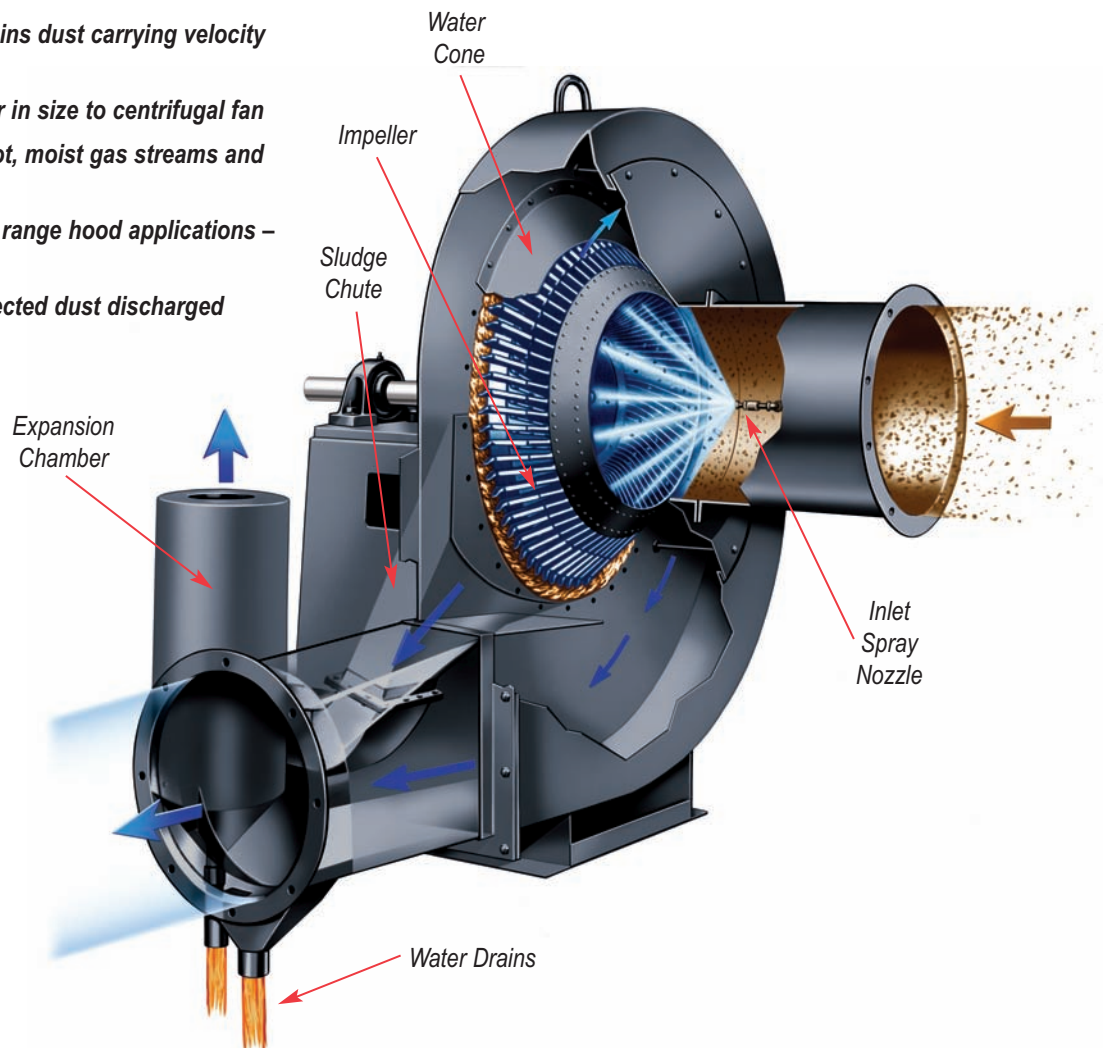
The Type W RotoClone is a combination dust collector and fan that will meet a variety of applications. In addition to being versatile, the Type W is the most cost-effective, high efficiency wet dust collector in its class. The distinguishing feature of the Type W is the addition of water sprays to the basic principle of dynamic precipitation. This unique design provides the user with the following benefits:

- High efficiency – 98% or better for most applications
- Minimum water requirements – ½ - 1 GPM per 1000 CFM of air cleaned
- Low installation cost – same as fan, just add water supply and drain connections
- Provides continuous operation – no downtime for bag or cartridge changeout
- Constant exhaust volume – maintains dust carrying velocity in ducts
- Small space requirements – similar in size to centrifugal fan
- Versatility – capable of handling hot, moist gas streams and sticky dusts
- Serves as fire barrier in restaurant range hood applications – Factory Mutual & ULC approved
- No secondary dust problem – collected dust discharged in slurry form

### Operating Principles

The dust laden air enters the Type W RotoClone where it is subjected to a fine water spray. The water and dust, being heavier than air, impinge on the blades of the impeller and are directed into the water cone by the special blade design and the centrifugal force of the rotating impeller. The slurry drains from the unit through the sludge chute to the expansion chamber.

The impeller imparts energy to the clean air, which being lighter than the water and dust, is discharged in front of the water cone and continues on to the clean air outlet.



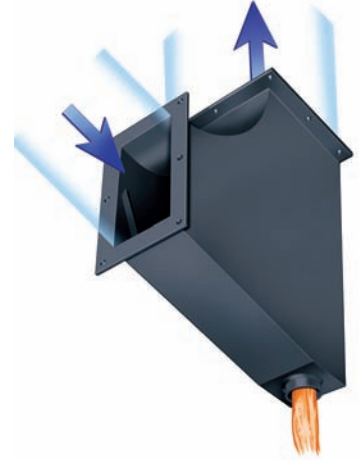
### Arrangement A

The Type W RotoClone, Arrangement A is recommended for the collection of light loadings of granular dusts and mist. Dynamic forces developed by the rotating impeller cause even the finest particles to impinge on, and be trapped by, the flowing water film which covers all blade surfaces. The slurry formed by water and collected dust drains from the bottom of the RotoClone expansion chamber. The Type W RotoClone, Arrangement A is available in 12 sizes from 1,000 to 50,000 CFM.



Arrangement A with standard outlet.

### Optional Outlets for Vertical Discharge



The 90 degree outlet elbow is recommended where a vertical stack is required immediately at the Type W RotoClone discharge.

### Arrangement D

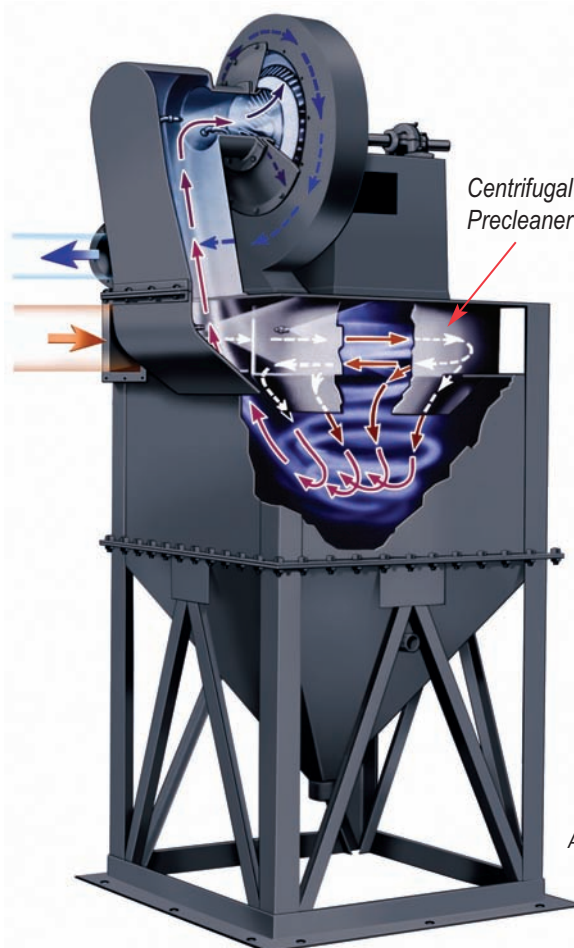
The Type W RotoClone, Arrangement D is designed to collect heavy concentrations of granular dust.

The Arrangement D is equipped with an integral wet centrifugal precleaner, which removes a high percentage of the incoming dust from the airstream.

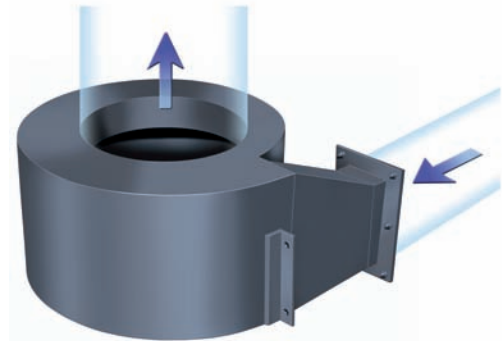
The pressure loss in the wet precleaner section is approximately twice the value of the inlet velocity pressure for an Arrangement A RotoClone of the same size.

Collected dust and water are continuously discharged as a slurry through a single hopper drain.

The Type W RotoClone, Arrangement D is available in seven sizes from 1,000 to 15,000 CFM. For larger sizes, contact your local AAF Representative.



Arrangement D.



The centrifugal outlet is recommended for the Type W RotoClone when cleaned air is recirculated back to work area or when the driest discharge is desired. (Adds 2VP of pressure loss.)

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## Type W RotoClone®

### Typical Applications:

#### Food Processing

- Cereal
- Flour
- Rice
- Salt
- Soy Bean
- Cocoa
- Candy Coating
- Sugar
- And Many More

#### Processes

- Dryers
- Cookers
- Crushing
- Grinding
- Spraying (pill coating, ceramic glazing)
- Ventilation (bin vents, dumping operations)

#### Industries

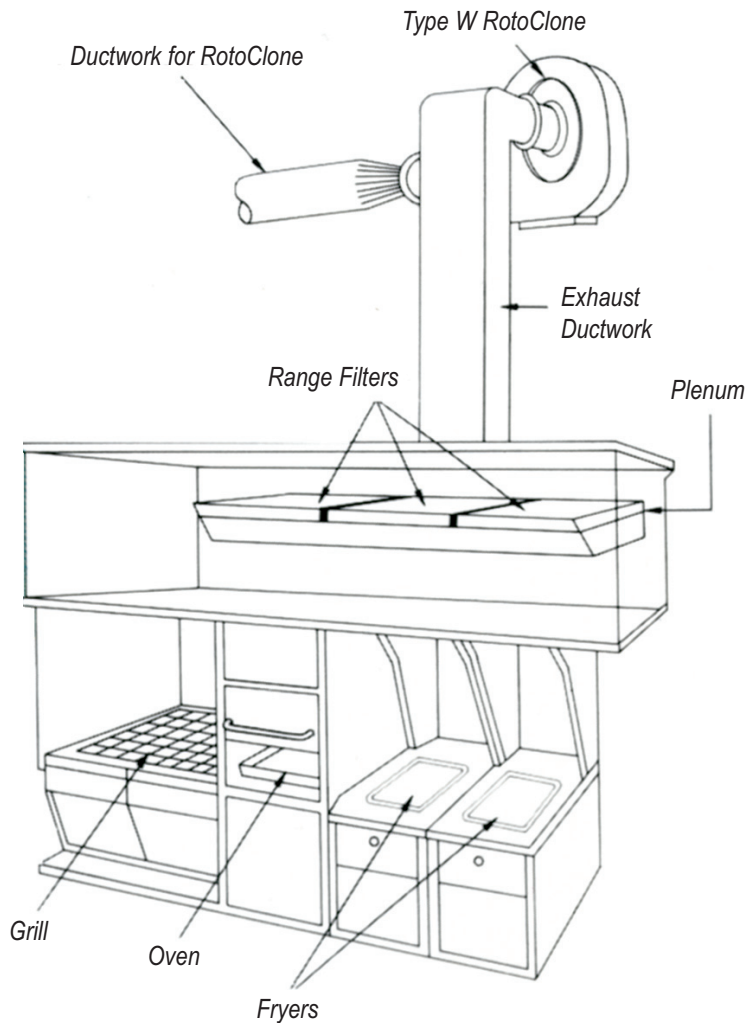
- Paper
- Plastics
- Ceramics
- Pharmaceuticals
- Tobacco
- Coal
- Chemicals
- Fiberglass
- Fertilizer

#### Material Handling

- Transfer Stations
- Mixing
- Dumping
- Packaging

#### Restaurants, Hotels, Shopping Mall Food Courts, and Sports Arenas

- Range hood exhaust and fire protection system (Factory Mutual approved)



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ISO Certified Firm

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