



**AmericanAirFilter®**  
**Type N RotoClone®**  
**Model LV**

*Hydrostatic Precipitator*

**AmericanAirFilter®**

## **Type N RotoClone® Model LV**

### *Hydrostatic Precipitator*

*Many industrial processes create dusts which are most easily and economically collected by a small wet collector. These processes typically can be found in the following industries:*

- **Ceramics**
- **Chemicals**
- **Foundry**
- **Metalworking**
- **Food processing and packaging**
- **Pharmaceutical processing and packaging**
- **Rubber and plastic products**
- **Lead battery plants**

### **Proven Design**

The Type N RotoClone®, Model LV collector was patterned after the standard Type N RotoClone collector, which has been installed in thousands of applications since its introduction in the 1940's. It is an efficient, compact, and economical wet-type dust collector specifically designed for volumetric flow rates of 2,000 CFM or less.

Although the basic operating principal has remained unchanged, many refinements have been made. The result is carefully engineered **SIMPLICITY**. The Model LV RotoClone collector provides an efficient and dependable method of in-plant dust control with minimal maintenance requirements.

### **Here's How it Works**

The Model LV RotoClone collector cleans the air by the combined action of centrifugal force and a violent inter-mixing of water and dust laden air.

The dust is separated from the gas stream by means of a water curtain created by the high velocity flow of air past a stationary impeller. This high velocity flow carries water with it in a heavy turbulent sheet. The centrifugal force exerted by the rapid changes in direction of airflow causes the dust particles to penetrate the water droplets and become permanently trapped within them.



### **The Model LV Collector**

The Type N RotoClone, Model LV dust collector is specifically designed for the ventilation and pollution control of dust emitting machines that require air volumes under 2,000 CFM. It is available in two sizes: 1,000 CFM and 2,000 CFM.

The Model LV collector can be close coupled to the dust source, or remotely located with connecting ductwork. The fugitive dust from operations such as grinding, buffing, polishing, sanding, bag filling, packaging, sorting, and weighing can be controlled without exhausting tempered air. The source capture and dust removal features of the Model LV collector allow recirculation of in-plant air. This helps conserve energy and provides a clean working environment.

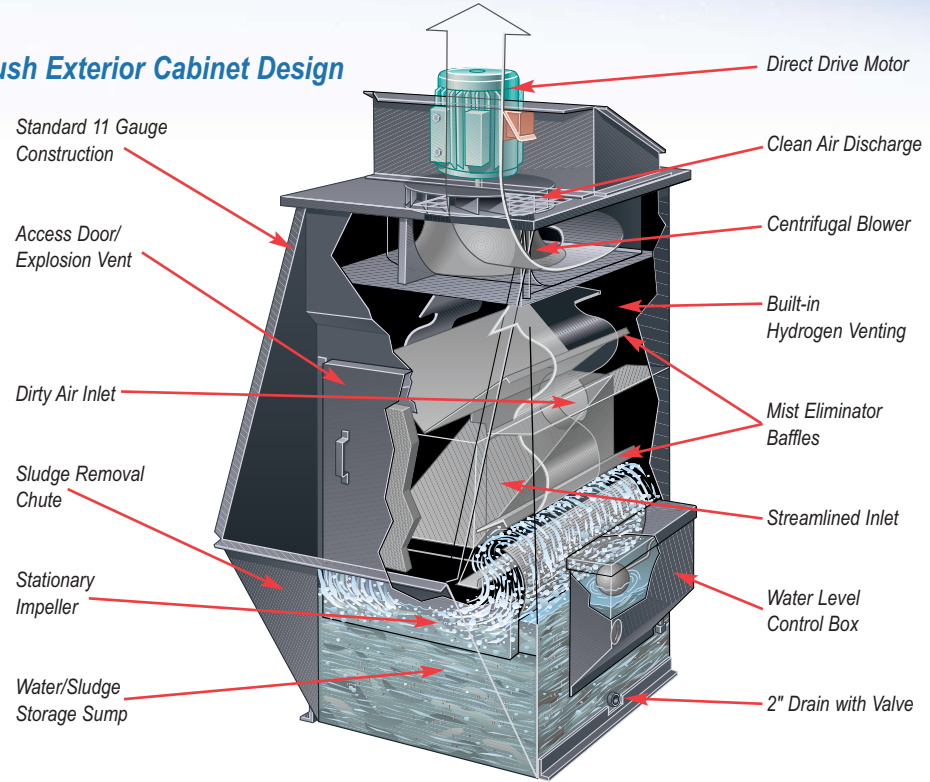
## Features

- Two nominal sizes, 1,000 CFM and 2,000 CFM
- Proven Type N RotoClone collector design
- Built-in centrifugal fan
- Direct drive – no belts requiring changing or adjustment
- Standard 11-gauge construction
- Attractive (flush) cabinet-type housing design
- Painted exterior finish
- Combination access door/explosion vent
- Large 2" drain coupling for cleaning
- Simple liquid level control
- Sloped wall for easy sludge removal
- No moving components (except fan)
- Non-clogging/low build-up water entrainment separators reduce maintenance
- Compact design
- No water overflow
- Low maintenance
- Vertical airflow – minimal floor space required
- Built-in safety features for light metalworking
- Low water safety controls
- Automatic water level controls

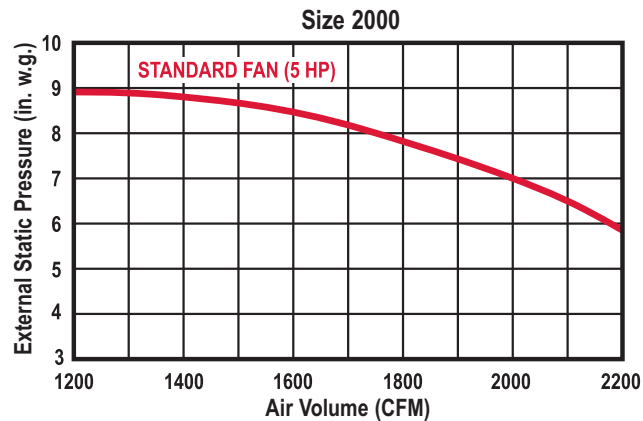
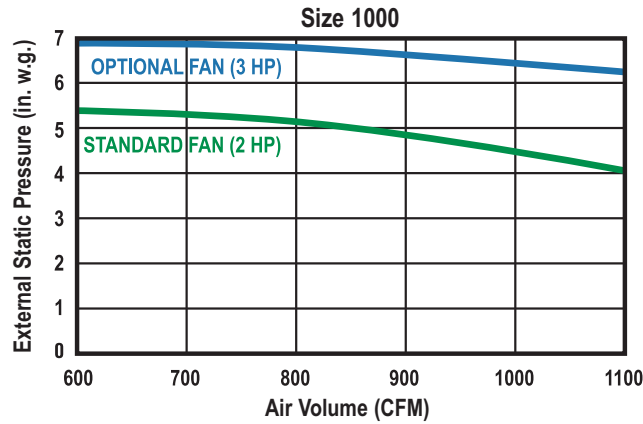
## Options

- DownDraft Bench
- High pressure fan on Size 1000

## Flush Exterior Cabinet Design



## Fan Performance Curves

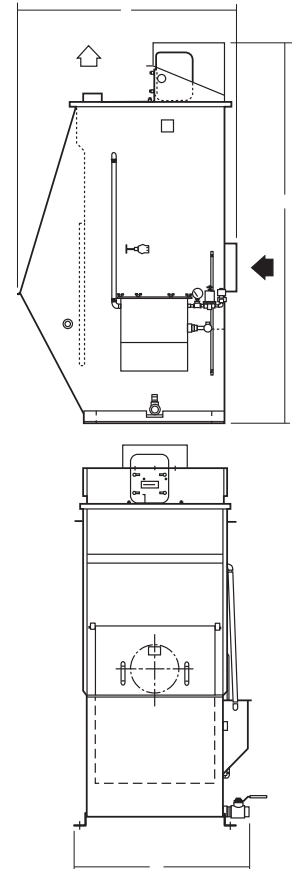


### SELECTION:

1. Determine CFM required to capture the dust.
2. Determine static pressure of the duct system external to the collector.

**NOTE:** The outlet damper can be adjusted to vary the static pressure to that shown on the curve at the required CFM.

## Dimensions



SIZE	L	W	H
1000	42 <sup>3</sup> / <sub>4</sub> "	35 <sup>1</sup> / <sub>2</sub> "	83 <sup>3</sup> / <sub>4</sub> "
2000	53 <sup>1</sup> / <sub>2</sub> "	43 <sup>1</sup> / <sub>2</sub> "	93 <sup>3</sup> / <sub>4</sub> "

## Type N RotoClone® Model LV

### DownDraft Bench Option

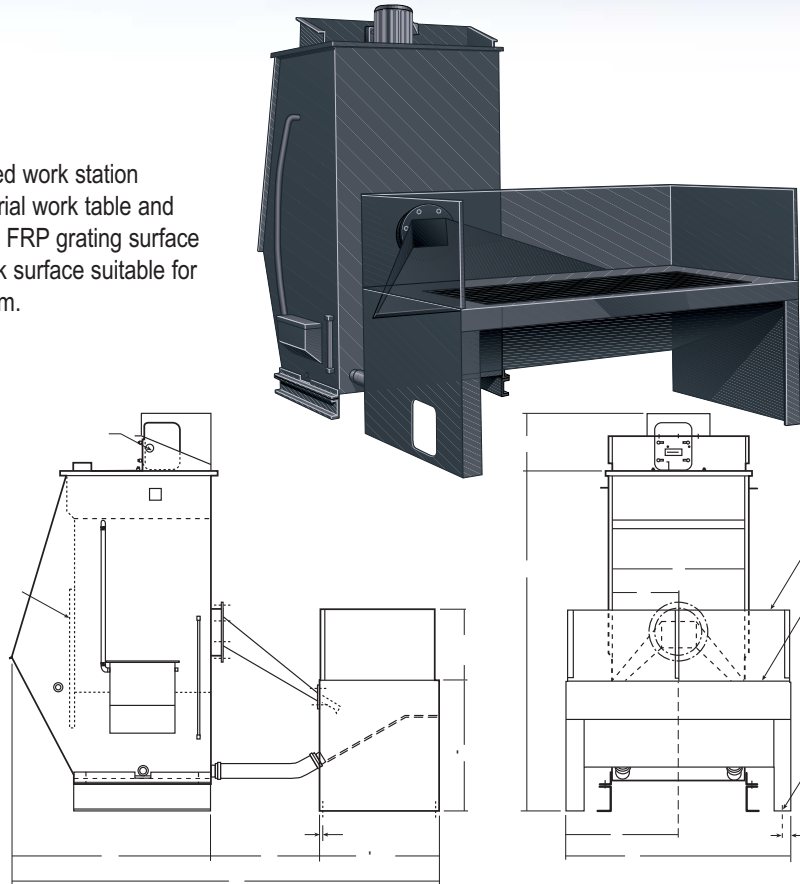
The Model LV DownDraft Bench is a self-contained work station designed to provide the convenience of an industrial work table and the efficiency of a built-in dust collector. The large FRP grating surface and shallow capture plenum form a dust-free work surface suitable for standing or sitting with plenty of knee and leg room.

### Features

- Effective dust removal – 200 FPM downdraft velocity
- Energy efficient – recirculates clean air
- Worker comfort – ample knee room
- Built to last – 14 gauge 304 stainless steel components on bench items which contact the water

### Optional

16 gauge galvanized side draft shields with channels for rear panel



Size	Std. Motor HP	Water Capacity	A	B	C	D	E	F	G	H	J
1,000 CFM	2	72 Gals.	1' 2 9/16"	6' 4 1/8"	13"	2' 2"	14"	2' 4"	3' 3"	21"	7' 6"
2,000 CFM	5	124 Gals.	1' 2 9/16"	7' 2 1/8"	17"	2' 10"	2' 4"	4' 8"	4' 1 3/4"	2' 3"	8' 10 3/4"

### "Light Metal" Dust Collection

Of particular concern is the generation of dusts during the manufacture of products made of "light metals" such as aluminum, magnesium, or titanium. Metalworking processes such as grinding, abrasive disc cutting, sawing, scratch brushing, buffing, and polishing create clouds of fine metal dust. When these "light metals" are involved, the collection of the dusts becomes more critical because of their explosive potential.

The risk of explosion increases as the dust gets finer and the concentrations increase. The explosion potential is further heightened by the highly conductive nature of these metallic dusts. Dry accumulations of the dusts are highly flammable. This is especially true of aluminum, titanium, and magnesium.

Guidelines for the collection of these light metal dusts are published by the National Fire Protection Association. Cyclones and fabric collectors, using conductive media, are approved with certain restrictions by the NFPA for the collection of aluminum, titanium, and magnesium dusts. However, it is American Air Filter's experience that wet collection with orifice type scrubbers is the most practical method of collecting light metal dusts.

American Air Filter has the broadest product offering of any dust collector manufacturer in the world (i.e. cyclones, cartridge and bag collectors, electrostatics, wet scrubbers, etc.). With this complete choice of collectors available, **ONLY THE TYPE N ROTOCLONE HYDROSTATIC PRECIPITATOR IS RECOMMENDED WHEN LIGHT METAL DUST COLLECTION IS INVOLVED.** This wet-type collector provides the necessary features for the SAFEST and most efficient control of the potentially explosive "light metal" dusts.



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