

Type N RotoClone[®]
Model LV

Hydrostatic Precipitator

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

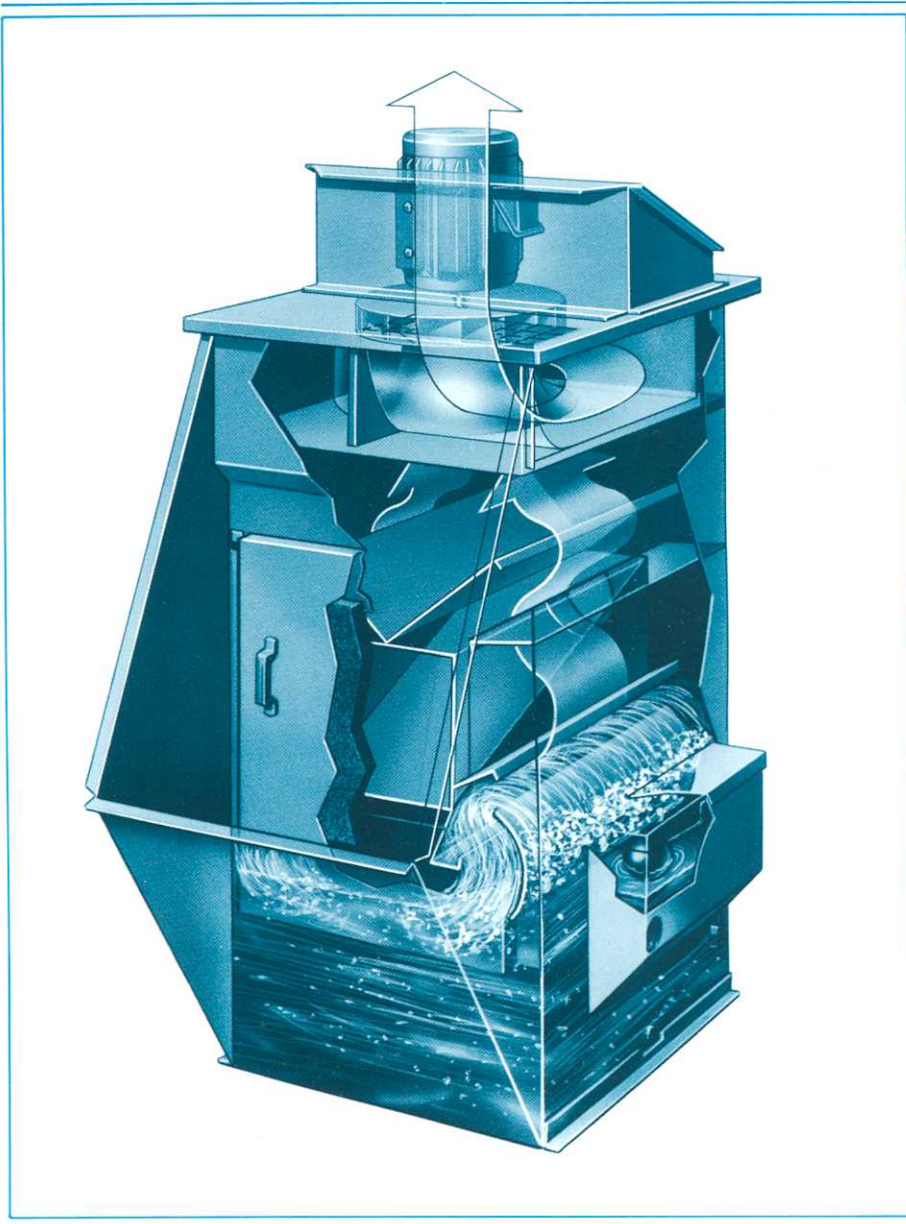
centrifugal force exerted by the rapid changes in direction of air flow causes the dust particles to penetrate the water droplets and become permanently trapped within them.

The dust laden water droplets are then removed from the air stream by the water eliminator. The dust settles in the bottom of the collector and the water is reused. Since the water curtain is produced by the air flow, no pumps or nozzles are required.

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 four sizes: 500 cfm, 1,000 cfm, 1,500 cfm and 2,000 cfm.

The Model LV Collector can be close coupled to the dust source or remotely located with con-



necting 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

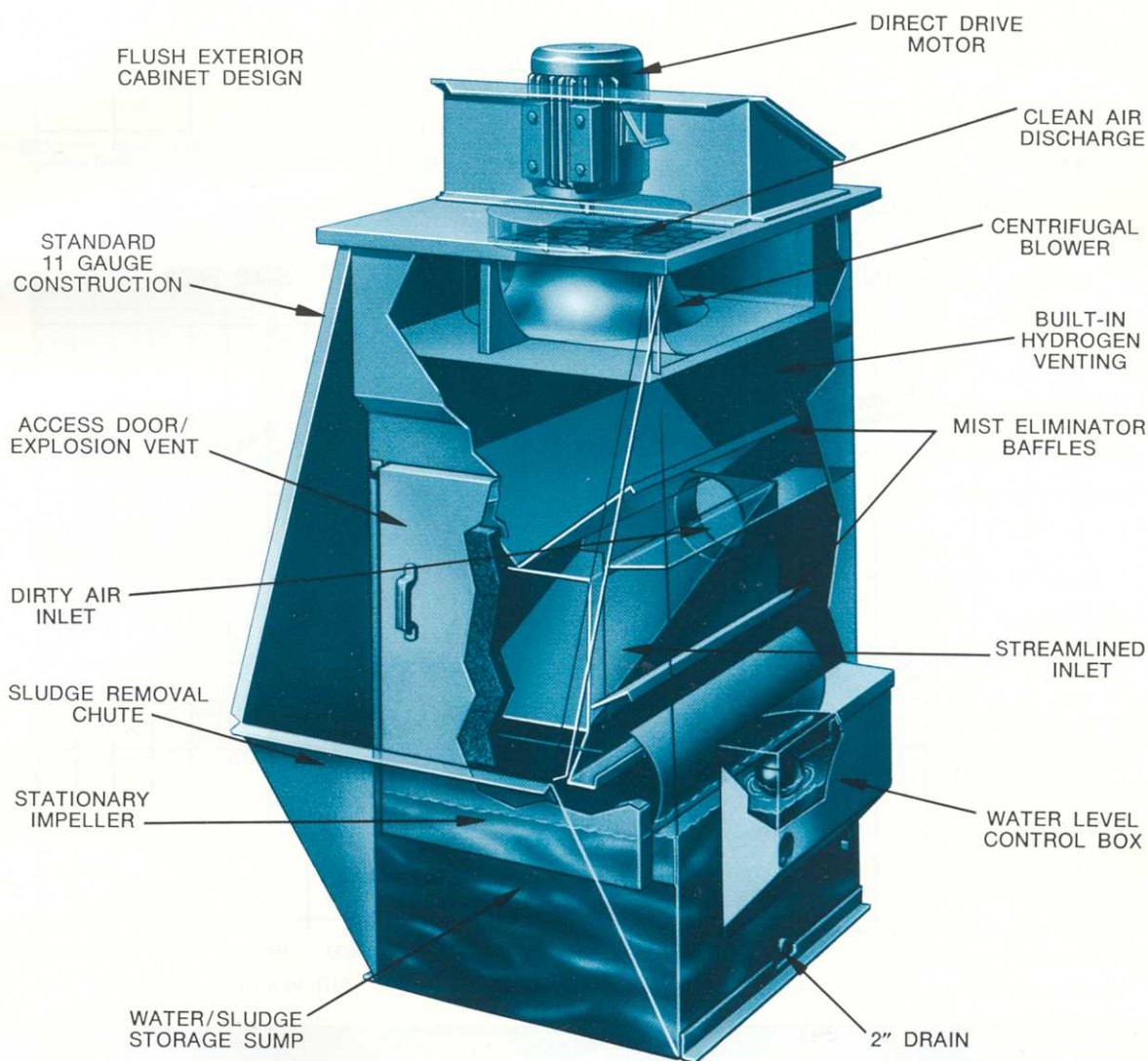
- Four nominal sizes, 500 cfm to 2,000 cfm
- Proven Type N RotoClone Collector Design

- 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)

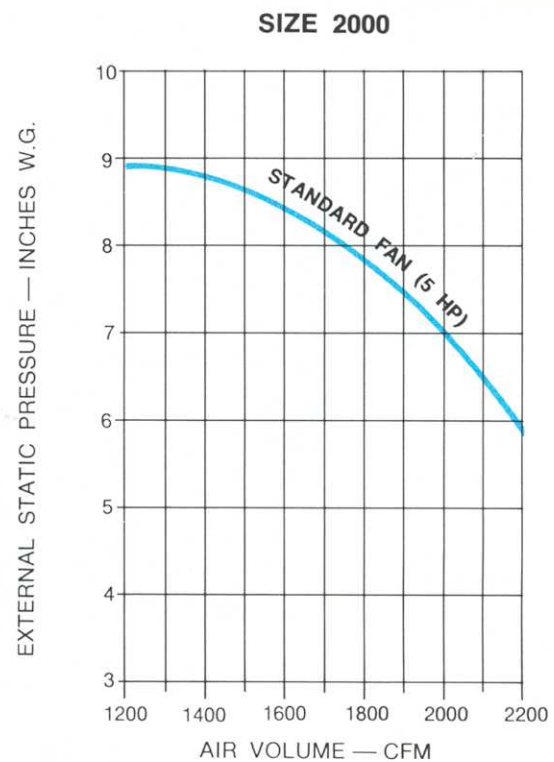
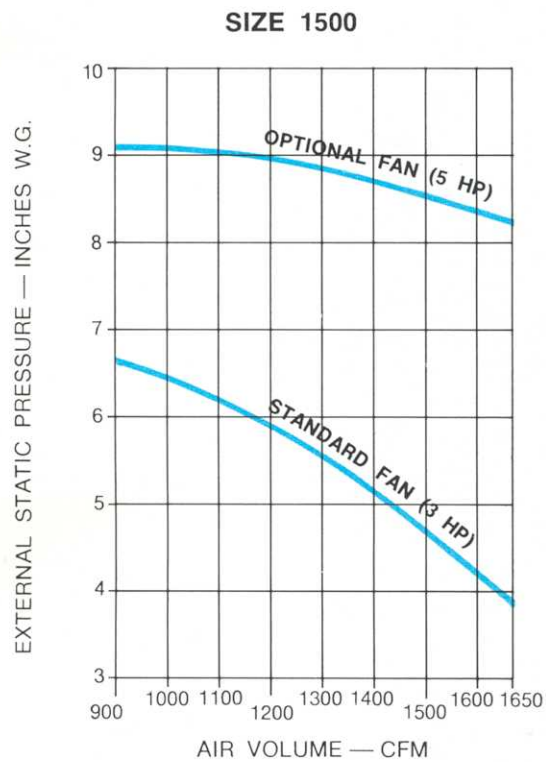
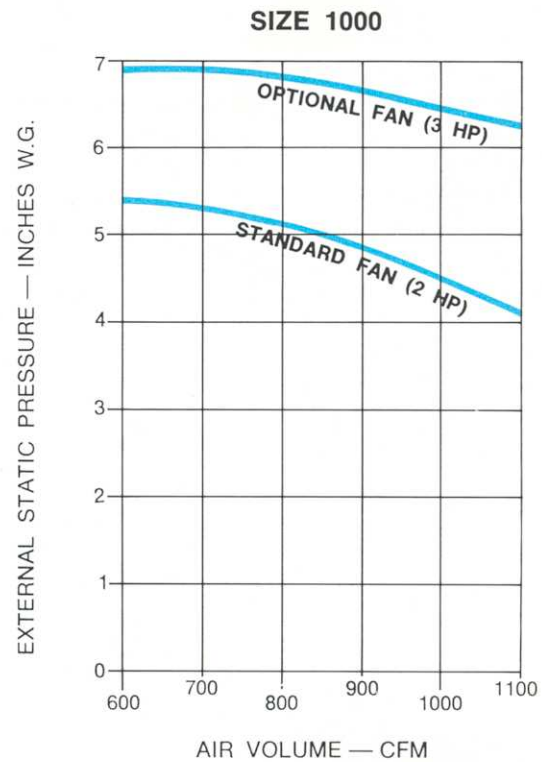
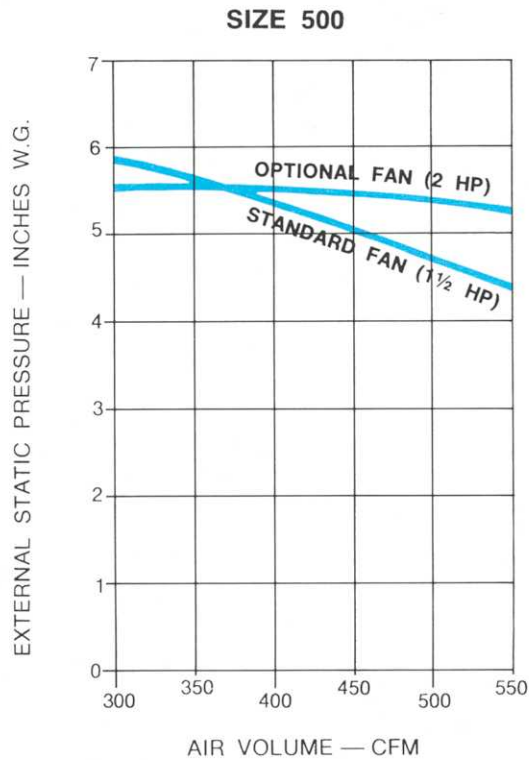
- Non-clogging/low build-up water entrainment separators reduce maintenance
- Compact design
- No water overflow
- Low maintenance
- Vertical air flow — low floor space required
- Built-in safety features for light metal working

OPTIONS

- Low water safety controls
- Automatic water level controls
- Downdraft bench



Fan Performance Curves

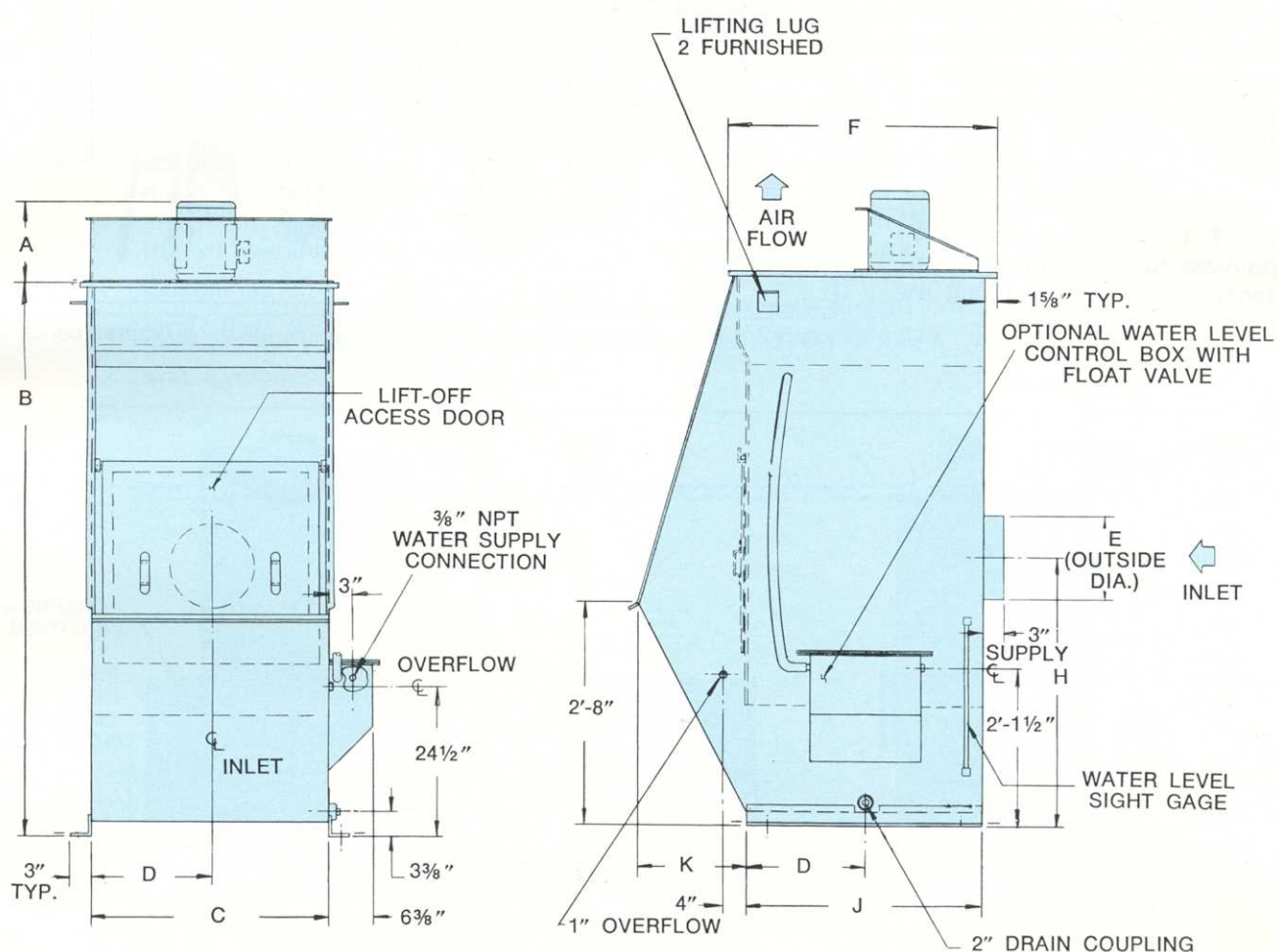
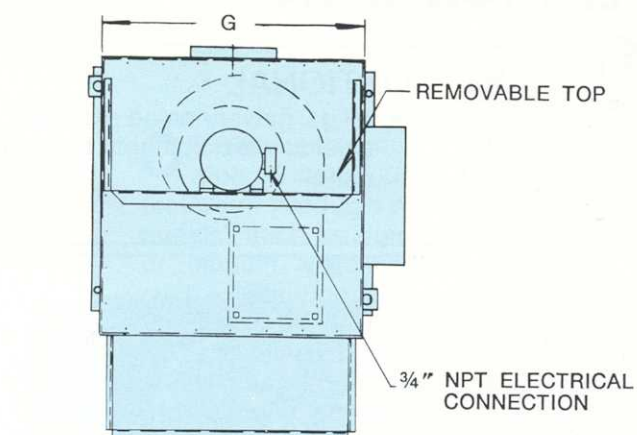


SELECTION:

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.



Size	Std. Motor HP	A	B	C	D	E	F	G	H	J	K
500 CFM	1 1/2	10 3/16"	5'-9 1/8"	2'-2"	13"	8"	2'-7 1/4"	2'-5 1/4"	3'-0 1/2"	2'-2"	13"
1000 CFM	2	11 11/16"	5'-9 1/8"	2'-2"	13"	8"	2'-7 1/4"	2'-5 1/4"	3'-0 1/2"	2'-2"	13"
1500 CFM	3	11 3/16"	6'-7 1/8"	2'-10"	17"	12"	3'-3 1/4"	3'-1 1/4"	3'-2 1/2"	2'-10"	15 3/4"
2000 CFM	5	12 5/8"	6'-7 1/8"	2'-10"	17"	12"	3'-3 1/4"	3'-1 1/4"	3'-2 1/2"	2'-10"	15 3/4"

Type N RotoClone[®], Model LV Hydrostatic Precipitator Downdraft Bench Unit

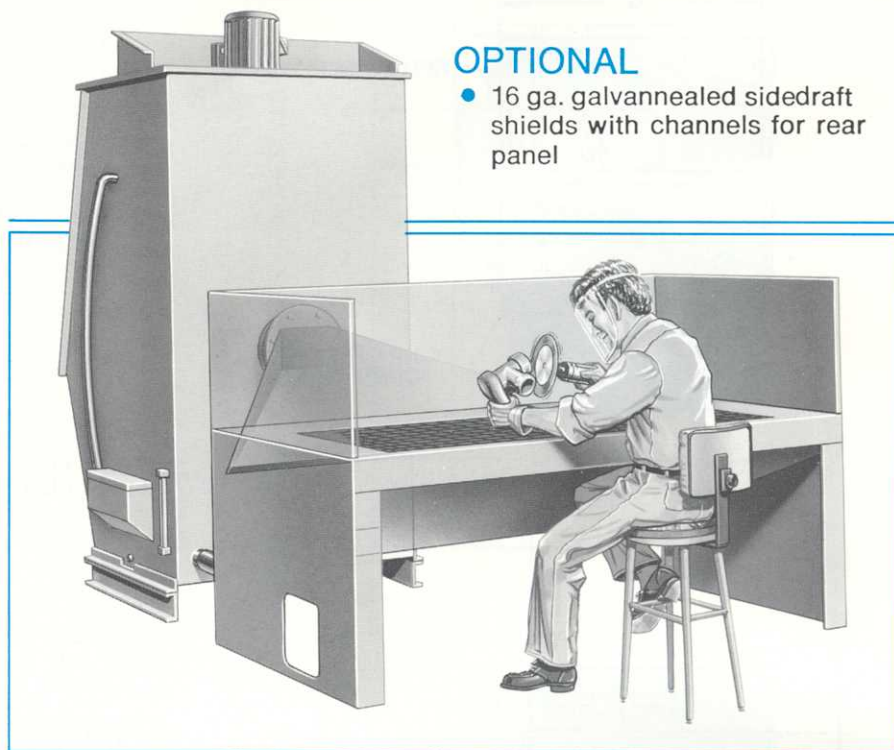
THE Model LV Collector Downdraft Bench Unit is a self-contained work station designed to provide the convenience of an industrial work table and the efficiency of a built-in dust collector. The large FRP grating surface and shallow capture plenum form a dust free work surface suitable for standing or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

FEATURES

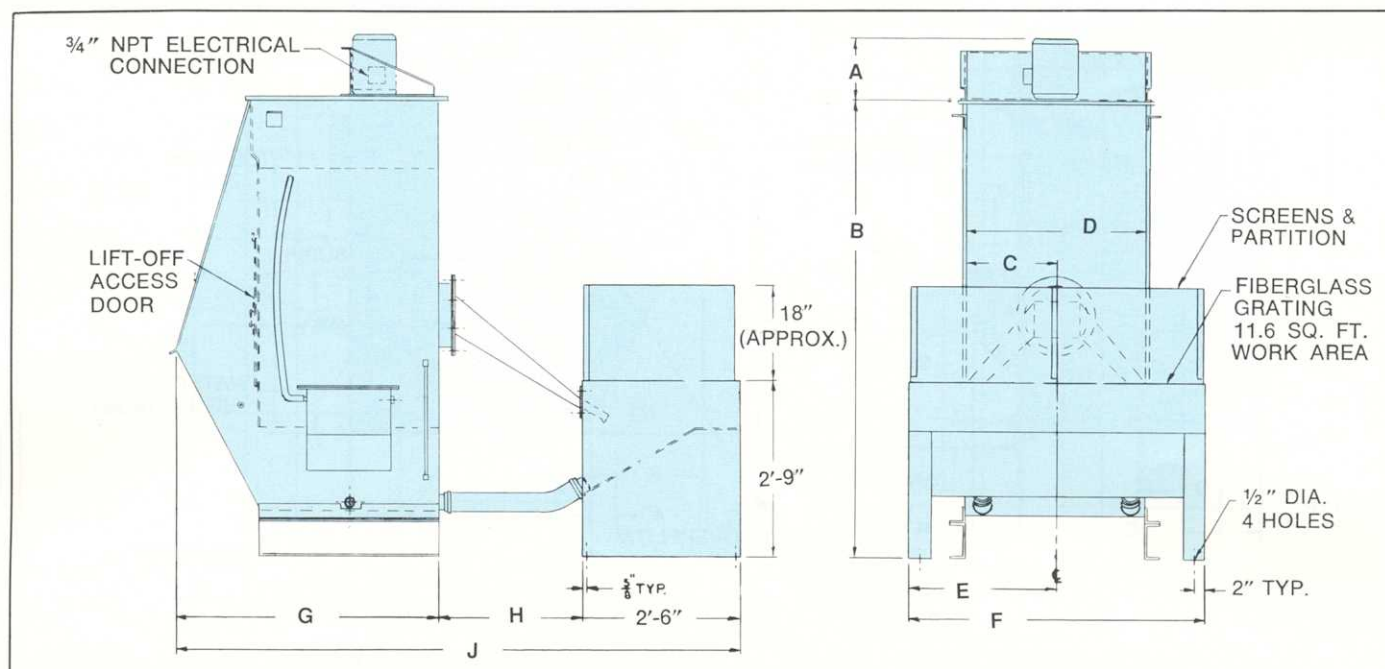
- **EFFECTIVE DUST REMOVAL**—200 fpm downdraft velocity
- **ENERGY EFFICIENT**—Recirculates clean air
- **WORKER COMFORT**—Ample knee room
- **BUILT TO LAST**—14 ga. 304 stainless steel components on bench items which contact the water

OPTIONAL

- 16 ga. galvanized sidedraft shields with channels for rear panel



NOTE: The standard fan offering is adequate to operate the downdraft bench unit.



Size	Std. Motor HP	Water Capacity	A	B	C	D	E	F	G	H	J
500 CFM	1 1/2		10 3/16"								
1000 CFM	2	72 Gals.	11 3/16"	6'-4 1/8"	13"	2'-2"	14"	2'-4"	3'-3"	21"	7'-6"
1500 CFM	3	124 Gals.	11 11/16"	7'-2 1/8"	17"	2'-10"	2'-4"	4'-8"	4'-1 3/4"	2'-3"	8'-10 3/4"
2000 CFM	5		12 5/8"								

Collection of "Light Metals" Dust

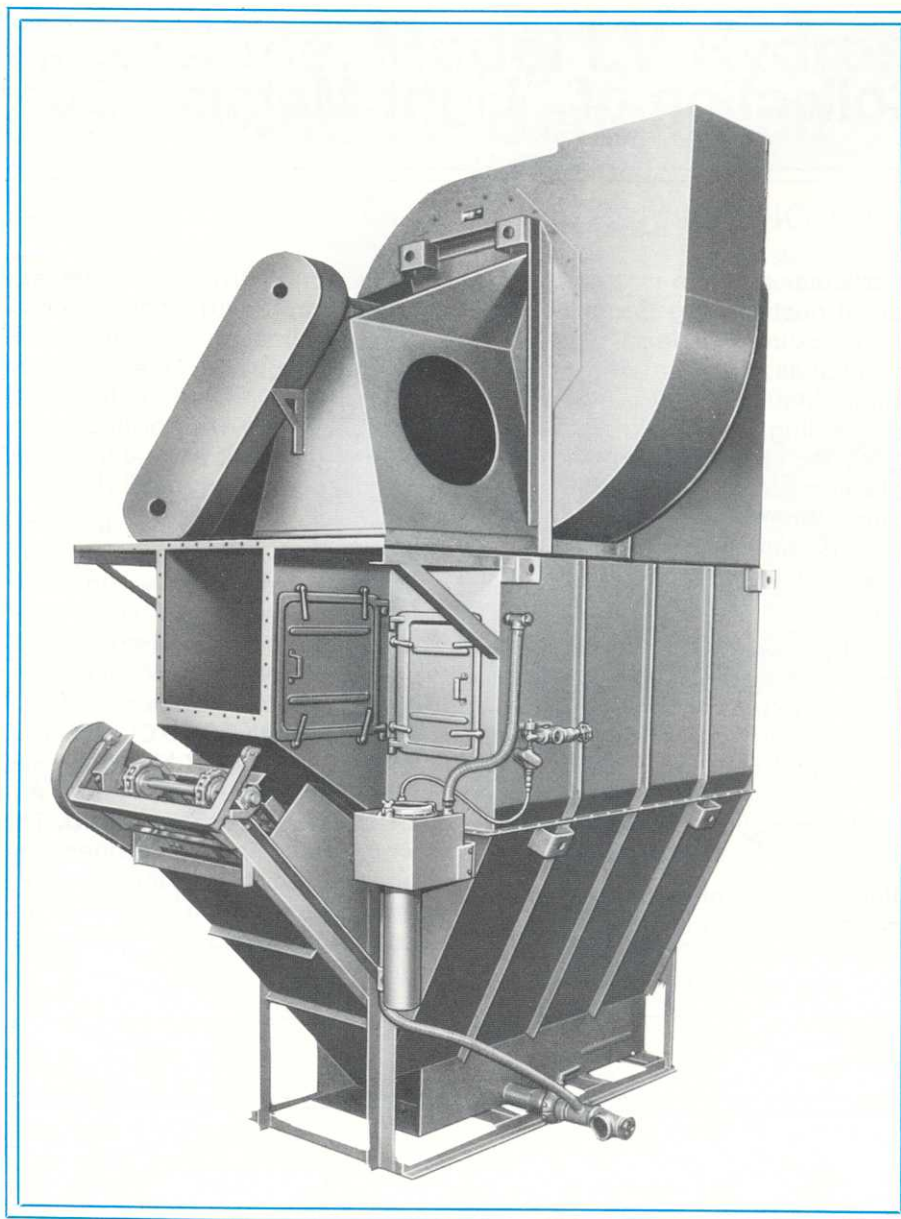
OF particular concern is the generation of dusts during the manufacture of products made of "light metals" such as aluminum, magnesium or titanium. Metalworking processes such as grinding, abrasive disc cutting, sawing, scratch brushing, buffing and polishing create clouds of fine metal dust. When these "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 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 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, centrifugal types, paper and fabric collectors, electrostatics, wet scrubbers, etc.). With this complete choice of collectors available, **ONLY THE TYPE N ROTOCONE HYDRO-STATIC 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.



For higher air flow volumes, the standard Type N RotoClone Hydrostatic Precipitator is available in fifteen sizes with capacity ratings to 57,600 cfm.

For more information on
AAF Air Pollution Control Products
Call 1-800-879-4366
ask for Department 1250 for the name of
your nearest AAF Sales Representative



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