

**TYPICAL DUST COLLECTOR SPECIFICATION FOR  
STERNVENT DIRECT DRIVE CYCLONES  
With 55 Gallon Drum Dust Storage  
Models CYD 1602, 2003, 2005, 2407, 3010, 3015 & 3620D**

Furnish and install, where shown on the plans, a high efficiency cyclone with integral blower sized for design airflow (as shown on the schedule) (of \_\_\_\_\_CFM @\_\_\_\_\_ "ESP W.G.).

**DESIGN**

Cyclone body shall be made of 14gauge (model 1602 is 16 ga) steel and welded construction. Unit complete with internal helix to improve dust separation and decrease internal pressure drop. A drum assembly shall be included, which consists of 55 gallon steel drum, drum cover with flexible connection to cyclone, stainless steel hose clamps and support legs.

**BLOWER**

The integral blower shall be factory mounted on the clean air side and be of the radial (2-15 HP) or backward inclined (20 HP) design with a dynamically balanced aluminum impeller. It shall be direct driven by a \_\_\_ volt, \_\_\_HP, 3450 RPM TEFC motor.

**FINISH**

Interior and exterior carbon steel surfaces shall be coated with two part epoxy primer and exterior painted with Sternvent gray two part urethane enamel.

Dust collector shall be manufactured by Sternvent or approved equal.

## **OPTION #1 AFTER FILTERS**

### **A. Outdoor After Filter**

After filter shall be enclosed style, suitable for outdoor installation. Filter media shall be 8 oz. cotton sateen, consisting of (40) (64) 5" dia. x 90" long filter bags with a total filter area of not less than (373) (612) sq.ft. Filters shall be cleaned by the (manual shaker) (motorized shaker and controller, which includes a magnetic starter and dual delay timer). Dust shall be stored in (dust chamber) (55 gallon drum). *Include the following if air is not to be recirculated back to the building.* (Weather discharge with bird screen shall be included). Pressure drop, with clean filters, will be approximately 0.5" W.G.

### **B. Outdoor After Filter-No recirculation**

After filter shall be side panel, open bottom style, with access doors & support legs, suitable for outdoor installation. Filter media shall be 12-oz. polyester felt, consisting of (4) (8) 12" diameter filter bags, each with a zipper bottom. Filter area shall be a minimum of (70) (100) (200) sq.ft. Dust shall be stored in the bottom of each filter bag. Air shall discharge through the bottom bird screened outlet. *Note: Neither the air outlet nor the enclosure can be ducted.*

### **C. Indoor After Filter – Ceiling Hung**

After filter shall be open style with ceiling hung plenum for indoor installation. Filter media shall be 12 oz. polyester felt consisting of (4) (8) (12) (18) 12" diameter filter bags each with a zipper bottom. Filter area shall be a minimum of (70) (100) (200) (450) sq.ft. Dust shall be stored in the bottom of each filter bag. Pressure drop, with clean filters, will be approximately 0.5" W.G.

### **D. Indoor After Filter – Floor Mounted**

After filter shall be open style, for indoor installation, floor mounted with plenum and support legs. Filter media shall be 8 oz. cotton sateen, consisting of (40) (64) 5" dia. x 90" long filter bags with a total filter area of not less than (373) (612) sq.ft. Filters shall be cleaned by the (manual shaker) (motorized shaker and controller, which includes a magnetic starter and dual delay timer). Dust shall be stored in (dust chamber) (55 gallon drum). Pressure drop, with clean filters, will be approximately 0.5" W.G.

## **OPTION #2: ICE CAP**

For outdoor installation, ice cap shall be provided to protect TEFC motor from icing conditions.

**OPTION #3 SOUND ATTENUATION**

A duct silencer, lined with 4.75-lb. density inorganic mineral or glass fiber, shall attenuate discharge from the blower. The media shall be protected from erosion by airflow through the use of galvanized, perforated metal with aerodynamic leading and trailing edges to insure maximum acoustical insertion loss at minimum static pressure drop. Must comply with ASTM E84 for flame retardancy and combustion. Average dynamic insertion loss shall be 5 – 7 decibels. Pressure drop approximately 1.0" W.G. Field support is required.

**OPTION #4 EXPLOSION RELIEF DOOR**

A hinged explosion relief door with Brixon latches shall be provided in the cylinder section of the cyclone. For indoor installation, a flange shall be included around the explosion door for ducting to the outdoors per NFPA 68.

January 2014