



SERIES 69H – GUIDE SPECIFICATION

BELT DRIVE UPBLAST SMOKE VENTILATOR

The Belt Drive Upblast Smoke Ventilator shall be manufactured by Hartzell Air Movement, as a Series 69H. The device will be a packaged assembly consisting of a roof curb mounting panel, containing a venturi orifice, bolted to a high temperature construction belt drive Hartzell duct fan. The fan shall discharge through gravity-return type dampers protected by a steel windband. Standard sizes are 18 through 60 providing 2,500 to over 64,000 SCFM of airflow.

The duct fan propeller shall be a welded, 3 blade design of commercial quality low carbon steel. Propellers shall be retained on the fan shaft utilizing a split taper bushing. Fan shafts shall be ground and polished carbon steel. Pillow block type bearings shall be located in a drive compartment on the negative pressure side of the propeller, drawing outside ambient air in and over the belts and bearings. Bearings shall be heavy duty, self-aligning, roller types with a minimum L10 of 50,000 hours, and prelubricated with high temperature grease capable of withstanding operation at 500° F. for a minimum of four hours. Bearings are relubricable and shall be supplied with extended lube tubes for continuous service. Fixed pitch drives are standard with a minimum of two heat resistant V-belts drive the fan. Shaft heat slinger and aluminum heat sinks serve to cool the drive system and electrical components.

An open end drip proof fan motor shall be mounted on an adjustable motor base out of the airstream. The motor base shall be slotted to permit changing motor sizes, if ventilation requirements change. A combination motor cover and belt guard is to be furnished to protect the drive system. A NEMA 3R, non-fused, disconnect switch mounted to the curb panel and wired to the motor is provided as a local safety switch.

Fan housing shall be minimum 12 gauge commercial quality, low carbon steel continuously welded in compliance with AWS D1.1 standard. The stack cap shall be constructed of a minimum 20 gauge galvanized steel. Butterfly dampers open when the unit is on; close weather-tight when the unit is off. In the event of fire, at 165° F. a fusible link activates a spring operated lid opener which rotates to hold the dampers open. The fan housing and curb panel will be finished with high temperature enamel paint.

The fan assembly shall be dynamically balanced at the Hartzell factory prior to shipping. Fans shall be balanced to the American National Standards Institute, Std. S2.19-1989 "Balance Quality of Rotating Rigid Bodies", and Grade G6.3. Fans shall be manufactured in accordance with Hartzell's standard quality assurance procedures. Fan performance shall be based on tests conducted in Hartzell's AMCA accredited test laboratory in accordance with the latest revision of AMCA Standard 210 for air performance and AMCA Standard 300 for sound. Fans shall be licensed to bear the AMCA Certified Air and Sound Performance Rating Seal.

ACCESSORIES:

- Special Construction - Fan propeller, housing, windband, dampers, and curb panel available in stainless steel.
- Protective Coatings - Hot dipped galvanized, Nupon epoxy, inorganic zinc, and catalyzed coal tar epoxy are available upon request.
- Motors - TEFC and other special motors can be furnished upon request. Check code requirements.



- Access Door - Hinged panel used for inspection of the fan propeller and bearings.
- Pre-Fabricated Roof Curb - Raised rigid platform which encloses roof opening and supports ventilator. Fiberglass insulated, 18 Ga. galvanized steel construction. Designs available for flat, sloped or peaked roofs.
- Inlet and Outlet Guards - Special screens which prevent access to rotating fan propeller for safety reasons.