

## **Inline Centrifugal Grease Fan Specification**

Inline grease exhaust fans shall be of the tubular centrifugal type with backward inclined wheels. Fans to include the UL 762 Label for grease removal and shall be built in accordance to NFPA 96 (Ventilation Control and Fire Protection of Commercial Cooking Operations).

The housings shall be continuously welded heavy gauge steel with integral duct flanges to prevent grease and moisture leakage. Duct flange bolt holes shall be no more than 4 inches (100 mm) apart on center to provide a tight duct connection. Belt tubes shall be continuously welded to ensure belt remains free of grease and moisture. Bearing covers to be sealed with silicone gasketing rated for 400° F (200° C) and include a labyrinth shaft seal to protect the bearings from the airstream contaminants (felt or neoprene shaft seals are not acceptable). Fan housing to include two threaded and plugged drain connections that are located at 90° from the motor. Fans are to be universally mountable with motors in either the 3 or 9 o'clock position.

Inline grease fans shall include an oversize access door to allow for duct cleaning and for removal of the fan wheel, shaft and bearings without lowering the fan from the duct system. Fastening bolts for the oversized access door shall be no more than 4 inches (100 mm) apart on center. The oversize access door to include silicone gasketing rated for 400° F (200° C).

The wheel shall be of the non-overloading backward inclined centrifugal type with aluminum construction. Wheel shall be statically and dynamically balanced. The wheel cone and fan inlet cone shall be carefully matched and shall have precise running tolerances for maximum performance and operating efficiency.

Turned precision ground and polished steel shafts shall be sized so the first critical speed is at least 25% over the maximum operating speed for each level of construction.

Bearings shall be heavy-duty grease lubricated and self-aligning. Bearings shall be selected for a basic rating fatigue life L (10) of 80,000 hours {equivalent to L(50) average life of 400,000 hours} at the maximum operating speed.

All internal and external steel components shall be painted with Permatecor, an electrostatically baked polyester urethane coating. All coated materials shall undergo a five stage environmentally friendly wash, followed by a minimum 2 mil dft finish. Paint must exceed 1,000 hour salt spray under ASTM B117 test method.

Inline tubular centrifugal fans shall bear the AMCA Certified Rating Seals for both sound and air performance.

Fans shall be TCB as manufactured by Greenheck Fan Corporation of Schofield, Wisconsin, USA.