PROPELLAIR Inc.

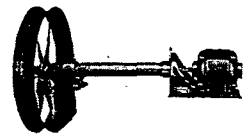
1944 CLARK BLVD.
SPRINGFIELD, OHIO

VENTILATING SPECIALISTS IN ALL PRINCIPAL CITIES



For Ducts, Walls, Windows, Hoods, Roof Ventilators

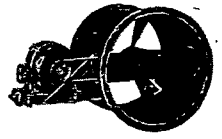




PROPELLAIR DIRECT-CONNECTED FANS

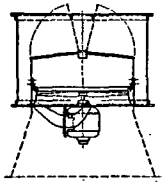
For use wherever motors may operate within the air stream, from free air to medium and relatively high resistance. A compact, durable design with fan having two to six blades. Sizes: 12 in. to 60 in. Capacities: 800-85,000 cfm. Type "CD."

For Heat, Acids, Alkalies—Fumes, Gases, Dust



BELT-DRIVEN PROPELLAIR DRUM-TYPE

A complete fan unit in short duct section ready for installation in lines from 20 in. to 48 in. diameter. Type "CS" may be used for severe acid or alkaline conditions, explosive fumes and gases. Type "CSV," for excessive temperatures, circulates outside air through belt and fan shaft tubes to keep drive and bearings cool. Also furnished without duct section. Capacities: 4100 to 43,000 cfm.



For Roof Ventilation

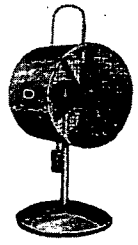
PROPELLAIR VERTI-STACK

Dependable and economical power roof ventilators. Butterfly dampers open wide the instant fan is started, close automatically as fan coasts to a stop, offer virtually zero resistance as heat, fumes, moisture, dust shoot high into air. Rain is prevented from entering by fan when operating. Drainage gutter prevents leakage when dampers are closed. Sizes: 20 in. to 60 in. Capacities: 3700 to 77,000 cfm.

For Heat, Moisture, Fumes, Dust, and Gases

PROPELLAIR EXTENDED-SHAFT FANS

This design locates motor outside air stream when fan is installed in duct at right angle turn, elbow, "Y," or offset. Simple installation usually can be supported by duct without auxiliary bracing. Drive shaft is enclosed and sealed within steel tube. Sizes: 12 in. to 60 in. Capacities: 2000 to 68,000 cfm. Type "CE."



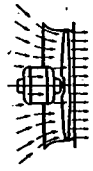
For Cooling Men and Materials

PROPELLAIR PEDESTAL & CRADLE-MOUNTED FANS

Pedestal-type Man Coolers have sturdy steel drum protected front and rear, formed steel base, rigid support, and crane hook. Also made with adjustable cradle mounting (Type "CU"). Capacities to 20,650 cfm.

AIRFOIL-SECTION Blades

Airfoil Principle Entrance Ring



Propellair fans have airfoil-section blades with variations of pitch, curvature, and thickness to compensate for different lineal speeds of points at various radii. Air movement is uniform over whole fan area. The Propellair curved entrance ring eliminates eddy currents; helps efficient Propellair blades deliver highest pressure and volume.

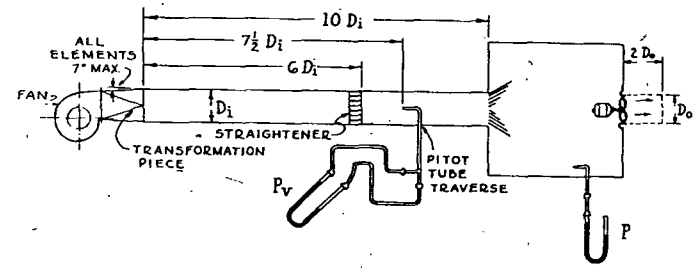
PFMA

Propeller Fan Manufacturers Association

2-255 General Motors Bldg., **Detroit 2, Mich.**

When you see the **PFMA** Certified Rating Insignia, you know that the company displaying it certifies that the performance of its products is in strict accordance with the Standard Test Code.

Air tunnel design for Standard Test Code measurements is illustrated below, the propeller fan under test being mounted at the discharge end.



Exhausters without Duct

Supply Duct
Chamber
Fan Outlet

Supply Duct: Velocity pressure, p_v; Differential reading between impact tube and static tube. **Chamber:** p by impact tube. **Fan Outlet:** P_v; Correct p_v to P_v, the velocity pressure D_o corresponding to the area A of the minimum ring diameter. P_t; add p to P_v. P_s; Subtract P_v from P_t. Correct all pressures to Standard Air Conditions. All additions and subtractions mentioned above are arithmetical.

Testing equipment and methods are prescribed in detail by the Standard Test Code, from which the accompanying air tunnel dimension diagram is reproduced to indicate the exactitude which is required in PFMA testing.

Copies of the complete Standard Test Code are available for 25 cents through the Association.

The **PFMA** insignia shown at the right, is your assurance of a dependable basis to judge fan performance. Guesswork is eliminated and data listed are reliable and based on sound engineering technique, permitting you to evaluate comparative performances.



Where fans are rated by Standard Test Code procedure, volume, pressure, power input, mechanical efficiency and all related factors, are measured under precisely controlled conditions.

Look for the PFMA insignia
Insist upon Certified Fan Ratings