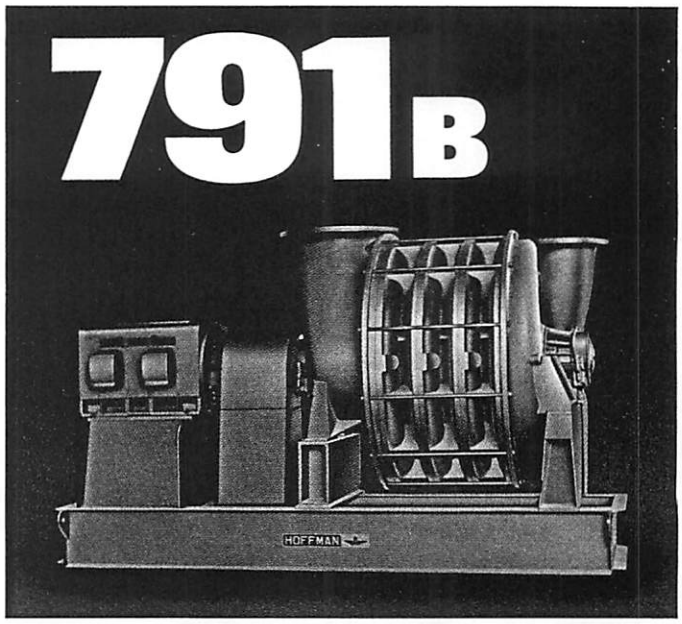
791B



TECHNICAL DATA

Number of stages: 1 thru 5
Inlet connection: 24" (610mm) flange, ASA 125# drilling
Outlet connection: 18" (457mm) or 20" (508mm) flange, ASA 125# drilling
Operating speed: 3570 RPM
Seals (air): Two carbon rings each end
Seals (gas): Four carbon rings each end with inert gas injection taps
Bearings: Ball, 10 year minimum life per AFBMA B-10 standard
Lubrication: dual reservoir oil system
Impeller diameter: 34" (864mm)
Impeller tip speed: 530 FPS (135 M/Sec.)
First critical speed: 4605 RPM (5-stage)
Direct drive: yes, also available for gear drive
Vibration tolerance: 1.25 mils peak-to-peak
Shaft end: 3⅝" (92mm) diameter, drive through inlet end standard
Balance piston: all stages

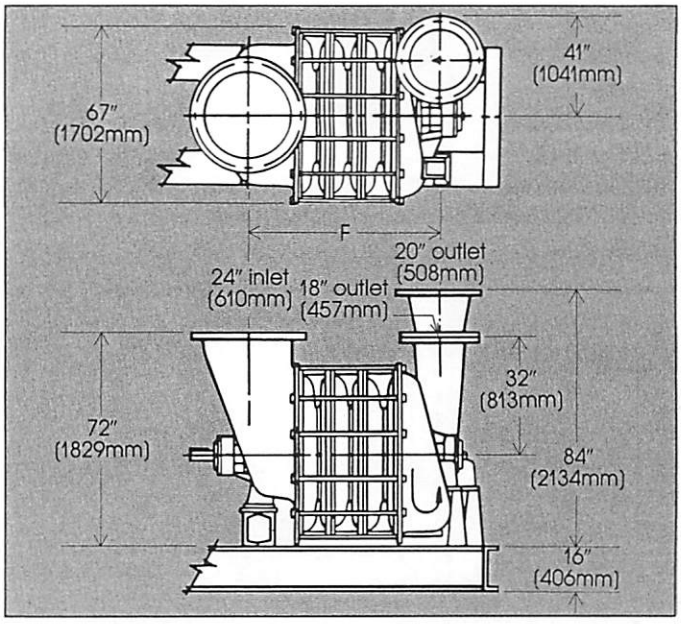
MATERIALS OF CONSTRUCTION

Heads, Sections, Bearing housings: Cast iron ASTM A-48-76 Class 30
Tie rods: ⅞" (22mm) cold drawn steel
Joint sealing compound: RTV IS802 Silicone
Shaft: Carbon steel, AISI 1045 (stainless steel available)
Impellers: composite aluminum alloy
Base: structural steel
Motor pedestal: welded steel plate
Finish: Blue enamel over zinc oxide primer
Base pads: Korfund Elasto-rib
Noise level: In compliance with OSHA standards when machine is fully piped (certified tests available)

DIMENSIONS

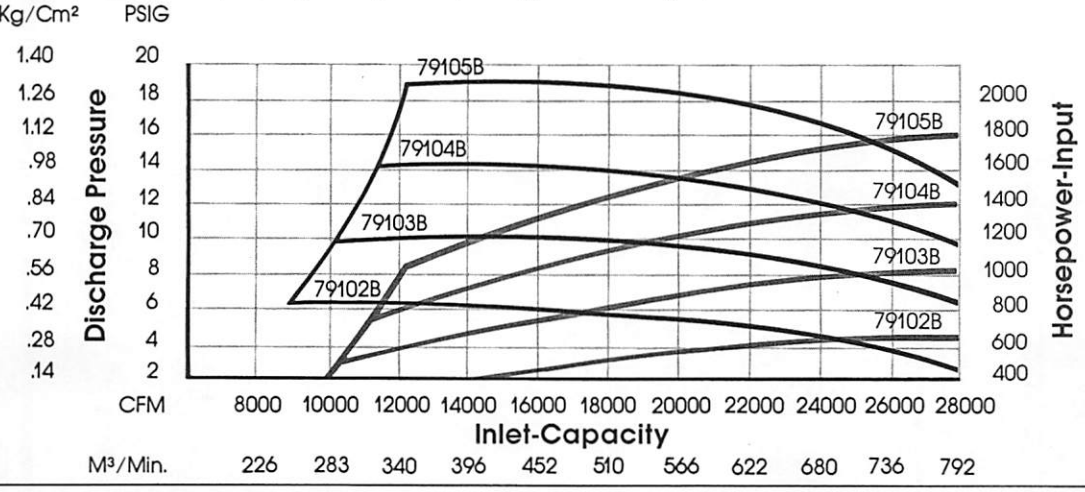
MODEL	F	WEIGHT		ROTOR WK² (lb.ft.²)
		LBS	KG	
79101B	26¾" (680mm)	10580	4799	74
79102B	36 13/16"(935mm)	12680	5752	126
79103B	46⅞" (1191mm)	14830	6727	179
79104B	56 15/16"(1446mm)	17280	7838	232
79105B	67" (1702mm)	18880	8564	284

Values, dimensions, and references in this brochure are approximate and intended as a guide only.



APPROXIMATE PERFORMANCE RANGE

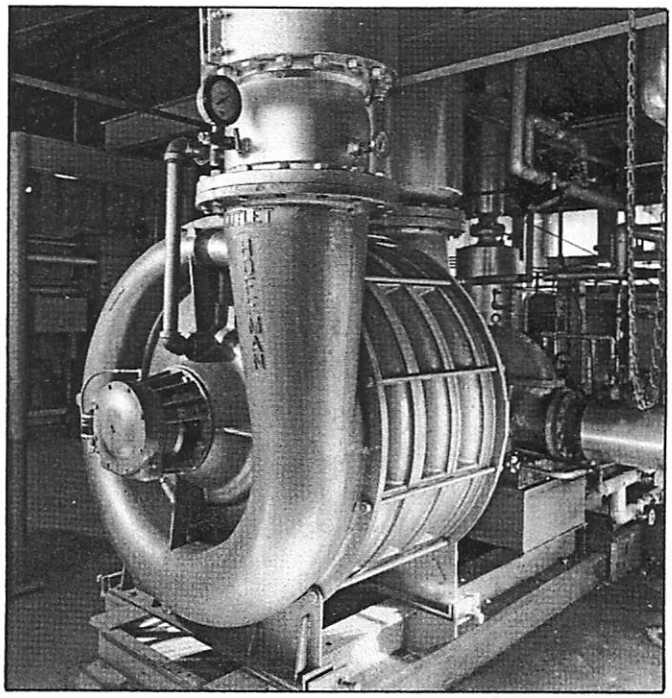
(Inlet Conditions: 14.7 PSIA (1.03 Kg/Cm²), 68°F (20°C), & 36% RH) Speed: 3570 RPM

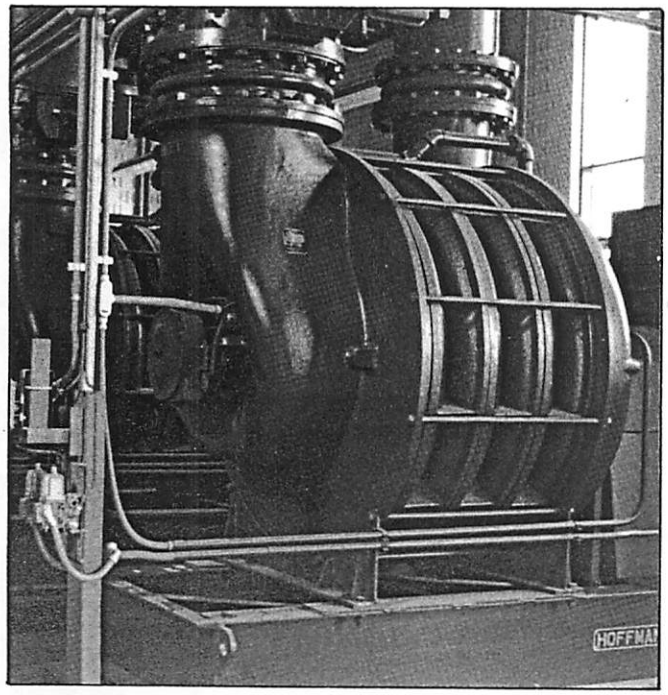


Applications

Combustion Air

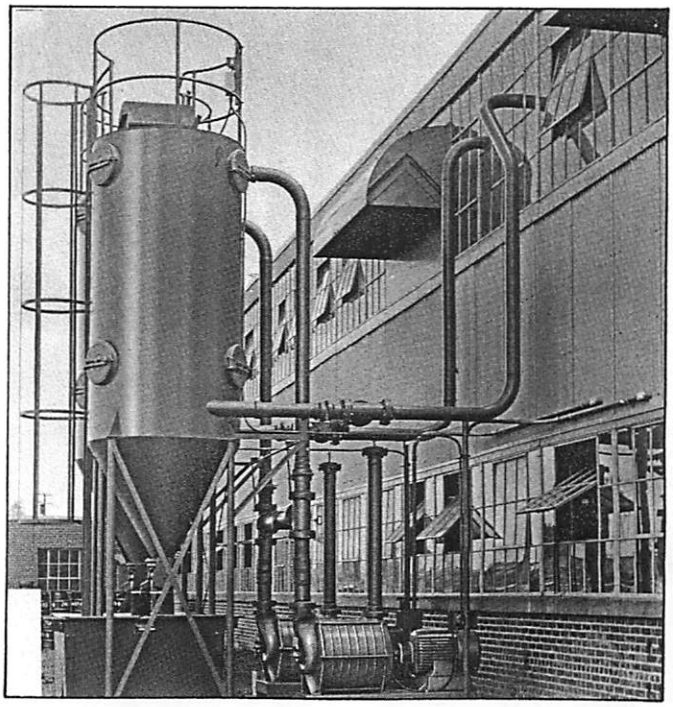
For dependable, pulsation-free delivery of clean air at constant pressures and variable volumes in such applications as carbon black production, sulfur recovery and furnaces in smelters and refineries.





Aeration and Agitation

Quiet, low-cost operation and flexible performance for aeration of municipal and industrial waste water treatment plants and agitation of electroplating solutions, yeast processing, and sugar conditioning, requiring no elaborate and expensive regulators or drives.

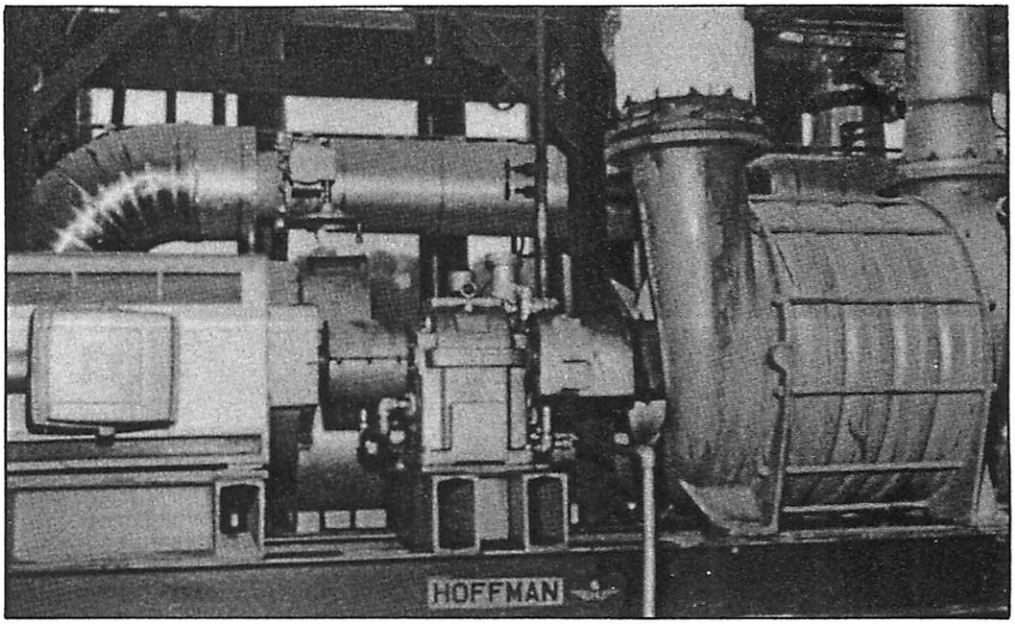


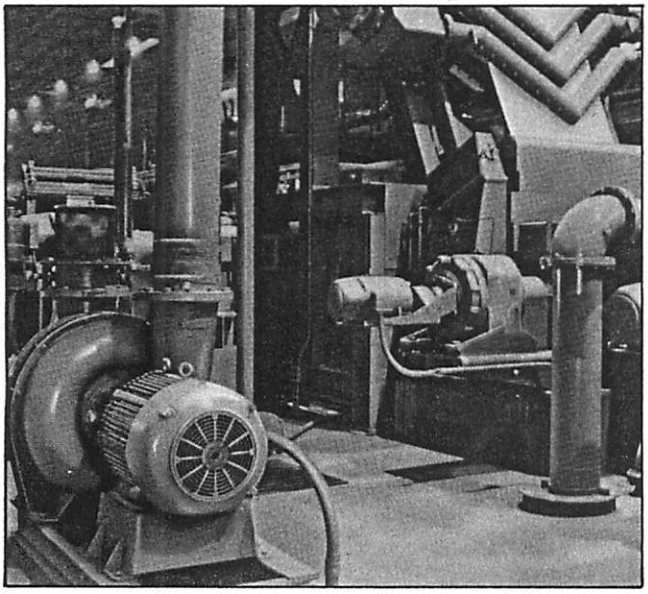
Vacuum Systems

Central vacuum cleaning and dust control systems—an absolute necessity in every plant in order to combat dust, promote safety, and recover valuable material. Also for inter-plant pneumatic conveying of granular materials.

Gas boosting

Handling natural gas, propane-air mixture, alcohol vapor, helium, ammonia, argon, carbon dioxide, nitrogen and hydrogen sulphide in diverse applications.



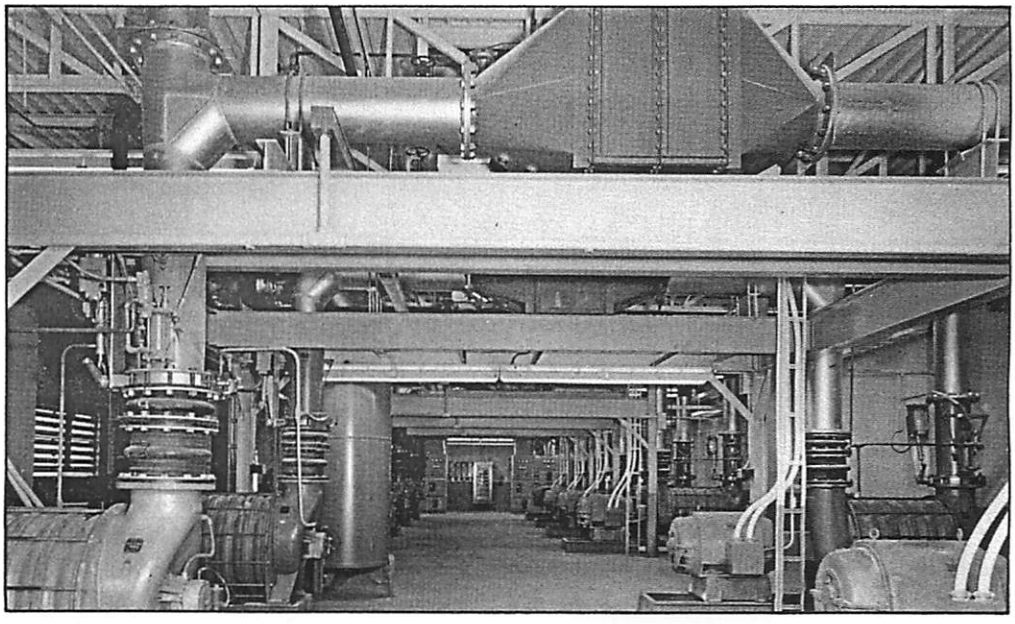


Drying

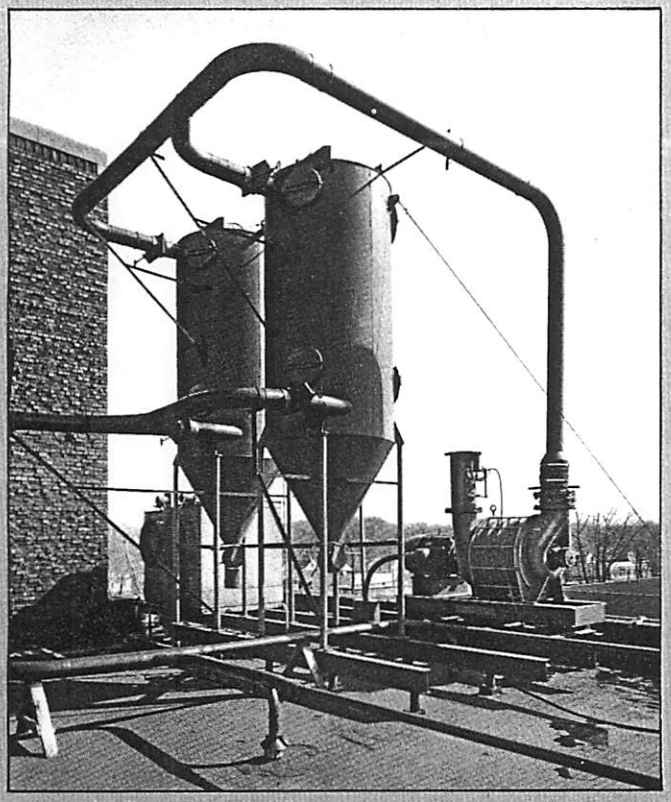
Continuous drying systems using the velocity impact of medium pressure air for can and bottle surfaces, plated parts, metal and nonmetal strip, and also removal of liquid from filter cake.

Process Air

As a reliable method of compressing process air and gases in clean, oil-free form at constant pressures with variable volume, such as asphalt oxidation, L.N.G. plants and fermentation process.



Exhausters-Vacuum producers



Hoffman Centrifugal Exhausters are the nucleus of industry-accepted central vacuum cleaning and dust control systems. These systems—over 15,000 installed—are engineered to a high standard of efficiency and serve a multitude of industries.

The outstanding performance of Hoffman exhausters, serving systems from 5 HP to 300 HP, are continually being demonstrated in many applications, some of which are:

Waste Yarn

String up and doffing systems for synthetic fiber plants.

Fabric and/or Paper Cleaning

To remove lint and dust from products to maintain quality control.

Asbestos Dust

General vacuum cleaning in production area, and dust control at specific cutting tools.

Fiberglass and Plastic Grinding

High velocity, low volume dust control systems, meeting OSHA standards to capture respiratory dust at the grinders.

Beryllium Plant

System for unloading raw material used for refining and manufacturing beryllium products.

Carbon Black Plant

System to pick up valuable spills and provide general plant cleanliness.

Foundries

General cleanup of sand spills, collection of dust at the grinders.

Paper Making and Printing

Dust control on a continuous basis at the slitter knives and general paper lint pickup to maintain quality control.

Clean and Super Clean Rooms

Removing fine dust particles from around precision gauges and equipment during assembly of electronic components.

Cement Plants

Cleanup of spills from bag filling machinery, and floor cleaning in the raw material area. Also bulk truck scalping.

Brick Plant Flue Cleaning

Removal of loose and broken bricks from underground flues as a production tool.

Flour Mill, Grain Elevator and Silos

Central vacuum cleaning system is an absolute MUST for plant cleaning, insect infestation elimination and prevention of fire and explosion due to air borne dust accumulation.