

L. J. Wing Mfg. Co.

Branch Offices in
Principal Cities

663 Hudson St., NEW YORK
PHONE: CHelsea 0027-0030

Factory:
NEWARK, N. J.

Manufacturers of Wing Featherweight Unit Heaters, Wing Turbine and Motor Driven Blowers, Wing-Scruplex Fans and Exhausters

Wing Featherweight Unit Heaters



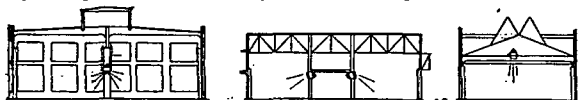
Horizontal Type

The outstanding features of Wing Featherweight unit heaters are their extreme light weight (about one-tenth that of the old style) and small dimensions, combined with the fact that driving motors are direct connected (no belts) and are out of the path of heated air.

These features open a much broader field of application for this system of heating—in effect the hot blast system—which is generally accepted by engineers and architects as the best system for industrial plants and other buildings of large open areas such as garages, armories, etc. The features emphasized make possible suspending the units from ceiling or roof of any building, old or new, without necessitating additional strengthening of the structure; and the overhead installation makes it possible to run all steam and return lines overhead out of the way.

Wing Featherweight unit heaters heat the floor or working level first. Being placed near the roof or ceiling, they withdraw the heated air which tends to accumulate there and return it to the working level where it is needed. Considerable economy is effected by reducing the temperature directly under the roof where heat transmission is always the greatest.

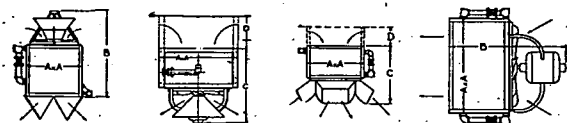
Wing Featherweight unit heaters are made in four different designs: vertical, high ceiling, vertical medium ceiling, and horizontal.



Methods of Installation

The above cuts show three different methods of installation, the units in each case being located well above the head line, out of the way. The third illustration shows the high ceiling type heater installed thirty feet from the floor above a travelling crane. The column of heated air leaves the heater with sufficient velocity to strike the floor with considerable force from this point, but by the aid of adjustable diffusers the column is divided and directed so that no objectionable velocity is felt at the head line.

The best and most economical installation of Wing Featherweight unit heaters is when they are placed close to the roof or ceiling.



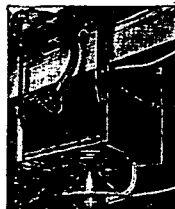
Wing Featherweight Unit Heaters

Condensed Table of Engineering data

Size unit	A x A in.	B in.	C in.	D in.	Air Cu. f. m.	Motor hp.	Temperature		B.t.u. per hr. available	Approx. ship. wt., lb.
							Room	Leav.		
17-3-12	20 x 20	40	35	6	1950	1/4	65	113	92,500	265
22-4-12	25 x 25	44	36	6	2800	1/2	65	125	162,600	350
22-5-12	25 x 25	44	36	6	2600	1/2	65	135	173,200	360
25-4-12	30 x 30	48	37	7	4800	1/2	65	125	279,000	400
25-5-12	30 x 30	48	37	7	4500	1/2	65	135	300,000	415
30-4-85	35 x 35	56	45	8	6900	1	65	125	401,000	450
30-5-85	35 x 35	56	45	8	6500	1	65	135	433,000	470
36-4-85	41 x 41	64	51	8	9600	2	65	125	558,000	630
36-5-85	41 x 41	64	51	8	9000	2	65	135	599,400	660



Vertical High Ceiling Heater



Vertical Medium Ceiling Heater



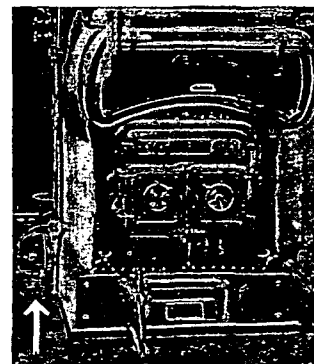
Vertical Low Ceiling Heater

This table will afford the engineer an opportunity to choose proper size and number of units for any given job where he desires to maintain a temperature of 65 deg. Space does not permit complete table for other room temperatures or larger heaters but this data will be gladly furnished on application.

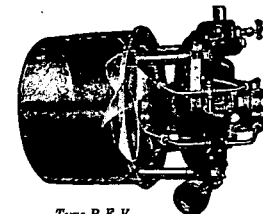
WING FORCED DRAFT BLOWERS

The Wing Type E M blower makes the ideal forced draft for heating boilers. This small, compact propeller fan outfit is an integral unit, ready to install. No belting or coupling; the fan is right on the motor shaft. Where the base of the boiler is not high enough to accommodate the fan casing, the blower is provided with feet for mounting, placed a short distance away and connected to the boiler by means of a small piece of duct. E M units are furnished either in D. C., polyphase or single phase with speed regulation; or with squirrel cage motors and damper regulation.

Ask for Bulletin 26.



Type E M Motor Driven



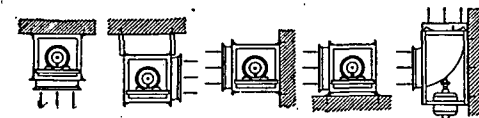
Type R E V Turbine Driven

The Wing Turbine Blower, while long considered standard equipment for supplying forced draft to hand-fired boilers, has in more recent years become widely used for stokered boilers as well, a single blower delivering enough air to develop as high as 1000 b. p. Either manual or automatic operation may be had. Ask for Bulletin 67.

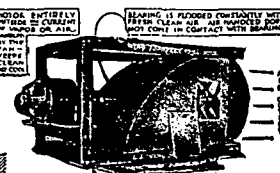
WING-SCRUPLEX EXHAUSTERS

The Wing-Scruplex exhauster consists of a highly efficient "screw-propeller" fan, combined with a casing of convenient design with the motor on the outside, where it will keep clean and cool and be easy of access. Because of these features it is used for duct work, where the resistance is low, instead of propeller fans with motors directly attached.

Being designed in the form of an elbow, it fits very well into any run of duct. Its rectangular frame greatly simplifies installation as will be seen from the following diagrams.



Bolted directly to Ceiling
Hung from Ceiling
Bolted directly to Side Wall
Bolted to Floor or Foundation
Vertical Bolted to Side Wall
"WING-SCRUPLEX" EXHAUSTERS



Wing-Scruplex Exhauster

Proper Selection of Exhausters—

Where particularly quiet operation is desired, as in offices, residences, hospital wards, churches, theatres, etc., use lowest speeds in all sizes. For toilet

rooms, laboratories, motion picture booths, stockrooms, etc., use any speed in sizes 1 and 2; low and medium speeds in all other sizes. In industrial plants, hotel and restaurant kitchens, engine-rooms, workshops, etc. use any speeds.

The accompanying table gives performances at static pressures up to 1/4 in. Complete table up to 1 in. static on request.

Size	Inlet Sp. In.	Outlet Round, In.	Speed ft. per min.	Free Air		.15 in.		.25 in.		.40 in.		.50 in.	
				Cu. f. m.	Hp.	Cu. f. m.	Hp.	Cu. f. m.	Hp.	Cu. f. m.	Hp.	Cu. f. m.	Hp.
1-A	10	10 1/2	1750	850	0.052	630	0.054	330	0.060	.....	.....	.....	.....
2-A	13 1/2	14 1/2	1750	1440	0.060	990	0.069	395	0.090	.....	.....	.....	.....
2-B	13 1/2	14 1/2	2050	2050	0.195	1895	0.208	1695	0.216	1155	0.248	750	0.285
3-S	16 1/2	17 1/2	850	2130	0.090	1250	0.110	.....	.....	.....	.....	.....	.....
3-A	16 1/2	17 1/2	1150	2700	0.180	2150	0.195	1550	0.221	.....	.....	.....	.....
3-C	16 1/2	17 1/2	1750	4000	0.600	3720	0.635	3510	0.655	3150	0.700	2810	0.720
4-S	21	21 1/2	850	2850	0.100	2200	0.125	1610	0.150	.....	.....	.....	.....
4-A	21	21 1/2	1150	3575	0.170	3150	0.200	2775	0.220	1950	0.245	1550	0.280
4-C	21	21 1/2	1750	5400	0.540	5160	0.600	4990	0.650	4670	0.710	4440	0.750
5-A	25	25	1150	5200	0.330	4720	0.380	4250	0.440	3300	0.530	2610	0.600
5-B	25	25	1750	8000	1.330	7740	1.360	7540	1.400	7175	1.480	6900	1.540
6-A	30	30	600	5500	0.210	3725	0.250	2375	0.330	.....	.....	.....	.....
6-B	30	30	850	7400	0.550	6280	0.600	5450	0.740	4000	0.830	3400	0.960
6-C	30	30	1150	10250	1.500	9520	1.550	8950	1.570	8000	1.620	7340	1.760

WING-SCRUPLEX FANS

Sizes including 25 in. in diameter are furnished with propellers of cast aluminum alloy. Larger than this are steel, pressed to the same form. Note particularly the true screw design of the propeller. Built in sizes 10 in., 13 in., 17 in., 22 in., 25 in., 30 in., 36 in., 42 in., 48 in., 54 in., and 60 in. Capacities from 950 C. F. M. to 33,000 C. F. M.



Wing-Scruplex Fan