

Hersh Brothers Company

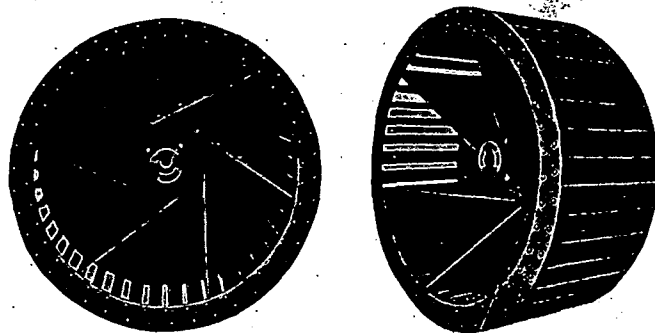
Allentown, Penna.

149 Broadway, N. Y.

LEHIGH

131 State St., Boston

Fans, Blowers, Air Washers, Ventilators, Dust Collectors



Lehigh Multiblade Fans—Type "M"—For Use in Heating and Ventilating

This type of fan is designed particularly for use in connection with heating and ventilating systems in public and industrial buildings where large volumes of air are handled at comparatively low pressures. It is proportioned to give low velocities of air throughout with the least resistance both at the entrance and at the discharge.

The special construction of this type of wheel combines in one the desirable qualities of the older steel plate fan wheel with the large capacity and efficient operation of the Multiblade Type. This wheel requires no stay-rods to keep it in shape under any speed. The strength and rigidity of construction can be readily ascertained from examination of the radial blades which run to the hub of the wheel, so placed in order to give the greatest strength in the direction of rotation. The strains on this

wheel are those of tension, in which all metal is strongest, rather than shear, in which it is weakest. No wobbling side thrusts occur with this construction. The curvature of the Multiblades does not restrict the area of discharge and therefore the capacity of the wheel.

The housing, being rigidly braced with angle iron and the inlet and outlet with tee iron punched for sheet metal connection, is free from vibration under the highest speeds and pressures.

The bearings are of unusual quality (ball and socket type) with double ring oiling and best babbit. They are self-aligning in all directions. This prevents the shaft from becoming bound.

The shaft is constructed of the best grade of DRAWN STEEL containing from 30 to 40% carbon.

LEHIGH MULTIBLADE FANS—TYPE "M"

FOR USE IN HEATING AND VENTILATING

RECOMMENDED OPERATING CONDITIONS, 70° F., 29.92" BAR

PER F.T.C.	Dia. Wheel, Inches	Area Outlet, Sq. Ft.	14" STATIC PR.				14" STATIC PR.				14" STATIC PR.				14" STATIC PR.				14" STATIC PR.			
			Total Pres.330" Outlet Vel.1507" Per. Speed.1610" F.T.				Total Pres.507" Outlet Vel.1407" Per. Speed.1955" F.T.				Total Pres.641" Outlet Vel.1511" Per. Speed.2145" F.T.				Total Pres.785" Outlet Vel.1600" Per. Speed.2371" F.T.				Total Pres.930" Outlet Vel.1700" Per. Speed.2578" F.T.			
			C.F.M.	Rev.	H.P.		C.F.M.	Rev.	H.P.		C.F.M.	Rev.	H.P.		C.F.M.	Rev.	H.P.		C.F.M.	Rev.	H.P.	
15	1.24	1,610	409	.18	1,735	497	.25	1,850	546	.34	1,980	603	.44	2,110	656	.54	2,240	713	.64	2,370	770	.74
18	1.78	2,320	341	.28	2,500	415	.36	2,680	455	.48	2,850	503	.62	3,030	547	.78	3,210	591	.94	3,390	635	1.1
21	2.43	3,160	292	.34	3,400	355	.48	3,650	390	.65	3,890	431	.84	4,130	469	1.1	4,380	507	1.4	4,630	545	1.7
24	3.17	4,120	256	.44	4,500	311	.63	4,750	341	.84	5,075	377	1.1	5,400	410	1.4	5,725	443	1.8	6,050	476	2.1
27	4.02	5,150	227	.55	5,620	276	.78	6,020	303	1.06	6,430	335	1.37	6,830	364	1.7	7,230	393	2.1	7,630	422	2.5
30	4.96	6,450	209	.68	6,950	249	.97	7,450	273	1.3	7,960	303	1.7	8,430	328	2.1	8,900	353	2.5	9,370	378	2.9
33	6.0	7,800	189	.81	8,400	226	1.16	9,000	248	1.56	9,600	274	2.1	10,200	298	2.6	10,800	322	3.0	11,400	346	3.4
36	7.25	9,280	171	.96	10,000	207	1.37	10,700	227	1.85	11,400	252	2.4	12,150	273	3.0	12,900	297	3.6	13,650	319	4.2
42	9.72	12,600	146	1.3	13,600	178	1.85	14,500	195	2.5	15,500	216	3.25	16,500	234	4.0	17,500	252	4.8	18,500	270	5.6
48	12.7	16,500	128	1.7	17,750	156	2.4	19,000	170	3.2	20,300	188	4.2	21,500	205	5.3	22,750	222	6.4	24,000	239	7.5
54	16.1	20,850	114	2.1	22,500	135	3.0	24,100	151	4.0	25,700	168	5.2	27,100	182	6.5	28,600	199	7.8	30,000	215	9.1
60	19.8	25,750	103	2.6	27,800	124	3.7	29,700	137	5.0	31,700	151	6.4	33,700	164	8.0	35,700	179	9.6	37,700	194	11.2
66	24.0	31,200	93	3.1	33,600	113	4.5	36,000	124	6.0	38,400	137	7.8	40,800	149	9.7	43,200	162	11.6	45,600	176	13.5
72	28.6	37,700	86	3.6	40,000	104	5.2	42,800	114	7.0	45,700	126	9.1	48,500	137	11.3	51,300	149	13.6	54,100	160	15.8
78	33.5	43,800	79	4.2	47,000	96	6.1	50,250	105	8.1	53,700	116	10.6	57,000	126	13.2	60,200	138	15.8	63,400	149	18.4
84	38.9	50,600	73	4.8	54,400	89	7.0	58,300	98	9.4	62,300	108	12.2	66,200	117	15.2	70,100	127	18.2	74,000	137	21.2
90	44.6	58,000	65	5.5	62,500	83	7.9	67,000	91	10.6	71,450	101	13.8	75,800	109	17.2	80,200	118	20.2	84,600	127	23.2
96	50.8	66,000	64	6.2	71,200	78	8.9	76,200	86	11.9	81,200	95	15.5	86,400	103	19.3	91,600	111	22.3	96,800	119	25.3
102	57.3	74,500	61	7.0	80,250	73	10.0	86,000	81	13.4	91,700	89	17.5	97,400	97	21.8	103,100	105	24.8	108,900	113	26.8
108	64.3	83,500	57	7.8	90,000	69	11.3	96,500	76	15.1	102,800	84	19.6	109,200	91	30.0	115,600	99	22.8	122,000	106	27.8
120	79.3	103,000	52	9.7	111,000	63	13.8	119,000	69	18.6	127,000	76	24.2	135,000	82	30.0	143,000	89	27.8	151,000	96	27.8

Dia. Wheel, Inches	Area Outlet, Sq. Ft.	1" STATIC PR.			1 1/4" STATIC PR.			1 1/2" STATIC PR.			1 3/4" STATIC PR.			2" STATIC PR.					
		Total Pres. 1.222" Outlet Vel. 1800 ft. Per. Speed. 2950 ft.			Total Pres. 1.500" Outlet Vel. 2000 ft. Per. Speed. 3300 ft.			Total Pres. 1.83" Outlet Vel. 2300 ft. Per. Speed. 3625 ft.			Total Pres. 2.14" Outlet Vel. 2500 ft. Per. Speed. 3930 ft.			Total Pres. 2.455" Outlet Vel. 2700 ft. Per. Speed. 4220 ft.					
		C.F.M.	Rev.	H.P.	C.F.M.	Rev.	H.P.	C.F.M.	Rev.	H.P.	C.F.M.	Rev.	H.P.	C.F.M.	Rev.	H.P.	C.F.M.	Rev.	H.P.
15	1.24	2,230	751	.73	2,480	838	1.0	2,850	922	1.5	3,100	1000	1.85	3,350	1073	2.4	3,600	1146	3.0
18	1.78	3,210	625	1.1	3,540	698	1.5	4,100	768	2.1	4,450	832	2.6	4,830	895	3.3	5,200	958	4.0
21	2.43	4,370	536	1.4	4,850	600	1.9	5,350	659	2.8	6,070	714	3.5	6,550	768	4.6	7,050	821	5.5
24	3.17	5,710	469	1.9	6,350	524	2.6	7,200	578	3.6	7,950	624	4.6	8,580	671	6.0	9,250	728	7.8
27	4.02	7,240	417	2.3	8,040	468	3.2	9,250	513	4.6	10,000	555	5.8	10,850	597	7.5	11,700	640	9.5
30	4.96	8,930	375	2.9	9,900	419	4.0	11,400	461	5.6	12,400	500	7.1	13,400	537	9.3	14,450	570	11.5
33	6.0	10,800	341	3.4	12,000	381	4.8	13,800	419	6.7	15,000	454	8.5	16,200	488	11.2	17,400	519	13.5
36	7.25	12,850	313	4.1	14,300	349	5.6	16,450	384	8.0	17,850	418	10.1	19,300	447	13.3	20,800	476	15.8
42	9.72	17,500	268	5.5	19,600	300	7.6	22,400	330	10.7	24,500	357	13.4	26,500	384	17.0	28,600	411	20.5
48	12.7	22,900	235	7.1	25,400	262	9.8	29,200	288	13.8	31,700	312	17.6	34,300	336	23.8	37,000	360	30.0
54	16.1	28,900	208	8.9	32,000	233	12.3	36,900	256	17.3	40,200	278	22.0	43,300	299	29.8	46,500	319	38.0
60	19.8	35,700	188	10.6	39,600	213	15.0	45,600	231	21.2	49,500	250	26.9	53,500	269	35.3	57,500	287	45.0
66	24.0	43,150	171	13.0	48,000	191	18.0	55,200	210	25.4	60,000	227	32.3	64,800	244	42.3	69,600	260	51.0
72	28.6	51,400	157	15.3	57,200	173	21.3	65,700	192	30.0	71,500	208	38.1	77,100	224	50.0	82,800	239	62.0
78	33.5	60,400	145	17.8	67,500	154	24.7	77,000	178	34.9	83,700	192	44.3	90,500	207	58.0	97,300	215	72.0
84	38.9	70,000	134	20.5	77,700	150	28.3	89,500	165	40.0	97,200	179	50.8	105,000	192	66.7	112,800	200	82.0
90	44.6	80,400	125	23.3	89,400	140	32.3	103,000	154	45.5	111,600	167	58.0	120,600	179	76.0	128,400	187	94.0
96	50.8	91,600	118	26.2	101,500	131	36.3	116,500	145	51.3	127,000	158	65.2	137,000	168	85.5	147,000	175	106.0
102	57.3	103,000	107	29.4	114,600	124	40.7	132,000	135	57.6	143,000	147	73.3	155,000	158	96.2	166,000	165	118.0
108	64.3	115,700	104	33.0	128,500	117	45.8	147,600	129	64.7	160,500	139	82.2	173,800	149	108.0	185,000	155	133.0
120	79.3	145,000	94	40.7	159,000	105	56.5	182,500	116	79.8	198,300	125	101.5	214,000	135	133.0	229,000	141	165.0