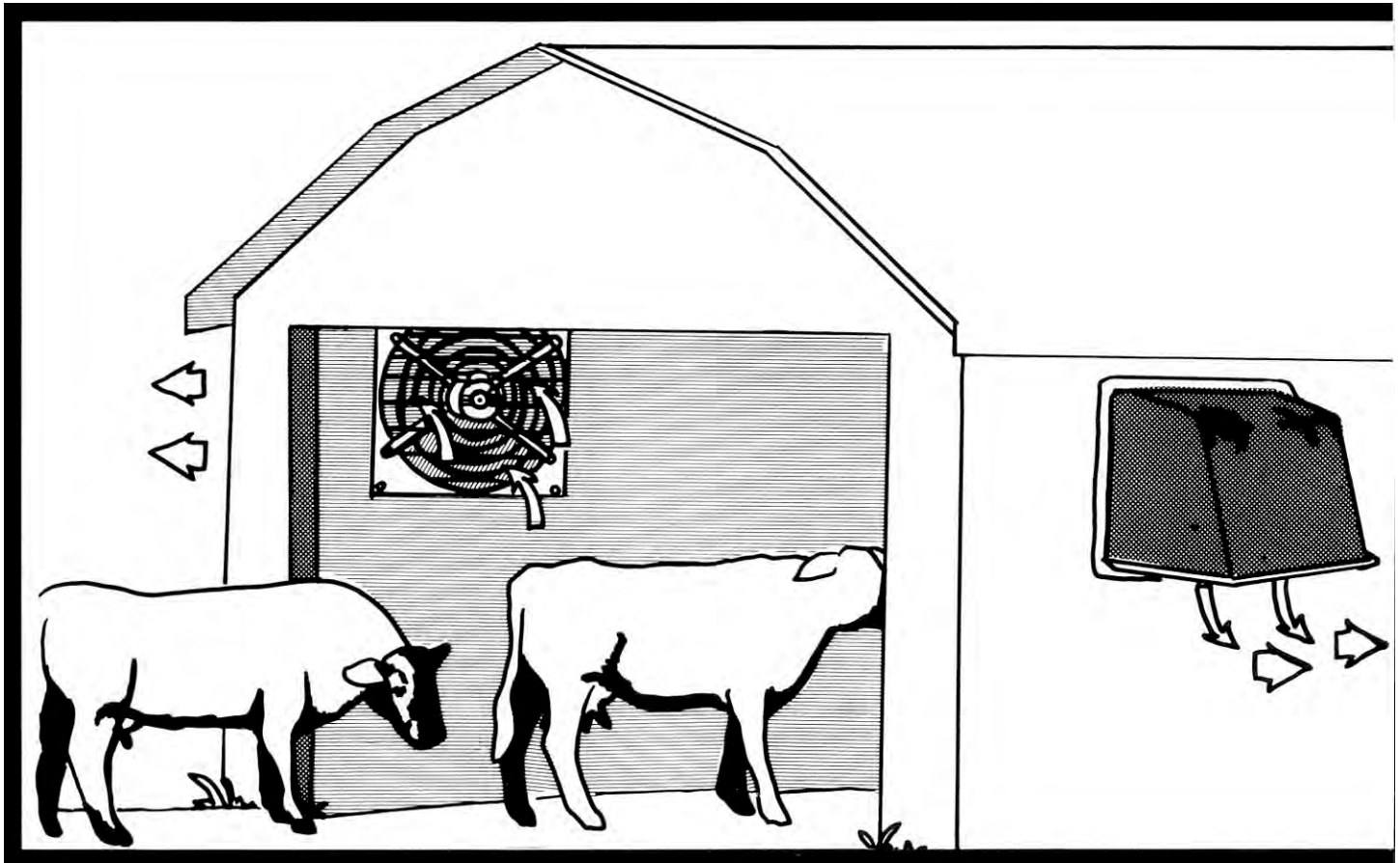


Summary Report

680



Summary of Ventilation Fan Reports, 1992

A Co-operative Program Between



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Performance results, appearing in alphabetical order, are given for the following ventilation fans.

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- Prairie Pride TR-36 Series Ventilation Fans
- Walbern 18" Magna-Air Ventilation Fan

VENTILATION FANS

All ventilation fans are classified as propeller type axial flow fans. Axial flow fans have their axis of rotation parallel to the direction of air flow. Propeller type fans are typically capable of high volumes of air at low pressures and are powered by fractional horsepower motors. Ventilation fans can be used to either exhaust air from a building or to pressurize a ventilation system. Their construction consists of two or more large blades attached to a small hub mounted in an orifice plate or venturi ring. The blades are either directly mounted on the motor or on a belt driven shaft. The propeller and housings are made from a wide variety of materials and finishes, including aluminum, enamelled steel, galvanized metal, PVC, polyethylene, fibreglass and reinforced plastics. Materials of construction are an important consideration when selecting a fan because it determines the life of the fan and the ease with which it can be maintained. Ventilation fans are used in a wide variety of farm applications and consequently are compact, adaptable and easy to install.

FAN TEST RESULTS

The following fan performance data has been extracted from AFMRC/PAMI fan evaluation reports. Complete reports with detailed results are available upon request. The fans were tested in accordance with test procedures developed by the Alberta Farm Machinery Research Centre. The intent of each report was to determine the performance of the fan in terms of air flow rate, static pressure, power consumption and total efficiency. Each fan was evaluated for ease of operation, maintenance, operator safety and suitability of the operator's manual. A complete description and detailed specifications are also given in the complete reports.

The purpose of this booklet is to condense all the fan performance data, so that direct comparisons can be made among the various makes and models of fans tested.

All fan performance results are given at standard air conditions. Standard air is air with density of 0.075 lb/ft³ (1.2 kg/m³) which occurs at 68° F (20° C), 50% relative humidity and a barometric pressure of 29.92 in Hg (101.325 kPa).

For each fan in this booklet, a summary of results table is given. Following are explanations of the information in each column.

The "setting" column refers to the condition the fan was operated under. For example, the fan could have been operated direct with no speed control, with a two speed control (i.e., hi/lo), with a multiple speed control, or with a variable speed control (i.e., maximum/mid-range/minimum). The setting column also indicates if the fan was tested with louvres or shutters. If the louvres were an integral part of the fan, all tests were performed with them in place. If the louvres or shutters were separate or an optional feature, separate tests were performed with and without louvres.

"Static pressure" refers to the force that the fan can exert on the building or ventilation system. It is commonly measured as the pressure difference between the pressure inside the building and the pressure on the outside of the building. Static pressure may be positive or negative depending on the type of ventilation system used. Given in this column are typical levels of static pressure found in ventilation systems. For values of static pressure other than what is listed, a straight line interpolation between points will give a good approximation. Static pressure is commonly expressed in inches of water gauge (in wg) or Pascals (Pa). Ventilation fans are often rated on their output at a static pressure of 0.125 in wg (31.1 Pa).

"Air flow rate" is the volume of air a fan can deliver over a specific time period. It is commonly expressed in cubic feet per minute (cfm) or litres per second (L/s).

"Power consumption" is the amount of power used by the fan motor. This, in turn, can be used to estimate the cost of operation of the fan. It is commonly expressed in kilowatts (kW). To calculate the cost of fan operation, multiply the power consumption (kW) by the number of hours of an operation times the cost per kilowatt hour.

"Total efficiency" is the ratio of air power output over the motor power input. This term gives the true mechanical efficiency of the fan as a percentage.

The "cfm/W" column is an efficiency term commonly used in the ventilation fan industry. The term is easily calculated and gives a good indication of differences in efficiency among fans.

The "fan speed" column indicates the motor speed in revolutions per minute (rpm) for the various settings and levels of operation.

Given in APPENDIX I is a blank comparison chart that can be used for comparing similar sized fans or combinations of fans. This may serve as an aid in fan selection.

AGRIFAN 12" VENTILATION FAN

MANUFACTURER:

Godro Inc.
C.P. 280
Roxton Pond, Quebec
JOE 0Z0

DISTRIBUTORS:

Better Air Manufacturing
P.O. Box 490
McGregor, Manitoba
R0H 0R0

Exacon Inc.
97 Thames Road
Exeter, Ontario
N0M 1S0

Nitom Fans & Blowers Inc.
#207, 20216 Fraser Highway
Langley, BC
V3A 4E6

FAN DESCRIPTION:

12.5 in (318 mm) propeller fan, variable speed, direct drive, 0.15 hp (110 W), 220 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER Kw	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed	0.000	(0.0)	1320	(621)	0.101	13.1	21	1706
	0.050	(12.5)	1270	(598)	0.105	12.1	24	1696
	0.100	(24.9)	1180	(555)	0.106	11.1	28	1691
	0.125	(31.1)	1140	(536)	0.107	10.7	28	1642
	0.250	(62.3)	621	(293)	0.100	6.2	23	1707
Variable Speed	0.000	(0.0)	1330	(627)	0.118	11.3	18	1703
	0.050	(12.5)	1260	(595)	0.120	10.5	22	1702
	0.100	(24.9)	1200	(564)	0.121	9.9	25	1703
	0.125	(31.1)	1150	(543)	0.122	9.4	26	1701
	0.250	(62.3)	622	(294)	0.110	5.6	19	1708
Mid Range	0.000	(0.0)	1260	(594)	0.102	12.4	18	1618
	0.050	(12.5)	1180	(558)	0.106	11.1	21	1603
	0.100	(24.9)	1110	(521)	0.108	10.3	23	1598
	0.125	(31.1)	1050	(496)	0.108	9.7	24	1596
	0.250	(62.3)	584	(276)	0.101	5.8	17	1630
Speed Minimum	0.000	(0.0)	1140	(539)	0.100	11.4	14	1479
	0.050	(12.5)	1020	(479)	0.106	9.6	15	1415
	0.100	(24.9)	906	(428)	0.104	8.7	16	1399
	0.125	(31.1)	851	(402)	0.105	8.1	17	1417
	0.250	(62.3)	567	(268)	0.104	5.5	17	1699
Direct Louvres	0.000	(0.0)	1140	(536)	0.104	11.0	13	1697
	0.050	(12.5)	1050	(494)	0.104	10.1	17	1696
	0.100	(24.9)	952	(449)	0.101	9.4	17	1703
	0.125	(31.1)	835	(394)	0.098	8.5	18	1707
	0.250	(62.3)	567	(268)	0.104	5.5	17	1699

*Complete results are available in PAMI Report No. 612.

AGRIFAN 14" VENTILATION FAN

MANUFACTURER:

Godro Inc.
C. P. 280
Roxton Pond, Quebec
JOE 1Z0

DISTRIBUTORS:

Better Air Manufacturing
P. O. Box 490
McGregor, Manitoba
R0H 0R0

Exacon Inc.
97 Thames Road
Exeter, Ontario
N0M 1S0

Nitom Fans & Blowers Inc.
#207, 20216 Fraser Highway
Langley, BC
V3A 4E6

FAN DESCRIPTION:

14.5 in (368 mm) propeller fan, variable speed, direct drive, 0.24 hp (180 W), 220 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Variable Speed Maximum	0.000	(0.0)	2000	(943)	0.171	11.7	24	1691
	0.050	(12.5)	1890	(892)	0.176	10.7	26	1683
	0.100	(24.9)	1790	(847)	0.182	9.8	27	1676
	0.125	(31.1)	1740	(821)	0.183	9.5	28	1673
	0.250	(62.3)	1410	(665)	0.181	7.8	30	1677
Variable Speed Mid Range	0.000	(0.0)	1820	(858)	0.157	11.6	20	1556
	0.050	(12.5)	1710	(805)	0.162	10.6	22	1539
	0.100	(24.9)	1580	(746)	0.166	9.5	23	1517
	0.125	(31.1)	1520	(715)	0.167	9.1	24	1510
	0.250	(62.3)	1080	(508)	0.160	6.8	24	1545
Variable Speed Minimum	0.000	(0.0)	1540	(725)	0.150	10.3	12	1345
	0.050	(12.5)	1330	(627)	0.152	8.8	13	1243
	0.100	(24.9)	1140	(539)	0.153	7.5	14	1234
	0.125	(31.1)	1060	(500)	0.154	6.9	14	1252
	0.250	(62.3)	622	(294)	0.110	5.6	19	1708
Direct	0.000	(0.0)	1970	(928)	0.160	12.3	24	1694
	0.050	(12.5)	1870	(882)	0.166	11.3	27	1686
	0.100	(24.9)	1790	(845)	0.171	10.5	29	1683
	0.125	(31.1)	1740	(821)	0.171	10.2	31	1680
	0.250	(62.3)	1400	(661)	0.170	8.2	32	1682
Direct With Louvres	0.000	(0.0)	1780	(841)	0.169	10.5	17	1687
	0.050	(12.5)	1670	(790)	0.169	9.9	20	1687
	0.100	(24.9)	1560	(737)	0.169	9.2	22	1682
	0.125	(31.1)	1510	(714)	0.069	8.9	23	1681
	0.250	(62.3)	1030	(485)	0.163	6.3	23	1690

*Complete results are available in PAMI Report No. 613.

AGRIFAN 16" VENTILATION FAN

MANUFACTURER:

Godro Inc.
C.P. 280
Roxton Pond, Quebec
J0E 1Z0

DISTRIBUTORS:

Better Air Manufacturing
P.O. Box 490
McGregor, Manitoba
R0H 0R0

Exacon Inc.
97 Thames Road
Exeter, Ontario
NOM 1S0

Nitom Fans & Blowers Inc.
#207, 20216 Fraser Highway
Langley, BC
V3A 4E6

FAN DESCRIPTION:

16.5 in (419 mm) propeller fan, variable speed, direct drive, 0.31 hp (230 W), 220 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	2940	(1390)	0.248	11.9	33	1667
	0.050	(12.5)	2800	(1320)	0.252	11.1	34	1660
	0.100	(24.9)	2740	(1290)	0.259	10.6	38	1651
	0.125	(31.1)	2710	(1280)	0.263	10.3	39	1644
	0.250	(62.3)	2400	(1130)	0.270	8.9	42	1629
Variable Speed Maximum	0.000	(0.0)	2950	(1390)	0.262	11.3	31	1659
	0.050	(12.5)	2840	(1340)	0.266	10.7	34	1652
	0.100	(24.9)	2750	(1300)	0.271	10.1	36	1643
	0.125	(31.1)	2710	(1280)	0.273	9.9	38	1639
	0.250	(62.3)	2400	(1130)	0.281	8.5	40	1623
Variable Speed Mid Range	0.000	(0.0)	2640	(1250)	0.258	10.2	23	1466
	0.050	(12.5)	2450	(1160)	0.224	10.9	27	1443
	0.100	(24.9)	2250	(1060)	0.225	10.0	28	1386
	0.125	(31.1)	2150	(1010)	0.229	9.4	27	1358
	0.250	(62.3)	1610	(750)	0.229	7.0	26	1358
Variable Speed Minimum	0.000	(0.0)	1550	(733)	0.144	10.8	8	884
	0.050	(12.5)	1210	(570)	0.144	8.4	9	773
	0.100	(24.9)	836	(395)	0.144	5.8	8	844
	0.125	(31.1)	583	(275)	0.144	4.0	6	805
Direct With Louvres	0.000	(0.0)	2590	(1220)	0.261	9.9	21	1646
	0.050	(12.5)	2510	(1180)	0.265	9.5	24	1646
	0.100	(24.9)	2400	(1140)	0.266	9.0	27	1646
	0.125	(31.1)	2350	(1110)	0.265	8.9	28	1636
	0.250	(62.3)	1990	(937)	0.259	7.7	32	1632

*Complete results are available in PAMI Report No. 614.

AGRIFAN 18" VENTILATION FAN

MANUFACTURER:

Godro Inc.
C.P. 280
Roxton Pond, Quebec
J0E 1Z0

DISTRIBUTORS:

Better Air Manufacturing
P.O. Box 490
McGregor, Manitoba
R0H 0R0

Exacon Inc.
97 Thames Road
Exeter, Ontario
NOM 1S0

Nitom Fans & Blowers Inc.
#207, 20216 Fraser Highway
Langley, BC
V3A 4E6

FAN DESCRIPTION:

18.5 in (470 mm) propeller fan, variable speed, direct drive, 0.46 hp (340 W), 220 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	3860	(1820)	0.305	12.7	38	1670
	0.050	(12.5)	3730	(1760)	0.311	12.0	39	1662
	0.100	(24.9)	3590	(1690)	0.317	11.3	44	1656
	0.125	(31.1)	3510	(1660)	0.319	11.0	44	1653
	0.250	(62.3)	3080	(1460)	0.330	9.3	44	1638
Variable Speed Maximum	0.000	(0.0)	3840	(1810)	0.311	12.3	37	1665
	0.050	(12.5)	3710	(1750)	0.321	11.6	39	1654
	0.100	(24.9)	3580	(1690)	0.328	10.9	41	1646
	0.125	(31.1)	3510	(1660)	0.331	10.6	42	1643
	0.250	(62.3)	3110	(1470)	0.342	9.1	44	1636
Variable Speed Mid Range	0.000	(0.0)	3400	(1600)	0.274	12.4	29	1468
	0.050	(12.5)	3190	(1500)	0.279	11.4	30	1432
	0.100	(24.9)	2950	(1390)	0.287	10.3	30	1386
	0.125	(31.1)	2830	(1330)	0.290	9.8	30	1364
	0.250	(62.3)	2030	(959)	0.292	7.0	26	1301
Variable Speed Minimum	0.000	(0.0)	1740	(819)	0.183	9.5	6	780
	0.050	(12.5)	1310	(617)	0.183	7.2	7	730
	0.100	(24.9)	742	(350)	0.183	4.1	5	730
	0.125	(31.1)	465	(219)	0.183	2.5	4	732
Direct With Louvres	0.000	(0.0)	3600	(1700)	0.307	11.7	31	1654
	0.050	(12.5)	3460	(1630)	0.312	11.1	34	1647
	0.100	(24.9)	3330	(1570)	0.317	10.5	36	1642
	0.125	(31.1)	3260	(1540)	0.319	10.2	37	1640
	0.250	(62.3)	2860	(1350)	0.327	8.7	40	1633

*Complete results are available in PAMI Report No. 615.

AGRIFAN 20" VENTILATION FAN

MANUFACTURER:

Godro Inc.
C.P. 280
Roxton Pond, Quebec
J0E 1Z0

DISTRIBUTORS:

Better Air Manufacturing
P.O. Box 490
McGregor, Manitoba
R0H 0R0

Exacon Inc.
97 Thames Road
Exeter, Ontario
N0M 1S0

Nitom Fans & Blowers Inc.
#207, 20216 Fraser Highway
Langley, BC
V3A 4E6

FAN DESCRIPTION:

20.0 in (508 mm) propeller fan, variable speed, direct drive, 0.58 hp (430 W), 220 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	4750	(2240)	0.405	11.7	36	1664
	0.050	(12.5)	4580	(2160)	0.412	11.1	38	1656
	0.100	(24.9)	4400	(2080)	0.417	10.6	41	1650
	0.125	(31.1)	4300	(2030)	0.419	10.3	41	1648
	0.250	(62.3)	3730	(1760)	0.424	8.8	42	1644
Variable Speed Maximum	0.000	(0.0)	4690	(2210)	0.408	11.5	34	1662
	0.050	(12.5)	4530	(2140)	0.418	10.8	37	1655
	0.100	(24.9)	4360	(2060)	0.423	10.3	39	1649
	0.125	(31.1)	4260	(2010)	0.426	10.0	40	1647
	0.250	(62.3)	3700	(1750)	0.430	8.6	41	1643
Variable Speed Mid Range	0.000	(0.0)	4160	(1970)	0.329	12.6	30	1453
	0.050	(12.5)	3860	(1820)	0.334	11.6	31	1419
	0.100	(24.9)	3620	(1710)	0.336	10.8	32	1397
	0.125	(31.1)	3500	(1650)	0.337	10.4	32	1391
	0.250	(62.3)	2710	(1280)	0.336	8.1	31	1383
Variable Speed Minimum	0.000	(0.0)	2630	(1240)	0.202	13.0	12	911
	0.050	(12.5)	2070	(975)	0.202	10.2	12	855
	0.100	(24.9)	1480	(700)	0.201	7.4	10	830
	0.125	(31.1)	1170	(553)	0.202	5.8	10	836
	Direct With Louvres	0.000	(0.0)	4070	(1920)	0.410	9.9	22
0.050		(12.5)	3910	(1850)	0.416	9.4	25	1657
0.100		(24.9)	3760	(1770)	0.420	9.0	27	1652
0.125		(31.1)	3670	(1730)	0.421	8.7	28	1651
0.250		(62.3)	3230	(1520)	0.427	7.6	33	1643

*Complete results are available in PAMI Report No. 616.

AGRIFAN 24" VENTILATION FAN

MANUFACTURER:

Godro Inc.
C.P. 280
Roxton Pond, Quebec
J0E 1Z0

DISTRIBUTORS:

Better Air Manufacturing
P.O. Box 490
McGregor, Manitoba
R0H 0R0

Exacon Inc.
97 Thames Road
Exeter, Ontario
N0M 1S0

Nitom Fans & Blowers Inc.
#207, 20216 Fraser Highway
Langley, BC
V3A 4E6

FAN DESCRIPTION:

24.0 in (610 mm) propeller fan, variable speed, direct drive, 0.91 hp (680 W), 220 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	6700	(3160)	0.615	10.9	33	1095
	0.050	(12.5)	6450	(3050)	0.625	10.3	35	1091
	0.100	(24.9)	6250	(2950)	0.638	9.8	37	1086
	0.125	(31.1)	6160	(2910)	0.645	9.6	38	1084
	0.250	(62.3)	5550	(2620)	0.677	8.2	41	1074
Variable Speed Maximum	0.000	(0.0)	6740	(3180)	0.626	10.8	32	1091
	0.050	(12.5)	6480	(3060)	0.645	10.0	34	1088
	0.100	(24.9)	6270	(2960)	0.663	9.5	36	1083
	0.125	(31.1)	6170	(2910)	0.671	9.2	37	1081
	0.250	(62.3)	5520	(2600)	0.695	7.9	39	1072
Variable Speed Mid Range	0.000	(0.0)	6120	(2890)	0.515	11.9	30	994
	0.050	(12.5)	5840	(2760)	0.522	11.2	32	984
	0.100	(24.9)	5580	(2660)	0.534	10.4	34	965
	0.125	(31.1)	5440	(2570)	0.539	10.1	34	956
	0.250	(62.3)	4480	(2110)	0.543	8.3	35	944
Variable Speed Minimum	0.000	(0.0)	3550	(1670)	0.267	13.3	11	565
	0.050	(12.5)	2800	(1320)	0.268	10.4	12	520
	0.100	(24.9)	1900	(895)	0.268	7.1	11	538
	0.125	(31.1)	1160	(549)	0.268	4.3	7	514
	Direct With Louvres	0.000	(0.0)	5990	(2830)	0.633	9.5	23
0.050		(12.5)	5800	(2740)	0.648	9.0	26	1083
0.100		(24.9)	5570	(2630)	0.660	8.4	28	1080
0.125		(31.1)	5450	(2570)	0.663	8.2	28	1079
0.250		(62.3)	4730	(2230)	0.657	7.2	32	1077

*Complete results are available in PAMI Report No. 617.

**ASTON-ZIEHL MODEL ECDQ-562-6X
VENTILATION FAN**

MANUFACTURER:

Aston Industries Inc.
P.O. Box 220
St-Leonard d'Aston
Quebec, Canada
JOC 1M0

DISTRIBUTORS:

Nitom Fans & Blowers Inc.
Bay A 1003 55 Avenue NE
Calgary, Alberta
T2E 6W1
(For Ont., Man., Sask, Alta. & B.C.)

FAN DESCRIPTION:

21.1 in (537 mm) propeller fan, variable speed, direct drive, 0.9 hp (690 W), 240 V electric motor, equipped with inlet guard grill and optional louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	6170	(2910)	0.680	9.1	41	1113
	0.050	(12.5)	6030	(2850)	0.689	8.8	41	1109
	0.100	(24.9)	5780	(2730)	0.694	8.3	42	1108
	0.125	(31.1)	5640	(2660)	0.697	8.1	43	1108
	0.250	(62.3)	5050	(2380)	0.711	7.1	41	1105
Variable Speed Maximum	0.000	(0.0)	6240	(2950)	0.667	9.4	42	1111
	0.050	(12.5)	6030	(2850)	0.674	8.9	43	1109
	0.100	(24.9)	5830	(2750)	0.695	8.4	43	1104
	0.125	(31.1)	5730	(2700)	0.694	8.3	43	1104
	0.250	(62.3)	5160	(2440)	0.705	7.3	44	1102
Variable Speed Mid Range	0.000	(0.0)	5240	(2470)	0.608	8.6	27	940
	0.050	(12.5)	4930	(2330)	0.617	8.0	27	926
	0.100	(24.9)	4640	(2190)	0.622	7.5	27	907
	0.125	(31.1)	4490	(2120)	0.628	7.1	27	907
	0.250	(62.3)	3530	(1670)	0.634	5.6	25	886
Variable Speed Minimum	0.000	(0.0)	3050	(1440)	0.380	8.0	9	547
	0.050	(12.5)	2480	(1170)	0.383	6.5	8	523
	0.100	(24.9)	1670	(788)	0.378	4.4	6	519
	0.125	(31.1)	810	(382)	0.376	2.2	3	525
	0.250	(62.3)	4420	(2090)	0.714	6.2	32	1105

*Complete results are available in PAMI Report No. 574.

BETTER AIR MODEL PF 1200 VENTILATION FAN

MANUFACTURER:

Better Air Manufacturing
P.O. Box 490
Macgregor, Manitoba
R0H 0R0

DISTRIBUTORS:

Eastman Feeds
322 - 33 Street North
Lethbridge, Alberta

McKay Equipment Sales Ltd.
4 - 833 Cynthia
Saskatoon, Saskatchewan

Waldner Farms Ltd.
P.O. Box 25
Barnwell, Alberta

FAN DESCRIPTION:

12.38 in (314 mm) propeller fan, variable speed, direct drive, 0.25 hp (186 W), 115/230 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	1750	(827)	0.254	6.9	20	1736
	0.050	(12.5)	1680	(791)	0.257	6.5	21	1736
	0.100	(24.9)	1600	(757)	0.256	6.3	22	1732
	0.125	(31.1)	1560	(735)	0.256	6.1	23	1733
	0.250	(62.3)	615	(290)	0.228	2.7	8	1745
Variable Speed Maximum	0.000	(0.0)	1760	(829)	0.261	6.7	20	1737
	0.050	(12.5)	1670	(789)	0.266	6.3	20	1736
	0.100	(24.9)	1600	(754)	0.262	6.1	22	1734
	0.125	(31.1)	1560	(735)	0.264	5.9	22	1734
	0.250	(62.3)	554	(261)	0.233	2.4	6	1748
Variable Speed Mid Range	0.000	(0.0)	1510	(711)	0.200	7.6	16	1498
	0.050	(12.5)	1410	(667)	0.202	7.0	17	1478
	0.100	(24.9)	1300	(614)	0.203	6.4	18	1478
	0.125	(31.1)	1240	(588)	0.200	6.2	18	1485
	0.250	(62.3)	374	(177)	0.191	2.0	5	1522
Variable Speed Minimum	0.000	(0.0)	1030	(487)	0.169	6.1	6	1021
	0.050	(12.5)	859	(405)	0.165	5.2	6	1006
	0.100	(24.9)	374	(177)	0.156	2.4	3	1177
	0.125	(31.1)	216	(102)	0.162	1.3	2	1013
	0.250	(62.3)	455	(215)	0.239	1.9	6	1740
Single Speed With Louvres	0.000	(0.0)	1620	(765)	0.257	6.3	16	1734
	0.050	(12.5)	1540	(726)	0.255	6.0	17	1733
	0.100	(24.9)	1410	(666)	0.251	5.6	17	1736
	0.125	(31.1)	1310	(620)	0.246	5.3	16	1739
	0.250	(62.3)	455	(215)	0.239	1.9	6	1740

*Complete results are available in PAMI Report No. 579.

BETTER AIR MODEL PF 1400 VENTILATION FAN

MANUFACTURER:

Better Air Manufacturing
 P.O. Box 490
 Macgregor, Manitoba
 R0H 0R0

DISTRIBUTORS:

Eastman Feeds
 322 - 33 Street North
 Lethbridge, Alberta

McKay Equipment Sales Ltd..
 4 - 833 Cynthia
 Saskatoon, Saskatchewan

Waldner Farms Ltd.
 P.O. Box 25
 Barnwell, Alberta

FAN DESCRIPTION:

14.5 in (368 mm) propeller fan, variable speed, direct drive, 0.25 hp (186 W), 115/230 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	2480	(1170)	0.312	7.9	25	1717
	0.050	(12.5)	2400	(1130)	0.312	7.7	27	1715
	0.100	(24.9)	2310	(1090)	0.313	7.4	29	1713
	0.125	(31.1)	2240	(1060)	0.313	7.2	29	1712
	0.250	(62.3)	1790	(843)	0.298	6.0	27	1720
Variable Speed Maximum	0.000	(0.0)	2480	(1170)	0.312	7.9	25	1715
	0.050	(12.5)	2400	(1130)	0.314	7.6	27	1713
	0.100	(24.9)	2320	(1090)	0.317	7.3	27	1712
	0.125	(31.1)	2250	(1060)	0.317	7.1	29	1711
	0.250	(62.3)	1800	(849)	0.303	5.9	27	1718
Variable Speed Mid Range	0.000	(0.0)	2080	(981)	0.244	8.5	19	1450
	0.050	(12.5)	1920	(904)	0.249	7.7	19	1443
	0.100	(24.9)	1760	(830)	0.250	7.0	19	1434
	0.125	(31.1)	1690	(799)	0.255	6.6	19	1433
	0.250	(62.3)	736	(347)	0.234	3.1	10	1514
Variable Speed Minimum	0.000	(0.0)	1330	(625)	0.204	6.5	6	967
	0.050	(12.5)	1130	(534)	0.191	5.9	7	947
	0.100	(24.9)	938	(443)	0.181	5.2	9	1094
	0.125	(31.1)	420	(198)	0.189	2.2	4	944
Single Speed Direct With Louvres	0.000	(0.0)	2360	(1110)	0.311	7.6	22	1717
	0.050	(12.5)	2260	(1070)	0.313	7.2	23	1716
	0.100	(24.9)	2170	(1020)	0.313	6.9	25	1715
	0.125	(31.1)	2100	(991)	0.312	6.7	25	1716
	0.250	(62.3)	989	(467)	0.285	3.5	12	1727

*Complete results are available in PAMI Report No. 580.

BETTER AIR MODEL PF 1600 VENTILATION FAN

MANUFACTURER:

Better Air Manufacturing
 P.O. Box 490
 Macgregor, Manitoba
 R0H 0R0

DISTRIBUTORS:

Eastman Feeds
 322 - 33 Street North
 Lethbridge, Alberta

McKay Equipment Sales Ltd..
 4 - 833 Cynthia
 Saskatoon, Saskatchewan

Waldner Farms Ltd.
 P.O. Box 25
 Barnwell, Alberta

FAN DESCRIPTION:

16.38 in (416 mm) propeller fan, variable speed, direct drive, 0.33 hp (249 W), 115/230 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	3080	(1450)	0.350	8.8	28	1722
	0.050	(12.5)	2980	(1410)	0.360	8.3	29	1717
	0.100	(24.9)	2890	(1360)	0.370	7.8	30	1714
	0.125	(31.1)	2840	(1340)	0.370	7.7	31	1712
	0.250	(62.3)	2560	(1210)	0.380	6.7	34	1707
Variable Speed Maximum	0.000	(0.0)	3070	(1450)	0.350	8.8	26	1716
	0.050	(12.5)	2960	(1400)	0.360	8.2	29	1711
	0.100	(24.9)	2890	(1360)	0.370	7.8	30	1710
	0.125	(31.1)	2840	(1340)	0.370	7.7	31	1709
	0.250	(62.3)	2560	(1210)	0.390	6.6	34	1704
Variable Speed Mid Range	0.000	(0.0)	2610	(1230)	0.290	9.0	20	1470
	0.050	(12.5)	2430	(1150)	0.300	8.1	21	1423
	0.100	(24.9)	2250	(1060)	0.300	7.5	20	1390
	0.125	(31.1)	2150	(1000)	0.310	6.9	20	1362
	0.250	(62.3)	1600	(755)	0.300	5.3	20	1379
Variable Speed Minimum	0.000	(0.0)	1610	(760)	0.200	8.1	7	908
	0.050	(12.5)	1210	(571)	0.200	6.1	6	793
	0.100	(24.9)	714	(337)	0.200	3.6	5	797
	0.125	(31.1)	387	(183)	0.200	1.9	3	738
Single Speed Direct With Louvres	0.000	(0.0)	2950	(1390)	0.360	8.2	23	1722
	0.050	(12.5)	2850	(1340)	0.370	7.7	25	1719
	0.100	(24.9)	2750	(1300)	0.370	7.4	27	1716
	0.125	(31.1)	2700	(1270)	0.370	7.3	28	1714
	0.250	(62.3)	2370	(1120)	0.380	6.2	30	1710

*Complete results are available in PAMI Report No. 581.

BETTER AIR MODEL PF 1800 VENTILATION FAN

MANUFACTURER:

Better Air Manufacturing
P.O. Box 490
Macgregor, Manitoba
R0H 0R0

DISTRIBUTORS:

Eastman Feeds
322 - 33 Street North
Lethbridge, Alberta

McKay Equipment Sales Ltd..
4 - 833 Cynthia
Saskatoon, Saskatchewan

Waldner Farms Ltd.
P.O. Box 25
Barnwell, Alberta

FAN DESCRIPTION:

19.0 in (483 mm) propeller fan, variable speed, direct drive, 0.33 hp (249 W), 115/230 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	3650	(1720)	0.370	9.9	25	1725
	0.050	(12.5)	3540	(1670)	0.380	9.3	28	1720
	0.100	(24.9)	3430	(1620)	0.380	9.0	30	1716
	0.125	(31.1)	3370	(1590)	0.390	8.6	31	1715
	0.250	(62.3)	2980	(1410)	0.400	7.5	34	1707
Variable Speed Maximum	0.000	(0.0)	3640	(1720)	0.370	9.8	25	1721
	0.050	(12.5)	3530	(1670)	0.380	9.3	27	1716
	0.100	(24.9)	3410	(1610)	0.390	8.7	29	1713
	0.125	(31.1)	3350	(1580)	0.390	8.6	30	1711
	0.250	(62.3)	2960	(1400)	0.410	7.2	33	1702
Variable Speed Mid Range	0.000	(0.0)	2920	(1380)	0.270	10.8	17	1385
	0.050	(12.5)	2650	(1250)	0.280	9.5	18	1327
	0.100	(24.9)	2390	(1130)	0.290	8.2	19	1289
	0.125	(31.1)	2250	(1060)	0.290	7.8	19	1267
	0.250	(62.3)	1420	(670)	0.300	4.7	16	1216
Variable Speed Minimum	0.000	(0.0)	1800	(850)	0.199	9.0	5	869
	0.050	(12.5)	1190	(562)	0.195	6.1	5	729
	0.100	(24.9)	644	(304)	0.193	3.3	4	702
	0.125	(31.1)	382	(180)	0.192	2.0	3	693
Single Speed Direct With Louvres	0.000	(0.0)	3350	(1580)	0.380	8.8	18	1714
	0.050	(12.5)	3230	(1520)	0.380	8.5	22	1711
	0.100	(24.9)	3110	(1470)	0.390	8.0	24	1708
	0.125	(31.1)	3040	(1430)	0.390	7.8	25	1707
	0.250	(62.3)	2680	(1260)	0.400	6.7	28	1703

*Complete results are available in PAMI Report No. 582.

BETTER AIR MODEL PF 2000 VENTILATION FAN

MANUFACTURER:

Better Air Manufacturing
P.O. Box 490
Macgregor, Manitoba
R0H 0R0

DISTRIBUTORS:

Eastman Feeds
322 - 33 Street North
Lethbridge, Alberta

McKay Equipment Sales Ltd..
4 - 833 Cynthia
Saskatoon, Saskatchewan

Waldner Farms Ltd.
P.O. Box 25
Barnwell, Alberta

FAN DESCRIPTION:

20.25 in (514 mm) propeller fan, variable speed, direct drive, 0.5 hp (373 W), 115/230 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W EFF.	TOTAL %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	5300	(2500)	0.520	10.2	39	1731
	0.050	(12.5)	5200	(2450)	0.520	10.0	41	1728
	0.100	(24.9)	5060	(2390)	0.540	9.4	44	1725
	0.125	(31.1)	4980	(2350)	0.540	9.2	45	1724
	0.250	(62.3)	4570	(2160)	0.570	8.0	46	1719
Variable Speed Maximum	0.000	(0.0)	5360	(2530)	0.510	10.5	40	1731
	0.050	(12.5)	5190	(2450)	0.530	9.8	42	1729
	0.100	(24.9)	5080	(2400)	0.540	9.4	44	1727
	0.125	(31.1)	5020	(2370)	0.540	9.3	45	1725
	0.250	(62.3)	4600	(2170)	0.560	8.2	47	1720
Variable Speed Mid Range	0.000	(0.0)	4270	(2020)	0.450	9.5	23	1366
	0.050	(12.5)	3960	(1870)	0.460	8.6	23	1331
	0.100	(24.9)	3680	(1740)	0.470	7.8	23	1287
	0.125	(31.1)	3460	(1630)	0.480	7.2	22	1259
	0.250	(62.3)	2520	(1190)	0.480	5.3	20	1213
Variable Speed Minimum	0.000	(0.0)	2370	(1120)	0.310	7.6	6	769
	0.050	(12.5)	1750	(826)	0.300	5.8	6	702
	0.100	(24.9)	970	(458)	0.300	3.2	4	677
	0.125	(31.1)	493	(233)	0.300	1.6	2	646
Single Speed Direct With Louvres	0.000	(0.0)	4950	(2340)	0.540	9.2	31	1726
	0.050	(12.5)	4830	(2280)	0.550	8.8	33	1726
	0.100	(24.9)	4700	(2220)	0.550	8.5	35	1725
	0.125	(31.1)	4620	(2180)	0.560	8.3	36	1724
	0.250	(62.3)	4190	(1980)	0.560	7.5	39	1720

*Complete results are available in PAMI Report No. 583.

BETTER AIR MODEL PF 2400 VENTILATION FAN

MANUFACTURER:

Better Air Manufacturing
P.O. Box 490
Macgregor, Manitoba
ROH ORO

DISTRIBUTORS:

Eastman Feeds
322 - 33 Street North
Lethbridge, Alberta

McKay Equipment Sales Ltd..
4 - 833 Cynthia
Saskatoon, Saskatchewan

Waldner Farms Ltd.
P.O. Box 25
Barnwell, Alberta

FAN DESCRIPTION:

23.75 in (603 mm) propeller fan, variable speed, direct drive, 0.5 hp (373 W), 115/230 V electric motor, equipped with outlet guard grill and inlet louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	6250	(2950)	0.540	11.6	33	1730
	0.050	(12.5)	6010	(2840)	0.560	10.7	35	1726
	0.100	(24.9)	5730	(2710)	0.560	10.2	37	1724
	0.125	(31.1)	5570	(2630)	0.560	9.9	37	1723
	0.250	(62.3)	4770	(2250)	0.560	8.5	39	1721
Variable Speed Maximum	0.000	(0.0)	6260	(2960)	0.540	11.6	33	1724
	0.050	(12.5)	5980	(2820)	0.560	10.7	34	1721
	0.100	(24.9)	5690	(2690)	0.560	10.2	36	1721
	0.125	(31.1)	5530	(2610)	0.560	9.9	37	1721
	0.250	(62.3)	4710	(2220)	0.570	8.3	38	1717
Variable Speed Mid Range	0.000	(0.0)	5250	(2480)	0.490	10.7	23	1452
	0.050	(12.5)	4940	(2330)	0.500	9.9	23	1437
	0.100	(24.9)	4420	(2090)	0.500	8.8	24	1419
	0.125	(31.1)	4280	(2020)	0.510	8.4	24	1419
	0.250	(62.3)	3340	(1580)	0.520	6.4	24	1525
Variable Speed Minimum	0.000	(0.0)	3010	(1420)	0.350	8.6	6	825
	0.050	(12.5)	2120	(1000)	0.340	6.2	6	782
	0.100	(24.9)	1110	(524)	0.340	3.3	4	733
	0.125	(31.1)	535	(253)	0.340	1.6	2	687
Single Speed Direct With Louvres	0.000	(0.0)	5800	(2740)	0.550	10.5	26	1727
	0.050	(12.5)	5550	(2620)	0.560	9.9	28	1725
	0.100	(24.9)	5270	(2490)	0.560	9.4	30	1723
	0.125	(31.1)	5140	(2440)	0.570	9.0	31	1722
	0.250	(62.3)	4360	(2060)	0.560	7.8	33	1720

*Complete results are available in PAMI Report No. 584.

DEL-AIR MODEL J-8 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

8.0 in (203 mm) propeller fan, variable speed, direct drive, single phase, 115 V electric motor, equipped with guard grill, insulating door, outlet damper, inlet louvres and wind hood.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	726	(343)	0.130	5.6	17	1625
	0.050	(12.5)	691	(326)	0.140	4.9	18	1620
	0.100	(24.9)	664	(313)	0.140	4.7	19	1620
	0.125	(31.1)	648	(306)	0.140	4.6	19	1617
	0.250	(62.3)	458	(216)	0.120	3.8	15	1649
Variable Speed Maximum	0.000	(0.0)	709	(335)	0.130	5.5	17	1611
	0.050	(12.5)	685	(323)	0.130	5.3	19	1610
	0.100	(24.9)	666	(314)	0.130	5.1	20	1605
	0.125	(31.1)	655	(309)	0.130	5.0	21	1604
	0.250	(62.3)	455	(215)	0.120	3.8	17	1641
Variable Speed Mid Range	0.000	(0.0)	657	(310)	0.140	4.7	12	1474
	0.050	(12.5)	627	(296)	0.150	4.2	13	1472
	0.100	(24.9)	596	(281)	0.150	4.0	14	1467
	0.125	(31.1)	576	(272)	0.140	4.1	14	1479
	0.250	(62.3)	415	(196)	0.130	3.2	12	1541
Variable Speed Minimum	0.000	(0.0)	394	(186)	0.100	3.9	4	885
	0.050	(12.5)	345	(163)	0.090	3.8	5	863
	0.100	(24.9)	251	(118)	0.090	2.8	4	885
	0.125	(31.1)	199	(94)	0.090	2.2	4	838
Single Speed Direct With Louvres	0.000	(0.0)	613	(289)	0.130	4.7	11	1634
	0.050	(12.5)	597	(282)	0.130	4.6	13	1634
	0.100	(24.9)	560	(264)	0.130	4.3	13	1625
	0.125	(31.1)	536	(253)	0.130	4.1	13	1625
	0.250	(62.3)	472	(223)	0.130	3.6	15	1615
Single Speed Direct With Dampers	0.000	(0.0)	657	(310)	0.140	4.7	13	1618
	0.050	(12.5)	636	(300)	0.140	4.5	15	1615
	0.100	(24.9)	547	(258)	0.120	4.6	14	1645
	0.125	(31.1)	507	(239)	0.120	4.2	13	1656
	0.250	(62.3)	444	(210)	0.130	3.4	14	1635

*Complete results are available in PAMI Report No. 604.

DEL-AIR MODEL J-12 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

12.0 in (305 mm) propeller fan, variable speed, direct drive, 0.25 hp (186 W), 115/230 V electric motor, equipped with guard grill, insulating door, outlet damper, inlet louvres and wind hood.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	1380	(651)	0.200	6.9	15	1676
	0.050	(12.5)	1310	(618)	0.200	6.6	17	1673
	0.100	(24.9)	1250	(590)	0.200	6.3	18	1673
	0.125	(31.1)	1210	(571)	0.200	6.1	19	1674
	0.250	(62.3)	553	(261)	0.190	2.9	10	1687
Variable Speed Maximum	0.000	(0.0)	1370	(647)	0.210	6.5	14	1669
	0.050	(12.5)	1310	(618)	0.210	6.2	16	1669
	0.100	(24.9)	1240	(585)	0.210	5.9	18	1669
	0.125	(31.1)	1200	(566)	0.210	5.7	18	1670
	0.250	(62.3)	558	(263)	0.190	2.9	10	1688
Variable Speed Mid Range	0.000	(0.0)	1170	(552)	0.180	6.5	12	1343
	0.050	(12.5)	991	(468)	0.160	6.2	13	1383
	0.100	(24.9)	705	(333)	0.120	5.9	7	1653
	0.125	(31.1)	734	(346)	0.120	6.1	8	1653
	0.250	(62.3)	375	(177)	0.160	2.3	7	1400
Variable Speed Minimum	0.000	(0.0)	695	(328)	0.110	6.3	2	869
	0.050	(12.5)	427	(202)	0.100	4.3	3	1004
	0.100	(24.9)	169	(80)	0.100	1.7	2	813
	0.125	(31.1)	79	(37)	0.100	0.8	1	763
Single Speed Direct With Louvres	0.000	(0.0)	1080	(510)	0.270	4.0	18	1700
	0.050	(12.5)	714	(337)	0.160	4.5	6	1715
	0.100	(24.9)	636	(300)	0.170	3.7	6	1707
	0.125	(31.1)	592	(279)	0.170	3.5	6	1702
	0.250	(62.3)	450	(212)	0.190	2.4	7	1686
Single Speed Direct With Dampers	0.000	(0.0)	1260	(595)	0.200	6.3	11	1669
	0.050	(12.5)	1190	(562)	0.200	6.0	13	1672
	0.100	(24.9)	751	(354)	0.150	5.0	5	1721
	0.125	(31.1)	643	(303)	0.170	3.8	7	1703
	0.250	(62.3)	537	(253)	0.190	2.8	10	1684

*Complete results are available in PAMI Report No. 605.

DEL-AIR MODEL J-16 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

15.75 in (400 mm) propeller fan, variable speed, direct drive, 0.25 hp (186 W), 115/230 V electric motor, equipped with guard grill, insulating door, outlet damper, inlet louvres and wind hood.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	2630	(1240)	0.303	8.7	22	1520
	0.050	(12.5)	2550	(1200)	0.310	8.2	24	1512
	0.100	(24.9)	2480	(1170)	0.312	7.9	27	1506
	0.125	(31.1)	2430	(1146)	0.311	7.8	28	1505
Variable Speed Maximum	0.250	(62.3)	1980	(935)	0.295	6.7	29	1524
	0.000	(0.0)	2560	(1210)	0.319	8.0	20	1534
	0.050	(12.5)	2560	(1210)	0.324	7.9	23	1515
	0.100	(24.9)	2430	(1150)	0.322	7.5	25	1510
Variable Speed Mid Range	0.125	(31.1)	2330	(1100)	0.319	7.3	25	1513
	0.250	(62.3)	1660	(786)	0.304	5.5	22	1527
	0.000	(0.0)	1770	(837)	0.240	7.4	9	1102
	0.050	(12.5)	1560	(735)	0.237	6.6	10	1080
Variable Speed Minimum	0.100	(24.9)	1240	(587)	0.227	5.5	9	1197
	0.125	(31.1)	1050	(495)	0.226	4.6	9	1207
	0.250	(62.3)	323	(152)	0.247	1.3	4	980
	0.000	(0.0)	1070	(507)	0.183	5.8	3	808
Single Speed With Dampers	0.050	(12.5)	791	(373)	0.175	4.5	3	792
	0.100	(24.9)	310	(146)	0.181	1.7	2	745
	0.125	(31.1)	226	(107)	0.180	1.3	2	730
	0.000	(0.0)	2590	(1220)	0.318	8.1	20	1532
Single Speed Direct	0.050	(12.5)	2540	(1200)	0.319	8.0	23	1519
	0.100	(24.9)	2440	(1150)	0.319	7.6	26	1511
	0.125	(31.1)	2360	(1120)	0.317	7.4	26	1511
	0.250	(62.3)	1690	(798)	0.299	5.7	23	1525

*Complete results are available in PAMI Report No. 606.

DEL-AIR MODEL J-20 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

19.9 in (505 mm) propeller fan, variable speed, direct drive, 0.25 hp (186 W), 115/230 V electric motor, equipped with guard grill, insulating door, outlet damper, inlet louvres and wind hood.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	3730	(1760)	0.285	13.1	28	1546
	0.050	(12.5)	3560	(1680)	0.286	12.4	31	1543
	0.100	(24.9)	3400	(1610)	0.290	11.7	34	1542
	0.125	(31.1)	3320	(1570)	0.291	11.4	35	1541
Variable Speed Maximum	0.250	(62.3)	2730	(1290)	0.285	9.6	38	1544
	0.000	(0.0)	3750	(1770)	0.295	12.7	27	1558
	0.050	(12.5)	3600	(1700)	0.298	12.1	30	1551
	0.100	(24.9)	3420	(1610)	0.296	11.6	33	1551
Variable Speed Mid Range	0.125	(31.1)	3310	(1560)	0.296	11.2	34	1548
	0.250	(62.3)	2740	(1290)	0.288	9.5	39	1549
	0.000	(0.0)	3240	(1530)	0.252	12.9	20	1345
	0.050	(12.5)	3060	(1440)	0.254	12.0	24	1331
Variable Speed Minimum	0.100	(24.9)	2810	(1330)	0.255	11.0	26	1331
	0.125	(31.1)	2680	(1270)	0.255	10.5	26	1334
	0.250	(62.3)	1870	(822)	0.242	7.7	26	1397
	0.000	(0.0)	2140	(1010)	0.182	11.8	8	879
Single Speed With Dampers	0.050	(12.5)	1740	(822)	0.181	9.6	10	876
	0.100	(24.9)	1370	(650)	0.176	7.8	12	911
	0.125	(31.1)	847	(400)	0.176	4.8	8	890
	0.000	(0.0)	3680	(1740)	0.295	12.5	26	1559
Single Speed Direct	0.050	(12.5)	3480	(1640)	0.294	11.8	28	1560
	0.100	(24.9)	3280	(1550)	0.293	11.2	31	1553
	0.125	(31.1)	3180	(1500)	0.292	10.9	32	1548
	0.250	(62.3)	2520	(1190)	0.281	9.0	35	1555

*Complete results are available in PAMI Report No. 607.

DEL-AIR MODEL JH-20 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

19.50 in (495 mm) propeller fan, single speed, direct drive, 0.63 hp (466 W), 115/230 V electric motor, equipped with guard grill, insulating door, outlet damper, inlet louvres and wind hood.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Direct	0.000	(0.0)	5230	(2470)	0.732	7.1	30	1593
	0.050	(12.5)	5080	(2400)	0.738	6.9	31	1591
	0.100	(24.9)	5000	(2360)	0.744	6.7	34	1586
	0.125	(31.1)	4910	(2320)	0.747	6.6	34	1584
Direct With Dampers	0.250	(62.3)	4590	(2170)	0.754	6.1	37	1569
	0.000	(0.0)	5060	(2390)	0.707	7.2	26	1617
	0.050	(12.5)	4940	(2330)	0.759	6.5	28	1611
	0.100	(24.9)	4780	(2250)	0.767	6.2	29	1600
Direct With Dampers	0.125	(31.1)	4710	(2220)	0.767	6.1	30	1597
	0.250	(62.3)	4300	(2030)	0.765	5.6	32	1585

*Complete results are available in PAMI Report No. 608.

DEL-AIR MODEL P-12 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

11.8 in (300 mm) in diameter, variable speed, direct drive, 0.25 hp (187 W), 115/230 V electric motor, equipped with inlet guard grill.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in wg	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	1520	(720)	0.182	8.4	22	1680
	0.050	(12.5)	1450	(690)	0.182	8.0	24	1680
	0.100	(24.9)	1390	(650)	0.182	7.6	25	1680
	0.125	(31.1)	1340	(630)	0.182	7.4	26	1680
Variable Speed (222 V)	0.000	(0.0)	900	(430)	0.177	5.1	20	1680
	0.050	(12.5)	1540	(720)	0.189	8.1	22	1680
	0.100	(24.9)	1450	(680)	0.189	7.7	23	1680
	0.125	(31.1)	1390	(660)	0.188	7.4	25	1680
Mid-Range (110 Volts)	0.125	(31.1)	1340	(630)	0.187	7.2	25	1680
	0.250	(62.3)	950	(450)	0.181	5.2	21	1680
	0.000	(0.0)	1230	(580)	0.145	8.5	15	1370
	0.050	(12.5)	1150	(540)	0.144	8.0	16	1360
Variable Speed Minimum (71 Volts)	0.100	(24.9)	1030	(490)	0.142	7.3	17	1380
	0.125	(31.1)	970	(460)	0.141	6.9	17	1400
	0.250	(62.3)	320	(150)	0.147	2.2	7	1290
	0.000	(0.0)	770	(360)	0.101	7.6	5	860
Variable Speed Minimum (71 Volts)	0.050	(12.5)	620	(290)	0.099	6.3	6	890
	0.100	(24.9)	200	(93)	0.102	2.0	2	800
	0.125	(31.1)	130	(60)	0.104	1.3	1	750

*Complete results are available in PAMI Report No. 671.

DEL-AIR MODEL P-18 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

18 in (460 mm) in diameter, variable speed, direct drive, 0.25 hp (187 W), 115/230 V electric motor, equipped with inlet guard grill.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in wg	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	3750	(1770)	0.322	11.6	36	1490
	0.050	(12.5)	3600	(1700)	0.332	10.8	38	470
	0.100	(24.9)	3420	(1620)	0.339	10.1	38	1460
	0.125	(31.1)	3320	(1570)	0.341	9.7	38	1450
Variable Speed (221 V)	0.250	(62.3)	2710	(1280)	0.345	7.9	36	430
	0.000	(0.0)	3660	(1720)	0.316	11.6	34	1450
	0.050	(12.5)	3490	(1650)	0.326	10.7	35	1440
	0.100	(24.9)	3320	(1570)	0.335	9.9	36	1430
Variable Speed (221 V)	0.125	(31.1)	3220	(1520)	0.338	9.5	36	1420
	0.250	(62.3)	2610	(1230)	0.342	7.6	34	1420
	0.000	(0.0)	3000	(1420)	0.269	11.2	22	1190
	0.050	(12.5)	2690	(1270)	0.273	9.9	22	1130
Mid-Range (151 Volts)	0.100	(24.9)	2330	(1110)	0.275	8.5	21	1090
	0.125	(31.1)	2130	(1010)	0.273	7.8	20	1080
	0.250	(62.3)	1050	(500)	0.274	3.8	11	1030
	0.000	(0.0)	1930	(910)	0.175	11.0	9	770
Variable Speed Minimum (106 Volts)	0.050	(12.5)	1450	(680)	0.180	8.1	8	710
	0.100	(24.9)	910	(430)	0.181	5.0	7	720
	0.125	(31.1)	500	(240)	0.184	2.7	4	640

*Complete results are available in PAMI Report No. 671.

DEL-AIR MODEL P-16 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

15.5 in (390 mm) in diameter, variable speed, direct drive, 0.25 hp (187 W), 115/230 V electric motor, equipped with guard grill.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in wg	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	2670	(1260)	0.289	9.2	25	1570
	0.050	(12.5)	2560	(1210)	0.289	8.9	27	1560
	0.100	(24.9)	2430	(1150)	0.287	8.5	29	1560
	0.125	(31.1)	2360	(1110)	0.286	8.3	29	1560
Variable Speed (222 V)	0.250	(62.3)	1950	(920)	0.273	7.1	31	1570
	0.000	(0.0)	2690	(1270)	0.298	9.0	24	1550
	0.050	(12.5)	2570	(1210)	0.298	8.6	26	1540
	0.100	(24.9)	2450	(1160)	0.298	8.2	28	1540
Variable Speed (222 V)	0.125	(31.1)	2400	(1130)	0.296	8.1	29	1540
	0.250	(62.3)	2010	(950)	0.289	7.0	31	1560
	0.000	(0.0)	2100	(990)	0.234	9.0	15	1250
	0.050	(12.5)	1980	(930)	0.235	8.4	17	1240
Mid-Range (143 Volts)	0.100	(24.9)	1800	(850)	0.233	7.7	18	1230
	0.125	(31.1)	1700	(800)	0.230	7.4	19	1240
	0.250	(62.3)	980	(460)	0.229	4.3	13	1240
	0.000	(0.0)	1230	(580)	0.148	8.3	5	740
Variable Speed Minimum (89 Volts)	0.050	(12.5)	1000	(470)	0.145	6.9	7	780
	0.100	(24.9)	450	(210)	0.145	3.1	4	720
	0.125	(31.1)	150	(70)	0.149	1.0	2	610

*Complete results are available in PAMI Report No. 671.

DEL-AIR MODEL P-20 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

19.5 in (500 mm) in diameter, variable speed, direct drive, 0.25 hp (187 W), 115/230 V electric motor, equipped with inlet guard grill.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in wg	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	3920	(1850)	0.270	14.5	36	1590
	0.050	(12.5)	3720	(1760)	0.275	13.5	38	1580
	0.100	(24.9)	3500	(1650)	0.277	12.6	39	1570
	0.125	(31.1)	3370	(1590)	0.278	12.1	39	1560
Variable Speed Maximum (228 V)	0.000	(0.0)	3930	(1850)	0.276	14.2	36	1590
	0.050	(12.5)	3670	(1730)	0.282	13.0	37	1580
	0.100	(24.9)	3500	(1650)	0.285	12.3	38	1570
	0.125	(31.1)	3420	(1610)	0.287	11.9	39	1570
Variable Speed Mid-Range (131 Volts)	0.000	(0.0)	2960	(1400)	0.210	14.1	20	1210
	0.050	(12.5)	2630	(1240)	0.212	12.4	20	1160
	0.100	(24.9)	2280	(1080)	0.213	10.7	21	1150
	0.125	(31.1)	2080	(980)	0.214	9.7	22	1150
Variable Speed Minimum (95 Volts)	0.000	(0.0)	2060	(970)	0.163	12.6	9	850
	0.050	(12.5)	1530	(720)	0.160	9.6	9	795
	0.100	(24.9)	870	(410)	0.154	5.6	7	820
	0.125	(31.1)	300	(75)	0.159	1.9	3	760

*Complete results are available in PAMI Report No. 671.

DEL-AIR NORTHWINDS MODEL 10K VENTILATION FAN

MANUFACTURER:

Del-Air Systems Ltd.
P.O. Box 2500
1704 Fourth Avenue
Humboldt, Saskatchewan
S0K 2A0

FAN DESCRIPTION:

36.5 in (930 mm) diameter, variable speed, direct drive, 0.33 hp (248 W), 230 V electric motor, equipped with inlet guard grill, outlet dampers and wind hood.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in wg	(Pa)	cfm	(L/s)				
Single Speed Direct	0.000	(0.0)	10440	(4930)	0.459	22.7	33	780
	0.050	(12.5)	9520	(4490)	0.468	20.3	35	770
	0.100	(24.9)	8480	(4000)	0.472	18.0	36	770
	0.125	(31.1)	7830	(3700)	0.473	16.6	37	770
Variable Speed Maximum (204 V)	0.000	(0.0)	9820	(4630)	0.497	19.8	25	750
	0.050	(12.5)	8630	(4070)	0.506	17.1	27	740
	0.100	(24.9)	7270	(3430)	0.509	14.3	27	740
	0.125	(31.1)	6540	(3090)	0.510	12.8	26	730
Variable Speed Mid-Range (189 V)	0.000	(0.0)	8860	(4180)	0.476	18.6	19	690
	0.050	(12.5)	7420	(3500)	0.486	15.3	20	670
	0.100	(24.9)	5870	(2770)	0.485	12.1	20	660
	0.125	(31.1)	4850	(2290)	0.481	10.1	18	670
Variable Speed Minimum (175 V)	0.000	(0.0)	6400	(3020)	0.441	14.5	8	530
	0.050	(12.5)	4650	(2200)	0.435	10.7	9	530
	0.100	(24.9)	1970	(930)	0.429	4.6	5	540
	0.125	(31.1)	1140	(540)	0.435	2.6	4	520
Direct with Damper	0.000	(0.0)	10250	(4840)	0.470	21.8	30	790
	0.050	(12.5)	9300	(4400)	0.483	19.3	32	780
	0.100	(24.9)	7940	(3750)	0.484	16.4	33	770
	0.125	(31.1)	7130	(3370)	0.483	14.8	32	770
Direct with Wind Hood	0.000	(0.0)	9780	(4620)	0.475	20.6	26	780
	0.050	(12.5)	8980	(4240)	0.479	18.7	30	780
	0.100	(24.9)	8070	(3810)	0.482	16.7	33	770
	0.125	(31.1)	7510	(3540)	0.480	15.6	34	770
Direct with Damper and Wind Hood	0.000	(0.0)	9580	(4520)	0.476	20.1	24	780
	0.050	(12.5)	8620	(4070)	0.479	18.0	28	770
	0.100	(24.9)	7800	(3680)	0.483	16.1	32	770
	0.125	(31.1)	7280	(3440)	0.481	15.1	33	770
	0.250	(62.3)	2780	(1310)	0.481	5.8	17	760

*Complete results are available in PAMI Report No. 672.

KOENDERS MODEL RS24 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Koenders Manufacturing Company Limited
P.O. Box 171
Englefeld, SK
S0K 1N0

FAN DESCRIPTION:

24 in (610 mm) variable speed, direct drive, 0.5 hp (373 W), 115/230 volt electric motor, equipped with optional shutter and hood.

SUMMARY OF RESULTS:

SETTING	STATIC PRESS. in wg (Pa)	AIR FLOW RATE cfm (L/s)	POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
Single Speed Direct	0.000 (0.0)	5960 (2810)	0.416	14.33	33	1150
	0.050 (12.5)	5670 (2670)	0.424	13.36	36	1150
	0.100 (24.9)	5350 (2520)	0.430	12.42	38	1150
	0.125 (31.1)	5150 (2430)	0.433	11.89	38	1150
	0.250 (62.3)	4320 (2040)	0.458	9.42	39	1140
Variable Maximum (223 Volts)	0.000 (0.0)	5900 (2790)	0.418	14.12	32	1150
	0.050 (12.5)	5670 (2670)	0.429	13.21	35	1150
	0.100 (24.9)	5320 (2510)	0.438	12.12	37	1150
	0.125 (31.1)	5140 (2420)	0.440	11.66	37	1150
	0.250 (62.3)	4260 (2010)	0.463	9.19	38	1140
Variable Mid-Range (131 Volts)	0.000 (0.0)	5410 (2550)	0.394	13.73	26	1060
	0.050 (12.5)	4990 (2350)	0.408	12.23	27	1040
	0.100 (24.9)	4500 (2120)	0.419	10.73	27	1020
	0.125 (31.1)	4250 (2010)	0.426	9.99	26	1000
	0.250 (62.3)	1330 (630)	0.493	2.69	8	790
Variable Minimum (118 Volts)	0.000 (0.0)	4290 (2020)	0.360	11.93	14	850
	0.050 (12.5)	3590 (1690)	0.371	9.69	14	790
	0.100 (24.9)	2490 (1180)	0.379	6.58	10	700
	0.125 (31.1)	1210 (570)	0.388	3.13	5	590
	Direct With Hood	0.000 (0.0)	5730 (2700)	0.424	13.52	29
0.050 (12.5)		5420 (2560)	0.434	12.47	31	1150
0.100 (24.9)		5080 (2400)	0.439	11.58	33	1150
0.125 (31.1)		4890 (2310)	0.443	11.05	33	1150
0.250 (62.3)		3930 (1850)	0.467	8.41	33	1140
Direct With Shutter	0.000 (0.0)	5660 (2670)	0.432	13.11	27	1150
	0.050 (12.5)	5270 (2490)	0.438	12.03	29	1150
	0.100 (24.9)	4830 (2280)	0.447	10.81	29	1150
	0.125 (31.1)	4600 (2170)	0.452	10.18	29	1150
	0.250 (62.3)	3360 (1590)	0.482	6.98	26	1140

KOENDERS MODEL RV12 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Koenders Manufacturing Company Limited
P.O. Box 171
Englefeld, SK
S0K 1N0

FAN DESCRIPTION:

12 in (305 mm) variable speed, direct drive, 0.25 hp (187 W), 115/230 volt electric motor, equipped with optional shutter and hood.

SUMMARY OF RESULTS:

SETTING	STATIC PRESS. in wg (Pa)	AIR FLOW RATE cfm (L/s)	POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
Single Speed Direct	0.000 (00.0)	1370 (650)	0.167	8.20	14	1770
	0.050 (12.5)	1270 (600)	0.167	7.60	16	1770
	0.100 (24.9)	1190 (560)	0.165	7.21	18	1770
	0.125 (31.1)	1140 (540)	0.164	6.95	19	1770
	0.250 (62.3)	540 (250)	0.160	3.38	10	1770
Variable Maximum (224 Volts)	0.000 (0.0)	1340 (630)	0.169	7.93	13	1770
	0.050 (12.5)	1280 (630)	0.171	7.49	16	1770
	0.100 (24.9)	1200 (570)	0.171	7.02	17	1770
	0.125 (31.1)	1160 (550)	0.170	6.82	18	1770
	0.250 (62.3)	540 (250)	0.165	3.27	10	1770
Variable Mid-Range (103 Volts)	0.000 (0.0)	1290 (610)	0.126	10.24	16	1630
	0.050 (12.5)	1200 (570)	0.125	9.60	18	1630
	0.100 (24.9)	1080 (510)	0.121	8.93	20	1640
	0.125 (31.1)	1030 (490)	0.119	8.66	21	1650
	0.250 (62.3)	450 (210)	0.120	3.75	11	1630
Variable Minimum (64 Volts)	0.000 (0.0)	940 (440)	0.120	7.83	6	1240
	0.050 (12.5)	870 (410)	0.117	7.44	10	1290
	0.100 (24.9)	790 (370)	0.114	6.93	12	1360
	0.125 (31.1)	710 (340)	0.111	6.40	12	1420
	Direct With Hood	0.000 (0.0)	1360 (640)	0.166	8.19	14
0.050 (12.5)		1280 (600)	0.168	7.62	16	1770
0.100 (24.9)		1230 (580)	0.169	7.28	19	1770
0.125 (31.1)		1200 (570)	0.168	7.14	20	1770
0.250 (62.3)		620 (290)	0.162	3.83	13	1770
Direct With Shutter	0.000 (0.0)	1360 (640)	0.165	8.24	14	1770
	0.050 (12.5)	1270 (600)	0.167	7.60	16	1770
	0.100 (24.9)	1160 (550)	0.166	6.99	17	1770
	0.125 (31.1)	1020 (480)	0.162	6.30	15	1770
	0.250 (62.3)	395 (180)	0.163	2.42	7	1770

KOENDERS MODEL RV16 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Koenders Manufacturing Company Limited
P.O. Box 171
Englefeld, SK
S0K 1N0

FAN DESCRIPTION:

16 in (406 mm) variable speed, direct drive, 0.33 hp (249 W), 115/230 volt electric motor, equipped with optional shutter and hood.

SUMMARY OF RESULTS:

SETTING	STATIC PRESS. in wg (Pa)	AIR FLOW RATE cfm (L/s)	POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
Single Speed Direct	0.000 (0.0)	2850 (1350)	0.318	8.96	22	1740
	0.050 (12.5)	2720 (1280)	0.319	8.53	25	1740
	0.100 (24.9)	2580 (1220)	0.315	8.19	26	1740
	0.125 (31.1)	2490 (1180)	0.313	7.96	27	1740
	0.250 (62.3)	2040 (960)	0.301	6.78	28	1740
Variable Maximum (224 Volts)	0.000 (0.0)	2820 (1330)	0.325	8.68	21	1740
	0.050 (12.5)	2680 (1270)	0.326	8.22	23	1740
	0.100 (24.9)	2540 (1200)	0.321	7.91	25	1740
	0.125 (31.1)	2450 (1160)	0.317	7.73	26	1740
	0.250 (62.3)	1990 (940)	0.305	6.52	27	1740
Variable Mid-Range (93 Volts)	0.000 (0.0)	2370 (1120)	0.270	8.78	15	1440
	0.050 (12.5)	2190 (1030)	0.266	8.23	17	1430
	0.100 (24.9)	1930 (910)	0.256	7.54	18	1420
	0.125 (31.1)	1830 (860)	0.253	7.23	18	1420
	0.250 (62.3)	740 (350)	0.268	2.76	9	1260
Variable Minimum (80 Volts)	0.000 (0.0)	1660 (780)	0.223	7.44	6	1030
	0.050 (12.5)	1480 (700)	0.219	6.76	8	1070
	0.100 (24.9)	1200 (570)	0.216	5.56	9	1090
	0.125 (31.1)	840 (400)	0.216	3.89	6	1040
	Direct With Hood	0.000 (0.0)	2800 (1320)	0.326	8.59	21
0.050 (12.5)		2690 (1270)	0.327	8.23	23	1740
0.100 (24.9)		2570 (1210)	0.328	7.84	25	1740
0.125 (31.1)		2500 (1180)	0.327	7.65	26	1740
0.250 (62.3)		2080 (980)	0.316	6.58	28	1740
Direct With Shutter	0.000 (0.0)	2820 (1330)	0.324	8.70	21	1740
	0.050 (12.5)	2720 (1280)	0.331	8.22	23	1730
	0.100 (24.9)	2600 (1230)	0.333	7.81	25	1730
	0.125 (31.1)	2490 (1180)	0.332	7.50	25	1730
	0.250 (62.3)	1510 (710)	0.311	4.86	18	1740

KOENDERS MODEL RV20 VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Koenders Manufacturing Company Limited
P.O. Box 171
Englefeld, SK
S0K 1N0

FAN DESCRIPTION:

20 in (508 mm) variable speed, direct drive, 0.5 hp (373 W), 115/230 volt electric motor, equipped with optional shutter and hood.

SUMMARY OF RESULTS:

SETTING	STATIC PRESS. in wg (Pa)	AIR FLOW RATE cfm (L/s)	POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
Single Speed Direct	0.000 (0.0)	4580 (2160)	0.466	9.82	27	1570
	0.050 (12.5)	4400 (2080)	0.472	9.32	29	1570
	0.100 (24.9)	4210 (1990)	0.474	8.88	31	1550
	0.125 (31.1)	4110 (1940)	0.475	8.65	32	1550
	0.250 (62.3)	3580 (1690)	0.478	7.49	34	1540
Variable Maximum (225 V)	0.000 (0.0)	4570 (2160)	0.469	9.74	27	1560
	0.050 (12.5)	4390 (2070)	0.473	9.28	29	1550
	0.100 (24.9)	4190 (1980)	0.478	8.77	30	1550
	0.125 (31.1)	4100 (1940)	0.479	8.56	31	1540
	0.250 (62.3)	3580 (1690)	0.483	7.41	34	1530
Variable Mid-Range (127 Volts)	0.000 (0.0)	3620 (1710)	0.350	10.34	18	1250
	0.050 (12.5)	3360 (1590)	0.351	9.57	20	1230
	0.100 (24.9)	3070 (1450)	0.352	8.72	21	1210
	0.125 (31.1)	2940 (1390)	0.352	8.35	22	1200
	0.250 (62.3)	2040 (960)	0.355	5.75	20	1170
Variable Minimum (80 Volts)	0.000 (0.0)	2170 (1020)	0.185	11.73	7	760
	0.050 (12.5)	1700 (800)	0.184	9.24	9	720
	0.100 (24.9)	950 (450)	0.185	5.14	7	670
	0.125 (31.1)	440 (210)	0.186	2.37	3	630
	Direct With Hood	0.000 (0.0)	4360 (2060)	0.471	9.26	23
0.050 (12.5)		4200 (1980)	0.476	8.82	26	1540
0.100 (24.9)		4050 (1910)	0.479	8.46	28	1540
0.125 (31.1)		3960 (1870)	0.480	8.25	29	1530
0.250 (62.3)		3460 (1630)	0.484	7.15	32	1520
Direct With Shutter	0.000 (0.0)	4440 (2100)	0.469	9.47	25	1530
	0.050 (12.5)	4210 (1990)	0.475	8.86	26	1530
	0.100 (24.9)	3990 (1880)	0.480	8.31	27	1520
	0.125 (31.1)	3860 (1820)	0.483	7.99	27	1520
	0.250 (62.3)	3040 (1430)	0.484	6.28	26	1510

PRAIRIE PRIDE MODEL TR24HS POLYFAN VENTILATION FAN

MANUFACTURER AND DISTRIBUTOR:

Westland Plastics
12 Rothwell Road
Winnipeg, Manitoba
R3P 2H7

FAN DESCRIPTION:

24.25 in (616 mm) diameter, variable speed, direct drive, 0.5 hp (373 W), 115/230 V electric motor equipped with outlet guard grill, inlet guard grill and optional louvres.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE in wg (Pa)	AIR FLOW RATE cfm (L/s)	INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
Single Speed Direct	0.000 (0.0)	7420 (3500)	0.740	10.0	36	1470
	0.050 (12.5)	7060 (3330)	0.739	9.6	37	1450
	0.100 (24.9)	6730 (3180)	0.743	9.1	37	1430
	0.125 (31.1)	6550 (3090)	0.747	8.8	37	1430
	0.250 (62.3)	5600 (2640)	0.752	7.4	38	1410
Variable Speed Maximum (225 V)	0.000 (0.0)	7390 (3490)	0.744	9.9	35	1470
	0.050 (12.5)	7100 (3350)	0.749	9.5	37	1460
	0.100 (24.9)	6780 (3200)	0.755	9.0	37	1440
	0.125 (31.1)	6610 (3120)	0.758	8.7	38	1440
	0.250 (62.3)	5680 (2680)	0.770	7.4	38	1410
Variable Speed Mid-Range (132 V)	0.000 (0.0)	5460 (2580)	0.568	9.6	19	1090
	0.050 (12.5)	4920 (2320)	0.563	8.7	18	1050
	0.100 (24.9)	4400 (2080)	0.555	7.9	18	1010
	0.125 (31.1)	4100 (1940)	0.551	7.4	18	1000
	0.250 (62.3)	2210 (1040)	0.535	4.1	15	1010
Variable Speed Minimum (92 V)	0.000 (0.0)	3540 (1670)	0.350	10.1	8	710
	0.050 (12.5)	2700 (1274)	0.347	7.8	8	670
	0.100 (24.9)	1790 (840)	0.343	5.2	7	680
Single Speed Direct With Optional Louvres	0.000 (0.0)	6870 (3240)	0.726	9.5	29	1440
	0.050 (12.5)	6530 (3080)	0.724	9.0	30	1420
	0.100 (24.9)	6190 (2920)	0.733	8.4	31	1410
	0.125 (31.1)	6010 (2840)	0.738	8.1	32	1410
	0.250 (62.3)	5080 (2400)	0.744	6.8	32	1410
Single Speed Direct With Production Louvres	0.000 (0.0)	6820 (3220)	0.730	9.3	28	1460
	0.050 (12.5)	6500 (3070)	0.731	8.9	29	1440
	0.100 (24.9)	6180 (2920)	0.737	8.4	31	1430
	0.125 (31.1)	6020 (2840)	0.740	8.1	31	1420
	0.250 (62.3)	5130 (2420)	0.745	6.9	32	1410

*Complete results are available in PAMI Report No. 667

PRAIRIE PRIDE TR-36 SERIES VENTILATION FANS

MANUFACTURER AND DISTRIBUTOR:

Prairie Pride Enterprises Limited
217 - 79 Eagle Drive
Winnipeg, Manitoba
R2R 1V4

FAN DESCRIPTION:

TR-36B Belt Drive Fan

36.0 in (914 mm) propeller fan, single speed, belt drive, 0.5 hp (373 W) electric motor.**

TR-36B Direct Drive Fan

36.0 in (914 mm) propeller fan, single speed, direct drive, 0.9 hp (671 W) electric motor.**

TR-36B Variable Speed Fan

36.0 in (914 mm) propeller fan, variable speed, belt drive, 0.5 hp (373 W) electric motor.**

**All fans are equipped with outlet guard grill, inlet guard grill and louvres.

SUMMARY OF RESULTS -- TR-36B*

SETTING	STATIC PRESSURE in.wg. (Pa)	AIR FLOW RATE cfm (L/s)	INPUT POWER kW	TOTAL EFF. %	FAN SPEED rpm
Single Speed	0.000 (0.0)	10200 (4810)	0.998	14	800
	0.050 (12.5)	9290 (4380)	1.008	17	796
	0.100 (24.9)	8550 (4040)	0.986	19	797
	0.125 (31.1)	8100 (3823)	0.970	19	799
	0.250 (62.3)	4230 (2000)	0.984	14	795
Single Speed With No Louvres	0.050 (12.5)	11400 (5380)	0.978	30	796
	0.100 (24.9)	10900 (5140)	0.993	29	797
	0.125 (31.1)	10300 (4860)	0.991	24	796
	0.250 (62.3)	6030 (2850)	0.913	22	796

**SUMMARY OF RESULTS -- TR-36B --
VARIABLE SPEED***

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Variable Speed Maximum; No Louvres	0.000	(0.0)	10900	(5140)	0.686	15.9	26	700
	0.050	(12.5)	10100	(4770)	0.678	14.9	29	698
	0.100	(24.9)	8770	(4140)	0.675	13.0	30	694
	0.125	(31.1)	8220	(3880)	0.668	12.3	30	697
	0.250	(62.3)	1680	(793)	0.674	2.5	7	689
Variable Speed Maximum	0.000	(0.0)	8840	(4170)	0.683	12.9	14	700
	0.050	(12.5)	8040	(3790)	0.667	12.1	17	700
	0.100	(24.9)	6800	(3210)	0.659	10.3	18	701
	0.125	(31.1)	6070	(2870)	0.652	9.3	18	703
	0.250	(62.3)	976	(461)	0.682	1.4	4	690
Variable Speed Mid-Range	0.000	(0.0)	7410	(3500)	0.622	11.9	9	587
	0.050	(12.5)	6340	(2990)	0.614	10.3	12	591
	0.100	(24.9)	4550	(2150)	0.601	7.6	11	603
	0.125	(31.1)	3160	(1490)	0.607	5.2	8	599
	0.250	(62.3)	259	(122)	0.635	0.4	1	584
Variable Speed Minimum	0.000	(0.0)	6170	(2910)	0.580	10.6	6	500
	0.050	(12.5)	4510	(2130)	0.557	8.1	7	509
	0.100	(24.9)	1520	(717)	0.560	2.7	3	500
	0.125	(31.1)	298	(141)	0.570	0.5	1	494
	Variable Speed Optional Blade; No Louvres	0.000	(0.0)	10700	(5050)	0.588	18.2	28
0.050		(12.5)	9860	(4650)	0.601	16.4	31	722
0.100		(24.9)	8860	(4180)	0.599	14.8	33	719
0.125		(31.1)	8140	(3840)	0.593	13.7	33	718
0.250		(62.3)	2900	(1370)	0.662	4.4	13	691
Variable Speed Maximum Optional Blade	0.000	(0.0)	8540	(4030)	0.606	14.1	14	717
	0.050	(12.5)	7660	(3620)	0.598	12.8	17	711
	0.100	(24.9)	6600	(3120)	0.599	11.0	19	712
	0.125	(31.1)	5930	(2800)	0.603	9.8	19	711
	0.250	(62.3)	1070	(505)	0.687	1.6	4	674
Variable Speed Mid Range Optional Blade	0.000	(0.0)	7060	(3330)	0.555	12.7	9	601
	0.050	(12.5)	6280	(2960)	0.556	11.3	12	603
	0.100	(24.9)	4030	(1900)	0.575	7.0	10	591
	0.125	(31.1)	2710	(1280)	0.599	4.5	5	567
	0.250	(62.3)	381	(180)	0.637	0.6	1	530
Variable Speed Minimum Optional Blade	0.000	(0.0)	6620	(3120)	0.546	12.1	7	560
	0.050	(12.5)	5170	(2440)	0.539	9.6	9	557
	0.100	(24.9)	1850	(873)	0.562	3.3	4	490
	0.125	(31.1)	361	(170)	0.585	0.6	1	462
	0.250	(62.3)						

*Complete results are available in PAMI Report No. 509.

SUMMARY OF RESULTS -- TR-36*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in.wg.	(Pa)	cfm	(L/s)				
Single Speed	0.000	(0.0)	10800	(5100)	1.060	10.2	16	845
	0.050	(12.5)	10200	(4810)	1.054	9.7	19	839
	0.100	(24.9)	9320	(4400)	1.056	8.8	21	839
	0.125	(31.1)	9000	(4250)	1.053	8.5	22	841
	0.250	(62.3)	5960	(2810)	1.055	5.6	19	839
Single Speed With No Louvres	0.050	(12.5)	11800	(5570)	1.080	10.9	30	827
	0.100	(24.9)	11400	(5380)	1.081	10.5	32	825
	0.125	(31.1)	11200	(5290)	1.082	10.4	33	824
	0.250	(62.3)	7180	(3390)	1.005	7.1	26	834

*Complete results are available in PAMI Report No. 509.

**WALBERN 18 INCH MAGNA-AIR
VENTILATION FAN**

MANUFACTURER:

Walbern Agri Systems Saskatchewan Ltd.
2207 Hanselman Court
Saskatoon, Saskatchewan
S7L 6A8

DISTRIBUTOR:

Walbern Agri Systems Saskatchewan Ltd.
2207 Hanselman Court
Saskatoon, Saskatchewan
S71 6A8

FAN DESCRIPTION:

17.3 in (438 mm) diameter, variable speed, direct drive, 1.05 hp (780 W), 230 V electric motor, equipped with inlet louvres and inlet guard grill.

SUMMARY OF RESULTS*

SETTING	STATIC PRESSURE		AIR FLOW RATE		INPUT POWER kW	cfm/W	TOTAL EFF. %	FAN SPEED rpm
	in wg	(Pa)	cfm	(L/S)				
Single Speed Direct	0.000	(0.0)	4120	1940	0.531	7.8	35	1570
	0.050	(12.5)	3980	1880	0.544	7.3	36	1570
	0.100	(24.9)	3890	1840	0.554	7.0	36	1560
	0.125	(31.1)	3850	1820	0.559	6.9	37	1560
	0.250	(62.3)	3560	1680	0.571	6.2	38	1540
Variable Speed Maximum (226 Volts)	0.000	(0.0)	4080	1930	0.538	7.6	34	1570
	0.050	(12.5)	3970	1870	0.545	7.3	35	1560
	0.100	(24.9)	3890	1840	0.555	7.0	36	1560
	0.125	(31.1)	3850	1820	0.560	6.9	37	1560
	0.250	(62.3)	3530	1670	0.581	6.1	38	1540
Variable Speed Mid-Range (159 Volts)	0.000	(0.0)	3740	1770	0.495	7.6	27	1400
	0.050	(12.5)	3520	1660	0.500	7.0	27	1370
	0.100	(24.9)	3320	1570	0.507	6.5	27	1350
	0.125	(31.1)	3220	1520	0.510	6.3	27	1330
	0.250	(62.3)	2730	1290	0.512	5.3	25	1440
Variable Speed Minimum (95 Volts)	0.000	(0.0)	1920	910	0.263	7.3	7	730
	0.050	(12.5)	1520	720	0.260	5.8	7	670
	0.100	(24.9)	1080	510	0.260	4.2	6	650
	0.125	(31.1)	850	400	0.260	3.3	5	690
	Single Speed Direct With Louvres	0.000	(0.0)	3800	1790	0.552	6.9	26
0.050		(12.5)	3700	1750	0.557	6.6	28	1560
0.100		(24.9)	3570	1690	0.559	6.4	29	1560
0.125		(31.1)	3500	1650	0.560	6.3	30	1550
0.250		(62.3)	3160	1490	0.567	5.6	31	1550

*Complete results are available in PAMI Report No. 653.

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