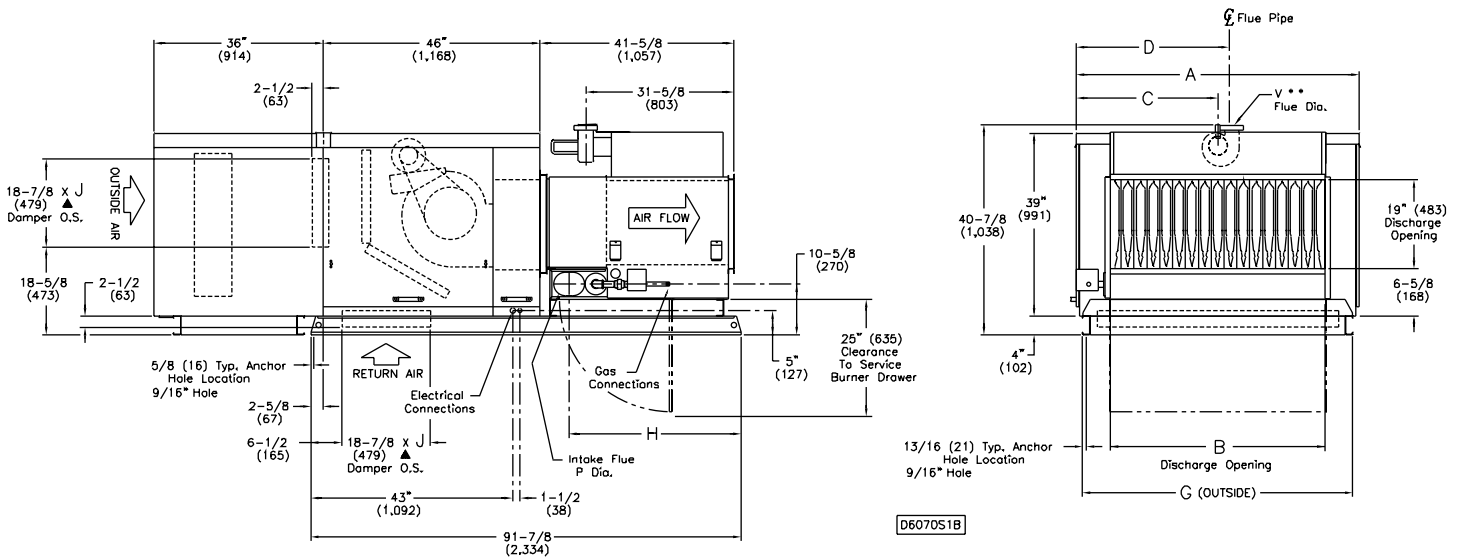


ENGINEERED PRODUCTS

Model - MS(10-40) (A,B)† D

Unit Type (UT) - MS, Separated Combustion Indoor Unit
Capacity (CA) - (10-40) (100-400 mBTU)

Furnace Type (FT) - A, B Standard Temperature Rise (30-80)F°
Indoor Arrangement (IA) - D, Standard Blower Unit with Evaporative Cooler



CAPACITY	A	B	C	D	H	G	▲J	P*	V Dia. **
<input type="checkbox"/> 10	32- 7/8 (835)	15- 9/16 (395)	16-7/16 (418)	19-3/8 (492)	37-7/16 (951)	30- 3/16 (767)	24 (610)	4 RD (102)	4 (102)
<input type="checkbox"/> 15	32- 7/8 (835)	18- 5/16 (465)	16- 7/16 (418)	19-3/8 (492)	37- 7/16 (951)	30- 3/16 (767)	24 (610)	4 RD (102)	4 (102)
<input type="checkbox"/> 20	43- 7/8 (1114)	23-13/16 (605)	21- 15/16 (557)	24-7/8 (632)	37- 7/16 (951)	41- 3/16 (1046)	35 (889)	5 RD (127)	5 (127)
<input type="checkbox"/> 25	43- 7/8 (1114)	29- 5/16 (745)	21- 15/16 (557)	24-7/8 (632)	37- 7/16 (951)	41- 3/16 (1046)	35 (889)	5 RD (127)	5 (127)
<input type="checkbox"/> 30	54- 7/8 (1394)	34-13/16 (884)	27-7/16 (697)	30- 3/8 (772)	36-7/16 (932)	52- 3/16 (1326)	46 (1168)	6 OV (152)	6 (152)
<input type="checkbox"/> 35	54- 7/8 (1394)	40- 5/16 (1024)	27-7/16 (697)	30- 3/8 (772)	36-11/16 (932)	52- 3/16 (1326)	46 (1168)	6 OV (152)	6 (152)
<input type="checkbox"/> 40	60- 3/8 (1534)	45-13/16 (1164)	30-3/16 (767)	33- 1/8 (841)	36-11/16 (932)	57-11/16 (1465)	51- 1/2 (1308)	6 OV (152)	6 (152)

NOTE:
DIMENSIONS ARE IN INCHES, DIMENSIONS IN PARENTHESIS ARE IN MILLIMETERS.
▲"J" DIMENSION IS AN OUTSIDE DIMENSION FOR AIR DAMPERS.
*RD = ROUND *OV = OVAL
**THE 5" TO 6" FLUE ADAPTER IS SUPPLIED BY THE MANUFACTURER.

Project: _____

Unit Tag: _____



260 NORTH ELM ST. WESTFIELD, MA 01085
(413) 564-5540 • FAX: (413) 562-5311

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The above dimensional drawing includes options that might not pertain to the unit being submitted for approval. Please note that the following items checked below are **not included** with the unit being submitted:

Outside Air Opening / Dampers

Return Air Openings / Dampers

ENGINEERED PRODUCTS

MS(10-40) (A,B)† D Performance Table

Model Digits 3, 4, & 5	CA, FT	(°F)	CFM	Input BTU/Hr.		Max. Output BTU/Hr.	TOTAL STATIC PRESSURE (INCHES OF WATER)											
				Max.	Min.		0.4		0.8		1		1.4		1.8		2	
							RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10	82	900				730	.18	965	.33	1065	.41	1230	.58	1375	.76	1440	.86	
	74	1,000				745	.21	980	.37	1080	.46	1245	.64	1390	.83	1455	.93	
	61	1,200				795	.29	1015	.47	1110	.57	1280	.77	1425	.99	1490	1.10	
	53	1,400				850	.39	1050	.59	1145	.69	1310	.92	1455	1.16	1520	1.28	
	46	1,600	100,000	40,000	80,000	910	.52	1095	.73	1180	.85	1340	1.09	1485	1.36	1550	1.49	
	41	1,800				980	.68	1145	.90	1225	1.03	1375	1.29	1515	1.57	1585	1.72	
	37	2,000				1050	.87	1200	1.11	1275	1.24	1420	1.52	1550	1.82	1615	1.98	
	34	2,200				1125	1.11	1265	1.36	1330	1.50	1465	1.79	1590	2.11	1655	2.27	
	31	2,400				1200	1.38	1330	1.66	1390	1.80	1515	2.11	1635	2.44	1695	2.61	
15	79	1,400				745	.31	960	.49	1055	.59	1235	.81	1385	1.05	1460	1.17	
	74	1,500				770	.35	970	.54	1065	.65	1240	.87	1395	1.12	1465	1.24	
	55	2,000				895	.65	1060	.89	1135	1.00	1285	1.26	1425	1.54	1495	1.69	
	44	2,500	150,000	60,000	120,000	1035	1.13	1180	1.40	1245	1.55	1370	1.84	1490	2.14	1550	2.30	
	37	3,000				1180	1.84	1310	2.12	1370	2.28	1480	2.64	1585	2.98	1640	3.16	
	32	3,500				1335	2.79	1450	3.10	1505	3.27	1605	3.66	1705	4.07	1750	4.27	
31	3,600				1370	3.02	1475	3.34	1530	3.50	1630	3.89	1730	4.32	1775	4.53		
20	82	1,800				640	.33	830	.51	915	.62	1060	.84	1200	1.09	1265	1.23	
	74	2,000				665	.41	845	.60	925	.71	1075	.95	1205	1.20	1265	1.34	
	59	2,500				740	.66	895	.89	970	1.02	1105	1.28	1230	1.56	1290	1.70	
	49	3,000	200,000	80,000	160,000	825	1.02	965	1.29	1030	1.43	1150	1.72	1265	2.03	1320	2.19	
	42	3,500				915	1.50	1040	1.82	1100	1.98	1210	2.31	1315	2.64	1365	2.82	
	37	4,000				1005	2.12	1120	2.48	1175	2.67	1275	3.04	1375	3.41	1420	3.60	
	33	4,500				1105	2.91	1205	3.31	1255	3.52	1350	3.93	1440	4.35	1485	4.56	
	30	4,900				1185	3.67	1280	4.11	1325	4.33	1415	4.78					
25	80	2,300				685	.52	850	.74	930	.85	1075	1.10	1205	1.36	1260	1.50	
	74	2,500				715	.63	875	.86	945	.98	1085	1.23	1210	1.51	1270	1.66	
	61	3,000				790	.96	935	1.23	1000	1.37	1125	1.66	1240	1.96	1295	2.12	
	53	3,500	250,000	100,000	200,000	875	1.41	1005	1.72	1065	1.88	1175	2.21	1285	2.54	1335	2.71	
	46	4,000				960	1.99	1080	2.35	1135	2.53	1240	2.90	1340	3.27	1385	3.46	
	41	4,500				1055	2.73	1160	3.12	1210	3.32	1305	3.74	1400	4.15	1445	4.36	
	37	5,000				1145	3.65	1245	4.06	1290	4.29	1380	4.74					
	34	5,500				1240	4.76											
30	82	2,700				740	.58	960	.94	1055	1.14	1235	1.58	1390	2.04	1460	2.27	
	74	3,000				775	.72	975	1.09	1070	1.30	1245	1.76	1395	2.25	1470	2.50	
	55	4,000	300,000	120,000	240,000	905	1.33	1070	1.80	1145	2.03	1290	2.55	1435	3.11	1500	3.41	
	44	5,000				1045	2.30	1190	2.85	1255	3.14	1380	3.72	1500	4.33	1560	4.65	
	37	6,000				1195	3.73	1325	4.30	1385	4.64							
	34	6,500				1275	4.64											
35	81	3,200				630	.55	830	.91	915	1.10	1070	1.55	1210	2.05	1280	2.31	
	65	4,000				690	.86	865	1.26	945	1.48	1090	1.95	1220	2.47	1280	2.75	
	52	5,000				770	1.40	925	1.88	995	2.12	1125	2.65	1250	3.22	1310	3.51	
	43	6,000	350,000	140,000	280,000	860	2.18	995	2.73	1060	3.02	1180	3.60	1290	4.22	1345	4.55	
	37	7,000				960	3.22	1080	3.86	1135	4.18	1245	4.84					
	32	8,000				1060	4.56											
	30	8,500																
40	80	3,700				650	.70	835	1.08	920	1.29	1070	1.74	1200	2.25	1265	2.52	
	74	4,000				670	.82	845	1.22	930	1.43	1075	1.90	1205	2.42	1265	2.69	
	59	5,000				745	1.34	900	1.81	975	2.05	1110	2.57	1235	3.13	1295	3.43	
	49	6,000	400,000	160,000	320,000	830	2.07	970	2.62	1035	2.90	1155	3.48	1270	4.09	1325	4.41	
	42	7,000				925	3.04	1045	3.68	1105	4.01	1215	4.66					
	37	8,000				1020	4.31											
	35	8,500																

NOTES: The pressure drop for Accessories (from the following table) must be allowed for when using the above Performance table.
 Unless otherwise specified, the following conversions may be used for calculating SI units:
 1 Cu. Ft. = 0.028m³, 1 ft. = 0.305m, 1 in. = 25.4mm, 1 psig = 6.894 kPa, 1000 Btu per hr. = 0.293 kW,
 1 in. water column = 0.249 kPa, 1 gallon = 3.785 L, 1000 Btu/Cu. Ft. = 37.5 MJ/m³, 1 lb. = 0.453 kg.



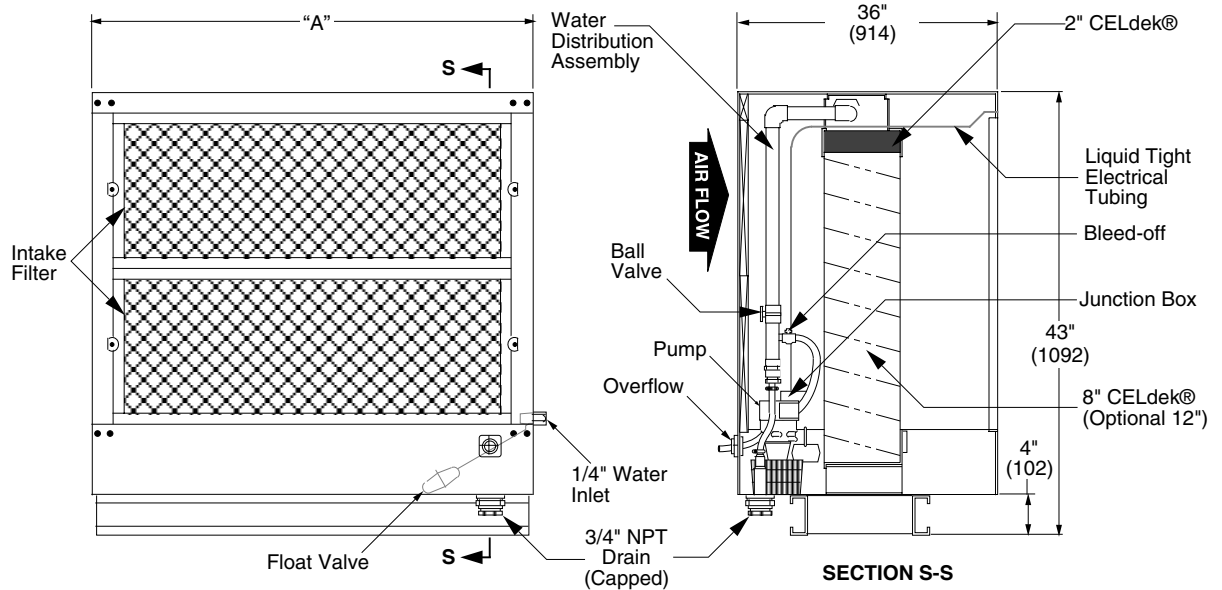
MS(10-40) (A,B)† D Accessories Pressure Drop Table

		PRESSURE LOSS (INCHES OF WATER)										
MODEL	CFM	OPTIONAL RAINHOOD		FILTERS						EVAP. PAD		OUTSIDE OR RETURN AIR DAMPER
		WITH		THROWAWAY	WASHABLE		PLEATED		8"	12"		
		SCREEN	ELIM		2"	1"	2"	1"			2"	
10	900	.01	.02	.03	<.01	<.01	.03	.02	<.01	.01	.02	
	1,000	.01	.02	.04	<.01	<.01	.04	.02	.01	.02	.02	
	1,200	.02	.03	.05	<.01	<.01	.05	.03	.02	.02	.03	
	1,400	.03	.04	.06	<.01	.01	.06	.03	.02	.03	.04	
	1,600	.04	.05	.07	.01	.02	.08	.04	.03	.04	.06	
	1,800	.05	.06	.08	.02	.02	.10	.05	.04	.06	.07	
	2,000	.06	.07	.09	.02	.03	.12	.07	.05	.07	.09	
	2,200	.07	.09	.10	.02	.03	.14	.08	.06	.08	.10	
2,400	.08	.11	.12	.03	.04	.16	.09	.07	.10	.12		
15	1,400	.03	.04	.06	<.01	.01	.06	.03	.02	.03	.04	
	1,500	.03	.04	.06	.01	.02	.07	.04	.03	.04	.05	
	2,000	.06	.07	.09	.02	.03	.12	.07	.05	.07	.09	
	2,500	.09	.12	.12	.03	.04	.17	.10	.07	.11	.13	
	3,000	.13	.17	.16	.04	.06	.23	.14	.10	.15	.19	
	3,500	.18	.23	.19	.06	.08	.30	.18	.14	.21	.25	
3,600	.19	.24	—	.06	.09	.31	.19	.15	.22	.27		
20	1,800	.02	.03	.06	<.01	.01	.07	.04	.02	.03	.03	
	2,000	.03	.04	.07	.01	.02	.08	.04	.03	.04	.04	
	2,500	.04	.06	.09	.02	.03	.12	.07	.04	.06	.06	
	3,000	.06	.08	.12	.03	.04	.16	.09	.06	.09	.08	
	3,500	.09	.11	.14	.04	.05	.21	.12	.08	.12	.11	
	4,000	.11	.15	.17	.05	.07	.26	.16	.10	.15	.15	
	4,500	.14	.19	—	.06	.09	.31	.19	.13	.20	.19	
4,900	.17	.22	—	.07	.10	.36	.22	.16	.23	.22		
25	2,300	.04	.05	.08	.02	.02	.10	.06	.03	.05	.05	
	2,500	.04	.06	.09	.02	.03	.12	.07	.04	.06	.06	
	3,000	.06	.08	.12	.03	.04	.16	.09	.06	.09	.08	
	3,500	.09	.11	.14	.04	.05	.21	.12	.08	.12	.11	
	4,000	.11	.15	.17	.05	.07	.26	.16	.10	.15	.15	
	4,500	.14	.19	—	.06	.09	.31	.19	.13	.20	.19	
	5,000	.17	.23	—	.07	.11	.38	.23	.16	.24	.23	
5,500	.21	.28	—	.09	.13	.44	.28	.20	.29	.28		
30	2,700	.03	.04	.07	.01	.02	.09	.05	.03	.04	.04	
	3,000	.04	.05	.08	.02	.02	.10	.06	.04	.05	.05	
	4,000	.06	.09	.12	.03	.04	.17	.10	.06	.10	.08	
	5,000	.10	.13	.16	.04	.06	.24	.14	.10	.15	.13	
	6,000	.14	.19	—	.06	.09	.33	.20	.14	.21	.19	
	6,500	.17	.23	—	.07	.11	.38	.23	.17	.25	.22	
35	3,200	.04	.05	.09	.02	.03	.11	.06	.04	.06	.05	
	4,000	.06	.09	.12	.03	.04	.17	.10	.06	.10	.08	
	5,000	.10	.13	.16	.04	.06	.24	.14	.10	.15	.13	
	6,000	.14	.19	—	.06	.09	.33	.20	.14	.21	.19	
	7,000	.20	.26	—	.09	.13	.43	.27	.20	.29	.25	
	8,000	.26	.34	—	.11	.16	—	—	—	—	.33	
8,500	.29	.39	—	.13	.18	—	—	—	—	.37		
40	3,700	.04	.06	.09	.02	.03	.11	.06	.04	.07	.06	
	4,000	.05	.07	.10	.02	.03	.13	.07	.05	.08	.07	
	5,000	.08	.11	.13	.03	.05	.19	.11	.08	.12	.10	
	6,000	.11	.15	.17	.05	.07	.26	.16	.12	.18	.15	
	7,000	.16	.21	—	.07	.09	.33	.21	.16	.24	.20	
	8,000	.20	.27	—	.09	.12	.42	.26	.21	.31	.26	
8,500	.23	.31	—	.10	.14	—	—	—	—	.30		

ENGINEERED PRODUCTS

MS(10-40) (A,B)† D Evaporative Cooler Specifications

MODEL	A
10/15	32-7/8" (835)
20/25	43-7/8" (1114)
30/35	54-7/8" (1394)
40	60-3/8" (1534)



D3673A

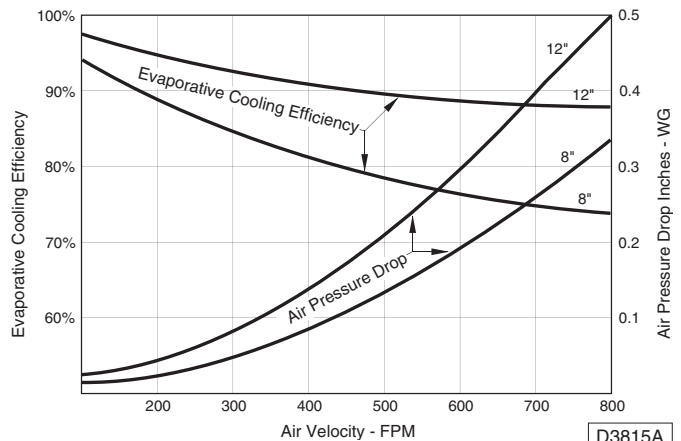
Performance and Dimensional Data

Capacity 10-40	CFM (cu. m/s)		8" Saturation Efficiency Range		12" Saturation Efficiency Range		8" or 12" Media Face Area		Pressure Drop in W.C.		"A" Unit Width	Shipping Wt.*	Operating Wt.*
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	Ft. ² (m ²)	Size in. (mm)	(kPa) MIN.	(kPa) MAX.	in. (mm)	lb. (kg)	lb. (kg)
□ 10, 15	800 (0.378)	4,500 (2.124)	78	88	89	92	7.01 (0.65)	31 x 32-9/16 (787 x 827)	0.03 (0.01)	0.23 (0.06)	32-3/4 (832)	137 (62)	301 (137)
□ 20, 25	1,600 (0.755)	5,500 (2.596)	77	88	88	92	9.38 (0.87)	31 x 43-9/16 (787 x 1106)	0.03 (0.01)	0.20 (0.05)	43-3/4 (1111)	166 (75)	386 (175)
□ 30, 35	2,400 (1.133)	8,500 (4.012)	77	86	88	92	11.75 (1.09)	31 x 54-9/16 (787 x 1386)	0.05 (0.01)	0.30 (0.07)	54-3/4 (1391)	192 (87)	468 (212)
□ 40	3,200 (1.510)	8,500 (4.012)	77	86	87	92	12.92 (1.20)	31 x 60 (787 x 1524)	0.07 (0.02)	0.28 (0.07)	60-1/4 (1530)	206 (93)	509 (231)

*These approximate weights are for the Evaporative Cooler Module only. These weights are already included in the total unit net and shipping weights (see next page).

CELdek® EVAPORATIVE MEDIA

The Evaporative Cooler utilizes high efficiency CELdek® media. CELdek® is made from a special cellulose paper, impregnated with insoluble anti-rot salts and rigidifying saturants. The cross fluted design of the pads induces highly-turbulent mixing of air and water for optimum heat and moisture transfer. The evaporative coolers utilize 8" CELdek® as standard equipment. Optional 12" CELdek®, 8" and 12" GLASdek® are also available. A 2" distribution pad is used to disperse the water evenly over the pads.



D3815A

EVAPORATIVE COOLER EFFICIENCY/A.P.D. CHART



MS(10-40) (A,B)† D Weights & Filter Data

Unit Weights

Approximate weights for Arrangement "D"†			
Unit Type	Net Wt. †	Ship Wt.†	Add for
Capacity	(Lb.)	(Lb.)	Outside Air Hood
MS10	705	904	43
MS15	757	956	43
MS20	893	1102	51
MS25	935	1144	51
MS30	1083	1301	59
MS35	1134	1352	59
MS40	1220	1443	63

Filter Data

Capacity	(Quantity) Filter Size
10, 15	(4) 16 x 20
20,25	(4) 20 x 20
30, 35	(4) 16 x 20
	(2) 20 x 20
40	(6) 20 x 20

Conversion 1 lb. = 0.453 kg.

†The approximate net and shipping weights shown are for a basic unit (these weights do not include the motor, air hood or any options). If the unit is equipped with an outside air hood, add the weights accordingly (see above). Also add in the motor weight; see motor specifications sheet #MDS-1 for these weights/amperages.

MODEL NUMBER

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	+
(MXX) -	M	S	*	*	*	†	D										

DIGITS 3 & 4 = (CA) CAPACITY, DIGIT, 5 = (FT) FURNACE TYPE, DIGIT 6 = †(FM) FURNACE MATERIAL.
REFER TO CATALOG FOR MODEL NUMBER DESCRIPTION.