

TEST UNIT: APPLICATION: 6590  
 MANUFACTURER: WONDER METALS CORPORATION TEST NO.: 6590-I1  
 MODEL NO.: EX-430 DATE OF TEST: 6/24/87  
 SIZE: 48 X 48 X 4 TEST TYPE: AIR FLOW TEST  
 DEVICE TYPE: LOUVER, NON-DRAINABLE INTAKE MODE  
 APPURTENANCES: NONE  
 TEST METHOD PER AMCA STANDARD 500-83  
 TEST SETUP: PER FIGURE 5.5  
 AIR FLOW MEASUREMENT: PER FIGURE 6.5  
 BLADE OPENING: FIXED OPEN  
 TORQUE: NONE  
 AMCA FREE AREA SQ. FT.: 7.77  
 REMARKS: CONTRACT TEST

RESULTS AT TEST CONDITIONS

DET	DENSITY	PS	VELOCITY	CFM
1	0.07162	.399	1541.0	11973.2
2	0.07159	.260	1246.6	9686.3
3	0.07157	.140	916.5	7121.1
4	0.07156	.060	603.5	4689.4
5	0.07155	.015	297.7	2313.0

RESULTS AT STANDARD AIR DENSITY

PS	VELOCITY	CFM
.418	1541.0	11973.2
.272	1246.6	9686.3
.147	916.5	7121.1
.063	603.5	4689.4
.016	297.7	2313.0

INPUT DATA FOR TEST NUMBER: 6590-11

DET	D6	DN	PS	PD	DB2	DB5	DBO	WBO	PB	DBB
1	1.31512	0.77364	.399	4.730	79.4	79.6	79.0	64.1	29.40	77.1
2	1.31512	0.77364	.260	3.100	79.4	79.6	79.0	64.1	29.40	77.1
3	1.31512	0.77364	.140	1.680	79.4	79.6	79.0	64.1	29.40	77.1
4	1.31512	0.77364	.060	.732	79.4	79.6	79.0	64.1	29.40	77.1
5	1.31512	0.77364	.015	.180	79.4	79.6	79.0	64.1	29.40	77.1

TEST UNIT: APPLICATION: 6590  
 MANUFACTURER: WONDER METALS CORPORATION TEST NO.: 6590-E1  
 MODEL NO.: EX-430 DATE OF TEST: 6/24/87  
 SIZE: 48 X 48 X 4 TEST TYPE: AIR FLOW TEST  
 DEVICE TYPE: LOUVER, NON-DRAINABLE EXHAUST MODE  
 APPURTENANCES: NONE  
 TEST METHOD PER AMCA STANDARD 500-83  
 TEST SETUP: PER FIGURE 5.5  
 AIR FLOW MEASUREMENT: PER FIGURE 6.5  
 BLADE OPENING: FIXED OPEN  
 TORQUE: NONE  
 AMCA FREE AREA SQ. FT.: 7.77  
 REMARKS: CONTRACT TEST

RESULTS AT TEST CONDITIONS

DET	DENSITY	PS	VELOCITY	CFM
1	0.07148	.400	1545.7	12009.8
2	0.07146	.260	1247.8	9695.4
3	0.07144	.146	932.6	7246.2
4	0.07142	.065	613.6	4767.4
5	0.07141	.015	300.5	2334.6

RESULTS AT STANDARD AIR DENSITY

PS	VELOCITY	CFM
.420	1545.7	12009.8
.273	1247.8	9695.4
.153	932.6	7246.2
.068	613.6	4767.4
.016	300.5	2334.6

INPUT DATA FOR TEST NUMBER: 6590-E1

DET	D6	DN	PS	PD	DB2	DB5	DBO	WBO	PB	DBB
1	1.31512	.77364	.400	4.750	80.3	80.5	79.1	64.5	29.40	77.7
2	1.31512	.77364	.260	3.100	80.3	80.5	79.1	64.5	29.40	77.7

3	1.31512	.77364	.146	1.736	80.3	80.5	79.1	64.5	29.40	77.7
4	1.31512	.77364	.065	.755	80.3	80.5	79.1	64.5	29.40	77.7
5	1.31512	.77364	.015	.183	80.3	80.5	79.1	64.5	29.40	77.7

-----

TEST UNIT: APPLICATION: 6590  
 MANUFACTURER: WONDER METALS CORPORATION TEST NO.: 6590-W1  
 MODEL NO.: EX-430 DATE OF TEST: 6/6/87  
 SIZE: 48 X 48 X 4 TEST TYPE: WATER PENETRATION  
 DEVICE TYPE: LOUVER, NON-DRAINABLE  
 APPURTENANCES: NONE  
 TEST METHOD PER AMCA STANDARD 500-75  
 TEST SETUP: PER FIGURE 5.6  
 AIR FLOW MEASUREMENT: PER FIGURE 6.3  
 WATER DROP RATE (INCHES/HR): 4.0  
 WETTED WALL WATER FLOW RATE (GPM/FT): 0.25  
 DURATION OF EACH DETERMINATION (MINUTES): 15  
 AMCA FREE AREA SQ. FT.: 7.77

REMARKS:  
 CONTRACT TEST  
 AMCA FREE AREA USED TO COMPUTE FREE AREA VELOCITY  
 CAULK APPLIED AT LOWER JAMB AND SILL JOINTS

RESULTS

DET	DENSITY	WATER CARRYOVER OUNCES	OUNCES/SQ.FT. FREE AREA	CFM	AIR FLOW VELOCITY THROUGH FREE AREA
1	0.07543	.004	.000	4599	591.8
2	0.07543	.007	.001	5332	686.2
3	0.07543	.025	.003	6101	785.2
4	0.07543	.265	.034	6849	881.5
5	0.07543	16.945	2.181	7563	973.4
6	0.07543	72.215	9.294	7972	1026.0

INPUT DATA FOR TEST NUMBER: 6590-W1

D6 = 1.34112: EQUIVALENT NOZZLE DIAMETER IN FEET

DN = 1.04143: MULTIPLE NOZZLE CONSTANT FOR 14 AND 8 INCH NOZZLES

DET	PS	PD	DB1	DBO	WBO	PB	DBB	TOTAL WT. GRAMS	TARE WT. GRAMS
1	.070	.700	62.4	51.0	63.5	29.46	72.5	15.90	15.80
2	.100	.940	62.4	51.0	63.5	29.46	72.5	20.10	19.90
3	.130	1.230	62.4	51.0	63.5	29.46	72.5	24.50	23.80
4	.180	1.550	62.4	51.0	63.5	29.46	72.5	43.40	35.90
5	.200	1.890	62.4	51.0	63.5	29.46	72.5	617.60	137.20
6	.230	2.100	62.4	51.0	63.5	29.46	72.5	2575.00	527.70