United Enertech

(ENGINEERS)

SUBMITTAL DATA

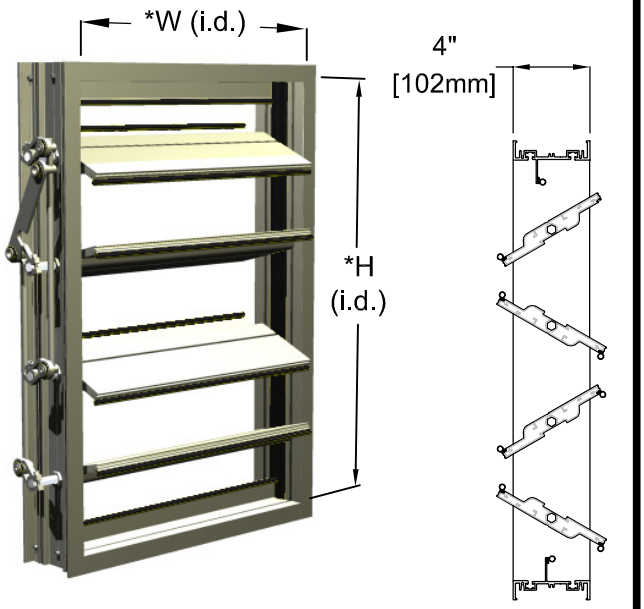
SALT WATER RESISTANT DAMPER

Flange Face Mated

Design:

This damper is designed for coastal climate applications as it is constructed of anodized aluminum and 316 stainless steel components. The SW-155, 156 provides high performance in the form of low leakage and low pressure drop.

Standard Construction:	
Frame:	0.125" [3.18mm] Extruded alum. (clear anodized)
Blade:	Heavy duty double construction extruded aluminum (clear anodized)
Blade Type:	Hollow Airfoil with end caps
Linkage:	Aluminum and 316 stainless steel
Axle Bearing:	Celcon inner bearing fixed to a 316 Stainless Steel hexagon blade pin rotating within polycarbonate outer bearing inserted in frame
Axle Material:	$\frac{7}{16}$" [11mm] 316 Stainless Steel hexagon
Blade & Jamb Seals:	TPV "Santoprene" blade and jamb gasket



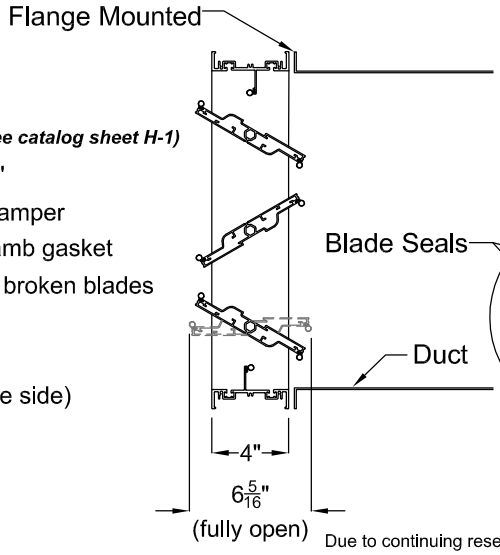
Temp. Range
-40°F to 200°F
(-4.4°C to 93.3°C)

For Airflow and Leakage Performance, see catalog A-12e (thermal efficiency performance does not apply to model SW-155, 156 unless ordered with insulated blade option)

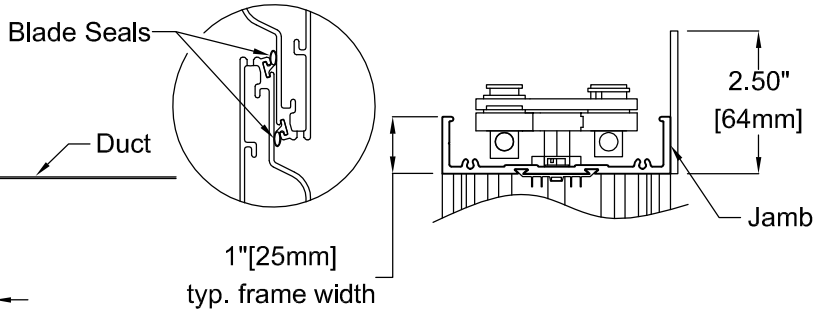
*Sizes are exact inside dimensions (I.D.)
Minimum Size: 6"w x 7"h [152mm x 179mm](single blade)
Maximum Size: 60"w x 72"h [1524mm x 1828mm] (single section)
Maximum multi-section: Unlimited
Dampers larger than single section maximum are furnished in an assembly of 48"w x 72" (1219mm x 1829mm) or less equal sized individual sections

Options:

- ☐ Hand Quadrant
- ☐ Factory Actuators ***(See catalog sheet H-1)***
- ☐ Stand Off Bracket, 2"
- ☐ Face and By-pass Damper
- ☐ Silicone blade and jamb gasket
- ☐ Insulated, Thermally broken blades (No blade end caps)
- ☐ Ducted Application (Add flange to linkage side)



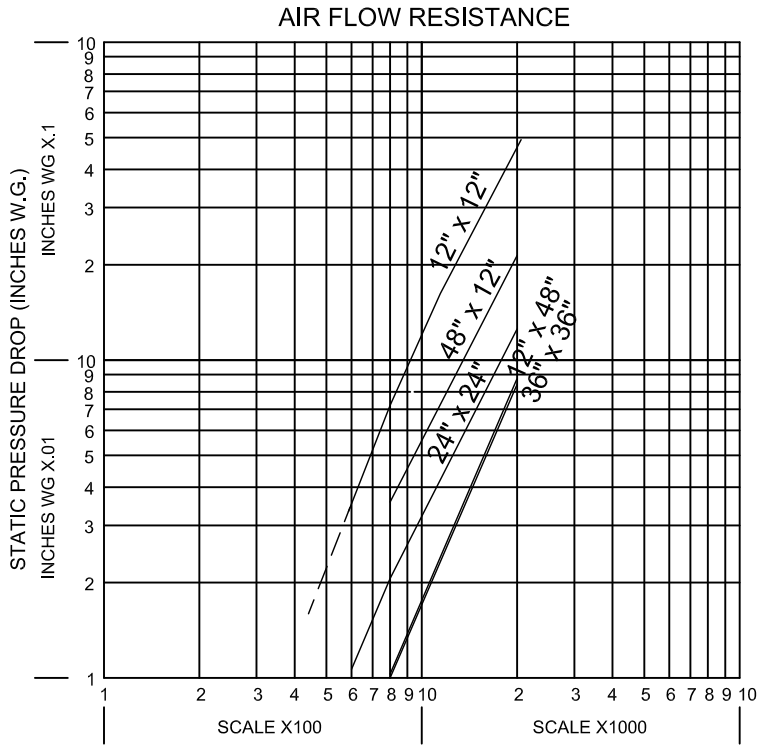
*For in duct applications see below:
(Width I.D. plus 3.50" = duct mount damper (w) O.D.)
(Height I.D. plus 2" = duct mount damper (h) O.D.)



Due to continuing research, United Enertech reserves the right to change specifications without notice.

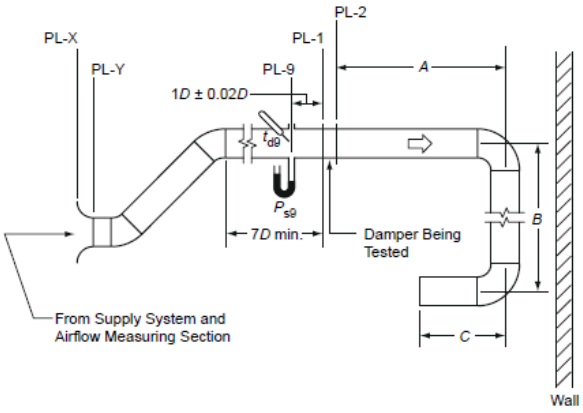
Job Name:	☐ **MODEL SW-155 (Opposed)**		
Location:	☐ **MODEL SW-156 (Parallel)**		
Architect:	DRAWN BY: CLJ	DATE: January 2014	REV. DATE:
Engineer:	REV. NO.	APPROVED BY: BGT	DWG. NO.: **A-12f**
Contractor:			

MODEL SW-155,156 PERFORMANCE DATA



SW155,156 sizes: 12" x 12", 24" x 24", 48" x 12", 12" x 48", 36" x 36"
(305 x 305mm, 610 x 610mm, 1219 x 305mm, 305 x 1219mm, 914 x 914mm)

Pressure drop test per AMCA Standard 500-D, Figure 5.3.



AMCA Figure 5.3 Pressure Drop

United Enertech certifies that the SW-155 is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Rating Seal applies to Air Performance and Air Leakage ratings.

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12x12 Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
591	3.01	0.034	8.47
800	4.08	0.073	18.18
1207	6.16	0.168	41.85
1611	8.22	0.302	75.22
2024	10.32	0.487	121.30

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

48x12 Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
398	2.03	0.008	1.99
801	4.09	0.036	8.97
1193	6.08	0.077	19.18
1596	8.14	0.135	33.63
1998	10.19	0.216	53.80

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

24x24 Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
599	3.05	0.012	2.99
800	4.08	0.021	5.23
1203	6.14	0.047	11.71
1601	8.17	0.084	20.92
2004	10.22	0.129	32.13

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

36x36 Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
595	3.03	0.005	1.25
792	4.04	0.011	2.74
1193	6.08	0.030	7.47
1590	8.11	0.050	12.45
1994	10.17	0.084	20.92

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

12x48 Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
397	2.02	0.001	0.25
801	4.09	0.012	2.99
1193	6.08	0.030	7.47
1596	8.14	0.052	12.95
2000	10.20	0.087	21.67

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

MODEL SW-155 PERFORMANCE DATA (continued)

Imperial Units (SW-155, Forward Flow)

Damper Width X Height	1 in. w.g.	4 in. w.g.	8 in. w.g.	*Torque (per sq. ft.)
12" X 48"	Class 1A	Class 1	Class 1	16.5 lbs-in
36" X 36"	Class 1A	Class 1	Class 1	13.3 lbs-in
60" X 36"	Class 1A	Class 1	Class 2	9.6 lbs-in

*Torque applied to close and seat damper in during the test.

Imperial Units (SW-155, Reverse Flow)

Damper Width X Height	1 in. w.g.	4 in. w.g.	8 in. w.g.	*Torque (per sq. ft.)
12" X 48"	Class 1A	Class 1	Class 1	16.5 lbs-in
36" X 36"	Class 1A	Class 1	Class 1	13.3 lbs-in
60" X 36"	Class 1A	Class 1	Class 1	9.6 lbs-in

*Torque applied to close and seat damper in during the test.

Metric Units (SW-155, Forward Flow)

Damper Width X Height	0.25 kPa	1.0 kPa	2.0 kPa	*Torque (per sq. m.)
305 X 1220	Class 1A	Class 1	Class 1	20.2 N-m
915 X 915	Class 1A	Class 1	Class 1	16.1 N-m
1524 X 915	Class 1A	Class 1	Class 2	11.7 N-m

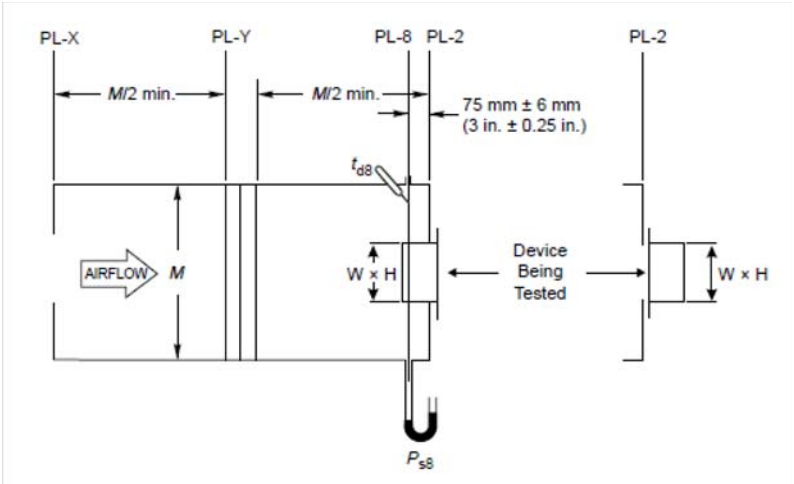
*Torque applied to close and seat damper in during the test.

Metric Units (SW-155, Reverse Flow)

Damper Width X Height	0.25 kPa	1.0 kPa	2.0 kPa	*Torque (per sq. m.)
305 X 1220	Class 1A	Class 1	Class 1	20.2 N-m
915 X 915	Class 1A	Class 1	Class 1	16.1 N-m
1524 X 915	Class 1A	Class 1	Class 1	11.7 N-m

*Torque applied to close and seat damper in during the test.

Air leakage is based on operation between 50° F to 104° F. All data corrected to represent air density of 0.075 lbs/ft³. Tested per AMCA Standard 500-D (leakage), figure 5.4 Alternate.



AMCA Standard 500-D (leakage), figure 5.4 Alternate.

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Pressure Class	Leakage, ft³/min /ft² Required Rating 1"	4"	Extended Ranges (optional) 8"	12"
1A	3	n/a	n/a	n/a
1	4	8	11	14
2	10	20	28	35
3	40	80	112	140

All data corrected to represent standard air at a density of 0.075 lbs/ft³