

(ENGINEERS)

SALT WATER RESISTANT DAMPER

4"

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)

 *H

 (i.d.)

W (i.d.) _

*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



(Height I.D. plus 2" = duct mount damper (h) O.D.)



typ. frame width

(fully open) 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:	DATE:	REV. DATE:	
Engineer:	CLJ	January 2014	May 2022	
	REV. NO.	APPROVED BY:	DWG. NO.:	
Contractor:	3	BGT	A-12f	

6<u>5</u>"

Options:

- Hand Quadrant
- □ Factory Actuators (See catalog sheet H-1)

ordered with insulated blade option)

For Airflow and Leakage Performance, see

catalog A-12e (thermal efficiency performance

Flange Mounted

does not apply to model SW-155, 156 unless

- □ 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)

MODEL SW-155,156 PERFORMANCE DATA



TB-155,156 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

12x12 Pressure Drop	12x12	Pressure	Drop
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Face Velocity		Pressure Drop		
fpm	(m/s)	inches w.g. (Pa)		
591	3.01	0.03	7	
800	4.08	0.07	17	
1207	6.16	0.16	40	
1611	8.22	0.30	75	
2024	10.32	0.48	120	

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	2		
801 4.09		0.03	7		
1193	6.08	0.07	17		
1596	8.14	0.13	32		
1998	10.19	0.21	52		

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	0.01	2		
800	4.08	0.02	5		
1203	6.14	0.04	10		
1601	8.17	0.08	20		
2004	10.22	0.12	30		

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

36x36 Pressure Drop				
Face V	elocity/	Pressure	Drop	
fpm	(m/s)	inches w.g.	(Pa)	
595	3.03	0.005	1	
792	4.04	0.01	2	
1193	6.08	0.03	7	
1590	8.11	0.05	12	
1994	10.17	0.08	20	

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)		
390	1.99	0.005	1		
798 4.07		0.02	5		
1185	6.04	0.05	12		
1586	8.09	0.10	25		
2008	10.24	0.17	42		

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

MODEL SW-155 PERFORMANCE DATA (continued)

Imperial Units

Imperial	Units	(SW-155, Fo	orward Flow)		
Damper	4 1	A in	0 in	*Torque	
Width X Height	1 in. w.g.	4 In. w.g.	8 in. w.g.	(per sq. ft.)	
12" X 48"	Class 1	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	1 in wa	4 in wa	8 in wa	*Torque
Width X Height	T III. W.G.	4 m. w.y.	6 m. w.g.	(per sq. ft.)
12" X 48"	Class 1	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	M	etr	ic	U	ni	ts
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(SW-155, Forward Flow)

Damper	0.25 kPa	1.0 kPa	2.0 kPa	*Torque
width X Height				(per 3q. m.)
305 X 1220	Class 1	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.

(SW-155, Reverse Flow)

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Damper			0.015	*Torque
Width X Height	0.25 KPa	1.0 кРа	2.0 KPa	(per sq. m.)
305 X 1220	Class 1	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.

	Leakage, ft ³ /min /ft ²					
	Required Rating		Extended Ranges (optional)			
Pressure Class	1"	4"	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

