

FIRE AND SMOKE DAMPER

MODEL – FS – ST180



January 2026. Rev.0

 HUMITECHKOREA CO.,LTD.

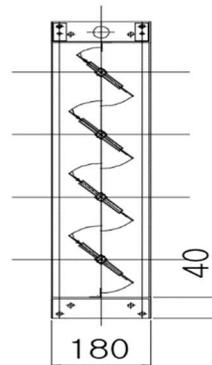
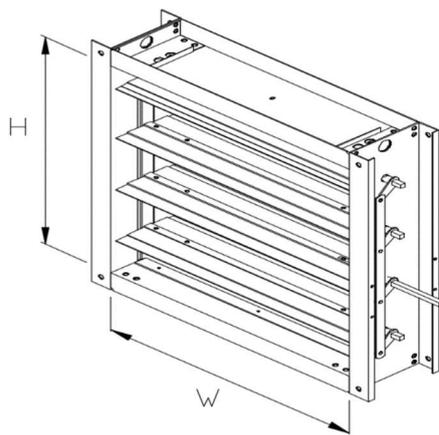
FIRE AND SMOKE DAMPER MODEL-FS-ST180

Application

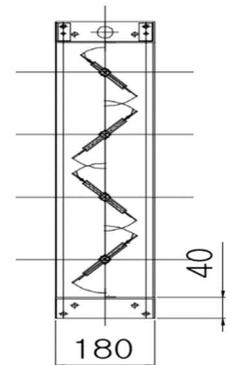
The Fire and Smoke Damper by HUMITECHKOREA Co., Ltd. features high-efficiency airfoil-type blades and has successfully passed rigorous air performance testing.



Dimensions



PARALLEL
BLADE



OPPOSED
BLADE

Standard Construction

- Frame : Channel-shaped steel, made of galvanized or stainless steel
- Blade : Double-skin, airfoil-shaped blade, made of galvanized or stainless steel
- Shaft : SM15C hexagonal Bar or Square Bar
- Blade Seal : Flexible metal compression type, made of Stainless steel
- Jamb Seal : Flexible metal compression type, made of Stainless steel
- Bearing : Stainless steel sleeve type

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Pressure Drop

Humitechkorea Co., Ltd. certifies that the FS-ST180 shown herein 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

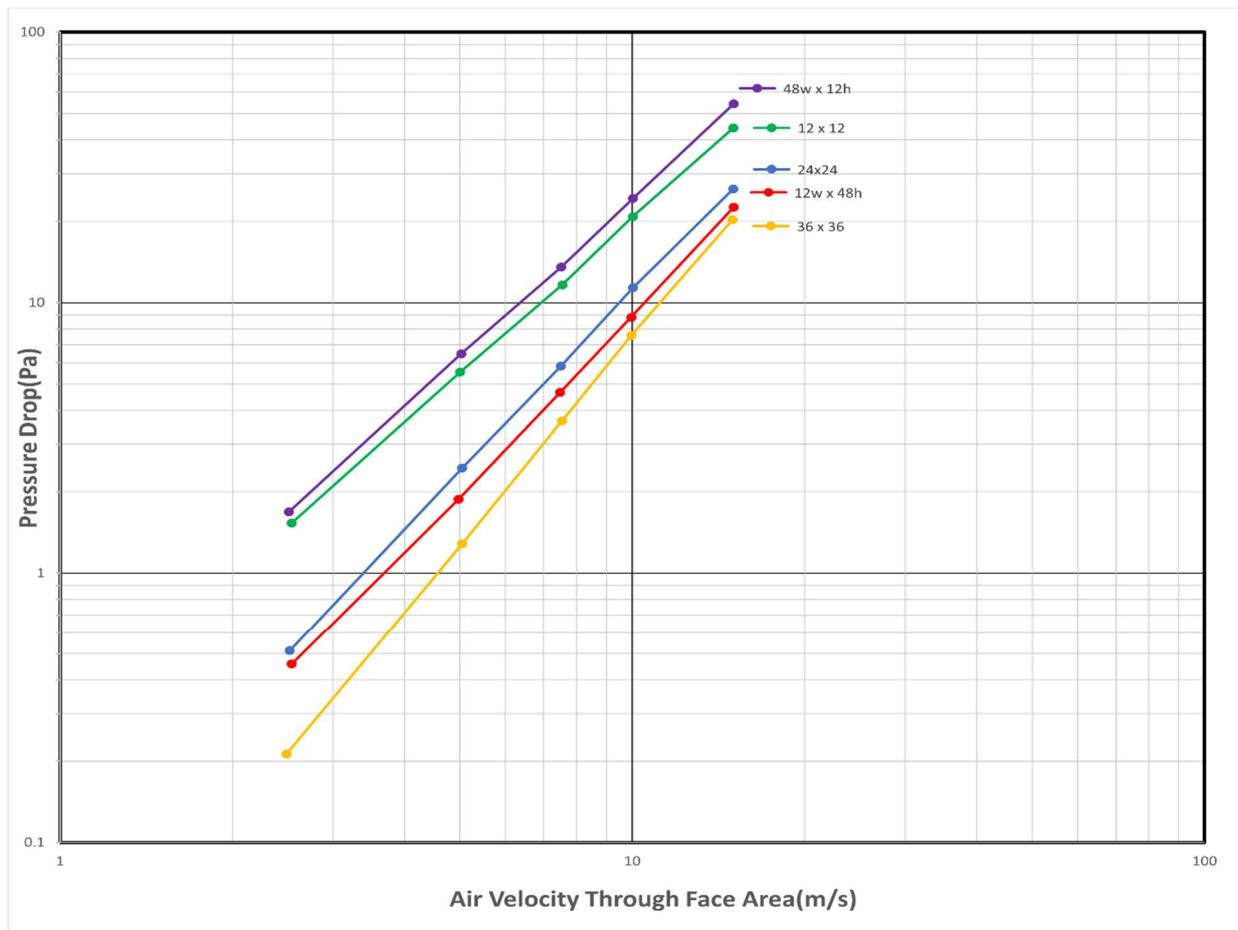
Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.



Test Information

- Tested for air performance in accordance with ANSI/AMCA500-D, Figure 5.3
- Tested damper size(width X height): 12”X12”, 24”X24”, 36”X36”, 12”X48”, 48”X12” (5Set)

Air Performance



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Leakage Performance

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Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.



Test Information

- Air leakage is based on operation between 32°F and 120°F
- Tested for air leakage in accordance with ANSI/AMCA Standard 500-D, Figure 5.5 Alternate
- Tested damper size (width X height): 12"X48", 118"X36" (2Set)
- Closure method: Torque arm & hanging weights
- Data are based on a torque of 22Nm/m² applied to close and seat the damper during the test

Torque

Damper Size (Inchs)	Torque (Nm)
12(W) X 48(H)	8.2
118(W) X 36(H)	60

Leakage Class

Damper Size (Inchs)	Pressure				
	1 in. wg	4 in. wg	6 in. wg	8 in. wg	10 in. wg
12(W) X 48(H)	1A	1	1	2	2
118(W) X 36(H)	1A	1	1	1	1

Allowable Air Leakage to Achieve Classification

SI	Maximum Allowable Leakage, L/s/m ²		
Class	at 0.25 kPa	at 1.0 kPa	at x kPa
1A	15.2	N/A	N/A
1	20	40	$2\sqrt{x} \times 20$
2	51	102	$2\sqrt{x} \times 51$
3	203	406	$2\sqrt{x} \times 203$

I-P	Maximum Allowable Leakage, cfm/ft ²		
Class	at 1 in. wg	at 4 in. wg	at x in. wg
1A	3	N/A	N/A
1	4	8	$\sqrt{x} \times 4$
2	10	20	$\sqrt{x} \times 10$
3	40	80	$\sqrt{x} \times 40$

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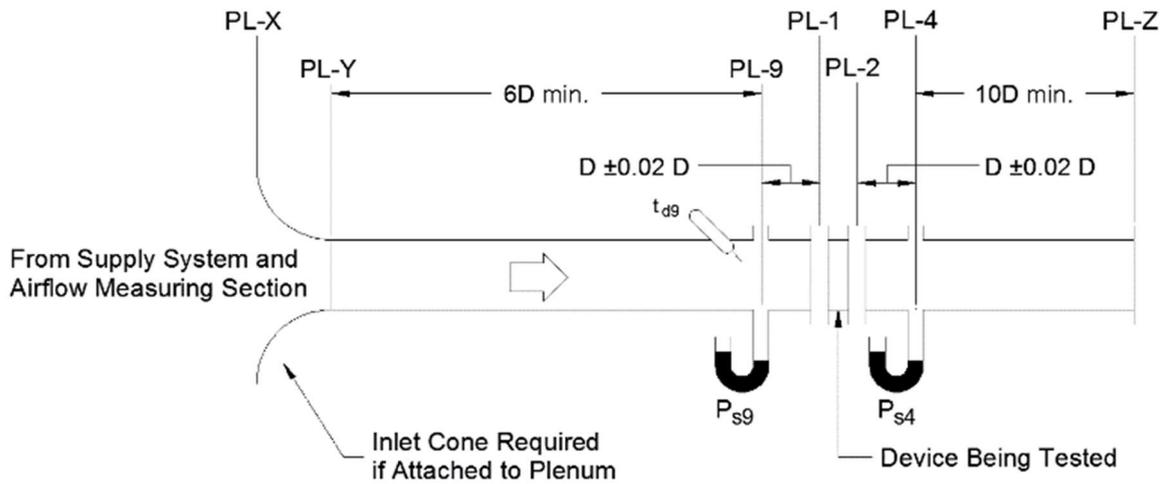


FIGURE 5.3 – Test Damper Setup with Inlet and Outlet Ducts

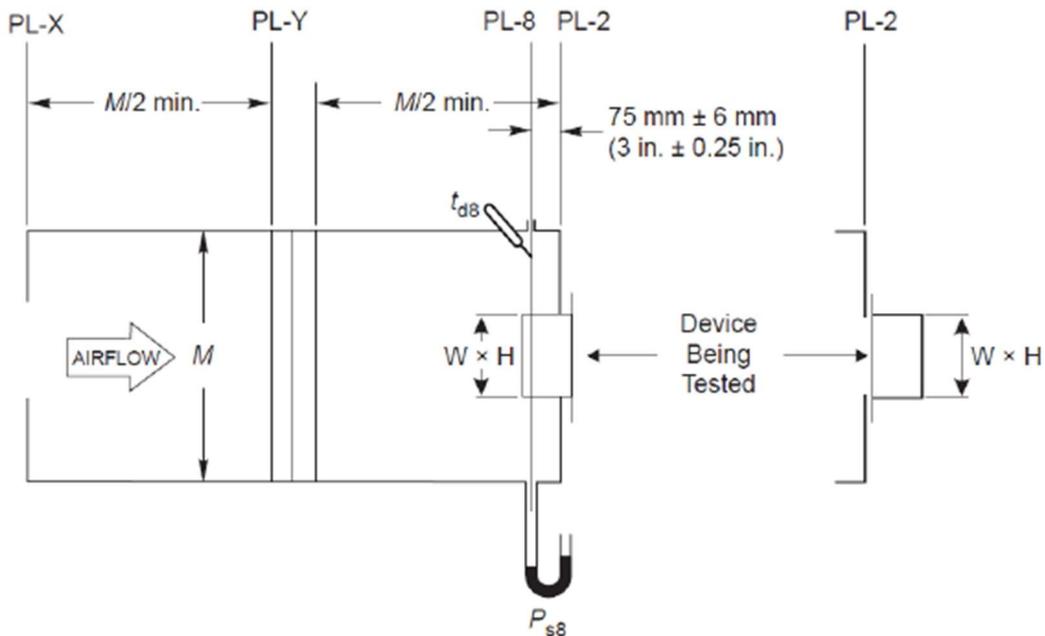


FIGURE 5.5 – Test Damper Setup with Inlet Chamber

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