

## KD-TH Heavy Duty Non Return Damper

### ■ Description

Non return damper (KD-TH) is a heavy duty non return damper designed for automatic shut off of individual section of air conditioning system. Contemporary styling features blades that overlap the frame for optimum leakage proof. The damper's aesthetical appearance is maintained by sturdy, corrosion resistant aluminum and galvanized steel construction.

### ■ Materials

- Frame: Galvanized steel, 1.6mm thickness.
- Blade: Aluminum Sheet, 1.2mm thickness.

### ■ Surface Finish

- Frame: Mill galvanized.
- Blade: Mill aluminum.

### ■ Blade Action

- Parallel blade.

### ■ Blade Dimension Limits

- Maximum blade length = 1000mm
- Maximum blade width = 170mm

### ■ Temperature Limits

- -40°C to +93°C

### ■ Connection Method

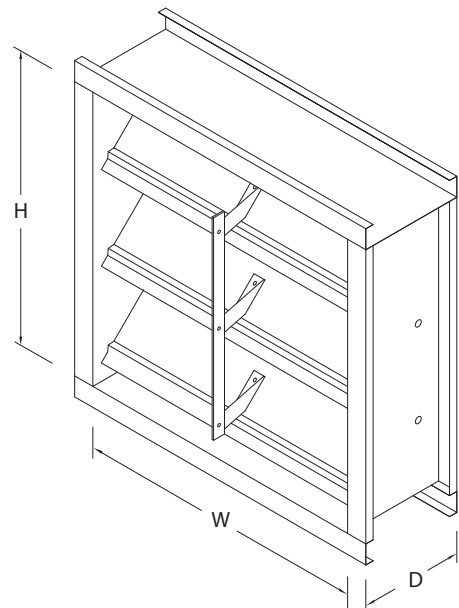
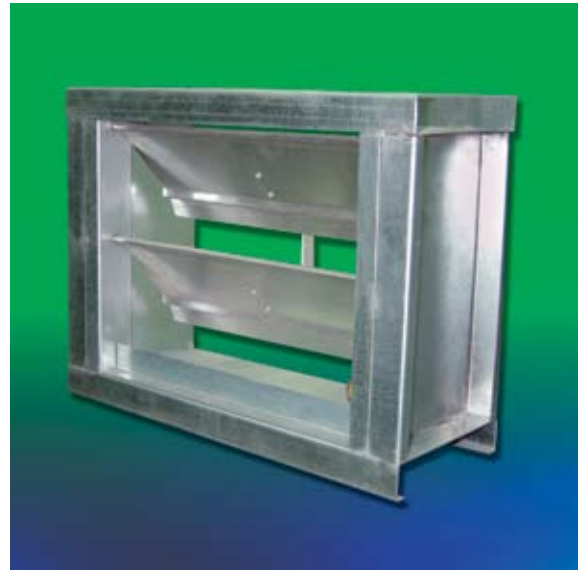
- Slip joint (S) or flange joint for TDC (T).

### ■ Operational Pressure

- Blades start to open at 0.10 inch w.g. operational pressure.
- Blades fully open at 0.15 inch w.g. operational pressure.

### ■ Recommended Installations

1. KD-TH should be located at least one-half the fan diameter away from the fan when used in fan discharge applications.
2. KD-TH has to be installed with blade running horizontally.
3. For proper operation, damper must be installed square and free from racking.
4. KD-TH is intended to be self-supporting only in the largest single section size. Bracing is required in multiple section damper assemblies to support the weight of the assembly and to hold against system pressure. It is recommended that appropriate bracing to support damper horizontally at least once for every 8 feet of damper width. More bracing may be required for vertical assemblies and higher system pressure.



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### ■ KD-TH Performance Data

Damper Width (inch)	Maximum Back Pressue (inch w.g.)	Maximum System Velocity (fpm)	Leakage	
			CFM /ft <sup>2</sup>	% in Max. Air Flow
48	3.0	1500	15	2.0
36	4.0	1500	18	2.0
24	5.0	1500	26	2.7
12	6.0	1500	38	3.3

• Leakage information is based on differential pressure of 1.0" w.g.

Air Velocity (m/s)	Total Pressure Drop (Pa)	
	Vertically Installed (Wall)	Horizontally Installed (Ceiling, Floor)
2	63	150
3	80	147
4	90	140
5	100	133
6	110	120
7	118	100
8	123	80

### ■ KD-TH Order Code Unit:mm

Model	Size (W xH x D)	Flanged
KD-TH	300mm x 300mm x 150mm	TDC Joint

**Example:** KD-TH-300mmX300mmX150mm-TDC Joint