FLOWTECH

HDD series

Heavy Duty Damper



amca CERTIFIED RATINGS
AIR LEAKAGE
AIR PERFORMANCE
AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.

FLOWTECH CO., LTD. certifies that the HDD shown herein are licensed to bear the AMCA Seal. the ratings shown arebased on tests andprocedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to air Leakage and air performance ratings only.



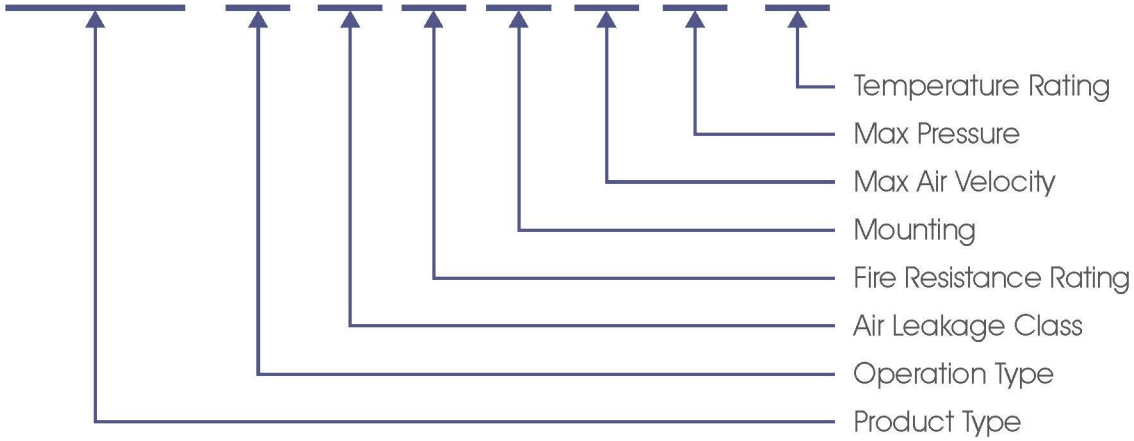
HDD-P (Parallel Blade)

HDD Series

Heavy Duty Damper

Designation ,Formula signs

HDD-P 1-3 V-3 D-D



Product Type		Blade Type	
HDD	Heavy Duty Damper	P	Parallel Blade
		O	Opposed Blade
Air Leakage Class		**Fire Resistance Rating**	
0	None Air Leakage	0	None Fire Rating
1	Class I	1	1 hr
2	Class II	2	1.5hr
3	Class III	3	3hr
Mounting		**Max Air Velocity**	
V	Vertical Mounting	1	10.2 m/s
H	Horizontal Mounting	2	15.2 m/s
		3	20.2 m/s
Max Pressure		**Temperature Rating**	
A	0.5kPa	A	74°C
B	1kPa	B	100°C
C	1.5kPa	C	121°C
D	2kPa	D	177°C
E	3kPa	E	233°C
F	6kPa	F	300°C

※ AMCA max test conditions
※ Max Air Velocity : 20.2 m/s
※ Max Pressure : 3kPa

DELIVERING AND HANDLING

After receiving the damper, please check if there is appearance and internal deformation or damage. If so, please notify us by letter or email immediately; Flowtech company will examine the issues, and replacement of faulty parts will take place. Please make sure all the accessories are checked and the component items are not losing. Damper must be storage indoor and kept in dry and clean place to prevent dust and fouling.

SAFETY WARNING

Incorrect installation, adjustment, modification and maintenance may cause product damage, personal injury and other danger circumstances. Please read the installation and the maintenance manual thoroughly beforehand.

WARRANTY

Flowtech company provide one year warranty for all products. Under the warranty period the dampers found in non artificial factors, Flowtech company will repair or replace without any charges to customers. If the damage caused by the improper artificial use factors or natural disasters, Flowtech company will not be responsible for the above cause.

CUSTOMER SERVICE

If there is any question, please contact our customer service.

TEL：+886-2-2232-8066 (Represent number)
FAX：+886-2-2231-0285

Design Principle

FLOWTECH Heavy Duty Damper (HDD) is constructed by high quality galvanized steel or stainless steel moving parts. The bush is made of phosphor bronze material while the damper frames constructed of 2mm or thicker galvanized steel or SUS, 150 mm x 50mm or more cold-formed channels with full-welded corners or metallic plug joints. The single 1.5mm or thicker double-skinned airfoil blades (total 3mm or more) with special edge seals ensure low air leakage through the closed damper and handle hot gases. To minimize air leakage, stainless steel jamb seals are incorporated on the vertical frames of the dampers. The blade axles are made of 15mm diameter steel shafts and pivot on phosphor bronze bushes. Sleeves may be used if the dampers are installed within the wall or connected to the adjoining ductwork. The sleeve and retaining angles may be supplied in galvanized steel. The dampers may be powered externally by electric or pneumatic actuators. Upon customer's requests, Flowtech HDD can be ordered in full stainless steel construction. The HDD is qualified to 4,000 fpm (20.2 m/s) and 12 in. w.g. (3 kPa) and may be installed in, or adjacent to vertical walls or partitions, or horizontally in, or adjacent to floors or assemblies.



FEATURES

Tough & Enduring

Flowtech HDD with their heavy gauge material construction and fully-welded corners or metallic plug joints, provide strength and tolerance to endure rough site handling .The specially-designed blades enable the dampers to withstand high pressure fluctuations.

Reliable & Superior in Quality

Flowtech HDD with high-quality galvanized steel or stainless steel components, can not only prevent human damage but also withstand the harsh operating environment.

Low Leakage

Flowtech HDD are designed to effectively seal openings when closed which is an essential feature of smoke control. Isolation dampers that are used in subway tunnels could control the movement of airflow and toxic smoke, such safety design is important to prevent loss of lives during a fire.

Low Airflow Resistance

Flowtech HDD aerodynamic design of airfoil blades present very low resistance.



Performance Test

Flowtech HDD and actuators have been rigorously tested according to UL555S: leakage rated dampers used in smoke control system for its reliability, temperature resistance, air tightness and ability to operate under dynamic conditions.

Pressure Resistance

Dampers are designed to withstand high pressure or applications with constant fluctuating pressures. Flowtech HDD was tested to endure the pressure of more than 6kPa (6000 pascals).



◆6kPa ◆6kPa

Temperature Resistance & Fire Endurance

Flowtech HDD and actuators are also designed to handle hot gases of temperatures ranging from 150°Cto 300°C, for duration of up to 60 min. This is possible because of the special insulation components used and the ability of the dampers to absorb the thermal expansion in the presence of hot gases. Actuator will break down after the fire happening for a long time. Although the fire temperature bring about fail actuator, but The HDD will be closed by actuator spring. The HDD was tested for 3 hour fire endurance to expose in fire zone. Also, prevent fire enlargement and building damage.



Maintenance & Installation

Holes on damper frames were pre-punched for easy installation. To install the dampers within building walls, sleeves would be used and provided with retaining angles for simple installation. Due to the high quality material used for the dampers and its moving parts, the dampers are virtually maintenance-free. Flowtech HDD comes in modular designs which can be easily assembled into larger dampers on site.

Operation & Control

Though Flowtech HDD are designed to be maintenance-free, the dampers may be tested regularly to ensure proper functioning of the pneumatic or electric system, and that there are no obstructions to the blade movements. Tests can be carried out remotely if the dampers are installed with suitable limit switches.



รายละเอียดเพิ่มเติม Part 2

SALE CONTACT

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