



## Fire/Smoke Damper

U.L. Listed

MODEL # 781 –HSP Class I MODEL # 781-3-HSP Class I Override & Re-settable AIRFOIL BLADES

½" dia. plated steel

solid jackshaft

Design Features – U.L. Rated for dynamic closure and classified 1 ½ hour Fire Rated Damper and 3 hour Fire Rated Damper Classified as a Leakage Rated Damper. Leakage Class I @ **250F**Conforms to NFPA 90A & NFPA 92-A. Classified under U.L. 555 6<sup>th</sup> edition and UL555S

Qualifies for July 1 2002 specifications. Seismic and Fragility tested.

## STANDARD CONSTRUCTION

FRAME - 4 5/16' deep, 16 gauge galvanized steel, Hat shaped design

Equivalent to 13 gauge U channel

BLADES- 6 1/2" wide, double wall 20 gauge galvanized steel in

airfoil shape, equivalent to 14 gauge

(Bottom blade may be triple "V" design and vary in height depending on damper height)

BLADE AXLES- 7/16" Plated hex mechanically fastened to blade

BEARING- Bronze oil impregnated self lubricating

LINKAGE- Opposed blade configuration, concealed inside the jamb.

CONTROL ROD - 1/2" steel rod extending 4 1/2" from damper side.

BLADE SEALS- Silicone seals

JAMB SEALS – Flexible Compression Stainless Steel

SLEEVE – 18 Gauge Galvanized steel - 16" long - Raw edges

HEAT RESPONSIVE DEVICE (HRD)- Control Closure Thermostat Primary -165 degrees F nominal

OVERRIDE / SECONDARY SENSOR (HRD) - Control closure Thermostat Secondary- @ 250 degrees F nominal

OPERATORS - Electric - 120 volt motor

2 position- non modulating type Normally Closed Position

END SWITCHES- 1End Switch Showing Open Position

1End Switch Showing Closed Position Integral in Damper actuator or Honeywell Dual Auxiliary switch Wired into common Junction box

Factory

Sleeve

TESTED AND LISTED UNDER U.L STANDARD 555S CLASS I 250F LEAKAGE RATED SMOKE DAMPER

Actuator

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Heat Sensor

SENSORS, ACTUATORS, END SWITCHES LISTED AS A COMPLETED ASSEMBLY

NOTE: Additional Sleeve or Side Plate length (over 16") will be added to the non Actuator side

## **OPERATION SEQUENCE**

Damper may be directed to open or close at the discretion of the engineered design concept. Upon activation from the smoke detector the Electric or Pneumatic Motor-actuator cycles the damper to close. Upon excessive duct ambient temperature the HRD interrupts power to the actuator and the actuator's spring return mechanism causes the damper to close. HRD may be bypassed by a remote electrical signal allowing the damper to reopen and remain open until the temperature reaches the setting of the secondary HRD. When the temperature exceeds the secondary HRD, the damper closes and remains closed. When supplied with Pneumatic controls, an EP switch will be required with an appropriate electric power circuit, to allow the electric HRD (thermostat) to control the pneumatic actuator. The HRD's can be reset after the temperature has cooled down below the HRD set point. Before resetting any HRD, a careful inspection of the damper and HRD should be made as exposure to actual fire conditions may render these devices unusable. See Installation Instructions, prior to installation

Contractor:_	—
Project:	 
Engineer:	

IMPERIAL DAMPER & LOUVER LLC 4228-38 Park Avenue

Bronx, New York 10457

Phone: 718-731-3800 Fax: 718-731-4920 Email Inquiry@Imperialdamper.com

All stated specifications are subject to change without notice or obligation.