



OPERATING & MAINTENANCE INSTRUCTIONS

PRESSURE RELIEF DAMPER

DESCRIPTION

The Puma range of Pressure Relief Dampers PRD's are designed to relieve the build up of pressure of a high volume gaseous fire extinguishing system discharge, whilst maintaining the fire integrity of the room.

All walls constructed to the relevant Building Standards & Regulations, that qualify as a ½ Hour, 1 Hour or 2 Hour Rating, can be fitted with a PUMA PRD to maintain the Fire Integrity of that wall, as long as the PRD is installed in accordance with the relevant Construction Standards with regard to Structural Strength and Wall Integrity.

The Puma PRD's are manufactured to a very high standard of construction. The frame and blades are formed from 18 SWG or 16 SWG zintec steel, oilite bearings and stainless steel shafts. Finished in attractive semi-gloss grey, powder coated to RAL 7035. There are nine standard sizes, PRD 150, PRD 300, PRD 375, PRD 450, PRD 525, PRD 600, PRD 675, PRD 750 and PRD 975 (non standard sizes and Duplex Models available on request). Please refer to Technical Sales Literature.

The standard 'complete' Pressure Relief Damper assembly consists of three basic components:

1. Inner Fire Weighted Flap Section – Mounted on inside of Room.
2. Telescopic wall liner - Two part sleeve extending from 170mm to 330mm
3. Outer Cat flap Weather Section - Mounted on outside of Room / Wall

Optional Components:

4. Anti-Intrusion Security Bars - For High Security Installations. – SEAP Class 3
5. Weather Louvre – IMPORTANT NOTE – Reduction in Free Vent Area F.V.A by 50%
6. Insect Guards – IMPORTANT NOTE – Reduction in Free Vent Area F.V.A by 65%
7. Egg Crate Grille – Used for internal walls on discharge side of PRD does not affect the F.V.A.

OPERATION

The weighted flaps on the Inner Fire Section will begin to open at pressure of approximately 40 to 100Pa. Outside 'Cat Flap' section will open at a area pressure of between 40 and 50 Pa and is designed to hold against wind turbulence and stack effect and also acts as a weather seal. The Cat Flap will always open to a Free Vent Area greater than the Free Vent Area of its appropriate Inner Fire Section.

INSTALLATION – WALL MOUNTING

To ascertain builder's wall cut out size, see Puma certified drawing provided. If wall thickness exceeds more than 130mm and has a cavity space then opening should be lined with either the wall sleeve or the 2 Part Telescopic Duct.

Install telescopic wall liner starting with the **largest** section fitted on the **external** side of building wall. Then fit the smaller section to the internal wall using suitable fixings and sealing mastic.

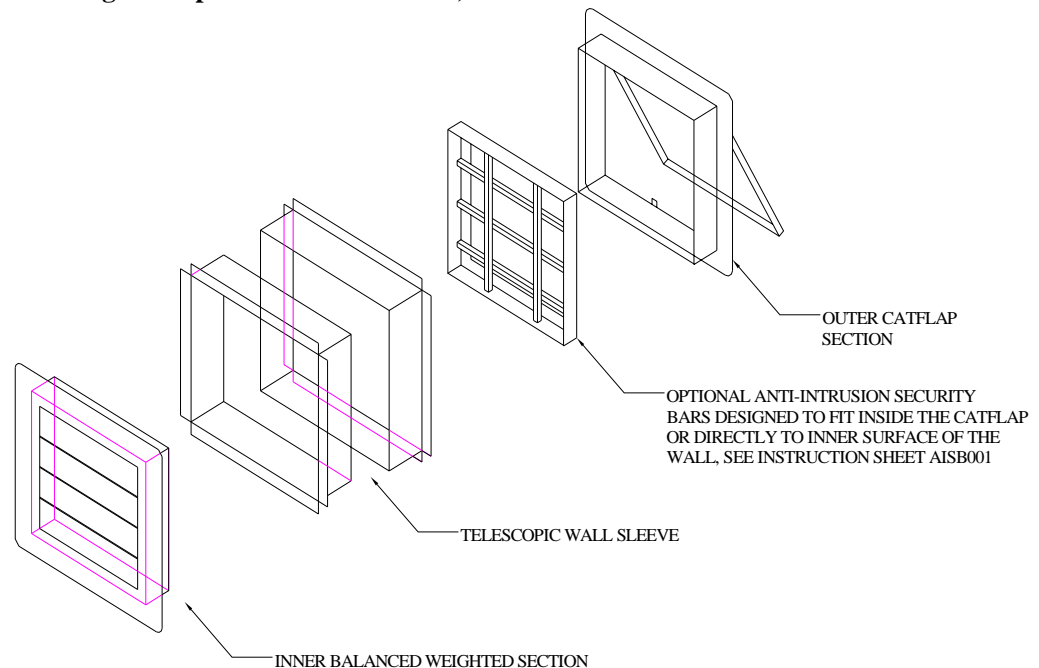
The Inner Fire Section (with the weighted flaps) locates into Telescopic Wall Liner on internal side (intake room side) of the building wall. Seal the joints using 'fire resistant' mastic and securing to wall using appropriate fixings through holes provided in outer flange.

The Flanges of the Inner Fire Section and Cat Flap share the same fixing centres.

The Weatherproof Cat Flap section (or optional Weather Louvre) is fitted to the external side of the building or wall (discharge side) locating inside the Telescopic Wall Liner. Seal the flanges using 'fire resistant' mastic and securing to wall using appropriate fixings through holes provided in outer flange (Note: Holes not provided in the Weather Louvre).

If the Cat Flap is deemed to cause an obstruction or hazard in the event of a Gas discharge then its opening can be restricted by the addition of a chain link. This will prevent the flap from opening fully into the occupied space limiting the potential to cause harm.

**NOTE: Ensure operation of cat flap is not obstructed as stated on outer warning label.
(See certified drawing for flap clearance dimension)**



INSTALLATION – DOOR MOUNTING

To ascertain cut out size within the door, see Puma certified drawing provided. In this application due to the thickness of the door, a door mounting frame will be required as shown on the certified drawing.

Ensure that when cutting the opening within the door that there is sufficient material all around the cut out to be able to fix the door mounting frame and grille to either side of the door.

The door mounting frame is to be fitted inside the room being protected. To fit the door mounting frame mark out the 8mm holes and if needed drill 3mm pilot holes within the door, use a suitable 'fire resistant' mastic when fitting the door mounting frame to the door with the screws provided.

The Inner Fire Section (with the weighted flaps) locates into the door mounting frame on the internal side (intake room side) of the door. Seal the Damper to the frame using 'fire resistant' mastic and secure using fixings provided through holes.

On the External side of the door fit either a Weather proof Catflap or Egg crate grille depending on whether the door is either internal or external. Weather Louvers can also be fitted on the external side, but are not recommended due to the restriction of Free Vent Area F.V.A that they cause.

MAINTENANCE

The Puma Pressure Relief damper has only mechanical moving parts and requires very low maintenance.

A regular check every 6 months on free movement of flaps on inner wall section is recommended to ensure full working operation of damper.

WARRANTY

6 Years from date of purchase, subject to certain conditions available on request.