



OPERATING & MAINTENANCE INSTRUCTIONS

DUPLEX ST PRESSURE RELIEF DAMPER

DESCRIPTION

The Puma range of Duplex Stainless Steel Pressure Relief Dampers, (ST PRD), are designed to relieve the high pressure spike, or pulse from a gaseous fire extinguishing system discharge, whilst maintaining the fire integrity of room in offshore facilities such as drilling platforms or ships.

All walls constructed to the appropriate International Maritime Organisation (IMO) standards & regulations, qualifying up to a 2 hour rating and H60 rating, can be fitted with a Puma Duplex ST PRD to maintain the fire integrity of that wall. The Puma Duplex ST PRD must be installed within a 900mm long duct, in accordance with the relevant construction standards with regard to fire resistance, structural strength, and wall integrity.

The Puma Duplex ST PRD's are manufactured to a very high standard of construction. The frame and blades are manufactured from 16 SWG 316 L stainless steel. Bronze bearings house the 316 L stainless steel shafts. The products can be supplied in a natural finish, though marine paint finishes such as Ameron are available on request. There are nine standard sizes, please refer to sales literature.

The Duplex ST PRD assembly consists of two basic components: a Fire Integrity Section with Weighted Flaps (FIS), combined with a Cat Flap, (CF), or self-closing door.

Optional Components:

3. Weather Louvre – IMPORTANT NOTE – reduction in Free Vent Area (FVA) by 45%.

OPERATION

The weighted fire blades will begin to open at a pressure of approximately 50 Pa, and be fully open at up to 1000 Pa. Flow/pressure tables are available on request.

The CF or self-closing door will open at a pressure of between 100 and 350 Pa, dependant on customer requirement.

INSTALLATION – Typical A60 or H60 Fire Rated Bulkhead

To establish the wall cut out size, please refer to the certified drawing provided. The duct thickness must be within the standard regulations for duct mounted dampers within an A60 or H60 bulkhead. This would typically be between 3mm to 5mm thick, fully welded to the A60 or H60 bulkhead and insulated to the same standard. The duct length must be a minimum of 900mm in length with at least 450mm extended from either side of the bulkhead.

The Duplex ST PRD is then to be mounted into the duct on the protected side, using suitable fixings to secure the Duplex ST PRD to the duct.

The flanges of Duplex ST PRD range are all 50mm with 10mmØ fixing holes located around the perimeter of the unit, refer to certified drawing for hole centres.

The Cat Flap side of the unit should be mounted within the duct ensuring that the flap itself is free from interference and can fully open. If the duct penetrates a bulkhead with an external face then a Stainless Steel 316L weather louvre can also be fitted.

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

MAINTENANCE

The Puma Duplex ST PRD 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 which are available on request.

