

Inert Gas 'DUPLEX ST' Pressure Relief Dampers

120 min Hydrocarbon Fire Test IMO MSC.307 (18) - H0 Rated

Fire Tested at the Building Research Establishment - BRE Global - United Kingdom to International Maritime Organisation (IMO) Resolution MSC.307 (18) FTP Code 2010 and Marine Equipment Directive (MED) Type Approval Certificate
120 minute Hydrocarbon Fire Test in an H60 Bulkhead to achieve an H0 Rating

MARINE GRADE MATERIALS

The DUPLEX ST Pressure Relief Damper is manufactured almost entirely from Marine Grade 316 L Stainless Steel. The only items not required to be stainless are the bronze bearings and the Neodymium magnets. The precision engineering and high quality material ensures a robust product designed for the extreme conditions experienced in the Offshore and Coastal Environments.

DUPLEX FUNCTION

Each DUPLEX ST PRD comprises of the Fire Integrity Section with counter weighted Fire Blades and an integral Self Closing Fire Door incorporating a weather seal and held shut with strong Neodymium magnets.

These two components provide an intrinsic sound barrier and a positive air, dust and noise seal. This natural thermal barrier will help to prevent condensation forming on the Inner Fire Section blades. Additional insulation can be fitted to increase the thermal and sound absorption characteristics.

QUALITY FINISH

The Marine Grade 316 L stainless steel has a natural finish as standard. Coloured polyester powder coat paint or marine grade paints such as Ameron are available on request.



DUPLEX ST PRD 225 showing Self Closing (Cat Flap) Door and Magnetic catch

OPERATION

The PUMA DUPLEX ST Pressure Relief Dampers provide Free Vent Areas between 0.021 m² and 0.515 m².

The counter weighted Fire Blades are set to be fully open at 1000 Pa, the Self Closing Fire Door is set at 250 Pa ± 10%

Other pressure settings are available on request

A full table of the entire range is shown on the reverse page

INSTALLATION

The PUMA DUPLEX ST PRD has been designed to be fitted in an H60/A60 Bulkhead or Division. The appropriate IMO MSC Code states that the PRD be fitted in an insulated duct extending 450mm either side of the Bulkhead, this allows easy fitting of the PRD to the coaming or flange of the duct and allows the fitting of a suitable Weather Louvre or Grille to the other or external side of the Bulkhead or Division.

High Pressure Inert Gaseous Extinguishing systems such as INERGEN IG 01 - IG 541 and IG 55 require OVER pressure relief - The PUMA range of DUPLEX ST Pressure Relief Dampers or Vents are designed specifically for the Marine Environment.

The range of NINE individual models has been designed with the maximum available Free Vent Area possible. The blade design, construction and assembly have been formulated from a proven product range and tested to BRE Global Test Report and tested to IMO Resolution MSC.307(18) FTP Code 2010 - Rated at 2 Hours. All PRD's have Type Approval Certification independently verified by Bureau Veritas



**DUPLEX ST PRD 525
Fire Integrity Section**



**DUPLEX ST PRD 225
Cat Flap Section**



2013



Distributed by:
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Puma™ Products - innovation - design - quality

TECHNICAL SUPPORT

PUMA can offer a wealth of experience in sales, application and technical support. Using the latest CAD design software we can provide detailed drawings in dxf or pdf formats.

SERVICES AVAILABLE

- Technical Support
- Installation and Setup
- Maintenance
- Application Support
- Fitting Instructions
- 5 Year Warranty *

BESPOKE SOLUTIONS

Puma Products operates a continuous design and improvement policy and reserves the right to change designs and specifications without notice.

CONTACT DETAILS

For more information on any of our products or services please visit us on the Web at:
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Actual Hydrocarbon Fire Test in an H60 Steel Bulkhead

Puma Products Limited™ has supported the specific requirements of the Data Hall - Server Room - Electronic Data Processing Environment for over 28 years. Located in the South of England, we at Puma are widely recognized as experts in the field of Air Movement. Our knowledge and expertise have developed many products - such as Fresh Air Supply and Fire Extinguishant Gas Extract Systems, incorporating Fire/Smoke Dampers. The innovative Hot Water Condensate Pumps © continue to lead the market in 'Humidifier Flush Down' disposal.

In 1999 we developed the first Fire Rated Pressure Relief Dampers to relieve the 'Pulse' pressure spike on the release of high pressure Inert gas Systems - In 2012 the first 'DUALFLOW' PRD was introduced for Synthetic Gas Systems. The DUPLEX ST combines the concept of both dampers with marine grade Stainless Steel - 316 L.

Nine Vent Sizes suitable for H60/A60 Marine Bulkheads in Coastal and Offshore Environments

Model Number	Free Vent Area in m ²	Hole Cut-out in mm		Approx Weight kg
		Width	Height	
DUPLEX ST PRD 150	0.021	210	210	15
DUPLEX ST PRD 225	0.042	285	285	25
DUPLEX ST PRD 300	0.079	360	360	35
DUPLEX ST PRD 375	0.124	435	435	40
DUPLEX ST PRD 450	0.178	510	510	50
DUPLEX ST PRD 525	0.252	585	585	60
DUPLEX ST PRD 600	0.317	660	660	65
DUPLEX ST PRD 675	0.417	735	735	75
DUPLEX ST PRD 750	0.515	810	810	85

* Refer to Operating and Maintenance Instructions



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