



Exploration & Production

GENERAL SPECIFICATION

HVAC

GS EP HVA 402

Fire Damper(s) Installation

03	01/2012	Cabling of position switches – Arrangement for A60 fire dampers - Rooms involved in a black start procedure
02	10/2009	Installation details for fire dampers
01	10/2008	Insulation details for fire dampers A & H, cabling
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Owner: DEV/TEC

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1. Scope

The purpose of this document is to define the minimum requirements for installation of fire dampers (electrically or pneumatically actuated).

The words and expressions in CAPITAL CHARACTERS AND *ITALIC* are defined inside the general specification **GS EP HVA 801**.

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When other words require a definition only to be used in the present document, then the definition is given in a dedicated paragraph of the present document and the defined word, when used, is marked in small and *italic* letters.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of the CONTRACT.

Order of precedence of documents is defined in **GS EP HVA 100**.

Notes:

- In case of discrepancy between documents (whatever the documents and / or whatever origins), the most expensive solution shall be quoted by the BIDDER. During the studies (Basic Engineering and / or Detailed Engineering) CONTRACTOR(s) shall raise the discrepancy in question to the COMPANY's HVAC specialist who will then review and advise which document(s) is (are) to be specified for the project.
- The HVAC VENDOR or CONTRACTOR may propose proven improvements to the reference documents but shall obtain written approval of the COMPANY prior to implementation.
- An International Standard is a good "engineering practice" which shall be recognised and taken into consideration by VENDOR, SUPPLIER, MANUFACTURER and/or CONTRACTOR. If required, the translation of the standards shall be included into HVAC scope.
- The latest revision of Standards, codes, regulations and the published errata if any shall be used and applied by VENDOR, SUPPLIER, MANUFACTURER and CONTRACTOR.

Standards

Reference	Title
Not applicable	

Professional Documents

Reference	Title
Not applicable	



Regulations

Reference	Title
Not applicable	

Codes

Reference	Title
IMO Resolution A.754 (18) SOLAS	IMO resolution for testing International convention for Safety Of Life At Sea 1974 and amendments of November 1981, June 1983. Consolidated Edition 2004

Other documents

Reference	Title
Not applicable	

Total General Specifications

Reference	Title
GS EP HVA 100	HVAC Basis of design
GS EP HVA 212	Fire Damper(s) Pneumatically Actuated
GS EP HVA 213	Fire Damper(s) Electrically Actuated
GS EP HVA 801	Terminology, definitions, abbreviations

3. Definitions

Frame: part of the damper which is used as a duct to carry air from the upstream ducting to the downstream ducting.

Position switch: device equipped with a mechanical switch to monitor the position of one component of a piece of equipment. A change in a component position drives a shaft displacement which induces a modification of switch status.

Proximity sensor: device monitoring the position of one component of a piece of equipment. The device status is modified when a component of the piece of equipment to monitor is at lower distance of *proximity sensor*. A physical contact between *proximity switch* and equipment is not required.

4. General

The fire dampers shall be designed and built in accordance with **GS EP HVA 212** (General Specification) - without deviation.

It is *CONTRACTOR*'s part of scope to demonstrate the fire integrity of duct penetrations. The goal of fire resistance tests is to demonstrate the fire integrity of duct penetration. Implementation of these tests is the only accepted way to demonstrate the fire integrity of duct penetration.

The fire dampers shall be provided with its dedicated fire test certificate indicating the fire damper classification. It is reminded that fire test certificates (deck and bulkhead) shall be provided for each the following scenarios:

- Fire is coming from room where the fire damper is installed (as per **SOLAS / IMO resolution A.754 (18)**)
- Fire is coming from the adjacent room where the fire damper is installed.

The fire dampers installation shall be in accordance with these fire test certificates.

Fire dampers shall be connected to ducting without ducting transformation (reducing or enlargement).

In order to avoid any difficulty with Certifying Authority, the following documents shall be transmitted by *CONTRACTOR* to the fire damper(s) *MANUFACTURER*:

- The present General Specification
- **GS EP HVA 212**
- **GS EP HVA 213.**

In case of comment(s) (on technical, law, ..., point of view), the fire damper *MANUFACTURER* shall inform *COMPANY* and *CONTRACTOR*, and shall propose solution(s) to solve it (them).

5. Fire damper installation

Fire damper installation shall be done in accordance with the following drawings. It has to be noted that fire insulation is not shown on the "A" class drawings but this insulation shall be installed as per arrangement (material, thickness, density, adhesive, ...) considered during the fire dampers certification tests.

The principle of this installation, shown on these drawings, takes into account fire coming from both sides.

Details regarding installation (type of gaskets, insulation, ...) shall be in full accordance with the details of fire tests (mandatory). It means that:

- Deviation request (whatever the form: Technical Query, ...) shall be rejected by *COMPANY*
- Any deviation from fire test arrangement, during installation, regarding the insulation (material, thickness, density, adhesive, ...) shall be rejected by *COMPANY*.

The fire insulation system (material, thickness, density, number of layers, adhesive, length, ...) and gasket between fire damper and ducting validated during the fire resistance test shall be implemented (mandatory) for fire dampers installation.