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Guidance on Industry Standard for HVAC - Dampers and Fans

GIS 14-021

BP GROUP
ENGINEERING TECHNICAL PRACTICES

Foreword

This is the first issue of Engineering Technical Practice (ETP) BP GIS 14-021. This Guidance on Industry Standard (GIS) is based on the following heritage documents from merged BP companies:

BP

GS 114-1	HVAC – Dampers for Offshore Use
GS 114-3	HVAC – Centrifugal Fans for Offshore Use

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1. Scope

- a. This GIS provides guidance on health, safety and environmental legislation, good design practice, and technical and economic considerations for HVAC dampers and fans for use on hydrocarbon production, processing and export facilities. The design information included in this specification is not intended to cover complete details. The guideline outlines regulations, design considerations, and recommends a configuration which can be scaled to adapt to the specific facilities which can differ due to layouts and production capacity.
- b. This standard is intended to guide the purchaser in the use or creation of a fit-for-purpose specification for enquiry or purchasing activity.
- c. This document may refer to certain local, national or international regulations but the responsibility to ensure compliance with legislation and any other statutory requirements lies with the user. The user shall adapt or supplement this document to ensure compliance for the specific application.

2. Normative references

The following normative documents contain requirements that, through reference in this text, constitute requirements of this technical practice. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this technical practice are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies.

American Society of Heating, Refrigerating, & Air-Conditioning Engineers (ASHRAE)

Safety Standards for Refrigeration Systems

BP

GIS 12-201	IEC Low Voltage Induction Motors
GP 12-15	Wire and Cable
GP 12-20	Motors
GP 12-25	Earthing/Grounding
GP 12-60	Hazardous Area Electrical Installations
GP 14-02	Heating, Ventilating and Air Conditioning - Onshore
GP 14-03	Heating, Ventilating and Air Conditioning - Offshore

British Standards

BS 729	Specification for hot dipped galvanised coatings on iron and steel articles.
BS 848	Fans for general purposes, Parts 1 and 2
BS 970	Specification for wrought steels for mechanical and allied engineering purposes, Part 1 grade 316L
BS 1449	Steel plate sheet and strip, Part 2
BS 2044	Determination of resistivity of conductive and antistatic plastics and rubbers
BS 2050	Specification for electrical resistance of conducting and antistatic products made from flexible polymeric material
BS 5169	Specification for fusion welded steel air receivers



Chartered Institution of Building Services Engineers (CIBSE)

Guides to HVAC Systems

International Organization for Standardization (ISO)

1940 Mechanical Vibration, Balancing Rotors

National Electrical Manufacturers Association (NEMA)

Specifications and Standards for Enclosures

National Fire Protection Association

NFPA 70 National Electrical Code

Sheet Metal & Air-Conditioning Contractors National Association (SMACNA)Specifications and Standards for Sheet Metal and HVAC Fabrication ,
Manufacturing and Installation**3. Symbols and abbreviations**

For the purpose of this GIS, the following abbreviations apply:

ft	feet
HVAC	Heating, Ventilation, & Air Conditioning
IEC	International Electrotechnical Commission
in	inches
kW	kilowatt
m	meter
mm	millimetres
Pa	Pascal
RTI	Response Time Index
yd	yard

4. GENERAL**4.1. Documentation**

- a. This document is intended for use in conjunction with functional specifications and associated data sheets and drawings which give specific project requirements. Regulations from the following organizations shall apply:
 1. ASHRAE; Safety Standards for Refrigeration Systems
 2. CIBSE; Guides to HVAC Systems
 3. ISO; Mechanical Vibration, Balancing Rotors
 4. NEMA; Specifications and Standards

