



شرکت ملی گاز ایران
مدیریت پژوهش و فناوری
امور تدوین استانداردها

IGS

مشخصات فنی خرید

دستگاه فیلتر گاز (خشک)

Dry Gas Filter



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شرکت ملی گاز ایران

دفتر مدیر عامل



ابلاغ مصوبه هیأت مدیره



مدیر محترم پژوهش و فناوری

باسلام،

به استحضار می‌رساند در جلسه ۱۷۲۴ مورخ ۱۳۹۵/۱۲/۲۲ هیأت مدیره، نامه شماره گ. ۱۷۹۱۵۸/۰۰۰/۹ مورخ ۹۵/۱۲/۱۶ مدیر پژوهش و فناوری درمورد تصویب نهایی استاندارد تحت عنوان "مشخصات فنی دستگاه فیلتر گاز (خشک)" به شماره استاندارد (1) IGS-M-PM-105 مطرح و مورد تصویب قرار گرفت .
این مصوبه در حکم مصوبه مجمع عمومی شرکت‌های تابعه محسوب و برای کلیه شرکت‌های تابعه لازم الاجرا می‌باشد .

الهام ملکی

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FOREWORD

This standard is intended to be mainly used by NIGC and contractors, and has been prepared based on interpretation of recognized standards, technical documents, knowledge, backgrounds and experiences in natural gas industry at national and international levels.

Iranian Gas Standards (IGS) are prepared, reviewed and amended by technical standard committees within NIGC Standardization division and submitted to the NIGC's "STANDARDS COUNCIL" for approval.

IGS Standards are subject to revision, amendment or withdrawal, if required. Thus the latest edition of IGS shall be checked/ inquired by NIGC employees and contractors.

This standard must not be modified or altered by NIGC employees or its contractors. Any deviation from normative references and / or well-known manufacturer's specifications must be reported to Standardization division.

The technical standard committee welcomes comments and feedbacks about this standard, and may revise this document accordingly based on the received feedbacks.

GENERAL DEFINITIONS:

Throughout this standard the following definitions, where applicable, should be followed:

- 1- "STANDARDIZATION DIV." is organized to deal with all aspects of industry standards in NIGC. Therefore, all enquiries for clarification or amendments are requested to be directed to mentioned division.
- 2- "COMPANY": refers to National Iranian Gas Company (NIGC).
- 3- "SUPPLIER": refers to a firm who will supply the service, equipment or material to NIGC whether as the prime producer or manufacturer or a trading firm.
- 4- "SHALL ": is used where a provision is mandatory.
- 5- "SHOULD": is used where a provision is advised only.
- 6- "MAY": is used where a provision is completely discretionary.

Website: <http://igs.nigc.ir>

E-mail: igs@nigc.ir

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1. SCOPE

This specification covers the general requirements for the design, materials, manufacturing, testing, inspection, packing and Packaging for shipment of a dry gas filter and the required instrumentation. The vendor shall furnish complete operating units including all necessary items such as valves, etc to ensure satisfactory, safely operation.

The specification does not supersede the accepted pressure vessel codes but only supplements them with regard to certain conditions not fully covered in the codes.

The equipment shall be designed for full load, unattended continuous operation without the provision of special housing or shelters etc.

The unit shall be completely assembled, tested and painted according to the standards, codes and specification quoted here.

2. References

The latest revisions of all codes and standards their subsequent addenda are intended.

2.1. Normative References

ANSI ASME-VIII-D1 ASME Boiler and Pressure Vessel Code SECTION VIII "Rules for Construction of Pressure Vessels" Division 1

ANSI ASME-IX ASME Boiler and Pressure Vessel Code SECTION IX "Qualification Standard for Welding, Brazing, and Fusing Procedures; Welders; Braziers ; and Welding, Brazing, and Fusing Operators"

ANSI ASME B.16.5 "Pipe Flanges and Flanged Fittings NPS 1/2 through NPS 24 Metric/Inch Standard"

ANSI ASME B.16.11 "Forged Fittings, Socket-Welding and Threaded".

ANSI ASME B.16.20 "Metallic Gaskets for Pipe Flanges Ring-Joint, Spiral-Wound, and Jacketed".

ANSI ASME B.16.21 "Non-Metallic Flat Gaskets for Pipe Flanges".

ANSI ASME B.18.2.1 "Square and Hex Bolts and Screws (Inch Series)".

ANSI ASME B.18.2.2 "Square and Hex Nuts (Inch Series)".

IGS-M-PM-111 "Cardtrige dry gas filter"

IGS-M-PL-002-1(3) Plug Valves size 2 to, 24", part(1)

IGS-M-PL-002(0): Part 2 Plug Valves size $\frac{1}{2}$ " to $1\frac{1}{2}$ "

IGS-O-CH-042: Painting Procedure for Gas Industry

IPS-G-GN-210: Packing & Packages

2.2. Informative References

ANSI ASME B31.3 ASME Code for Pressure Piping, B31 "Process Piping".

ANSI ASME B31.8 ASME Code for Pressure Piping, B31 "Gas Transmission and Distribution Piping Systems".

IGS-M-CH-033(1): Specification for Iranian Natural Gas Quality

3. DEFINITIONS

Filter: A device is designed to remove particle size up to 5 μm diameters.

Actual elements Filtration Area: the measure of usable media in a filter.

Particle Size: Light scattering equivalent size expressed as a diameter in μm (10^{-6} m)

Pressure Drop: The resistance of a device to the flow of fluid through it. The pressure drop of a filter is measurement of its resistance to gas flow through it.

Cartridge: It is a part of dry gas filter element that can be easily remove and replaced when it is worn out.

Quick type closure: All traps shall be provided with quick opening end closure to allow one man operation for both opening and closing in approximately one Minute without use of additional device.

4. TECHNICAL SPESIFICATIONS

4.1. COMPONENTS

4.1.1. The dry gas filter shall be cast or fabricated construction and self supporting by means of feet, skirt or legs whichever, is the most suitable for this purpose.

4.1.2. Two Liquid drain valves as per clause 5.6 of this specification are required.

4.1.3. Differential pressure gauge (such as piston type), as per clause 5.8 of this specification are required.