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شرکت ملی گاز ایران
مدیریت پژوهش و فناوری
امور تدوین استانداردها

IGS

مشخصات فنی خرید

شیرهای قفل شونده جهت انشعابات پلی اتیلنی گاز (بدون اتصال عایقی)

Meter Stop Valves for P.E. Gas Service Lines
(Without Insulating Joint)



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شرکت ملی گاز ایران



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باسلام،

به استحضار می‌رساند در جلسه ۱۹۱۲ مورخ ۱۳۹۹/۱۱/۲۶ هیأت مدیره، نامه شماره گ/۰۰۰/۹/۱۴۴۶۷۴ مورخ ۱۳۹۹/۱۱/۲۱ آن مدیریت در مورد تصویب نهایی مقررات فنی شرکت ملی گاز ایران به شرح زیر مطرح و مورد تصویب قرار گرفت.

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|-----------------|---|
| IGS-C-DN-015(0) | ۱- کنترل کیفیت جوش لب به لب شبکه های پلی اتیلن گاز |
| IGS-C-DN-101(0) | ۲- اجرای خطوط تغذیه و شبکه توزیع به صورت روگذر |
| IGS-C-PL-032(1) | ۳- ساقه بلند نمودن شیرهای شبکه تغذیه و توزیع گاز |
| IGS-M-CH-024(2) | ۴- کربن فعال برای فرآیند شیرین سازی گاز طبیعی |
| IGS-M-PL-012(3) | ۵- شیرهای قفل شونده جهت انشعابات پلی اتیلن گاز (بدون اتصال عایقی) |

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 specification is intended to be mainly used by N.I.G.C. and contractors , and has been prepared base on interpretation of recognized standards and technical documents, as well as knowledge, backgrounds and experiences in gas industries at national and international levels.

Iranian Gas Specification (IGS) are prepared, reviewed and amended by technical standard committees within NIGC standardization division of research and technology management and submitted to "the standards council of NIGC" for approval.

IGSs are subjected to revision, amendment or withdrawal, if required, and thus the latest edition of IGS shall be checked / inquired by NIGC'S users.

This standard must not be modified or altered by NIGC employees or its contractors. Any deviation or conflicts between this specification and other applicable standards, codes, procedure or well-known manufacturer's specifications must be resolved in writing by the user or its representative through Manager, Engineering Department or standardization division of NIGC.

The technical standard committee welcomes comments and feedbacks from concerned or interested corporate and individuals 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 IGS specification 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.

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1. SCOPE

This standard specification covers minimum NIGC'S requirements for Materials, Manufacturing, Inspection, Testing and Marking of Meter Stop Valves for polyethylene network gas risers, 3/4 and 1 inch sizes, pressure rating 125 psi.

2. REFERENCES

Throughout this standard specification, the following standards & codes are Referred to, the edition of these standards & codes those are in effect at the time of issuing of this standard specification. The applicability of changes in standards & codes that occur after the date of standards that referred shall be mutually agreed upon by the purchaser and supplier and / or manufacturer.

ANSI B 16.33:2012," Manually Operated Metallic Gas Valves for Use in Piping Systems up to 125 psi (Sizes NPS 1/2 through NPS 2)".

ANSI B 1.20.1:2013," Pipe Threads, General Purpose (inch)".

ASTM A-126:2004," Standard Specification for Gray Iron Casting for Valves, Flanges and Pipe Fittings".

ASTM B.16:2000," Standard Specification for Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines".

ASTM B.61:2002," Standard Specification for Steam or Valve Bronze Castings".

ASTM B.62:2002," Standard Specification for Composition Bronze or Ounce Metal Castings".

ASTM B283:2006," Standard Specification for Copper and Copper-Alloy Die Forgings (Hot-Pressed)".

ASTM B584:2000," Standard Specification for Copper Alloy Sand Casting for General Applications".

BS EN 13787:2001," Elastomers for Gas Pressure Regulators and Associated Safety Devices for Inlet Pressure up to 100 bar

3. DEFINITIONS

IGS Iranian Gas Standard

NIGC National Iranian Gas Company

NPS Nominal Pipe Size

NPT National Pipe Taper thread

IRHD International Rubber Hardness Degree

IRM Industry Reference Materials

tpi thread per inch

4. SPECIFICATION

Meter stop valve, manually operated, and lubricated taper plug valve, cast iron body, straight way, tamper proof for above ground installation complete with lock wing for locking the valve in closed position, suitable for polyethylene gas distribution system.

5. MATERIALES

5.1-The material of body shall be made of gray cast iron at least according to ASTM A126 class B. Plug, retaining nuts and washers shall be according to ASTM B 61, ASTM B62, ASTM B283 or ASTM B584 (retaining nuts and washers can be according to ASTM B 16).

5.2- Elastomeric materials used for seals shall conform to the required values and tolerances given in Table 1, BS EN 13787.

5.3-The outlet of body shall be male thread which completed with one piece carbon steel coupling together with associated malleable/ductile cast iron nut. The coupling shall be suitably protected from atmospheric corrosion for long time (such as galvanized / ENP).

6. INSPECTION AND TESTS

6.1- The valve shall be tested in accordance with ANSI B 16.33 .

6.2 - The outlet of steel coupling shall be male thread in accordance with ANSI B 1.20.1.

6.3-The body inlet shall be female NPT thread in accordance with ANSI B 1.20.1.

6.4-The lubrication screw hexagonal socket shall be 1/8" NPT-27 tpi as per Fig 1.

6.5- All valves shall be leak tested in closed position pneumatically at 1.5 times of pressure rating. Works inspection certificate shall be submitted by Manufacturer/supplier.

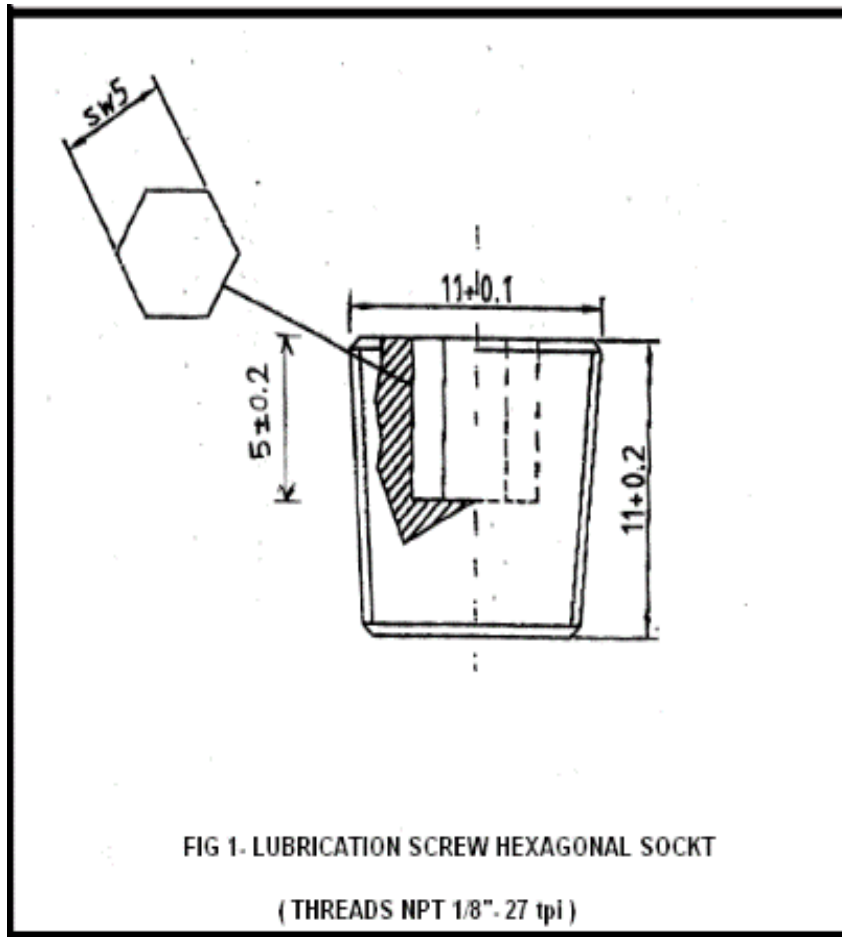
6.6- Factory material certificates are required.

6.7-Drawings shall be approved by NIGC.

6.8-Sizes NPS ¾ or NPS 1, as per purchase order

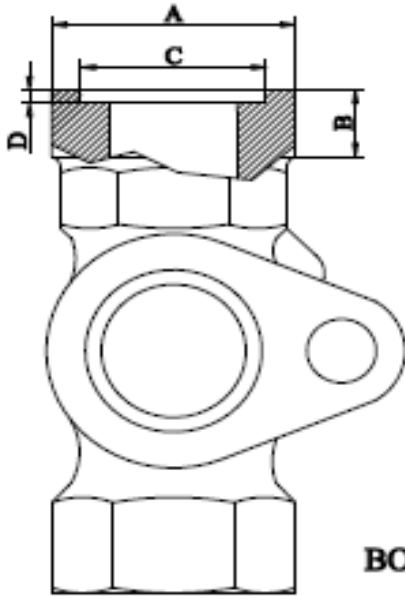
7. MARKING

Marking shall be in accordance with ANSI B 16.33.



ANNEX 1

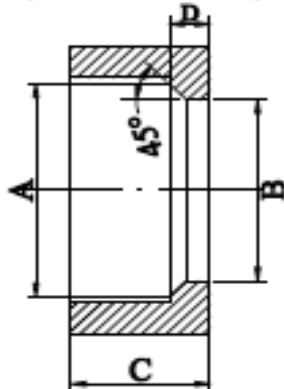
Dimensions (mm) for meter stop valve



BODY		A	B	C	D	UNITS
SIZE VALVE	3/4"	M 42*2	12 +2	32±0.1	2.3±0.3	MM
	1"	M50* 2	15 +2	38.5±0.2	3+0.2	MM

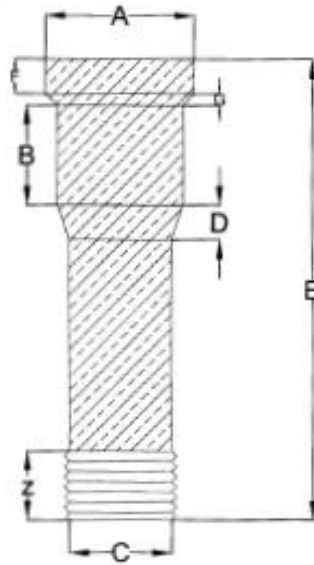
BODY 3/4-1 "

CAST IRON NUT (VALVE 3/4"-1")



CAST IRON NUT		A	B	C	D	UNITS
SIZE VALVE	3/4"	M 42*2	35 ±0.5	24±1	7 +0.5	MM
	1"	M50*2	41.5±0.2	28+1	7 +0.5	MM

One Piece Steel Coupling



	E	F	G	A	C	Z	B	D
Size 3/4"	120	9+0.2	3	39	26.3	18	26+0.1	9+0.1
Size 1"	120	9+0.5	3	47+0.1	32.64+0.1	18	26+0.1	9+0.1



ORING		A	B
Size 3/4"		31.5	3.7
Size 1"		38	4

Note: Other dimensions and tolerances shall be by mutually agreement between manufacturer and purchaser.