



Standard Specification for Impervious Graphite Pipe and Threading¹

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1. Scope

1.1 The purpose of this specification is to standardize the pipe sizes and types of threads used to join impervious graphite pipe and fittings. The thread standards may also be applied to impervious carbon pipe and fittings. It is limited to physical dimensions.

2. Terminology

2.1 Definitions of Terms Specific to This Standard:

2.1.1 *impervious graphite*—manufactured graphite that has been impregnated with a resinous material to make the final article impervious to liquids in the recommended operating range.

2.1.2 *impervious carbon*—the same as impervious graphite with the exception that the base stock has not been graphitized.

3. Requirements for Impervious Graphite Pipe

3.1 The eight standard pipe sizes are shown in Table 1 with permissible variations in dimensions.

3.2 Fig. 1 gives the male thread dimensions for impervious graphite pipe.

3.3 Fig. 2 gives the female thread dimensions for impervious graphite fittings.

4. Keywords

4.1 impervious carbon pipe; impervious graphite pipe; threading specifications

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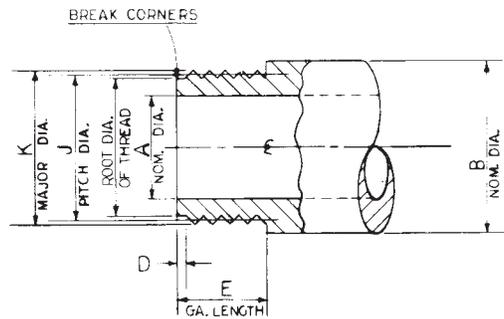
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TABLE 1 Physical Dimensions of Impervious Graphite Pipe

Pipe Size (nominal Inside Diameter), in.	Typical Limits								Length ^A	
	Inside Diameter				Outside Diameter				in. +1/4 -0	mm +60 -0
	min		max		min		max			
	in.	mm	in.	mm	in.	mm	in.	mm		
1	1 ⁵ / ₁₆	23.8	1 ¹ / ₁₆	27.0	1 ³ / ₁₆	37.7	1 ⁹ / ₁₆	39.7	108	2740.
1 ¹ / ₂	1 ⁷ / ₁₆	36.5	1 ⁹ / ₁₆	39.7	1 ⁶ / ₁₆	49.6	2 ¹ / ₁₆	52.4	108	2740.
2	1 ¹⁵ / ₁₆	49.2	2 ¹ / ₁₆	52.4	2 ¹ / ₁₆	68.3	2 ¹³ / ₁₆	71.4	108	2740.
3	2 ¹⁵ / ₁₆	74.6	3 ¹ / ₄	82.6	4	101.6	4 ³ / ₁₆	106.4	108	2740.
4	3 ¹⁵ / ₁₆	100.0	4 ¹ / ₄	108.0	5 ¹ / ₄	133.4	5 ¹ / ₂	139.7	108	2740.
6	5 ¹⁵ / ₁₆	150.8	6 ¹ / ₄	158.8	7 ⁷ / ₁₆	188.9	7 ¹³ / ₁₆	198.4	108	2740.
8 ^B	8 ¹ / ₁₆	204.8	8 ³ / ₁₆	208.0	9 ¹ / ₂	241.3	9 ³ / ₄	247.7	72	1830.
10 ^B	1 ⁹ / ₁₆	255.6	10 ³ / ₁₆	258.8	12 ¹ / ₂	317.5	12 ³ / ₄	323.9	72	1830.

^A Maximum curvature—1/2% of length measured chord to arc.

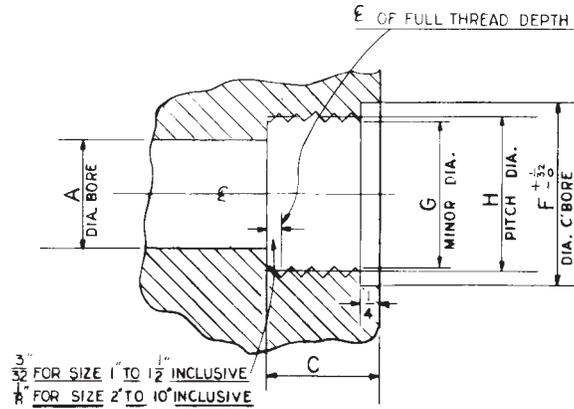
^B Machined limits for 8 and 10 in. size pipe. All others are extruded to size.



Pipe Size	1	1 ¹ / ₂	2	3	4	6	8	10
A	1	1 ¹ / ₂	2	3	4	6	8 ¹ / ₈	10 ¹ / ₈
B	1 ¹ / ₂	2	2 ³ / ₄	4	5 ¹ / ₄	7 ¹ / ₂	9 ⁵ / ₈	12 ⁵ / ₈
D	1/8	1/8	5/32	5/32	5/32	5/32	5/32	5/32
E	1 ³ / ₁₆	1 ³ / ₁₆	1 ¹ / ₁₆	1 ⁵ / ₁₆	1 ⁹ / ₁₆	1 ⁹ / ₁₆	1 ¹⁵ / ₁₆	2 ³ / ₁₆
J max	1.436	1.906	2.589	3.899	5.149	7.319	9.426	12.419
min	1.430	1.898	2.581	3.887	5.137	7.306	9.412	12.404
K max	1.490	1.960	2.670	3.980	5.230	7.400	9.507	12.500
min	1.478	1.948	2.654	3.964	5.214	7.384	9.491	12.484
Threads per inch	12	12	8	8	8	8	8	8
Thread depth	0.0541	0.0541	0.0812	0.0812	0.0812	0.0812	0.0812	0.0812 ^A

^A Standard metric threads have not been established for impervious graphite pipe.

FIG. 1 Standard Male Thread Dimensions, (in.)^A



Pipe Size	1	1½	2	3	4	6	8	10
A	1	1½	2	3	4	6	8½	10½
C	1	1	1¼	1½	1½	1¾	2½	2¾
F	1⅝	2⅞	2⅞	4¼	5⅞	7⅞	9⅞	12⅞
G max	1.429	1.899	2.588	3.898	5.148	7.318	9.425	12.418
min	1.420	1.890	2.575	3.885	5.135	7.305	9.412	12.406
H max	1.462	1.934	2.637	3.951	5.201	7.372	9.480	12.474
min	1.456	1.926	2.629	3.939	5.189	7.359	9.466	12.459
Threads per inch	12	12	8	8	8	8	8	8
Thread depth	0.0449	0.0449	0.0674	0.0674	0.0674	0.0674	0.0674	0.0674 ^A

^A Standard metric threads have not been established for impervious graphite pipe.

FIG. 2 Standard Female Thread Dimensions, (in.)^A

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