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Incorporating
Corrigendum No. 1

BRITISH STANDARD

Specification for gauge blanks

Part 1: Plug, ring and calliper gauges

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 62, an inside back cover and a back cover.

Foreword

This British Standard is published by BSI and came into effect on 30 November 2008. It was prepared by Technical Committee TDW/4, *Technical product realization.*

Supersession

This Part of BS 1044 supersedes BS 1044-1:1964, which is withdrawn.

Relationship with other publications

Tolerances for the plain limit gauges and screw thread gauges are specified in BS 969 and BS 919, respectively.

Regarding the methods of manufacturing gauges and their measurement to verify their accuracy, attention is drawn to the National Physical Laboratory's "Notes on Screw Gauges" [1].

Information about this document

This Part of BS 1044 has been fully revised to bring it up to date.

The start and finish of text introduced or altered by Corrigendum No. 1 is indicated in the text by tags ⟦C1⟩ ⟨C1⟧.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in notes in smaller italic type, and does not constitute a normative element.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard specifies requirements for gauge blanks for plug, ring and calliper gauges.

Those features of design necessary to ensure interchangeability are specified in some detail, while general information on other features is included for guidance in the manufacture of these gauges.

Section 1 specifies general requirements for the manufacture of gauges.

Section 2 relates to plain and screw plug gauges and setting plugs.

Section 3 deals with solid plain and screw ring gauges and solid plain gap gauges.

Section 4 deals with adjustable screw ring gauges.

The various types of gauges are listed in Annex A. Recommendations for adjustable plain and screw calliper gauges are given in Annex B.

Section 1: General

2 Removal of sharp edges

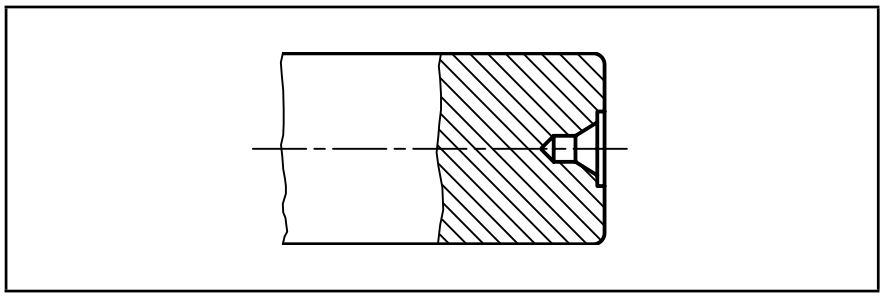
All non-gauging sharp edges shall be removed.

3 Centres

Large internal centres shall be avoided. The length of the cone shall be kept short.

The mouth of the internal centre, wherever practicable, shall be protected by a small recess $\frac{1}{32}$ in or $\frac{1}{16}$ in deep as shown in Figure 1.

Figure 1 **Protected centre**



4 Stabilization

Blanks can be supplied in the soft or hard condition. Hardened steel blanks, more particularly those of the larger sizes, shall be stabilized before they are completed.

NOTE 1 When blanks are required to be hardened throughout, e.g. for threading, this should be as specified by the purchaser.

NOTE 2 A recommended stabilizing treatment is to heat the gauges to 150 °C and maintain them at this temperature for approximately 10 h followed by slow cooling.

Section 2: Plain and screw plug gauges renewable end types

5 Gauging members and handles

NOTE 1 The lengths recommended for the handles of plug gauges are those suitable for gauges for normal applications. Where gauges have to be used in confined situations, longer or shorter handles may be desirable.

*NOTE 2 When gauging members are worn out or discarded for any other reason, new gauging members may be fitted to the handles. This is an economical feature since, with reasonable care, the handles will last indefinitely. Information on gauging members and handles is given in **A.3**.*

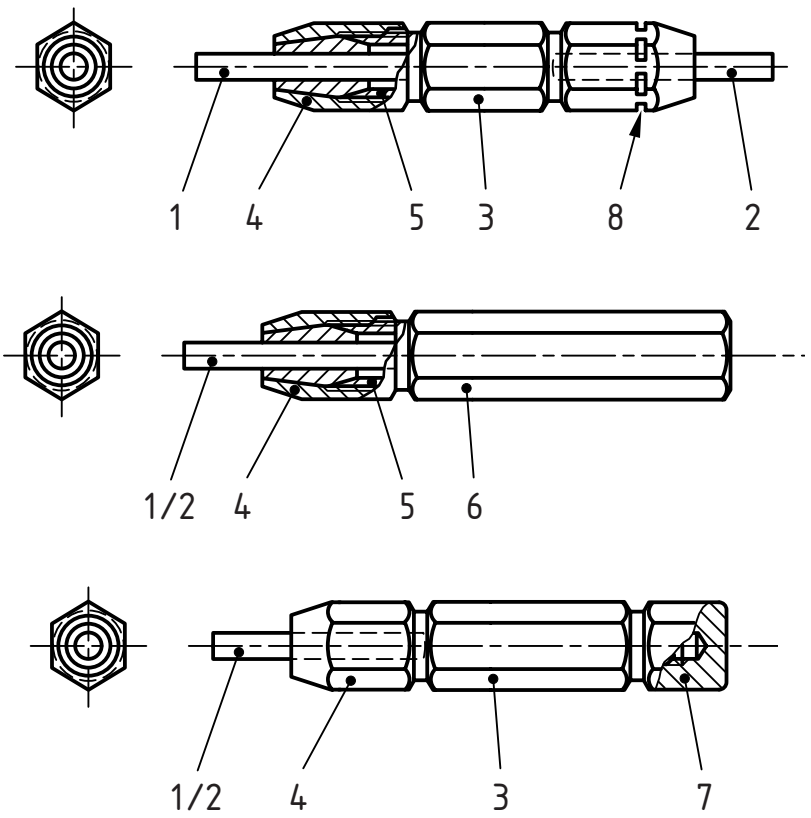
5.1 Collet type plug gauges

The general construction of gauging members and handles for collet type plug gauges shall be in accordance with Figure 2 and Figure 3, as applicable. The dimensions of trilock plug gauges shall conform to Table 1 to Table 6, as applicable.

Collets in sizes 1W and 2W shall be made of brass and those for the larger sizes of aluminium.

NOTE Handles for collet type gauges are hexagonal with clamping nuts, and are provided in both single end and double end types.

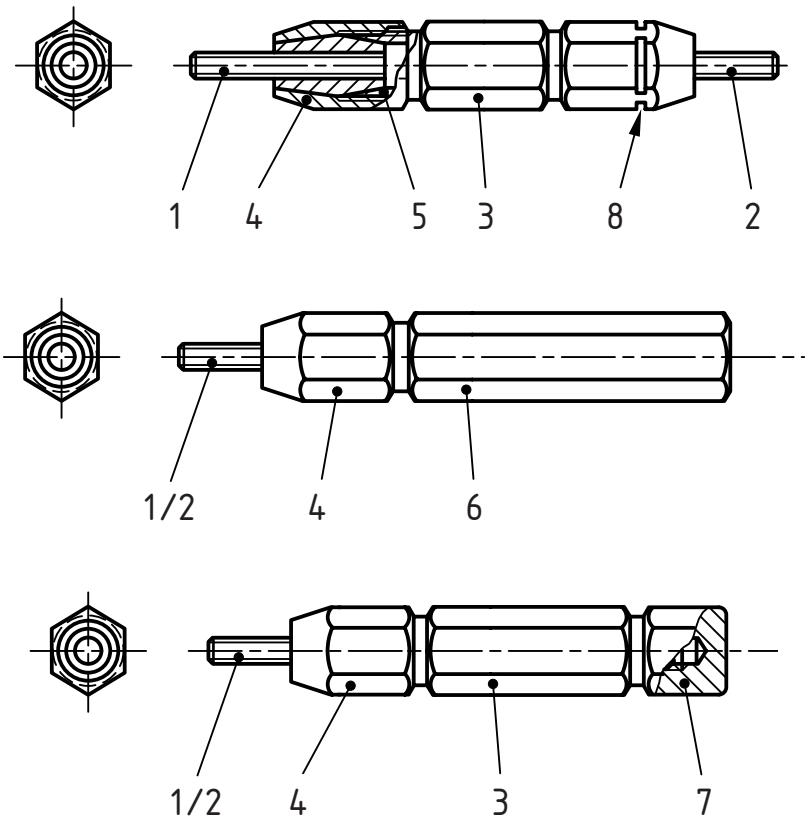
Figure 2 **Collet type plain plug gauges (Range: above 0.015 in up to and including 0.760 in)**



Key

1 GO gauging member
2 NOT GO gauging member
3 Double end collet type handle
4 Clamping nut
5 Collet bushing
6 Single end collet type handle
7 Capping nut
8 Groove for NOT GO only

Figure 3 **Collet type screw plug gauges (Range: above 0.030 in up to and including 0.760 in)**

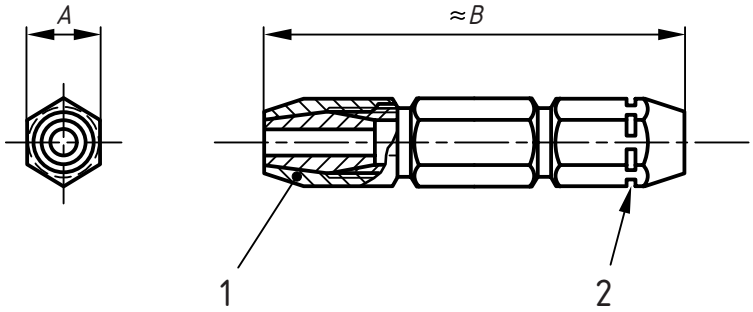


Key

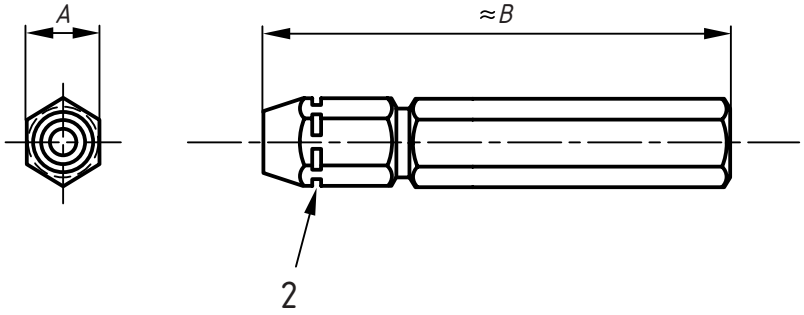
1 GO gauging member
2 NOT GO gauging member
3 Double end collet type handle
4 Clamping nut
5 Collet bushing
6 Single end collet type handle
7 Capping nut
8 Groove for NOT GO only

Table 1 **Collet type plug gauge handles**
(Range: above 0.015 in up to and including 0.760 in)

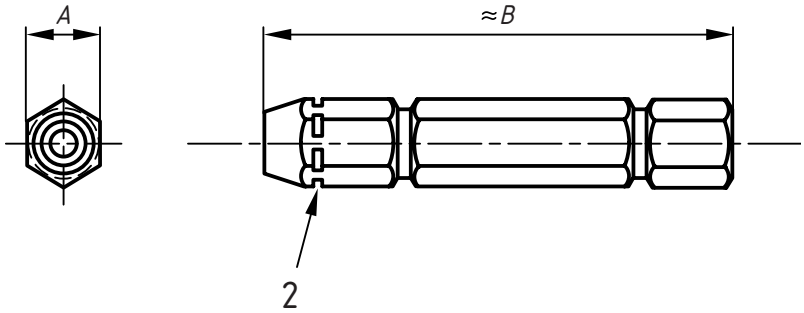
a) Double end type



b) Single end type (preferred)



c) Single end type (alternative)

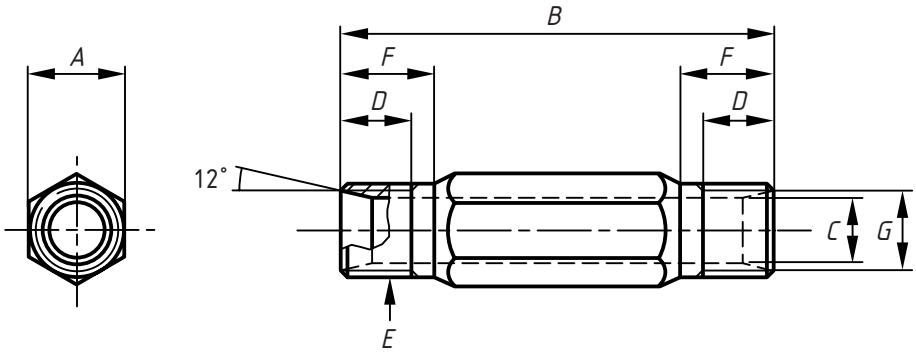


NOTE The alternative single end type is a double end type converted to suit single end applications.

Key
1 Suitable bushing or collet to hold gauging members firmly 2 Groove for NOT GO only

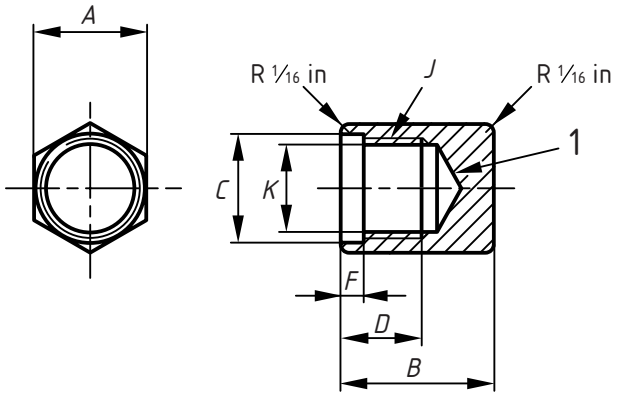
1	2	3	4	5	6	7
Handle size No.			**Size range, nominal**		***A***	***B***
Double end	**Single end**	**Single end (alt.)**	**Above**	**To and including**		
			in	in		
1 W	1 W-S	1 W-A	0.015	0.075	$\frac{1}{4}$	$1\frac{29}{32}$
2 W	2 W-S	2 W-A	0.075	0.180	$\frac{3}{8}$	$2\frac{15}{32}$
3 W	3 W-S	3 W-A	0.180	0.281	$\frac{9}{16}$	$3\frac{1}{8}$
4 W	4 W-S	4 W-A	0.281	0.406	$\frac{11}{16}$	$3\frac{19}{32}$
5 W	5 W-S	5 W-A	0.406	0.510	$\frac{13}{16}$	$4\frac{3}{16}$
6 W	6 W-S	6 W-A	0.510	0.635	$\frac{15}{16}$	$4\frac{17}{32}$
7 W	7 W-S	7 W-A	0.635	0.760	$1\frac{1}{16}$	$4\frac{21}{32}$

Table 2 **Double end collet type plug gauge handles – Details of body**



1	2	3	4	5	6	7	8	9	10
Handle size No.	**Size range, nominal**		***A***	***B***	***C***	***D***	***E***	***F***	***G***
	Above	**Up to and including**							
	in	in	in	in	in	in		in	in
1 W	0.015	0.075	$\frac{1}{4}$	$1\frac{5}{16}$	$\frac{3}{32}$	$\frac{9}{32}$	12-32 UNEF-2A	$\frac{21}{64}$	0.151
2 W	0.075	0.180	$\frac{3}{8}$	$1\frac{27}{32}$	$\frac{3}{16}$	$\frac{5}{16}$	$\frac{5}{16}$-32 UNEF-2A	$\frac{7}{16}$	0.235
3 W	0.180	0.281	$\frac{9}{16}$	$2\frac{1}{8}$	$\frac{19}{64}$	$\frac{13}{32}$	$\frac{1}{2}$-28 UNEF-2A	$\frac{1}{2}$	0.348
4 W	0.281	0.406	$\frac{11}{16}$	$2\frac{19}{32}$	$\frac{27}{64}$	$\frac{7}{16}$	$\frac{5}{8}$-28 UN-2A	$\frac{5}{8}$	0.473
5 W	0.406	0.510	$\frac{13}{16}$	$3\frac{1}{16}$	$\frac{33}{64}$	$\frac{5}{8}$	$\frac{3}{4}$-28 UN-2A	$\frac{3}{4}$	0.588
6 W	0.510	0.635	$\frac{15}{16}$	$3\frac{1}{4}$	$\frac{41}{64}$	$\frac{5}{8}$	$\frac{7}{8}$-28 UN-2A	$\frac{3}{4}$	0.740
7 W	0.635	0.760	$1\frac{1}{16}$	$3\frac{3}{8}$	$\frac{49}{64}$	$\frac{5}{8}$	1-28 UN-2A	$\frac{3}{4}$	0.865

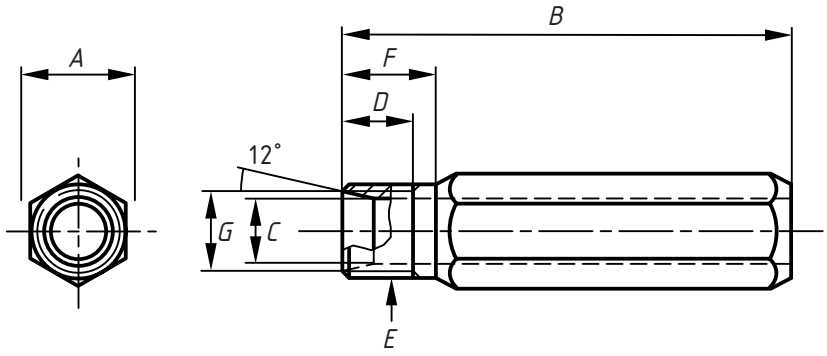
Table 3 **Collet type plug gauge handles – Details of capping nut**



Key
1 118° drill point

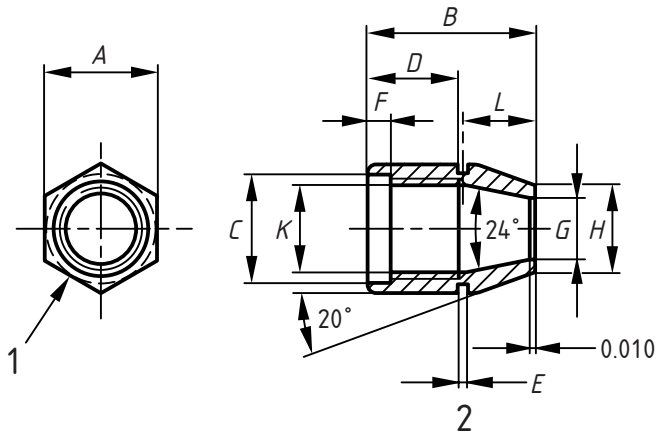
1	2	3	4	5	6	7	8	9	10
Handle size No.	**Size range, nominal**		***A***	***B***	***C***	***D***	***F***	***J***	***K***
	Above	**Up to and including**							
	in	in	in	in	in	in		in	in
1 W-A	0.015	0.075	$\frac{1}{4}$	$\frac{5}{8}$	0.220 0.230	$\frac{5}{16}$	$\frac{3}{32}$	12-32 UNEF-2B	0.182 2 0.189 5
2 W-A	0.075	0.180	$\frac{3}{8}$	$\frac{11}{16}$	0.316 0.326	$\frac{3}{8}$	$\frac{1}{8}$	$\frac{5}{16}$-32 UNEF-2B	0.278 7 0.286 1
3 W-A	0.180	0.281	$\frac{9}{16}$	$\frac{15}{16}$	0.504 0.514	$\frac{7}{16}$	$\frac{1}{8}$	$\frac{1}{2}$-28 UNEF-2B	0.461 3 0.469 7
4 W-A	0.281	0.406	$\frac{11}{16}$	$1\frac{1}{16}$	0.630 0.640	$\frac{9}{16}$	$\frac{1}{4}$	$\frac{5}{8}$-28 UN-2B	0.586 3 0.594 7
5 W-A	0.406	0.510	$\frac{13}{16}$	$1\frac{1}{4}$	0.755 0.765	$\frac{11}{16}$	$\frac{3}{16}$	$\frac{3}{4}$-28 UN-2B	0.711 3 0.719 7
6 W-A	0.510	0.635	$\frac{15}{16}$	$1\frac{9}{32}$	0.880 0.890	$\frac{11}{16}$	$\frac{3}{16}$	$\frac{7}{8}$-28 UN-2B	0.836 3 0.844 7
7 W-A	0.635	0.760	$1\frac{1}{16}$	$1\frac{9}{32}$	1.005 1.015	$\frac{11}{16}$	$\frac{3}{16}$	1-28 UN-2B	0.961 3 0.969 7

Table 4 **Single end collet type plug gauge handles – Details of body**



1	2	3	4	5	6	7	8	9	10
Handle size No.	**Size range, nominal**		***A***	***B***	***C***	***D***	***E***	***F***	***G***
	Above	**Up to and including**							
	in	in	in	in	in	in		in	in
1 W-S	0.015	0.075	$\frac{1}{4}$	$1\frac{5}{8}$	$\frac{3}{32}$	$\frac{9}{32}$	12-32 UNEF-2A	$\frac{21}{64}$	0.151
2 W-S	0.075	0.180	$\frac{3}{8}$	$2\frac{5}{32}$	$\frac{3}{16}$	$\frac{5}{16}$	$\frac{5}{16}$-32 UNEF-2A	$\frac{7}{16}$	0.235
3 W-S	0.180	0.281	$\frac{9}{16}$	$2\frac{5}{8}$	$\frac{19}{64}$	$\frac{13}{32}$	$\frac{1}{2}$-28 UNEF-2A	$\frac{1}{2}$	0.348
4 W-S	0.281	0.406	$\frac{11}{16}$	$3\frac{3}{32}$	$\frac{27}{64}$	$\frac{7}{16}$	$\frac{5}{8}$-28 UN-2A	$\frac{5}{8}$	0.473
5 W-S	0.406	0.510	$\frac{13}{16}$	$3\frac{5}{8}$	$\frac{33}{64}$	$\frac{5}{8}$	$\frac{3}{4}$-28 UN-2A	$\frac{3}{4}$	0.588
6 W-S	0.510	0.635	$\frac{15}{16}$	$3\frac{7}{8}$	$\frac{41}{64}$	$\frac{5}{8}$	$\frac{7}{8}$-28 UN-2A	$\frac{3}{4}$	0.740
7 W-S	0.635	0.760	$1\frac{1}{16}$	4	$\frac{49}{64}$	$\frac{5}{8}$	1-28 UN-2A	$\frac{3}{4}$	0.865

Table 5 **Collet type plug gauge nuts**



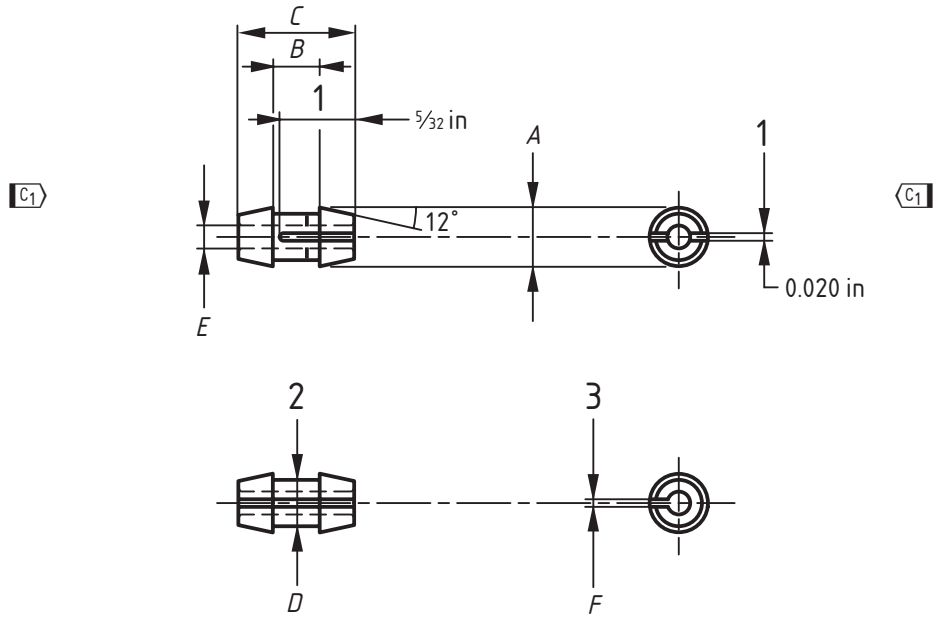
Key

1 Groove *E* not to cut through flats

2 *E* for NOT GO only

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Handle size No.	**Size range, nominal**		***A***	***B***	***C***	***D***	***E***	***F***	***G***	***H***	***J***	***K***	***L***
	Above	**Up to and including**											
	in	in	in	in	in	in	in	in	in	in		in	in
1 W	0.015	0.075	$\frac{1}{4}$	$\frac{9}{16}$	0.220 0.230	$\frac{11}{32}$	$\frac{1}{32}$	$\frac{3}{32}$	0.083 0.078	$\frac{7}{32}$	12-32 UNEF-2B	0.182 2 0.189 5	$\frac{5}{32}$
2 W	0.075	0.180	$\frac{3}{8}$	$\frac{11}{16}$	0.316 0.326	$\frac{7}{16}$	$\frac{1}{32}$	$\frac{1}{8}$	0.190 0.185	$\frac{5}{16}$	$\frac{5}{16}$-32 UNEF-2B	0.278 7 0.286 1	$\frac{7}{32}$
3 W	0.180	0.281	$\frac{9}{16}$	$\frac{15}{16}$	0.504 0.514	$\frac{1}{2}$	$\frac{1}{16}$	$\frac{1}{8}$	0.290 0.285	$\frac{7}{16}$	$\frac{1}{2}$-28 UNEF-2B	0.461 3 0.469 7	$\frac{13}{32}$
4 W	0.281	0.406	$\frac{11}{16}$	$1\frac{1}{16}$	0.630 0.640	$\frac{5}{8}$	$\frac{1}{16}$	$\frac{1}{4}$	0.417 0.412	$\frac{9}{16}$	$\frac{5}{8}$-28 UN-2B	0.586 3 0.594 7	$\frac{7}{16}$
5 W	0.406	0.510	$\frac{13}{16}$	$1\frac{1}{4}$	0.755 0.765	$\frac{3}{4}$	$\frac{1}{16}$	$\frac{3}{16}$	0.520 0.515	$\frac{21}{32}$	$\frac{3}{4}$-28 UN-2B	0.711 3 0.719 7	$\frac{1}{2}$
6 W	0.510	0.635	$\frac{15}{16}$	$1\frac{9}{32}$	0.880 0.890	$\frac{13}{16}$	$\frac{1}{16}$	$\frac{3}{16}$	0.645 0.640	$\frac{3}{4}$	$\frac{7}{8}$-28 UN-2B	0.836 3 0.844 7	$\frac{1}{2}$
7 W	0.635	0.760	$1\frac{1}{16}$	$1\frac{9}{32}$	1.005 1.015	$\frac{13}{16}$	$\frac{1}{16}$	$\frac{3}{16}$	0.770 0.765	$\frac{7}{8}$	1-28 UN-2B	0.961 3 0.969 7	$\frac{1}{2}$

Table 6 **Collet type plug gauge collets**



Key

1 Slot from each end 0.020 in wide × $\frac{5}{32}$ in deep, where E < 0.050 in dia.

2 in 1-W and 2-W only

3 Slot F through collet where $E \geqslant 0.050$ in dia.

1	2	3	4	5	6	7	8	9	10
Collet No. (*E* dia.)	**Size range, nominal**	***A***		***B***		***C***	***D***	***F***	
		max.	**min.**	**max.**	**min.**			**max.**	**min.**
	in	in	in	in	in	in	in	in	in
[C1]1-W-.020	0.015–0.020							—	—
1-W-.025	0.020–0.025							—	—
1-W-.030	0.025–0.030							—	—
		0.168	0.162	0.065	0.059	$\frac{17}{64}$	$\frac{3}{32}$		
1-W-.035	0.030–0.035							—	—
1-W-.040	0.035–0.040							—	—
1-W-.045	0.040–0.045							—	—
1-W-.050	0.045–0.050								
1-W-.055	0.050–0.055								
1-W-.060	0.055–0.060								
		0.168	0.162	0.065	0.059	$\frac{17}{64}$	$\frac{1}{8}$	0.035	0.015
1-W-.065	0.060–0.065								
1-W-.070	0.065–0.070								
1-W-.075 [C1]	0.070–0.075								

NOTE Collets to be adjustable for any plug within the respective size ranges tabulated.

Table 6 **Collet type plug gauge collets** (*continued*)

1	2	3	4	5	6	7	8	9	10
Collet No. (*E* dia.)	**Size range, nominal**	***A***		***B***		***C***	***D***	***F***	
		max.	**min.**	**max.**	**min.**			**max.**	**min.**
	in	in	in	in	in	in	in	in	in
[C1] 2-W-.082	0.075–0.082								
2-W-.089	0.082–0.089								
2-W-.096	0.089–0.096	0.243	0.237	0.190	0.184	$\frac{13}{32}$	$\frac{5}{32}$	0.045	0.025
2-W-.103	0.096–0.103								
2-W-.110	0.103–0.110								
2-W-.117	0.110–0.117								
2-W-.124	0.117–0.124								
2-W-.131	0.124–0.131								
2-W-.138	0.131–0.138								
2-W-.145	0.138–0.145								
2-W-.152	0.145–0.152	0.243	0.237	0.190	0.184	$\frac{13}{32}$	$\frac{7}{32}$	0.045	0.025
2-W-.159	0.152–0.159								
2-W-.166	0.159–0.166								
2-W-.173	0.166–0.173								
2-W-.180	0.173–0.180								
3-W-.188	0.180–0.188								
3-W-.196	0.188–0.196								
3-W-.204	0.196–0.204								
3-W-.212	0.204–0.212								
3-W-.220	0.212–0.220								
3-W-.228	0.220–0.228								
		0.398	0.392	0.159	0.153	$\frac{9}{16}$	—	0.058	0.038
3-W-.236	0.228–0.236								
3-W-.244	0.236–0.244								
3-W-.252	0.244–0.252								
3-W-.261	0.252–0.261								
3-W-.271	0.261–0.271								
3-W-.281 [C1]	0.271–0.281								

NOTE Collets to be adjustable for any plug within the respective size ranges tabulated.

Table 6 **Collet type plug gauge collets** (*continued*)

1	2	3	4	5	6	7	8	9	10
Collet No. (*E* dia.)	**Size range, nominal**	***A***		***B***		***C***	***D***	***F***	
		max.	**min.**	**max.**	**min.**			**max.**	**min.**
	in	in	in	in	in	in	in	in	in
⟨C1⟩ 4-W-.291	0.281–0.291								
4-W-.301	0.291–0.301								
4-W-.311	0.301–0.311								
4-W-.321	0.311–0.321								
4-W-.331	0.321–0.331								
4-W-.341	0.331–0.341								
		0.518	0.512	0.159	0.153	$\frac{17}{32}$	—	0.058	0.038
4-W-.351	0.341–0.351								
4-W-.361	0.351–0.361								
4-W-.371	0.361–0.371								
4-W-.382	0.371–0.382								
4-W-.394	0.382–0.394								
4-W-.406	0.394–0.406								
5-W-.420	0.406–0.420								
5-W-.436	0.420–0.436								
5-W-.450	0.436–0.450								
5-W-.465	0.450–0.465	0.643	0.637	0.159	0.153	$\frac{19}{32}$	—	0.072	0.052
5-W-.480	0.465–0.480								
5-W-.495	0.480–0.495								
5-W-.510	0.495–0.510								
6-W-.532	0.510–0.532								
6-W-.547	0.532–0.547								
6-W-.563	0.547–0.563								
6-W-.579	0.563–0.579	0.788	0.782	0.174	0.168	$\frac{11}{16}$	—	0.072	0.052
6-W-.594	0.579–0.594								
6-W-.610	0.594–0.610								
6-W-.625	0.610–0.625								
6-W-.640 ⟨C1⟩	0.625–0.640								

NOTE Collets to be adjustable for any plug within the respective size ranges tabulated.

Table 6 **Collet type plug gauge collets** (*continued*)

1	2	3	4	5	6	7	8	9	10
Collet No. (*E* dia.)	**Size range, nominal**	***A***		***B***		***C***	***D***	***F***	
		max.	**min.**	**max.**	**min.**			**max.**	**min.**
	in	in	in	in	in	in	in	in	in
C1 7-W-.656	0.640–0.656								
7-W-.672	0.656–0.672								
7-W-.688	0.672–0.688								
7-W-.704	0.688–0.704	0.909	0.903	0.174	0.168	$\frac{11}{16}$	—	0.135	0.115
7-W-.719	0.704–0.719								
7-W-.735	0.719–0.735								
7-W-.750	0.735–0.750								
7-W-.760 C1	0.750–0.765								
NOTE Collets to be adjustable for any plug within the respective size ranges tabulated.									

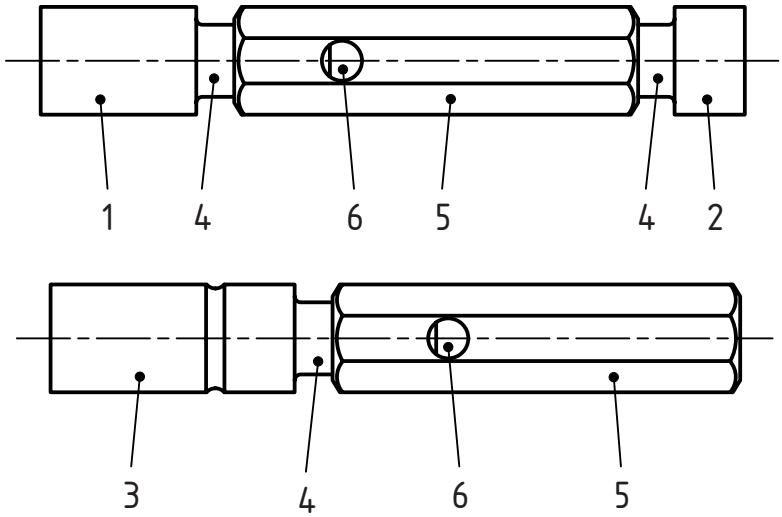
5.2 Taper lock plug gauges

The general details of construction for gauging members and handles for taper lock plug gauges shall be in accordance with Figure 4. The dimensions of gauging members and handles for taper lock plug gauges shall conform to Table 7.

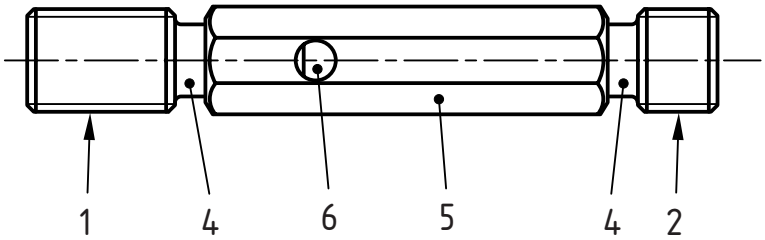
NOTE Handles for taper lock gauges are of the hexagonal type. They may be of unhardened steel, light alloy or plastics, but plastics handles should be provided with steel sleeves.

Figure 4 **Taper lock plug gauges**

a) Taper lock plain cylindrical plug gauges (Range: above 0.059 in up to and including 2.510 in)



b) Taper lock screw plug gauge (Range: above 0.059 in up to and including 1.510 in)

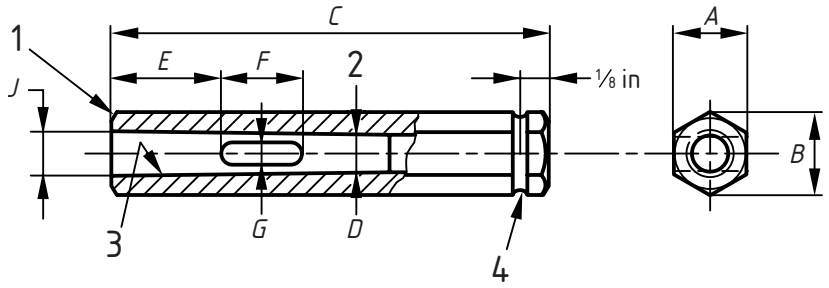


Key

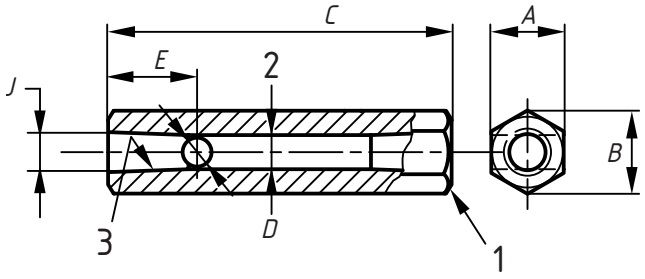
1 GO gauging member
2 NOT GO gauging member
3 Progressive gauging member
4 Shank
5 Taper lock handle
6 Drift slot or hole

Table 7 **Taper lock handle nos. 000 to 5**

a) Handle nos. 000, 00, 0 and 1



b) Handle nos. 2, 3, 4 and 5



Key

1 Rad. or chamfer
2 *D* drill
3 *K* taper pin reamer taper 1in 48 on dia.
4 $\frac{1}{32}$ in rad. groove (see Note 1)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Handle No.	**Size range, nominal**		**General dimensions**											
	Above	**Up to and including**	***A*** (see Note 2)		***B*** **max.**	***C***	***D*** **Drill size**	***E***	***F***	***G***	***H*** **dia.**	***J***		***K*** **Nom. size of B.S. taper pin reamer** (see Note 3)
												min.	**max.**	
	in	in	in	in	in	in		in	in	in	in	in	in	in
000	0.059	0.105	$\frac{3}{16}$	0.193	0.223	$1\frac{1}{2}$	2.8 mm	$\frac{7}{16}$	$\frac{1}{4}$	$\frac{5}{64}$	—	0.125	0.126	$\frac{1}{8}$
00	0.105	0.150	$\frac{1}{4}$	0.248	0.289	$1\frac{3}{4}$	3.5 mm	$\frac{15}{32}$	$\frac{5}{16}$	$\frac{3}{32}$	—	0.155	0.156	$\frac{5}{32}$
0	0.150	0.240	$\frac{5}{16}$	0.324	0.374	2	4.1 mm	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{8}$	—	0.180	0.181	$\frac{3}{16}$
1	0.240	0.365	$\frac{3}{8}$	0.365	0.433	$2\frac{3}{4}$	$\frac{7}{32}$ in	$\frac{17}{32}$	$\frac{1}{2}$	$\frac{1}{8}$	—	0.239	0.240	$\frac{1}{4}$
2	0.365	0.510	$\frac{1}{2}$	0.525	0.604	3	7.4 mm	$\frac{25}{32}$	—	—	$\frac{15}{64}$	0.309	0.310	$\frac{5}{16}$
3	0.510	0.825	$\frac{11}{16}$	0.710	0.820	$3\frac{1}{4}$	$\frac{25}{64}$ in	$\frac{27}{32}$	—	—	$\frac{11}{32}$	0.409	0.410	—
4	0.825	1.135	$\frac{7}{8}$	0.920	1.062	$3\frac{5}{8}$	$\frac{37}{64}$ in	1	—	—	$\frac{3}{8}$	0.609	0.610	—
5 [A)]	1.135	2.510	$1\frac{1}{8}$	1.100	1.299	4	$\frac{25}{32}$ in	$1\frac{1}{8}$	—	—	$\frac{7}{16}$	0.809	0.810	—

NOTE 1 This groove is machined only in handles Nos.000, 00 and 0. Its purpose is to distinguish the NOT GO end of the gauge.

NOTE 2 The dimensions given in Col.5 may be used as an alternative to those given in Col.4.

NOTE 3 Particulars of standard taper pin reamers of these sizes are given in BS 122.

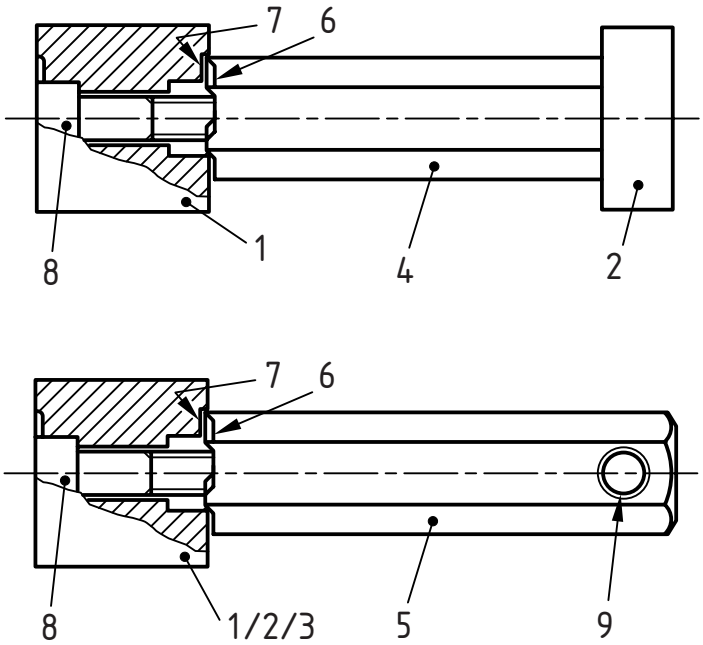
A) See Table 8 for an alternative trilock handle for gauges in the size range above 1.510 in up to and including 2.510 in.

5.3 Trilock plug gauges (diameters above 1.510 in up to and including 8 in)

The general details of construction of trilock plug gauges shall be in accordance with Figure 5 to Figure 8. The dimensions of trilock plug gauges shall conform to Table 8.

NOTE Handles for trilock gauges are of the hexagonal type. They may be of unhardened steel, light alloy or plastics, but plastics handles should be provided with steel sleeves.

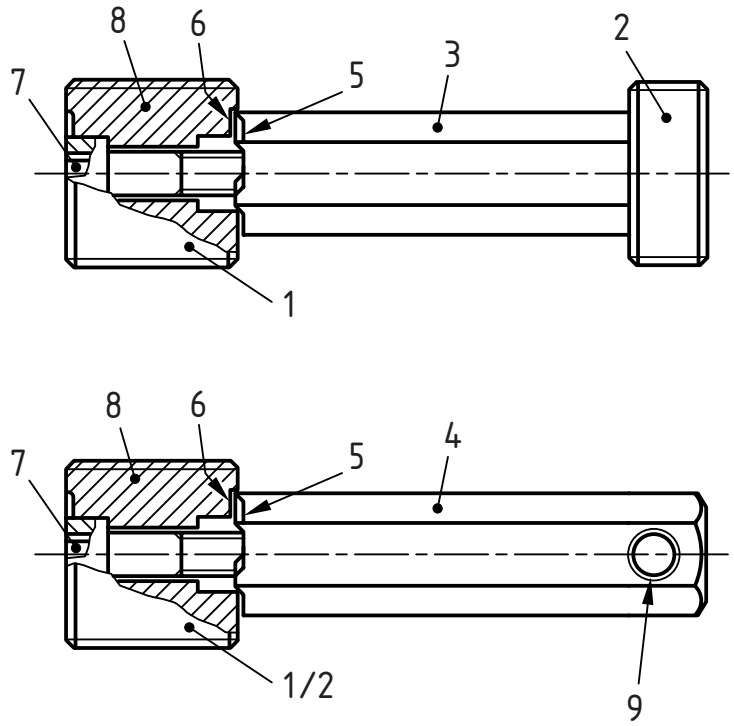
Figure 5 **Trilock plain cylindrical plug gauges (Range: above 1.510 in up to and including 2.510 in)**



Key

1 GO gauging member
2 NOT GO gauging member
3 Progressive gauging member
4 Double end trilock handle
5 Single end trilock handle
6 Locking prong
7 Locking groove
8 Socket head screw
9 Cross pin hole

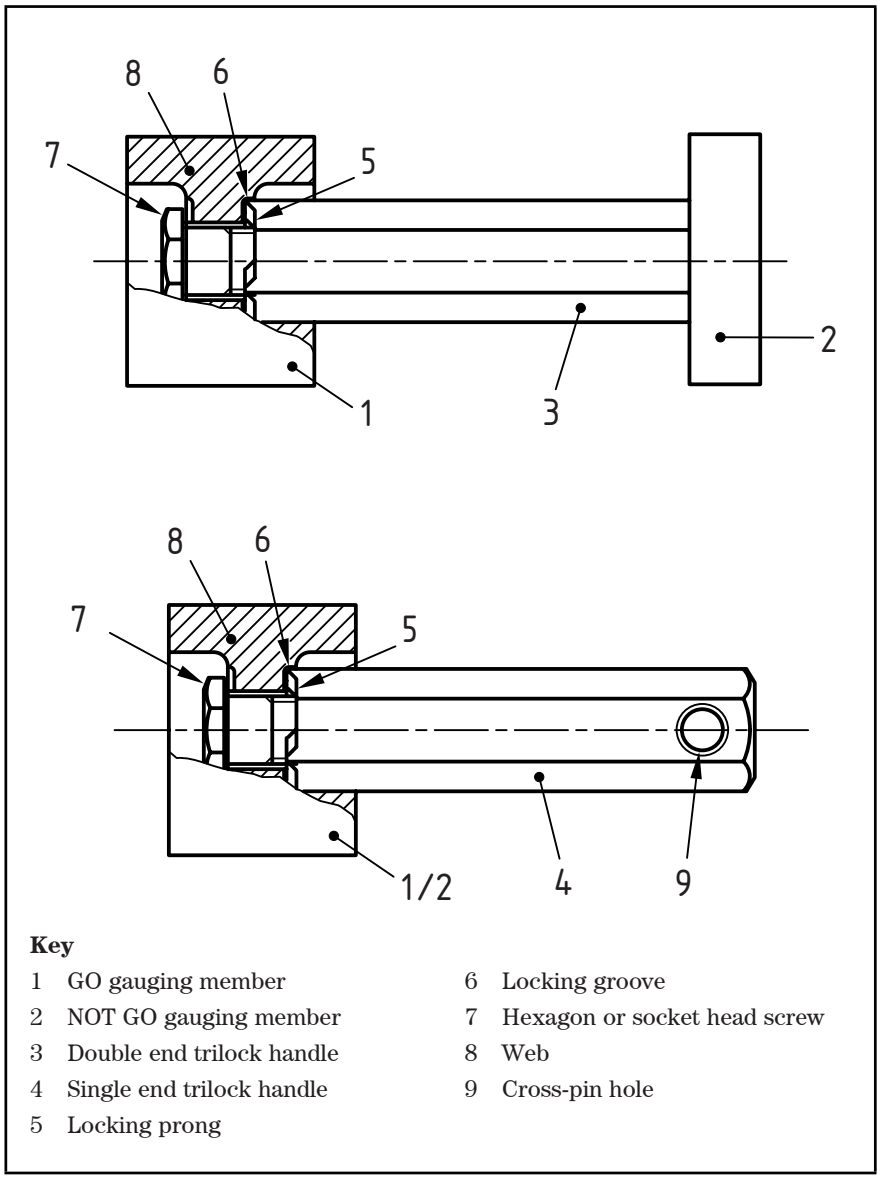
Figure 6 **Trilock screw plug gauges (Range: above 1.510 in up to and including 2.510 in)**



Key

1 GO gauging member
2 NOT GO gauging member
3 Double end trilock handle
4 Single end trilock handle
5 Locking prong
6 Locking groove
7 Socket head screw
8 Web
9 Cross pin hole

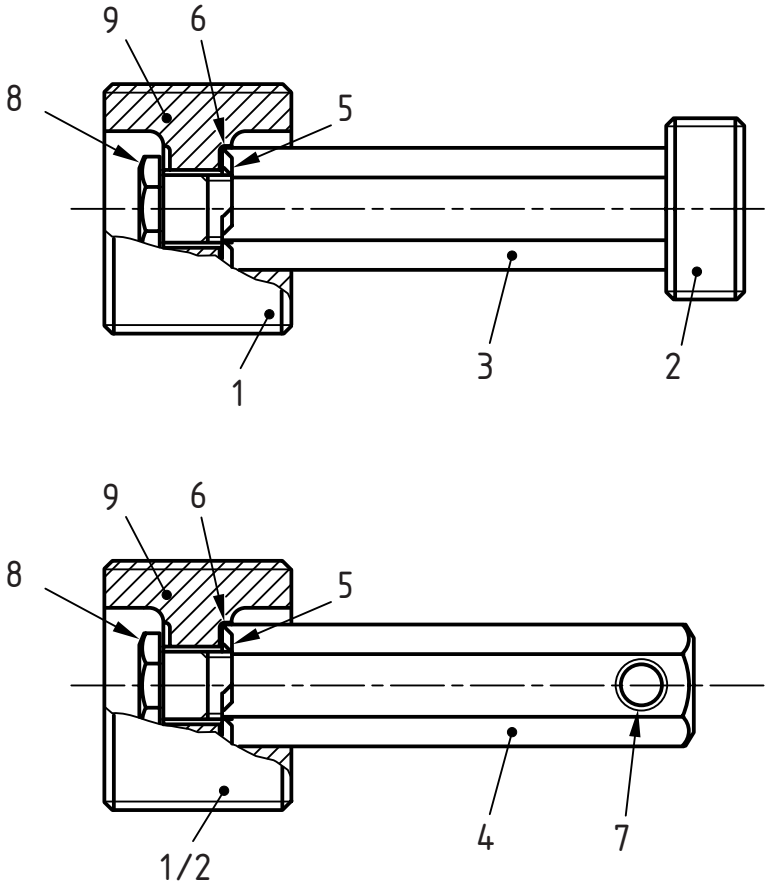
Figure 7 **Trilock plain cylindrical plug gauges (Range: above 2.510 in up to and including 8.010 in)**



Key

1 GO gauging member
2 NOT GO gauging member
3 Double end trilock handle
4 Single end trilock handle
5 Locking prong
6 Locking groove
7 Hexagon or socket head screw
8 Web
9 Cross-pin hole

Figure 8 **Trilock screw plug gauges (Range: above 2.510 in up to and including 8.010 in)**

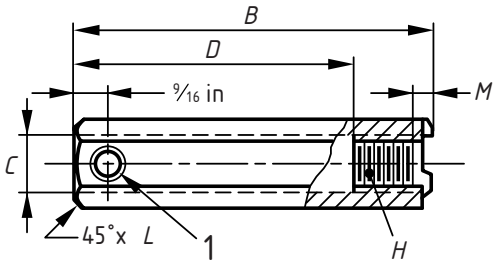


Key

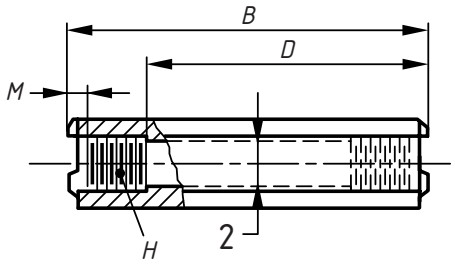
1 GO gauging member
2 NOT GO gauging member
3 Double end trilock handle
4 Single end trilock handle
5 Locking prong
6 Locking groove
7 Cross-pin hole
8 Hexagon or socket head screw
9 Web

Table 8 **Trilock handles**
(Range: above 1.510 in up to and including 8.010 in)

a) Single end handle

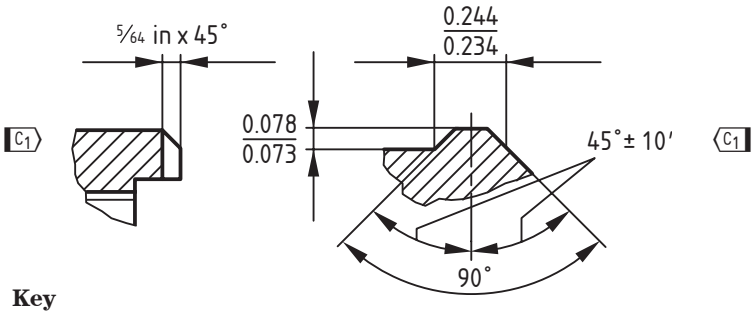


b) Double end handle



NOTE This design is not recommended for the No. 7 size.

c) Enlarged section of locking prongs



Key

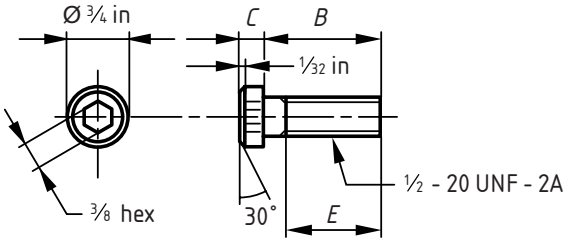
1 Drill $\frac{1}{2}$ in dia. Countersink $\frac{1}{32} \times 45°$ 2 *H* tap size

1	2	3	4	5	6	7	8	9	10	11
Handle No.	**Size range, nominal**		**General dimensions**							**Fastening screw**
	Above	**Up to and including**	***A***	***B***	***C***	***D***	***H***	***L***	***M***	
	in	in	in	in	in	in		in	in	
$5\frac{1}{2}$ [A]	1.510	2.010	1	$4\frac{1}{2}$	$\frac{3}{4}$	$3\frac{3}{4}$	$\frac{1}{2}$-20 UNF-2B	$\frac{1}{8}$	$\frac{1}{4}$	1
6 [A]	2.010	2.510	$1\frac{1}{8}$	5	$\frac{13}{16}$	$4\frac{1}{4}$	$\frac{1}{2}$-20 UNF-2B	$\frac{1}{8}$	$\frac{1}{4}$	1
7	2.510	8.010	$1\frac{1}{4}$	6	$\frac{15}{16}$	$4\frac{3}{4}$	$\frac{7}{8}$-14 UNF-2B	$\frac{5}{32}$	$\frac{1}{4}$	2

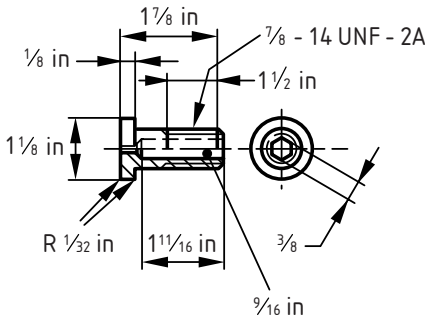
NOTE See below for details of screws.

[A] See Table 7 for an alternative taper lock handle for gauges in the size range above 1.510 in up to and including 2.510 in.

d) Screw No. 1



e) Screw No. 2



1	2	3	4
For use with plug	***B***	***C***	***E***
	in	in	in
GO for fine threads 16 t.p.i. or 1.75 mm pitch and finer	$1\frac{1}{2}$	$\frac{5}{16}$	$1\frac{1}{4}$
NOT GO	$1\frac{1}{2}$	$\frac{5}{16}$	$1\frac{1}{4}$
GO	$2\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{4}$
Double length setting plug	$3\frac{1}{4}$	$\frac{1}{2}$	$2\frac{1}{8}$

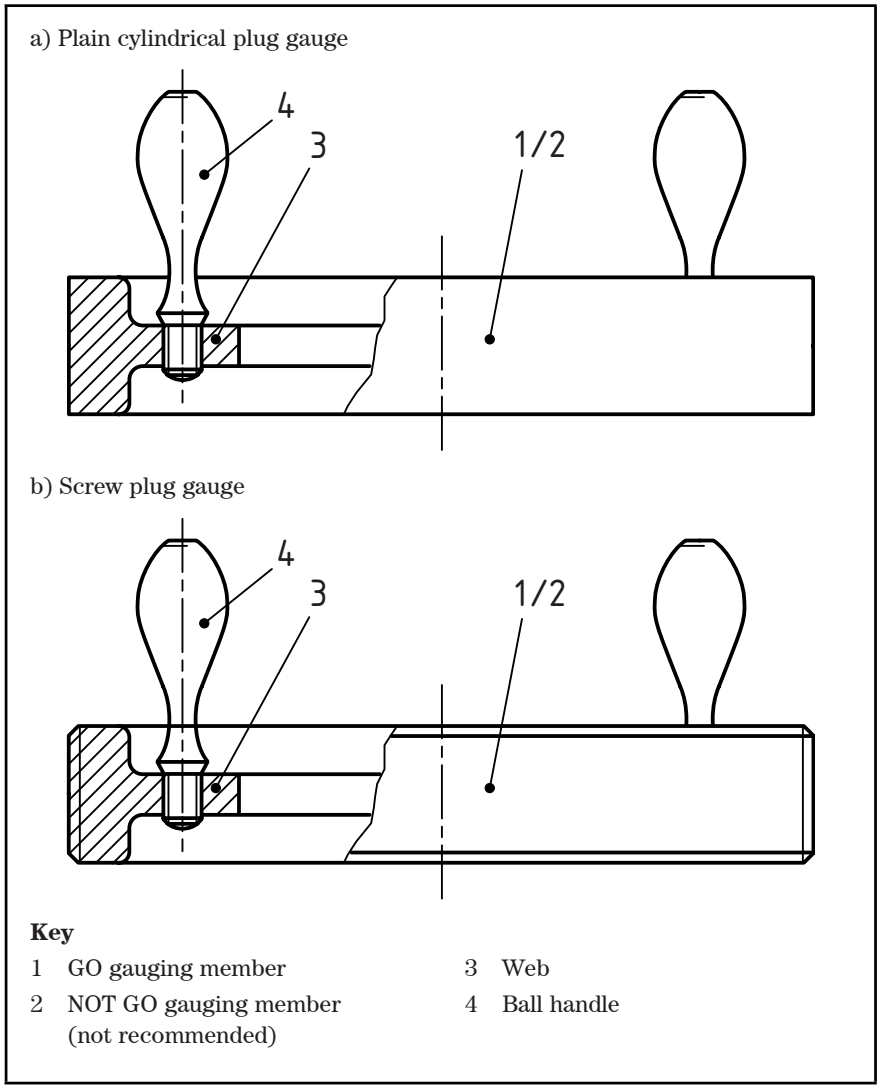
NOTE Locking screws should be tightened only enough to hold member securely, thereby avoiding distortion of gauging member.

5.4 Annular plug gauges (diameters above 8.010 in up to and including 12.010 in)

The general details of construction of gauging members and handles for ball handled annular plug gauges shall be in accordance with Figure 9 and Figure 10, as applicable.

The dimensions of gauging members and handles for both types of annular gauges shall conform to Table 12 and Table 20, as applicable.

Figure 9 **Annular design ball handle type plug gauges (Range: above 8.010 in up to and including 12.010 in)**

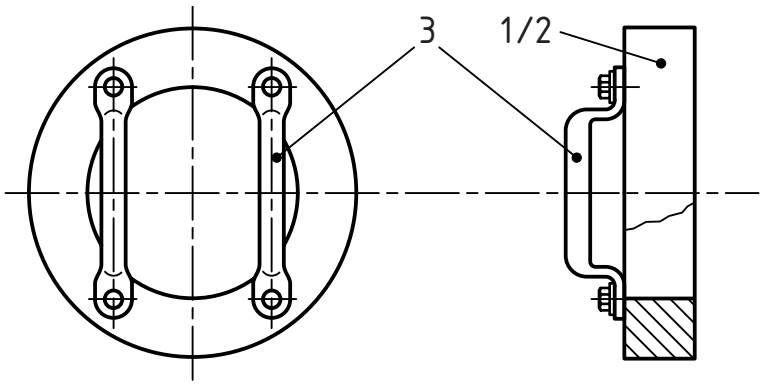


Key

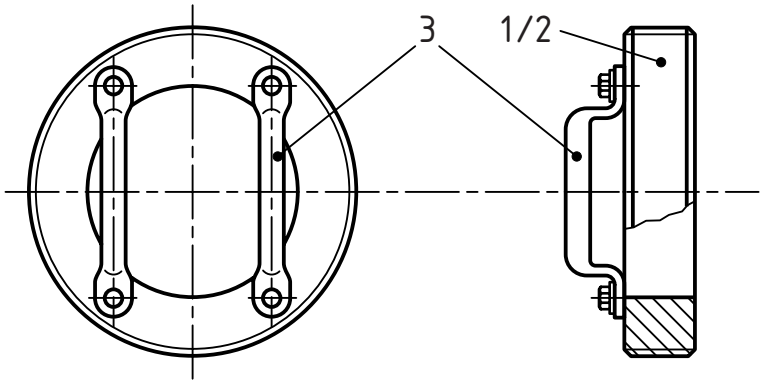
1 GO gauging member
2 NOT GO gauging member (not recommended)
3 Web
4 Ball handle

Figure 10 **Annular plug gauges – Bar handle types**

a) Plain cylindrical plug gauge (Range: above 8.010 in up to an including 10.010 in)



b) Screw plug gauge (Range: above 8.010 in up to an including 10.010 in)

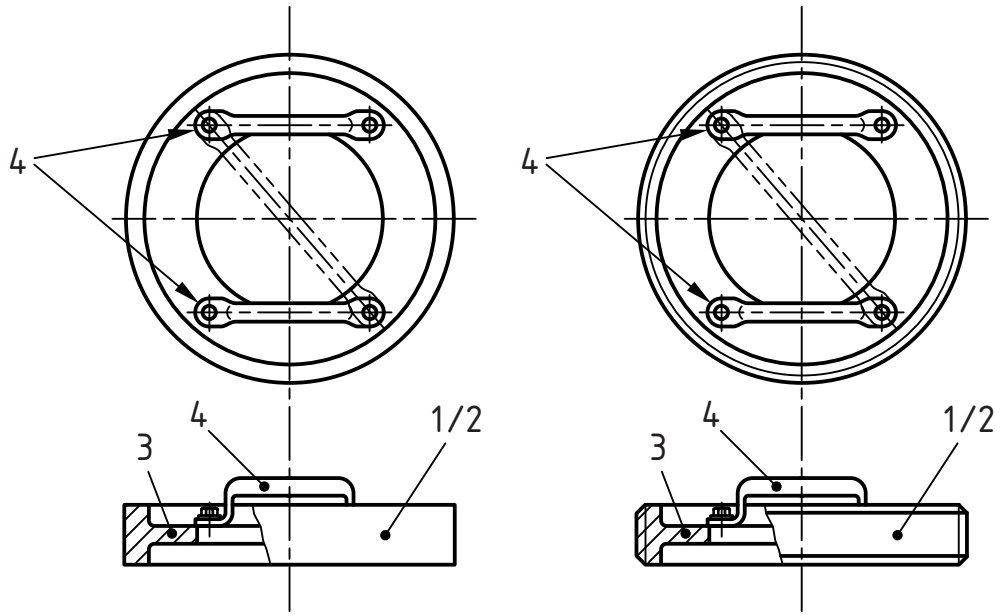


Key

1 GO gauging member 2 NOT GO gauging member (not recommended) 3 Handle

c) Plain cylindrical plug gauge
(Range: Above 8.010 in up to and including 12.010 in)

d) Screw plug gauge



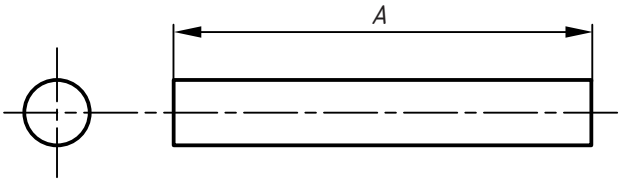
Key

1 GO gauging member
2 NOT GO gauging member (not recommended)
3 Web
4 Alternative handles

6 Plain plug gauging members

6.1 Collet type plain plug gauges

Table 9 **Collet type plain cylindrical plug gauging members (Range: above 0.015 in up to and including 0.760 in)**



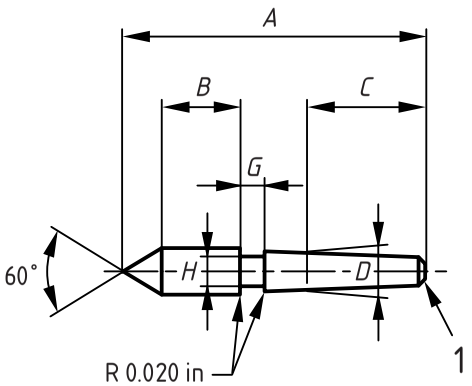
1	2	3	4
Size range, nominal		**GO and NOT GO length *A***	**Handle No.**
Above	**Up to and including**		
in	in	in	
0.015	0.075	1 [A)]	1 W, 1 W-S or 1 W-A
0.075	0.180	$1\frac{1}{4}$ [A)]	2 W, 2 W-S or 2 W-A
0.180	0.281	$1\frac{1}{2}$ [A)]	3 W, 3 W-S or 3 W-A
0.281	0.406	$1\frac{3}{4}$ [A)]	4 W, 4 W-S or 4 W-A
0.406	0.510	2	5 W, 5 W-S or 5 W-A
0.510	0.635	2	6 W, 6 W-S or 6 W-A
0.635	0.760	2	7 W, 7 W-S or 7 W-A

[A)] These are minimum lengths; commercially available lengths exceeding these values are acceptable as alternatives.

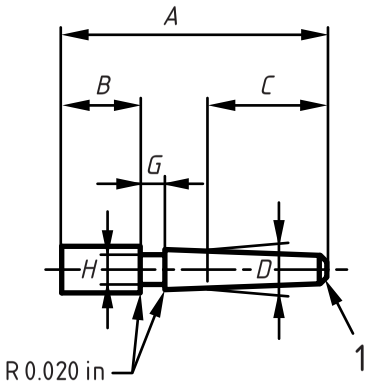
6.2 Taper lock plain plug gauges

Table 10 **Taper lock plain cylindrical plug gauging members**

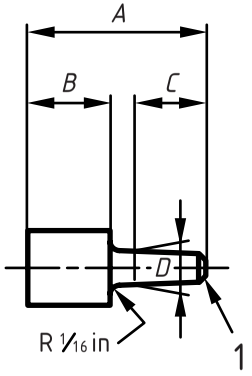
a) GO and NOT GO up to and including 0.150 in dia.



b) GO and NOT GO above 0.150 in to and including 0.510 in dia.

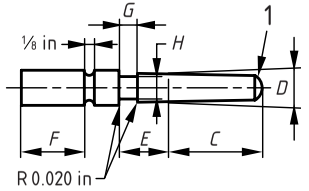


c) GO and NOT GO above 0.510 in to and including 2.510 in dia.

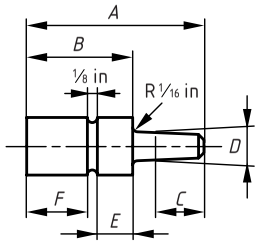


d) Progressive above 0.240 in to and including 2.510 in dia.

i) 0.240 in ⩽ 0.510 in



ii) 0.510 in ⩽ 2.150 in



Key

1 Small rad. or chamfer

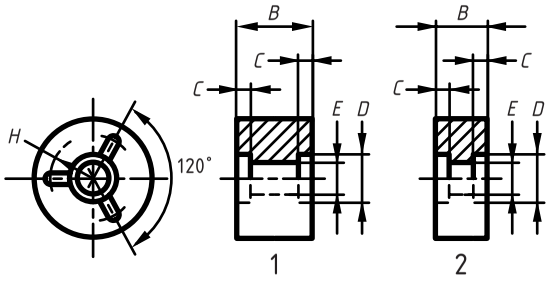
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Size range, nominal		**General dimensions**																			
Above	**Up to and including**	**GO**					**NOT GO**					**Progressive**							**All**		
		A	***B***	***C***	***D***		***A***	***B***	***C***	***D***		***A***	***B***	***C***	***D***		***E***	***F***	***G***	***H***	**Handle No.**
					max.	**min.**				**max.**	**min.**				**max.**	**min.**					
in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in			in
0.059	0.105	$1\frac{5}{32}$	$\frac{3}{8}$	$\frac{1}{2}$	0.126	0.125	$\frac{31}{32}$	$\frac{3}{16}$	$\frac{1}{2}$	0.126	0.125	—	—	—	—	—	—	—			000
0.105	0.150	$1\frac{11}{32}$	$\frac{7}{16}$	$\frac{9}{16}$	0.156	0.155	$1\frac{1}{8}$	$\frac{7}{32}$	$\frac{9}{16}$	0.156	0.155	—	—	—	—	—	—	—			00
0.150	0.240	$1\frac{15}{32}$	$\frac{19}{32}$	$\frac{5}{8}$	0.181	0.180	$1\frac{5}{32}$	$\frac{9}{32}$	$\frac{5}{8}$	0.181	0.180	—	—	—	—	—	—	—			0
0.240	0.365	$1\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	0.240	0.239	$1\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{4}$	0.240	0.239	$2\frac{3}{16}$	$1\frac{3}{16}$	$\frac{3}{4}$	0.240	0.239	$\frac{5}{16}$	$\frac{3}{4}$	As required	As required	1
0.365	0.510	2	1	$\frac{3}{4}$	0.310	0.309	$1\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{4}$	0.310	0.309	$2\frac{1}{2}$	$1\frac{1}{2}$	$\frac{3}{4}$	0.310	0.309	$\frac{3}{8}$	1			2
0.510	0.825	$2\frac{1}{4}$	$1\frac{1}{4}$	$\frac{3}{4}$	0.410	0.409	$1\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	0.410	0.409	$2\frac{7}{8}$	$1\frac{7}{8}$	$\frac{3}{4}$	0.410	0.409	$\frac{1}{2}$	$1\frac{1}{4}$			3
0.825	1.135	$2\frac{9}{16}$	$1\frac{3}{8}$	$\frac{7}{8}$	0.610	0.609	$1\frac{13}{16}$	$\frac{5}{8}$	$\frac{7}{8}$	0.610	0.609	$3\frac{5}{16}$	$2\frac{1}{8}$	$\frac{7}{8}$	0.610	0.609	$\frac{5}{8}$	$1\frac{3}{8}$			4
1.135	1.510	$2\frac{7}{8}$	$1\frac{1}{2}$	1	0.810	0.809	$2\frac{1}{8}$	$\frac{3}{4}$	1	0.810	0.809	$3\frac{3}{4}$	$2\frac{3}{8}$	1	0.810	0.809	$\frac{3}{4}$	$1\frac{1}{2}$			5
1.510 [A]	2.510	$2\frac{7}{8}$	$1\frac{1}{2}$	1	0.810	0.809	$2\frac{1}{8}$	$\frac{3}{4}$	1	0.810	0.809	—	—	—	—	—	—	—			5

[A] Alternative to Trilock design for this range.

6.3 Trilock plain plug gauges

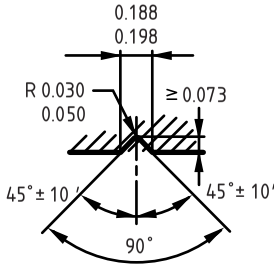
Table 11 **Trilock plain cylindrical plug gauging members**

a) GO and NOT GO up to and including 2.510 in dia.

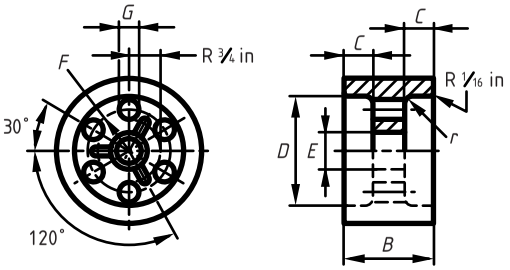


b) Enlarged section of locking groove

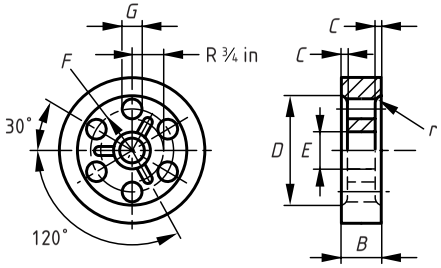
3 required on each end of all gauges



c) GO above 2.510 in up to and including 8.010 in



d) NOT GO above 2.510 in up to and including 8.010 in



Key

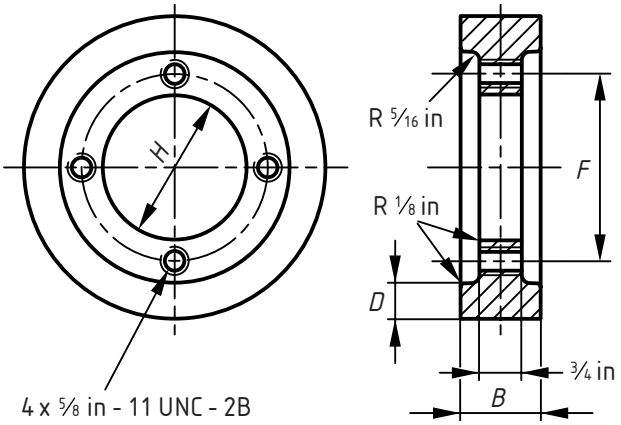
1 GO 2 NOT GO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Size range, nominal		**General dimensions**													**Handle No.**
Above	**Up to and including**	**GO**					**NOT GO**					**All gauges**			
		B	***C***	***D***	***E***	***R***	***B***	***C***	***D***	***E***	***R***	***F***	***G***	***H***	
in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	
1.510	2.010	$1\frac{7}{8}$	$\frac{1}{2}$	$\frac{25}{32}$	$\frac{17}{32}$	—	$\frac{7}{8}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{17}{32}$	—	—	—	$\frac{9}{16}$	$5\frac{1}{2}$
2.010	2.510	2	$\frac{1}{2}$	$\frac{25}{32}$	$\frac{17}{32}$	—	$\frac{7}{8}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{17}{32}$	—	—	—	$\frac{5}{8}$	6
2.510	3.010	$2\frac{1}{8}$	$\frac{11}{16}$	$1\frac{7}{8}$	$\frac{29}{32}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$1\frac{7}{8}$	$\frac{29}{32}$	$\frac{3}{16}$	—	—	—	7
3.010	3.510	$2\frac{1}{4}$	$\frac{3}{4}$	$2\frac{1}{4}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$2\frac{1}{4}$	$\frac{29}{32}$	$\frac{3}{16}$	—	—	—	7
3.510	4.010	$2\frac{1}{4}$	$\frac{3}{4}$	$2\frac{5}{8}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$2\frac{5}{8}$	$\frac{29}{32}$	$\frac{3}{16}$	—	—	—	7
4.010	4.510	$2\frac{1}{4}$	$\frac{3}{4}$	3	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	3	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{1}{16}$	$\frac{3}{4}$	—	7
4.510	5.010	$2\frac{1}{4}$	$\frac{3}{4}$	$3\frac{7}{16}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$3\frac{7}{16}$	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{3}{16}$	$\frac{13}{16}$	—	7
5.010	5.510	$2\frac{1}{4}$	$\frac{3}{4}$	$3\frac{7}{8}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$3\frac{7}{8}$	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{1}{4}$	$\frac{7}{8}$	—	7
5.510	6.010	$2\frac{1}{4}$	$\frac{3}{4}$	$4\frac{5}{16}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$4\frac{5}{16}$	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{3}{8}$	1	—	7
6.010	6.510	$2\frac{1}{4}$	$\frac{3}{4}$	$4\frac{3}{4}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$4\frac{3}{4}$	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{1}{2}$	$1\frac{1}{8}$	—	7
6.510	7.010	$2\frac{1}{4}$	$\frac{3}{4}$	$5\frac{1}{4}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$5\frac{1}{4}$	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{5}{8}$	$1\frac{1}{4}$	—	7
7.010	7.510	$2\frac{1}{4}$	$\frac{3}{4}$	$5\frac{3}{4}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$5\frac{3}{4}$	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{3}{4}$	$1\frac{3}{8}$	—	7
7.510	8.010	$2\frac{1}{4}$	$\frac{3}{4}$	$6\frac{1}{4}$	$\frac{29}{32}$	$\frac{5}{16}$	1	$\frac{1}{8}$	$6\frac{1}{4}$	$\frac{29}{32}$	$\frac{3}{16}$	$1\frac{7}{8}$	$1\frac{1}{2}$	—	7

NOTE Plug gauges of large diameter are necessarily heavy and, in sizes greater than 4 in, it is common practice in the gauging of rigid plain holes to use segmental cylindrical gauges or spherical ended rod gauges (see Table 21 and Table 22). The larger sizes of complete cylindrical plug gauges are required for gauging non-rigid parts.

6.4 Annular plain plug gauges

Table 12 **Annular design plain cylindrical plug gauging members (Range: above 8.010 in up to and including 12.010 in)**

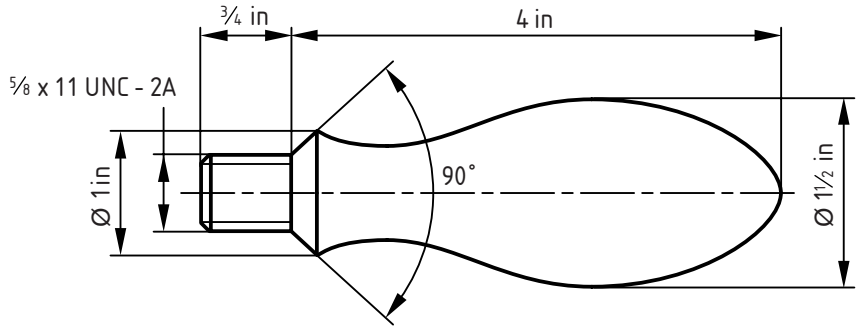


1	2	3	4	5	6	7	8
Size range, nominal		**General dimensions**					**Ball handle size** (see Figure 11)
Above	**Up to and including**	**B**		**D**	**F**	**H**	
		GO	**NOT GO** [A]				
in	in	in	in	in	in	in	
8.010	8.510	$2\frac{1}{4}$	1	$\frac{3}{4}$	$5\frac{1}{4}$	4	L
8.510	9.010	$2\frac{1}{4}$	1	$\frac{25}{32}$	$5\frac{5}{8}$	$4\frac{3}{8}$	L
9.010	9.510	$2\frac{1}{4}$	1	$\frac{13}{16}$	6	$4\frac{3}{4}$	L
9.510	10.010	$2\frac{1}{4}$	1	$\frac{27}{32}$	$6\frac{1}{2}$	$5\frac{1}{8}$	L
10.010	10.510	$2\frac{1}{4}$	1	$\frac{7}{8}$	7	$5\frac{1}{2}$	L
10.510	11.010	$2\frac{1}{4}$	1	$\frac{29}{32}$	$7\frac{1}{2}$	$5\frac{7}{8}$	L
11.010	11.510	$2\frac{1}{4}$	1	$\frac{15}{16}$	8	$6\frac{1}{4}$	L
11.510	12.010	$2\frac{1}{4}$	1	$\frac{31}{32}$	$8\frac{1}{2}$	$6\frac{5}{8}$	L

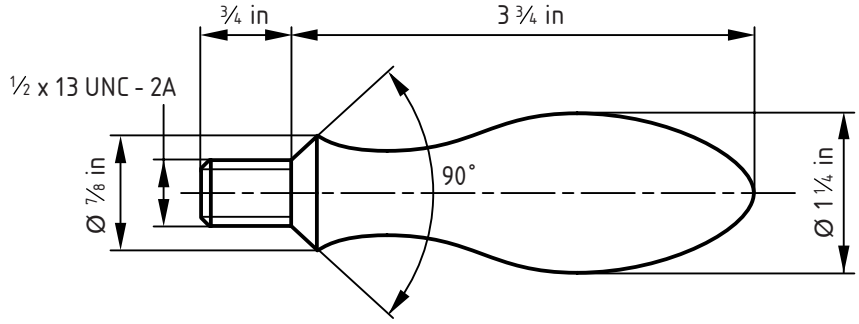
[A] Not recommended.

Figure 11 **Ball handles**

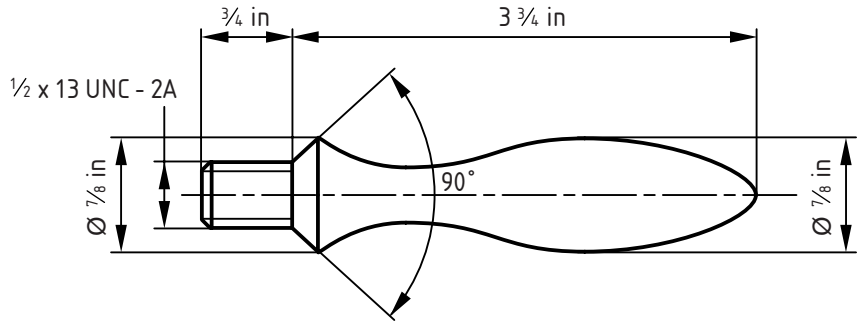
a) Size L



b) Size M



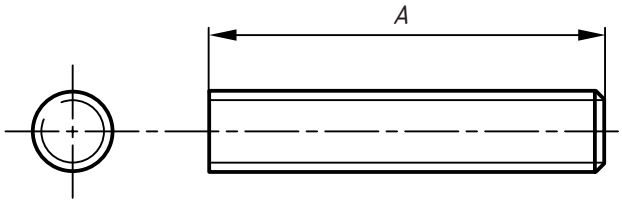
c) Size S



7 Screw plug gauging members

7.1 Collet type screw plug gauges

Table 13 **Collet type screw plug gauging members (Range: above 0.030 in up to and including 0.760 in)**



NOTE Centres (external or internal) to be retained.

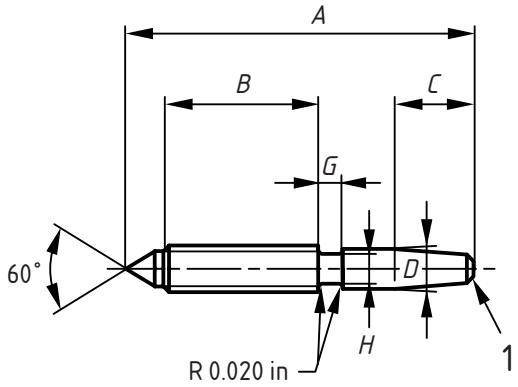
1	2	3	4	5
Size range, nominal		**Length *A*** [A)]		**Handle No.**
Above	**Up to and including**	**GO**	**NOT GO**	
in	in	in	in	
0.030	0.075	$\frac{1}{2}$	$\frac{1}{2}$	1 W, 1 W-S or 1 W-A
0.075	0.130	$\frac{5}{8}$	$\frac{5}{8}$	2 W, 2 W-S or 2 W-A
0.130	0.180	$\frac{3}{4}$	$\frac{3}{4}$	2 W, 2 W-S or 2 W-A
0.180	0.281	$\frac{7}{8}$	$\frac{7}{8}$	3 W, 3 W-S or 3 W-A
0.281	0.320	1	1	4 W, 4 W-S or 4 W-A
0.320	0.406	$1\frac{1}{8}$	$1\frac{1}{8}$	4 W, 4 W-S or 4 W-A
0.406	0.450	$1\frac{1}{4}$	$1\frac{1}{4}$	5 W, 5 W-S or 5 W-A
0.450	0.510	$1\frac{3}{8}$	$1\frac{3}{8}$	5 W, 5 W-S or 5 W-A
0.510	0.635	$1\frac{1}{2}$	$1\frac{3}{8}$	6 W, 6 W-S or 6 W-A
0.635	0.760	$1\frac{3}{4}$	$1\frac{3}{8}$	7 W, 7 W-S or 7 W-A

[A)] These lengths apply to standard and special diameter/pitch combinations not covered by Table 15. Lengths shown for *A* in the ranges up to and including 0.510 in are minimum lengths; commercially available lengths exceeding these values are acceptable as alternatives.

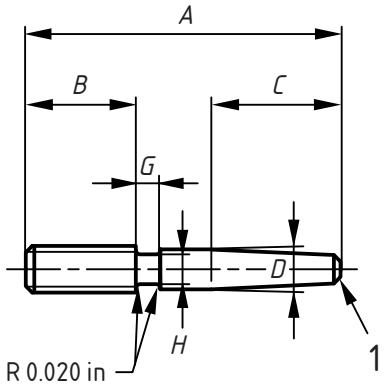
7.2 Taper lock screw plug gauges

Table 14 **Taper lock screw plug and single length setting plug gauging members (Range: above 0.059 in up to and including 2.510 in)**

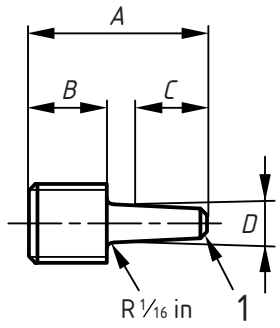
a) GO and NOT GO up to and including 0.150 in dia.



b) GO and NOT GO above 0.150 in up to and including [c1] 0.510 in ⟨c1⟩ dia.



c) GO and NOT GO above 0.510 in up to and including 2.510 in dia.



Key

1 Small rad. or chamfer

Shank taper in all cases 1 in 48 on diameter

Dimensions G and H on all gauges: as required.

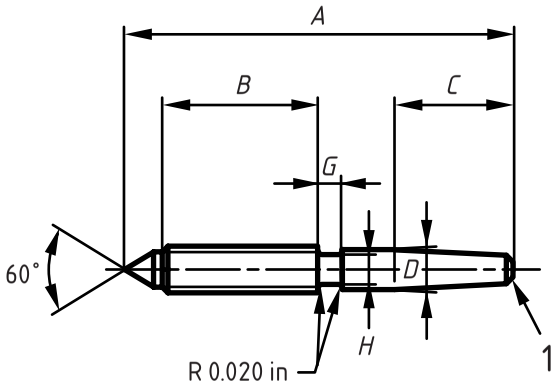
NOTE H to be undercut to root of thread when thread is formed.

1	2	3	4	5	6	7	8	9	10	11	12	13
Size range, nominal		**General dimensions**										**Handle No.**
		GO					**NOT GO**					
Above	**Up to and including**	***A***	***B***	***C***	***D***		***A***	***B***	***C***	***D***		
					max.	**min.**				**max.**	**min.**	
in	in	in	in	in	in	in	in	in	in	in	in	
0.030	0.105	$1\frac{1}{32}$	$\frac{1}{4}$	$\frac{1}{2}$	0.126	0.125	$\frac{31}{32}$	$\frac{3}{16}$	$\frac{1}{2}$	0.126	0.125	000
0.105	0.150	$1\frac{7}{32}$	$\frac{5}{16}$	$\frac{9}{16}$	0.156	0.155	$1\frac{1}{8}$	$\frac{7}{32}$	$\frac{9}{16}$	0.156	0.155	00
0.150	0.240	$1\frac{9}{32}$	$\frac{13}{32}$	$\frac{5}{8}$	0.181	0.180	$1\frac{5}{32}$	$\frac{9}{32}$	$\frac{5}{8}$	0.181	0.180	0
0.240	0.365	$1\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	0.240	0.239	$1\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{4}$	0.240	0.239	1
0.365	0.510	$1\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	0.310	0.309	$1\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{4}$	0.310	0.309	2
0.510	0.825	$1\frac{7}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	0.410	0.409	$1\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	0.410	0.409	3
0.825	1.135	$2\frac{3}{16}$	1	$\frac{7}{8}$	0.610	0.609	$1\frac{13}{16}$	$\frac{5}{8}$	$\frac{7}{8}$	0.610	0.609	4
1.135	2.510	$2\frac{3}{8}$ [A)]	1 [A)]	1	0.810	0.809	$2\frac{1}{8}$	$\frac{3}{4}$	1	0.810	0.809	5

[A)] For pitches coarser than 12 t.p.i. these lengths are increased to $2\frac{5}{8}$ in and $1\frac{1}{4}$ in respectively.

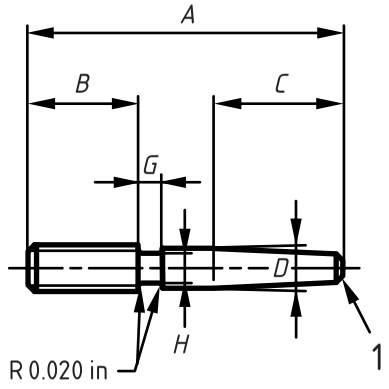
Table 15 **Taper lock fine pitch instrument thread plug gauging members (Range: above 0.059 in up to and including 2.510 in)**

a) GO and NOT GO up to and including 0.150 in dia.

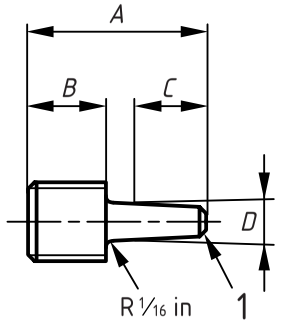


b) GO and NOT GO above 0.150 in up to and including Ⓒ1 0.510 in Ⓒ1 dia.

Shank taper in all cases 1 in 48 on diameter



c) GO and NOT GO above 0.510 in up to and including 2.510 in dia.

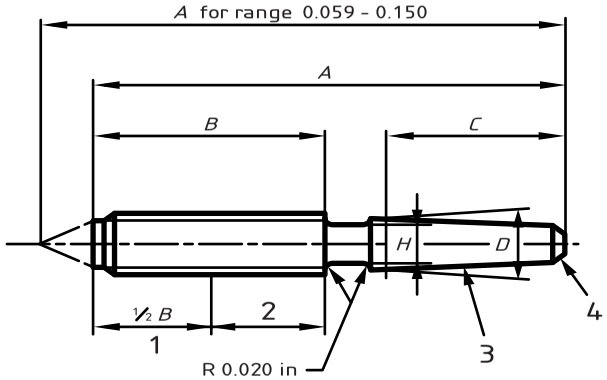


Key

1 Small rad. or chamfer

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Diameters and pitches			**General dimensions**												
Size range, nominal		**No. of threads per inch or metric pitch**	**GO**					**NOT GO**					**All gauges**		
Above	**Up to and including**		***A***	***B***	***C***	***D***		***A***	***B***	***C***	***D***		***G***	***H***	**Handle No.**
						max.	**min.**				**max.**	**min.**			
in	in	Finer than	in	in	in	in	in	in	in	in	in	in			
0.059	0.105	80 t.p.i. 0.3 mm	$\frac{31}{32}$	$\frac{3}{16}$	$\frac{1}{2}$	0.126	0.125	$\frac{29}{32}$	$\frac{1}{8}$	$\frac{1}{2}$	0.126	0.125			000
0.105	0.150	60 t.p.i. 0.4 mm	$1\frac{1}{8}$	$\frac{7}{32}$	$\frac{9}{16}$	0.156	0.155	$1\frac{1}{16}$	$\frac{5}{32}$	$\frac{9}{16}$	0.156	0.155			00
0.150	0.240	48 t.p.i. 0.5 mm	$1\frac{5}{32}$	$\frac{9}{32}$	$\frac{5}{8}$	0.181	0.180	$1\frac{3}{32}$	$\frac{7}{32}$	$\frac{5}{8}$	0.181	0.180	As required	As required	0
0.240	0.365	40 t.p.i. 0.6 mm	$1\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{4}$	0.240	0.239	$1\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{4}$	0.240	0.239		*NOTE To be undercut to root of thread when thread is formed.*	1
0.365	0.510	36 t.p.i. 0.7 mm	$1\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{4}$	0.310	0.309	$1\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{4}$	0.310	0.309			2
0.510	0.825	32 t.p.i. 0.8 mm	$1\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	0.410	0.409	$1\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{4}$	0.410	0.409			3
0.825	1.135	28 t.p.i. 0.9 mm	$1\frac{13}{16}$	$\frac{5}{8}$	$\frac{7}{8}$	0.610	0.609	$1\frac{5}{8}$	$\frac{7}{16}$	$\frac{7}{8}$	0.610	0.609			4
1.135	2.510	28 t.p.i. 0.9 mm	$2\frac{1}{8}$	$\frac{3}{4}$	1	0.810	0.809	$1\frac{7}{8}$	$\frac{1}{2}$	1	0.810	0.809			5

Table 16 **Taper lock double length setting plug gauging members (Range: above 0.059 in up to and including 2.510 in)**



Key

1 Truncated
2 Full form
3 Taper 1 in 48 on diameter
4 Small rad. or chamfer

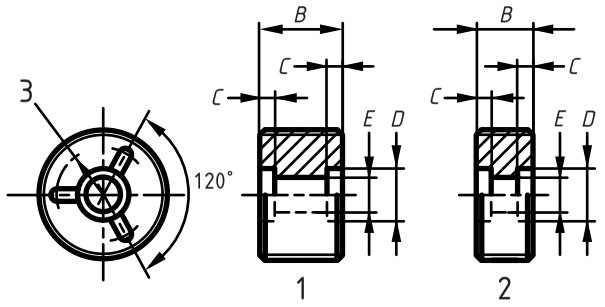
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Size range, nominal		**General dimensions**											
Above	**Up to and including**	**For thin rings**		**For thick rings**		**For fine pitch instrument thread rings**			***C***	***D***		***H***	**Handle No.**
		A	***B***	***A***	***B***	**No. of threads per inch or metric pitch**	***A***	***B***		**max.**	**min.**		
in	in	in	in	in	in	finer than	in	in	in	in	in		
0.059	0.090	1	$\frac{7}{32}$	—	—	—	—	—	$\frac{1}{2}$	0.126	0.125		000
0.090	0.105	$1\frac{5}{32}$	$\frac{3}{8}$	—	—	—	—	—	$\frac{1}{2}$	0.126	0.125		000
0.105	0.150	$1\frac{9}{32}$	$\frac{3}{8}$	—	—	—	—	—	$\frac{9}{16}$	0.156	0.155	As required	00
0.150	0.240	$1\frac{9}{32}$	$\frac{13}{32}$	—	—	—	—	—	$\frac{5}{8}$	0.181	0.180	*NOTE To be undercut to root of thread when thread is formed.*	0
0.240	0.365	$1\frac{3}{4}$	$\frac{3}{4}$	—	—	40 t.p.i. 0.6 mm	$1\frac{9}{16}$	$\frac{9}{16}$	$\frac{3}{4}$	0.240	0.239		1
0.365	0.510	2	1	—	—	36 t.p.i. 0.7 mm	$1\frac{11}{16}$	$\frac{11}{16}$	$\frac{3}{4}$	0.310	0.309		2
0.510	0.825	$2\frac{1}{4}$	$1\frac{1}{4}$	$2\frac{7}{8}$	$1\frac{7}{8}$	32 t.p.i. 0.8 mm	2	1	$\frac{3}{4}$	0.410	0.409		3
0.825	1.135	$2\frac{11}{16}$	$1\frac{1}{2}$	$3\frac{5}{16}$	$2\frac{1}{8}$	28 t.p.i. 0.9 mm	$2\frac{5}{16}$	$1\frac{1}{8}$	$\frac{7}{8}$	0.610	0.609		4
1.135	1.510	3	$1\frac{5}{8}$	$3\frac{3}{4}$	$2\frac{3}{8}$	28 t.p.i. 0.9 mm	$2\frac{11}{16}$	$1\frac{5}{16}$	1	0.810	0.809		5
1.510	2.010	$3\frac{1}{4}$	$1\frac{7}{8}$	$4\frac{1}{4}$	$2\frac{7}{8}$	28 t.p.i. 0.9 mm	$2\frac{11}{16}$	$1\frac{5}{16}$	1	0.810	0.809		5
2.010	2.510	$3\frac{3}{8}$	2	$4\frac{3}{8}$	3	28 t.p.i. 0.9 mm	$2\frac{13}{16}$	$1\frac{7}{16}$	1	0.810	0.809		5

NOTE For full form setting plugs, see Table 14 and Table 15.

7.3 Trilock screw plug gauges

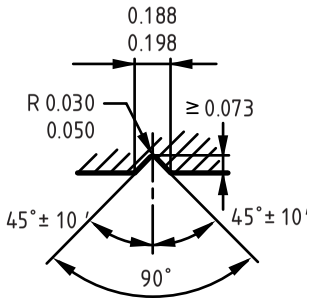
Table 17 **Trilock screw plug gauging members (Range: above 1.510 in up to and including 8.010 in)**

a) Range: above 1.510 in up to and including 2.510 in

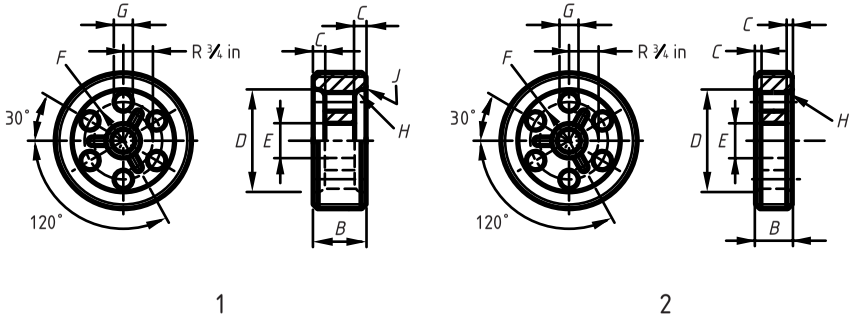


b) Enlarged section of locking groove

3 required on each end of all gauges



c) Range: above 2.510 in up to and including 8.010 in



Key

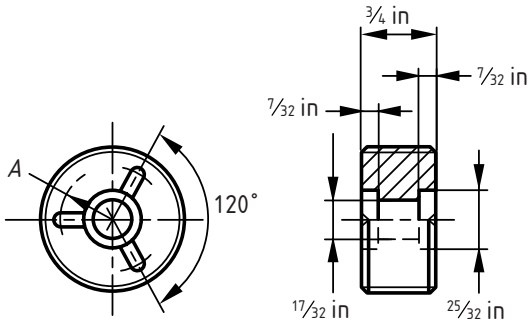
1 GO
2 NOT GO
3 R $\frac{9}{16}$ in for $5\frac{1}{2}$ handle
R $\frac{5}{8}$ in for 6 handle

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Size range, nominal		**General dimensions**																		
		GO											**NOT GO**			**All gauges**				**Handle No.**
Above	**Up to and including**	**7 t.p.i. 3.5 mm and coarser**				**Finer than 7 t.p.i. or 3.5 mm and coarser than 16 t.p.i. or 1.75 mm**				**16 t.p.i. 1.75 mm and finer** [A]			**All pitches**			**All pitches**				
		B	***C***	***H***	***J***	***B***	***C***	***H***	***J***	***B***	***C***	***H***	***B***	***C***	***H***	***D***	***E***	***F***	***G***	
in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	
1.510	2.010	$1\frac{7}{8}$	$\frac{1}{2}$	—	—	$1\frac{1}{4}$	$\frac{3}{8}$	—	—	$\frac{7}{8}$	$\frac{5}{16}$	—	$\frac{7}{8}$	—	—	$\frac{25}{32}$	$\frac{17}{32}$	—	—	$5\frac{1}{2}$
2.010	2.510	2	$\frac{1}{2}$	—	—	$1\frac{3}{8}$	$\frac{3}{8}$	—	—	$\frac{7}{8}$	$\frac{5}{16}$	—	$\frac{7}{8}$	—	—	$\frac{25}{32}$	$\frac{17}{32}$	—	—	6
2.510	3.010	$2\frac{1}{8}$	$\frac{11}{16}$	$\frac{3}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{16}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$1\frac{7}{8}$	$\frac{29}{32}$	—	—	7
3.010	3.510	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$2\frac{1}{4}$	$\frac{29}{32}$	—	—	7
3.510	4.010	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$2\frac{5}{8}$	$\frac{29}{32}$	—	—	7
4.010	4.510	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	3	$\frac{29}{32}$	$1\frac{1}{16}$	$\frac{3}{4}$	7
4.510	5.010	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$3\frac{7}{16}$	$\frac{29}{32}$	$1\frac{3}{16}$	$\frac{13}{16}$	7
5.010	5.510	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$3\frac{7}{8}$	$\frac{29}{32}$	$1\frac{1}{4}$	$\frac{7}{8}$	7
5.510	6.010	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$4\frac{5}{16}$	$\frac{29}{32}$	$1\frac{3}{8}$	1	7
6.010	6.510	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$4\frac{3}{4}$	$\frac{29}{32}$	$1\frac{1}{2}$	$1\frac{1}{8}$	7
6.510	7.010	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$5\frac{1}{4}$	$\frac{29}{32}$	$1\frac{5}{8}$	$1\frac{1}{4}$	7
7.010	7.510	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$5\frac{3}{4}$	$\frac{29}{32}$	$1\frac{3}{4}$	$1\frac{3}{8}$	7
7.510	8.010	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{1}{16}$	$1\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	1	$\frac{1}{8}$	$\frac{3}{16}$	$6\frac{1}{4}$	$\frac{29}{32}$	$1\frac{7}{8}$	$1\frac{1}{2}$	7

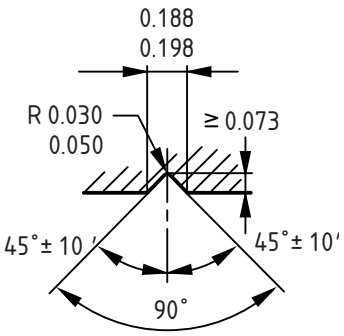
[A] See Table 18 for threads finer than 28 t.p.i.

Table 18 **Trilock fine pitch instrument thread plug gauging members (Range: above 1.510 in up to and including 2.510 in)**

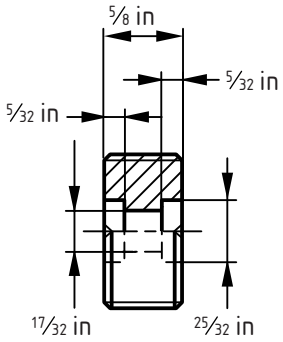
a) GO



b) Enlarged section of locking groove



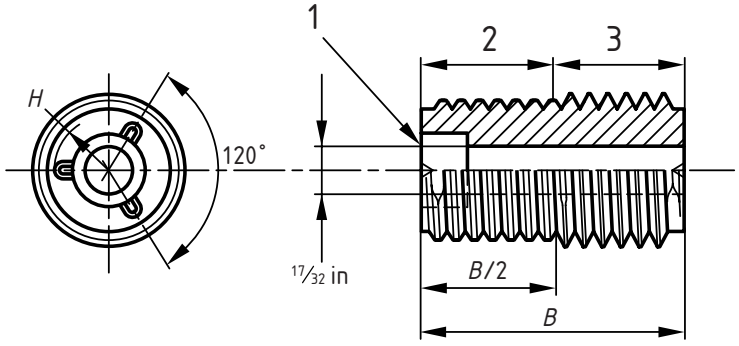
c) NOT GO



1	2	3	4	5
Size range, nominal		**No. of threads per inch or metric pitch**	***A***	**Handle No.**
Above	**Up to and including**			
in	in	Finer than 28 t.p.i. or 0.9 mm pitch		
1.510	2.010		$\frac{9}{16}$	$5\frac{1}{2}$
2.010	2.510		$\frac{5}{8}$	6

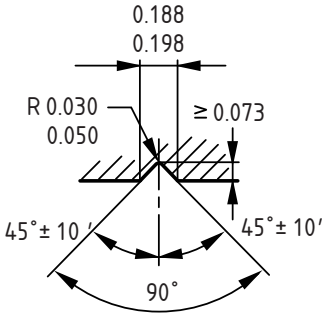
Table 19 **Trilock double length setting plug gauging members (Range: above 1.510 in up to and including 8.010 in)**

a) Range: above 1.510 in up to and including 2.510 in



b) Enlarged section of locking groove

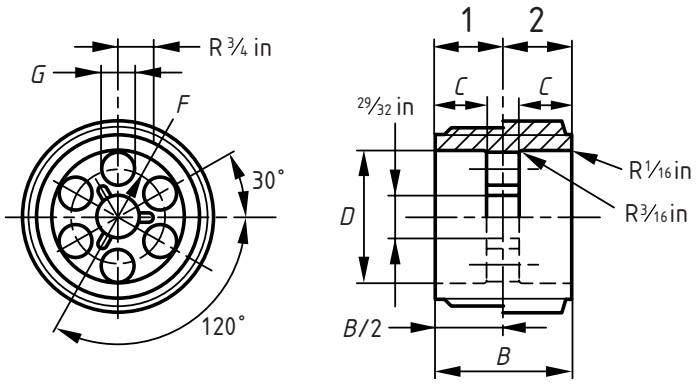
3 required on each end of all gauges



Key

1 Counterbore $\frac{25}{32} \times \frac{1}{2}$ deep
2 Truncated
3 Full form

c) Range: above 2.510 in up to and including 8.010 in



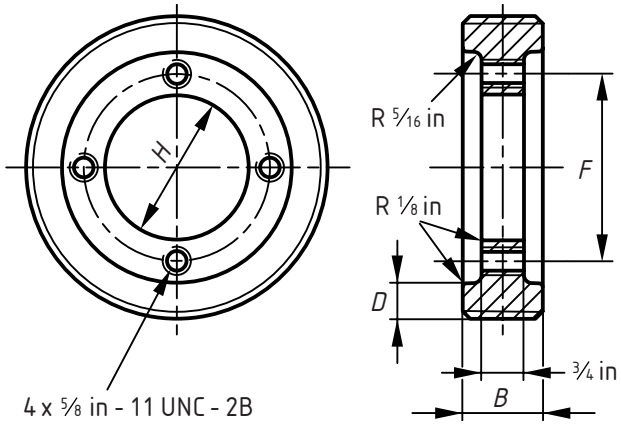
Key

1 Truncated
2 Full form

1	2	3	4	5	6	7	8	9	10	11	12
Size range, nominal		**General dimensions**									
Above	**Up to and including**	**For thin rings**		**For thick rings**		**For fine pitch instrument thread rings**					**Handle No.**
		B	***C***	***B***	***C***	***B***	***H***	***D***	***F***	***G***	
in	in	in	in	in	in	in	in	in	in	in	
1.510	2.010	$1\frac{7}{8}$	—	$2\frac{7}{8}$	—	$1\frac{5}{16}$	$\frac{9}{16}$	—	—	—	$5\frac{1}{2}$
2.010	2.510	2	—	3	—	$1\frac{7}{16}$	$\frac{5}{8}$	—	—	—	6
2.510	3.010	$1\frac{7}{8}$	$\frac{9}{16}$	3	$1\frac{1}{8}$	—	—	$1\frac{7}{8}$	—	—	7
3.010	3.510	2	$\frac{5}{8}$	$3\frac{1}{8}$	$1\frac{1}{8}$	—	—	$2\frac{1}{4}$	—	—	7
3.510	4.010	2	$\frac{5}{8}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$2\frac{5}{8}$	—	—	7
4.010	4.510	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	3	$1\frac{1}{16}$	$\frac{3}{4}$	7
4.510	5.010	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$3\frac{7}{16}$	$1\frac{3}{16}$	$\frac{13}{16}$	7
5.010	5.510	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$3\frac{7}{16}$	$1\frac{3}{16}$	$\frac{13}{16}$	7
5.510	6.010	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$4\frac{5}{16}$	$1\frac{3}{8}$	1	7
6.010	6.510	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$4\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{1}{8}$	7
6.510	7.010	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$5\frac{1}{4}$	$1\frac{5}{8}$	$1\frac{1}{4}$	7
7.010	7.510	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$5\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{8}$	7
7.510	8.010	$2\frac{1}{8}$	$\frac{11}{16}$	$3\frac{1}{4}$	$1\frac{3}{16}$	—	—	$6\frac{1}{4}$	$1\frac{7}{8}$	$1\frac{1}{2}$	7

7.4 Annular screw plug gauges

Table 20 **Annular screw plug gauging members (Range: above 8.010 in up to and including 12.010 in)**



1	2	3	4	5	6	7	8	9	10
Size range, nominal		**GO**			**NOT GO** [A]	**All**			**Ball handle type** [B]
Above	**Up to and including**	**7 t.p.i. 3.5 mm and coarser**	**Finer than 7 t.p.i. or 3.5 mm and coarser than 16 t.p.i. or 1.75 mm**	**16 t.p.i. 1.75 mm and finer**	**All pitches**	**All pitches**			
		B				***D***	***F***	***H***	
in	in	in	in	in	in	in	in	in	
8.010	8.510	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{3}{4}$	$5\frac{1}{4}$	4	L or bar type
8.510	9.010	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{25}{32}$	$5\frac{5}{8}$	$4\frac{3}{8}$	
9.010	9.510	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{13}{16}$	6	$4\frac{3}{4}$	
9.510	10.010	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{27}{32}$	$6\frac{1}{2}$	$5\frac{1}{8}$	
10.010	10.510	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{7}{8}$	7	$5\frac{1}{2}$	
10.510	11.010	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{29}{32}$	$7\frac{1}{2}$	$5\frac{7}{8}$	
11.010	11.510	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{15}{16}$	8	$6\frac{1}{4}$	
11.510	12.010	$2\frac{1}{4}$	$1\frac{1}{2}$	1	1	$\frac{31}{32}$	$8\frac{1}{2}$	$6\frac{5}{8}$	

[A] Not recommended.

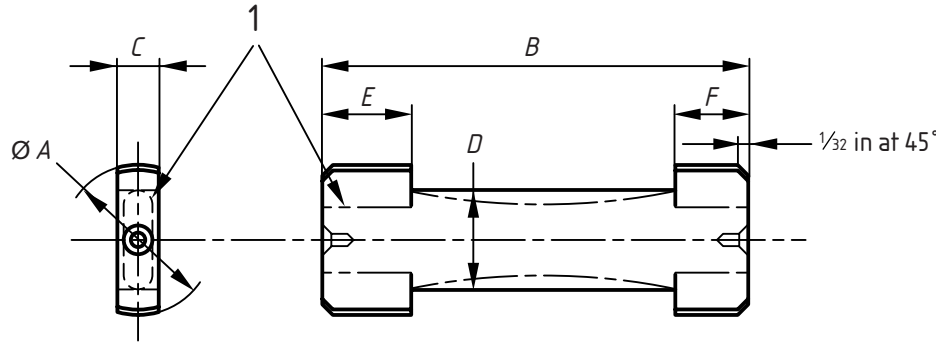
[B] When L ball type handles are used, two are required for each gauge. When bar type handles are used, one or two may be fitted [see Figure 10b) to Figure 10d)].

8 Plug gauges other than cylindrical

For gauging large holes in rigid parts, segmental gauges shall be used in place of full form cylindrical plugs. Details of two commonly used types are given in Table 21 and Table 22.

Table 21 **Segmental cylindrical gauges (Range: above 1.260 in up to and including 8.010 in)**

a) Diameters up to and including 2.510 in



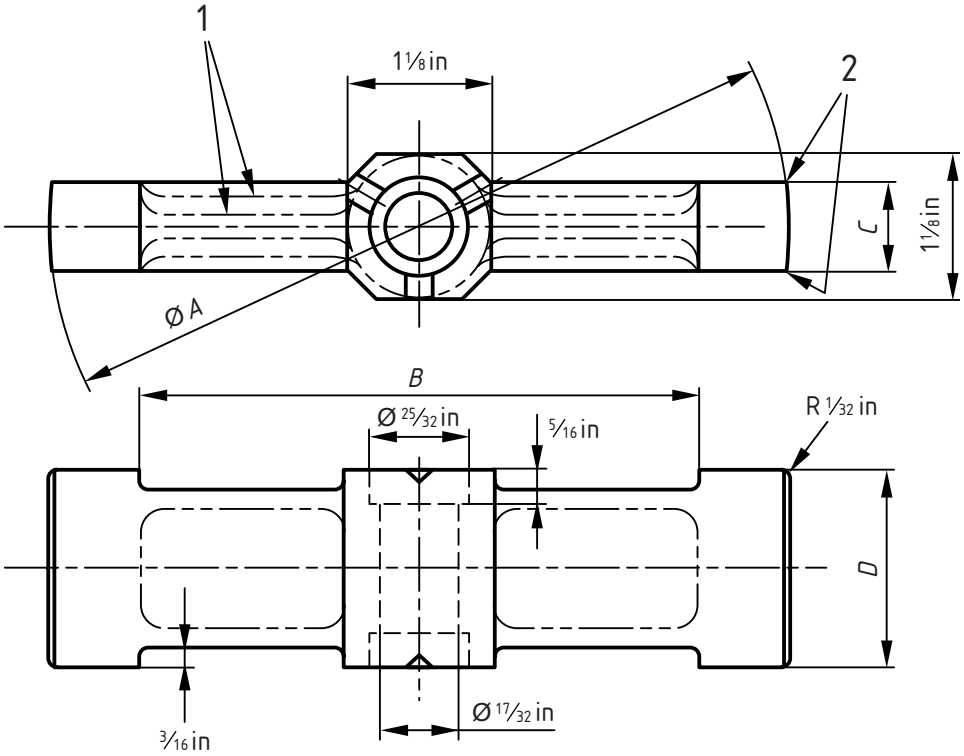
Key

1 Forgings of webbed design may be used

1	**2**	**3**	**4**	**5**	**6**	**7**
Size range, nominal ***A***		***B***	***C***	***D***	***E*** **GO end**	***F*** **NOT GO end**
Above	**Up to and including**					
in	in	in	in	in	in	in
1.260	1.635	$4\frac{1}{4}$	$\frac{3}{8}$	$1\frac{1}{8}$	1	$\frac{11}{16}$
1.635	2.010	5	$\frac{7}{16}$	$1\frac{7}{16}$	$1\frac{1}{4}$	$\frac{13}{16}$
2.010	2.510	$5\frac{1}{2}$	$\frac{1}{2}$	$1\frac{11}{16}$	$1\frac{1}{4}$	$\frac{13}{16}$

Table 21 **Segmental cylindrical gauges (Range: above 1.260 in up to and including 8.010 in)** (*continued*)

b) Trilock design for use with handle No.6 (Range: above 2.510 in up to and including 8.010 in)



Key

1 Forgings of webbed design may be used

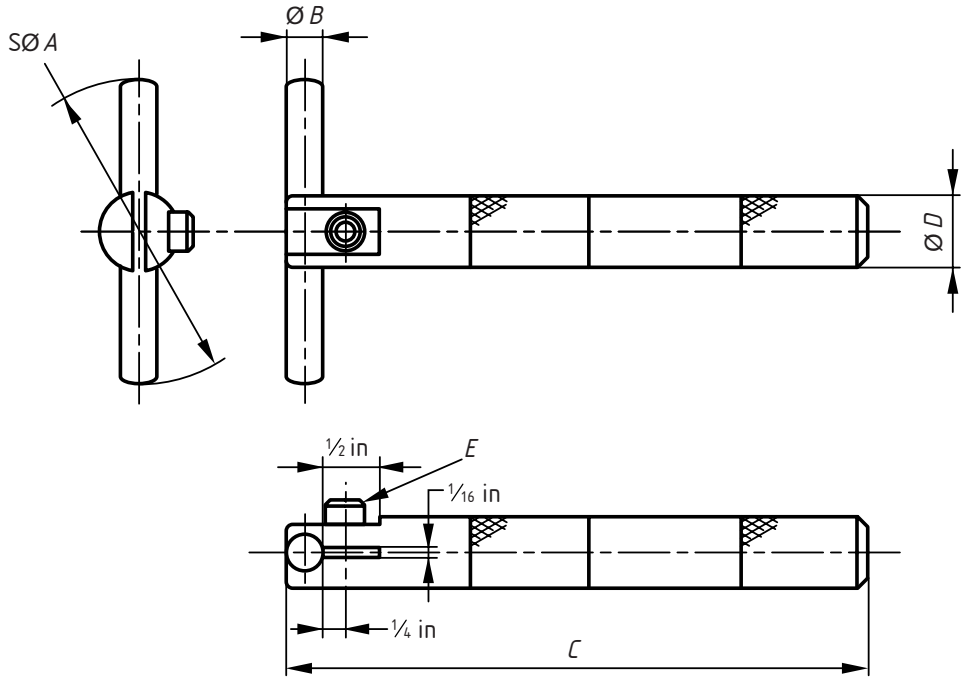
2 Remove sharp edges

3 For details of locking grooves, see Table 11b)

1	2	3	4	5	6
Size range, nominal *A*		***B***	***C***		
Above	**Up to and including**	**GO and NOT GO**		**GO**	**NOT GO**
in	in	in	in	in	in
2.510	3.135	$1\frac{7}{8}$	$\frac{9}{16}$	$1\frac{5}{16}$	1
3.135	3.760	$2\frac{1}{2}$	$\frac{9}{16}$	$1\frac{7}{16}$	$1\frac{1}{16}$
3.760	4.510	$3\frac{1}{8}$	$\frac{5}{8}$	$1\frac{1}{2}$	$1\frac{1}{8}$
4.510	5.260	$3\frac{3}{4}$	$\frac{11}{16}$	$1\frac{1}{2}$	$1\frac{3}{16}$
5.260	6.010	$4\frac{1}{2}$	$\frac{3}{4}$	$1\frac{5}{8}$	$1\frac{1}{4}$
6.010	7.010	$5\frac{1}{4}$	$\frac{13}{16}$	$1\frac{3}{4}$	$1\frac{5}{16}$
7.010	8.010	$6\frac{1}{4}$	$\frac{15}{16}$	$1\frac{7}{8}$	$1\frac{3}{8}$

Table 22 **Spherical ended rod gauges (Range: above 0.510 in up to and including 12.01 in)**

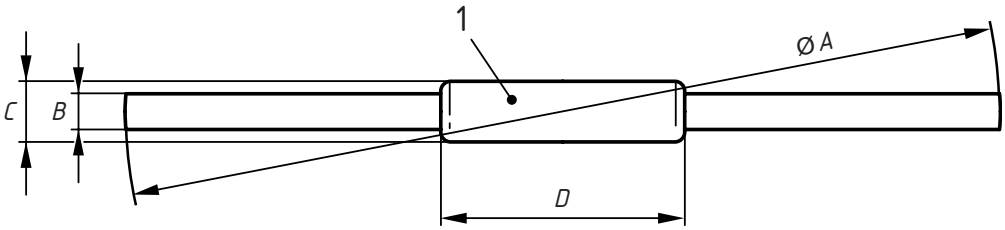
a) Diameters above 0.510 in up to and including 6.010 in



NOTE Length C is optional.

1	2	3	4	5
A **Spherical diameter, nominal**		***B***	***D***	***E*** (socket head cap screw)
Above	**Up to and including**			
in	in	in	in	
0.510	0.760	$\frac{3}{16}$	$\frac{3}{8}$	6-40 UNF-2A
0.760	1.010	$\frac{1}{4}$	$\frac{1}{2}$	6-40 UNF-2A
1.010	3.010	$\frac{5}{16}$	$\frac{5}{8}$	10-32 UNF-2A
3.010	6.010	$\frac{3}{8}$	$\frac{3}{4}$	10-32 UNF-2A

b) Diameters above 6.01 in up to and including 12.01 in



Key

1 Heat insulating handle

1	2	3	4	5
A **Spherical diameter, nominal**		***B***	***C*** **minimum**	***D***
Above	**Up to and including**			
in	in	in	in	in
6.01	9.01	$\frac{1}{2}$	$\frac{5}{8}$	3
9.01	12.01	$\frac{5}{8}$	$\frac{3}{4}$	3 [A)]

[A)] Two required.

Section 3: Plain and screw ring gauges and plain gap gauges, solid types

9 Plain ring gauges

9.1 General

Plain ring gauges are typically used only as GO gauges for checking cylindrical workpieces. Solid or adjustable gap gauges are recommended for NOT GO gauging such parts. In certain circumstances, however, it might be necessary to use NOT GO ring gauges for this purpose and they are also often used for setting air gauges. Table 23 therefore specifies blanks suitable for both GO and NOT GO gauges.

9.2 Form of gauges

The dimensions specified in Table 23 apply to standard gauges, but for special purposes other dimensions might be more suitable.

For sizes above 3.510 in, the section of the ring shall be modified as shown in Table 23b) in order to provide a finger hold which enables the larger gauges to be more easily lifted from a flat surface.

9.3 Finish of outside diameter

The outside diameter shall be finished with a fine knurl for sizes up to and including 1.135 in and with a medium knurl for larger sizes.

The edges shall be chamfered at 45° to the amounts shown in Column 5 of Table 23a).

A groove shall be provided around the outside diameter of NOT GO gauges.

10 Screw ring gauges

10.1 General

Screw ring gauges are used as GO and NOT GO gauges and provision is accordingly made for both in Table 24.

Two or three thicknesses of blanks are provided for GO gauges in order to accommodate differing pitch/diameter combinations. NOT GO gauges in general have fewer threads than the corresponding GO gauges and one thickness of blank is considered sufficient for these.

10.2 Form of gauges

For sizes above 3.510 in, the section of thick rings shall be modified as shown in Table 24a) in order to provide a finger hold which enables the larger gauges to be more easily lifted from a flat surface.

These gauges can be made to accommodate two handles of the type shown in Table 24b).

10.3 Finish of outside diameter

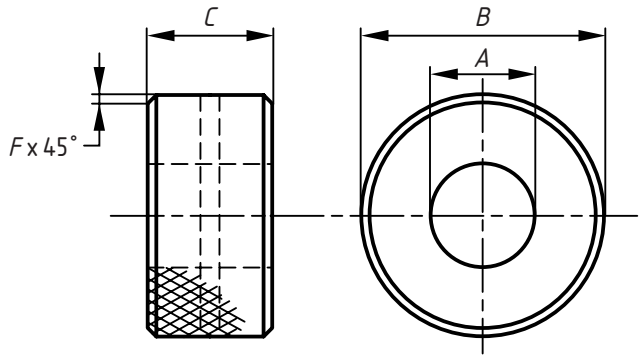
The outside diameter shall be finished with a fine knurl for sizes up to and including 1.135 in bore and with a medium knurl for larger sizes. Where sizes above 5.510 in are fitted with handles, knurling is optional.

The edges shall be chamfered or radiused in proportion to the width of the gauge.

A groove shall be provided around the outside diameter of NOT GO gauges.

Table 23 **Plain ring gauges – solid type (Range: up to and including 12.260 in)**

a) Diameters up to and including 3.510 in

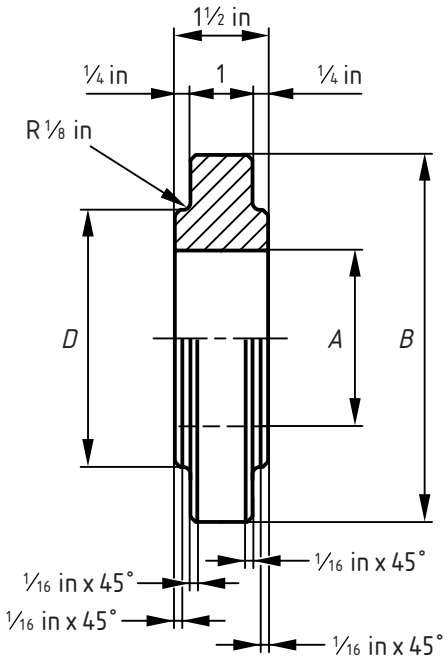


Groove to be provided on NOT GO gauges

1	2	3	4	5
A **Size range, nominal**		***B***	***C***	***F***
Above	**Up to and including**			
in	in	in	in	in
—	0.150	1	$\frac{3}{16}$	$\frac{1}{32}$
0.150	0.240	1	$\frac{5}{16}$	$\frac{1}{32}$
0.240	0.365	$1\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{16}$
0.365	0.510	$1\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{16}$
0.510	0.825	2	$\frac{3}{4}$	$\frac{1}{16}$
0.825	1.135	$2\frac{3}{8}$	$\frac{15}{16}$	$\frac{1}{16}$
1.135	1.510	$2\frac{3}{4}$	$1\frac{1}{8}$	$\frac{1}{16}$
1.510	2.010	$3\frac{1}{2}$	$1\frac{1}{4}$	$\frac{1}{16}$
2.010	2.510	4	$1\frac{3}{8}$	$\frac{1}{16}$
2.510	3.010	$4\frac{3}{4}$	$1\frac{3}{8}$	$\frac{1}{16}$
3.010	3.510	$5\frac{1}{4}$	$1\frac{3}{8}$	$\frac{1}{16}$

Table 23 **Plain ring gauges – solid type**
(Range: up to and including 12.260 in) (*continued*)

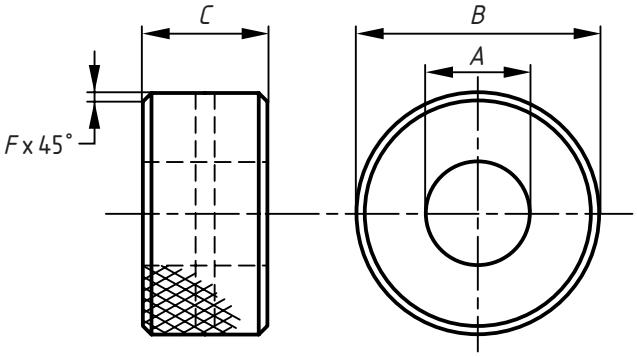
b) Diameters above 3.510 in up to and including 12.260 in



1	2	3	4
A **Size range, nominal**		***B***	***D***
Above	**Up to and including**		
in	in	in	in
3.510	4.010	$6\frac{3}{8}$	$4\frac{5}{8}$
4.010	4.760	$7\frac{1}{4}$	$5\frac{3}{8}$
4.760	5.510	$8\frac{1}{4}$	$6\frac{3}{8}$
5.510	6.260	$9\frac{1}{4}$	$7\frac{1}{4}$
6.260	7.010	$10\frac{1}{4}$	8
7.010	7.760	$11\frac{1}{4}$	$8\frac{3}{4}$
7.760	8.510	$12\frac{1}{4}$	$9\frac{1}{2}$
8.510	9.260	$13\frac{1}{4}$	$10\frac{1}{4}$
9.260	10.010	$14\frac{1}{4}$	11
10.010	10.760	$15\frac{1}{4}$	$11\frac{3}{4}$
10.760	11.510	$16\frac{1}{4}$	$12\frac{1}{2}$
11.510	12.260	$17\frac{1}{4}$	$13\frac{1}{4}$

Table 24 **Screw ring gauges – solid type (Range: up to and including 12.260 in)**

a) Diameters up to and including 3.510 in

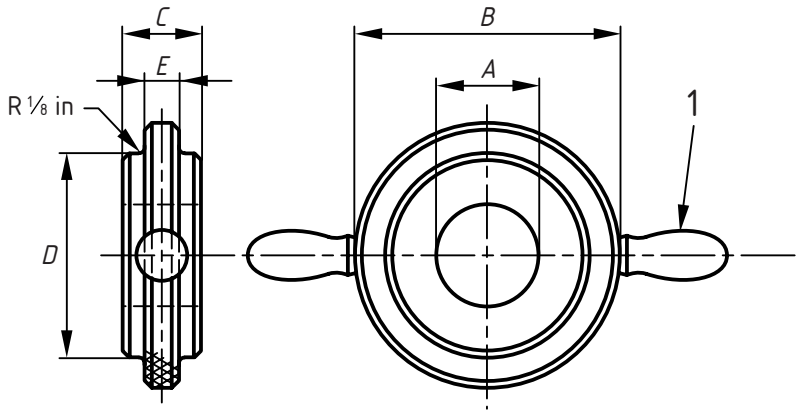


Groove to be provided on NOT GO gauges

1	2	3	4	5	6	7	8	9	10
A **Size range, nominal**		***B*** **GO and NOT GO**	**GO gauges**						**NOT GO gauges**
			Thick		**Thin**		**Extra thin**		**Any pitch**
Above	**Up to and including**		***C***	**No. of threads per inch or metric pitch**	***C***	**No. of threads per inch or metric pitch**	***C***	**No. of threads per inch or metric pitch**	***C***
in	in	in	in		in		in		in
	0.090	1	—	—	$\frac{3}{32}$	Any pitch	—	—	$\frac{3}{32}$
0.090	0.150	1	—	—	$\frac{5}{32}$	56 t.p.i., 0.45 mm and coarser	$\frac{3}{32}$	60 t.p.i., 0.4 mm and finer	$\frac{3}{32}$
0.150	0.240	1	—	—	$\frac{3}{16}$	36 t.p.i., 0.7 mm and coarser	$\frac{5}{32}$	40 t.p.i., 0.6 mm and finer	$\frac{5}{32}$
0.240	0.365	$1\frac{1}{4}$	$\frac{11}{32}$	28 t.p.i., 0.9 mm and coarser	$\frac{9}{32}$	32–36 t.p.i., 0.8–0.7 mm	$\frac{7}{32}$	40 t.p.i., 0.6 mm and finer	$\frac{7}{32}$
0.365	0.510	$1\frac{1}{2}$	$\frac{1}{2}$	13 t.p.i., 2 mm and coarser	$\frac{3}{8}$	14–28 t.p.i., 1.75–0.9 mm	$\frac{9}{32}$	32 t.p.i., 0.8 mm and finer	$\frac{9}{32}$
0.510	0.825	2	$\frac{3}{4}$	12 t.p.i., 2 mm and coarser	$\frac{9}{16}$	13–19 t.p.i., 1.75–1.5 mm	$\frac{15}{32}$	20 t.p.i., 1.25 mm and finer	$\frac{15}{32}$
0.825	1.135	$2\frac{3}{8}$	$\frac{15}{16}$	11 t.p.i., 2.5 mm and coarser	$\frac{11}{16}$	12–16 t.p.i., 2–1.75 mm	$\frac{17}{32}$	18 t.p.i., 1.5 mm and finer	$\frac{17}{32}$
1.135	1.510	$2\frac{3}{4}$	$1\frac{1}{8}$	9 t.p.i., 3 mm and coarser	$\frac{3}{4}$	10–14 t.p.i., 2.5–2 mm	$\frac{5}{8}$	16 t.p.i., 1.75 mm and finer	$\frac{5}{8}$
1.510	2.010	$3\frac{1}{2}$	$1\frac{1}{4}$	9 t.p.i., 3 mm and coarser	$\frac{13}{16}$	10–14 t.p.i., 2.5–2 mm	$\frac{5}{8}$	16 t.p.i., 1.75 mm and finer	$\frac{5}{8}$
2.010	2.510	4	$1\frac{5}{16}$	9 t.p.i., 3 mm and coarser	$\frac{7}{8}$	10–12 t.p.i., 2.5 mm	$\frac{11}{16}$	13 t.p.i., 2 mm and finer	$\frac{11}{16}$
2.510	3.010	$4\frac{3}{4}$	$1\frac{3}{8}$	9 t.p.i., 3 mm and coarser	$\frac{7}{8}$	10 t.p.i., 2.5 mm and finer	—	—	$\frac{7}{8}$
3.010	3.510	$5\frac{1}{4}$	$1\frac{7}{16}$	9 t.p.i., 3 mm and coarser	$\frac{15}{16}$	10 t.p.i., 2.5 mm and finer	—	—	$\frac{15}{16}$

Table 24 **Screw ring gauges – solid type (Range: up to and including 12.260 in)** *(continued)*

b) Diameters above 3.510 in up to and including 12.260 in



Key
1 Handles optional

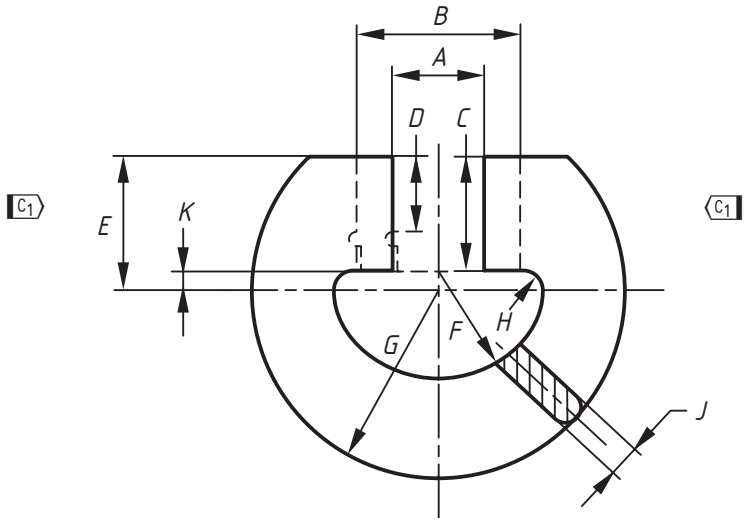
1	**2**	**3**	**4**	**5**	**6**	**7**
A **Size range, nominal**		***B*** **GO and NOT GO**	**GO gauges**			**NOT GO gauges**
Above	**Up to and including**		**Thick**		**Thin**	**Any pitch**
			9 t.p.i., 3 mm pitch and coarser		**10 t.p.i., 2.5 mm pitch and finer**	
			C	*D*	*C*	*C*
in	in	in	in	in	in	in
3.510	4.010	$6\frac{3}{8}$	$1\frac{1}{2}$	$4\frac{5}{8}$	1	1
4.010	4.760	$7\frac{1}{4}$	$1\frac{1}{2}$	$5\frac{3}{8}$	1	1
4.760	5.510	$8\frac{1}{4}$	$1\frac{1}{2}$	$6\frac{3}{8}$	1	1
5.510	6.260	$9\frac{1}{4}$	$1\frac{1}{2}$	$7\frac{1}{4}$	1	1
6.260	7.010	$10\frac{1}{4}$	$1\frac{1}{2}$	8	1	1
7.010	7.760	$11\frac{1}{4}$	$1\frac{1}{2}$	$8\frac{3}{4}$	1	1
7.760	8.510	$12\frac{1}{4}$	$1\frac{1}{2}$	$9\frac{1}{2}$	1	1
8.510	9.260	$13\frac{1}{4}$	$1\frac{1}{2}$	$10\frac{1}{4}$	1	1
9.260	10.010	$14\frac{1}{4}$	$1\frac{1}{2}$	11	1	1
10.010	10.760	$15\frac{1}{4}$	$1\frac{1}{2}$	$11\frac{3}{4}$	1	1
10.760	11.510	$16\frac{1}{4}$	$1\frac{1}{2}$	$12\frac{1}{2}$	1	1
11.510	12.260	$17\frac{1}{4}$	$1\frac{1}{2}$	$13\frac{1}{4}$	1	1

11 Plain gap gauges, solid type

NOTE Plain gap gauges are produced from flat steel sheet and can be made with a single gap or with both the GO and NOT GO gaps combined in one gauge. The gauges are typically supplied as soft blanks ready for hardening and finishing by the purchaser to their own requirements.

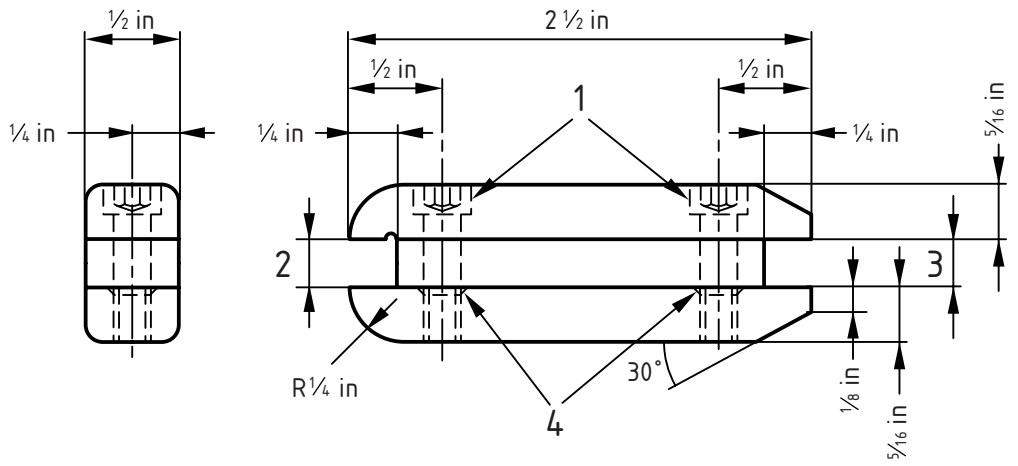
Table 25 specifies gaps over $\frac{1}{4}$ in, but built-up gauges to suit purchaser requirements can be used for gaps up to and including $\frac{1}{4}$ in, as shown in Figure 12.

Table 25 **Plain gap gauges – solid type (Range: above $\frac{1}{4}$ in up to and including $10\frac{3}{4}$ in)**



1	2	3	4	5	6	7	8	9	10	11
Size range, nominal		**General dimensions**								**Blank No.**
Above	**Up to and including**	***C***	***D***	***E***	***F*** **rad.**	***G*** **rad.**	***H*** **rad.**	***J***	***K***	
A	***B***									
in	in	in	in	in	in	in	in	in	in	
—	0.570	$\frac{3}{4}$	$\frac{1}{2}$	1	$\frac{7}{16}$	$1\frac{1}{8}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{16}$	A1
0.570	1.320	$\frac{15}{16}$	$\frac{5}{8}$	$1\frac{1}{8}$	$\frac{7}{8}$	$1\frac{1}{2}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{16}$	A2
1.320	2.440	$1\frac{1}{8}$	$\frac{3}{4}$	$1\frac{3}{8}$	$1\frac{3}{8}$	$2\frac{1}{8}$	$\frac{5}{32}$	$\frac{5}{16}$	$\frac{1}{4}$	A3
2.440	3.760	$1\frac{1}{4}$	$\frac{13}{16}$	$1\frac{7}{8}$	$2\frac{1}{8}$	$3\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{5}{8}$	A4
3.760	5.010	$1\frac{1}{2}$	1	$2\frac{1}{4}$	$2\frac{3}{4}$	4	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{3}{4}$	A5
5.010	6.260	$1\frac{5}{8}$	$1\frac{1}{16}$	$2\frac{1}{2}$	$3\frac{3}{8}$	$4\frac{3}{4}$	$\frac{1}{4}$	$\frac{7}{16}$	$\frac{7}{8}$	A6
6.260	7.760	$1\frac{3}{4}$	$1\frac{3}{16}$	$2\frac{7}{8}$	$4\frac{1}{8}$	$5\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{8}$	A7
7.760	9.260	$1\frac{3}{4}$	$1\frac{3}{16}$	3	$4\frac{7}{8}$	$6\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{4}$	A8
9.260	10.760	$1\frac{3}{4}$	$1\frac{3}{16}$	$3\frac{1}{4}$	$5\frac{5}{8}$	$7\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{2}$	A9

Figure 12 **Example of built-up gap gauge**



Key

1 10-32 UNF socket head screw
2 GO
3 NOT GO
4 $\frac{1}{32}$ in × 45°countersink

Section 4: Adjustable screw ring gauges

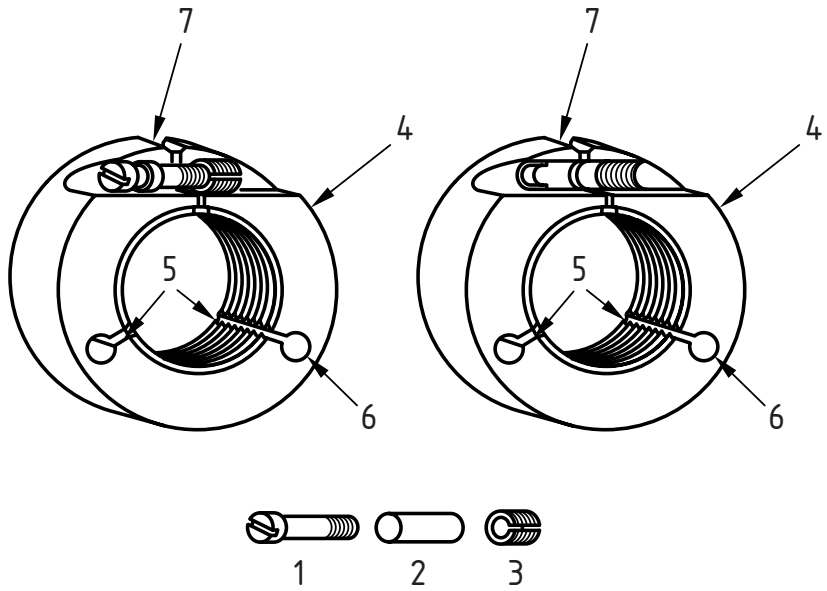
12 General

Adjustable screw ring gauges are used for gauging threads having clearance between the crests and roots. They are not recommended for use on Whitworth or B.A. threads.

The construction of and method of locking this type of gauge shall be as shown in Figure 13.

The hardness of the gauge in the vicinity of the adjusting slot terminal hole (Item 6 in Figure 13) shall not exceed a value of 40/45 HRC.

Figure 13 **Adjustable screw ring gauge, showing details of construction**



Key

1 Locking screw
2 Sleeve
3 Adjusting screw
4 Body
5 Adjusting slots
6 Adjusting slot terminal hole
7 Locking slot

NOTE The adjusting screw (3) is threaded externally and internally and split longitudinally. Turning this screw to the right exerts pressure on the sleeve (2) against the shoulder in the left-hand side of the gauge as shown in Figure 12, thus spreading the ring. Once the ring has been properly adjusted by means of the adjusting screw (3) the adjustment is locked by tightening the locking screw (1). The tightening of the locking screw (1) exerts a pull between the shoulder, immediately under its head, and the internal threads of the adjusting screw (3), which causes the adjusting screw to expand into the threads in the wall of the gauge, the thrust of this action being taken up longitudinally by the sleeve (2). Therefore, the clamping is accomplished by expansion of the adjusting screw equally in all directions and not by the application of any eccentric forces that tend to distort the gauge or upset the adjustment. The locking pressure is taken up centrally in the locking screw itself as the reacting support is directly under the head of the locking screw in the form of a shoulder in the gauge. The sleeve (2), being accurately fitted, serves as a large dowel to maintain the alignment of the gauge.

13 Dimensions for adjustable screw ring gauge blanks for parallel threads

Screw ring gauge blanks for parallel threads shall be of one of the five following types.

1) A thin flat disk type with one adjusting slot (two slots optional) for all diameters and pitches, both GO and NOT GO, for sizes from 0.059 in to 0.150 in inclusive, conforming to Figure 14 and Table 26.

2) A thin flat disk type with two adjusting slots, conforming to Figure 15 and Table 26 or Table 27, as applicable, for:

a) all diameters and pitches, both GO and NOT GO, for sizes above 0.150 in up to and including 0.510 in;

b) fine pitches, both GO and NOT GO, for sizes above 0.510 in up to and including 4.760 in; and

c) coarse pitches, NOT GO only, for sizes above 0.510 in up to and including 4.760 in.

3) A thick flanged type with two adjusting slots for coarse pitches, GO only, for sizes above 0.510 in up to and including 4.760 in, conforming to Figure 16 and Table 26 or Table 27, as applicable.

4) A thin flat type provided with ball handles and with one or more adjusting slots conforming to Figure 17 and Table 28a) for fine pitch GO gauges only and all NOT GO gauges for sizes above 4.760 in up to and including 8.010 in.

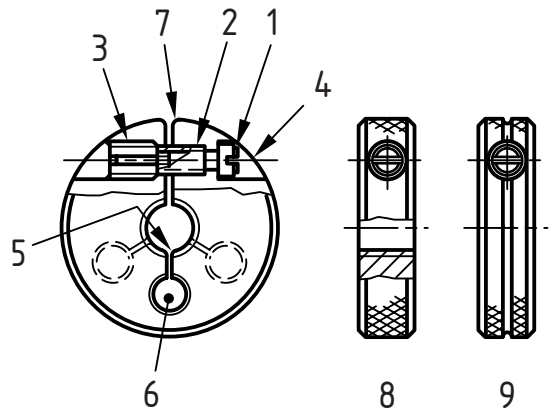
5) A thick flanged type provided with ball handles and with one or more adjusting slots conforming to Table 28b) for coarse pitch GO gauges only for sizes above 4.760 in up to and including 8.010 in.

Adjustable screw ring gauge adjusting screws shall conform to Table 29.

Adjustable screw ring gauge sleeves shall conform to Table 30.

Adjustable screw ring gauge locking screws shall conform to Table 31.

Figure 14 **Range: 0.059 in up to and including 0.150 in**

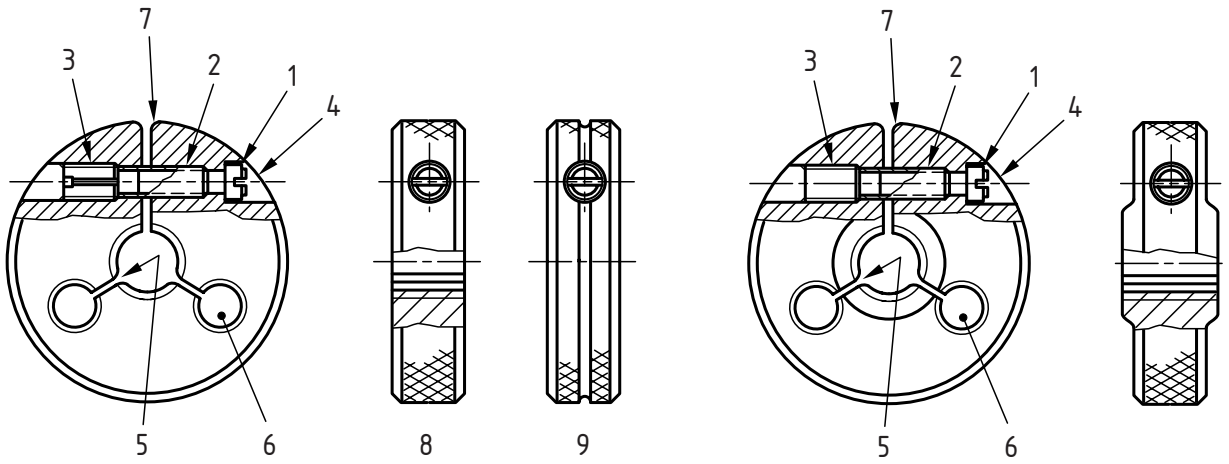


Key

1 Locking screw
2 Sleeve
3 Adjusting screw
4 Body
5 Adjusting slot
6 Adjusting slot terminal hole (two adjusting slots are optional)
7 Locking slot
8 GO
9 NOT GO

Figure 15 **Ranges: above 0.150 in up to and including 0.510 in, GO and NOT GO, all pitches; above 0.510 in up to and including 4.760 in, GO and NOT GO, fine pitches; above 0.510 in up to and including 4.760 in, NOT GO only, coarse pitches**

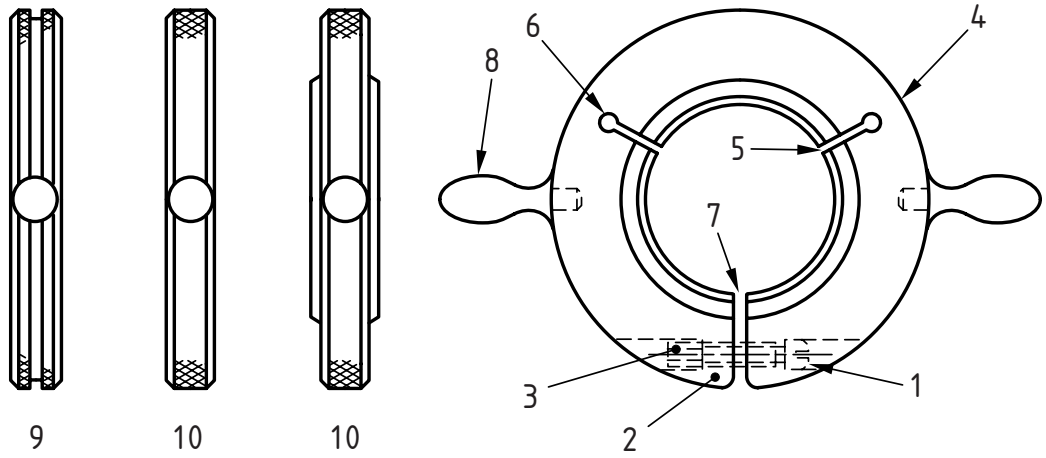
Figure 16 **Range: above 0.510 in up to and including 4.760 in, GO only, coarse pitches**



Key

1 Locking screw
2 Sleeve
3 Adjusting screw
4 Body
5 Adjusting slot
6 Adjusting slot terminal hole
7 Locking slot
8 GO
9 NOT GO

Figure 17 **Range: above 4.760 in up to and including 8.010 in**

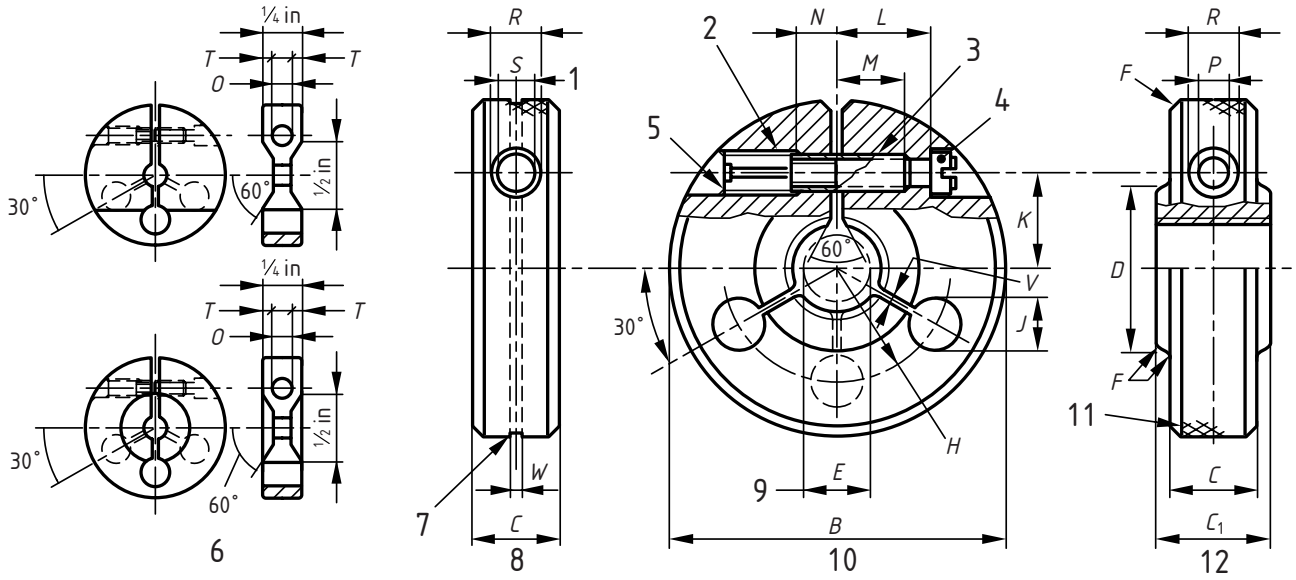


NOTE Thick blanks for coarse pitch GO gauges, think blanks for fine pitch GO gauges and all NOT GO gauges.

Key

1 Locking screw
2 Sleeve
3 Adjusting screw
4 Body
5 Adjusting slot
6 Adjusting slot terminal hole
7 Locking slot
8 Ball handle
9 NOT GO
10 GO

Table 26 **Adjustable screw ring gauges (Range: 0.059 in up to and including 4.760 in; also fine pitch instrument thread ring gauges 0.059 in up to and including 0.240 in)**



NOTE Screws and sleeve are not shown.

Key

1 Ream
2 Adjusting screw
3 Sleeve
4 Locking screw
5 UNF-thread size
6 For blanks in range above 0.059 in up to and including 0.240 in

Size range, nominal		***O***	***T***
Above	**Up to and including**		
0.059	0.090	$\frac{3}{32}$	$\frac{5}{64}$
0.090	0.150	$\frac{5}{32}$	$\frac{3}{64}$
0.150	0.240	$\frac{3}{16}$	$\frac{1}{32}$

7 Annular groove to designate NOT GO gauge; depth $\frac{1}{2}$ in width
8 Thin blank
9 Hole *E* to facilitate manufacture (for tooling purposes)
10 Only one adjusting slot and terminal hole required for sizes 0.059 in up to and including 0.150 in; two slots and terminal holes are optional
11 Knurl
12 Thick blank

Table 26 **Adjustable screw ring gauges (Range: 0.059 in up to and including 4.760 in; also fine pitch instrument thread ring gauges 0.059 in up to and including 0.240 in)** (*continued*)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Size range, nominal		**General dimensions**																				
Above	**Up to and including**	***B***	***C***	C_1	***D***	***E***	***F***	***H***	***J***	***K***	***L***	***M*** $\pm\frac{1}{64}$	***N*** $\pm\frac{1}{64}$	***P*** **Drill size**	***R*** **Drill size**	***S*** **Ream**		***U***			***V***	***W***
																Min.	**Max.**	**Size (Class 3B)**	**Pitch dia.**			
																			Min.	**Max.**		
		in	in	in	in	in	in	in	in	in	in	in	in		in	in	in		in	in	in	in
0.059 A)	0.150	1	$\frac{1}{4}$	—	—	—	$\frac{1}{32}$	$\frac{5}{16}$	$\frac{5}{32}$	$\frac{5}{16}$	$\frac{7}{32}$	$\frac{5}{32}$	$\frac{1}{16}$	2.45 mm	$\frac{11}{64}$	0.137 0	0.137.3	8-36 UNF	0.146 0	0.148 7	0.010 B)	$\frac{1}{32}$
0.150 A)	0.240	1	$\frac{1}{4}$	—	—	—	$\frac{1}{32}$	$\frac{5}{16}$	$\frac{5}{32}$	$\frac{5}{16}$	$\frac{7}{32}$	$\frac{5}{32}$	$\frac{1}{16}$	2.45 mm	$\frac{11}{64}$	0.137 0	0.137.3	8-36 UNF	0.146 0	0.148 7	$\frac{1}{64}$	$\frac{1}{32}$
0.240	0.365	$1\frac{3}{8}$	$\frac{11}{32}$	—	—	$\frac{5}{32}$	$\frac{1}{32}$	$\frac{7}{16}$	$\frac{3}{16}$	$\frac{3}{8}$	$\frac{11}{32}$	$\frac{1}{4}$	$\frac{1}{8}$	3.10 mm	$\frac{7}{32}$	0.181 0	0.181 3	12-28 UNF	0.192 8	0.195 9	$\frac{1}{32}$	$\frac{1}{16}$
0.365	0.510	$1\frac{3}{4}$	$\frac{7}{16}$	—	—	$\frac{3}{16}$	$\frac{3}{64}$	$\frac{19}{32}$	$\frac{1}{4}$	$\frac{15}{32}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{16}$	3.80 mm	$\frac{17}{64}$	0.215 0	0.215 3	$\frac{1}{4}$ -28 UNF	0.226 8	0.230 0	$\frac{1}{32}$	$\frac{3}{32}$
0.510	0.825	$2\frac{3}{16}$	$\frac{9}{16}$	$\frac{3}{4}$	$1\frac{1}{16}$	$\frac{11}{32}$	$\frac{1}{16}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{11}{16}$	$\frac{17}{32}$	$\frac{13}{32}$	$\frac{7}{32}$	5.10 mm	$\frac{23}{64}$	0.272 0	0.272 3	$\frac{5}{16}$ -24 UNF	0.285 4	0.289 0	$\frac{1}{16}$	$\frac{3}{32}$
0.825	1.135	$2\frac{5}{8}$	$\frac{11}{16}$	$\frac{15}{16}$	$1\frac{1}{2}$	$\frac{9}{16}$	$\frac{1}{16}$	$\frac{31}{32}$	$\frac{5}{16}$	$\frac{7}{8}$	$\frac{17}{32}$	$\frac{13}{32}$	$\frac{9}{32}$	5.80 mm	$\frac{25}{64}$	0.334 0	0.334 4	$\frac{3}{8}$ -24 UNF	0.347 9	0.351 6	$\frac{1}{16}$	$\frac{3}{32}$
1.135	1.510	$3\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{8}$	$1\frac{7}{8}$	$\frac{27}{32}$	$\frac{1}{16}$	$1\frac{3}{16}$	$\frac{3}{8}$	$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{7}{16}$	$\frac{5}{16}$	$\frac{17}{64}$ in	$\frac{29}{64}$	0.389 0	0.389 4	$\frac{7}{16}$ -20 UNF	0.405 0	0.409 1	$\frac{1}{16}$	$\frac{3}{32}$
1.510	2.010	$3\frac{3}{4}$	$\frac{13}{16}$	$1\frac{1}{4}$	$2\frac{3}{8}$	$1\frac{3}{16}$	$\frac{3}{32}$	$1\frac{7}{16}$	$\frac{3}{8}$	$1\frac{3}{8}$	$\frac{5}{8}$	$\frac{7}{16}$	$\frac{5}{16}$	$\frac{17}{64}$ in	$\frac{29}{64}$	0.389 0	0.389 4	$\frac{7}{16}$ -20 UNF	0.405 0	0.409 1	$\frac{1}{16}$	$\frac{1}{8}$
2.010	2.510	$4\frac{1}{2}$	$\frac{7}{8}$	$1\frac{5}{16}$	$2\frac{7}{8}$	$1\frac{19}{32}$	$\frac{3}{32}$	$1\frac{3}{4}$	$\frac{7}{16}$	$1\frac{11}{16}$	$\frac{13}{16}$	$\frac{9}{16}$	$\frac{7}{16}$	$\frac{21}{64}$ in	$\frac{33}{64}$	0.451 0	0.451 5	$\frac{1}{2}$ -20 UNF	0.467 5	0.471 7	$\frac{3}{32}$	$\frac{1}{8}$
2.510	3.010	5	$\frac{7}{8}$	$1\frac{3}{8}$	$3\frac{3}{8}$	2	$\frac{3}{32}$	2	$\frac{7}{16}$	$1\frac{15}{16}$	$\frac{13}{16}$	$\frac{9}{16}$	$\frac{7}{16}$	$\frac{21}{64}$ in	$\frac{33}{64}$	0.451 0	0.451 5	$\frac{1}{2}$ -20 UNF	0.467 5	0.471 7	$\frac{3}{32}$	$\frac{1}{8}$
3.010	3.510	$5\frac{1}{2}$	$\frac{15}{16}$	$1\frac{7}{16}$	$3\frac{7}{8}$	$2\frac{7}{16}$	$\frac{3}{32}$	$2\frac{7}{32}$	$\frac{7}{16}$	$2\frac{3}{16}$	$\frac{13}{16}$	$\frac{9}{16}$	$\frac{7}{16}$	$\frac{21}{64}$ in	$\frac{33}{64}$	0.451 0	0.451 5	$\frac{1}{2}$ -20 UNF	0.467 5	0.471 7	$\frac{3}{32}$	$\frac{1}{8}$
3.510	4.010	$6\frac{3}{8}$	$\frac{15}{16}$	$1\frac{1}{2}$	$4\frac{5}{8}$	$2\frac{15}{16}$	$\frac{3}{32}$	$2\frac{5}{8}$	$\frac{1}{2}$	$2\frac{9}{16}$	1	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{13}{32}$ in	$\frac{41}{64}$	0.571 0	0.571 5	$\frac{5}{8}$ -18 UNF	0.588 9	0.591 9	$\frac{3}{32}$	$\frac{1}{8}$
4.010	4.760	$7\frac{1}{4}$	1	$1\frac{1}{2}$	$5\frac{3}{8}$	$3\frac{3}{8}$	$\frac{3}{32}$	$3\frac{1}{32}$	$\frac{1}{2}$	3	1	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{13}{32}$ in	$\frac{41}{64}$	0.571 0	0.571 5	$\frac{5}{8}$ -18 UNF	0.588 9	0.591 9	$\frac{3}{32}$	$\frac{1}{8}$

A) Blanks for the range 0.059 in to 0.240 in inclusive, may be either counter-bored or milled, as shown in the figure.

B) Approximate.

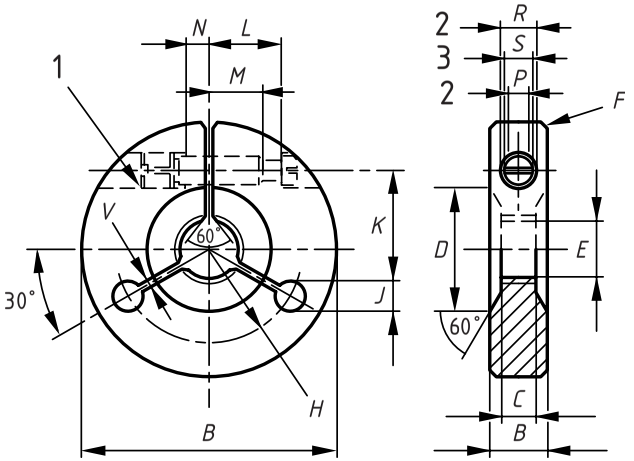
NOTE Thin gauge blanks are to be used for all NOT GO thread ring gauges. For GO thread ring gauges thin or thick blanks should be used, as indicated in Table 26a.

Table 26a **Blanks for use with GO thread ring gauges**

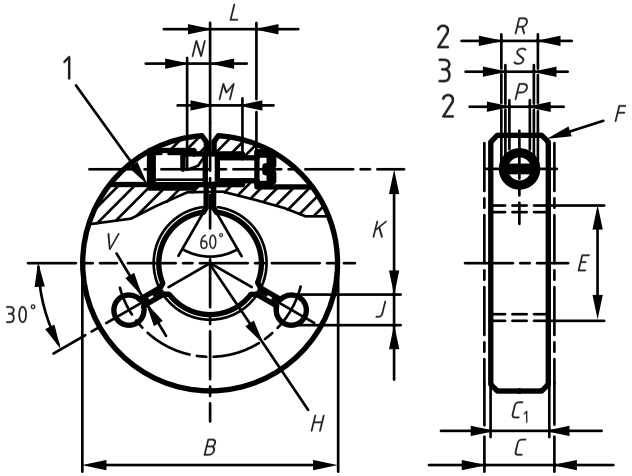
Size range, nominal		**Thin blank**	**Thick blank**
Above	**Up to and including**		
in	in		
0.059	0.510	All pitches	
0.510	1.135	Pitches 12 t.p.i 2 mm and finer, except $\frac{9}{16}$ –12	Pitches coarser than 12 t.p.i or 2 mm
1.135	6.010	Pitches 10 t.p.i 2.5 mm and finer	Pitches coarser than 10 t.p.i or 2.5 mm
6.010	—		All pitches

Table 27 **Fine-pitch instrument thread adjustable screw ring gauges (Range: above 0.240 in up to and including 2.510 in)**

a) Gauges above 0.240 in to 0.510 in inclusive



b) Gauges above 0.510 in to 2.510 in inclusive



Knurl finish recess both ends

Knurl finish face both ends

Annular groove to designate NOT GO gauge. Depth = $W/2$, where W = width

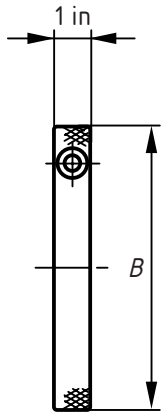
Key

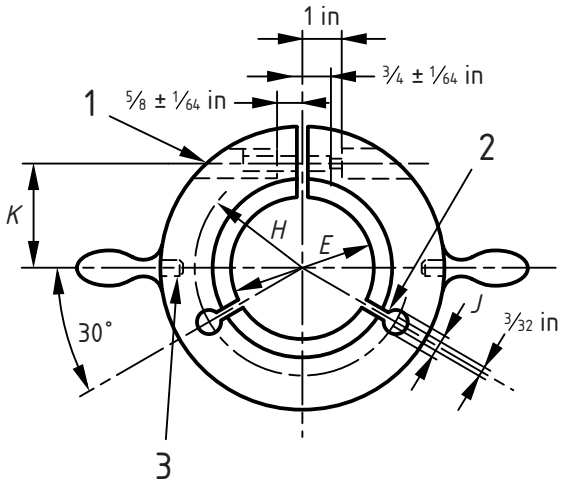
1 UNF-thread size
2 Drill
3 Ream

1	2	3		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Size range, nominal				**General dimensions**																				
Above	**To and including**	**No. of threads per inch or metric pitch**		***B***	***C***	***C_1***	***D***	***E***	***F***	***H***	***J***	***K***	***L***	***M*** $\pm \frac{1}{64}$	***N*** $\pm \frac{1}{64}$	***P*** **Drill size**	***R*** **Drill size**	***S*** **Ream**		***U***			***V***	***W***
																		min.	**max.**	**Size (Class 3B)**	**Pitch diameter**			
																					min.	**max.**		
in	in	finer than t.p.i.	mm	in	in	in	in	in	in	in	in	in	in	in	in		in	in	in		in	in	in	in
0.240	0.365	40	0.6	$1\frac{3}{8}$	$\frac{11}{32}$	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{32}$	$\frac{1}{32}$	$\frac{7}{16}$	$\frac{3}{16}$	$\frac{3}{8}$	$\frac{11}{32}$	$\frac{1}{4}$	$\frac{1}{8}$	3.10 mm	$\frac{7}{32}$	0.181 0	0.181 3	12-28 UNF	0.192 8	0.195 9	$\frac{1}{32}$	$\frac{1}{16}$
0.365	0.510	36	0.7	$1\frac{3}{4}$	$\frac{7}{16}$	$\frac{5}{16}$	1	$\frac{3}{16}$	$\frac{3}{64}$	$\frac{19}{32}$	$\frac{1}{4}$	$\frac{15}{32}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{16}$	3.80 mm	$\frac{17}{64}$	0.215 0	0.215 3	$\frac{1}{4}$-28 UNF	0.226 8	0.230 0	$\frac{1}{32}$	$\frac{3}{32}$
0.510	0.825	32	0.8	$2\frac{3}{16}$	$\frac{9}{16}$	$\frac{15}{32}$	—	$\frac{11}{32}$	$\frac{1}{16}$	$\frac{3}{4}$	$\frac{5}{16}$	$\frac{11}{16}$	$\frac{17}{32}$	$\frac{13}{32}$	$\frac{7}{32}$	5.10 mm	$\frac{21}{64}$	0.272 0	0.272 3	$\frac{5}{16}$-24 UNF	0.285 4	0.289 0	$\frac{1}{16}$	$\frac{3}{32}$
0.825	1.135	28	0.9	$2\frac{5}{8}$	$\frac{11}{16}$	$\frac{17}{32}$	—	$\frac{9}{16}$	$\frac{1}{16}$	$\frac{31}{32}$	$\frac{5}{16}$	$\frac{7}{8}$	$\frac{17}{32}$	$\frac{13}{32}$	$\frac{9}{32}$	5.80 mm	$\frac{25}{64}$	0.334 0	0.334 4	$\frac{3}{8}$-24 UNF	0.347 9	0.351 6	$\frac{1}{16}$	$\frac{3}{32}$
1.135	1.510	28	0.9	$3\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{8}$	—	$\frac{27}{32}$	$\frac{1}{16}$	$1\frac{3}{16}$	$\frac{3}{8}$	$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{7}{16}$	$\frac{5}{16}$	$\frac{17}{64}$ in	$\frac{29}{64}$	0.389 0	0.389 4	$\frac{7}{16}$-20 UNF	0.405 0	0.409 1	$\frac{1}{16}$	$\frac{3}{32}$
1.510	2.010	28	0.9	$3\frac{3}{4}$	$\frac{13}{16}$	$\frac{5}{8}$	—	$1\frac{3}{16}$	$\frac{3}{32}$	$1\frac{7}{16}$	$\frac{3}{8}$	$1\frac{3}{8}$	$\frac{5}{8}$	$\frac{7}{16}$	$\frac{5}{16}$	$\frac{17}{64}$ in	$\frac{29}{64}$	0.389 0	0.389 4	$\frac{7}{16}$-20 UNF	0.405 0	0.409 1	$\frac{1}{16}$	$\frac{1}{8}$
2.010	2.510	28	0.9	$4\frac{1}{2}$	$\frac{7}{8}$	$\frac{11}{16}$	—	$1\frac{19}{32}$	$\frac{3}{32}$	$1\frac{3}{4}$	$\frac{7}{16}$	$1\frac{11}{16}$	$\frac{13}{16}$	$\frac{9}{16}$	$\frac{7}{16}$	$\frac{21}{64}$ in	$\frac{33}{64}$	0.451 0	0.451 5	$\frac{1}{2}$-20 UNF	0.467 5	0.471 7	$\frac{3}{32}$	$\frac{1}{8}$

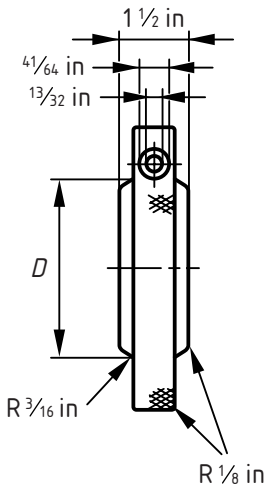
Table 28 **Adjustable screw ring gauges (Range: above 4.760 in up to and including 8.010 in)**

a) Thin blank





b) Thick blank



Key

1 Ream 0.571 0-0.571 5; tap $\frac{5}{8}$-18 UNF-3B 3 Tap $\frac{1}{2}$-13 UNC-2B

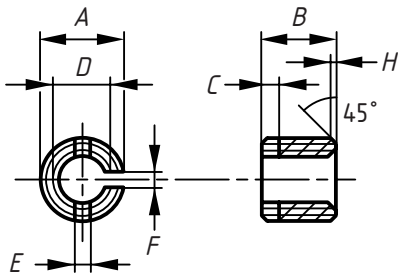
2 2 holes

NOTE 1 Two handles are required: Size M for thick blank; size S for thin blank (see Figure 11).

*NOTE 2 For use of thick or think blanks, see Clause **13** and Note to Figure 17.*

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Size range, nominal		***B***	***D***	***E***	***H***	***J***	***K***
Above	**Up to and including**						
in	in	in	in	in	in	in	in
4.760	5.510	$8\frac{1}{4}$	A + $1\frac{1}{8}$	4	$3\frac{9}{16}$	$\frac{1}{2}$	$3\frac{1}{2}$
5.510	6.260	$9\frac{1}{4}$	A + $1\frac{1}{8}$	$4\frac{3}{4}$	$4\frac{1}{16}$	$\frac{1}{2}$	$3\frac{15}{16}$
6.260	7.010	$10\frac{1}{4}$	A + $1\frac{1}{8}$	$5\frac{1}{2}$	$4\frac{1}{2}$	$\frac{1}{2}$	$4\frac{3}{8}$
7.010	7.760	$11\frac{1}{4}$	A + $1\frac{1}{8}$	$6\frac{1}{4}$	$4\frac{7}{8}$	$\frac{5}{8}$	5
7.760	8.010	$12\frac{1}{4}$	A + $1\frac{1}{8}$	7	$5\frac{5}{16}$	$\frac{5}{8}$	$5\frac{1}{8}$

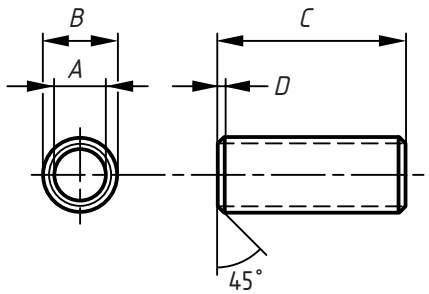
Table 29 **Adjustable screw ring gauge adjusting screws**



1	2	3	4	5	6	7	8	9
For nominal size range		***A***					***B*** **Tol.** $\pm \frac{1}{64}$ **in**	***C***
Above	**Up to and including**	**Size of external thread**	**Effective diameter**		**Minor diameter**			
			max.	**min.**	**max.**	**min.**		
in	in		in	in	in	in	in	in
0.059	0.240	8-36 UNF-3A	0.146 0	0.143 9	—	—	$\frac{3}{16}$	$\frac{3}{64}$
0.240	0.365	12-28 UNF-3A	0.192 8	0.190 4	—	—	$\frac{1}{4}$	$\frac{3}{64}$
0.365	0.510	$\frac{1}{4}$-28 UNF-3A	0.226 8	0.224 3	0.206 2	0.201 1	$\frac{5}{16}$	$\frac{1}{16}$
0.510	0.825	$\frac{5}{16}$-24 UNF-3A	0.285 4	0.282 7	0.261 4	0.255 7	$\frac{5}{16}$	$\frac{1}{16}$
0.825	1.135	$\frac{3}{8}$-24 UNF-3A	0.347 9	0.345 0	0.323 9	0.318 0	$\frac{3}{8}$	$\frac{5}{64}$
1.135	2.010	$\frac{7}{16}$-20 UNF-3A	0.405 0	0.401 9	0.376 2	0.369 5	$\frac{7}{16}$	$\frac{5}{64}$
2.010	3.510	$\frac{1}{2}$-20 UNF-3A	0.467 5	0.464 3	0.438 7	0.431 9	$\frac{1}{2}$	$\frac{3}{32}$
3.510	8.010	$\frac{5}{8}$-18 UNF-3A	0.588 9	0.585 4	0.556 8	0.549 3	$\frac{9}{16}$	$\frac{3}{32}$

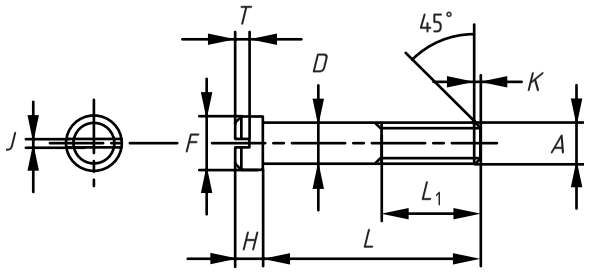
1	2	3	4	5	6	7	8	9
For nominal size range		***D***				***E***	***F***	***H***
Above	**Up to and including**	**Size of external thread**	**Effective diameter**		**Tapping drill**			
			max.	**min.**				
in	in		in	in	mm	in	in	in
0.059	0.240	2-64 UNF-3B	0.077 9	0.075 9	1.90	$\frac{1}{32}$	$\frac{1}{64}$	0.020
0.240	0.365	4-48 UNF-3B	0.100 8	0.098 5	2.40	$\frac{1}{32}$	$\frac{1}{64}$	0.020
0.365	0.510	6-40 UNF-3B	0.124 3	0.121 8	2.95	$\frac{3}{64}$	$\frac{1}{32}$	0.020
0.510	0.825	10-32 UNF-3B	0.172 6	0.169 7	4.10	$\frac{3}{64}$	$\frac{1}{32}$	$\frac{1}{32}$
0.825	1.135	12-28 UNF-3B	0.195 9	0.192 8	4.70	$\frac{1}{16}$	$\frac{3}{64}$	$\frac{1}{32}$
1.135	2.010	$\frac{1}{4}$-28 UNF-3B	0.230 0	0.226 8	5.50	$\frac{1}{16}$	$\frac{3}{64}$	$\frac{1}{32}$
2.010	3.510	$\frac{5}{16}$-24 UNF-3B	0.289 0	0.285 4	6.90	$\frac{5}{64}$	$\frac{1}{16}$	$\frac{3}{64}$
3.510	8.010	$\frac{3}{8}$ -24 UNF-3B	0.351 6	0.347 9	8.50	$\frac{5}{64}$	$\frac{1}{16}$	$\frac{3}{64}$

Table 30 **Adjustable screw ring gauge sleeves**



1	**2**	**3**	**4**	**5**	**6**	**7**
For nominal range		***A***	***B***		***C*** **Tol.** $\pm \frac{1}{64}$ **in**	***D***
Above	**Up to and including**	**Drill size**	**max.**	**min.**		
in	in	mm	in	in	in	in
0.059	0.240	2.25	0.137 0	0.136 8	$\frac{1}{4}$	0.010
0.240	0.365	2.95	0.181 0	0.180 8	$\frac{7}{16}$	0.020
0.365	0.510	3.70	0.215 0	0.214 8	$\frac{5}{8}$	0.020
0.510	0.825	4.90	0.272 0	0.271 8	$\frac{11}{16}$	$\frac{1}{32}$
0.825	1.135	5.60	0.334 0	0.333 7	$\frac{3}{4}$	$\frac{1}{32}$
1.135	2.010	6.50	0.389 0	0.338 7	$\frac{13}{16}$	$\frac{1}{32}$
2.010	3.510	8.20	0.451 0	0.450 7	$1\frac{1}{16}$	$\frac{3}{64}$
3.510	8.010	9.90	0.571 0	0.570 7	$1\frac{1}{2}$	$\frac{3}{64}$

Table 31 **Adjustable screw ring gauge locking screws**



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
For nominal size range		**A**			**D**		**F**		**H**		**J**		**T**		**K**	***L*** **Tol.** $\pm \frac{1}{32}$ **in**	L_1
Above	**Up to and including**	**Size of thread**	**Effective diameter**														
			max.	**min.**	**max.**	**min.**	**max.**	**min.**	**max.**	**min.**	**max.**	**min.**	**max.**	**min.**			
in	in		in	in	in	in	in	in	in	in	in	in	in	in		in	in
0.059	0.240	2-64 UNF-3A	0.075 9	0.074 4	0.086 0	0.084 0	0.140	0.136	0.083	0.066	0.031	0.023	0.037	0.025	0.010	$\frac{29}{64}$	$\frac{3}{16}$
0.240	0.365	4-48 UNF-3A	0.098 5	0.096 7	0.112 0	0.109 6	0.183	0.178	0.107	0.088	0.039	0.031	0.048	0.035	0.020	$\frac{25}{32}$	$\frac{5}{16}$
0.365	0.510	6-40 UNF-3A	0.121 8	0.119 8	0.138 0	0.135 3	0.226	0.221	0.132	0.111	0.048	0.039	0.060	0.045	0.020	1	$\frac{7}{16}$
0.510	0.825	10-32 UNF-3A	0.169 7	0.167 4	0.190 0	0.186 7	0.313	0.306	0.180	0.156	0.060	0.050	0.083	0.064	$\frac{1}{32}$	$1\frac{1}{16}$	$\frac{7}{16}$
0.825	1.135	12-28 UNF-3A	0.192 8	0.190 4	0.216 0	0.212 7	0.344	0.337	0.205	0.178	0.067	0.056	0.094	0.074	$\frac{1}{32}$	$1\frac{3}{16}$	$\frac{1}{2}$
1.135	2.010	$\frac{1}{4}$-28 UNF-3A	0.226 8	0.224 3	0.250 0	0.246 4	0.375	0.367	0.237	0.207	0.075	0.064	0.109	0.087	$\frac{1}{32}$	$1\frac{23}{64}$	$\frac{9}{16}$
2.010	3.510	$\frac{5}{16}$-24 UNF-3A	0.285 4	0.282 7	0.312 5	0.308 4	0.438	0.429	0.295	0.262	0.084	0.072	0.137	0.110	$\frac{3}{64}$	$1\frac{23}{64}$	$^3/_3$
3.510	8.010	$\frac{3}{8}$-24 UNF-3A	0.347 9	0.345 0	0.375 0	0.370 5	0.562	0.553	0.355	0.315	0.094	0.081	0.164	0.133	$\frac{3}{64}$	$2\frac{3}{16}$	$\frac{3}{4}$

Annex A (informative) Types of gauges

A.1 Gauges for holes and internal screw threads

Gauges for cylindrical holes and internal screw threads are typically in the form of a cylindrical plain or screwed plug, with a handle.

GO and NOT GO gauges can be in the form of separate "single-ended" gauges or combined on one handle to form a "double-ended" gauge (see Figure 4 and Figure 5). In the case of plain plug gauges a form of combined GO and NOT GO gauge is the "progressive" gauge, which is a single-ended gauge with one gauging member having two diameters to the GO and NOT GO limits respectively [see Figure 4b)].

A convenient and economical means of gauging small diameters is provided by the collet type gauge which consists of a wire type member or members held firmly in a collect type handle of suitable proportions (see Figure 2 and Figure 3).

Plug gauges for large diameters can be of annular design and provided with two ball handles (see Figure 9) or of the bar type with segmental cylindrical or spherical ends. The latter type of gauge can also be adjustable.

A.2 Gauges for shafts and external screw threads

Gauges for shafts and external screw threads are typically in the form of either a ring gauge or a gap gauge.

Ring gauges can be either plain or screwed. Screw ring gauges are available in adjustable as well as in non-adjustable form, although the latter is at present more generally used in this country. Separate gauges are used for GO and NOT GO gauging.

Gap gauges for plain workpieces can be of the solid, non-adjustable type or of the adjustable type; gap gauges for screw threads are invariably of the adjustable type. Separate gap gauges may be used for GO and NOT GO gauging or, alternatively, a combined GO and NOT GO gauge can be used; adjustable gap gauges are almost invariably of the latter type

Adjustable gap gauges are commercially available in a number of patterns.

A.3 Plain and screw plug gauges comprising interchangeable handles and plug gauging members for the gauging of holes of nominal diameters up to 12 in

Four separate designs have been adopted for cylindrical plug gauges: the collet type design for diameters from 0.015 in up to and including 0.760 in, the taper lock design for diameters from 0.059 in up to and including 2.510 in, the trilock design with reversible GO and gauging members for diameters above 1.510 in up to and including 8.010 in, and the annular design for the range over 8.010 in up to and including 12.010 in. For sizes above 0.240 in up to and including 2.510 in provision is made for both separate and progressive gauging members.

a) Collet type design, diameters above 0.015 in up to and including 0.760 in. A collet type design of plug gauge consists of a wire type member or members held firmly in a collet type handle of suitable proportions. A useful feature of this gauge is the facility for extending the gauging member from the handle and for reversing it to increase the useful life of the gauge.

b) Taper lock design. Diameters up to and including 2.510 in. The taper lock design is particularly well suited to the smaller sizes of plain and screw plug gauges. This type of gauge is simple and is economical to produce and maintain.

The gauging member has a taper shank which is pushed into a taper hole in the handle. When properly made and assembled, the taper lock gauge has been proved to possess the rigidity of a solid gauge and is entirely free of shake. A drift slot or hole is provided near one end of each handle to enable the gauging members to be removed when replacement is necessary; in the case of double-ended gauges, the second member is removed by running a rod through the hollow handle.

In sizes up to and including 0.240 in a groove is provided near one end of the handle to designate the NOT GO end, as the length of the GO member in this range is often insufficient to distinguish it clearly from the NOT GO member. The groove is omitted as being unnecessary in sizes above 0.240 in.

Complete dimensions have been established for the mating parts of gauging members and handles, thus ensuring absolute interchangeability of gauging members and handles wherever manufactured.

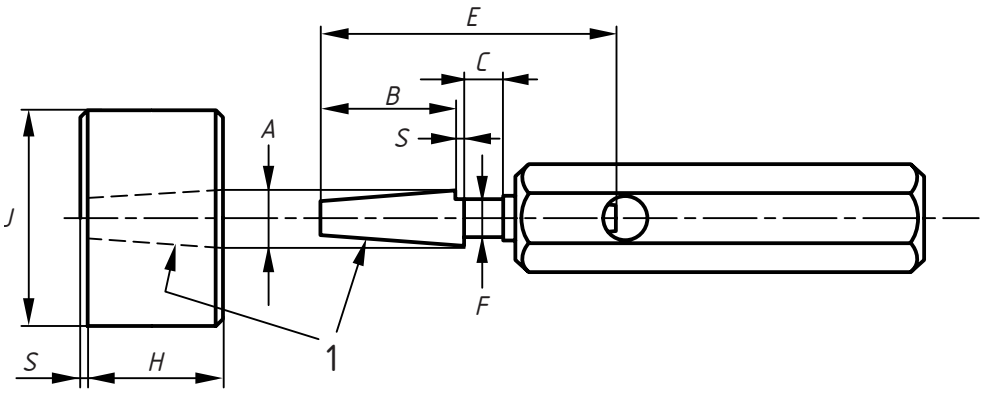
Details of check gauges for testing taper lock gauges and handles by means of blueing are given in Table A.1.

c) Trilock design. Diameters above 1.510 in up to and including 8 in. Considerations of rigidity of construction and long life make the choice of the trilock design with reversible GO gauging members particularly suitable for the larger sizes up to 8 in.

With this construction there is no chance for shake to interfere with the sensitive feel so necessary in gauges of this type. Three wedge-shaped locking prongs on the handle are engaged into corresponding grooves in the gauging member by a single through-screw, thereby providing a self-centring support with a positive lock and producing a degree of rigidity equivalent to that of a solid gauge. The useful life of the GO plugs is furthermore materially increased as, when the entering end is worn, the plug can be reversed.

d) Annular design, diameters above 8.010 in up to and including 12.010 in. Since large plug gauges are heavy and difficult to handle, this design is intended to give the lightest possible section consistent with strength and permanence. This design has a rim and web of properly proportioned section with the centre bored out for purposes of weight reduction. The web is provided with four tapped holes for convenience in bolting to a face plate during manufacture; two of these are also used for fixing ball handles to the gauging member.

Table A.1 **Check gauges for taper lock gauging members and handles (see A.3.1)**



Key

1 Taper 1 in 48 on diameter ± 0.0001 in per in

1	2	3	4	5	6	7	8	9	10
Handle or shank to be gauged No.	**Plug and ring**		**Plug**					**Ring**	
	A Tol. $^{+0}_{-0.0001}$	***S*** Tol. $^{+0.005}_{-0}$	***B***	***C***	***D*** [A)]	***E*** **approx.**	***F***	***H*** Tol. ± 0.002	***J***
	in	in	in	in	in	in	in	in	in
000	0.126	0.048	$\frac{1}{2}$	$\frac{1}{4}$	000	$2\frac{3}{4}$	0.10	0.500	1
00	0.156	0.048	$\frac{9}{16}$	$\frac{5}{16}$	00	$3\frac{1}{4}$	0.12	0.562	1
0	0.181	0.048	$\frac{5}{8}$	$\frac{5}{16}$	0	$3\frac{1}{4}$	0.14	0.625	1
1	0.240	0.048	$\frac{3}{4}$	$\frac{5}{16}$	1	$3\frac{3}{8}$	0.18	0.750	1
2	0.310	0.048	$\frac{3}{4}$	$\frac{3}{8}$	1	$3\frac{3}{8}$	0.25	0.750	$1\frac{1}{4}$
3	0.410	0.048	$\frac{3}{4}$	$\frac{1}{2}$	2	$3\frac{1}{2}$	0.30	0.750	$1\frac{1}{4}$
4	0.610	0.048	$\frac{7}{8}$	$\frac{1}{2}$	3	$3\frac{5}{8}$	0.44	0.875	2
5	0.810	0.048	1	$\frac{1}{2}$	3	$3\frac{3}{4}$	0.50	1.000	2

[A)] Taper lock handle.

Annex B (informative) Recommendations for adjustable calliper gauges

B.1 Gauges with plain anvils

In addition to the solid calliper gauges referred to in Section 3, for which the required sizes of the gap are obtained by machining the gauging faces, there is another type fitted with plain gauging anvils which are adjustable end-wise in the horse-shoe frame. This type of gauge can thus be set, either by means of setting plugs or slip gauges, to any particular limits required.

It is possible to set well-made adjustable gauges to within about 0.000 1 in of a desired size. Their use thus enables fuller advantage to be taken of the manufacturing tolerance on the work than when solid gauges with an appreciable manufacturing tolerance of their own, are employed.

The adjustability also enables wear of the GO anvils to be taken up at any time. Should the anvil faces lose their flatness with use, they can be reground quite readily.

Several different types of adjustable callipers are manufactured and in general use and Figure B.1 shows typical examples which are not necessarily representative of the whole range. It is not practicable to standardize all details of design, but the following factors should be taken into account to ensure satisfactory performance.

i) The frame should be of rigid design and strong enough to withstand workshop conditions without being unduly heavy.

ii) The distribution of metal should be such as to assure a nice balance and feel.

iii) To provide suitable supports for clamping during manufacture and subsequent regrinding, each side of the frame should have three finished coplanar faces, and these faces should be parallel to the axes through the anvils.

iv) The gauging anvils should have only a sliding and not a rotating movement for adjustment.

v) The anvils should have a sufficient length of bearing on their shanks to ensure parallel movement when being adjusted and to obviate any tendency to tip when being locked or when in use.

vi) The distance between the GO and NOT GO anvils should be sufficient when the gauge is set for work of the largest diameter and largest tolerance, to permit the work to be in a “free” position when past the GO anvils and before meeting the NOT GO anvils.

vii) Anvils, gauging pins and buttons should be of suitable construction to give ample rigidity and maintain accuracy.

viii) The means for adjusting the gauging anvils should be simple.

ix) A positive locking device should be provided.

x) Suitable provision should be made for sealing the gauge when set to prevent unauthorized readjustment.

xi) The gauge should have a machined face on the frame which can be engraved with the range over which it can be adjusted. Provision should also be made for the attachment of a disk on which the size to which the gauge is set on any occasion can be recorded.

When a gauge is to be set for testing cylindrical work to fine tolerances, it should preferably be adjusted to fit setting disks of the correct sizes, rather than combinations of slip gauges which would not offer the same delicacy of "feel".

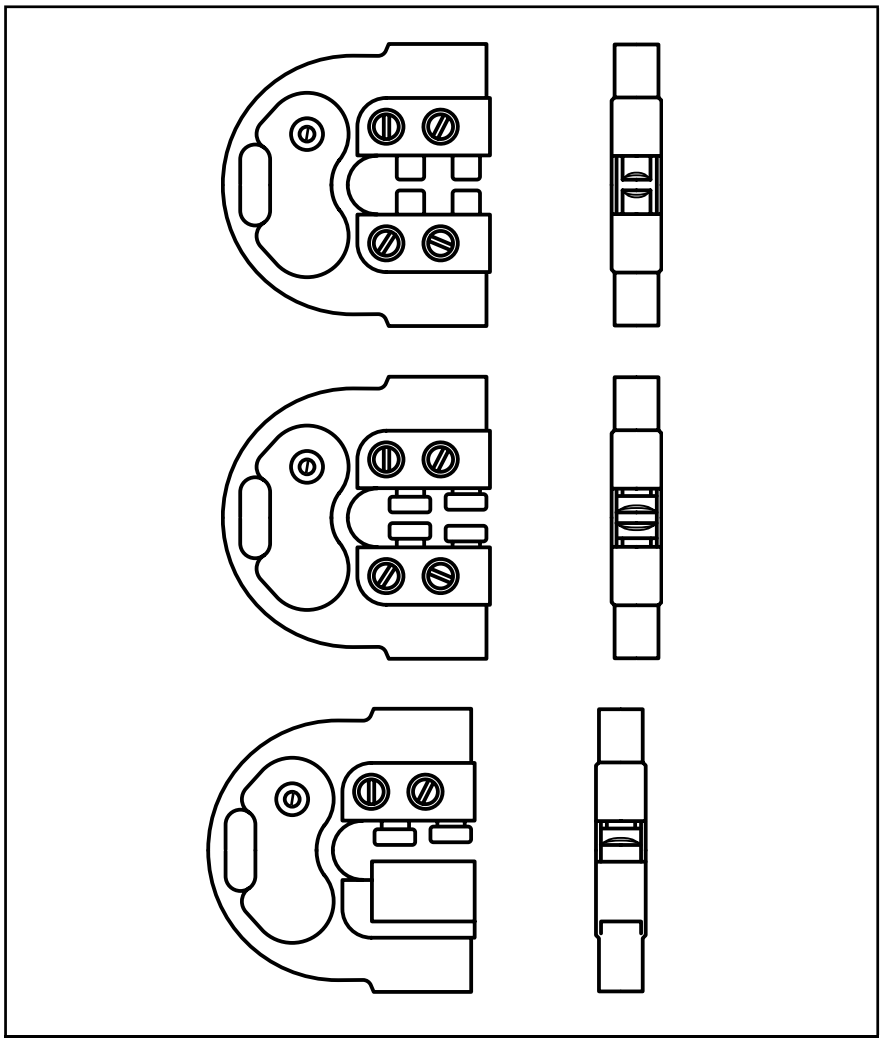
B.2 Gauges with threaded anvils

As in the case of plain calliper gauges, several types of adjustable screw gauges are generally available and it is not practicable to standardize details of design.

The jaws may consist of threaded rollers or portions of threaded cylinders of relatively large diameter.

The recommendations given for plain callipers apply equally to screw calliper gauges. In addition, consideration should be given to the possibility of interference between the threads of the anvils and those of the work, which would affect the accurate functioning of the gauge. The length of thread on the anvils forming the NOT GO gap should be limited to two or three pitches.

Figure B.1 **Adjustable calliper types**



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