

**SPECIFICATION FOR
SCREW GAUGE LIMITS
AND TOLERANCES**

**Part 4. Limits of Size for
Gauges for Screw Threads of Unified Form
Diameters $\frac{1}{4}$ in and larger**

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Diameters $\frac{1}{4}$ in and larger**

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BRITISH STANDARDS INSTITUTION

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THIS BRITISH STANDARD, having been approved by the Mechanical Engineering Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 3rd April, 1964.

The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 4000, indexed and cross-indexed for reference, together with an abstract of each standard, will be found in the Institution's Yearbook.

This standard makes reference to the following British Standards:

B.S. 919. Screw gauge limits and tolerances. Part 1. Gauges for screw threads of Unified form.

B.S. 1580. Unified screw threads.

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following B.S.I. reference relates to the work on this standard:
Committee reference MEE/57

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CO-OPERATING ORGANIZATIONS

The Mechanical Engineering Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- *Admiralty
 - Associated Offices' Technical Committee
 - Association of Consulting Engineers (Incorporated)
 - Association of Mining Electrical and Mechanical Engineers
 - British Chemical Plant Manufacturers' Association
 - British Compressed Air Society
- *British Electrical and Allied Manufacturers' Association
 - British Gear Manufacturers' Association
 - British Internal Combustion Engine Manufacturers' Association
 - British Iron and Steel Federation
 - British Mechanical Engineering Federation
 - British Railways Board
 - Crown Agents for Oversea Governments and Administrations
 - D.S.I.R.—National Engineering Laboratory
 - Electricity Council, the Generating Board and the Area Boards in England and Wales
 - Engineering Equipment Users' Association
 - Gas Council
 - High Commission of India
 - Institute of Marine Engineers
 - Institute of Petroleum
 - Institution of Civil Engineers
 - Institution of Gas Engineers
 - Institution of Heating and Ventilating Engineers
 - Institution of Mechanical Engineers
 - Institution of Mechanical Engineers (Automobile Division)
 - Institution of Production Engineers
 - Locomotive and Allied Manufacturers' Association of Great Britain
 - London Transport Board
 - Machine Tool Trades Association
 - Ministry of Labour (H.M. Factory Inspectorate)
 - Ministry of Power
 - Ministry of Public Building and Works
 - Ministry of Transport
 - National Coal Board
- *National Physical Laboratory (D.S.I.R.)
- Radio Industry Council
- *War Office

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following were directly represented on the Committee entrusted with the preparation of this standard:

- British Bolt, Nut, Screw and Rivet Federation
- Gauge and Tool Makers' Association
- Ministry of Aviation
- Scientific Instrument Manufacturers' Association of Great Britain
- Screw Thread Tool Manufacturers' Association
- Society of British Aircraft Constructors
- Society of Motor Manufacturers and Traders, Ltd.

**BRITISH STANDARD SPECIFICATION FOR
SCREW GAUGE LIMITS AND TOLERANCES**

**Part 4. Limits of Size for
Gauges for Screw Threads of Unified Form
Diameters $\frac{1}{4}$ in and larger**

FOREWORD

When B.S. 919, Part 1 was issued in 1960 it was stated that the Committee intended to supplement the tables of tolerances for gauges for Unified screw threads given in that standard with further tables giving the limits of size for those gauges.

Work on the tables was begun shortly afterwards but, since the limits of size for the gauges depend on those for the screw threads themselves, it could not be completed until the revision of B.S. 1580, which was then in hand, had been finalized.

Following on the publication of Parts 1 and 2 of this revision, dealing with Unified screw threads in diameters $\frac{1}{4}$ in and larger, the limits of size for a full range of gauges for standard UNC, UNF and UNEF threads were calculated and are tabulated herein in a form which provides users of B.S. 919 with a convenient and quick means of reference. It is proposed to issue similar tables for the sizes below $\frac{1}{4}$ in diameter as soon as possible.

The British Standards Institution wishes to acknowledge the valuable assistance rendered by the Horstmann Gear Company Limited in the preparation of these tables of gauge limits.

SPECIFICATION

SCOPE

This British Standard gives the limits of size for the following types of gauges, setting plugs and check plugs for the various classes of standard Unified Coarse (UNC), Unified Fine (UNF) and Unified Extra Fine (UNEF) threads specified in B.S. 1580, Parts 1 and 2.

a. Screw gauges

- (i) GO and NOT GO screw plug gauges
- (ii) GO and NOT GO solid screw ring gauges
- (iii) GO and NOT GO adjustable screw ring gauges
- (iv) GO and NOT GO adjustable screw calliper gauges

b. Setting plugs. Setting plugs for GO and NOT GO adjustable screw ring gauges and for GO and NOT GO adjustable screw calliper gauges:

- (i) double length type
- (ii) single length type

c. Check gauges. GO and NOT GO check plugs for solid screw ring gauges.

d. Plain gauges. GO and NOT GO plug gauges and GO and NOT GO calliper gauges for the crest diameters of product threads.

The values tabulated in this standard have been derived from the application of the tolerances specified in B.S. 919, Part 1 to the limits of size given in B.S. 1580, and reference should be made to the former standard for general information, details of the form of thread for Unified screw gauges, and tolerances on pitch and thread angle.

UNIFIED COARSE THREADS, UNC

TABLE 1. LIMITS OF SIZE FOR GO SCREW PLUG GAUGES
(FOR ALL CLASSES OF THREAD)

1	2	3	4	5
Designation	Major diameter		Effective diameter	
	Max.	Min.	Max.	Min.
	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.250 5	0.250 0	0.217 8	0.217 5
$\frac{5}{16}$ — 18 UNC	0.313 0	0.312 5	0.276 7	0.276 4
$\frac{3}{8}$ — 16 UNC	0.375 6	0.375 0	0.334 7	0.334 4
$\frac{7}{16}$ — 14 UNC	0.438 1	0.437 5	0.391 4	0.391 1
$\frac{1}{2}$ — 13 UNC	0.500 6	0.500 0	0.450 3	0.450 0
$\frac{9}{16}$ — 12 UNC	0.563 1	0.562 5	0.508 7	0.508 4
$\frac{5}{8}$ — 11 UNC	0.625 6	0.625 0	0.566 3	0.566 0
$\frac{3}{4}$ — 10 UNC	0.750 6	0.750 0	0.685 3	0.685 0
$\frac{7}{8}$ — 9 UNC	0.875 7	0.875 0	0.803 1	0.802 8
1 — 8 UNC	1.000 7	1.000 0	0.919 2	0.918 8
$1\frac{1}{8}$ — 7 UNC	1.125 7	1.125 0	1.032 6	1.032 2
$1\frac{1}{4}$ — 7 UNC	1.250 7	1.250 0	1.157 6	1.157 2
$1\frac{3}{8}$ — 6 UNC	1.375 8	1.375 0	1.267 1	1.266 7
$1\frac{1}{2}$ — 6 UNC	1.500 8	1.500 0	1.392 1	1.391 7
$1\frac{3}{4}$ — 5 UNC	1.750 8	1.750 0	1.620 6	1.620 1
2 — $4\frac{1}{2}$ UNC	2.000 8	2.000 0	1.856 2	1.855 7
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.250 8	2.250 0	2.106 2	2.105 7
$2\frac{1}{2}$ — 4 UNC	2.500 9	2.500 0	2.338 1	2.337 6
$2\frac{3}{4}$ — 4 UNC	2.750 9	2.750 0	2.588 1	2.587 6
3 — 4 UNC	3.000 9	3.000 0	2.838 1	2.837 6
$3\frac{1}{4}$ — 4 UNC	3.250 9	3.250 0	3.088 1	3.087 6
$3\frac{1}{2}$ — 4 UNC	3.500 9	3.500 0	3.338 1	3.337 6
$3\frac{3}{4}$ — 4 UNC	3.750 9	3.750 0	3.588 1	3.587 6
4 — 4 UNC	4.000 9	4.000 0	3.838 1	3.837 6

UNIFIED COARSE
TABLE 2. LIMITS OF SIZE FOR NOT GO SCREW PLUG

1	2	3	4	5	6	7	8	9
Designation	For Class 1B threads						For	
	Major diameter				Effective diameter		Major	
	Low addendum*		High addendum*		Both types		Low addendum*	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	in	in	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.235 6	0.235 1	0.246 5	0.246 0	0.225 1	0.224 8	0.233 1	0.232 6
$\frac{5}{16}$ — 18 UNC	0.296 3	0.295 8	0.308 4	0.307 9	0.284 6	0.284 3	0.293 7	0.293 2
$\frac{3}{8}$ — 16 UNC	0.356 4	0.355 8	0.370 0	0.369 4	0.343 2	0.342 9	0.353 6	0.353 0
$\frac{7}{16}$ — 14 UNC	0.415 8	0.415 2	0.431 2	0.430 6	0.400 6	0.400 3	0.412 7	0.412 1
$\frac{1}{2}$ — 13 UNC	0.476 3	0.475 7	0.493 0	0.492 4	0.460 0	0.459 7	0.473 2	0.472 6
$\frac{9}{16}$ — 12 UNC	0.536 6	0.536 0	0.554 7	0.554 1	0.518 9	0.518 6	0.533 2	0.532 6
$\frac{5}{8}$ — 11 UNC	0.596 4	0.595 8	0.616 1	0.615 5	0.577 0	0.576 7	0.592 9	0.592 3
$\frac{3}{4}$ — 10 UNC	0.718 1	0.717 5	0.739 8	0.739 2	0.696 8	0.696 5	0.714 3	0.713 7
$\frac{7}{8}$ — 9 UNC	0.839 2	0.838 5	0.863 2	0.862 5	0.815 4	0.815 1	0.835 1	0.834 4
1 — 8 UNC	0.959 1	0.958 4	0.986 1	0.985 4	0.932 4	0.932 0	0.954 7	0.954 0
$1\frac{1}{8}$ — 7 UNC	1.077 2	1.076 5	1.108 2	1.107 5	1.046 7	1.046 3	1.072 5	1.071 8
$1\frac{1}{4}$ — 7 UNC	1.202 5	1.201 8	1.233 5	1.232 8	1.172 0	1.171 6	1.197 7	1.197 0
$1\frac{3}{8}$ — 6 UNC	1.318 3	1.317 5	1.354 4	1.353 6	1.282 6	1.282 2	1.313 2	1.312 4
$1\frac{1}{2}$ — 6 UNC	1.443 6	1.442 8	1.479 7	1.478 9	1.407 9	1.407 5	1.438 3	1.437 5
$1\frac{3}{4}$ — 5 UNC	1.680 8	1.680 0	1.724 1	1.723 3	1.638 0	1.637 5	1.675 0	1.674 2
2 — $4\frac{1}{2}$ UNC	1.922 4	1.921 6	1.970 5	1.969 7	1.874 8	1.874 3	1.916 2	1.915 4
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.172 8	2.172 0	2.220 9	2.220 1	2.125 2	2.124 7	2.166 4	2.165 6
$2\frac{1}{2}$ — 4 UNC	2.411 9	2.411 0	2.466 1	2.465 2	2.358 3	2.357 8	2.405 2	2.404 3
$2\frac{3}{4}$ — 4 UNC	2.662 3	2.661 4	2.716 5	2.715 6	2.608 7	2.608 2	2.655 4	2.654 5
3 — 4 UNC	2.912 6	2.911 7	2.966 8	2.965 9	2.859 0	2.858 5	2.905 6	2.904 7
$3\frac{1}{4}$ — 4 UNC	3.162 9	3.162 0	3.217 1	3.216 2	3.109 3	3.108 8	3.155 8	3.154 9
$3\frac{1}{2}$ — 4 UNC	3.413 2	3.412 3	3.467 4	3.466 5	3.359 6	3.359 1	3.406 0	3.405 1
$3\frac{3}{4}$ — 4 UNC	3.663 5	3.662 6	3.717 7	3.716 8	3.609 9	3.609 4	3.656 2	3.655
4 — 4 UNC	3.913 8	3.912 9	3.968 0	3.967 1	3.860 2	3.859 7	3.906 4	3.905

* For an explanation of these terms, see B.S. 919, Part 1.

THREADS, UNC

GAUGES (LOW ADDENDUM AND HIGH ADDENDUM*)

10	11	12	13	14	15	16	17	18	19	20
Class 2B threads				For Class 3B threads						Designation
diameter		Effective diameter		Major diameter				Effective diameter		
High addendum*		Both types		Low addendum*		High addendum*		Both types		
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
in	in	in	in	in	in	in	in	in	in	
0.244 0	0.243 5	0.222 6	0.222 3	0.231 9	0.231 4	0.242 8	0.242 3	0.221 4	0.221 1	$\frac{1}{4}$ —20 UNC
0.305 8	0.305 3	0.282 0	0.281 7	0.292 3	0.291 8	0.304 4	0.303 9	0.280 6	0.280 3	$\frac{5}{16}$ —18 UNC
0.367 2	0.366 6	0.340 4	0.340 1	0.352 2	0.351 6	0.365 8	0.365 2	0.339 0	0.338 7	$\frac{3}{8}$ —16 UNC
0.428 1	0.427 5	0.397 5	0.397 2	0.411 2	0.410 6	0.426 6	0.426 0	0.396 0	0.395 7	$\frac{7}{16}$ —14 UNC
0.489 8	0.489 2	0.456 8	0.456 5	0.471 4	0.470 8	0.488 1	0.487 5	0.455 1	0.454 8	$\frac{1}{2}$ —13 UNC
0.551 3	0.550 7	0.515 5	0.515 2	0.531 5	0.530 9	0.549 6	0.549 0	0.513 8	0.513 5	$\frac{9}{16}$ —12 UNC
0.612 6	0.612 0	0.573 5	0.573 2	0.591 1	0.590 5	0.610 8	0.610 2	0.571 7	0.571 4	$\frac{5}{8}$ —11 UNC
0.736 0	0.735 4	0.693 0	0.692 7	0.712 3	0.711 7	0.734 0	0.733 4	0.691 0	0.690 7	$\frac{3}{4}$ —10 UNC
0.859 1	0.858 4	0.811 3	0.811 0	0.833 0	0.832 3	0.857 0	0.856 3	0.809 2	0.808 9	$\frac{7}{8}$ —9 UNC
0.981 7	0.981 0	0.928 0	0.927 6	0.952 5	0.951 8	0.979 5	0.978 8	0.925 8	0.925 4	1—8 UNC
1.103 5	1.102 8	1.042 0	1.041 6	1.070 2	1.069 5	1.101 2	1.100 5	1.039 7	1.039 3	$1\frac{1}{8}$ —7 UNC
1.228 7	1.228 0	1.167 2	1.166 8	1.195 3	1.194 6	1.226 3	1.225 6	1.164 8	1.164 4	$1\frac{1}{4}$ —7 UNC
1.349 3	1.348 5	1.277 5	1.277 1	1.310 6	1.309 8	1.346 7	1.345 9	1.274 9	1.274 5	$1\frac{3}{8}$ —6 UNC
1.474 4	1.473 6	1.402 6	1.402 2	1.435 7	1.434 9	1.471 8	1.471 0	1.400 0	1.399 6	$1\frac{1}{2}$ —6 UNC
1.718 3	1.717 5	1.632 2	1.631 7	1.672 1	1.671 3	1.715 4	1.714 6	1.629 3	1.628 8	$1\frac{3}{4}$ —5 UNC
1.964 3	1.963 5	1.868 6	1.868 1	1.913 1	1.912 3	1.961 2	1.960 4	1.865 5	1.865 0	2—4 $\frac{1}{2}$ UNC
2.214 5	2.213 7	2.118 8	2.118 3	2.163 3	2.162 5	2.211 4	2.210 6	2.115 7	2.115 2	2 $\frac{1}{4}$ —4 $\frac{1}{2}$ UNC
2.459 4	2.458 5	2.351 6	2.351 1	2.401 8	2.400 9	2.456 0	2.455 1	2.348 2	2.347 7	2 $\frac{1}{2}$ —4 UNC
2.709 6	2.708 7	2.601 8	2.601 3	2.652 0	2.651 1	2.706 2	2.705 3	2.598 4	2.597 9	2 $\frac{3}{4}$ —4 UNC
2.959 8	2.958 9	2.852 0	2.851 5	2.902 1	2.901 2	2.956 3	2.955 4	2.848 5	2.848 0	3—4 UNC
3.210 0	3.209 1	3.102 2	3.101 7	3.152 3	3.151 4	3.206 5	3.205 6	3.098 7	3.098 2	3 $\frac{1}{4}$ —4 UNC
3.460 2	3.459 3	3.352 4	3.351 9	3.402 5	3.401 6	3.456 7	3.455 8	3.348 9	3.348 4	3 $\frac{1}{2}$ —4 UNC
3.710 4	3.709 5	3.602 6	3.602 1	3.652 6	3.651 7	3.706 8	3.705 9	3.599 0	3.598 5	3 $\frac{3}{4}$ —4 UNC
3.960 6	3.959 7	3.852 8	3.852 3	3.902 8	3.901 9	3.957 0	3.956 1	3.849 2	3.848 7	4—4 UNC

UNIFIED COARSE THREADS, UNC

TABLE 3. LIMITS OF SIZE FOR GO AND NOT GO PLAIN PLUG GAUGES FOR MINOR DIAMETERS

1	2	3	4	5	6	7
Designation	GO gauges		NOT GO gauges			
	For all classes of thread		For classes 1B and 2B threads		For class 3B threads	
	Max.	Min.	Max.	Min.	Max.	Min.
	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.196 2	0.195 9	0.207 7	0.207 4	0.207 0	0.206 7
$\frac{5}{16}$ — 18 UNC	0.252 7	0.252 4	0.265 4	0.265 1	0.263 3	0.263 0
$\frac{3}{8}$ — 16 UNC	0.307 6	0.307 3	0.321 7	0.321 4	0.318 5	0.318 2
$\frac{7}{16}$ — 14 UNC	0.360 5	0.360 2	0.376 3	0.376 0	0.372 0	0.371 7
$\frac{1}{2}$ — 13 UNC	0.417 0	0.416 7	0.433 9	0.433 6	0.428 7	0.428 4
$\frac{9}{16}$ — 12 UNC	0.472 6	0.472 3	0.490 7	0.490 4	0.484 6	0.484 3
$\frac{5}{8}$ — 11 UNC	0.526 9	0.526 6	0.546 3	0.546 0	0.539 4	0.539 1
$\frac{3}{4}$ — 10 UNC	0.642 0	0.641 7	0.663 0	0.662 7	0.654 8	0.654 5
$\frac{7}{8}$ — 9 UNC	0.755 0	0.754 7	0.777 8	0.777 5	0.768 8	0.768 5
1 — 8 UNC	0.865 0	0.864 7	0.890 0	0.889 7	0.880 0	0.879 7
$1\frac{1}{8}$ — 7 UNC	0.970 7	0.970 4	0.998 3	0.998 0	0.987 8	0.987 5
$1\frac{1}{4}$ — 7 UNC	1.095 7	1.095 4	1.123 3	1.123 0	1.112 8	1.112 5
$1\frac{3}{8}$ — 6 UNC	1.194 9	1.194 6	1.225 3	1.225 2	1.214 9	1.214 6
$1\frac{1}{2}$ — 6 UNC	1.319 9	1.319 6	1.350 5	1.350 2	1.339 9	1.339 6
$1\frac{3}{4}$ — 5 UNC	1.533 9	1.533 5	1.567 9	1.567 5	1.557 9	1.557 5
2 — $4\frac{1}{2}$ UNC	1.759 8	1.759 4	1.795 6	1.795 2	1.786 5	1.786 1
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.009 8	2.009 4	2.045 6	2.045 2	2.036 5	2.036 1
$2\frac{1}{2}$ — 4 UNC	2.229 8	2.229 4	2.267 3	2.266 9	2.259 8	2.259 4
$2\frac{3}{4}$ — 4 UNC	2.479 8	2.479 4	2.517 3	2.516 9	2.509 8	2.509 4
3 — 4 UNC	2.729 8	2.729 4	2.767 3	2.766 9	2.759 8	2.759 4
$3\frac{1}{4}$ — 4 UNC	2.979 9	2.979 4	3.017 4	3.016 9	3.009 9	3.009 4
$3\frac{1}{2}$ — 4 UNC	3.229 9	3.229 4	3.267 4	3.266 9	3.259 9	3.259 4
$3\frac{3}{4}$ — 4 UNC	3.479 9	3.479 4	3.517 4	3.516 9	3.509 9	3.509 4
4 — 4 UNC	3.729 9	3.729 4	3.767 4	3.766 9	3.759 9	3.759 4

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TABLE 4. LIMITS OF SIZE FOR GO SCREW RING GAUGES -
SOLID TYPE

1	2	3	4	5	6	7	8	9
Designation	For Classes 1A and 2A threads				For Class 3A threads			
	Minor diameter		Effective diameter		Minor diameter		Effective diameter	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	in	in	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.194 2	0.194 8	0.215 8	0.216 4	0.195 3	0.195 9	0.216 9	0.217 5
$\frac{5}{16}$ — 18 UNC	0.250 6	0.251 2	0.274 6	0.275 2	0.251 8	0.252 4	0.275 8	0.276 4
$\frac{3}{8}$ — 16 UNC	0.305 4	0.306 0	0.332 5	0.333 1	0.306 7	0.307 3	0.333 8	0.334 4
$\frac{7}{16}$ — 14 UNC	0.358 2	0.358 8	0.389 1	0.389 7	0.359 6	0.360 2	0.390 5	0.391 1
$\frac{1}{2}$ — 13 UNC	0.414 6	0.415 2	0.447 9	0.448 5	0.416 1	0.416 7	0.449 4	0.450 0
$\frac{9}{16}$ — 12 UNC	0.470 0	0.470 7	0.506 0	0.506 8	0.471 6	0.472 3	0.507 6	0.508 4
$\frac{5}{8}$ — 11 UNC	0.524 3	0.525 0	0.563 6	0.564 4	0.525 9	0.526 6	0.565 2	0.566 0
$\frac{3}{4}$ — 10 UNC	0.639 2	0.639 9	0.682 4	0.683 2	0.641 0	0.641 7	0.684 2	0.685 0
$\frac{7}{8}$ — 9 UNC	0.752 1	0.752 8	0.800 1	0.800 9	0.754 0	0.754 7	0.802 0	0.802 8
1 — 8 UNC	0.862 0	0.862 7	0.916 0	0.916 8	0.864 0	0.864 7	0.918 0	0.918 8
$1\frac{1}{8}$ — 7 UNC	0.967 5	0.968 2	1.029 2	1.030 0	0.969 7	0.970 4	1.031 4	1.032 2
$1\frac{1}{4}$ — 7 UNC	1.092 5	1.093 2	1.154 2	1.155 0	1.094 7	1.095 4	1.156 4	1.157 2
$1\frac{3}{8}$ — 6 UNC	1.191 5	1.192 2	1.263 5	1.264 3	1.193 9	1.194 6	1.265 9	1.266 7
$1\frac{1}{2}$ — 6 UNC	1.316 5	1.317 2	1.388 5	1.389 3	1.318 9	1.319 6	1.390 9	1.391 7
$1\frac{3}{4}$ — 5 UNC	1.530 0	1.530 8	1.616 4	1.617 4	1.532 7	1.533 5	1.619 1	1.620 1
2 — $4\frac{1}{2}$ UNC	1.755 7	1.756 5	1.851 8	1.852 8	1.758 6	1.759 4	1.854 7	1.855 7
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.005 7	2.006 5	2.101 8	2.102 8	2.008 6	2.009 4	2.104 7	2.105 7
$2\frac{1}{2}$ — 4 UNC	2.225 5	2.226 3	2.333 5	2.334 5	2.228 6	2.229 4	2.336 6	2.337 6
$2\frac{3}{4}$ — 4 UNC	2.475 4	2.476 2	2.583 4	2.584 4	2.478 6	2.479 4	2.586 6	2.587 6
3 — 4 UNC	2.725 4	2.726 2	2.833 4	2.834 4	2.728 6	2.729 4	2.836 6	2.837 6
$3\frac{1}{4}$ — 4 UNC	2.975 2	2.976 1	3.083 1	3.084 3	2.978 5	2.979 4	3.086 4	3.087 6
$3\frac{1}{2}$ — 4 UNC	3.225 2	3.226 1	3.333 1	3.334 3	3.228 5	3.229 4	3.336 4	3.337 6
$3\frac{3}{4}$ — 4 UNC	3.475 1	3.476 0	3.583 0	3.584 2	3.478 5	3.479 4	3.586 4	3.587 6
4 — 4 UNC	3.725 1	3.726 0	3.833 0	3.834 2	3.728 5	3.729 4	3.836 4	3.837 6

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TABLE 5. LIMITS OF SIZE FOR NOT GO SCREW RING GAUGES - SOLID TYPE

1	2	3	4	5	6	7	8	9	10	11	12	13
Designation	For Class 1A threads				For Class 2A threads				For Class 3A threads			
	Minor diameter		Effective diameter		Minor diameter		Effective diameter		Minor diameter		Effective diameter	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	in	in	in	in	in	in	in	in	in	in	in	in
1/4 — 20 UNC	0.200 0	0.200 6	0.210 3	0.210 8	0.201 9	0.202 5	0.212 2	0.212 7	0.203 9	0.204 5	0.214 2	0.214 7
5/16 — 18 UNC	0.257 1	0.257 7	0.268 6	0.269 1	0.259 2	0.259 8	0.270 7	0.271 2	0.261 4	0.262 0	0.272 9	0.273 4
3/8 — 16 UNC	0.313 1	0.313 7	0.326 1	0.326 6	0.315 2	0.315 8	0.328 2	0.328 7	0.317 6	0.318 2	0.330 6	0.331 1
7/16 — 14 UNC	0.367 1	0.367 7	0.382 1	0.382 6	0.369 5	0.370 1	0.384 5	0.385 0	0.372 1	0.372 7	0.387 1	0.387 6
1/2 — 13 UNC	0.424 5	0.425 1	0.440 6	0.441 1	0.426 9	0.427 5	0.443 0	0.443 5	0.429 7	0.430 3	0.445 8	0.446 3
5/8 — 12 UNC	0.481 0	0.481 7	0.498 4	0.499 0	0.483 6	0.434 3	0.501 0	0.501 6	0.486 5	0.487 2	0.503 9	0.504 5
3/4 — 11 UNC	0.536 4	0.537 1	0.555 5	0.556 1	0.539 2	0.539 9	0.558 3	0.558 9	0.542 2	0.542 9	0.561 3	0.561 9
7/8 — 10 UNC	0.652 8	0.653 5	0.673 8	0.674 4	0.655 7	0.656 4	0.676 7	0.677 3	0.659 0	0.659 7	0.680 0	0.680 6
1 — 9 UNC	0.767 3	0.768 0	0.709 8	0.791 4	0.770 5	0.771 2	0.794 0	0.794 6	0.774 0	0.774 7	0.797 5	0.798 1
1 1/8 — 8 UNC	0.879 6	0.880 3	0.906 1	0.906 7	0.882 9	0.883 6	0.909 4	0.910 0	0.886 6	0.887 3	0.913 1	0.913 7
1 1/4 — 7 UNC	0.988 2	0.988 9	1.018 5	1.019 1	0.991 9	0.992 6	1.022 2	1.022 8	0.995 9	0.996 6	1.026 2	1.026 8
1 1/2 — 7 UNC	1.113 0	1.113 7	1.143 3	1.143 9	1.116 7	1.117 4	1.147 0	1.147 6	1.120 8	1.121 5	1.151 1	1.151 7
1 3/4 — 6 UNC	1.216 2	1.216 9	1.251 7	1.252 3	1.220 2	1.220 9	1.255 7	1.256 3	1.224 6	1.225 3	1.260 1	1.260 7
2 — 6 UNC	1.341 1	1.341 8	1.376 6	1.377 2	1.345 1	1.345 8	1.380 6	1.381 2	1.349 5	1.350 2	1.385 0	1.385 6
2 1/4 — 5 UNC	1.560 7	1.561 5	1.603 2	1.604 0	1.565 2	1.566 0	1.607 7	1.608 5	1.570 1	1.570 9	1.612 6	1.613 4
2 1/2 — 4 1/2 UNC	1.790 4	1.791 2	1.837 7	1.838 5	1.795 2	1.796 0	1.842 5	1.843 3	1.800 5	1.801 3	1.847 8	1.848 6
2 3/4 — 4 1/2 UNC	2.040 1	2.040 9	2.087 4	2.088 2	2.045 0	2.045 8	2.092 3	2.093 1	2.050 3	2.051 1	2.097 6	2.098 4
3 — 4 UNC	2.264 9	2.265 7	2.318 2	2.319 0	2.270 0	2.270 8	2.323 3	2.324 1	2.275 7	2.276 5	2.329 0	2.329 8
3 1/4 — 4 UNC	2.514 5	2.515 3	2.567 8	2.568 6	2.519 8	2.520 6	2.573 1	2.573 9	2.525 6	2.526 4	2.578 9	2.579 7
3 1/2 — 4 UNC	2.764 2	2.765 0	2.817 5	2.818 3	2.769 6	2.770 4	2.822 9	2.823 7	2.775 5	2.776 3	2.828 8	2.829 6
3 3/4 — 4 UNC	3.013 9	3.014 8	3.067 1	3.068 0	3.019 3	3.020 2	3.072 5	3.073 4	3.025 3	3.026 2	3.078 5	3.079 4
4 — 4 UNC	3.263 6	3.264 5	3.316 8	3.317 7	3.269 2	3.270 1	3.322 4	3.323 3	3.275 2	3.276 1	3.328 4	3.329 3
4 1/4 — 4 UNC	3.513 3	3.514 2	3.566 5	3.567 4	3.518 9	3.519 8	3.572 1	3.573 0	3.525 1	3.526 0	3.578 3	3.579 2
4 1/2 — 4 UNC	3.763 1	3.764 0	3.816 3	3.817 2	3.768 8	3.769 7	3.822 0	3.822 9	3.775 0	3.775 9	3.828 2	3.829 1

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TABLE 6. LIMITS OF SIZE FOR GO SCREW CHECK PLUGS
FOR GO SCREW RING GAUGES - SOLID TYPE

1	2	3	4	5	6	7	8	9
Designation	For Classes 1A and 2A threads				For Class 3A threads			
	Effective diameter*		Major diameter		Effective diameter*		Major diameter	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	in	in	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.215 8	0.215 5	0.248 3	0.248 0	0.216 9	0.216 6	0.249 4	0.249 1
$\frac{5}{16}$ — 18 UNC	0.274 6	0.274 3	0.310 7	0.310 4	0.275 8	0.275 5	0.311 9	0.311 6
$\frac{3}{8}$ — 16 UNC	0.332 5	0.332 2	0.373 1	0.372 8	0.333 8	0.333 5	0.374 4	0.374 1
$\frac{7}{16}$ — 14 UNC	0.389 1	0.388 8	0.435 5	0.435 2	0.390 5	0.390 2	0.436 9	0.436 6
$\frac{1}{2}$ — 13 UNC	0.447 9	0.447 6	0.497 9	0.497 6	0.449 4	0.449 1	0.499 4	0.499 1
$\frac{9}{16}$ — 12 UNC	0.506 0	0.505 6	0.560 1	0.559 7	0.507 6	0.507 2	0.561 7	0.561 3
$\frac{5}{8}$ — 11 UNC	0.563 6	0.563 2	0.622 6	0.622 2	0.565 2	0.564 8	0.624 2	0.623 8
$\frac{3}{4}$ — 10 UNC	0.682 4	0.682 0	0.747 4	0.747 0	0.684 2	0.683 8	0.749 2	0.748 8
$\frac{7}{8}$ — 9 UNC	0.800 1	0.799 7	0.872 3	0.871 9	0.802 0	0.801 6	0.874 2	0.873 8
1 — 8 UNC	0.916 0	0.915 6	0.997 2	0.996 8	0.918 0	0.917 6	0.999 2	0.998 8
$1\frac{1}{8}$ — 7 UNC	1.029 2	1.028 8	1.122 0	1.121 6	1.031 4	1.031 0	1.124 2	1.123 8
$1\frac{1}{4}$ — 7 UNC	1.154 2	1.153 8	1.247 0	1.246 6	1.156 4	1.156 0	1.249 2	1.248 8
$1\frac{3}{8}$ — 6 UNC	1.263 5	1.263 1	1.371 8	1.371 4	1.265 9	1.265 5	1.374 2	1.373 8
$1\frac{1}{2}$ — 6 UNC	1.388 5	1.388 1	1.496 8	1.496 4	1.390 9	1.390 5	1.499 2	1.498 8
$1\frac{3}{4}$ — 5 UNC	1.616 4	1.615 9	1.746 3	1.745 8	1.619 1	1.618 6	1.749 0	1.748 5
2 — $4\frac{1}{2}$ UNC	1.851 8	1.851 3	1.996 1	1.995 6	1.854 7	1.854 2	1.999 0	1.998 5
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.101 8	2.101 3	2.246 1	2.245 6	2.104 7	2.104 2	2.249 0	2.248 5
$2\frac{1}{2}$ — 4 UNC	2.333 5	2.333 0	2.495 9	2.495 4	2.336 6	2.336 1	2.499 0	2.498 5
$2\frac{3}{4}$ — 4 UNC	2.583 4	2.582 9	2.745 8	2.745 3	2.586 6	2.586 1	2.749 0	2.748 5
3 — 4 UNC	2.833 4	2.832 9	2.995 8	2.995 3	2.836 6	2.836 1	2.999 0	2.998 5

* Both the simple and virtual effective diameters should lie within the limits given above.

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TABLE 7. LIMITS OF SIZE FOR NOT GO EFFECTIVE DIAMETER
CHECK PLUGS FOR NEW GO SCREW RING GAUGES - SOLID
TYPE

1	2	3	4	5	6	7	8	9
Designation	For Classes 1A and 2A threads				For Class 3A threads			
	Effective diameter*		Major diameter		Effective diameter*		Major diameter	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	in	in	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.216 6	0.216 4	0.227 2	0.226 9	0.217 7	0.217 5	0.228 3	0.228 0
$\frac{5}{16}$ — 18 UNC	0.275 4	0.275 2	0.287 2	0.286 9	0.276 6	0.276 4	0.288 4	0.288 1
$\frac{3}{8}$ — 16 UNC	0.333 3	0.333 1	0.346 6	0.346 3	0.334 6	0.334 4	0.347 9	0.347 6
$\frac{7}{16}$ — 14 UNC	0.389 9	0.389 7	0.405 2	0.404 9	0.391 3	0.391 1	0.406 6	0.406 3
$\frac{1}{2}$ — 13 UNC	0.448 7	0.448 5	0.465 1	0.464 8	0.450 2	0.450 0	0.466 6	0.466 3
$\frac{9}{16}$ — 12 UNC	0.507 1	0.506 8	0.524 8	0.524 4	0.508 7	0.508 4	0.526 4	0.526 0
$\frac{5}{8}$ — 11 UNC	0.564 7	0.564 4	0.584 1	0.583 7	0.566 3	0.566 0	0.585 7	0.585 3
$\frac{3}{4}$ — 10 UNC	0.683 5	0.683 2	0.704 9	0.704 5	0.685 3	0.685 0	0.706 7	0.706 3
$\frac{7}{8}$ — 9 UNC	0.801 2	0.800 9	0.825 0	0.824 6	0.803 1	0.802 8	0.826 9	0.826 5
1 — 8 UNC	0.917 1	0.916 8	0.943 9	0.943 5	0.919 1	0.918 8	0.945 9	0.945 5
$1\frac{1}{8}$ — 7 UNC	1.030 3	1.030 0	1.060 9	1.060 5	1.032 5	1.032 2	1.063 1	1.062 7
$1\frac{1}{4}$ — 7 UNC	1.155 3	1.155 0	1.185 9	1.185 5	1.157 5	1.157 2	1.188 1	1.187 7
$1\frac{3}{8}$ — 6 UNC	1.264 6	1.264 3	1.300 4	1.300 0	1.267 0	1.266 7	1.302 8	1.302 4
$1\frac{1}{2}$ — 6 UNC	1.389 6	1.389 3	1.425 4	1.425 0	1.392 0	1.391 7	1.427 8	1.427 4
$1\frac{3}{4}$ — 5 UNC	1.617 8	1.617 4	1.660 7	1.660 2	1.620 5	1.620 1	1.663 4	1.662 9
2 — $4\frac{1}{2}$ UNC	1.853 2	1.852 8	1.900 9	1.900 4	1.856 1	1.855 7	1.903 8	1.903 3
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.103 2	2.102 8	2.150 9	2.150 4	2.106 1	2.105 7	2.153 8	2.153 3
$2\frac{1}{2}$ — 4 UNC	2.334 9	2.334 5	2.388 6	2.388 1	2.338 0	2.337 6	2.391 7	2.391 2
$2\frac{3}{4}$ — 4 UNC	2.584 8	2.584 4	2.638 5	2.638 0	2.588 0	2.587 6	2.641 7	2.641 2
3 — 4 UNC	2.834 8	2.834 4	2.888 5	2.888 0	2.838 0	2.837 6	2.891 7	2.891 2

* Both the simple and virtual effective diameters should lie within the limits given above.

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**TABLE 8. LIMITS OF SIZE FOR NOT GO EFFECTIVE DIAMETER
CHECK PLUGS FOR WORN GO SCREW RING GAUGES – SOLID
TYPE**

1	2	3	4	5	6	7	8	9
Designation	For Classes 1A and 2A threads				For Class 3A threads			
	Effective diameter*		Major diameter		Effective diameter*		Major diameter	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	in	in	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.216 8	0.216 6	0.227 2	0.226 9	0.217 9	0.217 7	0.228 3	0.228 0
$\frac{5}{16}$ — 18 UNC	0.275 6	0.275 4	0.287 2	0.286 9	0.276 8	0.276 6	0.288 4	0.288 1
$\frac{3}{8}$ — 16 UNC	0.333 5	0.333 3	0.346 6	0.346 3	0.334 8	0.334 6	0.347 9	0.347 6
$\frac{7}{16}$ — 14 UNC	0.390 1	0.389 9	0.405 2	0.404 9	0.391 5	0.391 3	0.406 6	0.406 3
$\frac{1}{2}$ — 13 UNC	0.448 9	0.448 7	0.465 1	0.464 8	0.450 4	0.450 2	0.466 6	0.466 3
$\frac{9}{16}$ — 12 UNC	0.507 4	0.507 1	0.524 8	0.524 4	0.509 0	0.508 7	0.526 4	0.526 0
$\frac{5}{8}$ — 11 UNC	0.565 0	0.564 7	0.584 1	0.583 7	0.566 6	0.566 3	0.585 7	0.585 3
$\frac{3}{4}$ — 10 UNC	0.683 8	0.683 5	0.704 9	0.704 5	0.685 6	0.685 3	0.706 7	0.706 3
$\frac{7}{8}$ — 9 UNC	0.801 5	0.801 2	0.825 0	0.804 6	0.803 4	0.803 1	0.826 9	0.826 5
1 — 8 UNC	0.917 4	0.917 1	0.943 9	0.943 5	0.919 4	0.919 1	0.945 9	0.945 5
$1\frac{1}{8}$ — 7 UNC	1.030 6	1.030 3	1.060 9	1.060 5	1.032 8	1.032 5	1.063 1	1.062 7
$1\frac{1}{4}$ — 7 UNC	1.155 6	1.155 3	1.185 9	1.185 5	1.157 8	1.157 5	1.188 1	1.187 7
$1\frac{3}{8}$ — 6 UNC	1.264 9	1.264 6	1.300 4	1.300 0	1.267 3	1.267 0	1.302 8	1.302 4
$1\frac{1}{2}$ — 6 UNC	1.389 9	1.389 6	1.425 4	1.425 0	1.392 3	1.392 0	1.427 8	1.427 4
$1\frac{3}{4}$ — 5 UNC	1.618 2	1.617 8	1.660 7	1.660 2	1.620 9	1.620 5	1.663 4	1.662 9
2 — 4½ UNC	1.853 6	1.853 2	1.900 9	1.900 4	1.856 5	1.856 1	1.903 8	1.903 3
$2\frac{1}{4}$ — 4½ UNC	2.103 6	2.103 2	2.150 9	2.150 4	2.106 5	2.106 1	2.153 8	2.153 3
$2\frac{1}{2}$ — 4 UNC	2.335 3	2.334 9	2.388 6	2.388 1	2.338 4	2.338 0	2.391 7	2.391 2
$2\frac{3}{4}$ — 4 UNC	2.585 2	2.584 8	2.638 5	2.638 0	2.588 4	2.588 0	2.641 7	2.641 2
3 — 4 UNC	2.835 2	2.834 8	2.888 5	2.888 0	2.838 4	2.838 0	2.891 7	2.891 2

* Both the simple and virtual effective diameters should lie within the limits given above.

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TABLE 9. LIMITS OF SIZE FOR GO SCREW CHECK PLUGS FOR NOT GO EFFECTIVE DIAMETER RING GAUGES - SOLID TYPE

1	2	3	4	5	6	7	8	9	10	11	12	13
Designation	For Class 1A threads				For Class 2A threads				For Class 3A threads			
	Effective diameter*		Major diameter		Effective diameter*		Major diameter		Effective diameter*		Major 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
$\frac{1}{4}$ — 20 UNC	0.210 3	0.210 0	0.248 6	0.248 3	0.212 2	0.211 9	0.249 2	0.248 9	0.214 2	0.213 9	0.250 3	0.250 0
$\frac{5}{16}$ — 18 UNC	0.268 6	0.268 3	0.311 1	0.310 8	0.270 7	0.270 4	0.311 6	0.311 3	0.272 9	0.272 6	0.312 8	0.312 5
$\frac{3}{8}$ — 16 UNC	0.326 1	0.325 8	0.373 8	0.353 5	0.328 2	0.327 9	0.374 0	0.373 7	0.330 6	0.330 3	0.375 3	0.375 0
$\frac{7}{16}$ — 14 UNC	0.382 1	0.381 8	0.436 4	0.436 1	0.384 5	0.384 2	0.436 4	0.436 1	0.387 1	0.386 8	0.437 8	0.437 5
$\frac{1}{2}$ — 13 UNC	0.440 6	0.440 3	0.498 8	0.498 5	0.443 0	0.442 7	0.498 8	0.498 5	0.445 8	0.445 5	0.500 3	0.500 0
$\frac{9}{16}$ — 12 UNC	0.498 4	0.498 0	0.561 3	0.560 9	0.501 0	0.500 6	0.561 3	0.560 9	0.503 9	0.503 5	0.562 9	0.562 5
$\frac{5}{8}$ — 11 UNC	0.555 5	0.555 1	0.623 8	0.623 4	0.558 3	0.557 9	0.623 8	0.623 4	0.561 3	0.560 9	0.625 4	0.625 0
$\frac{3}{4}$ — 10 UNC	0.673 8	0.673 4	0.748 6	0.748 2	0.676 7	0.676 3	0.748 6	0.748 2	0.680 0	0.679 6	0.750 4	0.750 0
$\frac{7}{8}$ — 9 UNC	0.790 8	0.790 4	0.873 5	0.873 1	0.794 0	0.793 6	0.873 5	0.873 1	0.787 5	0.787 1	0.875 4	0.875 0
1 — 8 UNC	0.906 1	0.905 7	0.998 4	0.998 0	0.909 4	0.909 0	0.998 4	0.998 0	0.913 1	0.912 7	1.000 4	1.000 0
$1\frac{1}{8}$ — 7 UNC	1.018 5	1.018 1	1.123 2	1.122 8	1.022 2	1.021 8	1.123 2	1.122 8	1.026 2	1.025 8	1.125 4	1.125 0
$1\frac{1}{4}$ — 7 UNC	1.143 3	1.142 9	1.248 2	1.247 8	1.147 0	1.146 6	1.248 2	1.247 8	1.151 1	1.150 7	1.250 4	1.250 0
$1\frac{3}{8}$ — 6 UNC	1.251 7	1.251 3	1.373 0	1.372 6	1.255 7	1.255 3	1.373 0	1.372 6	1.260 1	1.259 7	1.375 4	1.375 0
$1\frac{1}{2}$ — 6 UNC	1.376 6	1.376 2	1.498 0	1.497 6	1.380 6	1.380 2	1.498 0	1.497 6	1.385 0	1.384 6	1.500 4	1.500 0
$1\frac{3}{4}$ — 5 UNC	1.603 2	1.602 7	1.747 8	1.747 3	1.607 7	1.607 2	1.747 8	1.747 3	1.612 6	1.612 1	1.750 5	1.750 0
2 — $4\frac{1}{2}$ UNC	1.837 7	1.837 2	1.997 6	1.997 1	1.842 5	1.842 0	1.997 6	1.997 1	1.847 8	1.847 3	2.000 5	2.000 0
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.087 4	2.086 9	2.247 6	2.247 1	2.092 3	2.091 8	2.247 6	2.247 1	2.097 6	2.097 1	2.250 5	2.250 0
$2\frac{1}{2}$ — 4 UNC	2.318 2	2.317 7	2.497 4	2.496 9	2.323 3	2.322 8	2.497 4	2.496 9	2.329 0	2.328 5	2.500 5	2.500 0
$2\frac{3}{4}$ — 4 UNC	2.567 8	2.567 3	2.747 3	2.746 8	2.573 1	2.572 6	2.747 3	2.746 8	2.578 9	2.578 4	2.750 5	2.750 0
3 — 4 UNC	2.817 5	2.817 0	2.997 3	2.996 8	2.822 9	2.822 4	2.997 3	2.996 8	2.828 8	2.828 3	3.000 5	3.000 0

* Both the simple and virtual effective diameters should lie within the limits given above.

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TABLE 10. LIMITS OF SIZE FOR NOT GO SCREW CHECK PLUGS FOR NOT GO EFFECTIVE DIAMETER RING GAUGES - SOLID TYPE

1	2	3	4	5	6	7	8	9	10	11	12	13
Designation	For Class 1A threads				For Class 2A threads				For Class 3A threads			
	Effective diameter*		Major diameter		Effective diameter*		Major diameter		Effective diameter*		Major 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
19 $\frac{1}{4}$ — 20 UNC	0.211 0	0.210 8	0.221 6	0.221 3	0.212 9	0.212 7	0.223 5	0.223 2	0.214 9	0.214 7	0.225 5	0.225 2
$\frac{5}{16}$ — 18 UNC	0.269 3	0.269 1	0.281 1	0.280 8	0.271 4	0.271 2	0.283 2	0.282 9	0.273 6	0.273 4	0.285 4	0.285 1
$\frac{3}{8}$ — 16 UNC	0.326 8	0.326 6	0.340 1	0.339 8	0.328 9	0.328 7	0.342 2	0.341 9	0.331 3	0.331 1	0.344 6	0.344 3
$\frac{7}{16}$ — 14 UNC	0.382 8	0.382 6	0.398 1	0.397 8	0.385 2	0.385 0	0.400 5	0.400 2	0.387 8	0.387 6	0.403 1	0.402 8
$\frac{1}{2}$ — 13 UNC	0.441 3	0.441 1	0.457 7	0.457 4	0.443 7	0.443 5	0.460 1	0.459 8	0.446 5	0.446 3	0.462 9	0.462 8
$\frac{5}{8}$ — 12 UNC	0.499 3	0.499 0	0.517 0	0.516 6	0.501 9	0.501 6	0.519 6	0.519 2	0.504 8	0.504 5	0.522 5	0.522 1
$\frac{3}{4}$ — 11 UNC	0.556 4	0.556 1	0.575 8	0.575 4	0.559 2	0.558 9	0.578 6	0.578 2	0.562 2	0.561 9	0.581 6	0.581 2
$\frac{7}{8}$ — 10 UNC	0.674 7	0.674 4	0.696 1	0.695 7	0.677 6	0.677 3	0.699 0	0.698 6	0.680 9	0.680 6	0.702 3	0.701 9
1 — 9 UNC	0.791 7	0.791 4	0.815 5	0.815 1	0.794 9	0.794 6	0.818 7	0.818 3	0.798 4	0.798 1	0.822 2	0.821 8
$1\frac{1}{8}$ — 8 UNC	0.907 0	0.906 7	0.933 8	0.933 4	0.910 3	0.910 0	0.937 1	0.936 7	0.914 0	0.913 7	0.940 8	0.940 4
$1\frac{1}{4}$ — 7 UNC	1.019 4	1.019 1	1.050 0	1.049 6	1.023 1	1.022 8	1.053 7	1.053 3	1.027 1	1.026 8	1.057 7	1.057 3
$1\frac{3}{4}$ — 7 UNC	1.144 2	1.143 9	1.174 8	1.174 4	1.147 9	1.147 6	1.178 5	1.178 1	1.152 0	1.151 7	1.182 6	1.182 2
$1\frac{5}{8}$ — 6 UNC	1.252 6	1.252 3	1.288 4	1.288 0	1.256 6	1.256 3	1.292 4	1.292 0	1.261 0	1.260 7	1.296 8	1.296 4
$1\frac{3}{2}$ — 6 UNC	1.377 5	1.377 2	1.413 3	1.412 9	1.381 5	1.381 2	1.417 3	1.416 9	1.385 9	1.385 6	1.421 7	1.421 3
$1\frac{7}{8}$ — 5 UNC	1.604 4	1.604 0	1.647 3	1.646 8	1.608 9	1.608 5	1.651 8	1.651 3	1.613 8	1.613 4	1.656 7	1.656 2
2 — $4\frac{1}{2}$ UNC	1.838 9	1.838 5	1.886 6	1.886 1	1.843 7	1.843 3	1.891 4	1.890 9	1.849 0	1.848 6	1.896 7	1.896 2
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.088 6	2.088 2	2.136 3	2.135 8	2.093 5	2.093 1	2.141 2	2.140 7	2.098 8	2.098 4	2.146 5	2.146 0
$2\frac{1}{2}$ — 4 UNC	2.319 4	2.319 0	2.373 1	2.372 6	2.324 5	2.324 1	2.378 2	2.377 7	2.330 2	2.329 8	2.383 9	2.383 4
$2\frac{3}{4}$ — 4 UNC	2.569 0	2.568 6	2.622 7	2.622 2	2.574 3	2.573 9	2.628 0	2.627 5	2.580 1	2.579 7	2.633 8	2.633 3
3 — 4 UNC	2.818 7	2.818 3	2.872 4	2.871 9	2.824 1	2.823 7	2.877 8	2.877 3	2.830 0	2.829 6	2.883 7	2.883 3

* Both the simple and virtual effective diameters should lie within the limits given above.

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TABLE 11. LIMITS OF SIZE FOR GO AND NOT GO PLAIN
CHECK PLUGS FOR THE MINOR DIAMETER OF GO SCREW
RING GAUGES - SOLID TYPE

1	2	3	4	5	6	7	8	9
Designation	GO check plugs				NOT GO check plugs			
	For Classes 1A and 2A threads		For Class 3A threads		For Classes 1A and 2A threads		For Class 3A threads	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	in	in	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.194 2	0.194 1	0.195 3	0.195 2	0.194 9	0.194 8	0.196 0	0.195 9
$\frac{5}{16}$ — 18 UNC	0.250 6	0.250 5	0.251 8	0.251 7	0.251 3	0.251 2	0.252 5	0.252 4
$\frac{3}{8}$ — 16 UNC	0.305 4	0.305 3	0.306 7	0.306 6	0.306 1	0.306 0	0.307 4	0.307 3
$\frac{7}{16}$ — 14 UNC	0.358 2	0.358 1	0.359 6	0.359 5	0.358 9	0.358 8	0.360 3	0.360 2
$\frac{1}{2}$ — 13 UNC	0.414 6	0.414 5	0.416 1	0.416 0	0.415 3	0.415 2	0.416 8	0.416 7
$\frac{9}{16}$ — 12 UNC	0.470 0	0.469 9	0.471 6	0.471 5	0.470 8	0.470 7	0.472 4	0.472 3
$\frac{5}{8}$ — 11 UNC	0.524 3	0.524 2	0.525 9	0.525 8	0.525 1	0.525 0	0.526 7	0.526 6
$\frac{3}{4}$ — 10 UNC	0.639 2	0.639 1	0.641 0	0.640 9	0.640 0	0.639 9	0.641 8	0.641 7
$\frac{7}{8}$ — 9 UNC	0.752 1	0.752 0	0.754 0	0.753 9	0.753 9	0.752 8	0.754 8	0.754 7
1 — 8 UNC	0.862 0	0.861 9	0.864 0	0.863 9	0.862 8	0.862 7	0.864 8	0.864 7
$1\frac{1}{8}$ — 7 UNC	0.967 5	0.967 4	0.969 7	0.969 6	0.968 3	0.968 2	0.970 5	0.970 4
$1\frac{1}{4}$ — 7 UNC	1.092 5	1.092 4	1.094 7	1.094 6	1.093 3	1.093 2	1.095 5	1.095 4
$1\frac{3}{8}$ — 6 UNC	1.191 5	1.191 4	1.193 9	1.193 8	1.192 3	1.192 2	1.194 7	1.194 6
$1\frac{1}{2}$ — 6 UNC	1.316 5	1.316 4	1.318 9	1.318 8	1.317 3	1.317 2	1.319 7	1.319 6
$1\frac{3}{4}$ — 5 UNC	1.530 0	1.529 8	1.532 7	1.532 5	1.531 0	1.530 8	1.533 7	1.533 5
2 — $4\frac{1}{2}$ UNC	1.755 7	1.755 5	1.758 6	1.758 4	1.756 7	1.756 5	1.759 6	1.759 4
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.005 7	2.005 5	2.008 6	2.008 4	2.006 7	2.006 5	2.009 6	2.009 4
$2\frac{1}{2}$ — 4 UNC	2.225 5	2.225 3	2.228 6	2.228 4	2.226 5	2.226 3	2.229 6	2.229 4
$2\frac{3}{4}$ — 4 UNC	2.475 4	2.475 2	2.478 6	2.478 4	2.476 4	2.476 2	2.479 6	2.479 4
3 — 4 UNC	2.725 4	2.725 2	2.728 6	2.728 4	2.726 4	2.726 2	2.729 6	2.729 4

UNIFIED COARSE THREADS, UNC

TABLE 12. LIMITS OF SIZE FOR GO AND NOT GO PLAIN CHECK PLUGS FOR THE MINOR DIAMETER OF NOT GO EFFECTIVE DIAMETER RING GAUGES - SOLID TYPE

1	2	3	4	5	6	7	8	9	10	11	12	13
Designation	GO check plugs						NOT GO check plugs					
	For Class 1A threads		For Class 2A threads		For Class 3A threads		For Class 1A threads		For Class 2A threads		For Class 3A threads	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
	in	in	in	in	in	in	in	in	in	in	in	in
$\frac{1}{4}$ — 20 UNC	0.200 0	0.199 9	0.201 9	0.201 8	0.203 9	0.203 8	0.200 7	0.200 6	0.202 6	0.202 5	0.204 6	0.204 5
$\frac{5}{16}$ — 18 UNC	0.257 1	0.257 0	0.259 2	0.259 1	0.261 4	0.261 3	0.257 8	0.257 7	0.259 9	0.259 8	0.262 1	0.262 0
$\frac{3}{8}$ — 16 UNC	0.313 1	0.313 0	0.315 2	0.315 1	0.317 6	0.317 5	0.313 8	0.313 7	0.315 9	0.315 8	0.318 3	0.318 2
$\frac{7}{16}$ — 14 UNC	0.367 1	0.367 0	0.369 5	0.369 4	0.372 1	0.372 0	0.367 8	0.367 7	0.370 2	0.370 1	0.372 8	0.372 7
$\frac{1}{2}$ — 13 UNC	0.424 5	0.424 4	0.426 9	0.426 8	0.429 7	0.429 6	0.425 2	0.425 1	0.427 6	0.427 5	0.430 4	0.430 3
$\frac{9}{16}$ — 12 UNC	0.481 0	0.480 9	0.483 6	0.483 5	0.486 5	0.486 4	0.481 8	0.481 7	0.484 4	0.484 3	0.487 3	0.487 2
$\frac{5}{8}$ — 11 UNC	0.536 4	0.536 3	0.539 2	0.539 1	0.542 2	0.542 1	0.537 2	0.537 1	0.540 0	0.539 9	0.543 0	0.542 9
$\frac{3}{4}$ — 10 UNC	0.652 8	0.652 7	0.655 7	0.655 6	0.659 0	0.658 9	0.653 6	0.653 5	0.656 5	0.656 4	0.659 8	0.659 7
$\frac{7}{8}$ — 9 UNC	0.767 3	0.767 2	0.770 5	0.770 4	0.774 0	0.773 9	0.768 1	0.768 0	0.771 3	0.771 2	0.774 8	0.774 7
1 — 8 UNC	0.879 6	0.879 5	0.882 9	0.882 8	0.886 6	0.886 5	0.880 4	0.880 3	0.883 7	0.883 6	0.887 4	0.887 3
$1\frac{1}{8}$ — 7 UNC	0.988 2	0.988 1	0.991 9	0.991 8	0.995 9	0.995 8	0.989 0	0.988 9	0.992 7	0.992 6	0.996 7	0.996 6
$1\frac{1}{4}$ — 7 UNC	1.113 0	1.112 9	1.116 7	1.116 6	1.120 8	1.120 7	1.113 8	1.113 7	1.117 5	1.117 4	1.121 6	1.121 5
$1\frac{3}{8}$ — 6 UNC	1.216 2	1.216 1	1.220 2	1.220 1	1.224 6	1.224 5	1.217 0	1.216 9	1.221 0	1.220 9	1.225 4	1.225 3
$1\frac{1}{2}$ — 6 UNC	1.341 1	1.341 0	1.345 1	1.345 0	1.349 5	1.349 4	1.341 9	1.341 8	1.345 9	1.345 8	1.350 3	1.350 2
$1\frac{3}{4}$ — 5 UNC	1.560 7	1.560 5	1.565 2	1.565 0	1.570 1	1.569 9	1.561 7	1.561 5	1.566 2	1.566 0	1.571 1	1.570 9
2 — $4\frac{1}{2}$ UNC	1.790 4	1.790 2	1.795 2	1.795 0	1.800 5	1.800 3	1.791 4	1.791 2	1.796 2	1.796 0	1.801 5	1.801 3
$2\frac{1}{4}$ — $4\frac{1}{2}$ UNC	2.040 1	2.039 9	2.045 0	2.044 8	2.050 3	2.050 1	2.041 1	2.040 9	2.046 0	2.045 8	2.051 3	2.051 1
$2\frac{1}{2}$ — 4 UNC	2.264 9	2.264 7	2.270 0	2.269 8	2.275 7	2.275 5	2.265 9	2.265 7	2.271 0	2.270 8	2.276 7	2.276 5
$2\frac{3}{4}$ — 4 UNC	2.514 5	2.514 3	2.519 8	2.519 6	2.525 6	2.525 4	2.515 5	2.515 3	2.520 8	2.520 6	2.526 6	2.526 4
3 — 4 UNC	2.764 2	2.764 0	2.769 6	2.769 4	2.775 5	2.775 3	2.765 2	2.765 0	2.770 6	2.770 4	2.776 5	2.776 3

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