

Accuracy of the finished thread when the insert is installed is dependent upon the accuracy of the tapped hole. If the finished tapped hole gages satisfactorily, the installed insert will be within the thread tolerance. **It is not necessary to gage the installed insert.** After the insert is installed, the GO thread plug gage may not enter freely; however, the insert will always seat itself when the bolt or screw is installed and tightened. (Reference NASM33537).

Gage handles and all gage nibs are marked with the extreme product limits for the particular size and class of fit. (See Pages 18 & 19, Tables VII & VIII, Pitch Diameter Limits).

When gaging tapped holes which have been thoroughly cleaned or which have a protective finish applied, the gage should always be lubricated with light oil.

HI nib may enter provided a definite drag results on or before 3rd turn from entry – Ref. FED-STD-H28, Screw thread Standards for Federal Services.

Heli-Coil STI Thread Plug Gages for checking the tapped hole are listed in the table at right.

HELI-COIL STI GAGE WITH GO & HI MEMBERS



Working gages provide a guaranteed minimum wear allowance on the pitch diameter of the GO members of two ten thousandths of an inch (.0002). These gages are recommended for production in sizes 1/2 inch and smaller.

Reference gages have pitch diameters on or close to minimum (basic size). They are essentially laboratory or master gages and should be used in case of conflict between two working gages. Conflict can occur when one of the gages has experienced more use and wear.

Nominal Thread Size	WORKING GAGES		REFERENCE GAGES	
	Suggested for Longer Wear Life		Suggested as Master Gages	
	3B	2B	3B	2B
UNIFIED COARSE				
1 (.073)-64	3688-01	1442-01	1688-01	1440-01
2 (.086)-56	3688-02	1442-02	1688-02	1440-02
3 (.099)-48	3688-03	1442-03	1688-03	1440-03
4 (.112)-40	3688-04	1442-04	1688-04	1440-04
5 (.125)-40	3688-05	1442-05	1688-05	1440-05
6 (.138)-32	3688-06	1442-06	1688-06	1440-06
8 (.164)-32	3688-2	1442-2	1688-2	1440-2
10 (.190)-24	3688-3	1442-3	1688-3	1440-3
12 (.216)-24	3688-1	1442-1	1688-1	1440-1
1/4 (.2500)-20	3688-4	1442-4	1688-4	1440-4
5/16 (.3125)-18	3688-5	1442-5	1688-5	1440-5
3/8 (.3750)-16	3688-6	1442-6	1688-6	1440-6
7/16 (.4375)-14	3688-7	1442-7	1688-7	1440-7
1/2 (.5000)-13	3688-8	1442-8	1688-8	1440-8
9/16 (.5625)-12			1688-9	1440-9
5/8 (.6250)-11			1688-10	1440-10
3/4 (.7500)-10			1688-12	1440-12
7/8 (.8750)-9			1688-14	1440-14
1 (1.000)-8			1688-16	1440-16
1-1/8 (1.1250)-7			1688-18	1440-18
1-1/4 (1.2500)-7			1688-20	1440-20
1-3/8 (1.3750)-6			1688-22	1440-22
1-1/2 (1.5000)-6			1688-24	1440-24
UNIFIED FINE				
2 (.086)-64	3694-02	1443-02	1694-02	1441-02
3 (.099)-56	3694-03	1443-03	1694-03	1441-03
4 (.112)-48	3694-04	1443-04	1694-04	1441-04
6 (.138)-40	3694-06	1443-06	1694-06	1441-06
8 (.164)-36	3694-2	1443-2	1694-2	1441-2
10 (.190)-32	3694-3	1443-3	1694-3	1441-3
1/4 (.2500)-28	3694-4	1443-4	1694-4	1441-4
5/16 (.3125)-24	3694-5	1443-5	1694-5	1441-5
3/8 (.3750)-24	3694-6	1443-6	1694-6	1441-6
7/16 (.4375)-20	3694-7	1443-7	1694-7	1441-7
1/2 (.5000)-20	3694-8	1443-8	1694-8	1441-8
9/16 (.5625)-18			1694-9	1441-9
5/8 (.6250)-18			1694-10	1441-10
3/4 (.7500)-16			1694-12	1441-12
7/8 (.8750)-14			1694-14	1441-14
1 (1.0000)-14			1694-16	1441-16
1 (1.0000)-12			1694-161	1441-161
1-1/8 (1.1250)-12			1694-18	1441-18
1-1/4 (1.2500)-12			1694-20	1441-20
1-3/8 (1.3750)-12			1694-22	1441-22
1-1/2 (1.5000)-12			1694-24	1441-24