

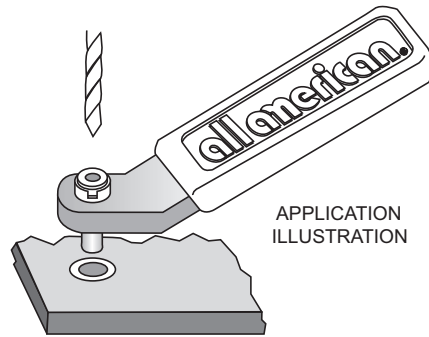
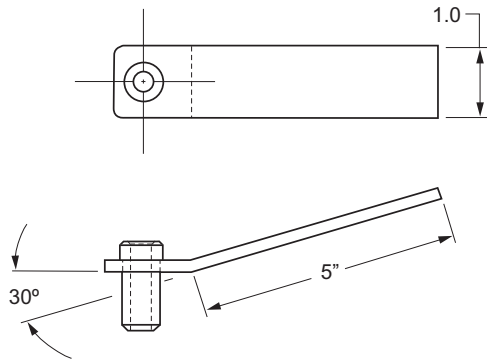
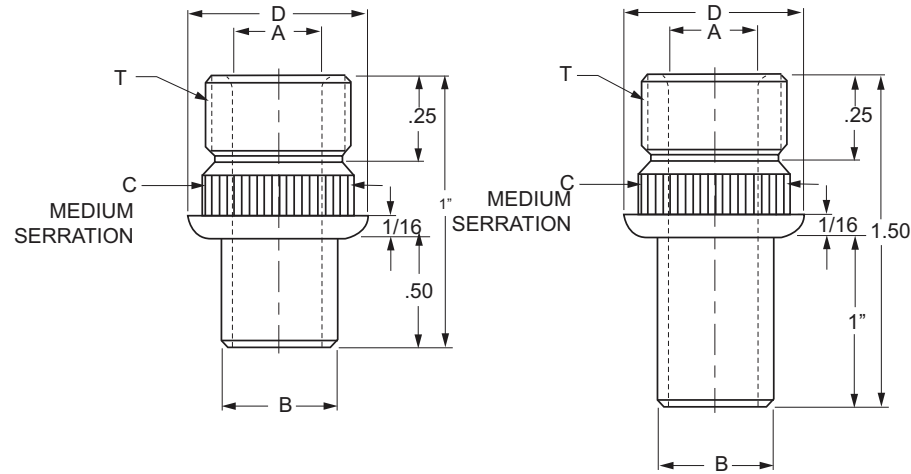
fastemp.

The All American handle bushing, with the replaceable Fastemp bushing, is a portable bushing holder which is excellent for drilling holes that are hard to reach with stationary tooling. Unlike the type HB handle bushing, the Fastemp bushing is readily replaceable. A wide range of I.D. sizes and lengths are available.

WHEN ORDERING: please specify the part number, the I.D. and length. Add a "L" to the end of the part number for the 1" bushing length. Handle bushings will be priced upon request by All American.



Reg. U.S. Pat. & Tm. 3,744,232



APPLICATION ILLUSTRATION

THREADED TEMPLATE HANDLE BUSHINGS

A NOM.	A ACTUAL	B NOM.	B ACTUAL	C	D	T	ANSI SYMBOL	RETAINER RING P/N
#55 - 1/16	.0520 - .0625	5/32	.1552 - .1542	3/8	15/32	3/8-24	HBTH-2410	THTR-24-6
#55 - #39	.0520 - .0995	3/16	.1865 - .1855	3/8	15/32	3/8-24	HBTH-2412	THTR-24-6
#55 - #39	.0520 - .0995	13/64	.2021 - .2011	3/8	15/32	3/8-24	HBTH-2413	THTR-24-6
#40 - #28	.0980 - .1405	1/4	.2490 - .2480	3/8	15/32	3/8-24	HBTH-2416	THTR-24-6
1/8 - #10	.1250 - .1935	5/16	.3115 - .3105	3/8	15/32	3/8-24	HBTH-2420	THTR-24-6
1/8 - #10	.1250 - .1935	3/8	.3740 - .3730	3/8	15/32	3/8-24	HBTH-2424	THTR-24-6
#10 - 1	.1935 - .2280	5/16	.3115 - .3105	1/2	19/32	1/2-20	HBTH-3220	THTR-32-6
#10 - 1	.1935 - .2280	3/8	.3740 - .3730	1/2	19/32	1/2-20	HBTH-3224	THTR-32-6
3/16 - F	.1875 - .2570	13/32	.4052 - .4042	1/2	19/32	1/2-20	HBTH-3226	THTR-32-6
A - L	.2340 - .2900	7/16	.4365 - .4355	1/2	19/32	1/2-20	HBTH-3228	THTR-32-6
3/16 - O	.1875 - .3160	1/2	.4990 - .4980	1/2	19/32	1/2-20	HBTH-3232	THTR-32-6
M - 11/32	.2950 - .3437	9/16	.5615 - .5605	5/8	23/32	5/8-18	HBTH-4036	THTR-40-6
5/16 - 7/16	.3125 - .4375	5/8	.6240 - .6230	5/8	23/32	5/8-18	HBTH-4040	THTR-40-6
5/16 - 17/32	.3125 - .5312	3/4	.7490 - .7480	3/4	27/32	3/4-16	HBTH-4848	THTR-48-6
1/2 - 49/64	.5000 - .7656	1	.9990 - .9980	1	1-3/32	1"-14	HBTH-6464	THTR-64-6



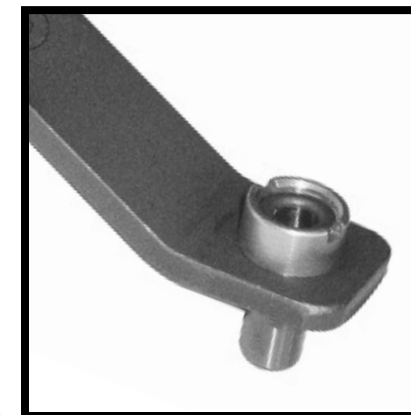
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FORM: BR19-310

all american.[®]
 Bushing and Workholding Solutions

fastemp.[®]
THREADED TEMPLATE BUSHINGS



- ★ DESIGNED FOR ECONOMY
- ★ REMOVEABLE AND REPLACEABLE

Fastemp Threaded Template bushings are designed for economy and are primarily intended for thin template material varying from 1/16 to 3/8 inch thick. This provides low cost drill tooling. Fastemp bushings are held in place by a retainer ring. The serrations on the bushing allow for positive locking. This prevents the bushing from spinning in the template.

A feature of the Threaded Template bushing is that you can reuse it by simply unscrewing the retaining ring and removing it from the template.

Reg. U.S. Pat. & Tm. 3,744,232

When ordering specify:

Example: Example of Retainer Ring for 1/8 inch Template.

Quantity	Bushing Part No.	I.D.(A)	Part No
6	THTB-24	5/32	THTR24-5

Note: Retainer rings are included with all template bushing orders.

THTB

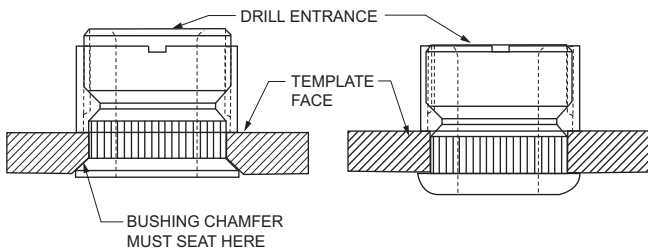


THREADED TEMPLATE BUSHING

THTBF



THREADED TEMPLATE BUSHING WITH FLANGED BOTTOM



TECHNICAL DATA

Standard Sizes: All American has a complete range of sizes from 1/16 to 3/8 thick, drill sizes from #55 to 49/64 inch.

I.D. Tolerances:

Standard Drill Sizes	I.D.	Tolerances
#55-1/2	Nom	+0.001/+0.011

Concentricity: ID. to O.D. within .002 T.I.R..

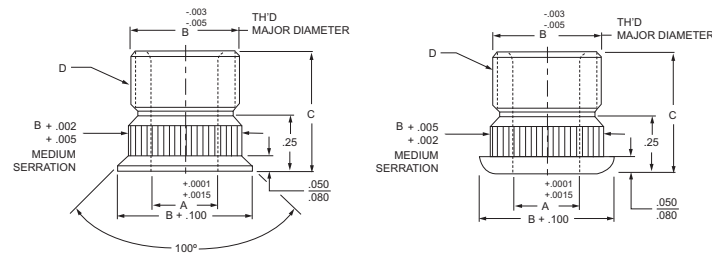
Radius: All American Bushings feature a blended radius at the drill entrance

Steel: C-1144

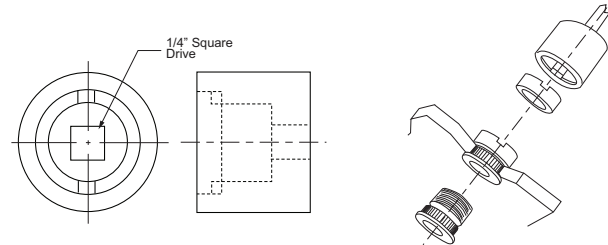
Hardness: Case hardened RC 62-64

Retainer Ring Material: Aluminum

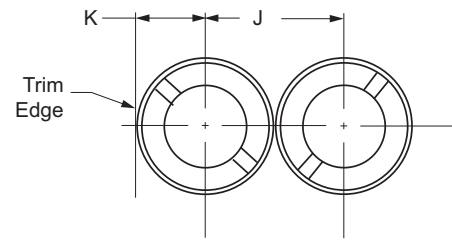
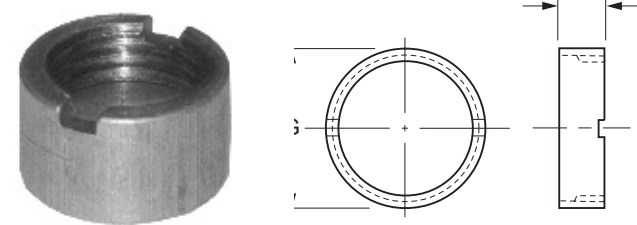
Note: Considered as special and not returnable.



THREADED TEMPLATE BUSHINGS									
A I.D. RANGE	B O.D. TOLERANCES	C	D	ANSI SYMBOL	FLANGED BASE ANSI SYMBOL	RETAINER RINGS			
						P/N	TEMPLATE THICKNESS		
#55 - #9 (.0520 - .1960) 1.30 - 5.00mm	.375	1/2	3/8-24 LH	THTB-24	THTBF-24	THTR-24-6	3/64-1/8		
						THTR-24-5	9/64-3/16		
						THTR-24-3	13/64-3/8		
#9 - 0 (.1960 - .3160) 5.00 - 8.00mm	.500	1/2	1/2-20 LH	THTB-32	THTBF-32	THTR-32-6	3/64-1/8		
						THTR-32-5	9/64-3/16		
						THTR-32-3	13/64-3/8		
5/16 - 7/16 (.3125 - .4375) 8.00 - 11.00mm	.625	1/2	5/8-18 LH	THTB-40	THTBF-40	THTR-40-6	3/64-1/8		
						THTR-40-5	9/64-3/16		
						THTR-40-3	13/64-3/8		
5/16-17/32 (.3125 - .5312) 8.00 - 11.00mm	.750	1/2	3/4-16 LH	THTB-48	THTBF-48	THTR-48-6	3/64-1/8		
						THTR-48-5	9/64-3/16		
						THTR-48-3	13/64-3/8		
1/2-49/64 (.5000 - .756) 13.00 - 19.00mm	1.000	5/8	1-1/4 LH	THTB-64	THTBF-64	THTR-64-6	3/64-1/8		
						THTR-64-5	9/64-3/16		
						THTR-64-3	13/64-3/8		

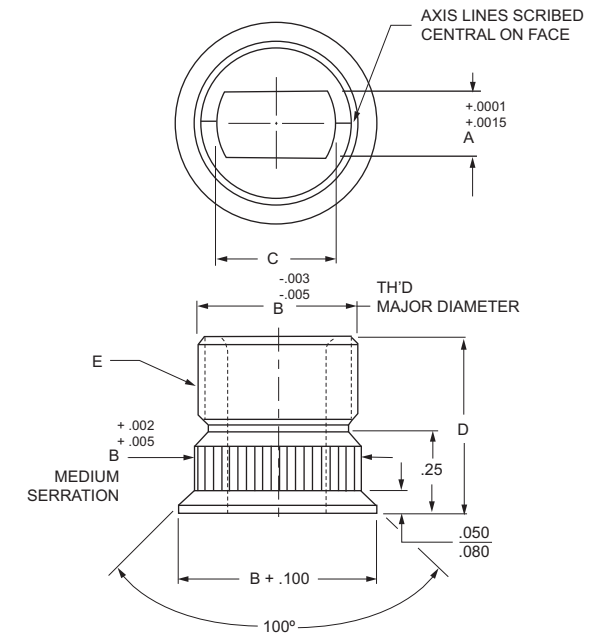


INSTALLATION TOOLS				
P/N	FOR INSTALLATION OF RETAINER RINGS			
THTBT-24	THTR-24-5	THTR-24-6	THTR-24-7	
THTBT-32	THTR-32-5	THTR-32-6	THTR-32-7	
THTBT-40	THTR-40-5	THTR-40-6	THTR-40-7	
THTBT-48	THTR-48-5	THTR-48-6	THTR-48-7	
THTBT-64	THTR-64-5	THTR-64-6	THTR-64-7	



STANDARD WALL RETAINER RINGS				
P/N	G	H	J - MIN HOLE SPACING	K - MIN EDGE SPACING
THTR-24-6	.500	3/8	.516	.250
THTR-24-5		5/16		
THTR-24-3		3/16		
THTR-32-6	.625	3/8	.641	.312
THTR-32-5		5/16		
THTR-32-3		3/16		
THTR-40-6	.750	3/8	.766	.375
THTR-40-5		5/16		
THTR-40-3		3/16		
THTR-48-6	1.000	3/8	1.016	.500
THTR-48-5		5/16		
THTR-48-3		3/16		
THTR-64-6	1.250	3/8	1.266	.625
THTR-64-5		5/16		
THTR-64-3		3/16		

THIN WALL RETAINER RINGS				
P/N	G	H	J - MIN HOLE SPACING	K - MIN EDGE SPACING
THTR-24-6-TW	.437	3/8	.453	.218
THTR-24-5-TW		5/16		
THTR-24-3-TW		3/16		
THTR-32-6-TW	.562	3/8	.578	.281
THTR-32-5-TW		5/16		
THTR-32-3-TW		3/16		
THTR-40-6-TW	.687	3/8	.703	.343
THTR-40-5-TW		5/16		
THTR-40-3-TW		3/16		
THTR-48-6-TW	.875	3/8	.890	.437
THTR-48-5-TW		5/16		
THTR-48-3-TW		3/16		
THTR-64-6-TW	1.125	3/8	1.140	.562
THTR-64-5-TW		5/16		
THTR-64-3-TW		3/16		



THREADED TEMPLATE LOCATOR BUSHINGS									
P/N	A	B O.D.	C	D	E	RETAINER RINGS			
						P/N	TEMPLATE THICKNESS		
THTL-40-1/8	1/8 .1251	.625	1/4	1/2	5/8-18 LH	THTR-40-6	1/64-1/8		
						THTR-40-5	9/64-3/16		
						THTR-40-3	13/64-3/8		
THTL-40-#30	#30 .1286	.625	1/4	1/2	5/8-18 LH	THTR-40-6	1/64-1/8		
						THTR-40-5	9/64-3/16		
						THTR-40-3	13/64-3/8		
THTL-40-#20	#20 .1611	.625	1/4	1/2	5/8-18 LH	THTR-40-6	1/64-1/8		
						THTR-40-5	9/64-3/16		
						THTR-40-3	13/64-3/8		
THTL-40-3/16	3/16 .1876	.625	3/8	1/2	5/8-18 LH	THTR-40-6	1/64-1/8		
						THTR-40-5	9/64-3/16		
						THTR-40-3	13/64-3/8		
THTL-40-#10	#10 .1936	.625	3/8	1/2	5/8-18 LH	THTR-40-6	1/64-1/8		
						THTR-40-5	9/64-3/16		
						THTR-40-3	13/64-3/8		
THTL-40-1/4	1/4 .2501	.625	3/8	1/2	5/8-18 LH	THTR-40-6	1/64-1/8		
						THTR-40-5	9/64-3/16		
						THTR-40-3	13/64-3/8		
THTL-48-5/16	5/16 .3126	.750	7/16	1/2	3/4-16 LH	THTR-48-6	1/64-1/8		
						THTR-48-5	9/64-3/16		
						THTR-48-3	13/64-3/8		
THTL-48-3/8	3/8 .3751	.750	1/2	1/2	3/4-16 LH	THTR-48-6	1/64-1/8		
						THTR-48-5	9/64-3/16		
						THTR-48-3	13/64-3/8		
THTL-48-1/2	1/2 .5001	.750	5/8	1/2	3/4-16 LH	THTR-48-6	1/64-1/8		
						THTR-48-5	9/64-3/16		
						THTR-48-3	13/64-3/8		
THTL-64-5/8	5/8 .6251	1.000	3/4	5/8	1"-14 LH	THTR-64-6	1/64-1/8		
						THTR-64-5	9/64-3/16		
						THTR-64-3	13/64-3/8		
THTL-64-3/4	3/4 .7501	1.000	13/16	5/8	1"-14 LH	THTR-64-6	1/64-1/8		
						THTR-64-5	9/64-3/16		
						THTR-64-3	13/64-3/8		