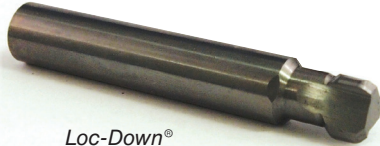
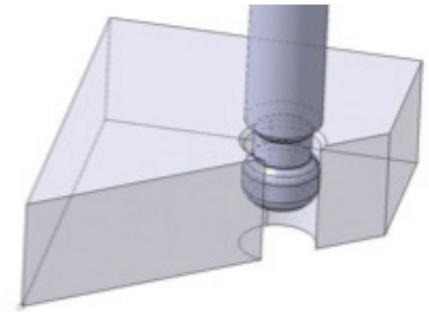
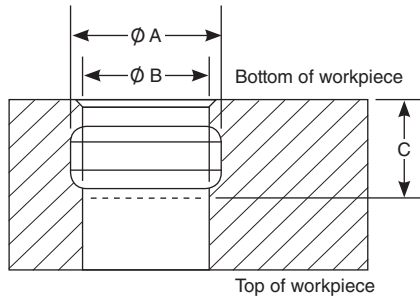


1/2" & M12 Loc-Down® System Instructions

PATENT #61553569

PREPARATION FOR WORKPIECE

1. Drill thru hole 0.500/0.513 (12.70/13.03mm).
2. Using Loc-Down® cutter, generate 0.625 (15.88mm) dia circle. Tip of cutter should be 0.410 (10.41mm) below bottom (e.g. mounting) surface of workpiece.
3. Add 0.03 (0.8mm) x 90 deg. chamfer to hole.



Loc-Down®
 Custom Carbide Cutter
 Part No. 11530

LOC-DOWN® RECEIVING GROOVE DIMENSIONS FOR WORKPIECE

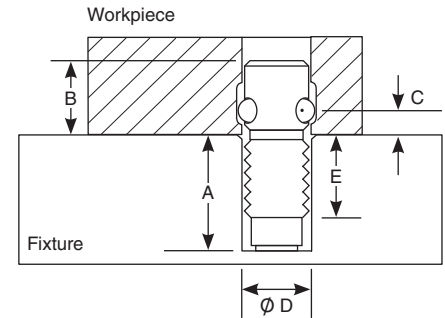
	A	B	C (Cutter Depth)
INCH	0.625	0.500/0.513	0.41/0.44
METRIC	15.88mm	12.70/13.03mm	10.4/11.0mm

TYPICAL FEEDS AND SPEEDS FOR LOC-DOWN® CUTTER

MATERIAL	FEED	SPEED
Aluminum	25 IPM	3000 RPM/1 radial pass
Hard Metals	1 IPM	1200 RPM/3 equal radial passes

PREPARATION FOR BASE PLATE

1. Drill and tap 1/2-13/M12 flat bottom hole to specified depth.
 (Note: Fully thread to a minimum of 0.150/3.8mm from bottom of hole.)
2. See dimension chart below for specific hole data.



DIMENSIONAL CHART

	Part No.	A	B	C	D	E - Min. Thread Depth	Min. Thread Counter Sink	Ball Diameter
INCH	11500	0.866	0.71	0.22	1/2-13	0.7	0.03 x 90 degrees	0.187
METRIC	11612	22.0mm	18.0mm	5.6mm	M12-1.75	18mm	0.8 x 90 degrees	4.75mm

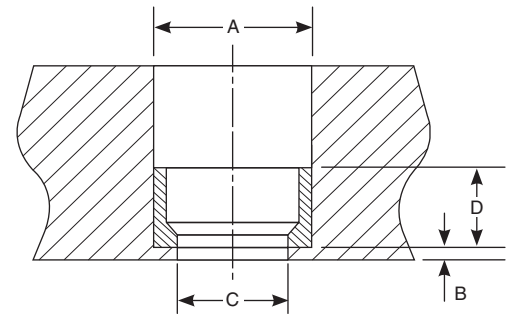
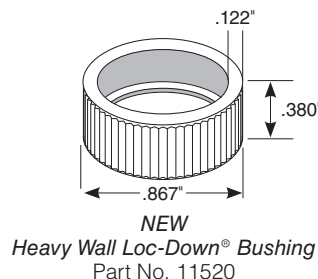
PREPARING PALLET FOR HEAVY WALL LOC-DOWN® BUSHING (Part No. 11520)

(Use for Dedicated Fixture or Pallet mounting to Sub Base)

This is a press fit installation, metal is displaced. The OD of the bushing is knurled, to aide in retention, and minimize bushing and part distortion. Using bushing installation tool PN 11535 provides properly seated bushing installation, without damage to the bushing. On deep holes, consider counter bore for Dimension "A" for easier bushing installation.



Loc-Down®
 1/2-13 - Part No. 11500
 M12-1.75 - Part No. 11612



DIMENSIONS FOR MACHINING HOLE FOR HEAVY WALL LOC-DOWN® BUSHING

	A	B	C	D
INCH	0.865/0.866	0.094/0.062	0.500/0.530	0.39
METRIC	22.00/22.03mm	2.39/1.57mm	12.70/13.46mm	10.0mm

ADDITIONAL INFORMATION

The Loc-Down® System can be used as a quick change pallet system used with our **Locating Pins and Liners** (PN 51000/52000) to provide better than 0.0004"/0.01mm repeatability. Each Loc-Down® provides a clamp force of approximately 100 lbs per 1 ft lb (330N per Nm) of tightening torque.

Loc-Down® travel is 0.086 (2.2mm) with balls fully extended. Apply torque using 1/4" Allen hex wrench for 1/2-13 and 6mm hex wrench for M12-1.75mm.

Hand tightening for majority of applications is sufficient.