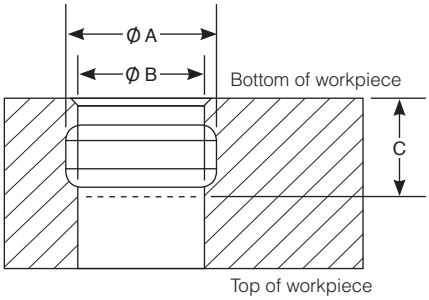
Instructions for Using Loc-Down™ System

PREPARATION FOR WORKPIECE

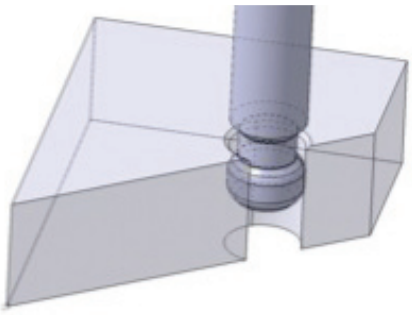
1. Drill thru hole 0.500/0.513 (12.70/13.03mm).
2. Using Loc-Down™ cutter, generate 0.625/ (15.88mm) dia circle. Tip of cutter should be 0.410 (10.41mm) below bottom (e.g. mounting) surface of workpiece.
3. Add 0.03 (0.8mm) x 90 deg. chamfer to hole.

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/.0513	0.41
Metric	15.88mm	12.70/13.03mm	10.41mm



Typical Feeds and Speeds for Loc-Down™ Cutter

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

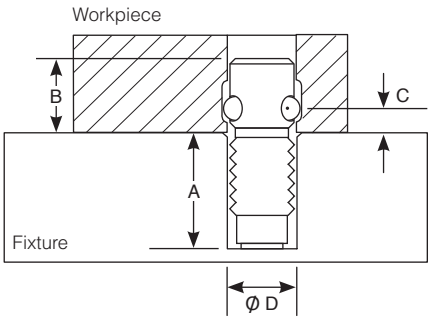
PREPARATION FOR FIXTURE

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 for specific hole data.

Dimensional Chart

Part No.	A	B	C	D	Min. Thread Depth	Counter Sink
11500	0.85	0.66	0.16	1/2-13	0.7	0.03 x 90 degrees
11612	21.6mm	16.8mm	4.1mm	M12-1.75	18mm	0.8 x 90 degrees

Ball Diameter - 0.187"(4.75mm)



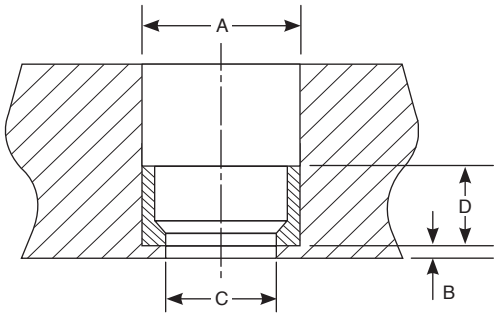
PREPARING HOLE FOR CUSTOM HARDENED INSERT BUSHING (Part No. 11525)

(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

Bushing - Part No. 11525



Dimensions for Machining Hole for Custom Bushing

	Dimension
A (Steel)	0.7485/0.7495 (19.012/19.037mm)
A (Al./Brass)	0.748/0.749 (19.000/19.025mm)
B	0.094/0.062 (2.39/1.57 mm)
C	0.500/0.530 (12.70/13.13.46mm)
D	0.38 (9.6mm)

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 up to 0.12 (3mm) with balls fully extended. Apply torque using ¼" Allen hex wrench for ½-13 and 6mm hex wrench for M12-1.75mm.

Maximum Torque* Chart:

Material	Ft-lbs (Nm)
Loc-Down™ Bushing	15 (20.3)
Aluminum/Brass	15 (20.3)
Mild Steel/Stainless	20 (27)
Hard Metals >45 Rc	15 (20.3)

* Hand tightening for majority of applications is sufficient