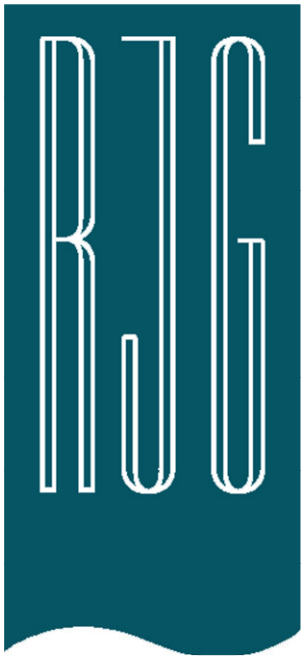
Flush Mount Sensor Installation/Check Kit

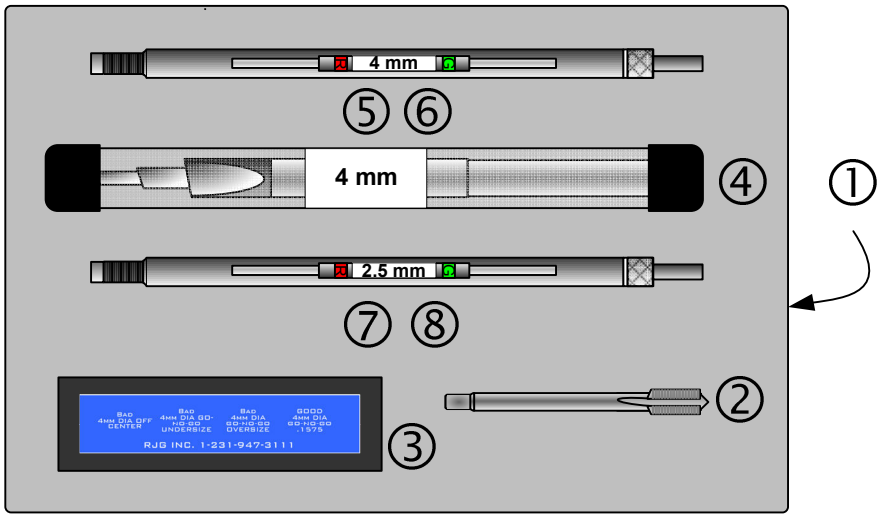


E-2012-7-18

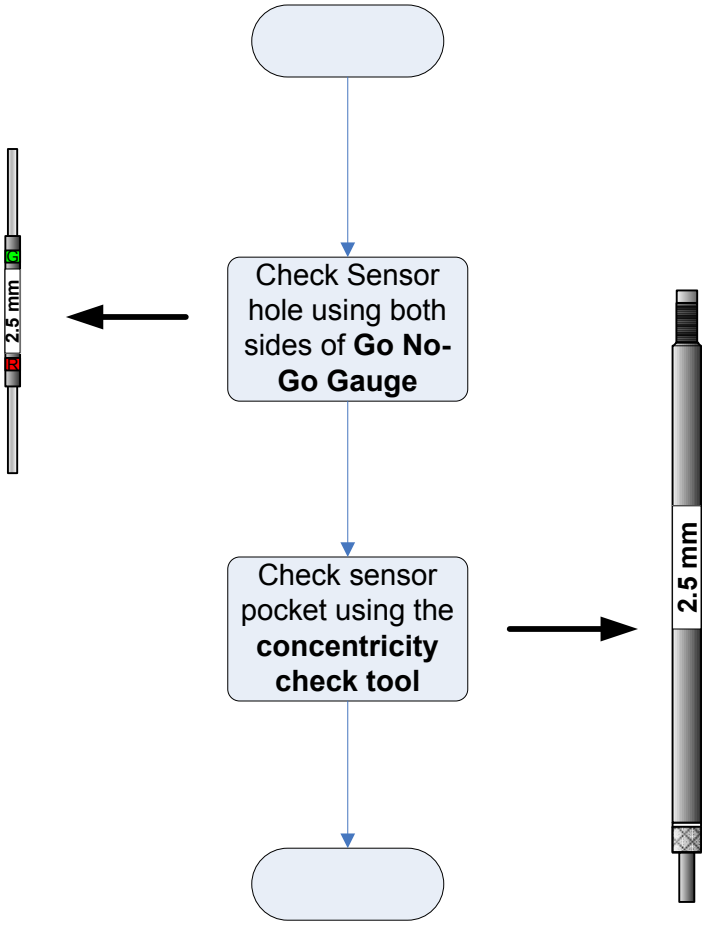
Flush Mount Sensor Installation/Check Kit

Reorder Information

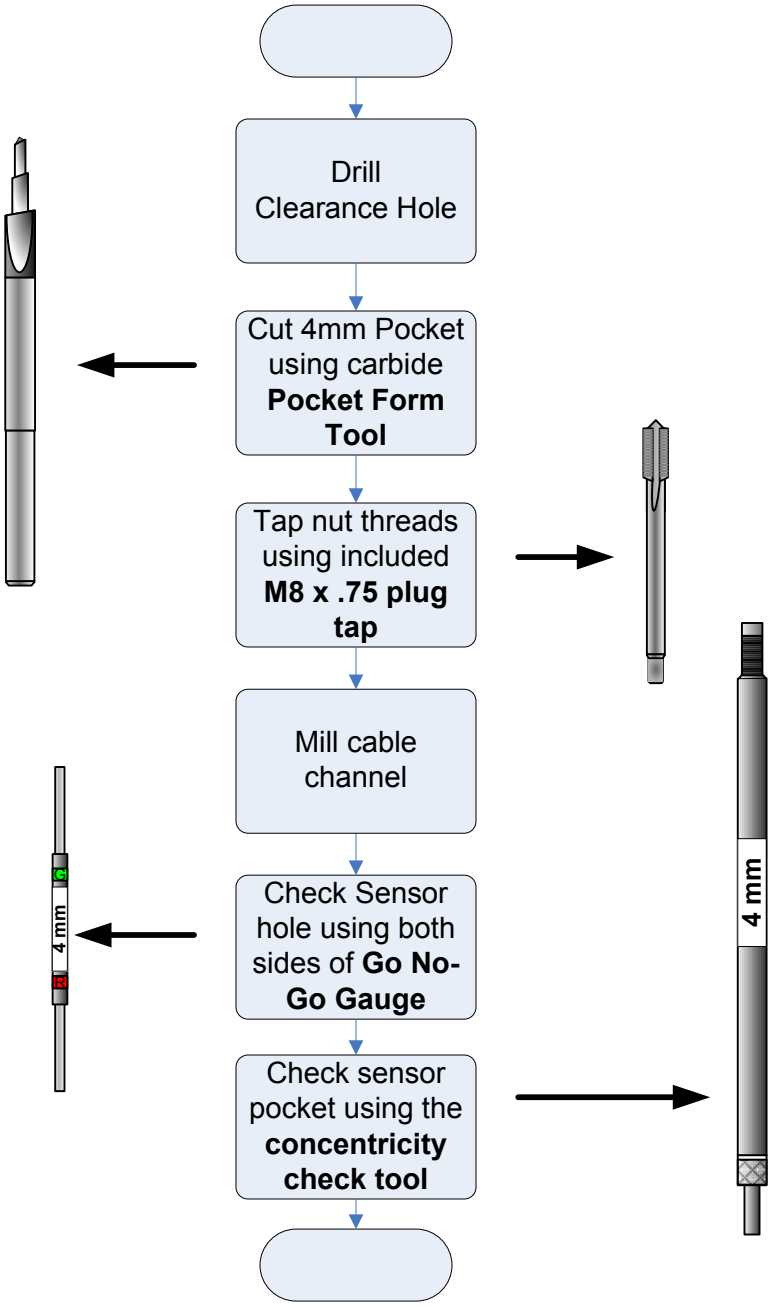
	Part Number	Description
①	PA-BSPK-CAS	Carrying Case
②	89-00M8-TL1	M8 x .75 Plug Tap
③	MA-0040-BLK	4 mm Test Block
④	MA-6157-SPM	4 mm Pocket Form Tool
⑤	MA-6157-CCK	4 mm Concentricity Checker
⑥	MA-6157-GNG	4 mm Go No-Go Gauge
⑦	MA-6159-CCK	2.5 mm Concentricity Checker
⑧	MA-6159-GNG	2.5 mm Go No-Go Gauge



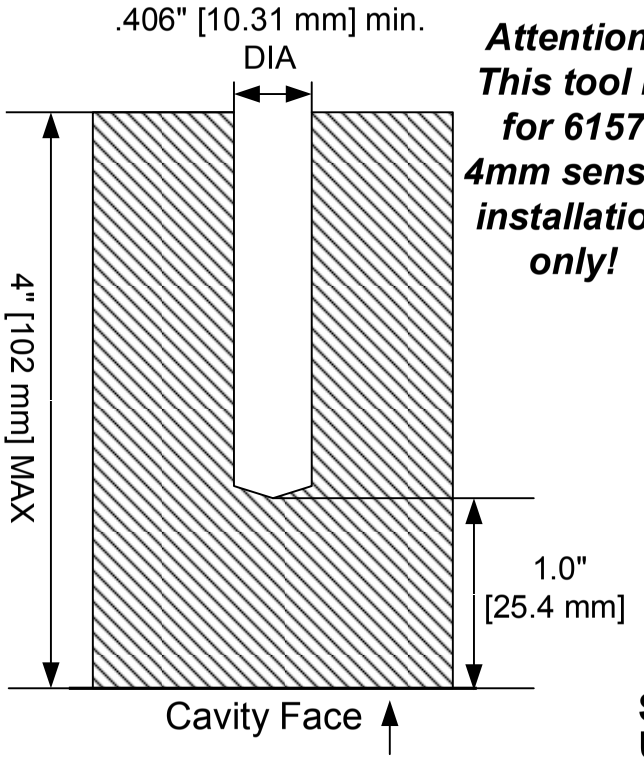
2.5 mm Flush Mount Sensor Check Tools



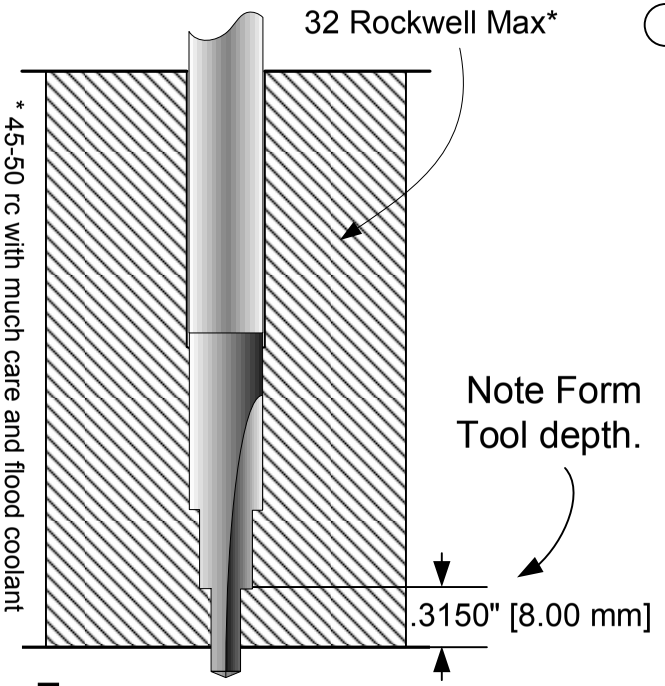
4 mm Flush Mount Sensor Installation/Check Tools



4 mm Pocket Form Tool Instructions



Attention! This tool is for 6157 4mm sensor installation only!



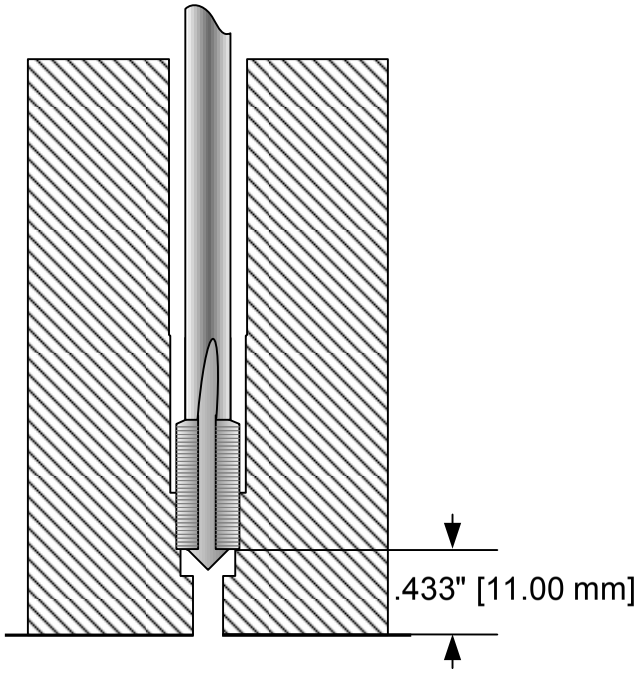
Step One:
Drill a .406" minimum diameter clearance hole 1.0" from cavity.

Step Two:
Use the Form Tool to form pocket.

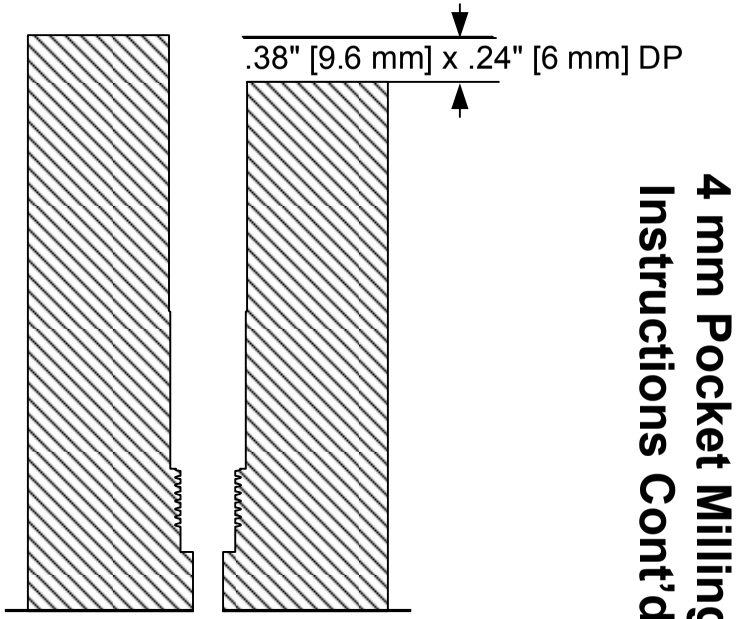
- 1680 rpm
- Bridgeport (or similar) type milling machine with a light hand feed
- Recommended .035 – .055 depth of cut pecking cycle used to clear material

More

4 mm Pocket Milling Instructions Cont'd



Step Three:
Use the M8 x .75 Plug Tap to form the Retaining Nut threads

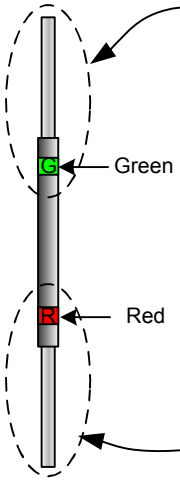


Step Four:
Mill sensor cable channel.

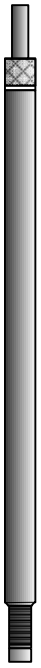
2.5 mm, 4 mm Pocket Testing Instructions

Tools

Go No-Go Gauge

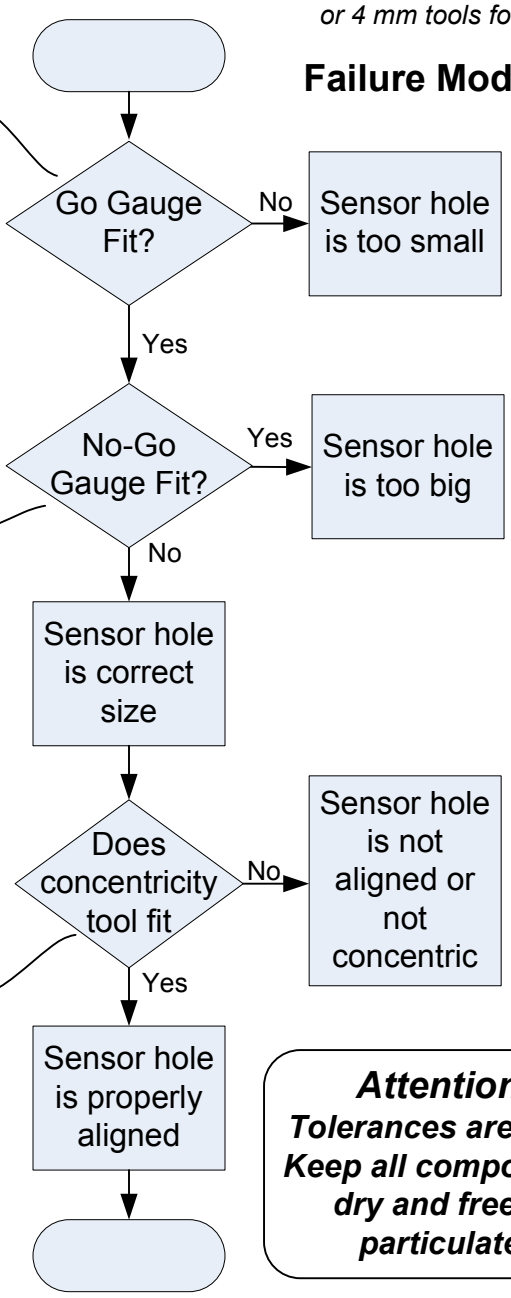


Alignment Tester



Order of Tests

Use 2.5 mm tools for 6159 or 4 mm tools for 6157



Failure Modes

Attention!

Tolerances are tight. Keep all components dry and free of particulate.

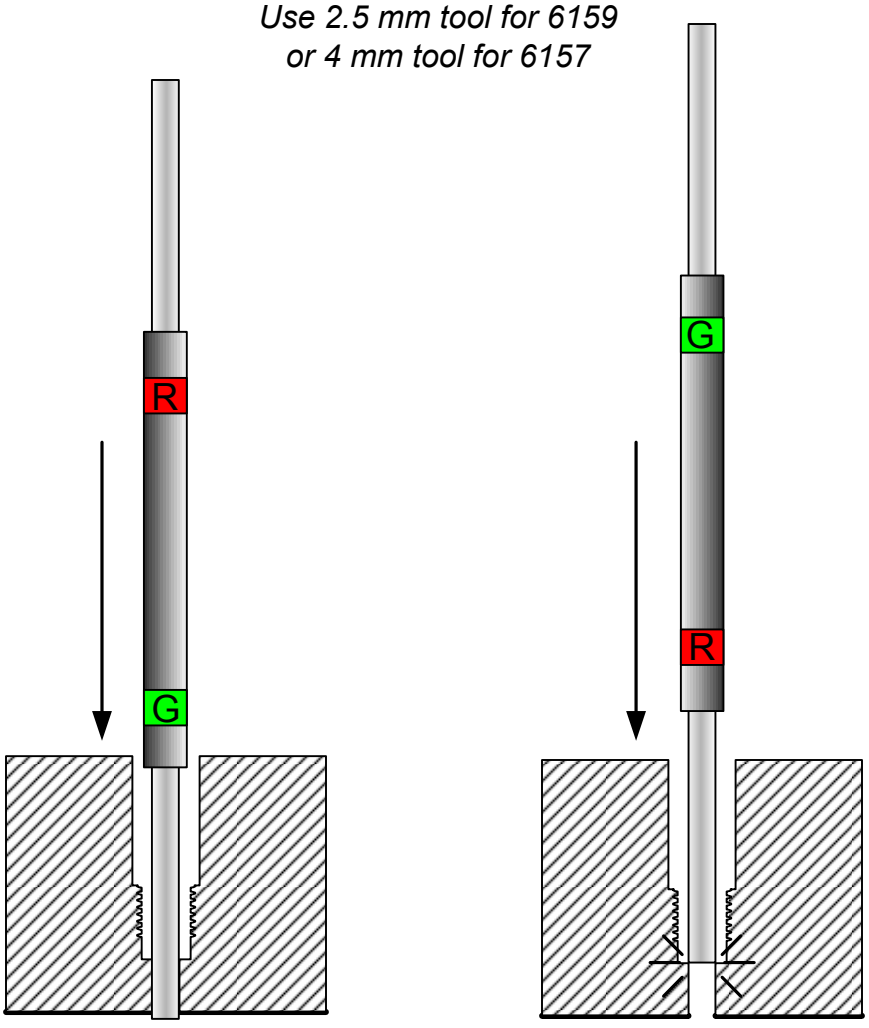
Go No-Go Gauge Instruction

The Go No-Go Gauge checks for the correct sensor hole size

The green side should fit in the hole easily

The red side should jam easily or <u>not</u> fit in the hole

Use 2.5 mm tool for 6159
or 4 mm tool for 6157

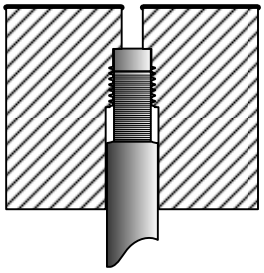


Concentricity Checker Instruction

checks the alignment and concentricity of the sensor pocket

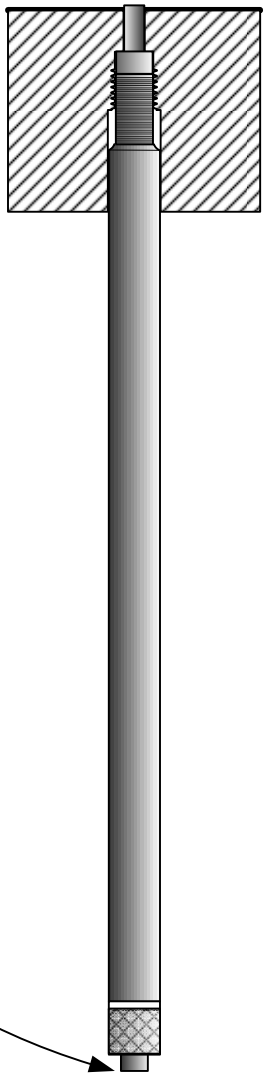
Use 2.5 mm tool for 6159
or 4 mm tool for 6157

Step One
Fully thread checker into the retaining nut threads

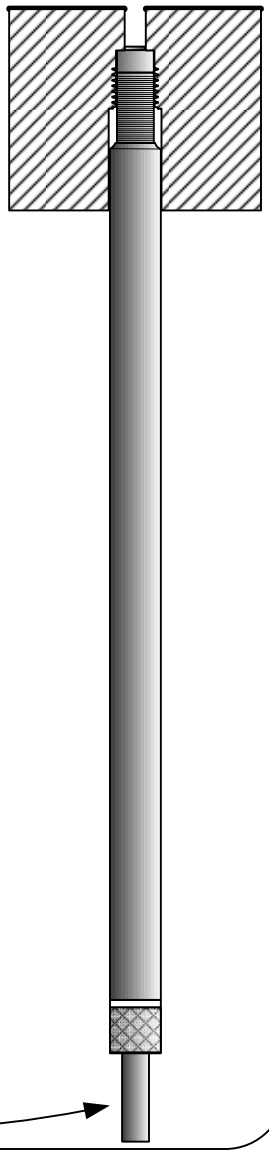


Step Two
Try pressing the plunger

Pocket OK
Pin Slides freely into pocket



Pocket Bad
Pin Binds



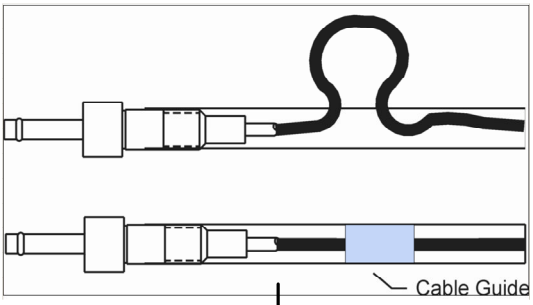
Test Block Instruction

The 4 mm test block reproduces a variety of pocket conditions so familiarity with the 4mm test equipment can be obtained. This knowledge can then be applied to the 2.5 mm tools.

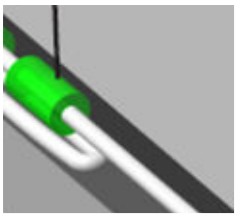
Order of Tests			
Go Gauge Fit?	Yes (Hole not too small)	Yes (Hole not too small)	Yes (Hole not too small)
No- Go Gauge Fit?	No (Hole too small) ***Pocket Fail***	Yes (Hole too big) ***Pocket Fail***	No (Hole not too big)
Concentricity Tool Fit?	*No (Hole off center)* ***Pocket Fail***		*Yes (Hole is on center)* **Pocket OK**

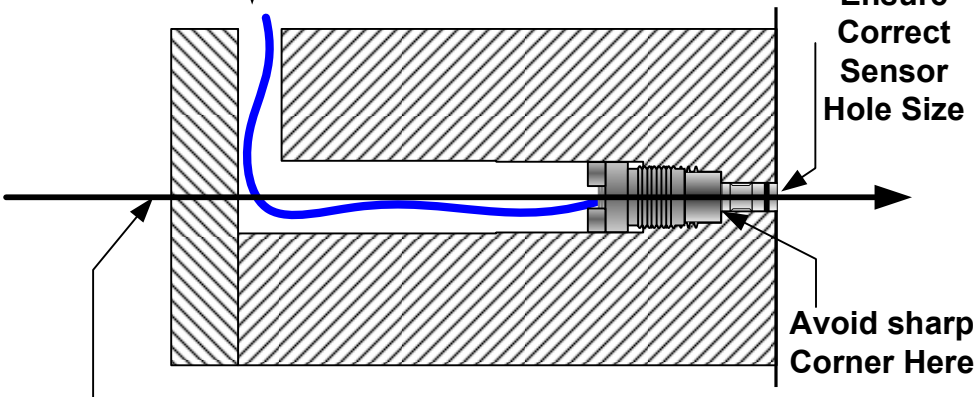
○ Installation Problems to be avoided

Avoid Pinched Wires

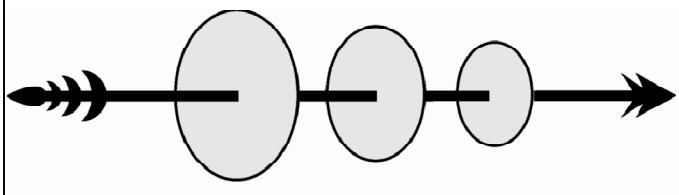


Avoid Kinked Wires

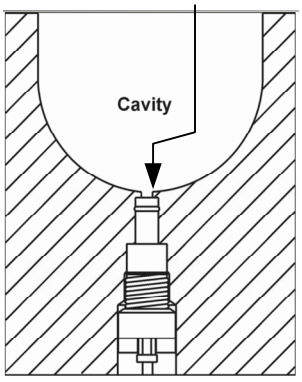




Ensure Pocket Concentricity



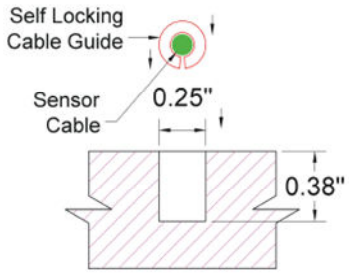
Avoid Steel Shut Off Conditions



Sensor Cable Retention Tools

Self Locking Cable Guide Installation

- Put the sensor's cable through the cable guide, then insert the guide & cable into the channel.
- Install as many cable guides as necessary in order to secure the cable in the channel.
- Guide can be removed by gently pulling up on the sensor's cable.



Cable Retention Putty

Use Cable Retention Putty to retain sensor wires when the use of the cable guides supplied with our sensors will not work for your application. Example: Multiple wires per channel.