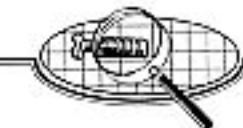


# Recess Penetration Gaging System



## RECESS INSPECTION GAGES

Fastener recesses should be inspected to assure the user that the fasteners can be driven properly and effectively during assembly.

### Definitions:

**Penetration Depth** – this is the distance a precisely made gaging element enters a fastener's recess. This is usually less than the "recess depth". This measurement is an indication of how deeply a driving bit will engage in the recess.

**Recess Depth** – the deepest point in a fastener's recess. This is usually a sharp point in the center of the recess.

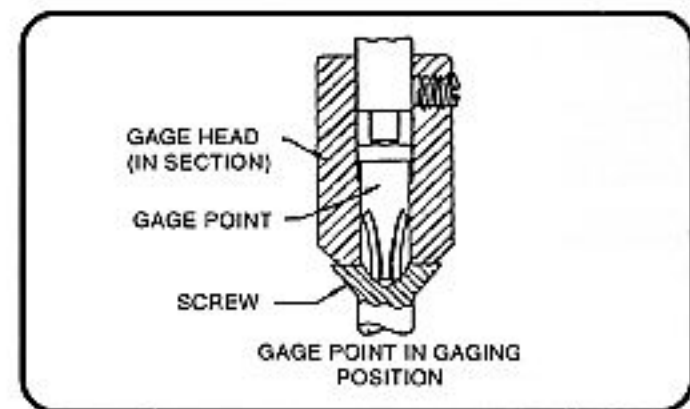
**Recess Torsional Strength** – this is the ability of a recess to resist damage from driver bit camout or reaming when a rotational force (torque) is applied to the bit engaged in the recess with a specific amount of end load pressure applied to keep the driver engaged in the recess. This requirement is defined in MIL-S-87114A.

### Individual Recess Gages

These are gages designed to measure only one type and size of recess, rivet hole or slot. The standard gages are equipped with electronic, digital indicators that will read out in either inches or millimeters. Gages are available with dial indicators upon special request.

### Available Penetration Gages

- ANSI/ASME Type 1: Phillips #0, #1, #2, #3, #4
- ANSI/ASME Type 1A: POZI-DRIVE #0, #1, #2, #3, #4 (registered trademark of the Phillips Screw Co.)
- ANSI/ASME Type III: Square socket #1, #2, #3, #4
- Hex Socket (GO element) .050" through 9/16"; 1.5mm through 14mm



### Other Gages

- Slot Depth Gage (one gage measures #0 through 3/8" screws)
- Recess Depth Gage
- Semi-tubular extrusion depth 1/16" through 3/8" diameter (specify minimum hole size when ordering)
- Hex Head Wrenching Height



## "RecessCheker" Measuring System

Patent #4,936,024

This patented system provides fast interchangeability of all recess measuring elements listed below on a single base having one digital electronic indicator. This system is ideal for use in manufacturing applications where the recess measurements need to be recorded electronically and for incoming or final inspection applications where space, storage and total gage costs are important. When four or more of the above elements are required, it is less expensive to purchase the "RecessCheker" System instead of individual gages.

Customers need to order one "RecessCheker" Base and specify the types of gages needed as "RecessCheker" Elements. The simple and fast element gaging procedure is shown below:



The results of a long form Gage Repeatability and Reproducibility Study for the "RecessCheker" System was 20% with a recess penetration measuring element.

### BASIC COMPONENTS

Base Unit .....	RCB-1
Data Processor .....	DPI-264503
Connecting Cable only .....	DPCC-905338
Foot Switch .....	DPFS-937179

### GAGING ELEMENTS

Slot Depth .....	RCSL-0
Recess Depth .....	RCD-1
Phillips Recess:	
#1 .....	RCP-1
#2 .....	RCP-2
#3 .....	RCP-3
#4 .....	RCP-4
Pozidriv Recess:	
#1 .....	RCPz-1
#2 .....	RCPz-2
#3 .....	RCPz-3
#4 .....	RCPz-4
Square Recess:	
#1 .....	RCSq-1
#2 .....	RCSq-2
#3 .....	RCSq-3
#4 .....	RCSq-4
Hex Recess:	
1/16 .....	RCH-062
thru 3/8 .....	RCH-375
M1.5 .....	RCHM-1.5
thru M10 .....	RCHM-10

Other Recess Gages are available upon request.