

The transducer mounting hole machining tool kit contains all of the necessary drills and taps to prepare a standard ¹/₂-20 UNF transducer or thermocouple mounting hole.

The kit contains the special pilot drill which is required to machine the 45° seating surface for the transducer.

A suggested mounting hole and machining procedure are given on page 2.



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INSTR. # 0I1-1.01-1

MOUNTING HOLE MACHINING PROCEDURE

- **Step 1** Drill a hole through with the 9/32" drill.
- **Step 2** Ream the hole with the 5/16" reamer.
- **Step 3** Consult the mounting hole drawing and calculate the depth required for the .451/458" hole to leave .225" minimum length of the 5/16" (.312) diameter hole.

Using the special 29/64" piloted drill, drill to the depth calculated above, perhaps leaving a little excess to be removed in Step 7.

- **Step 4** Drill with the 17/32" drill, if necessary, so as to <u>leave</u> approximately 1" of the 29/64" diameter hole length.
- **Step 5** Tap with the ¹/₂-20 plug tap (tap with tapered lean) as deep as possible without striking the chamfered seating surface that was produced by the piloted drill.
- **Step 6** Tap to the final depth with the ¹/₂-20 UNF bottoming tap.
- **Step 7** Examine the seating surface of the mounting hole. If it has been marked by the tapping operation, touch it up with the piloted drill.

It is generally good practice to check the mounting hole before installing the transducer. One procedure is to coat a gauge plug with Dykem machine blueing on surfaces below the thread. Insert the gauge plug into the mounting hole and rotate until surface binding is encountered. Remove and inspect. Blueing should only be scraped off of the 45 degree sealing chamfer. If blueing has been removed from other surfaces, the mounting hole has not been machined properly.

NOTE:

This kit contains premium grade cutting tools including cobalt HSS 9/32" and piloted drills. Care, however, should be taken in the use of proper speeds and feeds, lubricants, and a method to assure continual alignment of each progressing tool. Consult the factory if additional or more specific information is required.

RECOMMENDED MOUNTING HOLE



0.312/0.314 DIA AND 1/2-20 UNF-2B THD ARE CONCENTRIC TO WITHIN .004 FULL INDICATOR READING.