

Instructions

Hole opening tools



attestation

Please read this instruction manual carefully before installation



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Introduction

Sensor mounting hole opening kit provides the tools necessary for the sensor mounting dimensions, the kit includes diaphragm drilling drill, diaphragm size reamers, 45 angle composite drill, thread bottom hole drill, control thread length drill, head tap cone, second tapping cone. These tools are made of high quality high strength tool steel, and appropriate processing speed and cooling lubrication should be used. Follow chapter 5 opening steps.

Scope and application areas

Sensor mounting hole opening kit. Generally, we suggest that the hardness of the processed material is below HRC 40. If the processed material exceeds the above range, we should choose other processing methods and better tools.

Dangerous area

When using sensors to install hole opening tools, we should be professional staff to use the processing equipment and tools, to ensure the correct processing steps and the correct use of processing equipment, to avoid improper operation of damage to tools and equipment and casualties.

Transportation and storage

The sensor mounting hole opening kit is usually packaged separately in PVC material plastic boxes.

1/2-20UNF-2A hole opening steps

Step 1, drill a through-hole with a 7.8mm drill bit.

Step 2: Expand the hole with a 7.9-mm reamer.

Step 3, refer to the hole drawing and calculation, with 10.7mm composite drill hole, depth retention 5.6mm-5.7mm(7.9mm)

Step 4: Refer to the hole drawing and calculate, use 11.5mm to drill the hole, and keep the maximum depth of 3.2mm (10.7mm).

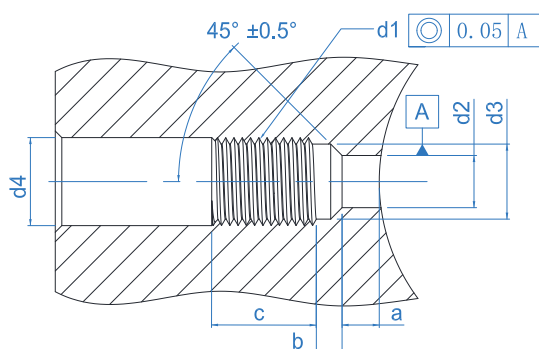
Step 5. If the pipe wall is very thick, refer to the opening drawing and calculate, punch with the 13.5mm drill bit, and keep the depth of 19mm(11.5mm).

Step 6, tap with the head tapping screw cone, (head tapping screw cone front taper is long, easy to cover teeth and guide).

Step 7, tap with the second tapping cone, (because the front of the head tap cone is long, the bottom of the tooth is shallow, and the second tap cone is used to attack the tooth to the bottom).

Step 8, clean the hole, and check whether the opening is correct, can use the wire rod check, in the outer diameter, the end surface and 45 sealing surface position with the color, the screw into the hole, and remove, the rod should be only 45 sealing surface position of the coating is friction off, the outer diameter, the end surface position should be intact. If the coating fluid is rubbed off at the outer diameter position of the diaphragm, the opening is problematic.

Hole opening drawing



d1	M18×1.5	M14×1.5	1/2-20UNF-2A
d2	Ø 9.9 ^{+0.1}	Ø 7.9 ^{+0.1}	Ø 7.9 ^{+0.1}
d3	Ø 16.1 ^{+0.1}	Ø 11.7 ^{+0.1}	Ø 10.7 ^{+0.1}
d4	Ø 20	Ø 15	Ø 14
a	6.1 ^{-0.1}	5.7 ^{-0.1}	5.7 ^{-0.1}
b	4 ^{-0.2}	3.2 ^{-0.2}	3.2 ^{-0.2}
c	25	19	19

Note: The opening procedures of M141.5 and M181.5 shall follow chapter 51 / 2-20 UNF-2A. Please refer to the drawing table for specific tools.

Solution

Ziasiot can provide you with a variety of connection sensor transition joints, including threads, flanges, quick joints, and more. He has rich experience in complex environments such as small diameter pipes, single-layer pipes, jacket pipe, narrow installation position and special media.