

Plaque Type Individual Penetrators - ASTM-E-1742




Individual ASTM-E-1742 Penetrators come in a full range of thicknesses, sizes and materials. Lead figures identify the thickness of the material to be radiographed on one end and the material of the IQI on the other end. Serialization and Calibration are available, as well as Encapsulation in clear, thin plastic and Wood Cases. Wood cases come in two sizes for encapsulated and non-encapsulated IQIs, and are engineered to prevent loss and damage by keeping IQI's firmly in place using a shock absorbing sponge rubber insert in the lid.

Penetrator Sets and Shims, Mounting Blocks & Step Wedges are also available



Technical Specifications

General Dimensions

Size	Length	Width	Image
2.5" and smaller	2"	1/2"	
2.6" to 8"	2.850"	1"	
Over 8"	Diameter equal to 4 x Thickness	Diameter equal to 4 x Thickness (# of holes: 2)	

Hole Sizes

Small Hole Diameter: 1 x Thickness (min: 0.010")

Medium Hole Diameter: 2 x Thickness (min: 0.020")

Large Hole Diameter: 4 x Thickness (min: 0.040")

Sizes

Available in a range from .01" to 20.0"

Available Materials

Aluminum (6061)

Steel (1018)

Stainless Steel (304)

Aluminum 2014, 2024, 2219, 7075

Aluminum-Bronze

Brass

Copper

Cupro-Nickel

Inconel 600

Magnesium AZ 31B & ZK60

Monel 400

Nickel

Phosphor-Bronze

Cobalt (Haynes 25, Haynes 188)

Hastelloy (C or X)

Inconel 625 & 718

Plastics / Nylon

Rene 41

Titanium

Waspaloy

Zirconium



Purchasing Instructions

Individual IQI pricing is based on material and size. You must identify the Group Number for Material and Group Letter for Size Range based on the actual material and size you require.

Step 1: Material

Select Material Group that contains required IQI material

Group Number	Material
1	Aluminum (6061) Steel (1018) Stainless Steel (304)
2	Aluminum 2014, 2024, 2219, 7075 Aluminum-Bronze Brass Copper Cupro-Nickel Inconel 600 Magnesium AZ 31B & ZK60 Monel 400 Nickel Phosphor-Bronze
3	Cobalt (Haynes 25, Haynes 188) Hastelloy (C or X) Inconel 625 & 718 Plastics / Nylon Rene 41 Titanium Waspaloy Zirconium

Step 3: Additional Options

IQI's may be purchased with or without serialization, calibration and encapsulation. Add these additional options to your order if required.

Serialization Only: PN: RT-RC-P-Serialize

Serialization & Calibration: PN:
RT-RC-P-Serialize-Cal

Encapsulation: PN: RT-RC-P-Encapsulate

Step 2: Size

Select Size Group that contains required IQI size

- The size specified should represent the thickness of the material to be radiographed.
- The actual thickness of the IQI will be 2% of the size specified.
- Per ASTM-E-1742, IQI's under .25" will be marked with the requested size but will have the same thickness and hole sizes as a .25" IQI. If true 2% thickness IQI's are required for sizes under .25", see Pratt & Whitney IQI's

If you are unsure what size you require, see Thickness Guide on our website

Sizes for Material Groups 1 & 2

Group Letter	Size Range
A	0.01 - 1.0"
B	1.1 - 2.5"
C	2.6 - 5.0"
D	5.2 - 8.0"
E	8.2 - 20.0"

Sizes for Material Group 3

Group Letter	Size Range
A	0.01" - 2.5"
B	2.7" - 8.0"
C	8.0" - 20.0"

Minimum Order Size is \$75

Note: Serialized radiographic products are not returnable