

QQI

QUANTITATIVE QUALITY INDICATOR TEST PIECE SHIMS

QQI 试片

QQIs are artificial flaw (notched) shims that are attached to example parts, commonly used to demonstrate both field strength and direction within a part. Available in several different configurations, QQIs are thin steel shims with etched patterns in circular and cross shapes to provide indications in all directions. The steel alloy and notch dimensions, as specified in AS 5371, are designed to provide indications when the base part is magnetized to at least 30 gauss. The thin shims can conform to curved part surfaces, and they are typically affixed to a part using permanent adhesives.

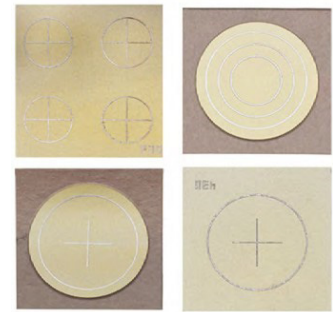
QQI是用于贴附在工件上的人工缺陷(缺口)试片,通常用于演示工件上通过的磁场场强和方向。QQI有几种不同的型号,为薄钢垫片,具有圆形和十字形的蚀刻图案,可在所有方向上提供指示。根据标准AS 5371中规定,钢合金和槽口尺寸设计用于在将工件磁化到其中磁场至少30高斯时提供指示。QQI试片可以贴合弯曲的工件表面,通常使用永久性粘合剂将其固定在工件上。

QQIs are useful for setting up the magnetization parameters for part-specific techniques, and can be used to create an example part for the daily system performance check of the magnetizing equipment.

QQI试片对于设置适用于工件的磁化参数很有用,并且可以用于创建示例工件来进行磁化设备的日常系统性能检查。

They are very important for the setup and balance of multi-directional fields, since they have circular flaws that show indications in all directions simultaneously.

QQI对于多方向磁场的建立和平衡非常重要,因为它们具有圆形缺陷,可同时显示所有方向的指示。



INSTRUCTIONS 说明

Remove the corrosion-resistant film from the QQI before use. Solvents such as SKC-S, acetone, or an adhesive remover (Goof-Off or equivalent) are recommended. Use caution when handling to prevent damage or distortion.

使用前,请从QQI上除去耐腐蚀保护膜。建议使用清洗剂,如SKC-S,丙酮或脱胶剂(或等效产品)。处理时请小心,以防止试片损坏或变形。

QQIs must be placed in intimate contact with the notches facing inward towards the part surface. Permanent adhesive such as cyanoacrylate (super glue or equivalent) is recommended. Attach the QQI conforming to the part surface with no gaps or loose areas. No adhesive should remain on the outer inspection surface after the QQI is attached.

QQI的人工缺陷必须面向零件表面且紧密接触。建议使用永久性粘合剂,例如氰基丙烯酸酯(超级胶水或等效产品)。将QQI贴合在零件表面上,不要有间隙。贴上QQI后,其外部检查表面不应残留任何粘合剂。

Cellophane tape (Scotch Brand 191, 471, or 600 series) may be used to attach QQIs. Care should be taken to only cover the edges of the QQI so that the central notched area is clear. If the tape becomes loose, completely remove the QQI, clean and reattach with new tape.

透明胶带(Scotch品牌的191、471或600系列)也可用于粘贴QQI。应注意仅覆盖QQI的边缘,以使中央的缺陷区域清晰可见。如果胶带松动,请完全取下QQI,清洗并重新粘上新胶带。

MULTI-DIRECTIONAL FIELDS 复合磁场

Multi-directional applications are determined by setting the amperage of each direction individually, then balancing the fields when applied together.

复合磁化是通过分别设置每个方向的安培数来确定的, 然后一起应用时平衡各个磁场。

- For each field direction, slowly increase the amperage until a visible indication is achieved.
对于每个磁场方向, 缓慢增加安培数, 直到获得清晰可见的磁痕。
- Demagnetize the part and clean the QQIs between each field direction.
将工件退磁, 并清洁QQI试片。

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- In multi-directional mode, begin with the amperage settings determined individually. To balance the fields, adjust the amperage of each direction as needed until the entire circle of the QQI is visible.

在复合磁化模式下, 从单独的安培数设置开始。为了平衡磁场, 根据需调整每个方向的安培数, 直到可以看到整个QQI试片上的圆环。

NOTE: QQIs do not hold residual fields. Continuous magnetization methods will produce the best results.

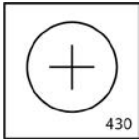
注意: QQI不保留剩磁。连续法磁化将得到最佳结果。

SPECIFICATIONS 符合规范

- AS 5371
- ASME BPVC Section V Article 7
- ASTM E709
- ASTM E1444
- ASTM E3024

PART NUMBER 件号

625551	CX-230, Set of 5 一套五片
625552	CX4-230, Set of 5 一套五片
625553	CX-430, Set of 5 一套五片
625554	3C2-234, Set of 5 一套五片

<p>CX-230</p> 	<p>0.75 inch (19 mm) square shim with circle-cross notch pattern, 0.002 inch (0.05 mm) thickness with a notch depth of 30% of shim thickness. Self adhesive. 边长19 mm带有圆形-十字人工缺陷的方形垫片, 0.05 mm 厚, 缺陷深度为厚度的30%, 自带黏着剂。</p>
<p>CX-430</p> 	<p>0.75 inch (19 mm) square shim with circle-cross notch pattern, 0.004 inch (0.10 mm) thickness with a notch depth of 30% of shim thickness. 边长19 mm带有圆形-十字人工缺陷的方形垫片, 0.10 mm厚, 缺陷深度为厚度的30%。</p>
<p>CX4-230</p> 	<p>0.79 inch (20 mm) square shim with four circle-cross notch patterns, to be cut by user into four separate shims. 0.002 inch (0.05 mm) thickness with a notch depth of 30% of shim thickness. 边长19 mm带有四个圆形-十字人工缺陷的方形垫片, 使用时需剪裁成4片使用。0.05 mm 厚, 缺陷深度为厚度的30%。</p>
<p>3C2-234</p> 	<p>0.75 inch (19 mm) square shim, 0.002 inch (0.05 mm) thickness, with three circle notches, depths at 20% (outer), 30% (center), 40% (inner) of shim thickness. Self adhesive. 边长19 mm的方形垫片, 0.05 mm 厚, 带有三个圆形人工缺陷, 深度分别为厚度的20% (外圈), 30% (中间), 40% (内圈)。自带黏着剂。</p>