



# CGM CIGIEMME S.p.A.



Controlli Non Distruttivi - Non Destructive Testing

## OCTAGONAL PLATE



### DESCRIPTION

The octagonal plate is a flat plate composed of eight low-carbon steel segments, similar to slices of cake. The plate is coated with copper on the back to hide the joints. The octagonal plate must be placed on the part under inspection during the application of magnetic powder and magnetizing current. The resulted magnetic field must highlight the outlines of the brazed sectors of the octagonal plate, arranged perpendicular to the magnetic flux lines.

In compliance with: ASME Sez. V – Art. 25-SA 275 – ASTM E1444.

### USER INSTRUCTIONS

#### STEP-BY-STEP DESCRIPTION

1. **Surface cleaning:** ensure that the surface of the part under inspection is clean and free of dirt, scale or other contaminants.
2. **Component magnetization:** place the part to be tested inside the magnetic field (e.g. using a yoke, coil or prods).



CGM CIGIEMME S.p.A.

Via Adda, 21 - 20073 Opera (MI) Italy - Tel.: +39 02 57.600.400 - Fax: +39 02 57.603.618

Web: [www.cgm-cigiemme.com](http://www.cgm-cigiemme.com) - Mail: [cgm@cgm-cigiemme.it](mailto:cgm@cgm-cigiemme.it)

N. Registro Imprese, C.F. e P.I.: 05732470967 - N. REA: Mi -1843908 - Capitale Sociale: EURO 500.000.00 I.V.

Informativa ex art. 13 D.Lgs 196/2003 e art. 13 del Reg. UE 2016/679 disponibile sul sito [www.cgm-cigiemme.com](http://www.cgm-cigiemme.com), sezione "privacy policy"





# CGM CIGIEMME S.p.A.



Controlli Non Distruttivi - Non Destructive Testing

3. **Plate positioning:** firmly place the octagonal plate on the surface of the component to be magnetized. The plate consists of eight low-carbon steel segments separated by non-magnetic material and it is designed to reveal the direction of the magnetic flux lines.
4. **Magnetic particles application:** while the component is magnetized, apply the magnetic particles (wet or dry) to the plate and the surrounding area. The particles will be attracted to any dispersed magnetic fields.
5. **Observation of indications:** the magnetic particles will group together on the octagonal plate's surface, along the edges of the steel segments.
  - **Appropriate magnetic field:** the particles will not form a strong indication on the plate, as the field flows correctly through the piece.
  - **Insufficient or incorrect magnetic field:** indications will appear in the octagonal plate's sectors where the magnetic flux lines are not perpendicular to the surface, indicating a problem with the magnetization technique or with the field intensity.
6. **Verify with the component:** also inspect the component itself for any indications. The octagonal plate is an additional tool that ensures that the entire magnetic field is adequate for correctly testing the part under inspection.

## AVAILABLE MODELS

PART NUMBER	DESCRIPTION	REF.
04099860	Octagonal plate	86



CGM CIGIEMME S.p.A.

Via Adda, 21 - 20073 Opera (MI) Italy - Tel.: +39 02 57.600.400 - Fax: +39 02 57.603.618

Web: [www.cgm-cigiemme.com](http://www.cgm-cigiemme.com) - Mail: [cgm@cgm-cigiemme.it](mailto:cgm@cgm-cigiemme.it)

N. Registro Imprese, C.F. e P.I.: 05732470967 - N. REA: Mi -1843908 - Capitale Sociale: EURO 500.000.00 I.V.

Informativa ex art. 13 D.Lgs 196/2003 e art. 13 del Reg. UE 2016/679 disponibile sul sito [www.cgm-cigiemme.com](http://www.cgm-cigiemme.com), sezione "privacy policy"

