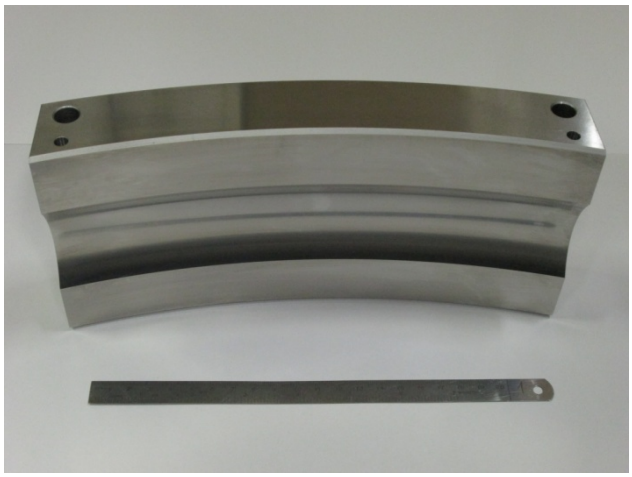
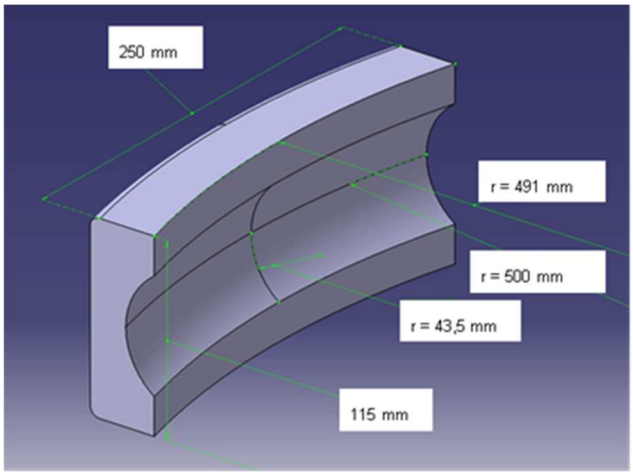
Large ring segment standard (INRIM, Italy)

A new portable ring segment measurement gauge, primarily to quantify the influence of the workpiece surface and form of large diameter workpieces, is outlined. The ring segment embodies two nominally coaxial features: a cylinder and a torus. Both the cylinder and the torus are highly partial features. The torus is partial along its ring and its tube, and the cylinder has an aperture of roughly 30° for a diameter of about 1 m. The gauge is made of AISI 440C stainless steel, treated and stabilized to achieve a hardness value greater than 60 HRC.

Calibration parameters are the form deviation of the inner cylinder, the coaxiality by torus and cylinder and the angles by the axes of torus and cylinder in the radial and tangential planes, according to the model for geometrical specification and verification (EN ISO 17450 1).





Geometrical parameters	
Total length	250 mm
Section height	115 mm
Nominal radius of the inner cylinder	491 mm
Nominal radius of the circular groove	43,5 mm
Nominal top radius of the torus	500 mm
Weight	9 Kg

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