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SUMMARY

"OPTICAL METROLOGY METHOD FOR DETERMINING THE THREE-DIMENSIONAL TOPOGRAPHY OF AN ORIFICE AND APPARATUS FOR
5 DETERMINING THREE-DIMENSIONAL TOPOGRAPHIES ACCORDING TO SAID METHOD"

An optical metrology method for conical orifices according to the invention consists in arranging the
10 object having the orifice under a microscope with the greater diameter opening facing illumination means and centring it in the field of view of observation means and bringing it into focus using wide-field illumination on the smaller diameter opening so as to measure its diameter
15 and major defects. Subsequently, the focus plane is changed and the contour of the orifice is measured by projecting a sequence of patterns measuring the position of the points along the contour of the orifice when the images of the projected pattern and their reflection on
20 the inner walls of the orifice are superimposed on the plane of the camera of the apparatus. The method is repeated and the data describing the contours measured in different planes are processed to obtain a three-dimensional geometrical representation and the
25 characteristic parameters of the inner topography of the orifice.