COMPANY DESCRIPTION

Started in 1993, the first mission of the ICM physicists and engineers was to offer high reliability industrial X-Ray tube to Non Destructive Testing Inspection companies.

Year after year, the ICM industrial X-Ray tubes have imposed themselves as the world leaders in their respective category and the company has known a remarkable growth not only in workforce but also in own capital funds. The recent opening of the ICM 100% first subsidiary, “ICM Technical Services”, in Malaysia (KL) can be seen by our clients worldwide as the continuation of our strong commitment to serve them with best performing products, better, faster and within the shortest time wherever they are.

At present, ICM is worldwide recognized as one of the major actors in the X-Ray generation, whatever the final application.

Recently, the first ever designed small and light CP battery operated X-ray generator has been released to market for Digital Radiography inspections. They have also been widely applauded as a very innovative quality and performing product worldwide.

ICM offers 2 different ranges of portable X-ray generators: the self rectified SITEX and SITEXS generators as well as the battery powered Constant Potential range.

SITEX & SITEXS 225

ICM’s engineers have worked at improving upon what we consider to be largely tried and tested techniques to make the SITEX 225.

The technological options were determined at each development stage on the basis of quality, general reliability and the need to substantially increase the life of the X-ray tube.

A SIMPLE & EFFECTIVE PRINCIPLE

The SITEX 225 units contain a rod anode. This is the focal spot that is outside the SF6-insulated high-voltage generator. As maximum advantages are derived from this ideal configuration, for one and the same thickness, the volume of lead required for standard radiation protection is considerably reduced.

Consequently, the reduced weight that is achieved makes it possible for further investments to be made in the quality and general improvement of the level of performance (robustness, cooling, accessories etc).

MEASUREMENT & CONTROL

Representing another first in a portable, the SITEX and SITEXS have a facility to ensure the direct and true measurement of the high voltage. This essential information enables the control system to guarantee the stability and reproducibility of the radiological parameters based on true high-voltage values rather than merely estimating an HV value based on dose output.

PERFORMANCE

A high-efficiency heat exchanger has been developed in collaboration with the Institute of Thermo-

mechanics at the University of Liege. This results in the possibility of a 100% working cycle under completely safe conditions, whilst simultaneously reducing the anode temperature by 50%.

SMALL FOCAL SPOT

Every NDT operator knows that the focal spot size is a very important parameter for the quality and sharpness of the image, in conventional radiography as well as in digital radiography. This parameter becomes critical when high levels of enlargement are required.
Achieving a small focal spot leads to two technical issues: dealing with the increase of the thermal load on the target, and optimizing the focussing of the electron beam on the cathode to anode path. The first issue was directly related to the optimization of the heat exchanger, as described here above. As for the second issue, 3-dimensional modelling was extensively used to find out the best geometry, considering all the side effects which can affect the result.

CAN BE USED WITH CRAWLERS…

The C2503 ‘XS’ X-ray tube for crawlers is unique to the market as it delivers up to 250 kV within an 8’’ diameter. Furthermore, it enables the inspection of pipelines from 10’’ to 32’’. In addition and to provide you with compactness, a special crawler control unit has been developed for the SITEXS. The CCU187 is designed to be mounted directly on the tubehead within the same diameter.