

*When you need a unit that can perform standard thicknesses inspections as well as occasionally heavy walled ones, the CERAM 235 is the perfect compromise.*

*Offering a maximum of 235 kV and 5 mA, the CERAM 235 combines all technological advantages of its big brother in the CERAM series and gives the flexibility of a unit smaller in size.*

*No compromises have been made to component selection or cooling, the unit is able to run on a 100% duty cycle thanks to its purposely designed tubehead and driving electronics.*

*This unit has to be combined to one of the two available type of control units (CF2000 or Hand X), with very lightweight new generation of cables.*



### **Ceramic tubehead**

The name CERAM comes from that particularity: the tubehead is a ceramic tubehead with copper external anode and a beryllium window. The tubehead is placed on the high voltage transformer with spring loaded connectors to assure permanent but flexible contacts even when heat dilates the assembly. The fixing of the tube is done through the anode which is a plain copper gasket which can better face industrial life than similar glass tubes. The cooling of such tube is also more efficient than with the conventional glass tubes that are enclosed into the can. This leads to a duty cycle of up to 100%.

### **Efficient cooling**

On top of the anode, where the heat is mostly generated, is placed a powerful low voltage fan that is cooling down the generator. The integrated air cooling system is self sufficient to assure continuous use even in harsh environments without the need of water cooling.

### **Pulsed wave high voltage generator**

Pulsed wave technology is the only acceptable compromise between power and contrast which are representing Economy and Quality requirements. Every minute spent in getting an exposure done is largely contributing to the final cost of the inspection. Therefore, a vast majority of users are tempted to get fast exposures at higher voltages or current than those generally necessary for the application. When a too hard high voltage value is used, contrast gradually disappears due to the shape of the spectrum. Pulsed wave generators can drive a higher

current at full power and will still keep an extremely broad spectrum to guarantee that soft X rays will be present even at full kV giving a contrast that is not achievable with any other techniques at same kV.

### **Energy savers**

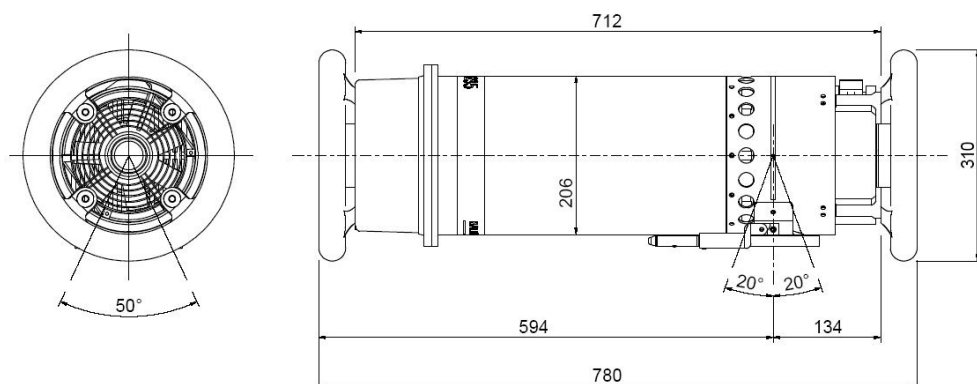
Power waste is concerning every industry and all actions contributing to the decrease of wasted energy can create big savings when added one to one. An efficient system can only be if the regulation of power supply is efficient and if the technology used is the most advanced. The technology we have used in the high voltage transformer cuts the power need by two to produce the same output on a competitor product. On the regulation side, our units can accept wide variations on the input without effect on the output.

### **Field operation**

All our portable units are designed to operate on power generator when required. Safety oriented, our units are Bright yellow to be easily sight located and can even be equipped with additional lights on the can that will indicate the working status (option). A specific micro chip identifies each generator and brings our control unit the ability to instantaneously recognize the equipment connected and adapt the best parameters to drive the new generator.

Our main connectors are original military CANON plugs for years.

Additional accessories from Clignotix, filters, laser pointers, stands or specific cradles for centering in pipelines are available.

**Specifications****Mechanical**

Weight without rings : 27 kg

**Electrical**

High voltage range	kV	70 – 235
Tube current range	mA	0,1 – 5
Duty cycle		100%
Insulation		SF6 gas
Mains	V	180-260

**X-ray tube**

Beam angle	40°
Focal spot size (IEC336)	2 x 2
Inherent filtration	mm 1 Be
Anode cooling type	Air

**Environmental**

Operating temperature	°C	Max. 70
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**Standard equipments**

Internal pressure gauge, heavy duty lock type connector, 20 m connecting cable, quick release SF6 valve, heavy duty rubber coated hand rings, holder for centering device filter and diaphragm.

**Optional accessories**

Lead shutter, warning light, warning light repeater, bag for accessories, transport case, cradle, support stand, hydraulic stand, 100-260 V adapter.

**Producer****Balteau NDT sa**

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