The new Baltograph series is once again the evidence of the long time expertise of BALTEAU NDT in building reliable, powerful and safe X-ray stationary equipments used in various NDT applications and inspections.

When you buy an equipment from Balteau, you are certain of getting the best quality to price value and thanks to our 100 years of continuous business under the same name as an independent X-ray manufacturer, you rest assured that you'll get a continuous support all through the very long lifetime of the equipment you bought.

The difference between the Baltograph series and the Baltospot series is that different combinations of tubes are available with the same generator as a complete working unit is made up of several components interconnected together. This brochure is explaining you the possibilities offered by this interesting feature.

**XSD generator, the Muscles...**

A full X-ray equipment is made up of a generator (XSD), a control unit (LS1), a tubehead (TSD or TSC).

Balteau XSD generators are 19" racks, built around a sealed, oil and gas free, solid stage voltage multiplier. SMD (surface mount devices) electronic is used to reduce servicing time, size and weight and minimize connexions. XSD are either Monopolar or Bipolar; generators are 100, 160, 225, 320, 420 and 450. Powers available are 3 or 4,5kW

**LS1, the Brain...**

The LS1 control unit is a large screen computer based unit that is providing all controls and comfort options to help the user and the production in getting the best of the inspection. LS1 are intelligent units able to display, retrieve, record all exposure related data and can also be used as a part of an entire system for controlling the X-ray device through a more general software. LS1 controls and adapts the power demand to the tube according the settings by the user. It includes many automatic features like the well known automatic preheating system. In terms of safety, the LS1 includes all the characteristics that Balteau has implemented in the Baltospot series (portable) and therefore is perfectly safe and easy to use on field displaying all necessary information on a large TFT colour screen. LS1 also exists in D version (Desk) that can be integrated in systems.

**TSD or TSC, the Eyes...**

With a proper tube connected to the XSD generator, you can select the beam characteristics you are expecting to perform your inspections. If you wish to get high sharpness you'll go for a small focal spot size while for high absorbing applications we can provide you with tubes with powers up to 4 kW. Of course any of our generators can adapt its parameters automatically to the connected tube, no matter it is a Panoramic (TSC) or a Directional tube (TSD). Our tubes are generally equipped with dual filaments that can provide the user either different focal spot sizes for wider ranges of applications either of the same size, as a "spare" alternative in case of breaking.

All our housings are meeting or exceeding the International standards about radiation leakage.

**Cables, the Nerves...**

Cables are making the essentials links between elements. Their numbers have been reduced to the most to limit costs and failure possibilities. Connectors and cables are of industrial type and are selected especially for the current they drive making impossible the mixing of the cable into connectors. HV cables exist in 5, 10, 15, 20 meters or made on demand: HV cable length limits are however applying on different generators, refer to the precise brochure for more details.
XSD generators

XSD name is designing a High frequency Constant potential stationary Digital X-ray generator.

We build two main type of generators according to the output kV level required. A first range of voltage goes from 5 to 160kV while the second one goes from 5 to 225 kV. Both blocks are built in 19 inches (482 mm) racks with only the height and depth differing in sizes.

Generators can be assembled in two ways either Monopolar or Bipolar.

Energy range of our Monopolar generators can be up to 225kV while bipolar ones are allowing ranges up to 450kV by combining two blocks of the latter. Connexion between the blocks is achieved through a single low voltage cable and each block is connected to the tubehead with a High Voltage cable.

Each single block contains individual securities, power supplies and may act independently.

Performance...

Typical steel penetration (mm) at maximum kV and power:
- up to 20 min exposure
- up to 30 min exposure
- Up to 35 min exposure

| XSD       | 0  | 5  | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 | 105 | 110 | 115 | 120 | 125 |
|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| XSD100    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| XSD225    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| XSD326    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| XSD426    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| XSD450    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Recommended Steel thicknesses per XSD - SFD700 - OptD 2 - Film ISO 320 - Simpe film

Values here above mentioned are values obtained as per standard work practice on field

Versatility...

When the unit has to be used on field for production applications, it is built under the XMD format which will give the flexibility of a mobile unit and the power of the stationary unit.

The XMD series exists in standard only as a Monopolar assembly (160 or 225 kV)
LS1 Control units

LS1 is an extremely versatile platform with a true high potential for future evolution. This is the perfect interface between the man and the machine. With built in exposure curves, unlimited memories, self diagnostic, automatic preheating and a lot of different other unique features, the LS1 is the perfect tool for production works.

Bright power led aside of the display are giving clear status about safety and operating modes, while the 10 inches TFT display is showing clear graphic menus and text messages.

The ergonomic Ball navigator® system implemented in the centre of the casing is the key to enter all functions of the system. IP64 built, this simple device helps the user to accurately select parameters and menus.

As LS1 can be the heart of a larger Inspection system, it has also been built under the form of a desk (LS1-D) unit that can be integrated in existing housing with 19 inches (482mm) spacing.

TSD & TSC Tubeheads

The tube is the ultimate and probably the most important element of your generator. The tube will give the generator its final characteristics in terms of output, beam characteristics and distribution. That’s the reason why Balteau is offering a large variety of tubes that can be recognized and connected to our generators. TSC series is giving Panoramic 360° beams while TSD are giving Directional beams.

All our tubes may be equipped with standard bolted flanges or quick lock flanges for easy tube swap or mobile applications.

What about if you need a very specific tube? If we don’t have it, we have the ability to design it for you according your own technical requirements!

Interconnections
Balteau in words…

BALTEAU is a company based and established in Belgium since 1906. The activity of the power transformers successfully turned into the X-ray business in 1932. Years after years BALTEAU has affirmed its leadership leading the technology and setting the foundation of modern X-ray technologies. The first company ever to reach 200, 300 and 400 kV in the past, BALTEAU has today brought to the industry new standards that are consciously safety oriented to allow users to operate equipment safer and easier. BALTEAU is also greatly caring about environment and always uses top grade and specification materials to ensure that the efficiency of the equipment will be at the top of what is technologically achievable.

On the service and spares side, BALTEAU is providing the buyer with an exceptional and unequalled commitment of continuous service all through the life cycle of the product.

Qualified engineers and an extensive worldwide network dedicated to serve our customers is actively participating to the success of our brand and to your possibility of always getting, from the selection of your equipment to its follow up in service, a qualified and professional support.

Balteau in numbers…

BALTEAU has a very long established network in more than 40 countries, some of our agencies are of second generation proving they rely on the quality of our products and that they are totally committed to their business in NDT.

BALTEAU has produced more than 13,000 generators spread in more than 60 countries. We have 3 ranges of products and are the only manufacturer in the world to provide from Crawlers to Systems built into the same factory.

Balteau NDT in names…

Patented names and commercial brandings are:

- BALTOSPOT (Portable and Crawlers X-ray equipment)
- GFC (Panoramic portable equipment)
- CERAM (Pulsed frequency portable equipment)
- HAND X (Radio remote control for portable X-ray)
- BALTOGRAPH (Stationary X-ray equipment)
- XSD (HF CP X mobile and stationary X-ray equipment – High power)
- CLD (HF CP X mobile and stationary X-ray equipment – Low power)
- BALTOSCOPE (Radioscopic and Digital imaging)
- AIS & Systems (Custom made)

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Distributor

All specifications are non contractual and are subject to change without prior notice