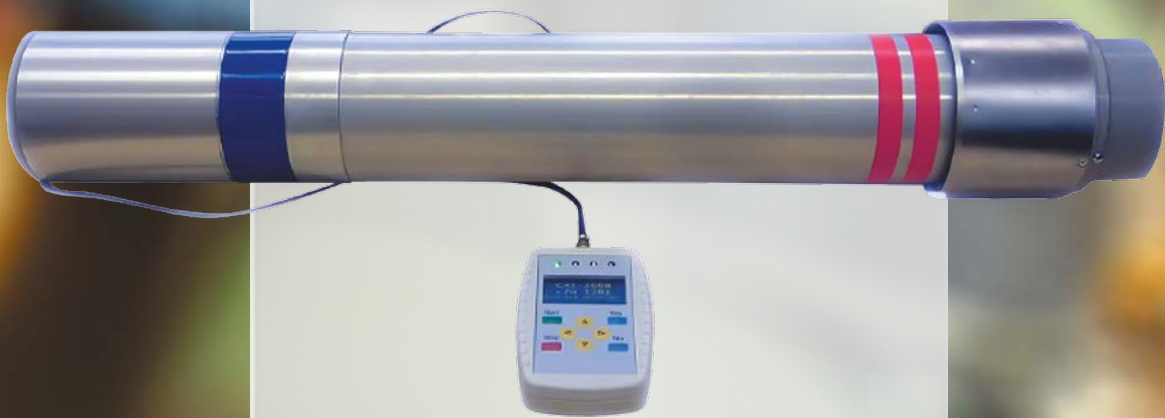


INNOVATIVE TECHNOLOGIES
IN X-RAY NON-DESTRUCTIVE
TESTING



CONSTANT POTENTIAL
PANORAMIC X-RAY UNIT

CROT



Small size – $\varnothing 120 \times 885$ mm

Two power supply sources –
220 V AC and 48 V DC

Two applications – with a
small & regular crawlers and
autonomously

Improved cooling system

Automatic training function

CROT UNIQUE FEATURES

This new microprocessor-based X-ray unit with a microprocessor-based remote control console is designed for X-ray inspection of pipe welds.

The unit CROT can be powered by AC mains and by a 48 V rechargeable battery. This model has an improved very effective cooling system.

The unit has two applications:

A. With a crawler –
operated from a crawler.

B. Autonomously – operated
from a remote control.

Application A:

The unit can be installed on crawlers without modifications.

Start command from the crawler triggers exposure with the anode voltage and activates current setpoints previously stored in the unit's memory from the remote control.

Exposure time is set from the crawler's timer. Fault modes such as Overheat, Low Battery, and Tube Breakdown are activated

automatically. In case of tube breakdown, the unit is restarted and extends exposure time to that set on the crawler's timer.

Application B:

The unit can be operated exclusively from the remote control.

The display shows the exposure settings from both previous and current exposures as well as the last turn-on date. A Start command from the crawler is indicated when radiation is switched off. This allows a safer and more convenient setup of the crawler's control system. An Auto Training procedure is initiated from the remote control with its progress being monitored. Any of the two anode power settings and the eleven anode voltage settings can be selected from the remote control. The settings are then stored in the unit's memory. Application B makes it possible to use the unit without a crawler when working at a pipe welding station or inspecting pipe spool welds in a protection chamber.

After turning off remote control, the unit switches to mode A automatically. The exposure settings stored from the console will then take effect, except the Exposure time value which will be determined by the duration of the <Start> command received from the crawler.



CONSTANT POTENTIAL PANORAMIC X-RAY UNIT CROT



Inside a 159 mm diameter pipe the unit is used without the deflector. Inside a larger pipe you can use the unit with the deflector that provides better cooling during long exposures. The unit features battery protection from overdischarge.

SPECIFICATIONS

Battery voltage, V: 48

X-ray tube anode power, W (2 steps): . . 280, 400

Anode voltage, kV (11 steps): . . .120–180 step 10
and 185–200 step 5

Radiation pattern—panoramic: 40°×360°

Circular symmetry of
the radiation pattern, %: 5 or better

Unit dimensions, Ø, length, mm: 120, 885
(without deflector)

Unit dimensions, Ø, length, mm: 140, 885
(with deflector)

Remote control dimensions, mm: 152×87×30

X-ray unit weight, kg: 15.1

Operating temperature range, °C: -40 to +50



The CROT unit also includes a remote control connected to the monoblock by a 30 m long cable

