

Y.MU2000-D

The best-selling universal X-ray inspection system worldwide now with CT option, too



- Proven technology with over 450 systems in use worldwide
- Highly dynamic radioscopy (HDR) with digital flat-panel detector
- Computed tomography at the touch of a button
- CT also available as upgrade for existing systems*

*We gladly provide you with information about the CT capability of your Y.MU2000. Please contact us:

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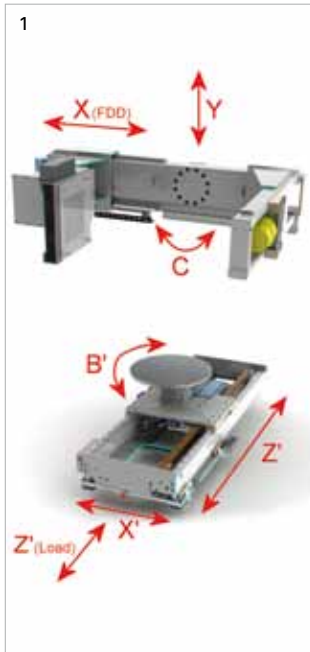
To ensure constant product quality it is essential that information about the inner composition of products and materials is gained rapidly and that the production process is checked on a continuous basis. With over 450 systems in active use on the market, YXLON offers a robust, 'tried-and-true' solution to support you in fulfilling these tasks while remaining close to production itself: the universally deployable Y.MU2000-D radioscopic inspection system. Equipped with modern digital flat-panel detectors and **Y.HDR-Inspect technology** in accordance with the current state of the art, Y.MU2000-D guarantees brilliant image quality at a high contrast when X-raying.

What's more, Y.MU2000-D is now available with a **CT Station**, too. That enables you to equally profit quickly and easily from the advantages of industrial computed tomography. The 3D reconstruction of the inspection item supplies detailed information on the size, position and extent of flaws in materials. Combinable software modules provide support during the analysis and measurement of inner structures – individually adaptable to match specific areas of application.

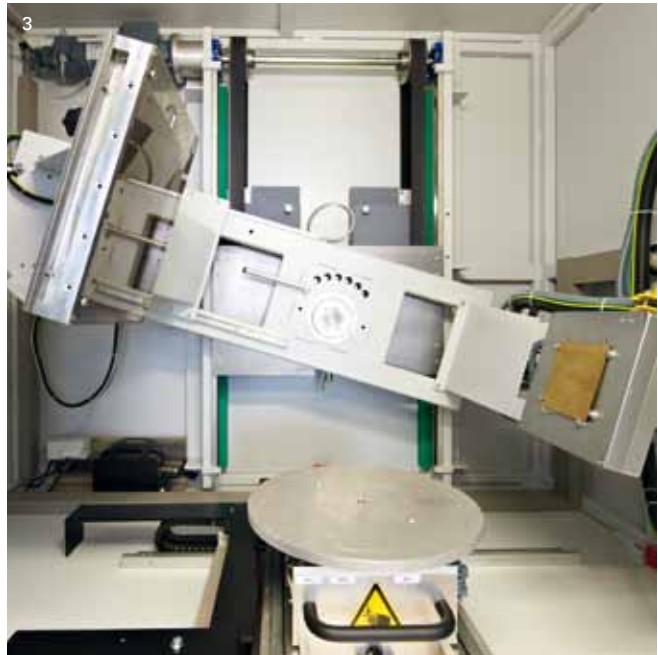
YXLON software for Y.MU2000-D supports the verification of image quality and its long-term stability in compliance with the **ASTM E2737-10** standard and, as a result, fulfills the corresponding specifications for Nadcap auditing. Above and beyond this, the software also offers the option to save images in accordance with the **DICONDE** standard (Digital Imaging and Communication in Non-Destructive Evaluation).

Y.MU2000-D can be utilized for both spot-check sample and series inspection. The system provides high-quality inspection results for materials as different as steel, aluminum, ceramic, plastic or rubber.

YXLON. X-ray technology at its best.



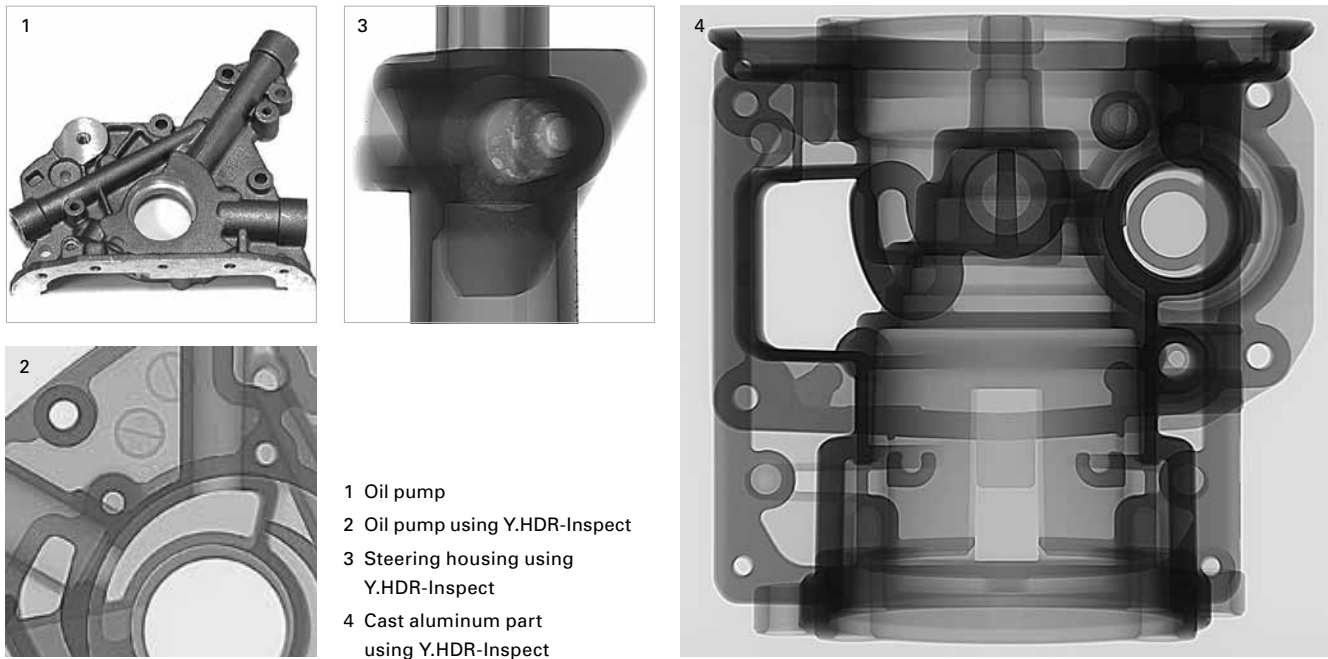
- 1 Manipulation axes
- 2 Loading and unloading outside the cabinet
- 3 Interior view, radiation-shielded cabinet



Technical Data

	Y.MU2000-D Standard				Y.MU2000-D XL			
	160 kV	225 kV	320 kV	450 kV	160 kV	225 kV	320 kV	450 kV
Inspection envelope/insp. item								
Inspection envelope, radioscopy (diameter x height)	600 mm x 900 mm				800 mm x 1,500 mm			
CT measuring cylinder (diameter x height), approx.	170 mm x 150 mm				180 mm x 160 mm			
Inspection item weight	60 kg (optional 200 kg)				60 kg (optional 200 kg)			
Object carrier								
- Rotary plate	400 mm / 600 mm				400 mm / 600 mm			
- Three-jaw chuck	160 mm / 200 mm				160 mm / 200 mm			
Tilt angle beam path*	± 30° (opt. ± 45°)		± 20°		± 30° (opt. ± 45°)		± 20°	
Radiation-shielded cabinet								
Width, approx.	2,200 mm	2,250 mm	2,400 mm	2,900 mm	2,650 mm	2,700 mm	3,000 mm	3,500 mm
Height (incl. mainstays), approx.	2,700 mm	2,750 mm	2,750 mm	2,800 mm	3,300 mm	3,350 mm	3,500 mm	3,550 mm
Depth, approx.	1,800 mm	1,850 mm	1,950 mm	2,500 mm	2,050 mm	2,100 mm	2,200 mm	2,750 mm
Weight, approx.	4 t	6.5 t	10 t	19 t	6 t	10 t	15 t	25 t
Cabinet door								
Width x height, approx.	from 760 mm x 1,150 mm				from 1,100 mm x 1,700 mm			
Open, close (motor-driven)	~ 2 s	~ 3 s	~ 4 s	~ 5 s	~ 2 s	~ 3 s	~ 5 s	~ 6 s
Detector								
Active area	200 mm x 200 mm				200 mm x 200 mm			
Pixel size	200 µm / 400 µm				200 µm / 400 µm			
Frame rate (14-bit detector)	15 fps / 30 fps				15 fps / 30 fps			
Distance X-ray tube – detector	695 mm – 995 mm				945 mm – 1,245 mm			
Control console								
Width x height x depth, approx.	1,200 mm x 1,800 mm x 1,300 mm							
Power supply	1 x 230 V, 50 Hz / 60 Hz							
Power input	max. 5 kW							
Weight, approx.	250 kg							

* Larger tilt angles reduce the maximum travel paths.



Y.MU2000-D – the world’s most popular universal radiosopic system

The robust and low-maintenance mechanics in Y.MU2000-D offer maximum system availability. The large opening for loading and unloading with motor-driven door ensures short periods of time for exchanging items. Individual inspection positions can be observed directly via the integrated leaded-glass window.* The item manipulator can be guided outside the radiation-shielded cabinet manually or as a motor-driven option to enable loading via crane or forklift, too.

A wide variety of possibilities for traveling along the axes guarantees the optimum examination of large and heavy or small, compact inspection items. Since the X-ray source and detector are jointly mounted on one U-arm, vertical travel and a tilting of the beam path is possible without changing the focus-to-detector distance (FDD). The object carrier bearing the inspection item can be rotated and moved horizontally along two axes. The speeds and accelerations of the individual manipulator axes are adapted correspondent to the paths of travel. Both manual travel for a total of five axes (or six when the manually expandable magnification axis is taken into account) and a pre-programmed inspection workflow are possible.

The digital flat-panel detector array (DDA) sets itself apart due to a very high range of dynamics; together with Y.HDR-Inspect, it ensures brilliant YXLON radiosopic images. The DDA is capable of live imaging and exclusively equipped with pixel qualities and functionalities specific to YXLON, the kind specially called for in the aviation industry (optional).

Y.HDR-Inspect

YXLON HDR technology (Highly Dynamic Radioscopy) displaying an unparalleled brilliant image quality is an integral element of all Y.MU2000-D systems.

- Excellent detail detectability at a glance, even at different material thicknesses
- Estimation of casting-flaw depth
- Insensitive to alteration of X-ray parameters, eliminating constant adaptation to material thickness

Y.MU2000-D Hardware Options

- Motor-driven loading axis
- Software-controlled tube collimator
- Second monitor

* except for 450 kV systems

