



X-RAY CABINETS

RADIOGRAPHIC CABIN EQUIPMENT



INTRODUCTION

The radiographic cabin equipment is designed to perform radiography on pieces placed on a table that can be rotated inside a shielded enclosure.

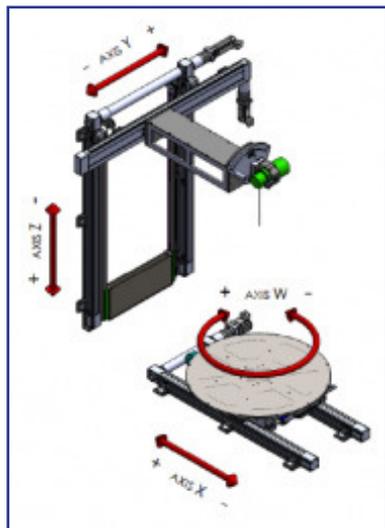
It consists of a shielded cabin that allows safe operation of X-ray equipment up to 320kV. Inside the cabin are motors which allow the displacement of the X-ray tube in the Y direction and the Z direction, the X direction is controlled by the arm that contains the rotating table. The cabin has a motorized security door to allow access to the parts and prevent operation of the X-ray equipment should the door be open.

The movement of the table and the x-ray head is controlled by motors and the position, X, Y, Z, and rotary

position(W), is shown on a monitor in the control cabinet outside the cabin. The control panel for the X-ray equipment is also contained in this cabinet. The x-ray head can also be rotated for angled shots.

CLIENT BENEFITS

- **User friendly software for component manipulation.**
- **Use of customer specified X-ray equipment, including micro-focus.**
- **Flexible design can be easily converted for real time imaging.**
- **Smooth running 4 axes of movement for component positioning.**
- **Storage facility for storing setups.**
- **Safety circuits to international radiation standards incorporated.**



AXES

The system has three degrees of freedom and an additional turntable. The X axis moves the turntable inwards and outwards. The Y axis moves the X-ray tube support arm to the left and right and the Z axis, raises and lowers the X-ray

tube support arm. The W axis rotates the table. The X-ray head can also be rotated for angled shots.

ELECTRICAL CABINET

The equipment has a separate external cabinet containing all the power supplies and the control modules to move the X-ray tube support arm and turntable. There is also a controller for controlling safety devices of the machine and the power supplies for all the motors.

CONTROL CABINET

The control cabinet is used to move the X-ray head and the piece under inspection to the correct position, closing the door and the exposure parameters for the inspection. The monitor in the control cabinet displays position information for the axes, the state of the system and allows download and upload of positional information. There is an emergency stop located on the control panel which stops all movement and exposure immediately.

CONTROL SCREEN

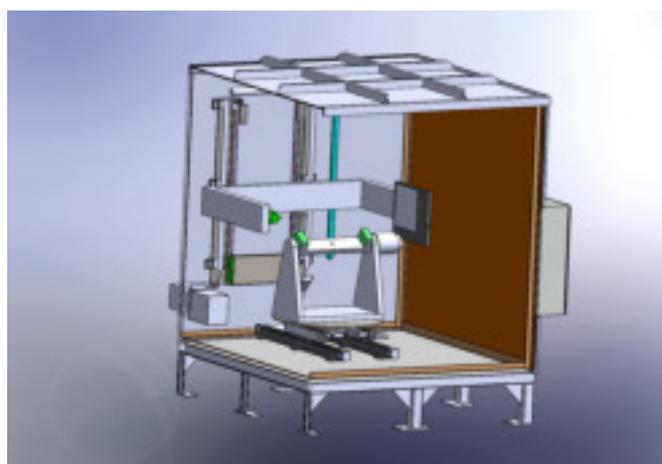
The control screen contains information regarding the position of the axes and, using the mouse, the possibility to move the motors to the required position. The centre

of the display is used to show stored positions which can be selected.

The right side of the screen displays the state of the system and is used to edit the position data in the centre. The film to focal spot distance is also shown, providing the film is placed on the rotating table.



REAL TIME IMAGING



Real time imaging is an available option, with a specifically designed manipulator in which to place the parts under inspection.

SAFETY CIRCUITS

Complies with All Known International Radiation Safety Standards

Examples of Safety circuits that are incorporated in the system:

- To prevent door opening whilst X-ray is on
- To prevent movement of the door when it is obstructed
- Opening and Closing of the door requires both hands of the operator to operate the buttons.

For full Specification and details please visit www.tecnitestNDT.com

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