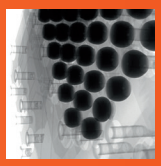
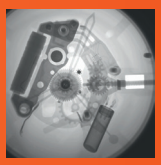





X-NEWS

X-RAY WorX
Superior Microfocus Technology

New products: 300 kV microfocus X-ray tubes

X-RAY WorX introduces its newly developed 300 kV microfocus tubes of product lines SE, CT, and THE Plus.

XWT-300-SE and XWT-300-CT

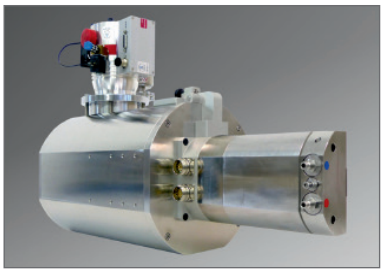
X-ray tubes with reflection target

The 300 kV reflection tubes of product lines SE and CT were developed especially for the operation in systems for computed tomography and metrology in the domains of aerospace, automotive industry, and material sciences.

With the maximum voltage of 300 kV they support the high resolution analysis and testing of high density materials and complex components, such as fuel cells, turbine blades, and large castings.

XWT-300-SE

The new XWT-300-SE is a monopolar microfocus tube with a 300 kV high voltage generator.



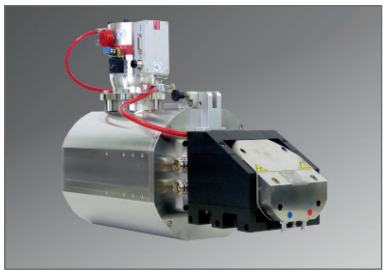
Microfocus X-ray tube XWT-300-SE

XWT-300-CT

The tube XWT-300-CT is supplied with additional cooling elements for the tube head and the turbo pump.

The control software of the 300 kV tubes was optimized for operation above 240 kV. The warming up of the tube and the monitoring of the tube conditions were automated to a large extent. This allows the user to fully concentrate on the application.

For assembly and commissioning

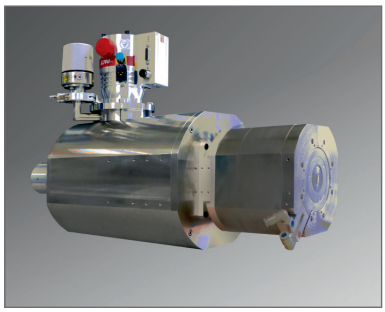


Microfocus X-ray tube XWT-300-CT

of the new 300 kV tubes, X-RAY WorX recently set up a new production cabinet.

XWT-300-THE Plus

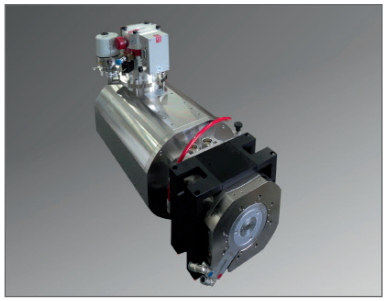
X-ray tubes with transmission target



Microfocus X-ray tube XWT-300-THE Plus

The high resolution microfocus tube XWT-300-THE Plus was developed to meet recent requirements of industrial computed tomography and inline applications in various industries, like aerospace and automotive.

The new X-ray tube features the well-known internal cooling of the transmission target and a special diamond based transmission target that delivers high intensity also at acceleration voltages above 225 kV.



Microfocus X-ray tube XWT-300-THE Plus with optional cooling of the tube head

The tube XWT-300 THE Plus allows for JIMA resolution of three microns over the entire voltage range from 50 kV up to 300 kV.

Taking advantage of the same software functions that were already introduced with the 300 kV reflection tubes, the new XWT-300-THE Plus currently represents the most powerful X-ray source for the inspection and measurement of high density materials at micron detail detectability and high magnification.

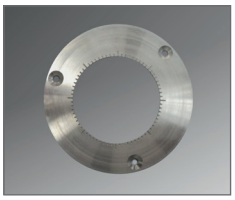
Delivery of a new radiation cabinet for 300 kV X-ray tubes. Now, production and development teams of X-RAY WorX have two cabinets available for testing and commissioning of 300 kV X-Ray tubes.

X-NEWS

X-RAY WorX
Superior Microfocus Technology

Accurate rotation of transmission targets

Rotating the transmission target is a standard maintenance procedure. To allow for a more accurate control of the target position, X-RAY WorX designed a new target holder for transmission tubes.

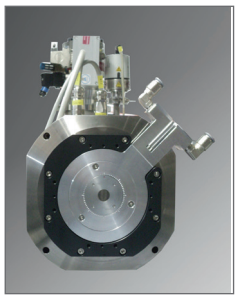


Scale to determine the target position

The holder ring is fixed with three screws and features a scale to observe the current rotation angle of the transmission target.

A set of different target rings is available as an option to fully exploit the target surface.

The product family THE Plus was the first to be shipped with the new target holder exclusively.



X-ray tube featuring the new target holder

So far, the holder is an option for all transmission tubes. It is planned to change all product families to the new holder in the near future.

We will announce the avaliability in good time to allow our customers to adapt their system design accordingly.

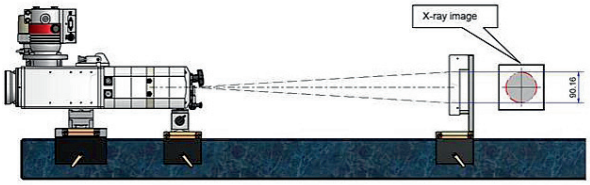
Assessment of focal spot movement for high resolution CT

The X-ray tubes of product line TCNF were designed to allow long term CT scans at highest resolution down to 0.5 microns with a minimum change of the spatial focal spot position. To manage the thermal effects of long term operation, an internal liquid cooling of the electron optics was implemented.

To measure the focal spot movement during a long term scan, a granite based setup was created.

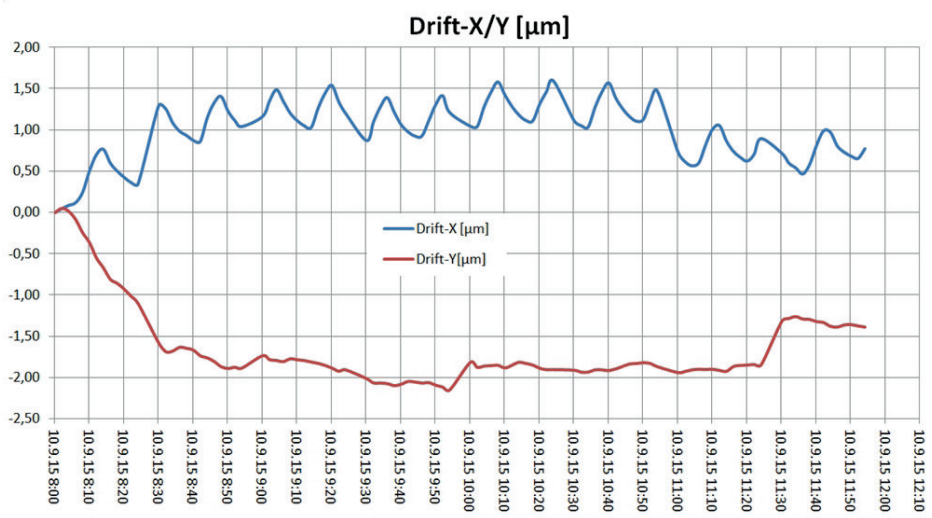
The focal spot position is measured by the image of a Tungsten ball of 0.6 mm diameter, mounted on a ceramic holder in front of the tube window.

At constant magnification images of the Tungsten ball are taken. The centroid of the image can be easily calculated with high accuracy and gives a measure for the relative focal spot position.



Measurement setup

A number of tests over four hours were performed and analyzed. The plot below shows a representative measurement of the focal spot movement. For more details please contact X-RAY WorX.



Focal spot movement of XWT-160-TCNF. Parameters: 100 kV, 1 Watt target power, submicron mode, centering and filament-adjust every 30 minutes

Technical product data sheets

Technical product data sheets provide a good overview of the technical features and characteristics of X-ray tubes from X-RAY WorX. Latest data sheets are available for:

- **Product lines CT, SE, and THE Plus**
- **Product overview**

The technical data sheets are available on request from our sales department.

X-RAY WorX team grows to 15 employees

X-RAY WorX employed two new engineers. The colleague who started in January 2015 has versatile experiences in various industries. She supports research and development as well as production. The second new colleague will start working with X-RAY WorX in November 2015. He will help boost production and development teams.

Holger Behnsen, the managing director, comments: „Due to the diverse experiences of our new colleagues, who can be deployed in versatile areas, we are even more flexible when we have to respond to new demands from the market.“

Microfocus Training Week 2016

We are looking forward to welcome you at “Microfocus Training Week” in Garbsen! If you are interested in the detailed agenda or you like to apply, please contact our service department: service@x-ray-worx.com.

Next Training: 07. - 11. March 2016

Experience Hanover!

The **Sprengel Museum Hannover** *ranks among the most considerable museums for 20th and 21st century art in Germany.*

Recently a new annex has been opened, which expands the museum by 1.400 sqm. From May 2016 on, the new building will host 1.600 exhibits of classical modernity.

If you like to visit the **Sprengel Museum** *you will find all important information on:*

www.sprengel-museum.com.

X-RAY WorX GmbH - Siemensstraße 26 - D-30827 Garbsen, Germany
Management: Holger Behnsen, Thorsten Fröba
Tel: +49 (0)5131/48712-60 - Fax: +49 (0)5131/ 48712 - 66
E-Mail: info@x-ray-worx.com - www.x-ray-worx.com
Ust.-Id.: DE269134926 - Amtsgericht Hannover -
Registernummer: HRB205332