

New nano resolution X-ray tubes

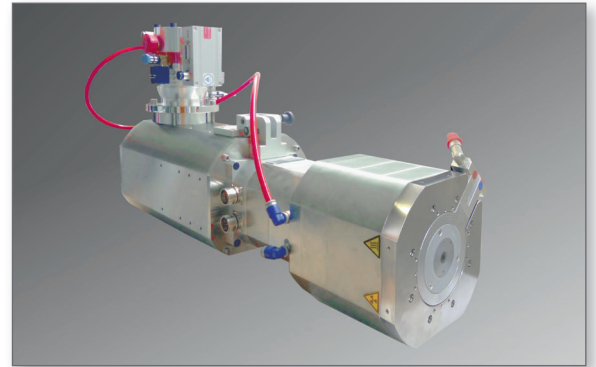
Target cooling now available for highest resolution tubes with 225 kV and 240 kV

The product line *TCNF Plus* addresses scientific and industrial applications with demand for highest resolution down to 0.5 microns. X-RAY WorX extended its *TCNF Plus* product line with two models of 225 kV and 240 kV maximum voltage – *XWT-225-TCNF Plus* and *XWT-240-TCNF Plus*.

The most remarkable features of the product line *TCNF Plus* are the target cooling and the internal cooling of the tube head. This combination offers up to 50 W target power and provides the highest degree of focal spot stability. High resolution CT applications in industrial metrology and material science profit from the increased accuracy of measurement results.

TCNF Plus tubes allow high resolution as well as high power applications to reduce scanning times.

They can be operated in various scenarios with high flexibility.



Microfocus X-ray tube XWT-225-TCNF Plus

Evaluation of different target materials for inspection of carbon fibre material

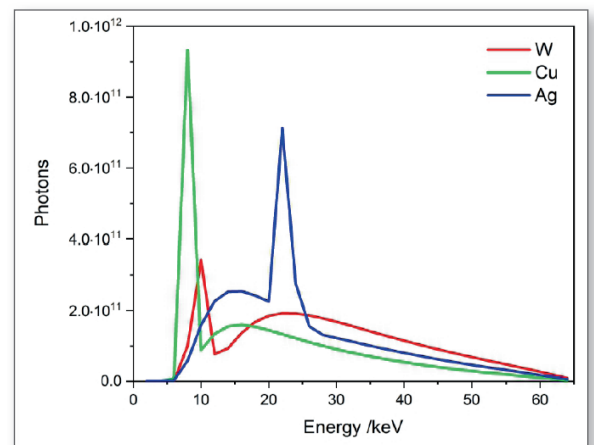
Presentation of joint research at DIR 2019 conference

The Fraunhofer Institute for Wood Research (WKL) and Volkswagen AG performed a comparative study of different target materials using an X-RAY WorX transmission tube *XWT-240-TCHE Plus*.

Transmission targets from tungsten, copper, and silver were compared by their simulated X-ray spectra. The imaging properties were evaluated by scanning a CF-SMC sample and comparing common quantities like grey value distribution and signal-to-noise ratio.

Furthermore, the results of a fibre orientation analysis based on fibre tensors were compared.

The joint research results were presented on the *International Symposium on Digital Industrial Radiology and Computed Tomography 2019*. The full paper is available for download.



Simulated spectra of tungsten target, copper target and silver target

Read more:

<https://www.dir2019.com/portals/dir2019/bb/Th.1.A.4.pdf>

X-RAY WorX announces high power reflection target tube with 500 Watt emission power

The ongoing demand for fast industrial CT inspection requires highly stable high power microfocus tubes. X-RAY WorX started the development of a reflection target tube with internal cooling and increased target power more than two years ago.

After successfully testing and improving the new design, the new product line *CT Plus* will be available in the third quarter of 2020.

The highlights of the new *CT Plus* tubes will be the continuous operation at full power and a highly stable focal spot position due to the internal cooling of the tube head. The maximum emission power was increased by more than 40% compared to the existing CT product line.

Technical improvements and changes

In the past six months X-RAY WorX implemented important technical changes and enhancements of their products.

To give our customers and partners a detailed explanation and handling recommendations, we published five new CE Notifications on different topics like the new version of our warning light control PCB and service tools for installation high voltage plugs.

If you did not receive the notification by e-mail, please contact our [service](#) or [sales department](#).



Service tool adjusting aid for HV-plugs R24 and R28/R30

EMPIR Project

Standardization project for measurement of nano spot sizes

X-ray-based computed tomography (CT) systems are increasingly used in industries such as aerospace, and medical devices, for non-destructive testing and for the evaluation of defects and inner structures.

These industries require inspection resolutions at the nanometre scale. The overall aim of the project NanoXSpot is to develop traceable measurement methods for determining the focal spot size, shape, and position of nanometre resolution X-ray tubes.



The NanoXSpot consortium consists of international metrology institutes and manufacturers of high-resolution X-ray tubes and is supported by a group of partners and stakeholders of industrial CT system suppliers.

X-RAY WorX is involved in the NanoXSpot project as one of the working package leaders.

More details can be found on the project website:

<https://www.ptb.de/empir2019/nanoxspot/home/>

X-RAY WorX increases floor space for production and warehouse

The recent years showed a continuous growth in order volume and revenue. The owners of X-RAY WorX, Holger Behnsen and Thorsten Fröba, are confident that X-RAY WorX has a strong market position and will see an ongoing long-term growth.

“Many of our customers work on important projects in the areas of automation and improvement of quality for highly security relevant products. We see a growing demand for our new high power microfocus products that support inline CT and digital radiography in NDT”, explains Holger Behnsen.

To extend production capacities X-RAY WorX decided to acquire an additional building adjacent to the existing premises in Garbsen.



X-RAY WorX headquarters and new warehouse.

■ New coworkers at X-RAY WorX

The team of X-RAY WorX is happy to welcome two new colleagues in purchase and production departments.

Mr. Abdullah Köse supports our colleagues on the shop floor in assembly and commissioning of X-ray tubes.

Mr. Rani Harb has just completed his two-year education and will concentrate on supplier management and purchasing.

■ Microfocus Training Week update

Due to the current pandemic we needed to cancel our service trainings that were planned for March. The next trainings are scheduled for September 2020. Travel restrictions might still be in place in September.

To be prepared, X-RAY WorX is working out on an online training program to support our partners who may not join our training sessions personally.

If you have any questions, please contact our service department: service@x-ray-worx.com.

Scheduled trainings for September 2020:

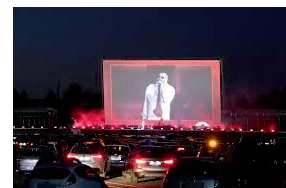
- 07. - 11. September 2020
- 14. - 18. September 2020

■ Marketing support

X-RAY WorX offers comprehensive marketing support. The spare part catalogue and the technical product data sheets have been updated recently. Please, contact our [sales and marketing department](#) for the latest version or any marketing support.

■ Being flexibel in strange times...

Festivals, open-air concerts and other major events are canceled this summer due to the corona pandemic.



Making the most out of the situation, music and cinema fans now get their money's worth at car concerts and in car cinemas in Hanover.