



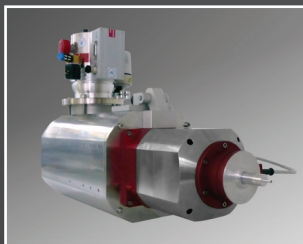
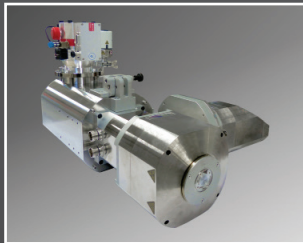
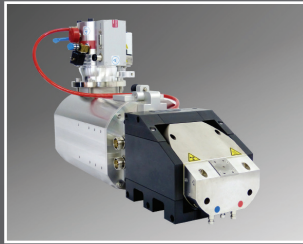
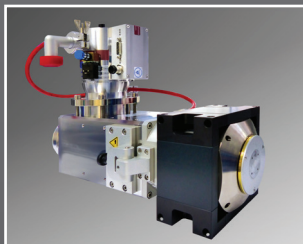
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# Microfocus Training Week

05. - 09. May 2025



Within five days our experienced service technicians transfer comprehensive technical knowledge and practical skills about microfocus X-ray technology to the participants of "Microfocus Training Week". After a detailed introduction to the theory of X-ray technology and microfocus X-ray tubes, we will demonstrate the accurate repair and maintenance of microfocus X-ray systems in practical lessons.

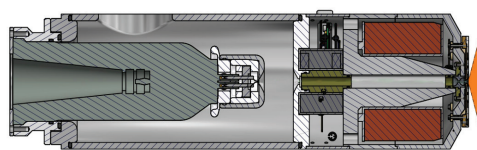
Afterwards the participants will practice the analysis of erratic behavior and perform structured diagnostics in several real-life situations. Finally they are well prepared for the majority of typical service and maintenance cases.

The training week is suitable for beginners as well as for specialists, who are interested in increasing and updating their knowledge of handling high resolution X-ray technology. Every participant receives a personal certificate, documenting the knowledge and practical experience gained.

To guarantee optimal hands-on experience for every attendee, seats are limited to six persons per training. Therefore we recommend booking the places for the training as soon as possible.

We are looking forward to an interesting week with both technical and personal character,

Your X-RAY WorX service team



Cross section transmission tube

Microfocus  
Training  
Week





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# Agenda Microfocus Training Week

## Day 1

- ▶ Welcome (start at 9:00 a.m)
- ▶ Introduction to X-ray and radiation protection
- ▶ Concepts of X-ray microscopy
  - Magnification
  - Unsharpness
- ▶ Theoretical background of microfocus tubes
  - Electro magnetic lens
  - Focusing of electron beams
- ▶ Types of microfocus X-ray tubes
  - Reflection tube
  - Transmission tube
- ▶ Components of microfocus X-ray tubes
  - High voltage components
  - Controller
  - Power supplies
  - Vacuum components
- ▶ Centering of the electron beam
- ▶ Function of isolated apertures
- ▶ Function of isolated targets

## Day 2

- ▶ Operation of a microfocus X-ray tube
- ▶ Selection of X-ray parameters
- ▶ Introduction to X-COM operating software
- ▶ Interpretation and optimization of X-ray images
- ▶ Resolution testing
  - JIMA test chart
  - ISO EN 12543-5

## Day 3

- ▶ Introduction to documentation
- ▶ Safety issues
- ▶ Installation and commissioning of an X-ray tube
- ▶ Explanation of wiring diagrams
- ▶ Service procedures and tools
  - Clean environment
  - Spare parts case
- ▶ Diagnostic tools
  - Generator control box
  - Generator test adapter and measurement box
  - Generator breakout box
  - Dummy high voltage plug

## Day 4

- ▶ Measurement and adjustment of grid voltage
- ▶ Testing filament current
- ▶ Testing high voltage
- ▶ Testing vacuum
- ▶ Advanced diagnostics and repair

## Day 5

- ▶ Summary
- ▶ Questions & answers session
- ▶ Presentation of certificates
- ▶ Lunch (end at 1:30 p.m.)



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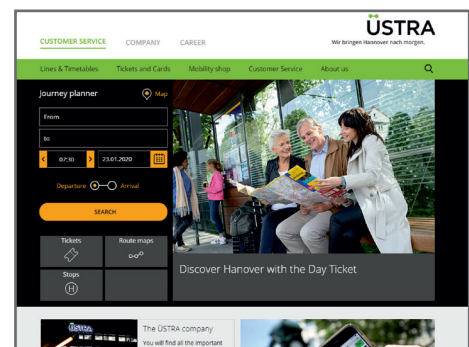
# Microfocus Training Week

## Public transport

If you arrive by plane, we recommend to take a taxi from the airport to your hotel in Hanover/ Garbsen or Hanover/ Stelingen. If you have booked a hotel in the city center you may use the public transport.



GVVH (regional and suburban trains)



ÜSTRA (city trams)

## Route maps

- ▶ *Route maps GVVH*
- ▶ *Regional and suburban trains*
- ▶ *City trams*
- ▶ *Bus Hanover*

## Taxi Service

If you arrive by plane, you may also use a taxi to get to your hotel. In front of the airport you will find the taxi service. In any other case you need a taxi you may call:

- |                                  |                  |
|----------------------------------|------------------|
| ▶ Hello Taxi                     | +49 511 3811     |
| ▶ Akdag Orhan Taxenunternehmen   | +49 5137 1808    |
| ▶ Taxiunternehmen T.C. Hannover  | +49 511 10583134 |
| ▶ Taxengemeinschaft Lars Bittner | +49 5137 2222    |



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# Microfocus Training Week

## Hotel

We recommend the hotel Stelinger Hof (Garbsen, Engelbosteler Strasse 51). It is close to our factory and offers free shuttle service in the morning. For more information please have a look at <https://www.stelingerhof.de/en.html>.

Please give us advice on which documents you need for visa application. Furthermore let us know if you need assistance for booking accommodation or travelling.

Further options are:

- ▶ [www.landhausamsee.de/#landhausamsee/hotel](http://www.landhausamsee.de/#landhausamsee/hotel)
- ▶ [www.hotel-bullerdieck.de/](http://www.hotel-bullerdieck.de/)

## Free time and recreation

We believe, that after a day full of work we need some time to recreate. Please ask us for the guide "The red line", if you are interested in visiting some places.

## Places to visit - restaurants and beer gardens

### General recommendations

- ▶ Restaurant Kalimera (Garbsen, Steinriede 2)
- ▶ Restaurant Tandure in the old quarter of Linden (Hanover, Deisterstrasse 17a)
- ▶ Restaurant Pier 51 at Lake Maschsee (Hanover, Rudolf-von-Bennigsen-Ufer 51)

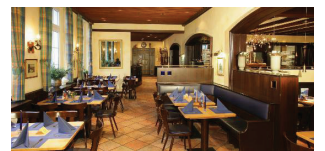
### Beergardens (summer locations)

- ▶ Beergarden Landhaus am See (Garbsen, Seeweg 27)
- ▶ Waterloo beergarden (Hanover, Waterloostraße 1)
- ▶ Schöne Aussicht (Hanover city center, Parkdeck Röselerstraße 7)



### German home style cooking

- ▶ Paulaner am Thielenplatz (Hanover city center, Prinzenstraße 1)
- ▶ Reimanns Eck (Hanover city, Lister Meile 26)
- ▶ Spätzle-Haus (Hanover Herrenhausen, Hegebläsch 33)







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## Places to visit - museums

- ▶ Sprengel Museum Hannover
- ▶ Landesmuseum Hannover
- ▶ Historisches Museum Hannover
- ▶ Karikaturmuseum Wilhelm Busch
- ▶ Museum August Kestner
- ▶ Kestner Gesellschaft Hannover
- ▶ Kunstverein Hannover



## Places to visit - city and nature

- ▶ Maschpark and town hall
- ▶ The Old Town (Hannover, Kramerstraße, Ballhofplatz)
- ▶ Herrenhausen Gardens and Berggarten (Hannover, Herrenhäuser Strasse 6)
- ▶ Maschsee
- ▶ **Hop-on Hop-off City Tour** (Tickets are available at the tourist information office left hand side in front of the main station or from the bus driver)

