

# Technical Data Sheet



FMB Berlin

## UHV-compatible cleaning

Since it was founded in 1990, FMB Feinwerk- und Meßtechnik GmbH has developed into a successful system provider for equipment used in Ultra High Vacuum (UHV) and/or highly clean environments.

A critical production step for many sector specific products is the UHV-compatible cleaning.

Internal parts are cleaned on-site at FMB to the required cleaning quality.

In addition FMB offers contract cleaning of external parts on request.



Surface contaminants have a significant influence on final pressure, residual gas composition and other product properties.

According to customers requirements FMB offers different UHV-compatible cleaning qualities including:

1. Removal of contaminants that influencing the pressure
2. Additional removal of contaminants sticking on the chamber inner walls
3. In addition to 2. reduction of particles-for cleanroom applications.

FMB is able to clean almost all vacuum compatible materials using approved material specific cleaning procedures.

The entire cleaning and transportation to the next preparation step is done in-house and on schedule to reduce the risk of recontamination during packing, transport and unpacking.

The delivered components meet the stringent requirements, in terms of cleanliness and purity, via assembly in co-located cleanrooms.



# UHV-compatible cleaning

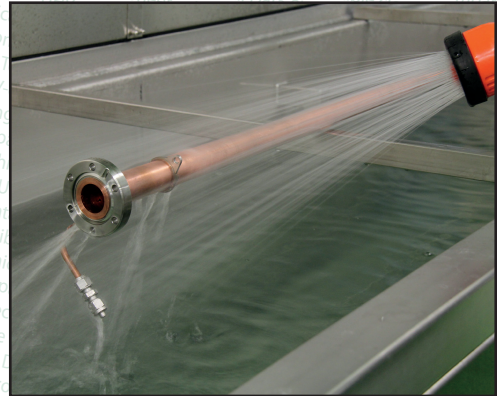
FMB can clean all UHV-compatible materials by using approved material specific cleaning procedures. Material commonly cleaned include different grades of stainless steel, aluminium, copper, titanium and ceramics.

FMB cleaning has been certified for use in various institutions including CERN, MAX IV, NSLS II, XFEL and others.

Parts and vessels with lengths up to 5 m can be cleaned with FMB standard procedures. Cleaning solutions for longer parts are available but need specific in-house preparation.

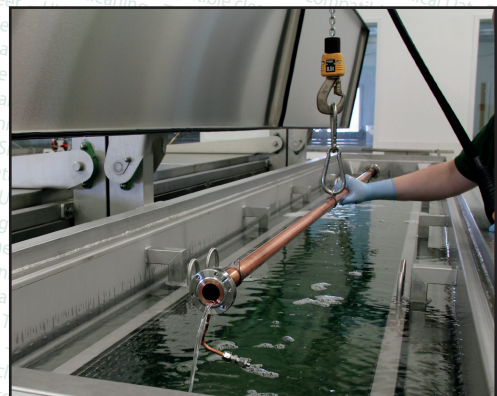
## Pre-cleaning infrastructure:

- Hot / cold softened water
- Degreasing station
- Rinsing station with high pressure cleaner
- Ultrasonic bath and circulating air dryer



## Standard UHV-cleaning equipment:

- Demineralized / ultra pure water
- Automatic washer for small parts
- Several ultrasonic baths with material specific cleaning agents
- Combined rising and dip tank
- Circulating air dryer



## Surface and particle reduced cleaning equipment:

- Cleaning under cleanroom conditions ISO 5
- Equipment for registered particle counting
- Demineralized / ultra pure water
- Rinsing basin
- Dip tank with water conductance measurement
- Circulating air dryer with HEPA filter



## FMB Berlin

FMB Berlin operates a Quality Management System which complies with the requirements of **DIN ISO 9001**. FMB Berlin reserves the right to change product specifications without notice, in line with our policy of constant product improvements.

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FMB Feinwerk- und Meßtechnik GmbH

Friedrich-Wöhler-Straße 2 Street  
12489 Berlin • Germany City

+49 (0)30 - 677 730 - 0 Phone

+49 (0)30 - 677 730 - 40 Fax

info@fmb-berlin.de E-mail

www.fmb-berlin.de Web