

Clean Room Services

Highest quality and precision
under super-clean conditions





Clean room services – also under subcontract

State of the art clean room facilities and systems

Complex and highly sensitive components, modules or structures as from the electron microscopy, the aerospace industry, the semiconductor technology and lithography require extremely clean parts and a particle-free assembly under clean room conditions. To meet customers' high demands and quality specifications of cleanliness, PINK erected an over 1,600 m² shop with ultra-modern clean rooms in the beginning of 2014.

In two separate clean room areas certified to DIN EN ISO 14644-1, clean rooms (classes ISO 6 to ISO 7) and preparation areas (ISO 8) are available.

All clean rooms are fully air-conditioned, equipped with material and personnel airlocks and subject to stringent cleanliness requirements and access permissions. With the aid of ultra-modern instruments, the absence of particles in the air and on the surfaces is permanently monitored and controlled to ensure super-clean conditions.



PINK offers its customers a complete package of clean room services from cleaning through the assembly to packaging.



This vacuum cleaning and drying unit developed by PINK is designed for fully automatic operation.

Meticulous cleaning

Starting in the wet cleaning area various cleaning lines have been installed at PINK (including ultrasonic baths, hot steamer, 2-bath front-loading washing machine with drying and a fully automated vacuum cleaning and drying system with an air lock function).

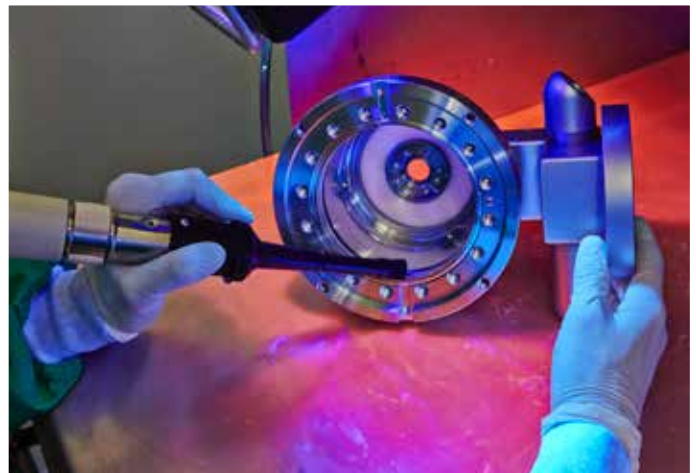
Throughout the washing area osmosis water from the own processing plant is used for flushing and cleaning exclusively. After wet and final cleaning with various cleaning agents and special processing techniques (e.g. vacuum drying, bake-out) the components are subject to painstaking inspections to meet the required particle limits.



Clean room assembly services

On customer request PINK offers a wide variety of cleanroom assembly services. The business activities include the assembly of components, sub-assemblies and complete systems with a strong emphasis on vacuum technology.

Why not put us to the test?



Particle absence is controlled, inter alia, with UV-white and black-light systems.

Packaging in clean rooms

So that component cleanliness is upheld during transport, the cleaned products are carefully packaged in antistatic LDPE bags or films and labelled. At PINK, all cleanroom process steps are exclusively performed by qualified personnel.

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**State of the art clean room with
RGA test chamber**

Components for UHV and XHV- systems, such as those employed in the semiconductor industry, in particle accelerators and space simulations, require special quality controls. For these applications, PiNK has developed a new ultra-high-vacuum system. With the highly sensitive quadrupole mass spectrometer or residual gas analyzer (RGA) installed in the system, individual masses from 0-512 amu can be automatically measured and recorded. In addition desorption rates can also be measured and evaluated.



A special feature of this clean room is the integrated jacket-heated ultra-high vacuum residual gas analysis chamber with dimensions of Ø 1.8 m x 2.7 m and a volume of 7.7 m³.

By heating the chamber to 110 °C a base pressure of $\leq 5 \times 10^{-9}$ mbar is achieved. In addition to cleaning qualification, the highly sensitive mass spectrometer allows the qualification of various components as for lithography. When next extended, plasma cleaning devices will be integrated into the analysis chamber. With this cleanroom concept PiNK sets new standards in cleaning and qualification.