Cascade

PLC50

Cost-effective, Ice- and Condensation-free Manual Wafer Probing Below 7 K

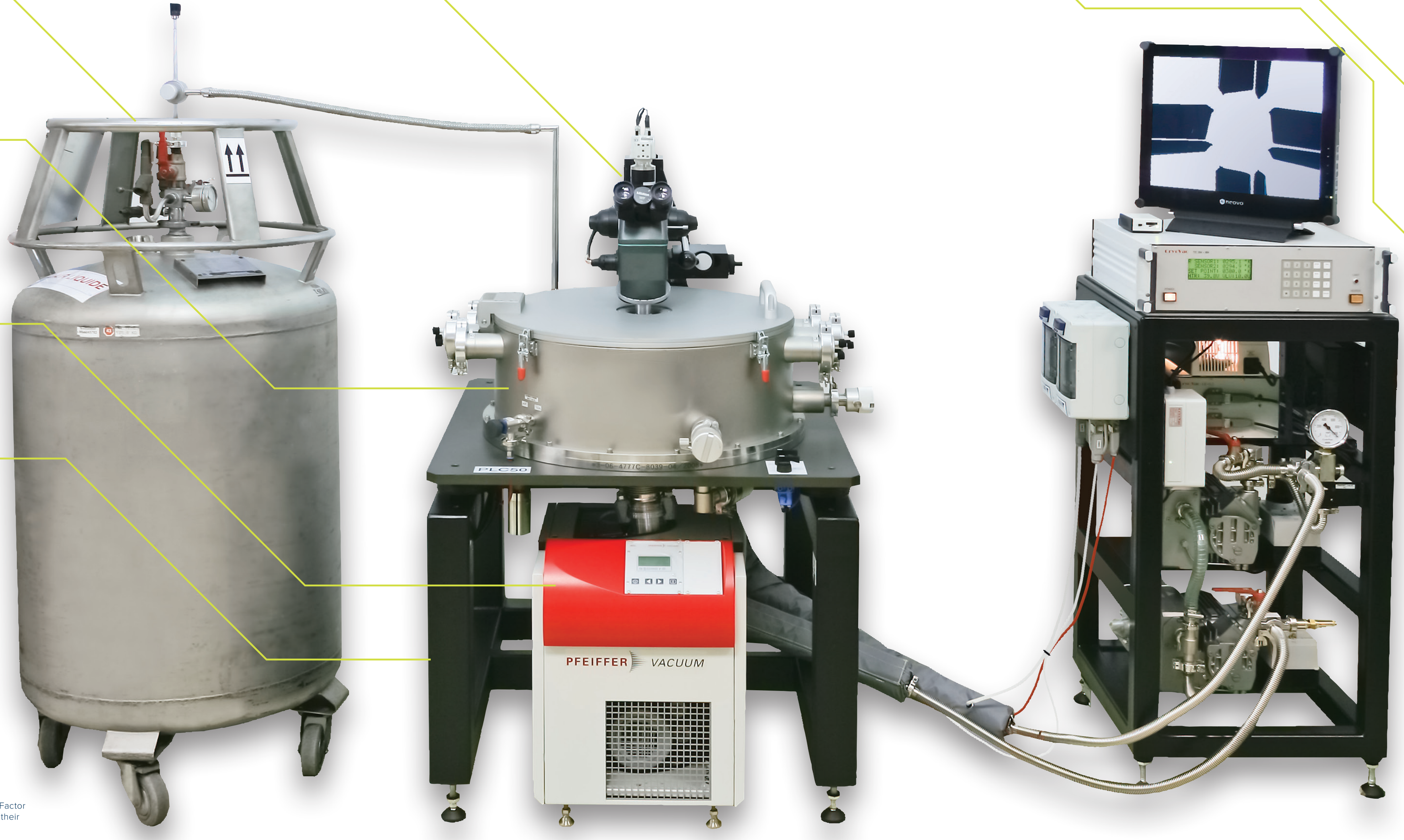
Microscope
- Zoom microscope with camera and illumination
- Video monitor

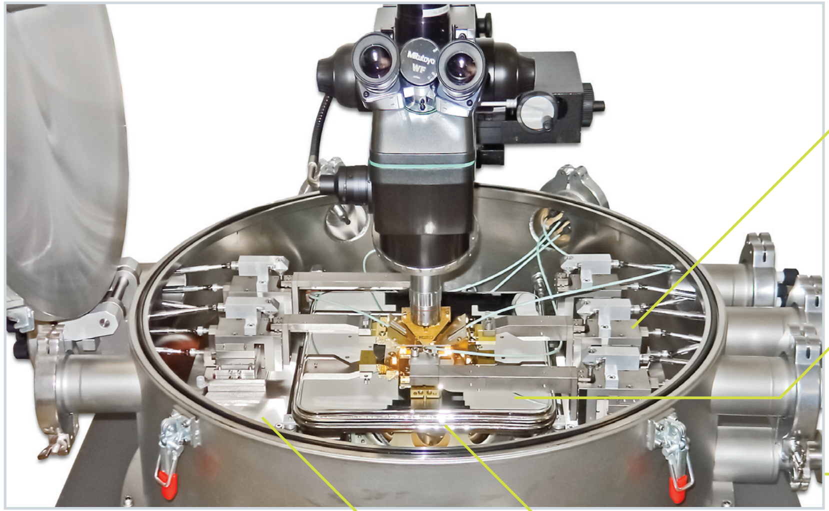
Cryogenic system
- Temperature range: < 7 K to 400 K
- Continuous flow cryostat with supply tank, transfer line and exhaust pumps
- Temperature controller

Vacuum chamber
- Wide pressure range from atmospheric to high vacuum (< $1\ E^{-5}$ mbar)
- Hinged chamber lid for easy access
- Space for cabling and additional electronics inside
- DC and RF electrical feed through flanges

Vacuum control
- High-vacuum pump unit
- Turbo molecular pump directly connected to the chamber

Vibration isolated mainframe
- Pneumatic vibration damping
- Rigid framework and base plate





Positioners
- Inside vacuum chamber for excellent mechanical stability
- Linear backlash-free movement
- Reliable and repeatable contact

Chuck stage
- High-precision, linear two-axis stage for high throughput
- XY travel up to 80 mm
- Easy to control from outside the chamber
- Wafer/sample size up to 100 mm
- Optional triax add-on for accurate measurements over chuck

Measurement setup
- DC and RF configuration
- SIGMA™ integration for excellent measurement accuracy
- Example setup with four RF Probes

Cryogenic shield
- Surrounds cryogenic chuck to limit thermal radiation
- Independent temperature control to eliminate gas and particle condensation

Probe platen
- Contact-separation z-movement for step and repeat capability
- Space for up to six positioners