

the all-in-one PLD system

plug 'n play

PLD-Workstation
the ultimate
prototype coating system

SURFACE

SURFACE
advanced *PLD* technology

PLD-Workstation

PLD-Workstation - the ultimate oxide prototyping system

SURFACE has integrated all necessary components of a PLD system into one rack. This simple task offers the customer the most flexible use of the system, free of a lot of hardware installation management efforts. This is the reason for an unbeatable flexibility and open the usage of PLD for users with no experiences of this technology.

Special for advanced oxide layers is the **PLD- Workstation** the excellent prototyping system. Using the major advantage of PLD - the stoichiometrical correctness of the material transfer from a target to the substrate.

The PLD-Workstation deliver advanced deposition technology in a powerfull and compact too - usable for a wide range of applications. With all the build in flexibility - the security has always the first priority:

- totally sealed laser beam line with external actuated mirror adjustments,
- laser and the laser gas caninett are permanently connected to an external exhaust blower

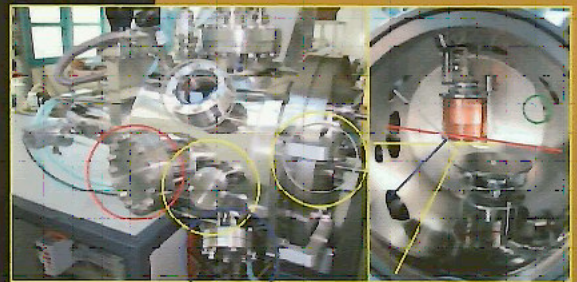


The vacuum chamber - with build in flexibility

The vacuum chamber ist designed for reserach. For this reason it already has spare flanges available for the most common in situ process analytical tools:

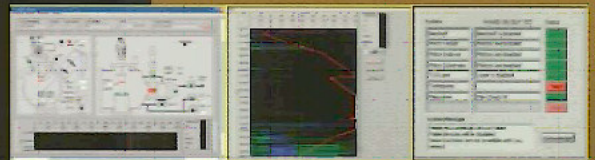
- optical analysis technologies: OES or FTIR
- RHEED
- mass spectroscopy
- additional deposition or plasma sources

Two windows allow the additional visible contact to the process from two different angles and two sides. The big front door gives total access to the major process components: target and substrate manipulator. The standard configuration is a 2" substrate heater and a 4x2" indexed target manipulator. Heaters of 1" or 3" are optional available.



Plume-Master - the powerfull automation plattform

All **SURFACE** PLD systems have a high automation level to control the full process and this makes the usage of the system very easy. The software is based on the newest Windows operation system **Xpro** and the application is programmed with LabView 8. The process program is structured as a number of process steps with individual settings. Intuitive process graphics high flexible data logging with data export and self-test capability are additional features.



Customer support through advanced IT features

The system provides a number of very advanced customer support features:

- automated software update procedure via Internet
- verbal and visual support via internet by SURFACE support engineers

The user is able to contact the SURFACE support group. This is done via Internet, using TCP/IP protocol and the system integrated web-cam. Through this interconnection, SURFACE is able to take over the control of the system

The user has during that time fully verbal and visual connection to the SURFACE support engineer. Hardware problems can be detected easily. Customers failures in the process programming are easy to find that way



Specifications:

Laser:	LP Compexpro 201 or 205
Wave length:	248 nm
Laser gases:	20 l premix, 10 l He
Process gases:	2 MFC channel
Substrate heater:	2" 850 °C or 1000 °C
Substrate rot. :	0 - 50 RPM
Targets:	4 x 2" , 0 - 50 RPM plus target toggeling
Control system:	PC based control 17" TTL monitor
IT components:	LAN connectivity SURFACE support software
Size, approx:	2200x850x1600 mm
Power:	3x400 VAC/50 Hz or 3x208 VAC/60 Hz
water cooling:	included chiller (201)

SURFACE

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