kurtz ersa

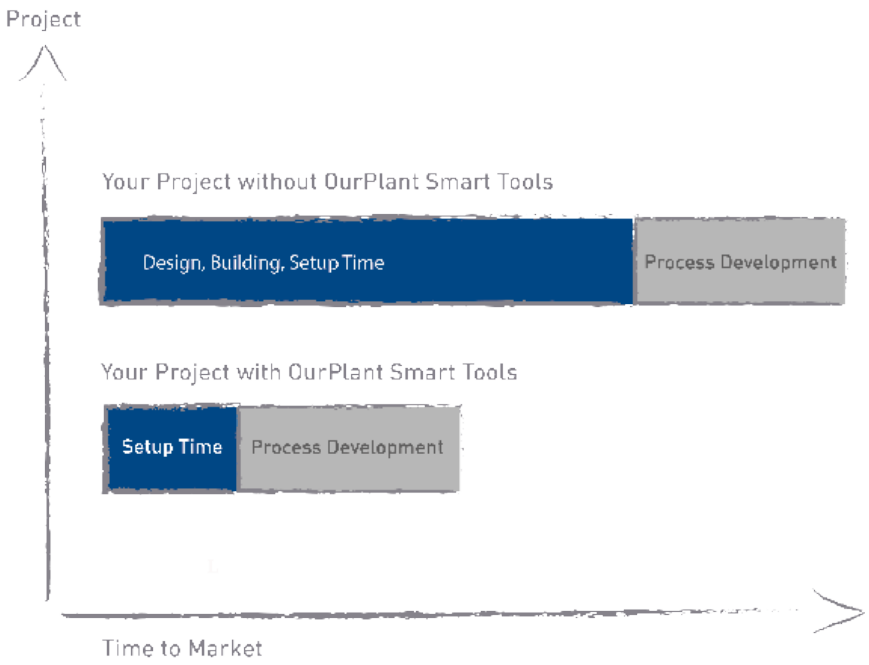
THE TOOLBOX FOR MICRO AND NANO ASSEMBLY.

OurPlant Smart Tools.

OurPlant Smart Tools address the need for intelligent devices that fulfill reproducible micro and nano assembly processes as well as system integration in production plants.

A control box with process-based software and over 100 functional modules that can be freely combined with each other, unite Häcker Automation's know-how from 30 years of micro assembly.

Process specialists, product developers and microtechnologists can use these smart tools directly. Thanks to their compatibility with the existing OurPlant machine platform, modules and programs can be seamlessly adopted for subsequent series production.



Benefits.

REPRODUCIBILITY: Reproducing your developed processes is the key to efficient, high-quality and reliable production. With OurPlant Smart tools, you can test your process developments as often and as accurately as you like.

A COMPLETE SOLUTION FROM A SINGLE SOURCE: Benefit from a pool of more than 100 modules and re-configure your smart tools according to your technical requirements. Our inhouse manufacturing services will be happy to manufacture your individual module solution.

COMPREHENSIVE PROCESS LIBRARIES: The OurPlant OS operating system offers a wide range of functions and intelligent algorithms. This makes it possible to combine modules with each other and to create your own assembly sequences

LOW SPACE REQUIREMENT: With Smart Tools as an all-in-one solution, the space required for your individual process solution can be calculated in advance and is significantly reduced.

HIGHEST PRECISION: Smart Tools are based on many years of expertise in the field of microassembly systems and devices for the high-tech industry. Our team has a deep understanding for the challenges of complex assembly processes and is aware of their precision requirements.

TIME-TO-MARKET: The combination of modules with standardized interfaces and highly flexible process software significantly shortens the time-to-market phase for your product. A development based on Smart Tools eliminates long design and building times. You can concentrate on your own development tasks and implementations. This is crucial for long-term success in a highly competitive market in which precision and reliability but above all rapid response to current market needs, are of the utmost importance.

A completely new way of building devices.

Four core elements form the basic device for your individual Smart Tools.

DESK: This stable and vibration-damped frame forms the basis for all other components. It ensures that the process units and devices can be positioned safely and precisely.

XT-PORTAL 32: This unit consists of a high-precision movement system with a travel range of 300 mm x 200 mm. Up to three processing heads can be accommodated by the gantry.

SUPPLY BOX AND OURPLANT OS NOTEBOOK: This control unit enables intuitive operation and comprehensive control of the entire set-up. The Dell Note Book is 15 inches in size and features Windows and OurPlant OS process software.

SIDEBOARD:
The rotating sideboard can be attached to both sides of the frame for the best possible ergonomics.

OVERVIEW OF TECHNICAL DATA (SILVER EDITION)

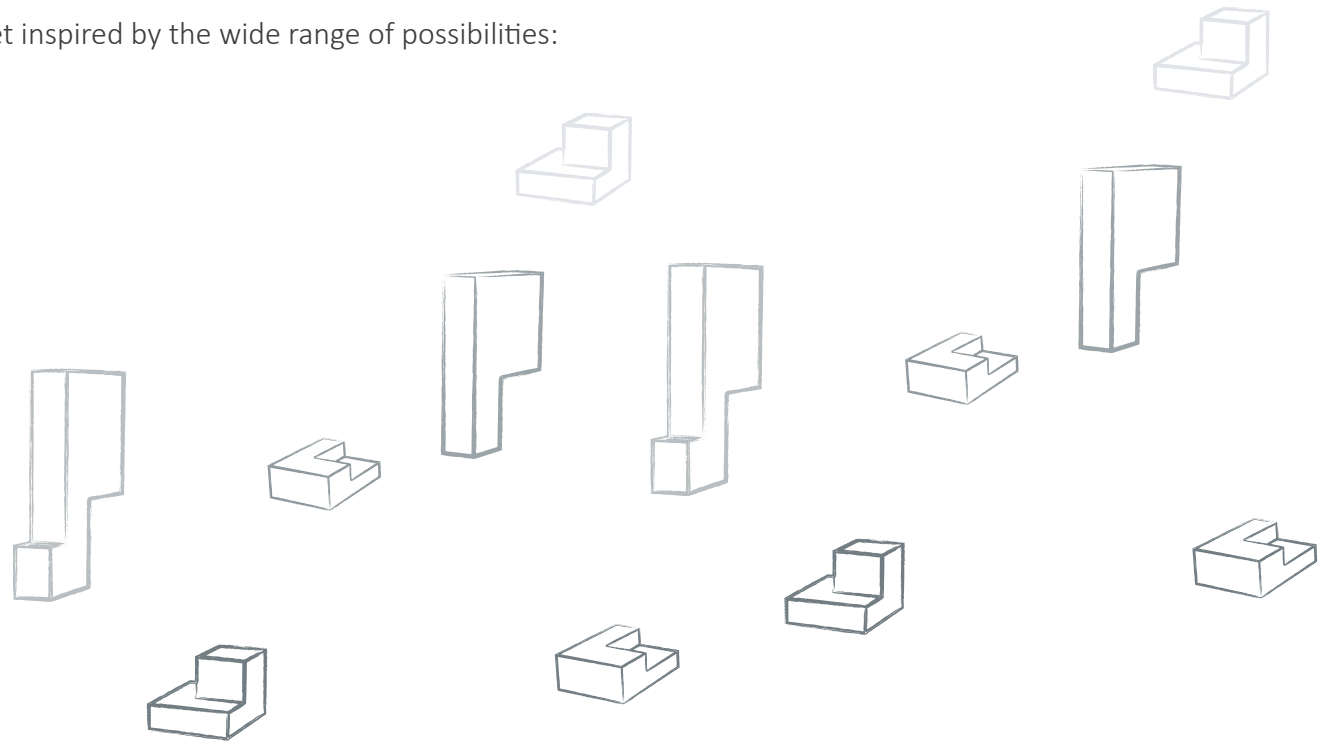
Total Weight (without modules, incl. notebook):	375 kg
Dimensions:	1160 mm x 800 mm x 1370 mm
Max. Functional Area:	300 mm x 200 mm
Power Supply:	230 V
Electrical Connection:	24 V, 48V, Ethernet, Unican
Repeat Accuracy:	± 0,001 mm
Max. X-axis Speed:	250 in mm/s
Max. Y-axis Speed:	250 in mm/s
Compressed Air:	≥ 5,5 Bar, 100 l/min, cleaned, dry, oil-free

The construction kit for your micro and nano processes.

BUILD YOUR INDIVIDUAL DEVICE.

With Smart Tools and the extensive portfolio of modules, you can easily put together your own individual process solution. These smart tools offer a wide range of technical solutions for dispensing, placing, inspecting and measuring. Thanks to the wide range of components and functions, you can efficiently design, adapt and optimize processes according to your requirements. The result is a tailor-made, intelligent tool that helps you to successfully implement your projects.

Get inspired by the wide range of possibilities:



OurPlant OS:
For flexible Control of your Smart Tools.

OurPlant OS ensures the reliability of your developed processes. You use the software interface to set up your selected modules and combine various process steps (loading, dispensing, etc.) to create your individual production recipe. By connecting micro services via the standardized interfaces, you can also dock your own or external systems to the Smart Tools.

Learn more about the features of OurPlant OS.

Ourplant.OS

Fiber-to-PIC coupling:
Precision in Silicon Photonics.

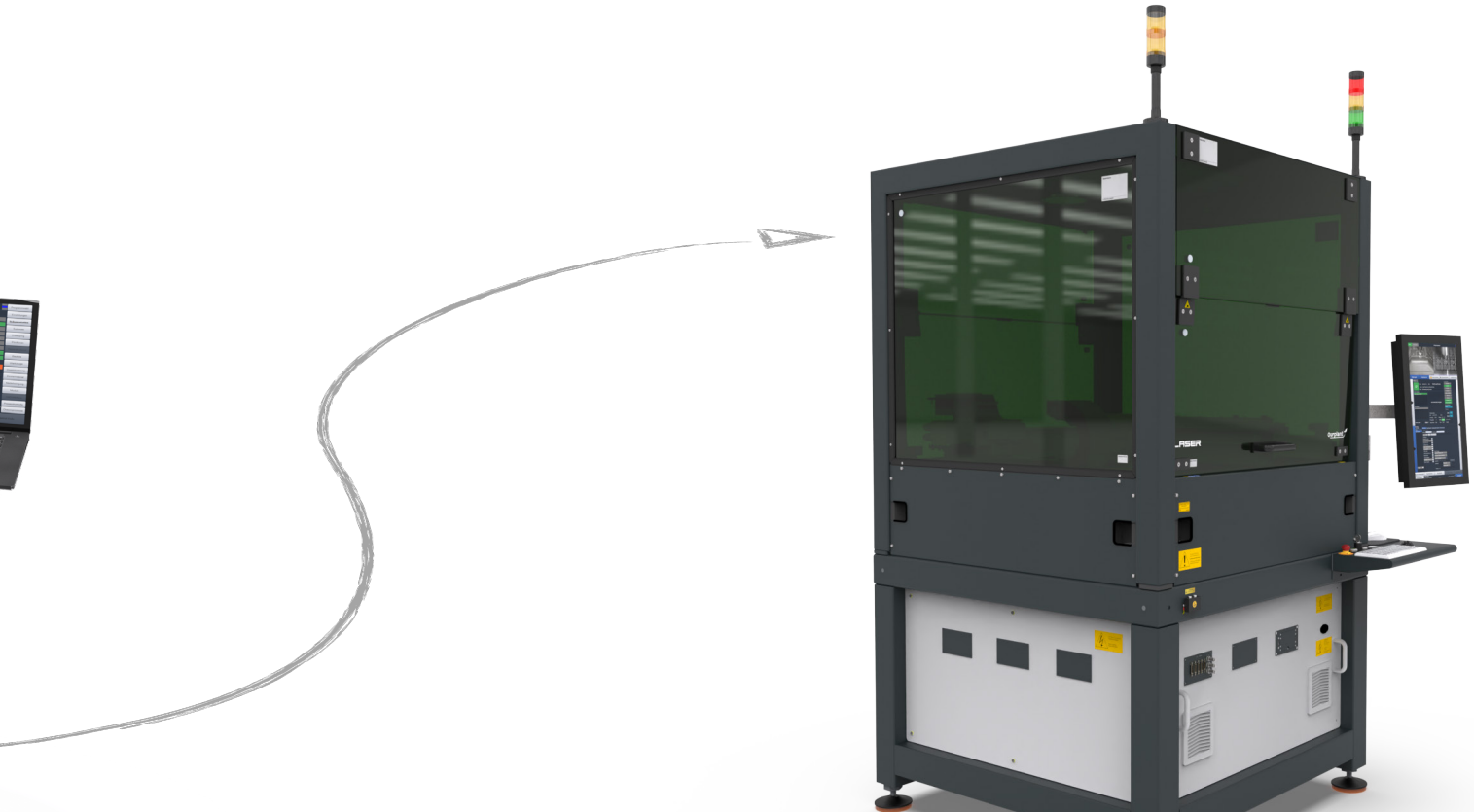
The production of photonic integrated circuits (PICs) has high demands on process development. In the “Fiber to Chip Active Alignment Process”, up to two fibers are aligned to the PIC simultaneously, whereby maximum precision and flexibility are required. In addition to exact alignment, supplementary processes such as control, measurement, dosing and UV curing must be integrated. The OurPlant Smart Tools, combined with two 3D Nano Placers, offer an innovative solution in the nanometer range. They create a flexible basis for semi-automatic applications. Experience the future of silicone photonics with maximum efficiency and adaptability.

YOUR CONFIGURATION FOR PIC APPLICATIONS

Desk Silver Edition
Portal XT 32
Supply Box
OurPlant OS Notebook
Notebook Sideboard
S2-0049 Placer (2x)
S2-0046 Camera (2D-3D)
S2-0024 Dispenser
S3-0007 Universal Support
S3-0039 Vacuum Support
S3-0029 Needle Cleaning Unit

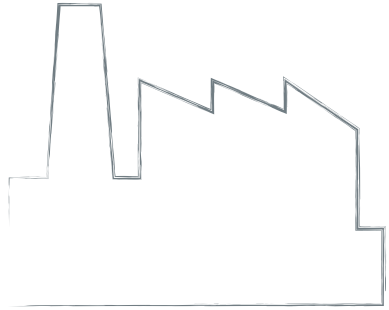
Transfer your process to full automation.

Your developed and optimized process can be seamlessly transferred from the Smart Tools to the series systems of the OurPlant machine family. This is made possible by the standardized interfaces of the modules and machines, which ensure smooth integration. The flexible software architecture also ensures that adaptations and extensions can be easily implemented. This means you benefit from a reliable and efficient production that can react quickly to changes and is optimally adapted to the market‘s equirements.



From the smart development to series production.

OurPlant Smart Tools set a new standard in micro and nano assembly by combining modularity, user-friendliness and integration. They offer you the opportunity to make your production processes more efficient and to transfer them seamlessly to series production.



large series production

medium series production

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