



# UW I F

GRINDING CENTER  
FOR ECONOMICAL GRINDING



## SAACKE PRECISION

in a compact design

### Linear Motors

providing much higher dynamics

### 6-Station Grinding Wheel Changer

for even more flexibility

### Compact Automation

thanks to different loading systems

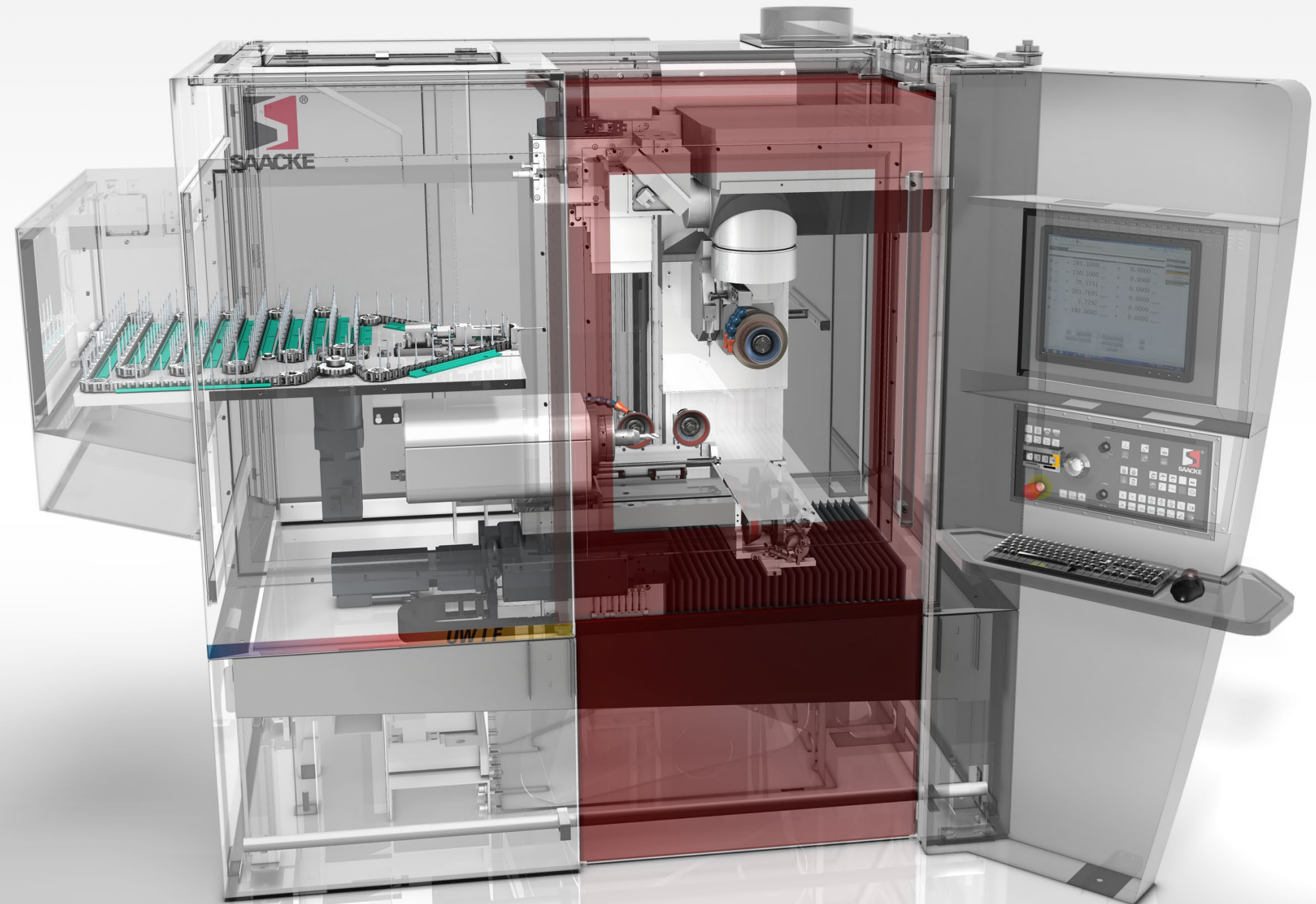
## Production in a small construction

*The latest generation of the tool grinding center UW I F provides many additional innovations and improvements. In an extremely compact design, the new UW I F now offers many efficient enhancements to make the production process more simple, quick and accurate.*

*For example:*

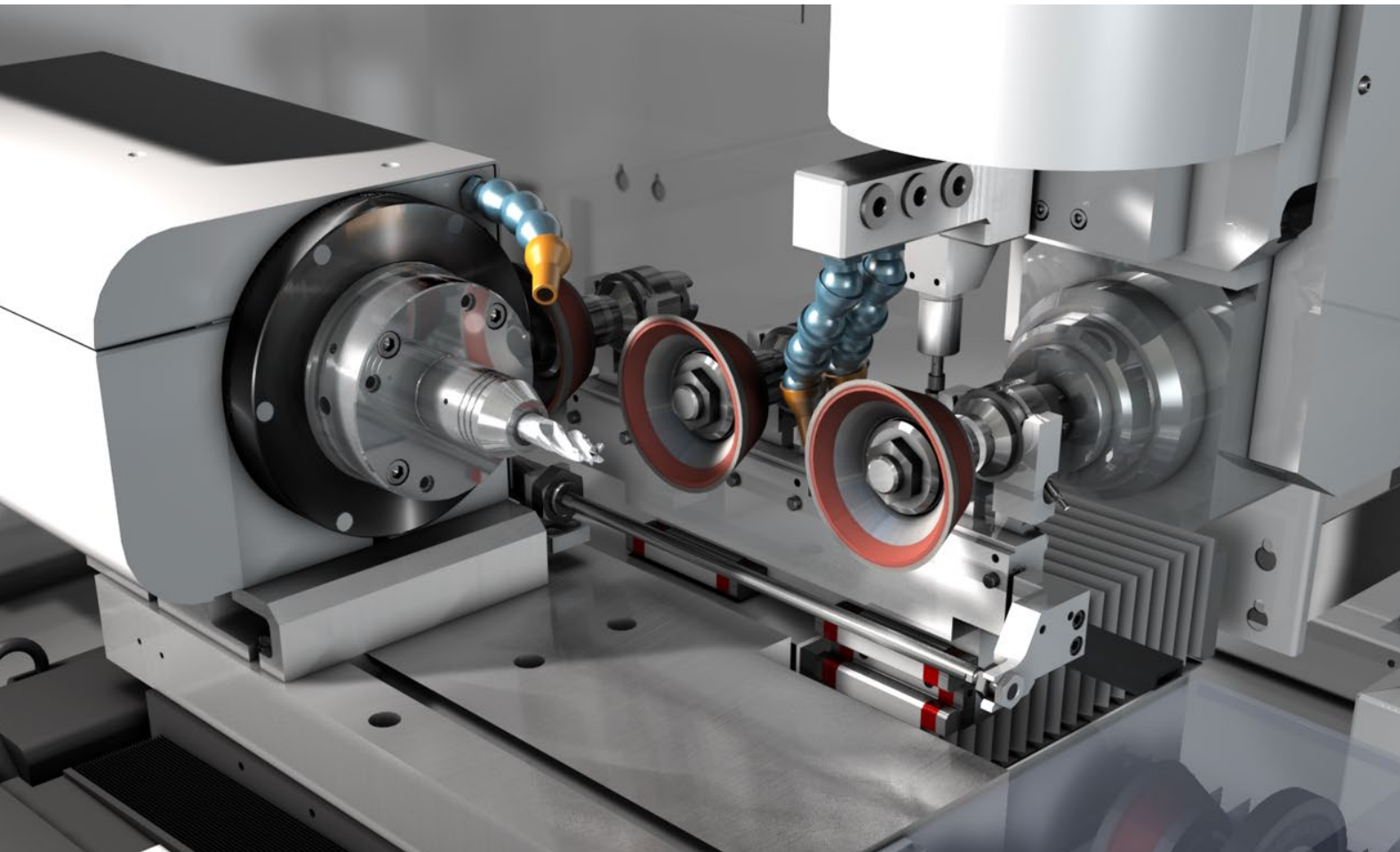
- The Chain Loader with up to 480 tool (or collet) positions
- CNC Traveling Steady Rest System
- Sophisticated 6-station grinding wheel package changer
- Innovative Linear Motors for X/Z-axes promote the highest precision possible. Non-contact magnetic technology does not produce wear, as compared to traditional components

***The possibilities are versatile. Step into the future and experience the new UW I F.***

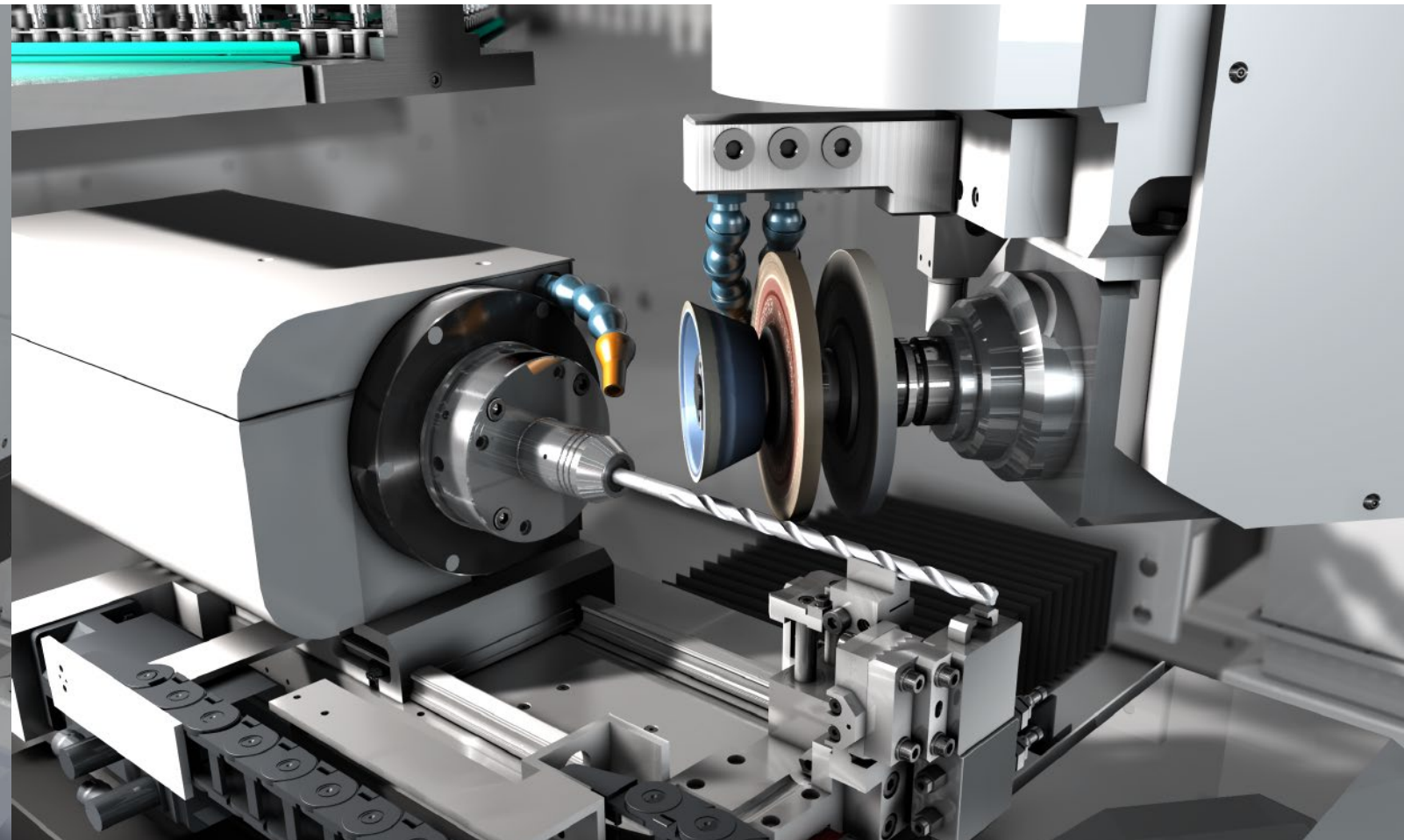




## Cutting Edge Technology



## When the tool gets longer



### All benefits at a glance

- Flexible setup by use of a fully-automatic grinding wheel changer with 2, 4 or 6 package stations
- Higher level of automation through an integrated tool changer
- Highest accuracy by positioning the grinding wheel(s) nearby the rotary centerline of the grinding wheel head
- Digital control and axes drives latency, responsiveness and dynamics for all axes
- Direct-drive work head allows spin grinding up to 600 RPM (1,000 RPM is optional)
- User-friendly software for the complete grinding of metal, woodworking and profile tools

### Accelerating your process with a CNC Traveling Tool Support

- Comprises a 6th CNC axis on the grinding table
- Equipped with wear-resistant, high-precision linear guides
- Supports the tool while following the grinding wheel along the length of the cut
- Grinding forces are optimized over the entire grind length by a moving and synchronized traveling support
- Supports the tool directly and at the point of the grinding wheel contact
- A sophisticated Adapter System provides many tool supporting possibilities
- Various adapters (tailstock, guide bushings, 1/2 round bushings and full bushings) are optionally available
- Special solutions allow precise control of tool diameters, even tools with back taper



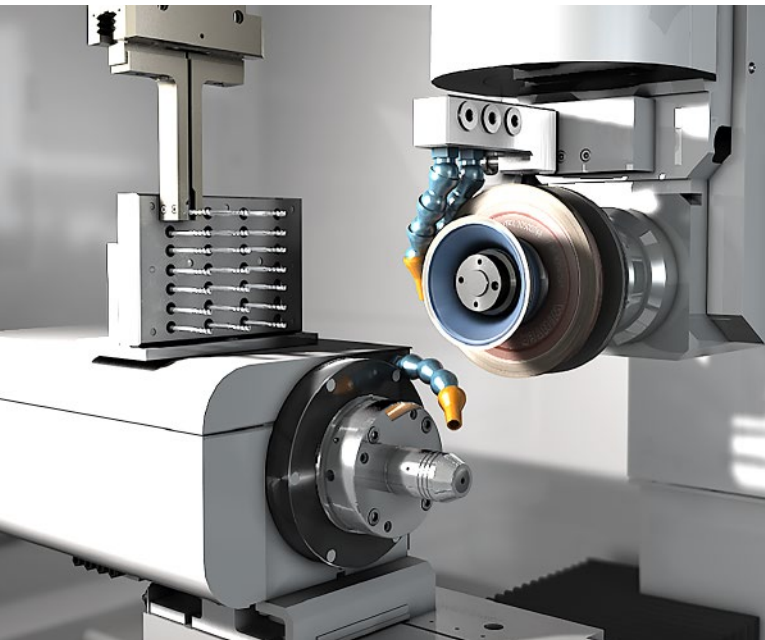
## The Overview of the Possibilities





# The World of Automation

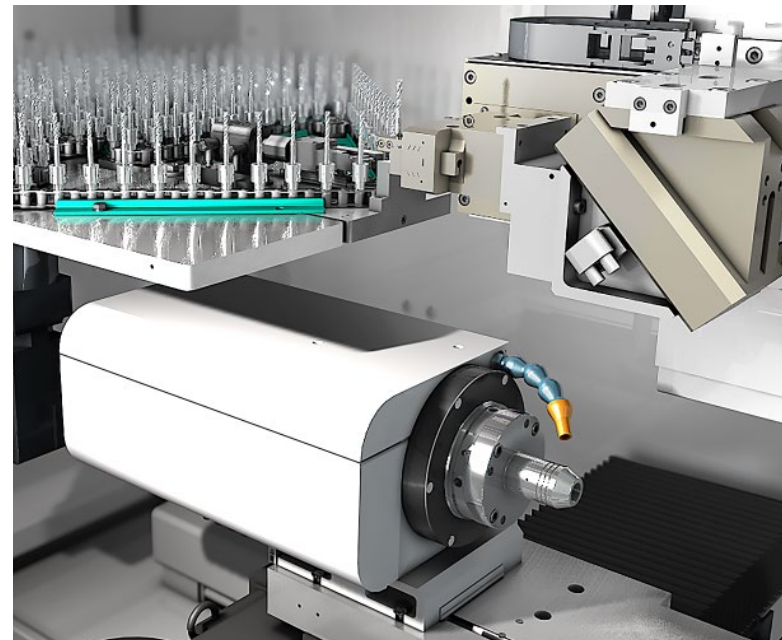
If **Speed and Capacity** count



## Pick-Up Loader

### Capacity:

- 3.0 to 5.0 mm shank dia. 40 Tools
- 5.1 to 8.0 mm shank dia. 32 Tools
- 8.1 to 11.0 mm shank dia. 28 Tools
- 11.1 to 14.0 mm shank dia. 24 Tools
- 14.1 to 20.0 mm shank dia. 20 Tools



## Chain Loader

### Capacity:

**max. 480 Tools**

- includes the gripper unit
- for new production and regrinding

**Chaotic magazine loading achieved by automatically changing of the collet(s).**



## Robot Tool Handling for indexable inserts

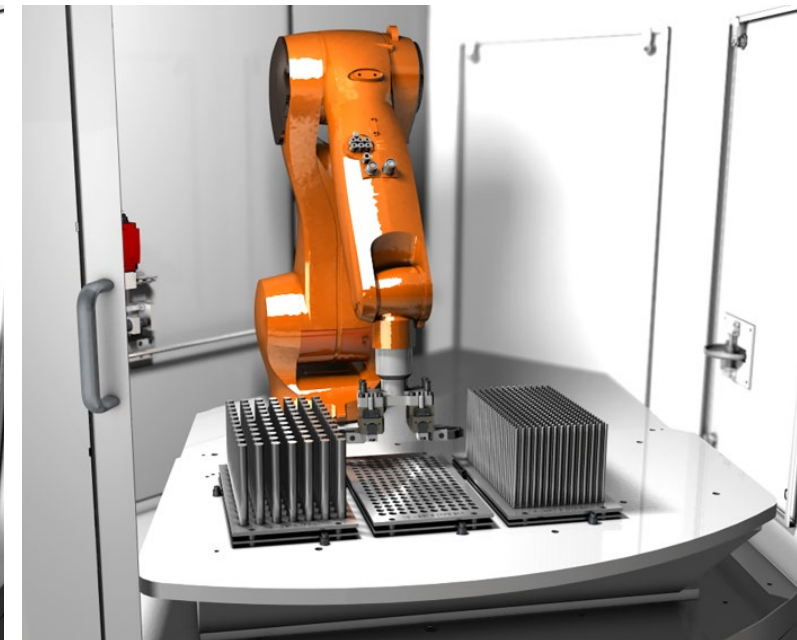
### Capacity:

**162 inserts per Pallet**

**Total capacity is 324 tools**

- Integrated Transfer Station
- Cleaning Station
- Turning Device

**Faster tool changing times by use of a double gripper.**



## Robot Tool Handling for round-shank tools

### Capacity:

- 3.0 to 5.0 mm shank dia. 750 Tools
- 5.1 to 10.0 mm shank dia. 340 Tools
- 10.1 to 16.0 mm shank dia. 154 Tools

**Faster tool changing times by use of a double gripper.**



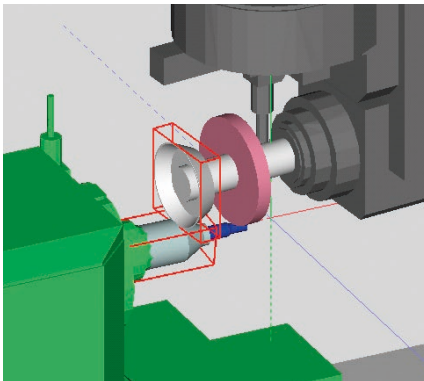


Huge diversity with maximum precision

Technical Data

NUMROTOplus® Software

- The flexible and multifunctional NUMROTOplus® Software is perfect to program special tools in a short amount of time
- An exceptional variety of programs with a built-in database for tools, technology and grinding wheel packages
- Straightforward and easy to install Software updates are available over the complete machine life
- 3D collision monitoring and machine simulation
- The software is compatible with a commercially available and standard PC; from your local PC supplier



Cylindrical and Tapered Cutters



Drills and Stepdrills



Profile Inserts



Form Tools



Deep-hole Drills



Disc type Milling Cutters



Shaper Cutters



Burr Tools



Taps

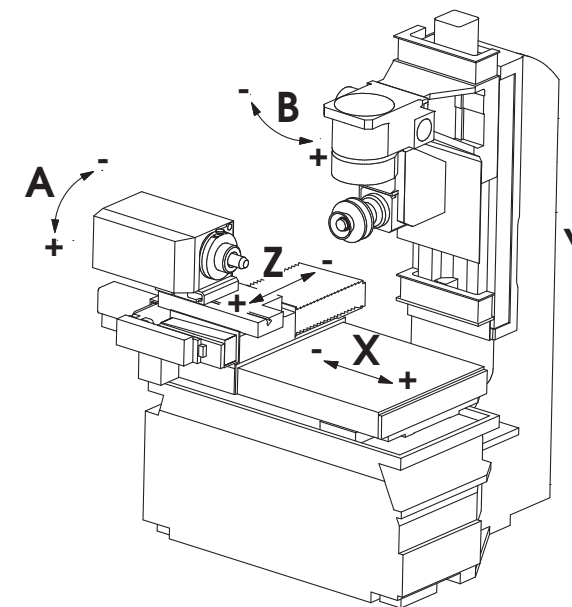
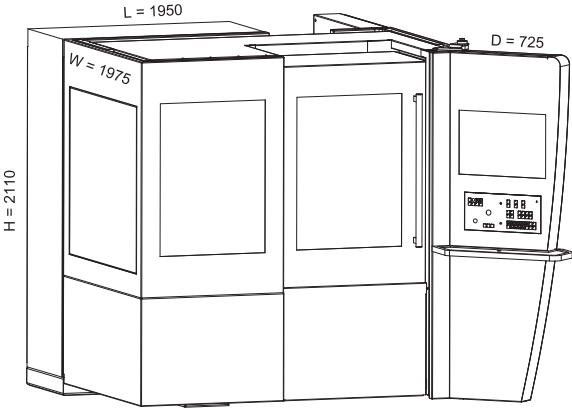


Inserts



Tool data	
Max. Diameter	200 mm
Max. Tool Length for Complete Grinding from work-head face	270 mm (optional 360 mm)
Longitudinal X-axis	
Travel Length	530 mm
Feedrate range	0 – 15 m/min
Useful table for Tool Supports	245 x 140 mm
Transverse Z-axis	
Travel Length	320 mm
Feedrate range	0 – 15 m/min
Vertical Y-axis	
Travel Length	400 mm
Feedrate range	0 – 15 m/min
Grinding Head B-axis	
Rotary Travel	240 deg.
Grinding Spindle equipped with Quick Chucking	HSK-C / E50
Spindle Speed Range	2,000 – 12,000 RPM (optional 20,000 RPM)
Max. Grinding Wheel Diameter	150 mm
Grinding Wheel Changer	
No. of Magazine Stations	2, 4 or 6
Workhead A-axis equipped with Direct-Drive	
Type of work holding interface	Plane face (ISO 50)
Indexing Accuracy	+/- 15"
Max. Rotation Speed	600 RPM (optional 1,000 RPM)
Motor Power Ratings	
Spindle Motor Peak Power	5 kW (optional 16 or 26 kW)
Longitudinal X-axis motor	2 kW
Workhead A-axis motor	3 kW
Transverse Z-axis motor	2 kW
Vertical Y-axis motor	3 kW
Grinding Wheel Head B-axis motor	2 kW
Weight (approx.)	3,500 kg

\*Saacke reserves the right to update or amend specifications without prior notice.



# UW I F



Gebr. SAACKE GmbH & Co. KG  
Precision Tools and Tool & Cutter Grinding Machines  
Kanzlerstr. 250  
75181 Pforzheim  
Fon (+49) 7231 / 956-0  
Fax (+49) 7231 / 956-290  
[www.saacke-pforzheim.de](http://www.saacke-pforzheim.de)  
[info@saacke-pforzheim.de](mailto:info@saacke-pforzheim.de)

