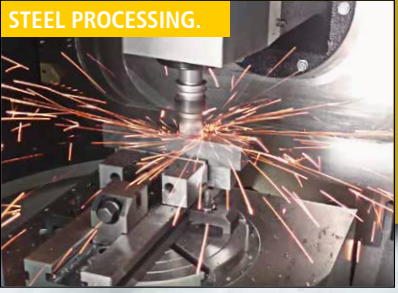




ULM
[4040 6040 8040]

CNC system by driving
stand construction



STEEL PROCESSING.



HSC WET PROCESSING.



METAL CUTTING.

The ULM machine series (Universal Laser/Milling Machine Concept) is designed as a 3-axis machine tool. The solid mineral casting machine frame can be converted into a 4 or 4/5 axis solution at any time.

Be it for laser or milling processes; the machining of metals as well as steel is possible. With laser integration it is also possible to machine special materials such as ceramics; sapphire; glass; HM; PCD; CBN and various oxidic materials.

Retrofitting from one production method to another can also be done without any problems. If you change from milling to laser processing, please note that the protective screens must be converted for laser class 1.

The ULM machines convince not only by their elegant design, but also by their compact and stable construction, which enables economic working in the smallest space.

Features

- 3/4/5-axle operation can be extended
- 15-fold tool changer
- Working range not reduced during tool change
- Control panel with 21" touch screen for easy operation
- Hand wheel for set-up operation
- Integrated lighting in the working area
- Recirculating ball screws in all linear axes all guides covered
- Rotating/swivel axes equipped with cast iron block guides
- Air-cooled milling spindle with SK30 tool holder
- Largely dimensioned recirculating ball bearing guides in all linear axes
- Chip collection tray incl. cleaning flap
- Integrated coolant pump
- Settling basin for coolant with cleaning opening
- Solid mineral cast machine bed

For processing of:

- aluminium / light and non-ferrous metals (brass, bronze, etc.)
- foam and milled plastics
- Ceramics; Plexiglas
- HM-Green (in various grain sizes)

Thanks to covered linear guides and large ball screws, downtimes are minimized and the prerequisites for processing a wide variety of materials are fulfilled.

For milling, the working area is not restricted by the external 15-FOLD tool changer, so that even larger workpieces can be machined without restriction.

In order to gain a lot of machining space with the smallest possible footprint, the ULM machine tools were developed for high capacity, productivity and flexibility.

An extensive range of accessories predestines the machine for numerous applications from prototype construction to small series. The solid mineral cast substructure provides a stable and solid platform.

Options

- Cooling-spraying device
- Swarf tray
- Tool length measuring sensor
- various spindle motors
- Rotary change system SK 20
- Handwheel
- 4th Axis with tailstock unit
- 4th and 5th Axis as rotary-swivel unit
- 4th Achse for the laser processing head
- LED engine room lighting
- Beckhoff/ISEL Solution with CAD/CAM system for milling as well as for laser processing

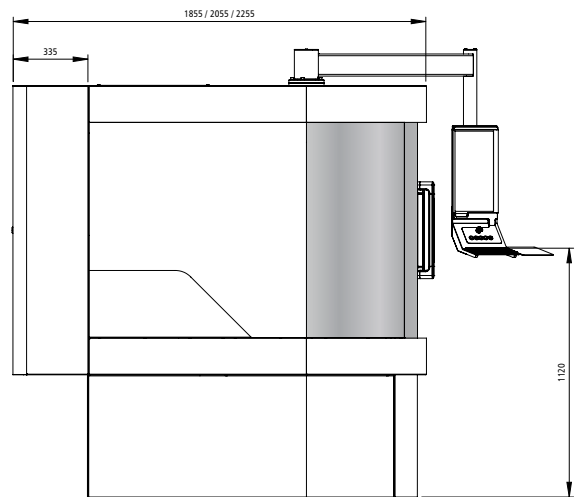
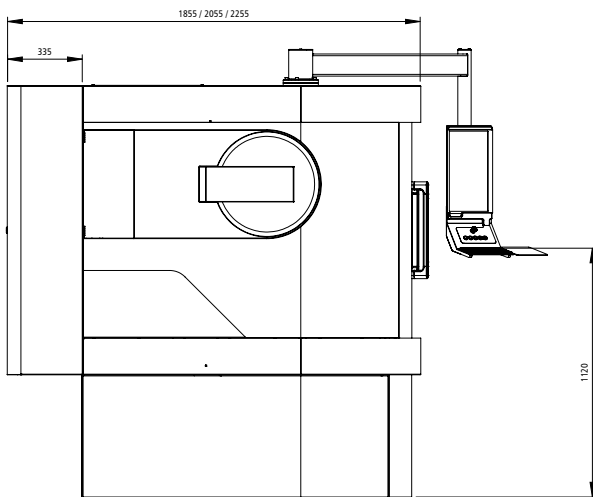
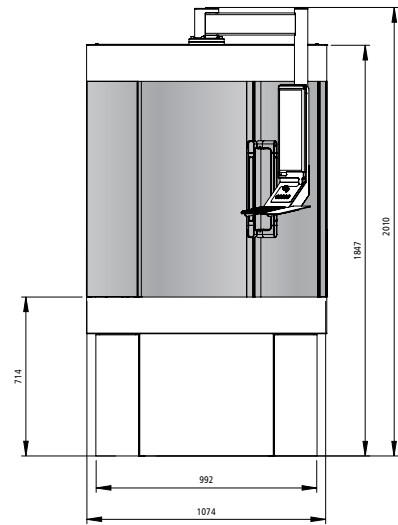
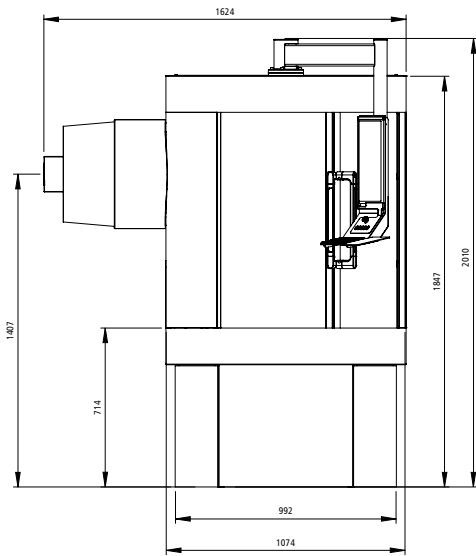
Areas of application:

- Aerospace
- Tooling
- Automotive
- Householder
- Mould's industries
- Electroindustrie
- Ceramic Industries
- Medical
- Jewellery
- Stamp's industries
- Prototyping / R&D department

| technical data | ULM V4040 | ULM V6040 | ULM V8040 |
|--------------------------------------|--|--------------------|--------------------|
| processing areas X/Y/Z [mm]* | 400 / 400 / 400 | 600 / 400 / 400 | 800 / 400 / 400 |
| Table clamping surface W x D [mm] | 400 x 400 | 600 x 400 | 800 x 400 |
| Dimensions WxDxH [mm] | 1624 x 1855 x 2010 | 1624 x 2055 x 2010 | 1624 x 2255 x 2010 |
| Travel speed X/Y/Z | max. 20 m/min | | |
| Drive motors | Servomotors | | |
| Drive elements X/Y/Z | Ball screws 25 x 10 / 25 x 10 / 25 x 10 mm, backlash-free adjustable | | |
| Milling spindle | 6,000 – 24,000 rpm with position sensing, sealing air and temperature-controlled cooling | | |
| Tool holder | SK30 | | |
| Control | PC-based | | |
| Operation | 21" touch screen, keyboard | | |
| Weight [kg] | ca. 2.500 | ca. 2.600 | ca. 2.800 |
| Connection values | 400V / 16A | | |

*without mounted components on the axles.

Dimensions



CNC milling machine with tool changer and transparent protection glass

CNC laser machine with laser protection glass



Examples of use

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Ing. Mario Montanaro



With the machine series you can realize parts like taps first as mechanical production and then, thanks to the interchangeable process units, change from milling to laser process and complete the welding, in this special case.

You can also use the system as a pure laser system. Whether for cutting/drilling/welding/ ablation/texturing/markings or engraving, we have the right laser and the appropriate processing head for each of these applications.

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A machine concept for a wide variety of products. This system can also be used in the tool industry. With the correctly selected laser and the corresponding processing head, we can also produce saw blades very economically.

Various automation solutions round off the entire production concept. We will be happy to advise you and also show you many other sample parts which have been realized with this system. Challenge us, we will gladly answer your production questions.

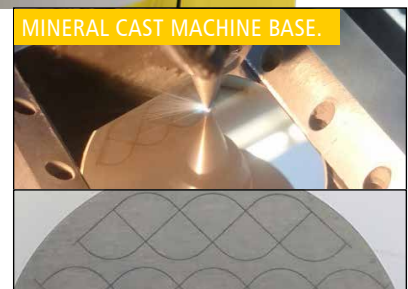


FILTER DRILLING.

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HANDWHEEL.



MINERAL CAST MACHINE BASE.

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Subject to technical changes. 20201203-01_teltec-systems_CNC-Machines