



LFMS 
[400/3A ST]

LFMS 
[700/3A ST]

Laser process:

- Cutting
- Drilling
- Welding
- Repair-Welding
- Ablation
- Structuring
- Engraving
- Marking
- Surface treatment



LFMS 400/3A ST | the compact

The CNC machine LFMS 400/3A ST, a compact table-top machine in proven chassis design, is modular and therefore easy to service. The door can be swivelled upwards, making it easy to operate even when seated. An isel CNC control system including control computer and Pilz safety modules are installed at the rear.

All linear axes mounted in the machine are from the isel program and run on ground precision steel shafts with linear ball bearings. The drives used are backlash-free ball screws with adapted spindle pitches.

The machine table made of face-milled T-slot profiles offers optimum clamping possibilities for a wide range of workpiece holders and fixtures.

Various machining units, clamping systems, measuring devices and accessories turn the basic machine into a complete system which can be expanded to complete production lines for a wide range of applications and industries.

Features

- Beckhoff/ISEL solution with CAD/CAM system for both milling and laser processing
- as drives are reliable linear units installed with steel ball rolling spindles
- PILZ safety technology
- effortless operation due to height-adjustable display
- network-compatible control PC with WIN 10
- user-friendly Soft-Lift hood
- Clamping of the workpieces by means of T-slot plate
- Vacuum clamping table
- Maintenance unit with valve terminal
- Under table with tiltable screen and integrated keyboard

Options

- Process related milling spindles
- Tool changing station
- Tool cooling as cool-spray or air version (CoolMin)
- Length measuring probe
- Micro-Robot for loading and unloading tasks
- Expansion with several LFMS-400 to production lines
- specially developed software by SCIENCE 1 for the integration of laser applications
- light-proof protection glass for laser applications; from 266 to 1070 nm wavelengths
- Engine room lighting LED
- automatic hood opening
- Safety light curtain

Special features

- Low space requirement for installation

Options:

- 4 axis unit
- 4/5 axis unit
- RUT unit only for laser systems's

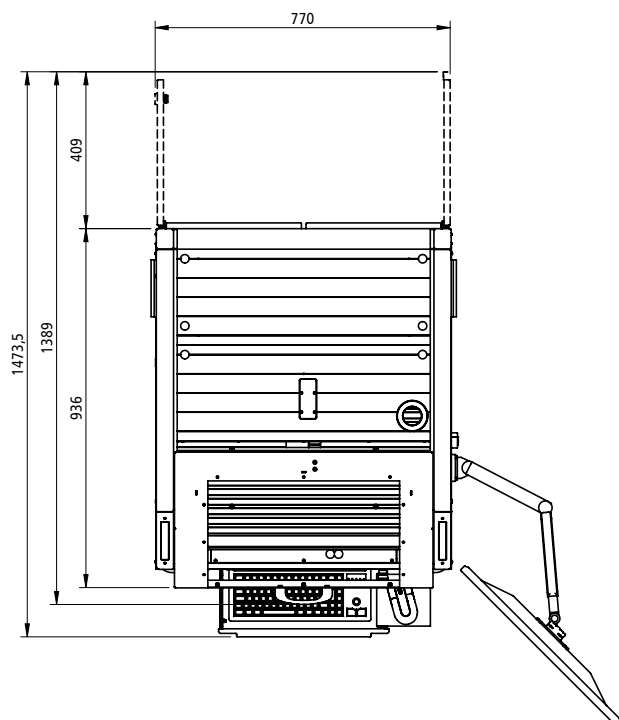
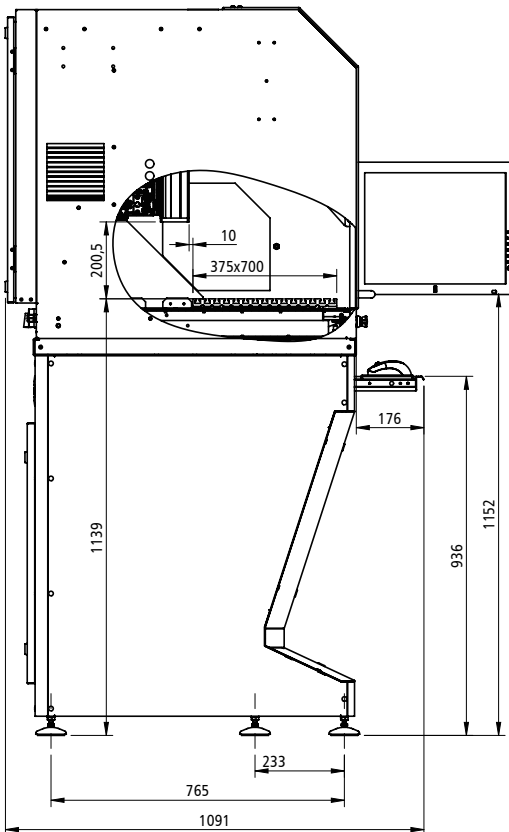
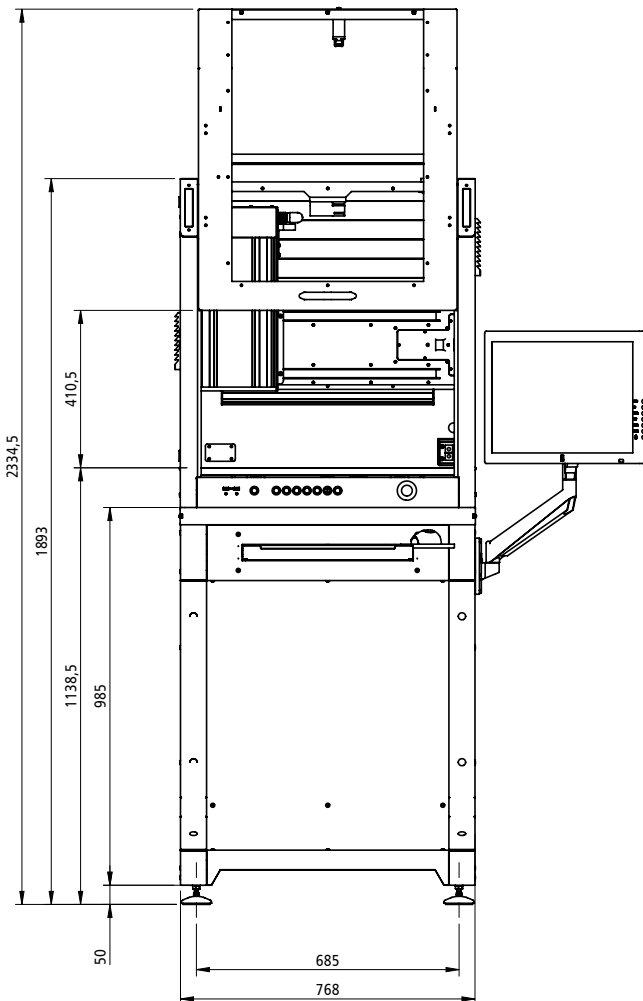
Only for milling:

- E-Spindel for Milling
- Tool holder: 12 tools Changing system
14 tools Changing system

technical data	LFMS400/3A-ST	LFMS700/3A-ST
processing areas X/Y/Z [mm]*	400 / 300 / 140	700 / 300 / 140
Table clamping surface W x D [mm]	700 x 375	1000 x 575
Passage [mm]*	200,5	
Dimensions WxDxH [mm]	768 x 1473,5 x 1893	1068 x 1473,5 x 1893
Travel speed X/Y/Z	max. 12 m/min.	
Drive motors	EC-Servomotors	
Drive elements X/Y/Z	Ball screws 16x10 / 16x10 / 16x5 mm, backlash-free adjustable (optional 16x4 mm in X/Y/Z)	
Guides	Linear units with precision steel shafts and recirculating ball bearing slides, adjustable backlash-free	
Control	CAN controller iMD with 3 or rather 4 drive controllers, integrated control pc, I/O-module, safety circuit with standstill monitoring, power supply unit 48 V / 1000 W	
Repeatability [mm]	0,02	
Operation	Function keys and emergency stop	
Weight [kg]	ca. 380	ca. 415
Software	WinRemote (optional: ProNC, isy-CAM)	
Software Options	ProNC, CAD/CAM isy 2.8, CAM 3.0D other CadCAM solution	
Vision Options	Integration of Vision system (only for process controlling/ or quality controlling	
Robots	Integration of Micro-Roboters for pick-place	
Connected loads	230V, 16A	

*without mounted components on the axes.

Dimensions



LFMS 400/3A ST | versatile - expandable - functional

Maximum functions with minimum space requirements

Due to the power of the milling motor of up to 5 kW and 40,000 rpm as well as a process speed of up to 200 mm/sec, the system is suitable for the processing of wood / plastic as well as for light and non-ferrous metals and HM-Green productions.

The free large processing area and the excellent price/performance ratio offer decisive advantages over comparable products. A round tool changer is also provided for the basic equipment of the system. For a reliable machining of various materials, the linear axes and the spindle are provided with a sealing air system from the ground up, so that no smoke or dust particles can be deposited.

For processing of:

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

Areas of application:

- Electroindustrie
- Aerospace
- Automotive
- Mould's industries
- Ceramic Industries
- Medical implants
- Tooling
- Medical Instruments
- Prototyping / R&D department
- Gas, oil and chemical industry

Applications

The great flexibility of the LFMS 400/3A ST allows the production of a wide range of applications. With the loading/unloading system, which was also developed for this purpose, an automated solution is also available for production. Our competent specialist will be happy to advise you on your requirements in a personal meeting.

Through the cooperation with one of the worldwide operating professional laser manufacturers (Bright Solutions Group with Division Bright System Srl) we can also realize a variety of laser applications with the system. Be it as a pure laser solution or as a multiprocessing system; a multitude of customer requirements can be covered with this system.

By means of the flexible machine solution as well as the modular laser processing heads we can offer a variety of production solutions. Whether flat parts; pipe parts, 3D molded parts or other geometries, we have the right automation for your process.

Components for the aerospace, military, medical and micro-mechanical industries are everyday tasks for the LFMS 400/3A ST.

Thanks to the simple equipment of the system, very different components can be produced. Be it flat (with rotary table) or upright by means of a 4th axis or a 4/5 axis solution as a rotary swivel axis system.

We would be pleased to take on your requirements.



Tool changing station



Rotary axis as 4th axis



pull-out keyboard compartment with fold-out mouse tray

Milling samples



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Drilling on fly in filter for aviation