



SpeedMarker 1300

Laser

Laser	Ytterbium pulsed fiber lasers, maintenance free				
Wavelength	1064 nm				
Beam quality	M ² < 2				
Power stability	better ± 5%				
Cooling	air cooled				
Laser type	FL 20	FL 30	FL 50	FL 20 MOPA	FL 100 MOPA
Max. average output power	20 W	30 W	50 W	20 W	100 W
Max. pulse energy	1 mJ	1 mJ	1 mJ	1 mJ	1 mJ
Pulse repetition rate [kHz]	2 - 200	2 - 200	2 - 200	1,6 - 1000	10-1000
Adjustable pulse duration	x	x	x	✓	✓
Pulse duration [ns]	100 ± 20	100 ± 20	100 ± 20	1,5;2,5;4;8;16;30; 50;120;200;350	20, 30, 60, 120
Integrated pilot laser & focus laser	✓	✓	✓	✓	✓

Galvo System

Lens / Focal length	F-100	<i>Standard:</i> F-160	F-254	F-330	F-420
Marking area [mm x mm]	70 x 70	120 x 120	190 x 190	240 x 240	310 x 310
Focus Diameter	~ 27 µm	~ 45 µm	~ 68 µm	~ 88 µm	~ 112 µm
Max. marking speed	800 cps – 1 mm single line with F = 160 mm				
Max. positioning speed	12.000 mm/s with F = 160 mm				

Workstation Standard

Maximum part size (W x D)	Depends on shape				
Maximum part height	557 mm <i>F-100</i>	480 mm <i>F-160</i>	330 mm <i>F-254</i>	235 mm <i>F-330</i>	129 mm <i>F-420</i>
Laser marking field [W x D in mm]	70 x 70	120 x 120	190 x 190	240 x 240	310 x 310
Maximum working area [W x D in mm]	880 x 70	930 x 120	1010 x 190	1050 x 240	1100 x 310
Maximum load	200 kg				
Working table	T-slot plate (Isel PT 25): 1100 x 375 mm				
Axis system	Software-controlled X- and Z-axis				
Travel distance X- / Z-axis	810 / 530 mm				
Color	RAL 3002, RAL 7016, RAL 7035				

Workstation with controlled Y-axis

Maximum part size (W x D)	Depends on shape				
Maximum part height	530 mm <i>F-100</i>	453 mm <i>F-160</i>	303 mm <i>F-254</i>	208 mm <i>F-330</i>	102 mm <i>F-420</i>
Laser marking field [W x D in mm]	70 x 70	120 x 120	190 x 190	240 x 240	310 x 310
Maximum working area [W x D in mm]	880 x 395	930 x 445	1000 x 450	1000 x 450	1000 x 450
Maximum load	50 kg				
Working table	T-slot plate (Isel PT 25): 1000 x 450 mm				
Axis system	Software-controlled X-, Y- und Z-axis				
Travel distance X- / Y- / Z-axis	810 / 325 / 503 mm				
Color	RAL 3002, RAL 7016, RAL 7035				

Control

Computer	Integrated industrial PC as 19" Rack Unit, 2RU high, Windows® 10
Interfaces	USB, Ethernet, RS232,
Interfaces Laser	Laser-Interlock, Marking-Start (24 VDC), Marking-Stop (24 VDC), E-Stop, Error-Reset, Laser-Busy, optional digital I/O's (24 VDC),
Software	SpeedMark, DirectMark

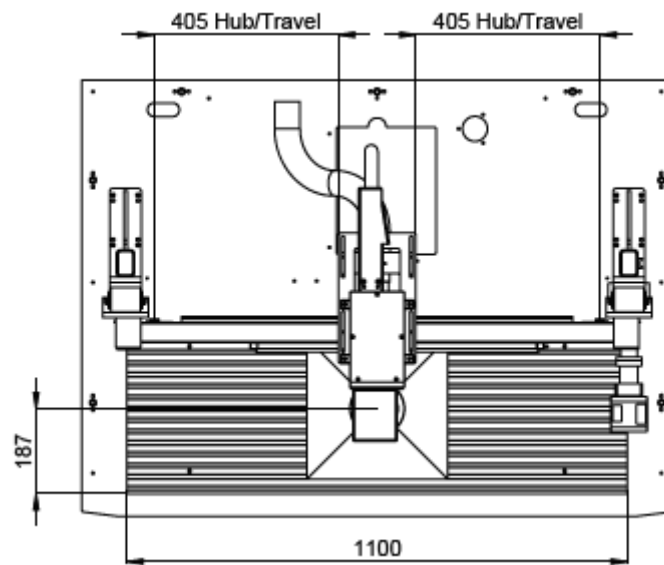
Options / Accessories

Optional lenses and galvo scanners	F-100, F-160, F-254, F-330, F-420
Axis system	<ul style="list-style-type: none"> • Software controlled Y-axis (3. Axis) • Rotary units with different chucks (4. Axis)
SpeedMark Vision – Smart Adjust	Integrated camera system for positioning support: Camera image is shown in the operator GUI and permits a user friendly and very precise positioning of the marking directly onto the work piece. Different camera lenses with different image sizes and resolutions are available --> please refer to the datasheet "SpeedMark Vision - Smart Adjust".
Extended I/O interface	Additional in- and outputs, 24 VDC
Additional optional accessories	<ul style="list-style-type: none"> • Counter bearings for rotary unit • Foot switch for efficient and user friendly control of the system • Exhaust systems • Transport reels
Industrial PC – high performance	Optional and more performant version of industrial PC (CPU, HDD, RAM, graphics card) for graphical applications.
Modified door with higher opening	Door with higher opening for more user-friendly loading and operation

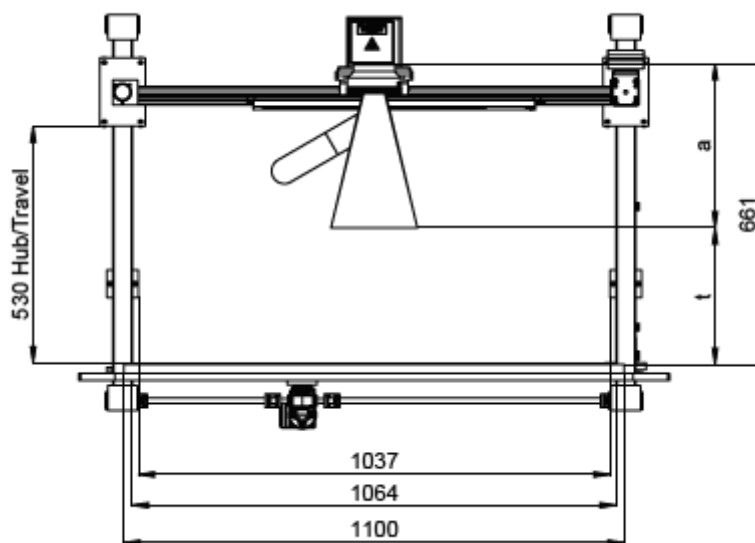
Dimensions / Installation / Laser Safety

	Low door	High door (standard)
Dimensions (W x H x D in mm)	1300 x 1790 x 960	1300 x 1800 x 1030
Interior Dimensions (W x D in mm)	1250 x 898	1250 x 1000
Door opening (W x H in mm)	1100 x 377	1080 x 510
Loadable height of part in mm <i>(with base plate / with Y-axis)</i>	360 / 333	490 / 463
Door	Manual and/or automatic	
Weight with laser	380 kg <i>(400 kg with Y-Axis)</i>	
Ambient conditions	Operating temperature range +5 to +35° C. Relative humidity max. 90 %; Non-Condensing	
Electrical Requirements	115 - 230 VAC, 16 A, 50/60 Hz, 1/N/PE	
Power Consumption	< 1400 W	
System Protection	Marking Head: sealed against spray water <i>(IP 54)</i> Laser Rack Unit: dust protected <i>(IP20)</i>	
Laser class	CDRH Laser Safety Laser Class 2 CE certified	

Interior (Standard version)

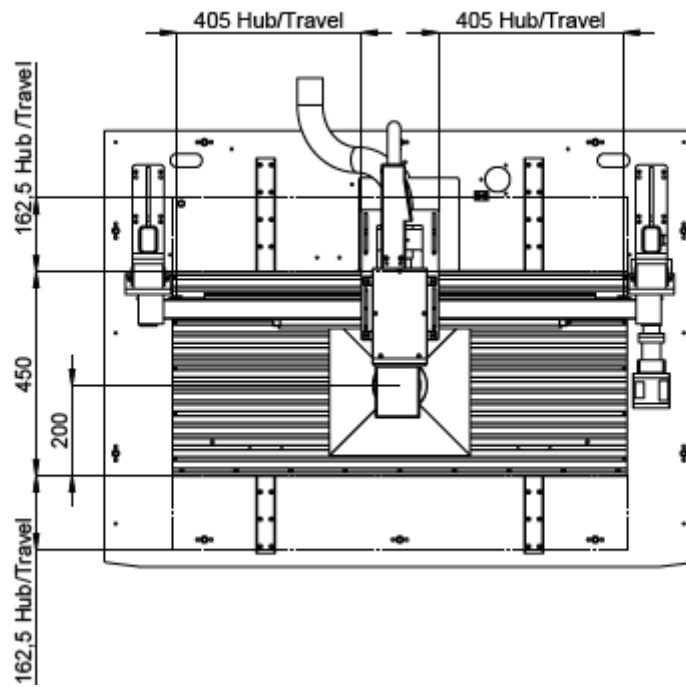


Top view

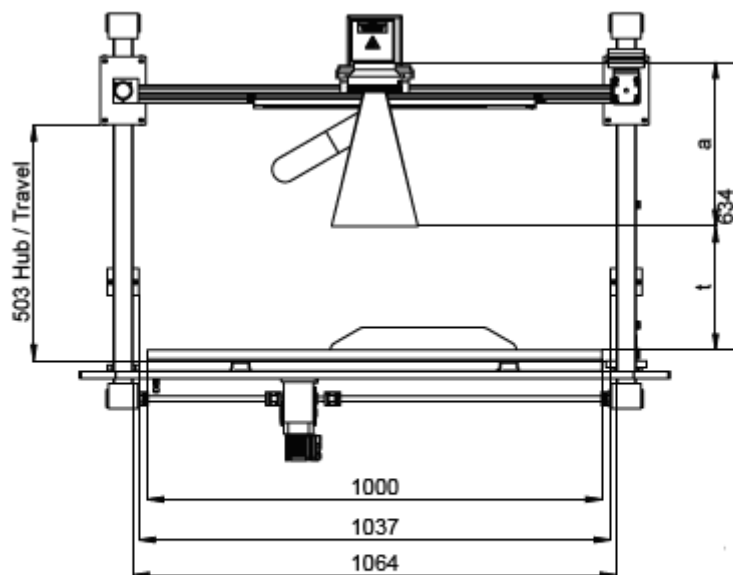


Front view

Interior (with software-controlled Y-axis)

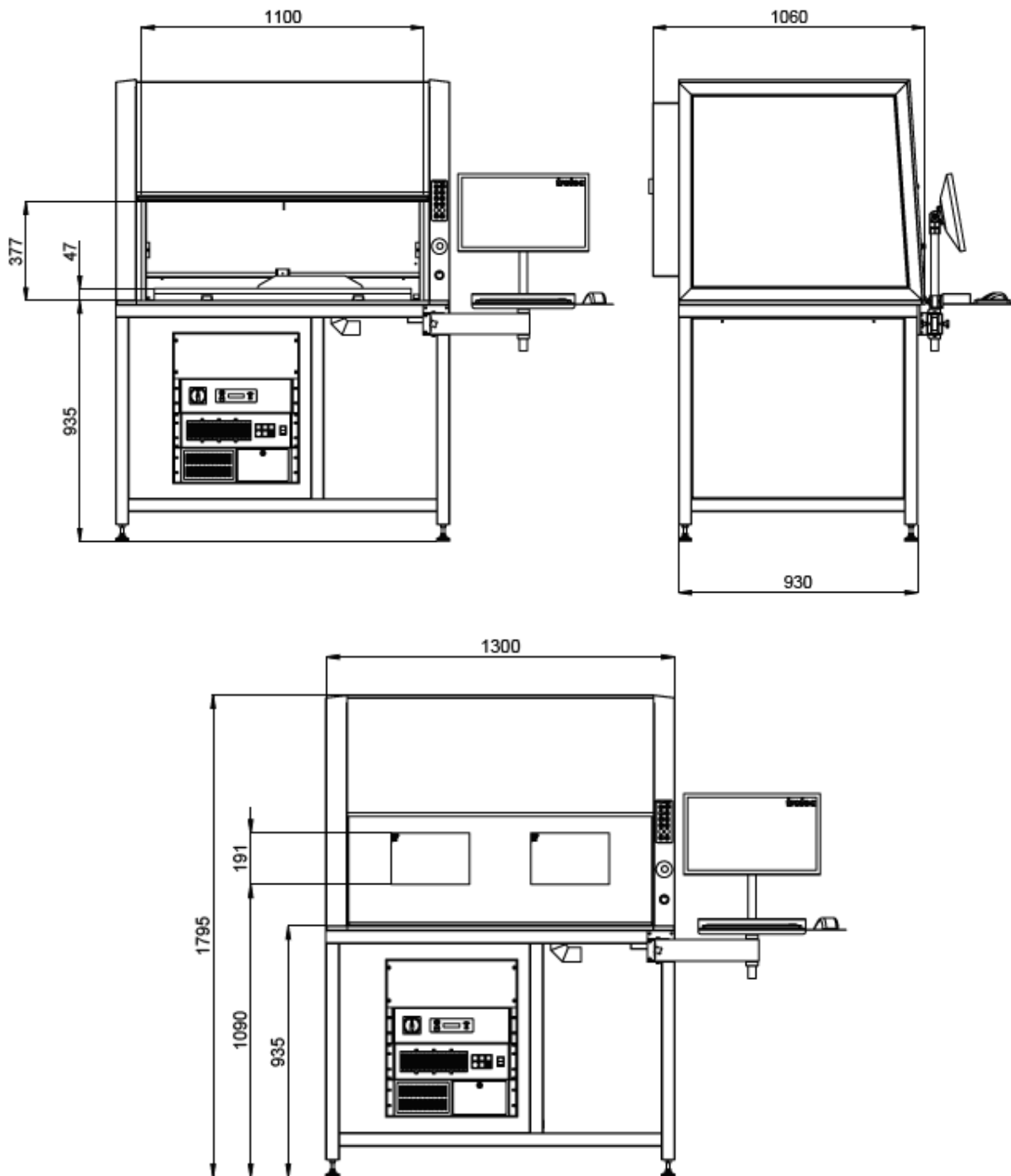


Top view with Y-axis

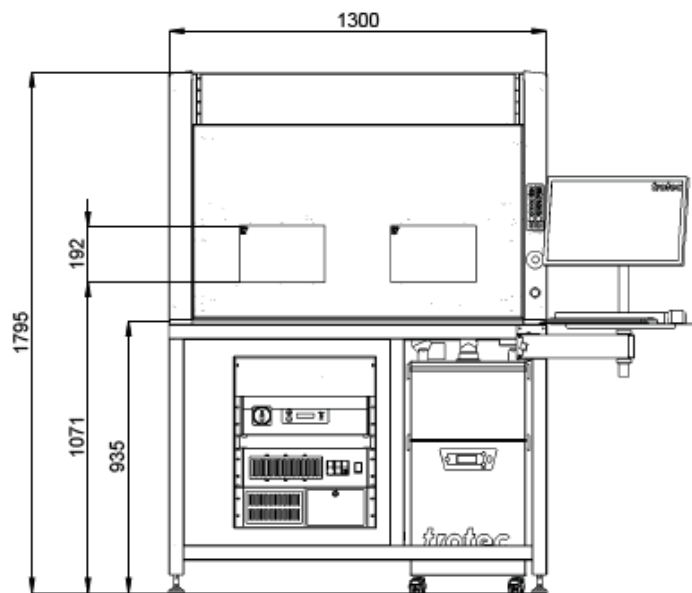
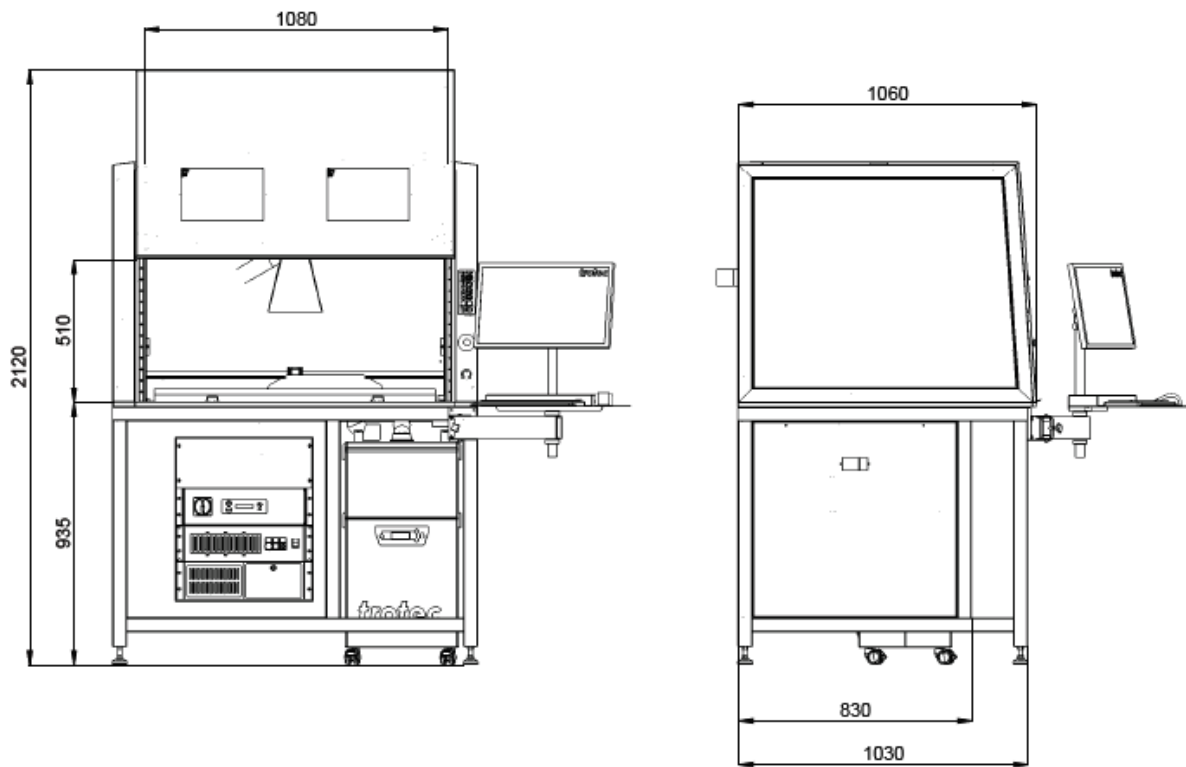


Front view with Y-axis

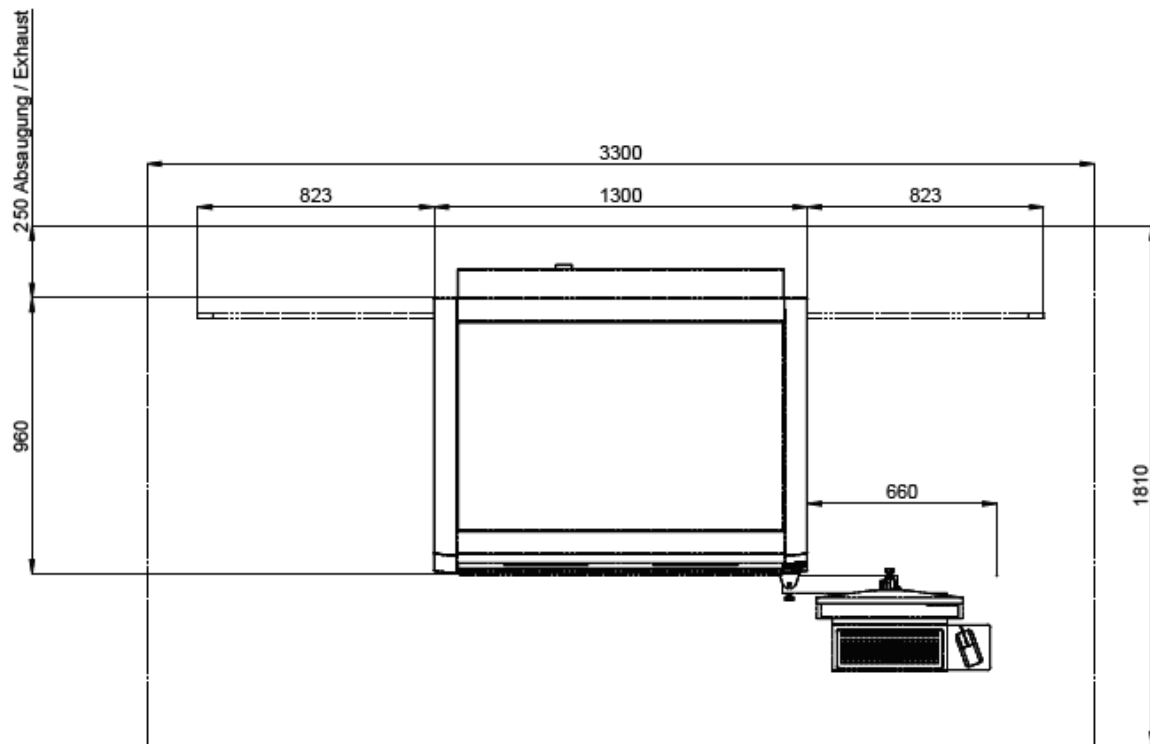
Exterior dimensions



Front and side view



High door



Setup

Tolerances on Dimensions: 1%
Content subject to change without prior notice.
Updated: December 2019