

micro-F13R/G DPSS

swisstec
micromachining

Sheet: cutting - drilling - welding



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- sheet micromachining for dry or wet operation
- sheet dimension: 50x50mm up to 200x600mm
- machine frame made of granite (temperature-stable, shock absorbing)
- linear X- & Y-axis: lead screw or linear motor
- cutting box
- highly dynamic positioning
- application dependent laser configuration
- adjustable nozzle distance
- NC controlled process gas
- process observation and monitoring
- easy access to workspace
- machine frame integrated diode pumped YAG laser
- Optional CAD/CAM coupling
- Optional 5 axis robot handling system
- Optional vacuum cleaner
- made for 24-7 production
- low maintenance
- warranty 4000 working hours

Technical specifications

		RED YAG	GREEN YAG	Option
general information				
machine dimensions (L x W x H)	[mm]	1180x780x1400	1180x780x1400	
weight	[kg]	900	900	
electrical supply		3x400V/50-60Hz	3x400V/50-60Hz	country-specific
pneumatic supply	[bar]	min. 6	min. 6	
integrated transport system		✓	✓	
integrated control cabinet		✓	✓	
operator panel		movable	movable	rotatable
laser cabinet		internal	internal	
laser system				
type	DPSS YAG	RED	GREEN	application dependent
wavelength	[nm]	1064	532	
frequency	[kHz]	5 - 100	10 - 50	
pulse length	[ns]	25 / 40	40 / 100	
optical system	[mm]	F = 50	F = 50	
exchangeable protection glass		✓	✓	
cutting nozzle diameter	[mm]	0.5	0.5	0.2
beam expander		✓	✓	1 to 8x
powered beam expander				✓
nozzle distance adjustment		manual	manual	powered
focus adjustment		manual	manual	powered
water cooling system		external	external	internal chiller
number of process gas connections		1	1	up to 4
gas pressure monitoring and control				✓
water pressure monitoring and control				✓
process observation		monocular	monocular	binocular
CCD-camera / monitor				monochrom/color
mechanics				
max. cutting dimension	[mm]	50x50 / 100x100	50x50 / 100x100	up to 200x600
X- & Y-axis: guiding rails		✓	✓	
X- & Y-axis: drive		lead screw	lead screw	linear motor
X- & Y-axis: max. speed	[m/min]	9	9	30
X- & Y-axis: measuring system	[µs]	+/- 0,5	+/- 0,5	+/- 0,1
security cover				
laser class		1	1	
eye protecting inspection window	[mm]	100 x 200	100 x 200	other dimension
number of doors		2	2	
interlock switch		✓	✓	
workspace illumination				✓
<ul style="list-style-type: none"> • machine setup time: 2 hours • factory training: <ul style="list-style-type: none"> ○ free at Swiss Tec's facility ○ additional charges for training at customer's facility 				