

TECHNICAL DATA	RR WRITER by OROTIG			LASER WRITER 20 OPEN by OROTIG
	50T	20H	20S	
LASER-source type	MULTI-DIODE PUMPED FIBER (Yb) LASER (Class 4)			
Wave-length	1060 – 1085 nm	1030 – 1200 nm	1064 ± 2 nm	1064 ± 2 nm
LASER Pulse-Power	50 W	20 W	20 W	20 W
Pulse-duration, up to	120 nS	200 nS	120 nS	120 nS
Pulse-energy	1.0 mJ at 50 kHz	0.8 mJ at 25 kHz	1.0 mJ at 20 kHz	1.0 mJ at 20 kHz
M ²	< 1.8	1.6 – 2.0	< 1.8	< 1.8
Pulse-frequency	50 - 100kHz	1 - 200 kHz	20 - 60 kHz	20 - 60 kHz
Pilot LASERS	2, max 5 mW, 630÷670 nm, diode-LASERS (Class 3R)			
Pilot's light intensity	Adjustable in intensity via dedicated Dimmer			
Scan-head	Ultra high-speed galvanic mirrors, marking speed > 7 m/S			
Scan-head's focus Adjustment	through the built-in digital keyboard, software and foot pedal			
Focal Lens, to choose from:	F-Theta 100		F-Theta 160	
Spot Diameter and Size of L-marking Field	25 µm 60 x 60 mm		35 µm 110 x 110 mm	
Cooling	Air-cooled LASER source <i>Auxiliary external chiller NOT required (to warming-up time neither)</i>			
System's Requirements, min	IBM-compatible PC, i3, 1 GB RAM, 100 Mb free memory in HD, DVD-ROM, USB 2.0 Operating system: any by Windows <i>Proprietary firmware is provided standard in a DVD/USB-key for easy installation NO PCs/Portable PCs and/or Monitors are provided with the equip</i>			
PC to LASER Interface	USB 2.0 port			
Color Micro Video-tele-camera	Integrated, included with a 8X zoom-lens			N/A
Dust-exhausting Device	Optional Included plug connection to synchronize aux ext exhauster			Optional
Access door	Moved up/down by program; openings on the 3 sides to ease introducing ext aux devices into a 32x45-cm working area			N/A
Power-supply	1-ph, 100/240Vac, 50/60Hz, 6A			
Max consumption	450 W	300 W	300 W	300 W
Room Temperature	10°C to 35°C			
Humidity (relative)	30% to 85%, non condensing			
Dimensions (W x D x H/H open)	45 x 71 x 80/106 cm	45 x 71 x 65/91 cm		32/39 x 54 x 65/89 ⁽¹⁾ cm
Weight (for 3X or Z versions)	80 (85) kg	67 (72) kg		28 / 33 ⁽¹⁾ kg
Packing	80 x 62 x H100 cm 95 or 100 kg	80 x 62 x H100 cm 80 or 85 kg		80 x 62 x H90/100 ⁽¹⁾ cm 45 or 50 ⁽¹⁾ kg
Available Optional:				N/A
3-axis control motion and FW	✓			N/A
SW-moved Z-axis and FW	✓			N/A
Dust exhauster with paper filter	✓			✓
Rotary device	✓			✓
Automatic dragging device	✓			✓
FW for 3D L-marking	✓ (in 3X / Z versions only)			N/A
Full SW to imp/exp job-files	✓ ⁽²⁾			N/A ⁽³⁾
Extra F-Theta Lenses	✓ 63, 210			63, 210, 254

⁽¹⁾ Different LW20Open casing for version mounting F-Theta 210 or 254 lenses

⁽²⁾ Job-file extensions provided in base SW package: .plt .dxf .saf .txt .bmp
Job-file extensions included in optional full SW package (provided standard in 3X / Z versions): .cmx .emf .svg .ai .job .mcl .twain .pcx .jpg .gif .png .tga .tif

⁽³⁾ Job-file extensions standard provided in SW package: .ai .plt .dxf .jpc .svg .nc .g .bot .dst .bmp .jpg .gif .tga .png .tif

Code	Models
L50JM20W	RR WRITER 20S by OROTIG, 20W MDP Fiber-sourced L-mark equip
L500M20G	RR WRITER 20H by OROTIG, 20W MDP Fiber-sourced L-mark equip
L500T50W	RR WRITER 50T by OROTIG, 50W MDP Fiber-sourced L-mark equip
L10JM20W	LASER WRITER 20 OPEN by OROTIG, 20W MDP Fiber-sourced L-mark equip
Available Optional	
3X	Complete assembly set up for moving by 3 axes, including proper managing FW To be ordered/provided at ordering the equip - NOT available for OPENS
Z	Complete assembly set up for moving the Z-axis by program, including dedicated FW To be ordered/provided at ordering the equip - NOT available for OPENS
3D	Special FW to allow making 3D shaped L-markings Available for all versions under 3X / Z setup ONLY To be loaded/activated any time via licensed PW
	Rotary device (or 4 th axis), complete assembly to allow L-marking in/out rings/bangles; it includes a chuck for holding rings, RIC00400 Purchasable anytime LAM10051, version for RRWs only LAM10005, version for OPENS only
RIC00400	Chuck support for L-marking in/out rings
RIC00405	Chuck support for L-marking in/out bangles/bracelets
	Dragging device to automatically pull/feed bobbins to L-mark/cut plates, SAT110 model; it includes (except in 3X-version RRWs) the dust exhauster device, RIC00418, with its paper filter, RIC00424 Purchasable anytime RIC00434, version for RRWs RIC00417, version for OPENS
RIC00419	Universal dust-exhausting device, support ARM147-60 model; included of paper-filter, RIC00424 Provided standard to all L-markers, except 3X-version RRWs.
RIC00429	Plug to synchronize the automatic switching of any aux ext exhauster/vacuum-cleaner Integrated/standard provided in all L-markers
SW	Full extended SW version to import/export job files with many extra extensions Available for RRWs (and provided standard with 3X / Z setups) To be loaded/activated any time via licensed PW
ATE00100	Focal lens F-Theta 100, for all versions/models; provided standard in lieu of F-Theta 160 Useful H to L-mark: 219 mm (230 mm in 3X / Z versions) in RRWs, 242 mm in OPENS <i>When purchased (anytime) in addition to lens already in place</i>
ATE00160	Focal lens F-Theta 160, for all versions/models; provided standard in lieu of F-Theta 100 Useful H to L-mark: 154 mm (165 mm in 3X / Z versions) in RRWs, 164 mm in OPENS <i>When purchased (anytime) in addition to lens already in place</i>
ATE00063	Focal lens F-Theta 63, 8 µm, 36x36 mm, for all versions/models, except OPENS Useful H to L-mark: 219 mm (230 mm in 3X / Z versions) in RRWs Useful L-marking area in RRWs, 3X / Z versions: 150 x 150 mm When provided in lieu of any to be chosen from standard provided focal lenses <i>When purchased (anytime) in addition to lens already in place</i>
ATE00210	Focal lens F-Theta 210, 20 µm, 145x145 mm, for all versions/models H left to L-mark: 100 mm (100 mm in 3X / Z units) in RRWs, 325 mm in OPENS Useful L-marking area in RRWs, 3X / Z versions: 150 x 150 mm When provided in lieu of any to be chosen from standard provided focal lenses <i>When purchased (anytime) in addition to lens already in place</i>
ATE00254	Focal lens F-Theta 254, 50 µm, 180x180 mm, for OPENS only - H left to L-mark: 260 mm When provided in lieu of any to choose from standard provided focal lenses <i>When purchased (anytime) in addition to lens already in place</i>
RIC00056	Auxiliary external footswitch command Provided standard in all L-markers
IFA00313	Spare/replacement, paper filter For all RRWs only
RIC00424	Spare/replacement paper-filter for dust-exhauster (10-pc pack) For all versions/models
LDA00105	Protection eye-glasses Provided standard, one pair, in OPENS
RIC00430	Protection casing or shielding screen, metal, removable Provided standard in OPENS