



Mitsubishi Electric processing machines support the world

1986 L series

1995 LX series

1998 LZ series

2001 LV series

2008 LV PLUS series

2011 eX series

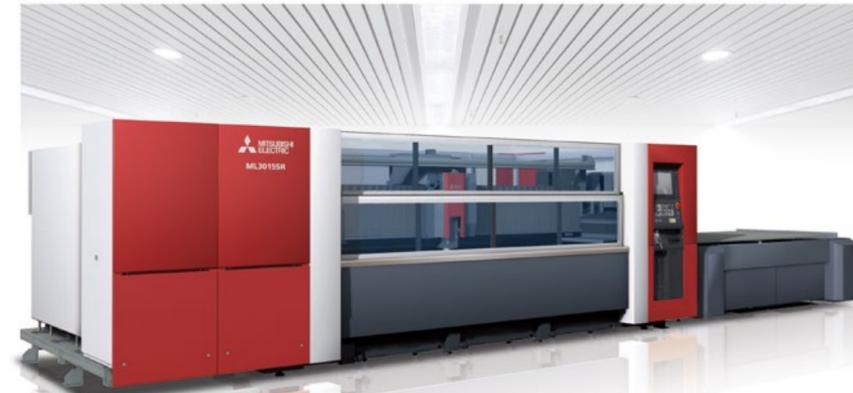
2015 eX PLUS series



2015 ML3015SR-32XP

FACTORY AUTOMATION

CO2 2-Dimensional Laser Processing Systems ML3015SR-32XP

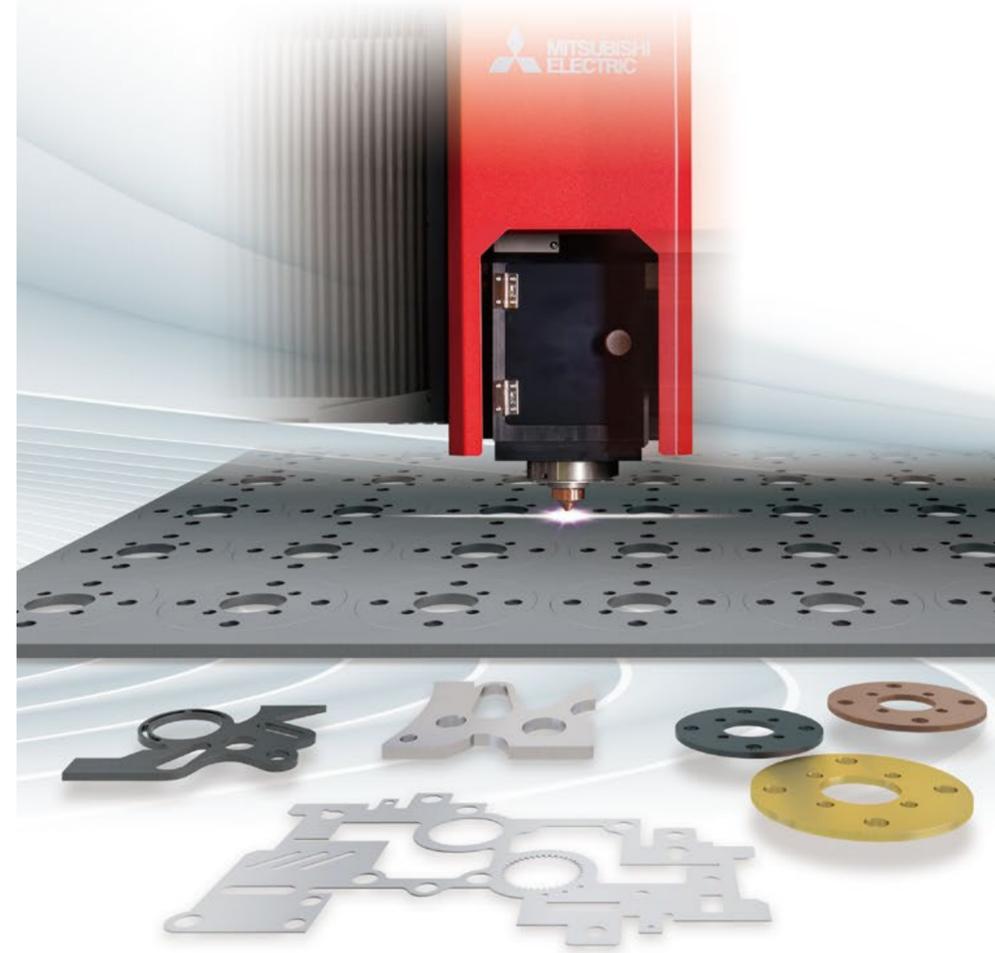


SR

MITSUBISHI ELECTRIC CORPORATION HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN NAGOYA WORKS: 1-14, YADA-MINAMI, 5-CHOME, HIGASHI-KU, NAGOYA 461-8670, JAPAN

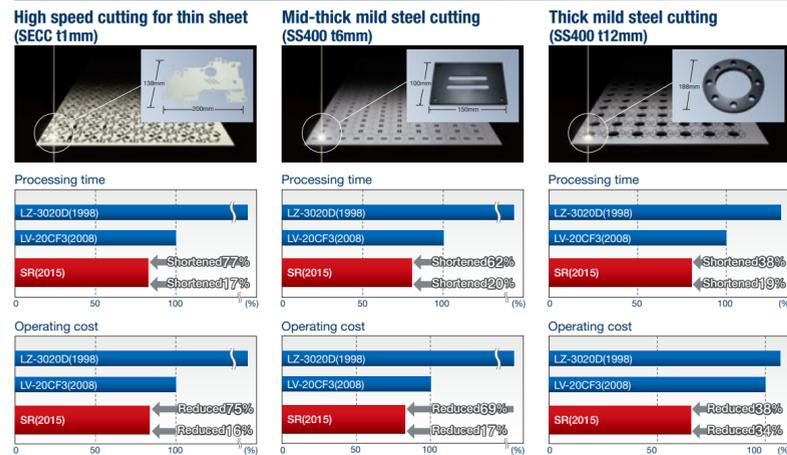
* Not all the models are supported in all the countries and regions. * The machine specifications differ according to the countries and regions. Please check with your dealer. * The processing data provided in this brochure is for reference only.

Mitsubishi Electric Laser Processing Machines - supporting the world's production sites -

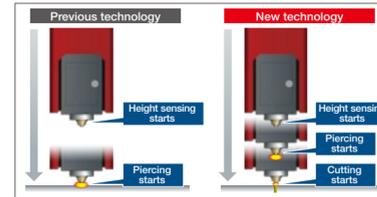


All-around machine that covers all plate thickness

Improvement of processing performance

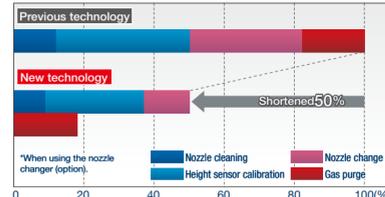


Reduction in processing time of thin sheet



Minimizes the time before starting the piercing operation by performing the beam on and gas on processes before the height sensing completes.

Reduction in non-actual processing time



Total productivity has been improved with the high-speed and parallel operation of each movement before processing.

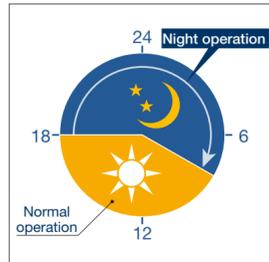
Cutting sample



Reliable and comfortable operation attained with the latest technology

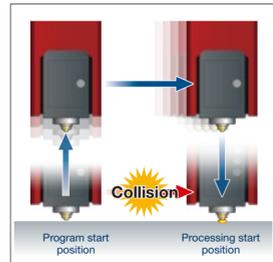
Support for reliable operation

Night mode



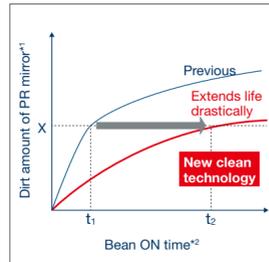
Switching to the night operation with the preset time is available. Reduction in pallet running noise considering the surrounding environment. Reduction in contact with the workpiece by changing the movement of the processing head.

Upward Z-axis at program start



Z-axis rises automatically at the same time with the program start. Reduces the risk of processing head collision and supports reliable operation regardless of skill level.

New clean technology



Enhanced clean technology extends the life of the PR mirror drastically.

- *1: Dirt limit value X of PR mirror differs depending on the processing contents, required specifications, etc.
- *2: Time of t₁ and t₂ that reaches to the dirt limit value of PR mirror differs depending on the deterioration condition of the oscillator parts.

Comfortable operability

Simple processing condition adjustment



High quality processing regardless of proficiency is possible by selecting the similar picture to processing status.

Simple program editor



Allows the change of program and processing condition numbers easily while checking the shape on the graphic screen.

Active control



Adjusts the processing condition by a dial while looking at the processing.

Visualization supports energy saving / production plan and reduces operating cost

Visualization



Reduces operating cost and supports energy savings

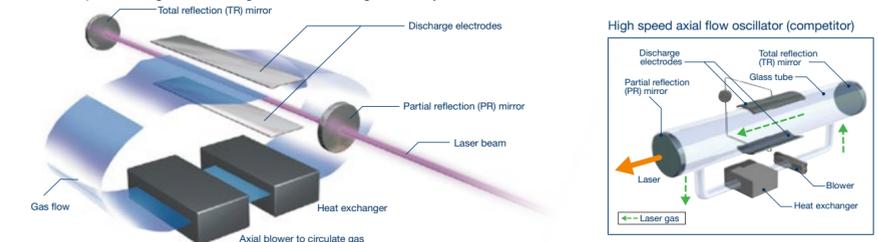


ECO mode

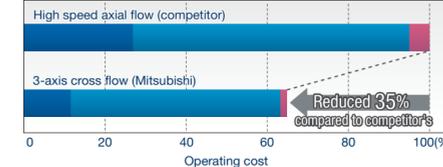
Cost during standby has been reduced by up to 93% by shutting down each operation in stages after processing completes.

3-Axis cross gas flow excitation system oscillator

Mitsubishi Electric's resonator series realizes further enhancements in performance and stability, and incorporates original technologies that ensure high reliability.



Comparison of operating cost per hour



The Just-on-time discharge method and the seal-off operation significantly reduce power consumption and gas consumption. Also, the simple oscillator structure with few maintenance parts reduces the total operating cost.

- Maintenance parts
- Electricity
- Laser gas

Model	Material	Assist gas	Thickness(mm)											
			0	2	4	6	8	10	12	14	16	18	20	22
ML3015SR-32XP	Mild steel(SS400)	Oxygen	[Bar chart showing capability up to 24mm]											
	Stainless steel(SUS304)	Nitrogen	[Bar chart showing capability up to 24mm]											
	Stainless steel(SUS304)	Nitrogen	[Bar chart showing capability up to 24mm]											
	Aluminum alloy(A5052)	Air	[Bar chart showing capability up to 24mm]											
	Aluminum alloy(A5052)	Nitrogen	[Bar chart showing capability up to 24mm]											

The above are processing capabilities based on special conditions. The acceptance criteria are as stated in the specifications.
 *The actual performance/quality may vary depending on the surface condition and deviation in the material composition even if materials are of the same specifications.
 *Variations in processing performance/quality may occur depending on the part geometry.
 *Regarding mild steel (SS400) with a thickness over 119mm, capacities listed in this catalog are based on the LS material (steel plate for laser cutting) of Chubu Steel Plate Co., Ltd.

Options	
Processing machine	f125mm (5") lens f254mm (10") lens Magnetic damage reduction Automation pack (Magnetic Damage Reduction + Nozzle Changer) Work clamp (manual) Work lifter Barcode reader LED light FRG(F-CUT Route Generator)
Control unit	Network download
Solutions	CamMagic LA (CAD/CAM exclusively for lasers) Linked nesting Linked DXF conversion Linked e-mail notification additional features BANKIN Navigator(Production control support)

Processing Machine specifications		Oscillator specifications	
Model name	ML3015SR	Model name	ML32XP
Drive system	Flying optic (X-axis, Y-axis:light transfer)	Excitation method	3-axis SD excitation cross flow oscillator
Control system	Simultaneously 3-axis (X-Y-Z) control (Z-axis height control is also possible)	Pulse peak output (W)	3200
Workpiece dimensions (mm)	3050×1525	Rated output (W)	2700
Pallet load weight (kg)	950	Beam mode	Lower order (TEM01 main component)
Workpiece support height (mm)	880	Power stability (%)	±1 or less during power control (relative to rated output)
Stroke	X-axis (mm) 3100 Y-axis (mm) 1565 Z-axis (mm) 150	Output power adjustable range (%)	0 to 100
Speed	XY-axis(m/min) Maximum 100 Z-axis(m/min) Maximum 65	Laser gas composition	CO ₂ :CO ₂ :He = 8:4:60:28
Accuracy	Maximum processing feedrate(m/min) 50 Positioning accuracy XY-axis(mm) 0.05/500 Z-axis(mm) 0.1/100 Repeatability (mm) ±0.01(X,Y-axis)	Laser gas consumption(ℓ /hr)	Approx. 1
Processing head	Auto-focus preset head Processing lens (mm) ø50.8(ø2.0")×f190.5(f7.5")	Power requirement (kVA)	41
Power requirement (kVA)	8	External dimensions (mm)	2040×450×1620
External dimensions	9918×3134×1956	Weight (kg)	Approx. 1200
Weight (kg)	Machine weight (excluding oscillator) Approx. 7500 Pallet changer weight Approx. 2100	Cooling system specifications	
		Cooling method	Air
		Power requirement (kVA)	21
		Cooling capacity (kW)	45
		External dimensions (mm)	2390×934×1772
		Weight (kg)	Approx. 850
		Control system specifications	
		Display screen	15" TFT (touch panel)
		Hard disk (GB)	20
		Program input method	Screen creation, USB (ver.2.0), Ethernet
		Operation method	Memory operation, HD direct operation

