

Laser Harness Solution

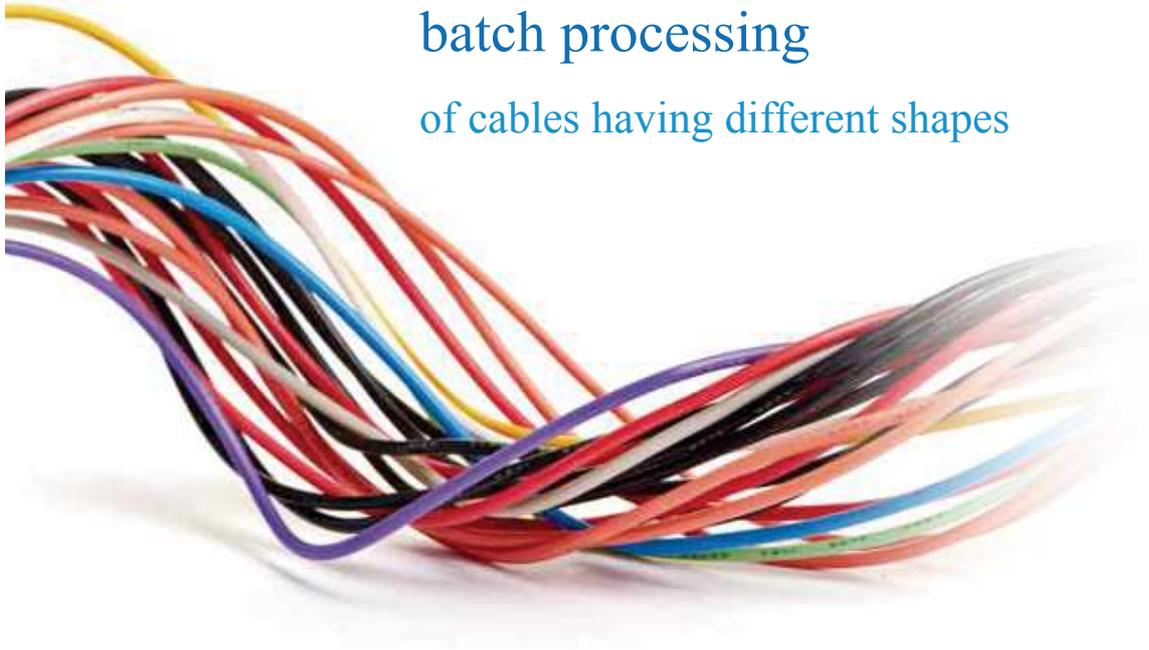
Laser Machine for Cable Processing



FBC FURUKAWA BUSSAN CO.,LTD.
FURUKAWA BUSSAN

<http://www.fbc.co.jp>

The laser processing machine used exclusively for harness processing can perform high-accuracy and high-quality batch processing of cables having different shapes



Uses

- Processing of the coating and shield of electric wires used in electronic devices, medical devices, inspection equipment, and high-capacity high-speed data communication devices
- Processing of the coating and braiding wires in medical apparatus, such as catheters and guide wires
- Laser processing of various other electric wires and cables

Features

- Uniform processing across the entire circumference of the cable through a unique optical design and laser irradiation method
- Easy maintenance and processing stability with the countermeasure against flue dust generated during processing
- Increase in productivity and reduction in manpower achieved through batch processing by laser

Laser Harness Processing Machine

Laser Jacket Cutter

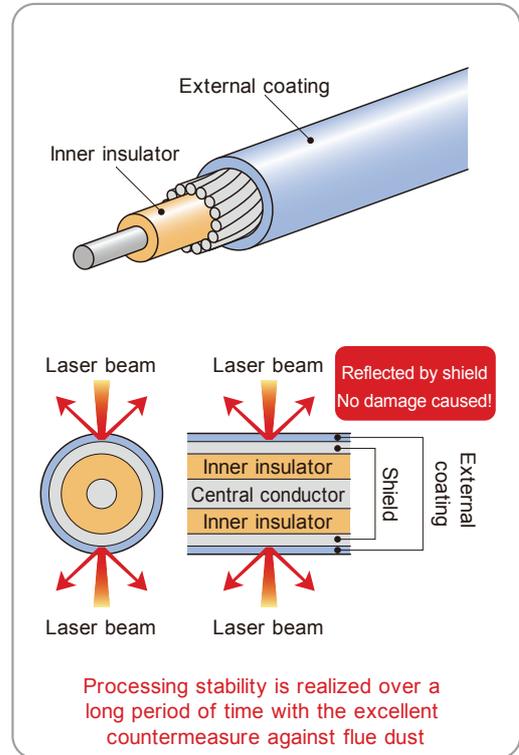
JC Series



JC-30XL
Effective processing length 300mm



JC-30XS
Effective processing length 85 mm



Laser Shield Cutter

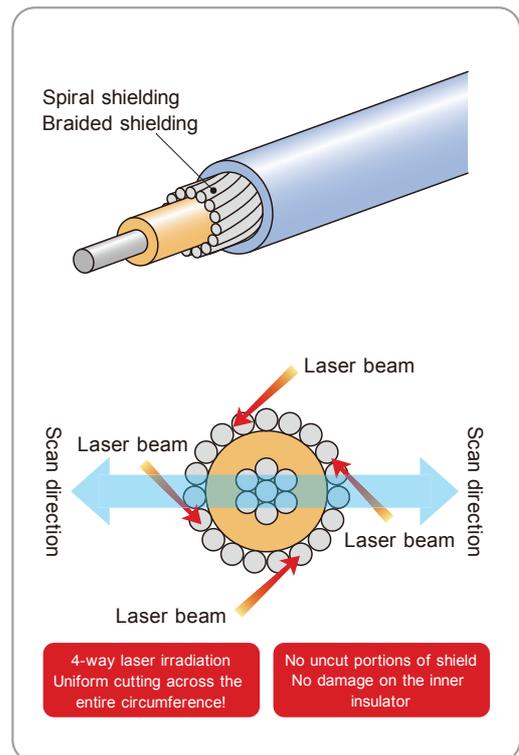
SC Series



SC-10FL
Effective processing length 300mm

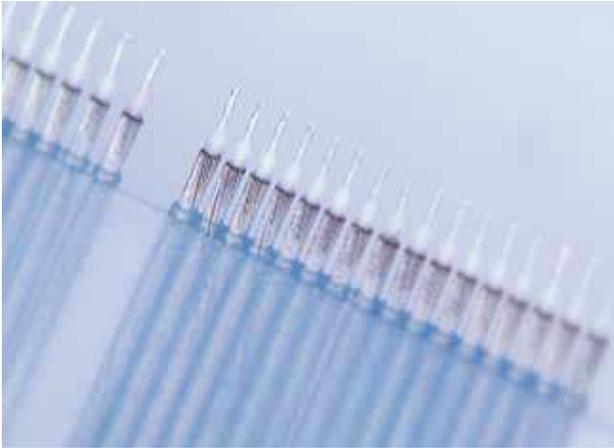


SC-10FS
Effective processing length 85mm

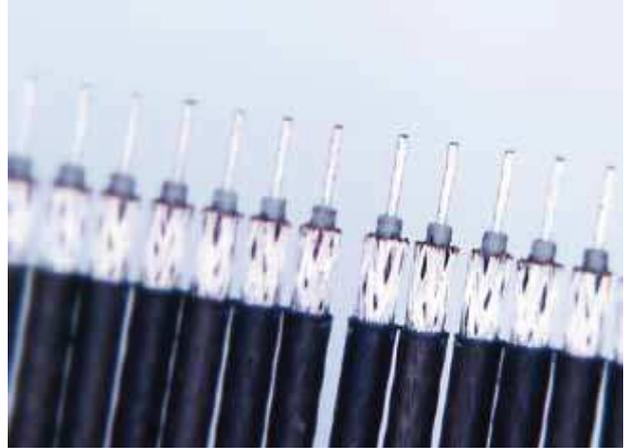


■ Processing Examples

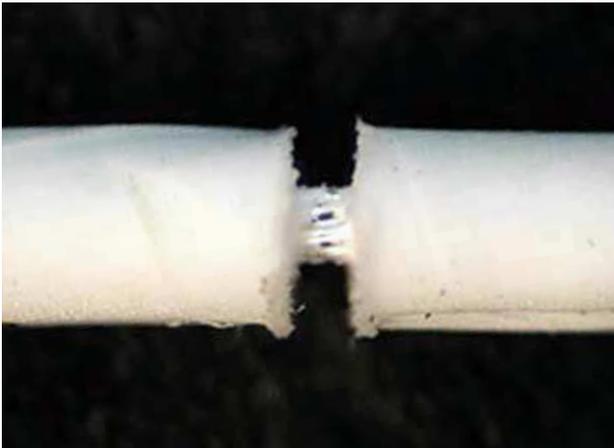
■ AWG44 Spiral Shield Coaxial Cable



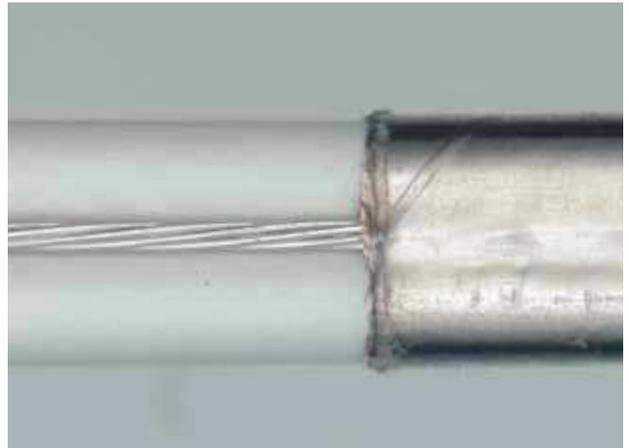
■ AWG40 Braided Shield Coaxial Cable



■ High foaming insulator (e-PTFE)



■ High-speed transmission cable (Twinax)



Related Devices



Shield stripper

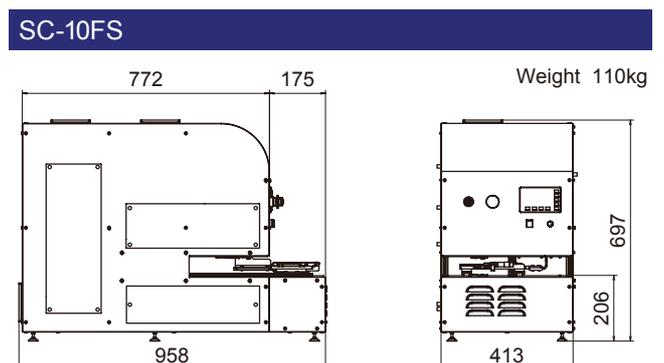
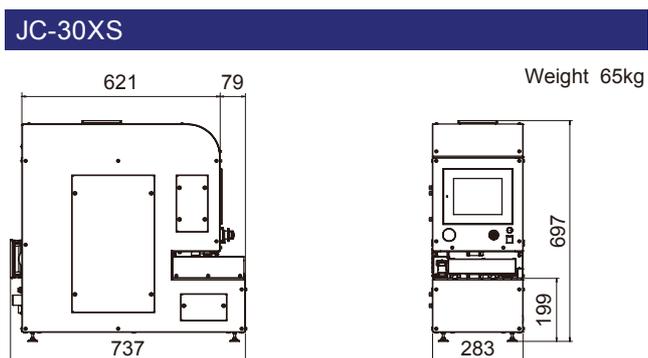
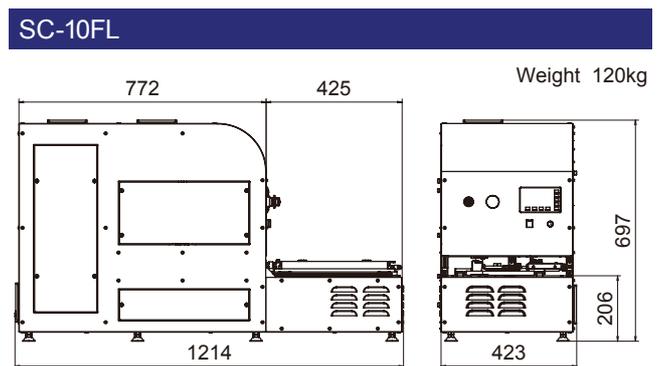
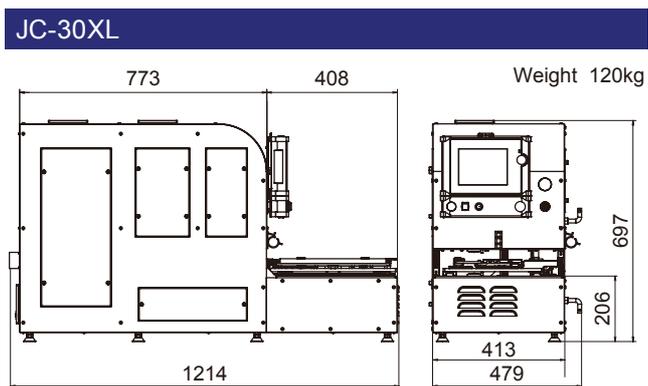


Cable laminator

- Jacket stripper
- Tip cutting tool
- Wire testing machine
- Cable cutting machine
- Smoke filter
- Various jigs, etc.

Machine Specifications

	Item	JC-30XL	JC-30XS	SC-10FL	SC-10FS
Laser	Type	CO ₂ laser		YVO ₄ laser	
	Wavelength	10.6 μm		1064nm	
	Output	30 W or above (CW max. rated output)		10 W @ 30 kHz (Max. average output)	
	Output stability	±5% or less		±2% or less	
	Diameter of focused beam	200 μm or below (Theoretical diameter of focused beam)		60 μm or below (Theoretical diameter of focused beam)	
	Pulse width	-		< 40 ns @ 30 kHz	
	Pulse frequency	-		20 kHz to 100 kHz	
Processing stage scan operation	Effective processing length	300mm	85mm	300mm	85mm
	Max. scan speed	300mm/s		300mm/s	
	Processing position setting stroke	30 mm (electrical)		15 mm (manual)	
	Processing positioning accuracy	< 0.05 mm		< 0.05 mm	
	Resolution	0.01mm		0.01mm	
Power requirements	Power supply	Single phase 50/60 Hz 100 to 230 V (800 W)		Single phase 50/60 Hz 100 to 230 V (800 W)	
	Air supply	0.4 Mpa or above		0.4 Mpa or above	
	Ventilation	Air flow 3.5 m ³ /min or more (φ50 mm exhaust opening)		-	-
Processing range	(Standard)	φ8 mm to AWG52 coaxial cable * Depends on the material and thickness of coating		φ2 mm to AWG52 coaxial cable * Braiding wires of 1 mm or more diameter require pre-soldering	



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