

FANUC Remote Laser Welding Robot System



FEATURES

The remote laser welding robots, combined with the tools such as our 3D laser scanner and compact remote welding head, can perform high-speed and high-quality laser welding with high-speed and high-accuracy synchronous control between robot motions and the tool axes.

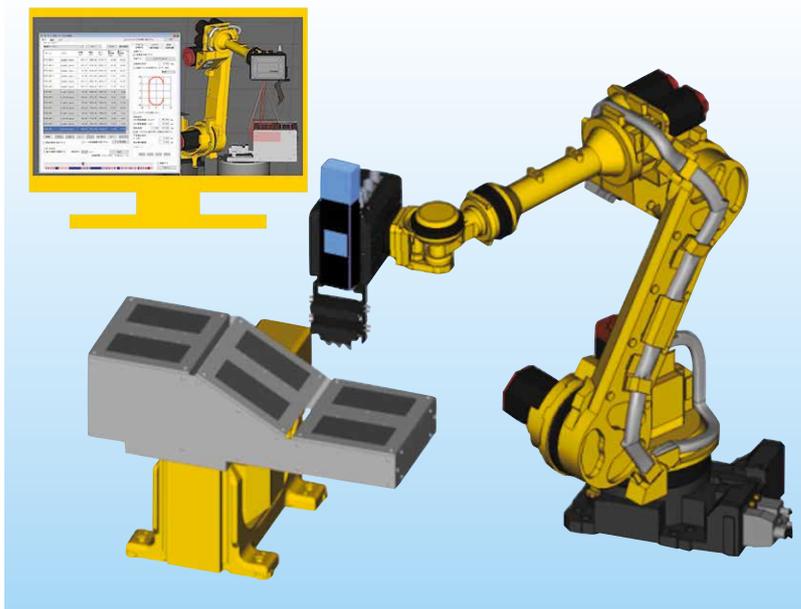
3D LASER SCANNER LS3Di-A

- 3D LASER SCANNER LS3Di-A can focus a laser beam within a large area from a distance and perform free-form scanning at a high speed to realize the optimum welding.
- ROBOGUIDE is computer software that supports robot system design. It can create both robot and scanner programs simultaneously as well as set robot paths and laser output conditions automatically.
- Welding monitoring sensor, available as an option, can be applied to inspect laser welding quality in real time.

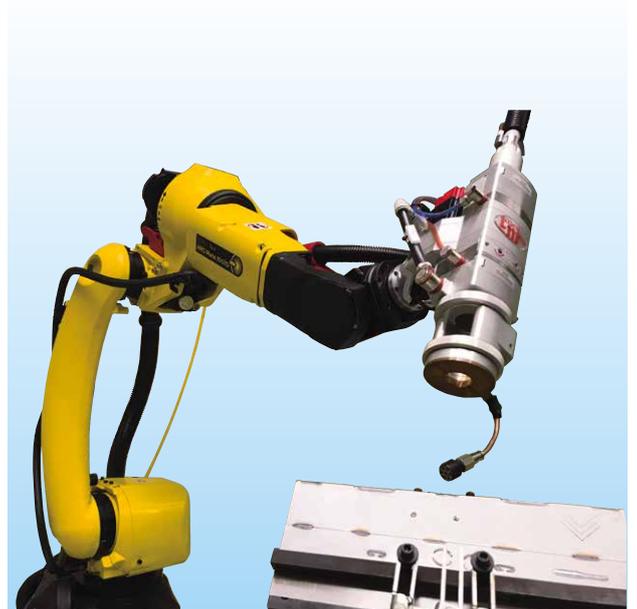
Compact Remote Welding Head FiberSCAN CRW

- Compact Remote Welding Head enables to realize 2D arbitrary-form laser welding, with a small robot.

Application Example



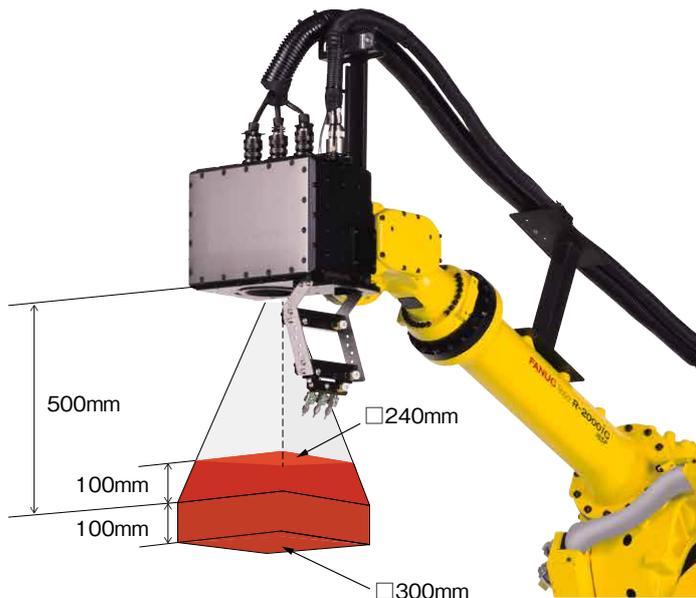
Remote laser welding system by LS3Di-A with ROBOGUIDE for offline teaching



Remote laser welding by FiberSCAN CRW

Welding area

LASER SCANNER LS3Di-A



Compact Remote Welding Head FiberSCAN CRW



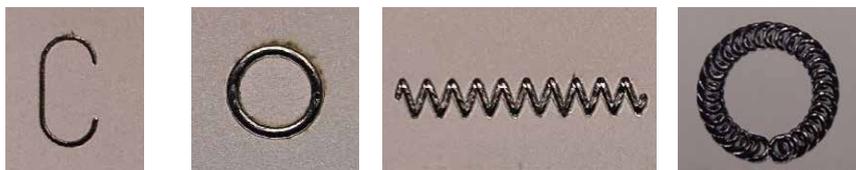
Specifications

Model	FANUC LASER SCANNER LS3Di-A
Scanner type	3D laser scanner
Maximum laser input	6,000W
Laser wavelength	1,070nm ± 10nm
Fiber type	QBH type (water-cooled)
Working space	240mm × 240mm (WD. = 400mm) 300mm × 300mm (WD. = 500mm to 600mm)
Focal position (Work distance)	500mm ± 100mm
Optical magnification	3.7x
Mass	Main unit: 22 kg

Model	Compact Remote Welding Head FiberSCAN CRW
Scanner type	2D laser scanner
Maximum laser input	6,000W
Laser wavelength	1,070nm ± 10nm
Fiber type	QBH type (water-cooled)
Working space	φ48mm (WD. = 300mm)
Focal position (Work distance)	300mm
Optical magnification	4.0x
Mass	Main unit: 5.5 kg

Application Example

LASER SCANNER LS3Di-A



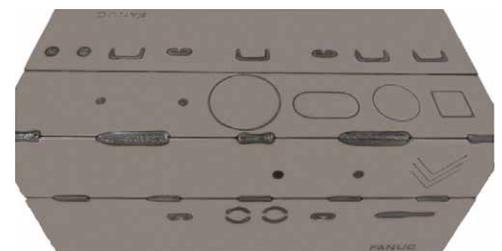
C-shaped weld

Circular weld

Weaving weld

Wobbling weld

Compact Remote Welding Head FiberSCAN CRW



Welding of C-shaped, Circular, Weaving, etc.

FANUC CORPORATION

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