High-quality 3D Cutting by Covering a Wide Area with One Robot

Robot System for Plasma Cutting

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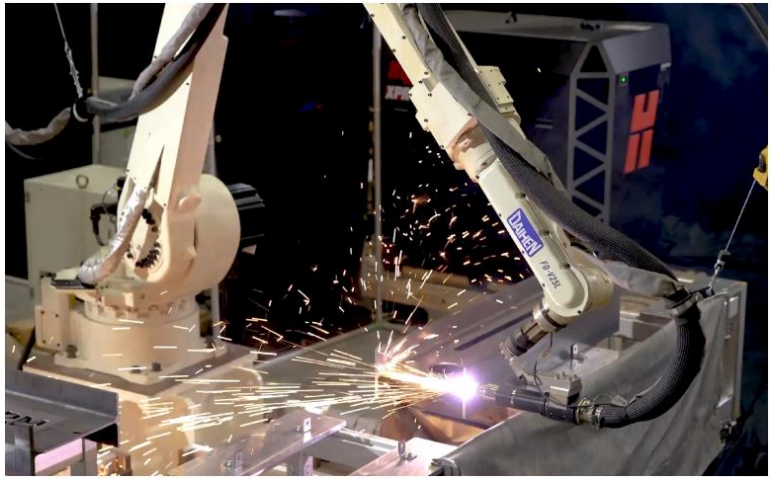
Automation challenges for 3D plasma cutting

- Setting and teaching are complicated
- Difficulty in keeping the torch height constant
- Even if it is automated, it is only for specific use and expensive



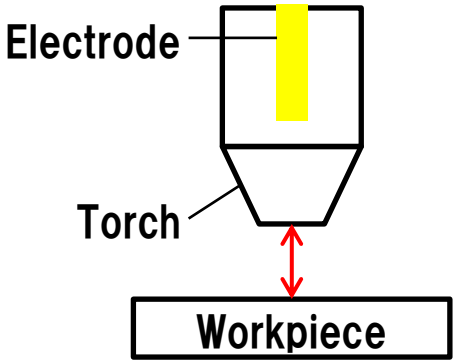
Plasma cutting robot system solves the problem !

- Automation of condition setting/start operation by dedicated instruction
- Automatically adjusts the torch height during cutting for high-quality cutting
- Robotic cutting machines capable of handling various three-dimensional workpieces

Robot System for Plasma Cutting

■ Automation of condition setting/start operation by dedicated instruction

- Automatic teaching of cutting conditions for each material and thickness
  →Cut condition database installed as standard
- Start operation is automatically executed by the start sequence function
  →Maximize consumable life and reduce chocolate stoppage



Torch height at start

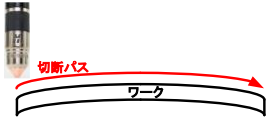
Low → Electrode damage

High → Defective arc start

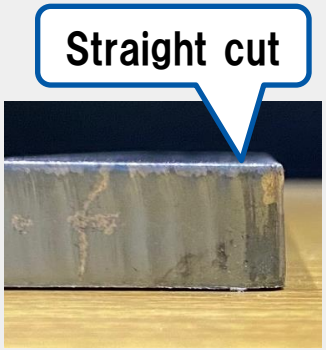
→Optimized with start sequence function

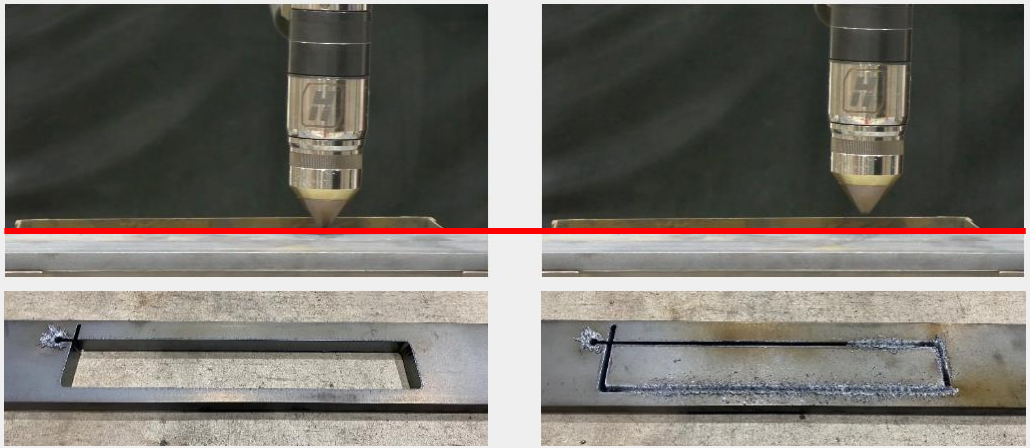
Robot System for Plasma Cutting

Achieving high quality cutting with height control function



In response to misalignment of the workpiece and thermal strain during cutting
Robot automatically controls torch height





:Torch height reference

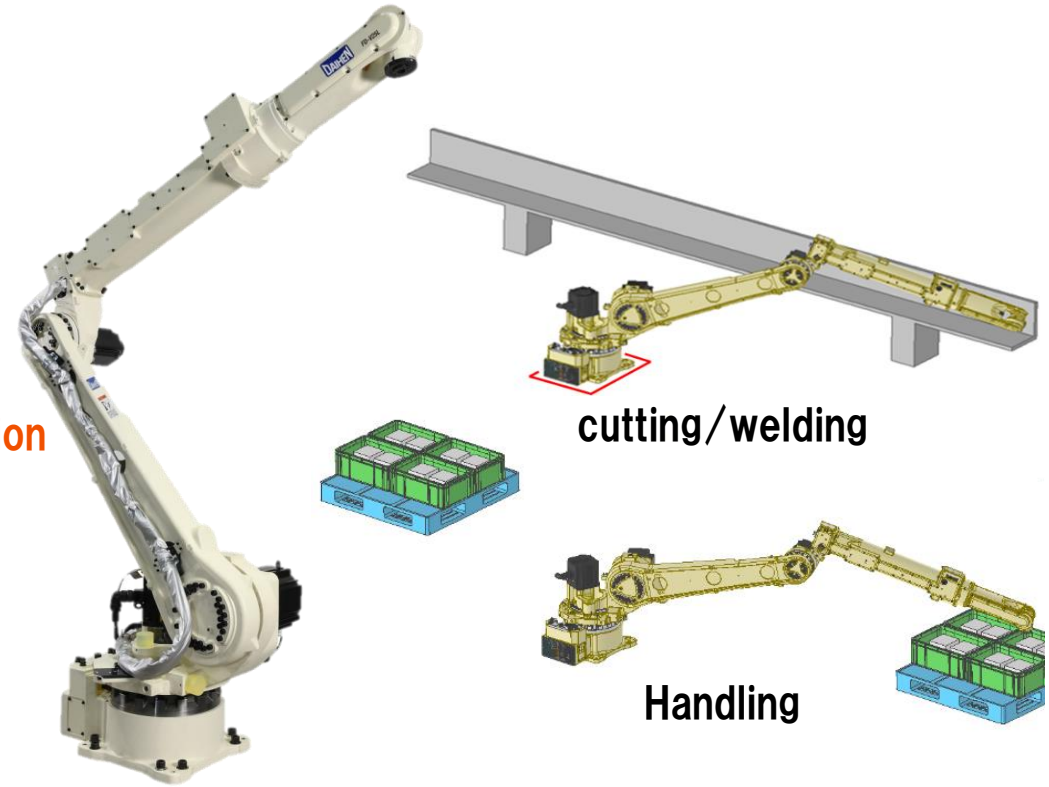
With height control※

No height control※

※End point height intentionally shifted (10mm apart)

Ultra long reach medium payload robot FD-V25L

- Long reach of over 3m
  Wide range of work
- No slider required
  Approximately 52%
  implementation cost reduction
- Useful in a wide range of situations from handling to cutting/welding



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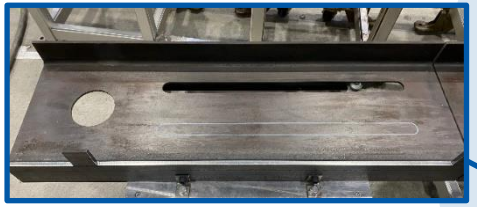
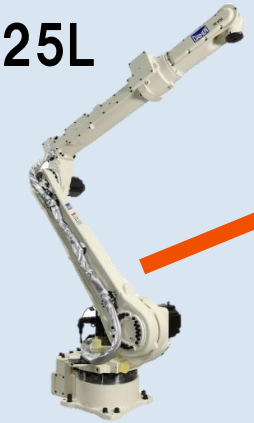


Notches, grooves (markings), service holes

H-steel×2 (2m)

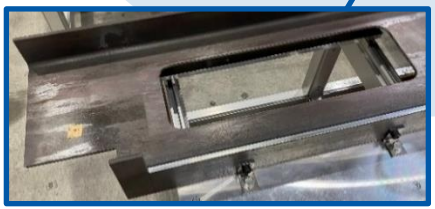
Flange bevel

FD-V25L



Maximum reach length
3136mm

H-steel ×3 (3m)



Notch, service hole (large)

Slit, Rectangular hole

Exhibition sample

Bevel processing

Mirror plate

DAIHEN's plasma cutting robot system can help you automate your cutting.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