

Lean Automation Through Parallel Work Between **Humans and Robot**

Arc Welding Optimal Collaborative Robot Package (Trolley type)



Issues of introducing robots for large structures



- Moving robots is essential for large structures
- Teaching operation takes time and automation is not profitable



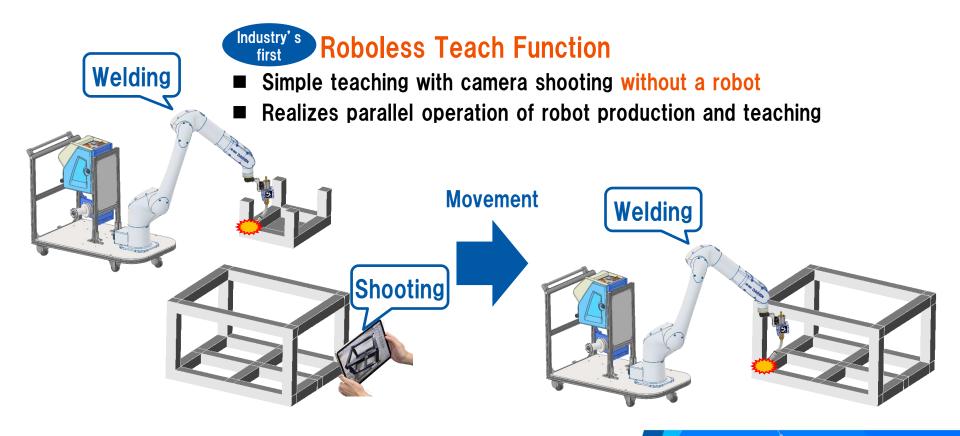
Site of a large structure



Teaching operation required for each movement

Features of Trolley Type Collaborative Robot



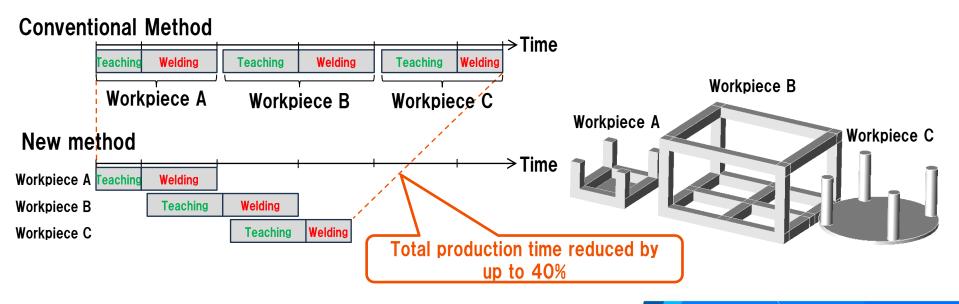


Features of Trolley Type Collaborative Robot



Industry's Roboless Teach Function

- Simple teaching with camera shooting without a robot
- Realizes parallel operation of robot production and teaching



Demonstration: Robotless Teach, a trolley-type collaborative robot



STEP1: Take a picture of the workpiece and select the part you want to weld

STEP2:Move trolley robot

STEP3: Take a picture for alignment and send the program

STEP4:Robot movement

Workpiece conditions

Material: SS400

Bevel shape: Fillet joint

Pipe size: 75×75

Thickness: t1.6

The bucket can move freely to the workpiece position



Interference avoidance



Automatically avoids interference with workpieces and peripheral devices



New Collaborative Robotic VC4L with High Trajectory Accuracy in Long Reach



The trolley-type collaborative robot package Improves production efficiency by performing production operations and teaching in parallel on large structures.

