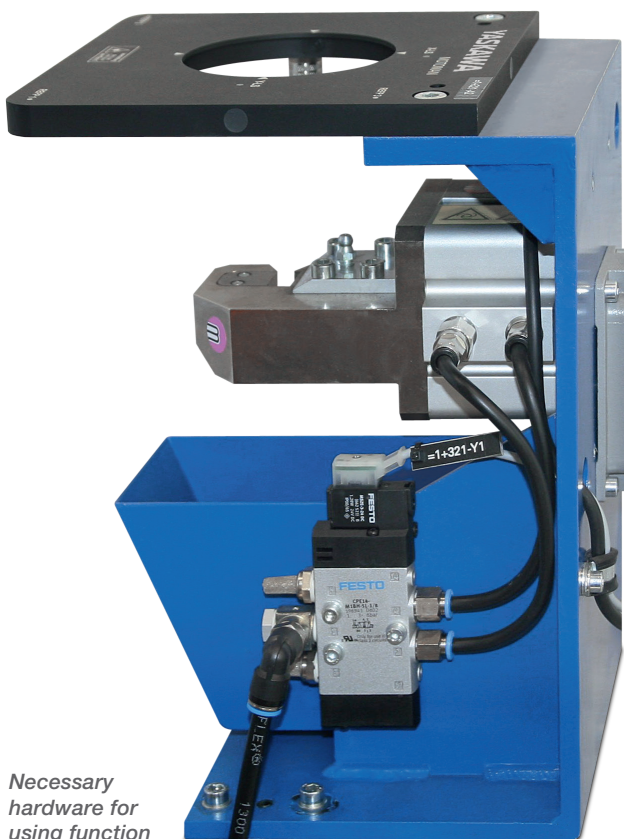# YASKAWA

TCP Control Adjust – Basic for ARC (Q-Set Basic)

Visual Torch Inspection and TCP Adjustment Function

Necessary hardware for using function

The YASKAWA "TCP Control Adjust – Basic for ARC" (Q-Set Basic) is a visual torch inspection and TCP adjustment function for MOTOMAN welding robots. An inspection program is executed at regular intervals to check the wire position on the torch. In this way the contact tip can be checked for accurate positioning and wear and also the wire quality (twist).

The robot enters the testing device with a torch in such a way that it interrupts two laser light beams with the wire, while keeping the torch intact.

If the tool is deformed, then at least one of the laser light barrier isn't interrupted. In that case either an alarm can be displayed and the cause of the error can be fixed by the operator, or the automatic measurement of the torch can be started.

In case of the automatic measurement and correction of the programs, the torch (wire) is measured with the light beams in X, Y and also in Z direction by means of a special robot program.

The new tool data is now used to convert and to correct all programs as a Relative Jobs. If the maximum permissible torch deviations are exceeded, an error message is displayed.

KEY BENEFITS

- Quality assurance
- Higher availability through early detection of wear on the torch
- Torch check in regular intervals
- Automatic program correction after collision
- Automatic TCP adjustment after torch change
- Automatic tool-angel correction (optional)
- Automatic correction of the Tool-data
- Error message if the maximum deviation of the TCP is exceeded

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