

FANUC *i*RVision TorchMate

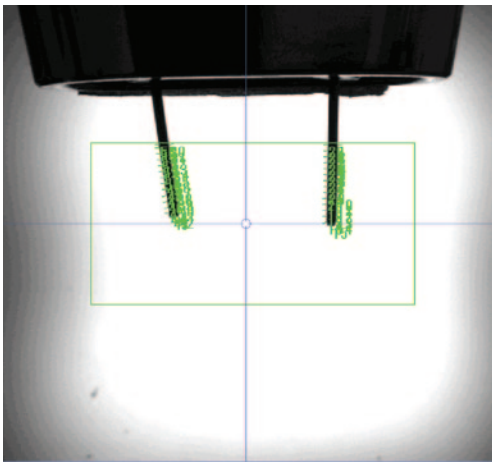


How *i*RVision TorchMate is used in a welding cell Robot

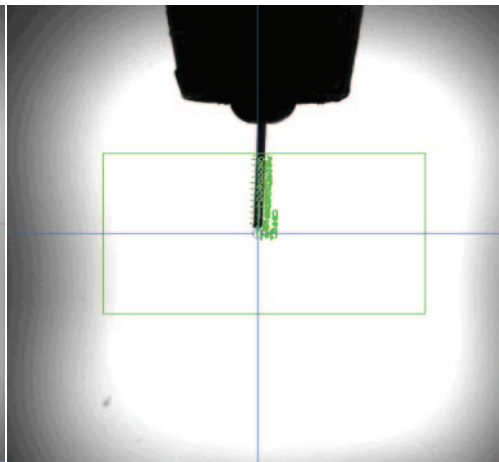
In a typical robotic arc welding cell, the location of the welding wire (TCP) to the joint must be maintained within \pm one-half of the wire diameter. If the welding torch is bent due to a crash or the contact tube becomes worn, poor quality welds can result. Without *i*RVision TorchMate, valuable production time is lost when torches have to be replaced or weld paths are re-taught. It is even more critical to maintain an accurate TCP with a tandem torch, so the direction of travel bisects both wires. *i*RVision TorchMate can improve weld quality by updating the direction of travel based on the location of both wire tips.

Designed for the shop floor, *i*RVision TorchMate includes an industrial camera enclosure for viewing the welding torch. The setup of *i*RVision TorchMate is done by calibrating the camera with the included hardware and utilizing standard menus to accommodate the number of TCPs to maintain and how many robots will use each enclosure.

*i*RVision TorchMate Application Examples



Tandem Wire



Single Wire



*i*RTorchMate improves weld quality

FANUC *i*RVision TorchMate

Benefits

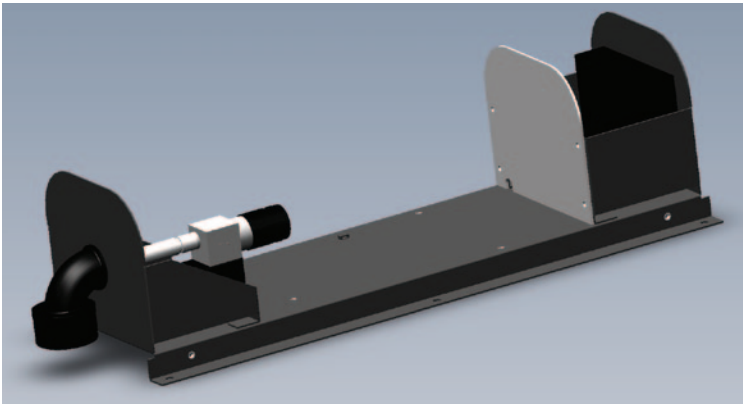
- Non-contact measurement for enhanced accuracy and speed
- Simple, reliable hardware and proven software provides an effective solution for tool center point maintenance
- Fast execution time has little or no impact on cycle time or throughput
- Maintaining an accurate TCP ensures quality welds
- Data collection of offset values provides quality records and reports
- When used as a preventive maintenance routine, *i*RVision TorchMate increases overall uptime

Features

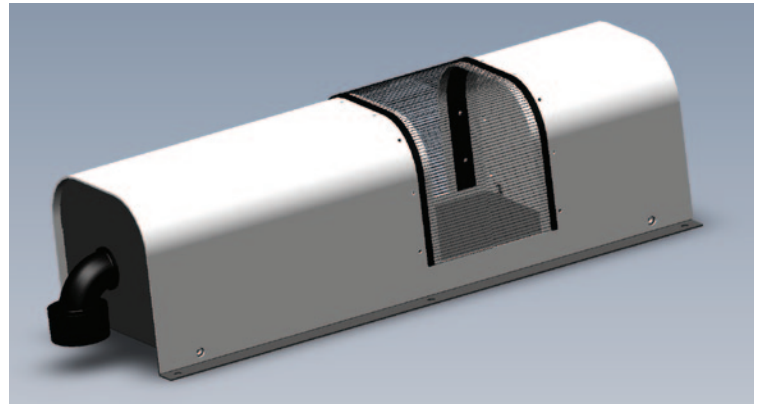
- Configurable offset allows user to specify which values to maintain X,Y,Z,W,P or R or any combination
- Hardware can be shared with up to four robot groups
- Maintains up to four separate TCP's per robot
- The offset values can be logged to a storage device and then transferred to a PC for statistical process control (SPC) or a data analysis Inspection Station

*i*RVision TorchMate, the Solution for:

- Bent welding torches
- Single wire weld torches
- Tandem wire weld torches
- Aluminum wire applications
- TIG applications
- Contact tube wear
- Process control
- Maximum system uptime
- Non-contact torch maintenance



Inspection Station without cover



Inspection Station with cover



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