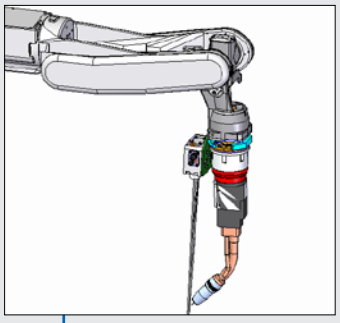
YASKAWA
MOTOMAN ROBOTICS

SOLUTIONS IN MOTION®

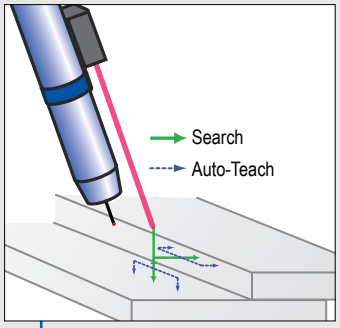
AccuFast

FOR ALL MOTOMAN® CONTROLLERS

The AccuFast sensor utilizes a commercial point laser instead of "touch" sensing with the weld wire. The sensor provides an input to the robot when the laser "touches" by reaching its programmed focal length. The non-contact AccuFast laser sensor greatly reduces cycle times by eliminating the need to cut the wire and by providing faster search speeds by eliminating wire deflection. The laser works on a variety of materials and is impervious to ambient lighting conditions. The sensor is enclosed in a housing with positive air pressure and a lens to protect it from weld spatter and fumes. It is compact enough to be mounted on Master Arc (MA-series) thru-arm arc welding robots and can be retrofitted to existing robot installations.



LASER IS ALIGNED WITH WIRE FOR RAPID SEARCHING



MACRO JOBS WITH AUTO-TEACH MAKE PROGRAMMING SENSOR EASY AND ACCURATE

TOP REASONS TO BUY!

- Saves cycle time versus touch sensing with fast search and no wire cut
- Simple to use with Macro Jobs and Auto-Teach to aid programming
- Can be used on thru-arm welding robots unlike other vision systems

HIGHLIGHTS

Save Time and Money

- Saves cycle time required to clip weld wire; search then weld.
- Searches at faster speeds (500 cm/min+); no weld wire to bend.
- Eliminates peripheral costs (wire cutter and wire brake).

Reduce Complexity

- Point laser provides input to robot when focal point is reached. Analogous to touch sense and same jobs are used.
- Macro Jobs with the Auto-Teach function automatically finds the taught part location and the part orientation. The robot searches perpendicular to the joint wall, even if the part is positioned at an angle.
- Laser light is impervious to ambient lighting and most surface conditions.

Installation Flexibility

- Can be installed on robot with touch sensing; wire can be used where line of sight is blocked by part or tooling.
- Compatible with Master Arc (MA) and Versatile Arc (VA) thru-arm robots, along with standard 6-axis robots.
- Simple input interface allows it to be retrofit to any existing Motoman robot. (Macro Job functionality may be limited on older generation controllers.)

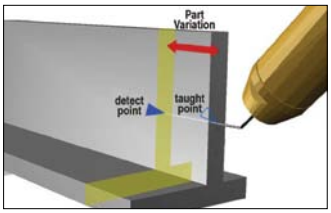
Application Flexibility

- Combine with ComArc thru-arc seam tracking for contoured parts or long seams that may distort while welding.
- Macro Jobs provided for: 1D touch, 1D normal touch, 2D touch with lap height control, edge search (scans across part until signal changes for edge), 3 pt circle search (inside or outside diameter, check for circle diameter). Other joints can be detected by adding results of multiple searches or creating different routines.
- With no wire clip required, robot can search just prior to each weld or multiple searches can be made along the seam prior to welding and shifted while welding.

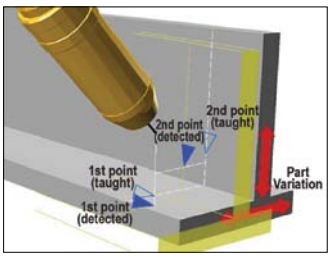
ARM YOURSELF...

...with an economical non-contact sensor to improve weld quality and reduce cycle time.

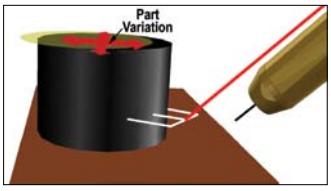
STANDARD MACRO ROUTINES



1D search - for parts that vary in one direction; or combine with other search results



Fillet search - detect horizontal and vertical legs for offset of the joint



Circle search – inside or outside diameter

Not shown – lap and edge search.

MOTOMAN ROBOTICS
100 AUTOMATION WAY, MIAMISBURG, OHIO 45342
TEL: 937.847.6200 ■ FAX: 937.847.6277