

HyperStart

HyperStart = HyperProductivity®

HyperStart® is a software function that enables users of Motoman® robots to improve weld quality and save cycle time by optimizing how welds are started and monitored. HyperStart is standard on all DX100-based controllers and compatible with analog or digital interfaces for Fronius, Miller and Lincoln power sources.



HIGHLIGHTS

HyperStart Parameters

- **Static Start** – initiates weld (at programmed start point) and begins robot travel when the power source signal confirms arc has started. Used when weld length is critical, such as automotive seating.
- **Dynamic Start** – initiates weld (at programmed start point) and the robot continues traveling at specified speed. Saves cycle time by not pausing and is more stable than turning weld on ahead of desired start point.
- **Arc End Timers** – default timers wait for power source burnback and then check for continuity to ensure weld wire is not stuck in puddle. Saves cycle time by minimizing the wait.
- **Welder Arc End Control** – enables robot to wait at arc end point for a signal from welder to terminate weld. Useful for power sources that support sophisticated arc end routines for materials like aluminum.

- **Arc Failure Timers** – monitors maximum arc outage time and triggers an alarm when specified time is reached. Helps detect gross arc faults or unstable arc starting.

Benefits of HyperStart

- Manufacturers using HyperStart have realized 10-20% cycle time reduction. This includes high-density applications where several welds are applied each minute.
- Eliminates pause before robot starts to weld, improving productivity. The “Dynamic Start” parameter reduces excessive weld build-up at start of weld by keeping robot moving while starting the arc.
- Settings can be changed by simply adding one command to the weld job; users can program “global” settings or change “locally” for specific parts, joint configurations or material types.
- Settings can be independent for each robot in multi-robot configurations.

- Standard on all DX100-based controllers. The HyperStart function can be added to earlier model controllers (NX and XRC).

Weld-In-Teach

- The Weld-In-Teach function is separate from HyperStart and allows users to verify welding conditions safely while robot is in slow speed control. The system alerts the user that mode is active with a display message and audible tone; prevents accidental arc flash.

ARM YOURSELF...

...with HyperStart for higher productivity. An automotive components manufacturer now produces five parts in the time previously required for four. What are you waiting for?



WORKS WITH ALL WELDERS



LABEL INDICATES THAT HYPERSTART IS INSTALLED

- Standard on new robot systems; set it now or have a technician come to help start your savings
- Programmable per weld vs. competitor's global settings
- Applicable to most brands of welders; analog or digital interfaces
- Can be retrofitted to Motoman NX or XRC robot controllers

Note: For more information please see the *HyperStart User Manual*.