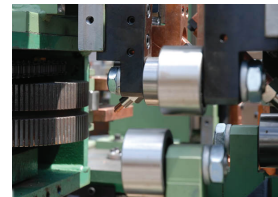


PULL THRU WELDER SYSTEM

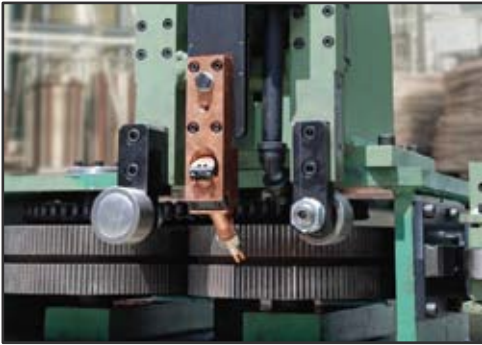
Product Information and Specifications



*Bringing **innovation** to
metal processing equipment*

Product Information

System Overview



The automated pull thru welder system is fully integrated, with improved process control from fit up through tack and weld.

Utilizing advanced methods of motion control and sensing, this system is capable of producing higher quality beams with reduced set up time and operator dependence.

General Capabilities



The overall system can be configured to suit your production needs with a range of capacities and levels of process automation. It is perfectly suited for structural, large vehicle, and custom beam applications.

Features:

- Advanced technology for industry-leading product quality
- Extremely rigid structural tube framing construction
- Highest quality standard components and engineering incorporated for machine reliability and life
- Operator-friendly HMI and integrated LAN

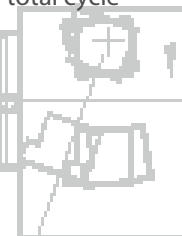
Pull Through Station



Every aspect of this station has been evaluated and redesigned to reduce set up time while improving the quality of the product.

Features:

- Fully-synchronized in and out feed conveyors run in perfect synch with both weld head drive roller sets – no more beam distortion caused by shimmying
- Independent motion control of each weld head produces consistent individual seam and beam to beam welds
- Heavy industry grade ball screws, servos and pneumatic components improve reliability
- Auto clamp and unclamp reduces set up time to improve “weld-on” percentage of total cycle



Welder Station



The field-proven process easily meets construction and military transportation codes for dimensional and weld quality.

More Features:

- Positive and negative taper capable
- Servo-positioning weld head with non-contact digital seam tracking for optimum weld quality even with material variations.
- Master and slave drive for weld heads allows for linear passage of the beam through the weld station.
- Variable hydraulic clamping on flanges and web
- Integrated twin wire sub arc welding with flux deposit and recovery

Optional Equipment



Web Seamer

Servo-driven in-feed rollers and automatic clamping allow for quick and easy seam welding. The system comes complete with automatic weld flux dispensing and recovery units, and features a selection of flux beds: copper, flux, and flux bag.

Fit Up and Tack

Uses localized web and flange clamping for a tight fit at the tack station ensures quality alignment and operator-appropriate controls ease of function. This is the first step to producing a better beam.

Features:

- Magnetized flange alignment rollers and web plate lift for easy fit up
- Strategically located alignment and clamping features ensure dimensional and structural integrity of the finished product
- Ruggedly-built to endure harsh environments

Control System



Developed with ease of operation, productivity and beam quality in mind, CSI's motion control expertise is evident in the design and functionality of the welder's control system.

Features:

- Recipe driven weld and clamp set up with memory to save up to 100 beams setups for automatic beam loading
- Flexible operation of stations in manual or auto mode
- Manual controls for all axes
- Descriptive HMI displays for system status and fast troubleshooting
- "On the fly" beam feed rate change with full drive and conveyor synchronization
- Network connection to your existing control logics PLC

Sub Arc Welder

Solution Partner

Automation

SIEMENS

PULL THRU WELDER SYSTEM

Control System Innovators Machine Tools

Product Specifications

Welder Specifications

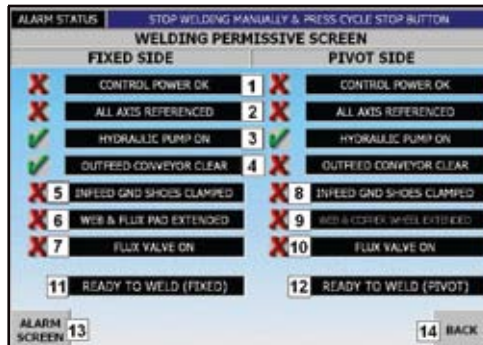


Structure	Welded HSS fabrication
Beam drive system	Two hardened knurled drive wheels
Web height adjustment	Ball screw with AC servo
Welding tip adjustment	Ball screw with AC servo
Pivot	± 15 degrees with respect to the beam
Pivot lock	Hydraulic – allows welding to the end of the beam
Welding heads	Two-axis AC servo with seam tracking technology
Controls	Siemens PLC, motors, drives with 10" colour LCD screen
Hydraulic System	Self-contained, 15 HP variable displacement pump at 2900 psi

Control System Key Features



Large display of system status



Operator "Weld Permissive" check list

- Uses Siemens industrial controls: a Siemens PLC, six servo motors and drives, a 10" Siemens touch screen with a CNC operator keyboard
- Field devices are all solid state devices for reliability
- CSI writes all the software for this machine and we can customize it to suit your needs

Machine Capacity

Beam Specifications	Min	Max
Web Thickness	1/8"	1/2"
Web Width	6"	72"
Web Taper	15 degrees	
Flange Thickness	3/16"	1 1/2"
Flange Width	4"	20"
Beam Length	8'	60'
Beam Section	325 lbs/ft	
Beam Weight	12,000 lbs overall	
Weld Fillet Size	1/8"	5/16"
Welding Speed	20' per min	150' per min

Solution Partner

Automation

SIEMENS

PULL THRU WELDER SYSTEM

Control System Innovators Machine Tools



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