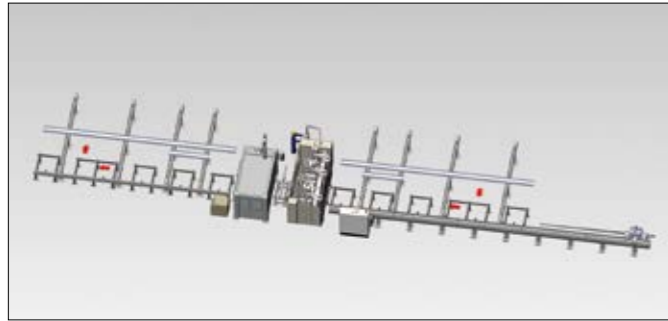




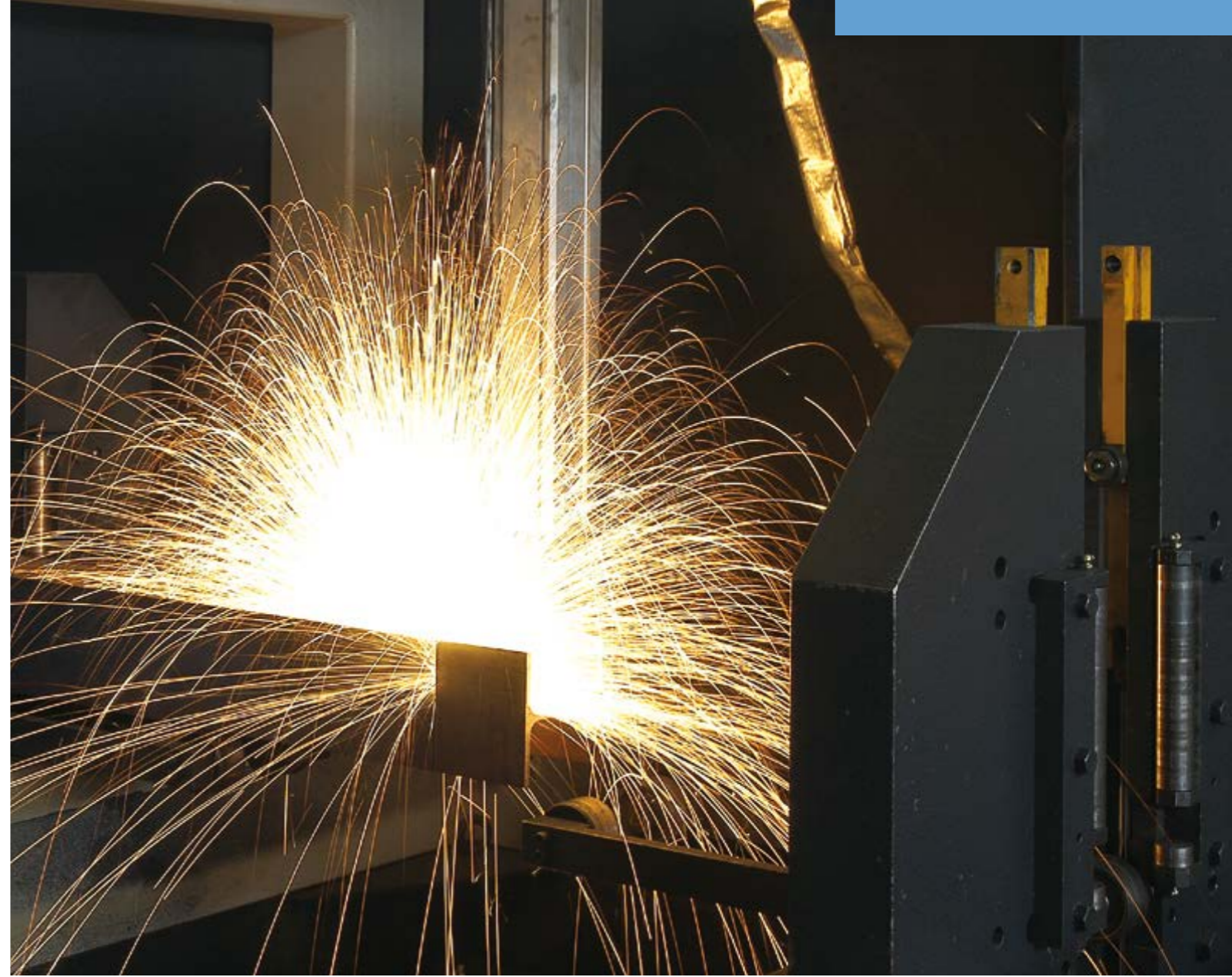
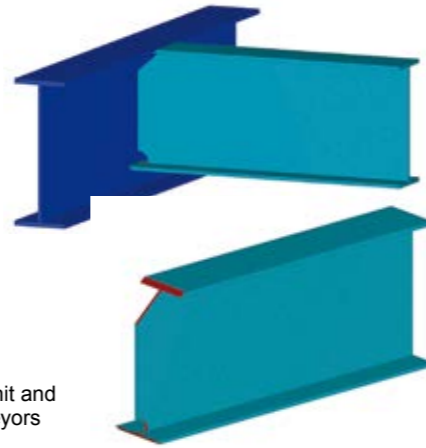
MAIN OPTIONS

- Plasma cutting system with Hypertherm power source and automatic torch changer for switching from plasma or oxy-fuel processing in seconds
- Exhaust system which is essential with the plasma torch cutting
- Equipment for the processing of round pipes

Exhaust system



CNC Line with thermal coping unit and drilling unit in tandem with conveyors and transfer tables.



TECHNICAL CHARACTERISTICS

MODELS		1201 FRC	2001 FRC	2501 FRC
Sections that can be processed:				
I-Beams Web depth	Min. Inch	3-1/4"	7-7/8"	11-3/4"
	Max. Inch	48"	78-3/4"	100"
I-Beams Flange height	Min. Inch	1-5/8"	2-1/2"	3"
	Max. Inch	23-5/8"	32"	32"
All sections Maximum length (can be expanded with options)	Feet	40 ft.	40 ft.	40 ft.
Minimum transferable length (with longitudinal copes on both end having a maximum length of 15-3/4" on the lower half flanges as standards)	Inch	99"	99"	99"
Positioning weight (standard)	Lbs	13,200	13,200	13,200
Linear weight of the section (standard)	Lbs. Per Foot	247	330	330
Carriage speed	FPM	130	130	130
Oxy fuel torch	No.	1	1	1
Plasma torch (optional) with automatic torch changer	No.	1	1	1
CNC Ficep Pegaso axes	No.	6 (7)	6 (7)	6 (7)

Please review FICEP's terms and conditions of sale and system specifications that are in our formal proposal. The manufacturer reserves the right to change specifications and features from those indicated in this brochure. Current specifications and features are part of the formal quotation.



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FRC

Automatic CNC thermal coping lines for steel sections



MADE IN ITALY

02-2016 Advanced Agency VA



FRC Automatic CNC thermal coping lines for steel sections

Steel structures are a composite of different structural shapes and sizes that are bolted together in the field to form a finished structure. The intersection of these shapes frequently requires various cutouts and copes as well as bolt holes. Part of the total fabrication process also includes establishing the final location for steel detail that is subsequently welded as required. The FRC addresses the various thermal cutting requirements for copes, holes, and cutting to length as well as the automatic layout of sections for subsequent fitting and welding.

The Ficep robot incorporates a quick change tool changer that switches from the plasma torch to the oxy torch when required for cutting close to the flange, for example, in a second or two. Even within the same section, both torches can be used and selected automatically by the software to utilize the most productive process. The versatility of the robot is evident as it can process all four sides of a tube, for example, as well as pipe as an option.

When the material enters the machine, a new laser camera technology is used to probe in seconds the actual part geometry as compared to the specified AISC shape to eliminate the need for the extensive time required for mechanical probing. This information is then automatically entered into the program to adjust the torch movements to compensate for any mill tolerance deviations.



Graphical 3D simulator of the robot. This shows the virtual processing to be performed.

- Point-to-point LEAD CUT programming is accomplished directly with the on-board CNC.
- Programming through graphical macros that are already stored and registered in the relevant library.
- Programming through direct data import from the 3D model.



Pegaso is the new generation CNC for Ficep machines. PC, CNC and PLC are all integrated on a single board, to have the maximum reliability and simplicity. Pegaso is based on field bus technology: Can Bus and EtherCAT, with up to 32 axes controlled.

The numerous advantages of the FRC are summarized as follows:

- All the manual operations to measure, layout and cut are eliminated.
- The elimination of human error.
- Coping can be combined with drilling operations for increased efficiency and a reduction in valuable floor space.
- The cutting and layout processes are optimized.
- Operations can be accomplished in as little as 10% of the time when compared to manual layout and coping.
- The throughput can be predicted with a high level of accuracy.
- More efficient usage of floor space generates more available area for fitting and welding.
- Production costs are predictable and reduced when compared to manual methods.
- The labor required for complicated operations is reduced to the minimum.

MAIN TECHNICAL FEATURES

- A positive and accurate measuring system is accomplished with the Ficep measuring carriage that never loses its actual position and transports the trailing end of the section completely through the cutting process.
- The robot's massive frame consist of a four column structure to deliver the maximum rigidity to the cutting head.
- A commercially available Cartesian robot with 6 controlled axes is implemented to accomplish the cutting process for both torch assemblies.
- The laser camera technology is integrated to manage material probing and compensate for mill tolerance deviations in seconds.
- Automatic vices are incorporated into the robot support structure to guarantee solid material clamping even during cuts where the material moves longitudinally like in the case of beam splitting.
- A hydraulic alignment device is located between the first two rolls of the infeed conveyor.
- Detection and automatic program adjustment to compensate for any dimensional tolerance issues for the section to be processed.
- 40 ft. (can be extended as an option) powered conveyor to unload the processed pieces.
- The latest generation Ficep PEGASO CNC control unit controlling 6 axes (seventh axis optional).
- Hypertherm TRUE HOLE™ technology.

True Hole-enabled
Hypertherm

