



ENDEAVOUR GANTRY

Automatic CNC drilling line
for welded girders
and structures



TECHNICAL CHARACTERISTICS

		ENDEAVOUR GANTRY					
MODEL		2003/8 GDD	2503/10 GDD	3003/12 GDD	3003/18 GDD	4003/12 GDD	4003/18 GDD
Web height min/max	Inch	8" / 78"	8" / 98"	8" / 118"	8" / 118"	8" / 157"	8" / 157"
Flange width min/max	Inch	4" / 31-1/2"	4" / 39-3/8"	4" / 47-1/4"	4" / 70-3/4"	4" / 47-1/4"	4" / 70-3/4"
Drill heads	No.	3	3	3	3	3	3
Tools per spindle	No.	6	6	6	6	6	6
Max hole diameter	Inch	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"
Spindle power	HP	41	41	41	41	41	41
Spindle speed	RPM	5,000	5,000	5,000	5,000	5,000	5,000
Aux. axes stroke (option)	Inch	9-7/8"	9-7/8"	9-7/8"	7-7/8"	9-7/8"	7-7/8"
CNC axes	No.	7	7	7	7	7	7

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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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MADE IN ITALY

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The ENDEAVOUR GANTRY drill represents the ultimate technology for the processing of welded girders and structures of large dimensions and configurations that do not lend themselves to be positioned down a conveyor line. Typically, in the fabrication of steel bridges or large trusses, the finished structure exceeds normal dimensions of structural steel sections and could reach lengths of 150 ft. or even more. The ENDEAVOUR GANTRY is designed to address bridge girders that can be cambered and curved along the length, holes in box girders plus face milling, tub girders and trusses that frequently require face milling and drilling of the connection points. All the above-mentioned applications are structures of exceptional size and weight and often present difficult handling challenges.

The ENDEAVOUR GANTRY girder drill addresses these unique challenges by traveling over the stationary weldment to avoid the need to handle these structures through the drill line. This approach avoids the issues of trying to move such structures through a stationary drill system.

During the process, the gantry structure uses a non-contact laser probing system to locate all surfaces and to set the reference points and surface locations prior to processing. The gantry houses three high performance DIRECT DRIVE spindles, each with its own independent sub axis, so processes can occur in all three surfaces simultaneously even if the required operations (drilling, scribing, milling, etc.) are not in line. All axis positioning is accomplished by means of a high precision rack and pinion system for movement and measuring.



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.

New auxiliary axes

The three spindles are optionally equipped with additional auxiliary axis that allows for a sub axis motion of up to 9-7/8" in the longitudinal direction.

The sub axis positioning of the spindles enables the maximum utilization of the spindle operation when processing holes that are offset in the three faces of the weldment. Helical milling, pocketing, weld prep milling and the milling of slots are just a few of the unique operational features that are possible with the sub axis option.



Edge milling



Horizontal spindle with automatic tool changer