



JESSE ENGINEERING CO.

1840 Marine View Drive, Tacoma WA 98422

Phone: (253) 922-7433 Fax: (253) 922-2536

[Home](#) | [Steel Fabrication](#) | [Pipe Benders](#) | [Contact Us](#)



[Single Axis Benders](#) | [Power Carriage Benders](#) | [CNC Benders](#) | [Pipe Bender Tooling](#) | [Overhead Clamps](#) | [Pipe Shop Software](#)
[Pipe Cutting Machines](#) | [Pipe / Flange Welding Machines](#) | [Other Machines](#) | [Past Projects](#) | [Parts & Service](#)

Pipe / Flange Welding Machines

Flanged pipe spools can be economically fabricated if the welding task is performed in the horizontal position. For straight pipe spools this is fairly straight forward, but with bent pipe spools, the process is more involved. Jesse Engineering offers a line of machines to support this process, ranging from simple fixtures to automated welding machines.

The principal fixturing goal is to ensure the flange bolt holes are aligned for tack welding. All of our Flange Welding systems accomplish this task.



FW200MTF



The FW200MTF allows slip on flanges or elbows to be fit and welded to straight pipes from 1-1/2 to 8" nominal diameter. The machine includes two pipe support roller sets and two flange holding chucks. One of the chucks is reversible providing an elbow fitting platen, and the other chuck is rotatable for flange hole offset, i.e. "1 up" or "2 up". After aligning flanges, the operator tack welds the assembly together. After withdrawing the chucks, the operator may finish welding the assembly using the integrated turning rolls and steady rest provided. Welding equipment is not provided.

FW500MTF

The FW500MTF allows slip on flanges to be fit and welded to straight pipes from 6" to 20" nominal diameter. The machine includes two moveable pipe supports that center the pipes and two moveable flange holding chucks. One chuck is rotatable for flange hole offset, i.e. "1 up" or "2 up". After aligning flanges, the operator tack welds the assembly together. After withdrawing the chucks, the operator may finish welding the assembly using the integrated turning rolls and steady rest provided. Welding equipment is not provided.



FW360MTAW



The FW360MTAW is a complete semi-automatic pipe flange welding system. Pipes of varied length from 1-1/4" to 14" nominal diameter roll into the machine. Pre-loaded slip-on flanges are then manually tack welded onto the pipes. Four automated weld heads are lowered down onto the tack welded pipe spools. Four fillet welds are applied simultaneously. Automated loading tables and unloading carts are normally available as options.

FW300ATAW

The FW300ATAW is also a semi-automatic pipe flange welding system. The pipe range is 1-1/2" to 12" nominal diameter. In addition to the features of the FW360MTAW, tack welding, flange hole offset and three pass multilayer welding are automatic.



SPECIFICATIONS	FW200MTF	FW500MTF	FW360MTAW	FW300ATAW
Machine Type	Fixture	Fixture	Welding System	Welding System
Maximum Pipe Size	8"	20"	14"	12"
Minimum Pipe Size	1-1/2"	6"	1-1/4"	1-1/2"
Maximum Pipe Length	20'	24'	20'	20'
Integrated Turning Rolls	Optional	Optional	Yes	Yes
Angular Setting	Scale-Manual	Scale-Manual	Readout-Manual	Readout-Automatic
Length Display	N/A	N/A	Yes	Yes
Welding Equipment	None	None	4 sets	4 sets
Tack Welding	Manual	Manual	Manual	Automatic
Welding	Manual	Manual	Automatic	Automatic
Weight	350 lbs.	3,300 lbs.	16,000 lbs	16,000 lbs.