



JESSE ENGINEERING CO.

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Pipe Cutting Machines

[View SHC-R Video](#)



NEW FEATURES

- Inch/metric selectable
- Language selectable
- PC-based control
- Graphical User Interface (GUI)
- Improved cuts
- New cuts
- Beam and Channel Cutting

INCREASED PRODUCTIVITY

FAST, ACCURATE, QUALITY CUTS

CONTINUOUS PROCESS CUTTING



MACHINE DESCRIPTION

The JESSE ENGINEERING SHC-R Robot Series is an eight-axis pipe saddle/hole cutting machine. The SHC-R is developed for shipyard piping applications. The upgrade of features and the addition of new cut parameters expand the utility of the machine to other industries. We entered into collaboration with **FANUC NORTH AMERICA** to bring their expertise and technology into the development program for our newly developed Saddle and Hole Cutter. Jesse Engineering Company has over ten years of experience in the design and manufacture of automated pipe profile cutting systems and other types of specialized machinery.

The SHC-R series is designed to provide branch pipe end cuts, with or without weld bevels, for 30° to 90° saddle joints with the corresponding holes.

Additional cuts include:

- beveled hole cuts for 90° socket welded tee joint
- square or mitered cutoffs with or without bevel
- rectangular slots
- longitudinal pipe slits with or without tabs
- new cuts as they are developed



The new SHC-R series design uses a standard FANUC 6-axis robot. The Robot controller coordinates two additional external coordinated motion axis (Roller bed rotation and Carriage linear positioning).

The simple, icon-driven data entry screens and the ability to combine several cuts into a single cut "recipe" are unique and powerful features.

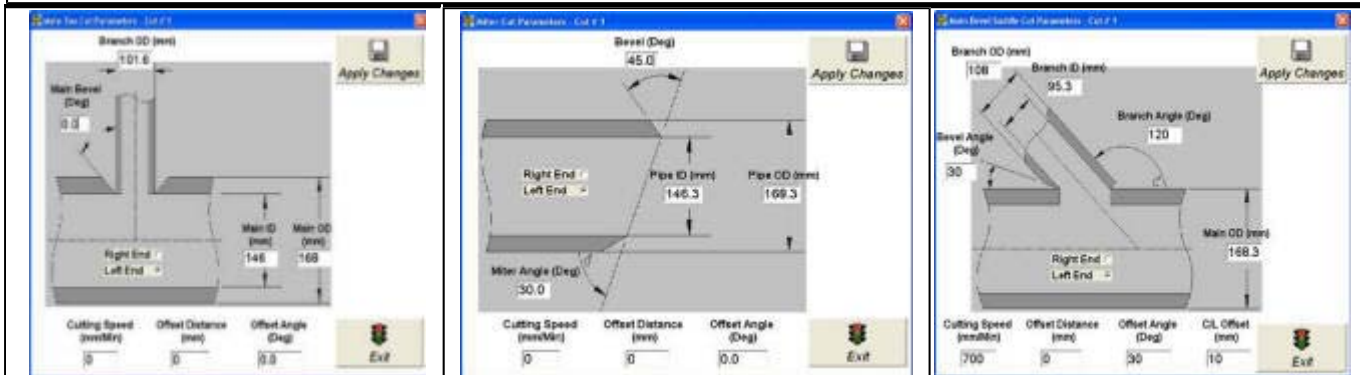
The machine is ruggedly constructed for a long service life and uses the FANUC 6-Axis Robot as its main mechanical advantage and technological advancement. It is shipped prepared to accept the options for continuous process operation.

Adding the software enhancements and roller systems options provides a system capable of continuous pipe processing.

Cutting is by PLASMA (Standard).

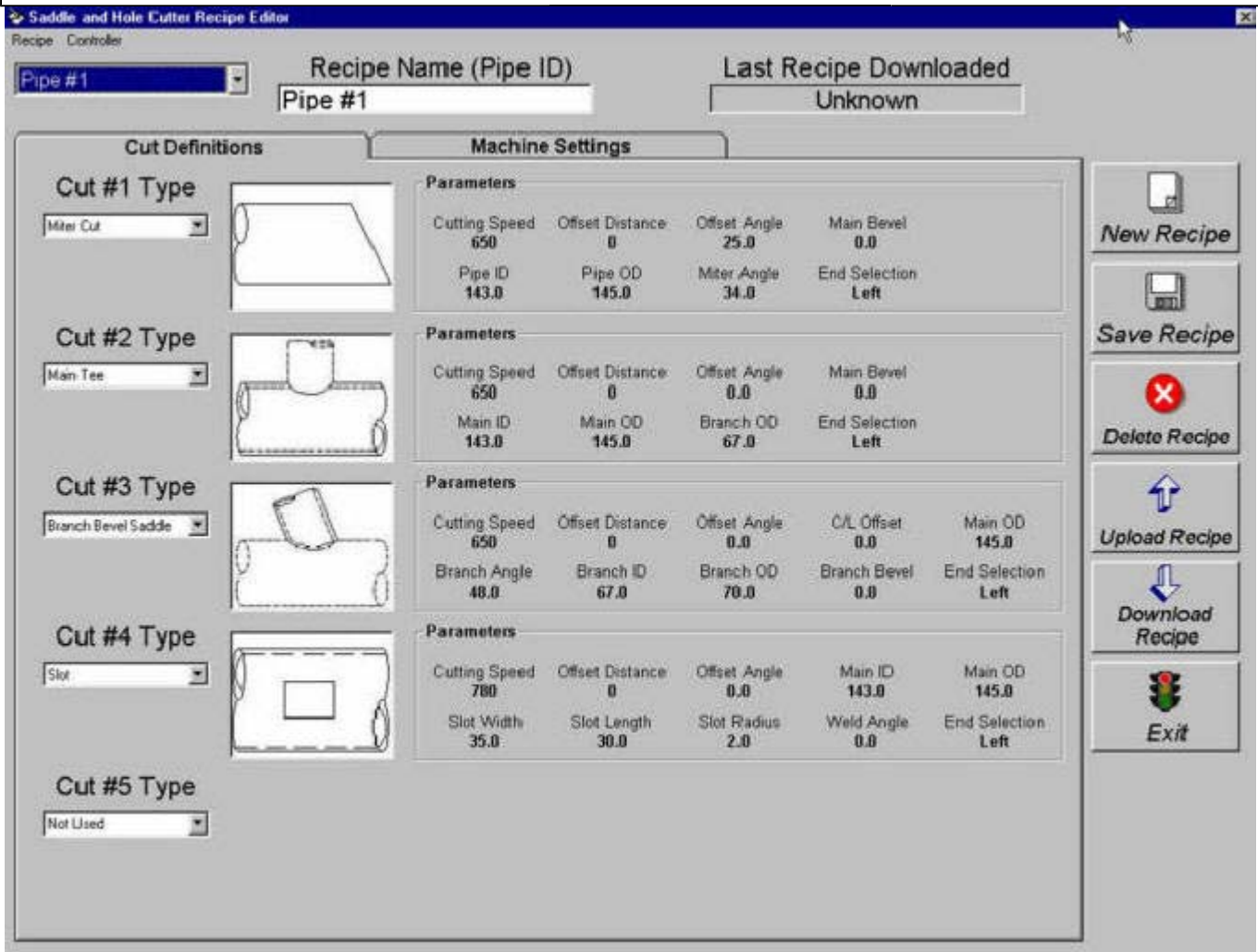
A Hypertherm Plasma system including control module, power supply, torch, ground with rotary clamp and spare parts kit is provided. The control is integrated into the controls of the main machine. (***Fume Collection by others***)

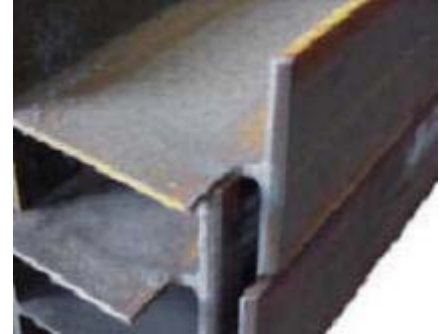
Typical Cut Parameter Input Screens (showing input fields for required data)



BurnPro-R Pipe Manager

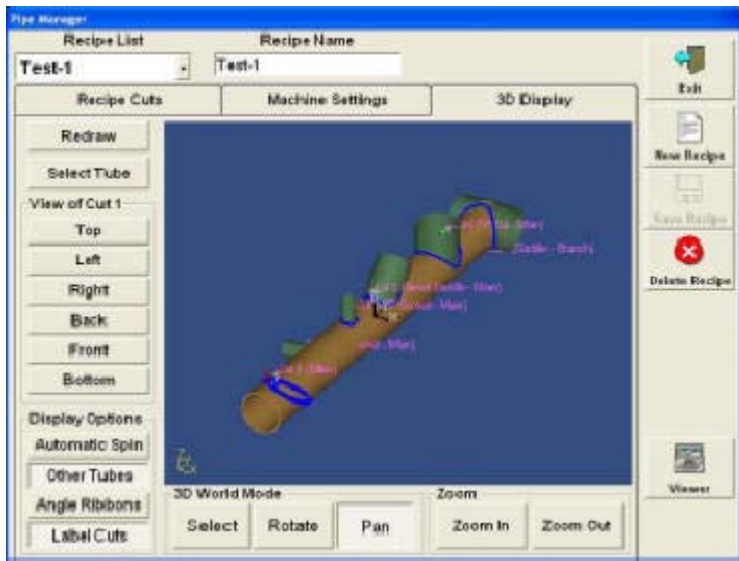
- Icon-driven cut selection
- Intuitive
- Easy to understand





Using the Teach Pendant and your own fixtures, a specific profile can be taught and saved as a Part Number for recall, on the iPendant.

3D Viewer



Jesse Engineering SHC Series USER CONTROL INTERFACE

- PC-Based Control Industrial Grade
- Touch Screen
- Windows XP® Operating System
- 40 Giga-byte Hard Drive
- CD ROM Drive
- 3½" Floppy Disk Drive
- Auto Startup Diagnostics
- Network Port
- On-line and Off-line Data Entry

| SPECIFICATIONS | 500 SHC-R | 700 SHC-R | 900 SHC-R |
|------------------------------|------------------------|------------------------|------------------------|
| Maximum OD | 500mm [20"] | 700mm [28"] | 900mm [36"] |
| Minimum OD | 60mm [2" pipe] | 88.9mm [3" pipe] | 114mm [4" pipe] |
| Maximum length finished | 6 meters [20 feet] | 8 meters [26 feet] | 8 meters [26 feet] |
| Maximum cut depth - Oxy/gas | 40mm [1.57"] | 40mm [1.57"] | 40mm [1.57"] |
| Maximum cut depth - Plasma | 25mm [1"] | 25mm [1"] | 25mm [1"] |
| Machine Size - Approximate | 2M x 8M | 2.2M x 10M | 2.4M x 10M |
| Floor Space Needed - Minimum | 4.5M x 10M | 5M x 12M | 5.5M x 12M |
| Electrical Service | 480/400V 3 Ph. | 480/400V 3 Ph. | 480/400V 3 Ph. |
| Machine Weight - Approximate | 4,300kg [9,500lb] | 5,200kg [11,500lb] | 5,700kg [12,500lb] |
| Environmental | 37° - 95° F Indoors | 37° - 95° F Indoors | 37° - 95° F Indoors |

| STANDARD CUTS (PIPE ONLY) | |
|--|--|
| Miter Cut (30° to 150°) | Straight Cut (with or without weld bevel) |
| 'T' Socket - Main Cut (with or without offset) | 'T' Socket - Branch Cut (with or without offset) |
| Beveled Saddle - Main Cut (with or without offset) | Beveled Saddle - Branch Cut (with or without offset) |
| Slot Cut or Rectangular Hole Cut | Elbow Support Cut |
| Lengthwise Cut (Pipe Slit) | Dual Intersecting Saddle Cuts |
| 'V' Cut | |

STANDARD FEATURES

- FANUC robot with 8 axes of motion
- Industrial grade PC-based control
- Graphical User Interface (GUI)
- Ethernet connection
- Plasma cutting kit (Hypertherm 1650)
- 1 year warranty

OPTIONS

- Oxy/gas Cutting Unit
- Integrated Conveyor
- Loading Table
- Roller Infeed System
- Roller Outfeed System
- Spare Parts Kit