Product Information

jetline® engineering
An Illinois Tool Works Company

MODEL 9700
Control

- Unique Design
- Large Graphic Display
- For Longitudinal Welding
- For Circumferential Welding
- For Wire Feeders
- For Arc Length Control

Introduction

The 9700 series of microprocessor controls uses the latest technology to provide the perfect solution for the perfect weld. The controls are used for all Jetline motor driven applications and are compatible with other manufacturer's equipment.

Longitudinal carriages, precision lathes, circumferential systems, cold and hot wire feeders - as standard, they all employ the same user-friendly 9700 control. The 9700T and 9700W controls use identical control hardware with the same size front panel and enclosure. Operators rapidly become familiar with the user-friendly layout.

The model 9700T can be set for either longitudinal or circumferential travel. Model 9700W is used for wire feed speed on cold and hot wire feeders. The model 9790 control is used for arc length control. It is housed in a larger enclosure and has a slightly different panel layout.

Features

- Microprocessor-based control technology.
- User-friendly front panel layout.
- Large screen with graphic backlit display.
- Easy calibration with the Jetline 'Auto Cal' program.
- Touch retract capable.
- Closed-loop control for higher accuracy and stability.
- Backward compatible to 9600 controlled equipment.

The 9700T travel control, 9700W wire feed control, and 9790 arc length control are shown mounted on a longitudinal seam welder carriage.

Description

The unique feature of the 9700 series of controls is that they are all completely software driven. A control which is identical physically can be used for many different applications. Custom-written routines, developed by Jetline software engineers, guide the operator through the set-up and weld procedure. Software programs have been prepared for longitudinal welding, circumferential welding, wire feeding, and for arc length control.

Much research has gone into the design of the front panel. Operating switches and controls have been selected for their tactile feel. The start and stop buttons can be easily located. The stop button protudes further than the start button to simplify indentification.

9700T Travel Control

The 9700T travel control includes a special E-stop function. When initiated, this remotely shuts off the auxiliary control contactor signals only on those components connected directly to it. It does not de-energize the input power to other controls.

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9700 MICROPROCESSOR CONTROL

Setting of the speed and other features is aided by a backlit LCD display showing four lines of display. Custom-designed software takes the operator through a set of routines to permit the setting of speed, delays, and other ancillary operations. The operator scrolls through the options using four touch-sensitive pads at the lower corner of the display.

In addition to the convenient mode of operation, the system includes setup and calibration modes. Jog speeds for forward and reverse jog are independently adjustable. The Auto Cal feature allows the operator to do quick touch up calibration that will change both the input and output calibration at the same time.

Applications

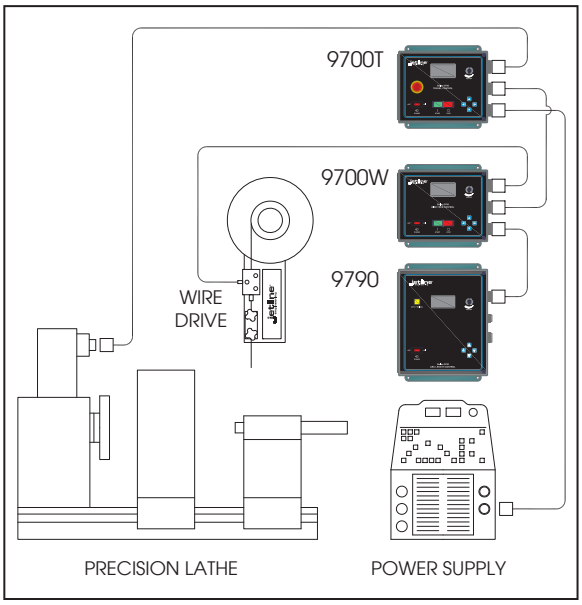
Travel Control: The 9700T travel control is supplied as standard with Jetline longitudinal and circumferential welding systems. The control includes speed control, start and stop delays, and the ability to switch the welding power supply on and off.

In longitudinal applications, weld length can be determined as a function of time or by a signal from a limit switch or encoder. An automatic home sequence can be programmed.

In circumferential applications, the 9700T includes a feature which permits the diameter of the part being welded to be entered. When this is done, programming of the travel speed is made as surface speed.

Wire Feed: The 9700W control has software routines which make it perfect for the control of wire feeders. In addition to speed control, and start and stop delays, the operator can set the wire retract distance at the end of the weld. Jetline hot and cold wire feeders are supplied with the 9700W control. This control can be used for stand-alone wire feed control or in conjunction with a 9700T unit.

Arc Length Control: The 9790 is used to maintain a constant preset arc length via control of the arc voltage. The control works with a servo drive to move the torch up or down as needed.



Combined Operation: A 9700T, 9700W, and 9790 arc length control can be interconnected as shown in the above diagram. When the connection is made in this manner, the travel controller acts as the primary control with the wire feed and arc length controls acting as secondary units. The primary control also provides start and stop signals for the welding power supply.

This mode of operation adds a new dimension to the 9700 control. As each control includes start and stop delay times, their combined operation provides complete weld sequence control. The operator is therefore able to control the complete weld sequence, including arc starting and stopping, from the primary 9700T control.

Specifications

Processor:	Microprocessor
Keypad:	Tactile Membrane
Display:	Graphic backlit LCD
Outputs:	1 Analog, 8 Digital
Inputs:	2 Analog, 8 Digital
Input Power:	120 or 240V, 1 phase, 50/60Hz

Dimensions

Height:	8 inches (200 mm)
Width:	10 inches (250 mm)
Depth:	6 inches (150 mm)
Weight:	14 lbs (6.3 Kg)

Contact Jetline for complete ordering information

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