

# MODULAR DRIVE SYSTEM

**Powerful Solutions for Welding and Cutting Automation with Precision and Versatility!**

A Powerful machine that allows the operator to custom configure one machine for various applications.



USA

# MODULAR DRIVE SYSTEM

The Modular Drive System is the only product in the industry that allows the user to configure one machine for various automated applications, now and in the future!

Future development has been engineered into the system allowing its modular components to be easily upgraded. As tomorrow's technologies are introduced, the Modular Drive System can be enhanced to take advantage of new features and capabilities as they are perfected. Other systems will be obsolete as the Modular Drive System will remain "state of the art" in portable motion control!



The Modular Drive System produces precise, accurate cuts and welds.

The Master Drive Unit has a high torque, low inertia motor for precise stops and starts and a dedicated fail-safe brake with three times the stopping and holding power of the motor. The unit is equipped with motor overload protection which turns the motor off and engages the brake whenever an excessive load is placed on the machine. In addition, the Master Drive features closed loop speed control for adjustable, repeatable control of critical welding or cutting parameters, and closed loop position control to prevent creep.



Shown Above - Vertical Weld

## Master Drive Unit

At the heart of the Modular Drive System is the Master Drive Unit which houses the motor, speed control board, power supply, and clutch, that allows rapid manual positioning of the carriage anywhere along the track. The unit runs from 2-120 in/min (51-3048 mm/min) with a vertical load capacity of 60 lbs (27 kg) and a horizontal load capacity of 100 lbs (45 kg).

**MPD-1002 240 VAC/50-60 Hz**



**MPD-1000 Master Drive Unit**

# Assembling a Modular Drive System is Easy !

Choose from the options below to fit your application.

## 1. Control Modules

**MDS-1005**  
Weaver Control  
Module

## 2. Master Drive Units

**MPD-1002** 240 VAC

## 3. Master Drive Units

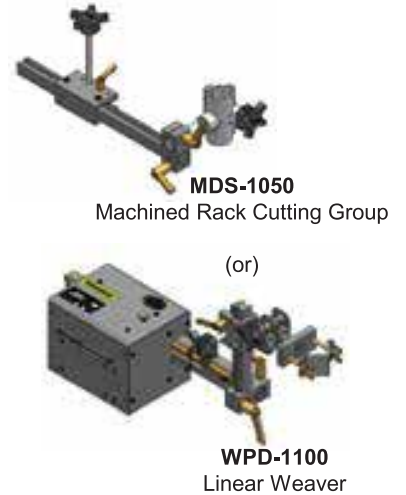
## 4. Rail

## 5. Attachments

**ARV 1080**  
Vacuum Cups

**ARR-1080**  
Aluminum Rigid Rail 8'

**ARM 2010**  
Magnets



**MPD-1065**  
12" Releasable  
Carriage

## Weaver Control Module

The Weaver Control Module operates the Pendulum or Linear Weaver, and the Master Drive Unit. The Control Module features include: a digital readout and control knob for longitudinal travel speed; a switch for Forward/Stop/Reverse tractor control; an amplitude knob to set weave width from 1/8"-2" (3-50 mm); weave speed control up to 100 in/min (254 cm/min); controls for left and right dwell; a knob to control steering up to 2" (50 mm), either side of center; weld contact; and a power On/Off switch. One of four weld patterns can be chosen using the mode selector switch, as shown in the figure below.

### Features:

**Weaver Control Module**  
Order reference: **MDS-1005**



**MDS-1005 Weaver Control Module**

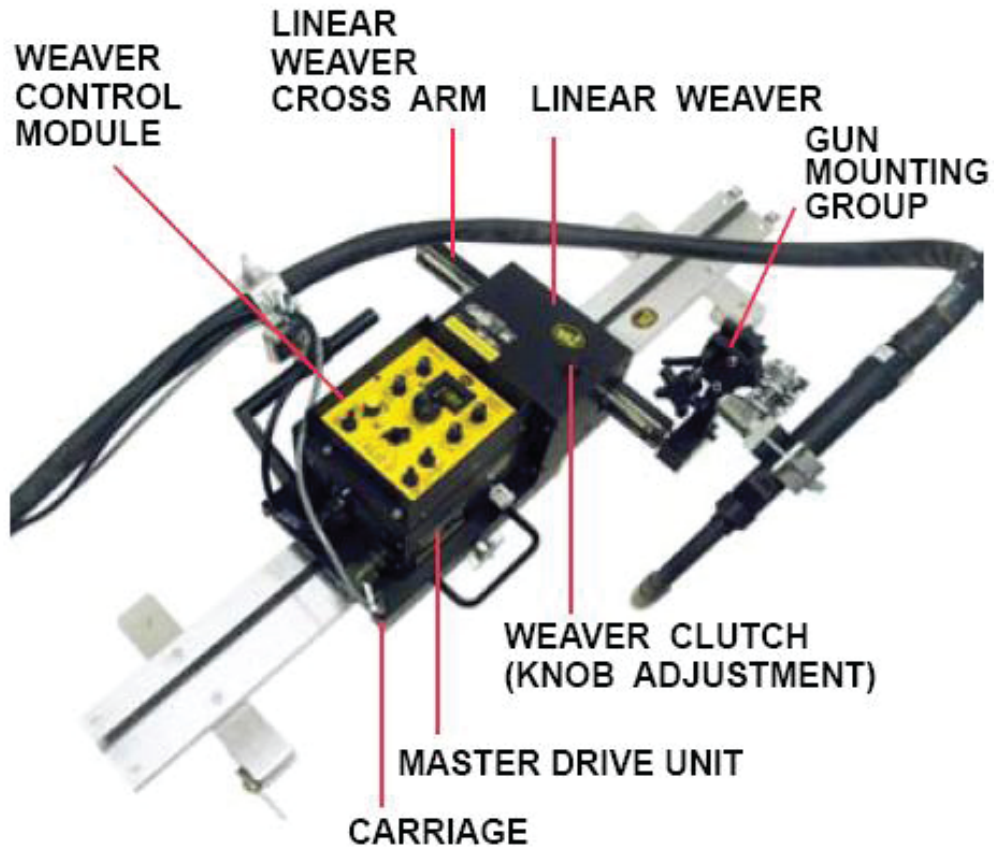
Digital display is factory set at cm/min; Field convertible to in/min.

## WPD-1100 Linear Weaver

The Linear Weaver and the Weaver Control Module give the Modular Drive System linear weave motion, producing welds from 1/8" to 2" (3-50 mm) wide. The Linear Weaver bolts onto the front of the Carriage and the Weaver Control Module plugs onto the top of the Master Drive Unit, as shown in the figure below. The Linear Weaver also has motor overload protection which turns off the motor when too much load is placed on the Linear Weaver.

## Linear Weaver

Order reference: **WPD-1100**



## Features:

The Linear Weaver Control Module incorporate the following standard features:

- High torque, low inertia motor for precise starts and stops.
- High speed Linear Weaver for weaving, with independent control of right and left dwell times.
- High motor gearing which prevents the crossarm from moving when the unit is turned off.
- Closed loop speed control for adjustable and repeatable control of critical welding parameters.
- Closed loop position control to prevent drift from the weld center position.
- Clutch, to enable rapid installation or replacement of the weaver cross arm.

