

# MODULAR TRACK WELDING & CUTTING TRACTOR®

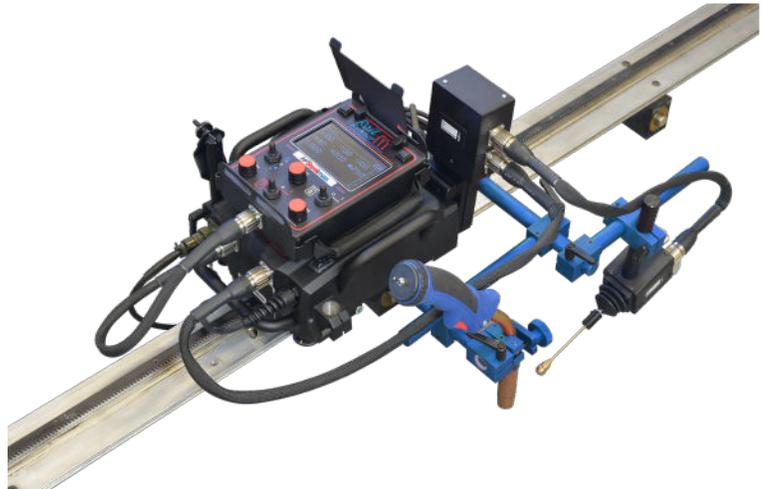
## RAIL RUNNER Gen III+

### MODULAR TIG | MIG | MAG WELDING/CUTTING TRACK WELDING MACHINE

The Steelmax® Rail Runner Gen III+ is a compact, modular, mechanized carriage which can be custom configured for a variety of welding, thermal cutting and gouging applications on flat or curved plate, tube and pipe. By utilizing a magnetic guide rail and positive rack and pinion drive, the system can be utilized in all welding positions. Ergonomic remote control pendant with simple, easy to find control knobs makes process adjustment possible without the operator lifting their welding hood. A digital display with numeric representation for each motion parameter makes presetting the optimum welding or cutting procedure simple and highly repeatable. The Rail Runner Gen III+ increases arc-on time and produces consistent, high-quality welds and cuts in a fraction of the time required by manual operations. Optional accessories include tactile probe seam tracking and motorized vertical torch slide for automatic torch height control.

#### Applications:

- Trailer manufacturing
- Truck tanks
- Oil tanks
- Water storage tanks
- Pressure vessels
- Vessel overlay / hardfacing
- Bridge girders
- Structural steel
- Structural towers
- Panel welding
- Transformers
- Shipyards
- Any application demanding long continuous welds



**Steelmax**

The tools of innovation.

#### REMOTE CONTROL PENDANT

Navigation  
Button 1

Navigation  
Button 2

Travel direction  
switch  
(Forward  
/ 0 / Backward)

Arc ignition switch  
(TEST / 0 / 1)

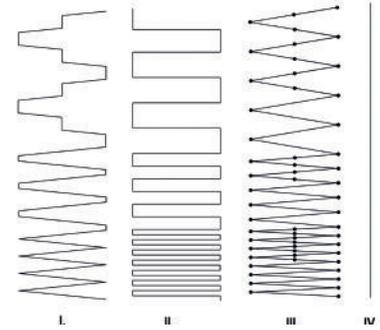
Oscillation switch  
(TEST / 0 / 1)



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Rail Runner Gen III+ Technical Specifications		
Voltage		1 ~ 42V, 115V, 230V, 50-60 Hz
Power		60 W
Welding Positions		Vertical, Horizontal, Flat
Mounting on curved and round surfaces	Ring tracks (OD)	8 in (200mm) -10 ft (3m)
	Hi-flex tracks (OD)	Minimum 5 ft (1.5 m)
	Hi-flex tracks (ID)	Minimum 11 ft (3.4 m)
	Semi-flex tracks	Minimum 32 ft (10m)
Torch diameter		0.63–0.87 in (16-22 mm) to 1.38 in (35mm)
Minimum workpiece thickness		0.2 in (5 mm)
Pulling Force	Horizontal	90 lbs
	Vertical	90 lbs
Horizontal speed		0-98 in/min (0-250 cm/min)
Vertical speed		0-98 in/min (0-250 cm/min)
Oscillation type		Linear
Oscillation path		triangle, straight line, trapezoid, square
Oscillator arm stroke		0-3.9 in (0-100 mm)
Oscillation width		0.04-4.5 in (0.1-11.8 cm)
Oscillation speed		5-78 in/min (10-200cm/min)
Oscillation delay at center and on ends		0-5 seconds
Maximum oscillator pulling force		22 lbs
Weight		29 lbs (13 kg)

## WEAVE PATTERNS



### I. Trapezoid

The tractor travels continuously even during dwell mode. Weld path is determined by weave speed and dwell time at center and on sides of the weld path.

### II. Square

The tractor travels only during dwell and stops during oscillator cross travel. Only dwell time determines the weld path, and weave speed has no influence.

### III. Triangle

The tractor travels only during weaving. Both the tractor and oscillation stop during dwell mode.

### IV. Straight

The tractor travels continuously while oscillation is switched-off.

## Primary features and benefits:

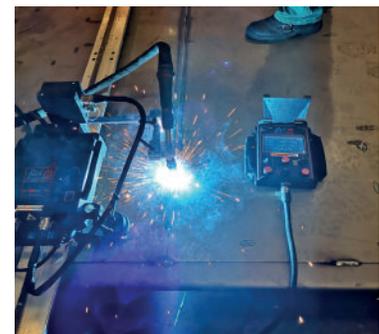
- Suitable for TIG welding (HF resistant)
- Robust design with die-cast aluminum housing
- Ergonomic remote control pendant with simple control knobs makes adjustments possible without lifting of the operators welding hood
- Mirror switch function allows welder to adjust the torch position to the left or right, regardless of the welder's position relative to the torch
- Programmable stitch welding
- Suitable for variety of circumferential and irregular surface applications down to min. radius of 4" (100 mm)
  - Ring tracks on diameters from 8" (200 mm) OD up to 10 ft (3 m) OD
  - Hi-Flex tracks on diameters from 59" (1500 mm) OD upwards
  - Custom rolled tracks on diameters from 10 ft (3 m) OD up to 32 ft (10 m) OD
  - Semi-flexible tracks can be flexed to minimum radius of 16 ft (5 m) without permanent deformation
- Active compensation of torch position vertically and horizontally also with oscillator in use by means of modular automatic seam tracking system
- Suitable for all welding positions on both ferrous and non-ferrous materials thanks to rack and pinion drive and various tracks equipped with magnetic or vacuum units

## Optional accessories:

- Motorized Vertical Slide SM-WC-RRNG-VS



Seam Tracking Sensor  
SM-WC-RRNG-ST



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