CN-SEAMLESS

2025 Catalog

The Mach 1

Catalog

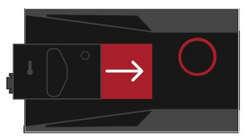
Mach 1

Bring robotic precision to the toughest environments in a 20 pound package built for fabricators.

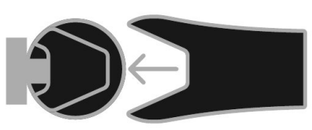
Control tablet, case and accessories included with each kit.

- 68” diameter range, full wrap around.
- 2 ¼” height control
- 20 lbs (with no attachment)
- One-handed carry
- 7”x11” Base Footprint
- Factory-Calibrated
- Maintenance-free
- Engage the mag-base at the press of a button.
- Wireless Control from up to 100’ away.
- Horizontal mounting
- Vertical mounting
- Overhead mounting
- Dedicated tie-off points
- 120/240VAC @3A
- Quick-Swap attachments

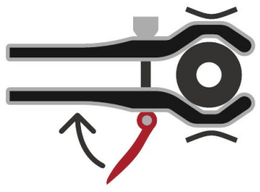
Slide In Module



Swappable Arm



Universal Tooling

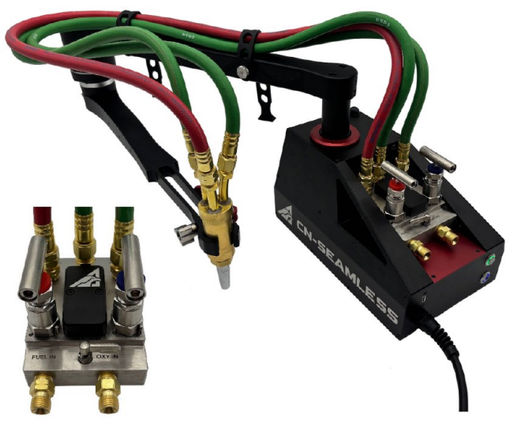


Mach 1 Attachments

Designed and Built in Raleigh, NC.

Oxy-Fuel Attachment

611210



- Rated cutting capacity up to 5” thick steel.
- Compatible with acetylene, propane, and alternative fuels.
- Automatic cutting jet control.
- Manual pre-heat valves.

Koike S-100 Torch included

- Three tips of your choice included.
- Striker and tip cleaner included.
- Tips and torches available for cutting up to 12” material.

See the full tip catalog at: cn-seamless.com/koike-tips

BOOK A DEMO

Plasma Attachment

611310

- Supports up to 125A torches.
- Cut steel, aluminum, stainless and more.
- Torch height control.
- Ohmic Probing Cable.
- 15 ft Plasma Control Cable.

**Plasma cutter, torch and consumables sold seperately.*

Compatible Plasma Cutters

The Mach 1 plasma attachment is plug and play with any plasma cutter using a CPC port. Non-CPC enabled plasma cutters may also work-- for a full list of supported plasma cutters see our compatibility guide.

Using Handheld Torches

For the best experience we recommend using mini-machine torches if available. Handheld torches are also compatible but will require an Arm Dropper to lower the height of the arm by an extra 2”.

Stay tuned for more attachments coming soon...

See the full compatibility guide: cn-seamless.com/plasma

Combo Kit

610111

Get the best of both worlds. Perfect for fabricators who are prepared for cutting all types of metal.

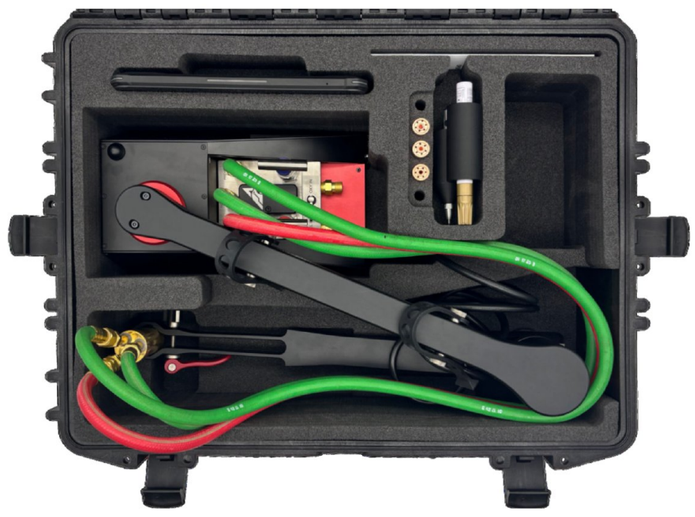
What's in the box?

- Mach 1
- Universal Arm
- Tablet
- Rolling Case
- Tablet Charger
- Flash Drive
- Marking tool
- Scribing Tool
- Plasma Module
- Ohmic Probing Cable
- Plasma Control Cable
- Mach Command
- Oxy-Fuel Manifold
- Tip Cleaner
- 3 Koike Tips
- 3 T-type hoses
- Striker

Oxy-Fuel Kit

610211

Use the Mach 1 with an oxy-fuel torch. Best for cutting thicker steel in the field.



What's in the box?

- Mach 1
- Universal Arm
- Tablet
- Rolling Case
- Tablet Charger
- Oxy-Fuel Manifold
- Tip Cleaner
- 3 Koike Tips
- 3 T-type hoses
- Mach Command
- Marking tool
- Scribing Tool
- Striker
- Flash Drive

Plasma Kit

610311

Use the Mach 1 with your plasma cutter. Faster feed-rates and a smaller heat affected zone for thinner materials.

What's in the box?

- Mach 1
- Universal Arm
- Tablet
- Rolling Case
- Marking tool
- Scribing Tool
- Flash Drive
- Tablet Charger
- Plasma Module
- Plasma Control Cable
- OhmicProbing Cable
- Mach Command

Accessories

Included with every kit

Rolling Case

610034

- 24" x 20" x 12"
- Under 53 lbs packed with the Combo Kit

Rugged Tablet

610033

- Built-in protective case
- 18 hour battery life

Marking Tips

610032 *610031*

- Marker holder
- Scribe holder

Plasma Control Extensions

Extends the range of any plasma control cable

- 10' *611342*
- 25' *611343*
- 50' *611344*

BOOK A DEMO

Mach 1 Add-ons

Pipe Base

610021

Mount the Mach 1 to Pipe with a switchable permanent magnet.

- Suitable for horizontal, vertical and overhead cutting.
- Works on pipe diameters greater than 6".
- Works on thinner material.

Vacuum Base

610022

Mount the Mach 1 to smooth, non-ferrous materials.

- Manual vacuum pumps for suction cups.
- Suitable for horizontal cutting only.

Arm Dropper

610030

Lower your arm by an extra 2".

- Recommended for use with hand-torches, the pipe base and the vacuum base.

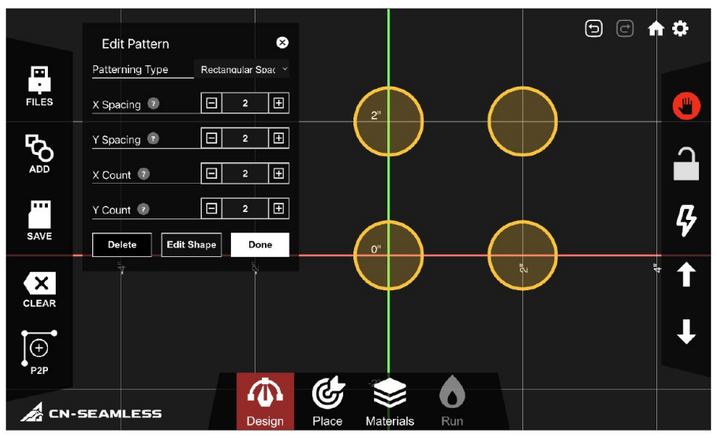
Mach-Command

User Interface

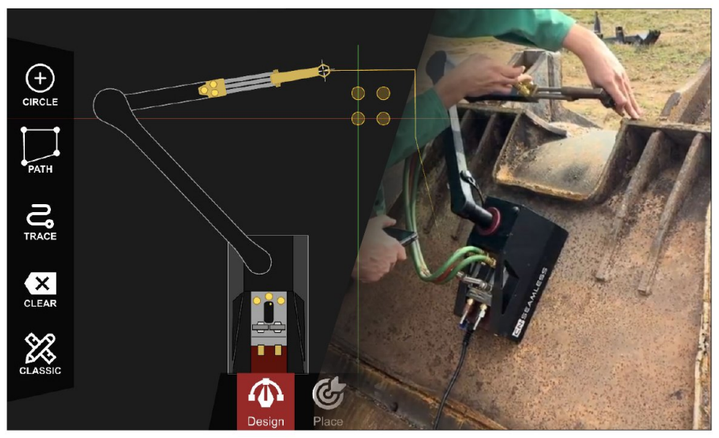
BOOK A DEMO

1 DESIGN.

Draw simple shapes, trace out real parts, or import your most complicated designs.



Shape patterning



Point to point

- Import DXF files for complex designs via flash drive.
- Build simple designs with a library of built-in design templates. Quickly make holes, rectangle, gussets, slots, text and more.
- Trace parts or create point-to-point geometries with the Mach 1's arm.
- Group and pattern shapes to easily repeat geometries.
- Cut up to the entire working range of the machine with designs.

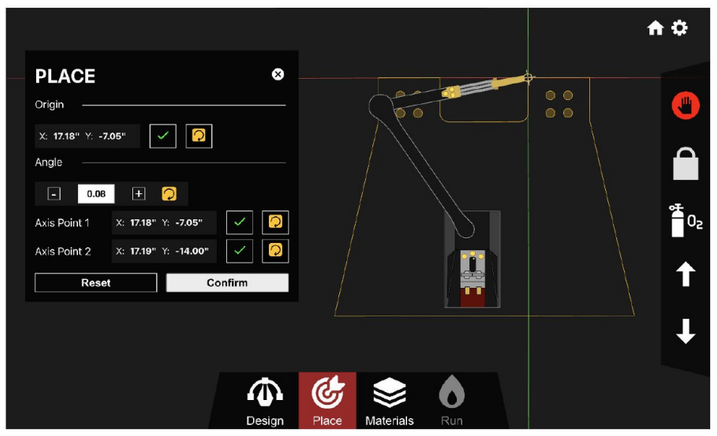
2 PLACE.

Guide the torch to three key points to place the design on the material.

1. Pick your origin point.
2. Pick one point on a straight edge.
3. Pick a second point on the same edge.

Mach Command now calculates all the required offsets and will line up your design with the origin and edge you chose.

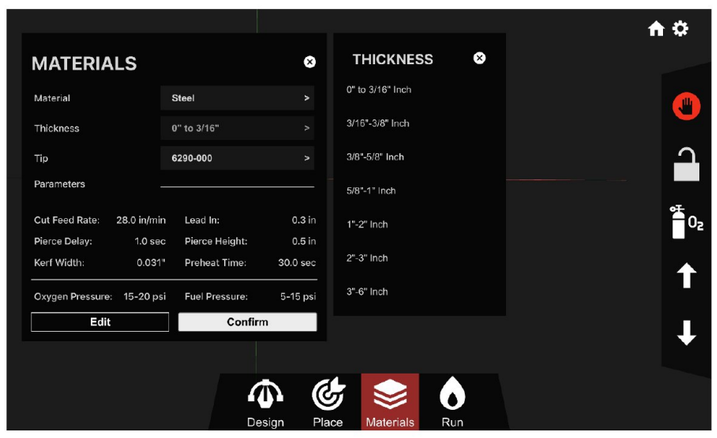
- Scribe tool included for fine-tip precision.
- Cut shapes larger than the machine by picking up the cut where it left off.



3 MATERIALS.

Select what material, thickness and consumable your working with and the Mach 1 will tune the perfect settings.

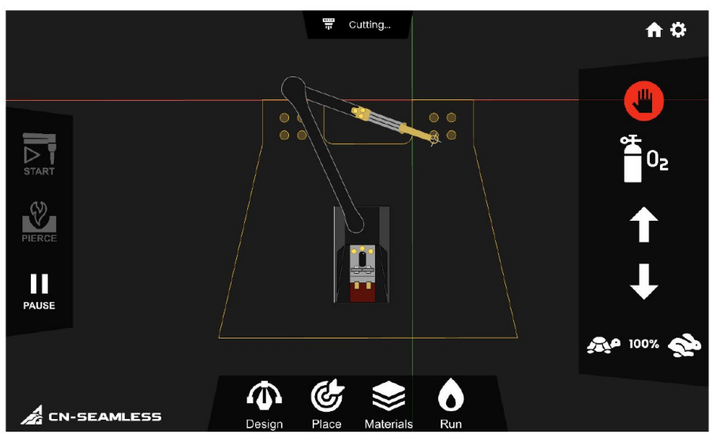
- Automatically set cut parameters.
- Built in cut charts for all attachments.
- Customize and save your own settings.



4 RUN.

Hit run and let the Mach 1 do the hard-work for you. Make small adjustments on the fly or sit back and relax.

- Tweak feed-rate and cut height on the fly.
- Easy cut-recovery if you ever lose your cut.



**Mach Command software included and pre-loaded with the purchase of a Mach 1*

BOOK A DEMO

5 Year Warranty

Covers parts and labor required for servicing defects caused by faulty materials or workmanship. Shipping both ways is covered for domestic US customers.

Service Commitment

Lifetime Service Contract: CN-Seamless will maintain their products and replace worn parts caused by normal use for the lifetime of the product.

- Customer pays for shipping the products to and from a CN-Seamless service center and for replacement parts provided by CN-Seamless. Service labor by CN-Seamless is included at no additional cost.
- Lifetime Part Availability: It is the intention that CN-Seamless will support its products indefinitely. In the event that a product is no longer supported by CN-Seamless, all part and assembly purchasing information will be made available.

Lifetime Software Updates

All Mach 1 Kits come with the Mach Command software including lifetime updates. There is no optional or required software subscription for CN-Seamless products. Optional updates to improve the Mach Command software will be provided periodically at no cost and will be delivered electronically and uploaded to the products by the customer via USB on the machine.

Live Virtual Training Included

Virtual training can be scheduled as much as needed through the CN-Seamless website using the “Book a Demo” button. CN-Seamless customers have direct contact information for the engineers and are there to help for everything from first-time setup to problem-solving the most complex applications. Additional onsite training can be quoted and scheduled upon request.

Mach 1 Plasma Cutter Compatibility

WATCH OUR SETUP GUIDE

CNC control Port (CPC)

The Mach 1 plasma attachment is compatible with any plasma cutter using a CPC control port adhering to the Hypertherm pinout. Many plasma cutters are sold with these ports or offer upgrade kits. See next page for compatible plasma cutters.

If your plasma cutter does not come with a CPC port, but has some other means of remote control please contact us and we can make a custom cable for you.

CPC Port on Powermax Machine

Mach 1 CPC Plasma Control Cable (15ft)

Ohmic Probe

Ohmic probing is a method for the Mach 1 to automatically find the height of your material before starting a cut. To use ohmic probing, you need an ohmic probe ring to make contact with your torch's consumables. Ohmic probe rings are connected to the Mach 1 Plasma Module via the Ohmic Probe Cable. See next page for recommended part numbers for your plasma cutter.

Hypertherm Ohmic Probe Ring

Ohmic Probe Cable

Torch Height Control (THC)

Torch height control (THC) is a method for automatically adjusting the height of the torch off the material when running a cut by reading the arc voltage. This enables the Mach 1 to track curved surfaces when plasma cutting.

To use THC your machine needs a plasma voltage divider (20:1 - 50:1 range) and CNC control port with arc voltage pins. Most plasma cutters with a CPC port will include both of these and will be plug and play. If you are unsure, reach out to us. See the back for compatible Machines.

**Note:* Make sure you are using mechanized cutting consumables before enabling THC.

Mach 1 Plasma Module

Mach 1 Plasma Cutting with Torch Height Control

Recommended Machines and Torches

Recommended Plasma Cutters

For the best support and cut settings we recommend purchasing Hypertherm Powermax, or Powermax Sync machines. These machines have mini-machine torches available and the CN-Seamless team runs these machines as our main test platform.

Contact CN-Seamless for a recommendation on which plasma cutters and accessories suit your needs best.

Using Hand Torches

If you choose to use a handheld torch instead of a machine-style torch we recommend purchasing our Arm Dropper (PN: 610030) to lower the Mach 1's second arm by an extra 2". Without this most handheld torches do not have the length to reach a work-piece at the same level as the machine base

**Note that handheld Hypertherm torches do not work out of the box without modifications.*

Mini Machine Torches

For the best experience we recommend buying a mini-machine torch to go alongside your Mach 1. Below are some recommended parts for Hypertherm and Miller plasma cutters.

Powermax

Powermax Hyamp

Powermax Sync

Miller Spectrum

Compatible Plasma Cutter	15' lead	25' lead	35' lead	50' lead
Hypertherm Powermax45XP/65/85/105	59481	59482	59483	59484
Hypertherm Powermax125	59514	59515	59516	59517
Hypertherm Powermax45/65/85/105 SYNC	59733	59734		59735
Miller 875 Spectrum		257464		263952

Compatible Machines

CONTACT US:
josh@cn-seamless.com

Mach 1 Plasma Control Cables

- Standard 15ft CPC Cable *611340*
- Custom Cable *contact us*

Default THC Dividers

- 50 — 50:1 Divider
- 20 — 20:1 Divider
- THC Not Supported

Plasma Control Extensions

Extends the range of any plasma control cable

- 10' *611342*
- 25' *611343*
- 50' *611344*

**The following table is a non-comprehensive list of compatible plasma cutters. If you believe a different plasma cutter can be computer-controlled let us know and we help determine if it is compatible with the Mach 1.*

Machine	Mach 1 Control Cable	THC Divider	Ohmic Probe Ring PN#	CPC Upgrade Kit PN#
Hypertherm Powermax 105/125 [1]	●	50	428895	228884
Hypertherm Powermax 65/85 [1]	●	50	428895	228697
Powermax SYNC 65/85 [1]	●	50	428895	228697
Powermax SYNC 105 [1]	●	50	428895	528045
Hypertherm Powermax 45XP [1]	●	50		428653
Thermal Dynamics Cutmaster A40/A60/A80/A120/52/82/102/152 50+	●	50		2341814
Thermal Dynamics Cutmaster 60iX	●	50		2340719
Miller Spectrum 875 Auto-Line	●	✕		301157
Miller Spectrum 875	●	✕		301156
Lincoln FlexCut 80/125	●	✕		
Thermacut Ex-Trafire HD 85/105/125 HD	●	50		
Harbor Freight TITANIUM 65 Amp Plasma Cutter	●	20		

[1] *If using a Hypertherm machine a mechanized torch is required. Handheld torches will not work with mechanized or CNC systems.*