

# TRIAD WEDGE WELDING SYSTEM



U.S. Patent No. 5,865,942

For the bonding of thermoplastic textiles, the Triad Wedge Welding System is ideal for your in-house fabrication needs to produce tents, tarps, awnings, flags, banners, liners, covers, curtains, bags, tubes, etc. The Triad can weld PVC, PE, PP, Urethane and many other weldable, flexible membranes. It can also weld supported and non-supported material in thicknesses of 5 to 100 oz. and is designed to be portable, versatile and user friendly.

## Smokeless and Noiseless Operation

Because it's a wedge, the Triad will not produce any hazardous smoke during the welding process, as hot air welders do. The Triad is noiseless, for a more pleasant working environment.

## Increase Productivity

The Triad is fast! It can weld 12 to 14 oz. material at approximately 20 feet per minute. With thinner materials, the maximum speed of the Triad is approximately 30 feet per minute.

## Reduce Labor Costs

By utilizing the built-in tracking system and available Track Sections, the Triad can be operated by a single person. Set-up is easy on the floor, or a table surface, and the guides provide accurate results.

- #33-010: Triad Wedge Welder, 120V, 1" Wedge (25mm)
- #33-015: Triad Wedge Welder, 120V, 1.5" Wedge (38mm)
- #33-020: Triad Wedge Welder, 120V, 2" Wedge (51mm)
- #33-030: Triad Wedge Welder, 240V, 25mm Wedge (1")
- #33-035: Triad Wedge Welder, 240V, 38mm Wedge (1.5")
- #33-040: Triad Wedge Welder, 240V, 51mm Wedge (2")

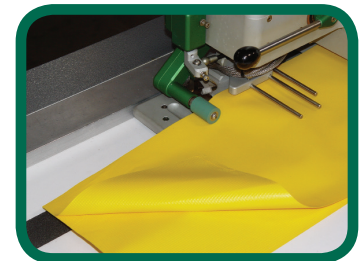
**Create Additional Welding Styles with your imagination!**



**Overlap Weld**











**Hem Weld**

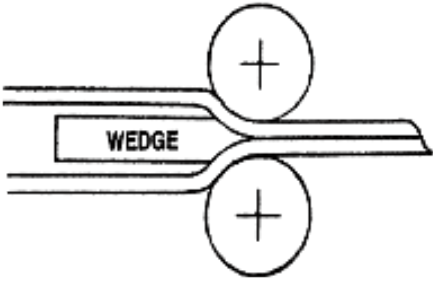


**Fin Weld**

**The Standard Triad can Achieve the Following Welds:**  
(specify wedge size)

-  Overlap Weld - 1/2" to 2" weld width
-  Hem Weld - Adjustable pocket size
-  Fin Weld - 1/2" to 2" weld width
-  Tube Weld - 1-1/2" diameter and up
-  Sleeve Weld - 1" diameter and up
-  Insert Cable Weld - Insert cable into hem while welding, 7/8" max.
-  Tape Weld - Up to 2" weld width
-  Channel Weld - Using split wedge

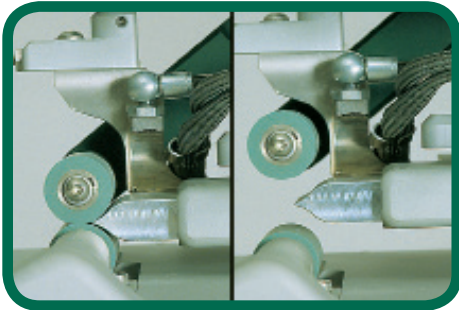
# TRIAD WEDGE WELDING SYSTEM



## *How does it work?*

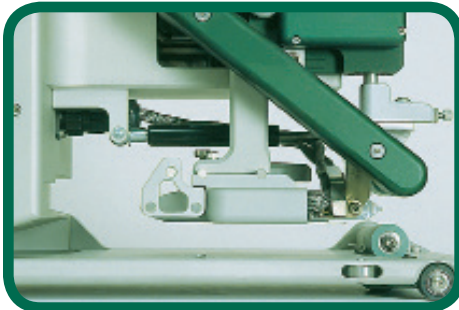
The welding of various thermoplastics occurs by a combination of wedge temperature, material speed passing over the wedge, and pressure of the pinch rollers. The material is placed between the pinch rollers and the hot wedge is inserted. Contact is made between the top and bottom of the material and a melting of the coating occurs with a certain speed of the material crossing the hot wedge surface. The pinch rollers then apply pressure to the melted coating to create the lasting bond.

*The Triad can be used as a stationary unit for short weld lengths, or as a self-propelled unit for long run welding where the Triad automatically begins moving when the wedge is inserted.*



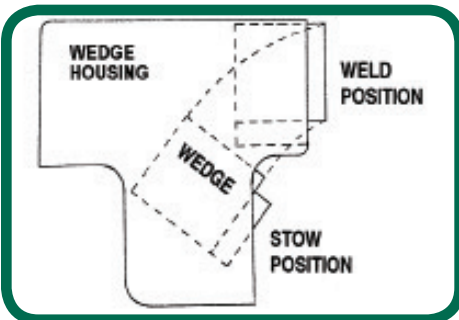
## *Patented Self-Centering Wedge*

The wedge will self-center with change in material thickness automatically, or it can be manually adjusted for welding two materials of different thicknesses.



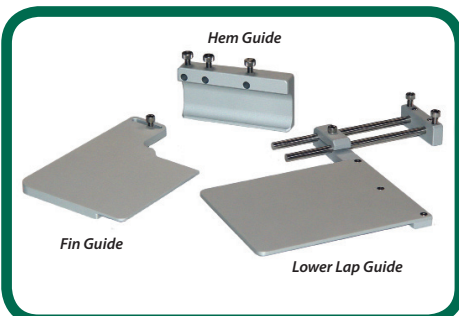
## *Patented Suspended Wedge*

This allows the operator to pass material through the Triad in many different ways to achieve various weld styles.



## *Exclusive Wedge Housing*

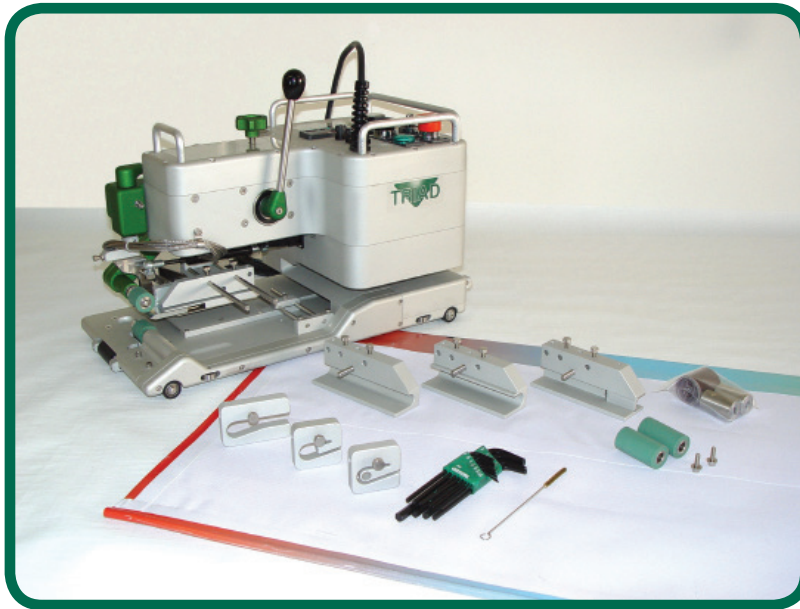
A unique feature that allows the hot wedge to be stored out of the way, to help minimize heat distortion of product and provides operator protection while setting up material.



## *Standard Guides*


The standard Triad includes the three guides to perform the basic weld styles: Lower Lap Guide, Hem Guide, and Fin Guide. These guides work alone or in conjunction to accomplish the basic weld styles and more.

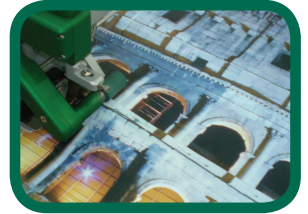
# TRIAD DIGITAL GRAPHICS PACKAGE



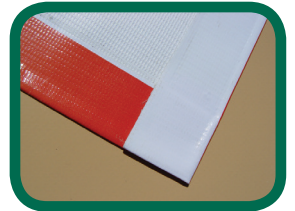
Designed around the needs of the digital graphics printer, the Triad DGP provides many different finishing styles including overlap, flat hem, hem cord, pockets, etc. Our Triad DGP can be set up either as a 1" (25mm) or 1.5" (38mm) seam width. In addition, an option for either seam width is available on our Triad 6" Pole Pocket base for making up to a 6" (152mm), single fold pocket. For those with a current 1" (25mm) Triad DGP, we offer an upgrade kit to 1.5" (38mm).

- #33-019: Triad Wedge Welder, 120V, Flat Hem/Hem Cord, 1" DGP
- #33-022: Triad Wedge Welder, 120V, Flat Hem/Hem Cord, 1.5" DGP
- #33-027HC: Triad Wedge Welder, 120V, 6" Pocket Machine, Flat Hem/Hem Cord, 1" DGP
- #33-027HC1: Triad Wedge Welder, 120V, 6" Pocket Machine, Flat Hem/Hem Cord, 1.5" DGP
- #33-049: Triad Wedge Welder, 240V, Flat Hem/Hem Cord 25mm DGP
- #33-055: Triad Wedge Welder, 240V, Flat Hem/Hem Cord 38mm DGP
- #33-027HC2: Triad Wedge Welder, 240V, 6" Pocket Machine, Flat Hem/Hem Cord, 25mm (DGP)
- #33-027HC15: Triad Wedge Welder, 240V, 6" Pocket Machine, Flat Hem/Hem Cord, 38mm (DGP)
- #33-096: Triad DGP Upgrade Kit to 1.5" (38mm) Kit 120V/240V

**Overlap** 



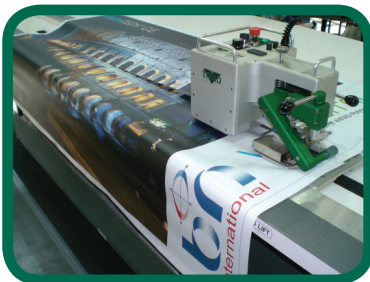
**Flat Hem** 



**Hem Cord** 



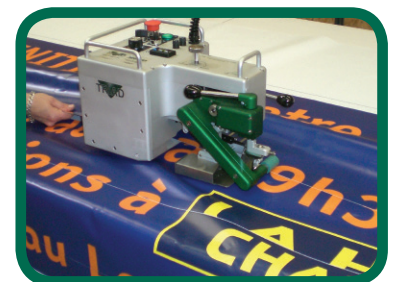
**Pole Pocket** 



Vacuum Assisted Overlap



Hem Weld, Poland



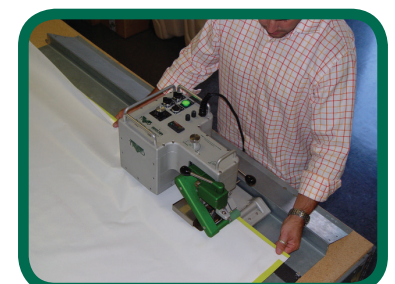
Overlap Registration, France



Pole Pocket Weld, Uruguay

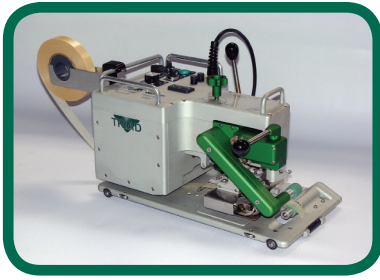


Track Welding on Floor



Track/Table Flat Hem Weld, USA

# SPECIAL BUILT TRIADS



## ***Triad Acrylic Fabric Tape Welder***

Designed for the awning maker, this Triad is built to use the Thermal Bonding Tape and provide the weld styles of overlap, hem cord, flat hem, and pocket.  
#33-060: Triad Wedge Welder, 120V, w/Thermal Tape Attachment, 1" Wedge (25mm)  
#33-060.2: Triad Wedge Welder, 240V, w/Thermal Tape Attachment, 25mm Wedge (1")



## ***Triad 6" Pole Pocket Welder***

With a wider base, this Triad provides for a 6" (152mm) single fold of material for larger diameter pockets. Built with either a 1" (25mm) or a 1.5" (38mm) standard wedge and housing. All Triad Attachments fit on this unit.  
#33-026: Triad Wedge Welder, 120V, 6" Pocket Machine, 1" Wedge (25mm)  
#33-027: Triad Wedge Welder, 120V, 6" Pocket Machine, 1.5" Wedge (38mm)  
#33-051: Triad Wedge Welder, 240V, 6" Pocket Machine, 25mm (1")  
#33-052: Triad Wedge Welder, 240V, 6" Pocket Machine, 38mm Wedge (1.5")



## ***Triad 10" Pole Pocket Welder***

For even larger pockets, this Triad provides for a 10" (254mm) single fold of material. Built similar to the Triad 6" above and all Triad Attachments fit on this unit.  
#33-063: Triad Wedge Welder, 120V, 10" Pocket Machine, 1" Wedge (25mm)  
#33-064: Triad Wedge Welder, 120V, 10" Pocket Machine, 1.5" Wedge (38mm)  
#33-067: Triad Wedge Welder, 240V, 10" Pocket Machine, 25mm (1")  
#33-068: Triad Wedge Welder, 240V, 10" Pocket Machine, 38mm Wedge (1.5")



## ***Triad 3" Overlap Welder***

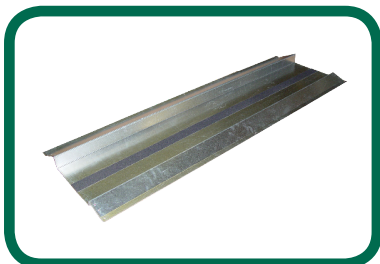
To meet your larger weld width specs, this Triad is built with 3" (76mm) wedge and rollers. Smaller wedge/rollers and all attachments fit on this Triad.  
#33-025: Triad Wedge Welder, 120V, 3" Wedge (76mm)  
#33-050: Triad Wedge Welder, 240V, 76mm Wedge (3")



## ***Triad Dedicated Hem Welder***

Designed with a large opening for the easy insertion of material, this Triad is capable of only the hem style welds. Build with Hem Cord Attachment for 3/32" to 1/4" (3-6mm) cord size.  
#33-012: Triad Wedge Welder, 120V, Dedicated Hem Cord, 1" Wedge (25mm)  
#33-012.2: Triad Wedge Welder, 220V, Dedicated Hem Cord, 1" Wedge (25mm)

# TRACK SECTIONS



*For use with both Triad and Spec Wedge Welders*

Prefabricated 5' (1.5m) track sections are ideal for long runs, material handling and reducing operator error. By using the track, the operator does not have to worry about steering the welder. The Track System can be permanently mounted or left portable for space savings. Track available for standard welders as well as 6" Pole Pocket welders. Includes 20-gauge galvanized steel section, track connector, hardware and magnets.



- #33-500: 5' Track System w/Connector
- #33-600: 5' Track System w/Connector (For 6" Pocket Triad)