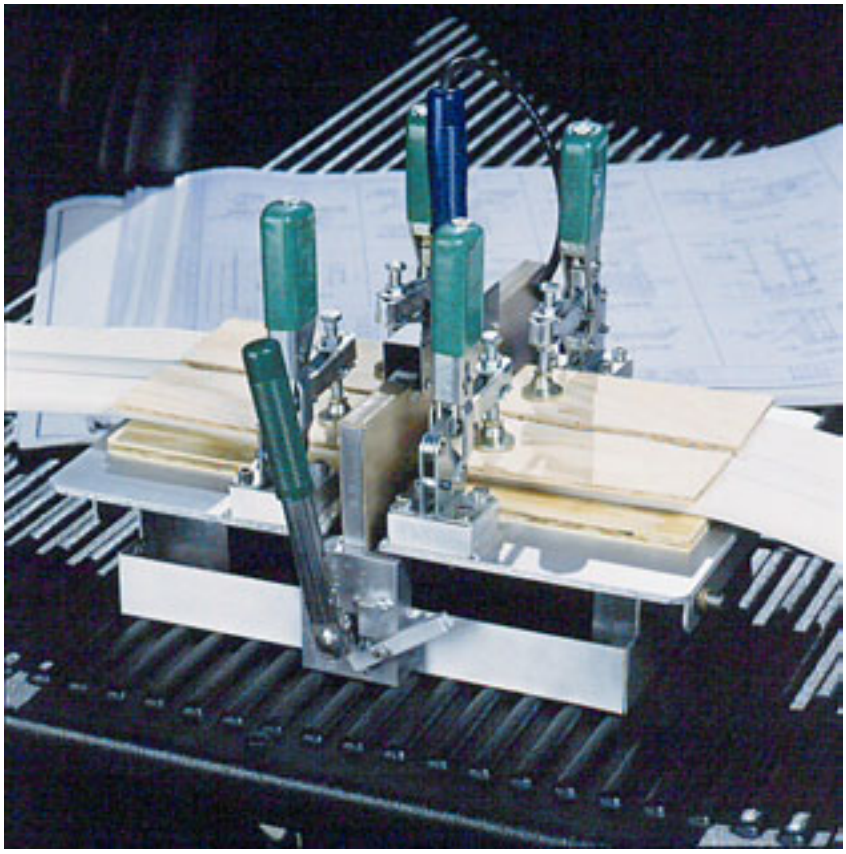
ST-10® In Line Splicer

U.S. Patent #4,867,835



User Manual

J P Specialties, Inc.
551 Birch Street
Lake Elsinore, CA 92530
800-821-3859
www.jpspecialties.com

Packing List

Quantity	Description
1 each	ST-10 In Line Splicer
4 each	3/8″ table mount shims .375″ x 8.25″ x 3.5″
2 each	3/8″ table mount shims .375″ x 8.25″ x 7″
4 each	1/4″ table mount shims .250″ x 8.25″ x 3.5″
1 set	9 piece hex key set 5/64″ through 1/4″
1 each	9/16″ combination wrench
1 each	Complete instruction manual

Re-Order Parts List

Part #	Description
12010	ST-10 In Line Splicer (complete)
11990	3/8″ table mount shims .375″ x 8.25″ x 3.5″
11990	3/8″ table mount shims .375″ x 8.25″ x 7″
11990	1/4″ table mount shims .250″ x 8.25″ x 3.5″
11998	ST-10 tool kit. Includes: 9 Piece Hex Key Set 5/64″ through 1/4″ and 9/16″ combination wrench
12414	JP 414 Waterstop Splicing Iron 3/4″ x 4 1/2″ x 14″ with Peel & Stick Teflon® cover
12415	JP 414 Pro-Built Waterstop Splicing Iron 3/4″ x 4 1/2″ x 14″ with Silverstone® coated surface, built-in thermometer, and improved grip
11308	JP 31308 Electronic Digital Thermometer, temperature probe, and case
11995	Complete instruction manual

Function
The ST-10 In Line Splicer provides a mechanical means of joining thermoplastic waterstops such as polyvinyl chloride (PVC), polyethylene (PE), or thermoplastic elastomeric rubber (TPE). The table is separated into two parallel surfaces that open and close by mechanical means, driven by compression springs.

The table is equipped with four clamps, which provide the strength for securing the waterstop to the table surface without puncturing the waterstop. The sear lever is used to hold the table surfaces apart, providing a gap to center the two pieces of waterstop to be welded. The sear is automatically released when the opening lever is moved to open the table while inserting the iron.

The compression springs provide uniform pressure on both edges of the waterstop against the JP 414 (standard or pro model) Waterstop Splicing Iron. Because the mechanical spring tension forces the thermoplastic waterstop against the splicing iron, the waterstop will melt at an accelerated rate. The melted waterstop (extrudant) will be free of pinholes, contaminants, and air-voids due to the applied pressure from the compression springs.

The parallel table surfaces are drilled and tapped to provide the means for attaching wood shim material. The shims act as a non-skid surface and allow the waterstop to lay flat and maintain a parallel surface.

A recessed notch in the center of the table supports a JP 414 Waterstop Splicing Iron. The iron is withdrawn after the welding process. The ST-10's recessed area keeps dirt and debris from contaminating the weld area and allows access extrudant to uniformly squeeze out of the weld area at the joint.

Benefits

- One man operation — Unskilled labor — Lower cost per hour
- Fast welding
- Perfect alignment of waterstop — No mismatch of pieces
- Welds multiple shapes and sizes
- Can weld at lower temperature without sacrificing speed — No charred welds
- Speeds up welding time while producing perfect welds — More welds per hour
- Keeps weld area clean and contaminant-free
- Produces “mechanical” welds in the field using the same technology that produces “factory” fabrications
- Safe to use — Positions operator away from melting process — Greatly reduces the inhalation of fumes
- Heavy-duty construction — Built to withstand the demands of jobsite conditions
- Compact

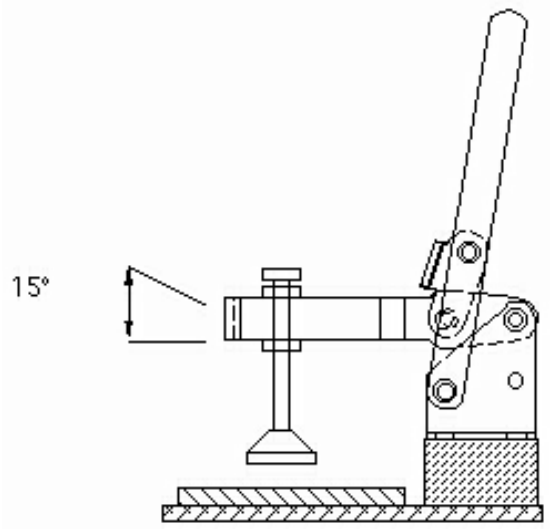
Operating Instructions

All waterstop must first be pre-cut to specified lengths and cut square before welding can be performed. *Never weld extruded ends of waterstop… always weld cut end to cut end*. A radial arm saw with a carbide tooth blade (10"; 40 teeth; or 12"; 60 teeth) works best.

1. Preheat JP 414 Waterstop Splicing Iron to desired temperature (350 to 380°F for PVC; 410 to 430°F for TPE). Allow temperature to stabilize at desired setting for 30 minutes minimum prior to welding. While the iron is pre-heating proceed with step 2.
2. Set the table gap and engage the sear. Begin by depressing the operating handle downward counterclockwise, far enough to engage the sear lever. With the operating handle depressed, push down the sear lever and hold it in position until it engages the sear pin located in the head of the operating handle. Now, with both the operating handle and the sear lever depressed slowly release the operating handle while continuing to hold down the sear lever. The sear should now be engaged, holding the table surfaces apart, creating a gap in the two surfaces.
3. Shim stock placement — It is necessary to us shim stock only if the waterstop you are welding has bulbs or fins which do not allow the waterstop to lay flat on the table surface. The shims provide a support so both waterstop pieces can be aligned and clamped to maintain a perfect match. The shims provided with the ST-10 provide the basics to start, but different thickness and sizes may be necessary to accommodate different sizes and shapes of waterstop. *Drawings of typical shim placement are included.*
4. Place one piece of pre-cut waterstop on each side of table, near the center of the gap. Position both pieces so the edges to be welded are directly in the middle of the gap. Now, place a piece of shim stock on top of each piece of waterstop so the clamp foot contacts the shim and disperses the pressure evenly. Clamp the waterstop in place with the clamps.
5. Depress the operating handle counterclockwise to open the table far enough to disengage the sear lever and stop at the full open position. Place the preheated waterstop iron into the recessed notch in the center of the table. Slowly release the operating handle until the waterstop is flat against each side of iron with pressure applied. Watch the waterstop melt — observe the weld area.
6. After sufficient melting takes place (approximately 3/16" bead on each piece) the operating handle is quickly depressed counterclockwise to separate the waterstop from the iron. Remove the iron from the table, and slowly release the handle, closing the table and compressing the weld together. *Allow the compression springs to do their work… no additional force is necessary from operator*. While the weld is cooling, wipe down iron with a white cloth or shop towel to remove any residue from the surface. This will prevent contaminants from getting into the next weld.
7. After the weld has cooled, the waterstop is removed by holding the operating handle in position while releasing the clamp handles, so you can carefully return the clamps to the open position. Do not allow the table to slam shut on the soft, hot weld.
8. Carefully remove the welded, cooled waterstop joint from the table and proceed to next weld.

Clamp Instructions

1. Adjust contact — Set spindle so that the clamping arm is inclined upward, in the middle of its 15°-adjustment range. Tighten jam nuts to fix spindle in position.
2. Clamps are preset at our factory for medium clamping force. To reset, release pressure, loosen jam nuts and adjust height of threaded spindle using the jam nuts. Clamping arm should be parallel to the table surface ±15°.



Typical Shim Placements