

The **Ultrasplice® XL** is designed to produce high-quality splices directly on or off a harness board.



Application requirements demand a lightweight, compact, and ergonomic system that is easily positioned, loaded, and operated. The AmTech **Ultrasplice® XL** system will automatically sequence to produce all splice requirements between 0.7 and 28 sq. mm in cross section. All critical splice parameters are monitored to ensure the highest quality splices.

### **Features**

#### **Easy to maintain/easy to access:**

A special disconnect permits quick removal and replacement of the actuator at the production line in less than five minutes to allow off-line maintenance.

- All air and electrical connections are made through a single connector.
- The connector is keyed and guided to ensure simple and reliable operation.

#### **Superior tool life:**

Excluding labor, tool cost is the largest expense in producing splices. AmTech utilizes replaceable tip technology on all its wire splicers. **Ultrasplice® XL** tips are on average six to eight times more economical than competitors' solid tooling.

#### **Automatic parameter change for sequencing:**

Production of a wide range of splices as found on a harness board is simplified by automatically changing all splice parameters including width, pressure, amplitude, and energy.

#### **The Ultrasplice® XL has:**

- Precision, programmable adjustment of splice width.
- Electronic pressure regulator to accurately control force.
- Electronic amplitude control to permit precise setting of amplitude within one micron.
- Continuously adjustable energy.
- Splice parameters and quality limits stored in memory for instant recall and automatic setup.
- Sequences programmed so that after a preset number of splices is produced the **Ultrasplice® XL** will automatically set up for the next splice requirement.

#### **Stable mechanical adjustments:**

Critical tooling clearances and alignment do not change with use. Performance tested over millions of splices.

## **AMERICAN TECHNOLOGY, INC.**

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### Easy loading and unloading of splices:

Fully retracting anvil and a gathering tool that opens to 2 mm to allow the easy removal of the splice.

### Patented Anti-Side Splice Feature:

One of most common causes for field failures is side splicing (Figure 1). If the operator is allowed to place the wires flat on the tip, only the tangent point of each cable is welded together; this results in an extremely weak splice. Our patented anti-side splice feature enables the operator to vertically stack the cables (Figure 2). This vertical stacking of the cables prevents side splicing and provides the highest quality splice possible.

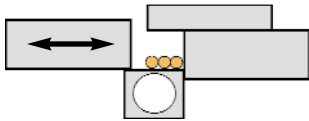


Figure 1. Side splicing

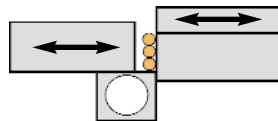
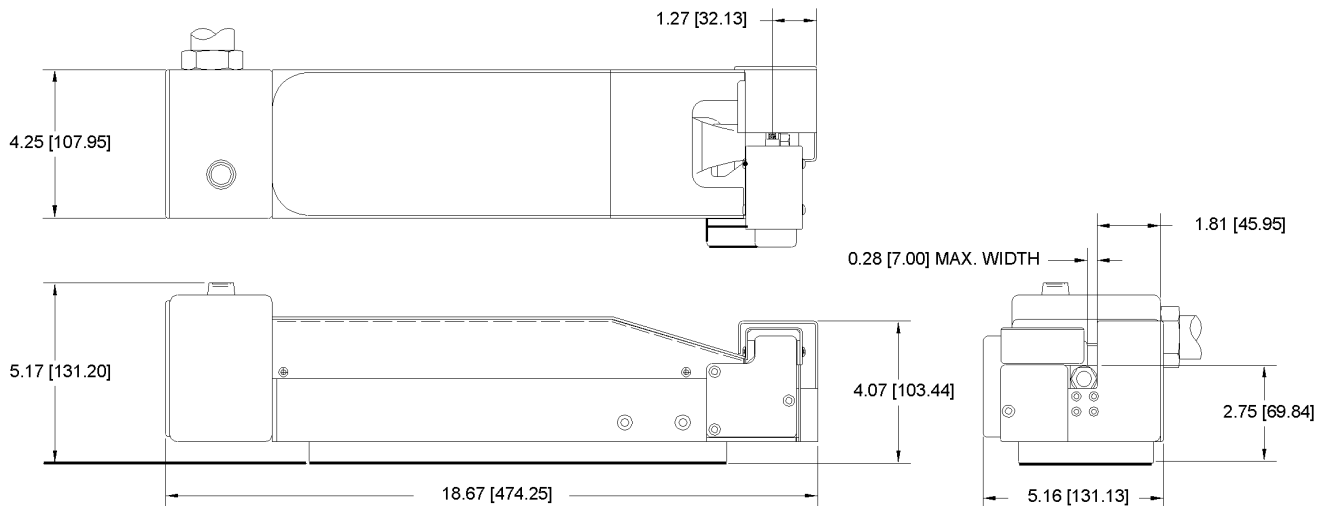


Figure 2. Patented anti-side splicing feature

### Proportioned cooling air:

Cooling increases tool life and ensures a more consistent splice in high-production environments. Cooling air is applied proportional to the energy used in the splice, thus enhancing the process while controlling cost.

### Dimensions



### Compact design:

The Ultrasplice® XL actuator is designed to be as small as possible to accommodate both pigtail and in-line splices directly on the harness board.

### Designed for counterbalance mechanism:

- Positions the weld head in any orientation.
- Provides excellent ergonomics.
- Low cost installation.

### Scheduled quality checks:

Programmed maintenance counters prompt you when your next scheduled maintenance is due.

### Additional Specifications

Electrical requirements: 245V AC, 1Ø, 50/60 Hz

Compressed air: Clean (filtered to 5 microns), dry, 80 psig (5.5 bar)

Weight: 24 lb. (10.9 kg.)