# STEADYWEB™ SPLICER Tension Controller

The SteadyWeb™ Splicer is a complete turret rewind control system. It features an automatic tension controller, circuitry for core speed matching and flying splice sequencing all in one easy-to-use package. During the splicing operation the controller automatically coordinates turret rotation, knife firing, core speed, and tension control at the touch of a button. The SteadyWeb™ Splicer controls operation of any type of electric clutch or AC or DC motor drive, single or dual motor configuration.

Web tension is measured by DFE tension transducers and displayed on a large meter calibrated to read actual web tension. To adjust tension, the operator turns the tension set knob until the desired value is displayed on the meter. The SteadyWeb™ Splicer will automatically maintain the set tension regardless of variations in web speed or roll diameter. A manual output adjustment circuit is also provided. Switching is bumpless from manual to auto mode.

Automatic control of flying splice applications is provided by a speed regulator which matches the surface speed of the empty rewind core to the web speed, and a logic circuit which sequences turret rotation and knife operation and transfers automatic tension control to the new core. The machine operator need only press one button to make a flying splice.

The SteadyWeb™ Splicer is used on any machine using a continuous web process, such as printing presses, coaters, laminators, slitters, sheeters, label presses, extruders, and metallizers. Typical web materials include paper, plastic films, foils, rubber, laminates, linoleum, textiles, non-wovens, tapes, and ribbons.

The SteadyWeb™ Splicer will reduce or eliminate tension related problems such as web breakage, stretching or looseness, misregistration, repeat length variation, wrinkling, curling, and coating thickness variation. It will also help reduce waste during starts, stops, and splicing, leading to consistent product quality.

## BENEFITS

- Complete turret rewind control system in one package
- One button splicing
- Reduces web breakage, stretching and registration problems
- Automatic control of flying splices
- No need to stop production to change rewind rolls
- Wide tension control range without need for recalibration
- Automatic control of web tension - no manual adjustments needed
- Increased productivity

## STANDARD FEATURES

- **120V** 60Hz AC input.
- **0-90 Vdc** output. (V version)
- **0-10 Vdc** output, proportional to tension. (D version)
- **4-20 mA** Tension Output. Used to interface with computers or other control systems and tension displays.
- **Analog tension meter.**
- **AUTO** and **MANUAL** tension set positions.
- **Emergency Stop**. Stops the tension controlled device quickly in an emergency situation.
- **Output meter.** Indicates 0-100% of controller output while in tension control.
- **Speedmatch Output meter.** Indicates 0-100% of controller output while in speedmatch.
- **System** and **Splicing Status Lights**. Show what functions and spindles are active.
- **Tension Meter Damping**. Eliminates tension meter vibrations.
- **Tension Limit Switch (TLS).** Relay actuates at a pre-set adjustable trip point. Can be used as a web break detector.

## OPTIONS

- **(230V)** 230 Volt Input.
- **(24V, 45V)** Outputs.
- **Attached Power Cord (APC).** A heavy duty 3 conductor power cord wired to the controller by DFE.
- **Blank Meter Scale (BMS)**. No numbers on meter scale, just scale divisions.
- **Circuit Card (CC) Configuration**. No operator devices, just the circuit cards with connector blocks in the enclosure.
- **Digital Meter (DM).** Digital readout instead of analog.
- **Dual Calibration (DC)**. Allows two calibration settings for tension meter and stability.
- **Dual Transducer Input (DTI)**. Accepts tension inputs from two sets of transducers. Includes Dual Calibration.
- **Extended Range (XRE)** Makes transducers twice as sensitive. (Transducers must also have extended range option selected.)
- **External Taper Tension Adjustment (XTA)**. Taper tension adjust located on the front of the controller.
- **Non-Std. Meter Scale (NMS)**. Any scale other than our standard selection.
- **Remote Auxiliary Tension Meter (ATM).** Additional loose tension meter for remote installation.
- **Remote Auxiliary Tension Meter in Enclosure (ATME).** Additional tension meter mounted in enclosure for remote installation.
- **Remote Meter in Enclosure (RME)**. Mount the standard tension meter in an enclosure for remote installation. (For CC)
- **Remote Operator Panel (ROP).** Operator devices installed in a separate panel remote from the controller but attached with a 6' cable.
- **Remote Tension Amplifier (RTA)**. Tension amplifier in controller is replaced with one outside. Usually used with intrinsically safe amplifier.
- **Taper Tension**. Tension tapers with diameter increase as calculated by the following: **TTD:** Using DC Tachs, **TTF**: follower roll or ultrasonic sensor, **TTP:** using pulse tachs.
- **Tension On Relay (TOR)**. Turning tension on actuates an SPDT relay for customer use.

## SPECIFICATIONS:

**Power Input:**
V Version - 115/230 Volts 50/60 Hz single phase @ 5 Amp
D Version- 115/230 Volts 50/60 Hz single phase @ 1 Amp

**Output:**
V Version - 90 Volts, 45 Vdc, 24 Vdc @ 4 Amp
D Version - 0-10 Vdc 5 mA

**Transducer Power Supply:**
5 Vdc, regulated
10 Volts for Extended Range

**Transducer Signal:**
500 millivolts dc per pair at rated load
1 Volt for Extended Range

**Mating Electrical Connector:**
Amphenol MS3106A-10SL-3S

**Zero (Tare) Range:**
95% of transducer rating, minimum

**Calibration Range:** 25:1

**Temperature Range:** 32°F to 104°F (0°C to 40°C)

**Max. Output Adjustable Range:** 0-100%

**Min. Output Adjustable Range:** 0-20% of Max.

**Taper Tension Range:** 0 to 100%

**Tension Meter:** Analog, 2%, 1mA, 48 Ohm

**Enclosure:** Steel, NEMA 1, powder resin painted

**Weight:** 35 lbs. (15.9 kg)

**System Accuracy:** 1 - 3% Typical

**Manual Mode Output Range:**
0-100% of Rated Output Voltage

**Output Multiplier Range:** 10:1

**Output Divider Range:** 1:10

## PRODUCT CODE

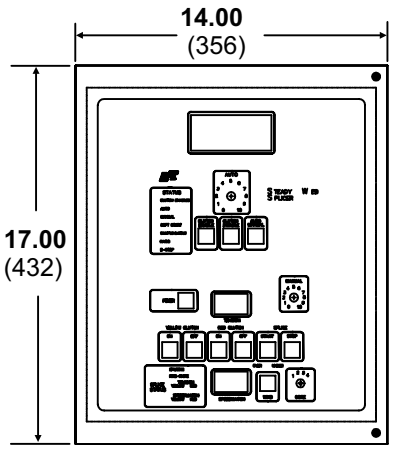
You may order by description or by specifying the code by matching each labeled place with one of the choices below.

**SW2SPLCR - V - 0250 - DL - DR - XRE,DM**

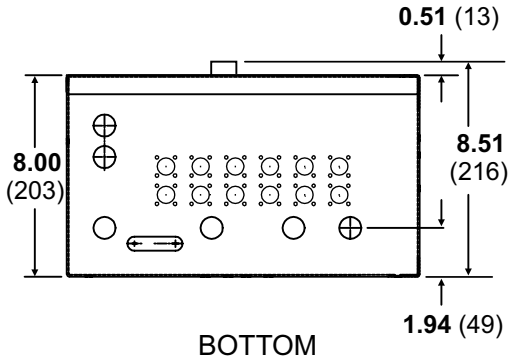
| VERSION | METER SCALE | LINE TACH | ROLL TACH | OPTIONS |
|---|---|---|---|---|
| V = 0-90Vdc output<br>D = 0-10Vdc compensated output | 0001 = 0 - 1<br>0005 = 0 - 5<br>0010 = 0 - 10<br>0025 = 0 - 25<br>0050 = 0 - 50<br>0100 = 0 - 100<br>0250 = 0 - 250<br>0500 = 0 - 500<br>1000 = 0 - 1000 | D = DC Tach<br>P = Pulse Tach | D = DC Tach<br>P = Pulse Tach | 24 = 24Vdc Output<br>45 = 45 Vdc Output<br>230 = 230V Power Input<br>APC = Attached Power Cord<br>BMS = Blank Meter Scale<br>CC = Circuit Card Configuration<br>DM = Digital Meter<br>DC = Dual Calibration<br>DTI = Dual Transducer Input<br>XRE = Extended Range[1]<br>XTA = External Taper Adjust<br>NMS = Non-Standard Meter Scale<br>ATM = Remote Auxiliary Tension Meter<br>ATME = Remote Tension Auxiliary Meter in Enclosure<br>RME = Remote Meter in Enclosure<br>ROP = Remote Operator Panel<br>RTA = Remote Tension Amp<br>TOR = Tension On Relay<br>TTD = Taper Tension by DC Tach<br>TTF = Taper Tension by Follower Roll<br>TTP = Taper Tension by Pulse Tach<br>Z = Special (SPR) |

1. Requires that the transducer(s) has the XR option.

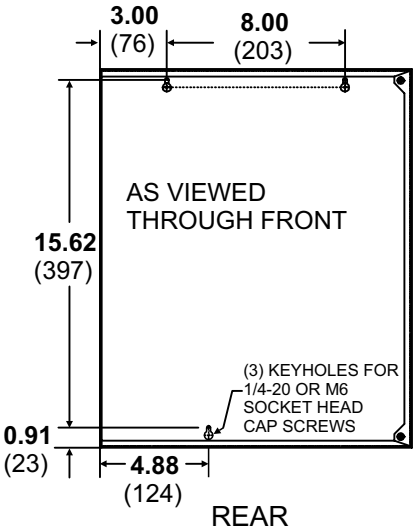
# DIMENSIONS



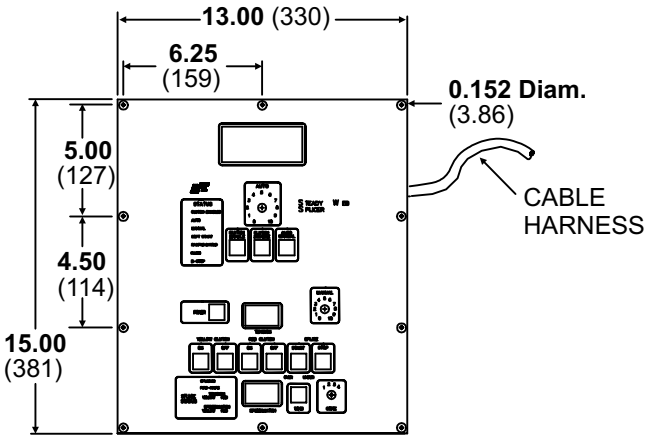

FRONT



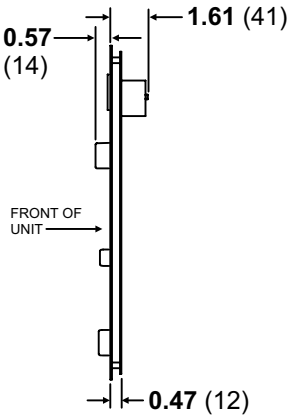

BOTTOM



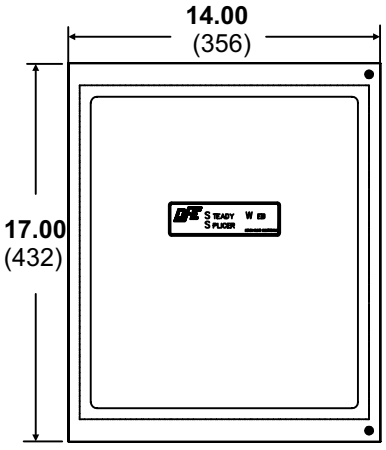

REAR



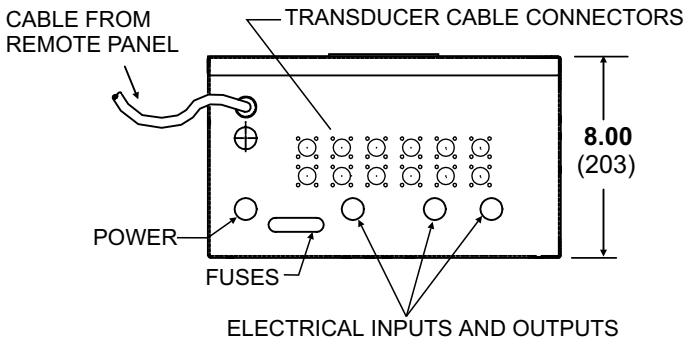

FRONT OF REMOTE PANEL




SIDE OF REMOTE PANEL




FRONT OF BASE




BOTTOM OF BASE

See standard enclosure (REAR) diagram above for mounting hole dimensions

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