## **P** Pacsci Emc

# PYROTECHNIC TUBE CUTTERS

### **PYROTECHNIC TUBE CUTTERS**

A Pyrotechnic Tube Cutter opens pressure diaphragms or completely severs and then seals metal tubes of varying diameters and wall thicknesses carrying pressurized fluids. The tubing cutter/sealer is used to cut and seal two stainless steel (which can be Teflon lined) tubes.

The tubing cutter/sealer assembly primarily consists of the body, anvil, one electrically fired gas pressure cartridge, four shear pins and cutter assembly. The cutter assembly consists of the piston, crimper and blade. The crimper and blade are attached to the piston by two of the shear pins, (sequencing pins). The piston is secured in the body by the other two shear pins, (initial lock pins). The body provides for the installation of the cartridge, attachment of the anvil, and housing for the cutter assembly. Lugs, for attaching the tubing cutter/sealer to the releasing structure, are an integral part of the body.

#### PRODUCT FAMILY



#### APPLICABLE SPECIFICATIONS

Operating Temperature: -54 °C to +71 °C (-65.2 °F to 159.8 °F)

Function Time: With the application of the All-Fire current, the cutter

will completely sever the target in <20 milliseconds

Reliability: 99% at 95% confidence level

Altitude: 10,000 feet underwater to Deep Space

Estimated Weight: 27 to 173 grams

Target Materials: Corrugated steel tubing up to 1/2 inch diameter

#### **ELECTRICAL SPECIFICATIONS**

Bridgewire Resistance 0.9 to 1.30 ohms

Insulation Resistance 100 megohms 500 VDC

No Fire 1 amp/1 Watt for 5 Minutes

Recommended All Fire 4.0 Amps for 50 millisecond duration

ESD 25KV Electrostatic discharge: 25 kV DC from 500 pF Cap thru a 5k ohm resistor – shorted pins to case and pin-to-pin

Electrical connections can be lead wire, bayonet or threaded connectors

