## Installation Tools and Accessories

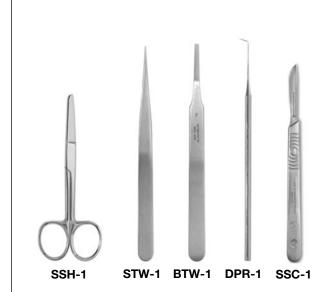


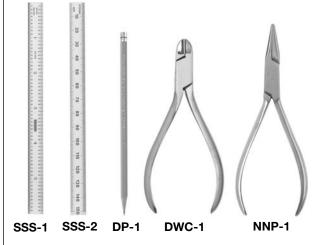
# **General Information and Selection**

There is a strong element of craftsmanship involved in making consistently successful strain gage installations. As for any other field, this craft has its own special tools and working materials—found by seasoned professionals to be most effective for achieving the desired results. The installation accessories described on this and the following pages represent the distillation of many years' experience in determining the most appropriate tool or material for each task in the gage installation process.

Every accessory item listed here has been thoroughly tested and evaluated in the Micro-Measurements Applications Engineering Laboratory for quality and reliability, for ease of use, and for compatibility with all other Micro-Measurements products. It should be noted that the instruction bulletins supplied for gages, adhesives, protective coatings, etc. assume the availability of these accessories to the user, since such is generally the case for an experienced practitioner in a well-equipped laboratory.

#### **TOOLS**





#### **SSH-1 SURGICAL SHEARS:**

Chromium steel, 4-1/2 in (115 mm) long, with one sharp pointed blade and one blunt-end blade.

#### **STW-1 TWEEZERS:**

Stainless steel, 4-1/2 in (115 mm) long. Rugged, precision ground sharp ends. Primarily used for handling leadwires.

#### **BTW-1 TWEEZERS:**

Stainless steel, 4-1/2 in (115 mm) long. Antimagnetic; acid and corrosion resistant. Thin, flat blunt ends ideal for safe handling of strain gages.

#### **DPR-1 DENTAL PROBE:**

Stainless steel "pick". Flexible 75° pointed tip.

#### SSC-1 SURGICAL SCALPEL AND BLADE:

Stainless steel, uses SSC-2 snap-in replacement blade.

#### SSC-2 REPLACEMENT SCALPEL BLADES:

Five blades per package. Not shown.

#### **SSS-1 STEEL SCALE:**

6 in (150 mm) long, satin-chromed finish. Graduated in inches (1/32, 1/64, 1/10, 1/100).

#### SSS-2 STEEL SCALE:

6 in (150 mm) long, satin-chromed finish. Graduated in inches (1/10, 1/100) and millimeters (0.5, 1).

#### **DP-1 4-H DRAFTING PENCIL:**

For gage layout.

#### **DWC-1 DIAGONAL CUTTERS:**

Stainless steel, 4-1/2 in (115 mm) long, precision cutter for wire up to AWG No. 18 (1 mm diameter).

### NNP-1 NEEDLE-NOSED PLIERS:

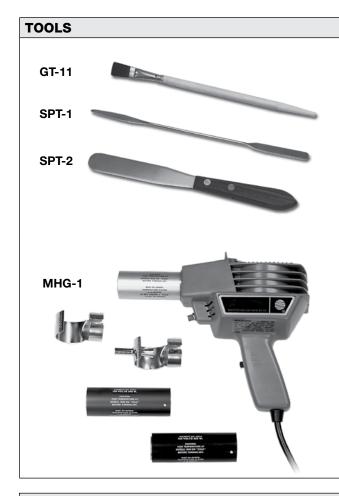
Nickel-chrome plated, 4-1/2 in (115 mm) long, with serrated needle-nosed jaws.

#### ATS-2 GAGE APPLICATION TOOL SET:

Includes one of each item plus one additional DPR-1 Dental Probe. Durable, polypropylene box. Not shown.



#### General Information and Selection



#### **GT-11 CAMEL'S HAIR BRUSH**

3/8 in (9.5 mm).

#### SPT-1 STAINLESS STEEL MIXING SPATULA

Double blade. Overall length 8 in (200 mm).

#### SPT-2 STAINLESS STEEL MIXING SPATULA:

Single blade. Overall length 7-3/4 in (195 mm). Wooden handle.

#### MHG-1 MASTER MITE HEAT GUN:

Lightweight, compact, perfectly balanced. 2 lb (0.9 kg) with nozzle attached. 8-7/8 x 7 in (225 x 180 mm). Quiet, brush- less-type shaded pole motor rated for continuous duty. Three interchangeable nozzle heating elements control average outlet temperature 1/2 in (13 mm) from nozzle at +500°F (+260°C), +650°F (+345°C), or +800°F (+425°C). Air- cooled barrel. Three-conductor grounded linecord. Slip-on deflector completely surrounds shrinkable tubing (HST-1) with heat. Pinpoint adapter directs heat without affecting adjacent areas. 120Vac, 60Hz. Maximum current draw 5.4 amps.

#### MHG-2 MASTER MITE HEAT GUN:

Same as above, except 220 Vac.

#### **GENERAL-PURPOSE TAPES AND MATERIALS**



#### PCT-3M GAGE INSTALLATION TAPE:

For gage handling. Compatible with the cure temperature ranges of all MM adhesives up to  $400^{\circ}F$  ( $204^{\circ}C$ ). 3/4 in x 72 yd (19 mm x 65 m).

#### Three ordering options:

PCT-3M: Tape only.

PCT-3MD: Tape and hand dispenser\*.

PCT-3D: Hand dispenser\* only.

\*This portable, high impact, durable plastic hand-held tape dispenser features a hand brake in the core.

#### **PDT-3 PAPER DRAFTING TAPE:**

For soldering mask, and lead positioning. 0.75 in x 400 in (19 mm x 10.1 m).

#### PLY-001 Kapton® Film:

For electrical insulation,  $4 \times 10 \times 0.001$  in thick  $(100 \times 250 \times 0.02 \text{ mm thick})$ .

Store all at or near +75°F (+24°C).

## Installation Tools and Accessories



#### General Information and Selection

### **HIGH-TEMPERATURE TAPES AND MATERIALS**



#### **MJG-2 MYLAR® TAPE:**

For gage handling with heat-curing resin systems. Compatible with the cure temperature ranges of all MM adhesives up to 400°F (204°C). 1/2 in x 216 ft (13 mm x 66 m).

# TFT-2 THERMOSETTING [+340°F (+170°C)] FIBERGLASS TAPE:

For electrical insulation at high temperatures.  $1/2 \ln x 180 \text{ ft } (13 \text{ mm } x 55 \text{ m}).$ 

#### **FGC-1 WOVEN FIBERGLASS CLOTH:**

Bound edges. For lead anchoring when used in conjunction with M-Bond adhesives and M-Coat protective coatings. 0.015 in x 1 in x 50 yd (0.4 mm x 25 mm x 46 m).

# TFE-2 HIGH MODULUS TFE TEFLON® WITH SILICONE MASTIC:

1/2 in x 108 ft (13 mm x 33 m).

Store all at or near +75°F (+24°C).

#### **CLAMPING SUPPLIES**



#### **HSC-1 SPRING CLAMP:**

Maximum Opening: 1 in (25 mm).

Maximum Recommended Opening: 1/2 in (13 mm). Nominal Clamp Force at Recommended Opening: 20 lbf (89 N).

#### **HSC-2 SPRING CLAMP:**

Maximum Opening: 2 in (51 mm).

**Maximum Recommended Opening:** 1 in (25 mm). **Nominal Clamp Force at Recommended Opening:** 24 lbf (107 N).

#### **HSC-3 SPRING CLAMP:**

Maximum Opening: 3 in (76 mm).

Maximum Recommended Opening: 1-1/2 in (38 mm). Nominal Clamp Force at Recommended Opening: 30 lbf (133 N).



# GT-12 NEG'ATOR CONSTANT FORCE EXTENSION SPRING CLAMP:

 $1 \times 0.006 \times 38$  in (25 mm x 0.4 mm x 0.97 m) stainless steel band, drum I.D. 1.16 in (30 mm), 10.6 lb (47 N) load.

#### TFE-1 TEFLON FILM:

0.003 in x 1 in x 50 ft (0.08 mm x 25 mm x 15 m).

#### **GT-14 PRESSURE PADS AND BACKUP PLATES:**

Kit of 12 Silicone Rubber Pads  $3/32 \times 1/2 \times 1-1/4$  in (2.5 x 13 x 32 mm), and 12 aluminum plates,  $1/8 \times 1/2 \times 1-1/4$  in (3 x 13 x 32 mm).

#### **SGP-1 SILICONE RUBBER:**

Three pieces, each 3/32 x 1 x 6 in (2.5 x 25 x 150 mm).

#### **SGP-2 SILICONE RUBBER:**

One piece, 3/32 x 6 x 6 in (2.5 x 150 x 150 mm).

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