Hand Squeeze Roll Applicators
HSRA-48, HSRA-36 and HSRA-12

Description
Hand squeeze roll applicators (HSRA) 12-inch, 48-inch and 36-inch are intended for use in room temperature application of reflective sheetings with pressure sensitive adhesives.
The hand squeeze roll applicator consists of two rollers mounted in a frame, a lower steel roller and an upper rubber covered steel roller which is driven by a hand crank. The upper roller is adjustable to provide proper application pressure on sign blanks of varying thickness, either with hand knobs or air cylinders.

Specifications
HSRA-48 Dimensions:
Applicator
60 inches (1.5 m) wide, 141/4 inches (36.5 cm) high, 10 inches (25.4 cm) long
With Feed Tables
60 inches (1.5 m) wide, 141/4 inches (36.5 cm) high, 38 5/8 inches (98 cm) long

Construction:
Anodized Aluminum Frame
Rubber Coated Tubular Steel Upper Roll
Steel Lower Roll
Two Plated Steel Tables:
24 inches (61 cm) by 541/2 inches (138.5 cm)
Extension Table
14 inches (35.6 cm) by 541/2 inches (138.5 cm)

Weight:
Applicator 180 pounds (81.7 kg)
Feed Tables 47 pounds (21.3 kg)
Total Weight 227 pounds (103 kg)

Maximum Sign Size:
Up to 50 inches (127 cm) wide and 21/4 inches (7 cm) thick by any length

Minimum Size Table Required to Support Applicator:
60 inches (153 cm) by 24 inches (61 cm)

HSRA-36 Dimensions:
Applicator: 47 inches (1.2 m) wide, 13.5 inches (34.3 cm) high, 27 inches (68.6 cm) long (including base table)

Construction:
Steel and Aluminum Frame
Rubber Coated Tubular Steel Upper Roller
Steel Lower Roller
Galvanized Steel Feed Tables

Net Weight:
90 pounds (40.8 kg)

Maximum Sign Size:
Up to 36 inches (0.91 m) wide and 11/8 inches (2.81 cm) thick, by any length

HSRA-12 Dimensions:
19 inches (48.3 cm) wide
19.5 inches (49.5 cm) high (including air cylinders)
27 inches (68.6 cm) long

Construction:
Anodized Aluminum Frame
30 Durometer Rubber Coated Tubular Steel Upper Roll
50 Durometer Rubber Coated Tubular Steel Lower Roll
Galvanized Steel Feed Table
**Net Weight:**
Approximately 40 pounds (18.2kg)

**Maximum Sign Size:**
Up to 12 inches (30.5cm) wide and 1.125 inches (2.876cm) thick by any length

**Operating Procedure**

**Note:** When applying prismatic sheeting to double-sided signs, the prismatic sheeting cannot come in contact with the steel bottom roll of the laminator. Any contact with the steel roll will damage the sheeting optics. Use either a piece of FR-2 sponge rubber or cardboard with SCW 82 slipsheet under the first side while applying the second side.

**A. Applicator Adjustment**

Hand nip pressure adjustment
Careful adjustment of the rollers is necessary for proper sheeting application.

1. Turn the adjusting knobs until the rollers are opened wider than the thickness of the sign blanks.
2. Place a sign blank between the rollers.
3. Turn the adjusting knobs down until the top rubber roller begins to evenly contact the sign blank. Remove “play” from adjusting knobs.
4. Tighten the adjusting knobs one-half turn to obtain proper application pressure.
5. Remove sign blank.

**Note:** Release pressure on rollers at the end of the day.

Air cylinder kit adjustment
Adjust air regulator to 80 psi.

**Note:** If compressed air is not available, use a portable compressor since minimal CFM is required.

**B. Sheeting Application With Pressure Sensitive Adhesives.**

Two different methods are used for applying sheeting with pressure sensitive adhesive, depending on the size of the sign. For small signs, start at one edge of the sign and roll the liner and blank through in one motion. For larger signs, start in the middle of the sign and roll first one end and then the other through the applicator.

**Method 1 - Small Signs**

1. After the sign face or sheeting has been cut to the desired size, lay the sheeting face down on the HSRA feed table. Pull back the liner approximately three inches parallel to the edge of the sheeting to expose the adhesive. Crease the liner to hold it out of the way during positioning of the sheeting on the substrate.

2. Carefully position the sheeting onto the substrate, adhering the exposed adhesive to the surface.
3. Feed the adhered portion into the nip.

4. Drape non-adhered sheeting over upper roller and remove liner.

5. Keeping the draped sheeting taut, laminate remaining sheeting to substrate by cranking blank through rollers.

6. Trim edges from the face side using a sharp blade.

**Method 2 - Larger, Longer Signs**

HSRA with air cylinders

1. Center the substrate between open rolls of the hand squeeze roll applicator.

2. Place the cut sheeting, with the liner still on, over the blank and register the edges.
3. Lower the upper roller. Check alignment and realign if necessary.

6. Run the linerless portion through the nip to laminate it to the blank.

4. Drape half the sheeting over the upper roller, and remove the liner back to the nip.

7. Run the applied half back through the nip. Then drape the remaining portion of the sheeting over the upper roller and remove remaining liner.

5. Fold and tuck the liner under to aid removal. Note: If liner is long, cut it away leaving a 3-inch length to tuck into the nip.

8. Laminate remaining portion of sheeting to blank.
Method 3 - Extruded Street Name Signs Application Using the 12” HSRA

1. The 12-inch Hand Squeeze Roll Applicator (Figure 1) complete with air cylinders is designed for the application of street name signs using both extruded and flat aluminum blanks. The application procedure is the same as method number two.

2. The 12-inch HSRA consists of two rubber nip rollers.

3. The upper roll is soft which allows application to extruded blanks without the need for any special adapters.

4. The lower rubber roll allows double-sided application of prismatic sheetings with only a piece of slipsheeting for protecting application of the first side. This slipsheeting protects the first side while applying sheeting to the second side.
How to use 3M™ Electronic Cuttable Film Series 1170

Here are the five easy steps for using cuttable film. For more detailed information, consult the manufacturer’s operating manual or call your 3M representative.

1. Enter text and cut film per your electronic cutting machine’s operating instructions.

2. Remove excess film, leaving behind the final text.

3. Mask the copy, using 3M TPM5 transfer tape.

4. Apply film to pre-sheeted substrate, using a hand-squeeze roller applicator.

5. Remove the transfer tape, revealing the completed sign.
Premask
The applicator may also be used to apply premask and prespacing tapes. Thread tape as in Figure 1, feed material to be laminated into nip, and complete lamination by pulling on premask.

Figure 1

Health and Safety Information
Read all health hazard, precautionary, and first aid statements found in the Material Safety Data Sheet, and/or product label of chemicals prior to handling or use.

FOR INFORMATION OR ASSISTANCE
CALL:
1-800-553-1380

IN CANADA CALL:
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