

AVALANCHE ONE-PIECE PROBE POLE

Frank P. Rossi

ABSTRACT: Aluminum 6061-T6 1/4" Schedule 40 Pipe has been frequently recommended for use in One-piece Avalanche Probe Poles. Inexpensive additions to this aluminum pipe makes a more useful probe. These include: a larger diameter tip, a loop, reflective tape, and painting the bottom of the probe.

KEYWORDS: avalanche rescue, probe pole

Probe Shaft: Seamless Aluminum 6061-T6 1/4-in. Schedule 40 Pipe, 0.539-in. O.D. by 0.088-in. Wall, B241-93 Mil-P25995B, mfr. by Plymouth Tube, Chandler, AZ.

Length: Supplied in 3.66 m (12-foot) lengths.

Weight: 0.76 kg (1.67 lb.) per 12-ft length.

Price: Price is about \$1.00 per foot for 50 each 12-foot lengths. Best price in Seattle is from Earle M. Jorgesen (EMJ), 22011 76th Ave S, Kent, WA, phone (253) 872-0100.

Tip: A tip that is larger diameter than the probe reduces drag and icing along the 12-foot shaft. Use 3/8"-16 x 3/4" USS Button Socket Head Cap Screw. Attach with 5/64" x 1/2" Roll Pin. Or, cement in place with a marine adhesive such as Sikaflex 291 High Strength Adhesive in 10.5-oz cartridge. This can be ordered from West Marine #174508 \$8.49, phone (800) 262-8464.

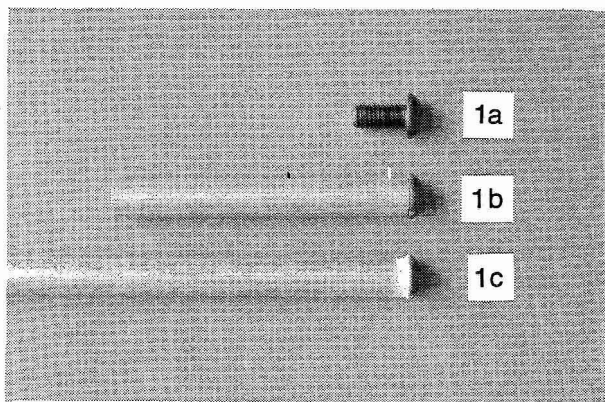


Fig. 1 Probe Tip.

- 1a Button Socket Head Cap Screw 3/8"-16x3/4"
- 1b Attached with 5/64" x 1/2" Roll Pin
- 1c Attached with Sikaflex 291 marine adhesive

Loop: A Loop allows the rescuer to clip the end of the probe to a carabiner and drag the probe behind. 45 cm (18-in.) of 2.5- to 3-mm cord can be attached through a hole drilled in the end of the probe. Or the cord can be passed through the center of a 3/8" dia. x 1.25" fluted dowel pin, and then cemented in place with Sikaflex 291 marine adhesive. Taping the cord to the probe has proven inadequate since the cord eventually cuts the tape.

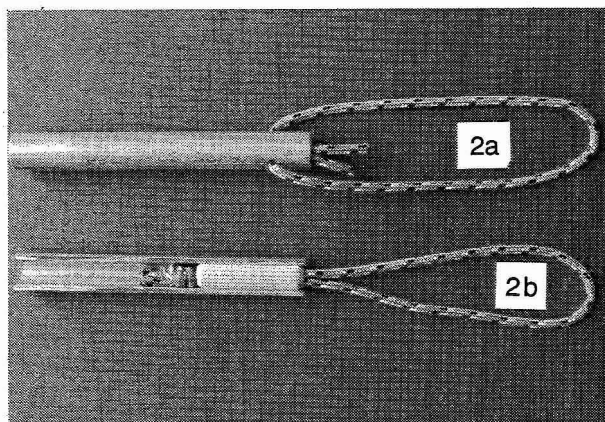


Fig. 2 Loop Attachment

- 2a Drilled and tied
- 2b Cord passed through 3/8" dia. Fluted Dowel Pin and glued with Sikaflex 291 marine adhesive

Reflective Tape: When probing at night it is difficult for the 'probeline leader' to see the top of the probes across the line of probes. Attaching 2-inch wide reflective tape around the top of the probe increases the visibility of the probes at night. Use 4.5 cm (1.75-in.) per probe of 2" wide 3M SOLAS Grade Reflective Tape available from West Marine #320788, \$1.75 per foot.

Paint bottom: As one digs down to the buried victim one must take care to not collapse any air pocket. Painting the bottom 1-meter (40-in.) of the probe provides a visual signal when one is getting close to the victim.

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