

Quantum Flex™ Markers

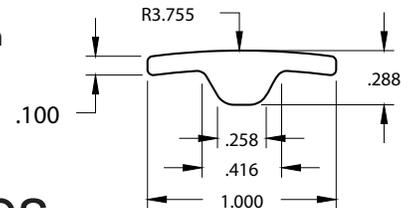
Quantum Marketing Group • Coeur d'Alene, ID • www.QuantumMarkers.com



Slim Jim Service Line Marker & Snow Pole

The Slim Jim service line marker is a durable, low profile, economical marker designed to identify service lines, pedestals, vaults and other property. The one inch wide modified "T" profile remains flexible in virtually all weather conditions, withstanding vehicle impacts, livestock contact, vandalism and other abusive conditions. Its reinforced fiberglass composite construction is superior to conventional wood lath or wire flag products for temporary marking and is durable enough to be used as a permanent marker where a lower profile is desired.

See other side for Snow Pole application



Features

Weather Resistant

The Slim Jim's fiberglass reinforced composite construction is UV resistant and temperature stable. It will not become brittle when cold or soften under heat, thereby remaining flexible in all weather conditions.

Flexible

Solid color impregnated throughout the marker. Never needs painting! Will not fade & crack like thermoplastic or rust & rot like metal or wood.

Lower Maintenance

Capable of withstanding repeated vehicle & livestock impacts, thus greatly reducing the added cost of maintenance associated with marker repair or replacement.

Easy Installation

Drivable. Installs fast and easy using industry standard tools. A typical installation takes less than one minute.

Versatile

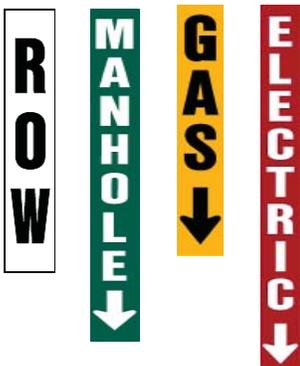
Available with or without identification decals or reflective sheeting. Choose from a variety of colors and sizes to match your application.

Lightweight

Strong composite material is 75% lighter than steel & 10 times stronger than typical thermoplastic. Easily stores and transports to the job site.

Cost Effective

Longer life, lower maintenance and reduced transportation cost.



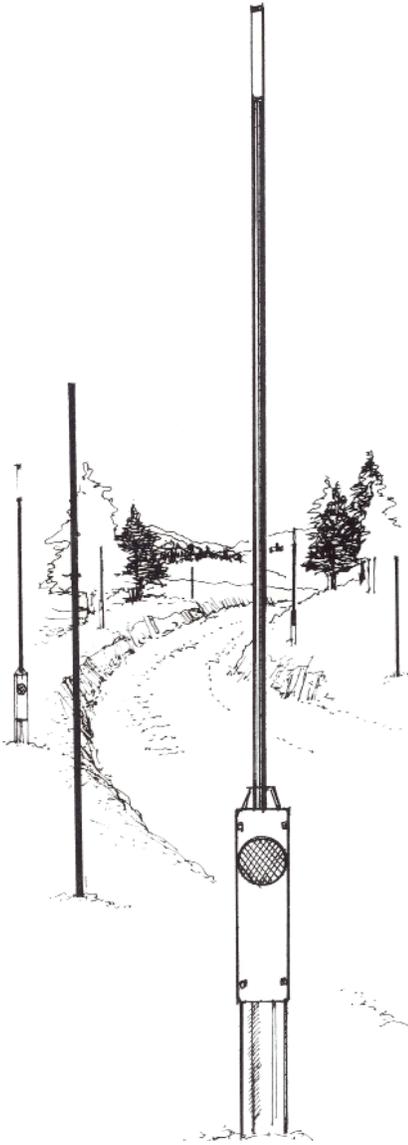
Custom Decals Available

Quantum Flex Slim Jim™ Composite Snow Markers

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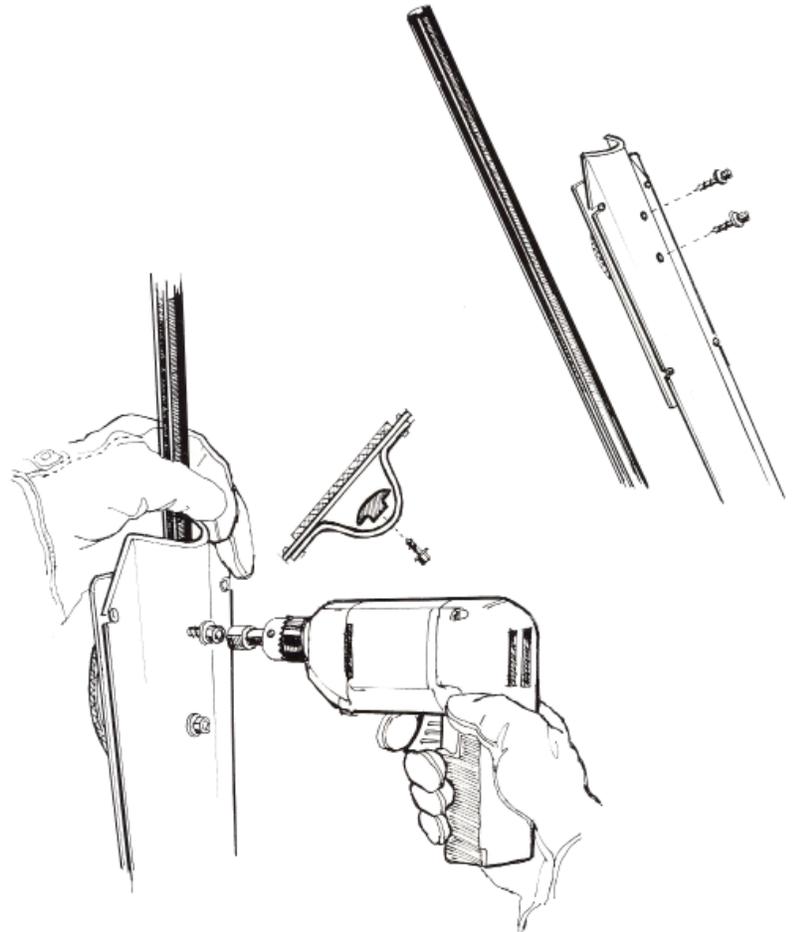
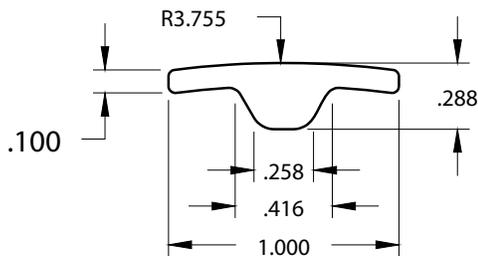
Quantum Flex composite snow markers can be quickly and easily installed to existing steel road side delineation markers. The fiberglass reinforced composition of the Quantum Flex markers withstand snow blown by snow clearing equipment to remain vertical for high visibility.

To install the markers, insert and hold the marker into existing metal delineator post. Insure that the Slim Jim marker extends all the way to the ground between the metal delineator post and the face plate. Insert optional self-drilling and tapping screws from the back of the delineator marker into the Slim Jim marker until secure.



Material:	Glass Reinforced Composite
Weight:	0.1329 lbs per foot
*Standard Lengths:	60 inch
Width:	1 Inch
*Standard Colors:	Orange

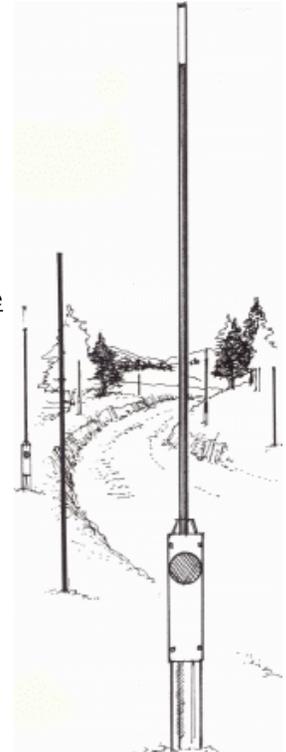
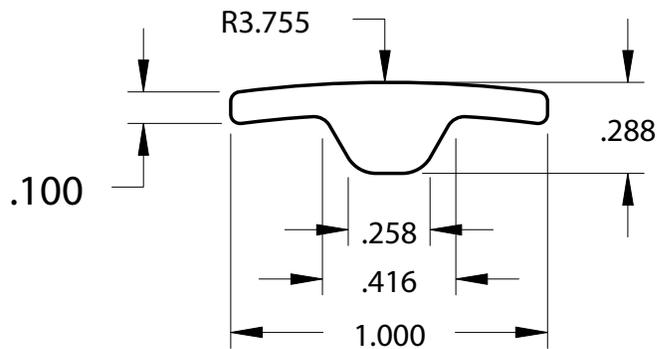
* Custom colors or lengths available upon request



Distributed By:

Specification for Quantum Flex “Slim Jim” Snow Pole QM-SLM-1

Figure 1
Marker Profile



<u>Property</u>	<u>ASTM Test Method</u>	<u>Minimum Value</u>
Tensile Strength	D-638	60,000 psi
Compressive Strength	D-695	50,000 psi
Flex Strength	D-790	60,000 psi
Flexural Modulus	D-790	4 X 10 ⁶
Barcol Hardness	D2584	50
Wt % Fiberglass Content	D-2584	60%

Material:

The marker shall consist of continuous glass fiber reinforcements entirely imbedded in durable, fully cured, unsaturated polyester resin. The resulting composite shall function as a single material which shall be resistant to its intended environment including outdoor temperature extremes, ultra-violet radiation, ozone, moisture and hydrocarbons.

Dimensions:

The marker profile shall conform to the drawing in figure 1. The nominal width shall be 1 inch with a depth of .288 extending into a “T” rail profile design for added stiffness. The length of the marker shall be manufactured to the specific required length. Typical length being 8 to 12 feet.

Appearance:

The marker shall be available in a variety of colors to be specified by the customer. Typically marker colors are orange or black for snow pole applications. The color pigment shall be throughout the entire cross section. The fiber reinforcements are to be sufficiently embedded in the post to prevent fiber surface.

Temperature Resistance:

Heat: a 6 foot marker shall be conditioned a minimum of 1 hour in an oven at 140 degrees F. The conditioned marker shall be capable of straightening itself within 5 seconds when bent at 90 degrees at the midpoint for each of 4 bends. The test of each marker shall be completed within 2 minutes of removal from the oven or environmental chamber.

Cold: a 6 foot marker shall be conditioned a minimum of 2 hours at -10 degrees F. The conditioned marker shall be capable of straightening itself within 5 seconds when bent at 90 degrees at the midpoint for each of 4 bends. The test of each marker shall be completed within 2 minutes of removal from the environmental chamber.