# TECHNICAL SPECIFICATIONS



# STEEL-FLEX® GUIDE POSTS AND STEEL-FLEX® UTILITY MARKER POSTS

Product Codes SF13-SF14-SF16-SF17-SFMP Series

#### **DIMENSIONS AND SPECIFICATIONS**

Material	1.2mm Flexible Steel
Surface Coating	Powder coated to minimum 70 microns' thickness over ArmorGalv™ thermal diffusion galvanised substrate.
Overall Width (facing traffic)	103mm
Delineator face width	103mm
Length	1300mm - 1700mm
Recommended installation depth	400mm below ground
Shape	"C" channel - 10mm depth. Radius 125mm
Manufacturing Tolerances	Width & Length Tolerance shall be +/- 5%. Curvature Tolerance shall not exceed + 3mm Thickness Tolerance is +/- 5%

# **DEFINITION**

Delnorth Steel-Flex® is a patented flexible steel delineator post. Steel-Flex® may be driven into the ground, or road base using a Delnorth designed manual or mechanical driving device. Steel-Flex® is capable of withstanding repeated impacts and wheel overs by vehicles with minimal damage to the post or vehicle. Steel-Flex® roadside delineator posts comply with:

British & European Standard EN 12899-3:2008 Australian Standard AS1742.2 and AS/NZ 1906.1

### **DURABILITY**

Steel-Flex® can retain a minimum of 75% of its colour, appearance and physical properties for 10 years even when exposed to extreme weather conditions. They are fire resistant and the powder coating can withstand temperatures of up to 140°C.

#### WIND DEFLECTION

Steel-Flex® flexible steel delineator posts stand vertical when installed. Testing has shown that the post will not deflect more than 35mm when subjected to wind speeds of 45m / sec. (162 kph) on the front face (convex surface) of the post.

### **BENDING PROPERTIES**

The load required to bend each post length of 1000mm long to an angle of 90deg. should not be less than 30 N. It only requires 8lb pressure to bend a Steel-Flex post.

# IMPACT AND WHEEL-OVER RESISTANCE

Steel-Flex® delineator posts return to vertical automatically after repeated vehicle impacts. It has been tested to 10 impacts from a passenger type vehicle at 100 kph without compromising the integrity of the post. It has been tested to 10 wheelover's at 50kph from a fully laden 42 tonne truck without compromising the integrity of the post.

## **WEATHERING RESISTANCE**

Steel-Flex® flexible steel delineator posts are coated with the highest-grade polyester powder with exceptional UV resistance and 10-year superior weathering characteristics. Steel-Flex has been tested to comply with the following standards: Impact Resistance (ASTM D - 2794) Adhesion (ISO 2815) 2000 hr Salt Spray (ASTM B - 117)

#### **FINISH & COLOUR**

All faces of the Steel-Flex® delineator posts are a smooth gloss white powder coat finish to a minimum thickness of 70 microns over a ArmorGalv® thermal diffusion anti-corrosive protective coating and generally require almost nil maintenance.

#### **FLAME RESISTANCE**

Steel-Flex® is non-flammable.

#### MARKING

The manufacturer's name and the month/year date of manufacture with minimum 1 cm high characters, are applied to the concave surface of the post. The recommended installation depth is marked by a 12mm diameter hole punched into the post 40cm from the lower pointed edge.

Reflective sheeting is applied to conform with the relevant specifications.

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#### **POST ANCHORAGE**

Steel-Flex® flexible steel delineator posts are driven into the ground or road base to a minimum depth of 400mm. Dual retention barbs assist to provide post stability, correct alignment and resistance to unlawful removal by hand. Testing has shown, that when installed correctly in

average ground conditions, there is a force of over 500kg required to remove the post from the ground. To maximise the life of the post, it is recommended that a small V shape divot approximately 100mm deep x 100mm long x 105mm wide, be removed to provide a bend radius when there is a direct wheel-over by a vehicle. This void may be filled with sand if required. Installation instruction sheets are included with each box of 10 Steel-Flex posts.

#### **DELINEATORS**

Delnorth Steel Posts can be fitted with all available types of Guide Post delineators and Marker Post stickers complying with AS1906.1. The posts can be driven in with delineators or stickers attached.

#### **HEAT RESISTANCE TEST**

The Steel-Flex® post will be conditioned for 2 hours at

+ 60° C. The conditioned post can then straighten itself within 30 seconds when bent at 90° from one end of the post in the direction of normal face (convex surface). This test will be carried out five times within 2 minutes, after the sample has been removed from the stove.

Result of Steel-Flex Heat Resistant Test = Pass (1 second each bend)

#### **COLD RESISTANCE TEST**

The Steel-Flex® post will be conditioned for 2 hours at - 10° C. The conditionedpost can then straighten itself within 30 seconds when bent at 90° 800mm from one end of the post in the direction of normal face (convex surface)

This test will be carried out five times within 2 minutes, after the sample has been removed from the cooler.

Result of Steel-Flex Cold Resistant Test = Pass (1 second each bend)

#### STEEL BALL TEST

The Steel-Flex® post will be conditioned for 2 hours at - 10° C. The conditioned post shall show no signs of fracturing or splitting when a 1 kg steel ball is dropped from a height of 1500mm through a friction less guide to impact the surface of the post. The post shall be flat in a horizontal position supported at both ends.

This test will be carried out five times within 10 minutes after the sample has been removed from the cooler.

Result of Steel-Flex Steel Ball Test = Pass (1 second each bend)

#### **PACKAGING**

Boxes of 10 with installation instructions Included.

50 boxes per pallet. 500 units per pallet.