

PRODUCT INFORMATION - TECHNICAL SPECIFICATION

STEEL-FLEX DELINEATOR POSTS SF-1

Definition

The Steel-Flex® is a unique All Steel Flexible Delineator Post which may be driven with the aid of a suitable manual or pneumatic driving device. It is capable of withstanding repeated collisions by vehicles with minimal damage to the post or vehicle.

The Steel-Flex® Flexible All Steel Delineator Post complies with the following standards

British & European Standard **EN 12899-3:2007**
Australian Standard **AS1742.2-1994**

The physical and mechanical properties of the product shall conform to the following clauses.

1. DIMENSION AND SHAPE

1.1 Dimension and shape of the Steel-Flex® Flexible All Steel Delineator Post shall be as follows:

Width	- Overall width (facing traffic)	= 103mm
	- Delineator face	= 103mm
Depth		= 10mm
Length		= 1400mm
Thickness (After Surface Coating)		= 1.5mm
	- Ground line mark at 400mm in Ground	
Shape	- "C" channel Radius 125mm	
Reflector size		= As required

Tolerances:

- a) Width – Length
The tolerance value of the measures specified in clause 1.1, for width and length shall be +/- 5%
- b) Curvature Tolerance
Curvature tolerance shall not exceed + 3mm
- c) Thickness Tolerance
The tolerance value for the thickness of the delineator is +/- 5%

2. GENERAL PROPERTIES

2.1 General:

The standards specified in this technical specification shall comply with the following tests and criteria.

a) Durability

The Steel-Flex® Flexible All Steel Delineator Post is capable of retaining a minimum of 75% of it's colour, appearance and physical properties for 10 years when exposed to the extremes of weather conditions.

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b) Material

The Steel-Flex® Flexible All Steel Delineator Post is made from 1.2mm Flexible Steel.

c) Finish and Colour

All faces of the Steel-Flex® Flexible All Steel Delineator Posts are a smooth gloss white Powder Coat Finish over a Hot Dip Galvanized coating over the entire length. It shall exhibit good workmanship and shall be free of roughness, sharp edges, discolouration and other objectionable marks or defects which may effect appearance, serviceability and attachment of Reflectors.

d) Wind Deflection

The Steel-Flex® Flexible All Steel Delineator Post stands 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.

e) 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.

f) Impact and Wheel-over Resistance

The Steel-Flex® Flexible All Steel Delineator Post returns to vertical automatically after vehicle impact. 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 wheel-overs at 50kph from a fully laden 42 Tonne Truck without compromising the integrity of the post.

g) Surface Treatment

All faces of the Steel-Flex® Flexible All Steel Delineator Posts are a smooth gloss white Powder Coat Finish to a min. thickness of 70 microns over a Hot Dip Galvanized anti-corrosive treatment to a min. thickness of 70 microns and generally require no maintenance.

h) Weathering Resistance

Steel-Flex® Flexible All Steel Delineator Posts are coated with the highest grade Polyester Powder with exceptional UV resistance and 10 year superior weathering Characteristics tested to comply with the following standards:

Impact Resistance (ASTM D - 2794)

Adhesion (ISO 2815)

2000 hr Salt Spray (ASTM B - 117)

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i) Water Absorption

Not Applicable due to the Polyester Coating

j) Flame Resistance

Non Flammable

i) Marking

The name of the manufacturer and the date of manufacture (month and year) with characters at a minimum 1 cm height, are applied to the backside (concave surface) of the post. The burial depth will be marked by a 12 dia. Hole punched into the post, at a distance of 40cm from the lower pointed edge. White reflective sheet on the concave surface and red on the convex surface shall be applied.

k) Post Anchorage

Steel-Flex® Flexible All Steel Delineator Posts are driven into ground to a minimum Depth of 400mm. This provides both stability and alignment and resistance to pulling out 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 out of the ground. An area of ground 100mm deep x 100mm long x 100mm wide needs to be removed to allow the bend radius to form when there is a direct wheel-over by a vehicle. (See attached installation instruction sheet)
This void may be filled with sand if required.

l) Reflectors

Steel-Flex® Flexible All Steel Delineator Posts shall be fitted with reflectors complying With ASTM D 4956-94 Retroreflective Sheets for Traffic Signs Type 111, AS.1906.1 and all relevant British and European standards.

Steel-Flex® Flexible All Steel Delineator Posts are driven in with delineators attached.

m) Packaging and Handling

All Steel-Flex® Flexible All Steel Delineator Posts are packaged in boxes of 10 to Prevent damage during normal transport conditions. Total weight = 14.5 kg

3. TESTS

3.1 Heat Resistance

The post will be conditioned for 2 hours at + 60° C. The conditioned post will then be capable of straightening 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 = Pass (1 second each bend)

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3.2 Cold Resistance

The post will be conditioned for 2 hours at - 10° C. The conditioned post will then be capable of straightening 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 = Pass (1 second each bend)

3.3 Steel Ball Test

The 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 frictionless guide to impact the surface of the post.

The post shall be flat in a horizontal position supported at both ends.

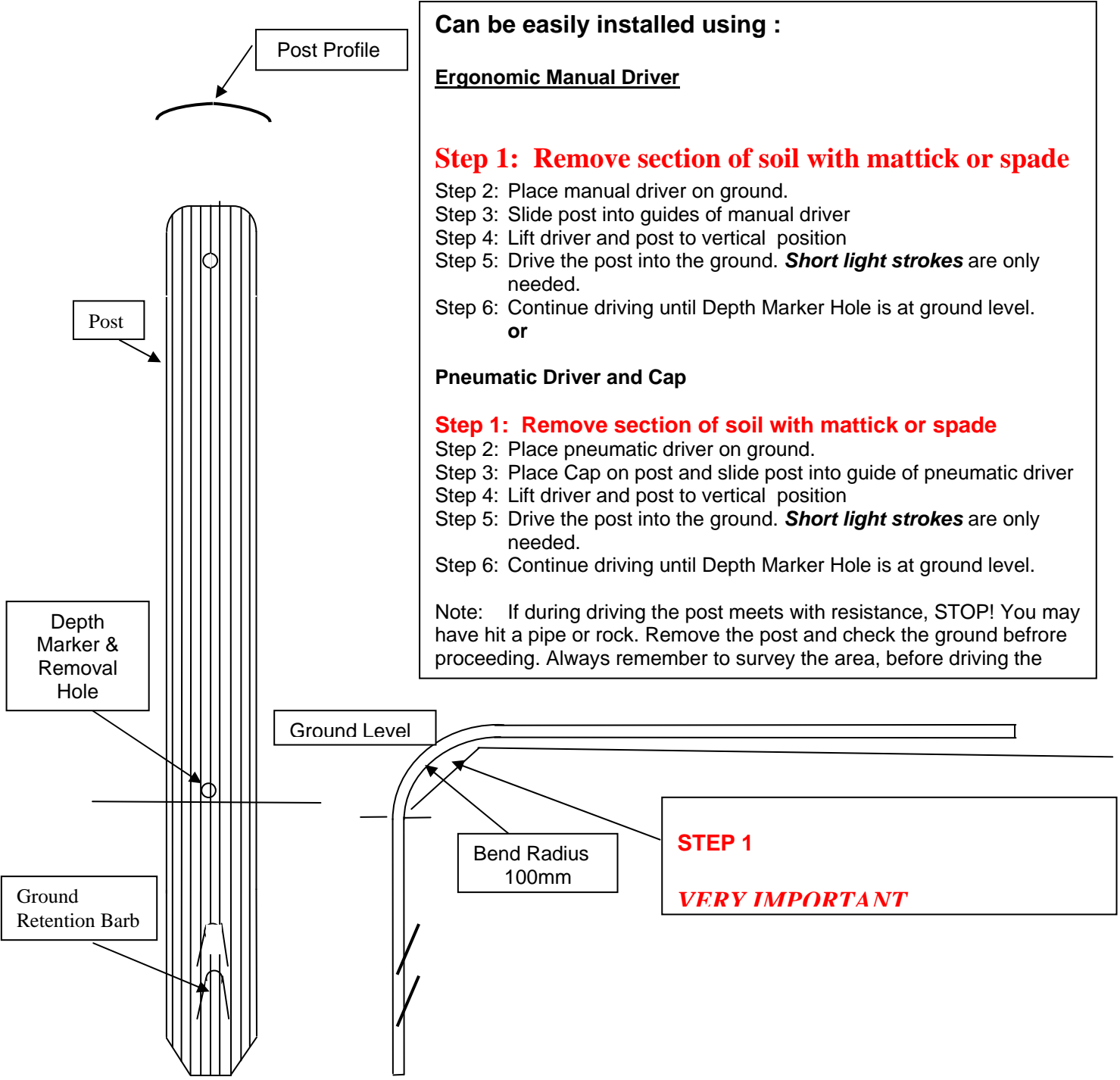
This test will be carried out five times within 10 minutes, after the sample has been removed from the cooler.

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

INSTALLATION DETAILS

“STEEL-FLEX POST SF1 ”

FLEXIBLE ALL STEEL DELINEATOR GUIDE POST



Can be easily installed using :

Ergonomic Manual Driver

Step 1: Remove section of soil with mattick or spade

- Step 2: Place manual driver on ground.
- Step 3: Slide post into guides of manual driver
- Step 4: Lift driver and post to vertical position
- Step 5: Drive the post into the ground. **Short light strokes** are only needed.
- Step 6: Continue driving until Depth Marker Hole is at ground level.
or

Pneumatic Driver and Cap

Step 1: Remove section of soil with mattick or spade

- Step 2: Place pneumatic driver on ground.
- Step 3: Place Cap on post and slide post into guide of pneumatic driver
- Step 4: Lift driver and post to vertical position
- Step 5: Drive the post into the ground. **Short light strokes** are only needed.
- Step 6: Continue driving until Depth Marker Hole is at ground level.

Note: If during driving the post meets with resistance, STOP! You may have hit a pipe or rock. Remove the post and check the ground before proceeding. Always remember to survey the area, before driving the