

## Cable Trench Protection System

A world of crane  
rail expertise.

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Certificate No. 5180

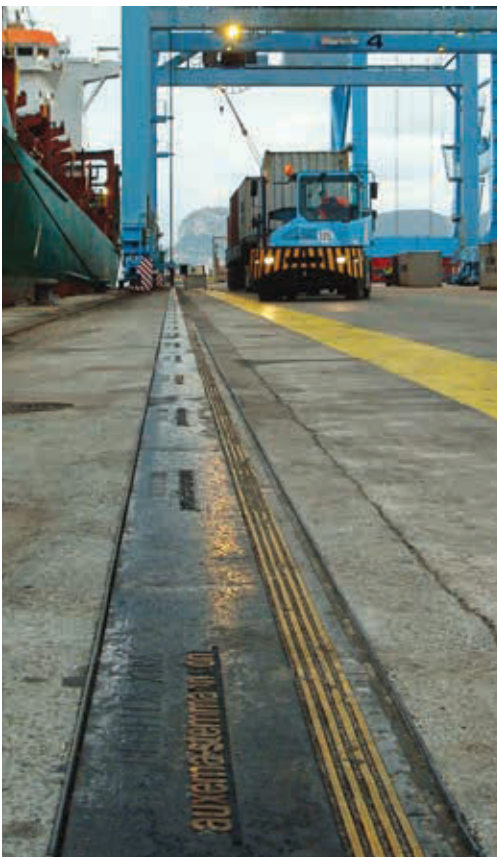
# Gantrail Beltflex®

## Cable Trench Protection System.

The Beltflex® cable trench protection system is a proven engineering solution, designed to solve the issues of covering and maintaining the performance of crane cable. The belt's unique formula uses neoprene (CR) providing high durability in the most arduous of environments. As experts in the field of crane rail systems, our engineers are able to offer a variety of designs to suit specific project requirements.

The Beltflex® system's main purpose is to protect the cable and cable trench against damage from traffic, by covering the channel with a rubber neoprene belt. The design of the belt is composed of multiple layers with a neoprene surface and double metal frame. The system helps prolong the life of the cable, reduces waste accumulation and minimises trip hazards.

Our teams are able to provide a complete turnkey solution, from design and supply through to installation and technical support.



## Beltflex® & Beltflex Xtra®

There are two models of Beltflex® to suit a variety of applications.

### Beltflex®

This standard belt system is used where the cable trench is not expected to see heavy traffic crossing; typically situated between the quay wall edge and quay wall rail.

### Beltflex Xtra®

This is a specialist belt system with additional metal reinforcement running through the belt, designed to support continuous heavy traffic. This is ideal for trenches that may expect to see trucks, container lifts (TMG) or maintenance vehicles crossing the system.

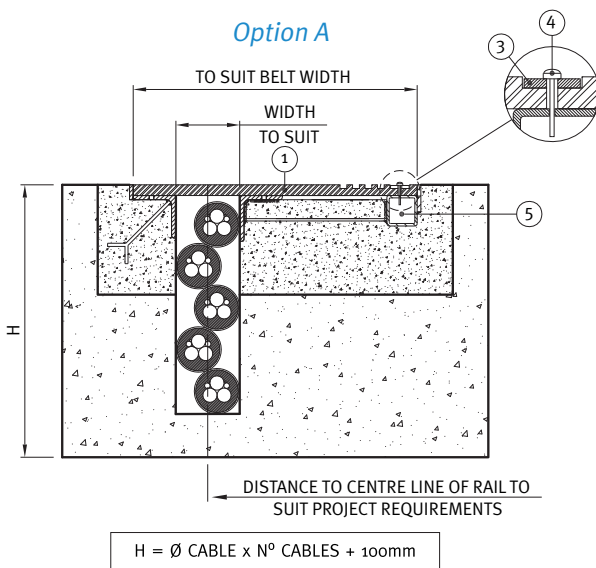
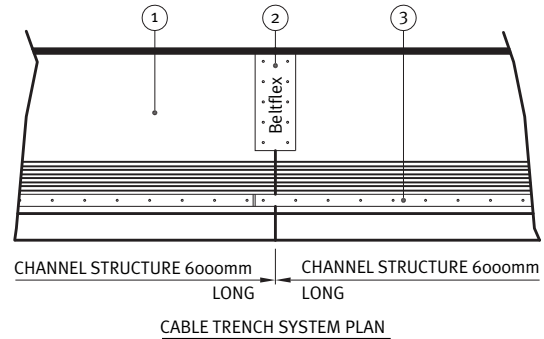
Beltflex® and Beltflex Xtra® are typically supplied in 50m lengths. They are joined by either a stainless steel Beltflex® riveted joining plate or they can be vulcanised on site upon request.

# Channel structure

There are a number of different designs for the cable protection system, however the two principle designs are shown below;

## COMPONENTS

- 1 - BELTFLEX® RUBBER COVER (LENGTH 50m)
- 2 - BELTFLEX® JOINING PLATE
- 3 - STAINLESS STEEL FASTENING STRAP
- 4 - STAINLESS STEEL RIVET
- 5 - CAST IN BELTFLEX® FIXING ASSEMBLY
- 6 - CONCRETE ANCHOR FIXING (ON REQUEST)
- 7 - STAINLESS STEEL DRAINAGE PIPE CONNECTION (ON REQUEST)



### Steel Section Profile Trench

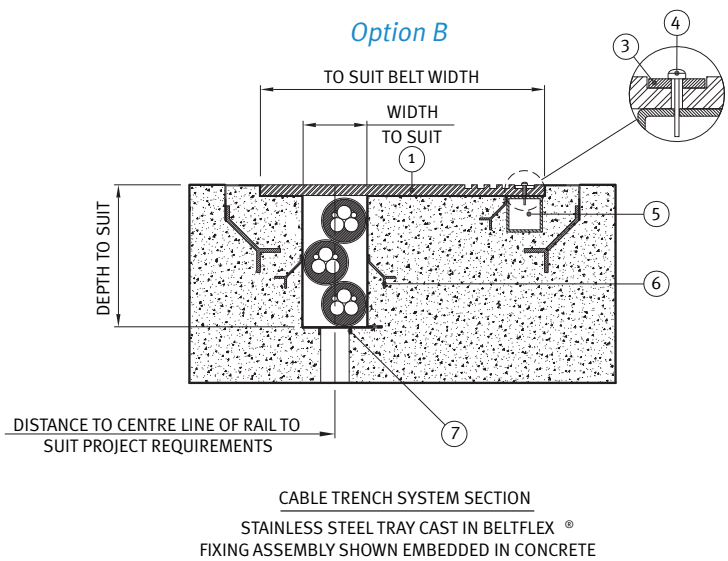
This system consists of steel sections that have been welded together along with concrete anchor fixings, which are cast in situ in the concrete trench. The Beltflex® cover is then riveted to the installed assembly. The steel structure is typically galvanised, however stainless steel is available upon request.

*Please refer to Option A of the drawing above.*

### Stainless Steel Tray Trench

This system consists of a complete stainless steel tray which is cast in situ in the concrete foundation. The Beltflex® cover is then riveted to the installed assembly. Additional concrete anchor fixings are available upon request.

*Please refer to Option B of the drawing above.*



### Concrete Channel with Beltflex® fixing assembly

The cable trench is cast entirely from concrete with a Beltflex® fixing assembly with anchor fixings cast in situ. The Beltflex® cover is then riveted to the installed assembly.

Additional accessories for the cable feeding point such as turnover anchors, connectors, cable guides and belt lifters are also available.

# Gantrail Beltflex®

## Cable Trench Protection System.

DIMENSIONS (MM)	WEIGHT KG/M
BELTFLEX 295	6,10
BELTFLEX 395	7,80
BELTFLEX 495	9,50
BELTFLEX 595	12,40
BELTFLEX XTRA 295	6,70
BELTFLEX XTRA 395	8,40
BELTFLEX XTRA 495	10,40
BELTFLEX XTRA 595	13,10

GENERAL CHARACTERISTICS	
TEMPERATURE	-35° + 120°
OPERATING ANGLE	90°
ESTIMATED LIFE (MOVE CYCLES)	> 1,500,000
HORIZONTAL BENDING RADIUS	30 - 50
BREAKING STRENGTH LOAD BY STRETCH (BELTFLEX)	640 N/cm <sup>2</sup>
BREAKING STRENGTH LOAD BY STRETCH (BELTFLEX XTRA)	750 N/cm <sup>2</sup>
ELONGATION	1%
STRESS OPENING 90°	30-40KGS.

BELTFLEX CHARACTERISTICS	BELTFLEX XTRA CHARACTERISTICS
80% CR NEOPREN (MARINE ENVIRONMENT FORMULA)	75% CR NEOPREN (MARINE ENVIRONMENT FORMULA)
15% STEEL CORD (ANTI-CORROSIVE TREATED)	20% STEEL CORD (ANTI-CORROSIVE TREATED)
5% NYLON DIPPED	5% NYLON DIPPED

CASING COMPOSITION
<b>BELTFLEX:</b> 2 LAYER NYLON DIPPED RFL (100 kN/m) 2 LAYERS STEEL CORD TREATED HEF 200 (640 kN/m)
<b>BELTFLEX XTRA:</b> 2 LAYER NYLON DIPPED RFL (500 kN/m) 2 LAYER STEEL CORD TREATED HEF 500 (750 kN/m)

COMPOSITION OF THE COVERAGE BELTFLEX - BELTFLEX XTRA
NEOPRENE RUBBER ESPECIFIC FORMULA FOR MARINE ENVIRONMENTS 65° SHORE

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Gantry Railing Ltd  
Sudmeadow Road  
Hempsted  
Gloucester GL2 5HG  
ENGLAND

Tel: +44 (0) 1452 300688  
Fax: +44 (0) 1452 300198  
E-mail: [info@gantrail.com](mailto:info@gantrail.com)

Gantrail (Middle East) Ltd  
P O Box 61428  
Jebel Ali Free Zone  
Dubai  
United Arab Emirates

Tel: +971 4 8812 935  
Fax: +971 4 8812 936  
E-mail: [gme@gantrail.com](mailto:gme@gantrail.com)



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