



**WALKWAY**  
**TECHNICAL SPECIFICATION**



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ELECTRIC GROUP



## 1. Scope

This specification applies to the anti-slip Green Trough Walkway system. It details the range of available parts and their respective dimensions.

## 2. Structure

The Green Trough Walkway system comprises of two trough units, with an anti-slip coating, assembled in parallel. They are connected with the help of two bolts, and can be delivered pre-assembled or in parts, ready to assemble on site.

Note that the colour tone of the trough is grey while the colour tone of the anti-slip coating is coffee.



Figure 1. Structure

Table 1. Component

Item	Quantity	Material
The Lid	1 Piece	Basic material : Recycled Polyethylene (PE), Recycled Polypropylene (PP), Chemical agents (UV stabilisers, Anti-static, etc.), Inorganic filler, etc.. Surface material : 3 polyurethane based component used in combination with 1mm mineral aggregate
The Base	1 Piece	Basic material : Recycled Polyethylene (PE), Recycled Polypropylene (PP), Chemical agents (UV stabilisers, Anti-static, etc.), Inorganic filler, etc..

Note, since Green Trough is made from recycled materials, the colour may vary from product to product. Even within the same Green Trough unit, colour unevenness may occur depending on the storage conditions, however, the colour unevenness will become less noticeable within a few weeks after installation.

### 3. Performance

The performance of the Trough is as shown in Table 2

Table 2 Performance

Item	Test method	Performance
Dimensions & Weight	4 . 1	As shown in Appendix
Compressive strength	4 . 2	In condition 4.9kN/0.5m, no crack or crevice shall appear in any part.
Flame retardance	4 . 3	After having removed the source flame in the fire-retardant test of JESC E 7003 (2005), it extinguishes on the product within 60 seconds.
Chemical resistance	4 . 4	A rate of weight change shall be 1% or less after soaking in water solution of 30%CaCl <sub>2</sub> in a test method of JIS K 7114-IS0175
Operational temperature	4 . 5	- 40°C to 80°C
Weather resistance	4 . 6	50 years life span expected.

## 4. Test method

### 4.1 Dimensions & Weight

Each part (lid and base) of the trough will be measured with a steel tape measure at normal temperature ( $20 \pm 10$  degrees Centigrade).

Each part of the trough will be weight using a scale at normal temperature ( $20 \pm 10$  degrees Centigrade).

### 4.2 Compressive strength

As shown in Figure 3. , the trough with lid shall be added a linear load of more than 4.9kN/500 mm at a rate of 20 mm/min.

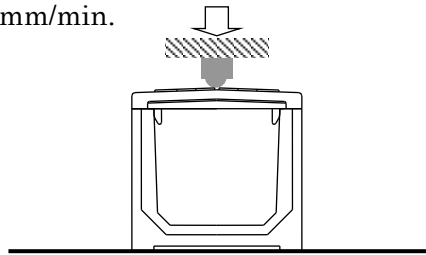


Figure 3. Illustration of compressive test

### 4.3 Flame retardance

Based on the test method of JESC E 7003 : 2005 ("flame retardance in combination with self-extinguishing properties", JESC : Japan Electro technical Standards and Codes Committee), a 300mm specimen is taken from the final product. The specimen is supported horizontally and the central part of the specimen is burnt with a Bunsen burner, which has a 130mm oxidizing flame. After having removed the flame, the flame should disappear spontaneously within 60 seconds.

#### 4.4 Chemical resistance

According to the test method of JIS K 7114 – ISO 175 (Chemical resistance test), a specimen is taken from the final product. The specimen is soaked in a 30% calcium chloride water solution for 24 hours. The specimen mass is measured before and after the test. The weight change is measured according to the following calculation:

$$M = \frac{M2 - M1}{M1} \times 100$$

M : A rate of weight change [%]  
M1 : A mass of the specimen before the test [mg]  
M2 : A mass of the specimen after the test [mg]

#### 4.5 Operational temperature

A specimen of Green Trough was exposed to a temperature cycling between -40° C and 80° C. After completion of the cycle, the specimen was checked for any visible signs of cracks and the locking mechanism checked for normal operation.

#### 4.5 Weather resistance

A specimen based on JIS7161 and JIS7162 was irradiated with Super UV by using an accelerated weather resistance test machine. The strength of Green Trough was check at various intervals using the “Tensile strength test” and “Charpy impact test”.

## 5. Locking mechanism

The lid is secured on the base using two screws. Please see Appendix 4 for details.

## 6. Certification

### Network Rail:

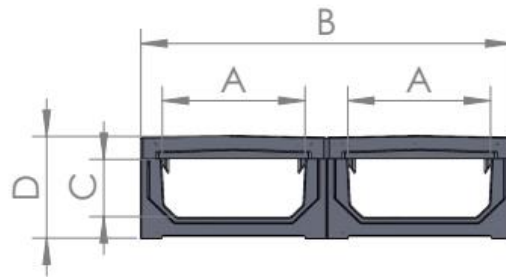
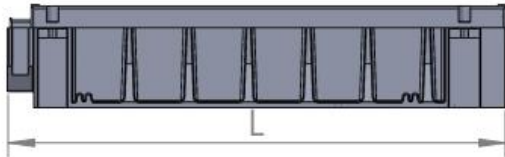
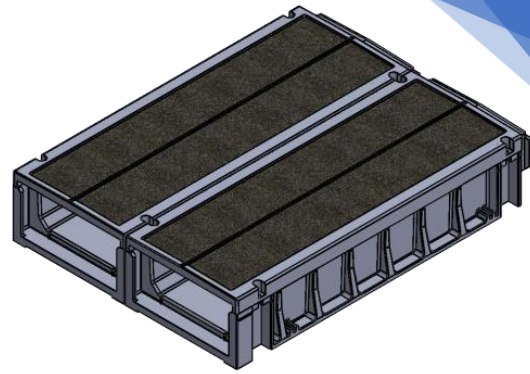
Product acceptance number for the straight units PA05/06762

Product acceptance number for the bend and T-junction: PA05/05145

The Appendices on the following pages detail the sizing and part numbers for the available units in the range.

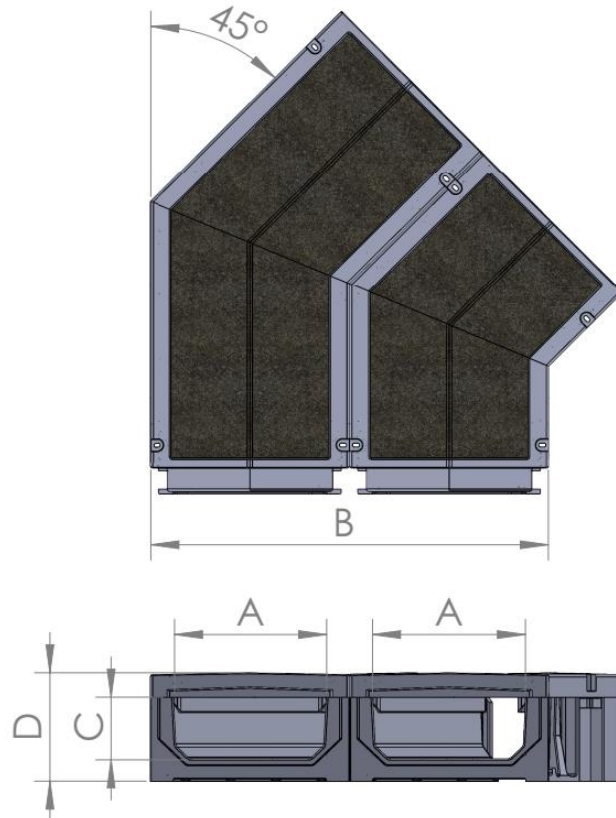
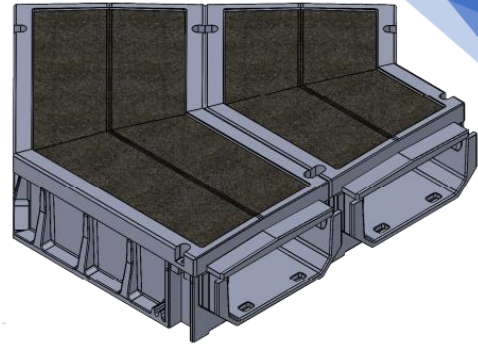
Please note that the Green Trough Walkway accessories are listed onto a separate specification document. This specification is available on our website [www.hirdtts.com](http://www.hirdtts.com) or on request at [ttsinfo@hird.group](mailto:ttsinfo@hird.group)

### Appendix 1 Standard Straight Trough



Part No.	NR.Cat.No.	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Base Wt. (kg)	Lid Wt. (kg)
TS300W	0004/130059	300±10	780±8	120±8	215±10	1045±10	27±0.5	28±0.5

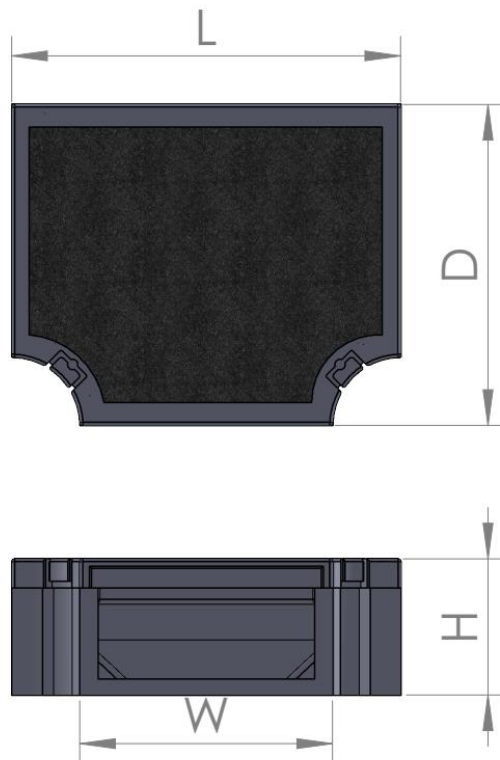
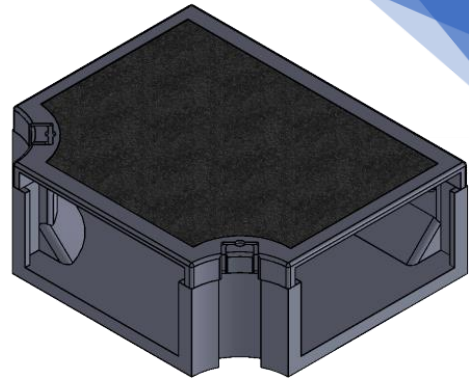
## Appendix 2 45-degree angle trough



Part No.	NR Cat No.	A (mm)	B (mm)	C (mm)	D (mm)	Base Wt. (kg)	Lid Wt. (kg)
TS300WBL	0087/005059	300±10	780±8	120±8	215±10	23.5±0.5	21±0.5
TS300WB/R	0087/005060	300±10	780±8	120±8	215±10	23.5±0.5	21±0.5

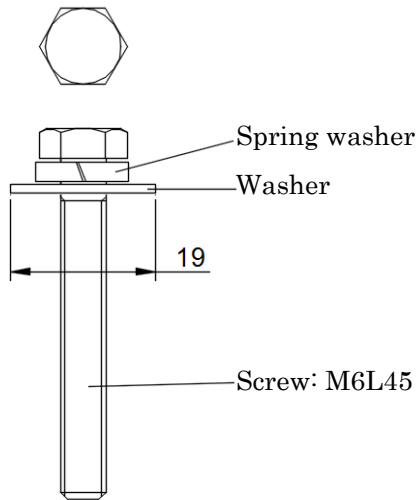


### Appendix 3 T - Junction Trough

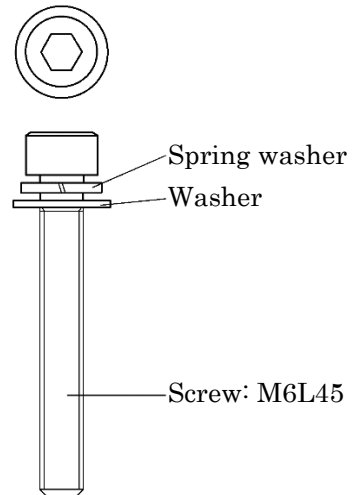


Part No.	NR Cat No.	W (mm)	H (mm)	R (mm)	D (mm)	L (mm)	Base Wt. (kg)	Lid Wt. (kg)
TS300WT	0087/005061	390±8	215±10	105±8	495±8	600±8	11±0.5	9±0.5

## Appendix 4 Screws



GT-HB45



GT-BS45

Type	Part No.	Type of Screw	Material
For Straight and Bend	GT-HB45	HEX M6L45	Stainless steel
For T-Junction	GT-BS45	CAP SEMSP3 M6L45	

Note: screws are included with trough unit.

For further information, please contact us on

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