

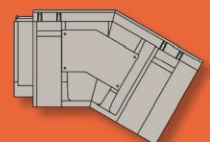


GREEN TROUGH - THE COMPLETE
CABLE TROUGHING SYSTEM

ELEVATED SYSTEM FOR TTS GREEN TROUGH



TECHNICAL SPECIFICATION



IMS 625_Issue 3_Mai 2023

1. Scope

This specification applies to the elevated system developed for the support of TTS Green Trough where it is necessary to provide an above ground level cable management solution. It details the available parts and their respective dimensions. The support system has been developed for use with four of the six sizes of the Green Trough system at the smaller end of the range, these being the 90, 135, 150 & 200 Series. Please contact us at ttsinfo@hird.group for any customization request.

2. Structure

The structure and components of the elevated system for 1 run of straight trough units are as shown in Figure 1 and Table 1. The elevated system has been designed to support a maximum of 4 cable routes as illustrated in Figure 2. The standard finish is galvanised.

The structure of the elevated system has been designed to incorporate posts concreted into the ground at 2 metre intervals with ladders bolted to brackets, suspended from the posts. The 1 metre Green Trough units sit in the ladder connected to each other via male and female joints to form a continuous run. Horizontal Bends and Gradient change ladders are available as part of the system.

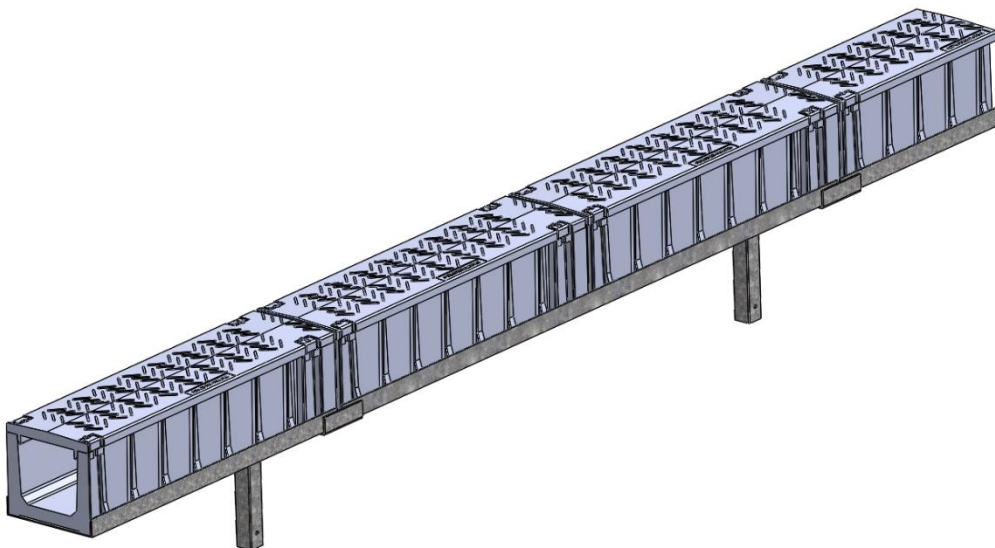


Figure 1: Sketch showing one single trough route on one ladder with standard posts.

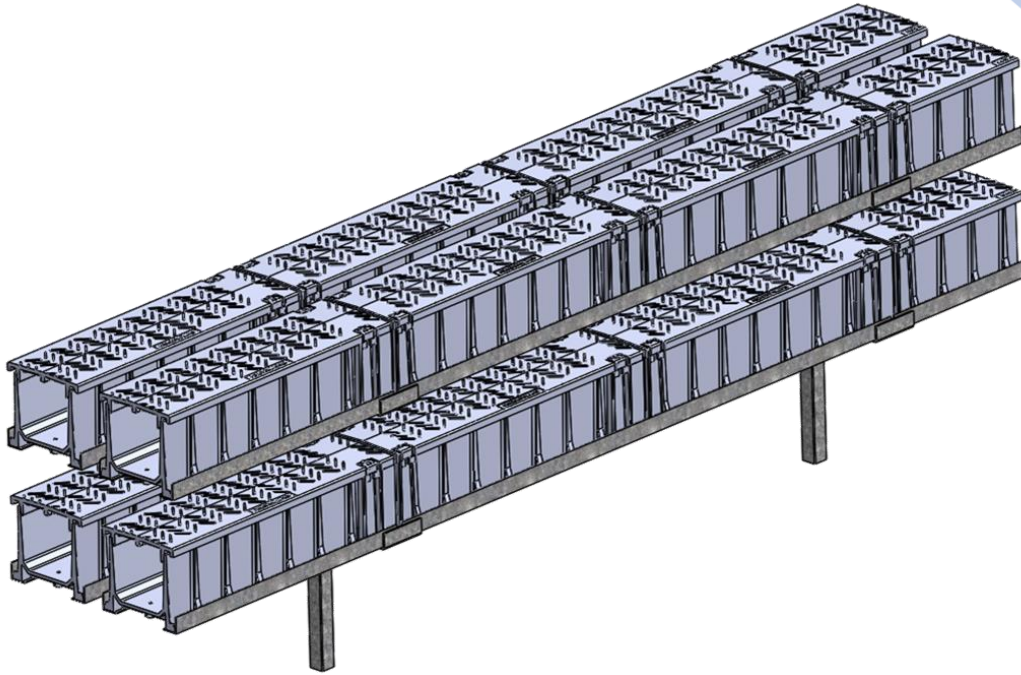


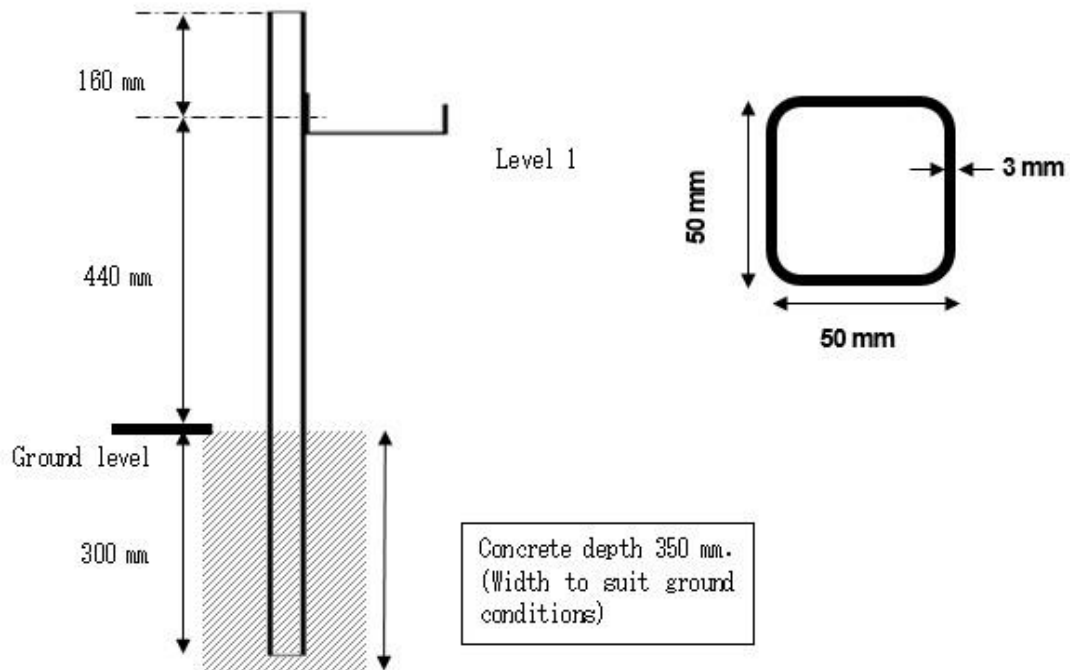
Figure 2: Sketch showing four trough routes on four ladders suspended from a higher two-level post.

Table 1: Components

Item	Material
Post	Galvanised low carbon steel
Bracket	
Ladder	

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

Appendix 1: Post



SEE END OF DOCUMENT FOR GROUND CONDITIONS

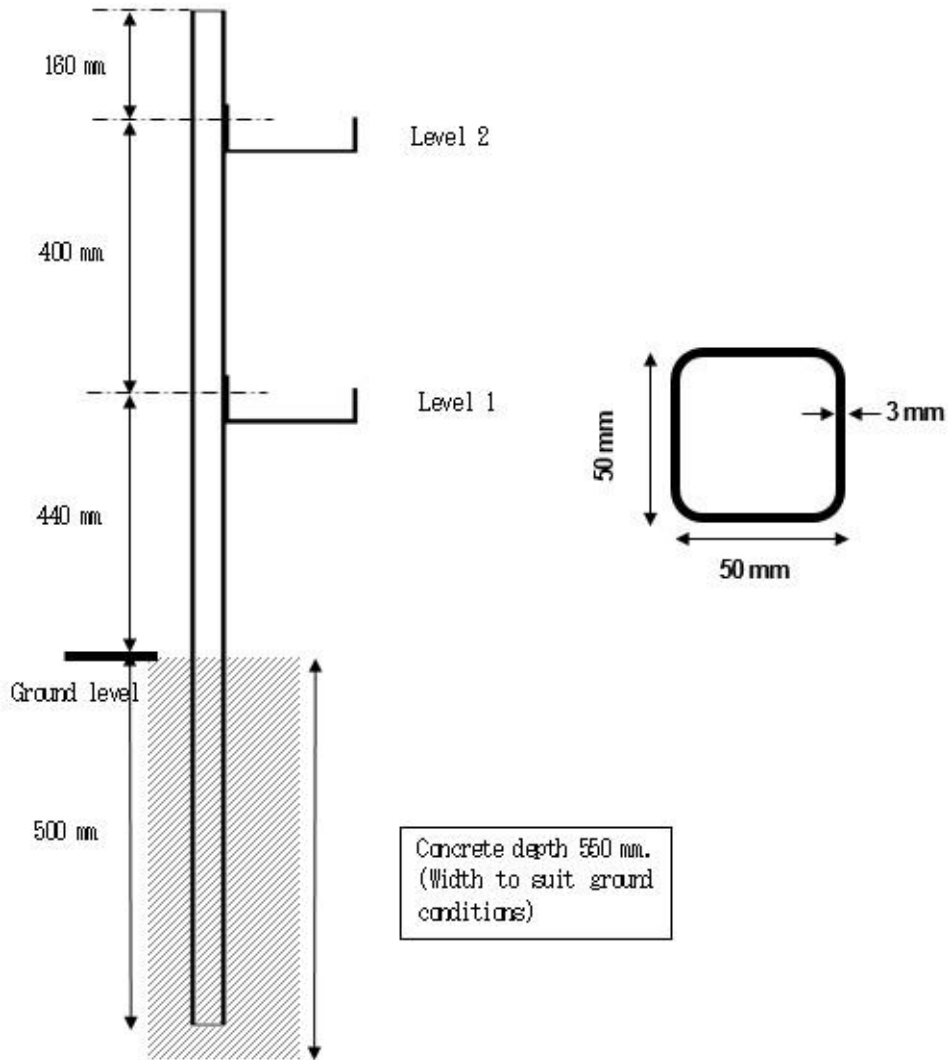
Part Number: TE090P

Total length: 900±3 mm

Note: The standard post allows for a single or 2 cable troughing routes to be fitted (back-to-back) at 400mm above ground level.

Posts are supplied with post cap.

Appendix 2: Two level Post



SEE END OF DOCUMENT FOR GROUND CONDITIONS

Part Number: TE150P

Total length: 1,500±3 mm

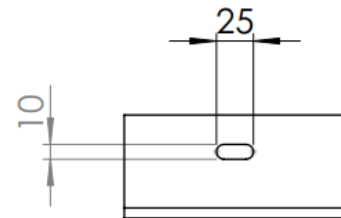
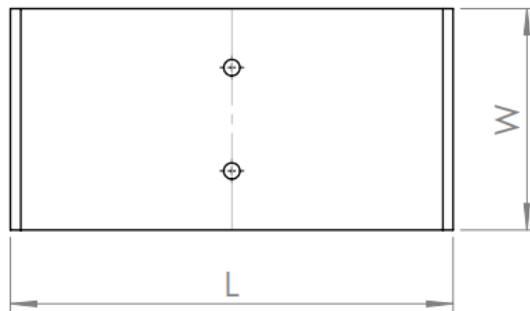
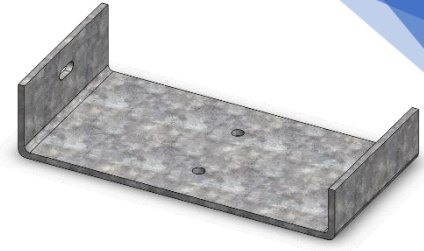
Notes: The post allows for up to 4 cable troughing routes to be fitted. Please refer to the installation manual for the various implementation of routes possible.

Please also note that special safety consideration should be given to this option as this configuration will impede track access and egress for site personnel due to the height of the assembled units.

Longer posts can be provided for special ground conditions.

Posts are supplied with post cap.

Appendix 3: Ladder Support Bracket

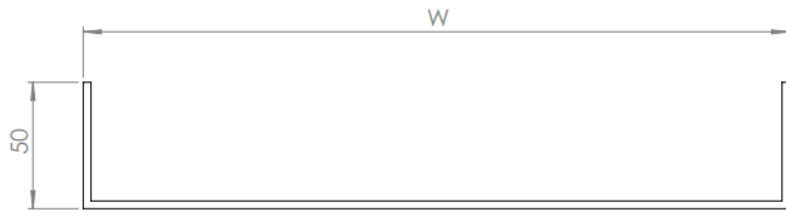
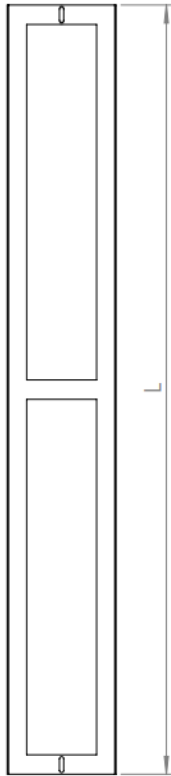
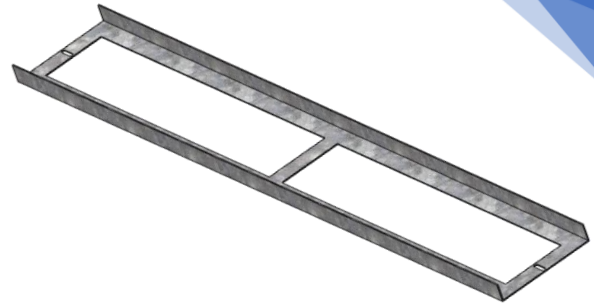


(Unit: mm)

Series	Part No.	W	L	D1	D2
90	TE090B	150±1	160±1	50±1	70±1
135	TE135B	150±1	210±1	50±1	70±1
150	TE150B	150±1	250±1	50±1	70±1
200	TE200B	150±1	300±1	50±1	70±1

Note: Brackets are supplied with post fixing bolt.

Appendix 4: Straight Ladder

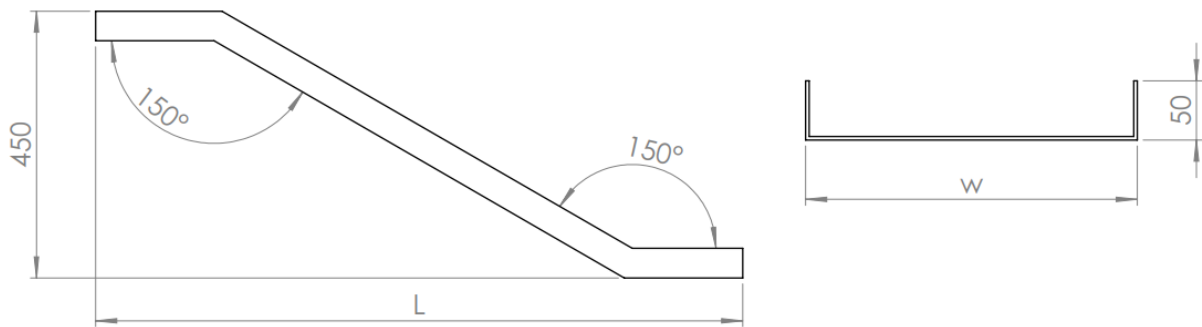
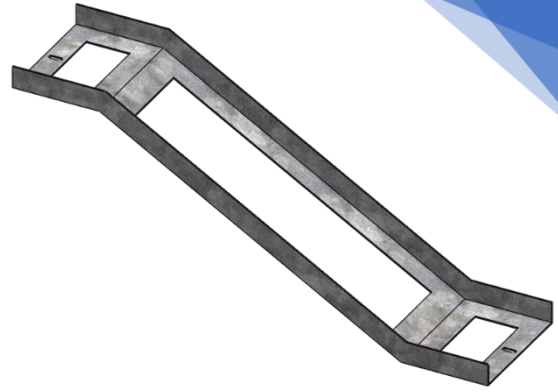


(Unit: mm)

Series	Part No.	W	L
90	TE090L	135±3	1980±10
135	TE135L	185±3	
150	TE150L	230±3	
200	TE200L	280±3	

Note: Ladders are supplied complete with bracket fixing bolts and can be installed at either Level 1 (440mm above ground) or Level 2 (840mm above ground) on the post.

Appendix 5: Gradient Ladder

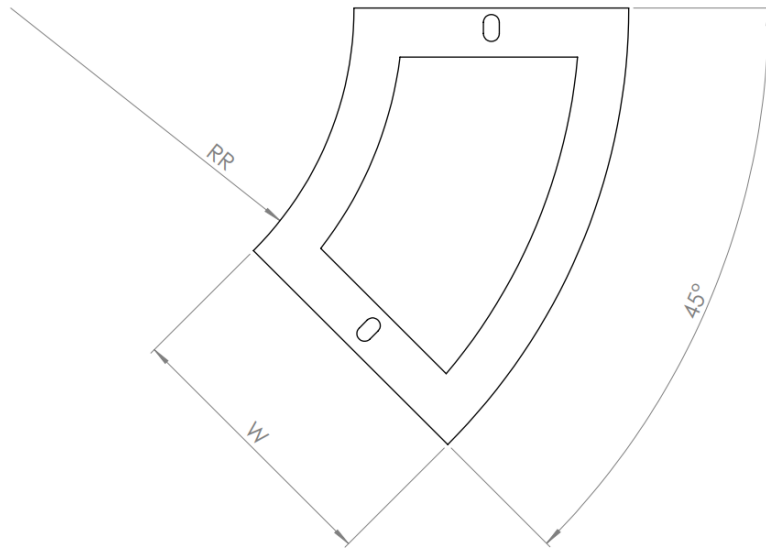


(Unit: mm)

Series	Part No.	W	H	L
90	TE090G	145±3	400±10	1980±10
135	TE135G	195±3		
150	TE150G	230±3		
200	TE200G	280±3		

Note: Gradient ladders are supplied with bracket fixing bolts.

Appendix 6: Ladder for 45 Degree Bend

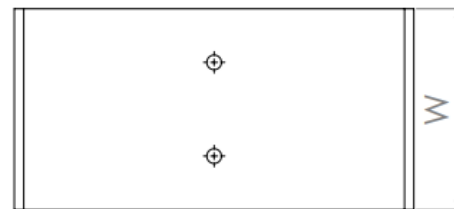
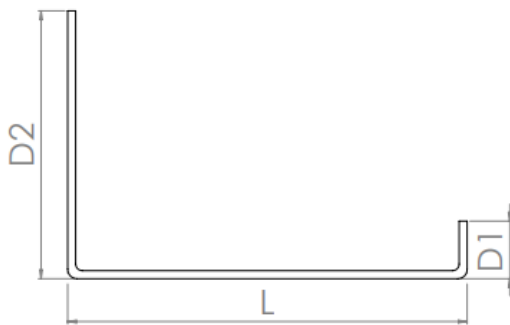
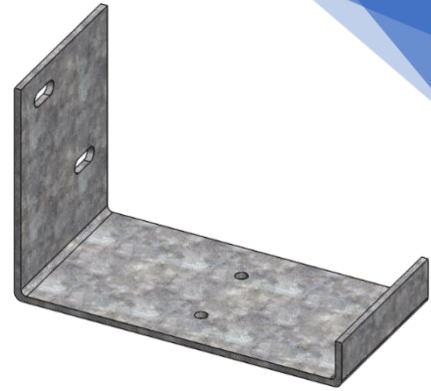


(Unit: mm)

Series	Part No.	W	R	α
90	TE090LB45	160±3	350	45°
135	TE135LB45	210±3		
150	TE150LB45	250±3		
200	TE200LB45	300±3		

Note: Bend ladders are supplied with bracket fixing bolts.

Appendix 7: Wall Bracket



(Unit: mm)

Series	Part No.	W	L	D1	D2
90	TE090W	150±1	160±1	50±1	200±1
135	TE135W	150±1	210±1	50±1	200±1
150	TE150W	150±1	250±1	50±1	200±1
200	TE200W	150±1	300±1	50±1	200±1

Note: Fixings are not included as it will depend on the composition of the wall.

Appendix 8: Bolt and locking nut



Type	Size
Post to bracket Fixation (1 per bracket)	M10 x 80mm
Bracket to ladder Fixation (2 per ladder)	M10 x 30mm

Appendix 10: Ground Conditions

A – Weak ground – 700mm wide foundations.

Very soft clay, loose.

Easy to dig by hand, sides of hole liable to collapse after short time.

B – Medium Ground – 300mm wide foundations.

Firm clay, compact sand & gravel, or mixed.

May be readily dug by hand, sides stand up during excavation.

C – Hard Ground – 200mm wide foundations.

Stiff clay, very dense well-graded granular.

Difficult to dig by hand, generally requires mechanical auger.

D – Solid Ground – Rock / concrete.

Requires mechanical breakers.

Hole requires to be just sufficient to insert post and grout into place.

In very solid rock, consideration may be given to reduced embedment or alternative base plate.

For further information, please contact us on

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