

PLASTIBETON®

Design Guide

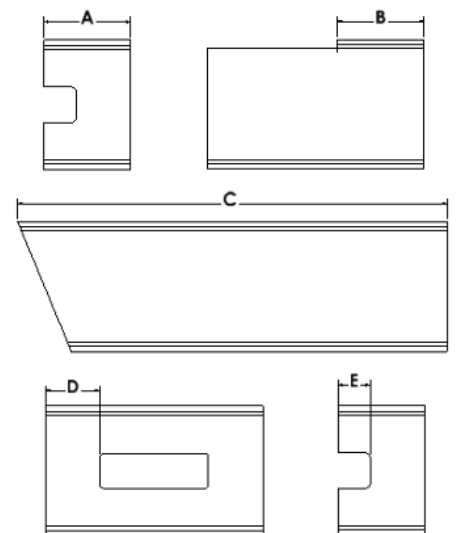
TABLE OF CONTENTS

Plastibeton® Trench Design Limitation	1	Plastibeton® Cover Design Limitation	5
Plastibeton® Trench Layout Limitation	2	Plastibeton® Accessories	6
Plastibeton® Cover Layout Limitation	5		

I. PLASTIBETON® TRENCH DESIGN LIMITATION

General

1. Minimum center length (A)	600 mm	(23.6 in)
2. Minimum short wall (B)	305 mm	(12 in)
3. Maximum cut trench long wall (C)	2980 mm	(117 in)
4. Minimum opening gap (D)	152 mm	(4 in)
5. Maximum opening span (E)	228 mm	(12 in)
6. Full trench tolerance	3 mm	(1/8 in)
7. Cut trench tolerance	12 mm	(1/2 in)



General Trenches / Bottom Holes

MODEL	Dim Holes mm	Dim Holes in	No Cable Exit
1. Model 68	50.8 mm x 304.8 mm	(2 in x 12 in)	N/A
2. Model 128 & 1216	203 mm x 381 mm	(8 in x 15 in)	N/A
3. Model 2012, 2016, 3012, 3016 & 4016	254 mm x 762 mm	(10 in x 30 in)	Yes

Holes/Openings on Vertical Walls

1. See Installation Guide.

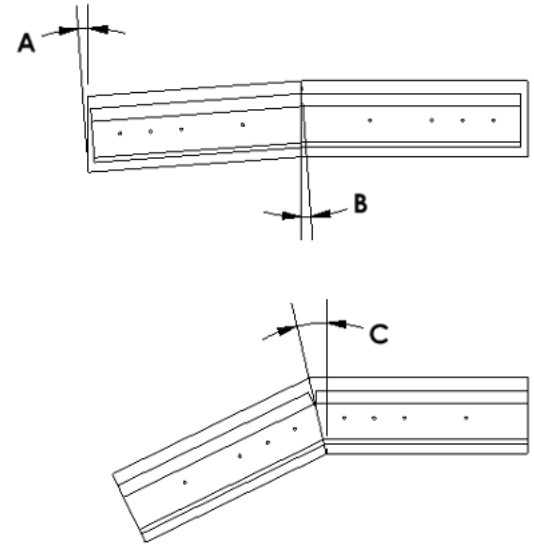
PLASTIBETON®

Design Guide

II. PLASTIBETON® TRENCH LAYOUT LIMITATION

Vertical Deviation

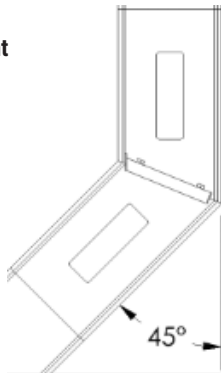
- | | |
|---|-----|
| 1. Minimum vertical cut (A) | 2° |
| 2. Maximum vertical deviation angle on single cut | 5° |
| a. Single cut always on slope slide (B) | |
| 3. Maximum vertical cut (C) | |
| a. T68 / T128 | N/A |
| b. T2012 / T3012 | N/A |
| c. T1216 / T2016 / T3016 / T4016 | 13° |



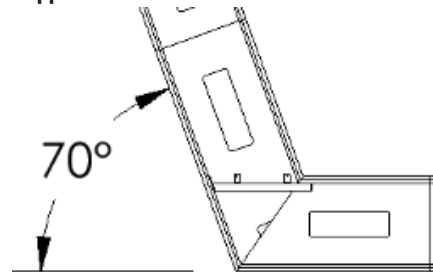
Horizontal Deviation Require Support and Cover

	T68	T128 / T1216	T2012 / T2016	T3012 / T3016	T4016
0 @ 15°	Std Cover / No Support	Std Cover / No Support	Std Cover / No Support	Std Cover / No Support	Std Cover / No Support
16 @ 45°	Std Cover / No Support	Std Cover / No Support	Type 1 Placement Support	Type 1 Placement Support	Type 1 Placement Support
46 @ 67.5°	Std Cover / No Support	Steel Cover	Steel Cover	Steel Cover	Steel Cover
67.6 @ 90°	Std Cover / No Support	Type 2 Placement Support	Type 2 Placement Support	Type 2 Placement Support	Type 2 Placement Support

**TYPE 1
Placement
Support**



**TYPE 2
Placement
Support**

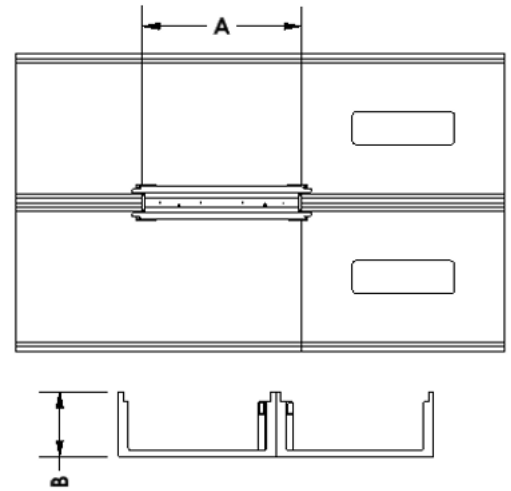


PLASTIBETON®

Design Guide

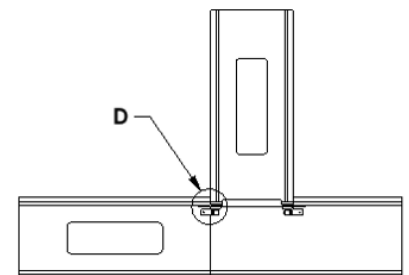
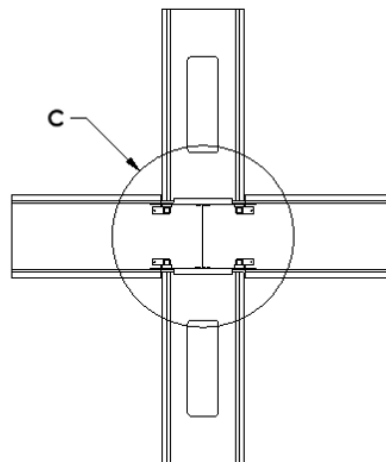
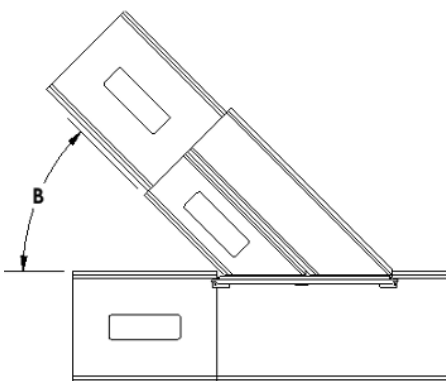
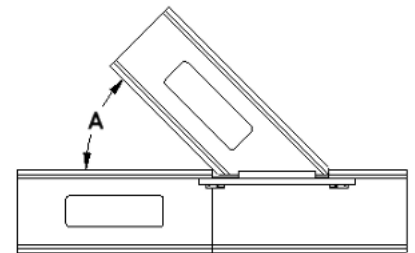
Side by Side Connections

1. Same opening width in both trench (**A**)
 - a. Use same width as a standard opening door
 - b. Trench width can vary
2. Both trench must have the same depth (**B**)



"T" Junctions

1. Minimum connection angle (**A**)
 - a. T4016 60°
 - b. All others 45°
2. T4016, 45° to 59° connection, use twin 2016 (**B**)
3. Four ways intersection must have half-length doors (**C**)
4. No support leg in the bottom holes (**D**)

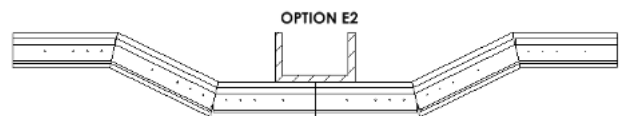
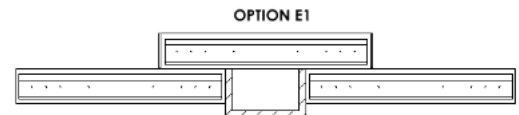
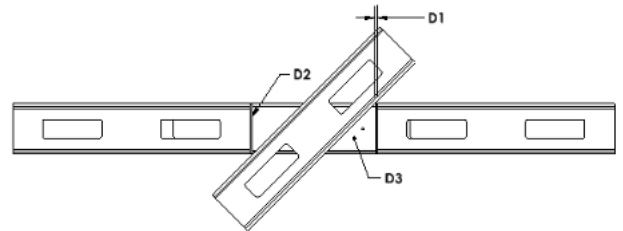
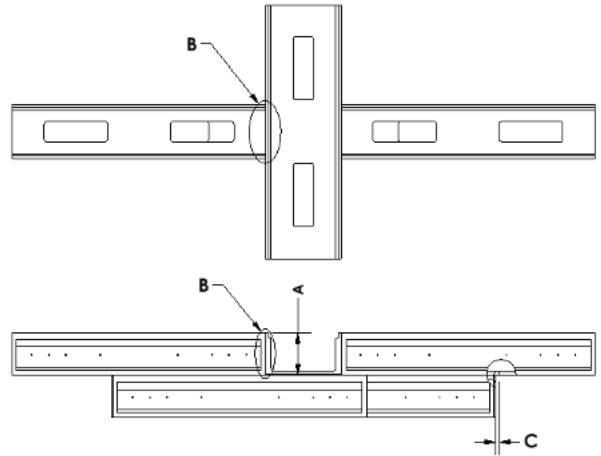


PLASTIBETON®

Design Guide

Over-Under

1. Crossing trenches must have the same height **(A)**
2. Place uncut side against crossing trench **(B)**
3. No overlapping bottom opening **(C)**
4. Angled over under **(D)**
 - a. Both sides: Trench to be installed at 25 mm from existing trench **(D1)**
 - b. Use end plate to cap new trench **(D2)**
 - c. Bottom trench all covered **(D3)**
5. Unmatched height non Oldcastle Infrastructure product existing trench **(E)**
 - a. Option #1: Go over existing trench **(E1)**
 - All trench must have covers
 - b. Option #2: Use vertical deviation **(E2)**
 - Bottom section all covered
 - All trench must have covers
6. Minimum space between two over -under: 6 m
 - a. If under 6 m, only on vertical deviation



PLASTIBETON[®]

Design Guide

III. PLASTIBETON[®] COVER LAYOUT LIMITATION

General Covers

1. Cover / Cover gap: 3 mm (1/8 in) **(A)**
2. Cover / Trench end gap : 1.5 mm (1/16 in) **(B)**

IV. PLASTIBETON[®] COVER DESIGN LIMITATION

H2O Cover Design Limitation

	C6	C12	C20	C30	C40
Standard length	997 mm (39.25 in)	997 mm (39.25 in)	997 mm (39.25 in)	597 mm (23.50 in)	597 mm (23.50 in)
Maximum cut length	987 mm (38.89 in)	987 mm (38.89 in)	987 mm (38.89 in)	556 mm (21.89 in)	529 mm (20.83 in)
Minimum length	497 mm (19.57 in) (half cover at 497 mm)	497 mm (19.57 in) (half cover at 497 mm)	497 mm (19.57 in) (half cover at 497 mm)	297 mm (11.69 in) (half cover at 297 mm)	297 mm (11.69 in) (half cover at 297 mm)
Exceptions	N/A	N/A	N/A	Only a few dimensions are available. Don't cut less than 330mm (12.99 in)	Only a few dimensions are available. Don't cut less than 330mm (12.99 in)

HD Cover Design Limitation

	C6	C12	C20	C30	C40
Standard length	N/A	997 mm (39.25 in)	997 mm (39.25 in)	297 mm (11.69 in) Drawing number: S02-TC30	297 mm (11.69 in) Drawing number: S02-TC40
Maximum cut length	N/A	Only a few dimensions are available	Only a few dimensions are available	Can't cut, if wanted use steel cover	Can't cut, if wanted use steel cover
Minimum length	N/A	497 mm (19.57 in) (half cover at 497 mm)	497 mm (19.57 in)(half cover at 497 mm)	297 mm (11.69 in) Use standard length	297 mm (11.69 in)Use standard length
Exceptions	Change for Trench model T128 and Cover C12 if you want HD	N/A	N/A	N/A	N/A
Angled cuts	N/A	Can't have angled cuts, if wanted use steel covers	Can't have angled cuts, if wanted use steel covers	Can't have angled cuts, if wanted use steel covers	Can't have angled cuts, if wanted use steel covers

NOTES:

There is some restriction for the cuts, because of the rebar positioning and not all the cut lengths are available. If HD covers are required where a "T" or "90" support is to be installed, an HD support must be placed instead.

PLASTIBETON®

Design Guide

Steel Cover Design Limitation

	C6	C12	C20	C30	C40
Standard length / Minimum length	997 mm (39.25 in) Drawing number: 0018705	497 mm (19.57 in) Drawing number: 0001210	297 mm (11.69 in) Drawing number: 0001219	297 mm (11.69 in) Drawing number: 0001220	297 mm (11.69 in) Drawing number: 0001320
Maximum cut length	750 mm (29.53 in)	750 mm (29.53 in)	450 mm (17.72 in)	450 mm (17.72 in)	450 mm (17.72 in)
Straight range without angle	5 mm (0.20 in)	5 mm (0.20 in)	5 mm (0.20 in)	5 mm (0.20 in)	5 mm (0.20 in)
Minimum short side with angle	497 mm (19.57 in)	297 mm (11.69 in)	297 mm (11.69 in)	297 mm (11.69 in)	297 mm (11.69 in)
Angle range	0.5°	0.5°	0.5°	0.5°	0.5°

Grated Cover Design Limitation

	C6	C12	C20	C30	C40
Standard length	999 mm (39.33 in) Drawing number: D18A84	999 mm (39.33 in) Drawing number: D18A52	297 mm (11.69 in) Drawing number: 0013299	297 mm (11.69 in) Drawing number: 0011626	298 mm (11.73 in) Drawing number: D18A186
Maximum cut length	999 mm (39.33 in) Use standard length	999 mm (39.33 in) Use standard length	590 mm (23.23 in)	590 mm (23.23 in)	595 mm (23.43 in)
Minimum length	497 mm (19.57 in)	497 mm (19.57 in)	297 mm (11.69 in)	297 mm (11.69 in)	298 mm (11.73 in)
Exceptions	N/A	N/A	N/A	N/A	N/A

V. PLASTIBETON® ACCESORIES

Cables Clips

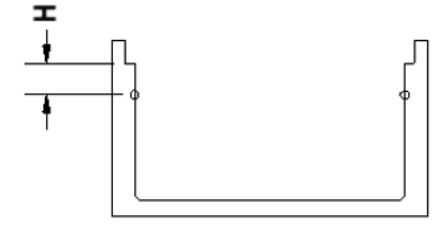
- | | |
|------------------------------|----------|
| 1. Available material clips: | I.D (in) |
| a. Stainless steel | .500 |
| b. Galvanized steel | .750 |
| c. Plastic | .750 |

PLASTIBETON®

Design Guide

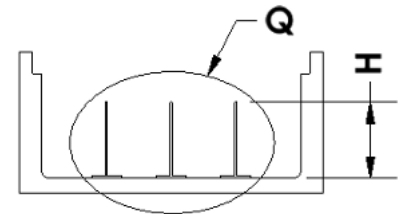
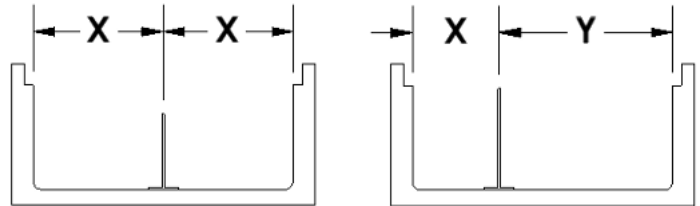
2. Required information
 - a. Installed / not installed
 - b. Quantity per full trench
 - c. Install on both side or on one side
 - d. Install height (If not standard)
3. Standard install height

Trench Model	Cable clips height installation (H)
T68	38 mm (1.50 in)
T 128 / T1216 / T2012 / T2016	64 mm (2.50 in)
T3012 / T3016 / T4016	89 mm (3.50 in)
Special cable rack	Ask ISR / RSM



Dividers

1. Required information
 - a. Installed / not installed
 - b. Quantity per full trench
 - c. Install evenly spaced (**X**) – (**X**)
 - d. Install not evenly spaced: specify 1/3-2/3 or Dim. center to center Dividers (if not standard) (**X**) – (**Y**)
2. Available Quantity and Divider Height



MODEL	68	128	1216	2012	2016	3012	3016	4016
Qty per trench (Q)	1	2	2	5	5	7	7	10
Height (H)	152 mm (5.98 in)	152 mm (5.98 in)	298 mm (11.73 in)	229 mm (9.02 in)	298 mm (11.73 in)	229 mm (9.02 in)	298 mm (11.73 in)	298 mm (11.73 in)

PLASTIBETON®

Design Guide

NOTES:
