



PRO-CAST

Solid Foundations,
Strong Futures.

PRECAST CONCRETE SOLUTIONS

U-DRAINS

INTRODUCTION

U-Drains are available in both standard sizes (for nominal widths between 600mm and 1800mm) and super sizes (for nominal widths between 2100mm and 3600mm) in lengths of 1000mm.

U-Drains are available both with and without Dry Weather Flow (DWF) sections.

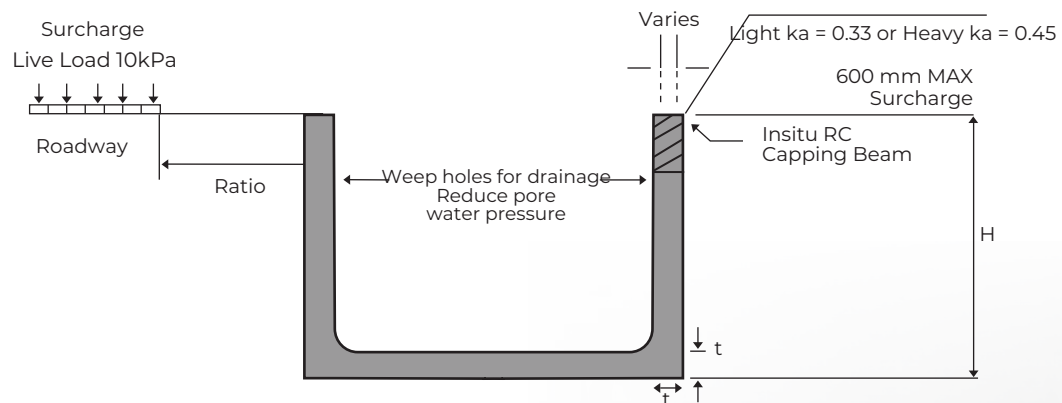
U-Drains are designed for easy handling and laying, thus allowing for fast construction of waterways/open flow channels by using high quality factory cast units with a minimum of wet concrete works.

DESIGN CONSIDERATIONS

U-Drains are designed to the requirements of BS 8110:1997 with the following concrete cover to reinforcements:

- Standard Size U-Drains = 25mm cover
 - Super-Size U-Drains = 30mm cover
- Concrete characteristics strength at 28 days, $f_{cu} = 30 \text{ MPa} - 40 \text{ MPa}$

For other loading conditions or U-Drains sizes not shown in the tables here, please contact us for a special design, 50mm diameter weep holes are provide for drainage of the retained soil which, when combined with the butt jointed units, prevent the buildup of hydrostatic pressure. As such, the design does not take into consideration of hydrostatic pressure.



DIMENSION OF STANDARD SIZE U-DRAINS WITH DRY WEATHER FLOW

STANDARD LENGTHS : 1000 MM

NOMINAL SIZE UD | STANDARD SIZE

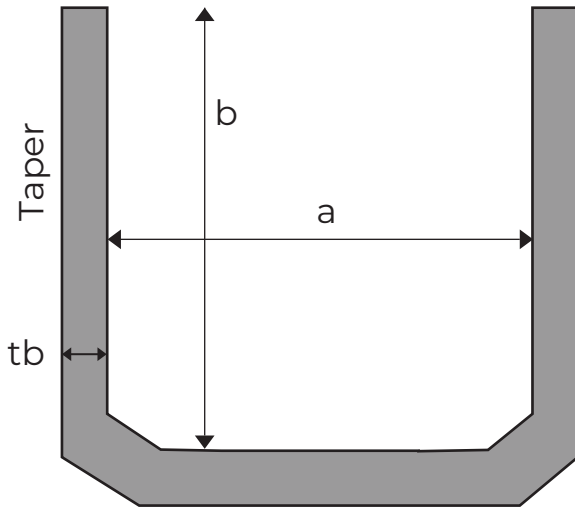
| a | b | tb | e | d |
|------|------|-----|-----|------|
| 300 | 300 | 60 | 50 | 200 |
| 450 | 300 | 60 | 50 | 200 |
| 450 | 450 | 60 | 50 | 200 |
| 600 | 300 | 65 | 65 | 375 |
| 600 | 450 | 65 | 65 | 375 |
| 600 | 600 | 65 | 65 | 375 |
| 750 | 450 | 65 | 65 | 375 |
| 750 | 600 | 65 | 65 | 375 |
| 750 | 750 | 65 | 65 | 375 |
| 900 | 450 | 75 | 75 | 450 |
| 900 | 600 | 75 | 75 | 450 |
| 900 | 750 | 75 | 75 | 450 |
| 900 | 900 | 75 | 75 | 450 |
| 1200 | 600 | 80 | 175 | 900 |
| 1200 | 750 | 80 | 175 | 900 |
| 1200 | 900 | 80 | 175 | 900 |
| 1200 | 1050 | 80 | 175 | 900 |
| 1200 | 1200 | 80 | 175 | 900 |
| 1500 | 750 | 100 | 225 | 1075 |
| 1500 | 900 | 100 | 225 | 1075 |
| 1500 | 1050 | 100 | 225 | 1075 |
| 1500 | 1200 | 100 | 225 | 1075 |
| 1500 | 1350 | 100 | 225 | 1075 |
| 1500 | 1500 | 100 | 225 | 1075 |
| 1800 | 900 | 115 | 225 | 1075 |
| 1800 | 1050 | 115 | 225 | 1075 |
| 1800 | 1200 | 115 | 225 | 1075 |
| 1800 | 1350 | 115 | 225 | 1075 |
| 1800 | 1500 | 115 | 225 | 1075 |
| 1800 | 1650 | 115 | 225 | 1075 |
| 1800 | 1800 | 115 | 225 | 1075 |

NOMINAL SIZE UD | SUPERSIZE

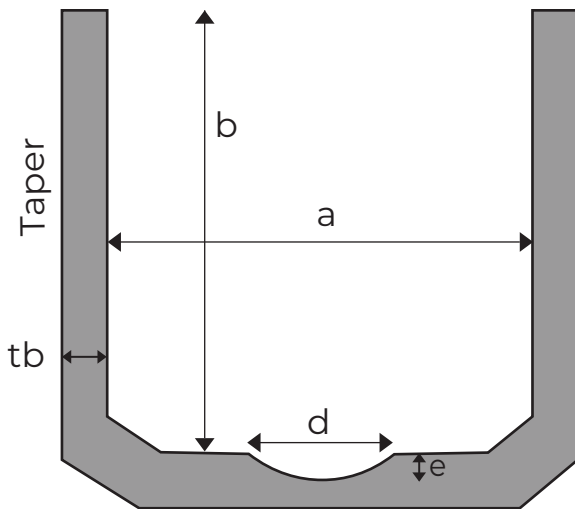
| a | b | tb | e | d |
|------|------|-----|-----|------|
| 2100 | 1200 | 150 | 225 | 1075 |
| 2100 | 1500 | 150 | 225 | 1075 |
| 2100 | 1800 | 150 | 225 | 1075 |
| 2100 | 2100 | 150 | 225 | 1075 |
| 2400 | 1200 | 150 | 225 | 1075 |
| 2400 | 1500 | 150 | 225 | 1075 |
| 2400 | 1800 | 150 | 225 | 1075 |
| 2400 | 2100 | 150 | 225 | 1075 |
| 2400 | 2400 | 150 | 225 | 1075 |
| 2700 | 1500 | 180 | 225 | 1075 |
| 2700 | 1800 | 180 | 225 | 1075 |
| 2700 | 2100 | 180 | 225 | 1075 |
| 2700 | 2400 | 180 | 225 | 1075 |
| 2700 | 2700 | 180 | 225 | 1075 |
| 3000 | 1500 | 200 | 225 | 1075 |
| 3000 | 1800 | 200 | 225 | 1075 |
| 3000 | 2100 | 200 | 225 | 1075 |
| 3000 | 2400 | 200 | 225 | 1075 |
| 3000 | 2700 | 200 | 225 | 1075 |
| 3000 | 3000 | 200 | 225 | 1075 |
| 3300 | 1500 | 200 | 225 | 1075 |
| 3300 | 1800 | 200 | 225 | 1075 |
| 3300 | 2100 | 200 | 225 | 1075 |
| 3300 | 2400 | 200 | 225 | 1075 |
| 3300 | 2700 | 200 | 225 | 1075 |
| 3300 | 3000 | 200 | 225 | 1075 |
| 3300 | 3300 | 200 | 225 | 1075 |
| 3600 | 1800 | 200 | 225 | 1075 |
| 3600 | 2100 | 200 | 225 | 1075 |
| 3600 | 2400 | 200 | 225 | 1075 |
| 3600 | 2700 | 200 | 225 | 1075 |
| 3600 | 3000 | 200 | 225 | 1075 |
| 3600 | 3300 | 200 | 225 | 1075 |
| 3600 | 3600 | 200 | 225 | 1075 |

DETAIL

U-DRAINS WITH DRY WEATHER FLOW



LARGE SIZE U-DRAINS
WITHOUT DRY WEATHER FLOW



LARGE SIZE U-DRAINS
WITHOUT DRY WEATHER FLOW

PRO-CAST

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