TEJAS

PRECAST U - DRAINS

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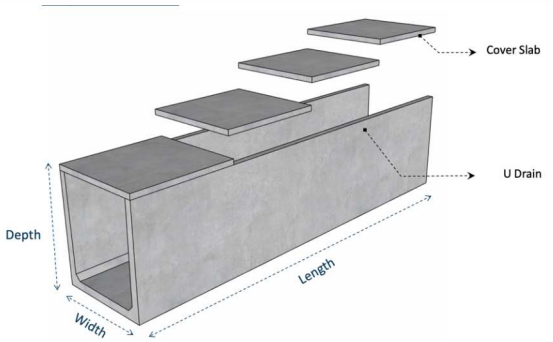
U-Drains are available in wide range of sizes starting from 60mm to 1500 mm in width and 600mm to 1500 mm in depth.

U-Drains can be used for indoor and outdoor applications.

They come with cover slabs, designed for various load conditions.

Drains are factory made, casted in a controlled environment, having superior quality and well suited for fast paced construction.

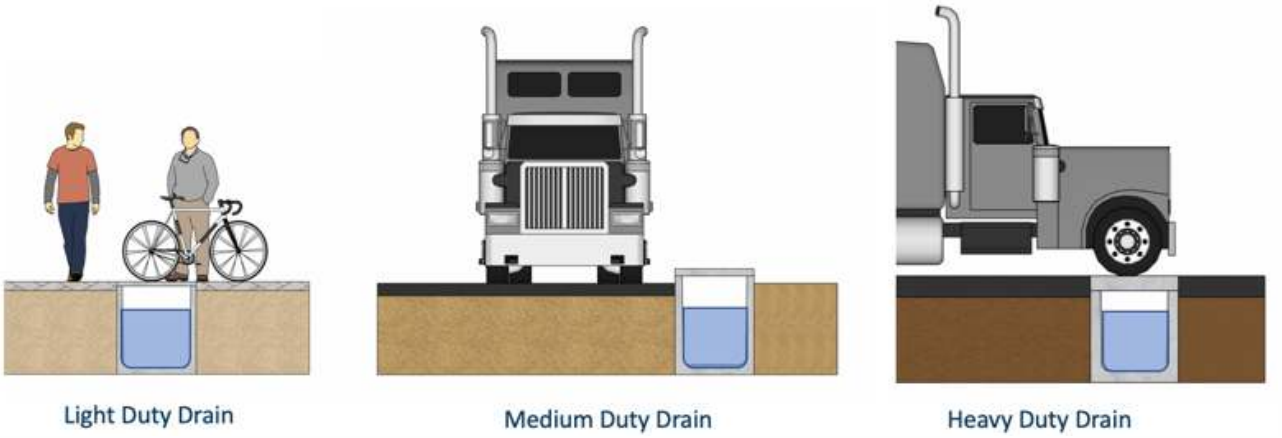
» Superior Quality » Well-Engineered » Easy and Quick to Install



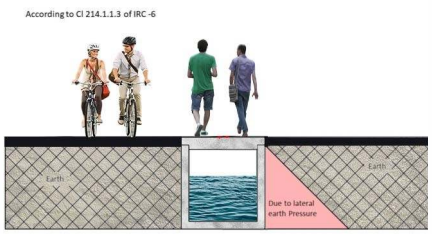
LOADS

The thicknesses of side walls, base slab and cover slabs of these drains are dependent on the type of loading coming on to the drains.

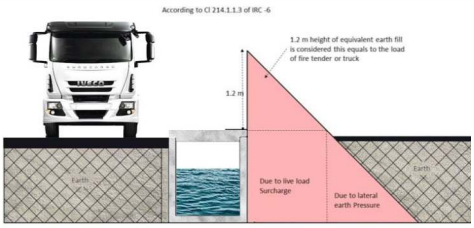
Three variants are – Light Duty, Medium Duty and Heavy duty.



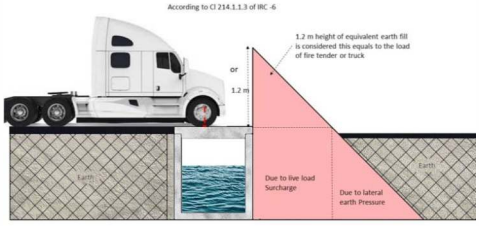
Light duty means, the drain is designed only for lateral Earth Pressure and a Live Load of 150 Kg/Sqm. Cover slab on top of these drains will also be of light duty in nature because only human load will be on top and there cannot be movement of any loads more than 150 Kg/Sqm.



Medium duty means, the drain is designed for lateral Earth pressure, Live Load Surcharge (for an equivalent height of 1.2 m earth fill) and vehicular traffic will be passing by adjacent to the drain wall. Here again, the cover slabs will be of light duty, as there can be only human traffic over it and no vehicles will be passing.



Heavy duty drain means, the drain is designed for lateral Earth pressure, Live Load Surcharge (for an equivalent height of 1.2 m earth fill) and heavy Vehicles over the drain. Here the cover slabs on the drain top will be of heavy duty, as it has to take the load of Heavy Vehicles.



ERECTION OF 'U' – DRAINS:

The drains are very easy to erect. Soil is excavated to the required depth and then the trench is levelled. If the soil is good, then quarry dust/sand is spread. If the soil is poor and clayey, then Plain Cement Concrete is laid. Drains are placed along the levelled surface. To hold the two pieces together in position, 'U' bars will be placed in the slots provided in the wall and bottom slabs and then grouted. This will prevent the drain from sliding or moving while backfilling.

The vertical and horizontal joints will be filled with grouts. Length of each drain is 6 m and a team of 4 people and one crane can erect close to 15 pieces, which is about 90 m. If the same work has to be done in conventional way, it will involve lot of labour and time. Alignment of the drain and getting a straight line will be very difficult. Also the top level of the drain is equally important for cover slabs to have a uniform level, so that the people walking on top will not have any difficulty.

TRUCK UNLOADING

BASE PREPARATION AND PLACING

JOINTING

COVER SLAB LAYING

COVER SLAB UNLOADING

Tejas Precast 'U' – Drains are casted as a monolithic piece and there will be no chance for leakages in the bottom joints of vertical wall and base slab, whereas in conventional precast, bottom slab is casted separately and then the walls are casted separately, thereby leaving a cold joint and hence there is every chance that water will leak through the joints. When there are heavy rains, we will not be able to know if the water is coming from the road or from the joints.

Constructing drains in the conventional way will be difficult and time consuming.

Precast 'U' – Drains are easy to erect, quick to complete strong and durable.

Here are some common applications and places where RCC U Drains are used:

Roads and Highways: U Drains are extensively used alongside roads and highways to collect and channel rainwater and stormwater runoff away from the road surface, preventing waterlogging and enhancing road safety.

Urban Drainage Systems: In urban areas, U Drains are utilized to manage stormwater runoff from rooftops, pavements, and other impervious surfaces. They help prevent flooding in streets and neighborhoods.

Residential Areas: U Drains are commonly installed in residential communities to manage rainwater runoff from residential properties, driveways, and walkways, ensuring proper drainage and preventing water accumulation.

Industrial Zones: Factories and industrial areas use U Drains to control and direct wastewater and industrial runoff, maintaining a clean and safe environment.

Commercial Complexes: Shopping malls, office complexes, and other commercial properties use U Drains for effective stormwater management, keeping parking lots and pedestrian areas dry during rainy periods.

Parks and Recreational Areas: U Drains are installed in parks, playgrounds, and recreational spaces to manage rainwater runoff and prevent waterlogging in these public areas.

Airports: Airports employ U Drains to handle rainwater runoff from runways, taxiways, and other airport surfaces, ensuring safe operations during wet weather.

Sports Facilities: Sports stadiums and arenas utilize U Drains to manage rainwater runoff from the playing field and spectator areas.

Agricultural Fields: In rural areas and agricultural lands, U Drains are used for proper water management, irrigation, and to prevent soil erosion.

Storm water Management Systems: U Drains are integral components of stormwater management systems designed to control and direct the flow of rainwater and storm runoff.

Waste Treatment Plants: U Drains are used in wastewater treatment plants to direct and manage wastewater flow for treatment and disposal.

RCC U Drains come in various sizes and shapes to suit different drainage requirements. They are durable, long-lasting, and provide effective solutions for managing water runoff in various settings.

TEJAS

For more information, feel free to contact us:

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