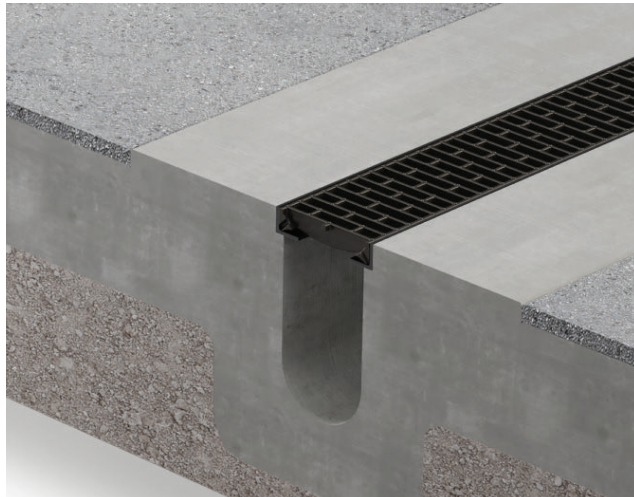


TrenchFormer® XHD™

EXACTING FORMING SYSTEMS FOR PORTS



TRENCHFORMER XHD

TrenchFormer® XHD™

TrenchFormer XHD is more than just an extremely heavy-duty grate. Every component of the XHD system is engineered to handle the exacting requirements found specifically in airports, seaports, and intermodal facilities. Our patented non-rigid bar-lock system is designed for dynamic longitudinal and vertical retention. Moreover, the robust frame design and a large bearing area maximizes load transfer and minimizes the risk of concrete shear failure below the frame.

TrenchFormer XHD features:

1. U-Leg – No-float U-legs hold formwork firmly in place allowing for concrete to be placed monolithically.

2. Adjustable Clamp – Allows the formwork to be micro-adjusted once anchoring slab is poured over the bottom of the u-legs.

3. Anchor Studs – Ensure maximum strength for the embedded frame.

4. EPS Former – Expanded Polystyrene former can be cut into any shape with the slope of the trench built-in.

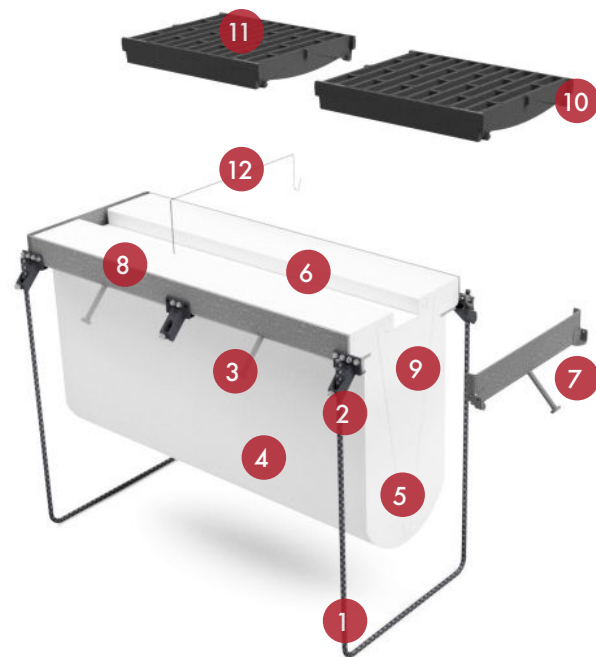
5. Deforming Groove – The deforming “V” enables easy deconstruction of the trench and also aids in alignment when interlocked with adjoining former sections.

6. Alignment Slot – Top alignment slot allows for insertion of 2x4 to aid in trench alignment.

7. End Frames – End frames close off the end of the trench run preventing concrete from entering the end of a trench. Rail Clamps will attach end frames to rails.

8. Structural Rail – Unlike other manufacturers that use sheet metal for frames, ABT uses only structural steel angle for a more robust frame design.

9. Color Coded Labels – Color coded labels allow for easy matching with other system components.



10. Bar Lock Retention System – The patented four corner, non-rigid, bar lock system provides longitudinal and vertical retention while, eliminating thermal induced stresses that traditionally cause concrete cracking in bolt down systems.

11. XHD Grate System – Advanced grate design provides lighter weight and greater inflow with no sacrifice in strength.

12. Cross Ties – Cross-ties help hold frame tight to the foam former for consistent spacing of grates and aesthetically pleasing trenches.

The XHD system provides ultimate performance with the lowest cost of ownership.

XHD System Components

200,000+ lbs. Ductile Iron Grates – The XHD’s advanced grate design is engineered to provide both performance and appearance. The attractive design provides lighter weight for ease of maintenance and greater inflow area with no sacrifice in strength. XHD Four Point Non-Rigid Bar Lock Retention System Utilizing the “Bar Lock System”, both longitudinal and vertical retention are achieved. The non-rigid “Bar Lock System” eliminates the thermal induced stresses in the typical bolt down assemblies that cause concrete cracking. The bars do not become loose and back out as bolts do. Although four bars are used for retention, only an average of one bar per grate must be removed for maintenance.

XHD Robust Frame Design – The large load bearing area and increased edge distance combined with the grate bearing location of the XHD System’s frame maximizes load transference and reduces the probability of concrete shear failure below the frame. XHD does not utilize non-removable liners that create the failure liability by



being sandwiched between the frame and concrete. Such liner systems propagate failures by their low compressive strength, creep, and thermal expansion properties.

Design Flexibility – The XHD system’s Expanded Poly Styrene (EPS) formers can be configured for the designer’s special flow and depth requirements. A large range of trench depths, slopes, profiles and configurations provides the designer with greater flexibility for challenging projects. Additionally, the system is pre-engineered and factory fabricated reducing the potential for construction error in the field.

Inspectability & Constructability – The XHD systems are easily inspected after concrete placement. Prior to service, inspection for voids below the frame can be observed and repaired. Such voids are concealed by other systems and will eventually lead to frame collapse and other failures. Compared to traditional cast-in-place trenches, the XHD system installs faster and easier.



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