

TrenchFormer®

XHD™

Airport / Port Rated Trench Drain Forming Systems



Commercial & Military Airports



Innovative Non-Rigid Retention Systems



Ports & Intermodal Facilities

www.abtdrains.com

Today's Hydraulic Solutions



ABT, INC.

Advanced Building Technologies, Inc.

XHD™ Technology

ABT, Inc.'s **XHD** performance family of trench drains provides a robust assembly of parts needed to handle the extreme requirements found specifically in airports, ports, and Intermodal facilities. The **XHD** system goes far beyond a heavy-duty grate. Its components and features were designed to offer ultimate performance with the best cost of ownership available.

XHD System Components

1 XHD 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.

2 XHD Four Point Non-Rigid Pin Lock Retention System

Utilizing the "Pin Lock System", both longitudinal and vertical retention are achieved. The non-rigid "Pin Lock System" eliminates the thermal induced stresses in the typical bolt down assemblies that cause concrete cracking. The pins do not become loose and back out as bolts do. Although four pins are used for retention, only an average of one pin per grate must be removed for maintenance.

3 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 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.

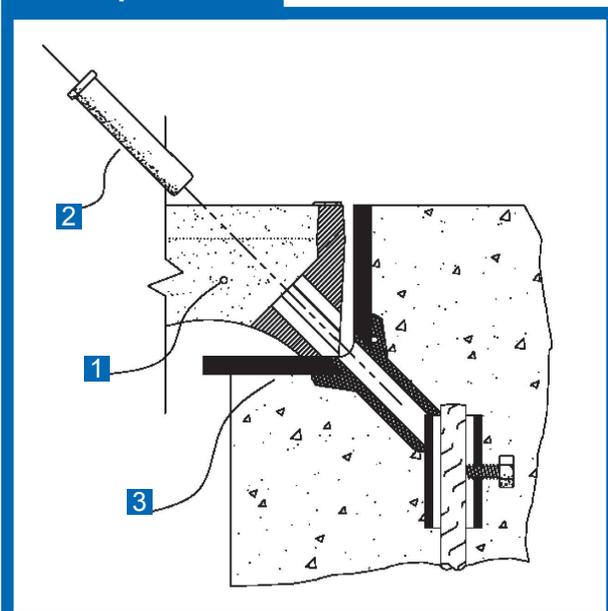
Design Flexibility

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.

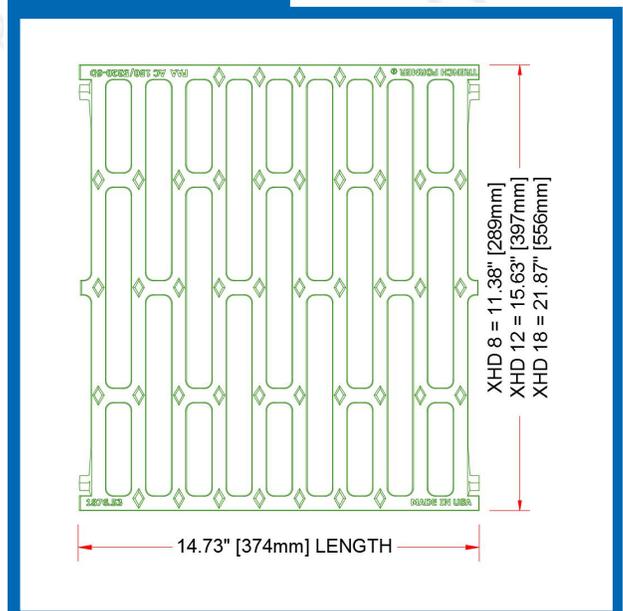
Inspectability & Constructability

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.

Components



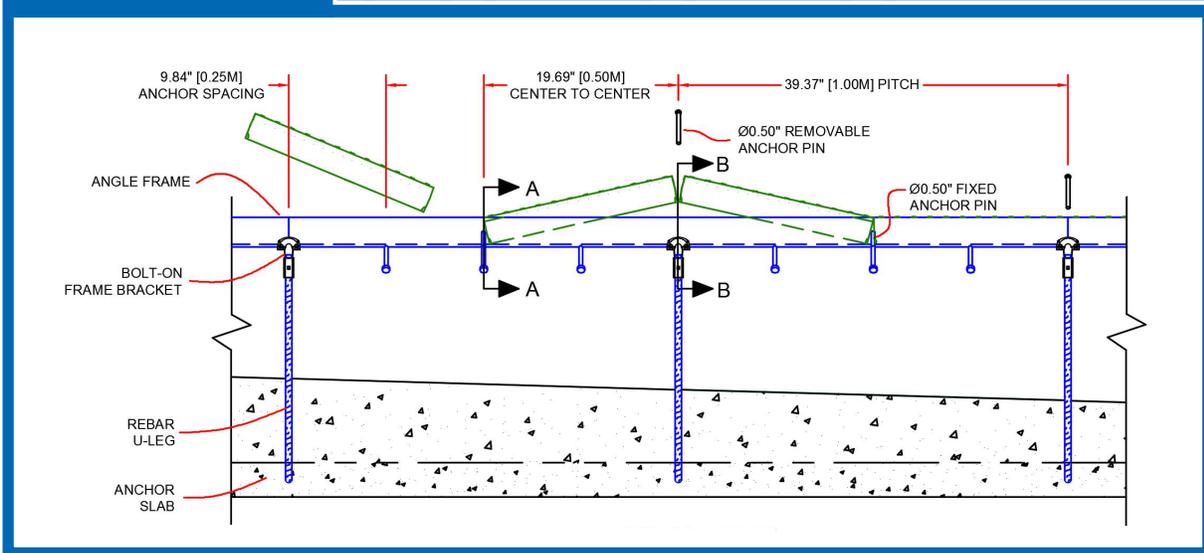
Grate



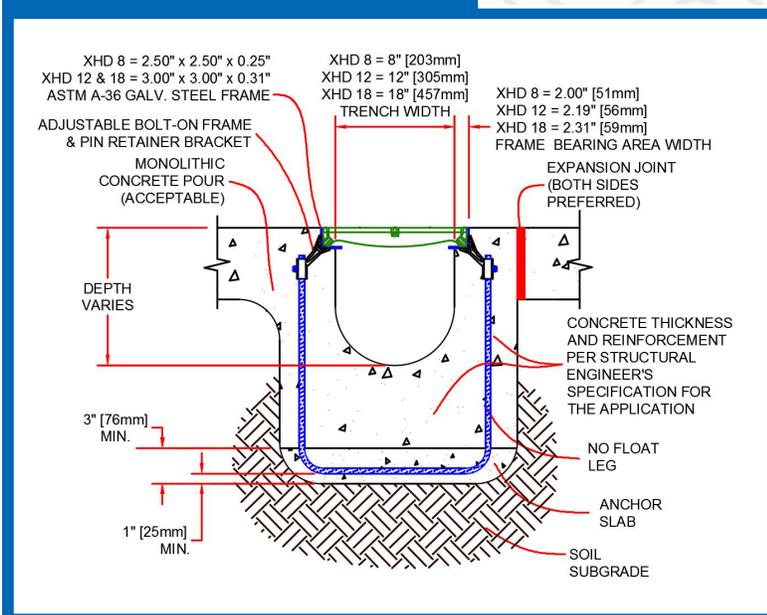
XHD™ Technical Data

- Grate Proof Strength — 200,000+ lbs.
- Vertical Grate Restraint — 2,000 lbs.
- Longitudinal Grate Restraint — 10,000 lbs.
- Frames are ASTM A-36 Hot Dip Galvanized Structural Steel
- All parts are made in USA and comply with the Buy America Act
- For hydraulic capacity for specific conditions, drawings, specifications, and other information go to www.abtdrains.com

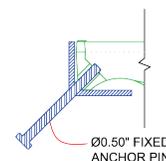
Elevation View



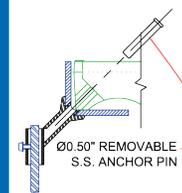
End Cross Section View



Fixed Pin



Removable Pin



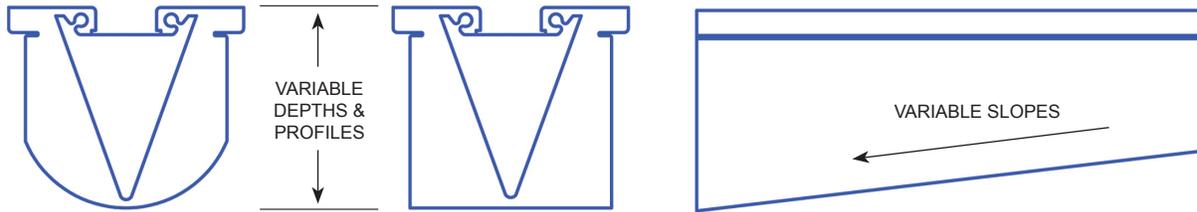
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TrenchFormer® XHD™

Airport / Port Rated
Trench Drain Forming Systems

Designed Right,
Engineering that Saves...
Life Safety, Life Cycle...

Pre-Engineered EPS Forms



XHD's EPS foam former design flexibility allows the designer to select various system slopes, depths and section profiles to meet their specific requirements, site restrictions and hydraulics.

Design Notes:

- Typical frame sections are 6.56' (2M). Frames are also available in 3.28' (1M) & 1.64' (0.5M).
- Auxiliary frames are available to facilitate "T's", "L's", intersections, radii and joints.
- All XHD system grates are 19.64" (0.5M) in length. Widths vary per system.

** Call or E-mail us today and ask for our interactive hydraulic calculator. For more information and design tools, go to www.abtdrains.com.

- Hydraulic Design Guide
- ACAD Drawings & Details
- Specifications
- Additional Product Info
- PDF Catalogs & Details
- Installation Guides
- Plan Notes
- Performance Specifications



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