

# TrenchFormer®

## MHD™ -A

Enhanced Heavy Duty  
Trench Drain Forming Systems



Airport Facilities



Innovative Non-Rigid  
Retention Systems



Municipal Roads & Highways



(317) 346-4110

[www.drainagesolutionsinc.com](http://www.drainagesolutionsinc.com)

Today's Hydraulic Solutions



**ABT, INC.**

# The MHD™ -A Technology

ABT, Inc.'s **MHD-A** Trench Drain Systems provides a complete assembly of parts needed to handle applications found in airports, intermodal facilities, municipalities, roadways and the industrial marketplace. The **MHD-A** systems go far beyond a heavy-duty grate with their components and features that were designed to offer the best cost of ownership.

## MHD-A System Components

### 1 MHD-A Heavy Duty Ductile Iron Grates

The MHD-A'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 MHD-A Four Corner Non-Rigid Grate Retainer 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 one pin per grate must be removed for maintenance.

### 3 MHD-A Enhanced Frame Design

The MHD-A system's ASTM A-36 Structural Steel frame maximizes strength and load transference into the encapsulation concrete via its increased load bearing area. MHD-A 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.

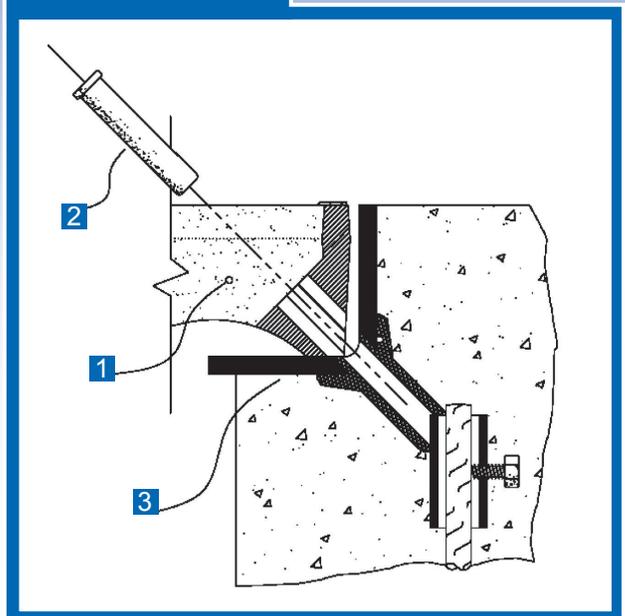
#### Design Flexibility

The MHD-A 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.

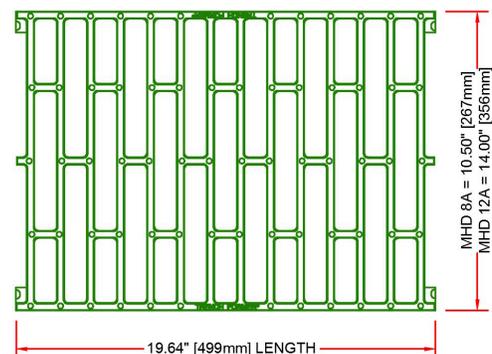
#### Inspectability & Constructability

The MHD-A 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. The MHD-A systems install easily and quickly as compared to traditional cast-in-place trenches.

### Pin Detail



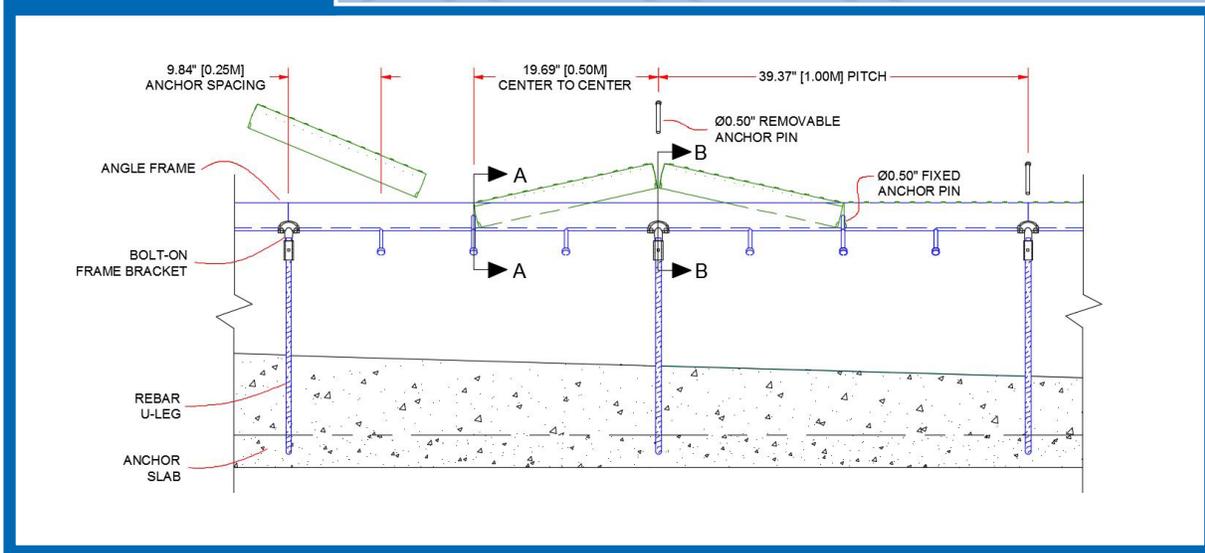
### Grate



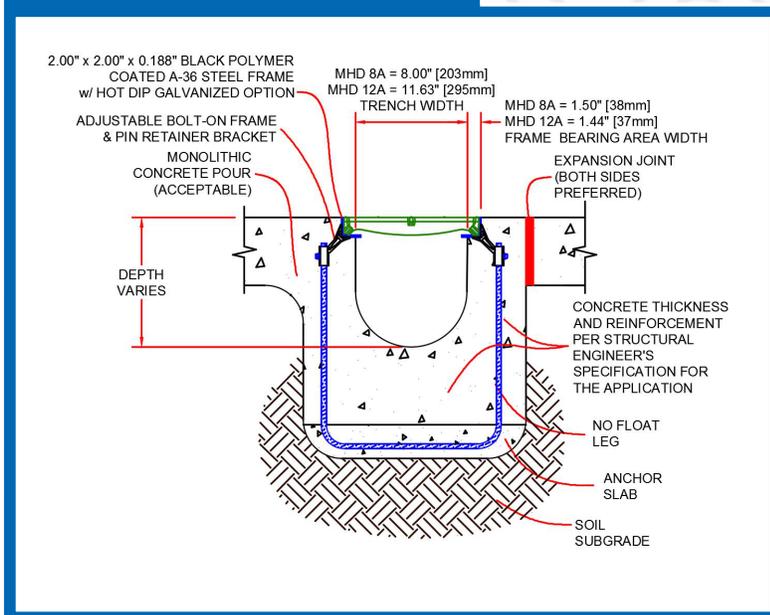
# MHD™ -A Technical Data

- Grate Proof Strength — Meets FAA AC-150 load requirements
- Vertical Grate Restraint — 2,000 lbs.
- Longitudinal Grate Restraint — 10,000 lbs.
- Standard Frames are ASTM A-36 Structural Steel
- All parts are made in USA and comply FHWA's "Buy America" policies
- For hydraulic capacity for specific conditions, drawings, specifications, and other information go to [www.abtdrains.com](http://www.abtdrains.com)

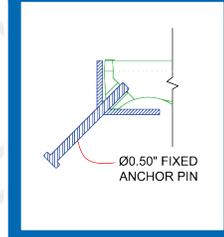
## Elevation View



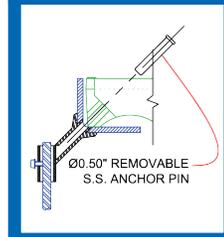
## End Cross Section View



## Fixed Pin



## Removable Pin



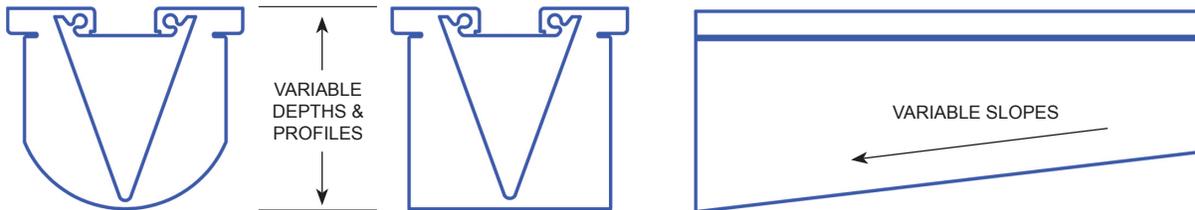
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# TrenchFormer® MHD™ -A

Enhanced Heavy Duty  
Trench Drain Forming Systems

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

## Pre-Engineered EPS Forms



MHD-A'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 MHD-A 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](http://www.abtdrains.com).

- Hydraulic Design Guide
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- PDF Catalogs & Details
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