259 Murdock Rd
Troutman, NC 28166
800-438-6057

MD-300
Standard Specifications
300mm (12”) ID Trench Forming System

Materials:

Forms – Trench drain shall be MD-300; manufactured by ABT, Inc., 259 Murdock Road, Troutman, NC- (800) 438-6057. Trench forms to be pre-manufactured using non-CFC EPS foam. Each radius bottom form segment shall be 305mm (12”) wide I.D. with a full length deforming grooves and 356mm (14 In) grate seat width. Non-petroleum based form release for smooth interior walls and easy form removal is to be used. Form segments are to provide trench dimensional accuracy of 1.5mm (1/16”). Trench slope is as specified on the drawings.

Rails– Steel components: Black powder epoxy coated 50.8mm x 50.8mm x 4.76mm (2.0” x 2.0” x 0.1875”) steel angle rails conforming to ASTM A36/A36M-93a. Standard rail length 2.0M (6.56ft), 1.0M (3.28ft), and 0.5M (1.64ft) lengths available. No Float leg / alignment / grate retainer anchor lugs are located on 1.0M (3.28ft) centers along the rails bisected by non-removable grate retaining / rail anchoring studs on 1.0M (3.28ft) centers. Standard headed concrete anchor studs bisect these members providing a rail-anchoring device every 250mm (9.84”). Grate rails to provide a minimum of 1.25 square inches concrete bearing area per inch of trench length on each side. Grate retainers and rails to withstand 1000lbs vertical, 6000lbs transverse, and 6000lbs longitudinal loads. Grate retainer performance is not to degrade with service loads or thermal cycling.

Anchoring - Formwork assembly must be prevented from floating during concrete placement without penetrating the sub grade. Formwork to be anchored to the earth using steel “U” shaped legs and a mud slab pour. Tie wires that assure constant rail spacing and grate seat dimension to be provided.

Grating- Grates to be galvanized ductile iron conforming to ASTM A 536-84 with a minimum of $0.25m^2$/Lm ($0.80Ft^2$ /Lft) open area. Galvanizing to conform to ASTM A123-89a. Grates must be flush with top of rails and meet AASHTO M306-9 Grate/Manhole Proof Test. Allowable tolerances to plus/minus 1.5mm (1/16”). Grating shall be made in USA, and shall conform to the FHWA’s “Buy America” policy 23 CFR 635.410(b) (as amended by enactment of the 1991 ISTEA) if Federal Aid finances apply.

A Certificate of Compliance in conformance with the provisions of these Standard Specifications shall be furnished to the Engineer and/or Architect upon request.