



ECONODRAIN DG-4™ STANDARD SPECIFICATION

EconoDrain® Pre-engineered Trench Forming System with Chemical Resistant FRP Grates

System ID#: EconoDrain DG-4

Trench drain shall be EconoDrain® DG-4; By MultiDrain Systems, Inc., which is located at: 1405 Industrial Drive; Statesville, NC 28625; ASD. Toll Free Tel: 800-433-1119; Tel: 704-508-1010; Fax: 704-508-1011; Email: [request info \(steve.born@multidrain.com\)](mailto:steve.born@multidrain.com); Web: www.multidrain.com.

Forming System: EconoDrain 4 inch (102 mm) Trench Drain Forming System as manufactured by MultiDrain Systems, including EPS forms, grating/cover seat, grating and/or covers and system accessories.

1. Construction: The trench drain system shall be EconoDrain consisting of non-CFC Expanded Polystyrene Foam (EPS) interlocking pre-sloped removable forms having a standard slope of 0.5 percent (1/16 inch per lineal foot of trench) and installed in standard 78-3/8 inch (two meter nominal) sections, pre-welded grate frames anchored securely in concrete, common rebar used for form stability and anti-flotation during pour and gratings.
2. Expanded Polystyrene Foam (EPS) Forms:
 - a. EPS shall have a Flame Spread less than 25 and Smoke Developed less than 450 per ASTM E-84 test method.
 - b. Radius Bottom.
 - c. Square Bottom.
3. Grate Seat Rails:
 - a. Left and right rail shall be affixed together and pre-welded to assure proper symmetry and planar accuracy.
 - b. Material: Mild steel rails - Black, Polyester powder coating.
 - c. Material: Mild steel rails - Galvanized.
 - d. Material: Stainless steel.
 - e. Alignment clips shall be provided at the rail end welded to the angle frame.
 - f. Eight anchor stands shall be provided per eight foot length to aid installation stability; allow simple grade adjustment and provide grate rail pull out resistance. The anchor stands shall be fully welded to the angle frame.
 - g. Each rail shall provide 10 anchor studs, a means to mechanically lock itself into the surrounding concrete. Rail pull out resistance shall not be less than 2,480 lb/lineal foot (36 kN/m).

Grating - MultiDrain part number 2720/ 2721. Grates are 39.19" (nominal 1 meter) and 19.6 (1/2 meter) respectively. Grating material shall be vinyl ester chemical resistant FRP. Grates shall have bars spaced at 1" on centers. Grating shall meet a minimum 150 psi proof load per AASHTO M-306 test modified by utilizing a 9" x 3" load plate. Grates shall seat into steel rails without rocking and shall be locked to the channel using a stainless steel #8 – 32 bolt and toggle bar system with a bolt torque of 1in/lb.

Quality Assurance:

Submittals: A Certificate of Compliance in conformance with the provisions of these Standard Specifications shall be furnished to the Engineer. Grates shall be independently tested to AASHTO M-306.