# DRIFT RAIL AND CLIP (DRC)

#### Vertical and lateral building movement

ClarkDietrich Drift Rail 97mil (12ga) and Clip 97 mil or 68mil (12ga or 14ga) is a uniquely designed two-piece system that is used to attach curtain-wall studs to the building structure and allows for vertical and lateral movement or to be rigidly attached. The system utilizes a C-Shaped Drift Rail and distinctively designed Drift Rail Clips that rotate into position for easy installation. The multifaceted Drift Rail Clips use FastClip Deflection Screws for attachment to the wall studs and allows for 3" vertical deflection (1-1/2" up and down) and is also designed with 1/8" holes to rigidly attach wall studs.

# MATERIAL SPECIFICATIONS

Yield Strength: 50ksi Coating: G90 ASTM: A653 / A1003

#### **DRIFT RAIL**

Gauge: 12ga (97mil) Design Thickness: 0.1017" Min. Thickness: 0.0966"

#### DRIFT RAIL CLIP

Gauge: 12ga (97mil) Design Thickness: 0.1017" Min. Thickness: 0.0966" Gauge: 14ga (68mil) Design Thickness: 0.0713" Min. Thickness: 0.0677"

#### PACKAGING

Drift Clips: 25 Drift Clips per box. (Includes 55 FastClip Deflection Screws per box.) 12' Drift Rail is individually packaged.



#### Curtain Wall/Bypass with Drift and Vertical Deflection





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#### INSTALLATION

Install the Drift Rail to minimum 3/16-in thick steel support structure using:

- Welds
- PAF fasteners
- Self-drilling screws

### Install the Drift Rail to concrete support structure using:

- Expansion anchors
- Screw anchors

Pilot holes are provided along the length of the Drift Rail web at a spacing of 6-in on-center.

Design load capacities for commonly used fasteners are tabulated in the product Design Guide and include:

- Hilti X-U Universal Knurled Shank Fasteners
- #12-24 HWH Fasteners
- Hilti 1/4" KWIK HUS-EZ anchor



Visit our CAD Library at cad.clarkdietrich.com to view or download construction details in .dwg, .dxf, and .pdf formats

# With the Drift Rail installed on the structure, the Drift Clips can be positioned as required:

- The framing stud web must contact the flat face of the long leg of the Drift Clip.
- Note that one of the four slots in the channel portion of the Drift Clip is longer than the others.
- Tilt the Drift Clip and position it so that the longer slot initially engages one leg of the Drift Rail.
- Rotate the Drift Clip to the vertical position, engaging all four slots with the Drift Rail legs.

# Connection between the Drift Clip and Framing Studs:

- For bypass connections, FastClip Deflection Screws are placed through each slotted hole of the long leg, of the Drift Clip to the web of the stud.
- The required number and location of the slotted holes used to secure the stud is determined by the required design load capacity.
- For rigid connections, self-drilling screws are placed through the pilot holes around the perimeter of the long leg of the Drift Clip to the web of the stud.

# To restrict clip lateral movement (Drift) along the Drift Rail, install one of two types of stops:

- Drift Locking Angle (DRLA) is an L-shaped clip
  - The long leg is inserted into the channel of the Drift Rail Clip,
  - The short leg is secured to the flange of the Drift Rail with a #10 self-drilling screw
- Drift Locking Clip (DRLC) is a C-shaped clip
  - The DRLC sits within the channel of the Drift Clip, and straddles the flanges of the Drift Rail.
  - The two outside legs of the DRLC are secured to each flange of the Drift Rail with a #10 self-drilling screw.

#### **DESIGN GUIDES:**

Allowable Drift Rail and Clip loads based on using the following attachments to the structure:

- Rail attachment by others (Allowable loads based on stud connection only)
- Rail attachment using (2)#12-24 (Into 3/16" min. steel)
- Rail attachment using (2) Hilti X-U Fasteners (Into 3/16" min. steel)
- Rail attachment using (1) 1/4" Hilti KWIK HUS-EZ (Into 3000psi uncracked concrete)