

Dynamic Loading

	Load Class - X	Load Class - Y	Load Class - Z
Application	No Dynamic Load	Low Speed Dynamic	High Speed Cyclic and/or High Speed Dynamic
Anchor Frame	Not Required	Independent Anchor Frame	Independent Anchor Frame
Preferred Grate Material	All	Ductile Iron ASTM A-536, 65-45-12 or 80-55-06	Ductile Iron ASTM A-536, 65-45-12 or 80-55-06
Grate Anchor Mechanism	Bolted or Toggle	Bolted, Toggle or Boltless	Boltless or Bolted (If pictured framed)
Modulus Sandwich	Allowed	Not Allowed	Not Allowed
Typical Applications	Walkways, Pedestrian	Local Roadways, Maintenance Garages	Ports, Airports, Highways

Typical loading standards for trench drains only address the static load or vertical load put on a grate. However, the linear nature of trench drains subject them to forces and loads that point inlets and catch basins are just not subjected to. It is these dynamic loads that typically destroy the integrity of a trench drain. When considering a Trench Drains for any application, it should also be treated as an assembly (grates, frames, trench conduit). The weakest member in any system is your maximum design load.

Examples of Dynamic Loads

- Turning Forces
- Braking Forces
- Cyclic Loading (high speed repetitive traffic)
- Snow Plows

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