



The following excerpt are pages from the [North American Product Technical Guide Volume 3: Modular Support Systems Technical Guide, Edition 1](#) .

Please refer to the publication in its entirety for complete details on this product including load values, approvals/listings, general suitability, finishes, quality, etc.

To consult directly with a team member regarding our modular support system products, contact Hilti's team of technical support specialists between the hours of 7:00am – 6:00pm CST.

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## 3.0 MODULAR SUPPORT SYSTEM

### 3.2.2 MT BASE CONNECTORS

#### MT-B-GXL S3 OC

##### Description

Base plate for fixation of MT-90 and MT-100 girder structures to 9.1"-12.8" steel flange widths.

##### Material Specifications

Standard <sup>1</sup>	Grade <sup>1</sup>	F <sub>y</sub> , ksi (MPa)	F <sub>u</sub> , ksi (MPa)
GB/T 1591	Q355 B	51.49 (355)	68.17 (470)

1. Mechanical properties of GB/T 1591 Grade Q355 B meet or exceed the mechanical properties of ASTM A1011 SS Grade 50.

##### Corrosion Protection

##### Hot-Dipped Galvanized (HDG)

##### MT-B-GXL S3 OC

##### Ordering Information

Description	Weight Per Piece lbs (kg)	Quantity Piece(s)	Item No.
MT-B-GXL S3 OC	23.81 (10.8)	2	2272108

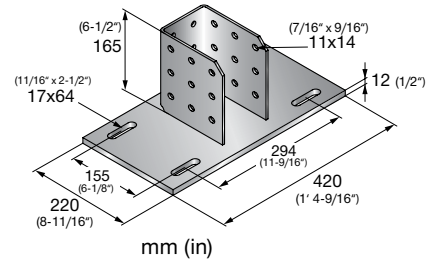
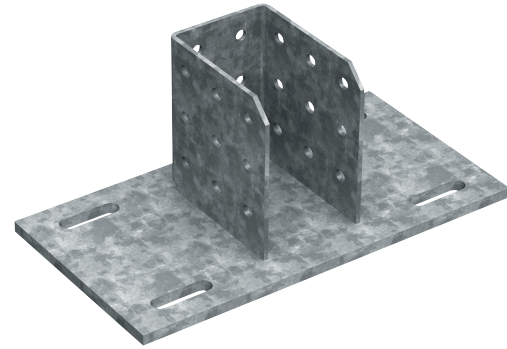
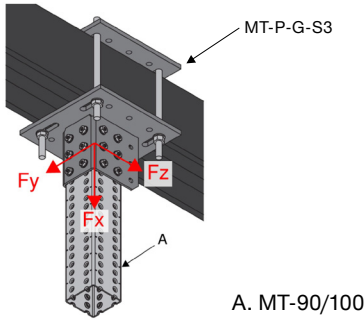


Figure 22 - MT Girder Sandwiched to Steel



A. MT-90/100

Table 101 - Allowable Strength Design (ASD) Load Data<sup>1,2,3,4,5</sup>

F <sub>x</sub> lb (kN)	F <sub>y</sub> <sup>5</sup> lb (kN)	F <sub>z</sub> <sup>5</sup> lb (kN)	M <sub>y</sub> lb ft (kN m)	M <sub>z</sub> lb ft (kN m)
8,440 (37.54)	3,345 (14.9)	3,345 (14.9)	3,700 (5.02)	4,450 (6.04)

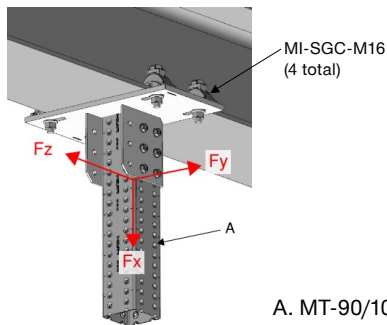
1. Minimum safety factor,  $\Omega$ , for tabulated values is 2.0.
2. Multiply tabulated values by 1.5 to obtain minimum Load and Resistance Factor Design (LRFD) values.
3. Tabulated values require that minimum grade 8.8 threaded rods must be used.
4. Tabulated values are for assembly shown in Figure 22. Design Professional is responsible for checking strength of supporting steel member.
5. Tabulated values are based on friction that is provided mechanically and not due to gravity loads.

Table 102 - Limit State Design (LSD) Load Data<sup>1,2,3,4</sup>

F <sub>x</sub> lb (kN)	F <sub>y</sub> <sup>4</sup> lb (kN)	F <sub>z</sub> <sup>4</sup> lb (kN)	M <sub>y</sub> lb ft (kN m)	M <sub>z</sub> lb ft (kN m)
12,650 (56.28)	5,035 (22.4)	5,035 (22.4)	5,240 (7.11)	6,310 (8.56)

1. Maximum resistance factor,  $\Phi$ , for tabulated values is 0.75.
2. Tabulated values require that minimum grade 8.8 threaded rods must be used.
3. Tabulated values are for assembly shown in Figure 22. Design Professional is responsible for checking strength of supporting steel member.
4. Tabulated values are based on friction that is provided mechanically and not due to gravity loads.

Figure 23 - MT Girder Clamped to Steel



A. MT-90/100

Table 103 - Allowable Strength Design (ASD) Load Data<sup>1,2,3,4</sup>

F <sub>x</sub> lb (kN)	F <sub>y</sub> <sup>4</sup> lb (kN)	F <sub>z</sub> <sup>4</sup> lb (kN)	M <sub>y</sub> lb ft (kN m)	M <sub>z</sub> lb ft (kN m)
8,440 (37.54)	1,545 (6.88)	1,545 (6.88)	3,655 (4.96)	4,450 (6.04)

1. Minimum safety factor,  $\Omega$ , for tabulated values is 2.0.
2. Multiply tabulated values by 1.5 to obtain minimum Load and Resistance Factor Design (LRFD) values.
3. Tabulated values are for assembly shown in Figure 23. Design Professional is responsible for checking strength of supporting steel member.
4. Tabulated values are based on friction that is provided mechanically and not due to gravity loads.

Table 104 - Limit State Design (LSD) Load Data<sup>1,2,3</sup>

F <sub>x</sub> lb (kN)	F <sub>y</sub> <sup>3</sup> lb (kN)	F <sub>z</sub> <sup>3</sup> lb (kN)	M <sub>y</sub> lb ft (kN m)	M <sub>z</sub> lb ft (kN m)
12,650 (56.28)	2,315 (10.3)	2,315 (10.3)	5,240 (7.11)	6,310 (8.56)

1. Maximum resistance factor,  $\Phi$ , for tabulated values is 0.75.
2. Tabulated values are for assembly shown in Figure 23. Design Professional is responsible for checking strength of supporting steel member.
3. Tabulated values are based on friction that is provided mechanically and not due to gravity loads.