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 S1 OC

Description

Base plate for fixation of MT-90 and MT-100 girder structures to 3.1"-6.9" steel flange widths (X-BT/S-BT/F-BT compatible).

Material Specifications

Standard[1]	Grade[1]	F_y, ksi (MPa)	F_u, 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.

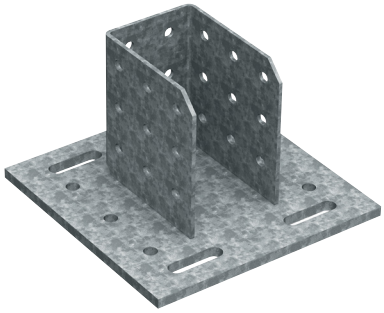
Corrosion Protection

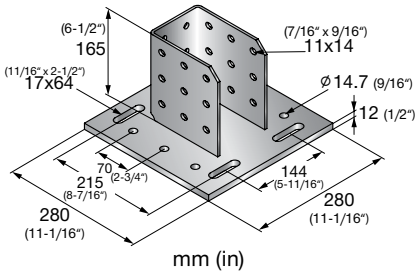
Hot-Dipped Galvanized (HDG)

MT-B-GXL S1 OC

Ordering Information

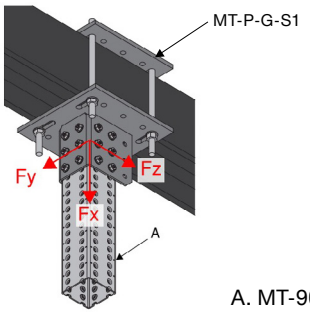
Description	Weight Per Piece lbs (kg)	Quantity Piece(s)	Item No.
MT-B-GXL S1 OC	20.72 (9.4)	2	2272106





mm (in)

Figure 18 - MT Girder Sandwiched to Steel



A. MT-90/100

Table 93 - Allowable Strength Design (ASD) Load Data[1,2,3,4,5]

F_x lb (kN)	F_y[5] lb (kN)	F_z[5] lb (kN)	M_y lb ft (kN m)	M_z lb ft (kN m)
16,790 (74.7)	3,345 (14.9)	3,345 (14.9)	4,835 (6.56)	2,445 (3.32)

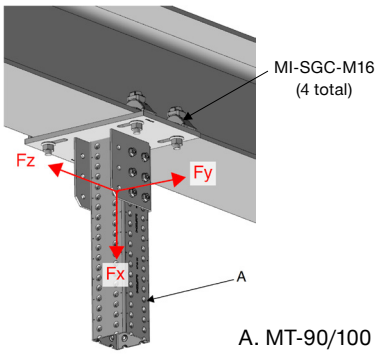
1. Minimum safety factor, Ω, for tabulated values is 2.1.
2. Multiply tabulated values by 1.5 to obtain minimum Load and Resistance Factor Design (LRFD) values.
3. Tabulated values require that minimum grade 8.8 threaded rods must be used.
4. Tabulated values are for assembly shown in Figure 18. Design 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 94 - Limit State Design (LSD) Load Data[1,2,3,4]

F_x lb (kN)	F_y[4] lb (kN)	F_z[4] lb (kN)	M_y lb ft (kN m)	M_z lb ft (kN m)
25,170 (112.0)	5,035 (22.4)	5,035 (22.4)	6,290 (8.53)	3,670 (4.98)

1. Maximum resistance factor, Φ, for tabulated values is 0.7.
2. Tabulated values require that minimum grade 8.8 threaded rods must be used.
3. Tabulated values are for assembly shown in Figure 18. 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 19 - MT Girder Clamped to Steel



A. MT-90/100

Table 95 - Allowable Strength Design (ASD) Load Data[1,2,3,4]

F_x lb (kN)	F_y[4] lb (kN)	F_z[4] lb (kN)	M_y lb ft (kN m)	M_z lb ft (kN m)
14,380 (64.0)	1,545 (6.88)	1,545 (6.88)	4,835 (6.56)	2,100 (2.85)

1. Minimum safety factor, Ω, for tabulated values is 2.3.
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 19. 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 96 - Limit State Design (LSD) Load Data[1,2,3]

F_x lb (kN)	F_y[3] lb (kN)	F_z[3] lb (kN)	M_y lb ft (kN m)	M_z lb ft (kN m)
21,580 (96.0)	2,315 (10.3)	2,315 (10.3)	6,290 (8.53)	3,145 (4.27)

1. Maximum resistance factor, Φ, for tabulated values is 0.6.
2. Tabulated values are for assembly shown in Figure 19. 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.