

For applications requiring fasteners with both **high torque transfer capabilities** and **low head height**, external TORX PLUS® low-profile head fasteners are the ideal choice. They are engineered to **provide improved performance** over hex drive fasteners without added head volume.



STANDARD DESIGN GUIDELINES

- Fastener Sizes:** M0.8 to M18 (#000 to 5/8")
- Drive System:** External TORX PLUS® Drive
- Head Styles:** Dome or indented head with hex flange or pan head bearing surface
- Thread Styles:** can be used with any thread style

For more information on how low-profile TORX PLUS® Drive fasteners can benefit your assembly, please contact:



900 North Church Road.
Elmhurst, IL 60126
Phone: (800) 323-1736 / (630) 833-2880

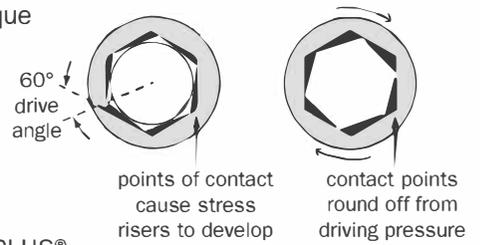
www.semblex.com

Email: sales@semblex.com

SUPERIOR PERFORMANCE AND STRENGTH

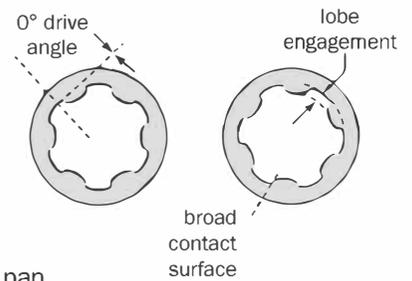
The external hex drive allows high torque transmission, but can fail quickly due to weaknesses inherent in its design.

Hex Drive System



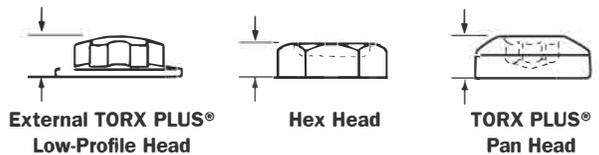
External TORX PLUS® low-profile head fasteners are engineered to provide optimal torque transfer and extended tool life, with a head height similar to hex or pan head fasteners.

TORX PLUS® Drive System



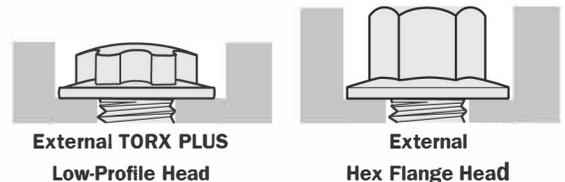
FEATURES

- Hex flange head or pan head bearing surface
- 0° drive angle
- Lobe engagement spreads forces over large area to prevent stress risers and tool and fastener damage
- Higher torque transfer capability than internal recesses
- Drive system strength 5 to 6 times greater than corresponding seating torque
- Head height is similar to hex or pan head fasteners
- Lower head volume (weight) than hex and pan head fasteners (18% and 41% respectively)



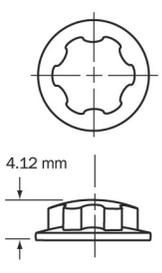
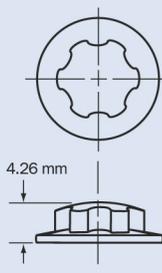
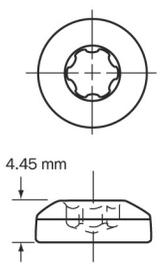
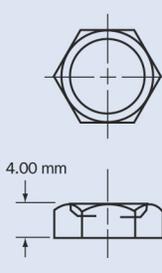
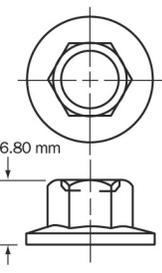
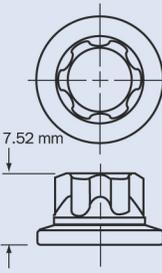
BENEFITS

- Ensures optimal torque transmission and clamp load
- Allows high torque transfer without damage to fastener
- Ideal drive system for applications that require high strength and torque capability in a low-profile head



- Minimizes space required to accommodate head height
- Excellent high-torque drive system for miniature fasteners
- Reduced wear on drive tools for extended tool life

HEAD HEIGHT AND VOLUME COMPARISON

						
Drive System	External TORX PLUS® Drive	External TORX PLUS® Drive	Internal TORX PLUS® Drive	External Hex Drive	External Hex Drive	External TORX PLUS® Drive
Head Style	Low-profile Head	Low-Profile Flange Head	Pan Head	Indented Hex Head	Indented Hex Flange Head	Flange Head
Head Height Ratio	1.00	1.03	1.08	0.97	1.65	1.83
Head Volume (Weight) Ratio	1.00	1.15	1.41	1.18	1.88	1.64

EXTERNAL TORX PLUS® LOW-PROFILE HEAD FASTENERS STANDARD DRIVE SIZE SELECTION TABLE

Drive Size	Screw Size	
	Inch	Metric
H4EP	#000	M0.8
H3EP	—	M1.0
H2EP	#00	M1.2
1EP	#0	M1.6
2EP	#1	M2.0
4EP	#2 & #3	M2.5
5EP	#4 & #5	M3.0
6EP	#6	M3.5
7EP	#8	M4.0
8EP	#10	M4.5 & M5.0
10EP	#12 & 1/4	M6.0
12EP	—	M7.0
14EP	5/16	M8.0
16EP	3/8	M10.0
18EP	7/16	—
20EP	—	M12.0
22EP	1/2	—
24EP	9/16	M14.0
26EP	5/8	M16.0
30EP	—	M18.0

Note: Special sockets are required for installing external TORX PLUS® low-profile head fasteners.