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



STANDARD DESIGN GUIDELINES

Fastener Sizes: M0.6 to M24 (#0000 to 1")

Head Styles: Dome or indented head with hex flange or pan head bearing surface

Thread Styles: Can be used with any thread style

NOTE: Special sockets are required.

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



6125 Eighteen Mile Road Sterling Heights, Michigan 48314

> acument.com acumentnorthamerica.com

Superior Performance and Strength

60

drive

angle

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

points of contact cause stress risers to develop

External Hex Drive

contact points round off from driving pressure

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.

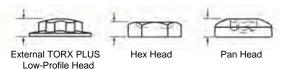
TORX PLUS Drive Of drive tobe angle engagement

> broad contact

surface

FEATURES

- Hex flange head or pan head bearing surface
- 0° drive angle
- Lobe engagement spreads forces over large area to prevent stress risers that cause tool and fastener damage
- Higher torque transfer capability than corresponding internal recesses
- Drive system strength 5 to 6 times grater than normal 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

- Provides high strength and torque capability in a lowprofile head
- Ensures optimal torque transmission and clamp load
- Allows high torque transfer without damage to fastener
- Minimizes space required to accommodate head height



- Excellent high-torque drive system for miniature fasteners
- Reduces wear on drive tools for extended tool life



HEAD HEIGHT AND VOLUME COMPARISON

	4.12 mm	4.12 mm ↓ ↑	4.26 mm	4.26 mm
DRIVE SYSTEM	External TORX PLUS Drive	External TORX PLUS Drive	External TORX PLUS Drive	External TORX PLUS Drive
HEAD STYLE	Dome Low-Profile Head	In den ted Low-Profile Head	Dome Low-Profile Flange Head	Indented Low-Profile Flange Head
HEAD HEIGHT RATIO	1.00	1.00	1.03	1.03
HEAD VOLUME RATIO	1.00	0.97	1.15	1.11
	4.45 mm	4.00 mm	6.80 mm	7.52 mm
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DRIVE SYSTEM	Internal TORX PLUS Drive	External Hex Drive	External Hex Drive	External TORX PLUS Drive
HEAD STYLE	PanHead	In de nte d Hex He ad	Indented Hex Flange Head	Flange Head
HEAD HEIGHT RATIO	1.08	0.97	1.65	1.83
HEAD VOLUME RATIO	1.41	1.18	1.88	1.64

External TORX PLUS Low - Profile Head Fasteners Standard Drive Size Selection Table

Drive	Screw Size		DB		Screw Size	
			Drive			
Size	Ілсн	METRIC	Siz	ZE INCH	H METRIC	
H7EP	#0000	M0.6	14E	EP 5/16	6 M8.0	
H4EP	#000	M0.8	16			
	#000			J/0	1010.0	
H3EP		M1.0	1 8E	EP 7/16	;	
H2EP	#00	M1.2	20E	EP	M12.0	
1EP	#0	M1.6	22E	EP 1/2		
2EP	#1	M2.0	24E	EP 9/16	6 M14.0	
4EP	#2 & #3	M2.5	26E	EP 5/8	M16.0	
5EP	#4 & #5	M3.0	30E	EP	M18.0	
6EP	#6	M3.5	32E	EP 3/4	M20.0	
7EP	#8	M4.0	36E	EP 7/8	M22.0	
8EP	#10	M4.5 & M5.0	40E	EP	M24.0	
10EP	#12 & 1/4	M6.0	42E	EP 1		
12EP		M7.0				