



DrillFast® Carbon DF3-Hex Standard fasteners

Carbon steel self-drilling general construction fasteners

Application

- For mechanically fixing metal sheeting systems to light metal purlins and rails.
- For mechanically fixing components of steel and metal framing systems

Key Features

- Superior quality carbon steel
- Excellent drilling and tapping performance
- Consistently high pull-out and shear performance
- Purpose designed and precision manufactured by Fixfast
- Available in either gold or silver finish

Technical Data

Document reference

FF P DF3HEX 001

01 FASTENER SYSTEMS
DrillFast® Carbon Fasteners

DF3-HEX Standard fasteners

Specification	
Material	Steel SAE1022 case hardened
Coating	Bright Zinc Plating
Head Type	Hexagon 8mm
Drilling Capacity	1.2 – 3.0mm Steel

Installation and handling	
Installation tool	Variable speed electric screwdriver
Installation drive	Fixfast Yellowdrive
Installation speed	1500rpm
Correct installation	Fasteners should be driven within three degrees of perpendicular to the surface of the fastened material. Use a depth-setting nosepiece to avoid over-driving, and do not over-tighten. Care should be taken when engaging and disengaging from the fastener head to avoid damage to the protective coating.
Handling	Fasteners may have sharp edges, and the use of power tools can be dangerous. Use personal protective equipment. Store fasteners in dry conditions. Inspect each fastener before use and do not use damaged fasteners. Replace any fasteners which appear to have been installed incorrectly.

Installation details		
Substrates	Thickness limits	Minimum penetration
Light steel purlins	1.2mm – 3.0mm thickness	11mm through underside

Dimensions		
Fastener	Nominal length	Nominal diameter
DF3-HEX-4.8 x 20 GOLD/ SILVER	20mm	4.8mm

Build-ups	
Fastener	No washer
DF3-HEX-4.8 x 20	0-5mm

Build-up figures are shown for installation into standard 3.0mm thickness steel. Figures may be increased by the difference in substrate thickness for thinner materials. For assistance with selecting the correct fastener please contact Fixfast.

Performance		
Pull-out values (axial load resistance)		
Substrate	Characteristic Value	Design Value
1.2mm steel*	1.18 kN	0.89 kN
2.0mm steel*	2.35 kN	1.77 kN
3.0mm steel*	4.09 kN	3.07 kN

Shear Values (lateral load resistance)		
No washer	Material (i)	
	Metal sheeting: 0.5mm	
Material (ii)	Characteristic Value	Design Value
3.0mm steel*	2.32 kN	1.74 kN
Failure mode: hole elongation in sheeting material		

Steel S275 nominal, Metal sheeting 0.5mm.
Design values include safety factor $\gamma_m = 1.33$.

* In-house testing to BS5427

Other figures and specific testing are available on request. For more information please contact FIXFAST Customer Service.

