## USG Structural Solutions

# USG STRUCTURAL PANEL RECOMMENDED TOOLS

USG Structural Panels are mechanically fastened to cold-formed steel joists, trusses or wood framing members. This document provides information regarding the recommended tools for proper installation of the panels, including recommended screws to attach the panels to the framing, as well as recommended tools for cutting the panels, creating penetrations, and attaching roof shingles.

To better secure and facilitate installation of USG Structural Panels to framing, USG recommends a variable-speed, high-torque drive with extension system. The use of ordinary high-speed, low torque drill guns are more likely to strip screw heads, thereby making it difficult to properly secure the panel to the steel framing. This may result in gapping between the panel and the supporting framing. Gaps formed by improper tightening of the fastener may result in the future settling of the panel onto the framing under normal floor loading, causing screw heads to rise up from the panel and protrude through underlayment and/or floor coverings.

USG recommends the following fasteners and fastening systems for the attachment of the screws listed above:

Framing Type	Compatible Fasteners <sup>4</sup>	Manufacturer & Fastening Model No.	Bits
CFS'	CGH8158LG	Grabber Construction Products 7525XT	T2178LN
		Hitachi Power Tools W6vB3SD2	
		Makita 6844 w. extension 194500-1	
	CBSDQ158S	Simpson Strong-Tie Company Quik Drive® PRO250 Subfloor System	BIT2SU
HRS <sup>2</sup>	CC12250LRG	Grabber Construction Products 7525XT	T3178LN
		Hitachi Power Tools W6vB3SD2	
		Makita 6844 w. extension 194500-1	
	TBG1260S	Simpson Strong-Tie Company Inc. Quik Drive® PROHSD60 or PROHSD75	BIT3SU
SPF Lumber <sup>3</sup>	C8200L2M	Grabber Construction Products 7525XT	T2178LN
		Hitachi Power Tools W6vB3SD2	
		Makita 6844 w. extension 194500-1	
	WSNTLG2S	Simpson Strong-Tie Company Inc. BIT3SU Quik Drive* PRO250 Subfloor System	
	GL24AABF <sup>4</sup>	SENCO <sup>5</sup> SCN65XP	-

Notes:

- 1. Cold-formed steel shall comply with AISI-General, with a minimum 54 mils or .0538-inch base metal thickness (No.16 gauge) and a minimum C60 galvanized coating. (1/2 in. [13 mm] Min. Edge Distance)
- 2. HRS Hot-Rolled Steel shall be 1/4 in. (6.5 mm); A36 Hot-Rolled Steel (3/4 in. [19 mm] Min. Edge Distance)
- 3. SPF Lumber 5/8 in. (16 mm) Min. Edge Distance
- 4. Fastener pull-through capacities can be found in PER 13067
- 5. SENCO 8d ring shank nails are manufactured with a length of 2-3/8 in. (60 mm), head diameter of 0.266 in. (6.75 mm) and a shank diameter of 0.113 in. (2.87 mm). Equivalent 8d ring shank nails meeting these dimensional requirements may be utilized when approved by the engineer or designer of record.

General Notes: In accordance with PER-13067, the minimum screw pattern is 6 in. (153 mm) o.c. along the perimeter of the panels and 12 in. (305 mm) o.c. in the field of the panels. Do not use a larger size screw unless specified by the structural engineer. A qualified architect or engineer should review and approve calculations, framing and fastener spacing for all projects.



## RECOMMENDED FASTENERS WITH FASTENING SYSTEMS



CUTTING SYSTEM	Cutting the USG Structural Panel requires a carbide-tipped saw blade and a circular saw equipped with dust collection or suppression to control airborne dust.			
	The dust collection systems can be:			
	Festool® Dust Extractor CT36 with HEPA filter			
	<ul> <li>Makita Model no. 5057KB – Circular Saw with Dust Collector</li> </ul>			
	DEWALT DWE575DC Dust Collection Adapter for DWE575/DWE575SB			
	DEWALT DWS520SK Track Saw with Dust Collection			
	<b>Note:</b> Do not use wet-blades or diamond-blades, as these will not efficiently cut the USG Structural Panel.			
DDITIONAL TOOLS	<b>For penetrations,</b> USG recommends the use of a common circular metal hole saw to make penetrations for pipe and conduit installation.			
	<b>For electrical outlet openings and cut-outs,</b> USG recommends the use of rotary tools, such as RotoZip® with 1/8 (3.25 mm) carbide steel spiral saw zip bit.			
	<b>For the attachment of shingles,</b> USG recommends the use of electro-galvanized collated roofing nails delivered by a professional grade pneumatic nailer with an air supply between 100 to 120 psi.			
	For floor anchorage, USG recommends the use of Toggler® Brand SNAPTOGGLE® Toggle bolts or SFS Intec (part no. TPR-L-6) for the attachment of anchors to USG Structural Panels. In accordance with PER-13067, a qualified architect or engineer should review and approve withdrawal capacities, anchor type and spacing for all projects.			
	<b>For personal protection,</b> USG recommends wearing safety glasses and a NIOSH-Approved N95 dust mask when cutting the panel. Dispose of collected dust in a safe manner and in compliance			

**For personal protection,** USG recommends wearing safety glasses and a NIOSH-Approved N95 dust mask when cutting the panel. Dispose of collected dust in a safe manner and in compliance with local, state and federal laws and regulations. The contractor, installer, or other professionals who are responsible for the job site and familiar with its conditions shall be responsible for compliance with applicable health and safety laws.

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PRODUCT INFORMATION See usg.com for the most up-to-date product information.

#### DANGER

Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May cause cancer by inhalation of respirable crystalline silica. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Use only in a well-ventilated area, wear a NIOSH/MSHA approved respirator. Wear protective gloves/protective clothing/eye protection. If in eyes: rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing. Immediately call a poison center/doctor. If on skin: wash with plenty of water. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. If skin irritation or rash occurs, or otherwise exposed or concerned: get medical attention. Store locked up. Dispose of in accordance with local, state, and federal regulations. For more information call Product Safety: 800 507-8899 or see the SDS at usg.com. **KEEP OUT OF REACH OF CHILDREN.** 

**CONTACT INFO** 

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Manufactured by United States Gypsum Company 550 West Adams Street Chicago, IL 60661 MSRP based upon full truckload delivered to jobsite: Subfloor: \$4.50/sf Roof Deck: \$5.40/sf Foundation Wall SD: \$4.90/sf Foundation Wall XD: \$7.50/sf

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