

USG STRUCTURAL PANEL TOOLS

A qualified architect or engineer should review and approve the calculations, framing, and fastener spacing for all projects.

Efficiently cutting and fastening USG Structural Concrete Panels, also known as USG Structo-Crete™ Panels, require the proper tools and accessories. These are suggested tools for use in applying USG Structural Panels. USG recommends that you review and follow all manufacturer guidelines for the use and care of any tools used to install our products and accepts no responsibility for their use or warranty. The recommendations provided are based on the control of dust during the cutting of the panels.

OSHA Respirable Crystalline Silica Standard for Construction - Rule 29 CFR 1926.1153

As the cutting of our product is not covered in Table 1, USG recommends that a competent person develop a written exposure control plan and follow the steps to determine the exposure potential of workers and the control plan methods.

Cutting Tools

For straight cuts, use a hand held circular saw with a carbide-tipped framing blade. A diamond or other specialty blade is not required.

- Blade examples (model #'s subject to change by Mfr):
 - Diablo D0724X - 7 ¼", 24 T Carbide-Tipped
 - Makita T-01426 - 6 ½", 24 T Carbide-Tipped

Per OSHA Rule 29, saws used outside with blades 8" or less must be equipped with a dust collection port and a VDCS (vacuum dust collection device) rated at over 80 cubic feet per minute with a 99% or greater filter efficiency. For improved control of dust use a HEPA filter on the vacuum.

- Circular saw examples (model #'s subject to change by Mfr):
 - Makita - 5057KB 7 ¼" (Corded)
 - DeWalt - DWS520K 6 ½" Track Saw (Corded)
 - SkilSaw - SPT67FMD-01 7 ¼" (Corded)
- VDCS examples (model #'s subject to change by Mfr):
 - Makita - VC410
 - DeWalt - DWV012

For making small openings, use the appropriate size hole saw or rotary tool with dust collector port and VDCS.

- Hole saw examples (model #'s subject to change by Mfr):
 - Milwaukee 49-56-3003 Carbide Tipped Hole Saw
 - Diablo Tools DHS3000 Bi-Metal Hole Saw.
- Rotary tool examples (model #'s subject to change by Mfr):
 - Roto-Zip XB-UL1, WD1, XB-TC1

Fastening Tools

Steel Framing: Stand-up style, 2500 RPM or less variable speed screw gun is recommended. Do not use dry or wet lubricants in the drive head mechanism of stand-up drivers. Remove dust frequently with dry, clean compressed air, such as canned air.

- Stand-Up driver examples
 - Grabber SuperDrive 75
 - Simpson Quik Drive Pro250
 - Muro HDVL71 Heavy Duty Driver
- Wood Framing: Senco SCN65XP Coil Nailer

Fastener Drive Bits

Fastener selection is based on several criteria and will affect framing type, framing flange size, minimum end distance for fastener insertion, and driver/drive bit used. Only USG recommended fasteners should be used and must be inserted according to the fastener pattern specified.

Framing Type ¹	Fastener Manufacturer	Part Number	Fastener Description ³	Drive Bit Part Number
54-97 mil (16-12 ga) CFS²	Grabber Construction Products, Inc.	CGH8158LG	#8 x 1-5/8" Winged Flat Wafer Head Self-Drilling Screw	T217LN LOX [®] #2 (178 MM) ⁵
	Simpson Strong-Tie Company, Inc.	CBSDQ158S	#8 x 1-5/8" Winged Self-Drilling Screw	BIT2SU #2 (undersized sq.)
33²-43 mil (20²-18 ga) CFS	Grabber Construction Products, Inc.	CGH8158LG	#8 x 1-5/8" Winged Flat Wafer Head Self-Drilling Screw	T217LN LOX [®] #2 (178 MM) ⁵
SPF Lumber	Grabber Construction Products, Inc.	C8200L2M	#8 x 2" Flat Head Type 17 Nibs, GrabberGard	T217LN LOX [®] #2 (178 MM) ⁵
	Simpson Strong-Tie Company, Inc.	WSNTLG2S	#8 x 2" Flat Head Twin Threads Nibs	BITX25 T-25 (6 lobe star)
	SENCO Brands, Inc.	GL24AABF	8d Ring Shank Nails ⁴	N/A
118 mil (10 ga) CFS & 1/4" A36 A36 HRS	Simpson Strong-Tie Company, Inc.	TBG1260S	#12 x 2-3/8" Flat Head, Strong-Drive [®] TB Wood-to-Steel Screw	BIT3 SU #3 (undersized sq.)
	Muro North America, Inc.	RSM645WFL -GY	M6.0 x 45 mm Winged Self-Drilling Screw	#3 SQ

Notes:

- CFS = cold-formed structural steel HRS = hot-rolled structural steel Lumber = specific gravity 0.42 or greater. Gauge/thickness of steel is shown for fastener usage, min. end distance and min. flange width illustration purposes only. Framing gauge, size and type is determined by the engineer, architect or design professional of record.
- 33 mil (structural 20 ga) is for gravity loads only.
- Any length of the same fastener is approved provided a minimum of 3 threads penetrate the steel framing.
- SENCO 8d ring shank nails are manufactured with a length of 2-3/8 in., head diameter of 0.266 in. and a shank diameter of 0.113 in. Equivalent 8d ring shank nails meeting these dimensional requirements may be utilized when approved by the engineer or designer of record.
- Grabber SuperDrive 75 uses the 178mm LOX[®] #2 drive bit. They also offer a 3" LOX[®] #2 drive bit for hand held drill use, Part # 3002L.

General Note: In accordance with [PER-13067](#) (Subfloor) and [PER-14076](#) (Roof Deck), the minimum screw pattern is 6 in. (153 mm) o.c. along the perimeter and 12 in. (305 mm) o.c. in the field of the panels. Do not use a larger size fastener unless specified by the structural engineer.

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PRODUCT INFORMATION

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

DANGER

The following are warnings when installing the panels. 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.

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800 (874-4968)
usg.com/structural

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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