USG STRUCTURAL PANEL TOOLS

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. Model numbers subject to change by tool manufacturers. 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 specifically covered in Table 1, USG recommends that a competent person develop a written exposure control plan and follow the steps necessary 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:
  – Diablo D0724X – 7-1/4”, 24 T Carbide-Tipped
  – Makita T-01426 – 6-1/2”, 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:
  – Makita – 5057KB 7-1/4” (Corded)
  – DeWalt – DWS520K 6-1/2” Track Saw (Corded)
  – SkilSaw – SPT67FMD-01 7-1/4” (Corded)

• VDCS examples:
  – 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:
  – Milwaukee 49-56-3003 Carbide Tipped Hole Saw
  – Diablo Tools DHS3000 Bi-Metal Hole Saw

• Rotary tool examples:
  – 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 Drivers:
  – Grabber SuperDrive® 75
  – Simpson Quik Drive® Pro250
  – Muro HDVL71 Heavy Duty Driver

• Power Actuated Tools:
  – Aerosmith® HN120
  – DeWalt DFD270
  – Hilti DX 5-MX

• Wood Framing:
  – SencoSCN65XP 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.

<table>
<thead>
<tr>
<th>Framing Type (mil)</th>
<th>Fastener Manufacturer</th>
<th>Fastener Part Number</th>
<th>Fastener Description</th>
<th>Drive Bit Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>332 mil (32 ga) CFS</td>
<td>Grabber Construction Products, Inc.</td>
<td>CM10178JBBWRC</td>
<td>#10 x 1-7/8&quot; Flat Head DRIVALL® Pilot Point Self-Drilling Screw</td>
<td>T2178LN LOX* #2 (78 mm)*</td>
</tr>
<tr>
<td>43 mil (18 ga) CFS</td>
<td>Grabber Construction Products, Inc.</td>
<td>CGH158SLG</td>
<td>#8 x 1-5/8&quot; Winged Flat Wafer Head Self-Drilling Screw</td>
<td>T2178LN LOX* #2 (78 mm)*</td>
</tr>
<tr>
<td>54 mil (16 ga) — 97 mil (12 ga) CFS</td>
<td>Grabber Construction Products, Inc.</td>
<td>CGH158SLG</td>
<td>#8 x 1-5/8&quot; Winged Flat Wafer Head Self-Drilling Screw</td>
<td>T2178LN LOX* #2 (78 mm)*</td>
</tr>
<tr>
<td>1/4&quot; (6.4 mm) A36 HRS*</td>
<td>Grabber Construction Products, Inc.</td>
<td>CC12250LRG</td>
<td>#12 x 2-1/2&quot;, Winged Self-Drilling Screw</td>
<td>T3178LN LOX* #3 (78 mm)*</td>
</tr>
<tr>
<td>1/8 in (3.2 mm) — 1/2 in (13 mm) A36 HRS</td>
<td>DeWalt - Engineered by Powers, Inc.</td>
<td>50458-PWR</td>
<td>0.157 x 1-1/4&quot; Knurled Shank Powder Actuated Fastener</td>
<td>BIT3SU #3 (undersized sq.)</td>
</tr>
<tr>
<td>SPF Lumber</td>
<td>Aeromist® Fastening</td>
<td>5324HPG</td>
<td>.145 x 1-1/4&quot; Helical PowerPin®</td>
<td>Tool Setting and Load will vary based on steel thickness and hardness</td>
</tr>
<tr>
<td></td>
<td>HiTi, Inc.</td>
<td>X-U 32 MX</td>
<td>0.157 x 1-1/4&quot; Knurled Shank Powder Actuated Fastener</td>
<td>SPF Lumber</td>
</tr>
<tr>
<td></td>
<td>(#8 x 1-5/8&quot;)</td>
<td>8d Ring Shank Nails*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table Notes:**

1. **CFS =** cold-formed structural steel  **HRS =** hot-rolled structural steel  **Lumber =** specific gravity 0.42 or greater.  
2. Gauge/thickness of steel; fastener end distance, and joist flange width is identified for each fastener and are minimums. Framing gauge, size & type is determined by the engineer, architect or design professional.  
3. 33 mil (structural 20 ga) is for gravity loads only.  
4. Any length of the same fastener is approved provided a minimum of 3 threads penetrate the steel framing.  
5. **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.  
6. **SuperDrive**® 75 uses the 178mm LOX® #3 drive bit. They also offer a 3" LOX® #3 drive bit for drill use, Part #3003L.

**General Note:** In accordance with PER-15067 (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. Refer to PER-15092 for Foundation Wall fastener schedules.

<table>
<thead>
<tr>
<th>Foundation Wall SD:</th>
<th>Foundation Wall XD:</th>
</tr>
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<tbody>
<tr>
<td>$4.90/sf</td>
<td>$7.50/sf</td>
</tr>
<tr>
<td>Foundation Wall SD:</td>
<td>Foundation Wall XD:</td>
</tr>
</tbody>
</table>

**Contact our industry experienced Field Technical Sales Manager, Tim Lucas, for assistance with construction detail and installation issues.**

**TIM LUCAS**

Technical Sales Manager - Field  
tlucas@usg.com  
312-436-5748