Hot tapping is a process by which a nozzle or hot tap saddle is added to a pressurized pipeline to allow flow into or out of the pipeline, install instruments, sampling probes or to install an inflatable pipe plug. All hot taps should be designed, fabricated, inspected, and tested in accordance with the original code of construction, typically the ASME Code Section VIII Division 1 and API Recommended Practice RP 2201, “Procedures for Welding or Hot Tapping on Equipment in Service.” The hot tapping machine and nozzle design should be checked for weight and thermal load capacity of the pipeline. Welding a hot tap nozzle to the pipeline requires consideration given to dissipating the heat to avoid damaging the pipeline or combustion of the fluid inside the vessel.

**Model 261-0020-K Hot Tapper Kit for 1/2" - 2" (12.7-50.8mm)**


**Model 261-0060-K Hot Tapper Kit for 1/2" - 6" (12.7-152.4mm)**


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**Recommended Drill Speeds (RPM)**

<table>
<thead>
<tr>
<th>Actual Hole Size</th>
<th>Mild Steel</th>
<th>Cast Iron</th>
<th>Stainless Steel</th>
<th>Actual Hole Size</th>
<th>Mild Steel</th>
<th>Cast Iron</th>
<th>Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>550</td>
<td>440</td>
<td>295</td>
<td>2-3/8&quot;</td>
<td>135</td>
<td>90</td>
<td>70</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>460</td>
<td>300</td>
<td>230</td>
<td>2-7/8&quot;</td>
<td>115</td>
<td>75</td>
<td>55</td>
</tr>
<tr>
<td>7/8&quot;</td>
<td>350</td>
<td>235</td>
<td>175</td>
<td>3-3/8&quot;</td>
<td>95</td>
<td>65</td>
<td>45</td>
</tr>
<tr>
<td>1-1/8&quot;</td>
<td>275</td>
<td>180</td>
<td>140</td>
<td>3-7/8&quot;</td>
<td>85</td>
<td>55</td>
<td>40</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>230</td>
<td>150</td>
<td>115</td>
<td>4-3/4&quot;</td>
<td>65</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>1-7/8&quot;</td>
<td>170</td>
<td>115</td>
<td>85</td>
<td>5-1/2&quot;</td>
<td>55</td>
<td>35</td>
<td>25</td>
</tr>
</tbody>
</table>
HOT TAPPING INSTRUCTIONS
With Petersen® Hot Tapping Equipment

Assembly

1. Attach pipe saddle to pipe trunk line per manufacturers instructions.
2. Attach trunk line hot tap valve to saddle per manufacturers instructions. Extra care is recommended on these joints as resealing after hot tapping would require relieving trunk line pressure.
3. Attach desired hole saw and pilot bit to Hot Tapper, tighten set screws to prevent units from separating during drilling operation.
4. Attach Hot Tapper unit tightly to trunk line hot tap valve; to prevent leakage of trunk line fluid.
5. Attach a drain hose to the Hot Tapper chip drain valve.

Testing for Leaks Prior to Hot Tapping

1. Pressurize drain hose with a fluid which is compatible with the trunk line fluid.
2. **CAUTION**: Do Not pressurize drain hose beyond 10% over trunk line pressure, the hose manufacturers recommendations, or higher than 120 psi. (Which ever is the lower pressure.)
3. Open both valves slowly and check for leaks, should leaks occur, immediately reduce pressure. (Any leaks should be repaired prior to Hot Tapping.)
4. Upon completion of leak testing, depressurize drain hose and place other end of hose in a location suitable to accept discharge of drill chips and trunk line fluid.

Hot Tapping

1. Attach drill, air ratchet, or manual wrench to Hot Tapper, follow related manufacturers operating instructions.
2. Open chip drain valve and fully open trunk line tap valve.
3. Insert Tapper to contact trunk line and drill at recommended RPM.

Removal

1. Retract drill from trunk line tap valve. **CAUTION**: Do Not retract 1/2” drill
2. Fully close trunk line tap valve.
3. Remove drill, hose, and Hot Tapper from trunk line hot tap valve.
   **CAUTION**: Do Not loosen trunk line tap valve or trunk line pipe saddle or trunk line fluid will escape causing injury to operator or damage to surroundings.
4. The trunk line tap valve is now ready for service, attaching lines, or plug insertion tubes.
HOT TAP PLUG INSERTION SYSTEMS
Please refer to the Petersen® insertion system instructions for more detailed information
Arbor, Hex for hole saws < 1-1/8" 910-8001
Arbor, Hex for hole saws ≥ 1-1/2" 910-8002
Drill Bit, ½” x 20” 910-8011
Packing Gland, ¾” mnpt x ½” ID 910-8103
Saw, Hole ¾” 910-9031
Saw, Hole 7/8” 910-9041
Saw, Hole 1-1/8” 910-9061
Saw, Hole 1-1/2” 910-9071
Saw, Hole 1-7/8” 910-9081
Saw, Hole 2-3/8” 910-9083
Saw, Hole 2-7/8” 910-9084
Saw, Hole 3-3/8” 910-9085
Saw, Hole 3-7/8” 910-9087
Saw, Hole 4-3/4” 910-9089
Saw, Hole 5-1/2” Deep cut 910-9091
Drill Shaft, 7/16” x 18” 910-9120
Drill Shaft, 7/16” x 24” 910-9124