

HOT TAP TOOLS OPERATING INSTRUCTIONS

POWER OPERATED TOOLS

1. Bolt saddle to pipe and install a close nipple and gate valve, of correct size for extended service.
2. Thread the assembly tube to the valve.
3. Open valve and slide hole saw through until pilot drill touches pipe. Tighten main gland by turning clockwise.
4. Attach 1/2" variable speed drill to drill rod. Start drill at proper speed and drill through pipe. When pipe is cut through, coupons will normally spin back into hole saw.
5. Retract hole saw and coupon out through the valve into assembly tube and close valve.
6. Un-thread Hot Tap Tool. Clear valve briefly by opening to flush out chips or cuttings that weren't washed back into assembly tube. Shut off valve and install piping.

MANUAL TOOLS

1. Bolt saddle to pipe and install a close nipple and gate valve of correct size for extended service.
2. Thread the assembly tube to the valve.
3. Open valve and slide hole saw through until pilot drill touches pipe. Tighten main gland by turning clockwise.
4. Slide the hex sleeve over the end of the drill or broach assembly. Using the supplied ratchet wrench, begin manual drilling with a clockwise motion, while applying force against the push rod by tightening ratchet support arm. When pipe is cut through, coupon will normally spin back into hole saw.
5. Retract hole saw and coupon out through the valve into assembly tube and close valve.
6. Un-thread Hot Tap Tool. Clear valve briefly by opening to flush out chips or cuttings that weren't washed back into assembly tube. Shut off valve and install piping.

See the following pages for parts list

| Nominal Size | Drill/Hole Saw | HTT Tool Sales number | Tube/Gland Assy Lgth Approx | Max Travel Approx |
|--------------|----------------|-----------------------|-----------------------------|-------------------|
| 1/2 | 1/2 | HTT-0050 | 7 1/2 | 11 1/16 |
| 3/4 | 11/16 | HTT-0075 | 7 1/2 | 10 9/16 |
| 1 | 7/8 | HTT-0100 | 7 1/2 | 10 9/16 |
| 1 1/4 | 1 1/8 | HTT-0125 | 7 5/8 | 10 9/16 |
| 1 1/2 | 1 5/16 | HTT-0150 | 8 7/8 | 15 9/16 |
| 2 | 1 3/4 | HTT-0200 | 8 1/2 | 15 9/16 |
| 2 1/2 | 2 1/8 | HTT-0250 | 8 5/8 | 15 9/16 |
| 3 | 2 3/4 | HTT-0300 | 9 | 15 9/16 |
| 4 | 3 1/2 | HTT-0400 | 9 7/8 | 43 1/4 |
| 5 | 4 1/2 | HTT-0500 | 11 | 43 1/4 |
| 6 | 5 1/2 | HTT-0600 | 11 3/4 | 43 1/4 |

QUESTIONS? Contact EST Group Customer Service at any of the following locations with questions.

In USA and Canada: tel: 800-355-7044, fax: 215-721-1101, e-mail: est-info@curtisswright.com

In Europe: tel: +31-172-418841, fax: +31-172-418849; e-mail: est-emea@curtisswright.com

In Asia: tel: +65-6745-8560, fax: +65-6742-8700, e-mail: est-asia@curtisswright.com

On the Internet: <http://estgroup.cwfc.com>

EST Group is a business unit of Curtiss-Wright Flow Control Company. **EST Group** provides a complete range of repair products, services and replacement parts covering the life cycle of tubular heat exchangers and condensers; additionally EST Group provides products and services to facilitate pressure testing pipe, piping systems, pressure vessels and their components. Visit EST Group on the Internet at <http://estgroup.cwfc.com>.

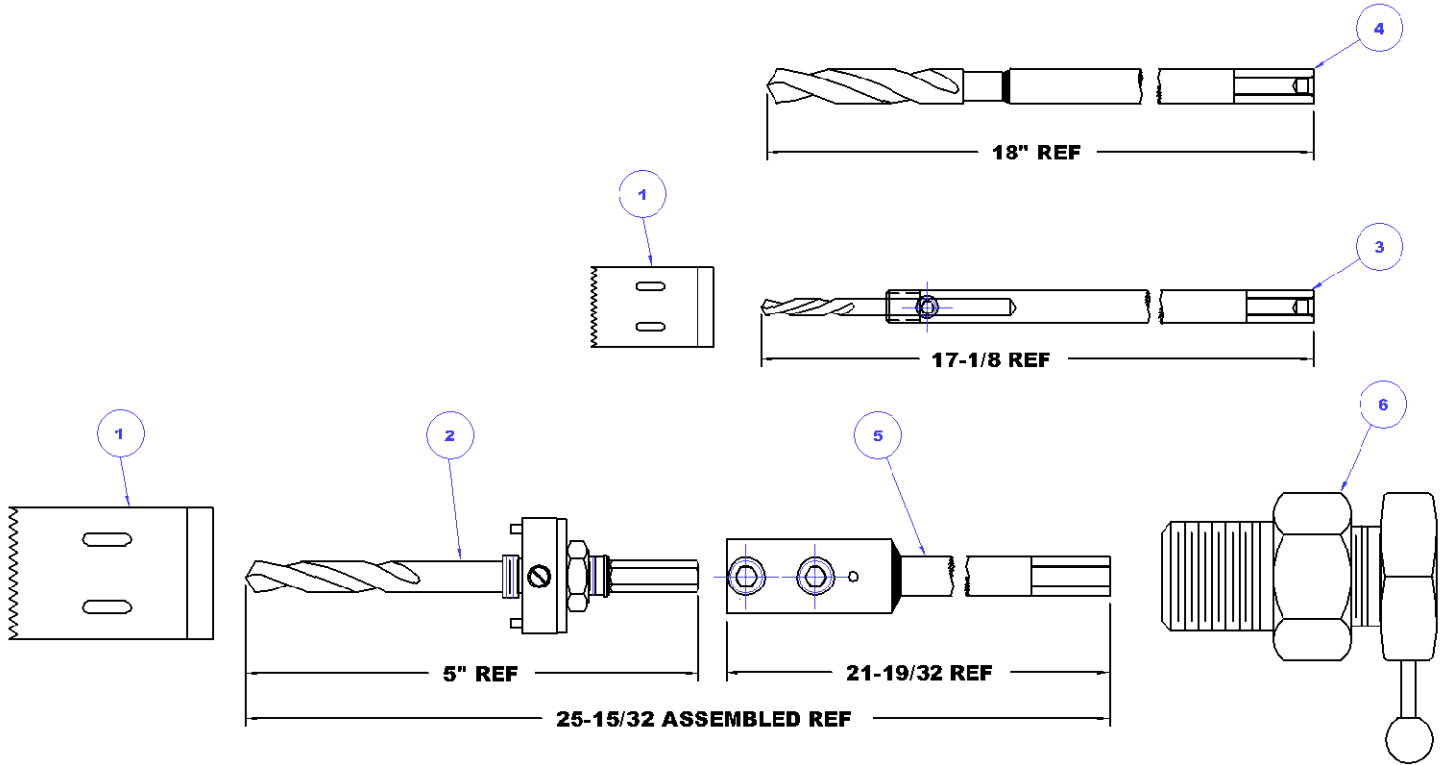


EST Group
2701 Township Line Rd
Hatfield, PA 19440-1770 USA
(P) 215.721.1100
800.355.7044
(F) 215.721.1101
est-info@curtisswright.com
<http://estgroup.cwfc.com>

Europe / Middle East / Africa
EST Group B.V.
Hoorn 312a
2404 HL Alphen aan den Rijn
The Netherlands
(P) +31.172.418841
(F) +31.172.418849
est-emea@curtisswright.com

Asia
EST Group Asia
35 Tannery Rd, #11-10 Tannery Block
Ruby Industrial Complex
Singapore 247740
(P) +65.6745.8560
(F) +65.6742.8700
est-asia@curtisswright.com

**HOT TAP KIT #2, POWER OPERATED
1/2" TO 2" NOMINAL TAPS, P/N: HTK-2000**



Error! Not a valid link.

| HTK-2000 HOT TAP KIT #2 | | | | |
|-------------------------|--------------|-------------|--------------------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | QTY |
| 1 | HTT-2102 | 3/4 | 1 1/16 HOLE SAW | 1 |
| | HTT-2103 | 1 | 7/8 HOLE SAW | 1 |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | 1 |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | 1 |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | 1 |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | 1 |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | 1 |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | 1 |
| 5 | HTT-2005 | 1 1/2 - 3 | 7/16 BROACH ASSY | 1 |
| 6 | HTT-2020 | 1/2 - 3 | GLAND ASSY | 1 |

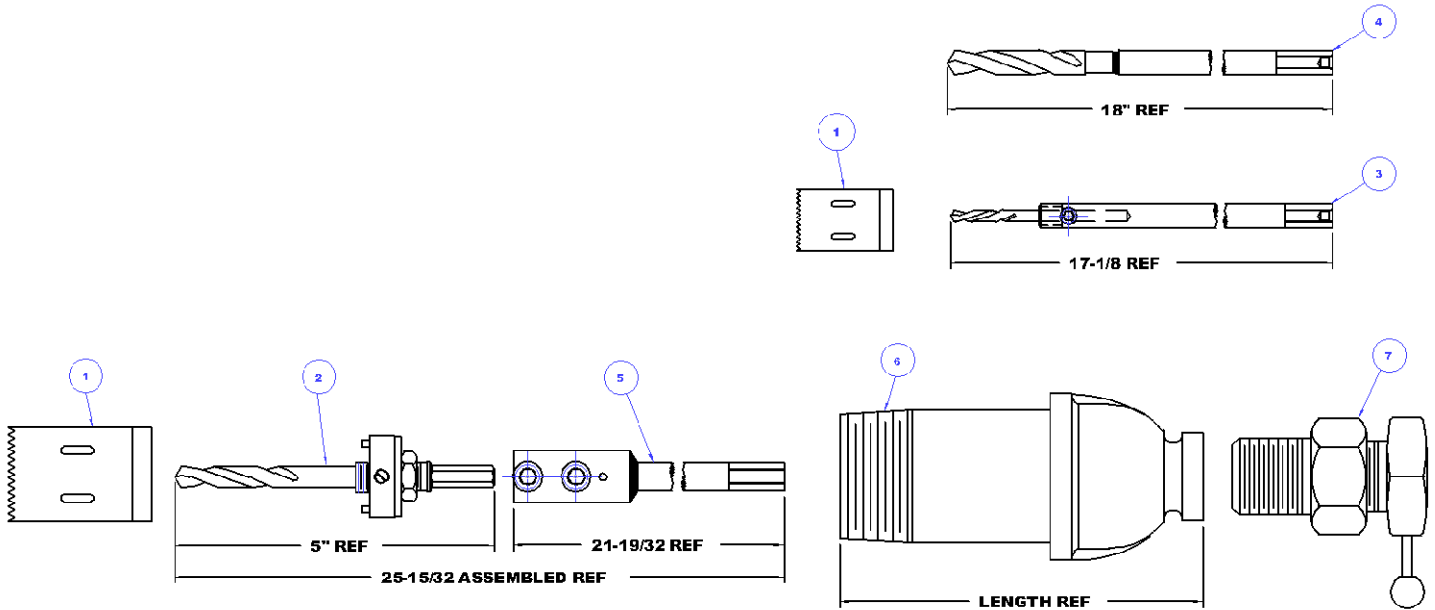


EST Group
2701 Township Line Rd
Hatfield, PA 19440-1770 USA
(P) 215.721.1100
800.355.7044
(F) 215.721.1101
est-info@curtisswright.com
http://estgroup.cwfc.com

Europe / Middle East / Africa
EST Group B.V.
Hoorn 312a
2404 HL Alphen aan den Rijn
The Netherlands
(P) +31.172.418841
(F) +31.172.418849
est-emea@curtisswright.com

Asia
EST Group Asia
35 Tannery Rd, #11-10 Tannery Block
Ruby Industrial Complex
Singapore 247740
(P) +65.6745.8560
(F) +65.6742.8700
est-asia@curtisswright.com

**HOT TAP KIT #3, POWER OPERATED
1/2" TO 2" NOMINAL TAPS, P/N: HTK-3000**



| HTK-3000 HOT TAP KIT #3 | | | | | |
|-------------------------|-------------|-------------|---------------------|----------|---|
| ITEM | PART NUMBER | TOOL SIZE | DESCRIPTION | QTY | |
| 1 | HTT-2102 | 3/4 | 1 1/16 HOLE SAW | 1 | |
| | HTT-2103 | 1 | 7/8 HOLE SAW | 1 | |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | 1 | |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | 1 | |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | 1 | |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | 1 | |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | 1 | |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | 1 | |
| 5 | HTT-2005 | 1 1/2 - 3 | 7/16 BROACH ASSY | 1 | |
| 6 | HTT-2201 | 1/2 | 1/2 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2202 | 3/4 | 3/4 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2203 | 1 | 1" ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2204 | 1 1/4 | 1-1/4 ASSEMBLY TUBE | 5-3/8 LG | 1 |
| | HTT-2205 | 1 1/2 | 1-1/2 ASSEMBLY TUBE | 6-5/8 LG | 1 |
| | HTT-2206 | 2 | 2" ASSEMBLY TUBE | 6-1/8 LG | 1 |
| 7 | HTT-2020 | 1/2 - 3 | POWER GLAND ASSY | 1 | |

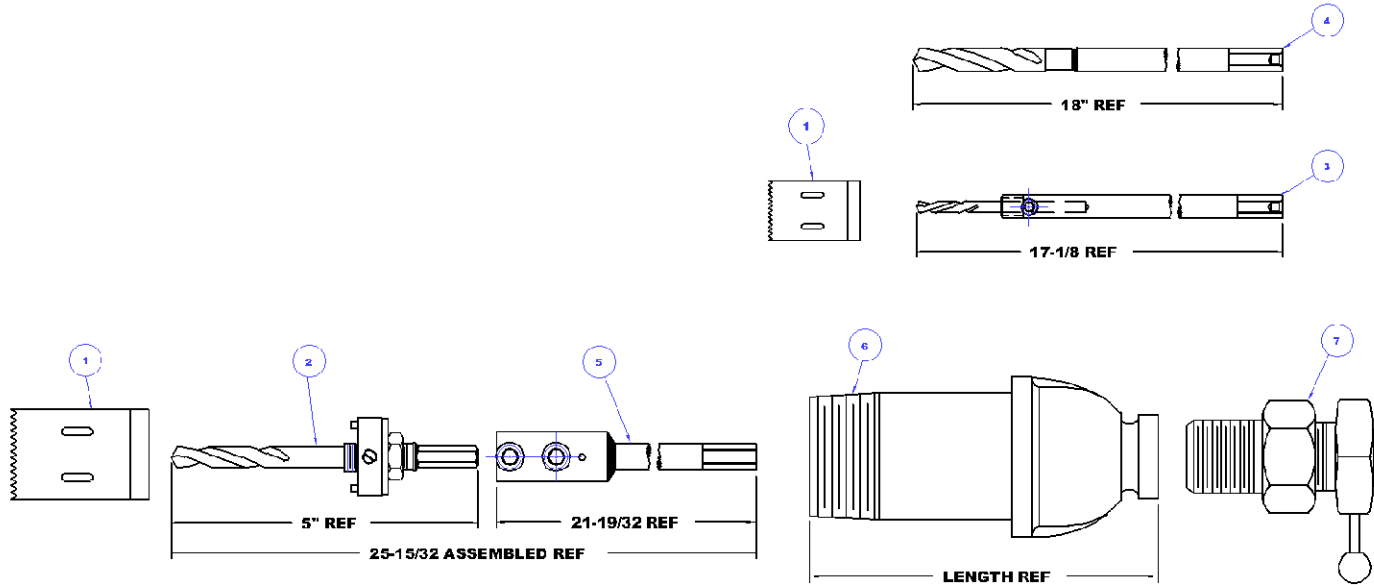


EST Group
 2701 Township Line Rd
 Hatfield, PA 19440-1770 USA
 (P) 215.721.1100
 800.355.7044
 (F) 215.721.1101
 est-info@curtisswright.com
 http://estgroup.cwfc.com

Europe / Middle East / Africa
 EST Group B.V.
 Hoorn 312a
 2404 HL Alphen aan den Rijn
 The Netherlands
 (P) +31.172.418841
 (F) +31.172.418849
 est-emea@curtisswright.com

Asia
 EST Group Asia
 35 Tannery Rd, #11-10 Tannery Block
 Ruby Industrial Complex
 Singapore 247740
 (P) +65.6745.8560
 (F) +65.6742.8700
 est-asia@curtisswright.com

**HOT TAP KIT #3A, POWER OPERATED
1/2" TO 3" NOMINAL TAPS, P/N: HTK-3500**



| HTK-3500 HOT TAP KIT #3A | | | | | |
|--------------------------|--------------|-------------|---------------------|----------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | | QTY |
| 1 | HTT-2102 | 3/4 | 1 1/16 HOLE SAW | | 1 |
| | HTT-2103 | 1 | 7/8 HOLE SAW | | 1 |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | | 1 |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | | 1 |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | | 1 |
| | HTT-2107 | 2 1/2 | 2-1/8 HOLE SAW | | 1 |
| | HTT-2108 | 3 | 2-3/4 HOLE SAW | | 1 |
| | 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | | 1 |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | | 1 |
| 5 | HTT-2005 | 1 1/2 - 3 | 7/16 BROACH ASSY | | 1 |
| 6 | HTT-2201 | 1/2 | 1/2 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2202 | 3/4 | 3/4 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2203 | 1 | 1" ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2204 | 1 1/4 | 1-1/4 ASSEMBLY TUBE | 5-3/8 LG | 1 |
| | HTT-2205 | 1 1/2 | 1-1/2 ASSEMBLY TUBE | 6-5/8 LG | 1 |
| | HTT-2206 | 2 | 2" ASSEMBLY TUBE | 6-1/8 LG | 1 |
| | HTT-2207 | 2 1/2 | 2-1/2 ASSEMBLY TUBE | 6-3/8 LG | 1 |
| | HTT-2208 | 3 | 3" ASSEMBLY TUBE | 6-5/8 LG | 1 |
| 7 | HTT-2020 | 1/2 - 3 | POWER GLAND ASSY | | 1 |

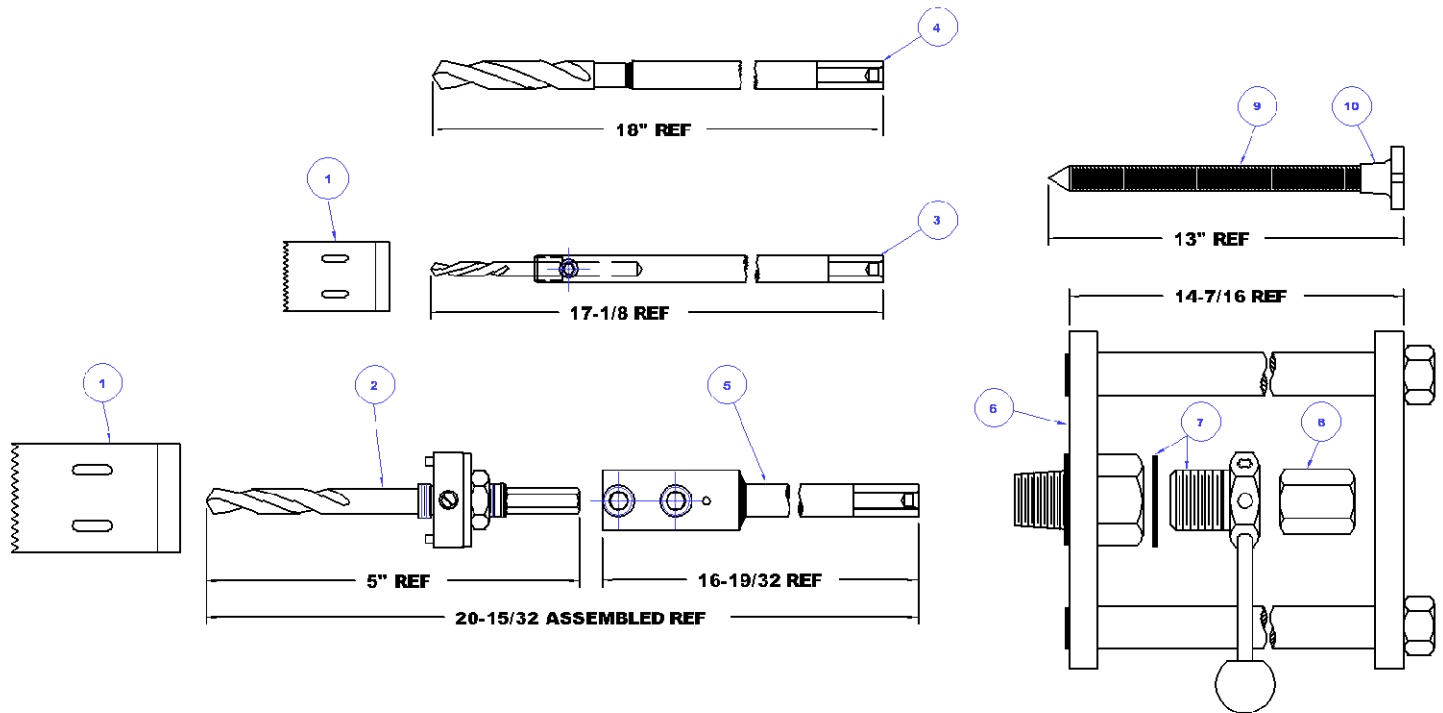


EST Group
 2701 Township Line Rd
 Hatfield, PA 19440-1770 USA
 (P) 215.721.1100
 800.355.7044
 (F) 215.721.1101
 est-info@curtisswright.com
 http://estgroup.cwfcc.com

Europe / Middle East / Africa
 EST Group B.V.
 Hoorn 312a
 2404 HL Alphen aan den Rijn
 The Netherlands
 (P) +31.172.418841
 (F) +31.172.418849
 est-emea@curtisswright.com

Asia
 EST Group Asia
 35 Tannery Rd, #11-10 Tannery Block
 Ruby Industrial Complex
 Singapore 247740
 (P) +65.6745.8560
 (F) +65.6742.8700
 est-asia@curtisswright.com

**HOT TAP KIT #4, MANUALLY OPERATED
1/2" TO 2" NOMINAL TAPS, P/N: HTK-4000**



| HTK-4000 HOT TAP KIT #4 | | | | |
|-------------------------|--------------|-------------|-------------------------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | QTY |
| 1 | HTT-2102 | 3/4 | 11/16 HOLE SAW | 1 |
| | HTT-2103 | 1 | 7/8 HOLE SAW | 1 |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | 1 |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | 1 |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | 1 |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | 1 |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | 1 |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | 1 |
| 5 | HTT-2005-M | 1/2 - 2 | 7/16 MANUAL BROACH ASSY | 1 |
| 6 | HTT-2015-M | 1/2 - 2 | HOT TAP FRAME | 1 |
| 7 | HTT-2020-M | 1/2 - 2 | MANUAL GLAND ASSY | 1 |
| 8 | HTT-2019-M | 1/2 - 2 | HEX SLEEVE | 1 |
| 9 | HTT-2016-M | 1/2 - 2 | MANUAL PUSH ROD | 1 |
| 10 | HTT-2017-M | 1/2 - 2 | MANUAL PUSH ROD KNOB | 1 |
| 11 | HTT-2018-M | 1/2 - 2 | HOT TAP RATCHET | 1 |

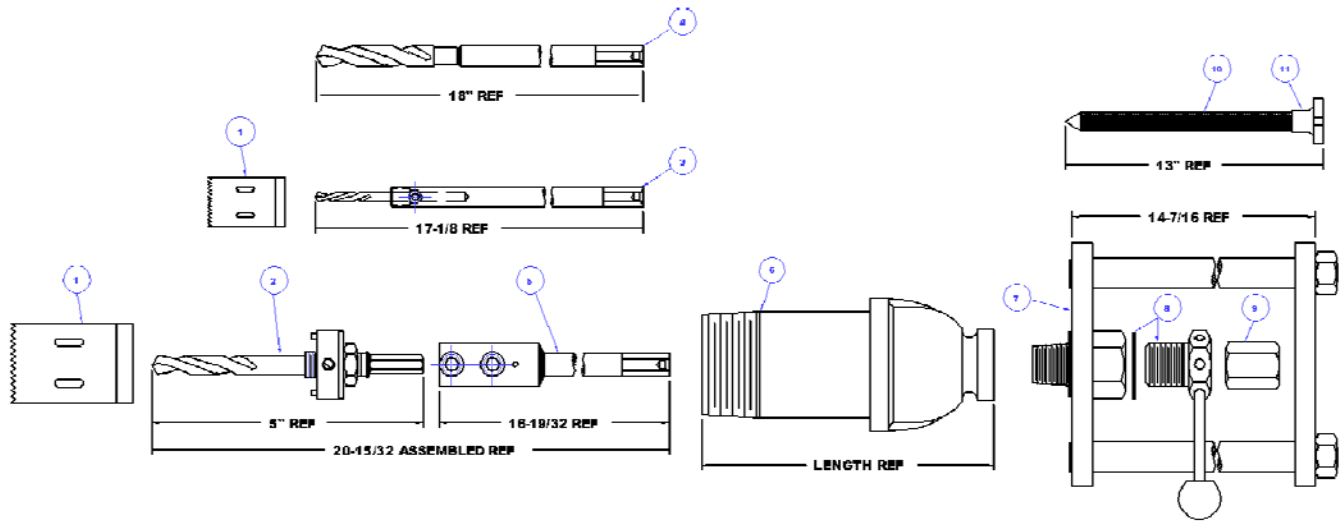


EST Group
2701 Township Line Rd
Hatfield, PA 19440-1770 USA
(P) 215.721.1100
800.355.7044
(F) 215.721.1101
est-info@curtisswright.com
http://estgroup.cwfcc.com

Europe / Middle East / Africa
EST Group B.V.
Hoon 312a
2404 HL Alphen aan den Rijn
The Netherlands
(P) +31.172.418841
(F) +31.172.418849
est-emea@curtisswright.com

Asia
EST Group Asia
35 Tannery Rd, #11-10 Tannery Block
Ruby Industrial Complex
Singapore 247740
(P) +65.6745.8560
(F) +65.6742.8700
est-asia@curtisswright.com

**HOT TAP KIT #5, MANUALLY OPERATED
1/2" TO 2" NOMINAL TAPS, P/N: HTK-5000**



| HTK-5000 HOT TAP KIT #5 | | | | | |
|-------------------------|--------------|-------------|-------------------------|----------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | | QTY |
| 1 | HTT-2102 | 3/4 | 1 1/16 HOLE SAW | | 1 |
| | HTT-2103 | 1 | 7/8 HOLE SAW | | 1 |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | | 1 |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | | 1 |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | | 1 |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | | 1 |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | | 1 |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | | 1 |
| 5 | HTT-2005-M | 1/2 - 2 | 7/16 MANUAL BROACH ASSY | | 1 |
| 6 | HTT-2201 | 1/2 | 1/2 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2202 | 3/4 | 3/4 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2203 | 1 | 1" ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2204 | 1 1/4 | 1-1/4 ASSEMBLY TUBE | 5-3/8 LG | 1 |
| | HTT-2205 | 1 1/2 | 1-1/2 ASSEMBLY TUBE | 6-5/8 LG | 1 |
| | HTT-2206 | 2 | 2" ASSEMBLY TUBE | 6-1/8 LG | 1 |
| 7 | HTT-2015-M | 1/2 - 2 | HOT TAP FRAME | | 1 |
| 8 | HTT-2020-M | 1/2 - 2 | MANUAL GLAND ASSY | | 1 |
| 9 | HTT-2019-M | 1/2 - 2 | HEX SLEEVE | | 1 |
| 10 | HTT-2016-M | 1/2 - 2 | MANUAL PUSH ROD | | 1 |
| 11 | HTT-2017-M | 1/2 - 2 | MANUAL PUSH ROD KNOB | | 1 |
| 12 | HTT-2018-M | 1/2 - 2 | HOT TAP RATCHET | | 1 |

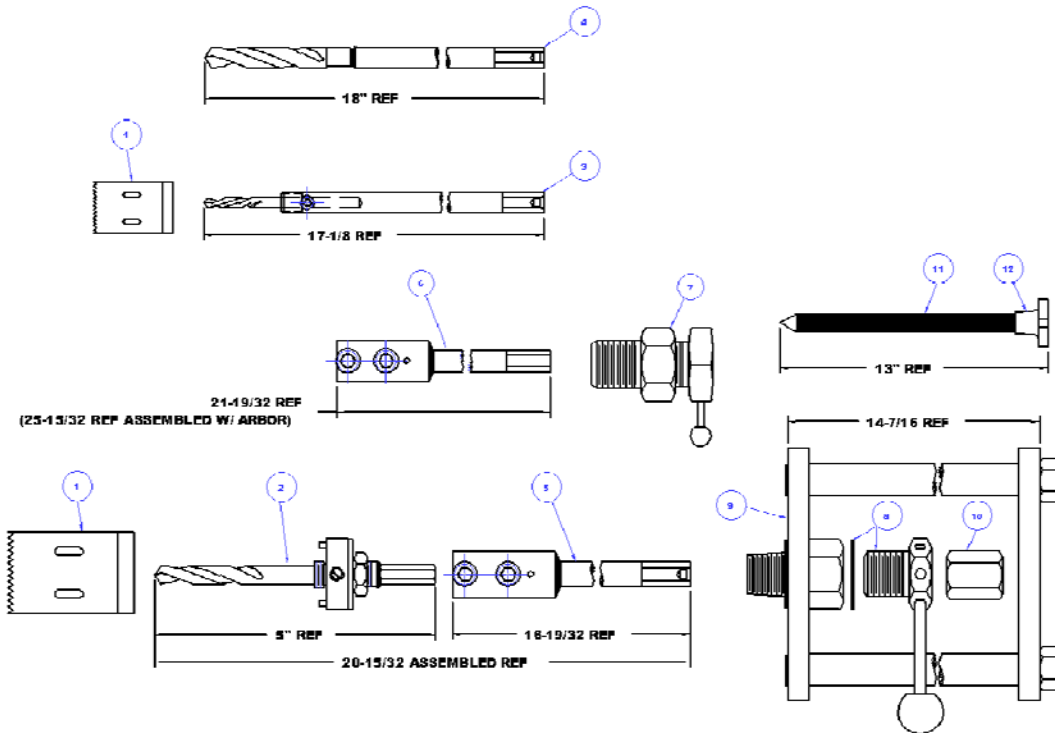


EST Group
2701 Township Line Rd
Hatfield, PA 19440-1770 USA
(P) 215.721.1100
800.355.7044
(F) 215.721.1101
est-info@curtisswright.com
http://estgroup.cwfc.com

Europe / Middle East / Africa
EST Group B.V.
Hoon 312a
2404 HL Alphen aan den Rijn
The Netherlands
(P) +31.172.418841
(F) +31.172.418849
est-emea@curtisswright.com

Asia
EST Group Asia
35 Tannery Rd, #11-10 Tannery Block
Ruby Industrial Complex
Singapore 247740
(P) +65.6745.8560
(F) +65.6742.8700
est-asia@curtisswright.com

**HOT TAP KIT #6, POWER & MANUALLY OPERATED
1/2" TO 2" NOMINAL TAPS, P/N: HTK-6000**



| HTK-6000 HOT TAP KIT #6 | | | | |
|-------------------------|--------------|-------------|-------------------------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | QTY |
| 1 | HTT-2102 | 3/4 | 11/16 HOLE SAW | 1 |
| | HTT-2103 | 1 | 7/8 HOLE SAW | 1 |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | 1 |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | 1 |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | 1 |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | 1 |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | 1 |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | 1 |
| 5 | HTT-2005-M | 1/2 - 2 | 7/16 MANUAL BROACH ASSY | 1 |
| 6 | HTT-2005 | 1 1/2 - 3 | 7/16 POWER BROACH ASSY | 1 |
| 7 | HTT-2020 | 1/2 - 3 | POWER GLAND ASSY | 1 |
| 8 | HTT-2020-M | 1/2 - 2 | MANUAL GLAND ASSY | 1 |
| 9 | HTT-2015-M | 1/2 - 2 | HOT TAP FRAME | 1 |
| 10 | HTT-2019-M | 1/2 - 2 | HEX SLEEVE | 1 |
| 11 | HTT-2016-M | 1/2 - 2 | MANUAL PUSH ROD | 1 |
| 12 | HTT-2017-M | 1/2 - 2 | MANUAL PUSH ROD KNOB | 1 |
| 13 | HTT-2018-M | 1/2 - 2 | HOT TAP RATCHET | 1 |

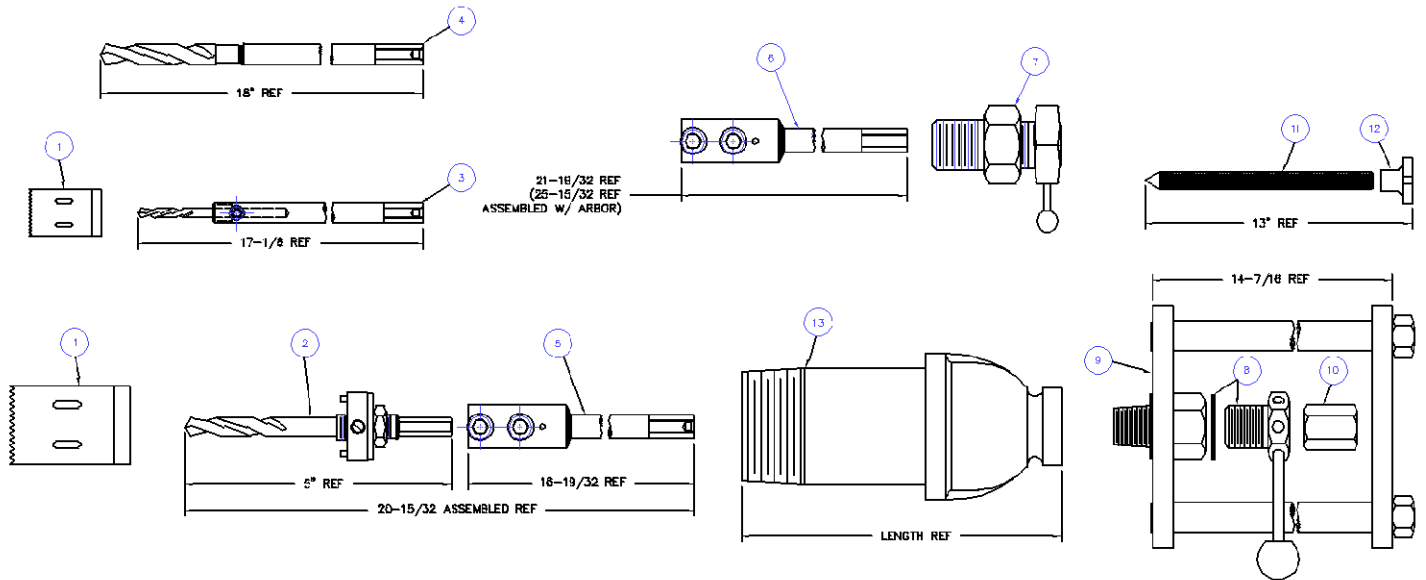


EST Group
 2701 Township Line Rd
 Hatfield, PA 19440-1770 USA
 (P) 215.721.1100
 800.355.7044
 (F) 215.721.1101
 est-info@curtisswright.com
 http://estgroup.cwfcc.com

Europe / Middle East / Africa
 EST Group B.V.
 Hoorn 312a
 2404 HL Alphen aan den Rijn
 The Netherlands
 (P) +31.172.418841
 (F) +31.172.418849
 est-emea@curtisswright.com

Asia
 EST Group Asia
 35 Tannery Rd, #11-10 Tannery Block
 Ruby Industrial Complex
 Singapore 247740
 (P) +65.6745.8560
 (F) +65.6742.8700
 est-asia@curtisswright.com

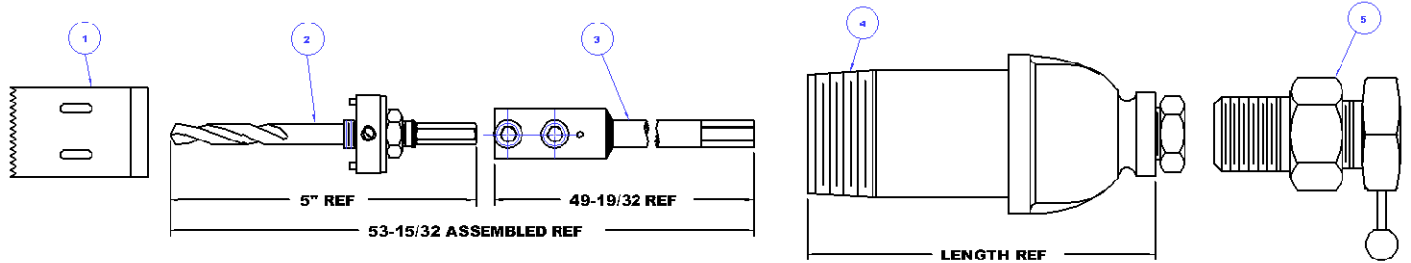
**HOT TAP KIT #7, POWER & MANUALLY OPERATED
1/2" TO 2" NOMINAL TAPS, P/N: HTK-7000**



| HTK-7000 HOT TAP KIT #7 | | | | | |
|-------------------------|--------------|-------------|-------------------------|----------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | | QTY |
| 1 | HTT-2102 | 3/4 | 11/16 HOLE SAW | | 1 |
| | HTT-2103 | 1 | 7/8 HOLE SAW | | 1 |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | | 1 |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | | 1 |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | | 1 |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | | 1 |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | | 1 |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | | 1 |
| 5 | HTT-2005-M | 1 1/2 - 2 | 7/16 MANUAL BROACH ASSY | | 1 |
| 6 | HTT-2005 | 1 1/2 - 3 | 7/16 POWER BROACH ASSY | | 1 |
| 7 | HTT-2020 | 1/2 - 3 | POWER GLAND ASSY | | 1 |
| 8 | HTT-2020-M | 1/2 - 2 | MANUAL GLAND ASSY | | 1 |
| 9 | HTT-2015-M | 1/2 - 2 | HOT TAP FRAME | | 1 |
| 10 | HTT-2019-M | 1/2 - 2 | HEX SLEEVE | | 1 |
| 11 | HTT-2016-M | 1/2 - 2 | MANUAL PUSH ROD | | 1 |
| 12 | HTT-2017-M | 1/2 - 2 | MANUAL PUSH ROD KNOB | | 1 |
| 13 | HTT-2201 | 1/2 | 1/2 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2202 | 3/4 | 3/4 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2203 | 1 | 1" ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2204 | 1 1/4 | 1-1/4 ASSEMBLY TUBE | 5-3/8 LG | 1 |
| | HTT-2205 | 1 1/2 | 1-1/2 ASSEMBLY TUBE | 6-5/8 LG | 1 |
| | HTT-2206 | 2 | 2" ASSEMBLY TUBE | 6-1/8 LG | 1 |
| 14 | HTT-2018-M | 1/2 - 2 | HOT TAP RATCHET | | 1 |

| | | | |
|--|---|--|---|
| | EST Group 2701 Township Line Rd Hatfield, PA 19440-1770 USA (P) 215.721.1100 800.355.7044 (F) 215.721.1101 est-info@curtisswright.com http://estgroup.cwfcc.com | Europe / Middle East / Africa EST Group B.V. Hoorn 312a 2404 HL Alphen aan den Rijn The Netherlands (P) +31.172.418841 (F) +31.172.418849 est-emea@curtisswright.com | Asia EST Group Asia 35 Tannery Rd, #11-10 Tannery Block Ruby Industrial Complex Singapore 247740 (P) +65.6745.8560 (F) +65.6742.8700 est-asia@curtisswright.com |
|--|---|--|---|

**HOT TAP KIT #8, POWER OPERATED
4" TO 6" NOMINAL TAPS. P/N: HTK-8000**



| HTK-8000 HOT TAP TOOL KIT #8 | | | | | |
|------------------------------|--------------|-----------|------------------|----------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | | QTY |
| 1 | HTT-2109 | 4 | 3-1/2 HOLE SAW | | 1 |
| | HTT-2110 | 5 | 4-1/2 HOLE SAW | | 1 |
| | HTT-2111 | 6 | 5-1/2 HOLE SAW | | 1 |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | | 1 |
| 3 | HTT-2009 | 4 - 6 | 7/16 BROACH ASSY | | 1 |
| 4 | HTT-2209 | 4 | 4" ASSEMBLY TUBE | 7-1/4 LG | 1 |
| | HTT-2210 | 5 | 5" ASSEMBLY TUBE | 8-3/4 LG | 1 |
| | HTT-2211 | 6 | 6" ASSEMBLY TUBE | 9-5/8 LG | 1 |
| 5 | HTT-2025 | 4 - 6 | POWER GLAND ASSY | | 1 |

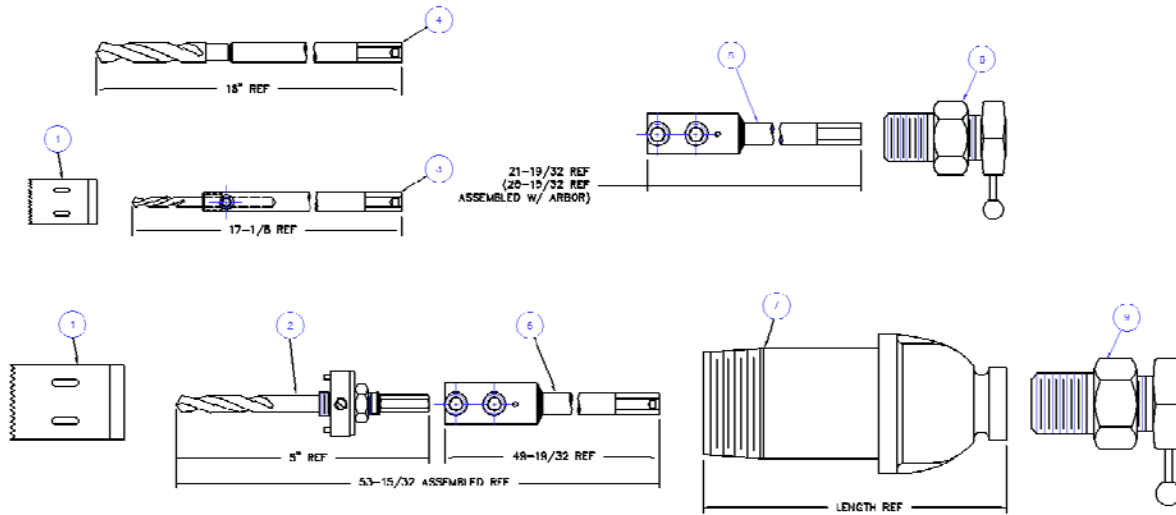
**HOT TAP KIT # 9, POWER OPERATED
1/2" TO 6" NOMINAL TAPS. P/N: HTK-9000**



EST Group
2701 Township Line Rd
Hatfield, PA 19440-1770 USA
(P) 215.721.1100
800.355.7044
(F) 215.721.1101
est-info@curtisswright.com
http://estgroup.cwfc.com

Europe / Middle East / Africa
EST Group B.V.
Hoon 312a
2404 HL Alphen aan den Rijn
The Netherlands
(P) +31.172.418841
(F) +31.172.418849
est-emea@curtisswright.com

Asia
EST Group Asia
35 Tannery Rd, #11-10 Tannery Block
Ruby Industrial Complex
Singapore 247740
(P) +65.6745.8560
(F) +65.6742.8700
est-asia@curtisswright.com



| HTK-9000 HOT TAP TOOL KIT #9 | | | | | |
|------------------------------|--------------|-------------|---------------------|----------|-----|
| ITEM | SALES NUMBER | TOOL SIZE | DESCRIPTION | | QTY |
| 1 | HTT-2102 | 3/4 | 1 1/16 HOLE SAW | | 1 |
| | HTT-2103 | 1 | 7/8 HOLE SAW | | 1 |
| | HTT-2104 | 1 1/4 | 1-1/8 HOLE SAW | | 1 |
| | HTT-2105 | 1 1/2 | 1-5/16 HOLE SAW | | 1 |
| | HTT-2106 | 2 | 1-3/4 HOLE SAW | | 1 |
| | HTT-2107 | 2 1/2 | 2-1/8 HOLE SAW | | 1 |
| | HTT-2108 | 3 | 2-3/4 HOLE SAW | | 1 |
| | HTT-2109 | 4 | 3-1/2 HOLE SAW | | 1 |
| | HTT-2110 | 5 | 4-1/2 HOLE SAW | | 1 |
| | HTT-2111 | 6 | 5-1/2 HOLE SAW | | 1 |
| 2 | HTT-2007 | 1 1/2 - 6 | ARBOR | | 1 |
| 3 | HTT-2001-M | 3/4 - 1 1/4 | 1/4 DRILL ROD ASSY | | 1 |
| 4 | HTT-2000-M | 1/2 | 1/2 DRILL ROD ASSY | | 1 |
| 5 | HTT-2005 | 1 1/2 - 3 | 7/16 BROACH ASSY | | 1 |
| 6 | HTT-2009 | 4 - 6 | 7/16 BROACH ASSY | | 1 |
| 7 | HTT-2201 | 1/2 | 1/2 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2202 | 3/4 | 3/4 ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2203 | 1 | 1" ASSEMBLY TUBE | 5-1/8 LG | 1 |
| | HTT-2204 | 1 1/4 | 1-1/4 ASSEMBLY TUBE | 5-3/8 LG | 1 |
| | HTT-2205 | 1 1/2 | 1-1/2 ASSEMBLY TUBE | 6-5/8 LG | 1 |
| | HTT-2206 | 2 | 2" ASSEMBLY TUBE | 6-1/8 LG | 1 |
| | HTT-2207 | 2 1/2 | 2-1/2 ASSEMBLY TUBE | 6-3/8 LG | 1 |
| | HTT-2208 | 3 | 3" ASSEMBLY TUBE | 6-5/8 LG | 1 |
| | HTT-2209 | 4 | 4" ASSEMBLY TUBE | 7-1/4 LG | 1 |
| | HTT-2210 | 5 | 5" ASSEMBLY TUBE | 8-3/4 LG | 1 |
| | HTT-2211 | 6 | 6" ASSEMBLY TUBE | 9-5/8 LG | 1 |
| 8 | HTT-2020 | 1 1/2 - 3 | POWER GLAND ASSY | | 1 |
| 9 | HTT-2025 | 4 - 6 | POWER GLAND ASSY | | 1 |



EST Group
 2701 Township Line Rd
 Hatfield, PA 19440-1770 USA
 (P) 215.721.1100
 800.355.7044
 (F) 215.721.1101
 est-info@curtisswright.com
 http://estgroup.cwfc.com

Europe / Middle East / Africa
 EST Group B.V.
 Hoorn 312a
 2404 HL Alphen aan den Rijn
 The Netherlands
 (P) +31.172.418841
 (F) +31.172.418849
 est-emea@curtisswright.com

Asia
 EST Group Asia
 35 Tannery Rd, #11-10 Tannery Block
 Ruby Industrial Complex
 Singapore 247740
 (P) +65.6745.8560
 (F) +65.6742.8700
 est-asia@curtisswright.com