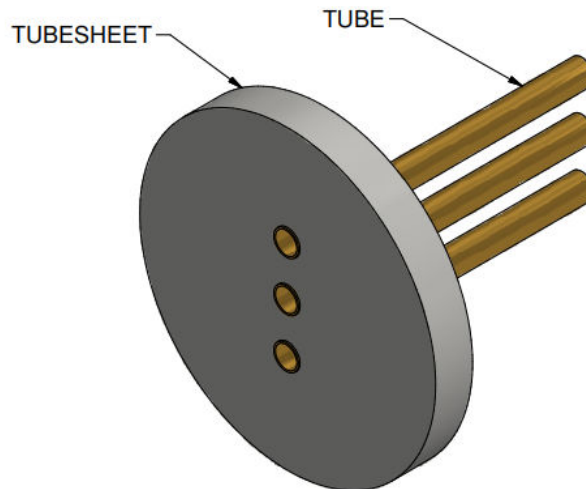
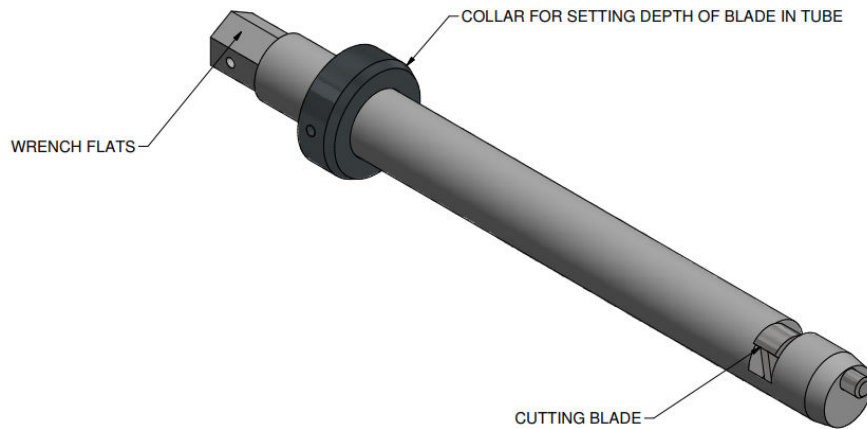


OPERATING PROCEDURES FOR ONE-REV TUBE CUTTING TOOL



NOTE: NOT INTENDED FOR USE IN CONDENSERS WITH A DOUBLE TUBE SHEET CONFIGURATION. CONTACT EST GROUP CUSTOMER SERVICE FOR SUPPORT.

Questions? Contact EST Group Customer Service at any of the following locations.

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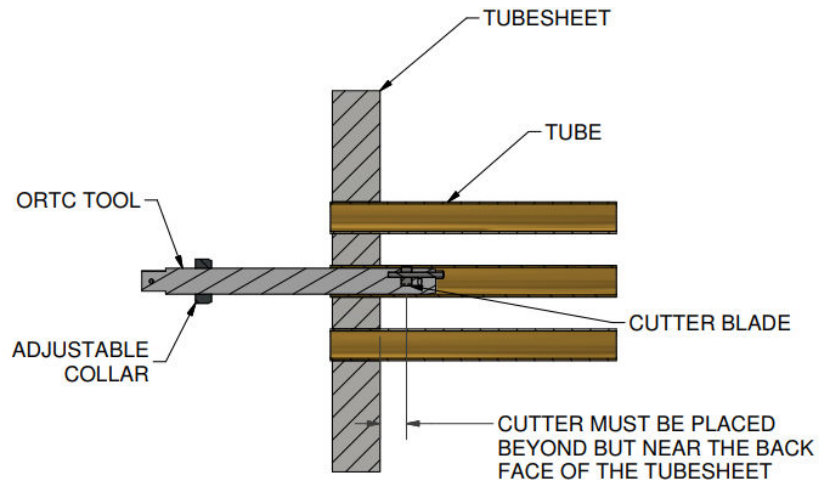
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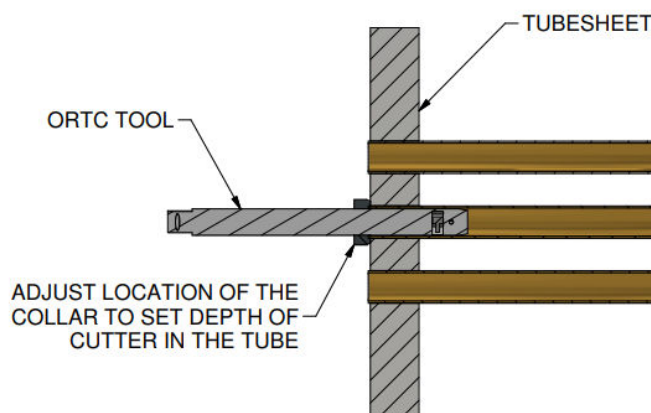
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OPERATING PROCEDURES

1. Prior to use, ensure that all debris and any blockages have been removed from the tube end. This will allow the tube venting tool to be fully engaged into the tube and to operate properly.
2. The blade of the tool **MUST** be inserted into the tube past the tube-sheet thickness and into the unrolled section of the tube. Failure to do so will result in blade and/or tool fracture as the tool will attempt to cut the tube and tube-sheet.



3. Using the provided Allen wrench, adjust the stand-off ring so that when the tool is fully engaged in the tube, the blade is located in the unrolled section of tube and the stand-off ring is flush with the tube-sheet face.



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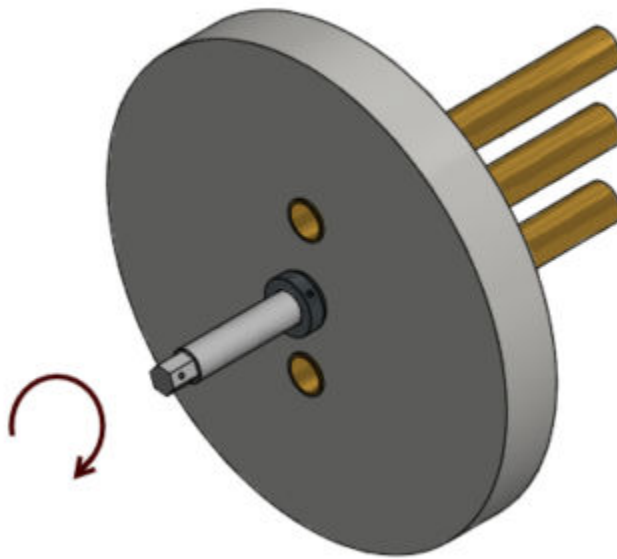
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- Once the tool has been properly inserted and the stand-off ring is flush with the tube-sheet face, the tool is ready to be used to vent the tube.
CAUTION: Ensure tool remains axially aligned with the tube to be pierced during the cutting process.
- Using the appropriate socket or adjustable wrench, rotate the tool **CLOCKWISE FOR A HALF TURN**.
WARNING! ANY FURTHER ROTATING OF THE TOOL MAY RESULT IN COMPLETELY SEVERING THE TOTAL TUBE OD! NEVER ROTATE THE TOOL MORE THAN A HALF-TURN!



- When the half turn has been completed, rotate the tool **COUNTER-CLOCKWISE** past the original starting point. This will allow the blade to fully retract so the tool may be removed.
- For venting additional tubes, repeat steps #1 through #6.
- NOTE: Standard ORTC tools have 1" – 6" (25.4 – 152.4 mm) reach capability. Extension 14" (355.6 mm) available on some sizes.

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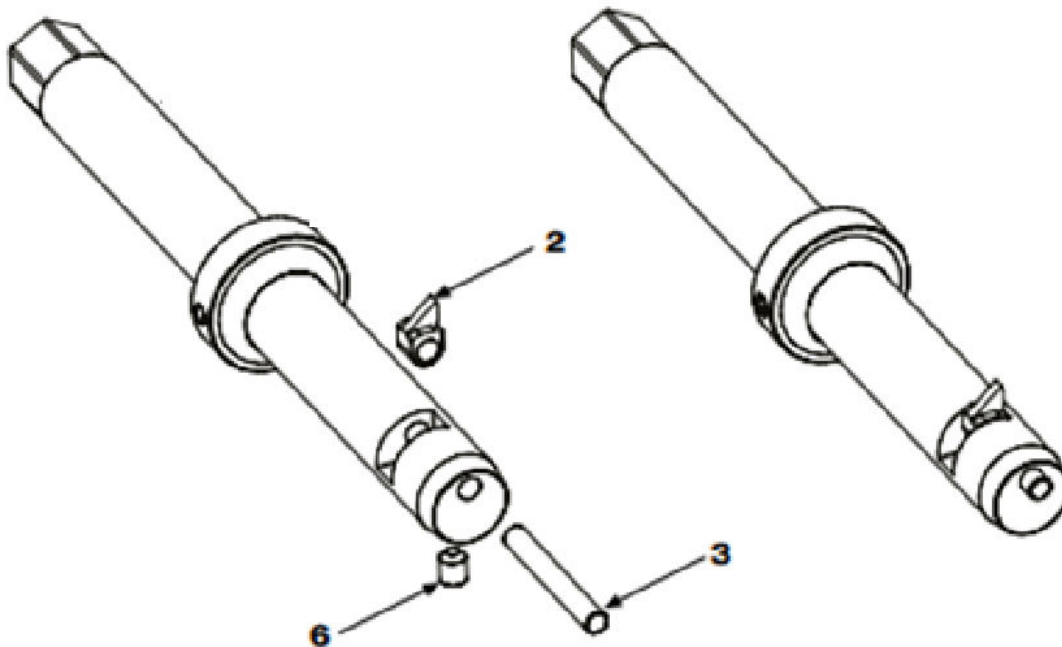
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SERVICE AND ADJUSTMENT

Replacing a cutter bit:

1. Using a Allen wrench, loosen set screw (Item #6) that secures the cutter pin.
2. Remove the cutter pin (Item #3).
3. Discard the old cutter bit and insert a new bit with the beveled side of the tip up.
4. Replace the cutter pin making sure that the pin is completely through the hole in the bit.
5. Tighten the set screw.



For replacement parts, reference part number marking on tool. See example below.



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One-Rev Tube Cutters with or without Extension							
EST Sales Number Std Tool	Tube Size (inch)	Tube Size (mm)	BWG	Std Max Length	EST Sales Number 14" Extension Tool	Extension Length	Replacement Blade
ORTCC-050-18-19	1/2"	12.70	18-19	6" (152.4 mm)	ORTCC-050-18-19-12	12" (304.8 mm)	ORTC-RB-063-4
ORTCC-050-20-24			20-24	6" (152.4 mm)	ORTCC-050-20-24-12	12" (304.8 mm)	ORTC-RB-063-4
ORTCC-063-14	5/8"	15.88	14	6" (152.4 mm)	ORTCC-063-14-14	14" (355.6 mm)	ORTC-RB-063-3
ORTCC-063-15-16			15-16	6" (152.4 mm)	ORTCC-063-15-16-14	14" (355.6 mm)	ORTC-RB-063-3
ORTCC-063-17-18			17-18	6" (152.4 mm)	ORTCC-063-17-18-14	14" (355.6 mm)	ORTC-RB-063-2
ORTCC-063-19-20			19-20	6" (152.4 mm)	ORTCC-063-19-20-14	14" (355.6 mm)	ORTC-RB-063-2
ORTCC-063-21-24			21-24	6" (152.4 mm)	ORTCC-063-21-24-14	14" (355.6 mm)	ORTC-RB-075-2
ORTCC-075-10			3/4"	19.05	10	6" (152.4 mm)	ORTCC-075-10-14
ORTCC-075-11	11	6" (152.4 mm)			ORTCC-075-11-14	14" (355.6 mm)	ORTC-RB-063-2
ORTCC-075-12	12	6" (152.4 mm)			ORTCC-075-12-14	14" (355.6 mm)	ORTC-RB-063-2
ORTCC-075-13	13	6" (152.4 mm)			ORTCC-075-13-14	14" (355.6 mm)	ORTC-RB-075-2
ORTCC-075-14-15	14-15	6" (152.4 mm)			ORTCC-075-14-15-14	14" (355.6 mm)	ORTC-RB-075-2
ORTCC-075-16	16	6" (152.4 mm)			ORTCC-075-16-14	14" (355.6 mm)	ORTC-RB-075-2
ORTCC-075-17-18	17-18	6" (152.4 mm)			ORTCC-075-17-18-14	14" (355.6 mm)	ORTC-RB-075-2
ORTCC-075-19-24	19-24	6" (152.4 mm)			ORTCC-075-19-24-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-088-10	7/8"	22.23	10	6" (152.4 mm)	ORTCC-088-10-14	14" (355.6 mm)	ORTC-RB-075-2
ORTCC-088-11-12			11-12	6" (152.4 mm)	ORTCC-088-11-12-14	14" (355.6 mm)	ORTC-RB-075-2
ORTCC-088-13			13	6" (152.4 mm)	ORTCC-088-13-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-088-14-15			14-15	6" (152.4 mm)	ORTCC-088-14-15-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-088-16-17			16-17	6" (152.4 mm)	ORTCC-088-16-17-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-088-18			18	6" (152.4 mm)	ORTCC-088-18-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-088-19-20			19-20	6" (152.4 mm)	ORTCC-088-19-20-14	14" (355.6 mm)	ORTC-RB-100-2
ORTCC-100-10	1"	25.40	10	6" (152.4 mm)	ORTCC-100-10-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-100-11			11	6" (152.4 mm)	ORTCC-100-11-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-100-12			12	6" (152.4 mm)	ORTCC-100-12-14	14" (355.6 mm)	ORTC-RB-100-1
ORTCC-100-13			13	6" (152.4 mm)	ORTCC-100-13-14	14" (355.6 mm)	ORTC-RB-100-2
ORTCC-100-14			14	" (152.4 mm)	ORTCC-100-14-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-100-15			15	6" (152.4 mm)	ORTC-100-15-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-100-16-17			16-17	6" (152.4 mm)	ORTC-100-16-17-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-100-18-21			18-21	6" (152.4 mm)	ORTC-100-18-21-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-100-21-24			21-24	6" (152.4 mm)	ORTC-100-21-24-14	14" (355.6 mm)	ORTC-RB-100-2

Contact EST Group for additional sizes and replacement part options.

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One-Rev Tube Cutters with or without Extension							
EST Sales Number Std Tool	Tube Size (inch)	Tube Size (mm)	BWG	Std Max Length	EST Sales Number 14" Extension Tool	Extension Length	Replacement Blade
ORTC-125-10-11	1-1/4"	31.75	10-11	6" (152.4 mm)	ORTC-125-10-11-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-125-12			12	6" (152.4 mm)	ORTC-125-12-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-125-13-14			13-14	6" (152.4 mm)	ORTC-125-13-14-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-125-15-16			15-16	6" (152.4 mm)	ORTC-125-15-16-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-125-17-24			17-24	6" (152.4 mm)	ORTC-125-17-24-14	14" (355.6 mm)	ORTC-RB-100-2
ORTC-150-10-11	1-1/2"	38.10	10-11	6" (152.4 mm)	ORTC-150-10-11-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-150-12-13			12-13	6" (152.4 mm)	ORTC-150-12-13-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-150-14-15			14-15	6" (152.4 mm)	ORTC-150-14-15-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-150-16-17			16-17	6" (152.4 mm)	ORTC-150-16-17-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-150-18-19			18-19	6" (152.4 mm)	ORTC-150-18-19-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-175-10-11	1-3/4"	44.45	10-11	6" (152.4 mm)	ORTC-175-10-11-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-175-12-14			12-14	6" (152.4 mm)	ORTC-175-12-14-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-175-15-16			15-16	6" (152.4 mm)	ORTC-175-15-16-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-175-17-18			17-18	6" (152.4 mm)	ORTC-175-17-18-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-200-10	2"	50.80	10	6" (152.4 mm)	ORTC-200-10-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-200-11			11	6" (152.4 mm)	ORTC-200-11-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-200-12-13			12-13	6" (152.4 mm)	ORTC-200-12-13-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-200-14-15			14-15	6" (152.4 mm)	ORTC-200-14-15-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-200-16-17			16-17	6" (152.4 mm)	ORTC-200-16-17-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-200-18-19			18-19	6" (152.4 mm)	ORTC-200-18-19-14	14" (355.6 mm)	ORTC-RB-150-1
ORTC-225-10	2-1/4"	57.15	10	6" (152.4 mm)	ORTC-225-10-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-225-11			11	6" (152.4 mm)	ORTC-225-11-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-225-12-13			12-13	6" (152.4 mm)	ORTC-225-12-13-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-225-14-15			14-15	6" (152.4 mm)	ORTC-225-14-15-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-225-16-17			16-17	6" (152.4 mm)	ORTC-225-16-17-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-225-18-19			18-19	6" (152.4 mm)	ORTC-225-18-19-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-250-10	2-1/2"	63.50	10	6" (152.4 mm)	ORTC-250-10-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-250-11			11	6" (152.4 mm)	ORTC-250-11-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-250-12-13			12-13	6" (152.4 mm)	ORTC-250-12-13-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-250-14-15			14-15	6" (152.4 mm)	ORTC-250-14-15-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-250-16-17			16-17	6" (152.4 mm)	ORTC-250-16-17-14	14" (355.6 mm)	ORTC-RB-225-1
ORTC-250-18-19			18-19	6" (152.4 mm)	ORTC-250-18-19-14	14" (355.6 mm)	ORTC-RB-225-1

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