

Powerful cutting
technology for severing
pipes of all sizes in all
conditions



RCT™ – Radial Cutting Torch

Red Kite Oilfield Services offers the MCR Oil Tools Radial Cutting Torch™ (RCT) system for all common sizes of tubing, casing and drill pipe. The RCT tools come in different variants, Radial Cutting Torch (RCT) standard tool) Selective Radial Cutting Torch (SRT) and the Xtra Reach Tool (XRT)

The RCT consists of a thermite mix and is a patented cutting device that requires no explosive components or dangerous chemicals that may pose handling issues. The RCT produces no flaring of the severed pipe, regardless if the pipe is in tension or compression before initiation. The RCT package consists of the torch (which includes the cutting nozzle), the torch extension, the initiating device and the Pressure Balanced Anchor (PBA) assembly. Additionally, adjustable centralisers are positioned at the top and bottom of the tool assembly to ensure the RCT is fully concentric to the tubular wall, ensuring a precise cut every time.

Deployment Methods

All the RCT variants can be deployed on electric line, coiled tubing, jointed pipe or on slickline.

Method of Operation

The RCT tool assembly is lowered into the well until desired depth is reached. The Thermal Generator ignites and activates the primary fuel load; causing an increase in internal pressure. Once the pressure produced inside the torch exceeds that of the well bore, the protective sleeve is displaced exposing the nozzle to the well bore. The plasma exits through the nozzle to sever the target in drilling, completion or production scenarios. This process is completed within +/- 21 milliseconds of the tool being initiated. Once a cut is made the RCT assembly is easily removed from the well by picking up on the deployment method.

As the RCT Tool does not use explosives or hazardous chemicals, the tool can be shipped almost anywhere in the world within 24 hours, saving significant time and associated costs, while remaining compliant with safety regulations.



1 1/2" x .210 wall
C.T.



5 1/2" x 26#



9 5/8" x 53.5#



TOOL SECTION CHARTS ARE SUBJECT TO CHANGE, ONLY STANDARD TOOL OD'S AND CONFIGURATIONS HAVE BEEN SELECTED

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RADIAL CUTTING TORCH

Note: Contact Red Kite for cuts under 2,000 ft (609 m)

TARGET DIMENSION	RECOMMENDED TORCH SYSTEM AT INDICATED TARGET ZONE PRESSURE	
	SP 0 to 4,000 psi	SP 4,001 to 10,000 psi
CT up to 1-1/2" OD	0.750" OD	0.750" OD
CT 1-1/2" TO 1-3/4" OD	0.875" OD	0.875" OD
CT 2" OD	1.000" OD	1.000" OD
2-1/16" OD & 2-3/8" OD (4.7 TO 5.95 lb/ft)	1.375" OD OR 1.500" OD	1.375" OD OR 1.500" OD
2-3/8" OD 4.7 TO 5.95 lb/ft TAIL PIPE SEVERENCE ONLY	1.375" OD OR 1.500" OD	1.375" OD OR 1.500" OD
2-7/8" OD; 6.4 TO 8.7 lb/ft	1.688" OD	1.688" OD
2-7/8" OD; 9.7 TO 11.7 lb/ft	1.688" OD or 1.500" OD	1.688" OD or 1.500" OD
3-1/2" OD; 9.3 to 12.95 lb/ft	1.750" OD or 2.000" OD	1.750" OD or 2.000" OD
3-1/2" OD; 13.3 to 15.50 lb/ft	1.750" OD or 2.000" OD	1.750" OD or 2.000" OD
4" OD; 9.5 TO 14.0 lb/ft	1.750" OD or 2.000" OD	1.750" OD or 2.000" OD
4-1/2" OD; 9.5 to 15.5 lb/ft	2.500" OD	2.500" OD
4-1/2" OD; 16.6 to 19.2 lb/ft	2.500" OD	2.500" OD
5" OD; 11.0 TO 19.5 lb/ft	2.937" OD	2.937" OD
5-1/2" OD; 14.0 to 23.0 lb/ft	3.375" OD* or 4.000" OD	3.375" OD* or 4.000" OD
5-7/8" OD; 23.4 lb/ft	3.375" OD* or 4.000" OD	3.375" OD* or 4.000" OD
6-5/8" OD; 20.0 TO 32.0 lb/ft	4.000" OD	4.000" OD
7" OD; 17.0 to 32.0 lb/ft	5.000" OD	5.000" OD
7-5/8" OD; 24.0 to 32.0 lb/ft 7-3/4" OD; 37 lb/ft	5.000" OD	5.000" OD
8-5/8" OD; 24.0 to 40.0 lb/ft	7.000" OD	7.000" OD
9-5/8" OD; 32.3 TO 53.5 lb/ft 9-7/8" OD; 62.8 lb/ft	7.000" OD	7.000" OD

***- 3-3/8" RCT discontinued. The 3-3/8" SRT now replaces the 3-3/8" RCT.**

Selective Radial Cutting Torch (SRT) Standard Pressure

TARGET DIMENSION	RECOMMENDED TORCH SYSTEM AT INDICATED TARGET ZONE PRESSURE		
	SP 0 to 5,000 psi	SP 5,001 to 7,500 psi	SP 7,501 to 10,000 psi
5" O.D., 11.5 to 15 lb/ft	2.937" O.D.		2.937" O.D.
5" O.D., 19.5 lb/ft	2.937" O.D.	2.937" O.D.	
5-1/2" O.D., 14.0 to 23 lb/ft	3.375" OD	3.375" OD	3.375" OD
5-7/8" O.D., 23.4 lb/ft DP	CONTACT RED KITE	CONTACT RED KITE	CONTACT RED KITE
6-5/8" O.D., 20.0 TO 32.0 lb/ft	CONTACT RED KITE	CONTACT RED KITE	CONTACT RED KITE
7" O.D. 17.0 to 32.0 lb/ft	CONTACT RED KITE	CONTACT RED KITE	CONTACT RED KITE
7-5/8" O.D., 24.0 to 42.0 lb/ft	CONTACT RED KITE	CONTACT RED KITE	CONTACT RED KITE
7-3/4" O.D., 37 lb/ft	CONTACT RED KITE	CONTACT RED KITE	CONTACT RED KITE

"X" Radial Cutting Torch (XRT) Standard Pressure

(Note – need to confirm Suitability of tool please contact Red Kite)

TARGET DIMENSION	RECOMMENDED TORCH SYSTEM AT INDICATED TARGET ZONE PRESSURE
5" O.D. 11.5 to 19.5 lb/ft	2.50" O.D.
5-1/2" O.D. 14 to 24 lb/ft	2.50" O.D.

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