RCTRadial Cutting Torch

Efficient pipe cutting alternative

Radial Cutting Torch™ provides the industry with the safest and most efficient pipe cutting alternative to explosives or hazardous chemicals.

Radial Cutting Torch tool is a patented cutting device used to sever tubing, casing, drill pipe, and coiled tubing without the use of explosives or hazardous materials, making it one of the safest pipe cutting tools on the market. Using advanced technology, the patented nozzle and proprietary mixture of various powdered metals produces jets of highly energized plasma to cut virtually any type of pipe in any well condition. Because the RCT 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.

Plasma exits thru the nozzle to sever the target in drilling, completion or production scenarios, within well bore temperatures up to 500° (260°C) and pressures to 20,000 psi (137.9 MPa).

Operation

Radial Cutting Torch assembly is lowered into the well until desired depth is reached. Thermal Generator ignites and activates the primary fuel load; highly energized plasma is produced 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.

Radial Cutting Torch

- Radial Cutting Torch

- Pressure Balance Anchor

Support Tools

- ElectroMechanical Anchor™ (EMA)
 - Anchors during cutting operation; available for E-Line, 1-1/2" to 4" RCT system deployments
- Generator Safety Sleeve™ (GSS)
 - safely dissipates all Thermal Generator energy in the event of operator activation error on surface
- Remote Firing Mechanism™ (RFM)
 - data logging tool and firing system; safely enables all MCR cutting systems

RCT's are available for:

- Standard applications
- Undersized for restrictions
- HP-HT environments
- Cutting up to 9-%" casing
- Custom tools available

Non-HazMat rated RCT's currently available:

- RCT-SP

Benefits

- Non-explosive
- Non-HazMat or HazMat rated fuel
- Radio safe
- Operates in temperatures to 500°F (260°C) and pressures up to 20,000psi (137.9 MPa)
- Cuts all steel, high chrome and plastic coated tubulars
- Cuts in exotic fluids or dry pipe
- Cuts are flare-free and do not produce swelling
- Deployable within hours not days
- Minimizes downtime and associated costs



Cuts made with the RCT



3-1/2" Hastelloy RCT - 2500-300 cut @ 11,000 psi



5-1/2" 26# 25% Chrome RCT - 3375-400 cut @ 8,6000 psi 360° F



7-%" 33.7# L80 RCT - 5000-300 cut @ 8,400 psi



9-%" 59.4# L80 RCT - 7000-300



2-%" 10.7# 70% Glycol RCT - 1500-999XP cut @ 8,600 psi 360°F

