

PERFORATING PYRO TORCH

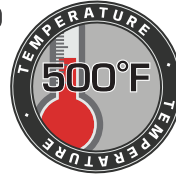


MCR's Perforating Pyro Torch® tools offer high temperature deployability for specialized perforating services. Ranging in O.D. sizes from 2-1/2" to 3-3/8", the PPT tool is a highly versatile addition to pipe and completion casing perforating process. Available as two or four-port systems, the PPT tool can be initiated on E-line, slickline, coiled tubing and pipe using MCR's Remote Firing Mechanism (RFM). Perforating Pyro Torch systems utilize a flammable solid fuel source with all components Radio Safe. PPT systems can be shipped by all modes of transport including passenger aircraft. PPT's can be used to perforate casing by generating large holes within casing or to perforate large diameter tubulars to generate large diameter perforations for annular flushing or to provide a pathway for cementing.

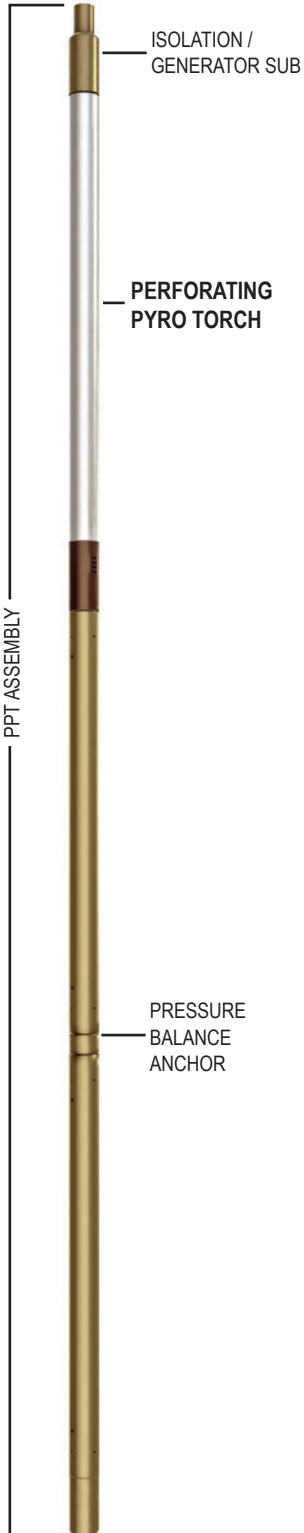
SUPPORTING TOOLS

- 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 systems on coiled tubing, slickline and pipe

UP TO



UP TO



OPERATION

MCR's Perforating Pyro Torch assembly is lowered into the well to the desired depth. MCR's Thermal Generator activator activates the primary fuel load causing an increase in internal pressure. Following internal pressure rise, plasma exits the nozzle resulting in perforation of the target pipe.

Perforating Pyro Torch tools are available for

- Standard barrier perforation applications
- High temperature environments
- Undersized for conveyance through wellbore restrictions with full function
- Custom tools available

BENEFITS

- Non-Explosive
- 2-port and 4-port systems
- Horizontal or vertical deployment
- Harsh environment / H2S proven
- Operates and proven in temperatures to 500°F (260°C) & pressures up to 10,000 psi (69 MPa)
- Options for large diameter pipe circulation
- Single use system - No redress required
- Deployable within hours not days
- Minimizes downtime and associated costs
- Approved for all methods of transport

