



# MALE/FEMALE (MF) EXTENSION RODS

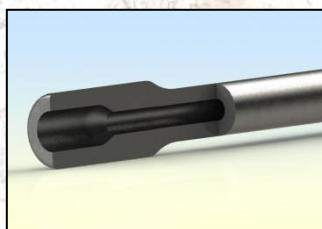
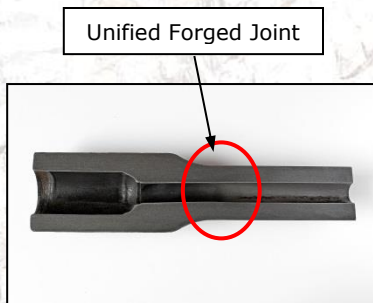
## FORGING vs. FRICTION WELDING

### ROCKMORE FORGED MF RODS

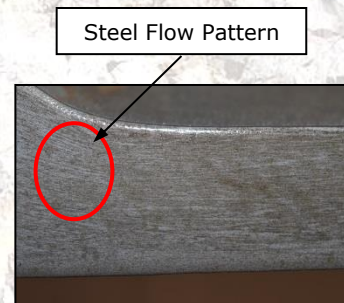
All Rockmore MF rods are forged at the integrated coupling end. The forging process creates a homogeneous and unified joint between the coupling and rod section that is strengthened by steel flow patterns. This creates a strong and durable connection at the coupling location. The forging technique allows the transition zone between the coupling and rod to be smooth, robust, and resilient – transferring high stress and torque loads while maintaining long service life.



- ◆ Integrated MF Coupling
- ◆ Strong & Durable Connection

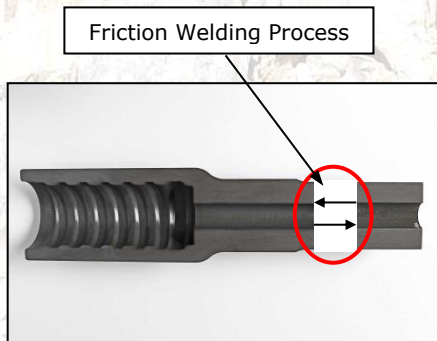


- Homogeneous Coupling Transition:
- ◆ Smooth
  - ◆ Robust
  - ◆ Resilient

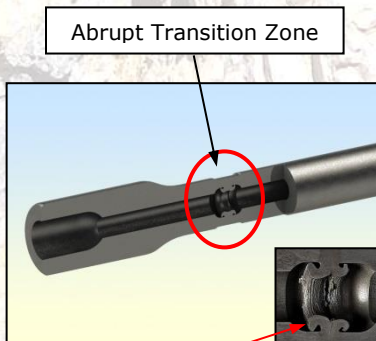


### FRICTION WELDED MF RODS - COMPETITION

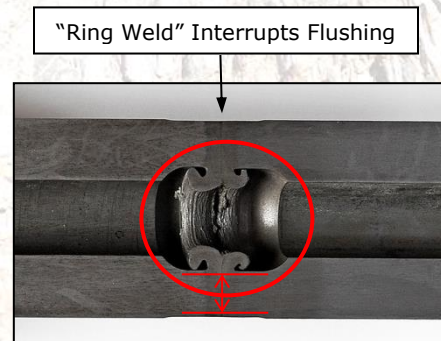
MF rods that are friction welded by competitors exhibit an abrupt transition zone between the coupling and rod, contributing to inconsistent performance. The weakened joint at the welded section is characterized by a “ring weld” feature that results in a thinner wall section and sharp edges, contributing to mechanical failure. This welding design also interrupts internal flushing. The friction welding technique is vulnerable to failures; and can produce inconsistent results and shorter service life.



- ◆ Welding two separate sections – vulnerable to rod failures



- ◆ Sharp edges in welding zone contribute to breakages



- ◆ Thinner wall section weakens rod