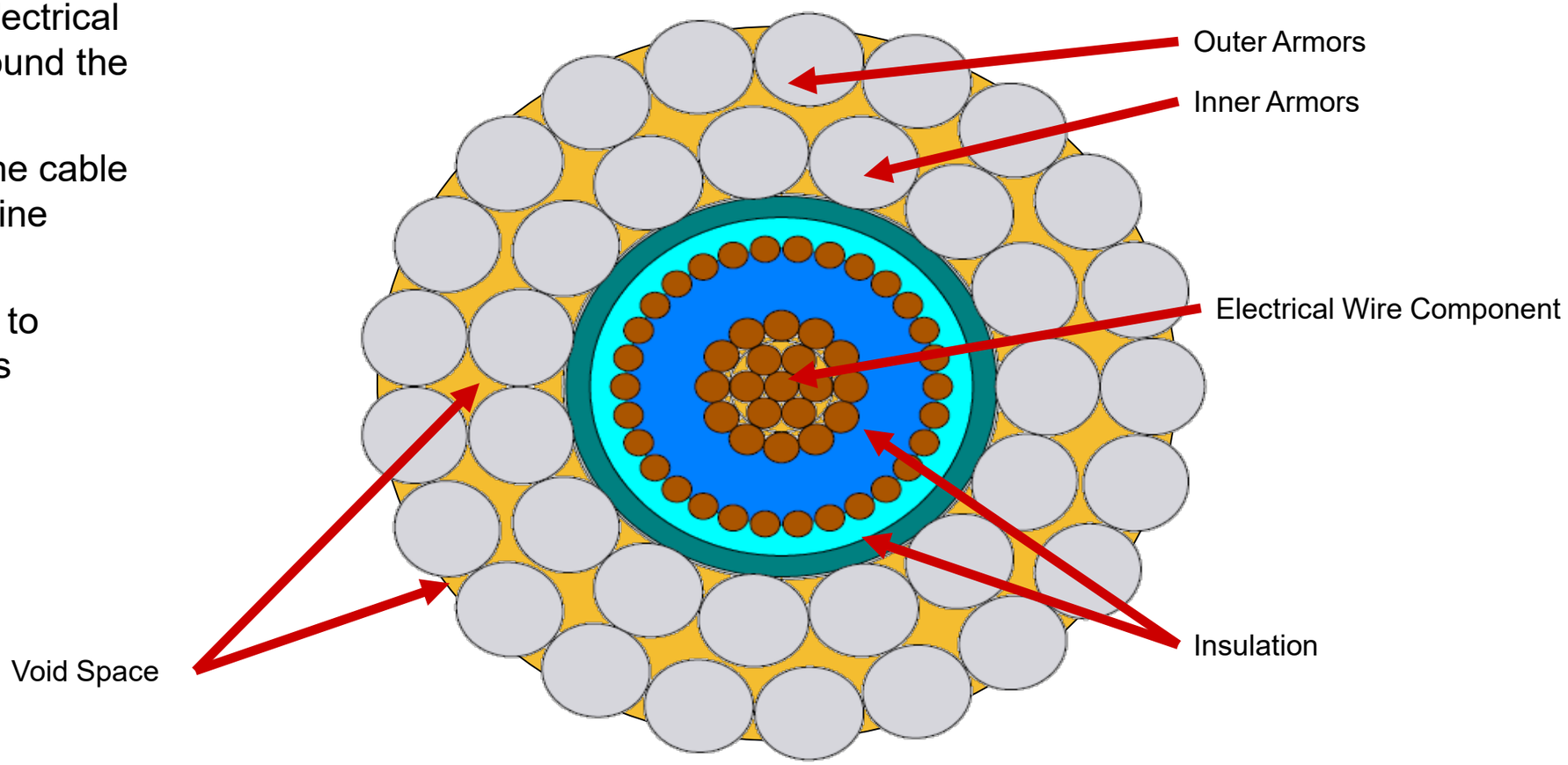
Conventional Wireline Cable

- Two layers of twisted metal wires give the cable strength and flexibility
- These layers help protect the electrical wire in the center as well as ground the cable
- Layers create a void space in the cable that needs to be filled with wireline grease
- Grease is injected from surface to maintain well integrity as well as lubricate the cable



Conventional Cable Challenges

Birdcaged damaged Wireline

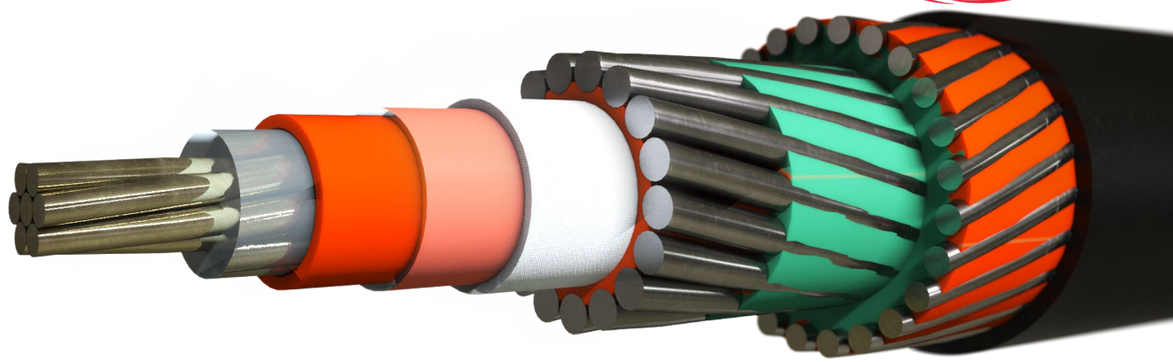
Loss of pressure seal

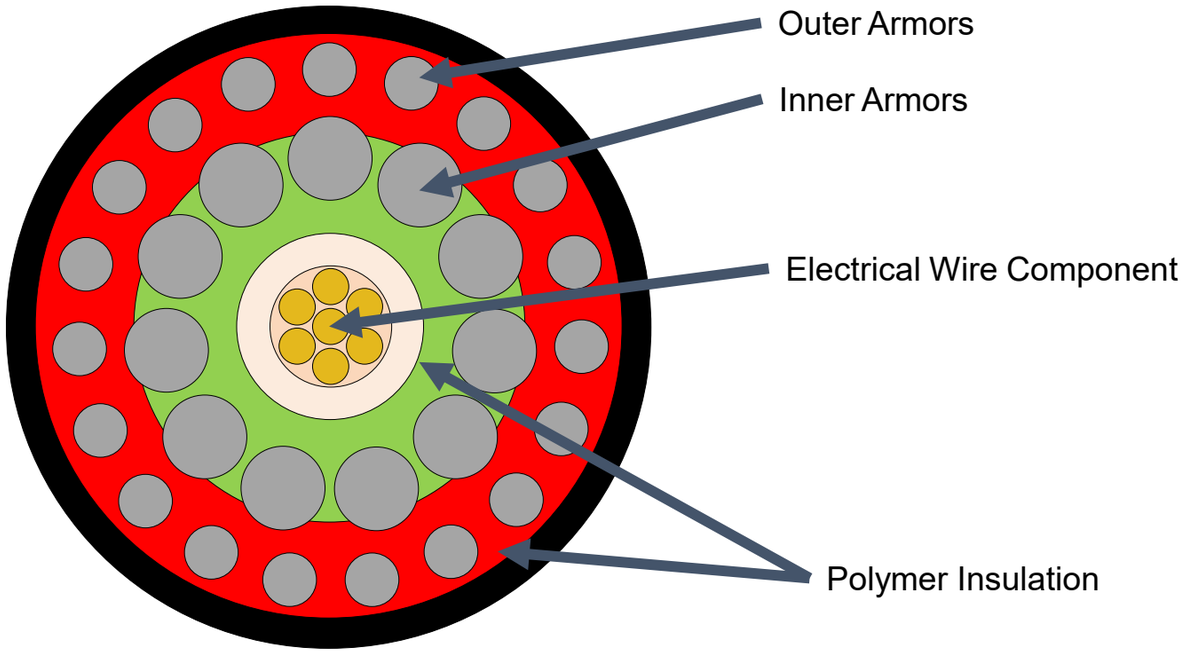
Proper pressure seal

- Wireline grease is dependent on ambient temperature
- There are multiple types of grease to fit operational needs
- If pressure seal is not maintained grease can spew out
- When grease pressure is not maintained correctly cable damage can occur

Greaseless Wireline Cable

- No exposed armors to birdcage or strand out
- Faster run in and out of the hole speeds
- Reduced cable friction enables up to 40% more cable pull to the cable head
- Fluid blocked conductor prevents costly NPT due to flooded cables
- Safe Working Load rating comparable to conventional cables





Greasless Wireline Cable Pressure Control

- Eliminates need for “grease injection” pressure control equipment for faster, shorter rig-up
- Support for “Zero Spill” objectives is a step change in environmental stewardship
- No void spaces with wireline cable mean no need for grease injection
- Dual pack off system utilized to seal around wireline