Conventional splicing

• Relatively easy task with trained deck hands and minimal equipment
• Cost effective and quick method
• Number of improvements in recent years
  – New splicing methods
  – Shorter splice tails
  – Constant diameter splices
  – Certified in-line splices for continuous bending applications
Why Socketed Terminations

• Driven by High Impact Applications including micro medical devices, satellite, aerospace, military, sporting and the worlds largest man made machines.
  – Extreme levels of efficiency and fatigue performance
  – Compact designs
  – Direct connection - Reduction in interface connections
  – Automation – quick connect / disconnect
  – Consistency / repeatability / traceability
Brief History

• Privately Owned; Est 2003 – Tallahassee, Florida
• Focus on fibre terminations – all fibre types
• 3,000 m² Manufacturing Facility
• 1,000T x 183m test bed
• Recognised leader in the field of fibre terminations
• Over 1 million terminated fibre assemblies delivered
The Basic Technology

• **Resin Infusion Processing**
  
  – **Equipment**
    
    • Critical Parameters Measured, Controlled, Documented
    
    • Software Driven w/Pre-Set Tolerance Limits & Alarms
  
  – **Advantages**
    
    • **Automated Process**
    
    • Quality Control & Repeatability
    
    • Serialized & Traceable

* Int. Patents Pending, Issued, and Insured

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Traditional Potting
The Large Rope Challenge

How to terminate large ropes while guaranteeing consistency and repeatability?

200mm braided rope courtesy Cortland Companies
The Solution - Stranded Termination

- Use splicing principles; separate and work at the strand level
- Recollect and couple to a termination device
- Strands are Individually Measured and Balanced
- Exceeding the ropes breaking strength

* Int. Patents Pending, Issued, and Insured
First Production Offshore Termination

• Awarded Type Approval under DNVGL-ST-378
• 150T SWL fitted to Lankodeep x 88mm rope
• Delivered to MacGregor for installation on the new FibreTrac1500 crane
Remote Termination

• First unit nearing completion, due to be delivered October.
• Designed for local rigging shops or factory installation.
Smart Terminations - IoT

• Hook data capture capabilities.
  • 3 x 3 axis accelerometers – pitch and roll + high res shock load monitoring
  • 3 axis MEMS Gyro – monitoring rotation, speed and direction
  • Load, Depth and temperature
  • 16 channels of external analogue data recording
  • 16 channels of digital control e.g. load release, lights, cameras etc.
• Automatic data logging to internal non-volatile 512MB memory
• Powered by Nickel Metal Hydride rechargeable battery, greater than 3 month between charges
• Access via 2.4GHz radio telemetry module

Prototype under test