



# Tethers & Umbilicals

for Remotely Operated Vehicles (ROVs)



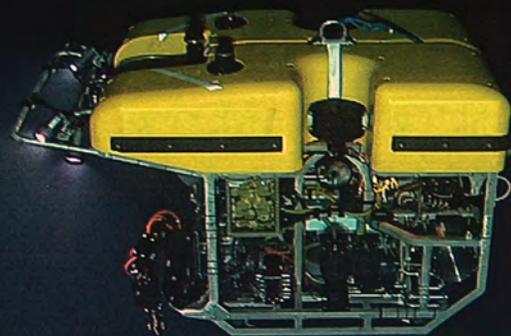
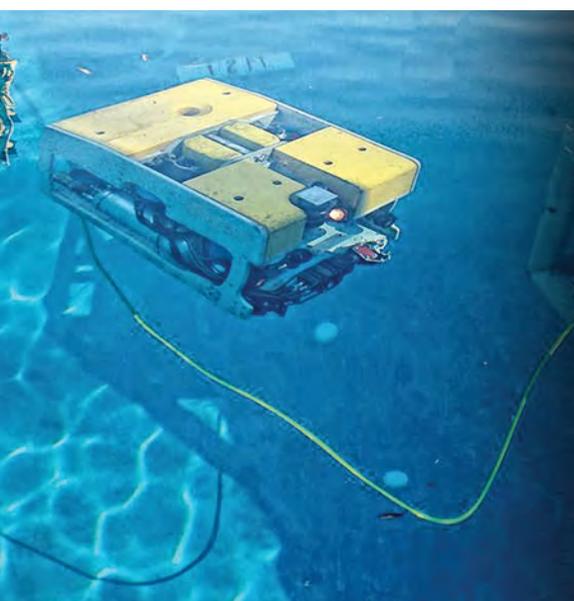
## Mini Observation ROV

Falmat Custom Cable Technologies, an ISO9000/AS9100 Certified Organization, is a global solution provider offering a comprehensive range of highly engineered ROV cables for Sub-sea and marine environments.

Our team of cable designers work closely with our customers and their application requirements to provide the most reliable cable solutions for today's high performance ROVs used in Oil and gas exploration and production, defense, oceanographic and a host of marine applications. Our cable designs are created for optimizing the mechanical, electrical and optical performance in demanding subsea projects. Falmat ROV cables are trusted and preferred worldwide for high quality and reliability.



- Lightweight, Long-length, Free-swimming Tethers for Excursion
- Rugged Deck Cables
- ROV Mounted Cables for Video, Instrumentation, Control and Power
- Heavy Lift Steel Umbilicals up to 180,000 lbs BS
- Lightweight and Heavy Tethers for Tether Management Systems (TMS) to 80,000 lbs BS
- Neutrally Buoyant Excursion Tethers for TMS and LARS

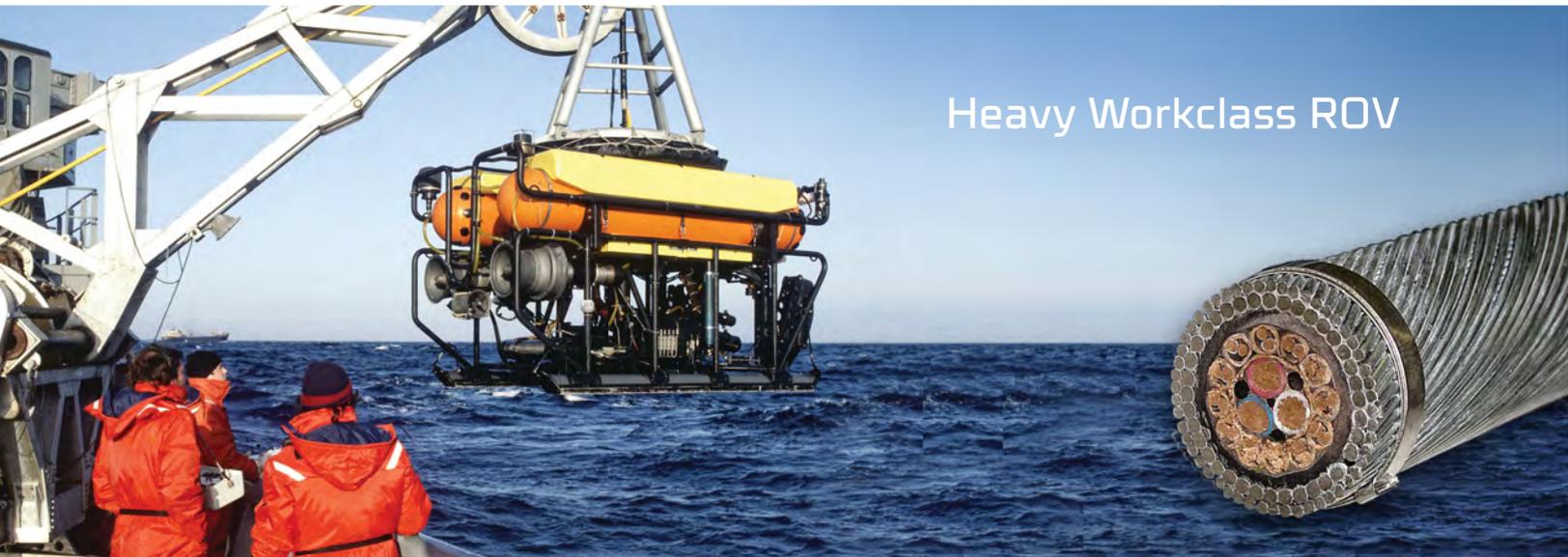


## Light/Medium Workclass ROV



## Cable Components and Materials:

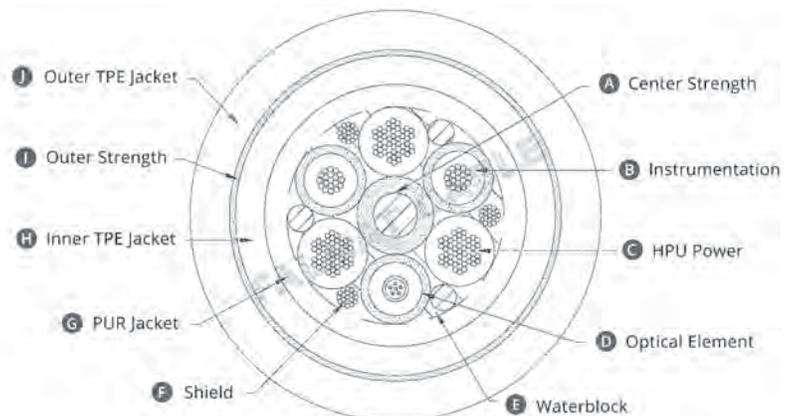
- Optical fibers in stainless steel tubes from 1-24 fibers, single-mode, multi-mode, mix-modes and custom specific fibers.
- Optical fibers in Simplex or Xtreme-Light® constructions. Durable Xtreme-Light® from 1x to 6x fiber constructions.
- Data signals requiring Ethernet Cat5e and Cat6 signal pairs, RS-232, RS-485, analog, coaxial or shielded components.
- Power conductors from 300V to 4.5 kv, carefully selected insulations specific to application.
- The Elastomer based user-friendly and flexible water block compounds offer light weight, salt and oil resistant properties. Full encapsulating designs ensure consistent cable performance at extreme ocean depths and to prevent high pressure impacting the electrical characteristics of the cable.
- Strength layers of Synthetic fibers including Kevlar®, Twaron®, Vectran and Dynema. Each strength attribute is carefully selected and configured to account for specific application and to optimize the mechanical performance. Other design factors considered are the handling system, bend radius, drive mechanism, duty cycles, sea location and conditions.
- Jacketing compounds are also specific to each application. Falmat carefully specifies each thermoplastic compound and process to best meet intended end use, Polyurethane, Xtreme-Grade Polyurethane, Hytrel, PE, HDPE, Light weight TPE, TPV, and foam PE or Foam PUR for flotation layers. Sectional extruded flotation layers are also offered.
- Steel armor constructions of double or triple layer, torque-balance constructions using Galvanized Improved Plough Steel (GIPS), Extra improved "GEIPS", Stainless Steel, Nitronic 50 and other alloys for lift umbilical.



Heavy Workclass ROV

## Testing:

Falmat performs cable integrity test validation for each tether and umbilical. New design and test programs can be offered with extensive evaluation of cable strength layers such as ultimate break strength, bend cycling fatigue, low tension cycle fatigue, torque and rotation, hydrostatic, as well as all optical, electrical Hi-Pot and third party certifications are available upon request.





Falmat is the smart choice for all your ROV cable needs. Visit our web site: [www.falmat.com](http://www.falmat.com) or contact our main sales office in California, USA for design consultation and to receive a prompt quotation.