Hydrates are a solid structure (similar to water-ice) that is formed when natural gas interacts with water at high ambient pressures and cold environments.

Hydrates are disassociated by:
- Reducing pressure to less than 10 bar
- Applying an antifreeze chemical such as methanol or glycol
- Increasing temperature

i-Tech 7 utilizes hydrate remediation techniques based on a combination of pressure reduction and chemical injection technology to disassociate blockages in subsea production facilities.

Typical hydrate formation location include:
- Within Subsea Tree Components
  - Pressure caps
  - Control lines / Control modules
  - Production path and barrier valves
- Control Umbilicals
  - Chemical injection lines
  - Control fluid lines
- Pipelines / Manifolds / Jumpers
  - Production path
  - Isolation valves

i-Tech 7 Hydrate Remediation Skid is designed to interface with work class and heavy work class ROVs operating on multi-service vessels or drilling rigs.

Benefits:
- Enhanced Automated Controls
- Electrically Actuated Process Valving
- High Precision Instrumentation
- System Flexibility (configurations for alternate applications)
- Comprehensive Topside Software Control
Hydrate Remediation Skid

Maximum Operating Depth:
- 13,000 Feet / 4,000 Meters

Flow Rate Performance
(Configure with redundant pumps)
- 2 GPM / 7.5 LPM

Pressure Reduction Capability:
- 5,000 PSI / 345 BAR in atmospheres with over 3,000 meters hydrostatic pressure
- 15 to 30 PSI / 1 to 2 BAR absolute pressure at depth

Positive Pressure Capability:
- 5,000 PSI / 345 BAR (above Hydrostatic Pressure)

Required ROV Hydraulic Power:
- 10 HP @ 2,750 PSI (190 BAR) supply pressure
  (Approximately 10 hydraulic gallons per minute)

Overall Belly Skid Dimensions
- 101 in Long x 74 in Wide x 21.5 in Height
- 257 cm Long x 188 cm Wide x 55 cm Height

Required Electrical Power and Communications from WROV
- 110 VAC @ 2Amps
- RS232 and Ethernet

Weight In Air
- 1,600 lbs / 726 Kilo

Weight In Seawater
- Approximately neutral

ROV Compatibility
- Schilling HD / UHD
- Triton XLS / XLX
- Hercules
- Millennium / Mill +