

# Key Features & Benefits

of Nylacast Polymer ROV Torque Buckets

Engineered to meet the highest industry standards, these ROV Buckets carry full API 17D and 17H compliance and are certified to BS EN 13628, including BS EN 13628-8:2006. Performance and reliability are further reinforced through DNV validation and 100% material traceability across every component. They are designed for demanding subsea environments, finished in subsea orange (RAL 2004) and require no coating, paint work, welding, or associated certifications, delivering a robust, maintenance-efficient solution built for long-term operational integrity.

- ✓ **High Corrosion and Abrasion Resistance:**  
Nylon's inherent resistance to corrosion and abrasion ensures longevity and reliability in harsh underwater conditions, leading to lower maintenance requirements and costs over time.
- ✓ **Lightweight Nylon Material:**  
Typically 1/7th the weight of a metallic counterpart, the use of nylon torque buckets significantly decreases weight loads, simplifying handling and installation processes.
- ✓ **Bespoke Manufacturing Service:**  
We offer a bespoke manufacturing service, enabling the production of custom-designed torque buckets to meet specific operational requirements and challenges.
- ✓ **Design life of 50 years:**  
Qualified and tested for a 50-year lifecycle, crucial in the demanding Oil & Gas environment
- ✓ **Compliance with Multiple Class Requirements:**  
Available in designs that conform to various industry standards and class requirements, BS EN 13628 and API 17D and 17H standards, making them suitable for a wide range of applications within the subsea sector.



# In-house Testing

## Rotary Torque Receptacle Test Rig

Class 4 and Class 5, to BS EN13628-8:2006 and API 17D and 17H standards. Our latest update to our testing regime is a test rig for ROV Polymeric Torque Buckets. We test our Torque Buckets to 3x times Safety Factor and conduct an accelerated fatigue test of 2600 cycles, both clockwise and anticlockwise, simulating one actuation cycle per week over five decades. This ensures the long-term reliability of our Torque Buckets performing to the standard's torque requirements throughout their 50-year lifecycle in subsea applications, which is crucial in the demanding Oil & Gas sector.

## Strength Tests

Torque testing up to a max torque of 25kNm

Pull out test up to a max of 25kN (standard is 10kN)

Side push test up to a max of 25kN (standard is 20kN)

The above tests are conducted on each Torque Bucket at -15°C, 19°C to 22°C and 45°C max of 25kN (standard is 10kN).

## Fatigue Life Tests

Fatigue testing on each Torque Bucket post strength tests: 20,000 plus cycles in one test.



## Other tests carried out include:

Impact Tests: a BS EN13628-8:2006 requirement, simulating a 4 tonne ROV hitting the Torque Bucket at a speed of 1.5m/s.

Saltwater Immersion: Immersion at Atmospheric pressure and 100 x Atmospheric pressure (= to 100bar).

Testing has been carried out on both round "top hat" and rectangular flange top ROV Polymer Torque Bucket Receptacle designs with 4, 6 and 8 mounting bolt holes, however, many Torque Bucket design configurations can be accommodated upon request or demand.

# Available Globally

Excellence manufactured, machined and distributed from 6 global locations

## World Headquarters

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