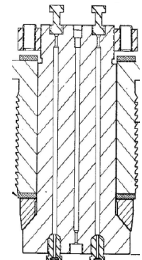


## Hydrostatic Pressure Testing

NV Mechanics Design provide hydrostatic pressure testing chambers dimensions range from 12.5 inches to 24 inches inside diameter and 30 inches to 220 inches depth at 30,000 psig max.



### Services

- Engineering design verification
- Product evaluation
- Prototype construction
- Design and fabrication of special test fixtures for client-specified requirements
- API-17D Tests
- Performance Verification
- Hydrostatic Pressure
- Stress Analysis
- Design Verification
- Subsea Actuators
- Subsea Housings
- Subsea Pressure Vessels
- Subsea Valves
- Umbilical Tests
- Cable Tests
- Underwater Cameras
- XHP-HT Tests

### Testing

- Internal and external hydrostatic pressure tests
- Stress analysis and acceptance tests
- Operational tests requiring electrical and hydraulic penetrations
- Parameters monitored on customer request – pressure, temperature, video, strain gages on tested equipment
- Collapse and burst tests on API steel pipe casing, fiberglass pipe, titanium and stainless steel pipe
- Testing of prototype equipment, pressure housings, subsea instrumentation, cables, connectors, oil field production and safety equipment

## Hydrostatic Pressure Test Vessel Features & Specifications

- Full diameter opening – 24” MAX
- Top flange inserts for various applications
- Internal mounting lugs and supports
- Dual video camera internal observation
- Internal Lighting
- Dual range digital depth gauges
- Digital Temperature Monitor

The Hydrostatic Pressure Test Vessel is fitted with multiple mechanical and electrical hull penetrations that can be custom configured to accept sensors, power supplies, data links, mechanical and hydraulic actuators and other equipment needed for testing. Video and internal lighting are also provided. Provision is also made for water temperature control

10 x 44 mm (1.75 inch) bore penetrators for instrumentation or mechanical interface to adapt to customer connectors and fittings

### Dimensions

- Dimensions are 610 mm (24 inch) ID and 5590 mm (220 inch) long

### Operating Pressure

- 2050 bar (30,000 psi)

### Design

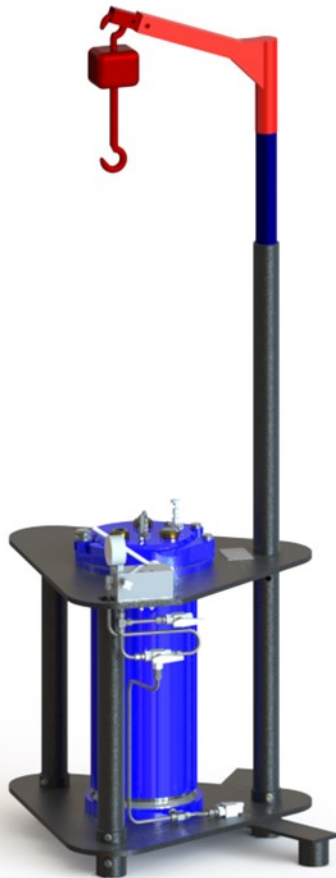
- The Hydrostatic Pressure Test Vessel design is ASME Pressure Vessel Code, Section VIII – Division 1 ANSI/ASME Safety Standard for Pressure Vessels for Human Occupancy – PVHO-1 1999 Edition and 1996 Addenda.

### Availability:

- The test tank is available to outside parties for hire and NV Mechanics Design Ltd provides all necessary technicians and operators to help set up and execute customer specific test programs. We can also provide test jigs, fixture and actuators if necessary. A number of smaller hydrostatic testing chambers are also available upon inquiry.

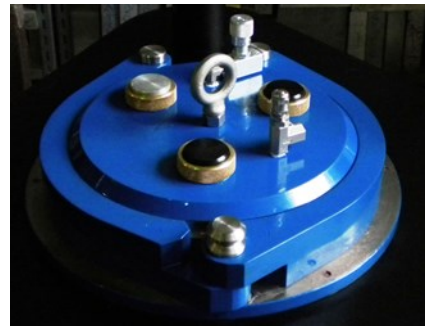
# Hydrostatic Pressure Testing Vessel

## Medium—Low Pressure



### Welded Pressure Vessel Test Tank

- The design calculations are in accordance with BSI PD 5500:2000, Specification for Unfired Fusion Welded Pressure Vessels
- The cylindrical shell (Combination of Carbon Steel Seamless Pipe and Carbon Steel Flange / Plate) 30 in. long and 12.5 in. in internal diameter is designed to carry an internal pressure of 1000 lbf/in<sup>2</sup> without exceeding the nominal design stress at the operating temperature less than 122 Fahrenheit (50 Celsius)
- Room for 3 penetrators through the lid



Characteristic	Value	Notes
Design pressure	1000psi	Max operating pressure
Design temperature	16° Celsius	Not to exceed 50° Celsius
Davit arm safe working load	250 lbs	Max safe working load 120lb top lid with attachments + 130lb test component (max)
Number of penetrators	3	Max
Pressure relief valve	1000psi	Cracking pressure (pre-set at FAT)
Capacity: internal diameter	12.5 in.	
Capacity: internal height	30 in.	
System dry weight	1100lbs	Approximated (± 10%)