

Hydratech Industries Pte Ltd

Plan • Design
Execute • Perform



High Pressure Solution



ISO 9001:2015 ISO 45001:2018





COMPANY PROFILE

Our Company

Backed by a world-class engineering team, and ISO Certified manufacturing facilities, Hydratech Industries specializes in engineering, consultation, design, fabrication, servicing and installation of high pressure equipment and systems to Oil & Gas, Petrochemical, Aerospace, Research, Defence & Manufacturing industries, among many others.

Being high pressure specialists, our capability is being able to customize solutions specific to our client's requirement. We believe in engineering a solution that improves the current and providing greater ROI to clients. We also do have a wide range of pumps, gas boosters, valves, fittings, tubings, chart recorders, quick disconnect couplings, gauges and many more to choose from, therefore we recommend the right choice of product to our clients through first understanding the applications and needs.

We strive to constantly be improving our knowledge, technology and solutions through research and development, always keeping our clients ahead of their competition.



Our Partners





Our Vision

Our visions are the guiding principles of our business in order to achieve continual success and sustainable growth.

CLIENTS– Be a long-term partner, providing carefully crafted and cost-effective solutions to overcome challenges ahead.

PEOPLE– Create an environment where voices of our people are heard, where no ideas are too small.

PARTNERS– Build a long-term, mutually beneficial relationship.

ENVIRONMENT– Be environmentally responsible through reduce, reuse and recycle.

SOLUTIONS– Engineer innovative solutions through continual research, development and feedback.



Selected List of Our Valued Clients





OUR PROJECTS

HPU Systems

These systems are specially designed to flush the Sub-sea trees, BOPs and actuators, with the high pressure pump installed. It can perform high pressure testing in various products easily and safely. This unit is incorporated with PLC, special electronic devices and a touch screen monitor to optimize the system to its maximum capability. There are other options available depending on our customer's requirement.



Electrical Driven Flushing HPU





High Pressure SCSSV Test System

This system comprises of three high pressure liquid pumps and a gas booster. They are uniquely plumbed together with high pressure tubing, fittings, air actuator valves and other accessories to test the reliability of the SCSSV which are used in sub-sea applications. With the incorporation of a PLC and special control valves, this system can be operated easily with the least supervision and great accuracy.



Dongolla Project

We supply and install all the high pressure tubing, fittings and special valves on this system.





Customized Control Panels



▲ Choke & Kill Control System



▲ Water Membrane Monitoring System



▲ Actuator Control with High Pressure Hose Reel



▲ Actuator Control





Hydrostatic Test Systems



▲ Testing and Flushing Capability

▲ Multi Test Fluids

Gas & Liquid Leak Test



Charging & Flushing Carts





TESTBAY SETUPS

Hydraulics & Gas Test

These solutions are designed with the requirements of individual customers. Depending on the provided layout and floor plan, be it an entirely new facility or an existing operational one, we can integrate the setup and still accommodate the given spaces.

Key Features:

- Modular design for easy placement.
- Maintains a continuous supply of gas and hydraulic test fluids at a constant pre-set pressure.
- Designed with minimized downtime and test fluids recycling ability.
- Comes with customized paperless digital chart recording system .





PORTABLE TEST PACS

These Test Pacs are self contained, ready to operate units, which only require nominal air supply pressure to perform a hydrostatic test on the components. The maximum pressure is up to 100,000 psi.

Standard Test Pacs



Test Pac - 8 Series
(Model : 8HSFD - 225)

◀ **Specifications:**

- 8 HP Haskel pump
- Maximum pressure of 22,500 psi
- Flow rate of approx. 2 litres/min

Specifications: ▶

- 6 HP Haskel pump
- Maximum pressure of 10,000 psi
- Flow rate of approx. 4 litres/min



Test Pac - G Series
(Model : GSF - 100)

◀ **Specifications:**

- 1.5 HP Haskel pump
- Maximum pressure of 15,000 psi
- Flow rate of approx. 0.45 litres/min



Test Pac - A Series
(Model : ASF - 150)

Specifications: ▶

- 1/3 HP Haskel pump
- With hand pump attachment
- Maximum pressure of 15,000 psi
- Flow rate of approx. 0.33 litres/min



Test Pac- M Series
(Model : MS - 110)

Customized Test Pacs





LIQUID HI-LO TEST SYSTEMS

These are Hi-Lo test systems; the high low pump can either be electrical or air-driven depending on the application. With this configuration, it will help to improve the efficiency of the work. Other components such as accumulators, electronic chart recorders and PLC can be added to the system for better performance and higher productivity.

Specifications: ▶

- Electrical driven pump for flushing up to 34 litres/min at 5,000psi. This pump can also be used for pre-filling.
- Air driven pump for pressure testing up to 30,000psi.
- Designed to flush in loops with high flow and pressure till the cleanliness specification such as NAS 1638 class 6 or better is achieved.



◀ Specifications:

- An electrical pump at 40 litres/min
- A bank of 8 x 50 litres accumulators
- An air driven liquid pump of flow rate at 4 litres/min
- Maximum pressure up to 22,500 psi
- A digital chart recorder and a test gauge at the outlet

Specifications: ▶

- First pump at flow rate of 80 litres/min to 100 psi
- Second pump at flow rate of 2 litres/min to 3,500 psi
- Third pump at flow rate of 1.2 litres/min to 6,000 psi
- The last pump at flow rate of 0.43 litres/min to 15,000 psi
- Special air actuator valves and controls make this system easily operable by the user





GAS SYSTEMS



Nitrogen Generator System

Specifications:

- System will extract industrial grade nitrogen from atmospheric air.
- Suitable for high consumption clients who require constant supply of nitrogen.
- The system is not limited to only generating nitrogen. Other types of gases in the atmosphere can also be extracted.
- Suitable gas receivers can be integrated to the system for storage of the extracted gas. Gases can also be used directly.



Mobile Storage Compressor

Specifications:

- Operates anywhere with electrical supply.
- Draws air direct from atmosphere.
- Able to generate and store gas pressure up to 5,000psi.
- Can be installed to different containers to suit different environments.





GAS SYSTEMS



Gas Booster System

Specifications:

- A gas compressor at flow rate of 1,300 litres/min to 5,000 psi
- A bank of 50-liter gas cylinders of 5,000 psi
- Gas boosters at flow rate of 1,000 litres/min to 15,000 psi
- High pressure air actuator valves, special solenoid valves and digital chart recorders



Portable Gas Systems

These portable booster units can be used for charging gas cylinders, performing pressure tests, leak tests, filling oxygen and gas tanks and many others. With all the necessary components installed, these units are easily operable by untrained workers.



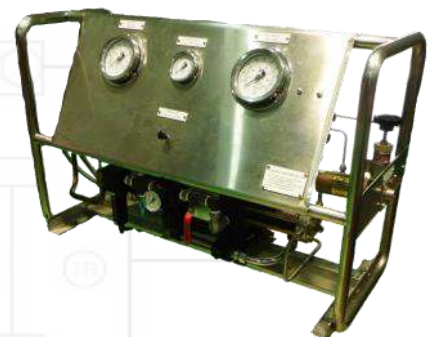
Pelican Case Booster



Trolley Fitted Booster



Hand Carried Booster



Oxygen Booster



AIR/GAS DRIVEN PUMPS



Haskel is the market leader in supplying air/gas driven liquid pumps, gas boosters, air amplifiers and associated equipment to various industries both onshore and offshore.

Gas Boosters



Haskel International Air and Hydraulic Driven Gas Booster provide for pressure up to 39,000 psi (2,690 bar). Used for virtually all known gases, these boosters are ideal for increasing gas pressure, transferring high pressure gas, charging cylinders and scavenging.

Liquid Pumps

Haskel offers an extensive range of air driven liquid pumps (64 models) and accessories. Pumps which offer liquid pressure of up to 100,000 psi (7000 bar) can be supplied.



Air Amplifiers



Haskel Air Amplifiers provide an alternative to expensive high pressure compressors. They are compact, require no electrical or mechanical drive connection, are powered by the same air they amplify and can be mounted in any position.

Diaphragm Compressors

Haskel diaphragm compressors for hydrogen refueling stations have been developed using the latest technology in solids modeling and FEA analysis. All Hydrogen compressor working components have been designed and tested for reliability and longevity.





ELECTRICAL DRIVEN BOOSTER



HYDRAULICS INTERNATIONAL, INC.

Electrical Driven Oxygen Booster



- Ideal for filling up or topping off low or high pressure bottles.
- 2-stage and double acting design uses no belts or pulley, making it the quietest electrical driven booster. (60dBa)
- Air cooled with integrated cooling fan reducing the heat of compression for longer sealing life.
- Automatic and adjustable start stop for low and high pressure limit control.
- Includes safety relief valve, inlet and outlet pressure gauges, inlet outlet air filters (5 micron) and pressure reducing regulator.
- O2 cleaned to MIL-STD 1330D with certification.
- Other models also available for other gases.

Electrical Driven Nitrogen Generator

- Designed to produce gaseous nitrogen at 30 scfm at purity 99.5% or better, at 5,000psi (344bar).
- Self contained, enclosed skid mount.
- Automated PLC Controlled nitrogen generation and filling with minimum operator intervention.
- Sophisticated automatic and continuous nitrogen purity control and calibration with on-board purity analyzer.
- Unlike other generators, HII generators are 100% oil-less feed and high pressure air compressors eliminates the need for oil separators, resulting in extended life of nitrogen separator membrane and no oil-filter change.
- Diesel driven model also available.





ELECTRICAL DRIVEN PUMP

HDP
HIGH PRESSURE PUMP
PISTON PUMP



Specifications:

- Flow: 38 Litres/min
- Inlet Pressure: 1 - 3 bars
- Max Pressure: 400 bars
- Plunger: 20mm
- Motor Size: 40HP
- Max Liquid Temp: 60°C

Model: HDP400-38

Air driven liquid pumps are efficient in boosting liquids to high pressures. However, when it comes to high volume and constant flow requirements, we highly recommend the electrical-driven pumps from HDP. The pump is built with the best quality materials for increased strength and prevention against corrosion. Each pump has a ceramic plunger for higher tolerance and longer service life. Special packing seals are also designed to withstand high temperatures and resistance against wear. Built-in external cooling ports lubricate and cool high and low pressure seals against high pressure built up.

HDP pumps have been widely use in many of our solutions because of its efficiency, reliability and durability. It is highly versatile and can be integrated into many applications. There are many models for different applications available.

Integrated Solution



For this application, 2 HDP pumps were rigged together with a logic controller that automatically alternate between their operation. The pumps are used to ensure sufficient quantity of pressurized testing fluids being churned to an entire test facility with multiple test bays. It is also used to keep a number of accumulators in the test facility pre-filled.



HYDRAULICALLY DRIVEN LIQUID PUMP & GAS COMPRESSOR



HYDRO-PAC INC.

HYDRO-PAC high pressure hydraulically driven liquid pumps and gas compressors have been developed to achieve very high pressures for a variety of industrial applications. While pumps can achieve pressures of up to 200,000psi, the gas compressors can achieve pressures of up to 120,000 psi. HYDRO-PAC high pressure compressors are made simple but used in complex environments to provide unparalleled, reliability and support.

Liquid Pumps

Key Features

- Discharge pressure between 10,000 to 200,000psi
- Frame size between 3 to 200 HP
- Suitable for non-corrosive fluids with options for water and other fluids
- Li'l Critter Series double-ended intensifier discharges in both directions of stroke
- FC Series long slow stroke results in longer packing and check valve life



Li'l Critter -Series



FC-Series

Gas Compressors

Key Features

- Discharge pressure between 1,500 to 60,000psi
- Suitable for Hydrogen, helium, argon, nitrogen, carbon dioxide, CNG, methane and other gases.
- Inlet pressure between 500 to 6000psi, however, Hydro-Pac gas compressors work over a wide range of inlet pressures. In many cases inlet pressure regulators are not required
- Oil-free lubricated gas pistons
- Full stroke-length distance pieces isolate the hydraulic drive from the gas cylinders



**LX-Series
 (Single & 2 Stage Model)**



Li'l Critter-Series



Flexi Power-Series



GAS COMPRESSOR



For more than 115 years, J.A. Becker & Sons has been an established partner for industry and manufacturers. The range of piston compressors are from 40 to 350 bar for the compression of air and other gases as well as the whole range of compressed air treatment. Quality, reliability and cost effectiveness distinguish the breathing air compressor series. These characteristics are proven daily by many customers world-wide under the harshest conditions.

General Key Features

- Compact and tough design, grant a reliable and economic operation for a multitude of applications.
- Highly effective cooling system
- High volumetric effective rate
- Long service life of valves, high efficiency and are easy to maintain.
- Standard execution equipped with pressure gauges and safety valves for all pressure stages.
- Optional pressure switches for electric pressure-stage supervision as well as electric control units for automatic operation or individual demands are available.
- Particularly used in the energy industry, for pressure testing, breathing air application, gas injection-molding as well as for laser technology.
- Suitable for inert gases (Helium, Nitrogen, Argon etc.)
- Also suitable for explosive gases (CNG, Bio-CNG, Hydrogen etc.)



Compress Air Supply & Steering of Pneumatic Operated High Voltage Switch in Hydro Dam



CNG Compressor for CNG refilling stations



Breathing Air Compressor for breathing bottle refilling



High Pressure Air Compressor with Silent Hood for supplying high pressure gas into industrial facility



VALVES & FITTINGS



HTG products, from the USA, is best known for its high performance, reliability and quality. They manufacture a wide range of valves, fittings, block and bleed and customized manifolds.

Standard materials are SS316 with the availability of exotic materials to suit different applications. The maximum working pressure is up to 60,000psi (4136 bar).



Manual and Air Operated Needle Valves

- NPT Thread Connection MAWP up to 15,000 psi (1000 bar)
- Cone and Thread Connection MAWP up to 60,000 psi (4000 bar)
- Quick Open Manual Needle Valve (2 3/4 turns fully open) model
- Temperature rating: -100oF to 600oF
- SS316 Cold worked body, 5-15 PH stem and Glass Filled Teflon Packing

Ball Valves, Block & Bleed Valves

- MAWP up to 20,000 psi (1400 bar)
- Wide variety of connection type and sizes
- All ball valves are trunnion style for superior performance
- Block and Bleed configuration comes in Ball x Needle x Ball or Needle x Needle x Needle configuration



Relief Valves, Check Valves

- Relief Valves MAWP up to 30,000 psi (2068 bar)
- HTG designed pressure setting knob for comfort and precision adjustment. (for 11,000psi model only)
- Check Valves NPT MAWP up to 15,000 psi (1000 bar)
- Check Valves Cone and Thread MAWP up to 15,000 psi (1000 bar)

Adaptors, Fittings & Tubings

- Adaptors MAWP up to 60,000 psi (4000 bar) with wide variety of connection sizes available
- Pipe Fittings MAWP up to 15,000 psi (1000 bar)
- Cone and Thread Fittings MAWP up to 60,000 psi (4000 bar)





VALVES & FITTINGS



HiP provides a complete line of valves, fittings and accessories designed to provide leak-free operation at pressures ranging from 10,000 psi to 150,000 psi.

These needle valves, fittings, line filters, check valves, safety heads and rupture discs are engineered to the highest standards of reputable quality.



BuTech pressure system is a leading manufacturer of high pressure valves, tubings, fittings and accessories.

The system components are available in any alloy to handle pressures from vacuum to 150,000 psi (10,000 bar) and temperatures from -423°F (-253°C) to over 1,200°F (649°C). Any extreme usage of erosive or corrosive solids, liquids or gases prove no match for BuTech products.





VALVES & FITTINGS

HSME[®]
Valves & Fittings

HSME's reputation has been established by superb product performance, specialized heat treatment knowledge, and customized system products for each client's special requirements ever since their establishment in 1976. For over 40 years, HSME's strong technical knowledge and experience have given them a high level of abilities for new product development, on-going improvements for standard products, and a strong passion for outstanding.

Tube Fittings and Tools

- Cold-form external threads
- 20 TPI thread supports gauge-ability
- Excellent sealing surface finish provides leak-tight performance
- Leading edge selectively hardened back ferrule supports sealing integrity
- Tubing deformation inward supports leak-tight performance
- Consistent internal diameters throughout components
- Available materials include SS316, Duplex, Hasteloy C, Alloy 625, Brass & Carbon Steel



Valves, Quick Connects and Filters

Below are some sample models listed but are not limited to.



VB2-Series
1-piece Ball Valve, 2-ways



VTB6-Series
Trunnion Ball Valve



Air Operated
Ball Valve



VN5-Series
Integral Bonnet
Ball Valve



VCH6-Series
High Pressure Check Valve



VR6-Series
Relief Valve



In-Line
Filter



HQ-Series
Quick Connector



QUICK DISCONNECT COUPLING



WALTHER - PRAZISION is specialized in high pressure quick disconnect coupling and has been developing and producing mono-couplings, multi-couplings and subsea multi-couplings where liquids, steam, gases, electrical, optical signals and electrical power are to be transferred and connected & disconnected safely, with little or no contamination. Unique feature is that these couplings can be connected under pressure.

Workover Stab Plates

- Cam action assisted 8-way plate
- Populated with:
 - 7 coupling elements type OM-006-Z04 (3/8")
 - 1 coupling element type OM-010-Z04 (1/2")
- Working Pressure: 10,000 psi
- Secured position for handles in connected position



Light Weight ROV Operated Stab Plate

- Easy operation by ROV claw
- Population with up to 6 coupling elements for 10,000 psi.
- Unique anti rotation termination between coupling elements and umbilical tubes.
- Reliable locking mechanism.
- Gripping interface to API 17D class 2 alternative torque tool bucket to ISO 13628-8 class 2.



Standard Monocouplings



CT Series
(Up to 65 bar)

HP Series
(Up to 2,000 bar)

HC Series
(Up to 650 bar)

CP Series
(Up to 250 bar)

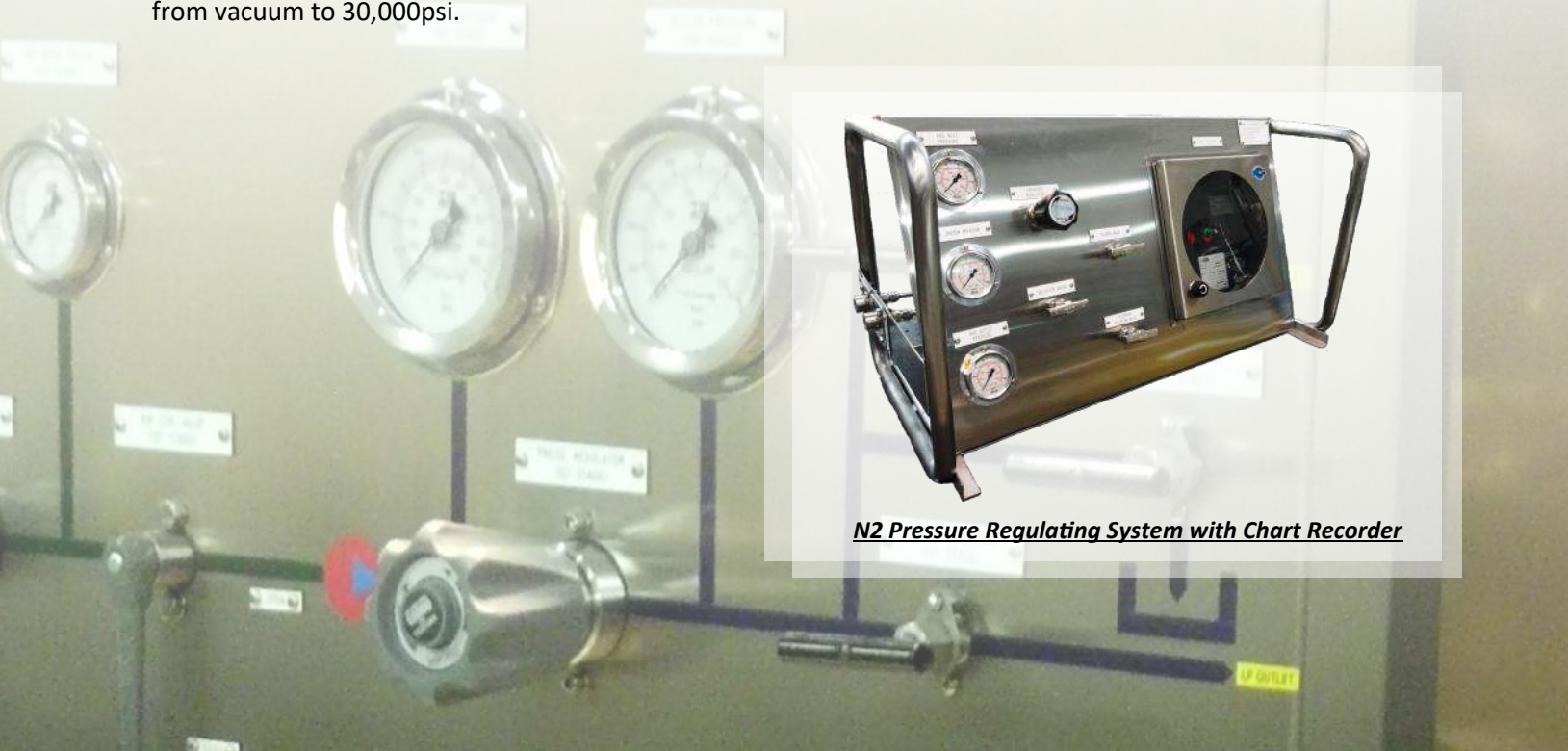
Diver Screw Type
(Up to 690 bar)



PRESSURE REGULATOR



Known for its quality, long life and easy maintenance, TESCOm has made its name in various industries. A comprehensive range of standard and custom regulators, valves and electronic pressure controllers are available for industries such as aerospace, automation, diving, pharmaceutical, petroleum, semi conductors and medical from vacuum to 30,000psi.

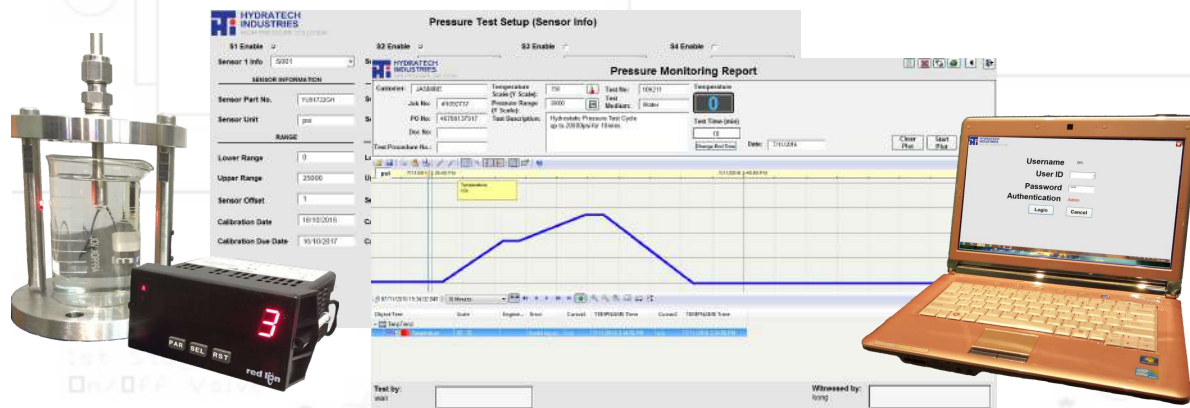


N2 Pressure Regulating System with Chart Recorder



DATA ACQUISITION & INSTRUMENTATION

Data Acquisition System



All in One: Bubble Counter, Pressure and Temperature Data Acquisition

The data acquisition system is uniquely designed by Hydratech Industries to give our clients versatility in monitoring, capturing and presenting real-time pressure reading and test results.

Some key features of this system includes:

- ✓ Captures and plot results on straight chart.
- ✓ Fixed desktop or high mobility laptop installation.
- ✓ Runs on Windows Operating System therefore operating it is intuitive.
- ✓ Users able to use up to 4 channels for testing at one time.
- ✓ Additional channel available for recording ambient temperature during test.
- ✓ Tracks and prompts transducers calibration expiry.
- ✓ Results can be generated into PDF or Spreadsheets to be used later.





DATA ACQUISITION & INSTRUMENTATION

Pressure Transducer



GP:50 is an ISO9001 certified leading designer and manufacturer of reliable and accurate pressure sensing equipment. Specialty pressure sensors are customizable. All GP:50 pressure sensors are rigorously tested and field-proven for their high-reliability within extreme environments.

Oil & Gas Industry



**High Pressure,
High Temperature
Process Transmitter**



**Downhole
Pressure Transducer**



**Subsea Pressure /
Level Transducer**



**Ultra High Pressure
Transducer**

Industrial Testing



**High Accuracy
Pressure Transducer**



**Explosion Proof/Zone 2
Pressure Transducer**



**Low Range
Pressure Transducer**



**USB Output
Pressure Transducer**

Above are samples of transducers available but the list is not limited. There are models that are suitable for applications in the Aerospace and Subsea. There are models that are suitable for extreme temperature, hazardous locations and also for providing differential readings.



DATA ACQUISITION & INSTRUMENTATION

Chart Recorders

Tech Cal has been providing calibration services to the petrochemical, aerospace and other such industries for many years. Their mechanical chart recorders are the industry standard for accurate, reliable measurement and recording of pressure and temperature in a wide variety of applications.



De Wit is a quality and service-oriented manufacturer of pressure and temperature tests and measuring equipment for all applications. De Wit Chart Recorders cover ranges from as low as 0-1 bar to as high as 0-4,000 bar. Various configurations catering to all industries are available.



Pressure Gauges

The Stewarts Group of Companies has been in existence since 1870 and have established and maintained a reputation for the manufacture of high pressure gauges and its related products over the years. They carry the most comprehensive selection of pressure and temperature instrumentation, valves, manifolds and accessories.





BOP CONTROL COMPONENTS



Although the products are mainly used in BOPs, their applications are not limited. We have used some of these products in our systems where high flow and pressure are required, similar to conditions within a BOP. These products are made to be lasting in the harshest conditions.



ShearFlo® KR Pressure Regulators

- ✓ Maintain desired system pressure below the inlet supply pressure.
- ✓ Up to 200GPM with 2".



ShearFlo® SV Directional Valve

- ✓ Direct fluids up to 180 gpm.
- ✓ Different configurations utilizing one or two cylinder ports.



Relief and Check Valves

- ✓ Working pressure up to 5,000psi.
- ✓ Stainless steel sealing component.



Bladder Accumulators

- ✓ Working pressure up to 6000 psi.
- ✓ Different port assemblies and storage volumes.



Control Valve Manifold Headers & Accumulator

- ✓ Working pressure up to 6,000psi.
- ✓ Accumulator manifold up to 12 ports.
- ✓ Control Valve manifold up to 8 ports.



Air Remote

- ✓ Connected to the Blow Out Preventer hydraulic control unit by an air cable assembly for remote control.

Application: BOP RAM TEST SYSTEM

Air-operated 4/3 way directional valves to direct high flow high pressure fluids to multiple test cells with storage accumulators.





SUPPORTING SERVICES

After Sales Support

Hydratech Industries has a team of service and maintenance engineers that provide comprehensive post-sales support to all our clients after their purchase of our products, systems or solutions. The team provides problem analysis and service recommendation report to the client after initial verification. Only on the approval from the client shall the recommendations be carried out. Servicing can be carried out onsite or offsite.

Service and Maintenance Team services include:

- ✓ Fault Troubleshooting, Analysis and Verification
- ✓ Service and Repairs
- ✓ Onsite Visits
- ✓ Planned Maintenance Contracts
- ✓ Spare Parts Purchase
- ✓ User training



System Rental

To meet short term needs of clients, we have a range of portable testpacs for rental. These can be used for performing pressure testing or flushing. Leave the maintenance to us. We can also provide the labor required.



Up to 6,000psi
gas pressure

Up to 10,000psi
liquid pressure

Up to 6,000psi
liquid pressure

Accessories &
Chart Recorder

Other Services

- ✓ System Refurbishment & Modification
- ✓ Labor for High Pressure Testing, Assembly & Installation
- ✓ Calibration
- ✓ Pressure and Leak Testing
- ✓ Relevant Grant Application (Singapore Only)





Singapore

- ▶ **Singapore Head Office**
61 Yishun Industrial Park A, #01-01, Singapore 768767
- ▶ **Workshop & Warehouse**
61 Yishun Industrial Park A, #01-01, Singapore 768767

Malaysia Office

- ▶ No.17, Jalan Damai Raya 4, Alam Damai Cheras,
56000 Kuala Lumpur, Malaysia.
Tel: +603 2303 9811

Contact Us

- ▶ **Telephone:**
+65 6314 0518
- ▶ **Email:**
sales@hydratechcorp.com
- ▶ **Service Hotline:**
+65 9297 6680

www.hydratechcorp.com