



Gem Pressure System India Pvt. Ltd.

We are an ISO 9001-2008 BV accredited, Indian owned, high technology OEM and High Pressure Hydro-pneumatic solutions provider. Our technical ability and technology resources are backed by formal associations and products of Hamilton Sundstrand's Haskel and Butech upto 150000 PSI (10000 Bar). We design and build liquid and Gas based systems for many kind of applications, in many industries including Oil & Gas (for on & off shore activity). Some interesting products indicated below.



Test & Control Systems

Standard High Pressure Hydro Static Test Units : Used for hydrostatic testing of BOP, X mas Trees, Kill Chokes and other high pressure operational equipment in Oil & Gas industry, our standard air driven 'Test Pacs' are highly reliable, compact, light weight, easy to operate and maintain, and are used world wide. We have the latest ATEX compliant pumps and can also offer systems that are NACE compliant for Sour / Sweet gas operation instead of compressed air. We also have compact units for hydro static calibration of gauges and other equipment.



panel, to meet customer specific needs. The systems can be offered with individual or common drive air inlet with quick release coupling as desired. As optional the cabinet can also be equipped with a heater for cold weather operations.

Wire Line Control Panel : These units, with capacity as required from 10 to 30 k psi, can control Master Valve & Down Hole safety valves during wire line operation.

Wire Line Trucks



Customised High & Low Pressure Units : Our custom built oil field equipment, using air driven pumps, with manual, actuated or remote controlled valves are preferred equipment for high pressure and functional testing of double acting valve actuators.



Wire Line Trucks, Utilities & Control Panels: We could indigenously fabricate 4x4 heavy duty cross country wire line trucks, providing the required customer specific hydro pneumatic utility resources.



Control Systems

BOP Control Unit: This control unit, to supply hydraulic oil at high pressure can be custom designed for the range of 5k to 10k psi depending on operational requirements. Additional facility can provided for the hook up of stuffing box to the system. There are exclusive air operated hydraulic pumps provided for each of the application. In case of an emergency, a standby hand pump arrangement can also be provided, common for both (BOP & stuffing box).



Chemical Injection & Transfer

Portable Chemical Injection Units : We can offer a wide range of compressed air operated single or multi pump chemical injection / metering and drum transfer units, with safety systems, as well as manual / automated calibration & measurement systems. The former can be built customer specific to the range of 1 to 30k psi and the latter with NPSH up to 200 psi. We could custom fabricate the units as light weight portable ones in open SS tubular frame or boxed and trolley systems also in SS for rough terrain and inclement weather. When the systems are not man portable, the skid mounted equipment can be manoeuvred with fork lifts or the eye bolts looped with a sling to lift by crane.

Shut Down Panels

Emergency Shut Down System (ESDS) : This system, specific to individual customer requirements, can be custom designed to control Surface and Sub Surface Safety Valves, Stand Alone Surface and Sub Surface Safety Valves, Flow Wing Valve on Christmas Tree and Master Valve, for pressure as much as 30 k psi. If required, we could build in additional sub systems, within the same control



Additives Injection Units : Amongst our wide range of products are all SS injection pump skids for additives into pressure lines. The additives could be corrosion inhibitor, anti coagulant, anti foaming, anti static, etc.



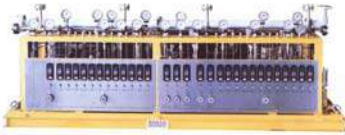
Down Hole Methanol / Glycol Injection Units : These multi pump all SS, skid mounted, portable or static units,

can be offered in multi pump configuration to meet a large range of operating pressure and flow.

Crude Condensate Transfer Pump Units : Instrument Air or Sour/Sweet gas operates units in all SS, skid mounted, open or boxed, portable or static configuration, can be offered in single or multi pump configuration to meet a large range of operating pressure and flow.



Chemical Injection with Precise Pressure & Flow Control - Injection Rate Control Devices (IRCD) : We can offer "Multi Point", all SS, chemical injection systems with precise control of Flow and Pressure, manual or remote control. This fifth generation high technology equipment facilitates multi point injection from one tank, and one set of pumps, instead of unwieldy arrangement of tanks and pumps for each injection point. With the exclusively patented IRCD, the pressure and flow could be different at each point, even though the tank and pumps are



the same. The operations could be monitored and controlled from as distant location as required without affecting the accuracy of the injection control. This is the most sought after technology of the future.



Automated Chemical Injection System with PLC : The chemical injection skids are designed for accurate dosing of chemicals to control water turbidity and hardness for Boiler Feed Water, or other such applications. Monitoring and control of the complete dosage is done by the PLC in the heart of the system.



Wellhead Control Panels

Conventional Pneumatic Hydraulic Wellhead Control Panel : Conventional Pneumatically Operated Hydraulic Well Head Control Panels for operating Master valve, Hydraulic opening Jack, Flow wing valve, Surface Controlled Surface or Sub Surface Valve, Option & Management of Production Wing Valve (all can be offered in the range of 2.5 to 10 k psi, or customer specific pressure)



Hydro Electric Wellhead Control Panel With PLC : With advent of newer technology, there is an increasing demand for replacing pneumatic/hydraulic logic for supervision, monitoring & control of well throughput & start-up / shutdown as also remote control from central processing plant. We can offer a computerised, dual redundancy, fail safe control & monitoring system for the wellhead management.



Modular Well Head Control with PLC : These control panels, for operation of Valves on Christmas Tree, SC-SSV, Master Valve, Wing Valve have emergency shutdown logic, as well as start-up and shutdown logic. They have adequate built-in as safety features



PLC Based Wellhead control : Multi / Modular wellhead panel for On & Off shore application, with centralized Control of 10 or more wellheads, using PLC Based system.

Modular Wellhead Control Panel : The multi modular wellhead control panel is for offshore platform application. This control panel can be used to operate 10 or more wellhead Christmas Trees with Wing Valve,

Master Valve and Sc-SSV valve on each. TUV AK6 approved PLC System perform logic functions together with the Panel.

Dual String Wellhead Control Panel : Designed to customer specifications, for operating and providing safety shut-down for dual string well.

Self Contained Hydraulic Wellhead Control : This single well hydraulic control panel can be designed to customer specification (5 to 1000 b) to operate production well with one each SC-SSSV, Master valve & Wing valve. The enclosure and components are SS316. The control panel has two pneumatically driven pumps with hand pump attachments in case of emergency operations.



Solar Powered well head control panel : The control panels can be rigged with PLC based solar power for wellhead control, monitoring & auto/manual control of wellhead process. Especially useful on unmanned wells. Can operate Single wellhead valves to control – WV, MV, SCSSV, KV, AV.

General High Pressure Products

High Pressure Pneumatic Applications : Air driven Gas booster Systems for high pressure cylinder filling, gas transfer, accumulator gas charging etc. Gas injection systems.



High Pressure Hydraulic Applications : Bolt tensioning, nut torquing, splitting gear box casing, swaging, etc.



Oxygen Charging Systems

Allied Equipment For Assorted Hydro Static Pressure Testing.

Associated equipment for Jacking & Lifting.

Pumps for High Pressure Lubrication

Diesel Engine Air Starters

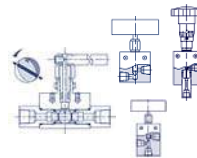
Gas Booster for charging Helicopter Floation System.

Custom built systems for fracture leak and burst testing of hydraulic, gas, automotive hose and rigid pipes.



Haskel & Butech High Pressure Piping Products :

We have a large array of high pressure piping, safety and automation products including manual and automated valves, directional valves, relief valves, air pilot switches, accumulators, filters, check valves, manifolds, Block & Bleed valves etc.



Sub Sea Products

We have a large array of high pressure sub sea piping and automation products.

Services

Our ISO 9001-2000, BV accredited, fabrication and "Customer Support Centre" facility at Hyderabad is stocked and equipped for major and minor maintenance requirements. We also have a team of qualified and well trained service engineers for on and off shore field support..