Application Overview
Wellhead Control Panel

Key Objectives

- Critical control of safety valves
- Remotely control and monitor multiple wells from a single point
- Control production rates to optimize well profitability and yield

Wellhead Control Panel (WHCP)

The wellhead control panel (WHCP) is a hydraulic system that utilizes a hydraulic power pack (pump and accumulators) and a wellhead control module to perform its task. The output of WHCP is high pressure hydraulic supply and medium hydraulic supply to operate choke and safety valves. The wellhead control panel is also the interface between the plant control and the well safety system.

A typical wellhead control panel contains a system of valves and regulators, situated topside at the power source, which may be operated manually or by remote control to direct pressurized mineral oil or water-glycol to final control elements at the wellhead/Christmas tree.

A typical arrangement includes - reservoir, pumps, accumulators, solenoids, valves, pressure regulators, switches, motor control, transmitters and junction boxes. Each well is typically equipped with:

- Surface Controlled Subsurface Safety Valves (SCSSV) or Down Hole Valves (DHV)
  (In most applications, SCSSV is an on-off valve with hydraulic actuators)
- Surface Safety Valves (SSV)
- Master Valves (MV)
- Wing Valves (WV)
  (controls production rate)

Customer Pain

In some instances environmental concerns have led to increased use of water based fluids such as water-glycol. However, water based media may cause damage to sliding surfaces due to the lack of lubrication. Furthermore, deeper wells lead to higher pressure requirements such as 1380 bar/20,000 psig. As pressure increases, the potential sealing and control problems likewise increase.

DISTRIBUTED BY

121 Vulcan Road, Canning Vale, Western Australia, 6155

Telephone: +61 8 9456 1300 - Facsimile: +61 8 9456 1400
Email: info@tridentaustralia.com.au
TESCOM Solution

- Advanced materials used in the design of TESCOM regulators withstand the harshest environments, providing reliable performance and long-standing quality. This results in reducing non-productive time due to wear and galling as compared to other technologies.

- Field-proven design of TESCOM hydraulic regulators provide more accurate and repeatable pressure control ensuring confidence in the operation and control of critical safety circuits.

- For water based process media, TESCOM uses special dynamic seals along with extra wear rings and gall resistant alloys that can withstand the lack of lubricity between the moving parts inherent with high pressure water-glycol based service.

## Components

| TESCOM 26-2000 Series (High Pressure) Pressure Reducing Regulator |
| TESCOM 54-2000 and 54-2200 Series (High Flow) Pressure Reducing Regulator (Mineral Oils) |
| TESCOM 50-2000 and 50-2200 Series Pressure Reducing Regulator (Water-Glycol) |

## Ideal for:

- Wellhead Control Panels
- Hydraulic Power Units
- Hydraulic Accumulators
- Blow Out Preventers
- Emergency Shut-down Systems
- Flushing Skids & Pressure Testing
- Fuel and Lubrication Systems
- Metering Systems
- Process Instrumentation
- Actuated Valves and Control

## Resources

**Product Datasheets:**

- 26-2000 Series Datasheet
- 50-2000 Series Datasheet
- 50-2200 Series Datasheet
- 54-1000 Series Datasheet
- 54-2200 Series Datasheet

**See 50-2000 and 50-2200 Series for water-glycol applications**

Like what you see? Contact us for more information:

DISTRIBUTED BY

121 Vulcan Road, Canning Vale, Western Australia, 6155

**Telephone:** +61 8 9456 1300 - **Facsimile:** +61 8 9456 1400

**Email:** info@tridentaustralia.com.au