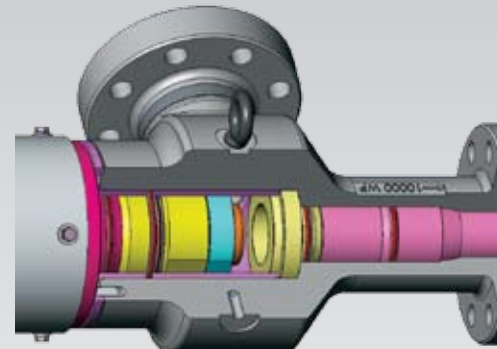
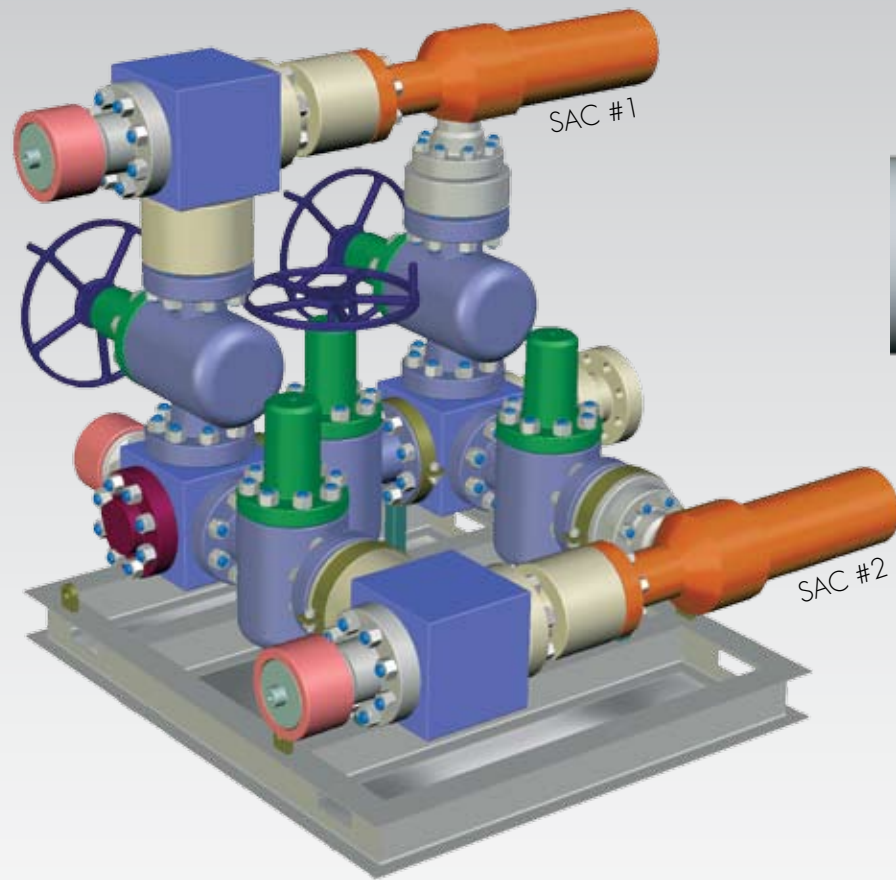


## PRECISE PRESSURE CONTROL

M-I SWACO provides industry leading services to maintain stable bottomhole pressure during drilling and well control operations. Through a separate agreement, At Balance with SMITH will have strategic access to M-I SWACO drilling and pressure control technology, including the Super AutoChoke. Designed with patented technology for precise pressure regulation under all conditions, the Super AutoChoke will improve the precision with which Automated Pressure Drilling services control bottomhole pressure, reduce the risk of formation breakdown, and insure faster, safer kick control.



M-I SWACO Super AutoChoke

At Balance Manifold with Dual Super AutoChokes

### At Balance with SMITH - A better way to drill

#### Benefits

- Improve safety
- Reduce drilling cost
- Reduce nonproductive time
- Reduce lost circulation & influx
- Eliminate stuck pipe
- Increase wellbore stability

#### Features

- High speed, safety critical control
- Early kick detection
- Integrated control & hydraulics modeling
- Continuous model calibration\*
- Active backpressure control without rig pumps
- Remote system control

#### Applications

- Mature brownfields
- Depleted deepwater reservoirs
- Static underbalanced drilling
- Narrow pressure margins
- Shallow, high pressure gas hazards
- Well control



# Automated Pressure Drilling™ Services

FOR CONTINUOUS BOTTOMHOLE PRESSURE CONTROL



At Balance™  
11767 Katy Freeway, Ste.  
1030

Houston, TX 77079  
281.558.318  
Go to [www.atbalance.com](http://www.atbalance.com)

Safety Critical Control • Pressure Stability • Instant Response

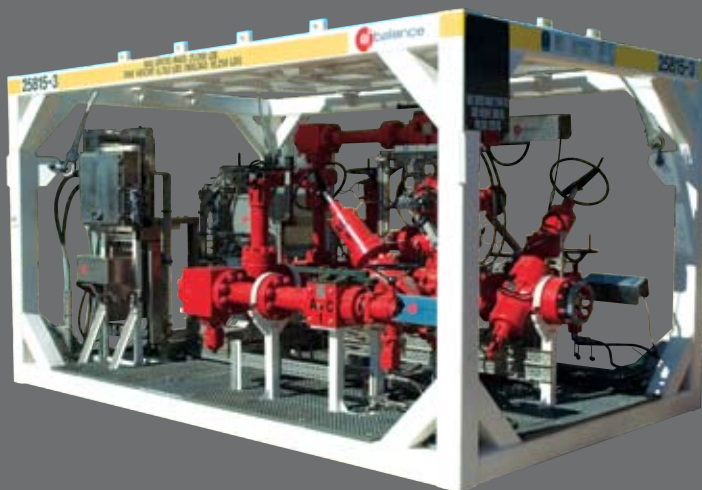


# @balance with SMITH



## Safety critical pressure control

Ensuring the safety of people, environment, and equipment drives the need for fast, accurate, and continuous response to sudden pressure changes. Automated Pressure Drilling services deliver safety critical control with the Integrated Pressure Manager™ (IPM). The IPM combines a high speed, programmable system with a real-time hydraulics model to control bottomhole pressure at a speed other systems cannot match.



## Patented pressure drilling system

Automated Pressure Drilling services utilize the DAPC system, a patented system that continuously stabilizes bottomhole pressure while drilling, tripping, and during connections and well control. The integrated system actively manages pressure with real-time hydraulics analysis, an automated choke manifold, and on-demand backpressure pump and gives operators control through tight margins and depleted reservoirs.

## At A Glance

Responding to the global push to revive mature fields and tackle more hazardous pressure conditions At Balance, a portfolio company of Shell Technology Ventures Fund 1 B.V. and SMITH will work together to provide global Automated Pressure Drilling™ (APD™) services.

Automated Pressure Drilling services include engineering and technical support services for planning and operations, At Balance's Dynamic Annular Pressure Control™ (DAPC™) system, and SMITH'S drilling and pressure control services and technology, including the HOLD™ series of rotating control devices and the Super AutoChoke™.

In well documented cases, APD services have helped oil companies drill high risk pressure margins to reach previously inaccessible reservoirs, open depleted fields to redevelopment drilling, and redefine economic drillability.

Jointly, At Balance with SMITH will expand and strengthen support for APD services to deliver the benefits of real-time pressure control to oil companies encountering risky, uneconomic, and conventionally impossible to drill pressure conditions around the world.



## Proven, reliable pressure control

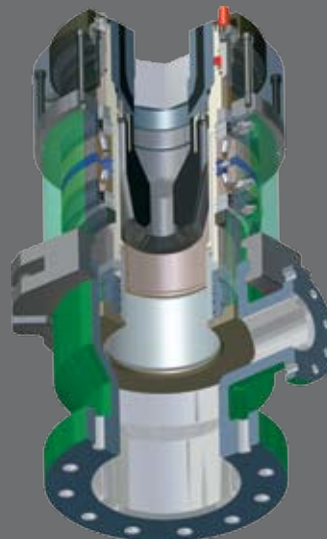
Closed circulation drilling systems provide the means to stabilize and control bottomhole pressure by which oil companies overcome unsafe and uneconomic pressure conditions. The HOLD 2500 Rotating Control Device (RCD) provides a field proven, safe, reliable seal so that a closed system stays closed and the bottomhole pressure remains stable and in control throughout the drilling operation.

## Industry-first application in deepwater GOM

The HOLD 2500 maintained a reliable seal while drilling depleted reservoirs from a deepwater GOM platform during critical drilling operations with statically underbalanced mud.

The HOLD 2500 provided multiple benefits:

- It allowed installation between the annular preventer and riser slip joint
- Interruptions were minimized because stripper elements were installed and retrieved through the upper riser
- It allowed conventional mud flow during element replacement
- Backpressure was applied to the RCD not the slip joint



## MEASURABLE IMPACT ON REAL WORLD DRILLING PROBLEMS

**2004** First use of automated BHP control with the DAPC system in The Netherlands eliminates lost circulation in fractured chalk oil reservoir

First use of automated BHP control to drill Australia geothermal resource and protect fractured granite reservoir

**2005** First government approved use of At Balance with SMITH on deepwater GOM platform eliminates losses in depleted reservoir

First use of automated BHP control on UK North Sea production platform to eliminate differential sticking in horizontal reentry well with CT and reach stranded oil reserves

First use of automated BHP control with multiphase hydraulic model in US to drill underbalanced gas well & avoid reservoir damage

At Balance receives Offshore Energy Achievement Award for Emerging Innovation/Technology

**2006** First remote operation of automated BHP control system on UK North Sea platform to reduce personnel onboard during CTD of horizontal reentry well in mature oil field

First use of automated BHP control for kick detection and well control using real-time PWD data and wired drill pipe in Myanmar shallow gas well

At Balance receives second Offshore Energy Achievement Award for Field Life Extension

**2007** First use of automated BHP control and kick detection system in south Texas wildcat well to eliminate losses and reach difficult-to-drill gas reservoir

First government approved use of At Balance with SMITH and kick detection system on deepwater GOM platform eliminate losses while drilling depleted field statically under balanced

First use of automated BHP control and kick detection system from a barge rig to eliminate losses and stuck pipe while drilling narrow depleted margin