INTECH
AUTOMATION · INTELLIGENCE

# Wellhead Solutions

## Control & Automation Solutions

Solutions for Optimizing Oil & Gas Operations

ISO Certified Offices
CSIA CERTIFIED
PMI Project Management Institute

# Introduction

INTECH's Wellhead Automation Solutions cover design, manufacturing, installation, commissioning and operation & maintenance of Wellhead Systems on any location worldwide. Our wellhead products include generic and custom built vendor-neutral solutions which range from hydraulic control panels and subsea master control stations to wellhead RTU's and injection skids.

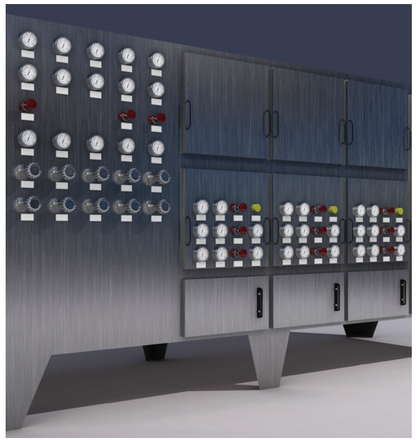
## Wellhead Control Panels

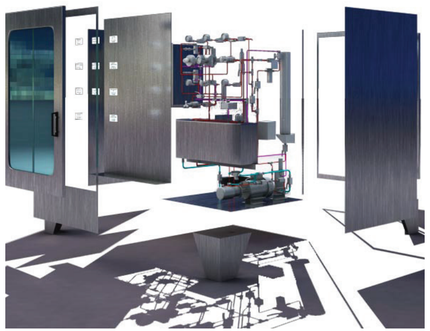
INTECH designs, engineers, builds and supplies control panels for wellhead control applications. INTECH's expertise covers three major types of panels:

- Electro-Hydraulic Control
- Electro-Pneumatic Control
- Hydraulic Control

These panels can be built for both single-well and multi-well control configurations. Our engineers carry over 160 man-years of design and fabrication experience in building these panels for safe and reliable operations. Some key features of these panels include:

- SIL-3, Zone 1, certified components
- SCSSV, SSV, WV, Choke Valve and other valve controls
- SCSSV 5 - 7 minutes Equalization Logic incorporated
- Enclosed assembly with integrated HPU
- Hydraulic, Pneumatic, or Electric controls (with manual override option)
- Accumulators, filters and instrumentation for both LP and HP supply headers
- Sequential open/close logic for ESD
- Front Panel Displays
- Fusible Loop for local ESD





## Intelligent Well Flow Controls

INTECH's Intelligent Well Flow Controls help to optimize well flow and can be operated automatically, manually, or remotely as part of an intelligent completion.

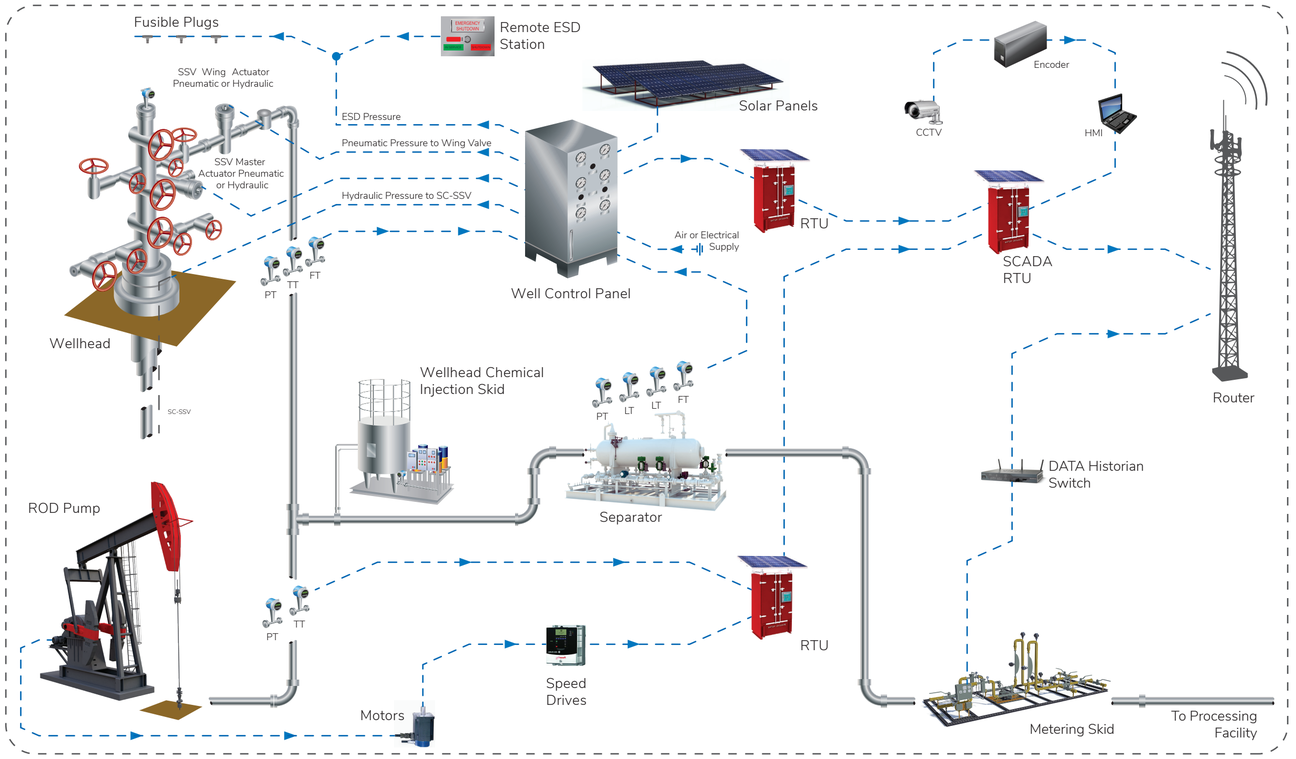
These sophisticated panels are designed for a smarter fail-safe operation. They also have better reliability performance in the extreme climate conditions of well sites. They help to selectively control multiple producing zones thereby maximizing productivity.

- Backup and sustainable data logging which is capable of seamless integration with leading industrial SCADA and Historians
- Design based on industry's leading manufacturers of Instrumentation and Control equipment meeting the needs of critical applications and ensuring reliability
- Active regional operation centers ensuring
- worldwide availability of resources

## Remote Terminal Units (RTU): PCS, SIS, F&G

INTECH's wellhead solutions come with packaged RTUs providing:

- Seamless integration of PCS, SIS and F&G
- Stand-alone and integrated MCS operation capable
- Real-time data acquisition and monitoring for:
  - ESD conditions
  - Pump operators
  - Valve pressure
  - Remote monitoring (Telemetry Control)
- Conventional or solar powered solutions
- Latest communication options including GSM, LTE and Wireless Radio



## Wellhead Process Package

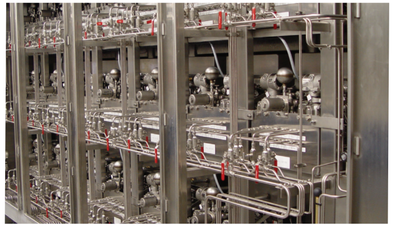
INTECH's Wellhead Instrumentation Package includes:
(a) Gas Conditioning
(b) Wellhead Instrumentation
(c) Chemical Injection Skids

- Explosion proof ATEX, Baseefa, GOST-R, GOST-K certified packaged solutions
- Chemical injection to treat casing and pipeline
- Calibration & certification services
- Reliable and efficient moisture conditioning to typical pipeline requirements
- Efficient filtering of dust particles

## Communication and Surveillance

INTECH helps keep your assets secure and enhance monitoring with solutions that include:

- Anti intrusion
- CCTV
- Video
- Voice Communication
- Data Communication



## Sub-Sea Master Control Stations (MCS)

INTECH provides sub-sea MCS solutions compliant with industry standards, covering:

- Customized hardware and software for complete design flexibility
- Expandable, redundant and fault tolerant design
- Suitable for operations in non-hazardous and air-conditioned environments
- Reliable PLC control with multiple workstation options for monitoring
- Full-diagnostics of power, communications, and instrumentation
- Option for Distributed Control System (DCS) configuration or stand-alone panel control
- Superior reliability with worldwide customer support

# INTECH - The “One Stop Shop”

INTECH is a "One Stop Shop" for automation and its Wellhead Solutions deliver on that promise. INTECH’s experienced engineers and field-proven designs guarantee that you get the best fit for all your Wellhead Automation requirements. Our vast range of wellhead solutions allows INTECH to execute projects as the "Main Automation Contractor".

- More than 150 man-years of evaluating, designing and manufacturing WHCP
- Certified Design (as per requirements)
- Customizable to field requirements
- Designed for extreme environments
- Sequential Startup and Shutdown

## Wellhead Specs

| | | | | |
|---|---|---|---|---|
| Panel Certifications | | | | |
| Panel Thermal Management | Vortex coolers, Air conditioner, Fresh air cooling, Heat exchangers, Electric heaters, Panel insulation<br>* components designed for NACE compliance | | | |
| Operating Conditions | Design Temperature | Min -50° C | Operating Temperature | Min -40° C |
| | | Max 85° C | | Max 75° C |
| | Hydraulic Pressure | SCSSV, SSV, CV, UMV, WV upto 10,000 psi<br>* 3,4,5 or greater valve circuit options<br>* higher pressure systems can be supplied on request | | |
| | Electrical Power | 120V AC / 60 Hz | 240V AC / 50 Hz | 24 VDC |
| | | 380V AC / 60 Hz | 440V AC / 50 Hz | Solar Powered |
| Reservoir | Corrosion resistant material suitable for hydraulic fluids<br>Filler Breather<br>Flame Arrestor<br>Level Gauging<br>Magnetic Particle Collector<br>* components designed for NACE applications | | | |
| Pump Specs | Pump Drive | Electric<br>Hydraulic<br>Pneumatic<br>Hand Pump | Pneumatic supply | Air<br>Compressed Air<br>N2<br>Conditioned Raw Gas<br>Raw Gas + |
| | Hydraulic Fluid | Water Glycol Based | Solenoid Supply | EEXD 3 way Universal |
| | | Mineral Oil Based | | Other |
| | + Raw gas conditioning package as pnuematic drive to remove condesate, metal and sand particles | | | |
| General Material of Construction | Stainless steel (304, 316, 316L, etc.)<br>Marine grade copper-free aluminium light alloy<br>1 ) External epoxy painting with colour on request<br>2 ) Internal anti-condensate painting<br>3 ) Material selection can vary depending upon customer’s requirement | | | |

# What Our Customers Say

"Congratulations on successful commissioning of Latif-14 Wellhead. Great Team work, dedication & good planning for achieving this goal in targeted time. Appreciation for all the team members directly & indirectly involved in this project"

Senior Control Systems Engineer

"The experience, knowledge and dedication of the INTECH Process Automation team was instrumental in executing a professional job towards the Control and Automation of the project"

Sr. Engineer

"The tight project schedule was duly met and you were able to match pace with drilling team to bring new wells on-line quite in time. The work was done in most professional manner and the shutdown period was minimum"

Sr. Engineer

## End User

Chevron, Total, Shell, bp, Petroleum Development Oman, Saudi Aramco, ADNOC, National Petroleum Construction Company, Kuwait Oil Company, Sabic, eni, SOC, OMV, Basrah Gas Company, ExxonMobil, CNPC, PDVSA

## EPC

Hyundai Heavy Industries Co., Ltd., Saipem, TechnipFMC, Exterran, Petrofac, amec foster wheeler, OilServ, SNC-Lavalin, AkerSolutions, Diamond Offshore, DSME

## OEM

Schlumberger, Halliburton, En-Fab Inc., Modec, Dresser-Rand, Cameron, SBM Offshore, Weatherford, Superior Energy Services, Hadetec

## Partners

Gofsco, Al Ghaith Oilfield Supplies & Services Co., OHI


**Americas**
WORLD HQ
INTECH Process Automation Inc.
4903 W. Sam Houston Parkway N. Suite A-100
Houston, TX 77041, USA
Tel: +1 713 849 1000
Fax: +1 713 856 0785

**United Kingdom**
INTECH Process Automation Ltd.
Unit 8, Dock Offices Surrey Quays Road
London, United Kingdom
Tel: +44 0207 553 5931

**Central Asia**
INTECH Process Automation LLP.
Office No. 7, St. Sevastopolskaya 1V,
Atyrau, Republic of Kazakhstan
Tel: +771 2250 8529

INTECH Process Automation Pvt. Ltd.
2nd Floor, Commercial Building #2
PCSIR Phase – II, Lahore 54782, Pakistan
Tel: +92 42 111 468 324
Fax: +92 42 3531 4149

**Asia**
INTECH Process Automation Pte. Ltd
600 North Bridge Road, #23-01
Parkview Square, Singapore 188778
Tel:+65 68289118
Fax: +65 68289112

INTECH Process Automation Pte. Ltd
1 Pemimpin Drive, #08-04,
One Pemimpin, Singapore 576151
Tel: +65 6937 1791

PT INTECH Process Automation
Rukan Permata Senayan,
Blok C Nomor 5, 4th Floor,
Jalan Tentara Pelajar, Kebayoran Lama,
Jakarta Selatan, 12210 Indonesia
Tel & Fax: +62 21 579 49 444

INTECH Process Automation Co. Ltd.
Room 1605c, 16f Feidiao International Building,
No.1065 Zhaojiabang Road, Xuhui District,
Shanghai 200030 – P.R.C.
Email: marketing@intechww.com

**Middle East**
INTERNATIONAL HQ
INTECH Process Automation FZCO
P.O. Box 61479, RA08ZC01,
JAFZA, DUBAI, United Arab Emirates
Tel: +971 4 8810056,
Fax: +971 4 8810057

INTECH Process Automation -
Arabia Co. Ltd. For Contracting
Office No. 03, First Floor, Sumou Tower, Prince
Turki Street,Al Yarmouk, Al-khobar - 31952, KSA
Tel: +966 13 8966052
Fax: +966 13 8966051

INTECH PROCESS AUTOMATION FZCO
Al Majal Business Parks, Basra – Iraq,
North Rumaila Field
Tel: +9647800887924, +9647801312198

INTECH PROCESS AUTOMATION FZCO BR.
40 meter street, near Hai Shorta round, Erbil
Kurdistan Region of Iraq.
Tel: +9647800887924

**North Africa Operations**
Tel: +971 55 607 3230, +971 553768482

**Africa**
INTECH Process Automation NG. Ltd.
3rd Floor, Deborah Lawson House, F6 Sani Abacha
Road, New GRA Phase III, Port Harcourt , Nigeria
Tel: +234 8470 0150

INTECH Process Automation
Block 137, Plot 08, Professor Gabriel Olusanya
street, Lekki Phase-1, Lagos
Tel: +234 1700 7395

INTECH Process Automation Inc.
(Sucursal De Angola)
Casa N° B07, Condominio Boulevard, Via Al16,
Talatona, Luanda - Republica De Angola
Tel: +244 222 720 471
Fax: +1 281 377 3455

Email: marketing@intechww.com

www.intechww.com


## Vendor Expertise

Rockwell Automation, GE, Honeywell, Siemens, ABB, Emerson Process Management, Yokogawa, Schneider Electric, Autronica, HIMA, Triconex, icstriplex, smar, Wonderware, Satam Metering Solutions, FieldComm Group Member, OSIsoft, iconics

## Standards & Certifications

ASTM International, ISO Certified Offices, Achilles Chemicals & Allied Industries Member, csia Certified, UL, nec, SA, Ex, NFPA International, IEC, EEMUA, NACE International

linkedin.com/company/intech-process-automation
facebook.com/intechprocessautomation


All registered logotypes, trademarks, brands, product and services marks used in this document are acknowledged as properties of their respective companies/owners and such companies/owners have not consented to their use by INTECH (Term INTECH is used for INTECH Process Automation Inc. and its affiliates). INTECH is not affiliated with these logotypes, trademarks, brands, product and services marks and any use by INTECH should not be construed as an endorsement of INTECH or its services. The services described herein are provided solely by INTECH. © 2020. All rights reserved by INTECH Process Automation Inc.