

Oil & gas capability brochure

Power distribution, cable management, connection & protection
Designed to perform in the oil & gas industry

Power and productivity
for a better world™

ABB

Power distribution, cable management, connection & protection
Designed to perform in the oil & gas industry



High performance & reliability during demanding conditions is the starting point for us for all our products and services in the oil & gas industry.

Intensive testing and certification by recognized authorities result in a portfolio meeting highest international standards and legislation. With over 145,000 people in 100 countries, ABB can quickly support local needs in a global offshore / oil & gas environment.

KOPEX-Ex

Ex proof conduit systems and fittings



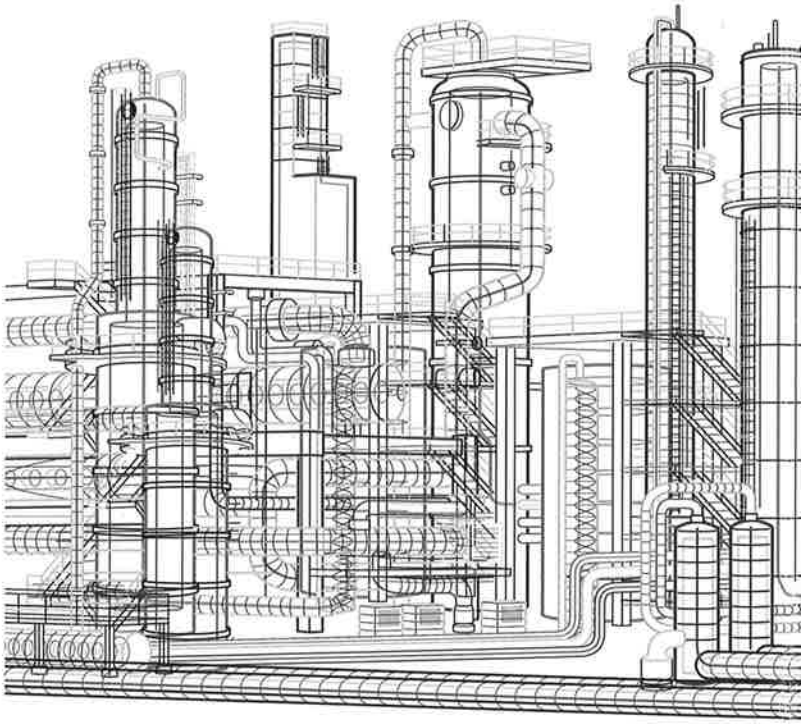
- Liquid tight, flexible metallic and non-metallic conduit.
- Flameproof Ex d, Ex e fittings.
- Non-metallic, conduit systems for dynamic applications.
- Ideal for running multiple cores from one point to another.
- Available for high-temperature, highly flexible, and limited fire hazard, zero halogen applications.

KOPEX-Ex

Ex proof metallic cable glands



- Ex d, Ex e single or double compression glands.
- Ex d, Ex e compound barrier glands.
- Ex d, Ex e EMC cable glands for shielded cables.
- Wide range of cable sizes.
- IP66, IP68 ratings.
- ATEX / IECEx certified.



DTS

Ex proof control panels and junction boxes



- Instumentation boxes, control boxes, junction boxes, and cabinets.
- Available in marine grade aluminum alloy, stainless steel 316L and GRP.
- DTS Ex d control panels can be composed of a wide variety of standard components which are switches, contactors and relays for instance.

DTS

Ex proof lighting



- All components mounted on removable gear tray for easy and safe maintenance.
- Able to retrofit LED gear tray into existing fixtures mounted with fluorescent.
- Available in emergency and escape lighting versions.
- Approved for use in Zones 1, 2 and 21, 22.
- ATEX / IECEx certified.

DTS

Ex proof floodlight

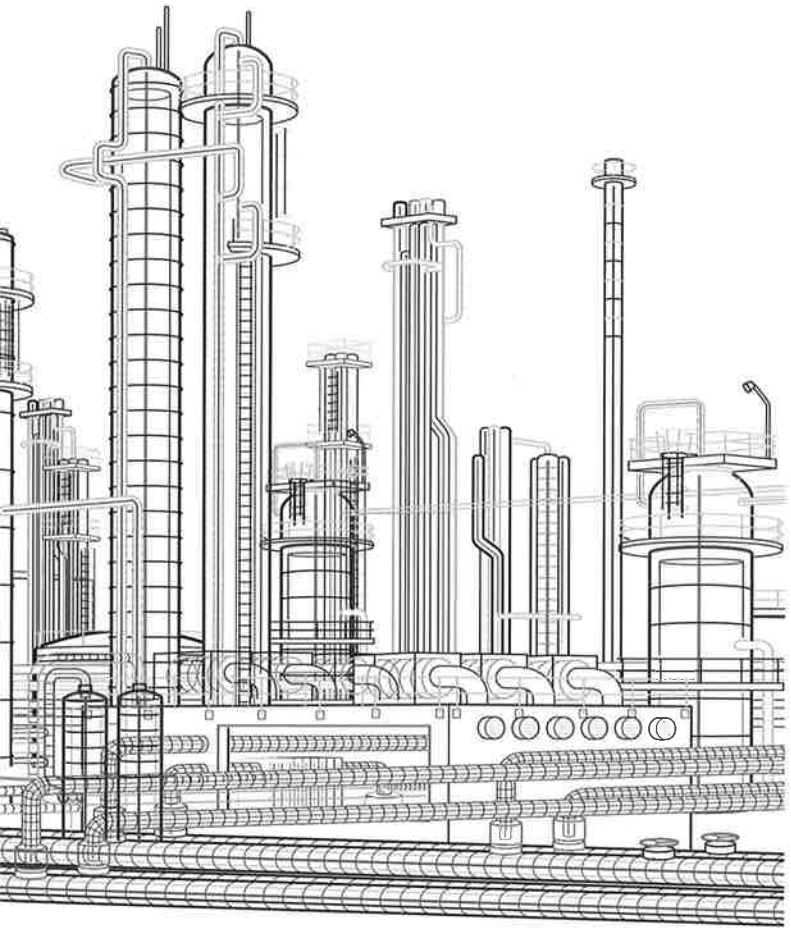


- Compact and robust design.
- Available in LED, Sodium, Metal Halide, and Halogen versions.
- Ideal for lighting up large areas.
- Approved for use in Zones 1 and 2.
- ATEX / IECEx certified.

Power distribution, cable management, connection & protection
Designed to perform in the oil & gas industry

Designed to perform.
ABB understands continuous operation and reliability are essential for your business. Our solutions are designed to support you to:

- Maintain a safe environment for personnel and areas classified as hazardous.
- Battle extreme temperatures, UV resistance and other harsh conditions.
- Protect your cables and wire from liquid ingress & corrosion.
- Reduce your total cost of ownership | ease of design & installation and low energy & maintenance cost.



Ty-Met™

Stainless steel cable ties



- Ballock, ladder type, releasable, identification, tooling.
- Strong, safe installation with dual locking mechanism.
- Coated version | halogen free, non-toxic polyester.
- Uncoated version | for extreme / high temperature applications: -80°C to +300°C.
- Corrosion resistant 316 grade stainless steel.
- Ultraviolet resistant, weather & fire-proof, resistant to radiation, chemicals, absolutely fireproof.

IEC 45345 – Transp Railway

Ty-Rap®

High performance nylon cable ties



- Withstand temperatures between -40°C to 150°C.
- Tensile strength up to 540N.
- Flame retardant, Ultraviolet resistant.
- Extra-high temperature resistant nylon.
- Flammability ratings UL94V-2 and V-0.
- Provides a smooth and low-profile look.

Color-Keyed®

Compression connectors



- Solid, homogenous connection via special system utilizing compression tools with matching dies that forms connector & wire.
- Made of 99.9% pure, oxygen free copper.
- Assured high conductivity, conforms IEC 61238.
- Straight 1 hole / 2 hole :10 - 400mm² M5 to M24 45° / 90°: 10mm² till 240mm² M6 to M16.

T&B® Cable Tray

Cable tray systems



- Smart and easy to install solutions for cable.
- Ladder tray | perforated cable tray management systems.
- Available in aluminium & steel range.
- Easy & quick installation through extensive range of accessories.
- Easy to expand & rewire modular system.

Hazlux®

Ex proof lighting - UL Listed



- Available in high pressure sodium, metal halide, induction, fluorescent & incandescent, up to 400W.
- New: LED versions for low energy and maintenance performance.
- Withstand temperature range from -51°C to 65°C.
- UL Listed and CSA Certified for Class 1, Div 1 and Div 2 locations. NEMA 4X and IP66 ratings.

furse

Earthing and lightning protection



- Provides total solution to earthing & lightning protection.
- Risk assessment complying to latest IEC 62305-2 standards.
- Soil resistivity surveys by team of experienced surveyors are key to creating effective earthing system.
- Latest CDEGS software to optimise designs and provide range of customised detailed reports.

Power distribution, cable management, connection & protection
Designed to perform in the oil & gas industry



Key business drivers for oil & gas industry:

- Maintaining a safe environment in process areas classified as hazardous locations (Zones 1, 2 and 21, 22).
- Unforgiving time schedules to meet investment deadlines.
- Battling corrosion.
- Managing unpredictable raw material costs.
- Adapting to changing technologies used to find energy resources.
- Increating environmental and community demands.

Adaptaflex

Metallic flexible conduit systems









- Designed for extreme temperature environments.
- Operating temperature range -50°C to 350°C.
- Tensile strength - pull off load under tension.
- Impact resistance.
- More than 20 different conduit types.
- Enhanced low fire hazard conduit with stainless steel overbraid.
- Inherent fire protection on uncoated versions.
- Weather resistant.
- SPL conduit systems - liquid-tight oil resistant covered steel flexible conduit.
- LFH-SP conduit systems.
- Metallic and non-metallic IP40 - IP69K on specialist fittings.

Adaptaflex

Nylon flexible conduit systems





- Provide excellent flexing and fatigue life in extreme operating temperature ranges.
- Extreme resistance to lubricants and corrosive chemicals.
- PA / PR conduit systems, polyamide (Nylon) 6, self extinguishing, halogen free, very high ultraviolet resistance.
- Conduit diameters non-metallic: 13mm - 106mm.

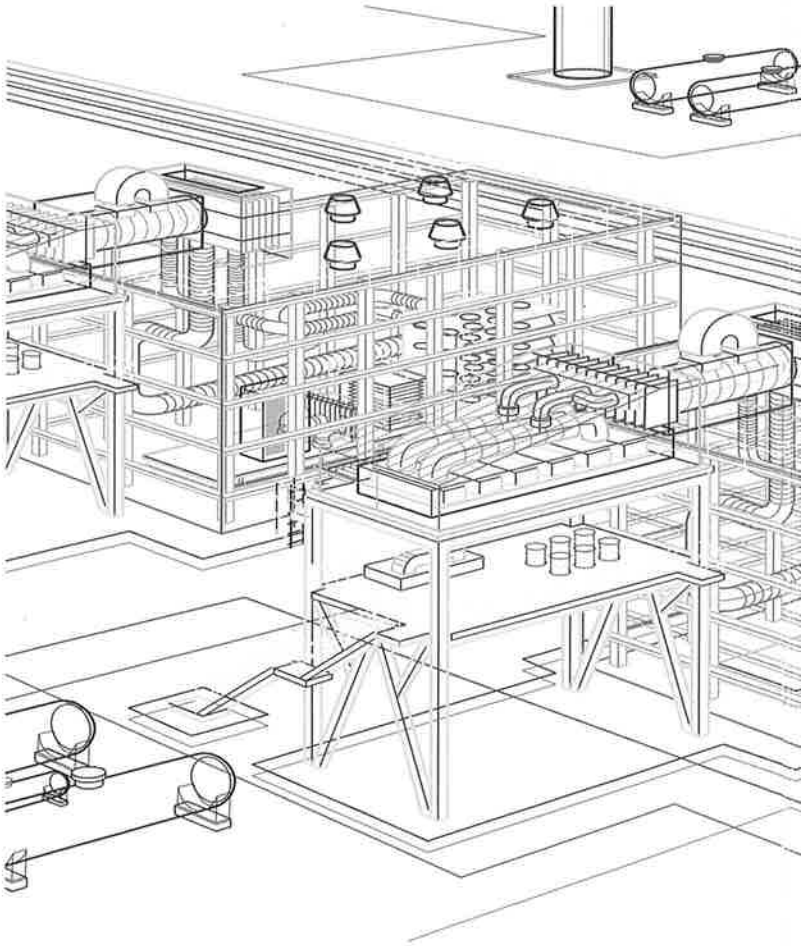
Adaptaflex

Adaptalok ATS™ system





- Ingress protection ratings: IP66 / 67 / 68 / 69K.
- Integral face seal washer guaranteed fit, cannot be lost or fitted incorrectly.
- Elastomer with 3 visible confirmation points.
- One piece fast fit (Push - Twist - Pull) installation.
- Visual fitting guides - highly visible elastomer markings on lugs.
- Proven clip design - pitch independent, secure fitment to coarse and fine pitch conduits.



Adaptaflex

Adaptaflex product approvals



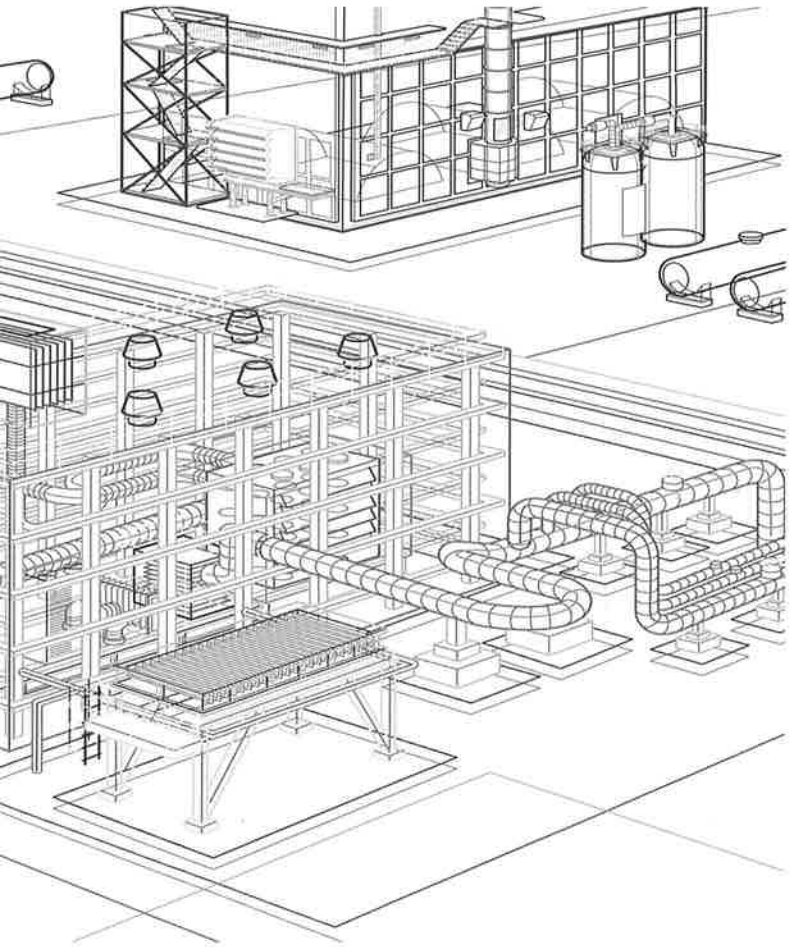


- Lloyds Register Type Approved.
- UR.
- BSI Kitemark to IEC 61386.
- CE marked to Low Voltage Directive.
- UL Listed to UL514B and CSA Approved (Liquid Tight Type SPUL).

Power distribution, cable management, connection & protection
Designed to perform in the oil & gas industry

Designed to perform.
ABB understands continuous operation and reliability are essential for your business. Our solutions are designed to support you to:

- Maintain a safe environment for personnel and areas classified as hazardous.
- Battle extreme temperatures, UV resistance and other harsh conditions.
- Protect your cables and wire from liquid ingress & corrosion.
- Reduce your total cost of ownership | ease of design & installation and low energy & maintenance cost.



T&B Fittings





Star Teck® Extreme® jacketed metal-clad and Teck cable termination fittings

- Suitable for extreme locations.
- Form a strong mechanical grip and water and/or oil-resistant termination.
- Provide grounding continuity of cable armor.
- Patented powergrip grouding ring for easy installation.
- Designed to accommodate a broad range of cables.
- Built-in sealing device provides a 360° seal when enclosure surface is rough or uneven.
- NEMA 4, 4X (stainless steel), 6P ratings. UL Listed and CSA Certified.

T&B Fittings



Star Teck® Extreme Director™ cable fittings

- Truly adjustable series of range-taking fittings for flexibility in space-constraint locations.
- Exclusive swash-plate design, angle adjustable from 90° to 180°.
- Accept a range of jacketed metal-clad and teck cable diameters.
- Easy to install (Install - Insert - Rotate - Done) and disconnect.
- UL Listed, NEMA 4, Class I Div 2 / Zone 2 and Class II Div 2 / Zone 22 when installed.

T&B Fittings



52® series high temperature flexible metal liquid-tight fittings

- Withstand temperature range between -60°C to 150°C.
- Steel or malleable iron construction, electro-zinc plated and chromate coated for corrosion protection.
- Plastic sealing ring to provide a water-tight / oil-tight seal.
- Available in straight, 45° and 90° versions.

T&B Fittings



Ex proof flexible couplings - XP Flex couplings

- Explosion-proof and dust-ignition proof for use in hazardous locations.
- Flexible design makes it easy to achieve tight bends in conduit systems in confined spaces or vibration-prone locations.
- Corrosion resistant | ideal for washdown areas.
- Flexible bronze construction with arc-resistant inner sleeve and brass fittings.
- Terminated with two threaded female end fittings and male close nipples.
- UL Listed and CSA Certified for hazardous locations. Class 1 Div 1 and Div 2, Class II Div 1, Class III.

Ocal



OCAL-BLUE® PVC-coated conduit & fittings system

- PVC-coated, hot-dipped galvanised conduit and threads.
- Complies fully with UL® 6, NEMA RN-1 and ANSI C80.1.
- Superior corrosion protection against harsh elements.
- Interior blue polyurethane provides corrosion protection around copper wire or fiber optics.

Power distribution, cable management, connection & protection
Designed to perform in the oil & gas industry



ABB designs, manufactures and supplies technically advanced products for electrical systems to the oil & gas industry.

Profitable drilling, extracting, processing, transporting and dispensing operations require reliable, robust and cost-effective equipment. ABB offers the industry's most advanced materials distribution system, and our commitment shows in our unmatched products, unequaled service and loyalty from end-users and OEMs.

elastimold



Transmission cable termination and joints

- Transmission cable joints (46kV - 138kV) and 69kV terminators are factory molded and fully tested to provide highest quality and maximum reliability.
- Designed with optimized pre-molded stress control and heat transfer capability.
- Easy installation | eliminated need for labor-intensive field molds, tape wrapping machines or field expansion.

elastimold



Medium voltage cable termination and joints

- Permanent distribution cable joints (5kV - 35kV) and shrink-fit cable joints (5kV - 35kV).
- Premolded and cold-shrink cable termination and joints for medium voltage cable systems.
- Electric stress control.
- Reliable, high quality, wide range of cables and conductor sizes supported.

elastimold



Medium voltage cable joints

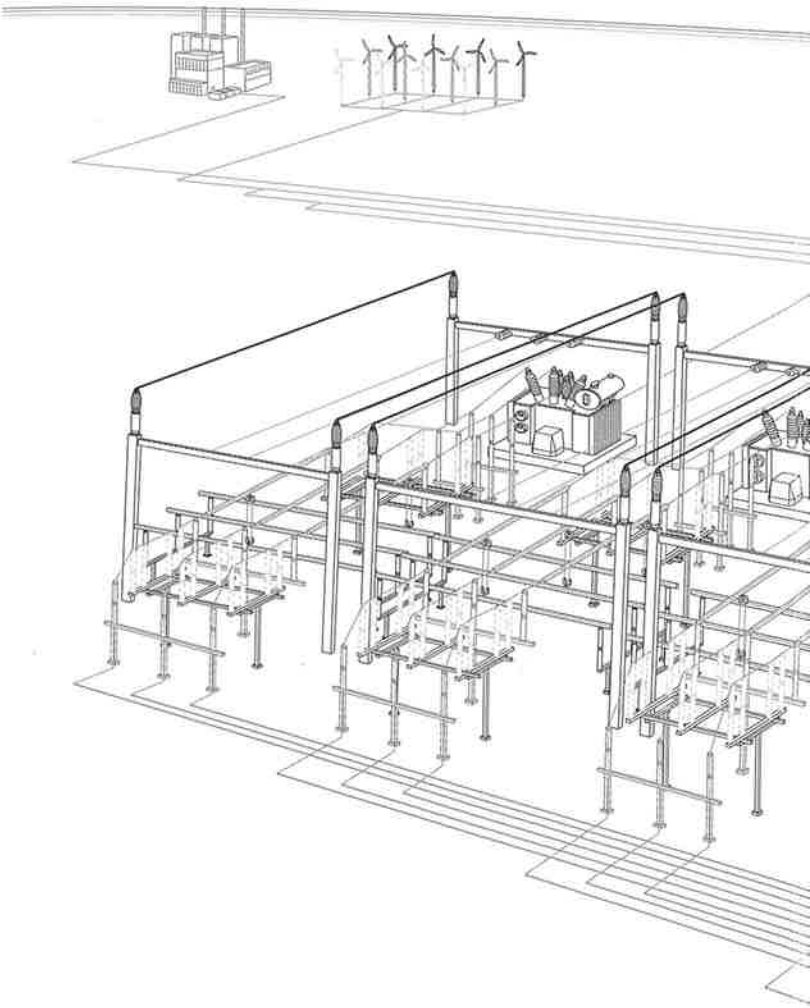
- Deadfront design and modular construction enables maximum reliability, performance and versatility.
- 200A bushing wells, bushing inserts and 600A bushings available for use on air, oil or SF6 insulated transformer, switchgear and other equipment.
- Complies with IEEE Standard to ensure interchangeability.

elastimold



Medium voltage moulded vacuum recloser

- Smart grid ready with three integral load-side voltage sensors and provision to add source-side voltage sensors.
- Modular and flexible design, so field upgrades and retrofits are easy and fast.
- 360° recloser position indicator.



elastimold



Underground switchgear

- Modular dimension provides maximum flexibility in field applications, saving inventory and labour costs.
- Molded deadfront and submersible design.
- Automatic source transfers (AT) allows for full transfer of load in less than two seconds, lowering risks of costly lost production and setup time.

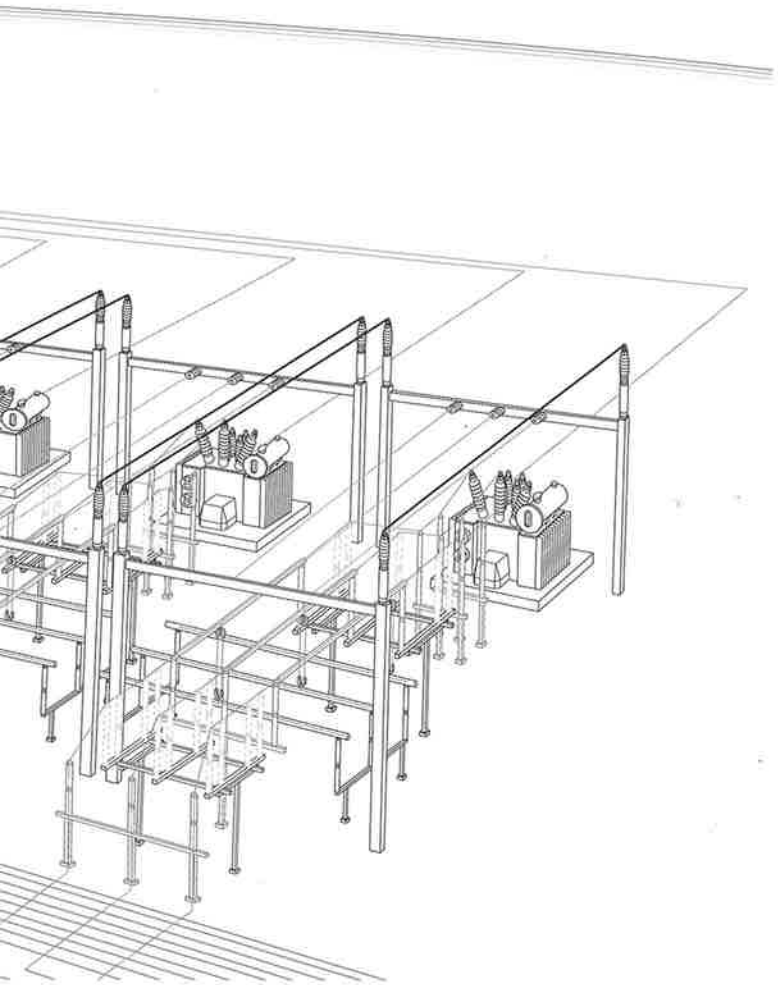
Power distribution, cable management, connection & protection
Designed to perform in the oil & gas industry

JOSLYN



High-voltage capacitor and reactor switches.

- Available from 15kV to 230kV system range, substation or pole mounted installations.
- Solid dielectric insulation with vacuum interruption.
- VacStat Vacuum Interrupter Monitor allows for Local / remote monitoring of vacuum interrupters and block operations if fault is detected.
- Long, maintenance-free service time.
- Zero voltage closing control available to initiate the system overvoltage and high inrush currents.



FISHER PIERCE



Faulted circuit indicators

- For single-phase or three-phase underground or overhead applications.
- Locate faults faster and cost effectively, and reduce outage duration.
- Automatic and manual reset logic.
- Adaptive current trip with inrush restraint logic.
- Ability to integrate into SCADA systems.
- Protection from moisture enables long and maintenance-free service life.

FISHER PIERCE



AutoCap® capacitor controls

- Range of analog and digital options.
- Variety of control parameters | VAr, voltage, current, temperature and time.
- Multi-step controls for use with multiple capacitor banks in substation applications.
- Microprocess-based, SCADA capability, allowing the unit to program itself.
- Pole-mounted or substation-switched applications.

HOMAC



Substation and underground connectors

- Substation connectors and products up to 500kV applications.
- Flood-seal® underground distribution connectors.
- For single-phase or three-phase underground or overhead applications.
- Transformer connectors for stud-mount and pad-mount.

Blackburn



EZGround™ grounding system

- Complete line of grid-ground compression connectors (C-Taps, Pigtail connector, Figure 6-6, 6-8 connector, GG connector, splice/two-way connector, I-Beam clamp, grounding plate).
- EZGround™ connectors are designed for direct burial and offer a low-cost, safe and efficient alternative to exothermic welding products.
- Connectors are prefilled with oxide inhibitor and sealed.
- Compliant with IEEE 837, UL® 467, CSA 22.2 Standards.

Hi-Tech



Current-limiting fuse

- Interrupting capabilities through to 50kA.
- No external arcs or by products.
- Durable design with hermetically sealed construction.
- Provide superior protection for transformer capacitor banks, switchgears and wind farms.
- Greatly reduce energy let-through, minimizing the risk of catastrophic failures.

Blackburn



Overhead distribution connectors

- Complete and reliable range of overhead, grounding, mechanical and compression connectors.
- Medium voltage splices, taps, wedges and terminals or connectors are available for all overhead distribution applications.

Contact us

Asia Regional Headquarters

Thomas & Betts Asia (Singapore) Pte Ltd
2 Ayer Rajah Crescent
Singapore 139935
T: +65 6776 5711
F: +65 6778 0222
Email: asia.inquiry@tnb.com

www.tnb-asia.com
www.tnb-hazardous.com

Regional Office Locations

ABB China
10 Jiuxianqiao Lu
Universal Plaza
Beijing 100015
China
T: +86 10 8456 6688
F: +86 10 6423 1613

ABB Hong Kong
3 Dai Hei Street
Tai Po Industrial Estate
Hong Kong
T: +852 2929 3838
F: +852 2929 3553

ABB Indonesia
7th Floor, CCM Building
Jl. Cikini Raya No.95
Jakarta 10330
Indonesia
T: +62 21 2929 0200
F: +62 21 2929 0255

ABB Japan (Tokyo)
26-1 Sakuragaoka-cho
Shibuya-ku,
Cerulean Tower
Tokyo 1508512
Japan
T: +81 3 5784 6000
F: +81 3 5784 6274

ABB Japan (Osaka)
2-14-14 Miyahara
Shin-Grand Building 9A
Yodogawa-ku Osaka
T: +81 6 6394 8992
F: +81 6 6394 8993

ABB Korea
10F, Oksan Building
157-33, Samseong-dong
Gangnam-gu
Seoul 135090, Korea
T: +822 528 2017
F: +822 528 2350

ABB Malaysia
ABB Malaysia Sdn Bhd
Lot 608, Jalan SS13/1K
47500 Subang Jaya
Selangor Darul Ehsan, Malaysia
T: +603 5628 4888
F: +603 5635 8200

ABB New Zealand
570 Mt Wellington Highway
Mt Wellington
Auckland 1062
New Zealand
T: +64 9 966 4600
F: +64 9 966 4601

ABB Philippines
Km. 20 West Service Road
Barangay Marcelo Green
South Superhighway, Sucat
Paranaque City
Metro Manila 1700, Philippines
T: +63 2 821 7777-80
F: +63 2 824 6616

ABB India
Sy No. 88/3 to 88/6
Basavanahalli, Kasaba Hobli
Nelamangala Taluk
Bengaluru - 562 123, India
T: +91 80 6714 3000
F: +91 80 2294 6560

ABB Thailand
161/1 SG Tower, 1-4th Floor
Soi Mahadlekluang 3, Rajdamri
Road,Lumpini, Pathumwan
Bangkok 10330, Thailand
T: +660 2665 1000
F: +660 2665 1043

ABB Vietnam
12 & 12B Floors, REE Tower
9 Doan Van Bo Street
Ward 12, District 4
Ho Chi Minh City, Vietnam
T: +84 8 3943 1488
F: +84 8 3943 1480

ABB Australia
Unit D3, Lidcombe Business Park
3-29 Birnie Avenue
Lidcombe NSW 2141
Australia
T: +61 2 8754 2700
F: +61 2 8754 2735

Note: We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.

Copyright © 2015
ABB Business Unit: Protection, Connection & Wire Management
All rights reserved

© Copyright ABB. 02/2015

Power and productivity
for a better world™