ContraFlex®
Passive Fire Protection Jackets
Flexible hydrocarbon jet and pool fire resistant jackets

ContraFlex
An Advanced Insulation Product
ContraFlex®

Better products for challenging situations

For further information about the ContraFlex® range of products, please visit www.advancedinsulation.com

Oil & Gas  Petrochemical  Nuclear  LNG
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Find out more about ContraFlex® at: www.advancedinsulation.com
ContraFlex®

Passive Fire Protection

ContraFlex® PFP jackets are manufactured from high-quality materials which provide combined thermal insulation.

Advanced Insulation is a global supplier of Insulation (Topside and Subsea), Passive Fire Protection (PFP), Cryogenic Spill Protection (CSP), Blast and Fire Walls, Buoyancy Products and Cable Protection Systems.

The company designs, manufactures and installs ContraFlex® Passive Fire Protection (PFP) jackets to protect assets, maintain structural integrity and safeguard personnel working in challenging environments.

Certified by Lloyd Register, DNV and ABS, ContraFlex® PFP jackets are used across a broad range of industries; including offshore and onshore applications, defence, marine, power generation and LNG.

ContraFlex® PFP jackets are designed to work alongside Advanced Insulation’s range of phenolic and silicone PFP systems branded under ContraFlame®, ContraBlast® and ContraSpill®.
Benefits of PFP Jackets

PFP Jackets are a tailor made removable solution that are bespoke to each piece of equipment they are applied to.

What makes ContraFlex® different?

+ Combined high performance Passive Fire Protection (PFP) and insulation properties
+ Up to 180 minutes hydrocarbon jet or pool fire protection
+ Modular system is easy to remove and install during inspection and maintenance
+ Designed and optimised for use in highly congested areas with clash points
+ Resistant to impact and blast overpressures up to 2.15 bar
+ Operating temperatures -36°C to +260°C
+ Reduced on-site application time, saving up to 70% in installation costs
+ Waterproof outer cloth, water shedding design and drain plugs to reduce Corrosion Under Insulation (CUI) risk
+ Inspection hatches enable quick and easy maintenance programmes

Find out more about ContraFlex® at: www.advancedinsulation.com
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Designed to Protect, Built to Last

ContraFlex® PFP jackets are designed for equipment with regular inspection and maintenance requirements.

ContraFlex® jackets are the product of years of investment and development in material sciences and selection, manufacturing processes, CAD and modelling capability, in-house and external testing to create a bespoke solution for harsh and challenging environments.

Each ContraFlex jacket installation is subject to site measurement to enable an engineered solution to be manufactured, maximising its efficiency and life-cycle in extreme weather conditions.

As the market-leader for passive fire protection in jacket form, ContraFlex is the most widely proven PFP jacket manufacturer worldwide which surpasses the quality standards of all major regulation bodies and ISO standards.

The system has been utilised by oil and gas operators including:

- Chevron
- ConocoPhillips
- Total
- INPEX
- NCOC
- Bumiarmada
- bp
- ExxonMobil
- Sinopec
- Repsol

ContraFlex® | Passive Fire Protection Jackets
ContraFlex®

Certifications

ContraFlex® PFP jackets are one of the most extensively tested passive fire protection jackets available

- **Fireproofing**
  - ISO and UL standard accreditation

- **Weatherproofing**
  - Tested in extreme weather conditions

ContraFlex® flexible PFP jackets are approved by ABS, Lloyd’s Register and DNV. The ContraFlex® system has been tested in accordance to:


In addition ContraFlex® PFP jackets can be manufactured to ensure minimal water ingress for use in harsh weather environments. Testing includes:

  + IACS UR S14.2.3 - Testing Procedures of Watertight Compartments, a requirement of NORSOK R-004: All jacket materials have been subjected to the general and Class 5 - fire protection requirements.

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Fire Performance

ContraFlex® PFP jackets are designed to provide a combination of hydrocarbon pool and jet fire protection

Extensive testing to ensure efficiency

ContraFlex® PFP jackets have been proven in a wide range of applications and are one of the most extensively tested solutions on the market.

This included testing on tubular applications and assemblies, corner and edge features, structural columns and I-beams, and planar scenarios.

ISO 22899 jet fire scenario with ContraFlex® PFP jackets on a flange assembly and clad type insulation materials on piping

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ContraFlex®

Additional Testing

ContraFlex® PFP jackets were designed with the markets ever-evolving demands in mind and tested accordingly.

ContraFlex® PFP jackets provide maximum protection, with all materials used in ContraFlex® PFP jackets combining to create a solution that can withstand the effects of a blast and continue to provide the required level of fire protection.

- Average peak overpressure of 1.55 barg on a vessel.
- Average peak overpressure of 2.15 barg on a tubular sample.

To ensure extreme weather performance, additional testing included an accelerated age test in accordance with ISO 20340:2009 for 4,200 hours in cycles of:

- 72 hours accelerated UV weathering ISO 11507.
- 72 hours neutral salt spray exposure ISO 9227.
- 24 hours steady state low-temperature testing at -20°C.

Weatherproof

Tested in extreme weather conditions

NORSOK

R-004 specifications
ContraFlex® PFP jackets have been optimised in order to reduce the thickness of insulation for each application.

ContraFlex® PFP jacket choices are determined based on a number of input criteria:

+ Fire type
+ Fire duration
+ Limiting temperature rise
+ Ambient temperature
+ Hp/A or Mass/Volume
+ Exposed surface area
ContraFlex®

What can ContraFlex® Protect?

ContraFlex® PFP jackets can be applied to a number of different applications in a variety of sectors:

- Valves and actuators
- Welding nodes
- Man-ways
- Cable trays and conduits
- Instrument lines
- Motorised actuators
- Air receivers
- Process vessels
- ESDV, MOV and SDV
- Risers (outside the splash zone)
- Junction boxes
- Heat exchangers

Find out more about ContraFlex® at: www.advancedinsulation.com
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Fixing Methods and Accessories

ContraFlex® PFP jackets offer a wealth of accessories for on-site suitability and access

ContraFlex® PFP jackets are secured using fabric hook and loop tape to provide a fast fix temporary seal before lacing.

The jackets are then fastened at critical heat paths to ensure tight joints using lacing hooks and wire and/or stainless steel banding.

Dependent on the application, Advanced Insulation can tailor the fixing method utilised to suit a range of different needs and requirements. Inspection hatches may also be included on PFP jackets for ease of access during maintenance.

For exposure to marine environments or regular storm conditions, ContraFlex® PFP jackets can be supplied with an intumescent drain plug and weatherproofing flap.

Lacing Wire
using lacing hooks and wire

Straps and Bands
alternative fitting for piping

Links and Straps
alternative fitting for valves and assemblies

Drain Plugs
provide additional protection against CUI

Find out more about ContraFlex® at: www.advancedinsulation.com
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Other Insulation Types Available

Advanced Insulation are a market-leading provider for insulation types including PFP, thermal and acoustic

Advanced Insulation are a market-leading provider of insulation jackets to a variety of markets including oil and gas facilities, petrochemical plants, refineries, industrial plant rooms, food factories and nuclear power stations.

ContraFlex® insulation jackets provide a range of benefits to suit a wide range of tailored applications offering a significant reduction in installation time. For more information, please request a ContraFlex® insulation brochure.

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Advanced Insulation is a market-leading insulation provider with global reach

Advanced Insulation offers a fully comprehensive service that includes survey, design, manufacture and installation.

As part of that survey, Advanced Insulation offer to dismantle and dispose of any existing fire protection. To book an initial survey, please contact your closest branch.

Requests for quotation and marketing enquiries should be submitted to: info@advancedinsulation.com.

With branches across the world, the company can offer organisations and businesses a comprehensive array of products including passive fire protection, topside and subsea insulation, cryogenic spill protection, buoyancy and cable protection systems.

A full technical support service is available for all products, at any location.
GLOBAL SALES OFFICES:

1. United Kingdom
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Find out more about ContraFlex® at: www.advancedinsulation.com