



**InterDam**



*Cladding systems for  
non-fire and non-blast  
resistant protective  
solutions*

# Index

---

Cladding systems	3
Heat and wind shield cladding	4
Blast relief cladding	5
Winterizing and arctic cladding	6
Radiation resistant cladding	7
Conclusion	8

# Cladding systems

---

Cladding systems are, next to fire and blast rated solutions, a very important part of the overall architecture of the structures in refineries, the petrochemical industry, oil (tank) terminals, onshore and offshore oil and gas installations, wind energy substations, e-buildings, LNG installations, and power plants.

By applying cladding systems the exterior of a structure is covered with panels of a specific kind of material and shape. Cladding systems are adapted to provide a degree of enclosure to the structure to give the necessary protection against several conditions. Such systems are usually made of lightweight material in order to minimize the additional load imposed on the main construction. The cladding systems can be aesthetically customized to the wishes of the clients.

Cladding systems have a controlling effect on the internal environment of the building. It controls, among others, the light penetration and the radiation from the sun or other heat sources. Therefore, cladding systems should be able to separate the effects of the outdoor environment from the indoor environment in order to maintain the internal conditions as intended.

The main objectives of cladding systems are to:

- Provide enclosure;
- Impose minimal additional dead load;
- Enhance architectural concept and the appearance of the structure/building;
- Control the internal environment;
- Exclude harsh weather conditions, such as wind and rain;
- Enhance durability and maintenance works;
- Resist fire and explosions;
- Control radiation of heat or explosions;
- Control sound;
- Provide thermal insulation;
- Allow for admittance of natural daylight and ventilation.

There are four main types of cladding systems which can be installed in the industries mentioned above; heat & wind shield cladding, blast relief cladding, winterizing & arctic cladding, and radiation resistant cladding.

# Heat and wind shield cladding

---

Heat and wind shield cladding provides protection against heat radiation and harsh winds from the outside.

Heat shield cladding is used for protection of e.g. walkways, staircases and escape routes on offshore platforms and pump installations, pipelines and manifolds on tank terminals against heat radiation. Also, protection of firefighters from a significant portion of the heat during a firefighting situation is one of the objectives of heat shield panels. The panels also offer a cost reducing solution compared to expensive sprinkler systems (active fire fighting systems) around tanks and pipe racks.

Also thermal radiation can be emitted from flare tips on the platform. Heat shield cladding provides proper protection to maintain safety on locations where thermal radiation from the flare tip might be harmful for people or equipment. This is particularly important because health implications for workers who are exposed to such thermal radiation emitted from flares can be severe and can last for a very long time. Wind shield cladding is used for protection of e.g. walkways, staircases and escape routes on offshore platforms against wind from the outside.

Usually these panels are fully bolted, heavy-duty and lightweight systems. Bolted systems are easy to install without hot work, so in most cases they can be installed when the platform (or installation) is fully operational. InterDam provides lightweight corrugated heat and wind shield cladding, which provides protection against wind and heat radiation reduction up to 94%. In order to meet the project requirements, the heat and windshield panels can be perforated. The heat and windshield cladding can be supplied in stainless steel 316L.



The types of heat and wind shield cladding are

- Perforated cladding;
- Non-perforated cladding;
- Wire mesh cladding;
- Double mesh cladding;
- Gastight cladding;
- Non-gastight cladding.

# Blast relief cladding

---

Risk reduction measures for fire and explosion hazards are continuously re-examined and re-assessed. Ventilation remains one of the key measures due to its importance for controlling and reducing explosion overpressure e.g. in containers where a sudden or high overpressure can occur causing danger for people and equipment.

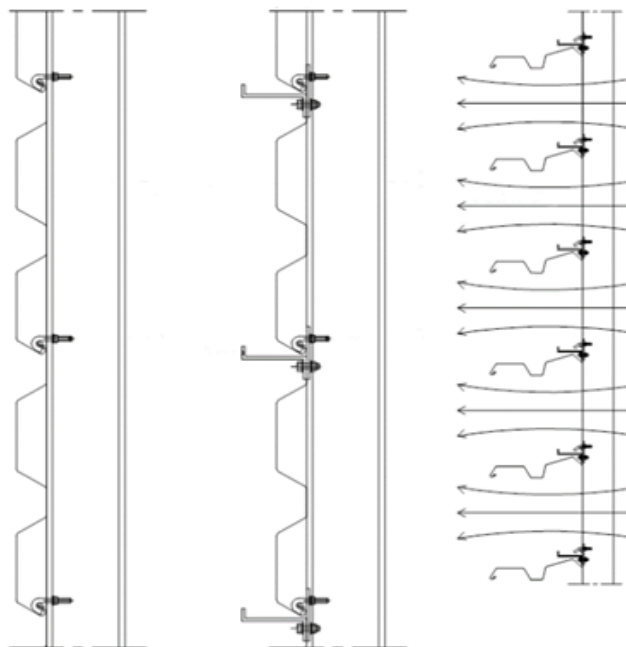
There are two positive effects of ventilation in offshore oil and gas structures, namely that it decreases the total inventory that may contribute to an explosion and it decreases the probability of cloud forming. An open offshore platform provides the best conditions for effective ventilation on the platform. Such oil and gas platforms are generally located in the Far East and The Gulf of Mexico because of the climate.

Platforms in the North Seas are in need of a certain degree of weather protection due to the colder climate. In case of the need of insulated wall systems, sandwich panels can also be designed as retained blast relief panels, panels that open at a predetermined overpressure.

Blast relief cladding systems are lightweight systems which can be designed to relieve (open) at a specific blast overpressure. The fixings will plastically deform (figure xx), causing the panels to open and thus vent the explosion pressure.

The InterDam blast relief cladding is a heavy-duty, lightweight wall system. InterDam is able to design the cladding in order to meet project specific blast relief pressures and opening times.

- Blow out or retained insulate type;
- Blow out or retained type ;
- Louvre blow out or retained insulated type.



# Winterizing and arctic cladding

---

Winterizing and arctic cladding systems are installed to protect people and equipment from arctic conditions such as fierce winds, snow, ice storms and blizzards up till -45.

Winterizing and arctic walls provide protection in extremely harsh environments and can be used to clad and enclose every type of application. The winterizing and arctic walls can be provided with thermal insulation in order to meet thermal requirements and are made of stainless steel, plastisol or mild Steel finished with an offshore paint system.



Source: [www.sakhalinenergy.ru](http://www.sakhalinenergy.ru)

# Radiation resistant cladding

---

Electro Magnetic Current (EMC) can be emitted by objects that carry rapidly changing electrical currents, but also by lightning and thunderstorms. These signals can be received by nearby electronic equipment that can likely disrupt the operation and cause undesirable interference effects.

When electronics are installed in an environment where electromagnetic interference may occur, radiation resistant cladding can protect the installations from damage. InterDam has developed special aluminum and stainless steel walls for substations of offshore wind farms which prevent radiation and thermal radiation to escape from the rooms (EMC Proof).



# Conclusion

---

We have an in-depth understanding of the risks and threats that the various industries are and can be exposed to. The key performance we can offer you, are:

- Experienced (over 100 years) in projects for international customers in the offshore oil and gas market who maintain the highest of standards;
- Market leader in supplying the total fire and blast rated architectural package world-wide;
- Complete knowledge of IMO SOLAS & NORSOK regulations;
- High-quality offshore products with life expectancy of at least 30 years;
- Custom-build and project specific designed and engineered products
- In-House Engineering;
- Complete certified range of products (Lloyd's Register, BV, ABS, USCG, DNV, GOST-R);
- Products designed and engineered according to IMO SOLAS, NORSOK, USCG, Eurocodes, DNV codes, ASCE, FABIG, PIP and other codes & standards;
- Dedicated project teams with focus on the supply of customized products including documentation and certification;
- Multiple production facilities in Europe, Middle East and the Far East;
- Research & Development Department for constant development of new products.





## About InterDam

InterDam creates the safest area possible for people and equipment working in hazardous environments. We are a market leader in our field due to our innovative character and offer a broad and complete portfolio of fire and blast architectural products. We set new standards and raise our shield for fire-post-blast protection. Your shield in the field.

We innovate and can define new standards. We can offer a wide scope of solutions to our clients and become the best certified partner with the most up-to-date and fit-for-purpose solutions available in the industry. At the same time, we build a true leader in the field worldwide. InterDam presents you the pros in protection. We will not settle for anything less.

## Our field

Protecting priceless human lives and saving essential resources and capital property with our fire and blast resistant doors, walls, windows and cladding. We optimize choice of welded, built-up or sandwich panels for people's safety. This expertise has become indispensable for areas where shielding is key.

Our products protect people and assets at offshore wind substations, LNG and petrochemical installations, offshore oil and gas platforms, at defense ships and installations and at infrastructural objects. In our production and delivery process we cover the total scope: from setting new standards, to production, to installing, to maintenance and repair.

## Our shields

We join forces and can now offer the broadest and most complete portfolio of fire and blast architectural products in the entire world.

- Walls - Generation II, Generation III, Generation IV (G21)
- Doors - Medium duty and heavy duty, single hinged, double hinged, sliding and specials, heavy duty, gas and watertight
- Windows - Fire-post-blast resistant (G21)
- Cladding - Heatshield, windshield, explosion relief
- Roofs - Generation IV (G21)
- Transportable prefabricated buildings - Road transportable dedicated fire-post-blast resistant units.

## Services

As InterDam we offer a wide range of services to our clients. Not only 24/7 maintenance and repair, but also installation support, upgrades, refurbishment, replacement, supervision, quality inspections, surveys, spare parts, EPC and turn-key execution, offshore and voyage repairs. So either onshore, at a yard, quayside or offshore, our clients rely on us to keep their shields up.

## Location

The heart of the office is located in Ridderkerk, The Netherlands, where the global production and sales network is being managed and maintained. A genuine project organization where all departments contribute to the successful completion of a quest: to provide protection and shield from harm.

InterDam B.V.  
Klompemakerstraat 12  
2984 BB Ridderkerk  
The Netherlands  
Phone +31 (0) 180 470 030  
[www.interdam.com](http://www.interdam.com)  
[info@interdam.com](mailto:info@interdam.com)



# InterDam