

Halton Marine

– HVAC dampers for safer seas



Care for Indoor Air

Halton
MARINE



An offshore oil platform at night, illuminated by lights, with a blue sky and water in the background.

Welcome aboard with Halton Marine

Safety is the most important factor on board ship and when working in extreme conditions such as offshore platforms, where a fire could put people's lives at risk unless necessary precautions are taken. Therefore it is essential that the equipment chosen for demanding conditions is top-class.

Halton Marine is the world's leading suppliers of marine HVAC systems. The experience and the quality of Halton Marine HVAC dampers is recognized by the leading type-approval societies and owners worldwide. As a forerunner in air-conditioning technology, Halton Marine provides its customers with an access to the latest technological advances that increase safety, energy efficiency and indoor air quality.

Dampers for all applications

Halton type-approved H0(H120) fire dampers

are to be used in demanding Oil & Gas applications, such as offshore platforms and vessels where it is necessary to ensure the maximum amount of time for people to react to possible fire, or risk of fire. Halton Marine FEX dampers are to be installed, for example in the external walls of living quarters, to prevent fire and gas progression into living areas, where fire could become life-threatening. Halton FEX dampers are developed to meet H-Class integrity.

Halton Marine type-approved A0(A60) fire and gas dampers

are widely used in different types of ships and Oil & Gas applications, where they are typically installed to prevent the spread of fire, smoke and gas between fire zones. The Halton FDB2 fire and gas damper patented blade structure, contain special seals that are effective up to 300 °C (572 °F) and thermally-activated graphite seals that expand when the heat rises to 150 °C (302 °F) in ductwork. These unique safety features ensure air tightness and low leakage of Halton FDB2 dampers, that prevent the fire, gas and smoke progression in a ductwork.



The frame and blades of the lighter version of the fire dampers, Halton FDL, are made of stainless or galvanized steel. The blades of FDL fire damper do not contain seals.

Both models, FDB2 and FDL, are rated for A0 – A60 -Class fire dampers that, suitably installed and insulated in a ductwork, will prevent a spread of fire for 60 minutes.

Halton Marine non-return and pressure-relief dampers

are used in Oil & Gas applications to prevent backflow and relieve pressure through ventilation ductwork. The opening pressure of the dampers can be individually adjusted. The BLD non-return dampers and the BRD pressure-relief dampers are also applicable in marine ventilation systems.



Blast Dampers

Blast dampers are designed for protection of ventilation systems against the effects of explosions. Blast dampers are applied in shielding industrial facilities, such as Oil & Gas platforms and refineries, or related buildings against destructive blast forces. The HV series offers higher air flow capacity and increased level of safety, compared to most of the available products on the market, as well as flexibility for design of duct systems.

Halton Marine airflow control dampers

are used in different types of ships and Oil & Gas applications. In offshore installations, UT-dampers are installed in, for example, the ventilation ducts of living quarters, where the dampers are used to control and balance the supply of fresh air for people to live and work in. When necessary, dampers can be used to shut-off the ventilation ducts (possible emergency situation).

As a result of good airflow management, temperatures and air pressures are maintained at the required level. The Halton UT series consists of four different models, from which customers can choose the best possible option for the required applications. The airtight UTT



and UTG dampers are used for shut-off and balancing of airflow rates in ductwork. The Halton UTK and UTP dampers are typically used for balancing of airflow rates. Halton PRA is a manually adjustable adjustment and measurement unit for circular ducts.

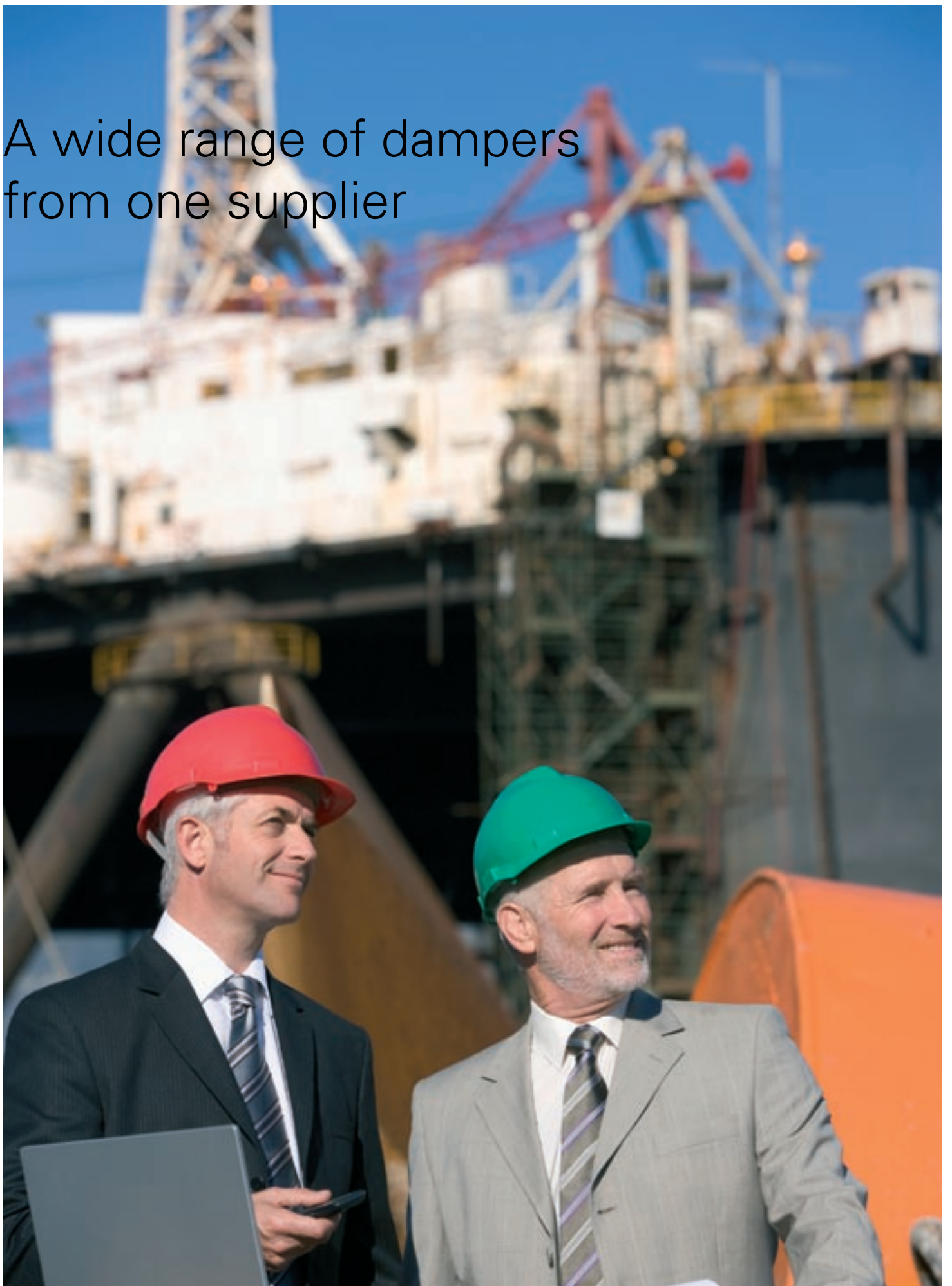
Flexibility

The structural flexibility combined with a wide range of accessories (including explosion-proof) and special steels, enable Halton Marine to offer customers tailored solutions for different applications. Agile, high-tech production is able to meet the needs of various specifications e.g. such as ISO 15138 standard.

>>> With a total service concept...



A wide range of dampers
from one supplier



H0(H120) fire dampers - Oil & Gas damper

ATEX

Frame: AISI 316 or AISI 316 with painted steel. Thickness 3 or 3-5 mm.
Blades: AISI 316. Blades as standard without seals.
Sizes: from 100x100 to 1200x1200 mm at 1 mm intervals.
Circular connection pieces from 100 to 1250 mm. Modules case by case.
Note: special drilling patterns are available as an option.

FEX H0(H120)



A0(A60) fire and gas dampers - Marine, Oil & Gas damper

ATEX

shock-tested

Frame: AISI 316 or painted or galvanized steel. Thickness 3 or 3-5 mm.
Blades: AISI 316 or galvanized steel. Blades contain thermal expansion and special seals. Sizes: from 100x100 to 1200x1600 mm at 1 mm intervals.
Circular connection pieces from 100 to 1250 mm. Modules possible.
Note: special drilling patterns are available as an option.

FDB2 A0(A60)



A0(A60) fire dampers - Marine, Oil & Gas damper

ATEX

Frame: AISI 316 or galvanized or painted steel. Thickness 3 or 3-5 mm.
Blades: AISI 316 or galvanized or painted steel. Blades without seals.
Sizes: from 100x100 to 1300x1200 at 1 mm intervals. Circular connection pieces from 100 to 1250 mm. Modules possible.
Note: special drilling patterns are available as an option.

FDL A0(A60)



A0(A60) fire and gas dampers - Marine, Oil & Gas damper

Frame: AISI316 or galvanized or painted steel. Thickness min. 3 mm.
Blade: AISI 316. Blades contain thermal expansion and glass fibre seals.
Sizes: Ø100, 125, 160, 200, 250, 315 mm.
Note: flanges and special drilling patterns are available as an option.

FDD A0(60)



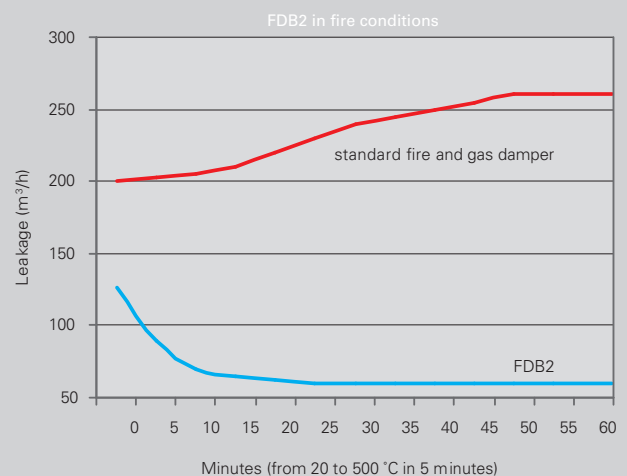
All dampers with automatic electrical, pneumatic or spring-actuated operation systems and fusible link.

Please note that the product photos are indicative, with different types of operation systems.

PERFORMANCE OF HALTON FDB2

Halton FDB2 is the successor of FDB - the most widely sold marine fire damper in the world. Why do the owners want to secure their properties with FDB2?

- FDB2 is truly designed for fire. Tightness of FDB2 improves substantially under fire conditions. Typically, steel deformation during fire increase the damper leakage and allows the smoke and other toxic gases to spread out into the ductwork.
- Tightness in normal conditions meets - and is substantially better than ISO 15138 requirement of 300 m³/h/m² 2000 Pa for gas tight fire dampers.
- Closed FDB2 fire damper 1000x1000 fulfils the requirements of leakage class 3(EN 1751:1998).



Robust and reliable systems
on board



Non-Return and Pressure-relief dampers ATEX

Frame: AISI 316 or galvanized or painted steel. Thickness 3 mm.
Blades: AISI 316 or galvanized steel. Blades contain special seals.
Sizes: from 100x100 to 1200x1400 mm at 1 mm intervals. Circular connection pieces from 100 to 1250 mm. Modules possible. Note: special drilling patterns are available as an option. BRD dampers include counter weights.

Blast Dampers

Material: galvanized steel or AISI 316. Blast protection up to 1 bar, 14,5 Psi.
Standard sizes from 300x300 to 1500x1500 mm. Modular construction available for high airflows and large ducts. Fully maintenance-free design. Minimum leakage on pass-through pressure and impulse. Minimum turbulence and pressure drop.

Balancing Dampers / Heavy model ATEX

Frame: AISI 316 or galvanized or painted steel. Thickness 3 or 3-5 mm.
Blades: AISI 316 or galvanized steel. Blades without seals.
Sizes: from 100x100 to 1200x1200 mm at 1 mm intervals. Larger sizes case by case. Circular connection pieces available from 100 to 1250 mm. Modules possible. Operation system: electrical, pneumatic or manual.
Note: special drilling patterns are available as an option.

Shut-off, Balancing and Gas Dampers / Heavy model ATEX

Frame: AISI 316 or galvanized or painted steel. Thickness 3 or 3-5 mm.
Blades: AISI 316 or galvanized steel. Blades contain special seals.
Sizes: from 100x100 to 1200x1200 mm at 1 mm intervals. Larger sizes case by case. Circular connection pieces from 100 to 1250 mm. Modules possible.
Operation system: electrical, pneumatic or manual.
Note: special drilling patterns are available as an option.

Balancing Dampers ATEX

Frame: AISI 316 or galvanized steel. Thickness 1 mm.
Blades: AISI 316 or galvanized steel. Blades contain seals (tightness class 1).
Sizes: from 100x100 to 2400x2400 mm at 50 mm intervals (special sizes available).
Circular connection pieces from 100 to 1250 mm. Modules possible.
Operation system: electrical, pneumatic or manual.

Shut-off, Balancing and Gas Dampers ATEX shock-tested

Frame: AISI 316 or galvanized steel. Thickness 1 mm.
Blades: AISI 316 or galvanized steel. Blades are insulated and contain seals (tightness class 4 available). Sizes: from 100x100 to 2400x2400 mm at 50 mm intervals (special sizes available). Circular connection pieces from 100 to 1250 mm. Modules possible. Operation system: electrical, pneumatic or manual.

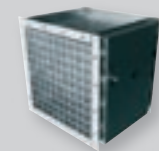
Adjustment and Measurement Unit

Casing and blades galvanized steel. Circular construction 100...315 and 350...1000 mm. Adjustable cone and airflow measurement taps for differential pressure adjustment. Classification of casing leakage, EN 1751 Class C.

BLD / BRD



HV-SERIES



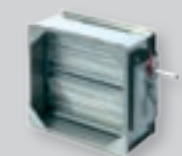
UTP



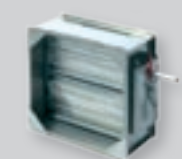
UTG



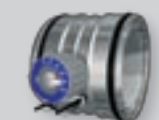
UTK



UTT



PRA



Service concept

According to customers' needs

Halton Marine bases its business on flexibility, reliability and customer-orientation. Production emphasizes tailoring, which means that solutions are adapted for each customer's specific needs. Halton Marine supplies solutions not only for new-buildings, but also for refurbishments of existing ones.

The comprehensive project management includes product design, delivery, commissioning and testing of product assemblies, plus a spare part service. Training services of Halton Marine products and solutions are available through Halton Marine sales offices.

In addition to Halton Marine's own personnel, an extensive network of Halton Marine distributors and agents are at your service.

Certified Quality

The technical quality and proper functioning of Halton's solutions, built in state-of-the-art production facilities, are tested in Halton's own laboratories and, at regular intervals, in independent research institutes around the world. In addition to ISO 9001, ISO 14001, quality and environmental management certificates, Halton Marine fire dampers conform with a leading classification societies worldwide. Several Halton Marine dampers are ATEX certified and shock-tested products for naval applications, ships and submarines, have been in Halton Marine's scope of supply for many years. Halton Marine is also qualified by FPAL and Achilles Joint Qualification System, for suppliers to the Oil & Gas industry.

For Turn-Key Suppliers

- A wide range of HVAC dampers from one reliable supplier
- A wide range of explosion-proof accessories and special steels combined with structural flexibility
- Flexible, high-tech production with short delivery times
- Product training and technical back-up for projects and after-sales support

For Yards

- Complete technical and installation information
- Global project support
- Testing and simulation services from full-scale mock-ups, leakage tests, fire tests, shock tests to CFD simulation services
- Advanced distribution and logistics concept, just-in-time deliveries

For Owners

- A safe, reliable and comfortable working environment has an direct impact on installation life cycle costs and productivity
- Maintenance-free Halton Marine dampers reduce initial investment costs
- Experienced partner in HVAC, on- and offshore, recognized by leading classification societies and owners worldwide
- Well-established but flexible company offering long-term business relationships and after-sales service

www.haltonmarine.com at your service.

Halton Marine's website is a source for product, system and application information. With its comprehensive data, news and eServices the website is always at your service.



Halton Marine

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Fax +86 21 5868 4568

Sales office, Norway

Tel. +47 5169 8308

Fax +358 20 792 2060

After sales office, USA

Tel. +1 270 393 7214

Fax +1 270 843 9931

HALTON MARINE HVAC DAMPERS

Fire dampers

- FEX H0(H120) fire dampers
- FDB2 A0(A60) fire and gas dampers
- FDL A0(A60) fire dampers
- FDD A0(A60) fire and gas dampers

Non-return and pressure-relief dampers

- BLD non-return dampers
- BRD pressure-relief dampers

Blast dampers

- HV-series

Airflow control dampers

- UTP balancing dampers, heavy model
- UTK balancing dampers
- UTG shut-off, balancing and gas dampers, heavy model
- UTT shut-off, balancing and gas dampers
- PRA adjustment and measurement units