

## POLYURETHANE MOULDING SERVICES

Offshore marine, wind turbine, oil and gas industries

#### **Bend Stiffener**



Used to limit bending and curvature of cables and umbilicals at the point where they connect to a rigid structure. They are used in both static and dynamic situations and offer protection during installation and over-deck deployment.

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#### **Bend Restrictor**

Consisting of advanced interlocking polyurethane products that allow a cable or umbilical to bend to a pre-determined locking radius when subjected to external loading.



#### **Piggyback Clamps**

Used where smaller secondary cables or pipes require support when attached to the main pipeline. Moulded from high-quality polyurethane, they can be deployed both underwater as well as above the surface.

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#### **Cable Clamps**

Used to bundle together cables and umbilicals, to grip or centralise cables or pipes during installation, as well as to mount SURF products to piles or pipes.

### **Precision engineered protection**

Many of the world's leading names in energy production rely on Kaylan Offshore to manufacture their highquality custom mouldings, specifically formulated for use in the harshest underwater environments.

Kaylan Offshore specialises in manufacturing highlydurable polyurethane products proven to protect pipes, flowlines and cables from abrasion, impact and flex fatigue. In fact, anything that the subsea environment can throw at them. Precision-moulded to a client's exact designs, each product is not only highly effective but also extremely long lasting. That's because we have the skill, the in-depth knowledge, and an impressive track record of delivering reliable, high-quality products, both on time and in the required volumes.

In the ever-changing marine world of offshore oil, gas and wind turbine development, Kaylan Offshore is more than capable of meeting new and exciting challenges.

#### Superior impact resistance

Working at great depths and in extreme conditions, on or offshore, presents no problem to Kaylan Offshore products. Each one is precisely formulated to perform in specific applications and exhibit outstanding physical properties in extreme temperatures as well as offering protection to thermal shock.

From cable and piggyback clamps, to bend stiffeners and bend restrictors, every product receives the utmost care and attention when formulating the correct Kaylan material to ensure that it's fit for purpose. This attention to detail applies to all our mouldings, from 6 metre long bend stiffeners to 1 inch diameter seals.

Every precision Kaylan moulding is manufactured to exceed conventional elastomers of equal hardness, whether working under compressive load, high impact or repeated flexing.

Kaylan Offshore products include, but are not limited to:

- Bend Restrictors
- Bend Stiffeners
- Piggyback Clamps
- Pipe & Cable Clamps
- Rollers
- Wear Pads
- Bundle Spacers
- Centralisers
- Cable & Flowline Protection
- Flange Protectors
- Riser Clamps
- Spacers & Seals

If you have a requirement for a product that is not listed here, we can produce it.





## A wealth of experience

Thanks to the extensive knowledge of our sister company, Kay-Dee Engineering Plastics Ltd., we're able to select the optimum grade of polyurethane. Combined, where appropriate, with correctly chosen additives, the result is a material specifically tailored to each client's exacting requirements.

Kaylan Offshore products can be supplied in almost any shape, size or colour. Plus, we can complement both existing and new designs, with production runs ranging from just a single one-off prototype to over one million pieces a year. Kaylan Offshore is the manufacturer of choice for many of the world's leading energy producers. When they need a material guaranteed to combine performance with longterm cost saving benefits, it's us they rely on.

## Working with the right material in the harshest environments

Kaylan Offshore processes a wide range of materials, for a variety of products and applications, currently including:

- MDI TDI TPU
- Polyether Polyester Caprolactone Polycarbonate Aliphatic
- Mercury-free High Temperature
- Hardness range available from Shore 10A through to Shore 85D
- Component weights cast up to 1500kgs

## Tried, tested and quality assured

Proven to consistently outperform the more traditional materials, Kaylan is relied upon not only in the onshore, offshore and subsea sectors, but also in such demanding areas as mining and construction, aerospace and motorsport. That's why every part is rigorously examined in our state-of-the-art testing facility.

Results show that our products not only excel in extreme conditions, but also under extreme pressure, stress, flex and compression. This strict adherence to the very highest of quality standards is what ensures that every Kaylan Offshore solution is 'fit for purpose'.

## **Environmental credentials**

Kaylan Offshore is committed to minimising the impact on the natural environment, which is why our purpose-built factory is designed with efficiency in mind and features: solar panels, computer-controlled heating and lighting systems that save energy and reduce our carbon footprint. We are committed to the recycling of raw materials, packaging and solvents, and also process the latest range of mercury-free systems to help protect the environment.

To find out more about Kaylan Offshore polyurethane moulding services and how we can add value to your business, simply contact us today.





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