Underwater Cleaning Equipment
Our range of Typhoon cleaning machines is available for various applications on all types of vessels; from propellers on small pleasure boats up to the hulls of 400 meter container ships or big offshore platforms.

All kinds of fouling can be removed very effectively; light slime as well as thick layers of heavy marine growth.

Our cleaning units can be used effortlessly and safely for extended periods of time. They are easy to maneuver and will help you clean even the hardest to reach niche areas.

All units are offered separately or with a complete support system including umbilical, tools and hydraulic power unit.
MC111

Easy transport, easy use and results that are hard to ignore

The MC111 is our smallest model specially designed for cleaning small ship hulls, propellers and thrusters. The MC111 is very handy and can be easily taken into difficult corners and niches without any loss of quality.

This very compact cleaning unit is easy to transport for multi-purpose use around the world. With the right accessory installed it can also be used as a grinder to perform small (crack) repairs.
MC131

From pleasure boats to niche areas on offshore vessels

The MC131 is a single tool unit designed for cleaning all types of marine fouling from yachts and smaller ships to offshore oil & gas platforms. The brush rotation speed is adjustable by the diver to achieve an optimum hourly cleaning rate.

The MC131 is ideal to clean smaller areas such as bilge keels, propellers and the rudder. Niche areas that are hard to reach also pose no problem for this extremely flexible one brush unit.
MC212

The most efficient underwater cleaning unit available

Our MC212 underwater cleaning unit has a track record of over 30 years of service. The twin brush unit consists of two halves connected by a hinge joint and is designed for cleaning light and heavy marine fouling from offshore oil & gas platforms, jetties, piles, windmills and other round structures as well as middle sized ships.

The equipment has a self-balancing feature, which allows the operator to use the tool safely and effortlessly for extended periods.

The MC212 was for instance used to clean jetty piles in the harbor of Terneuzen, Holland. The jetty piles were cleaned from the waterline down to 10 meters below the surface. Very heavy marine growth of over 40 cm thick and consisting of oysters was removed. The removal of these very thick layers of marine fouling proved to be no problem at all for this cleaning unit.

Besides being ideal to clean rounded surfaces, the MC212 is also a very good choice when cleaning middle sized ships fast and efficiently. The unit combines the maneuverability and flexibility of our smaller machines with a cleaning rate closer to our largest unit.
MC313

Versatility and speed lead to fastest cleaning rate

The unique design of the MC313 underwater hull cleaning unit will stand up to the most difficult underwater cleaning conditions encountered on various types of ships. The downward pressure of the brushes can be adjusted throughout the operation and follow the contours of the hull.

Cleaning speeds of up to 1500 m² per hour can be established with a powerful four-wheel drive system. Both light and very heavy fouling can be treated with the appropriate pressure and tools so damage is prevented to the underlying paint layers.

Different types of fouling can now be treated with the appropriate pressure and tools. The MC313 has a very efficient cleaning record. It is designed for larger ship hulls or other large, reasonably flat surfaces.

The MC313 is regularly used to clean a large cruise ship in the Bahamas. This operation takes full advantage of the versatility of the unit. The specific shape of the ship makes the MC313 the best choice for the job. The vessel as three bow thrusters and twin propellers which are connected to the stern area with brackets. The fact that the machine can be put into reverse and has heads that self-adjust to the contours of the hull makes these complex areas so much easier to clean. Thanks to the unit’s high cleaning rate the cruise ship is cleaned faster than would be possible with any other machine on the market.
## Specifications

### MC111

**Specifications:**

- **Dimensions:**
  - Length: 300 mm
  - Width: 180 mm
  - Height: 60 mm
- **Weight:** 5 kg
- **Hydraulic requirement:** 20 ltr/min @ 140 bar

### MC131

**Specifications:**

- **Dimension:**
  - Machine diameter: 250 mm
  - Brush diameter: 300 mm
- **Weight in air:** 9 kg
- **Weight in seawater:** 1 kg
- **Cleaning rate:** 300 m$^2$/hour
- **Depth rating:** 70 m
- **Hydraulic requirement:** 20 ltr/min @ 140 bar

### MC212

**Specifications:**

- **Dimensions:**
  - Length: 450 mm
  - Width: 800 mm
  - Height: 250 mm
- **Weight in air:** 23 kg
- **Weight in seawater:** 1 kg buoyant
- **Cleaning rate:** 450 m$^2$/hour
- **Depth rating:** 70 m
- **Hydraulic requirement:** 40 ltr/min @ 140 bar

### MC313

**Specifications:**

- **Dimensions:**
  - Length: 1240 mm
  - Width: 1040 mm
  - Height: 450 mm
- **Weight in air:** 133 kg
- **Weight in seawater:** 10 kg buoyant
- **Cleaning rate:** 1500 m$^2$/hour
- **Depth rating:** 70 m
- **Hydraulic requirement:** 80 ltr/min @ 140 bar
PP018
Hydraulic power unit

The PP018 hydraulic power unit is proficient for running our one and two brush units. It is an efficient and reliable power unit that is easy to handle and transport.

Suitable for running MC111 / MC131 / MC212.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil flow</td>
<td>20 l.p.m. at 1800 r.p.m.</td>
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<tr>
<td></td>
<td>40 l.p.m. at 3600 r.p.m.</td>
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<tr>
<td>Working pressure nominal</td>
<td>140 bar</td>
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<tr>
<td>Engine</td>
<td>Vanguard 2-cylinder</td>
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<td></td>
<td>18 HP (13,4 KW)</td>
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<td></td>
<td>4 stroke petrol</td>
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<tr>
<td>Dimensions (LxWxH)</td>
<td>805x625x695 mm</td>
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<tr>
<td>Weight</td>
<td>105 kg</td>
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</tbody>
</table>
The PP100 hydraulic power unit is proficient for running all our units.

Suitable for running MC111 / MC131 / MC212 / MC313.

**PP100**

**Hydraulic power unit**

- Oil flow: 20 l.p.m. - 80 l.p.m.
- Working pressure nominal: 140 – 160 bar
- Engine:
  - Kubota 4-cylinder
  - 104 HP (78 KW)
  - Diesel
- Dimensions (LxWxH): 1600x1000x1720 mm
- Weight: 1400 kg