General
Pre-compressed rubber blocks form the basis of all flexible coupling designs. The blocks accommodate movement in all directions, making couplings exceptionally tolerant of relative propeller shaft displacements in combination with flexible mounted propulsion engine and providing controlled damping of torsional vibration excitation.

Advantages of a flexible marine coupling:
- Reduction of torque fluctuations
- Damping of torsional vibrations
- Reduction of resonance symptoms
- Compensating of radial, axial and angular shaft displacements
- Isolation of vibration and noise transmission

Specification
The flexible couplings are standard manufactured in steel and seawater resisting aluminum. Other materials e.g. non-magnetic stainless steel can be supplied if required. They can be supplied with or without propeller thrust capacity and will maintain drive in the event of damage occurring to the rubber elements. All flexible marine couplings can be supplied with an adaptor flange or adaptor shaft, to fit any available reduction gearboxes brand worldwide. In addition to the standard range, heavy duty and special couplings can be made to meet particular requirements.
### Selection
When using a “Single” coupling, the free shaft end - the distance between the output flange of reverse gear and the centre of the first propeller shaft bearing - must have a length between \( L_{\text{MIN}} \) and \( L_{\text{MAX}} \). If the distance is less than the minimal required length, a Twin cordanic coupling must be used.

\[
L_{\text{MIN}} = 20 \times (d - 0.9) \quad [\text{cm}]
\]

\[
L_{\text{MAX}} = 2900 \times \sqrt{\frac{d}{n}} \quad [\text{cm}]
\]

\( d = \text{diameter propeller shaft} \quad [\text{cm}] \) and \( n = \text{propeller shaft rpm} \)

The characteristics table is ideal for initial selection; however, it is advisable to seek expert advise before finalizing an installation design. Rubber Design is eager to support you by making calculations as a service, to ensure a proper functioning system.

### Characteristics

<table>
<thead>
<tr>
<th>Dimensions [mm]</th>
<th>Nominal torque [kNm]</th>
<th>Max Torque [kNm]</th>
<th>Max Thrust capacity [kN]</th>
<th>Max speed [rpm]</th>
</tr>
</thead>
<tbody>
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<td>100</td>
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<td>220</td>
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<td>358,60</td>
<td>n.a.</td>
<td>1600</td>
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</tbody>
</table>

Engineering

CAD drawings (2D/3D) of the flexible marine couplings are available in different formats so that this geometry can be easily imported into the CAD drawing of the complete propeller shaft installation. All flexible marine couplings can be delivered with the required classification approval.

Remarks

It is our intention to maintain the excellent standard of our products. Modifications and improvements may be made from time to time and it is therefore advisable to contact us before ordering.