COMPACT ELASTIC COUPLING
Up to 35,000 Nm of torque and 180 mm bore

GEC

ComInTec®
Technology for Safety
The GEC coupling is composed of two hubs in steel UNI EN10083/98 fully turned. These two hubs are connected by radial pins, made in steel with high resistance and seated within the elastomeric elements. These pins, with their relevant elastomeric elements, are protected by an external band, allowing the coupling a high grade of protection. This construction feature allows the user to be able to perform maintenance, by substituting the elastic elements, without the need to move the two transmission hubs/shafts, reducing maintenance times and optimizing the plant productivity.

Particularly suitable for connecting Pelton turbines, for the coupling between engines and worm compressors and in general for transmission where safety is highly necessary without compromising the quality and effectiveness of the same transmission.

**DESCRIPTION OF THE ELASTOMERIC ELEMENT**

The main features that distinguish this elastic element are as follows:
- Good resistance to all common lubricants and hydraulic fluids.
- Optimum mechanical properties.
- Green element suitable to operate for short periods up to 170 °C.

**DIMENSIONING**

For pre-selection of the coupling’s size you can use the generic formula indicated on page 6. Alternatively it is possible to determine the coupling’s nominal torque using several correction factors:

\[
C_{\text{nom}} = C_{\text{mot}} \cdot f \cdot K \cdot r_i \cdot r_f
\]

Where:
- \(C_{\text{nom}}\) = theoretic nominal torque of the coupling \([Nm]\)
- \(C_{\text{mot}}\) = nominal torque motor side \([Nm]\)
- \(f\) = service factor (see page 5)
- \(f_i\) = starting frequency factor \([Hz]\)
- \(f_T\) = thermic factor
- \(K\) = shock factor

**FITTING**

Specific procedures to assemble this coupling are not required.

1) Achieve radial and axial alignment as precisely as possible for maximum absorption of possible misalignments and the long life of the coupling.
2) Having pre-assembled the coupling, insert the external half-hub on one shaft. Check that the external parts of the two shafts don’t exceed the relevant half-hub’s surface (quote “N”) and fix this one to the shaft with its relevant fixing system.
3) Close the second shaft inserting it into the internal half-hub for a quantity not higher than the length of the bore (quote “N”). If the insertion should be difficult, due to an accentuated misalignment, it is advisable to release all the connection pins, this will allow for a higher flexibility between the two half-hubs.
4) After having inserted and fixed the hubs, take away each connection pin, damp them with loctite threadlocker, and reassemble and tighten them carefully in progressive way following a cross sequence.
5) Cover the pins with the protection band, making the holes of the band coincide with the relevant locking spheres.
### GEC - compact elastic coupling: technical data

#### DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Bore 1</th>
<th>Locking type bore 1</th>
<th>Bore 2</th>
<th>Locking type bore 2</th>
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<tbody>
<tr>
<td>GEC</td>
<td>Size 3</td>
<td>bore Ø35 H7</td>
<td>A1</td>
<td>bore Ø45 H7</td>
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</table>

**Order example**

Model: GEC; compact elastic coupling

Size: from 00 to 7

Locking type: see hub connection type list at page 4

#### NOTES

- On request
- The weights refer to the coupling with minimum bore.
- Inertias refer to the coupling with maximum bore.
- Choice and availability of different hub connection type see pages 4 and 5.

#### TECHNICAL CHARACTERISTICS

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- Continuous
- Intermittent

#### ORDER EXAMPLE

- Model: GEC; compact elastic coupling
- Size: from 00 to 7
- Locking type: see hub connection type list at page 4