Shaft couplings for wind turbines
Quadruple mounting speed with half the workforce

The innovative SKF OKCK coupling saves time in most types of wind turbines. Another innovative design showing time is the clock on St. Nicholas Church in Prague.

The SKF hydraulic coupling, for wind turbines (OKCK) is designed to fit within limited space, and yet still maintain the benefits of more traditional SKF OK couplings: quick and easy mounting and dismounting. It is designed to create controlled high pressure against the shafts without leaving any tooling permanently in place.

Quick and easy mounting
The SKF OKCK coupling is mounted using oil power. No loud and vibrating pneumatic wrenches are used. Factory mounting time is less than half an hour and the dismounting time is the same. This also applies if the coupling has to be dismounted and mounted on-site.

Saves money on the production line
Practical testing has shown that the SKF OKCK coupling reduces mounting time up to four times compared with mechanical couplings. And only one person is needed to perform the job.

SKF technology, quality and service
The SKF OKCK coupling is based on the SKF oil injection method developed in the early 1940s. Since then, we have carried the technology even further. Today, we continue to develop different connection systems with new technology that saves time and money in power stations all over the world. Thanks to SKF’s global sales and service network, you can always find us in your local market.

SKF OKCK coupling vs traditional couplings

<table>
<thead>
<tr>
<th>Operation</th>
<th>Time required, minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory mounting</td>
<td>approx. 120</td>
</tr>
<tr>
<td>SKF OKCK coupling</td>
<td>30</td>
</tr>
<tr>
<td>Dismounting and mounting</td>
<td>approx. 300</td>
</tr>
<tr>
<td>on-site</td>
<td>60</td>
</tr>
</tbody>
</table>

This example illustrates the time needed for mounting a traditional mechanical coupling compared with an SKF OKCK coupling. As shown, the time-saving potential is considerable, with the OKCK coupling improving production economy in the wind turbine industry.
How the SKF OKCK works

The SKF OKCK coupling is mounted by sliding a thin inner sleeve with cylindrical bore and a tapered outer surface onto the shaft. A thicker outer sleeve with a matching tapered inner surface is fitted on the inner sleeve. Assembly is completed with a built-in hydraulic jack.

Oil is then injected between the sleeves to eliminate the friction between the tapered sleeves. The hydraulic jack then drives the outer sleeve up the taper of the inner sleeve to a predetermined position, creating a high and controlled pressure on the shafts.

To dismount the coupling you just reverse the operation.
SKF Coupling Systems AB was established in the early 1940s when SKF’s Chief Designer, Erland Bratt, invented the SKF oil injection method. As the result of continuous development, SKF is currently a world leader in selected market niches.

Our business concept is to develop, produce and supply products based on the SKF oil injection method. These products significantly reduce downtime and lower maintenance costs of the capital-intensive equipment in which they are used.