Designers and users of hydraulic blocks have confidence in the proven ductile cast iron material GOPAG C 500 F® since many years. Its fine and purely ferritic structure enables precise machining at high speed. Together with the lower mass density compared to steel cost and weight reductions are already possible.

However the application and use of ductile cast iron materials in offshore applications, like wind energy, maritime, oil and gas, is limited due to strong requirements on the safety factors during design.

As specialist for high performance cast iron Gontermann-Peipers succeeded in getting continuous cast iron qualified for offshore applications. The material GOPAG C 500 F®, the product name for EN-GJS-500-14C from Gontermann-Peipers, has been qualified by the well-known classification society DNV-GL and can be ordered with this additional property on request.
Offshore Qualification
- Material qualification by classification society DNV-GL
- Report No. CR-ADA-GL-IV-1-03982-0
- Limited to continuous cast iron from Gontermann-Peipers with extended quality control
- Available as additional property on an order specific basis

Properties
- Lower mass density than steel
- High strength (yield strength \( R_{y0.2} \), tensile strength \( R_m \))
- Ductile behavior (ductile yield \( A \))
- Homogeneous hardness
- Homogeneous purely ferritic matrix
- Defined safety design rules (safety factor \( y_m \))
- Fulfills standard for EN-GJS-500-14C

Benefits
- Safety during mechanical design also at high operational pressures
- Substitution of steel*
- Weight reduction up to 23%* realized by lower part dimensions and lower mass density
- Cost reduction during machining at higher speed and based on the high process stability
- Precision and accuracy during machining also for deep drilling and at sealing surfaces based on the homogeneity of the material

* Dependent on the specific load situation, the component size and the applied method for the safety dimensioning

Dimensions*

<table>
<thead>
<tr>
<th></th>
<th>Round bar</th>
<th>Rectangular bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. [mm]</td>
<td>70</td>
<td>50 x 50</td>
</tr>
<tr>
<td>Max. [mm]</td>
<td>500</td>
<td>530 x 330</td>
</tr>
</tbody>
</table>

* Dependent on stock situation and order quantity

Order
Please indicate in your order that you require a material delivery with the additional property of applicability of the offshore qualification.