COLD FORMED SHEET PILES
The OZ series were specially designed and produced to optimize in order to facilitate immediate and fast delivery requirements.

Extensive FEA were carried out to ensure product quality and technical conformity.

The advantages of OZ series are as follows:

- Interlocks located at the outer fibre thus optimizing section profile for high strength and low material weight.
- High inertia enabling reduction of deflection for service ability.
- High steel grade provide efficient section with high bending moment resistant.
- Uniform section thickness for good driving stiffness.
- Improved system width compared to standard sheet piling. Higher width reduces handling & installation time with usual driving equipment.
- High width reduces the number of interlocks per meter run of wall and directly improves water tightness control of wall.

<table>
<thead>
<tr>
<th>Section Designation</th>
<th>Width (mm) (W)</th>
<th>Height (mm) (H)</th>
<th>Thickness (mm) (t)</th>
<th>Cross Section Area (cm²)</th>
<th>Weight (kg/m)</th>
<th>Moment of Inertia (cm⁴)</th>
<th>Section Modulus (cm³)</th>
<th>Per pile</th>
<th>Per meter of wall</th>
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<tbody>
<tr>
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<td>257.9</td>
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</table>

*y*: single pile neutral axis

*y'-y*: double pile neutral axis, shear transfer in the interlock must be assured in order to guarantee the given value of moment inertia

**Single side coating, average of both sides (excluded inside of interlocks)**

www.orantlsheetpiling.com
The OT series were designed and produced to meet immediate requirements. Similar to the OZ series, the OT series can also be produced in a single piece without jointing or welding.

The flexibility of the interlock design allows the OT series to be applied both in temporary and permanent solutions.

The advantages of OT series are as follows:

- Symmetrical form has made it convenient for reuse. It also allows easy connections of various strutting system & tie rod connections, even under water.
- Optimized section profile height & width, high steel grade and special design interlocking system to allow multiple reuse.
- Combination of great wave depth & high steel grade give excellent statical properties with low weight.
- Uniform section thickness for good driving stiffness
- Improved system width compared to standard sheet piling. Higher width reduces handling & installation time with usual driving equipment.
- Higher width reduces the number of interlocks per run of wall and directly improves water tightness control of wall.

### Section Designation

<table>
<thead>
<tr>
<th>Section Designation</th>
<th>Width (mm)</th>
<th>Height (mm)</th>
<th>Thickness (mm)</th>
<th>Cross Section Area (cm²)</th>
<th>Weight (kg/m)</th>
<th>Moment of Inertia (cm⁴)</th>
<th>Section Modulus (cm³)</th>
<th>Cross Section Area (cm²)</th>
<th>Weight (kg/m)</th>
<th>Coating Area (m²/m²) *&lt;br&gt;As</th>
<th>Moment of Inertia (cm⁴)</th>
<th>Section Modulus (cm³)</th>
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</thead>
<tbody>
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<td>79.1</td>
<td>62.1</td>
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</table>

The **OT** series was specifically designed for **temporary** and **permanent** solutions. The interlocking system allows for multiple uses, providing high flexibility in various strut systems and tie rods. The design ensures good driving stiffness and uniform section thickness, improving overall weight efficiency.

**Coating Area** is calculated as average coating on both sides, excluding inside of interlocks.

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*Note: The above table represents the physical properties and interlocking specifications of the OT series sheet piles.*
## Tolerances on Sheet Piles

All sheet piles are formed in continuous rolling process to the required sections with interlock able to fit into each other

Tolerances on Sheet Piles (reference standard: BS EN 10249)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Figures</th>
<th>Nominal size</th>
<th>Tolerances</th>
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</thead>
<tbody>
<tr>
<td>Sectional Height (h)</td>
<td><img src="image" alt="Sectional Height" /></td>
<td>h ≤ 200mm</td>
<td>± 4mm</td>
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<td>200 &lt; h ≤ 300</td>
<td>± 6mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300 &lt; h ≤ 400</td>
<td>± 8mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>400 &lt; h</td>
<td>± 10mm</td>
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<tr>
<td>Sectional Width (w)</td>
<td><img src="image" alt="Sectional Width" /></td>
<td>Single sheet pile</td>
<td>± 2% b</td>
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<tr>
<td></td>
<td></td>
<td>Double sheet piles</td>
<td>± 3% b</td>
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<td>Sectional thickness (e)</td>
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<td>e = 3</td>
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<tr>
<td></td>
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<td>3.00 &lt; e ≤ 4.00</td>
<td>± 0.27</td>
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<tr>
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<td>4.00 &lt; e ≤ 5.00</td>
<td>± 0.29</td>
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<td>5.00 &lt; e ≤ 6.00</td>
<td>± 0.31</td>
</tr>
<tr>
<td></td>
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<td>6.00 &lt; e ≤ 8.00</td>
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<td>8.00 &lt; e ≤ 10.0</td>
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<td>12.7 &lt; e ≤ 15.0</td>
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<td>Curving (Deflection c)</td>
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<td>Length (l)</td>
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<td>Twist (Dimension v)</td>
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<tr>
<td>Squareness of ends (Out of squareness of end cuts)</td>
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<td>Mass of Section (Difference between total actual and total theoretical mass delivered)</td>
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### Steel Grade

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*High-strength low alloy steel grade for use in Marine Environments
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