Gripple Hangers

ADVANTAGES

- **Strong**
  5:1 load rated system.

- **Replaces threaded rod**
  No more sawing, filing or fixing nuts.

- **Faster**
  Reduces installation time by 80%.

- **Safe**
  Lightweight, making it easier to carry on site.

- **Saves time and money**
  No need for additional bracketry.

- **Reduces CO₂ emissions**
  1.2 kg less CO₂ per metre than threaded rod.

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**No.1**
0 - 10kg

**No.2**
10 - 45kg

**No.3**
45 - 90kg

**No.4**
90 - 225kg

**No.5**
225 - 325kg

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**CALCULATION FORMULA**

A simple formula to determine the correct hanger size is:

Weight per metre x distance between hangers

Example:
15kg load per metre

15 x 2 = 30kg

Distance between hangers is 2m

Plane: Vertical

Size will be No.2

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**HOW TO CHOOSE THE RIGHT SIZE AND MODEL**

1. Choose the size where the object’s weight falls within the products working range. Examples of the calculation formula are detailed overleaf.

2. Unless specified, each of our end fixings maintains the load ratings of the individual kits.

3. Each size has a specified safe working load rated at 5:1, and offers a working load range.

4. The load range should be observed; choosing a size that is lighter or heavier than necessary is counter-productive, both functionally and financially.

5. Remember to adjust your size choice if the hanger is to be used at an angle other than vertical. The table below (effect on SWL of hanging objects at an angle) shows the effect of the load has on a vertical installation.

6. In areas of high humidity (a paper factory) and frequent wash down (a food processing factory), stainless steel kits should be considered for extended life performance. In chlorinated environments, such as swimming pools, great care should be taken when selecting materials, due to their unstable and unpredictable nature. Extensive consultation should be made by the contactor or client with specifying engineers prior to product selection and installation. Best practice recommends that after completion, installed services and support materials should be inspected at least annually.

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PI-01-ENG
EFFECT ON SWL OF HANGING OBJECTS AT AN ANGLE

The load rating for a Gripple hanger is based on the suspension being hung vertically. If the wire rope is suspended at an angle, an additional sideways load is applied which reduces the capacity of the suspension. The net effect is shown on the table below:

![Diagram showing the effect of SWL at different angles](image)

**Example:**

At an angle of 60° to the vertical, the working load must be reduced by 50% in order to maintain a safety factor of 5:1

<table>
<thead>
<tr>
<th>Gripple Hanger</th>
<th>0°</th>
<th>15°</th>
<th>30°</th>
<th>45°</th>
<th>60°</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.1</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>No.2</td>
<td>45</td>
<td>43</td>
<td>38</td>
<td>31</td>
<td>22</td>
</tr>
<tr>
<td>No.3</td>
<td>90</td>
<td>86</td>
<td>77</td>
<td>63</td>
<td>45</td>
</tr>
<tr>
<td>No.4</td>
<td>225</td>
<td>217</td>
<td>194</td>
<td>159</td>
<td>112</td>
</tr>
<tr>
<td>No.5</td>
<td>325</td>
<td>313</td>
<td>281</td>
<td>229</td>
<td>162</td>
</tr>
<tr>
<td>Load %</td>
<td>100</td>
<td>96</td>
<td>86</td>
<td>70</td>
<td>50</td>
</tr>
</tbody>
</table>

EFFECT ON SWL OF FORMING IN-LINE JOINTS

When using a Gripple to form an in-line joint, or as an end-stop, the SWL is reduced by 55%, and so the following ratings should be applied

<table>
<thead>
<tr>
<th>Size</th>
<th>Standard</th>
<th>55% reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.1</td>
<td>10</td>
<td>4.5</td>
</tr>
<tr>
<td>No.2</td>
<td>45</td>
<td>20.25</td>
</tr>
<tr>
<td>No.3</td>
<td>90</td>
<td>40.5</td>
</tr>
<tr>
<td>No.4</td>
<td>225</td>
<td>101.25</td>
</tr>
<tr>
<td>No.5</td>
<td>325</td>
<td>146.25</td>
</tr>
</tbody>
</table>