Plarailchains SP Series

Features
- Compared with conventional products, improved durability of cables, hoses, and components.
  - Special resins reduce wear and tear by one-fourth to one-fifth of conventional products.
- The Plarailchains' body has been improved for extended durability, and longer life.
  - Reinforced filler and composite materials are utilized with state-of-the-art designing.
- Less water absorption compared with conventional nylon-related materials, thus size transformation and hardness drop less occur.
- Greater sound arresting performance compared with conventional products.
- New materials allow for greater interior space while allowing the Plarailchains unit as a whole to be smaller.
- Brackets in one type only for each moving end use and fixed end use, simplifies ordering.
  - Choice from 16 different ways of attaching made possible by orientating same brackets.

Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Model 1520</th>
<th>Model 2550</th>
<th>Model 2585</th>
<th>Model 35105</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch (mm)</td>
<td>25</td>
<td>36</td>
<td>43.5</td>
<td>62.5</td>
</tr>
<tr>
<td>No. of links (/m)</td>
<td>40</td>
<td>28</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>Max. cable dia. (mm)</td>
<td>¥12</td>
<td>¥20</td>
<td>¥20</td>
<td>¥28</td>
</tr>
<tr>
<td>Free span (m)</td>
<td>Refer to the capacity chart.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. stroke (m)</td>
<td>2.4</td>
<td>3.1</td>
<td>3.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Max. cable mass (kg)</td>
<td>2.2</td>
<td>6.5</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Max. speed (m/s)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plarailchain mass (kg)</td>
<td>0.36</td>
<td>0.86</td>
<td>1.05</td>
<td>1.96</td>
</tr>
</tbody>
</table>

Service conditions
- Avoid acidic or basic atmosphere and hot water.
- Service temperature range (°C): -10〜+80
- Noise level (Compared with conventional PISCO model): -8  -10  -3
- Water absorption (%): 1.3
- Chemical-proof: Refer to page 624.

Individual Description

Capacity chart
Number of links is to be calculated by the following equation:

\[ n = \frac{\frac{S}{2} + \pi R + 2K}{P} \]

- \( n \): Number of links
- \( S \): Transfer stroke (mm)
- \( R \): Bending radius (mm)
- \( K \): Play (mm)
- \( P \): Pitch (mm)

(Figures below decimal point are raised to one positive number)

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**Model**

<table>
<thead>
<tr>
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<th>SP 35105</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R</strong></td>
<td>30</td>
<td>50</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td><strong>H (mm)</strong></td>
<td>81</td>
<td>185</td>
<td>155</td>
<td>350</td>
</tr>
<tr>
<td><strong>HF (mm)</strong></td>
<td>100</td>
<td>210</td>
<td>180</td>
<td>335</td>
</tr>
<tr>
<td><strong>P (mm)</strong></td>
<td>25</td>
<td>36</td>
<td>43.5</td>
<td>62.5</td>
</tr>
<tr>
<td><strong>K (mm)</strong></td>
<td>30 or more</td>
<td>50 or more</td>
<td>50 or more</td>
<td>63 or more</td>
</tr>
<tr>
<td><strong>mass / link (g)</strong></td>
<td>9</td>
<td>31</td>
<td>46</td>
<td>123</td>
</tr>
</tbody>
</table>

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**Assembly measurement and weight chart**

*HF in the above diagram is the clearance height in which overshoot of free span Ptoralichain without cable or hose inside it is taken into account.*

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**Bending radius**

- R30, R50, R75

**link pitch (mm)**

- 25

**No. of links (/m)**

- 40 links
**Size SP 35105**

**Model Designation (Example)**

1. **Type**  
   SP : SP Series

2. **Size (Inner dimensions Height x Width)**

<table>
<thead>
<tr>
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<th>2550</th>
<th>2585</th>
<th>35105</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (mm)</td>
<td>15x20</td>
<td>25x50</td>
<td>25x85</td>
<td>35x105</td>
</tr>
<tr>
<td>Size (inch)</td>
<td>0.59x0.79</td>
<td>0.98x1.97</td>
<td>0.98x3.35</td>
<td>1.38x4.13</td>
</tr>
</tbody>
</table>

*Diaphragm (Separate purchase)*

**Bending Radius**

<table>
<thead>
<tr>
<th>Type</th>
<th>R100, R125, R150, R200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link pitch (mm)</td>
<td>62.5</td>
</tr>
<tr>
<td>No. of links (m)</td>
<td>16 links</td>
</tr>
</tbody>
</table>

* A diaphragm may be attached in any position in addition to seven other designated positions. Also, more than one diaphragm may be installed on any one link.

**Attachment Metal Bracket Model Designation (Example)**  ➤ Please refer to page 624 regarding Model Designation for Blackets.

**Detailed Safety Instructions**

Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on page 23-24.

**Warning**

1. Never step on Plarailchain. Otherwise the chain may break and will fall down.
2. When connecting, disconnecting, opening, closing, or carrying out maintenance and checks, hold the Plarailchains motionless, otherwise the Plarailchain may run or fall under its own weight, thus doing injuries to you.
3. Pay attention to the flexing areas of the Plarailchains. You can get injured with your hand caught in the flexing area.
4. Before conducting maintenance or checks of Plarailchains, be sure to turn off power supply to the equipment for your safety.
5. The Plarailchains should only be used within stated specifications and conditions.
6. Never perform disassembly or remodeling that can affect the basic structure, performance or function of the equipment.
7. Tighten up all the brackets. Looseness of them can cause a breakdown of the whole system.
8. Do not apply unreasonable loads on metal fittings that may cause the Plarailchains to come out of place or be damaged. Loads that exceed specifications may lead to system failure.

**Caution**

1. Carefully read the "Hoses/Cable Installation" section in manual before use.
2. Examine the Plarailchains Performance Curve Chart in manual to select suitable type. Remember to test the Plarailchains before use since other factors may affect performance.
3. Cables and hoses to be stored must be flexible and wear-resistant, do not use wire-braided ones which are prone to damage.
4. For use under special circumstances, contact PISCO for guidance.