

# Plarailchain HPC

Cable/Tube Carrier Low Noise Type

**⚠ Safety instructions for this product**  
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

## Model Designation (Example)

\*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

**HP** (1) **C** (2) **203** (3) - **R30** (4)

### (1) Plarailchain

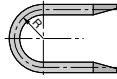
### (2) Low noise type

### (3) Size (Overall dimensions: H × W)

| Code      | 203   | 204   | 306   |
|-----------|-------|-------|-------|
| Size (mm) | 29×48 | 34×69 | 47×78 |

### (4) Bending radius (R) (○: Available)

| Code | R30 | R45 | R50 | R60 | R90 | R100 | R150 |
|------|-----|-----|-----|-----|-----|------|------|
| 203  | ○   | ○   | ○   | ○   | ○   | ○    | ○    |
| 204  |     |     | ○   | ○   | ○   | ○    | ○    |
| 306  |     |     | ○   | ○   | ○   | ○    | ○    |



## Model Designation (Example) (Bracket common type)

\*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

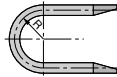
**HP** (1) **C** (2) **200** (3)

### (1) Plarailchain

### (2) Low noise type

### (3) Size (Overall dimensions: H × W), Bending radius (R)

| Code                | 50    | 100   | 200   |
|---------------------|-------|-------|-------|
| Size (mm)           | 26×48 | 37×69 | 44×84 |
| Bending radius (mm) | R=60  | R=90  | R=105 |



## Characteristics

The small pitch of the links and special engineering plastics contribute to the low noise.

The flaps break open in the middle, so that you can add or remove cables simply by pushing in or pulling out.

Upon receiving the chains, you need to cut the flaps along the middle with a cutter or nipper.



## Specifications

| Series                       | 203                                                      | 204             | 306              | 50    | 100   | 200   |
|------------------------------|----------------------------------------------------------|-----------------|------------------|-------|-------|-------|
| Bending radius (mm)          | 30<br>45<br>60                                           | 50<br>90<br>150 | 50<br>100<br>150 | 60    | 90    | 105   |
| Max. O.D. of cable/tube (mm) | 19                                                       | 23              | 31               | 16    | 24    | 28    |
| Pitch length (mm)            | 25                                                       | 32              | 45               |       | 25    |       |
| No. of links (/m)            | 40                                                       | 32              | 23               |       | 40    |       |
| Max. free span (m)*          | 0.9                                                      | 1               |                  | 1.06  | 1     |       |
| Max. travel stroke (m)       | 1.7                                                      | 1.8             |                  | 1.9   | 1.8   |       |
| Max. contents weight (kg/m)  | 2.5                                                      | 4               | 6                |       | 5     |       |
| Max. travel speed (m/s)      |                                                          | 2.5             |                  |       |       |       |
| Chain weight (kg/m)          | 0.37                                                     | 0.59            | 0.78             | 0.358 | 0.608 | 1.056 |
| Chain material               | PA6                                                      |                 |                  |       |       |       |
| Bracket material             | SPCC with Trivalent unichrome plating                    |                 |                  |       |       |       |
| Operating temp. range (°C)   | 0 to 50                                                  |                 |                  |       |       |       |
| Operating environment        | Avoid using in acid/alkaline atmosphere or in hot water. |                 |                  |       |       |       |

\*Max. free span: Length that the upper runs in straight line with no sag.

RoHS2 (2011/65/EU+EU2015/863) compliant

| Type           | Model code             |
|----------------|------------------------|
| Low noise type | HPC203- <sup>(1)</sup> |
| HPC            | HPC204- <sup>(1)</sup> |
|                | HPC306- <sup>(1)</sup> |
|                | HPC50                  |
|                | HPC100                 |
|                | HPC200                 |



**i** Notes  
\*1. For <sup>(1)</sup> in model code, please select a code for bending radius.  
\*2. See page 792 for size selection instructions.  
\*3. See page 797 for the calculation method of the number of links.

**CAD** data is available at PISCO website.

## Mounting bracket for HPC203, 204 and 306

| Application       | For moving-end              |                 |                 |                 | For fixed-end             |                 |                 |                 |
|-------------------|-----------------------------|-----------------|-----------------|-----------------|---------------------------|-----------------|-----------------|-----------------|
| Type              | For moving-end (Holed type) |                 |                 |                 | For fixed-end (Boss type) |                 |                 |                 |
| Screwing position | Inside                      | Outside         | Inside          | Outside         | Inside                    | Outside         | Inside          | Outside         |
| Orientation       | Outer periphery             | Inner periphery | Outer periphery | Inner periphery | Outer periphery           | Inner periphery | Outer periphery | Inner periphery |
| Type              | Model code                  | Model code      | Model code      | Model code      | Model code                | Model code      | Model code      | Model code      |
| HPC203            | U2-MAO-S                    | U2-MAI-S        | U2-MAO-S        | U2-MAI-S        | U2-FAO-S                  | U2-FAI-S        | U2-FBO-S        | U2-FBI-S        |
| HPC204            | U2-MAO                      | U2-MAI          | U2-MAO          | U2-MAI          | U2-FAO                    | U2-FAI          | U2-FBO          | U2-FBI          |
| HPC306            | U3-MAO                      | U3-MAI          | U3-MAO          | U3-MAI          | U3-FAO                    | U3-FAI          | U3-FBO          | U3-FBI          |

**i** Notes  
\*Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the holed type) and fixed-end (the boss type) must be ordered separately when you need both of them.

## Mounting bracket for HPC50, 100 and 200

| Application       | For moving-end          |  | For fixed-end           |  |
|-------------------|-------------------------|--|-------------------------|--|
| Type              | For moving-end          |  | For fixed-end           |  |
| Screwing position | Outside                 |  | Outside                 |  |
| Orientation       | Inner periphery         |  | Inner periphery         |  |
| Type              | Model code              |  | Model code              |  |
| HPC50             | HPC50-K <sup>(*)</sup>  |  | HPC50-K <sup>(*)</sup>  |  |
| HPC100            | HPC100-K <sup>(*)</sup> |  | HPC100-K <sup>(*)</sup> |  |
| HPC200            | HPC200-K <sup>(*)</sup> |  | HPC200-K <sup>(*)</sup> |  |

**i** Notes  
HPC50-K, HPC100-K, and HPC200-K have common brackets for the moving/fixed end. Two sets are required for the moving-end and the fixed-end.

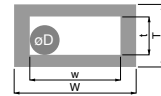
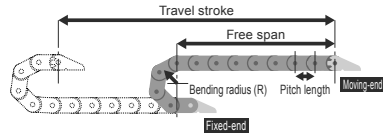
## Related product



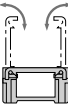
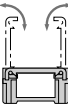
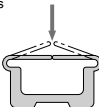
Low Friction Polyurethane Tube

▶ P.94

# Selection chart for Plarailchain series

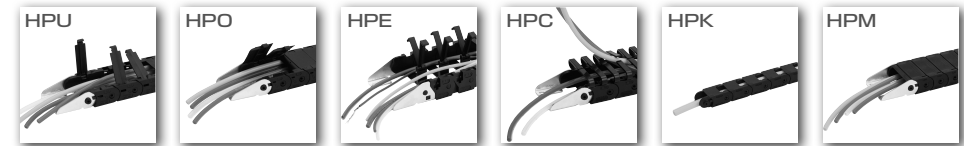


T : Height  
 W : Width  
 t : Inner height  
 w : Inner width  
 øD: Max. O.D. of cable/tube

| Open-close flap type                                               |     | Bending radius (mm)     | Pitch length (mm) | No. of links (/m) | Max. free span (m)* | Max. travel stroke (m) | Max. contents weight (kg/m) | Max. travel speed (m/s) | Chain weight (kg/m) | Divider | Open/close system                                                                                                      |                                                                                    |    |      |
|--------------------------------------------------------------------|-----|-------------------------|-------------------|-------------------|---------------------|------------------------|-----------------------------|-------------------------|---------------------|---------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----|------|
| HPU                                                                | 102 | 19                      | 20                | 50                | 0.46                | 0.7                    | 1.5                         | 2.5                     | 0.12                | —       | Snap open on either side (along the outer radius).                                                                     |   |    |      |
|                                                                    | 202 | 25, 30, 45              | 25                | 40                | 0.75                | 1.4                    | 1.2                         |                         | 0.25                | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 203 | 30, 45                  |                   |                   |                     |                        |                             |                         | 0.26                | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 204 | 38, 50                  | 32                | 32                | 1                   | 1.9                    | 2                           |                         | 0.5                 | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 206 |                         |                   |                   |                     |                        |                             |                         | 0.56                | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 306 | 50, 100, 150            | 45                | 23                | 1.5                 | 2.9                    | 6                           |                         | 0.64                | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 408 | 50, 75, 100, 150, 200   |                   |                   |                     |                        |                             |                         | 5                   | 1.1     |                                                                                                                        |                                                                                    | ●  |      |
|                                                                    | 412 |                         |                   |                   |                     |                        |                             |                         |                     | 1.3     |                                                                                                                        |                                                                                    | ●  |      |
|                                                                    | 615 | 75, 100, 150, 200       | 70                | 15                | 3                   | 5.8                    | 25                          |                         | 2.46                | ●       |                                                                                                                        |                                                                                    |    |      |
| HPO<br><small>Fully-enclosed type</small>                          | 202 | 30, 45                  | 20                | 50                | 0.75                | 1.4                    | 1.9                         | 2.5                     | 0.28                | —       | Snap open on either side (along the outer radius).                                                                     |   |    |      |
|                                                                    | 203 |                         |                   |                   |                     |                        |                             |                         | 0.31                | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 204 | 38, 50                  | 26                | 39                | 1.75                | 3.4                    | 10                          |                         | 0.5                 | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 206 |                         |                   |                   |                     |                        |                             |                         | 0.6                 | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 408 | 70, 100, 150, 200       | 45                | 23                | 4.5                 | 8.8                    | 30.6                        |                         | 1.36                | ●       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 412 |                         |                   |                   |                     |                        |                             |                         | 1.7                 | ●       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 512 |                         |                   |                   |                     |                        |                             |                         | 100                 | 60      |                                                                                                                        |                                                                                    | 17 | 2.15 |
|                                                                    | 819 | 150, 200, 250, 300, 400 | 90                | 11                | 2.5                 | 4.6                    | 35                          |                         | 4.4                 | ●       |                                                                                                                        |                                                                                    |    |      |
| HPE<br><small>Open-close split flap type</small>                   | 408 | 50, 75, 100, 150, 200   | 45                | 23                | 1.5                 | 2.9                    | 2.5                         | 2.5                     | 1.1                 | —       | Twin gull-wing crossbars operate independently.                                                                        |   |    |      |
|                                                                    | 412 |                         |                   |                   |                     |                        |                             |                         | 1.3                 | —       |                                                                                                                        |                                                                                    |    |      |
| HPC<br><small>Simple flap type</small><br><small>Low noise</small> | 203 | 30, 45, 60              | 25                | 40                | 0.9                 | 1.7                    | 2.5                         | 2.5                     | 0.37                | —       | Cut apart crossbars by a cutter (at the spot indicated by the arrow) so that cables / tubings can be easily installed. |  |    |      |
|                                                                    | 204 | 50, 90, 150             | 32                | 32                | 1                   | 1.8                    | 4                           |                         | 0.59                | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 306 | 50, 100, 150            | 45                | 23                |                     |                        |                             |                         | 0.78                | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 50  | 60                      | 25                | 40                | 1.06                | 1.9                    | 5                           |                         | 0.358               | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 100 | 90                      |                   |                   |                     |                        |                             |                         | 0.608               | —       |                                                                                                                        |                                                                                    |    |      |
|                                                                    | 200 | 105                     |                   |                   |                     |                        |                             |                         | 1.056               | —       |                                                                                                                        |                                                                                    |    |      |

| Fixed flap type                   |     | Bending radius (mm) | Pitch length (mm) | No. of links (/m) | Max. free span (m)*1 | Max. travel stroke (m) | Max. contents weight (kg/m) | Max. travel speed (m/s) | Chain weight (kg/m) | Divider | Open/close system |  |
|-----------------------------------|-----|---------------------|-------------------|-------------------|----------------------|------------------------|-----------------------------|-------------------------|---------------------|---------|-------------------|--|
| <b>HPK</b><br>Compact             | 101 | 19                  | 20                | 50                | 0.5                  | 0.8                    | 1.5                         | 1                       | 0.105               | —       | No flap           |  |
|                                   | 202 | 30, 45              | 25                | 40                | 0.75                 | 1.4                    | 3                           |                         | 0.222               | —       |                   |  |
|                                   | 203 |                     |                   |                   |                      |                        |                             |                         | 0.24                | —       |                   |  |
|                                   | 204 | 38, 50              | 32                | 32                | 0.75                 | 1.4                    | 4                           | 2.5                     | 0.45                | —       |                   |  |
|                                   | 206 |                     |                   |                   | 0.86                 | 1.6                    | 4.5                         |                         | 0.51                | —       |                   |  |
| <b>HPM</b><br>Fully-enclosed type | 204 | 28                  | 15                | 67                | 1                    | 1.8                    | 3                           | 2.5                     | 0.34                | —       | No flap           |  |
|                                   | 205 |                     |                   |                   |                      |                        |                             |                         | 0.39                | —       |                   |  |
|                                   | 206 | 38, 50              | 22                | 46                |                      |                        | 4.5                         |                         | 0.46                | —       |                   |  |

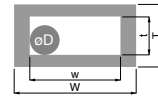
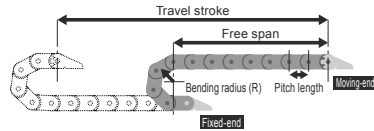
\*Max. free span is the maximum length that the upper runs in straight line with no sag.



|  | Size (Max. O.D. of cable/tube (mm)) |     |     |     |     |     |     |     |     |     |     |     |
|--|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 102                                 | 202 | 203 | 204 | 206 | 306 | 408 | 412 | 615 | 819 | 100 | 200 |
|  |                                     |     |     |     |     |     |     |     |     |     |     |     |
|  |                                     |     |     |     |     |     |     |     |     |     |     |     |
|  |                                     |     |     |     |     |     |     |     |     |     |     |     |
|  |                                     |     |     |     |     |     |     |     |     |     |     |     |
|  |                                     |     |     |     |     |     |     |     |     |     |     |     |

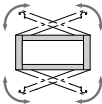
\* Highlighted line indicates approximate positions where a divider can be installed.

# Selection chart for Plarailchain series



T : Height  
 W : Width  
 t : Inner height  
 w : Inner width  
 øD: Max. O.D. of cable/tube

Low Abrasion, Low Noise, Open-Close Flap Type.

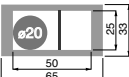
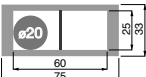
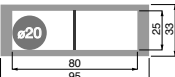
| SP                | SPO<br><small>Fully-enclosed type</small> | Bending radius<br>(mm)                     | Pitch<br>length<br>(mm) | No. of<br>links<br>(/m) | Max. free<br>span<br>(m)*1 | Max. travel<br>stroke<br>(m) | Max. contents<br>weight<br>(kg/m) | Max. travel<br>speed<br>(m/s) | Chain<br>weight<br>(kg/m) | Divider | Rack | Open/close system                                                                                                                                                           |
|-------------------|-------------------------------------------|--------------------------------------------|-------------------------|-------------------------|----------------------------|------------------------------|-----------------------------------|-------------------------------|---------------------------|---------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1520 <sup>2</sup> | —                                         | 30, 50, 75                                 | 25                      | 40                      | 1.25                       | 2.4                          | 2.2                               | 3                             | 0.36(0.35)                | —       | —    | Snap open on<br>either side (along<br>the outer radius).<br>                               |
| 2035 <sup>2</sup> | —                                         | 45                                         | 32                      | 32                      | 1.25                       | 2.4                          | 2.3                               |                               | 0.5(0.48)                 | ●       | —    |                                                                                                                                                                             |
| 2550 <sup>2</sup> | —                                         | 50, 75, 100, 150                           | 36                      | 28                      | 1.63                       | 3.1                          | 6.5                               |                               | 0.86(0.83)                | ●       | —    |                                                                                                                                                                             |
| 2560 <sup>2</sup> | —                                         |                                            |                         |                         | 1.75                       | 3.3                          |                                   |                               | 0.85(0.82)                | ●       | —    |                                                                                                                                                                             |
| 2585 <sup>2</sup> | —                                         | 60, 75, 100, 150                           | 43.5                    | 23                      | 1.88                       | 3.6                          | 8                                 |                               | 1.05(1.01)                | ●       | —    |                                                                                                                                                                             |
| 3580              | —                                         | 100, 125, 150,<br>175, 200                 | 62.5                    | 16                      | 2.25                       | 4.4                          | 10                                |                               | 1.76                      | ●       | —    |                                                                                                                                                                             |
| 35105             | —                                         |                                            |                         |                         | 2.38                       | 4.6                          | 13                                | 1.96                          | ●                         | —       |      |                                                                                                                                                                             |
| 4542              | —                                         | 75, 100, 125, 150,<br>175, 200, 250        | 67                      | 15                      | 2.13                       | 4.2                          | 32                                | 3                             | 2.3                       | ●       | ●    | Snap open on<br>either side along<br>both the inner<br>radius and the<br>outer radius.<br> |
| 4575              | 4575                                      |                                            |                         |                         |                            |                              |                                   |                               | 2.4[3]                    | ●       | ●    |                                                                                                                                                                             |
| 45100             | 45100                                     |                                            |                         |                         |                            |                              |                                   |                               | 2.6[3.3]                  | ●       | ●    |                                                                                                                                                                             |
| 45115             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 2.7                       | ●       | ●    |                                                                                                                                                                             |
| 45125             | 45125                                     |                                            |                         |                         |                            |                              |                                   |                               | 2.8[3.6]                  | ●       | —    |                                                                                                                                                                             |
| 45150             | 45150                                     |                                            |                         |                         |                            |                              |                                   |                               | 3.0[3.9]                  | ●       | —    |                                                                                                                                                                             |
| 45175             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 3.1                       | ●       | —    |                                                                                                                                                                             |
| 45200             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 3.2                       | ●       | —    |                                                                                                                                                                             |
| 45250             | —                                         | (75 and 100 are not<br>available for SPO.) |                         |                         |                            |                              |                                   |                               | 3.5                       | ●       | —    |                                                                                                                                                                             |
| 5575              | 5575                                      | 135, 150, 200, 250                         | 91                      | 11                      | 5                          | 9.8                          | 65                                | 3                             | 3.5[3.9]                  | ●       | —    | Snap open on<br>either side along<br>both the inner<br>radius and the<br>outer radius.                                                                                      |
| 55100             | 55100                                     |                                            |                         |                         |                            |                              |                                   |                               | 3.6[4]                    | ●       | —    |                                                                                                                                                                             |
| 55125             | 55125                                     |                                            |                         |                         |                            |                              |                                   |                               | 3.7[4.1]                  | ●       | —    |                                                                                                                                                                             |
| 55150             | 55150                                     |                                            |                         |                         |                            |                              |                                   |                               | 3.8[4.2]                  | ●       | —    |                                                                                                                                                                             |
| 55175             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 3.9                       | ●       | —    |                                                                                                                                                                             |
| 55200             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 4.0                       | ●       | —    |                                                                                                                                                                             |
| 55250             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 4.1                       | ●       | —    |                                                                                                                                                                             |
| 55300             | —                                         | (135 is not available for<br>SPO.)         |                         |                         |                            |                              |                                   |                               | 4.2                       | ●       | —    |                                                                                                                                                                             |
| 8075              | —                                         | 150, 200, 250, 300,<br>350, 400            | 100                     | 10                      | 5                          | 9.8                          | 70                                | 3                             | 4.7                       | ●       | —    |                                                                                                                                                                             |
| 80100             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 4.8                       | ●       | —    |                                                                                                                                                                             |
| 80125             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 4.9                       | ●       | —    |                                                                                                                                                                             |
| 80150             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 5.1                       | ●       | —    |                                                                                                                                                                             |
| 80175             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 5.2                       | ●       | ●    |                                                                                                                                                                             |
| 80200             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 5.3                       | ●       | ●    |                                                                                                                                                                             |
| 80250             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 5.6                       | ●       | ●    |                                                                                                                                                                             |
| 80300             | —                                         |                                            |                         |                         |                            |                              |                                   |                               | 5.8                       | ●       | ●    |                                                                                                                                                                             |

| SD                                |      | Bending radius (mm) | Pitch length (mm) | No. of links (/m) | Max. free span (m)*1 | Max. travel stroke (m) | Max. contents weight (kg/m) | Max. travel speed (m/s) | Chain weight (kg/m) | Divider | Open/close system                                                          |
|-----------------------------------|------|---------------------|-------------------|-------------------|----------------------|------------------------|-----------------------------|-------------------------|---------------------|---------|----------------------------------------------------------------------------|
| High resistance.<br>Low abrasion. | 2550 | 50, 70, 100         | 25                | 40                | 2.2                  | 4.3                    | 7                           | 4                       | 0.9                 | —       | Snap open on either side along both the inner radius and the outer radius. |
|                                   | 2560 |                     |                   |                   |                      |                        |                             |                         | 0.95                | —       |                                                                            |
|                                   | 2580 |                     |                   |                   |                      |                        |                             |                         | 1.07                | —       |                                                                            |

\*1. Max. free span is the maximum length that the upper runs in straight line with no sag.  
 \*2. Models available in Anti-static type.  
 \*3. Weights in ( ) are for Anti-static type.  
 \*4. Weights in [ ] are for SPO.

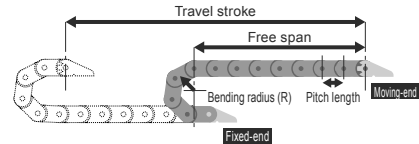


|     |       | Size (Max. O.D. of cable/tube) (mm) |       |       |       |  |
|-----|-------|-------------------------------------|-------|-------|-------|--|
| SP  | 1520  | 2035                                | 2550  | 2560  | 2585  |  |
|     | 3580  | 35105                               |       |       |       |  |
| SPO | 4542  | 4575                                | 45100 | 45115 | 45125 |  |
|     | 45150 | 45175                               | 45200 | 45250 |       |  |
|     | 5575  | 55100                               | 55125 | 55150 | 55175 |  |
|     | 55200 | 55250                               | 55300 |       |       |  |
|     | 8075  | 80100                               | 80125 | 80150 | 80175 |  |
|     | 80200 | 80250                               | 80300 |       |       |  |
|     |       |                                     |       |       |       |  |
|     |       |                                     |       |       |       |  |

|    |                                                                                       | Size (Max. O.D. of cable/tube) (mm)                                                   |                                                                                       |  |  |  |
|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|--|--|
| SD | 2550                                                                                  | 2560                                                                                  | 2580                                                                                  |  |  |  |
|    |  |  |  |  |  |  |
|    |                                                                                       |                                                                                       |                                                                                       |  |  |  |
|    |                                                                                       |                                                                                       |                                                                                       |  |  |  |

— indicates approximate positions where a divider and a rack can be installed.  
 SP80□ requires a shelf divider to install a shelf.

# Selection chart for Plarailchain series

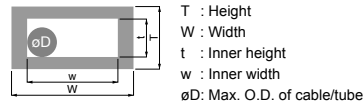


| Open-Close Flap,<br>Hinge Connection Type |              | Bending radius<br>(mm) | Pitch<br>length<br>(mm) | No. of<br>links<br>(/m) | Max. free<br>span<br>(m)* | Max. travel<br>stroke<br>(m) | Max. contents<br>weight<br>(kg/m) | Max. travel<br>speed<br>(m/s) | Chain<br>weight<br>(kg/m) | Divider | Reck | Open/close system |
|-------------------------------------------|--------------|------------------------|-------------------------|-------------------------|---------------------------|------------------------------|-----------------------------------|-------------------------------|---------------------------|---------|------|-------------------|
| SC                                        | 1520         | 28, 34                 | 18                      | 56                      | 1.1                       | 2.15                         | 1                                 | 4                             | 0.34                      | —       | —    |                   |
| Low noise,<br>Low dust                    | 2040         | 31, 38, 58             | 20                      | 50                      | 1.4                       | 2.75                         |                                   |                               | 0.7                       | ●       | —    |                   |
|                                           | 2540         | 60, 85                 | 30                      | 33                      | 1.5                       | 2.9                          | 0.77                              | ●                             | ●                         |         |      |                   |
|                                           | 2560         | 60                     |                         |                         |                           |                              | 0.94                              | ●                             | ●                         |         |      |                   |
|                                           | 2580         | 60, 85                 |                         |                         |                           |                              | 1.2                               | ●                             | ●                         |         |      |                   |
|                                           | 3560         | 75, 100                | 45                      | 23                      | 2                         | 3.9                          | 1.4                               | ●                             | ●                         |         |      |                   |
| 35100                                     | 75, 100, 115 | 2                      |                         |                         |                           |                              | ●                                 | ●                             |                           |         |      |                   |
| SCL                                       | 2020         | 36                     | 20                      | 50                      | 1.4                       | 2.75                         | 1                                 | 4                             | 0.39                      | —       | —    |                   |
| Low noise,<br>Low dust                    | 2050         | 31                     | 30                      | 33                      | 1.5                       | 2.9                          | 0.58                              |                               | ●                         | ●       |      |                   |
|                                           | 2570         | 46, 64                 |                         |                         |                           |                              | 0.96                              |                               | ●                         | ●       |      |                   |
| Space-saving type                         | 3050         | 46                     |                         |                         | 1.6                       | 3.13                         | 3                                 | 1.2                           | ●                         | ●       |      |                   |



Flap only opens  
on one side  
(either side)

\*Max. free span is the maximum length that the upper runs in straight line with no sag.



|                                                           | Size (Max. O.D. of cable/tube) (mm) |      |       |      |
|-----------------------------------------------------------|-------------------------------------|------|-------|------|
| <b>SC</b><br>Low noise,<br>Low dust                       | 1520                                | 2040 | 2540  | 2560 |
|                                                           | 2580                                | 3560 | 35100 |      |
|                                                           |                                     |      |       |      |
|                                                           |                                     |      |       |      |
|                                                           |                                     |      |       |      |
| <b>SCL</b><br>Low noise,<br>Low dust<br>Space-saving type | 2020                                | 2050 | 2570  | 3050 |
|                                                           |                                     |      |       |      |
|                                                           |                                     |      |       |      |
|                                                           |                                     |      |       |      |
|                                                           |                                     |      |       |      |

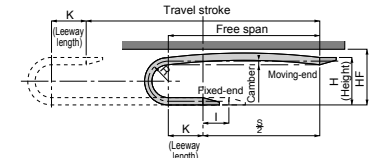
# Plarailchain Number of Links Calculation

## Number of links calculation

Number of links is to be calculated by the following formula.

$$n = \frac{S}{2} + a + 1$$

n: Number of links (Round up after the decimal point)  
 S: Travel stroke  
 a:  $\pi R + 2K$  (R: Bending radius (mm), K: Leeway (mm))  
 l: Distance from mid point (mm) when the fixed-end is not in the middle of travel stroke. (When the travel stroke is in the mid point: 0).  
 P: Pitch length (mm)



\*1. "HF" in the drawing above shows the installation height (clearance height) taking into account the camber (curve of upper run with no cables / hoses being accommodated)  
 \*2. Please make inquiries for special travel conditions.

| Series  | R   | P  | H   | HF  | K  | a       |
|---------|-----|----|-----|-----|----|---------|
| 102     | 19  | 20 | 50  | 65  | 20 | 99.7    |
| 202     | 25  | 25 | 70  | 85  | 25 | 128.5   |
|         | 30  |    | 80  | 95  |    | 144.2   |
|         | 45  |    | 110 | 125 |    | 191.3   |
| 203     | 30  | 25 | 80  | 95  | 25 | 144.2   |
|         | 45  |    | 110 | 125 |    | 191.3   |
| 204,206 | 38  | 32 | 98  | 118 | 30 | 179.3   |
|         | 50  |    | 122 | 142 |    | 217.0   |
| 306     | 50  | 45 | 134 | 160 | 50 | 257.0   |
|         | 100 |    | 234 | 260 |    | 414.0   |
|         | 150 |    | 334 | 360 |    | 571.0   |
| 408,412 | 50  |    | 140 | 170 |    | 257.0   |
|         | 75  |    | 190 | 220 |    | 335.5   |
|         | 100 |    | 240 | 270 |    | 414.0   |
|         | 150 |    | 340 | 370 |    | 571.0   |
|         | 200 |    | 440 | 470 |    | 728.0   |
| 615     | 75  | 70 | 214 | 275 | 70 | 375.5   |
|         | 100 |    | 264 | 325 |    | 454.0   |
|         | 150 |    | 364 | 425 |    | 611.0   |
|         | 200 |    | 464 | 525 |    | 768.0   |
| 202,203 | 30  | 20 | 80  | 95  | 25 | 144.2   |
|         | 45  |    | 110 | 125 |    | 191.3   |
| 204,206 | 38  | 26 | 98  | 118 | 30 | 179.3   |
|         | 50  |    | 122 | 142 |    | 217.0   |
| 408,412 | 70  | 45 | 180 | 210 | 50 | 319.8   |
|         | 100 |    | 240 | 270 |    | 414.0   |
|         | 150 |    | 340 | 370 |    | 571.0   |
|         | 200 |    | 440 | 470 |    | 728.0   |
| 512     | 100 | 60 | 260 | 320 | 60 | 434.0   |
|         | 150 |    | 384 | 445 |    | 651.0   |
|         | 200 |    | 484 | 545 |    | 808.0   |
|         | 250 |    | 584 | 645 |    | 965.0   |
|         | 300 |    | 684 | 745 |    | 1,122.0 |
|         | 400 |    | 884 | 945 |    | 1,436.0 |
| 408,412 | 50  |    | 140 | 180 |    | 257.0   |
|         | 75  |    | 190 | 230 |    | 335.5   |
|         | 100 |    | 240 | 280 |    | 414.0   |
|         | 150 |    | 340 | 380 |    | 571.0   |
|         | 200 |    | 440 | 480 |    | 728.0   |
| 101     | 19  | 20 | 50  | 62  | 25 | 109.7   |
| 202,203 | 30  | 25 | 80  | 95  | 25 | 144.2   |
|         | 45  |    | 110 | 125 |    | 191.3   |
| 204,206 | 38  | 32 | 98  | 118 | 30 | 179.3   |
|         | 50  |    | 122 | 142 |    | 217.0   |
| 204,205 | 28  | 15 | 79  | 100 | 15 | 117.9   |
| 206     | 30  | 22 | 80  | 95  | 25 | 144.2   |
|         | 45  |    | 110 | 125 |    | 191.3   |
| 203     | 30  | 25 | 98  | 120 |    | 144.2   |
|         | 45  |    | 128 | 150 |    | 191.3   |
|         | 60  |    | 158 | 180 |    | 238.4   |
| 204     | 50  | 32 | 146 | 165 |    | 271.0   |
|         | 90  |    | 226 | 245 |    | 342.6   |
|         | 150 |    | 346 | 365 |    | 531.0   |
| 306     | 50  | 45 | 160 | 177 |    | 257.0   |
|         | 100 |    | 260 | 277 |    | 414.0   |
|         | 150 |    | 360 | 377 |    | 571.0   |
| 50      | 60  | 25 | 152 | 206 | 90 | 368.4   |
| 100     | 90  | 25 | 227 | 257 | 90 | 462.6   |
| 200     | 105 | 25 | 260 | 295 | 90 | 509.7   |



You might find this helpful

The auto-calculator to help figure out the number of links is available on our website.

| Series      | R          | P    | H   | HF  | K  | a       |
|-------------|------------|------|-----|-----|----|---------|
| 1520        | 30         | 25   | 81  | 100 | 30 | 154.2   |
|             | 50         |      | 121 | 140 |    | 217.0   |
|             | 75         |      | 171 | 190 |    | 295.5   |
| 2035        | 45         | 32   | 116 | 140 | 35 | 211.3   |
|             | 50         |      | 135 | 160 |    | 257.0   |
| 2550, 2560  | 75         | 36   | 185 | 210 |    | 335.5   |
|             | 100        |      | 235 | 260 |    | 414.0   |
|             | 150        |      | 335 | 360 |    | 571.0   |
| 2585        | 60         | 43.5 | 155 | 180 |    | 288.4   |
|             | 75         |      | 185 | 210 |    | 335.5   |
|             | 100        |      | 235 | 260 |    | 414.0   |
|             | 150        |      | 335 | 360 |    | 571.0   |
| 35 □        | 100        | 62.5 | 250 | 280 |    | 440.0   |
|             | 125        |      | 300 | 330 |    | 518.5   |
|             | 150        |      | 350 | 380 |    | 597.0   |
|             | 175        |      | 400 | 430 |    | 675.5   |
|             | 200        |      | 450 | 480 |    | 754.0   |
| 45 □        | 75         | 67   | 214 | 275 |    | 375.5   |
|             | 100        |      | 264 | 325 |    | 454.0   |
|             | 125        |      | 314 | 375 |    | 532.5   |
|             | 150        |      | 364 | 425 |    | 597.0   |
|             | 175        |      | 414 | 475 |    | 689.5   |
|             | 200        |      | 464 | 525 |    | 754.0   |
|             | 250        |      | 564 | 625 |    | 925.0   |
| 55 □        | 135        | 91   | 350 | 400 |    | 623.9   |
|             | 150        |      | 380 | 430 |    | 671.0   |
|             | 200        |      | 480 | 530 |    | 828.0   |
|             | 250        |      | 580 | 630 |    | 985.0   |
| 80 □        | 150        | 100  | 406 | 495 |    | 683.0   |
|             | 200        |      | 506 | 595 |    | 840.0   |
|             | 250        |      | 606 | 695 |    | 997.0   |
|             | 300        |      | 706 | 795 |    | 1,154.0 |
|             | 350        |      | 806 | 895 |    | 1,311.0 |
|             | 400        |      | 906 | 995 |    | 1,468.0 |
| 45 □        | 125        |      | 314 | 375 |    | 532.5   |
|             | 150        |      | 364 | 425 |    | 597.0   |
|             | 175        |      | 414 | 475 |    | 689.5   |
|             | 200        |      | 464 | 525 |    | 754.0   |
|             | 250        |      | 564 | 625 |    | 925.0   |
| 55 □        | 150        | 91   | 380 | 430 |    | 671.0   |
|             | 200        |      | 480 | 530 |    | 828.0   |
|             | 250        |      | 580 | 630 |    | 985.0   |
|             | 300        |      | 680 | 730 |    | 1,130.0 |
|             | 350        |      | 780 | 830 |    | 1,275.0 |
|             | 400        |      | 880 | 930 |    | 1,420.0 |
| 25 □        | 70         | 25   | 173 | 190 | 28 | 275.8   |
|             | 100        |      | 233 | 250 |    | 370.0   |
| 1520        | 28[26.3]   | 18   | 95  | 115 | 23 | 126.6   |
|             | 34[31.3]   |      | 105 | 125 |    | 144.3   |
| L2020       | 36[34]     | 20   | 120 | 150 | 25 | 156.8   |
|             | 31[28.8]   |      | 115 | 145 |    | 150.4   |
| 2040        | 38[36.3]   | 20   | 130 | 160 | 30 | 174.0   |
|             | 58[56.3]   |      | 170 | 200 |    | 236.8   |
| L2050       | 31[29]     | 20   | 110 | 140 | 25 | 141.1   |
| 2540        | 60[57.8]   | 30   | 185 | 215 | 35 | 251.5   |
|             | 85[82.8]   |      | 235 | 265 |    | 330.0   |
| 2560        | 60[57.8]   | 30   | 185 | 215 | 35 | 251.5   |
|             | 85[82.8]   |      | 235 | 265 |    | 330.0   |
| L2570       | 64[61.3]   | 30   | 185 | 215 | 35 | 262.5   |
| 2580        | 60[57.8]   | 30   | 185 | 215 | 35 | 251.5   |
|             | 85[82.8]   |      | 235 | 265 |    | 330.0   |
| L3050       | 46[44]     | 30   | 160 | 190 | 35 | 208.2   |
| 3560, 35100 | 75[71.3]   | 45   | 240 | 270 | 50 | 323.9   |
|             | 100[98.8]  |      | 295 | 325 |    | 410.2   |
| 35100       | 115[113.8] | 45   | 325 | 355 | 50 | 457.3   |

\*As for SC Series, "R" value used for the calculation is inside [ ], which is different from "R" indication in the model code.