

No compromise
on space-saving
design



[Actual size]

Tsubaki Small Drive Chain Series
MICRO RANGE+

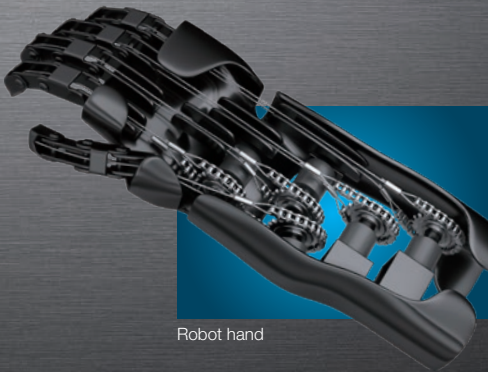


MICRO RANGE+ LINE-UP

Ultra-small

RS6 [Epsilon]

The smallest roller chain in the world



Robot hand



Mechanical watch



End effector

Endoscope

*Image

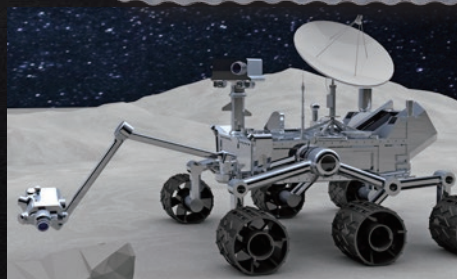
Balance type

RS11-SS

Supports special atmospheres such as low and high temperatures/Active in medical devices



X-ray equipment



Lunar explorer drive part

High strength

RS15

Wide applicable range from precision to general applications



Compact conveyor drive part



Cutter

Select from the small chain lineup to suit the application

Three different size/strength types are available
Supports a wide range of applications



[Ultra-small]

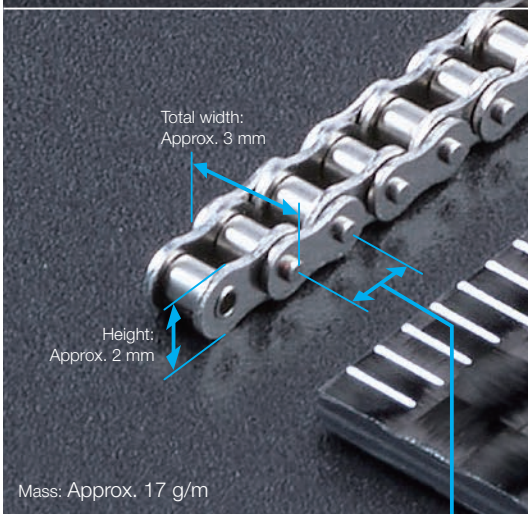
RS6 epsilon

Miniature Drive Chains

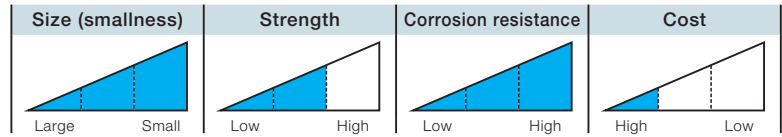
Epsilon Chain™ ESS Series

The smallest* roller chain in the world

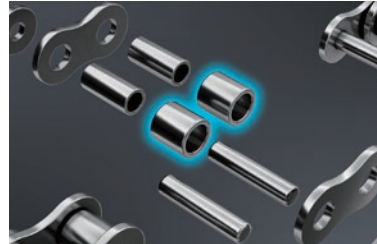
*Our research



Pitch: **1.905 mm**

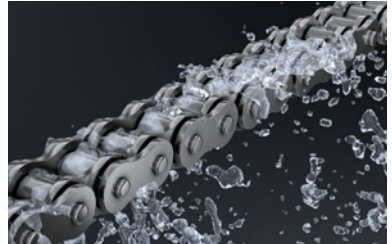


Sufficient strength ensured

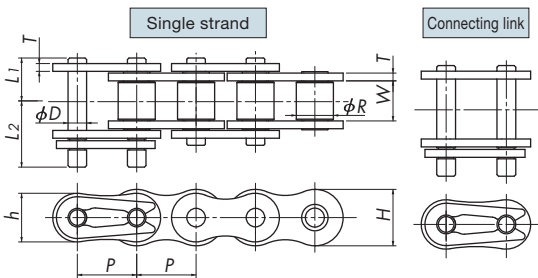


Min. tensile strength: **0.36 kN**
Embedded rollers even at this size contribute to longer sprocket life

Supports corrosive environments



Stainless steel is employed. Usable even in environments exposed to water during cleaning, etc.



Model numbering example

RS6 -ESS -1 -RP + 151L -RR

Size Series Pin type Number of links End link
Number of strands

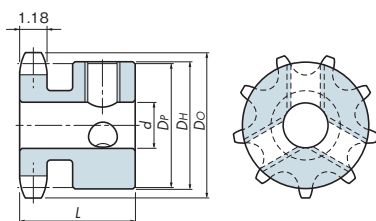
- Notes 1. This product is an extremely small chain and requires different handling from conventionally sized chains. Note that neither the technical notes in the Drive Chains and Sprockets catalog nor the technical materials on the Tsubaki Power Transmission Products Information Site may be applicable to this product; consult Tsubaki for selection and handling.
2. There are no offset links.
3. Endless (loop) formation uses outer links. (Connecting links are not used.) Note that for fewer than 40 links, connecting links are used in an endless formation. Consult Tsubaki regarding endless formations. For odd-numbered links, inner links are used at both ends. Consult us for formations other than the above.
4. The pin does not have a fastening rivet.

| Tsubaki chain number | Pitch <i>P</i> | Roller dia. <i>R</i> | Inner width of inner link <i>W</i> | Plates | | | Pins | | | Min. tensile strength kN {kgf} | Approx. mass kg/m | Links per unit |
|----------------------|----------------|----------------------|------------------------------------|--------------------|----------------|----------------|---------------|-----------------------|-----------------------|--------------------------------|-------------------|----------------|
| | | | | Thickness <i>T</i> | Width <i>H</i> | Width <i>h</i> | Dia. <i>D</i> | <i>L</i> ₁ | <i>L</i> ₂ | | | |
| RS6-ESS-1 | 1.905 | 1.19 | 1.27 | 0.25 | 1.81 | 1.56 | 0.596 | 1.4 | 2.1 | 0.36 {37} | 0.017 | 532 |

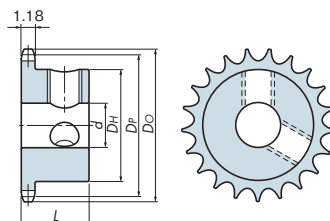
Miniature Drive Chains

Epsilon Chain™ ESS Series Sprockets

No. of Teeth 9, 15



No. of Teeth 21



Model numbering example

RS6 -1 B 9T -ESS -2

Size-number of strands Hub type Series Bore dia. *d*
Number of teeth

- Notes 1. The minimum number of teeth is 9T. Specifications for numbers of teeth not listed can also be manufactured; contact us as needed.
2. Shaft bores are finished, with set screws attached.
3. Surface treatment improving wear resistance is also available; contact us as needed.

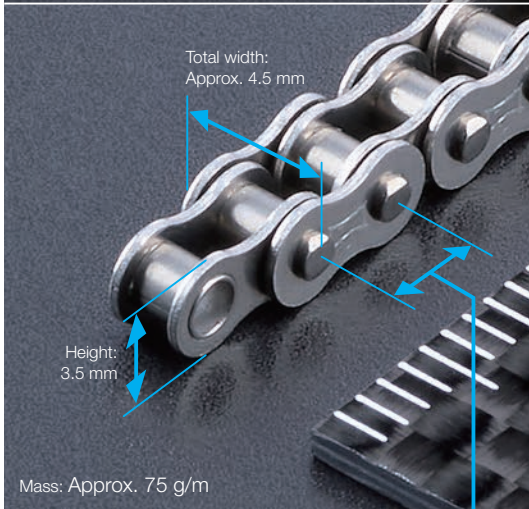
| Model number | Number of teeth | Pitch circle dia. <i>DP</i> | Outer dia. <i>DO</i> | Bore dia. <i>d</i> | Hub | | Set screw hole | Approx. mass g | Material |
|-----------------|-----------------|-----------------------------|----------------------|--------------------|----------------|-----------------|----------------|----------------|-----------------|
| | | | | | Dia. <i>DH</i> | Length <i>L</i> | | | |
| RS6-1B9T-ESS-2 | 9 | 5.57 | 6.3 | 2 | 5.5 | 5 | 3-M1.6 | 0.6 | Stainless steel |
| RS6-1B15T-ESS-3 | 15 | 9.16 | 10.1 | 3 | 7.8 | 6.5 | 3-M2.5 | 1.8 | |
| RS6-1B21T-ESS-4 | 21 | 12.78 | 13.7 | 4 | 10 | 6 | 2-M3 | 3.2 | |

[Balance Type]

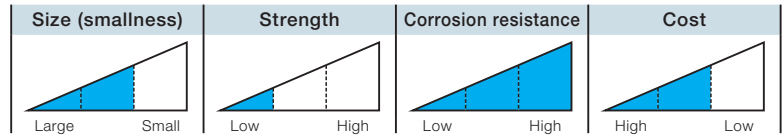
RS11-SS

Corrosion Resistant Roller Chains Stainless Steel Drive Chain SS Series

Usable temperature range is from -20°C to 400°C

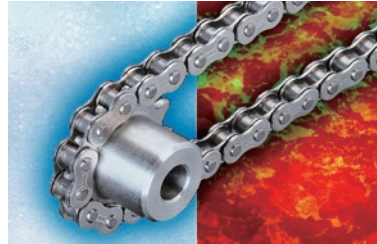


Pitch: **3.7465 mm**



Supports special environments such as low and high temperatures

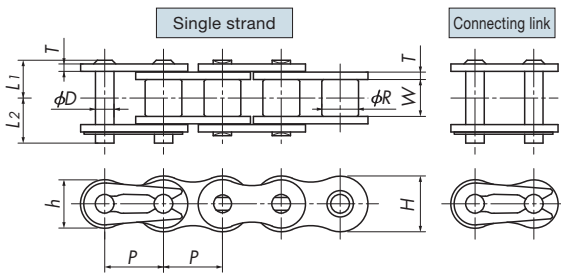
Supports corrosive environments



Wide range of usable temperatures from -20°C to 400°C



Usable even in corrosive environments such as underwater, acids, alkalis, etc.



Model numbering example

RS11 -SS -1 -RP + 110L -MCJR

Size Series Pin type Number of links End link
Number of strands

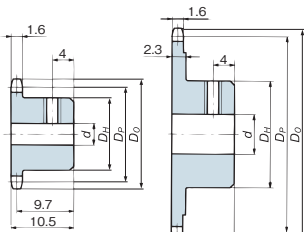
Note 1. This is a rollerless bushed chain, so the bush diameter is indicated.

| Tsubaki chain number | Pitch P | Bush dia. R | Inner width of inner link W | Plates | | | Pins | | | Max. allowable load kN {kgf} | Approx. mass kg/m | Links per unit |
|----------------------|---------|---------------|-----------------------------|-------------|---------|---------|--------|----------------|----------------|------------------------------|-------------------|----------------|
| | | | | Thickness T | Width H | Width h | Dia. D | L ₁ | L ₂ | | | |
| RS11-SS-1 | 3.7465 | 2.285 Note 1. | 1.83 | 0.38 | 3.5 | 3.5 | 1.57 | 2.275 | 3.165 | 0.05 (5) | 0.052 | 134 |

Corrosion Resistant Roller Chains

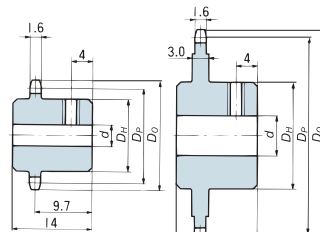
RS Sprocket RS11 Stainless Steel Type

RS11 1B Type



Number of teeth 12T to 28T No tooth step
Number of teeth 30T to 48T With tooth step

RS11 1C Type



Number of teeth 12T to 28T No tooth step
Number of teeth 30T to 48T With tooth step

Model numbering example

RS11-1 B 12T -SS

Size-number of strands Number of teeth Series
Hub type B: Single hub C: Dual hub SS: Stainless steel

- Notes 1. The listed model number is excerpted from the catalog. For details, see the "TSUBAKI DRIVE CHAINS & SPROCKETS" catalog. Specifications and numbers of teeth not listed can also be manufactured; contact us as needed.
2. Fill in the ■ with hub type B or C.
3. Set screws for mounting are not included.

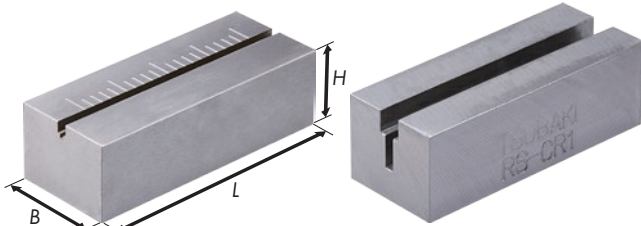
| Model number | Number of teeth | Pitch circle dia. D _P | Outer dia. D _O | Bore dia. d | | Hub dia. D _H | Set screw hole | 1B | 1C | Material |
|---------------|-----------------|----------------------------------|---------------------------|-------------|------|-------------------------|----------------|----------------|----------------|-----------------|
| | | | | Pilot bore | Max. | | | Approx. mass g | Approx. mass g | |
| RS11-1■12T-SS | 12 | 14.475 | 16.2 | 4 | 6 | 9.4 | | 5.9 | 7.4 | Stainless steel |
| RS11-1■15T-SS | 15 | 18.020 | 19.9 | 4 | 9 | 13 | M3×0.5 | 11.5 | 14.7 | |
| RS11-1■16T-SS | 16 | 19.204 | 21.1 | 4 | 9 | 14 | | 13.5 | 17.3 | |

New jig supporting ultra-small chains added

Enabling improved workability and stable handling

Chain Vise

Cuts chains along with the punch.



RS6-CR **NEW**

RS11-CR **NEW** / RS-CR1

| Model number | Applicable size | Dimensions | | |
|--------------------|-----------------|------------|------|----|
| | | L | H | B |
| RS6-CR NEW | RS6 | 50 | 15 | 20 |
| RS11-CR NEW | RS11 | 50 | 16 | 20 |
| RS-CR1 | RS15 | 50 | 16.4 | 20 |

Punch

Punch used when cutting chains.

Secondary punch is required when cutting sizes of RS15 and above.



RS-P10 **NEW**

RS-P11

RS-P21

| Primary punch | | Secondary punch | | Applicable size |
|-------------------|----|-----------------|----|-----------------|
| Model number | L | Model number | L | |
| RS-P10 NEW | 77 | — | — | RS6, RS11 |
| RS-P11 | 52 | RS-P21 | 65 | RS15 |

Cpsilon To cut and connect Epsilon Chains, see here

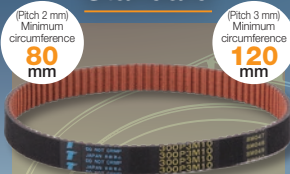


Not just **chains**-**belts** too!

Trust Tsubaki for synchronous power transmission!

Timing Belt/Timing Pulley Series contributes to space-saving design

Standard



PX Belt
SHINAYAKA 530

- Minimized rubber powder scattering, + flexible
- Lineup includes 2 mm pitch

Strength: ★★ Rigidity: ★★ Minimum circumference: ★★

Balance



Ultra PX Belts
HC Type

- Realizes stable, high-precision operation with minimal mounting tension drop

Strength: ★★ Rigidity: ★★ Minimum circumference: ★★

High strength



Ultra PX Belts
HY Type

- Realizes high-precision transmission thanks to sharply reduced load stretch

Strength: ★★ Rigidity: ★★ Minimum circumference: ★★

Minimum no. of teeth
10 teeth



Standard
Pulley

- Minimum no. of teeth 10
- Pulleys maximizing the capacity of the PX Belt and Ultra PX Series

Minimum no. of teeth
22 teeth



Friction fastening integrated type
Lock Pulley C type

- Clamp mechanism enables use both forward and reverse
- Small-shaft friction-fastening pulley with just 3 mm pitch



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Website

<https://www.tsubakimoto.com>



The Tsubaki Eco Link logo is used only on products that satisfy the standards for environmental friendliness set by the Tsubaki Group.

TSUBAKI GLOBAL NETWORKS



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