

Open Up the Future of Logistics with Automatic Transport!

Automatic Guided Vehicle

AGV-GO!

Scan QR codes to watch demos of AGV 500-GO!



Load capacity
MAX:1102lbs
(500kg)

AGV 500-GO!

- Saves the cost of carrying rollboxes.
- Automatically goes under a standard rollbox, lifting up and carries it.
- Allows rollboxes to align in perfect order.

AGV 1000-GO!

- Saves the cost of carrying pallets.
- Automatically carries a pallet after it is palletized/depalletized.
- Works for flexible production lines, in accordance with robots.



Load capacity
MAX:2204lbs
(1000kg)

Pick-up Point → Storage Rack → Shipping Point



Conveyor → Pallet → Shipping Point



GRAVITY

CONVEYOR Gravity Conveyor

NEW



Idler Conveyor (M Series)

190-220



Table of Contents	195
Idler Unit Models	190
Idler Unit Specification Chart	192
Conveyor Part Names	196
Conveyor Part Dimensions	196
Idler Conveyor Models	202
Idler Conveyor Specification Chart	202

Steel Idler Conveyor	206
Stainless Steel Idler Conveyor	213
Aluminum Idler Conveyor	215
Resin Idler Conveyor	217
Tapered Idler Conveyor	219
Stands for Idler Conveyor	220

Wheel Conveyor

221-238

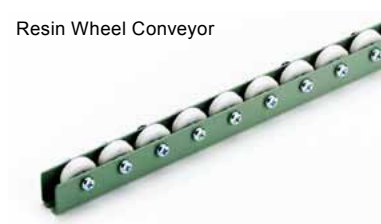


Table of Contents	221
Selection Criteria	222
Conveyor Types	223
Selecting by Frame Shape	224

Conveyor Wheels	226
Pressed Wheel Conveyor	228
Precision-Machined Wheel Conveyor	230
Stainless Steel Wheel Conveyor	232
Synthetic Rubber-Wrapped Wheel Conveyor	233
Resin Wheel Conveyor	234
Resin Needle Wheel Conveyor	235

Parts for Securing Conveyor	236
Mounting Plates	237
Conveyor Weight Chart	238

Reference

187-189 / 239-243

Selecting an Idler Conveyor	187	SI Unit	240	Coating	242
Conveyor Terminology	239	Steel Material	241	Plating	243

*Specifications may be changed from those shown in this catalog without advanced notice as improvements are carried out.

Thank you for your understanding.

*Please note that the colors used in this catalog may differ slightly from the actual product due to inconsistencies in printing.

*As we use consolidated shipping when delivering items, legs and guides will be sent separately. Also, the conveyor may be sent with part or all of the idlers dismantled, in cases where the unit is excessively heavy or wide. Thank you for your understanding.

*There may also be a slight difference in height between that advertised and the actual conveyor, depending on the clearance of each product part.

Selecting an Idler Conveyor

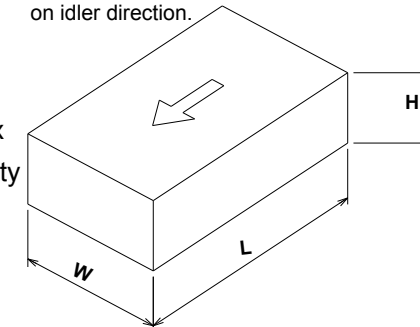
MAKITECH GRAVITY ROLLER

1. Items Being Conveyed / Operating Environment

(1) Check conditions of items being conveyed

- Outer Diameter Width (W) × Length (L) × Height (H)
- Direction of Flow
- Individual Item Weight
- Shape and Material Cardboard box, plastic case, wooden box
- Floor Condition Flat, uneven, protrusions present, flexibility if conveying using pallets
- Amount of Items Being Conveyed How many items will be loaded onto the conveyor?
- Method of Loading How will items be loaded onto the conveyor? Loading by hoist, crane, lift, or by hand

Even if items are the same, the width (W) and length (L) will vary, depending on idler direction.



(2) Check operating environment

- Temperature Normal, Low, High
- Humidity, moistness, dust

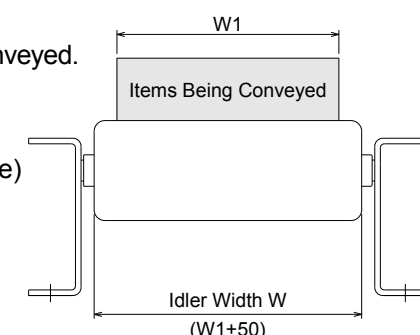
2. Selecting Idler Width

(1) If the conveyor is straight

- Please choose idlers at least 50mm wider than the items being conveyed.

$$W \geq W1 + 50$$

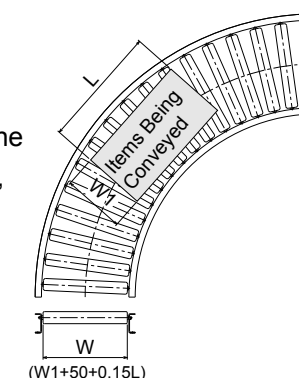
- Conveying items wider than the idlers (overhanging conveyance) is possible if the floor surface is flat and solid. Please select idlers that are approx. 70%-80% of the width of the items being conveyed.



(2) If the conveyor is curved

- If the conveyor is curved with straight idlers
 - The idler width will change depending on the width and length of the items being conveyed. When selecting idlers, please add at least 50mm of the item's width to the idler (as with straight conveyance), then add 15% of the item's width to that sum.

$$W \geq W1 + 50 + 0.15L$$

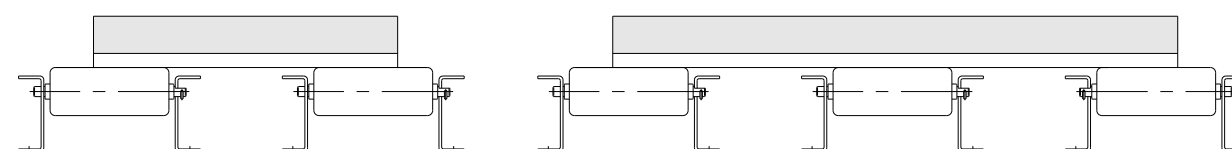


- If the conveyor uses tapered idlers
 - Follow the guidelines for a straight-line conveyor.

$$W \geq W1 + 50$$

(3) If conveying pallets

- If conveying heavy items using pallets, we recommend using a multi-row (dual or triple row) conveyor depending on the load-bearing relation.

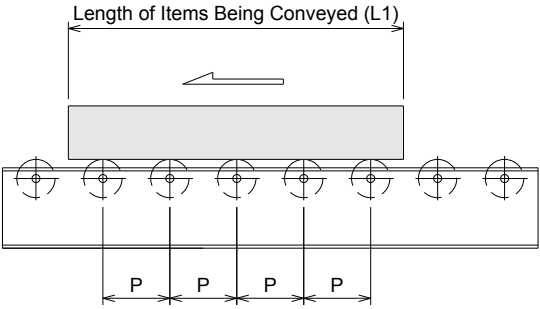


3. Determining the Interval (Pitch) Between Idlers

- Please choose an idler pitch (P) that ensures that the base of items being conveyed is supported by at least 4 idlers.

$$P \leq \frac{\text{Length of items being conveyed (L1)}}{4}$$

- There may be occasions where the base of the item does not come into contact with an idler, depending on how accurately the idlers and frame have been finished, as well as the condition of the item's base. Please take care when selecting the pitch and strength of the idlers.



4. Selecting a Model

The strength required from each individual idler varies depending on the base material of the items being conveyed, as well as the impact load when loading.

(1) Calculating the load carried by one idler

- (A) If the base of the items being conveyed is hard and does not change shape (metal, plastic, etc.)

$$\text{Load on one idler} = \frac{\text{Weight of one item being conveyed}}{2}$$

- (B) If the base of the items being conveyed is soft (wood, cardboard, rubber, etc.)

$$\text{Load on one idler} = \frac{\text{Weight of one item being conveyed}}{(\text{Number of idlers supporting an item being conveyed}) - 1}$$

(2) Impact load when loading conveyor

If there is impact when loading, please multiply the load supported by one idler by the coefficient (N) written below.

Loading Impact	Example of Impact	Coefficient (N)
No Impact	Conveyance only	1
Weak	Slowly lower by hand	1.5
Medium	Forklift	1.5-2
Strong	Hoist, crane	2-3
	Load by lowering from shoulder-height	3

- (A) If the impact is distributed equally across all (at least four) idlers

$$\text{Impact load on one idler} = \text{load carried by one idler} \times \text{coefficient (N)}$$

- (B) If the impact is concentrated on only one idler

$$\text{Impact load on one idler} = \text{weight of items being conveyed} \times \text{coefficient (N)}$$

(3) If using a dual-row conveyor

It is possible to convey up to 1.5 - 1.8 times more, as the number of idlers supporting the items being conveyed is increased (heavy conveyance using a pallet or similar).

(4) Strength per one idler

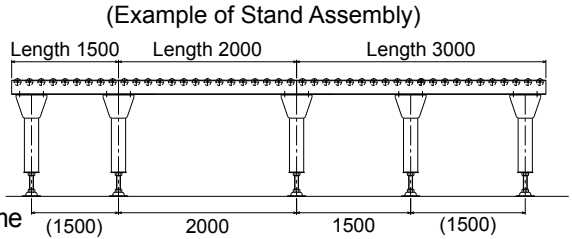
$$\text{Strength per one idler} \geq \text{load carried by one idler} \times \text{impact coefficient (N)}$$

Once you have determined the load supported by one idler, please select the most suitable idlers and conveyor by referring to the 'Idler Unit Specification Chart, Standard Strength of One Idler' and 'Idler Conveyor Product Chart, Special Features and Applications'

- Idler Unit Specification Chart (M Series) P192
- Idler Conveyor Product Chart (M Series)..... P202

5. Setting Up Intervals Between Mounted Stands

- If the conveyor is mounted to a stand, then the frame's strength must also be taken into consideration.
If the conveyor is straight, then the standard is one leg at 1,500mm to 2,000mm intervals, whereas if the conveyor is curved, then the standard is one leg in the center of an angle 45 degrees or over.
- Please determine intervals between the mounted stands from the frame strength noted in the chart below, which has converted the weight of items being conveyed into the weight per 1m.



■ Frame Strength Chart

(Unit: kg/m)

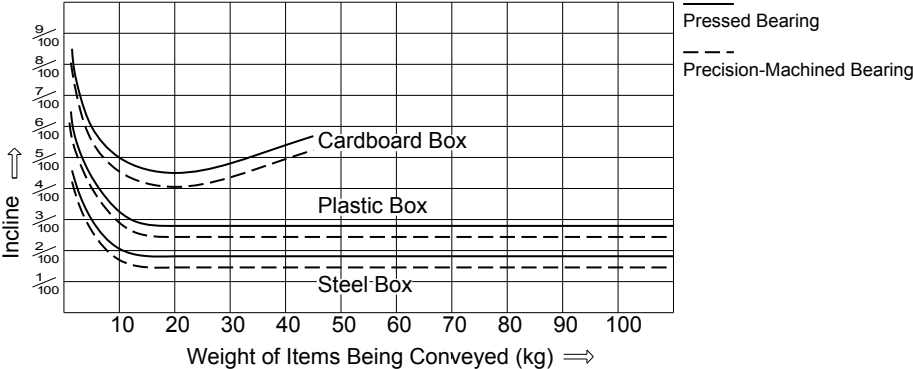
Material	Frame Specifications	Pitch Between Mounted Legs (P)			
		1,000mm	1,500mm	2,000mm	3,000mm
Steel	L20×15×t2.3	10	4	—	—
	[30×15×t2.3	50	20	—	—
	[40×30×t2.3	330	90	30	—
	[60×30×t2.3	500	200	100	30
	L60×30×t3.2	650	260	130	40
	[90×30×t2.3	1,100	500	250	70
	[90×30×t3.2	1,500	700	320	90
	L90×30×t3.2	880	400	200	55
	[90×30×t4.5	2,000	900	420	120
	[100×50×t5.0	4,000	1,200	600	150
Stainless Steel	[120×30×t3.2	1,800	800	400	110
	L20×15×t2.0	8	3	—	—
	[60×30×t2.0	450	180	90	27
	[90×30×t2.0	990	450	230	60
Aluminum	[90×30×t3.0	1,300	580	300	80
	[30×15×t2.0	30	10	—	—
	[60×30×t3.0	250	150	80	20
	[63×25×t2.5/3.5	260	155	83	21
	[90×30×t3.0	500	200	100	30

(Caution) 1. The values above show the strength of an equally distributed load per 1m of one frame set (2 units).
2. Calculations are based on a frame curvature of 1/500.
3. As an example for reference, the value 100kg/m means that a frame [60×30×2.3t (made of steel) with legs mounted at intervals of 2,000mm can withstand an equally distributed load of 100kg×2m=200kg on a conveyor 2m in length.
4. These values do not include the weight of the idlers or shafts.

6. Determining Self-Incline

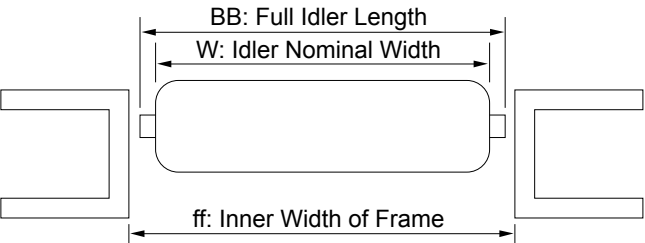
- Installing the idler conveyor at an angle (tilted) will allow items to be conveyed by their own weight. This tilting is called self-incline.
The degree of incline will vary depending on the weight of the items being conveyed, the condition of the items' base, external air temperature, and level of humidity. While the exact value is difficult to determine, please refer to the chart below for an approximate standard.
- If conveying unusual items, it will be necessary to carry out testing first. Please discuss this with us.
- The degree of incline will also vary depending on which bearing is selected. If an idler has the same outer diameter and shaft diameter, then the degree of incline increases in the following order: precision-machined bearing < pressed bearing < standard bearing.

■ Self-Incline Standards Chart



Idler Unit Models

Idler Width



To achieve smooth rotation, we recommend that the full idler length (BB: distance between both ends of the bearings or collars) is slightly narrower (1-2mm) than the frame width (ff: width of place where idler is inserted).
*The idler nominal width (W) and actual width may vary slightly so please take care. (Example: W+2→actual width is 2mm longer than nominal width)

Upon placing an order, please let us know the product code, specified dimensions, and quantity required.

Example Order	Product Code	W: Idler Width	With/Without Shaft	Number of Units
If ordering by nominal width	R-3812P	100W	With shaft	One Unit
*If an idler unit has a shaft attached, an R pin (part fixing the shaft in place) will be supplied.				
Example Order	Product Code	BB: Full Idler Length	With/Without Shaft	Number of Units
If ordering by full idler length	R-3812PD	BB113	Without shaft	One Unit

Idler Unit Model

1) Straight Idler

R - 38 12 P

Bearing Types

Unmarked: Precision-Machined Bearing
P: Pressed Bearing
D: Bearing Used for Irregular Dimensions
NB: Standard Bearing, Integrated Resin Boss
J: Resin Needle Bearing
N: Precision-Machined Bearing/ Low-Cost Type

Idler Outer Diameter (φ)

08: φ8 42: φ42.7 89: φ89.1
12: φ12 48: φ48.6 101: φ101.6
19: φ19.1 50: φ50.8 114: φ114.3
22: φ22.2 57: φ57.2 140: φ139.8
28: φ28.6 60: φ60.5
38: φ38.1 76: φ76.3

*Dimensions will vary slightly depending on the pipe material.

Thickness of Idler Pipe Wall (t)

10: t1.0 26: t2.6
12: t1.2 38: t3.8
14: t1.4 42: t4.2
23: t2.3 45: t4.5
*Some items may slightly vary in thickness depending on the model.

Idler Types

R: Steel Idler JR: Resin Idler
RS: Stainless Steel Idler RB: Idler with Standard Bearing Inserted
RA: Aluminum Idler

2) Tapered Idler

R - TC 500 A

Shape

Unmarked: Standard Type (refer to chart for dimensions)
A: Smaller Diameter Side φ42.7

Inner R Dimensions (mm)

Unmarked: 700: Inner 700R
Inner 900R 900: Inner 900R
220: Inner 220R 1200: Inner 1200R
320: Inner 320R 1600: Inner 1600R
500: Inner 500R

Idler Types

R: Steel Idler
RS: Stainless Steel Idler
RA: Aluminum Idler

Tapered Idler

TC: Standard Model
TCN: Low-Cost Model
TCL: Wide Model
TCR: Rubber-Wrapped

Idler Unit Specification Chart

*Please refer to the separate 'Mechanical Parts Catalog' for images and detailed dimensions.

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Bearings for Idler Conveyors

Pressed Bearing

The outer ring and case are bent into shape from a flat sheet using a pressing machine.
The parts have been tempered and plated.
It is cheap, and is suitable for rotating very light to medium loads.



Precision-Machined Bearing

The outer and inner ring have been precision-machined and tempered from a round steel ring and pipe.
The steel balls come out of contact with each other due to the retainer, leading to superior and quieter rotation when compared to the pressed bearing.
A high-quality product that can handle rotating light to heavy loads.



Differences Between Idler Types

Although the pipe and bearing are joined together, they come in a variety of types. These can be broadly separated into two types: Curled Type and Rivet Type.

Curled Type

The pipe is curled, and a bearing is pressed in.
The idler width comes in 50mm increments due to the mold used.
It costs less than the rivet type to set up.

Rivet Type

A bearing is inserted into the pipe, and both ends are embossed and bent.
This is used for free sized idlers and pipes with a small or large diameter or thick wall, where the curling process cannot be carried out.



Idler Unit Specification Chart

*Please refer to the separate 'Mechanical Parts Catalog' for images and detailed dimensions.

Steel Idler

Idler Diameter	Idler Unit Model	Idler Dimensions			Idler Width			Idler Specifications			Bearing		Standard Shaft Specifications (*Caution 1)				Standard Strength of One Idler (kg) (*Caution 2)										Special Features & Applications																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Full Idler Length BB	Possible Width (W)		Free Size	Material	Surface Treatment			Specifications	Shaft Diameter (φ) Nominal (Actual)	Shape	Finish	Material	100W	200W	300W	400W	500W	600W	700W	800W	900W		1,000W																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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*The thickness of the pipe wall may be up to 12% less, due to JIS standards. *If 'black surface' is noted in the idler surface treatment column, then the idler will not be plated. *If a 'Y' is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes. If '50mm Increm.' is noted, then the size can be selected in 50mm increments from the standard minimum width.

(*Caution 1) Standard shaft specifications refers to specifications if specifying for our company's conveyors. Please take care if you are providing your own shafts. There is no surface treatment on the shaft. (*Caution 2) Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Stainless Steel Idler

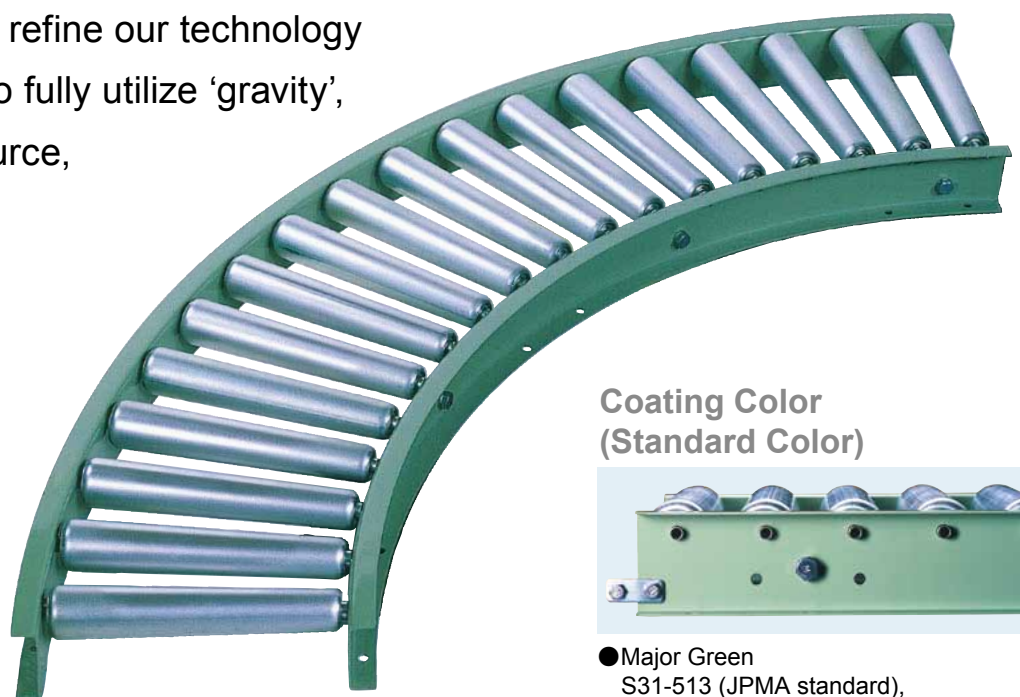
Idler Diameter	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		Bearing		Standard Shaft Specifications (*Caution 1)				Standard Strength of One Idler (kg) (*Caution 2)										Special Features & Applications
		Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Full Idler Length BB	Possible Width (W)		Free Size	Material	Surface Treatment	Specifications		Shaft Diameter (φ) Nominal (Actual)	Shape	Finish	Material	100W	200W	300W	400W	500W	600W	700W	800W	900W	1,000W	
						Minimum Width	Maximum Width																				
φ19	RS-1912	19.0	1.2	6.2	W +13	40	500	Y	SUS304	#400 Polish	Pressed		6 (5.93)	Circular rod	Circular/ Crescent-shape	SUS304	44	35	23	17	14	—	—	—	—	—	φ19 stainless steel, low cost, most suitable for conveying light and small items
φ38	RS-3810-8	38.1	1.0	8.2	W +13	100	600	50mm. Increm.	SUS304	#400 Polish	Pressed		8.0	Pipe	Circular/ Crescent-shape	SUS304	75	70	46	35	28	23	—	—	—	—	φ38 stainless steel, most versatile for light loads, low-cost
	RS-3810-12	38.1	1.0	12.2	W +13	100	600	50mm. Increm.	SUS304	#400 Polish	Pressed		12.0	Pipe	Circular/ Crescent-shape	SUS304	85	85	70	65	55	45	—	—	—	—	φ38 stainless steel with φ12 shaft diameter, improved strength
φ60	ARS-6015	60.5	1.5	12.2	W +13	100	800	Y	SUS304	#400 Polish	Pressed		12.0	Pipe	Circular/ Crescent-shape	SUS304	135	120	110	90	70	60	50	45	—	—	φ60 stainless steel, suitable for light to medium loads, low-cost

*The thickness of the pipe wall may be up to 12% less, due to JIS standards. *If a 'Y' is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes. If '50mm Increm.' is noted, then the size can be selected in 50mm increments from the standard minimum width.

(*Caution 1) Standard shaft specifications refers to specifications if specifying our company's conveyors. Please take care if you are providing your own shafts. There is no surface treatment on the shaft. The inner diameter allowable tolerance of standard bearings is negative, so please take care. (*Caution 2) Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.



Makitech continue to refine our technology day by day in order to fully utilize ‘gravity’, the green energy source, to its full potential.



Coating Color
(Standard Color)



● Major Green
S31-513 (JPMA standard),
close to Munsell no. 2.5G6/3

*Please note that the colors used in this catalog may differ slightly from the actual product due to inconsistencies in printing. Thank you for your understanding.

Idler Conveyor (M Series) Table of Contents

Idler Unit Models	190
Idler Unit Specification Chart	192
Conveyor Part Names	196
Conveyor Part Dimensions	196
Idler Conveyor Models	202
Idler Conveyor Specification Chart	202



Steel Idler Conveyor

R-1912P	206	R-5721	209
R-2812P	206	R-5721D	210
R-3812P	207	R-5723	210
R-3812PD	207	R-5723D	211
R-4814P	208	R-6023P	211
R-5714P	208	R-6038SB	212
R-5714PD	209	R-7642N	212



Stainless Steel Idler Conveyor

RS-1912	213
RS-3810-8	213
RS-3810-12	214
ARS-6015	214



Aluminum Idler Conveyor

RA-2816	215
RA-3816	215
RA-4515	216



Resin Idler Conveyor

JR-2015B	217
JR-3018B	217
JR-3823	218
JR-5028	218



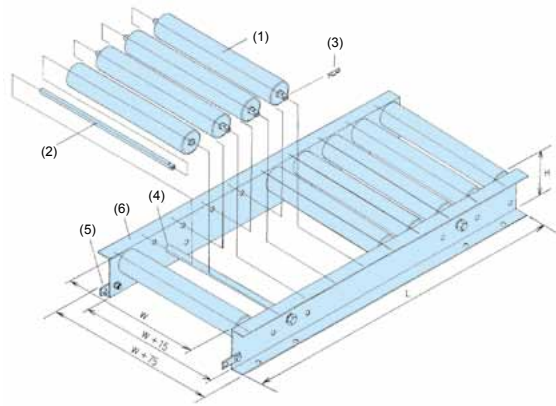
Tapered Idler Conveyor

R-TC700	219
R-TCN900	219



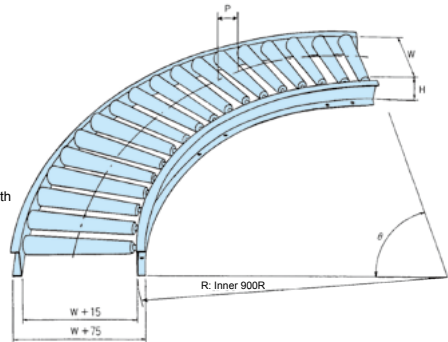
Stand for Idler Conveyors

Model 2B Stand (Standard Model)	220
Model 2FB Stand	220



- (1) Idler
- (2) Shaft
- (3) R Pin
- (4) Support
- (5) Connector Plate
- (6) Frame

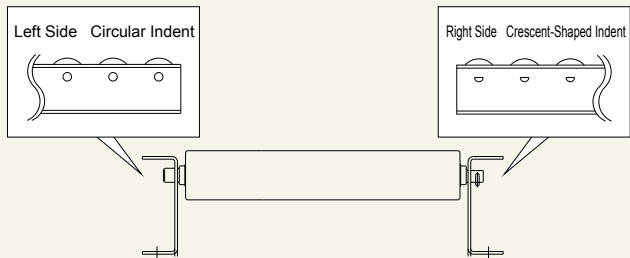
W — Idler Width
W+15 — Frame Inner Width
W+75 — Unit Width
L — Unit Length
H — Unit Height
P — Idler Pitch
R — Inner R
θ — Conveyor Angle



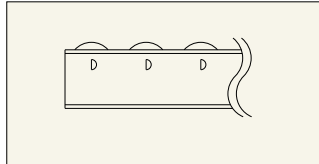
Conveyor Part Dimensions (M Series)

Frame Finish Dimensions

Drilling Shaft Indents

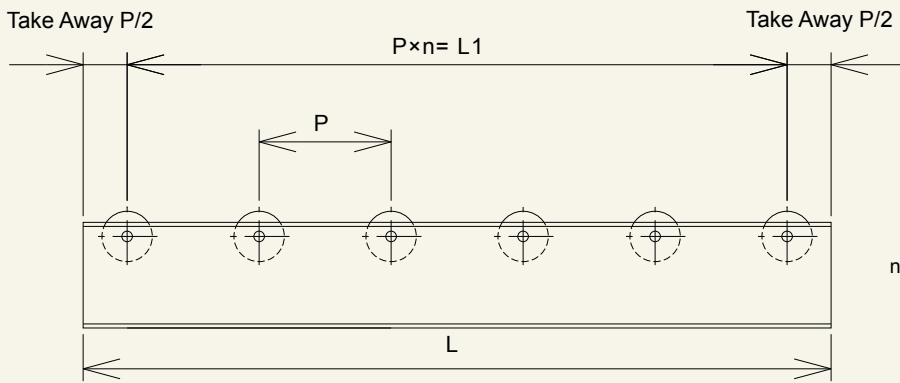


- * Caution 1) If the shaft is φ5 with a circular rod double pin, both sides will have a circular indent
- 2) If the shaft is φ6 or φ8, the crescent will be vertical.



Idler Pitch (P)

(Unit mm)



n = equally divided figure

*If the frame has unusual dimensions, then take away $= \frac{L - L1}{2}$

Average Pitch

(Unit mm)

If connecting conveyors where the unit length L cannot be divided by the intervals between each idler (nominal pitch), then the interval will become wider. For that reason, the standard pitch will be as shown in the chart on the right.

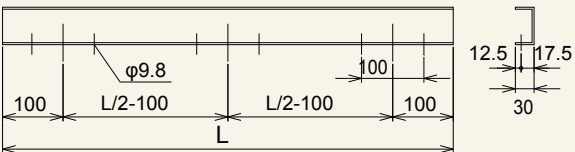
*We can also provide types that are compatible with non-standard pitches - please get in touch for more information.

Unit Length L	Nominal Pitch	Average Pitch
500	15	15.15
500	30	31.25
1,000	15	15.15
1,000	30	30.3
1,000	75	77
1,000	150	142
1,500	40	40.5
1,500	200	188
2,000	15	15.15
2,000	30	30.3
2,000	75	77
2,000	150	154

*A [90×30×4.5 frame that is 2,000L and 200P will have a pitch of 200.

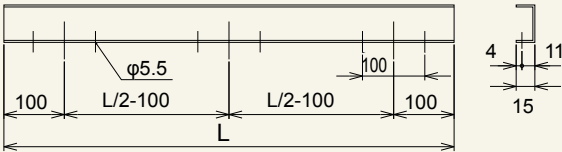
Dimensions of Indents for Leg Attachment

[40×30] [60×30] [90×30]



*If the unit length is 1,000 or 1,500, there is no finishing in the center.
*For the heavy-duty model 2FB leg attachment, the indent will be φ12.

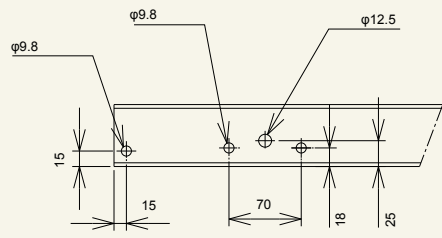
(L20×15) [30×15]



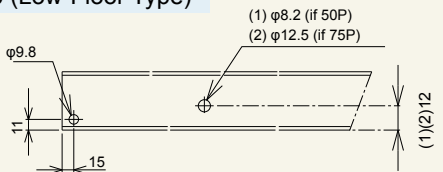
Frame Finish Dimensions

Dimensions of Connector/Support Indents

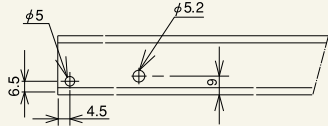
[60×30]



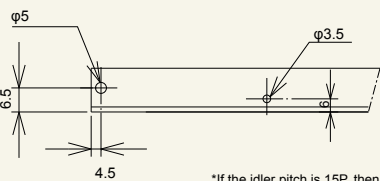
[40×30 (Low-Floor Type)]



[30×15]



L20×15



*If the idler pitch is 15P, then there will be no connector indents.

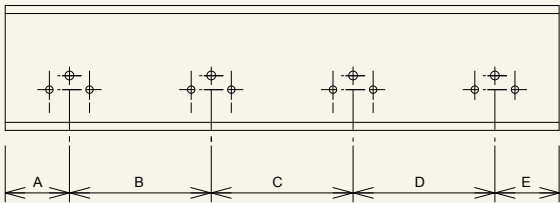
Position of Supports [if 3,000L]

(Unit mm)

Idler Pitch P	A	B	C	D	E
50	150	900	900	900	150
75	150	900	900	900	150
100	200	900	800	900	200
150	150	900	900	900	150
200	200	800	1,000	800	200

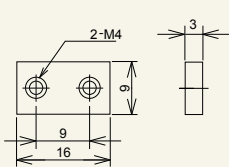
[60×30]

[90×30]



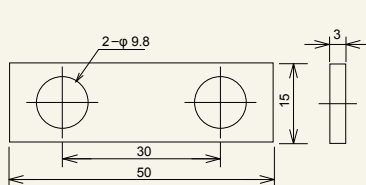
Connector Plate (optional extra) *Please let us know if you will be connecting conveyors together.

Used with L20×15 frame



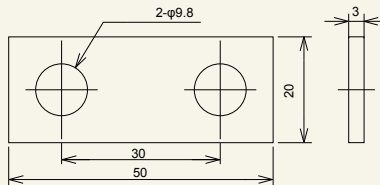
(Bolt: Cap M4×8L)

Used with [40×30 frame



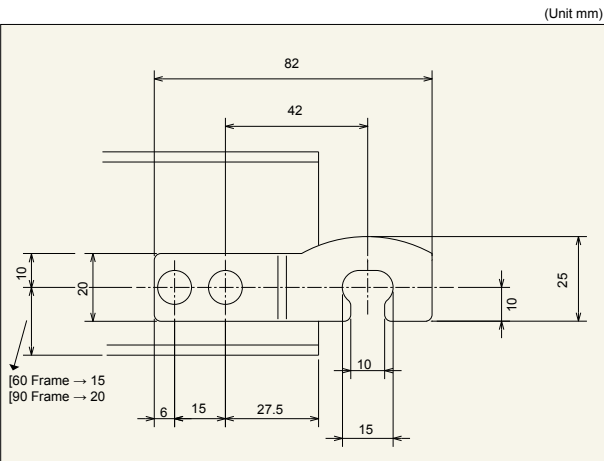
(Bolt: Hexagonal M8×20L)

Used with [90×30, [60×30 frame

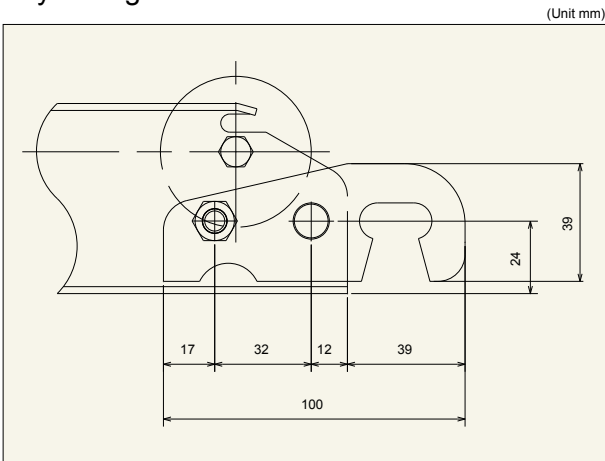


(Bolt: Hexagonal M8×20L)

Connector Hook (optional extra) *Please let us know if you will be connecting conveyors together.



Compatible Models: RA-2816/RA-3816/RA-4515/JR-3823



Compatible Model: RAF-4515

Support

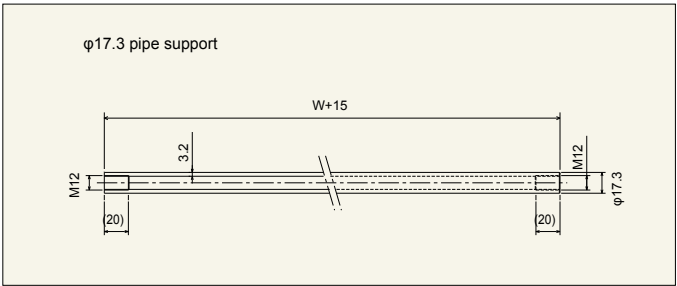
Specifications

Material	Frame Dimensions	Remarks	Support Specifications			Specified Bolt
			Shape	Length	Finish	
Steel	L20×15×t2.3		φ5 Circular rod (plated)	W+15	Both ends M3×10	Cap M3×8L
	[30×15×t2.3		φ8 Circular rod (plated)	W+15	Both ends M5×12	Cap M5×10L
	[24×20×t1.6 (drop-down)		φ8 Circular rod (plated)	W+4	Both ends M5×12	Cap M5×10L
	[34×20×t1.6 (drop-down)		φ8 Circular rod (plated)	W+10	Both ends M5×12	Cap M5×10L
	[40×30×t2.3	If 45P	φ8 Circular rod (plated)	W+15	Both ends M5×12	Cap M5×10L
		If 50P	φ12 Circular rod (plated)	W+45	Both ends screw cut M8×15	
		If 75P or over	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Cap M12×20L
	L60×30×t3.2		φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
	L90×30×t3.2		φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
	[60×30×t2.3	If the idler width is under 549W	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
		If the idler width is 550W or over	L3×30 Angled (coating) *1	W+15	Both ends FB3×32×100L	Hexagonal M8×20L
	[90×30×t2.3	If the idler width is under 549W	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
		If the idler width is 550W or over	L3×40 Angled (coating) *1	W+15	Both ends FB4.5×38×120L	Hexagonal M8×20L
		Dual-use Frame/Guide	φ17.3 Pipe (plated)	W+15	Both ends M12×20	M12×20L
	[90×30×t3.2	Shaft diam. φ12, idler width under 549W	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
		Shaft diam. φ12, idler width over 550W	L3×40 Angled (coating) *1	W+15	Both ends FB4.5×38×120L	Hexagonal M8×20L
		Shaft diam. φ13 or over, idler width under 199W	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
		Shaft diam. φ13 or over, idler width over 200W	L3×40 Angled (coating) *1	W+15	Both ends FB4.5×38×120L	Hexagonal M8×20L
		Tapered idler	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
	[90×30×t4.5 *3	If the idler width is under 199W	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
		If the idler width is 200W or over	L3×40 Angled (coating) *1	W+15	Both ends FB4.5×38×120L	Hexagonal M8×20L
		If the idler diameter is over φ76	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
	[100×50×t5.0	Pipe support for vertical second layer	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×25L
	[120×30×t3.2	Dual-use Frame/Guide	φ17.3 Pipe (plated)	W+15	Both ends M12×20	Hexagonal M12×20L
Stainless Steel	L20×15×t2.0		φ5 Circular rod (SUS)	W+15	Both ends M3×10	Cap M3×8L
	[60×30×t2.0	If the idler width is under 549W	φ17.3 Pipe (SUS)	W+15	Both ends M12×20	Hexagonal M12×20L
		If the idler width is 550W or over	L3×30 Angled (SUS) *1	W+15	Both ends FB3×30×100L	Hexagonal M8×20L
	[90×30×t2.0	If the idler width is under 549W	φ17.3 Pipe (SUS)	W+15	Both ends M12×20	Hexagonal M12×20L
		If the idler width is 550W or over	L3×30 Angled (SUS) *1	W+15	Both ends FB3×32×120L	Hexagonal M8×20L
Aluminum	[90×30×t3.0	Tapered idler	φ17.3 Pipe (SUS)	W+15	Both ends M12×20	Hexagonal M12×20L
	[30×15×t2.0		φ8 Circular rod (plated)	W+15	Both ends M5×12	Cap M5×10L
	[44×18×t2.0		φ17.3 Pipe (SUS)	W+15	Both ends M12×20	Cap M12×20L
	[60×30×t3.0		φ17.3 Pipe (plated) *2	W+15	Both ends M12×20	Hexagonal M12×20L
	[63×25×t2.5/3.5		Conical support (aluminum)	W+7		
	[90×30×t3.0		φ17.3 Pipe (plated) *2	W+15	Both ends M12×20	Hexagonal M12×20L

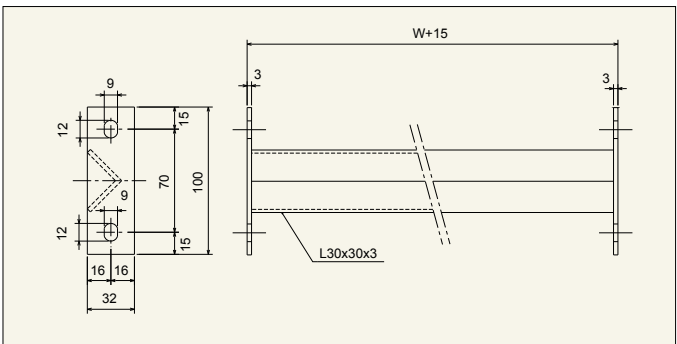
*1. For some models the pipe support will be φ17.3. All units shorter than 500 will have pipe supports *2. The JR model is SUS
*3. R-6038SB and R-7642SB have the same specifications as the RZ Series (refer to page 31)

Number of Supports

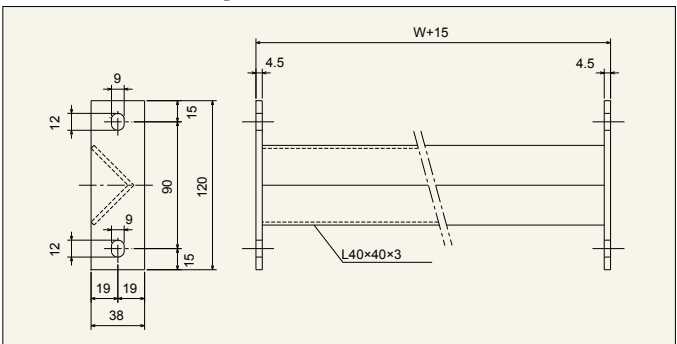
Shape	Conveyor Length (L)	Number of Supports
φ17.3 Pipe support L3×30 Angled support L3×40 Angled support φ12 Circular rod support	Below 1,500	Two units
	From 1,500 to 2,400	Three units
	2,400 to 3,000	Four units
φ5 Circular rod support φ8 Circular rod support	Below 300	Two units
	From 300 to 1,000	Three units
	From 1,000 to 1,500	Four units
	From 1,500 to 1,800	Five units
	From 1,800 to 2,000	Six units
	From 2,000 to 2,500	Seven units
	From 2,500 to 3,000	Eight units
	3,000	Ten units



Steel, used with [60 frame



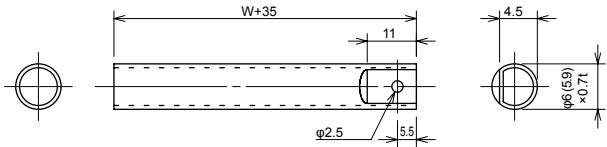
Steel, used with [90 frame



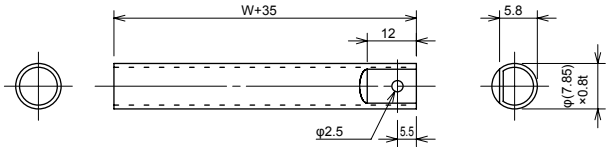
Shaft Shapes

(Unit mm)

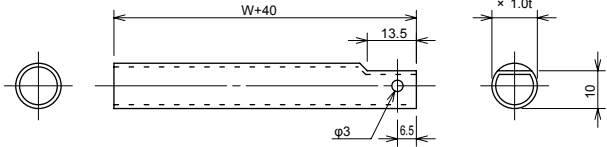
■ φ6 Pipe/Steel



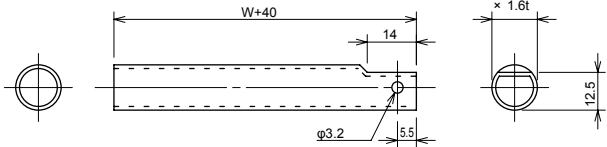
■ φ8 Pipe/Steel



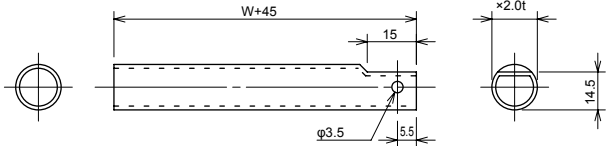
■ φ12 Pipe/Steel



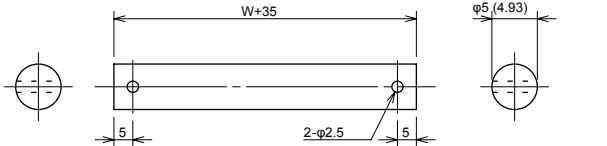
■ φ15 Pipe/Steel



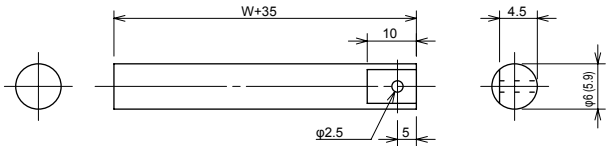
■ φ17 Pipe/Steel



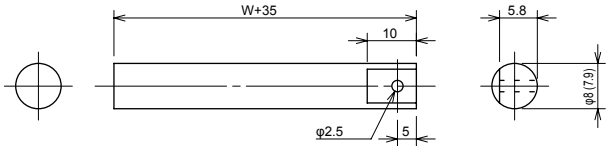
■ φ5 Circular rod/Steel



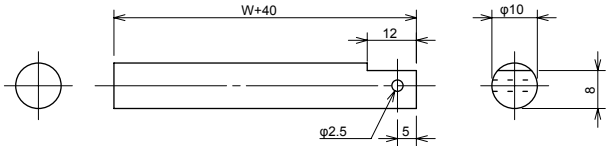
■ φ6 Circular rod/Steel



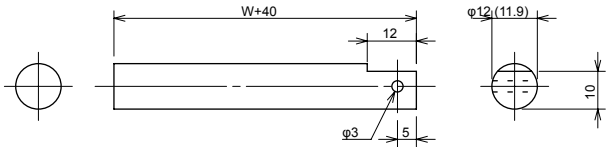
■ φ8 Circular rod/Steel



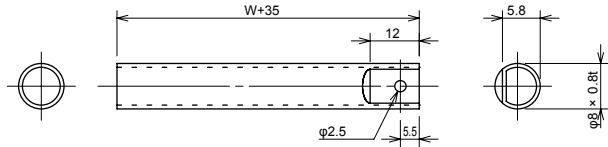
■ φ10 Circular rod/Steel



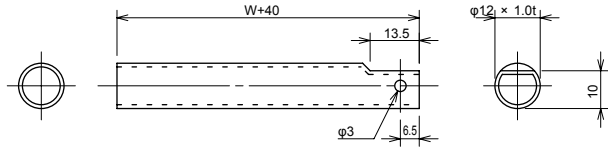
■ φ12 Circular rod/Steel



■ φ8 Pipe/Stainless steel



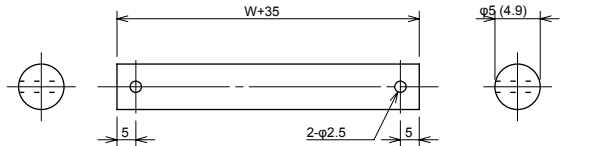
■ φ12 Pipe/Stainless steel



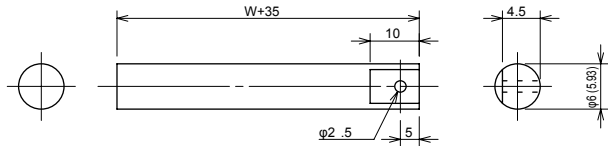
Allowable Tolerance in Usual Dimensions of Bending or Contracting of Pressed Metal Items (JIS B 0408) (Unit: mm)

Standard Dimensions Classification	Grade		
	Grade A	Grade B	Grade C
Below 6	±0.1	±0.3	±0.5
Above 6 and below 30	±0.2	±0.5	±1
Above 30 and below 120	±0.3	±0.8	±1.5
Above 120 and below 400	±0.5	±1.2	±2.5
Above 400 and below 1000	±0.8	±2	±4
Above 1000 and below 2000	±1.2	±3	±6

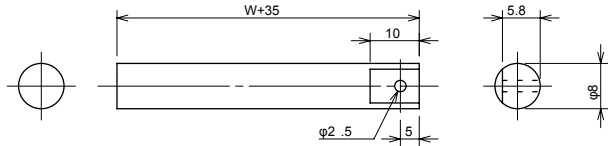
■ φ5 Circular rod/Stainless steel



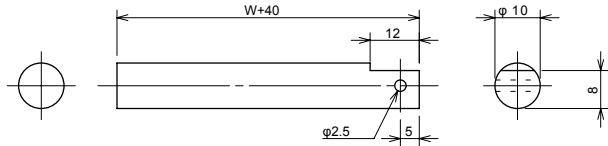
■ φ6 Circular rod/Stainless steel



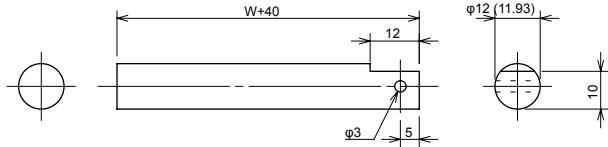
■ φ8 Circular rod/Stainless steel



■ φ10 Circular rod/Stainless steel

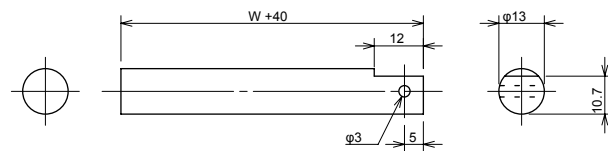


■ φ12 Circular rod/Stainless steel

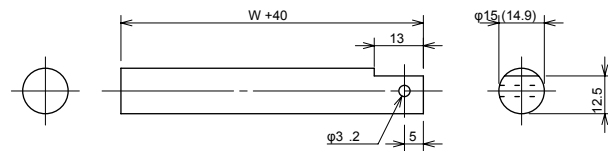


(Unit mm)

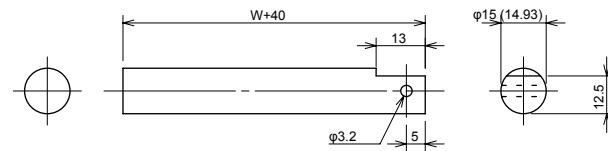
■φ13 Circular rod/Steel



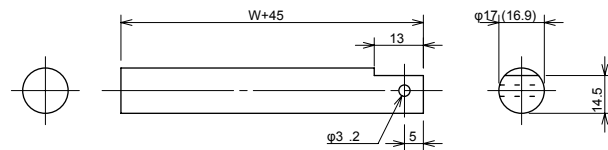
■φ15 Circular rod/Steel



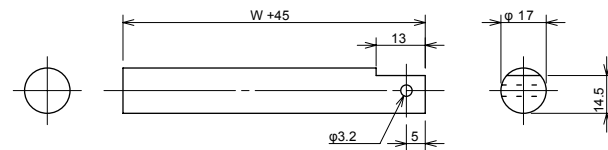
■φ15 Circular rod/Stainless steel



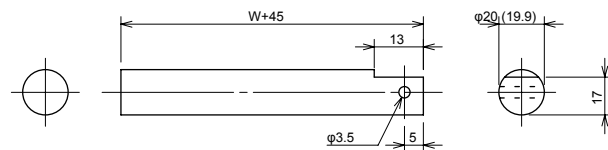
■φ17 Circular rod/Steel



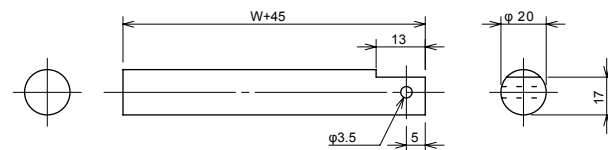
■φ17 Circular rod/Stainless steel



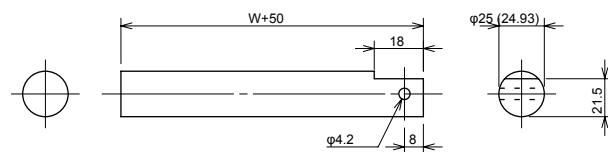
■φ20 Circular rod/Steel



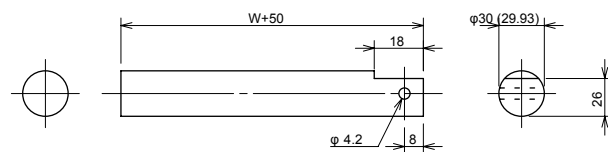
■φ20 Circular rod/Stainless steel



■φ25 Circular rod/Steel

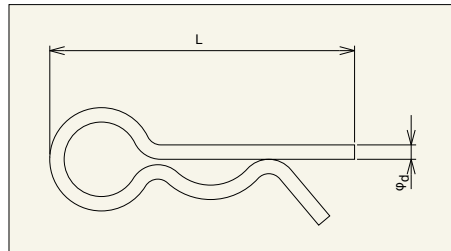


■φ30 Circular rod/Steel

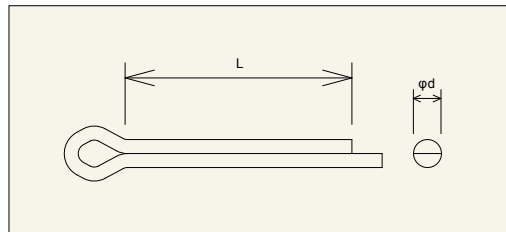


■ Pin Shapes

● Shape of R pin



● Shape of divider pin



Shaft Diameter	●Steel		●Stainless Steel		Remarks
	L	φd	L	φd	
φ5	21.5	1.2	21.5	1.2	A wire stopper will be attached if it is an (assembled load) conveyor
φ6	21.5	1.2	21.5	1.2	A wire stopper will be attached if the idler pitch is below 50P
φ8	28.8	1.6	29	1.6	A wire stopper will be attached if the idler pitch is below 50P
φ10	37.7	2.0	-	-	
φ12	37.7	2.0	38	1.8	
φ13	37.7	2.0	-	-	
φ15	52.8	2.6	43.6	2.0	
φ17	52.8	2.6	43.6	2.0	
φ20	60.8	2.9	-	-	

Shaft Diameter	L	φd
φ25	50	φ3.7
φ30	50	φ3.7

Change! Change!! Change!!!

A Revolution in the 40th Year of our Gravity Idler Conveyor

RZ Series with New Specifications Now on Sale



RZ-3812P
+
Stand Model 2Z



RZ-5714P
+
Stand Model AL-2B

Idler Conveyor Models

Idler Conveyor Model

1) Straight Idler

R – 38 12 P E

Frame Shape

Unmarked: Refer to Catalog
A: L20×15 E: L-Shaped Frame
B: [30×15 G: [Dual-Use Frame/Guide
L: [40×30 F: [Flat Frame

Bearing Types

Unmarked: Precision-Machined Bearing
P: Pressed Bearing
D: Bearing used for Irregular Dimensions
NB: Standard Bearing, Integrated Resin Boss
J: Resin Needle Bearing
N: Precision-Machined Bearing / Low Cost

Thickness of Idler Pipe Wall (t)

10: t1.0 26: t2.6
23: t1.2 38: t3.8
14: t1.4 42: t4.2
23: t2.3 45: t4.5
*Some items may slightly vary in thickness depending on the model.

Idler Outer Diameter (φ)

08: φ8 50: φ50.8
12: φ12 57: φ57.2
19: φ19.1 60: φ60.5
22: φ22.2 76: φ76.3
28: φ28.6 89: φ89.1
38: φ38.1 101: φ101.6
42: φ42.7 114: φ114.3
48: φ48.6 140: φ139.8

*Dimensions will vary slightly depending on the pipe material.

Idler Types

RZ: Brand New Steel Idler, ZAM Frame (anti-corrosive molten plated steel sheet)

R: Steel Idler

JR: Resin Idler

RS: Stainless Steel Idler

RB: Idler with Standard Bearings Inserted

RA: Aluminum Idler

RH: Drop-Down Type Idler Conveyor

2) Tapered Idler

R – TC 500 A

Shape

Unmarked: Standard Type (refer to chart for dimensions)
A: Smaller Diameter Side φ42.7

Inner R Dimensions (mm)

Unmarked: Inner 900R
220: Inner 220R
320: Inner 320R
500: Inner 500R
700: Inner 700R
900: Inner 900R
1,200: Inner 1200R
1,600: Inner 1600R

Idler Types

R: Steel Idler

RS: Stainless Steel Idler

RA: Aluminum Idler

Tapered Idler

TC: Standard Model

TCN: Cheaper Model

TCL: Wide Model

TCR: Rubber-Wrapped

Idler Conveyor Specification Chart

MAKITECH GRAVITY IDLER

Upon placing an order, please let us know the product code, specified dimensions, coating color, and quantity required.

Example Order	Product Code	L: Unit Length	W: Idler Width	P: Idler Pitch	With/Without Connector	Coating Color	Number of Units
If the conveyor is straight	R-3812P	3,000L	500W	50P	Connector Fittings	Standard Color	One Unit
Example Order	Product Code	R: Curve Inner R	W: Idler Width	P: Idler Pitch	θ: Angle of Curve	With/Without Connector	Coating Color
If the conveyor is curved	R-3812P	Inner 900R	500W	50P	90°	Connector Fittings	Standard Color
Example Order	Product Code	W: Idler Width	With/Without Shaft	Number of Units			
In the case of individual idlers	R-3812P	100W	With Shaft	One Unit			

*Caution Please take care if the conveyor is curved as the idler interval (P) will be equivalent to each idler pitch.

Remarks

- The standard color is JPSA standard previous color code S31-513 (similar to the Munsell international color code 2.5G6/3).
- If you wish to specify the color, please advise us of the JPSA color code (if you specify a Munsell international color code, the color will be very close).
- We can manufacture conveyors in non-standard lengths and/or with non-standard idler pitches, so please get in touch for more information.
- Angle of curve: θ90° is standard, 60°, 45°, and 30° are also possible.
- If an idler unit has a shaft attached, an R pin (part fixing the shaft in place) will be supplied.
- Single purpose free idler.

Standard Load

We have added the standard load, rather than idler strength, to the 'Load' column within the idler conveyor product chart. We are basing the idler strength on an idler with a nominal width of 300W.

*kgf=N×0.101972

Load	Very Light	Light	Light to Medium	Medium	Medium to Heavy	Heavy	Very Heavy
N (Newtons)	Below 300N	Below 600N	Below 1,200N	Below 2,400N	Below 3,000N	Below 9,000N	Above 9,000N
kgf	Below 30kgf	Below 65kgf	Below 122kgf	Below 244kgf	Below 305kgf	Below 917kgf	Above 917kgf

Idler Conveyor Specification Chart

MAKITECH GRAVITY ROLLER

Steel Idler Conveyor

																				(Unit mm)									
Load	Idler Diameter	Page Listed	Idler Conveyor Model	Idler Unit Model (*Repair Part Name)	Idler Specifications					Idler Width		Standard Shaft Specifications						Frame Specifications			Manufactured Range of Standard Lengths						Standard Idler Pitch	Unit Height	Special Features & Applications
					Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	With/ Without Surface Plating	Bearing	Standard Idler Width (Nominal) W	Free Size	Shaft Diameter (φ) Nominal (Actual)	Shape	Finish	With/ Without Surface Plating	Height x Width x Wall Thickness I x K x t		Material	Surface Treatment	L					R900 Inner Curve	Pitch P (*Caution 1)	(Idler Upper Surface) H		
																				500	1,000	1,500	2,000	3,000					
Very Light	φ19	56	R-1912P	R-1912P	19.1	1.2	6.2	Y	Pressed	100 - 500	Y	6 (5.9)	Pipe	Crescent-shape	X		[60×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	20 / 25 / 30	61.5	Idler diameter of φ19, most suitable for conveying light and small items, low-cost, best-selling product	
		77	R-1912PA	R-1912P	19.1	1.2	6.2	Y	Pressed	100 - 500	Y	6 (5.9)	Pipe	Crescent-shape	X		L20×15×2.3	Steel	Coating	-	Y	Y	X	X	X	20 / 25 / 30	25	Idler diameter of φ19, most suitable for conveying light and small items, low-cost, L-shaped frame	
		74	R-1912PB	R-1912P	19.1	1.2	6.2	Y	Pressed	100 - 500	Y	6 (5.9)	Pipe	Crescent-shape	X		[30×15×2.3	Steel	Coating	-	Y	Y	Y	X	X	20 / 25 / 30	31	Idler diameter of φ19, most suitable for conveying light and small items, low-cost, [30 low-floor frame	
Light	φ28	57	R-2812P	R-2812P	28.6	1.2	8.2	Y	Pressed	100 - 500	Y	8 (7.85)	Pipe	Crescent-shape	X		[60×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	30 / 40 / 50 / 75	66	Idler diameter of φ28, most suitable for conveying light and small items, low-cost, best-selling product	
		74	R-2812PB	R-2812P	28.6	1.2	8.2	Y	Pressed	100 - 500	Y	8 (7.85)	Pipe	Crescent-shape	X		[30×15×2.3	Steel	Coating	-	Y	Y	Y	X	X	40 / 50 / 75	31	Idler diameter of φ28, most suitable for conveying light and small items, low-cost, [30 low-floor frame	
		75	R-2812PL	R-2812P	28.6	1.2	8.2	Y	Pressed	100 - 500	Y	8 (7.85)	Pipe	Crescent-shape	X		[40×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	30 / 40 / 50 / 75	46	Idler diameter of φ28, most suitable for conveying light and small items, low-cost, [40 low-floor frame	
		89	R-2812PG	R-2812P	28.6	1.2	8.2	Y	Pressed	100 - 500	Y	8 (7.85)	Pipe	Crescent-shape	X		[90×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	30 / 40 / 50 / 75	52	Idler diameter of φ28, dual-use frame/guide	
Light to Medium	φ 38	58	R-3812P	R-3812P	38.1	1.2	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[60×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	67	At φ38 it is the most versatile for light to medium loads, low-cost and a best-selling product	
		77	R-3812PE	R-3812P	38.1	1.2	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		L60×30×3.2	Steel	Coating	-	Y	Y	Y	Y	X	50 / 75 / 100 / 150	67	Idler diameter of φ38, low-cost, L-shaped frame	
		75	R-3812PL	R-3812P	38.1	1.2	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[40×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	47	Idler diameter of φ38, low-cost, [40 low-floor frame	
		89	R-3812PG	R-3812P	38.1	1.2	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[90×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	57	Idler diameter of φ38, dual-use frame/guide	
		59	R-3812PD	R-3812PD	38.1	1.2	12.2	Y	Pressed	100 - 1,000	Y	12 (11.8)	Pipe	Crescent-shape	X		[60×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	67	Compatible with R-3812P free size idler	
Medium	φ 48	61	R-4814P	R-4814P	48.6	1.6	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[90×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	95.8	Idler diameter is φ48, suitable for conveying medium loads, low-cost	
		76	R-4814PL	R-4814P	48.6	1.6	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[40×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	52	Idler diameter is φ48, suitable for conveying medium loads, low-cost, [40 low-floor frame	
	φ 57	63	R-5714P	R-5714P	57.2	1.4	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[90×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	100	At φ57 it is the most versatile for medium loads, low-cost and a best-selling product	
		78	R-5714PE	R-5714P	57.2	1.4	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		90×30×3.2	Steel	Coating	-	Y	Y	Y	Y	X	75 / 100 / 150 / 200	100	Idler diameter is φ57, suitable for conveying medium loads, low-cost, L-shaped frame	
		89	R-5714PG	R-5714P	57.2	1.4	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[120×30×3.2	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	78.5	Idler diameter is φ57, dual-use frame/guide	
		64	R-5714PD	R-5714PD	57.2	1.4	12.2	Y	Pressed	100 - 1,000	Y	12 (11.8)	Pipe	Crescent-shape	X		[90×30×2.3	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	100	Compatible with R-5714P free size idler	
		65	R-5721	R-5721	57.2	2.1	12.2	Y	Precision-machined	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[90×30×3.2	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	100	Idler diameter is φ57 with t2.1 wall thickness, improved impact resistance, high quality, precision-machined bearings	
		66	R-5721D	R-5721D	57.2	2.1	12.2	Y	Precision-machined	100 - 1,000	Y	12 (11.8)	Pipe	Crescent-shape	X		[90×30×3.2	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	100	Compatible with R-5721 free size idler	
Heavy		66	R-5723	R-5723	57.2	2.3	17.2	Y	Precision-machined	100 - 1,000	50mm Increm.	17 (16.85)	Pipe	Crescent-shape	X		[90×30×4.5	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	100	At φ57 it is the most versatile for heavy loads, high quality, precision-machined bearings	

*The thickness of the pipe wall may be up to 12% less, due to JIS standards.

*If a 'Y' is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes.

If '50mm Increm.' is noted, then the size can be selected in 50mm increments from the standard minimum width.

(*Caution 1) Please take care as the curve will become equivalent to each pitch. The actual pitch may vary slightly on a straight-line conveyor.

Please refer to 'Conveyor Part Dimensions,Frame Finish Dimensions, Average Pitch'.

Idler Conveyor Specification Chart

Steel Idler Conveyor

Steel Idler Conveyor																							(Unit: mm)					
Load	Idler Diameter	Page Listed	Idler Conveyor Model	Idler Unit Model (*Repair Part Name)	Idler Specifications				Idler Width		Standard Shaft Specifications					Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height	Special Features & Applications		
					Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	With/Without Surface Plating	Bearing	Standard Idler Width (Nominal) W	Free size	Shaft Diameter (φ) Nominal (Actual)	Shape	Finish		With/Without Surface Plating	Height x Width x Wall Thickness	Material	Surface Treatment	L					R900 Inner Curve		Pitch P (*Caution 1)	(Idler Upper Surface) H
																				500	1,000	1,500	2,000	3,000				
Heavy	φ 57	67	R-5723D	R-5723D	57.2	2.3	17.2	Y	Precision-machined	100 - 1,000	Y	17 (16.85)	Pipe	Crescent-shape	X		[90×30×4.5	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	100	Compatible with R-5723 free size idler
Medium	φ60	68	R-6023P	R-6023P	60.5	2.3	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[90×30×3.2	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	101.7	Idler diameter is φ60, suitable for medium loads, versatile and low-cost
		89	R-6023PG	R-6023P	60.5	2.3	12.2	Y	Pressed	100 - 1,000	50mm Increm.	12 (11.8)	Pipe	Crescent-shape	X		[120×30×3.2	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	80	Idler diameter is φ60, dual-use frame/guide
		71	R-6038SB	R-6038SB	60.5	3.8	20.0	X (Black)	Meets standards	100 - 1,000	Y	20 (19.9)	Circular rod	Crescent-shape	X		[90×30×4.5	Steel	Coating	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	100	Idler diameter is φ60 with t 3.8 wall thickness, shaft diameter φ20, suitable for heavy loads
Heavy	φ76	72	R-7642N	R-7642N	76.3	4.2	20.2	X (Black)	Precision-machined	100 - 1,000	Y	20 (19.9)	Circular rod	Crescent-shape	X		[90×30×4.5	Steel	Coating	-	Y	Y	Y	Y	Y	100 / 150 / 200 / 300	100	Idler diameter is φ76 with t 4.2 wall thickness, shaft diameter φ20, suitable for heavy loads, low-cost

*The thickness of the pipe wall may be up to 12% less, due to JIS standards.
*If a ‘Y’ is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes.
If ‘50mm Increm.’ is noted, then the size can be selected in 50mm increments from the standard minimum width.
(*Caution 1) Please take care as the curve will become equivalent to each pitch. The actual pitch may vary slightly on a straight-line conveyor.
Please refer to ‘Conveyor Part Dimensions,Frame Finish Dimensions, Average Pitch’.

Stainless Steel Idler Conveyor

(Unit mm)																												
Load	Idler Diameter	Page Listed	Idler Conveyor Model	Idler Unit Model (*Repair Part Name)	Idler Specifications					Idler Width		Standard Shaft Specifications					Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height	Special Features & Applications	
					Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Material	Bearing	Standard Idler Width (Nominal) W	Free Size	Shaft Diameter (φ) Nominal (Actual)	Shape	Finish	Material		Height x Width x Wall Thickness	Material	Surface Treatment	L					R900 Inner Curve	Pitch P (*Caution 1)		(Idler Upper Surface) H
																				500	1,000	1,500	2,000	3,000				
Light	φ19	92	RS-1912	RS-1912	19.0	1.2	6.2	SUS304	Pressed	100 - 500	Y	6 (5.93)	Circular rod	Crescent-shape	SUS304		[60×30×2.0	SUS304	2B Finish	-	Y	Y	Y	Y	Y	25 / 30 / 40	61.5	Idler diameter is φ19, low cost, most suitable for conveying light and small items
	φ38	93	RS-3810-8	RS-3810-8	38.1	1.0	8.2	SUS304	Pressed	100 - 600	50mm Increm.	8.0	Pipe	Crescent-shape	SUS304		[60×30×2.0	SUS304	2B Finish	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	67	φ38 completely stainless steel, most versatile for light loads, low-cost
		94	RS-3810-12	RS-3810-12	38.1	1.0	12.2	SUS304	Pressed	100 - 600	50mm Increm.	8.0	Pipe	Circular/ Crescent-shape	SUS304		[60×30×2.0	SUS304	2B Finish	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	67	φ38 stainless steel, most suitable for conveying light and small items
Light to Medium	φ60	99	ARS-6015	ARS-6015	60.5	1.5	12.2	SUS304	Pressed	100 - 800	Y	12.0	Pipe	Crescent-shape	SUS304		[90×30×2.0	SUS304	2B Finish	-	Y	Y	Y	Y	Y	75 / 100 / 150	101.7	φ60 completely stainless steel, suitable for light to medium loads, low-cost

*The thickness of the pipe wall may be up to 12% less, due to JIS standards. *Single purpose free idler. Cannot be used as a driving idler.
*If a ‘Y’ is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes.
If ‘50mm Increm.’ is noted, then the size can be selected in 50mm increments from the standard minimum width.
(*Caution 1) Please take care as the curve will become equivalent to each pitch. The actual pitch may vary slightly on a straight-line conveyor.
Please refer to ‘Conveyor Part Dimensions Frame Finish Dimensions Average Pitch’.

Aluminum Idler Conveyor

Aluminum Idler Conveyor																							(Unit mm)					
Load	Idler Diameter	Page Listed	Idler Conveyor Model	Idler Unit Model (*Repair Part Name)	Idler Specifications				Idler Width		Standard Shaft Specifications					Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height	Special Features & Applications		
					Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Material	Bearing	Standard Idler Width (Nominal) W	Free Size	Shaft Diameter (φ) Nominal (Actual)	Shape	Finish		With/ Without Surface Plating	Height x Width x Wall Thickness	Material	Surface Treatment	L					R900 Inner Curve		Pitch P (*Caution 1)	(Idler Upper Surface) H
																				500	1,000	1,500	2,000	3,000				
Light	φ28	100	RA-2816	RA-2816	28.6	1.6	8.2	Aluminum	Precision-machined	100 - 500	Y	8 (7.85)	Pipe	Crescent-shape	Y		[60×30×3.0	Aluminum	Alumite	-	Y	Y	Y	Y	Y	40 / 50 / 75	66	φ28 made of aluminum, light, most suitable for conveying light and small items
	φ38	101	RA-3816	RA-3816	38.1	1.6	8.2	Aluminum	Pressed	100 - 600	50mm Increm.	8 (7.85)	Pipe	Crescent-shape	Y		[60×30×3.0	Aluminum	Alumite	-	Y	Y	Y	Y	Y	50 / 75 / 100	67	φ38 made of aluminum, light, most suitable for conveying light items, most versatile out of aluminum idlers
	φ45	101	RA-4515	RA-4515	45.0	1.3	8.2	Aluminum	Pressed	100 - 600	50mm Increm.	8 (7.85)	Pipe	Crescent-shape	Y		[60×30×3.0	Aluminum	Alumite	-	Y	Y	Y	Y	Y	50 / 75 / 100	70.5	φ45 made of aluminum, light, most suitable for conveying light items

*Single purpose free idler. Cannot be used as a driving idler.
*If a ‘Y’ is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes.
If ‘50mm Increm.’ is noted, then the size can be selected in 50mm increments from the standard minimum width.
(*Caution 1) Please take care as the curve will become equivalent to each pitch. The actual pitch may vary slightly on a straight-line conveyor.
Please refer to ‘Conveyor Part Dimensions Frame Finish Dimensions Average Pitch’.

Resin Idler Conveyor

Resin Idler Conveyor																							(Unit mm)					
Load	Idler Diameter	Page Listed	Idler Conveyor Model	Idler Unit Model (*Repair Part Name)	Idler Specifications					Idler Width		Standard Shaft Specifications					Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height	Special Features & Applications	
					Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Material	Bearing	Standard Idler Width (Nominal) W	Free Size	Shaft Diameter (φ) Nominal (Actual)	Shape	Finish	Material		Height x Width x Wall Thickness	Material	Surface Treatment	L					R900 Inner Curve	Pitch P (*Caution 1)		(Idler Upper Surface) H
																				500	1,000	1,500	2,000	3,000				
Very Light	φ20	104	JR-2015B	JR-2015	20.0	1.6	6.2	ABS	Resin molding	100 - 400	Y	6 (5.9)	Pipe	Crescent-shape	Iron (plating)		[30×15×2.0	Aluminum	Alumite	-	Y	Y	Y	-	Y	25 / 30 / 40	31.5	φ20 resin idler, lightweight with an aluminum frame, most suitable for conveying light and small items, best-selling product
	φ30	104	JR-3018B	JR-3018	30.6	2.2	8.2	ABS	Resin molding	100 - 500	Y	8.0	Pipe	Crescent-shape	SUS304		[44×18×3.0	Aluminum	Alumite	-	Y	Y	Y	Y	Y	40 / 50 / 75	50	φ30 resin idler, lightweight with an aluminum frame, most suitable for conveying light and small items
	φ38	105	JR-3823	JR-3823	38.0	2.6	8.2	ABS	Resin molding	100 - 500	Y	8.0	Pipe	Crescent-shape	SUS304		[60×30×3.0	Aluminum	Alumite	-	Y	Y	Y	Y	Y	50 / 75 / 100 / 150	67	φ38 resin idler, lightweight with an aluminum frame, most suitable for conveying light items
	φ50	106	JR-5028	JR-5028	50.3	3.1	12.2	ABS	Resin molding	100 - 600	Y	12.0	Pipe	Crescent-shape	SUS304		[90×30×3.0	Aluminum	Alumite	-	Y	Y	Y	Y	Y	75 / 100 / 150 / 200	96.5	φ50 resin idler, lightweight with an aluminum frame, most suitable for conveying light items

*Single purpose free idler. Cannot be used as a driving idler.
*If a ‘Y’ is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes.
If ‘50mm Increm.’ is noted, then the size can be selected in 50mm increments from the standard minimum width.
(*Caution 1) Please take care as the curve will become equivalent to each pitch. The actual pitch may be different in a straight conveyor.
Please refer to ‘Conveyor Part Dimensions Frame Finish Dimensions Average Pitch’.

Tapered Idler Conveyor

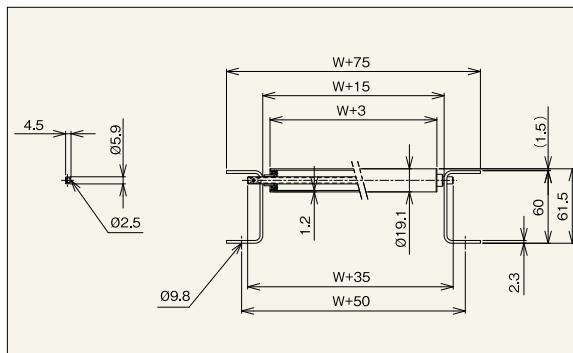
Tapered Idler Conveyor																							(Unit mm)			
Load	Curve Inner R (R)	Page Listed	Idler Conveyor Model	Idler Unit Model (*Repair Part Name)	Idler Specifications				Idler Width		Standard Shaft Specifications					Frame Specifications			Standard Idler Pitch		Standard R		Unit Height		Special Features & Applications	
					Small Diameter Side (φ)	Large Diameter Side (φ)	Shaft Indent (φ)	Material	Bearing	Standard Idler Width (Nominal) W	Free Size	Shaft Diameter (φ) Nominal (Actual)	Shape	Finish		Material	Height x Width x Wall Thickness	Material	Surface Treatment	Pitch P (*Caution 1)	Curved	(Idler Upper Surface) H				
																							I x K x t			
Light to Medium	700	108	R-TC700	R-TC700	41.3	Refer to the tapered idler conveyor	12.2	Iron (plating)	Precision-machined	200 - 600	Y	12 (11.8)	Pipe	Crescent-shape	STKM11A		[90×30×3.2	Steel	Coating	75 / 100 / 150	Y	100	For use with R700 inner curve, free sized idler widths possible			
	900	109	R-TCN900	R-TCN900	42.7		12.2	Iron (plating)	Standard/ Precision-machined	300 - 800	Y/X	12 (11.8)	Pipe	Crescent-shape	STKM11A		[90×30×3.2	Steel	Coating	75 / 100 / 150	Y	100	For use with R900 inner curve, smaller-diameter side φ42.7 type, low-cost			

*Single purpose free idler. Cannot be used as a driving idler.
*If a ‘Y’ is noted in the free size column, then it is possible to order the idler in any size, as long as it is within the range of our manufactured sizes.
If ‘50mm Increm.’ is noted, then the size can be selected in 50mm increments from the standard minimum width.
(*Caution 1) Please take care as the curve will become equivalent to each pitch. The actual pitch may vary slightly on a straight-line conveyor.
Please refer to ‘Conveyor Part Dimensions Frame Finish Dimensions Average Pitch’.

R-1912P



*The connector plate is an optional extra.



[Intended Application]

Conveying very light loads
Ideal for conveying small items

[Product Characteristics]

1) Idler diameter is $\phi 19.1$, idler pitch is min. P20.
2) Idler width (nominal) is 100W-500W in standard increments of 50mm. Free sizes are also possible.

3) Pressed bearing, low-cost, best-selling $\phi 19$ product.

4) [60 standard frame

Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.

Caution 2. The shaft stopper will be a wire stopper.

Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)		100	200	300	400	500
Unit Width W+75 (mm)		175	275	375	475	575
Strength of One Idler (kg)		44	21	14	10	8
Conveyor Standard	20P	24.8	34.4	44.1	53.9	63.6
Weight 3,000L (kg)	25P	22.5	30.2	38.1	45.9	53.8
Idler / Shaft Standard Weight (g)		79	140	202	264	326

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2. The strength changes according to the conditions of use (whether there is impact or not).

The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing	
	Model	Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment	Specifications
							Minimum Width (W)	Maximum Width (W)				
R-1912P	R-1912P	19.1	1.2	6.2	100 - 500	W+13	40	600	Y	STKM12A	Molten zinc plating	Pressed

Standard Shaft Specifications

Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
6 (5.9) \times 0.7		W+35	Pipe	Circular/Vertical crescent pin hole	STKM11A	X

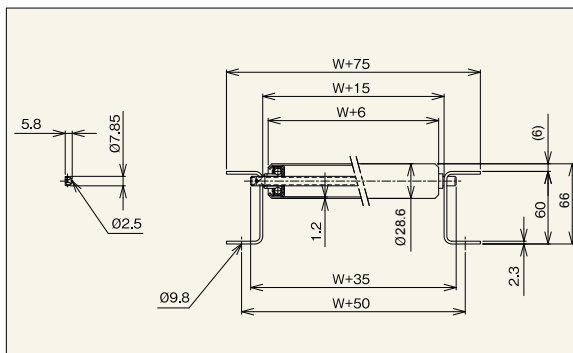
Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000			
[60×30×2.3	Steel	Baked-on coating	Y	Y	Y	Y	Y	20 / 25 / 30	61.5

R-2812P



*The connector plate is an optional extra.



[Intended Application]

Conveying light loads
Ideal for conveying small items

[Product Characteristics]

1) Idler diameter is $\phi 28.6$, idler pitch is min. P30.
2) Idler width (nominal) is 100W-500W in standard increments of 50mm. Free sizes are also possible.

3) Pressed bearing, low-cost, best-selling $\phi 28$ product.

4) [60 standard frame

Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.

Caution 2. If the idler pitch is below P50, then the shaft stopper will be a wire stopper.

Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width/Idler Strength/Approximate Conveyor Weight

Idler Width (Nominal) W (mm)		100	200	300	400	500
Unit Width W+75 (mm)		175	275	375	475	575
Strength of One Idler (kg)		50	50	42	31	25
Conveyor Standard	30P	28.3	38.3	48.3	58.4	68.3
Weight 3,000L (kg)	40P	24.5	32.1	39.7	47.3	54.9
Idler / Shaft Standard Weight (g)		153	249	345	441	536

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2. The strength changes according to the conditions of use (whether there is impact or not).

The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing	
	Model	Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment	Specifications
							Minimum Width (W)	Maximum Width (W)				
R-2812P	R-2812P	28.6	1.2	8.2	100 - 500	W+13	40	600	Y	STKM12A	Molten zinc plating	Pressed

Standard Shaft Specifications

Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
8 (7.85) \times 0.8		W+35	Pipe	Circular/Vertical crescent pin hole	STKM11A	X

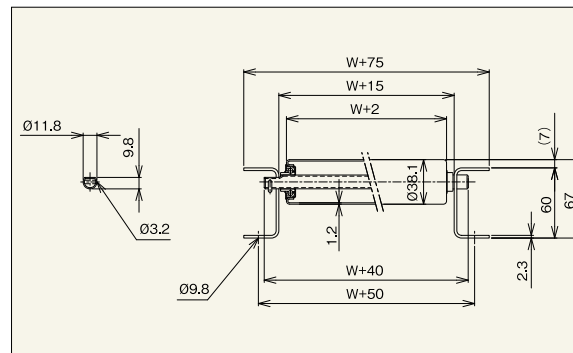
Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000			
[60×30×2.3	Steel	Baked-on coating	Y	Y	Y	Y	Y	30 / 40 50 / 75	66

R-3812P



*The connector plate is an optional extra.



[Intended Application]

Conveying light to medium loads
Ideal for conveying small items

[Product Characteristics]

1) Idler diameter is $\phi 38.1$, idler pitch is min. P50.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm.

3) Most versatile for conveying light to medium loads

4) Pressed bearing, low-cost, best-selling $\phi 38$ product.

5) [60 standard frame

Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.

Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000	
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075	
Strength of One Idler (kg)	144	144	94	80	60	48	42	38	35	32	
Conveyor Standard	50P	25.5	33.9	42.4	50.9	59.5	66.1	74.5	83.3	91.9	100.5
Weight 3,000L (kg)	75P	21.3	27.1	32.9	38.7	44.5	48.5	54.3	60.3	66.2	72.1
Idler / Shaft Standard Weight (g)	209	342	476	611	746	881	1,014	1,151	1,285	1,422	

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2. The strength changes according to the conditions of use (whether there is impact or not).

The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width					Idler Specifications		Bearing
		Model	Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free size	Material	Surface Treatment
	Minimum Width (W)							Maximum Width (W)				
R-3812P	R-3812P	38.1	1.2	12.2	100 - 1,000	W+13	100	1,000	50mm Increm.	STKM11A	Molten zinc plating	Pressed

Standard Shaft Specifications

Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) \times 1.0		W+40	Pipe	Circular/Vertical crescent pin hole	STKM11A	X

Idler Conveyor Specifications

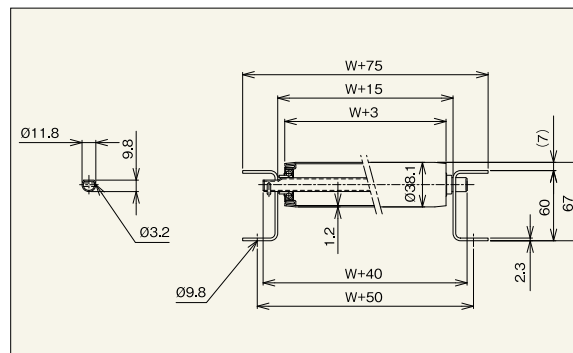
Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000			
[60×30×2.3	Steel	Baked-on coating	Y	Y	Y	Y	Y	50 / 75 100 / 150	67

R-3812PD

Compatible with R-3812P Free Size Idler



*The connector plate is an optional extra.



[Intended Application]

Conveying light to medium loads

[Product Characteristics]

1) Idler diameter is $\phi 38.1$, idler pitch is min. P50.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm. Free sizes are also possible.

3) Pressed bearing, low-cost

4) [60 standard frame

Caution 1: Please indicate the connector plate (the connecting part between conveyors) separately when required.

Caution 2: If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000	
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075	
Strength of One Idler (kg)	138	126	82	70	60	45	42	35	32	28	
Conveyor Standard	50P	26.3	34.7	43.2	51.7	60.3	66.3	75.4	84.1	92.7	101.4
Weight 3,000L (kg)	75P	21.9	27.7	33.5	39.3	45.1	48.6	54.9	60.8	66.7	72.7
Idler / Shaft Standard Weight (g)	223	356	490	625	760	885	1,028	1,165	1,299	1,436	

Caution 1: Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2: The strength changes according to the conditions of use (whether there is impact or not).

The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing		
		Model	Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment	Specifications
								Minimum Width (W)	Maximum Width (W)				
R-3812PD	R-3812PD	38.1	1.2	12.2	100 - 1,000	W+13	40	1,200	Y	STKM11A	Molten zinc plating	Pressed	

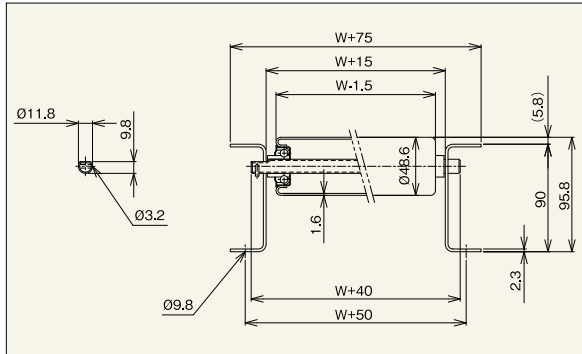
Standard Shaft Specifications

Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) \times 1.0		W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height	
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000			
[60×30×2.3	Steel	Baked-on coating	Y	Y	Y	Y	Y	50 / 75 100 / 150	67

R-4814P



[Intended Application]
Conveying medium loads
[Product Characteristics]
1) Idler diameter is $\phi 48.6$, idler pitch is min. P50.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm.
3) Pressed bearing, low-cost
4) [90 standard frame
Caution 1: Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2: If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	175	168	147	109	87	72	62	54	48	43
Conveyor Standard	75P	30.1	39.0	47.8	56.7	65.5	73.3	82.2	91.3	109.4
Weight 3,000L (kg)	100P	26.7	33.4	40.1	46.9	53.6	59.3	66.2	73.1	87.0
Idler / Shaft Standard Weight (g)	347	558	767	978	1,188	1,399	1,607	1,820	2,029	2,242

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W) Maximum Width (W)	Free Size	Material	Surface Treatment	Bearing Specifications
R-4814P	R-4814P	48.6	1.6	12.2	100 - 1,000	W+13	100 1,000	50mm Increm.	STKM	Molten zinc plating	Pressed

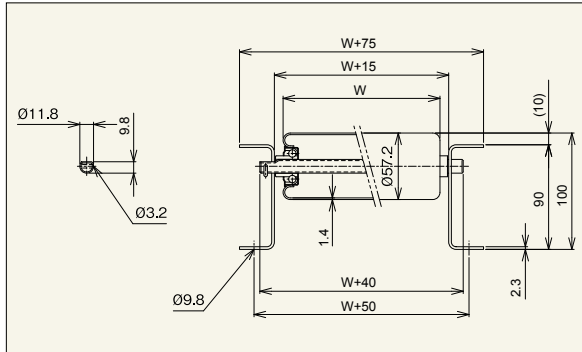
Standard Shaft Specifications

Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) \times 1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X	

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000		
[90 \times 30 \times 2.3	Steel	Baked-on coating	Y	Y	Y	Y	50 / 75 100 / 150	95.8

R-5714P



[Intended Application]
Conveying medium loads
[Product Characteristics]
1) Idler diameter is $\phi 57.2$, idler pitch is min. P75.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm.
3) Most versatile for conveying medium loads.
4) Pressed bearing, low-cost, best-selling $\phi 57$ product.
5) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	175	168	147	109	87	72	62	54	48	43
Conveyor Standard	75P	31.7	40.8	49.9	59.1	68.2	76.3	85.6	94.9	113.5
Weight 3,000L (kg)	100P	27.8	34.8	41.7	48.7	55.7	61.5	68.7	75.8	90.1
Idler / Shaft Standard Weight (g)	385	603	820	1,038	1,256	1,474	1,690	1,910	2,127	2,347

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W) Maximum Width (W)	Free Size	Material	Surface Treatment	Bearing Specifications
R-5714P	R-5714P	57.2	1.4	12.2	100 - 1,000	W+13	100 1,000	50mm Increm.	STKM11A-S	Molten zinc plating	Pressed

Standard Shaft Specifications

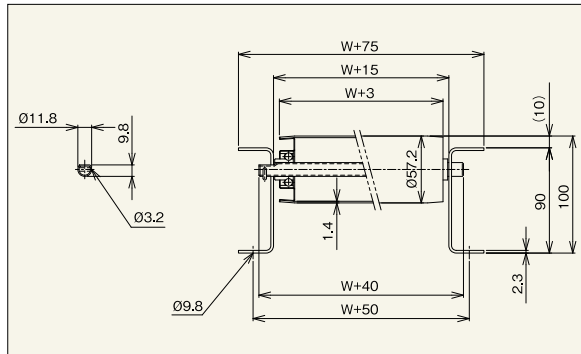
Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) \times 1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X	

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000		
[90 \times 30 \times 2.3	Steel	Baked-on coating	Y	Y	Y	Y	75 / 100 150 / 200	100

R-5714PD

Compatible with R-5714P Free Size Idler



[Intended Application]
Conveying light to medium loads
[Product Characteristics]
1) Idler diameter is $\phi 57.2$, idler pitch is min. P75.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm. Free sizes are also possible.
3) Pressed bearing, low-cost
4) [90 standard frame
Caution 1: Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2: If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	175	168	147	109	87	72	62	54	48	43
Conveyor Standard	75P	33.8	42.8	51.9	61.1	70.1	78.2	87.4	96.8	115.3
Weight 3,000L (kg)	100P	29.4	36.3	43.2	50.2	57.1	62.9	70.1	77.2	91.5
Idler / Shaft Standard Weight (g)	437	654	870	1,087	1,304	1,521	1,737	1,956	2,172	2,391

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W) Maximum Width (W)	Free Size	Material	Surface Treatment	Bearing Specifications
R-5714PD	R-5714PD	57.2	1.4	12.2	100 - 1,000	W+13	50 1,500	Y	STKM11A-S	Molten zinc plating	Pressed

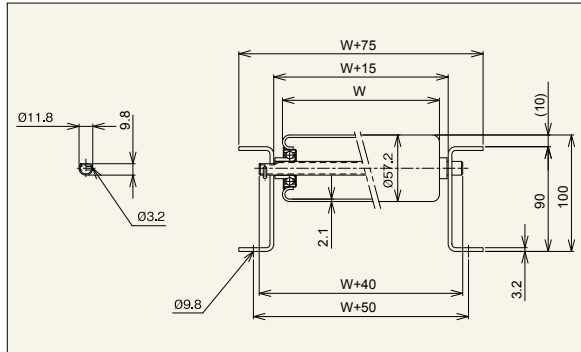
Standard Shaft Specifications

Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) \times 1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X	

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Heights				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000		
[90 \times 30 \times 2.3	Steel	Baked-on coating	Y	Y	Y	Y	75 / 100 150 / 200	100

R-5721



[Intended Application]
Conveying medium loads
[Product Characteristics]
1) Idler diameter is $\phi 57.2$, wall thickness is t2.1, improved impact resistance, idler pitch is min. P75.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm.
3) High quality with precision-machined bearing
4) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	180	170	150	110	90	75	65	55	50	45
Conveyor Standard	75P	40.0	52.3	65.6	78.4	91.3	103.0	116.0	129.0	155.0
Weight 3,000L (kg)	100P	35.5	45.2	54.9	64.6	74.4	83.0	92.9	102.8	122.6
Idler / Shaft Standard Weight (g)	452	762	1,071	1,381	1,691	2,001	2,309	2,621	2,930	3,242

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W) Maximum Width (W)	Free Size	Material	Surface Treatment	Bearing Specifications
R-5721	R-5721	57.2	2.1	12.2	100 - 1,000	W+13	100 1,000	50mm Increm.	STKM	Molten zinc plating	Precision-machined

Standard Shaft Specifications

Nominal Diameter (Actual Diameter) \times Thickness (ϕ)	Wall Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) \times 1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X	

Idler Conveyor Specifications

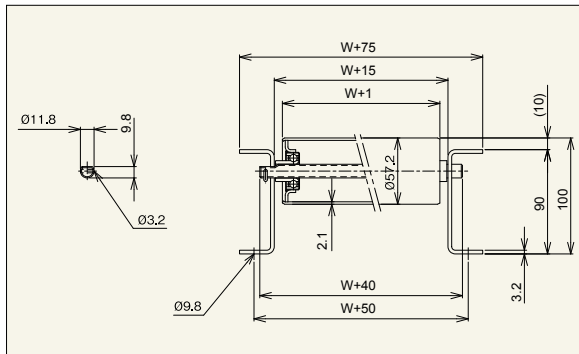
Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
			1,000	1,500	2,000	3,000		
[90 \times 30 \times 3.2	Steel	Baked-on coating	Y	Y	Y	Y	75 / 100 150 / 200	100

R-5721D

Compatible with R-5721 Free Size Idler



*The connector plate is an optional extra.



[Intended Application]
Conveying light to medium loads
[Product Characteristics]
1) Idler diameter is $\phi 57.2$, wall thickness is $t2.1$, improved impact resistance, idler pitch is min. P75.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm. Free sizes are also possible.
3) High quality with precision-machined bearing
4) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	180	170	150	110	90	75	65	55	50	45
Conveyor Standard	75P	42.8	55.1	68.4	81.2	94.1	105.8	118.8	131.8	144.8
Weight 3,000L (kg)	100P	37.6	47.3	57.0	66.7	76.5	85.1	95.0	104.9	114.8
Idler / Shaft Standard Weight (g)	522	832	1,141	1,451	1,761	2,071	2,379	2,691	3,000	3,312

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Bearing
R-5721D	R-5721D	57.2	2.1	12.2	100 - 1,000	W+13	Minimum Width (W)	Maximum Width (W)	Y	STKM	Precision-machined

Standard Shaft Specifications

Nominal Diameter (Actual Diameter) × Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) × 1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X

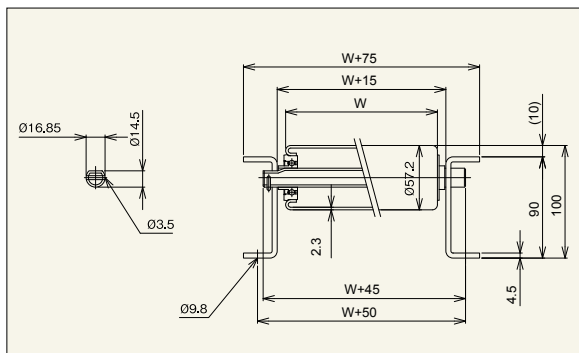
Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height (Idler Upper Surface) H
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	
			1,000	1,500	2,000	3,000		
[90×30×3.2	Steel	Baked-on coating	Y	Y	Y	Y	75 / 100 150 / 200	100

R-5723



*The connector plate is an optional extra.



[Intended Application]
Conveying heavy loads
[Product Characteristics]
1) Idler diameter is $\phi 57.2$, wall thickness is $t2.3$, highly versatile for heavy loads. Idler pitch is min. P75.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm.
3) High quality with precision-machined bearing
4) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	390	360	328	280	224	177	160	132	112	104
Conveyor Standard	75P	55.8	71.7	87.7	103.7	119.6	131.4	147.4	163.3	179.4
Weight 3,000L (kg)	100P	49.8	61.8	74.0	86.2	98.2	106.1	118.3	130.4	142.6
Idler / Shaft Standard Weight (g)	607	990	1,374	1,758	2,142	2,526	2,910	3,294	3,679	4,063

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Bearing
R-5723	R-5723	57.2	2.3	17.2	100 - 1,000	W+13	Minimum Width (W)	Maximum Width (W)	50mm Increm.	STKM	Precision-machined

Standard Shaft Specifications

Nominal Diameter (Actual Diameter) × Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
17 (16.85) × 2.0	W+45	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X

Idler Conveyor Specifications

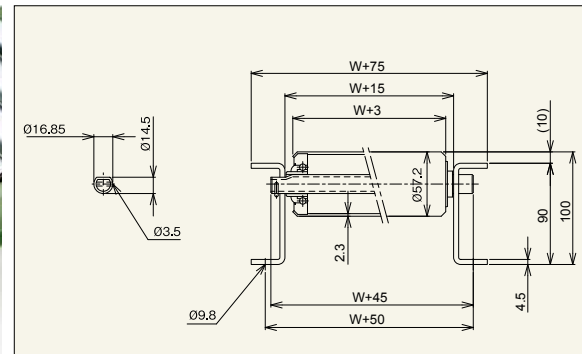
Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height (Idler Upper Surface) H
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	
			1,000	1,500	2,000	3,000		
[90×30×4.5	Steel	Baked-on coating	Y	Y	Y	Y	75 / 100 150 / 200	100

R-5723D

Compatible with R-5723 Free Size Idler



*The connector plate is an optional extra.



[Intended Application]
Conveying heavy loads
[Product Characteristics]
1) Idler diameter is $\phi 57.2$, wall thickness is $t2.3$, idler pitch is min. P75.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm. Free sizes are also possible.
3) High quality with precision-machined bearing
4) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	390	360	328	280	224	177	160	132	112	104
Conveyor Standard	75P	70.2	86.2	102.2	118.2	134.2	146.0	162.0	178.0	194.0
Weight 3,000L (kg)	100P	60.6	72.7	84.9	97.1	109.1	117.0	129.2	141.4	153.6
Idler / Shaft Standard Weight (g)	969	1,352	1,737	2,122	2,506	2,891	3,275	3,660	4,045	4,429

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Bearing
R-5723D	R-5723D	57.2	2.3	17.2	100 - 1,000	W+13	Minimum Width (W)	Maximum Width (W)	Y	STKM	Precision-machined

Standard Shaft Specifications

Nominal Diameter (Actual Diameter) × Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
17 (16.85) × 2.0	W+45	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X

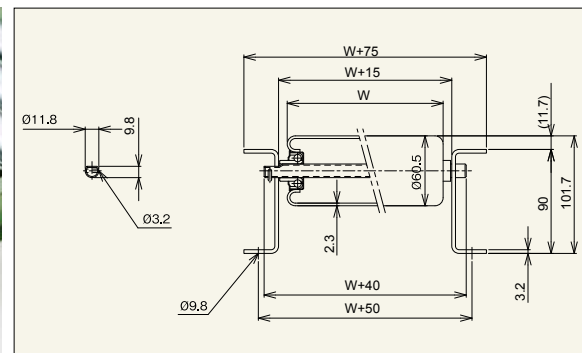
Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height (Idler Upper Surface) H
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	
			1,000	1,500	2,000	3,000		
[90×30×4.5	Steel	Baked-on coating	Y	Y	Y	Y	75 / 100 150 / 200	100

R-6023P



*The connector plate is an optional extra.



[Intended Application]
Conveying medium loads
[Product Characteristics]
1) Idler diameter is $\phi 60.5$, wall thickness is $t2.3$, idler pitch is min. P75.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm.
3) Pressed bearing, low-cost
4) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	180	170	150	110	90	75	65	55	50	45
Conveyor Standard	75P	42.6	57.2	71.8	86.4	101.0	114.5	129.3	144.2	159.0
Weight 3,000L (kg)	100P	37.4	48.5	59.5	70.6	81.7	91.7	102.9	114.2	125.4
Idler / Shaft Standard Weight (g)	516	871	1,225	1,580	1,935	2,290	2,643	3,000	3,354	3,761

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Bearing
R-6023P	R-6023P	60.5	2.3	12.2	100 - 1,000	W+13	Minimum Width (W)	Maximum Width (W)	50mm Increm.	STKM	Pressed

Standard Shaft Specifications

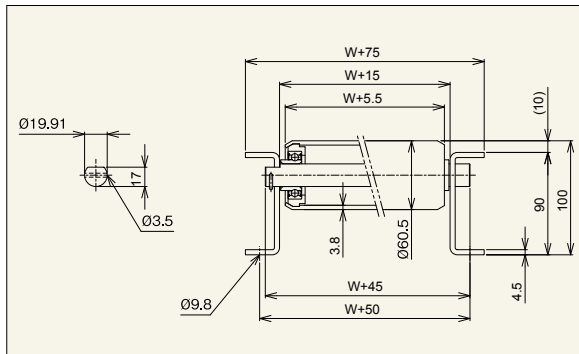
Nominal Diameter (Actual Diameter) × Thickness (t)	Shaft Length (mm)	Shape	Finish	Material	Plating
12 (11.8) × 1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height (Idler Upper Surface) H
Height x Width x Wall Thickness l x K x t	Material	Surface Treatment	Unit Length L				Pitch P	
			1,000	1,500	2,000	3,000		
[90×30×3.2	Steel	Baked-on coating	Y	Y	Y	Y	75 / 100 150 / 200	101.7

Steel Idler Conveyor M Series

R-6038SB



[Intended Application] Conveying heavy loads
[Product Characteristics]
1) We have changed the precision-machined bearing of the previous model R-6038 to a bearing that meets standards, improving the quality of the idler.
2) Idler diameter is $\phi 60.5$, wall thickness is $t \ 3.8$, idler pitch is min. P75.
3) Idler width (nominal) is 100W-1,000W in standard increments of 50mm. Free sizes are also possible.
4) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	475	475	475	475	475	475	450	420	400	380
Conveyor Standard	75P	77.9	109.8	140.3	170.8	201.2	231.2	292.5	323.0	353.4
Load 3,000L (kg)	100P	65.8	90.2	113.2	136.2	159.2	181.9	205.2	228.2	274.1
Idler / Shaft Standard Weight (g)	1,215	1,961	2,707	3,454	4,199	4,943	5,690	6,436	7,182	7,927

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment
							Minimum Width (W)	Maximum Width (W)			
R-6038SB	R-6038SB	60.5	3.8	20.0	100 - 1,000	W+13	50	1,500	Y	SGP50A	None/Black surface

Standard Shaft Specifications

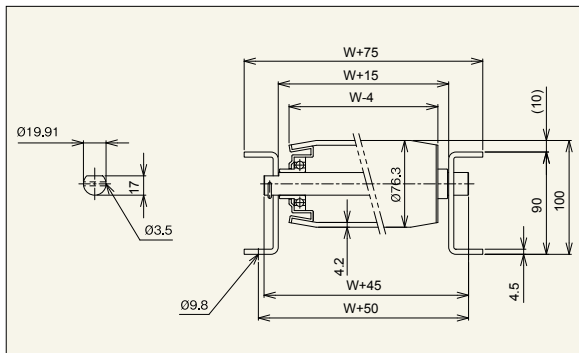
Shaft Diameter (ϕ) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Plating
20 (19.91)	W+45	Circular rod	Circular/Horizontal crescent pin hole	SS400	X

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P
			1,000	1,500	2,000	3,000		
[90x30x4.5	Steel	Baked-on coating	Y	Y	Y	Y	Y	75 / 100 150 / 200

Caution: If you are supplying your own shafts, please ensure that the shaft diameter has a negative tolerance.

R-7642N



[Intended Application] Conveying heavy loads
[Product Characteristics]
1) Idler diameter is $\phi 76.3$, wall thickness is $t \ 4.2$, idler pitch is min. P100.
2) Idler width (nominal) is 100W-1,000W in standard increments of 50mm. Free sizes are also possible.
3) High quality with precision-machined bearing
4) [90 standard frame
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800	900	1,000
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875	975	1,075
Strength of One Idler (kg)	550	550	550	550	550	550	520	488	456	425
Conveyor Standard	100P	76.4	106.6	136.8	167.1	197.3	223.3	253.5	283.7	344.1
Load 3,000L (kg)	150P	61.5	81.8	102.1	122.5	142.8	159.0	179.4	199.6	240.3
Idler / Shaft Standard Weight (g)	1,495	2,482	3,469	4,456	5,443	6,430	7,417	8,404	9,391	10,378

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment
							Minimum Width (W)	Maximum Width (W)			
R-7642N	R-7642N	76.3	4.2	20.2	100 - 1,000	W+13	100	1,500	Y	SGP65A	None/Black surface

Standard Shaft Specifications

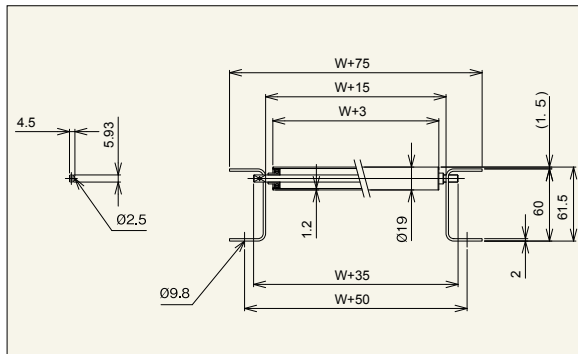
Shaft Diameter (ϕ) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Plating
20 (19.9)	W+45	Circular rod	Circular/Horizontal crescent pin hole	SS400	X

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P
			1,000	1,500	2,000	3,000		
[90x30x4.5	Steel	Baked-on coating	Y	Y	Y	Y	Y	100 / 150 200 / 300

Stainless Steel Idler Conveyor M Series

RS-1912



[Intended Application] Conveying very light loads
Ideal for conveying small items
[Product Characteristics]
1) Idler diameter is $\phi 19.0$, idler pitch is min. P25.
2) Idler width (nominal) is 100W-500W in standard increments of 50mm. Free sizes are also possible.
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. The shaft stopper will be a wire stopper.
Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500
Unit Width W+75 (mm)	175	275	375	475	575
Strength of One Idler (kg)	44	35	23	17	14
Conveyor Standard	25P	25.6	33.4	41.3	49.1
Weight 3,000L (kg)	30P	21.5	27.2	32.9	38.7
Idler / Shaft Standard Weight (g)	102	155	208	261	314

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment
							Minimum Width (W)	Maximum Width (W)			
RS-1912	RS-1912	19.0	1.2	6.2	100 - 500	W+13	40	500	Y	SUS304	#400 Polish

*Free size refers to idler widths W outside of the usual 50mm increments. If a 'Y' is shown then manufacturing different sizes is possible.

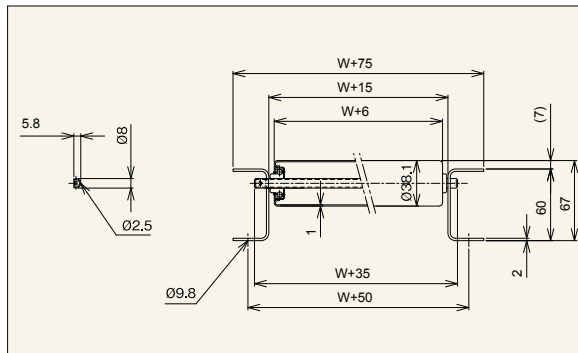
Standard Shaft Specifications

Shaft Diameter (ϕ) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment
6 (5.93)	W+35	Circular rod	Circular/Vertical Crescent Pin Hole	SUS304	None

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P
			1,000	1,500	2,000	3,000		
[60x30x2	SUS304	2B material	Y	Y	Y	Y	Y	25 / 30 / 40

RS-3810-8



[Intended Application] Conveying light loads
Ideal for conveying small items
[Product Characteristics]
1) Idler diameter is $\phi 38.1$, idler pitch is min. P50.
2) Idler width (nominal) is 100W-600W in standard increments of 50mm.
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600
Unit Width W+75 (mm)	175	275	375	475	575	675
Strength of One Idler (kg)	75	70	46	35	28	23
Conveyor Standard	50P	24.3	32.4	40.5	48.6	56.7
Weight 3,000L (kg)	75P	20	25.5	31.1	36.6	42.2
Idler / Shaft Standard Weight (g)	217	345	473	601	729	857

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.

Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit Model	Idler Dimensions			Idler Width				Idler Specifications		
		Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment
							Minimum Width (W)	Maximum Width (W)			
RS-3810	RS-3810-8	38.1	1.0	8.2	100 - 600	W+13	100	600	50mm Incrm.	SUS304	#400 Polish

*Free size refers to idler widths W outside of the usual 50mm increments. If a 'Y' is shown then manufacturing different sizes is possible.

Standard Shaft Specifications

Shaft Diameter (ϕ) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment
8.0x0.8	W+35	Pipe	Circular/Vertical crescent pin hole	SUS304	#400 Polish

Idler Conveyor Specifications

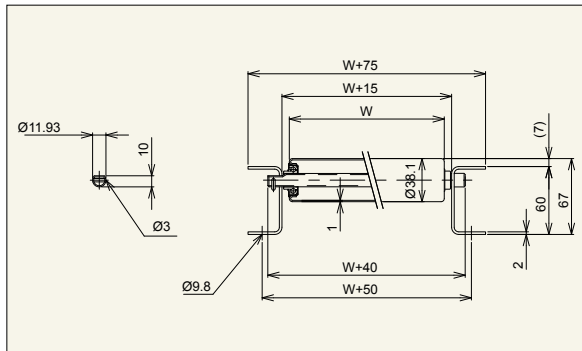
Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P
			1,000	1,500	2,000	3,000		
[60x30x2	SUS304	2B Material	Y	Y	Y	Y	Y	50 / 75 100 / 150

Stainless Steel Idler Conveyor M Series

RS-3810-12



*The connector plate is an optional extra.



[Intended Application]
Conveying light loads
Ideal for conveying small items
[Product Characteristics]
1) Idler diameter is $\phi 38.1$, idler pitch is min. P50.
2) Idler width (nominal) is 100W-600W in standard increments of 50mm.
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600
Unit Width W+75 (mm)	175	275	375	475	575	675
Strength of One Idler (kg)	85	85	70	65	55	45
Conveyor Standard	50P	22.4	29.1	36.9	43.4	51.1
Weight 3,000L (kg)	75P	18.6	23.4	28.6	33.2	38.3
Idler / Shaft Standard Weight (g)	184	290	410	514	634	732

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width					Idler Specifications		Bearing
	Model	Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W)	Possible Width Maximum Width (W)	Free size	Material	Surface Treatment	Specifications
RS-3810-12	RS-3810-12	38.1	1.0	12.2	100 - 600	W+13	100	600	50mm Increm.	SUS304	#400 Polish	Pressed

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications

Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment
12×1.0	W+35	Pipe	Circular/Vertical crescent pin hole	SUS304	#400 Polish

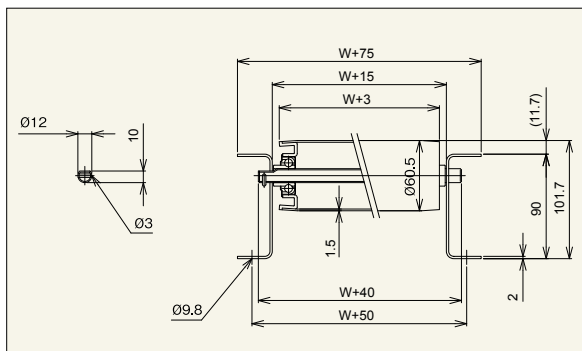
Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
[60×30×2]	SUS304	2B Material	1,000	1,500	2,000	3,000	50 / 75 100 / 150	67
			Y	Y	Y	Y		

ARS-6015



*The connector plate is an optional extra.



[Intended Application]
Conveying light to medium loads
[Product Characteristics]
1) Idler diameter is $\phi 60.5$, idler pitch is min. P75.
2) Idler width (nominal) is 100W-800W in standard increments of 50mm. Free sizes are also possible.
3) Pressed bearing, low-cost
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600	700	800
Unit Width W+75 (mm)	175	275	375	475	575	675	775	875
Strength of One Idler (kg)	135	120	110	90	70	60	50	45
Conveyor Standard	75P	34.6	47.8	61	74.3	87.5	100.1	113.3
Weight 3,000L (kg)	100P	29.5	39.5	49.5	59.6	69.6	79.0	89.0
Idler / Shaft Standard Weight (g)	473	781	1,089	1,397	1,705	2,013	2,321	2,629

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing	
	Model	Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Surface Treatment	Specifications
							Minimum Width (W)	Maximum Width (W)				
ARS-6015	ARS-6015	60.5	1.5	12.2	100 - 800	W+13	100	1,000	Y	SUS304	#400 Polish	SUS pressed

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications

Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment
12.0×1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	SUS304	#400 Polish

Idler Conveyor Specifications

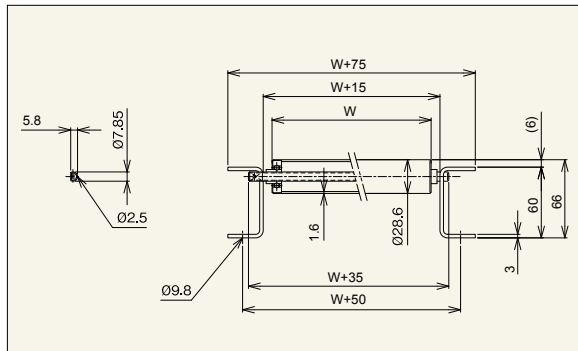
Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
[90×30×2]	SUS304	2B Material	1,000	1,500	2,000	3,000	75 / 100 / 150	101.7
			Y	Y	Y	Y		

Aluminum Idler Conveyor M Series

RA-2816



*The connector plate is an optional extra.



[Intended Application]
Conveying light loads
Ideal for conveying small items
[Product Characteristics]
1) Idler diameter is $\phi 28.6$, idler pitch is min. P40.
2) Idler width (nominal) is 100W-500W in standard increments of 50mm. Free sizes are also possible.
3) High quality with precision-machined bearing
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. The shaft stopper will be a wire stopper if the idler pitch is below P50.
Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500
Unit Width W+75 (mm)	175	275	375	475	575
Strength of One Idler (kg)	50	50	42	31	25
Conveyor Standard	40P	13.5	18	22.6	27.1
Weight 3,000L (kg)	50P	12	15.7	19.4	23.2
Idler / Shaft Standard Weight (g)	100	155	210	265	320

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing	
	Model	Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W)	Possible Width Maximum Width (W)	Free Size	Material	Surface Treatment	Specifications
RA-2816	RA-2816	28.6	1.6	8.2	100 - 500	W+13	40	500	Y	Aluminum	Alumite finish	Precision-machined

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications

Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment
8 (7.85)×0.8	W+35	Pipe	Circular/Vertical crescent pin hole	STKM11A	Tri-chrome plating

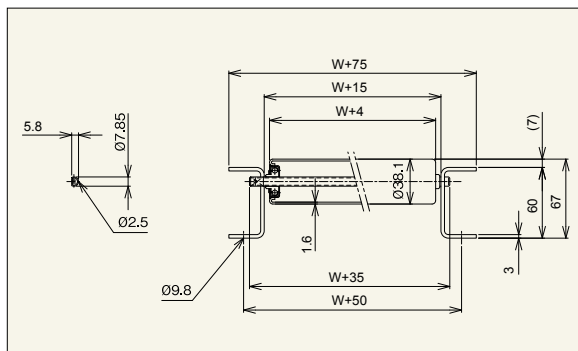
Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I x K x t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
[60×30×3]	Aluminum	Alumite finish	1,000	1,500	2,000	3,000	40 / 50 / 75	66
			Y	Y	Y	Y		

RA-3816



*The connector plate is an optional extra.



[Intended Application]
Conveying light loads
[Product Characteristics]
1) Idler diameter is $\phi 38.1$, idler pitch is min. P50.
It is the most versatile out of our aluminum idler models
2) Idler width (nominal) is 100W-600W in standard increments of 50mm.
3) Pressed bearing, low cost
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. The shaft stopper will be a wire stopper if the idler pitch is below P50.
Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.

Unit Width / Idler Strength / Standard Weight

Idler Width (Nominal) W (mm)	100	200	300	400	500	600
Unit Width W+75 (mm)	175	275	375	475	575	675
Strength of One Idler (kg)	50	50	42	31	25	21
Conveyor Standard	50P	12.6	16.9	21.2	25.6	29.9
Weight 3,000L (kg)	75P	10.4	13.4	16.4	19.5	22.5
Idler / Shaft Standard Weight (kg)	110	175	240	305	370	435

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications

Conveyor Model	Idler Unit	Idler Dimensions			Idler Width					Idler Specifications		Bearing
	Model	Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W)Maximum Width (W)		Free Size	Material	Surface Treatment	Specifications
RA-3816	RA-3816	38.1	1.6	8.2	100 - 600	W+13	100	600	50mm increm.	Aluminum	Alumite finish	Pressed

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

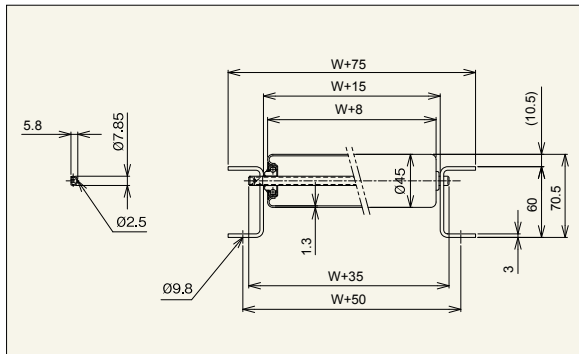
Standard Shaft Specifications

Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment
8 (7.85)×0.8	W+35	Pipe	Circular/Vertical crescent pin hole	STKM11A	Tri-chrome plating

Idler Conveyor Specifications

Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height
Height x Width x Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				Pitch P	(Idler Upper Surface) H
[60×30×3]	Aluminum	Alumite finish	1,000	1,500	2,000	3,000	50 / 75 / 100	67
			Y	Y	Y	Y		

RA-4515



[Intended Application]
Conveying light loads
[Product Characteristics]
1) Idler diameter is $\phi 45.0$, idler pitch is min. P50.
2) Idler width (nominal) is 100W-600W in standard increments of 50mm.
3) Pressed bearing, low cost
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. The shaft stopper will be a wire stopper if the idler pitch is below P50.
Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.



Unit Width/Idler Strength/Approximate Conveyor Weight						
Idler Width (Nominal) W (mm)	100	200	300	400	500	600
Unit Width W+75 (mm)	175	275	375	475	575	675
Strength of One Idler (kg)	50	50	42	31	25	21
Conveyor Standard	50P	14.0	18.7	23.5	28.2	33.0
Weight 3,000L (kg)	75P	11.3	14.6	17.9	21.2	24.5
Idler / Shaft Standard Weight (g)	133	205	277	349	421	493

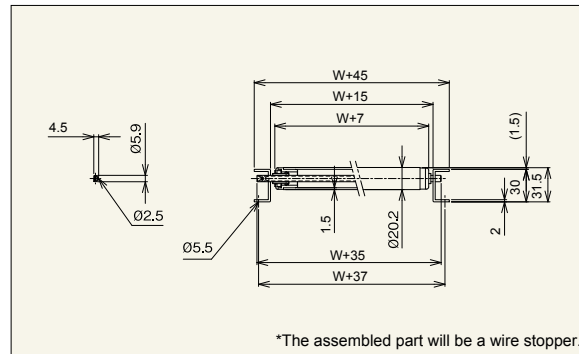
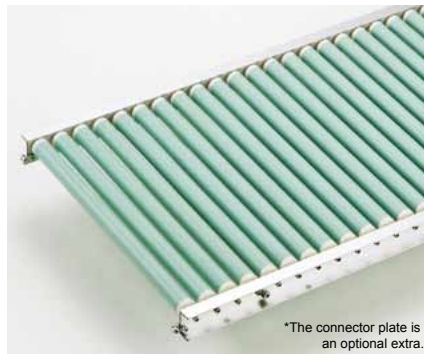
Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.
*Can be changed to an SUS bearing. (Model RA-4515SUS)

Idler Unit Specifications (Unit: mm)											
Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing
	Model	Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width Maximum Width (W)	Free Size	Material	Surface Treatment	Specifications
RA-4515	RA-4515	45.0	1.3	8.2	100 - 600	W+13	100 600	50mm increm.	Aluminum	Alumite finish	Pressed

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications						Idler Conveyor Specifications										(Unit: mm)	
Standard Shaft Specifications						Frame Specifications				Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height	
Shaft Diameter (φ) Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment	Height × Width × Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	Idler Upper Surface H		
									1,000	1,500	2,000	3,000					
8 (7.85)×0.8	W+35	Pipe	Circular/vertical crescent pin hole	STKM11A	Tri-chrome plating	[60×30×3]	Aluminum	Alumite finish	Y	Y	Y	Y	Y	50 / 75 / 100	70.5		

JR-2015B



[Intended Application]
Conveying very light loads
Ideal for conveying small items
[Product Characteristics]
1) Idler diameter is $\phi 20.2$, idler pitch is min. P25.
2) Idler width (nominal) is 100W-400W in standard increments of 50mm. Free sizes are also possible.
3) Aluminum [30 low-floor frame
Caution 1. Please indicate the connector fittings (the connecting part between conveyors) separately when required.
Caution 2. The shaft stopper will be a wire stopper.
Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.



Unit Width / Idler Strength / Standard Weight				
Idler Width(Nominal) W (mm)	100	200	300	400
Unit Width W+45 (mm)	145	245	345	345
Strength of One Idler (kg)	11.5	10.7	10	9.2
Conveyor Standard	25P	4.3	6.4	8.5
Weight 2,000L(kg)	30P	3.8	5.7	7.5
Idler / Shaft Standard Weight (g)	33	55	78	100



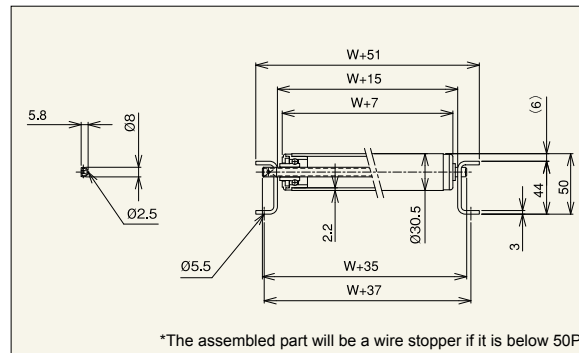
Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications (Unit: mm)											
Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications	Bearing	
	Model	Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width Maximum Width (W)	Free Size	Material	Specifications	
JR-2015B	JR-2015B	20.2	1.5	6.2	100 - 400	W+13	40 400	Y	ABS	SUS balls in resin case	

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications						Idler Conveyor Specifications									(Unit: mm)	
Standard Shaft Specifications						Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height		
Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment	Height × Width × Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H	
									1,000	1,500	2,000	3,000				
6 (5.9)×0.7	W+35	Pipe	Circular/Vertical crescent pin hole	STKM11A	Tri-chrome plating	[30×15×2	Aluminum	Alumite finish	Y	Y	Y	X	Y	25 / 30 / 40	31.5	

JR-3018B



[Intended Application]
Conveying very light loads
Ideal for conveying small items
[Product Characteristics]
1) Idler diameter is $\phi 30.5$, idler pitch is min. P40.
2) Idler width (nominal) is 100W-500W in standard increments of 50mm. Free sizes are also possible.
3) Aluminum frame
Caution 1. Please indicate the connector fittings (the connecting part between conveyors) separately when required.
Caution 2. The shaft stopper will be a wire stopper if the idler pitch is below P50.
Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.



Unit Width / Idler Strength / Standard Weight				
Idler Width(Nominal) W (mm)	100	200	300	400
Unit Width W+51 (mm)	151	251	351	451
Strength of One Idler (kg)	16.5	15.7	15	14.2
Conveyor Standard	40P	7.2	10.8	14.4
Weight 3,000L (kg)	50P	6.2	9.2	12.2
Idler / Shaft Standard Weight (g)	64	106	149	191



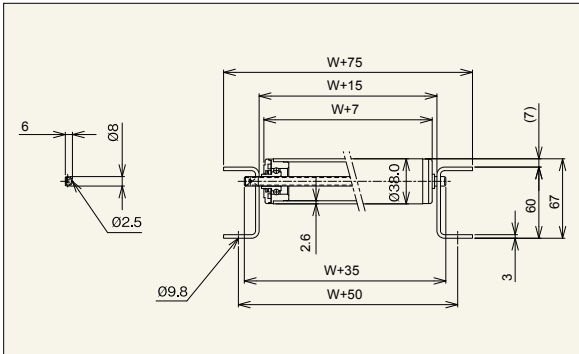
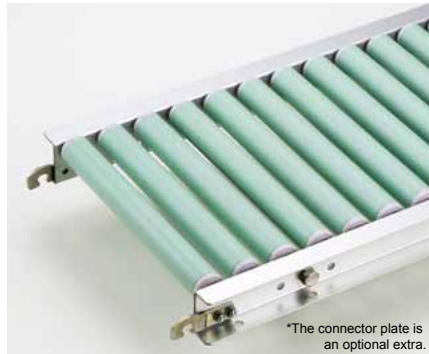
Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications (Unit: mm)											
Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications	Bearing	
	Model	Outer Diameter (ϕ)	Wall Thickness (t)	Shaft Indent (ϕ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width Maximum Width (W)	Free Size	Material	Specifications	
JR-3018B	JR-3018B	30.5	2.2	8.2	100 - 500	W+13	40 500	Y	ABS	SUS balls in resin case	

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications						Idler Conveyor Specifications									(Unit: mm)	
Standard Shaft Specifications						Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height		
Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment	Height × Width × Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H	
									1,000	1,500	2,000	3,000				
8×0.8	W+35	Pipe	Circular/Vertical crescent pin hole	SUS304	#400 Polish	[44×18×3	Aluminum	Alumite finish	Y	Y	Y	Y	Y	40 / 50 / 75	50	

JR-3823



[Intended Application]
Conveying very light loads
[Product Characteristics]
1) Idler diameter is $\phi 38.0$, idler pitch is min. P50.
2) Idler width (nominal) is 100W-500W in standard increments of 50mm. Free sizes are also possible.
3) Aluminum frame
Caution 1. Please indicate the connector hook (the connecting part between conveyors) separately when required.
Caution 2. The shaft stopper will be a wire stopper if the idler pitch is below P50.
Caution 3. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.



Unit Width / Idler Strength / Standard Weight					
Idler Width (Nominal) W (mm)	100	200	300	400	500
Unit Width W+75 (mm)	175	275	375	475	575
Strength of One Idler (kg)	21.5	20.7	20.0	19.2	18.5
Conveyor Standard	50P	11.4	15.1	18.7	22.4
Weight 3,000L (kg)	75P	9.6	12.2	14.8	17.3
Idler / Shaft Standard Weight (g)	90	144	198	252	306



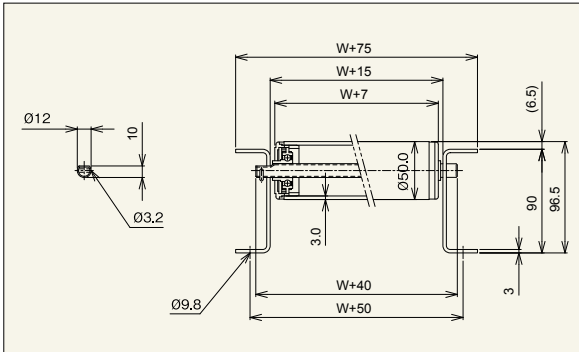
*The idlers also come in ivory.
Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications					approximate values, and are not guaranteed.					(Unit: mm)	
Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications	Bearing	
	Model	Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Specifications
							Minimum Width (W)	Maximum Width (W)			
JR-3823	JR-3823	38.0	2.6	8.2	100 - 500	W+13	40	500	Y	ABS	SUS balls in resin case

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications						Idler Conveyor Specifications										(Unit: mm)	
Standard Shaft Specifications						Frame Specifications			Manufactured Range of Standard Lengths					Standard Idler Pitch	Unit Height		
Shaft Diameter (φ) Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment	Height x Width x Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H		
									1,000	1,500	2,000	3,000					
8×0.8	W+35	Pipe	Circular/Vertical crescent pin hole	SUS304	#400 Polish	[60×30×3	Aluminum	Alumite finish	Y	Y	Y	Y	Y	50 / 75 100 / 150	67		

JR-5028



[Intended Application]
Conveying very light loads
[Product Characteristics]
1) Idler diameter is $\phi 50.3$, idler pitch is min. P75.
2) Idler width (nominal) is 100W-600W in standard increments of 50mm. Free sizes are also possible.
3) Aluminum frame
Caution 1. Please indicate the connector fittings (the connecting part between conveyors) separately when required.
Caution 2. If the idler pitch (P) is not cleanly divisible, then a suitable pitch (P) will be chosen.



Unit Width / Idler Strength / Standard Weight					
Idler Width (Nominal) W (mm)	100	200	300	400	500
Unit Width W+75 (mm)	175	275	375	475	575
Strength of One Idler (kg)	32	31	30.0	29.5	28.5
Conveyor Standard	75P	13.4	17.6	21.9	26.1
Weight 3,000L (kg)	100P	11.9	15.2	18.5	21.8
Idler / Shaft Standard Weight (g)	147	242	338	434	529



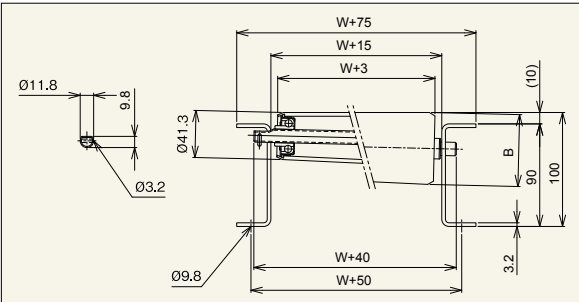
*The idlers also come in ivory.
Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

		Idler Unit Specifications				chart are approximate values, and are not guaranteed.					(Unit: mm)	
Conveyor Model	Idler Unit	Idler Dimensions			Idler Width					Idler Specifications	Bearing	
	Model	Outer Diameter (φ)	Wall Thickness (t)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width		Free Size	Material	Specifications	
							Minimum Width (W)	Maximum Width (W)				
JR-5028	JR-5028	50.0	3.0	12.2	100 - 600	W+13	40	600	Y	ABS	SUS balls in resin case	

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications						Idler Conveyor Specifications									(Unit: mm)	
Standard Shaft Specifications						Frame Specifications			Manufactured Range of Standard Lengths				Standard Idler Pitch	Unit Height		
Shaft Diameter (φ) x Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Surface Treatment	Height x Width x Wall Thickness I×K×t	Material	Surface Treatment	Unit Length L				R900 Inner Curve	Pitch P	(Idler Upper Surface) H	
									1,000	1,500	2,000	3,000				
12.0×1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	SUS304	#400 Polish	[90×30×3	Aluminum	Alumite finish	Y	Y	Y	Y	Y	75 / 100 150 / 200	96.5	

R-TC700



[Intended Application]
Conveying light to medium loads
[Product Characteristics]
1) For use with inner R700 (mm), with an angle of 90°.
2) Idler width (nominal) is 200W-600W in standard increments of 50mm. Free sizes are also possible.
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. A suitable idler pitch (P) will be chosen.



Unit Width / Idler Strength / Standard Weight					
Idler Width(Nominal) W (mm)	200	300	400	500	600
Unit Width W+75 (mm)	275	375	475	575	675
Idler Small	Idler Outer Diameter (φ)	41.3	41.3	41.3	41.3
Diameter Side	Wall Thickness (t)	3.3	3.3	3.3	3.3
Idler Large	Idler Outer Diameter (φ)	52.2	57.6	63.1	68.6
Diameter Side B	Wall Thickness (t)	2.5	2.4	2.4	2.3
Strength of One Idler (kg)		170	117	87	68
Conveyor Standard	75P	28.6	37.4	46.4	55.2
Weight 700R×90° (kg)	100P	23.8	30.7	37.7	44.5
Idler / Shaft Standard Weight (g)		946	1,338	1,739	2,129

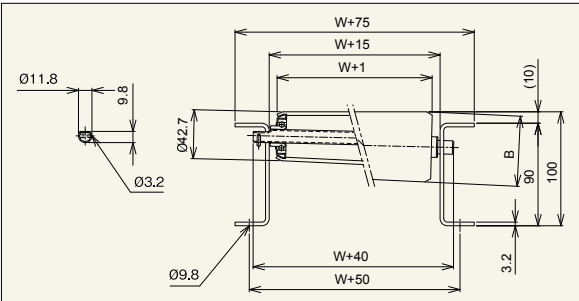
Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications												
Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing	
	Model	Small Diameter Side (φ)	Large Diameter Side B (φ)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W)	Maximum Width (W)	Free Size	Material	Surface Treatment	Specifications
R-TC700	R-TC700	41.3	See above	12.2	200 - 600	W+13	200	600	Y	STKM	Unichrome plating	Precision-machined

*Free size refers to idler widths W outside of the usual 50mm increments. If a "Y" is shown then manufacturing different sizes is possible.

Standard Shaft Specifications						Idler Conveyor Specifications							
Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Plating	Frame Specifications			Curve	Standard Idler Pitch	Unit Height	Number of Idlers	
						Height × Width × Wall Thickness I×K×t	Material	Surface Treatment	Dimensions of Inner R	Pitch P	(Idler Upper Surface) H		
12 (11.8)×1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X	[90×30×3.2	Steel	Baked-on coating	700	75 / 100 / 150	100	75P	20
												100P	15
												150P	10

R-TCN900 (Lower Cost Model)



[Intended Application]
Conveying light to medium items
[Product Characteristics]
1) For use with inner R900 (mm), with an angle of 90°.
2) Idler width (nominal) is 300W-800W in standard increments of 100mm.
3) The smaller diameter side of the idler is $\phi 42.7$
Caution 1. Please indicate the connector plate (the connecting part between conveyors) separately when required.
Caution 2. A suitable idler pitch (P) will be chosen.



Unit Width / Idler Strength / Standard Weight					
Idler Width(Nominal) W (mm)	300	400	500	600	700
Unit Width W+75 (mm)	375	475	575	675	775
Idler Small	Idler Outer Diameter (φ)	42.7	42.7	42.7	42.7
Diameter Side	Wall Thickness (t)	3.2	3.2	3.1	3.1
Idler Large	Idler Outer Diameter (φ)	56.8	61.3	66.4	71.3
Diameter Side B	Wall Thickness (t)	2.1	2.1	2.1	2.0
Strength of One Idler (kg)		117	87	68	56
Conveyor Standard	75P	41.1	50.5	60.0	69.6
Weight 900R×90° (kg)	100P	35.0	42.6	50.2	57.9
Idler / Shaft Standard Weight (g)		1,232	1,600	1,970	2,343

Caution 1. Idler strength has been calculated using the standard specifications of our company's standard conveyors and shafts. Please take care if you are providing your own shafts or frame.
Caution 2. The strength changes according to the conditions of use (whether there is impact or not). The values given in the chart are approximate values, and are not guaranteed.

Idler Unit Specifications												
Conveyor Model	Idler Unit	Idler Dimensions			Idler Width				Idler Specifications		Bearing	
	Model	Small Diameter Side (φ)	Large Diameter Side B (φ)	Shaft Indent (φ)	Standard Idler Width (Nominal) W	Standard Full Idler Length BB	Possible Width Minimum Width (W)	Maximum Width (W)	Free Size	Material	Surface Treatment	Specifications
R-TCN900	R-TCN900	42.7	See above	12.2	300 - 800	W+13	300	800	Y / X	STKM	Unichrome plating	Pressed Precision-machined

*We can manufacture free-size idler widths as standard idlers. The idler shape may vary.

Standard Shaft Specifications						Idler Conveyor Specifications							
Shaft Diameter (φ) × Wall Thickness (t) Nominal (Actual)	Shaft Length (mm)	Shape	Finish	Material	Plating	Frame Specifications			Curve	Standard Idler Pitch	Unit Height	Number of Idlers	
						Height × Width × Wall Thickness I×K×t	Material	Surface Treatment	Dimensions of Inner R	Pitch P	(Idler Upper Surface) H		
12 (11.8)×1.0	W+40	Pipe	Circular/Horizontal crescent pin hole	STKM11A	X	[90×30×3.2	Steel	Baked-on coating	900	75 / 100 / 150	100	75P	23
												100P	18
												150P	12

*The shape may vary with free sized idler widths.

1 Regarding Items Being Conveyed

- Items being conveyed Material, weight, shape, pitch
- Atmosphere of location of conveyance Heat, acid, alkali, moisture, humidity
- Loading conditions Conditions when loading items onto a conveyor

2 Wheel Conveyor Width and Shape of Items Being Conveyed

- Width

It is important that the load weight of items being conveyed is even and can be balanced, as shown by the oil can within the diagram on the right. Also, it is necessary that the floor surface is flat.
- Shape

Items should have a flat base.
Ideally items should have their load close to the floor (their base).
*Please take care as there are more restrictions than for the idler conveyor.

3 Selecting Wheel Shape

Select the model suitable for your needs from among our variety of options, upon carefully considering conveyance conditions, the weight being conveyed, work operating conditions, and loading conditions, in addition to the characteristics of each wheel.

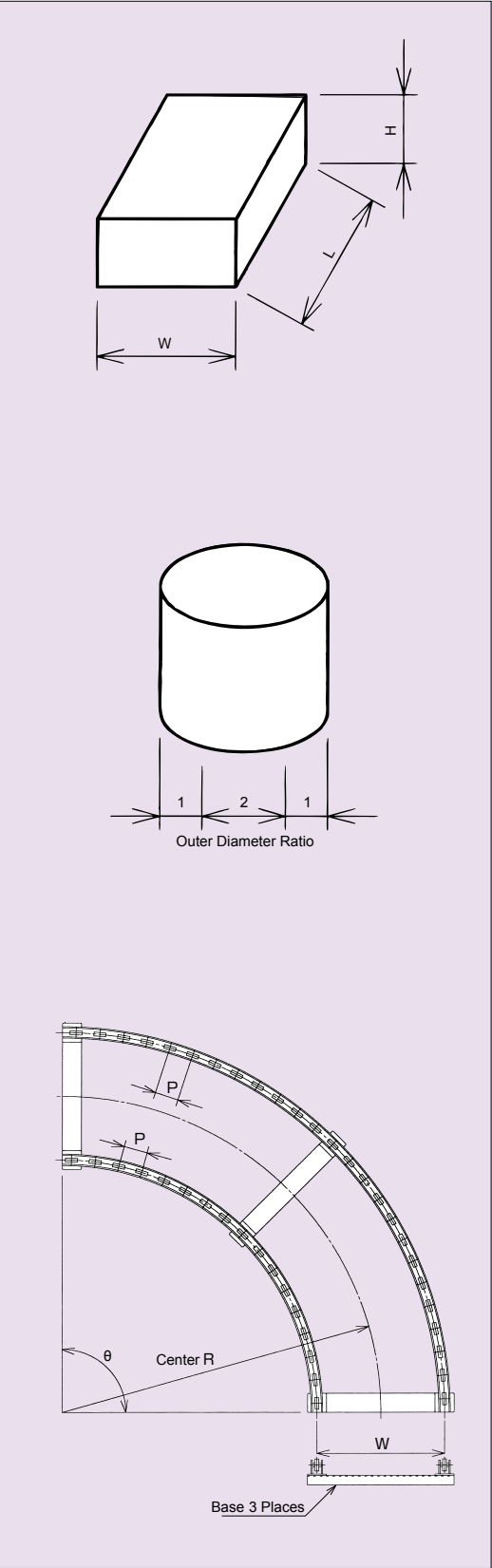
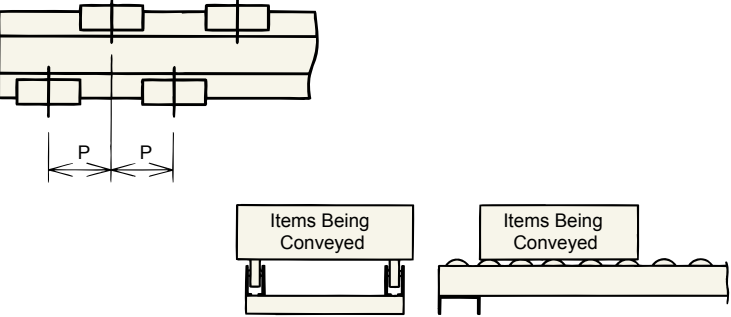
4 Selecting Wheel Pitch

If using wheel conveyors in multiple rows, items being conveyed should ideally be supported equally across four or more wheels.

*The load capacity per wheel cannot be guaranteed, as strength will vary depending on the conditions of usage (whether there is impact or not). There may be some tolerance in machine height depending on the clearance of composite parts and/or manufacturing accuracy.

5 Selecting Self-Incline

Since the wheels on the wheel conveyor emit relatively less sound emission when compared to idlers - and guarantee smooth rotation - this more than makes up for a decrease in self-incline. Self-incline will vary depending on the material, weight, shape and condition of the base of items being conveyed. As such, while the correct degree of incline must be tested and designed, approximate guidelines are as shown within the graph on the lower right.



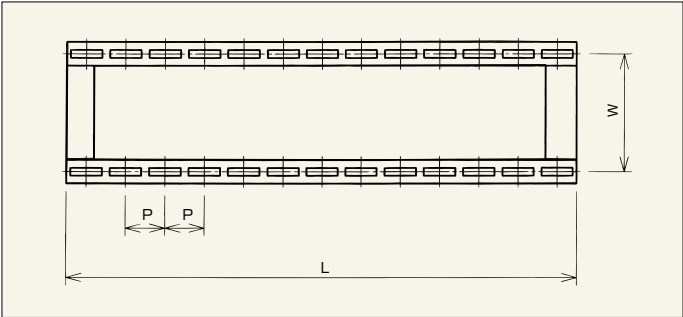
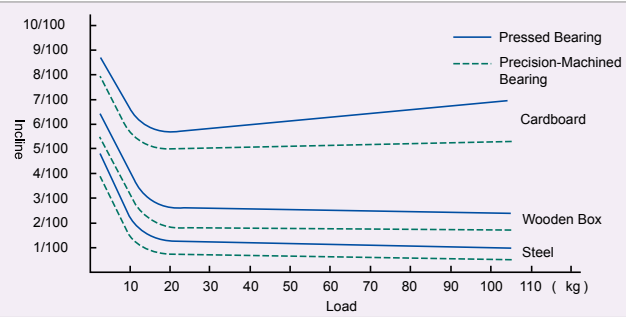
• Straight-Line Conveyor
























Type A	Type B	Type C	Type D
Type E	Type F	Type G	Type H Wheels are zig-zagged
Type I	Type J	Type K Wheels are zig-zagged	Type L
Type M Wheels are zig-zagged	Type N	Type O	Type Q
Type R	Type S	Type T	Type U
Type V Wheels are zig-zagged			

• Curved Conveyor





















Type X	Type Y	Type Z	Mounting Plates 12.3 (SS) 12.0 (SUS) 10X 15 X1 9 Z 9.8 3 3 PL For Type X / Y For Type X1 / Z May vary from the above depending on the model.
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For the shaft shape used, please refer to each model's respective product page.

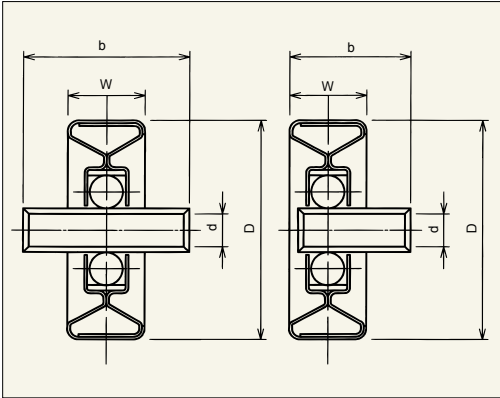


Material	Type	If Straight				If Curved				Types of Wheel Conveyor								
		Frame Shape	Frame Dimensions h×W1×W2×t	Shaft Diameter	Drop	Type	Frame Shape	Frame Dimensions h×t1 PL×PW×t2	Attached Base	Pressed	Precision- Machined	Aluminum Stainless Steel	Synthetic Rubber Wrapped Urethane Wrapped	Resin Resin Needle	Heat Resistant Idler Compatible Standard B Inserted			
Iron	A		15×9×1.6	4	4	-	-	-	-		W-1225BS							
			25×9×1.6	6	8	X X1		22×3.0 60×60×2.3	CB-60	W-2015TS W-2025TS W-2050TS W-20100TS W-25TS	W-2015BS W-2025BS W-2050BS W-20100BS W-25BS			W-26PMO				
				6	7							W-30RB						
				8	8						W-2523BS							
			35×13×3.2	8	11	-	-	-	-		W-32BSO				W-32ZZ			
				12	11							W-3812R						
			45×10×2.3	6	12	X		44×4.5 60×60×2.3	CB-60	W-36TS W-38TS W-40FL W-40SL	W-36BS	W-38AS	W-45RS W-40PU	W-38GS W-36SGS W-3812NPS W-4020NPS				
				8	12								W-3850NPS W-4850NPS W-5020NPS					
			50×13×3.2	8	15	X		50×4.5 60×60×2.3	CB-60	W-50TS								
			60×10×2.3	8	12	X		60×4.5 60×80×2.3	CB-60						W-3850D			
			90×13×2.3	8	19	X		90×4.5 60×80×2.3	CB-60						W-4850PD W-4850D W-5750D W-6050D			
				12	19					W-57TS								
			SUS			25×9×1.5	6	8	X X1		22×3.0 60×60×2.0	CB-60 (SUS)			W-2015SUS W-2025SUS W-25SUS			
							8	8							W-2523SUS			
						45×10×2.0	6	12	X		40×4.0 60×60×2.0	CB-60 (SUS)			W-38SUS SW-38SUS HG-W36SUS			
Iron	C		25×9×1.6	6	8	x1		22×3.0 60×60×2.3	CB-60					W-26PML				
			35×13×3.2	8	11	-	-	-	-		W-32BSL							
				12	11							W-3812R						
			50×13×3.2	8	15	X		50×4.5 60×60×2.3	CB-60		W-50BS		W-60PU					
			50×13×3.0	8	15	X		50×4.0 60×60×2.0	CB-60 (SUS)			HG-W50SUS						
Iron	D		60×15 ₂₅ ×3.2	12	20	D		60×10×3.2 25	CB-90		W-50DS HG-W50DS							
						-	-	-	-	W-5750P				W-50ZZ				
	E		45×28.2×8.5×1.6	6	11	-	-	-	-	WB-36TS WB-38TS	WB-36BS			WB-36SGS WB-38NPS				
	F		42.3×60×32×1.6 _{2.3}	8	11	-	-	-	-	WB-36PCS	WB-36CS		WB-40RS	WB-36PS				
	G		45×8.5×1.8	6	11	X		44×4.5 60×60×2.3	CB-60	SW-36S SW-38S		SW-38AS	SW-45RS	SW-38GS				
	H		45×8.5×1.8	6	11	Y		44×4.5 60×60×2.3	CB-60	SW-50WS-K								
I		60×11.5×2.3	6	17	X		50×4.5 60×60×2.3	CB-60	SW-50S									

*'Drop' refers to the area from the upper part of the frame to the shaft.

Material	Type	If Straight					If Curved			Types of Wheel Conveyor					
		Frame Shape	Frame Dimensions h×W1×W2×t	Shaft Diameter	Drop	Type	Frame Shape	Frame Dimensions h×t1 PL×PW×t2	Attached Base	Pressed	Precision- Machined	Aluminum Stainless Steel	Synthetic Rubber Wrapped Urethane Wrapped	Resin Resin Needle	Heat Resistant Idle Compatible Standard B Inserted
Iron	J		42.3×60×32.6×2.3	8	13	X		38×4.5 60×60×2.3	CB-60	W-36PCS	W-36CS		W-40RS-KR W-40RUS-AO	W-36PS	
SUS			42×60×32×2.0	8	13	X		38×4.0 60×60×2.0	CB-60 (SUS)			W-36CS-SUS			
Iron	K		46.3×60×33× ^{1.6} _{2.3}	6	12	Y		44×4.5 60×60×2.3	CB-60	W-40FH W-40WH					
				8	12					W-36PBW W-50KW	W-36BW		W-40RW-KR W-40RUW-AO	W-36PW W-45UW W-46JW	
SUS			46×60×33× ^{1.5} _{2.0}	8	12	Y		40×4.0 60×60×2.0	CB-60 (SUS)			W-36BW-SUS			
Iron	L		30×30×3	8	11	-	-	-	-		W-32BSH				
			30×30×5	10	8						W-30BSH				
	M		40×40×3	8	13	Z		38×4.5 90×100×4.5	CB-90		W-36WW		W-40RWW-SI		
			40×40×5	8	13					W-50KWW					
			50×50×6	12	15					Z		44×6.0 90×100×6.0	CB-90		W-50WW
	N		30×30×5	10	8	-	-	-	-		W-30BSO				
	O		100×50×5	30	33	-	-	-	-						HW-76DS
Aluminum	P		44×18×3	8	14	-	-	-	-					WA-3850NPS WA-5020NPS	
				8	17									WA-4850NPS	
			48×6×2	6	14					-	-	-	-		
	Q		21.5×29.7	2.5	5	-	-	-	-					W-13G	
			34.5×41.5	3	10									W-28G W-38GF	
			36.5×34	4	12									W-32G W-32SP	
Molten Pated Steel Sheet	A		25×7×1.6	6	8	-	-	-	-	WM-25TS	WM-25BS			WM-26PMO	
			45×10×2.3	6	12	-	-	-	-	WM-36TS WM-38TS				WM-3812NPS	
	C		25×7×1.6	6	8	-	-	-	-					WM-26PML	
Iron	S		25×63.9×0.8	3	5	-	-	-	-					MMW-2005SS	
	T		25×63.9×0.8	3	5	-	-	-	-					MMR-1210SS	
	U		25×42×1.0	6	8	-	-	-	-	WBL-2025TS	WBL-2025BS				
			25×28×1.0	6	8	-	-	-	-	WBL-25TS	WBL-25BS				
			35×30×1.0	6	12	-	-	-	-	WBL-36TS WBL-38TS					
Zinc Pated Steel Sheet	V		26.2×34.8	3	3.8	-	-	-	-					W-28E	
						-	-	-	-					W-28H	

*'Drop' refers to the area from the upper part of the frame to the shaft.

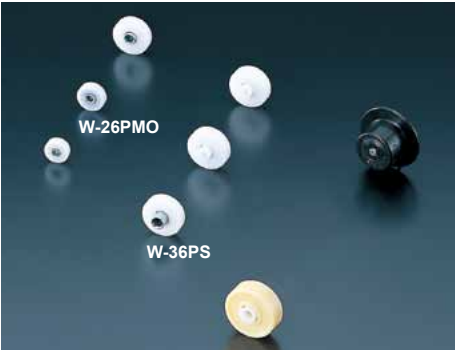


[Special Characteristics] These wheels are relatively inexpensive, with the outer ring and case being pressed from a flat sheet. Suitable for rotation with very light to medium loads.

Pressed Wheels



Resin Wheels



Needle Wheels



Steel

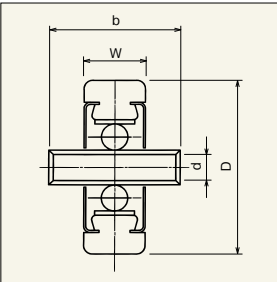
Model	Outer Diameter × Width × Shaft Indent × Boss D W d b	Load Capacity Per Wheel (kg)
W-2015TS	20 × 15 × 6.2 × 17	20
W-2025TS	20 × 25 × 6.2 × 27	30
W-2050TS	20 × 50 × 6.1 × 52	40
W-25TS	25 × 10 × 6.2 × 16	30
W-36TS	36 × 10 × 6.5 × 25	15
W-38TS	38 × 12 × 6.5 × 25	20
W-40SL	40 × 20 × 6.5 × 26	20

Resin Wheels

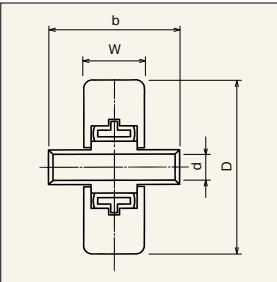
Model	Outer Diameter × Width × Shaft Indent × Boss D W d b	Load Capacity Per Wheel (kg)
W-26PMO	26 × 7 × 6.2 × 16	20
W-36PS	36 × 9 × 8.2 × 28	10

Needle Wheels

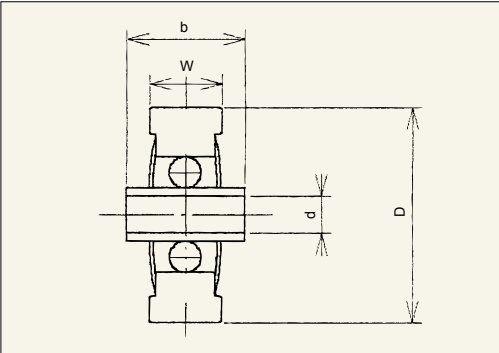
Model	Outer Diameter × Width × Shaft Indent × Boss D W d b	Load Capacity Per Wheel (kg)
W-3812NPS	38 × 12 × 6.4 × 25	15
W-3850NPS	38 × 50 × 8.2 × 55	15



Ball Pipe



Needle Pipe



[Special Characteristics] The inner and outer rings of this type of wheel have been precision-machined from round steel and pipes, etc. When compared to pressed wheels, rotation is improved and rotational noise is reduced due to the retainer. Suitable for rotation with light to medium loads.

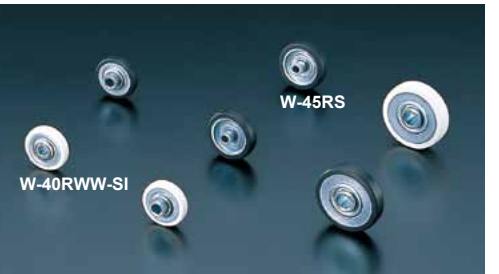
Precision-Machined Wheels



Stainless Steel Wheels



Synthetic Rubber-Wrapped Wheels



Steel

Model	Outer Diameter × Width × Shaft Indent × Boss D W d b	Load Capacity Per Wheel (kg)
W-2015BS	20 × 15 × 6.1 × 17	30
W-2025BS	20 × 25 × 6.2 × 27	40
W-2050BS	20 × 50 × 6.2 × 52	50
W-25BS	25 × 9 × 6.2 × 16	30
W-36BS	36 × 9 × 6.2 × 25	40
W-36WW	36 × 9 × 8.2 × 14	40
W-50BS	50 × 14.5 × 8.2 × 20	80
W-50DS-8	50 × 14.5 × 8.2 × 32	100
W-50DS-10	50 × 14.5 × 10.2 × 20	100

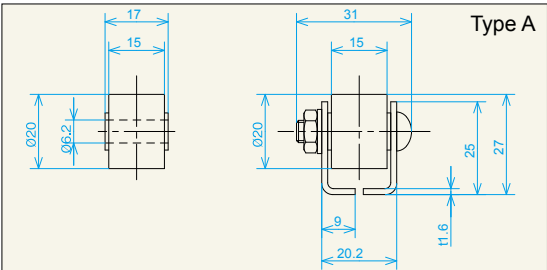
Stainless Steel

Model	Outer Diameter × Width × Shaft Indent × Boss D W d b	Load Capacity Per Wheel (kg)
W-2015SUS	20 × 15 × 6.1 × 17	30
W-2025SUS	20 × 25 × 6.1 × 27	40
W-25SUS	25 × 9 × 6.2 × 16	30

Synthetic Rubber

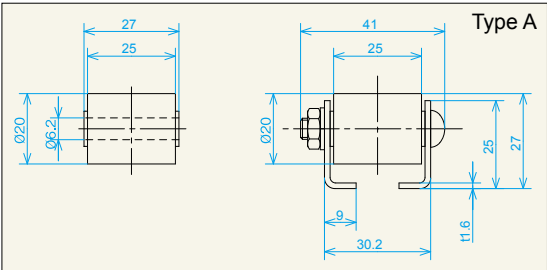
Model	Outer Diameter × Width × Shaft Indent × Boss D W d b	Load Capacity Per Wheel (kg)
W-30RB	30 × 9 × 6.2 × 16	25
W-40RWW-SI	40 × 9 × 8.2 × 14	20
W-45RS	45 × 12 × 6.4 × 25	10

W-2015TS



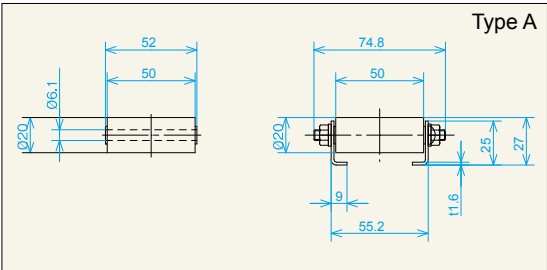
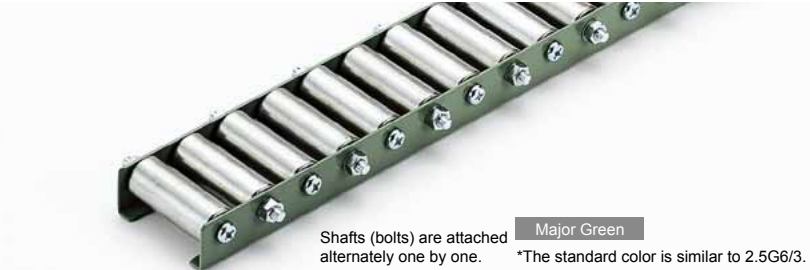
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2015TS	20×15×6.2×17	⊙ M6×27L	└25×20.2×9×31×1.6	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	20	

W-2025TS



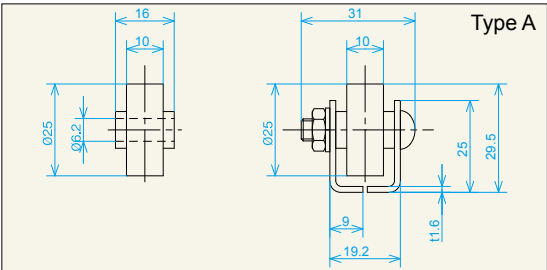
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2025TS	20×25×6.2×27	⊙ M6×37L	└25×30.2×9×41×1.6	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	30	

W-2050TS



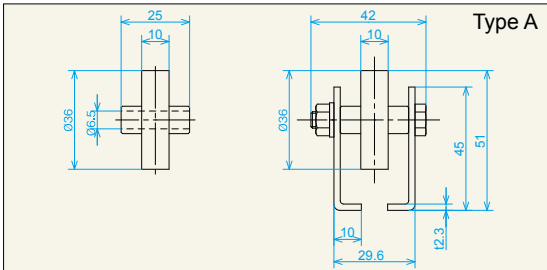
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2050TS	20×50×6.1×52	⊕ M6×65L	└25×55.2×9×74.8×1.6	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	40	W bearing

W-25TS



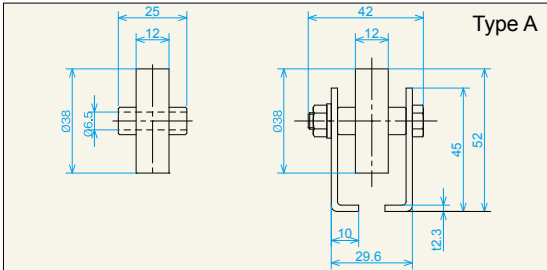
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-25TS	25×10×6.2×16	⊙ M6×27L	└25×19.2×9×31×1.6	29.5	1,000 / 1,500 2,000	30 / 35	1,000 1,200	30	

W-36TS



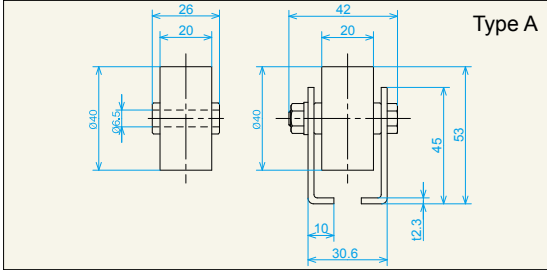
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-36TS	36×10×6.5×25	⊙ M6×38L	└45×29.6×10×42×2.3	51	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	15	

W-38TS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-38TS	38×12×6.5×25	⊙ M6×38L	└45×29.6×10×42×2.3	52	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	20	

W-40SL



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-40SL	40×20×6.5×26	⊙ M6×38L	└45×30.6×10×42×2.3	53	1,800 / 2,400 3,000	50 / 75 / 100	1,000 1,200	20	

⊙Hexagonal

Precision-Machined Wheel Conveyor

W-2015BS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2015BS	20 × 15 × 6.1 × 17	⊙ M6 × 27L	└┐ 25 × 20.2 × 9 × 31 × 1.6	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	30	

W-2025BS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2025BS	20 × 25 × 6.1 × 27	⊙ M6 × 37L	└┐ 25 × 30.2 × 9 × 41 × 1.6	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	40	

W-2050BS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2050BS	20 × 50 × 6.2 × 52	⊕ M6 × 65L	└┐ 25 × 55.2 × 9 × 74.8 × 1.6	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	50	W bearing

W-25BS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-25BS	25 × 9 × 6.2 × 16	⊙ M6 × 27L	└┐ 25 × 19.2 × 9 × 31 × 1.6	29.5	1,000 / 1,500 2,000	30 / 35	1,000 1,200	30	

W-36BS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-36BS	36 × 9 × 6.2 × 25	⊙ M6 × 38L	└┐ 45 × 29.6 × 10 × 42 × 2.3	51	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	40	

W-36WW



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-36WW	36 × 9 × 8.2 × 14	⊙ M8 × 45L	└┐ 40 × 108 × 40 × 50.5 × 3	45	1,000 / 2,000 3,000	30 / 40 50 / 75	1,000 1,200	40	Zig-zag type

W-50DS

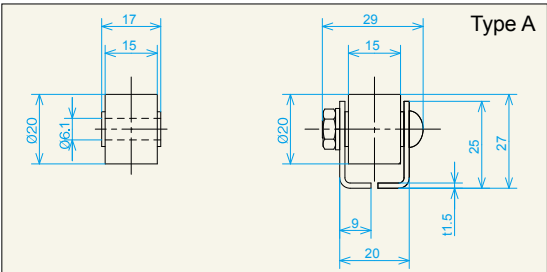


Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-50DS	50 × 14.5 × 12.2 × 20	⊙ M12 × 40L	└┐ 60 × 70 × 25 × 48 × 3.2	65	1,800 / 2,400 3,000	75 / 100 150 / 200	1,000 1,200	100	Strong type

⊙ Hexagonal

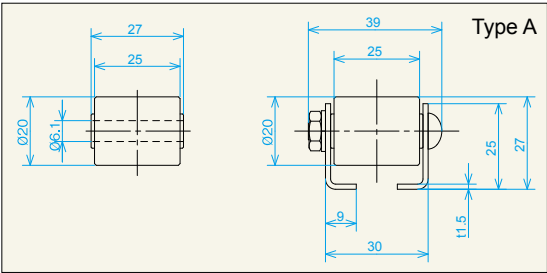
Stainless Steel Wheel Conveyor

W-2015SUS



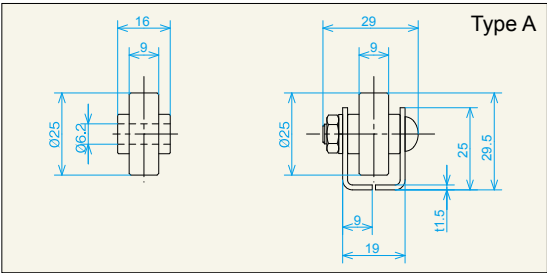
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2015SUS	20×15×6.1×17	⊙M6×25L	┘ 25×20×9×29×1.5	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	30	Precision-machined wheels

W-2025SUS



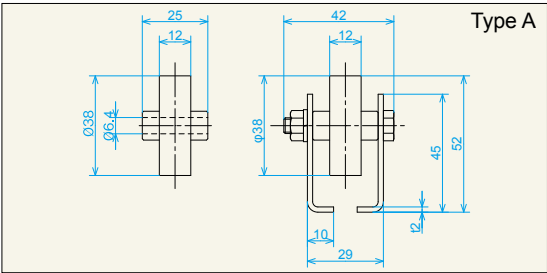
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-2025SUS	20×25×6.1×27	⊙M6×35L	┘ 25×30×9×39×1.5	27	1,000 / 1,500 2,000	25 / 30 / 35	1,000 1,200	40	Precision-machined wheels

W-25SUS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-25SUS	25×9×6.2×16	⊙M6×25L	┘ 25×19×9×29×1.5	29.5	1,000 / 1,500 2,000	30 / 35	1,000 1,200	30	Precision-machined wheels

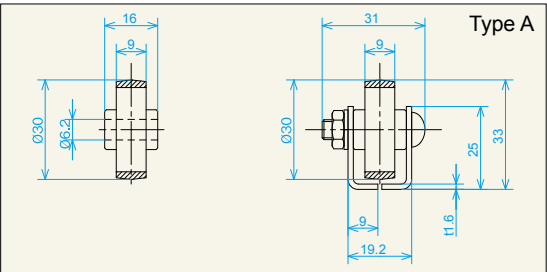
W-38SUS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-38SUS	38×12×6.4×25	⊙M6×38L	┘ 45×29×10×42×2.0	52	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	20	Pressed wheels

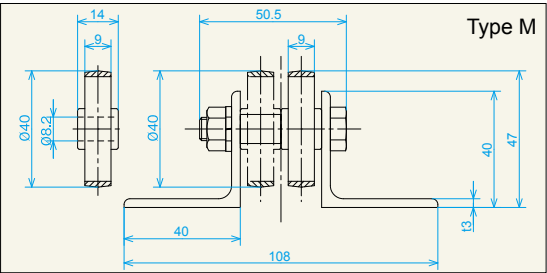
Synthetic Rubber-Wrapped Wheel Conveyor

W-30RB



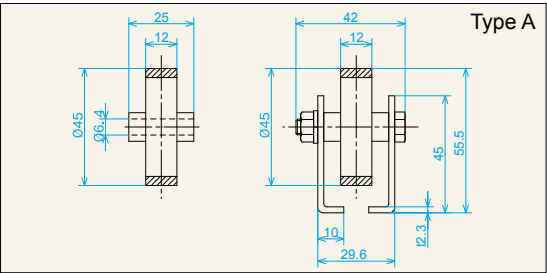
Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-30RB	30×9×6.2×16	⊙M6×27L	┘ 25×19.2×9×31×1.6	33	1,000 / 1,500 2,000	35	1,000 1,200	25	Core: precision-machined

W-40RWW-SI



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-40RWW-SI	40×9×8.2×14	⊙M8×45L	┘ 40×108×40×50.5×3	47	1,000 / 2,000 3,000	30 / 40 50 / 75	1,000 1,200	20	Zig-zag type Core: precision-machined

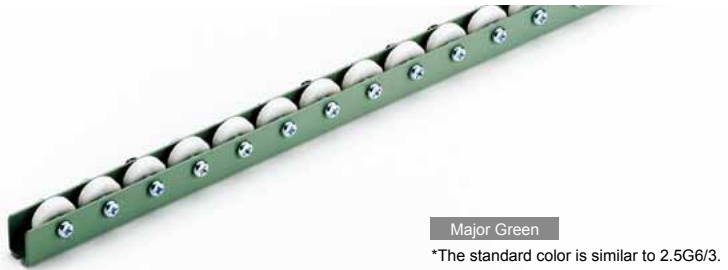
W-45RS



Model	Wheel Dimensions Outer Diameter × Width × Shaft Indent × Boss D W d b	Shaft Used	Frame Shape Shape h×W1×W2×W3×t	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
W-45RS	45×12×6.4×25	⊙M6×38L	┘ 45×29.6×10×42×2.3	55.5	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	10	Core: pressed

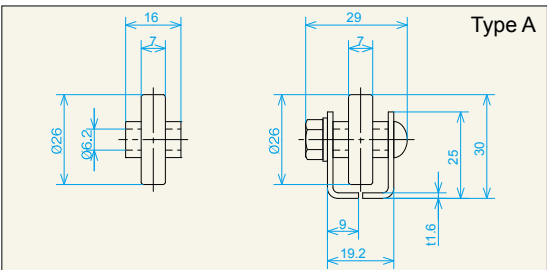
⊙Hexagonal ⊙Button

W-26PMO



Major Green

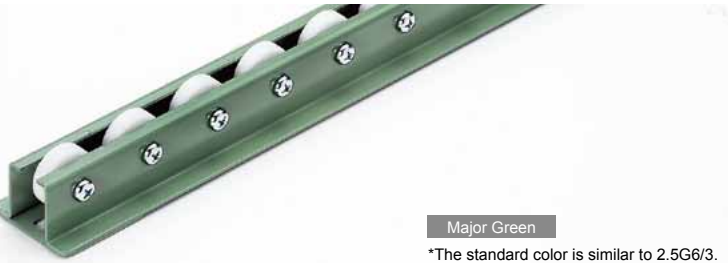
*The standard color is similar to 2.5G6/3.



(Unit mm)

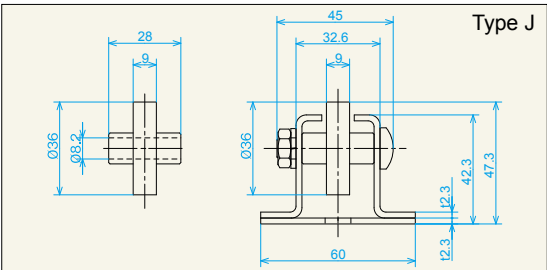
Model	Wheel Dimensions	Shaft Used	Frame Shape	Unit	Full Length L	Wheel Pitch P	Curve Central	Load Capacity Per Wheel (kg)	Remarks
	Outer Diameter × Width × Shaft Indent × Boss D W d b		Shape h × W1 × W2 × W3 × t	Height H			Diameter R		
W-26PMO	26×7×6.2×16	⊕M6×25L	└┐ 25×19.2×9×29×1.6	30	1,000 / 1,500 2,000	30 / 35	1,000 1,200	30	Made of Acetal

W-36PS



Major Green

*The standard color is similar to 2.5G6/3.

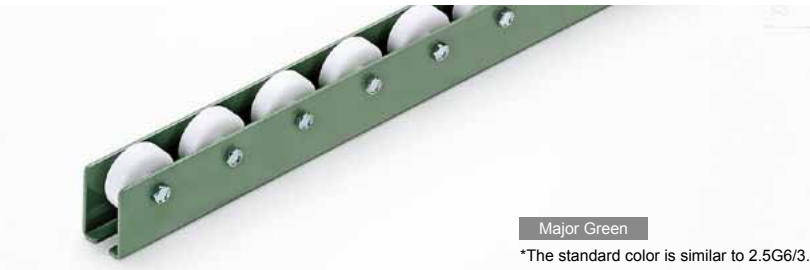


(Unit mm)

Model	Wheel Dimensions	Shaft Used	Frame Shape	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
	Outer Diameter × Width × Shaft Indent × Boss D W d b		Shape h × W1×W2×W3×t						
W-36PS	36×9×8.2×28	⊕ M8×40L	⊏ 42.3×60×32.6×45×2.3	47.3	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	10	Made of Acetal Single row type

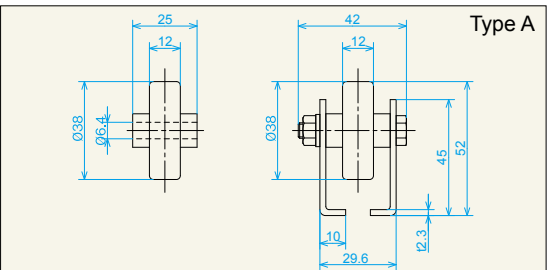
⊕ + Head

W-3812NPS



Major Green

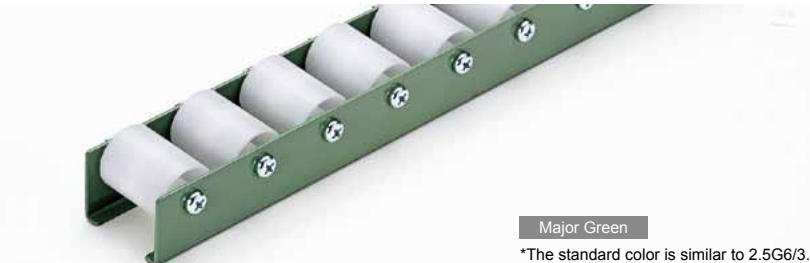
*The standard color is similar to 2.5G6/3.



(Unit mm)

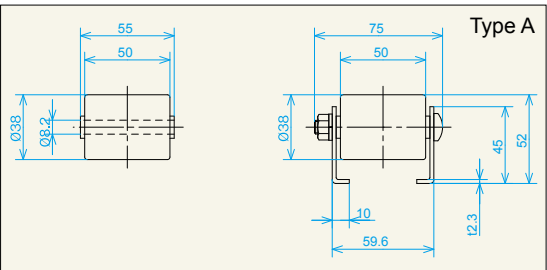
Model	Wheel Dimensions	Shaft Used	Frame Shape	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
	Outer Diameter × Width × Shaft Indent × Boss D W d b		Shape h × W1 × W2 × W3 × t						
W-3812NPS	38×12×6.4×25	○ M6×38L	┘ 45×29.6×10×42×2.3	52	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	15	Made of Acetal

W-3850NPS



Major Green

*The standard color is similar to 2.5G6/3.




(Unit mm)

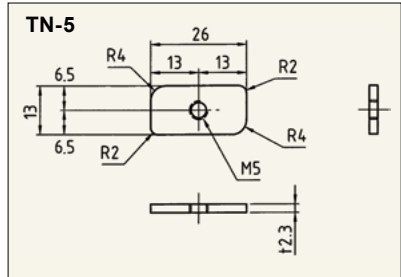
Model	Wheel Dimensions	Shaft Used	Frame Shape	Unit Height H	Full Length L	Wheel Pitch P	Curve Central Diameter R	Load Capacity Per Wheel (kg)	Remarks
	Outer Diameter × Width × Shaft Indent × Boss D W d b		Shape h × W1 × W2 × W3 × t						
W-3850NPS	38×50×8.2×55	⊕ M8×70L	145×59.6×10×75×2.3	52	1,800 / 2,400 3,000	50 / 75 100 / 150	1,000 1,200	15	Wide type, made of Acetal

Hexagonal ⊕ + Head


Parts for Securing Conveyor



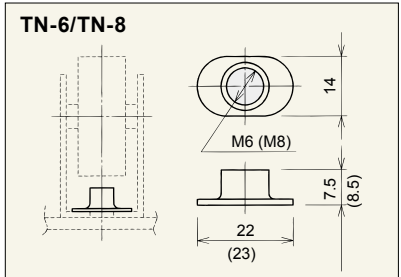
TN-5




● Applicable Models
W-1225BS



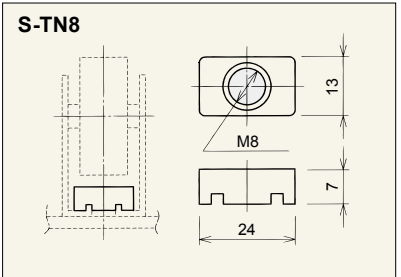
TN-6/TN-8




● Applicable Models
W-36TS, W-36BS, W-38TS, W-36SGS, W-38GS, W-38AS, W-40SL, W-40FL, W-45RS, W-3812NPS, W-4020NPS, W-5020NPS



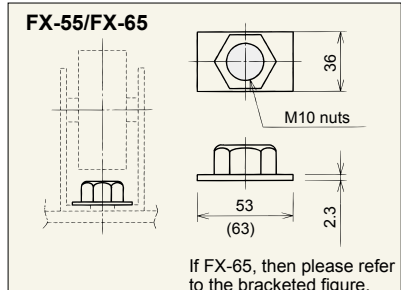
S-TN8



● Applicable Models
SW-36S, SW-38S, SW-50WS-K, SW-50S, SW-38AS, SW-38GS, SW-45RS, WB-36TS, WB-38TS, WB-36BS, WB-36SGS, WB-38NPS




FX-55/FX-65

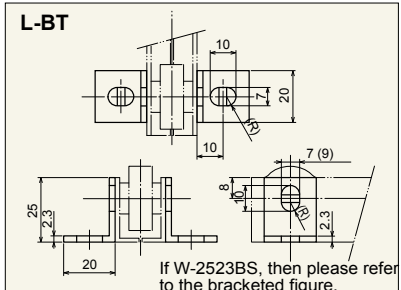


If FX-65, then please refer to the bracketed figure.

● Applicable Models
FX-55...W-3850NPS, W-4850NPS
FX-65...W-3850D, W-4850D, W-5750D, W-6050D




L-BT

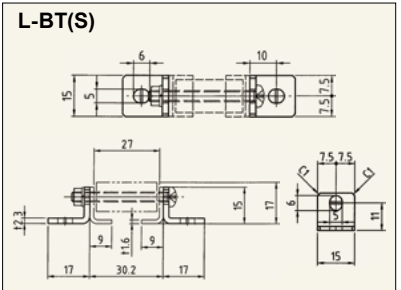


If W-2523BS, then please refer to the bracketed figure.

● Applicable Models
W-2015TS, W-2015BS, W-2025BS, W-25BS, (W-2523BS), W-30RB, W-25TS, W-2025TS, W-2050TS, W-20100TS, W-2050BS, W-20100BS



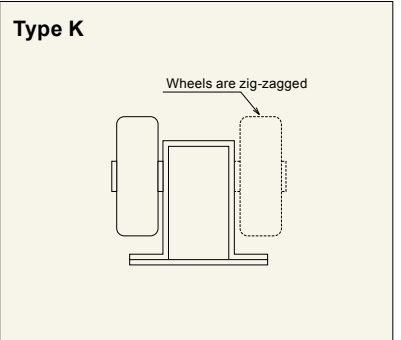
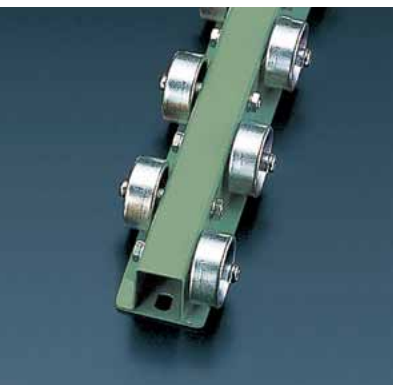
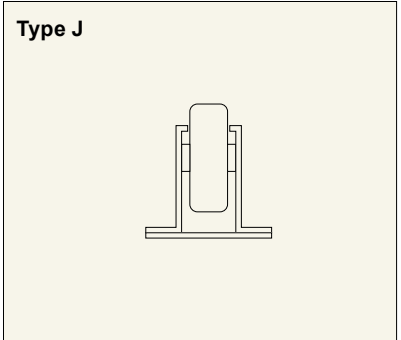
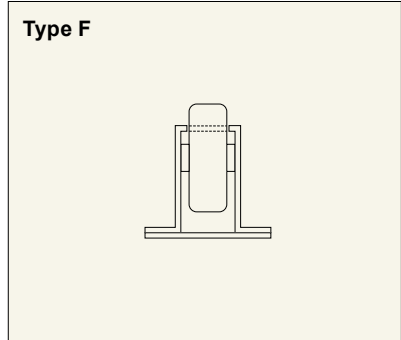
L-BT(S)



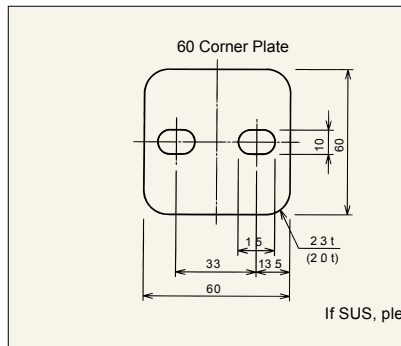
● Applicable Models
W-1225BS

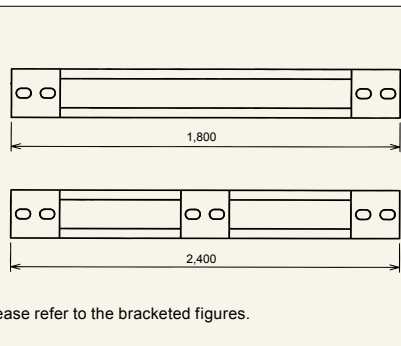
Mounting Plates

● Type F, J & K Attachment Indents (60 Corner Plate)

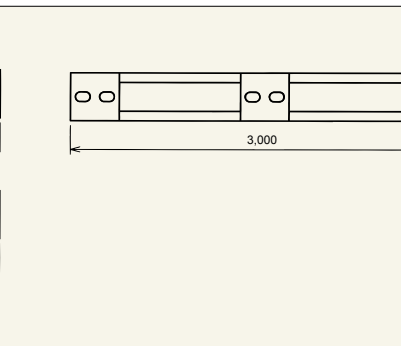


60 Corner Plate

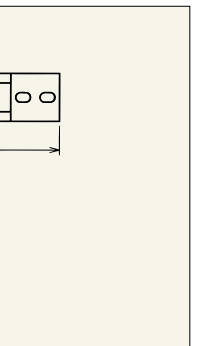




1,800



2,400



3,000

If SUS, please refer to the bracketed figures.

Conveyor Weight Chart

Conveyor Weight Chart

Classification	Model	Straight 1,000L Standard Weight (kg)							
		25P	30P	35P	40P	50P	75P	100P	150P
Pressed	W-2015TS	1.87	1.68	1.54	—	—	—	—	—
Precision-Machined	W-2015BS	1.91	1.71	1.57	—	—	—	—	—
Stainless Steel	W-2015SUS	1.87	1.67	1.53	—	—	—	—	—
Pressed	W-2025TS	2.43	2.14	1.94	—	—	—	—	—
Precision-Machined	W-2025BS	2.47	2.18	1.96	—	—	—	—	—
Stainless Steel	W-2025SUS	2.43	2.14	1.92	—	—	—	—	—
Pressed	W-2050TS	5.48	4.87	4.52	—	—	—	—	—
Precision-Machined	W-2050BS	6.24	5.50	5.07	—	—	—	—	—
Pressed	W-25TS	—	1.85	1.68	—	—	—	—	—
Precision-Machined	W-25BS	—	1.88	1.71	—	—	—	—	—
Stainless Steel	W-25SUS	—	1.84	1.67	—	—	—	—	—
Resin	W-26PMO	—	1.26	1.23	—	—	—	—	—
Synthetic Rubber	W-30RB	—	—	1.77	—	—	—	—	—
Pressed	W-36TS	—	—	—	—	2.70	2.40	2.27	2.14
Precision-Machined	W-36BS	—	—	—	—	3.52	2.93	2.68	2.42
Precision-Machined	W-36WW	—	—	—	5.84	5.41	4.79	—	—
Resin	W-36PS	—	—	—	—	3.00	2.70	2.52	2.44
Pressed	W-38TS	—	—	—	—	2.80	2.46	2.32	2.17
Stainless Steel	W-38SUS	—	—	—	—	2.57	2.24	2.09	1.91
Resin Needle	W-3812NPS	—	—	—	—	2.38	2.19	2.11	1.84
Resin Needle	W-3850NPS	—	—	—	—	3.12	2.67	2.48	—
Pressed	W-40SL	—	—	—	—	3.00	2.59	2.42	—
Synthetic Rubber	W-40RWW-SI	—	—	—	5.64	5.25	4.68	—	2.31
Synthetic Rubber	W-45RS	—	—	—	—	2.96	2.57	2.40	2.07
Precision-Machined	W-50DS	—	—	—	—	—	7.70	6.96	6.21

Reference

MAKITECHGRAVITY ROLLER

Conveyor Terminology

■ Idler Conveyor

R Pin	Also known as a pine needle pin/snap pin, it is a stopper for idler shafts that makes attachment and detachment easy due to its elasticity. It is different from split pins and stopper wheels.
Accordion Curved Conveyor	A conveyor that can be stretched, shrunk down and curved in one unit.
Inner R	The dimension from the inner side of the frame to the center, if looking at the idlers on a curved idler conveyor as a standard. (Example Order: Inner 900R)
Unit Height	The height from the base of the frame up to the upper surface of the idlers.
Unit Length	The length of the conveyor (order example: 3,000L)
Unit Width	The outer dimension of the frame.
Leg Height	The height from floor level up to the upper leg bracket.
Drive (Idler) Conveyor	A (idler) conveyor with motive power. Please refer to the separate 'Drive Conveyor' catalog.
Gravity (Idler) Conveyor	Gravity refers to 'gravitational force'. Gravity (idler) conveyors are also called free (idler) conveyors.
Precision-Machined Bearing	A high-quality bearing manufactured by precision-machining and molding from round steel. Suitable for medium to heavy loads. Also referred to as a machine bearing.
Self-Incline	Installing the idler conveyor at an angle (tilted) will allow items to be conveyed by their own weight. This tilting is called self-incline. The degree of incline will vary slightly depending on the temperature, moisture level or base of the items being conveyed, and/or on the external air temperature or humidity.
Support	Also known as a stay or width fixing material. There are 2 standard types: pipe supports where the pipe has been tap cut, and angle supports made from equilateral angled materials.
Take-Out	The dimension between each outer frame edge and the center of the closest (first) idler. Example: if 1000L×300W×50P, take-out will be 25/25.
Free Size	Manufacturing idler widths in sizes within the range of manufactured widths but outside of 50mm increments is possible.
Frame	The frame is the skeletal structure in which the idlers are inserted.
Frame Inner Width	The dimension of the inner side of the frame. Please take care as if the dimension between each boss is the same as the frame inner width, rotation will become difficult.
Pressed Bearing	These bearings are relatively inexpensive, made by being pressed and molded from a single steel sheet. Suitable for light to medium loads.
Average Pitch	If unit length L is not cleanly divisible by idler pitch P, then take-out will widen. For standard unit lengths, the idler pitch is adjusted and connections are made smoother (refer to P24).
Boss	A part that creates a gap between the end surfaces of the idler pipe and the inner side of the frame so that they do not come into contact with each other. By extending the inner ring of the bearing outwards, resistance will not increase even if it comes in contact with the inner side of the frame.
Boss Boss	Indicates the dimension from the outer side of one boss to the outer side of another boss. Tolerance with the inner dimension of the frame is -2±1mm (there are cases, such as with BB313, where the idler width is given).
Idler Conveyor	In general, idlers that have been inserted with a bearing in each end of their pipe, and that are lined up sequentially into a frame.
Idler Upper Surface	Also known as conveying surface. Refers to floor level, or the height from a specified point to the idler surface.
Idler Width	While this term generally indicates the surface length of the idler pipe, there are nominal and actual dimensions; the catalog usually notes the nominal dimension (example order: 500W = idler with nominal dimension of 500mm).
Idler Pitch	Refers to the interval (center-to-center) between the center of adjacent idlers. Pitch is determined ensuring that there are at least 4 idlers consistently supporting items with a rigid base, with at least 6 idlers supporting items with a soft base. It is also known as Idler Interval. (Example order: 75P)
Connector Plate	A plate that connects conveyors together and integrates them into a single unit. The standard maximum unit length is 3,000L., so if you require one 15,000L unit, you can connect together 5x 3,000L units using bolted connector plates.
Work	Items being conveyed.

■ Wheel Conveyor

Wheel Conveyor	It is called different names such as Roll(er) Con(veyor), Roller, or Rail Conveyor, depending on the industry or company. A single bearing on the wheel conveyor comes into contact with items at its exterior, with the inner ring protruding widthwise and coming in contact with the side of the frame. It is common to line up 2 to 3 wheel conveyors in a row and use instead of idlers. Compared to idlers, wheel conveyors have a lower inertial resistance resulting in smoother gliding, and a lower weight allowing for easier movement. They are suitable for conveying light loads.
Wheel Unit	Also known as the 'roller unit', this is the part with the frame and shaft removed. It can be used as either a replacement part, or as a part for equipment/machinery. Wheel and roller units generally do not include a shaft.
Pressed Wheels	These wheels are relatively inexpensive, made by being pressed and molded from a single flat sheet. Suitable for light to medium loads.
Precision-Machined Wheels	Wheels are precision-machined and molded from round steel. Suitable for medium to heavy loads.
Aluminum Wheels	The main part is made of aluminum, making these wheels light and portable.
Stainless Steel Wheels	Water resistant wheels in high quality stainless steel.
Rubber-Wrapped Wheels	The outer ring is wrapped in rubber, protecting items being conveyed from impact. Suitable for light loads, with an aim to avoid damage and excess noise emission.
Resin Wheels	Suitable for light to medium loads using beautiful resin wheels. They are incredibly water and corrosive resistant, and are most suitable for delicate conveyance with smooth rotation.
Abacus Conveyor	A conveyor with many wheels attached in intervals in the form of an abacus. Ideal for when the size of items being conveyed is not fixed; its merits are that it is lighter and smoother than an idler conveyor.

SI Units

(1) Base Units

Quantity	Unit Name	Unit Symbol	Definition
Length	Meter	m	A meter is the length in which light passes through a vacuum in 1/299,792,458 seconds.
Mass	Kilogram	kg	The kilogram is (not gravity or force) a unit of mass, equivalent to the mass of the International Prototype Kilogram.
Time	Second	s	The second is the time it takes for 9,192,631,770 cycles of radiation that gets an atom of Cesium-133 to vibrate between two energy states.
Current	Ampere	A	The ampere is that constant current which, if maintained in two straight parallel conductors of infinite length of negligible circular cross-section, and placed one meter apart in a vacuum, would produce between these conductors a force equal to 2×10 ⁻⁷ newtons per meter of length.
Thermodynamic Temperature	Kelvin	K	A Kelvin is 1/273.16 of the thermodynamic temperature of the triple point of water.
Amount of Substance	Mole	mol	1 mole is the amount of substances structured from the number of aggregate elementary particles (with clear structure) equivalent to the the number of atoms in 0.01 kg of Carbon 12. Elementary particles are counted using the aggregate of element particles.
Luminous Intensity	Candela	cd	A Candela is a luminous intensity, in a given direction, of a source that emits monochromatic radiation of frequency 540×1012 hertz and that has a radiant intensity in that direction of 1/683 watt per steradian.

(2) Supplementary Units

Quantity	Unit Name	Unit Symbol	Definition
Plane angle	Radian	rad	A radian is a plane angle made between the two ends of a line when the radius of a circle is taken and is curved around the circumference of a circle.
Solid Angle	Steradian	sr	A steradian is a solid angle that - using the center of a sphere as reference - cuts out a surface area equivalent to the area of a square with a side length of the radius of the sphere, using the upper surface area of the sphere.

(3) Examples of Derived Units Expressed as a Combination of SI Base Units

Quantity	Unit Name	Unit Symbol
Area	Square meter	m²
Volume	Cubic meter	m³
Speed	Meters per second	m/s
Acceleration	Meters per second per second	m/s²
Wavenumber	Per meter	m ⁻¹
Density	Kilograms per cubic meter	kg/m³
Current Density	Amperes per square meter	A/m²
Magnetic Field Strength	Amperes per meter	A/m
Concentration (of amount of substance)	Moles per cubic meter	mol/m³
Specific Volume	Cubic meters per kilogram	m³/kg
Luminance	Candelas per square meter	cd/m²

(4) Derived Units with Specific Names

Quantity	Unit Name	Unit Symbol	Remarks
Frequency	Hertz	Hz	1Hz=1s ⁻¹
Power	Newton	N	1N=1kg, m/s2
Pressure, Stress	Pascal	Pa	1Pa=1N/m²
Energy, Work, Heat	Joule	J	1J=1N, m
Work Rate, Production Rate, Motive Power, Electrical Power	Watt	W	1W=1J/s
Electric Charge, Electricity Amount	Coulomb	C	1C=1A, s
Potential, Potential Difference, Voltage, Electromotive Force	Volt	V	1V=1J/C
Capacitance	Farad	F	1F=1C/V
Electric Resistance	Ohm	Ω	1Ω=1V/A
Conductance	Siemens	S	1S=1Ω ⁻¹
Magnetic Flux	Weber	Wb	1Wb=1V, s
Magnetic Density, Magnetic Inductance	Tesla	T	1T=1Wb/m²
Inductance	Henry	H	1H=1Wb/A
Degrees Celsius	Degrees Celsius or Degrees	°C	1° C=(t+273.15)K
Luminous Flux	Lumen	lm	1lm=1cd, sr
Illuminance	Lux	lx	1lx=1lm/m²
Radiation	Becquerel	Bq	1Bq=1s ⁻¹
Absorption Rate	Gray	Gy	1Gy=1J/kg
Dose Equivalent	Sievert	Sv	1Sv=1J/kg

(5) Prefixes

	Name	Code		Name	Code
10 [^] 18	Exa	E	10 ^{^-} 1	Deci	d
10 [^] 15	Peta	P	10 ^{^-} 2	Centi	c
10 [^] 12	Tera	T	10 ^{^-} 3	Milli	m
10 [^] 9	Giga	G	10 ^{^-} 6	Micro	μ
10 [^] 6	Mega	M	10 ^{^-} 9	Nano	n
10 [^] 3	Kilo	k	10 ^{^-} 12	Pico	p
10 [^] 2	Hecto	h	10 ^{^-} 15	Femto	f
10 [^] 1	Deca	da	10 ^{^-} 18	Atto	a

(6) Converting to SI Units

	SI Unit	Other Units	
Power	N	dyn	kgf
	1	1×10 ⁵	1.01972×10 ⁻¹
	1×10 ⁻⁵	1	1.01972×10 ⁻⁶
	9.80665	9.80665×10 ⁵	1

	SI Unit	Other Units	
Stress	Pa (=N/m²)	kgf/mm²	kgf/cm²
	1	1.01972×10 ⁻⁷	1.01972×10 ⁻⁵
	9.80665×10 ⁶	1	1×10 ²
	9.80665×10 ⁴	1×10 ⁻²	1

	SI Unit	Other Units	
Viscosity	Pa, s	cP	P
	1	1×10 ³	1×10
	1×10 ⁻³	1	1×10 ⁻²
	1×10 ⁻¹	1×10 ²	1

	SI Unit	Other Units	
Kinematic Viscosity	m²/s	cSt	St
	1	1×10 ⁶	1×10 ⁴
	1×10 ⁻⁶	1	1×10 ⁻²
	1×10 ⁻⁴	1×10 ²	1

	SI Unit	Other Units		
Pressure	Pa	bar	kgf/cm²	mmHg
	1	1×10 ⁻⁵	1.01972×10 ⁻⁵	7.50062×10 ⁻³
	1×10 ⁵	1	1.01972	7.50062×10 ²
	9.80665×10 ⁴	9.80665×10 ⁻¹	1	7.35559×10 ²
	1.33322×10 ²	1.33322×10 ⁻³	1.35951×10 ⁻³	1

	SI Unit	Other Units		
Work Energy Quantity of Heat	J	kW, h	kgf, m	kcal
	1	2.77778×10 ⁷	1.01972×10 ⁻¹	2.38889×10 ⁻⁴
	3.600×10 ⁶	1	3.67098×10 ⁵	8.6000×10 ²
	9.80665	2.72407×10 ⁻⁶	1	2.34270×10 ⁻³
	4.18605×10 ³	1.16279×10 ⁻³	4.26858×10 ²	1

	SI Unit	Other Units		
Work Rate Production Rate Motive Power Heat Flow	W	kgf, m/s	PS	kcal/h
	1	1.01972×10 ⁻¹	1.35962×10 ⁻³	8.6000×10 ⁻¹
	9.80665	1	1.33333×10 ⁻²	8.43371
	7.355×10 ²	7.5×10	1	6.32529×10 ²
	1.16279	1.18572×10 ⁻¹	1.58095×10 ⁻³	1

Steel Material

■ General Steel Material

Type	Material Number	Usage	Application	JIS	Resistance (N/mm)	Tensile Strength (N/mm)
Carbon steel material used for machine structure	S35C	General machine parts	Can be tempered	G4051	Above 305*	Above 510*
	S45C	General machine parts	Can be tempered	G4051	Above 345*	Above 570*
	S50C	General machine parts	Can be tempered	G4051	Above 365*	Above 610*
Cromemolybdan steel material	SCM435	Machine parts requiring strength	For machine structure	G4105	Above 785	Above 932
	SCM415	Machine parts requiring strength	For machine structure	G4105	-	Above 834
	SCM420	Machine parts requiring strength	For machine structure	G4105	-	Above 932
Carbon steel pipe for piping	SGP	Low pressure pipes	Gas pipe	G3452	-	-
Carbon tool steel material	SK4	Shafts, pins etc.	Can be tempered	G4401	-	-
	SK5	Shafts, pins etc.	Can be tempered	G4401	-	-
Alloy tool steel material	SKS93	Tempered parts	Little deformation from tempering	G4404	-	-
	SKS3	Tempered parts	Little deformation from tempering	G4404	-	-
Cold rolled steel material	SPCC	Covers, cases etc.	Has good workability/weldability	G3141	-	Above 270
Heat rolled steel material	SPHC	General machine structure parts	Generally 6mm or less	G3131	-	Above 270
Rolled steel for general structure	SS400	General machine parts	Has good workability/weldability	G3101	Above 245	400 - 510
Cold finished steel bar (cold drawn)	SS400D	General machine parts	Accuracy, surface roughness are good	-	-	-
Carbon steel tubes for machine structure	STKM11A	General machine parts	Pipe	G3445	-	Above 294
	STKM13C	General machine parts	Pipe	G3445	Above 382	Above 510
High carbon chromium bearing steel material	SUJ2	Rolling bearings, etc.	Bearing steel	G4805	-	-
Sulfur and sulfur composite free-cut steel material	SUM21	Steel for free-cutting	Steel material with sulfur added to carbon steel	G4804	-	-
	SUM22L	Steel for free-cutting	Steel material with sulfur and lead added	G4804	-	-
	SUM24L	Steel for free-cutting	Steel material with sulfur and lead added	G4804	-	-
Steel spring material	SUP	Coil springs, etc.	Used in hot-formed springs	G4801	-	-

*Before tempering

■ Dimensions of Carbon Steel Pipe Material

Material Number	Outer Diameter (mm)	Thickness (mm)	Weight (kg/m)	Material Number	Outer Diameter (mm)	Thickness (mm)	Weight (kg/m)	Material Number	Outer Diameter (mm)	Thickness (mm)	Weight (kg/m)
SGP-10A	17.3	2.3	0.851	SGP-32A	42.7	3.5	3.38	SGP-80A	89.1	4.2	8.79
SGP-15A	21.7	2.8	1.31	SGP-40A	48.6	3.5	3.89	SGP-90A	101.6	4.2	10.1
SGP-20A	27.2	2.8	1.68	SGP-50A	60.5	3.8	5.31	SGP-100A	114.3	4.5	12.2
SGP-25A	34.0	3.2	2.43	SGP-65A	76.3	4.2	7.47	SGP-125A	139.8	4.5	15.0

■ Stainless Steel Material

Classification	Material Number	Usage	Application	Magnetism	JIS	Resistance (N/mm)	Tensile Strength (N/mm)
Austenite	SUS303	Machine parts that require corrosion inhibitors	Type 18-8 free-cut stainless steel	None*	G4303 -	Above 206	Above 520
	SUS304	Machine parts that require corrosion inhibitors	Most versatile material	None*	G4303 -	Above 206	Above 520
	SUS316	Machine parts that require corrosion inhibitors		None*	G4303 -	Above 206	Above 520
Martensite	SUS440C	Machine parts that require corrosion inhibitors	Can be tempered	With	G4303 -	-	-
	SUS410	Machine parts that require corrosion inhibitors	Can be tempered/good workability	With	G4303 -	-	-

*May become magnetic from post-processing

■ Aluminum Alloy Material

Classification	Material Number	Usage	Application	JIS
Al-Cu Type Alloy	A2011	General strengthening material	Free cut alloy/good workability	H4000
	A2017	General strengthening material	Duralumin, strong, good workability	H4000
Al-Mg Type Alloy	A5052	General machine part	Most typical aluminum alloy	H4000
	A5056	General machine part	Good surface finish after cutting	H4000
Al-Mg-Si Type Alloy	A6061	General machine part	Heat treated corrosion resistant alloy	H4000
	A6063	General machine part/structural material	High extrudability allows for complex cross-sectional structures	H4000
Al-Zn-Mg Type Alloy	A7075	Jig/Mold	Super duralumin, one of the strongest alloys	H4000

Coating

Munsell Value

Composition of Unsaturated Color Codes

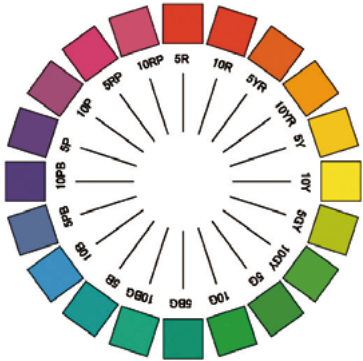
2.5G 6 / 3

Hue Brightness Saturation

Composition of Unsaturated Color Codes

N 3

Unsaturated Color Saturation



*Color may differ due to inconsistencies in printing.

Color Number (JPMA Issued Color Number Sample Book)

Current color chart number (the Munsell value can be learned from the color number)

Composition of Unsaturated Color Codes

F 72 - 50 P

Year of Issue Hue Brightness Saturation

Composition of Unsaturated Color Codes

F N - 80

Year of Issue Unsaturated Color Brightness

Even if the year of issue is different, the color will be the same if every other part is the same.

Year of Issue	Code
1995	T
1997	U
1999	Y
2001	A
2003	B
2005	C
2007	D
2009	E
2011	F

Hue	Code	Munsell Value
R Red	02	2.5R
	05	5R
	07	7.5R
YR Yellow-Red	09	10R
	12	2.5YR
	15	5YR
Yellow-Red	17	7.5YR
	19	10YR
	22	2.5Y
Y Yellow	25	5Y
	27	7.5Y
	29	10Y
GY Yellow-Green	32	2.5GY
	35	5GY

Hue	Code	Munsell Value
GY Yellow-Green	37	7.5GY
	39	10GY
G Green	42	2.5G
	45	5G
BG Blue-Green	47	7.5G
	49	10G
B Blue	52	2.5BG
	55	5BG
Blue	57	7.5BG
	59	10BG
Blue	62	2.5B
	65	5B
Blue	67	7.5B
	69	10B

Hue	Code	Munsell Value
PB Blue-Purple	72	2.5PB
	75	5PB
	76	6.25PB
P Purple	77	7.5PB
	79	10PB
	82	2.5P
P Purple	85	5P
	87	7.5P
	89	10P
RP Red-Purple	92	2.5RP
	95	5RP
	97	7.5RP
Red-Purple	99	10RP

Brightness	
Code	Munsell Value
95	9.5
93	9.3
92	9.2
90	9
...	...
20	2
15	1.5
10	1

Saturation	
Code	Munsell Value
A	0.5
B	1.0
C	1.5
D	2.0
F	3.0
H	4.0
L	6.0
P	8.0
T	10
V	12
W	13
X	14

Previous Color Chart Number

Color Number Structure

S 31 - 513

Year of Issue Sheet Number Color Number

Year of Issue	Code
1965	A
1967	B
1969	C
1971	D
1973	E
1975	F
1977	G
1979	H

Year of Issue	Code
1981	J
1983	K
1985	L
1987	M
1989	P
1991	R
1993	S

Sheet Number	Page Listed in Color Sample Book
Color Number	Hue
000s	RP Red-Purple
100s	R Red
200s	YR Yellow-Red
300s	Y Yellow
400s	GY Green-Yellow
500s	G Green
600s	BG Blue-Green
700s	B Blue
800s	RB Blue-Purple
900s	P Purple
1000s	Unsaturated Color

If the color number is the same, it will be the same color regardless of year of issue or sheet number.

Please take care as the colors in the sample books may change (fading etc.) over time.

Plating Types and Characteristics

Intended Properties Type of Plating (Final plating shown)		Decorative	Rustproof	Friction Resistance	Mechanical Properties				Electrical Properties				Optical Properties		Thermal Properties		Physical Properties			Chemical Properties			Others											
					Rigidity	Lubricity	Dimensional Accuracy	Padding Ability	Die Releasing Ability	Low Friction Coefficient	Removability	Electrical Conductivity	Radio Frequency Properties	Magnetism	Low Contact Resistance	Resistance Properties	Anti-Reflectivity	Selective Light Absorption	Light Reflectivity	Weather Resistance	Heat Resistance	Heat Absorption	Thermal Conductivity	Heat Reflectivity	Solderability	Bonding Properties	Porous	Non-Cohesiveness	Adhesiveness	Chemical Resistivity	Contamination Proof	Bactericidal Ability	Plate Durability	Sealant Corrosion Proof
Decorative Plating	Copper	V										V	Y		Y							Y	V	V			V	Y/X	V					
	Nickel	V	Y	Y												Y/X							Y											
	Chromium	V	V	V													V	V				V							Y	Y				
	Black Chromium/Nickel	V	V													V	V		Y	V														
	Tin Alloy	V	Y									Y			Y			V					Y	Y			Y	Y/X						
	Copper Alloy	V																					Y					V						
	Nickel Alloy	V	Y																				Y											
	Gold/Gold Alloy	V	Y										Y					V	V			Y									Y			
	Silver	V				Y						V	Y		Y					Y	V		V	V							V			
	Rhodium	V	Y	V										Y				Y	V	Y								V						
	Palladium	V		Y												Y				Y								V						
	Platinum	V	Y	V																Y								V						
	Black Rhodium	V		Y													V	Y		V														
	Electroforming	V					V	V																										V
Chemical Conversion Treatment/Coloring	Y	Y							V						V	Y/X				Y	Y				Y	Y	Y/X	Y	Y	Y	Y	Y		
Rustproof Plating	Zinc (Unichrome)	Y	V			Y/X			Y	Y					Y/X		Y/X	Y/X		Y/X			Y/X				Y							
	Zinc-Nickel Alloy		V																															
	Cadmium		V							Y													Y										V	
	Tin-Zinc Alloy		V							V													Y											
	Cadmium-Titanium Alloy		V																														V	
	Chemical Conversion Treatment		V																								Y							
Industrial Plating	Copper						V		Y	V	V	Y/X								V		V	V			Y			V					
	Electroless Copper					Y/X	Y				V											Y	Y			Y			Y					
	Nickel	Y	Y	Y			Y					Y			Y/X		Y/X	Y	Y					Y			Y							
	Nickel-Cadmium Diffused		Y																	V														
	Electroless Nickel	Y	V	V	Y	Y/X	V		Y	Y		Y		Y/X	Y/X	V				V			Y	V			V	V				V		
	Industrial (Hard) Chromium	V	Y	V	V	Y	Y/X	V	Y	Y	Y/X									Y					V	Y		Y			V	Y/X		
	Black Chromium	V	V														V	V			V													
	Gold/Gold Alloy	V	Y	Y/X								V	Y		V				V			Y		Y	V							Y		
	Silver	Y			Y/X	V						V	Y							V		V		V	V					V				
	Rhodium	V	Y	V	V										V													V						
	Platinum		Y	Y																								V						
	Palladium														Y													V						
	Ruthenium			Y	Y										V																			
	Tin	Y	Y						Y/X	Y	Y											Y	V				Y	Y						
	Tin-Lead Alloy		Y			V					Y	Y	Y										V				Y	V						
	Lead		Y			V					Y																	V	V					
	Indium					V										Y																		
	Iron							V			V																							
Magnetism													V																					
Dispersed (Compound)			V		V			V	V																	V	Y							
Electroforming						V	V					V																						

Cautio

Some platings are included that are not handled by our company.

V Most effective

Y Effective

Y/X May be effective depending on plating separation and usage

Caution) Some platings are included that are not handled by our company. V Most effective Y Effective Y/X May be effective depending on plating separation and usage

Plating Terminology

Anion	Negatively charged ion. Also known as negative ion.	Satin finishing method	A method that gives a directional, matte finish.
Etching	A method for chemically or electrochemically corroding metal or non-metal layer surfaces.	Base	The material on which coating is formed or deposited.
Chemical plating method	A surface treatment that chemically conducts reductive deposition of a metal on metal or non-metal layer surfaces.	Electroplating	Metals electrochemically deposited (electro-coated) on metal or non-metal layer surfaces. Also referred to as the plating method.
Cation	Positively charged ion. Also known as a positive ion.	method	non-metal layer surfaces. Also referred to as the plating method.
Chromate treatment	A method of forming a rustproof coating by submerging the product in a liquid mainly composed of chromic acid or chromate.	'Japanese Pearl' finishing method	A method of mechanically or chemically applying a rough surface finish.
Industrial	Generally refers to a relatively thick chromium plating used to add chromium plating friction resistance. Also known as hard chromium plating.	Buff polishing method	A method of polishing by applying various polishing agents to the surface of or around the buff.
Alloy plating	An alloy coating created by electroplating two or more types of metal, or a metal and a non-metal.	Barrel-plating method	A method of electroplating carried out in a rotating vessel.
		Semi-bright finishing method	A method for creating a low-sheen plating.
		Hairline finish	A method of mechanically applying a directionally marked finish to a surface.
		Matte finish	A method for applying a non-directional, non-shine finish.