



# ALL STAINLESS STEEL PRODUCTS

2023 Spring Edition

**ASANO**



## Working with stainless steel, utilizing reliable technologies

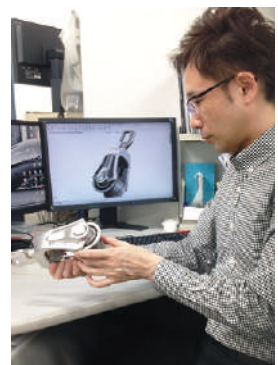
Asano Metal Industry has investigated the potential of stainless steel in a wide variety of fields such as ocean, fisheries, construction, and civil engineering, and produced many products.

Among our products, the variation and specialty of stainless steel products such as blocks, fishing gear, and ship equipment have been popular and highly evaluated by Japanese customers for many years.

Progress that has been made and progress to be made in the future.

Asano Metal Industry is your partner. We fabricate products that satisfy customers' requirements to a high level in a range of product fields.

We will continue to be a future-oriented pioneer producing products that are constantly relevant and leading edge utilizing our system that provides reassuring safe quality and rapid delivery. Furthermore, we will strive to keep advancing based on our philosophy of "making constant improvements".



## Material description

### ● Casting articles made of stainless steel

Material	Corresponding materials	Characteristics and usage
SCS1	SUS410	Higher in strength than SCS13, but lower in corrosion resistance. Used for rollers and machine parts.
SCS2	SUS420J1	Higher in hardness than SCS1, due to tempering. Used for paper production and water purification systems.
SCS11	SUS329J1	Dual-phase steel. Excellent in abrasion resistance and corrosion resistance. Used for sea water pumps and other industrial parts.
SCS13	SUS304	The most widely used material. Used for valves, pumps, construction materials, and other industrial parts.
SCS14	SUS316	Higher in corrosion resistance than SCS13. Used for valves, pumps, food processing machines, and other industrial parts.
SCS16	SUS316L	Higher in intergranular corrosion resistance than SCS14. Used for chemical and medical machine parts.
SCS18	SUS310S	Excellent in hot corrosion resistance. Used for chemical machine parts.
SCS24	SUS630	High strength, excellent in abrasion resistance. Corrosion resistant. Used for paper production parts and machine parts.

### ● Stainless heat-resistant steel

Material	Corresponding materials	Characteristics and usage
SCH2	—	Used for fire grates of incinerators.
SCH11	—	Used for fire grates of incinerators, fittings for kilns, and industrial furnace parts.
SCH13	(SUS309S)	General heat-resistance steel. Used for furnace floors, fittings in furnaces, and industrial furnace parts.
SCH22	(SUS310S)	Excellent in heat resistance and high thermal resistance. Used for heat resistant rollers, furnace stands, skid rails, and crematory furnace parts.

## Precautions for products

- ① Products listed in this catalog are for business, not domestic, use. Please handle carefully. Use the products for the intended purposes only. Otherwise, unexpected accidents may result.
- ② Please note that there are some tolerances in the values of the dimensions indicated for each product.
- ③ Do not exceed the working load. The working load in this catalog indicates the load for safety usage. Do not give sudden shocks to the products, as this may deform or break them.
- ④ Do not use the products to support human lives, such as suspending human bodies or using over head.
- ⑤ If there are abnormalities, including deformations, cracks, or wearing, stop use of the products immediately and replace.
- ⑥ Loose screws and defective springs may cause accidents. Please check the products before use.
- ⑦ Use the products properly. Excessive twisting and bending may reduce the strength, and may lead to breakage.
- ⑧ Do not modify the products by welding or deforming. Otherwise, unexpected accidents may result.
- ⑨ Avoid prolonged contact of stainless products with dissimilar metals, as this may lead to corrosion.
- ⑩ Do not use the products in environments exposed to acids, alkalis, or sudden temperature changes, as those may reduce the strength of the products.



A large fishing vessel is shown at sea, silhouetted against a clear blue sky. In the background, a range of mountains with snow-capped peaks is visible. A small bird is flying in the sky above the vessel. The vessel has a crane and other equipment on deck.

# All Stainless Steel Products Designed in Japan

Trusted technology that responds  
to professional needs

004 Stainless Steel Block

030 Fishing Gear & Ship Equipment

076 Rigging Hardware & Wire Rope

# Stainless Steel Block

## FEATURE 01

### Best balance of strength and lightweight properties

Many of ASANO's blocks use stainless steel casting-integrated bodies. The carefully crafted main bodies, e.g. ribs, are created in sections requiring strength, to which force is applied so that such sections develop strength, lightness, and compact characteristics simultaneously. This stainless steel pulley block provides the best balanced combination of functionality and safety based on our manufacturing experience and technologies, which satisfies professional requirements.

## FEATURE 02

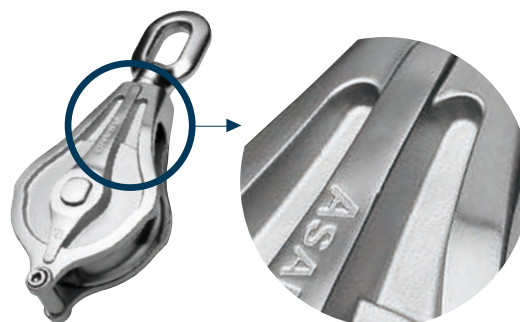
### Combinations of parts suited to product characteristics

ASANO excels at designing products with unique shapes with high degrees of freedom. For blocks, the shape of the main body, which requires a light weight and a curved surface for practical use, is optimized with a 3D CAD system; the swiveling sections, which must be particularly strong for suspension and other uses, are made with forged parts. As a result, these difficult-to-combine requirements — compact and lightweight, yet incredibly strong — have been achieved at a high level.

## FEATURE 03

### Design that prevents nets and ropes from becoming entangled and damaged

A structure in which both ends of the sheave are fitted into the main body eliminates the clearance between the sheave and main body and prevents ropes and nets from getting caught. ASANO has paid extremely high attention to detail in this original design that does not damage tools. In addition, for blocks with wide sheaves, sufficient space is provided between the main body and sheave to allow thick ropes to easily pass through.



AK Block Type PB II (P016)

For sections where force is applied

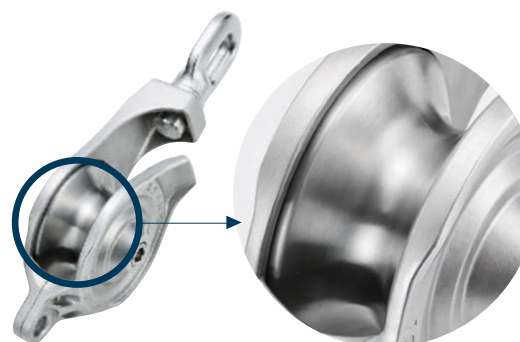
Forged part

For sections that have curved surfaces and that are required to be lightweight

Shape optimized with 3D CAD



Daruma Block Type PB (P006)



Wide Sheave Wani-Block (P028)



## FEATURE 04

### Smooth sheave rotation and captive pin

The high speed rotation performance of the sheave is important depending on where the block is used. ASANO's blocks containing bearings have shield bearings to ensure smooth rotation even after the blocks have been used for an extended period of time. In addition, the end of the bolt that secures the sheave pin are caulked in order to securely fix the bolt. This prevents bolts from unexpectedly coming loose and sheaves from coming off.



Hanging Roller Type PB (P026)

## FEATURE 05

### Superior seawater resistance thanks to special stainless steel



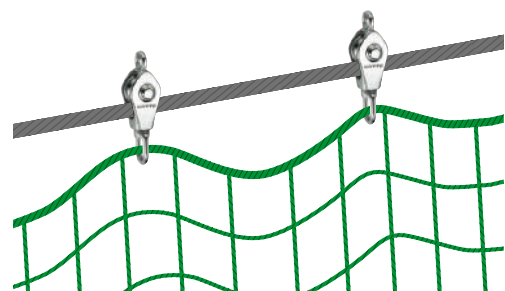
Realizing that many blocks are used in extreme environments such as on ships and at harbors, many block products are manufactured from special stainless steel. This special stainless steel is highly resistant to seawater, and offers superior corrosion- and abrasion-resistant characteristics. This extends the product life which subsequently reduces costs.



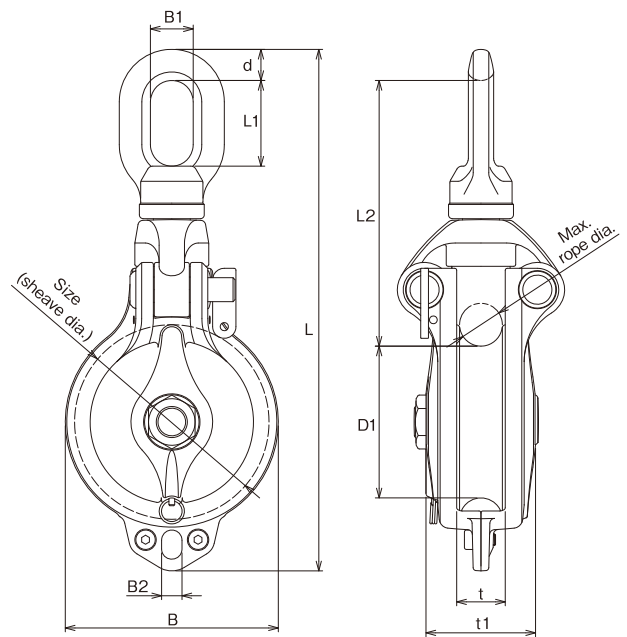
## FEATURE 06

### Compact block with an important role

ASANO's blocks are not only used at sea. The blocks also play important roles on land. The block lineup includes compact products such as the "AK Block Type S" and the "Mini-Block". These products have been used for partition nets in gymnasiums and safety nets laid on the ground. When these blocks are used, nets can be easily opened and closed.



AK Block Type S



## Daruma Block Type PB, Single Sheave (with Bearing)



No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1691	100	1	22	16	268	44	137	78	110	22	10.5	25	56	5	6304	2.6	1.6

\* Material: Special stainless steel, Sheave = SCS1 (equivalent to SUS410), Sheave pin/swivel/swivel pin/toggle pin/stopper pin = SUS304

\* The working load does not apply to the becket part. \* The working load conforms to the working load of the bearings.

\* This product contains two steel bearings with rubber seals.



## Product features

Toggle pin

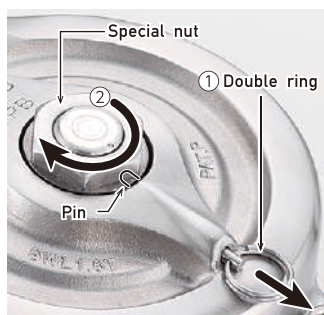


### Measures against loose nuts

- The invented special nut offers loose nut preventive function.

- ① Pull the double ring.
- ② Turn the special nut while pulling the ring.

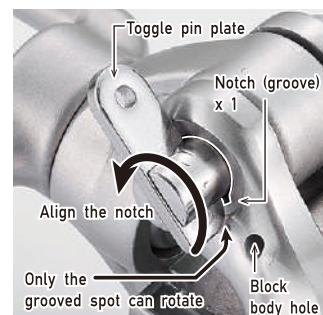
\*The pin will be released only by pulling the double ring. The pin will be caught when turning the special nut without pulling it. Be sure to keep pulling when turning.



### Measures against toggle pin release

- The toggle pin can be removed only when the toggle pin plate is aligned with the notch (groove). This is to prevent the unintended release of the toggle pin.

- Vibrations may cause unintentional position alignment. To prevent this, bind the holes on the toggle pin plate and block body with a wire.



### V sheave type

The V-shaped sheave is developed for the wire rope. The wire rope fits well because of this V-shaped groove.



#### [V sheave type]

No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1690	75	1	16	14.5	214	38	111	59	83	19	8.5	21	45	4	6202	1.3	0.7
AK1696	100	1	16	16	268	44	134	84	110	22	10.5	25	56	5	6304	2.6	1.6

\* Material: Special stainless steel, Sheave = SCS1 (equivalent to SUS410), Sheave pin/swivel/swivel pin/toggle pin/stopper pin = SUS304  
 \* The working load does not apply to the becket part. \* The working load conforms to the working load of the bearings.  
 \* This product contains two steel bearings with rubber seals.



[Single sheave]



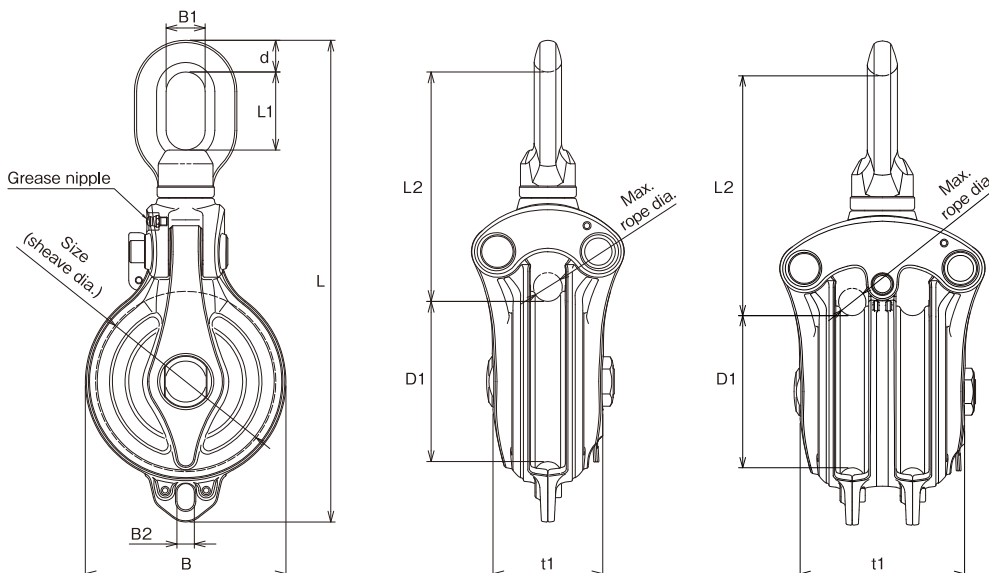
[Double sheave]

**NEW**

## Heavyduty Block Type PB (with Bearing)



No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1854	125	1	20	22	334	54	159	111	139	27	12	76	5	6207	6.2	2.5
AK1855	150	1	20	25.5	389	58.5	182	132	167	30	12.5	87	6	6209	9.8	3.0
AK1856	175	1	24	29	444	66	205	155	192	34	13.5	96.5	6	6210	13.8	3.5
AK1864	125	2	20	25.5	353	58.5	175	111	139	30	12	120	5	6207	10	2.5



- \* Material: Special stainless steel, Sheave pin/swivel/swivel pin/toggle pin/stopper pin = SUS304, Grease nipple = SUS303
- \* The working load does not apply to the becket part.
- \* The working load conforms to the working load of the bearings.
- \* This product contains two steel bearings with rubber seals.
- \* Please contact us for information on when AK1864 will be available.

## Product features



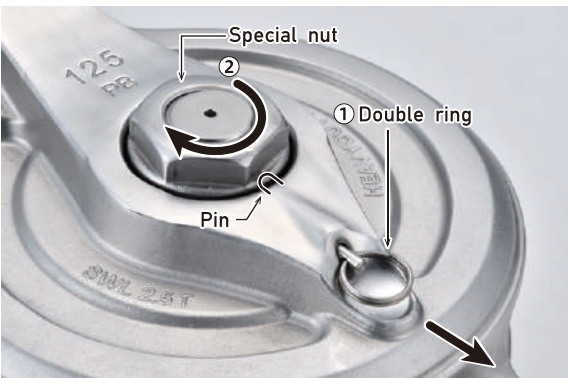
### Bearings for smooth rotation

This new model has two sets of bearings with rubber seals. This helps the rotation stability of the sheave under heavy loads, and improves workability at sea.



### New mechanism for double sheave model

Partition plate between the sheave can be fixed with pin to the arm. This improves the strength and stability.



### Measures against loose nuts

- The invented special nut offers loose nut preventive function.
- ① Pull the double ring.
- ② Turn the special nut while pulling the ring.

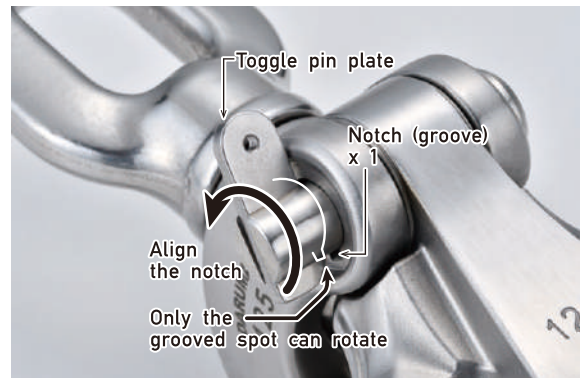
\* The pin will be released only by pulling the double ring. The pin will be caught when turning the special nut without pulling it. Be sure to keep pulling when turning.



Toggle pin

### A double arm for the top part

This special design assures safety and reliability while distributing the applied load.



### Measures against toggle pin release

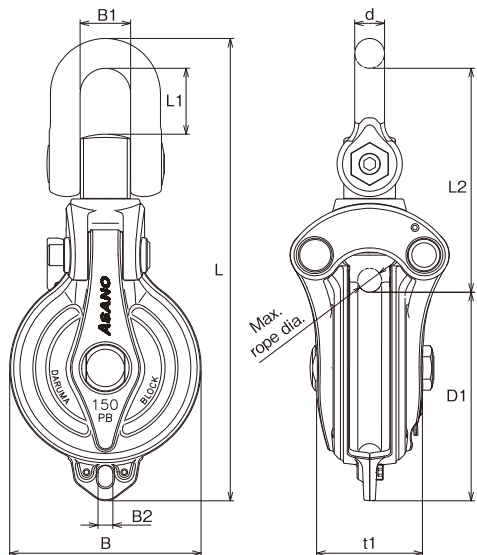
- The toggle pin can be removed only when the toggle pin plate is aligned with the notch (groove). This is to prevent the unintended release of the toggle pin.
- Vibrations may cause unintentional position alignment. To prevent this, bind the holes on the toggle pin plate and block body with a wire.



**Product features**



An updated model of ASANO's Heavyduty Block Type SII(P013). A double arm for the top part and a rib structure in the center of the main body distributes the applied load to assure safety and reliability.



The thickness of the sheave pin socket has been widened, which is about 200% of the current model Heavyduty Block Type SII, to improve strength and safety. To prevent the sheave pin nut from loosening, we have newly adopted a stopper pin unit.

**NEW**

**Heavyduty Block Type PB-SII (with Bearing)**

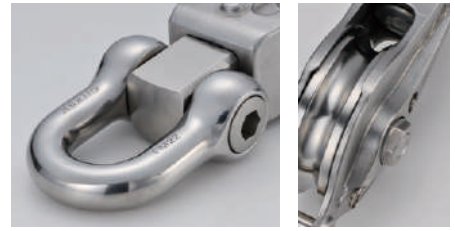


No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1875	150	1	21	26	403	57	195	182	167	44	13	92	6 · 10 · 14	6211	13.7	5.0

\* Material: Special stainless steel, Sheave pin / swivel pin / arm pin = SUS304, Grease nipple = SUS303  
 \* The working load does not apply to the becket part. \* The working load conforms to the working load of the bearings.  
 \* This product contains two steel bearings with rubber seals.



## Product features



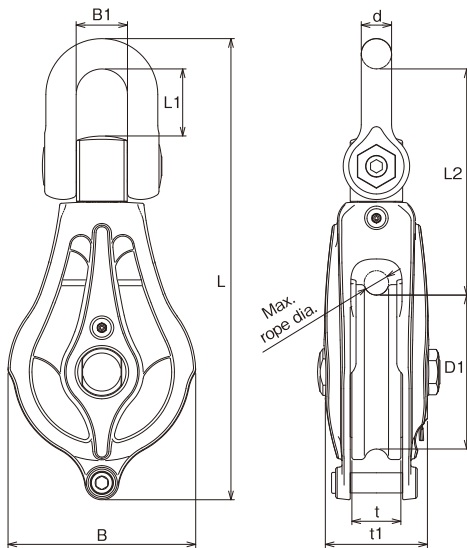
In order to improve the strength and safety, the pin diameter of the shackle is increased and the sheave pin socket is widened.



This newly developed model uses two bearings to improve the stability during sheave rotation. At the same time, bearings with higher strength are used to match the working load limit.



The grease nipple has been updated to SUS303, while the current model is made of brass. Furthermore, it is now possible to lubricate the bearings.



**NEW**

## Tough Block Type PB-II (with Bearing)



No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1885	125	21	23	346	50	175	134	38	37	76	8 · 14	6208	7.1	3.0
AK1890	125	26	23	346	50	175	134	38	37	76	8 · 14	6208	7.0	3.0
AK1886	150	21	26	396	57	194	161	44	42	87	10 · 14	6211	11.9	5.0
AK1891	150	30	26	396	57	194	161	44	42	87	10 · 14	6211	11.4	5.0
AK1887	175	25	29	456	62	222	187	50	45	96	12 · 14	6212	16.1	6.0
AK1892	175	32	29	456	62	222	187	50	45	96	12 · 14	6212	16.6	6.0

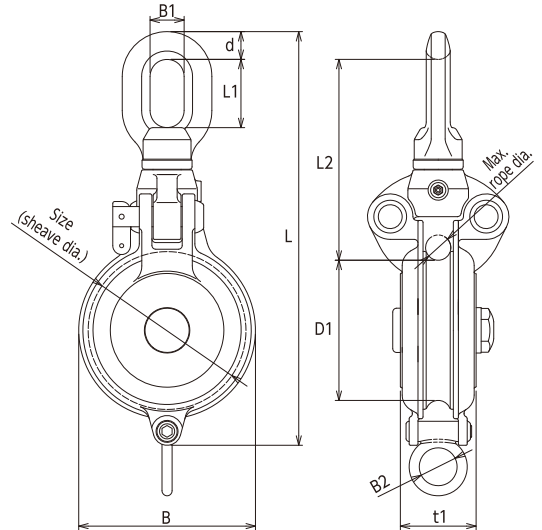
\* Material: Special stainless steel. Sheave pin / swivel pin = SUS304, Grease nipple = SUS303

\* The working load conforms to the working load of the bearings.

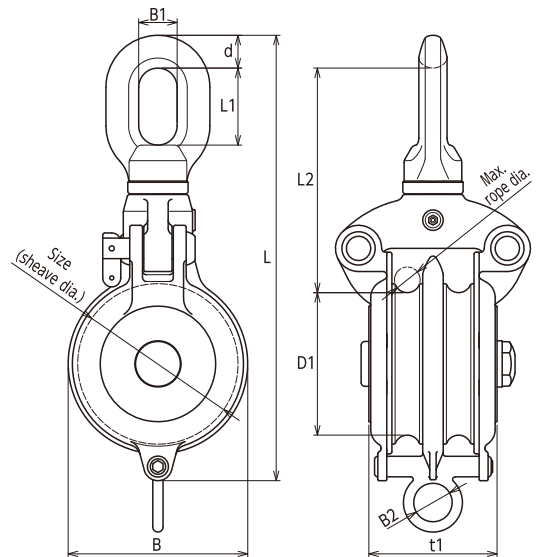
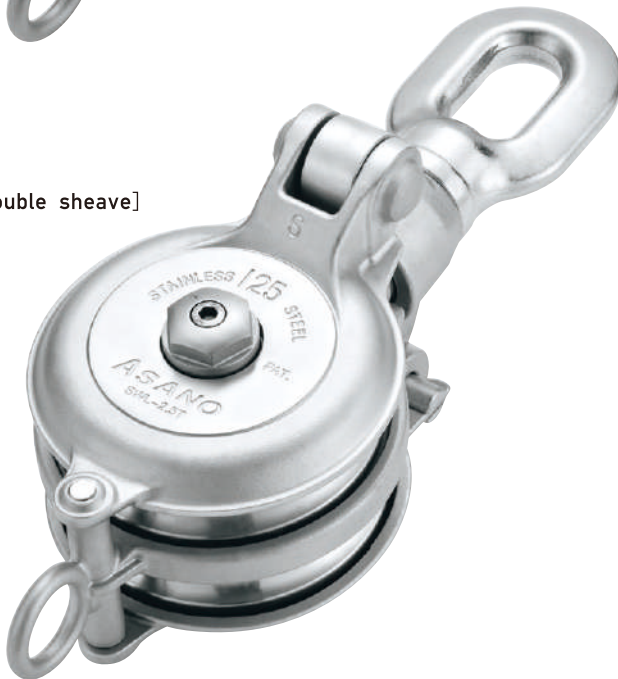
\* This product contains two steel bearings with rubber seals.

Assuming the use with metal wire rope or textile rope, two types of the sheave with different maximum rope diameter are available for each size.

[Single sheave]



[Double sheave]



## Heavyduty Block (with Bearing)

\* Sales of this product will cease when it is no longer in stock.



[Single sheave]

No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1734	175	24	29	434	68	206	155	194	34	40	82	8 · 10	6312	14.3	3.5

[Double sheave]

No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1792	125	20	25.5	347	60	175	111	140	30	30	100	6 · 8	6308	9.8	2.5

\* Material: Special stainless steel. Sheave pin/swivel/swivel pin/arm pin = SUS304, Grease nipple = brass

\* The working load does not apply to the becket part.

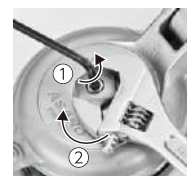
\* The working load conforms to the working load of the bearings.

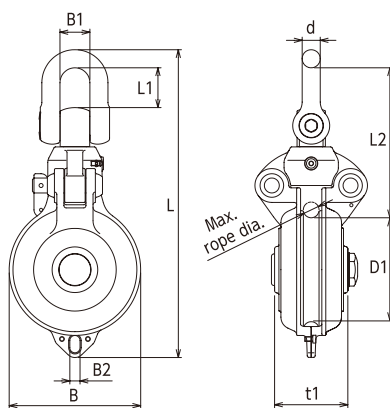
\* The nut at the center of the body is a left-handed thread.

\* This product contains one steel bearing with rubber seals.

### How to remove the nut

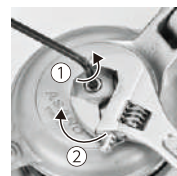
- ① Rotate the pin at the center of the nut (right-handed thread) with a hexagon wrench to remove it.
  - ② Rotate the nut (left-handed thread) with a spanner to remove it.
- Reverse the order of the procedure to reattach them.





### How to remove the nut

- ① Rotate the pin at the center of the nut (right-handed thread) with a hexagon wrench to remove it.
  - ② Rotate the nut (left-handed thread) with a spanner to remove it.
- Reverse the order of the procedure to reattach them.



## Heavyduty Block Type SII (with Bearing)

\* Sales of this product will cease when it is no longer in stock.



No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK1783	150	20	23	391	50	190	132	167	38	13	93	4 · 8 · 14	6308	12.2	5.0

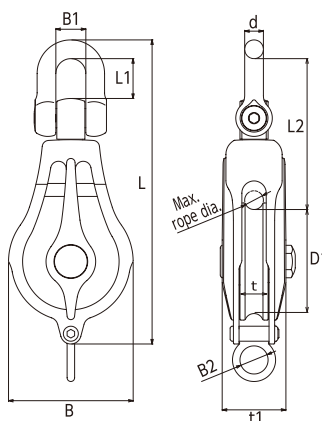
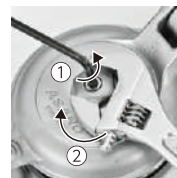
\* Material: Special stainless steel, Sheave pin/swivel pin/arm pin = SUS304, Grease nipple = brass

\* The working load does not apply to the becket part. \* The working load conforms to the working load of the bearings.

\* The nut at the center of the body is a left-handed thread. \* This product contains two steel bearings with rubber seals.

### How to remove the nut

- ① Rotate the pin at the center of the nut (right-handed thread) with a hexagon wrench to remove it.
  - ② Rotate the nut (left-handed thread) with a spanner to remove it.
- Reverse the order of the procedure to reattach them.



## Tough Block Type PB (with Bearing)

\* Sales of this product will cease when it is no longer in stock.

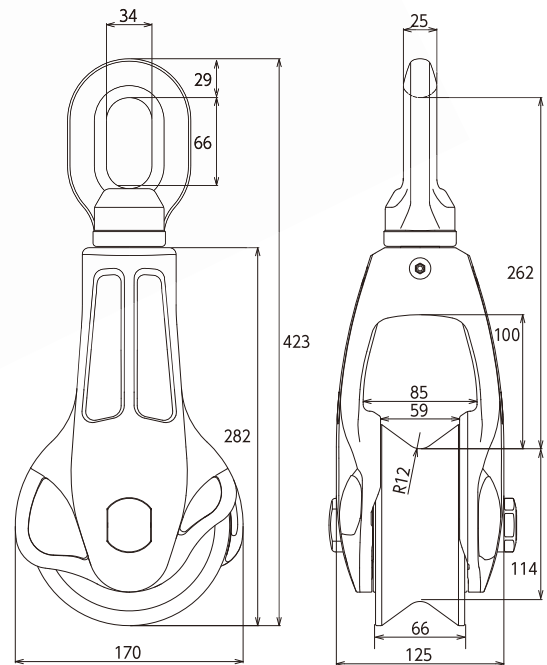


No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK10010	125	20	20	325	42	161	111	133	32	30	30	68	6 · 8 · 10	6308	6.2	3.0
AK10011	150	20	23	370	50	180	132	159	38	30	33	75	8 · 14	6310	9.4	5.0
AK10012	175	24	26	427	57	208	155	185	44	40	39	85	8 · 10 · 14	6312	14.4	6.0

\* Material: Special stainless steel, Sheave pin/neck bolt = SUS304

\* The working load does not apply to the becket part. \* The working load conforms to the working load of the bearings.

\* The nut at the center of the body is a left-handed thread. \* This product contains one steel bearing with rubber seals.



## Tough Hanging Roller Type II (with Bearing)



No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK10065	150	32	6308	11.8	5.0

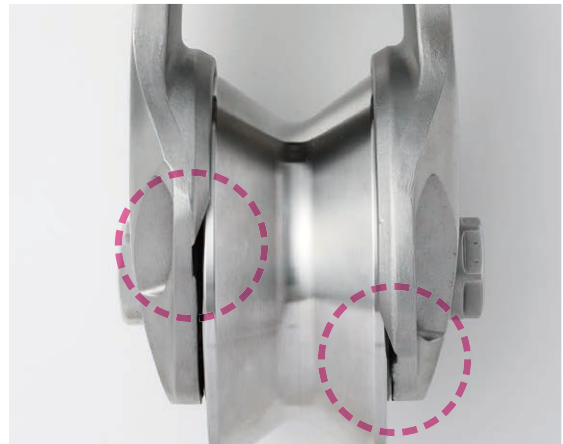
\* Material: Special stainless steel, Swivel/swivel pin/sheave pin = SUS304, Grease nipple = SUS303  
 \* The working load conforms to the working load of the bearings.  
 \* This product contains two steel bearings with rubber seals.



## Product features



Small metal fittings like the Snap Hook/1SH (P036) can pass through. (Refer to P033, usage example K.)



Changing the horizontal width of the main body prevents even metal fittings from getting caught when hoisting.

The sheave is also designed to be in the main body to prevent ropes from being caught.



The wider space between the body and the sheave allows ropes and fittings to pass through.



The bolt edge of the sheave pin is tightly fixed through crimping.



Swivel grease nipple

Use a grease gun to lubricate.

\* Use a grease gun with a nozzle size that is smaller than the inner diameter of the lubrication section.



## AK Block Type PB (with Bearing)

## AK Block Type PB (with Stainless Bearing)

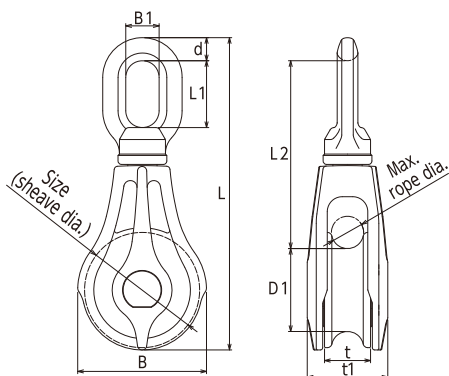


[With bearing]

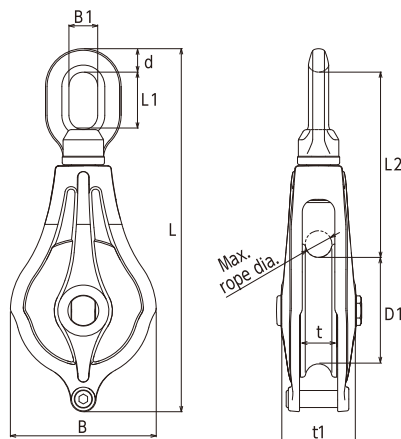
No.	Size (sheave dia. (mm))	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Bearing No.	Unit weight (kg)	Working load limit (kg)
AK1680	50	14	10	136	29	82	36	56	14	20	35	6000	0.5	400
AK1681	75	16	14.5	194	38	111	59	81	19	24	44	6002	1.3	600
AK1682	100	22	16	243	44	137	78	106	22	28	50	6203	2.5	1,000

[With stainless steel bearing]

No.	Size (sheave dia. (mm))	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Bearing No.	Unit weight (kg)	Working load limit (kg)
AK10300	50	14	10	136	29	82	36	56	14	20	35	6000	0.5	400
AK10301	75	16	14.5	194	38	111	59	81	19	24	44	6002	1.3	600
AK10302	100	22	16	243	44	137	78	106	22	28	50	6203	2.5	1,000



- The sheave is designed to be in the main body to prevent the ropes from being caught.
- The bolt used for connecting the swivel is one size thicker than those of previous blocks for greater strength.
- \* Material: Special stainless steel, Swivel/swivel pin/sheave pin/nut = SUS304
- \* The working load conforms to the working load of the bearings. (This product contains two bearings.)



The bolt edge of the sheave pin is tightly fixed through crimping.



AK10074 has grease nipples on the body.

## AK Block Type PB II (with Bearing)



No.	Size (sheave dia. (mm))	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Hex, wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK10073	125	25	22	341	52	174	100	137	27	34	69	8	62/28	4.9	1.5
AK10074	150	30	25.5	397	58.5	197	120	163	30	38	95.5	10	6207	7.5	2.5

- \* Material: Special stainless steel, Swivel/swivel pin/sheave pin/becket bolt/becket collar = SUS304
- \* The working load conforms to the working load of the bearings.
- \* This product contains two steel bearings with rubber seals.
- \* Please ask us about when AK10074 will be available for sale.



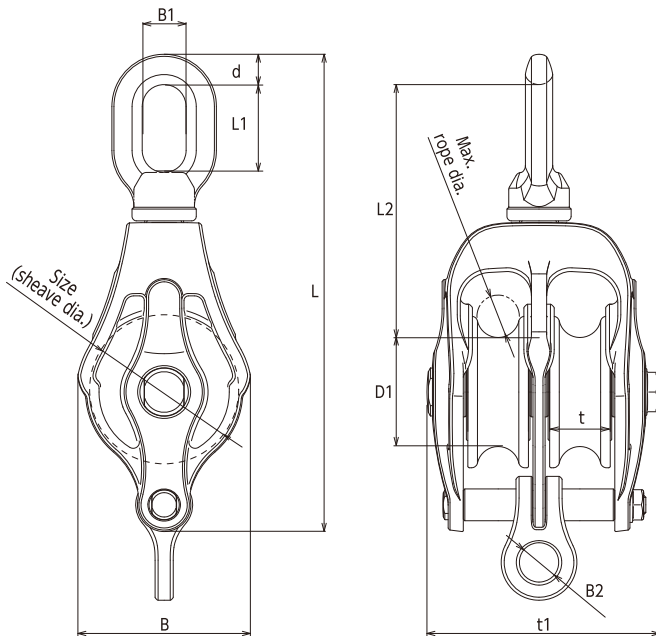
## Product features



A becket unique to this model is used. This has been designed for safety and is stronger than becket s used for existing models.



The design of the sheave pin socket has been widened to improve the strength of the main body. The bearings in the sheave facilitate smooth rotation.



The bolt edges of the sheave and becket pins are firmly fixed through crimping to prevent them from loosening.

## AK Block Type PB Double Sheave (with Stainless Bearing)



No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Bearing No.	Unit weight (kg)	Working load limit (kg)
AK10310	50	14	10	158	29	83.5	36	57	14.5	13	20	77	6000	0.95	400
AK10311	75	16	14.5	229	37.5	117	59	84	19	16.5	24	94	6002	2.35	600
AK10312	100	22	16	282	43	141.5	78	109	22	19.5	28	110.5	6203	4.35	1,000

\* Material: Special stainless steel, Swivel/swivel pin/sheave pin/becket pin/becket pin cover = SUS304

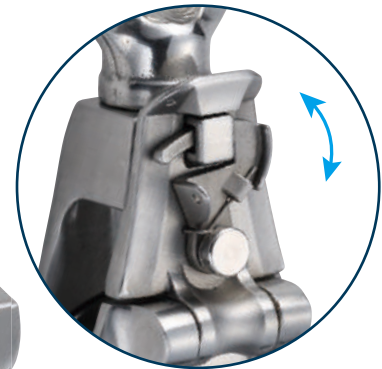
\* The working load conforms to the working load of the bearings. \* This product contains two stainless steel bearings with rubber seals.

# AK Snatch Block Type PB



## Product features

The hook-type snatch enables smooth rope insertion and extraction. Additionally, the new hook design is shaped to be easy to handle with fingers, which allows for quick opening and closing and helps improve work efficiency.



## Designed to help prevent accidental hook release

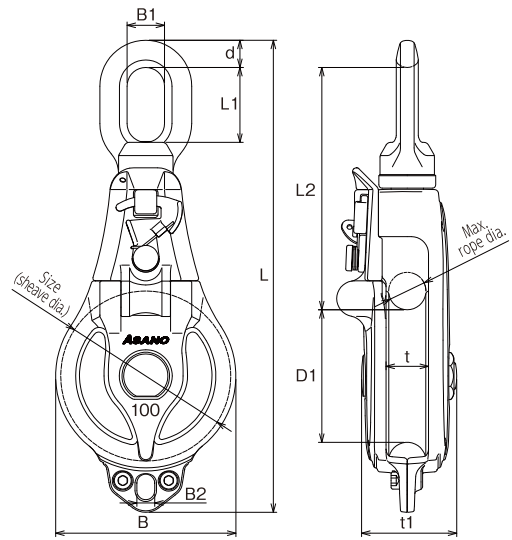
The hook and the body each have a hole through which a wire can be threaded, to fix the hook to the body and prevent accidental release.



## Double-shielded bearing

This block features a ball bearing for stabler sheave rotation compared to our existing snatch blocks that use bushing (AK Snatch Block Type III-A with eye top or forged hook top; see P025).





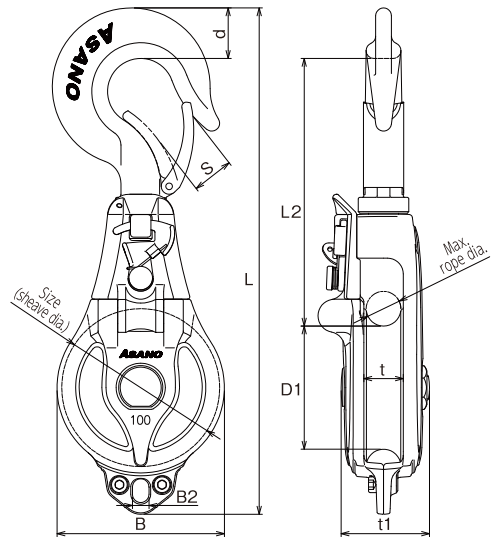
**NEW**

## AK Snatch Block Type PB with Eye Top (with Stainless Bearing)



No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (kg)
AK10202	100	1	22	16	278	44	143	78	106	22	10.5	25	56	5	2.7	1,000

\* Material: Special stainless steel, Swivel/swivel pin/sheave pin = SUS304  
 \* The working load does not apply to the becket part. \* The working load conforms to the working load of the bearings.  
 \* This product contains two stainless steel bearings with rubber seals. \* Please contact us for information on when the product will be available.



**NEW**

## AK Snatch Block Type PB with Forged Hook Top (with Stainless Bearing)



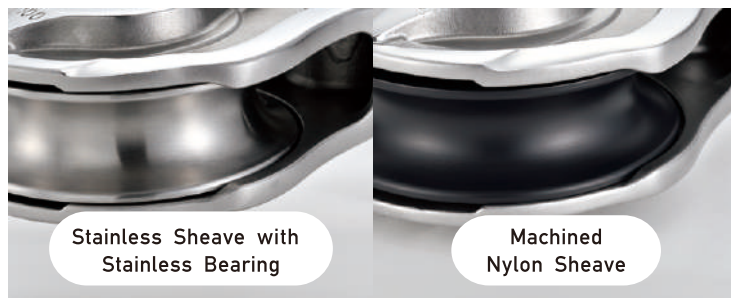
No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L2 (mm)	D1 (mm)	B (mm)	B2 (mm)	S (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (kg)
AK10207	100	1	22	32	321	170	78	106	10.5	26.5	25	56	5	3.2	1,000

\* Material: Special stainless steel, Hook/sheave pin = SUS304  
 \* The working load does not apply to the becket part. \* The working load conforms to the working load of the hook.  
 \* This product contains two stainless steel bearings with rubber seals. \* Please contact us for information on when the product will be available.

# AK Block Type PB-S

The "AK Block Type PB-S" series is a model that has been developed for use with aquaculture nets. In particular, a model with a machined nylon sheave provides durability even when it is soaked in seawater.

## Product features



Stainless Sheave with Stainless Bearing

Machined Nylon Sheave

Two types of sheaves are available in the product lineup, allowing you to select an appropriate sheave suitable for your purposes. Nylon MC801 used for the nylon sheave has excellent weather and abrasion resistance.



The product is designed so that the pins and nuts are flush with the main body surface. In addition, sharp edges and corners of the main body are rounded to ensure the design is easy on ropes and nets.



A structure in which both ends of the sheave are fitted into the main body prevents ropes from getting caught.

The main body has a compact integrated structure that provides superior strength. In addition, the material used for the product, with the exception of the nylon sheave, is special stainless steel that is widely used for industrial components such as seawater pumps due to its improved abrasion and corrosion resistance.

### Example of combination use

The product can be used in combination with ASANO's 16 mm Purse Shackle (P077).



In addition, the product can also be combined with 16 mm Quick Link or 16 mm Swivel (Jaw & Jaw). Please refer to our web site for the products.





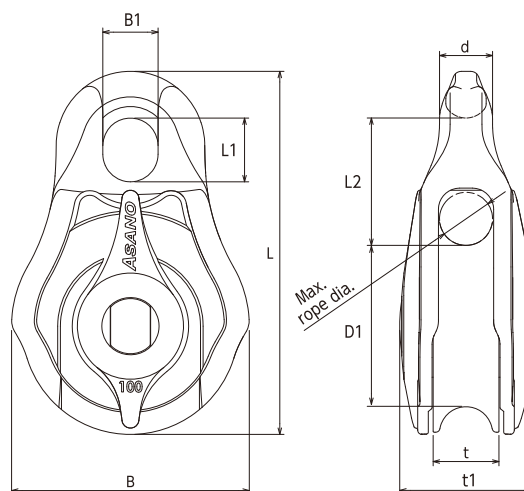
## AK Block Type PB-S

(Stainless Sheave with Stainless Bearing)



No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK10362	100	25	25	171	30	60	76	112	26	31	63.5	6203	2.1	1.0

\* Material: Special stainless steel \* The working load conforms to the working load of bearings.  
 \* This product contains two stainless steel bearings with rubber seals.



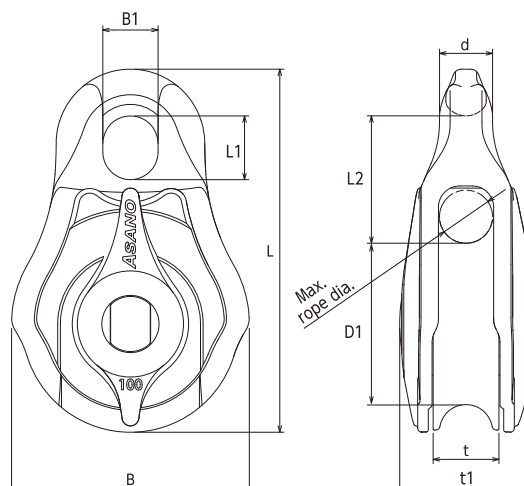
## AK Block Type PB-S

(Machined Nylon Sheave)



No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Unit weight (kg)	Working load limit (t)
AK10372	100	25	25	171	30	60	76	112	26	31	63.5	1.6	1.0

\* Material: Special stainless steel, Sheave = MC801 Nylon



# AK Block Type III-A

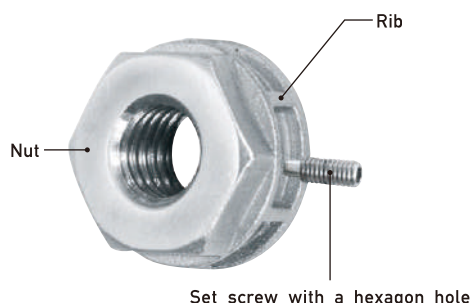
There are three types in the AK Block Type III-A series: the eye type, the hook type, and the snatch type. In addition, there are single sheave types and double sheave types.



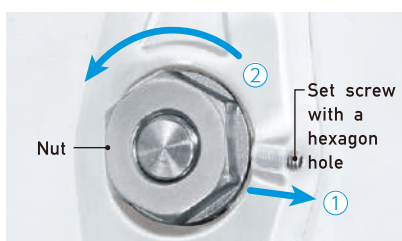
## Product features

### Improved nut loosening prevention

Ribs are designed into the nut, and a set screw is fixed between the ribs. When the nut is loosened, the rib runs into the set screw, making the nut harder to loosen.



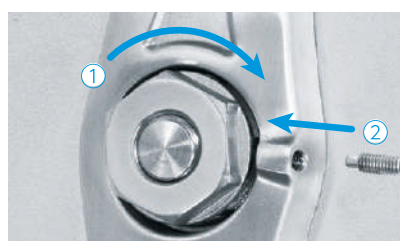
### How to remove



When removing, ① remove the set screw first, and then ② remove the nut.

⚠ Caution: If you attempt to remove the nut first, the tip of the set screw will bend and become unremovable.

### How to mount



When mounting, ① tighten the nut first, and then ② screw the set screw.

⚠ Caution: If the set screw is protruding during use, it may come off when the nut is loosened.



When the set screw runs into the rib, it is not fully inserted and is protruding. When this occurs, loosen the nut to the thickness of the ribs, and then screw it in all the way.

### Adopts a hook-type snatch

Allows fast open and close operation.



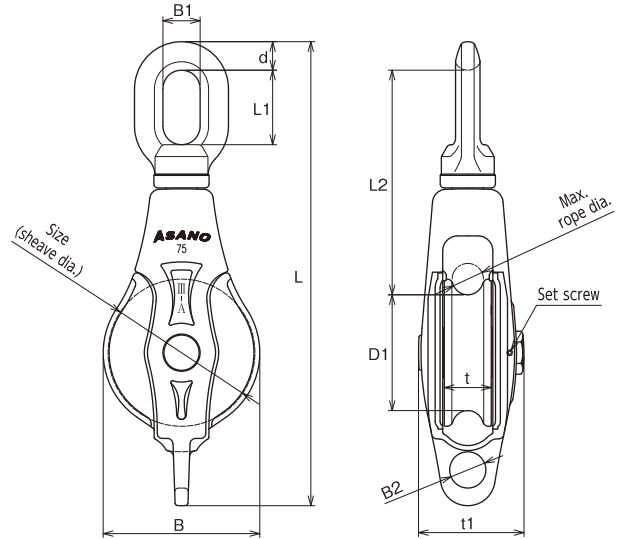
### Improved usability of ropes

Taking the maximum rope diameter for each size into consideration, the space below the sheave and the becket diameter are enlarged to improve usability. It enables broader use in more situations.

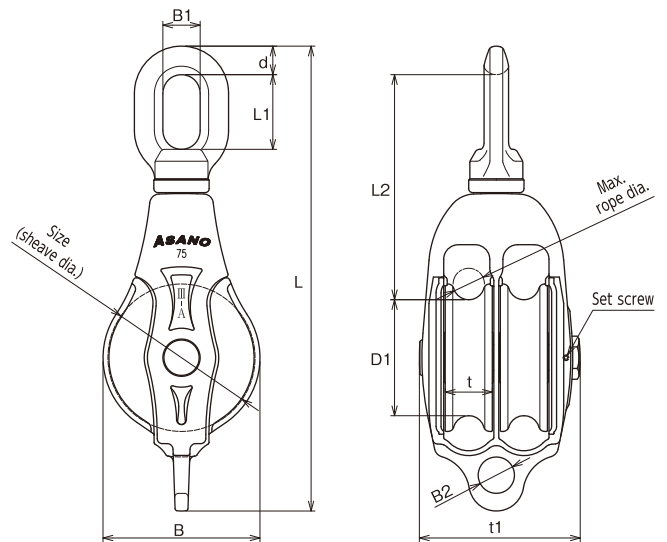




[Single sheave]



[Double sheave]



## AK Block Type III-A, Single / Double Sheave (with Eye Top)



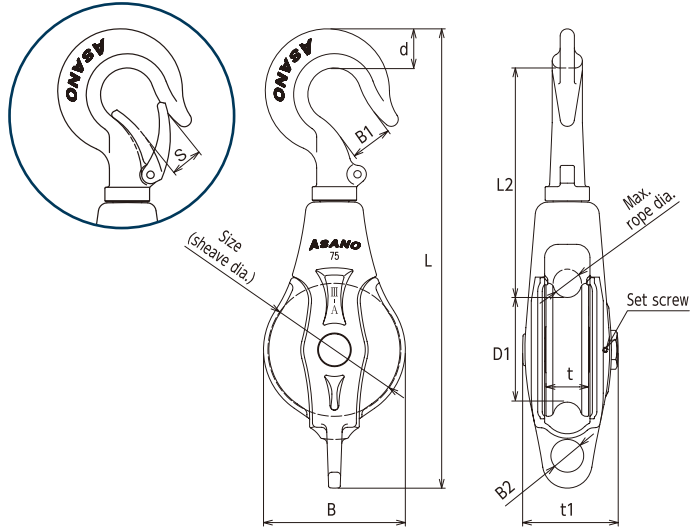
No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (kg)
AK10141	75	1	16	14.5	237	38	115	59	80	19	18	24	54	1.5	1.2	500
AK10146	75	2	16	14.5	237	38	115	59	80	19	18	24	82	1.5	1.6	500
AK10142	100	1	22	16	297	44	143	78	108	22	23	28	62	1.5	2.2	1,000
AK10147	100	2	22	16	297	44	143	78	108	22	23	28	95	1.5	3.1	1,000
AK10143	125	1	25	22	364	54	174	100	135	27	26	32	73	2	4.0	1,200
AK10148	125	2	25	22	364	54	174	100	135	27	26	32	111	2	5.7	1,200
AK10144	150	1	30	25.5	433	60	204	120	160	30	31	38	82	3	6.0	2,500
AK10149	150	2	30	25.5	433	60	204	120	160	30	31	38	130	3	9.0	2,500

\* Material: Special stainless steel, Sheave = SCS13 (equivalent to SUS304)  
Swivel/side plate/sheave pin/set screw with a hexagon hole = SUS304, Oil impregnated bush = bronze

[Single sheave]



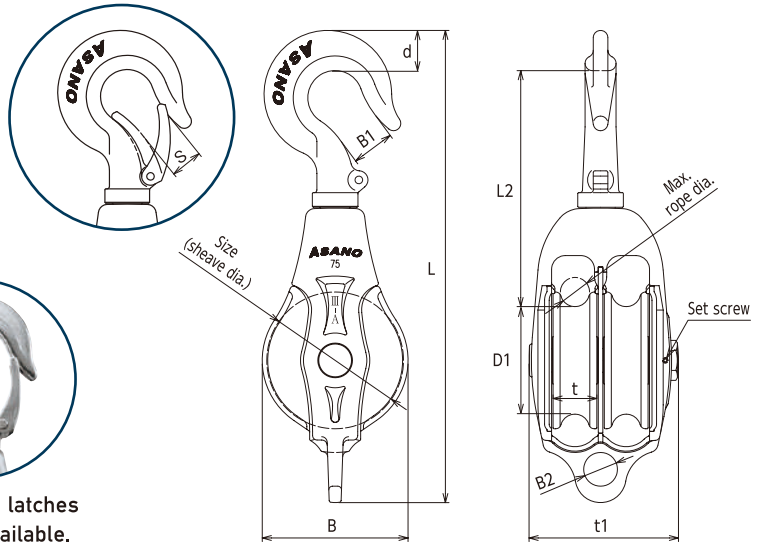
with latch



[Double sheave]



with latch



## AK Block Type III-A, Single / Double Sheave (with Forged Hook Top)



Without latch No.	With latch No.	Size (sheave dia.) (mm)	No. of sheaves	Max. rope dia. (mm)	d (mm)	L (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	S (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (kg)
AK10151	AK10181	75	1	16	22	259	129	59	80	23	18	18	24	54	1.5	1.25	500
AK10156	AK10186	75	2	16	22	259	129	59	80	23	18	18	24	82	1.5	1.80	500
AK10152	AK10182	100	1	22	32	340	170	78	108	30	23	26.5	28	62	1.5	2.70	1,000
AK10157	AK10187	100	2	22	32	340	170	78	108	30	23	26.5	28	95	1.5	3.75	1,000

\* Material: Special stainless steel, Sheave = SCS13 (equivalent to SUS304)  
Hook/side plate/sheave pin/set screw with a hexagon hole = SUS304, Oil impregnated bush = bronze

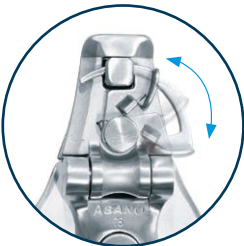
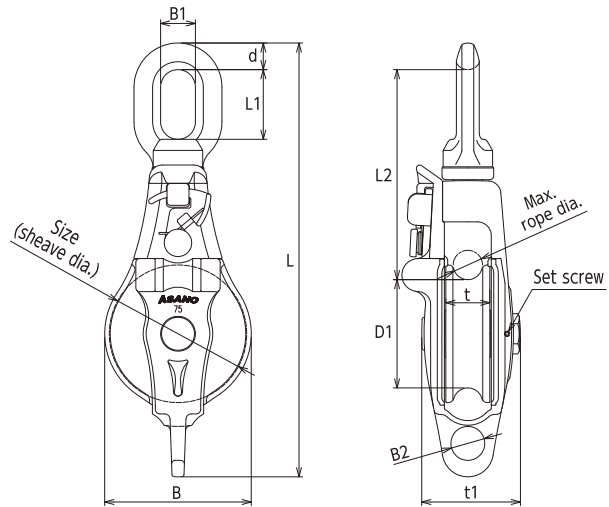
# AK Snatch Block Type III-A, Single Sheave (with Eye Top)



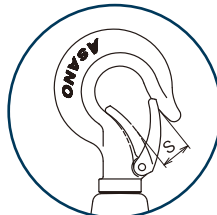
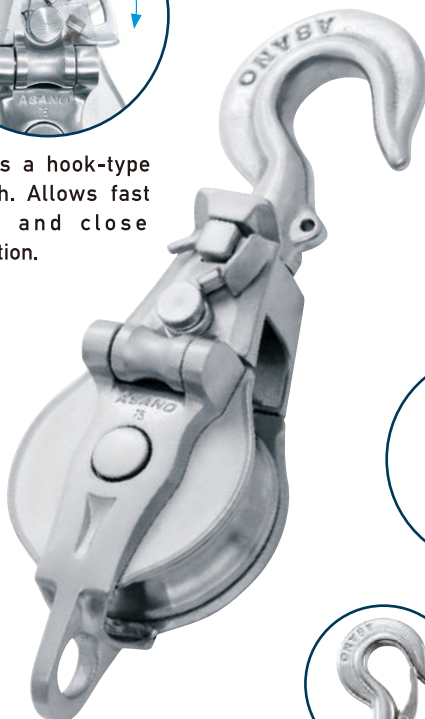
Adopts a hook-type snatch. Allows fast open and close operation.

No.	Size (sheave dia. (mm))	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (kg)
AK10161	75	16	14.5	237	38	115	59	80	19	18	24	54	1.5	1.3	500
AK10162	100	22	16	297	44	143	78	108	22	23	28	62	1.5	2.4	1,000
AK10163	125	25	22	364	54	174	100	135	27	26	32	73	2	4.4	1,200
AK10164	150	30	25.5	433	60	204	120	160	30	31	38	82	3	6.8	2,500

\* Material: Special stainless steel, Sheave = SCS13 (equivalent to SUS304)  
Swivel/side plate/sheave pin/set screw with a hexagon hole = SUS304, Oil impregnated bush = bronze



Adopts a hook-type snatch. Allows fast open and close operation.



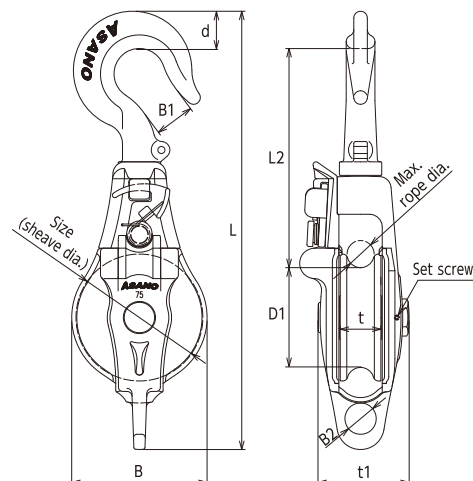
Hooks with latches are also available.

# AK Snatch Block Type III-A, Single Sheave (with Forged Hook Top)



Without latch No.	With latch No.	Size (sheave dia. (mm))	Max. rope dia. (mm)	d (mm)	L (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	S (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (kg)
AK10171	AK10191	75	16	22	259	129	59	80	23	18	18	24	54	1.5	1.40	500
AK10172	AK10192	100	22	32	340	170	78	108	30	23	26.5	28	62	1.5	2.85	1,000

\* Material: Special stainless steel, Sheave = SCS13 (equivalent to SUS304)  
Hook/side plate/sheave pin/set screw with a hexagon hole = SUS304, Oil impregnated bush = bronze





## Hanging Roller Type PB

(with Stainless Bearing)

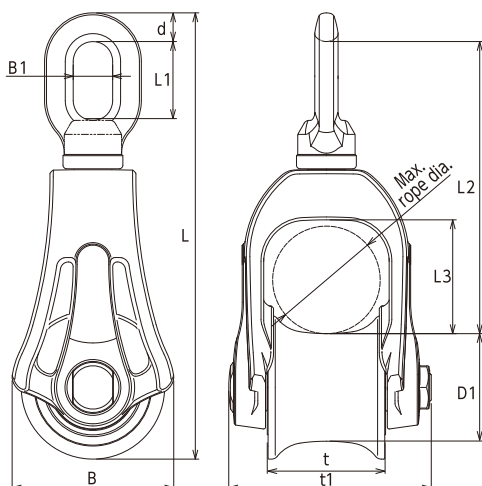


No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	D1 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK10051	80	60	16	249	43	163	63	60	90	22	65	113	6204	2.8	1.0
AK10052	100	70	22	306	52	196	75	75	109	27	80	135	63/22	4.5	1.3

\* Material: Special stainless steel, Swivel/swivel pin/sheave pin = SUS304

\* The working load conforms to the working load of the bearings.

\* This product contains two stainless steel bearings with rubber seals.



### Product features

#### Main body shape with visible sheave



In addition to the unique shape, the sheave guard is slanted to reduce the risk of ropes being caught.

#### Sufficiently wide opening



The wider space between the body and the sheave allows ropes and fittings to pass through.

#### Improved sheave pin socket in main body



The design of the sheave pin socket was widened to improve the strength of the main body.

#### Bolt retainment through crimping

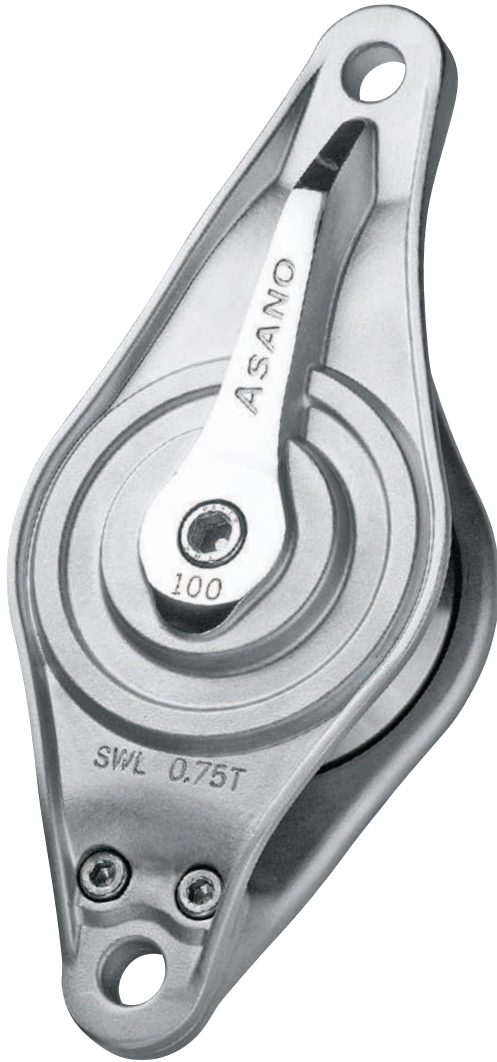


The bolt edge of the sheave pin is tightly fixed through crimping.

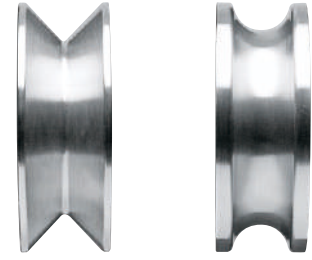
#### Sheave with bearings



Bearings in the sheave facilitate smooth rotation.



## Product features



V-groove sheave U-groove sheave  
Lineup of V-groove and U-groove sheaves.



The protruding rib also contributes to increased strength.



Improved strength through the integrated structure of the sheave shaft and main body. The edges of the sheave are designed to fit into the main body to prevent ropes from getting tangled.

## Long Liner Wani-Block

(with Stainless Bearing)

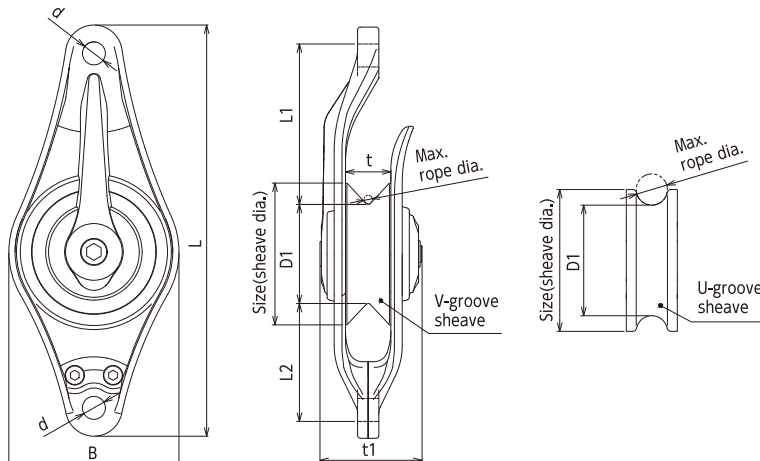


No.	Sheave	Size (sheave dia., (mm))	Max. rope dia., (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	t (mm)	t1 (mm)	Hex. wrench dia., (mm)	Bearing No.	Unit weight (kg)	Working load limit (t)
AK10351	V groove	100	6	16.2	290	113	83	70	32	72	6 · 10	6005	2.6	0.75
AK10352	U groove	100	22	16.2	290	109	79	78	32	72	6 · 10	6005	2.6	0.75

\* Material: Special stainless steel, Sheave pin/sheave pin nut/M8 hex socket bolt = SUS304

\* The working load conforms to the working load of the bearings.

\* This product contains two stainless steel bearings with rubber seals.

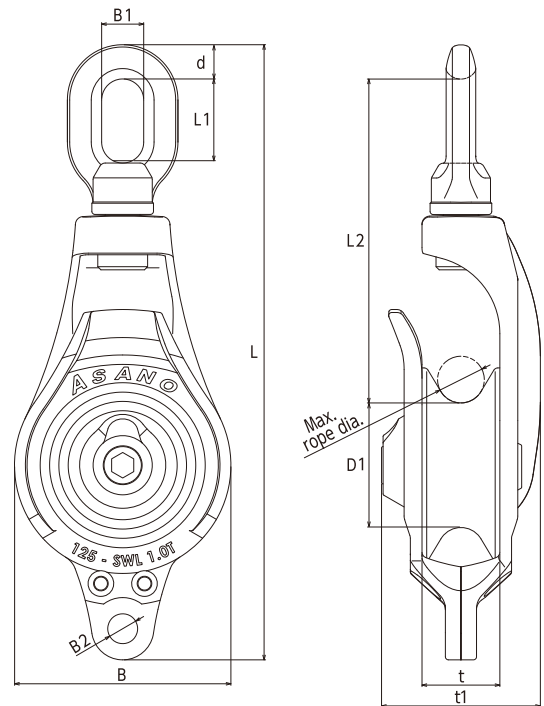


## Combination example

### Swivel

Can be used with size 16 of the ASANO Swivel (Jaw & Jaw). Please refer to our web site for the products.





## Wide Sheave Wani-Block (with Bearing)

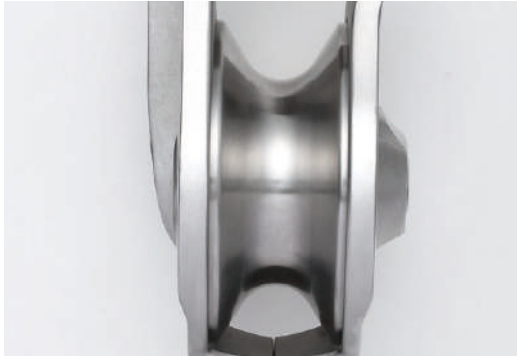


No.	Size (sheave dia., mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	B2 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Bearing No.	Unit weight (kg)	Working load limit (kg)
AK10083	125	30	22	395	52.5	208	80	139	27	19	50	102	8-14	6007	5.9	1,000

\* Material: Special stainless steel, Swivel/swivel pin/bolt = SUS304 \* The working load conforms to the working load of the bearings.

\* This product contains two steel bearings with rubber seals.

## Product features



The width of the sheave allows a thick rope to pass through smoothly.



Since the rims of the sheave are covered by the main body, a length of rope will not easily become caught between the main body and the sheave.



The sheave shaft is integrated into the main body, contributing to the increased strength of the sheave shaft.



The distinctively protruding rib contributes to high level strength.



## AK Wani-Block Type P



No.	Size (sheave dia.) (mm)	Max. rope dia. (mm)	d (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	B (mm)	B1 (mm)	t (mm)	t1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (kg)
AK10001	50	14	10	159	29	100	36	50	14	20	44	—	0.6	350
AK10002	75	16	14.5	229	38	139	59	75	19	24	49	10	1.8	600
AK10003	100	22	16	285	44	170	78	100	22	28	61	12	3.4	1,000
AK10004	125	25	22	348	54	200	100	125	27	32	73	14	6.5	1,500

- Use of a separately-sold special attachment and a hexagon wrench together makes replacement and repair of the sheave easier than before.

\* Material: Special stainless steel, Sheave pin/swivel/swivel pin = SUS304

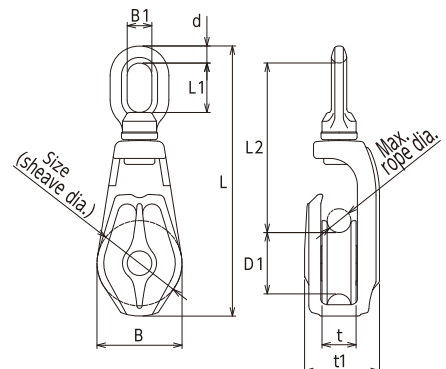
\* The sheave of the AK10001 cannot be replaced.



Special attachment



Hexagon wrench



# Fishing Gear & Ship Equipment



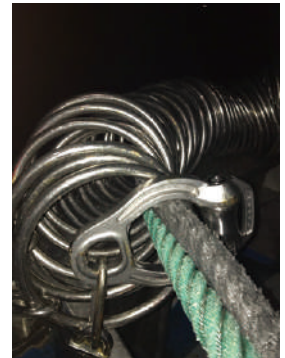
## FEATURE 01

### Adoption of special stainless steel that meets the demands of the fishing industry

ASANO's fishing gear uses special stainless steel with superior corrosion- and abrasion-resistant characteristics. This type of stainless steel is ideal for tools that are used by the fishing industry and that are always exposed to seawater. We analyze the characteristics of raw materials, such as hardness and tenacity, and manufacture products suitable for locations and intended purposes of products based on our experience of developing metal fittings.



Purse Ring Type O (P049)



## FEATURE 02

### Well-thought out practicality and functionality

We utilize free designing via casting and manufacture products that fit easily into human hands as that are easy on ropes and nets. These products are derived from ASANO's monozukuri (manufacturing) and are suitable for demanding professional work environments. For example, the Snap Hook is compact and fits snugly into the hand, while its round shape is easy on ropes. However, its interlock system provides a high working load limit of 1.3 tons.



Snap Hook (P036)



## FEATURE 03

### Strength and sophisticated form enabled by 3D design technology

Ship equipment is an important part of on-board operations. The 3-Way Roller has been made stronger by integrating the main body design into a single piece. In addition, the larger diameter of the roller shaft enables it to handle large loads. The curved body prevents ropes from becoming caught. ASANO's outstanding 3D design technology is utilized to achieve this beautiful finish.



3-Way Roller (P064)







**FEATURE 04**

**User oriented rapid product development**

ASANO always cares about users' feedback. Based on the valuable opinions obtained not only from users in Japan, but also from fishermen and sales shops abroad, the processes from designing shapes suitable for various tasks to calculating ideal strength values are executed, and products are manufactured while confirming the shapes using 3D printed samples. Development using feedback from the workplace and development speed are our fundamentals.



**FEATURE 05**

**Pioneer of fishing industry products**

ASANO started manufacturing stainless steel fishing gear and ship equipment in 1977. Among many products the company has created, ASANO's legacy product, the "Auto Shackle", was developed ahead of other companies over 20 years ago. Its functions proved innovative and the product has received overwhelming support. Recently, Type II and III have been developed to meet an expanding range of requirements. These products are actively used for tasks where connection and release actions are required.



Auto Shackle (P038~045)

**FEATURE 06**

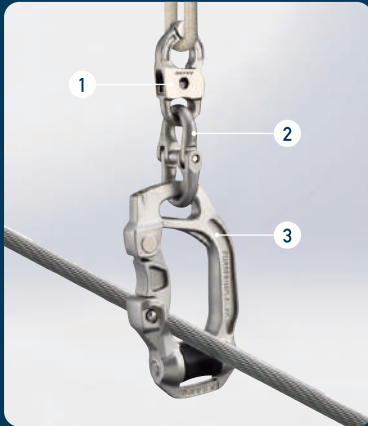
**Products appreciated on the world's oceans**

The variation and special features of ASANO's products have proven popular among many customers in Japan, and highly evaluated by fishermen in particular for years. Currently, our products are being exhibited in overseas exhibitions and used by fishermen for round haul net fishing and longline fishing in the oceans of various countries around the world such as America, Spain, Norway, Mexico, and Australia.



## ● Usage examples of fishing gear for a purse seine

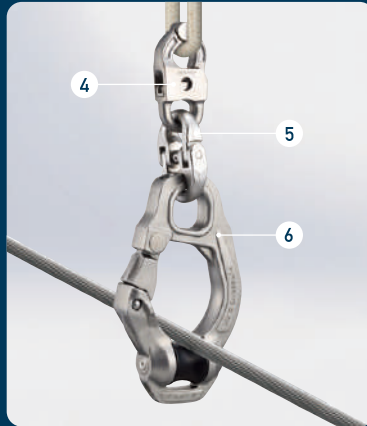
A



- ① Auto Shackle[P039]
- ② Purse Coupling[P054]
- ③ Purse Ring Type BL 60 [P050]

This example shows a combination with a size-60 Purse Ring, the smallest model in ASANO's product lineup. The gate is equipped with a button mechanism to prevent unintended release.

B



- ④ Auto Shackle Type III [P038]
- ⑤ Coupling[P054]
- ⑥ Purse Ring Type BL 100 [P051]

This example shows a combination with a size-13 Coupling where the inner ring diameter is larger, to increase degree of freedom for the connecting part. Size-16 Couplings are also available.

C



- ① Auto Shackle[P039]
- ② Purse Coupling[P054] (Sub ring)
- ⑦ Purse Ring Type O 120 [P049]

The Purse Ring Type O and Purse Couplings are made of special stainless steel, which features excellent abrasion and corrosion resistance.

D



- ① Auto Shackle[P039]
- ② Purse Coupling[P054]

This example shows a combination with an Auto Shackle, one of ASANO's longest-selling items, and a Purse Coupling. The Auto Shackle can quickly be connected and released, for increased productivity at work sites.

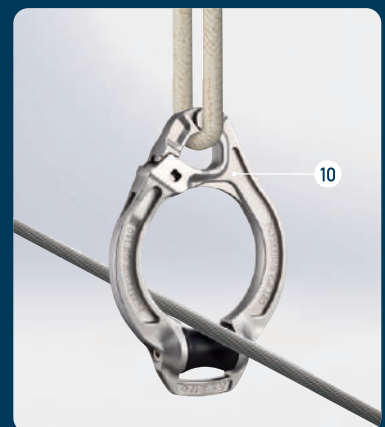
E



- ⑧ Purse Auto Shackle [P045]
- ⑨ Flat Ring[P055]

This example shows a combination with a Flat Ring, which has its sides flattened. The flat sides allow these rings to stack neatly, greatly improving their manageability on board.

F



- ⑩ Purse Ring Type O-II [P048]

By adopting the quick release mechanism of an Auto Shackle on the top gate, the Purse Ring Type O-II makes it incredibly simple to connect a fishing net.

G



④ Auto Shackle Type III [P038]

⑤ Coupling [P054]

⑪ Purse Ring Type O 180 [P049]

This example shows a combination of an Auto Shackle with a size-180 Purse Ring Type O, designed to allow large-diameter ropes and large rope knots to pass through.

H



⑫ Double Auto Shackle [P039]

The Double Auto Shackle has two gates, with Auto Shackle mechanisms at both ends, making connecting and releasing easy while simultaneously reducing the number of metal fittings needed.

I



⑬ Snap Hook Type B [P035]

The Snap Hook Type B has a unique two-chamber mechanism, enabling connections with a smaller number of metal fittings. The center bar prevents deformation when loads are applied, and helps the hook withstand heavy working loads.

J

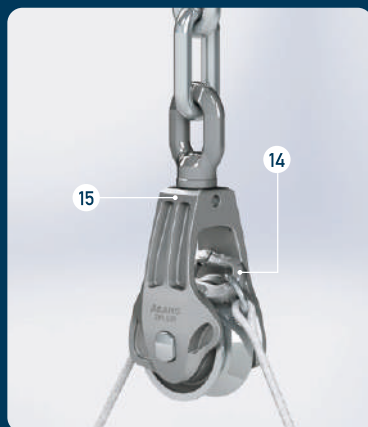


⑭ Snap Hook [P036]

② Purse Coupling [P054]

This example shows a combination with a Snap Hook, which features an interlocking mechanism for a high working load limit despite its compact size. Its shape is designed to be gentle on ropes.

K

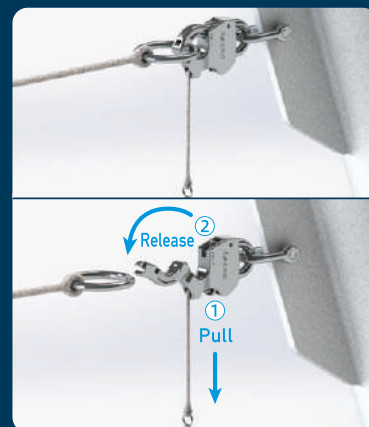


⑭ Snap Hook [P036]

⑮ Tough Hanging Roller Type II [P014]

The Tough Hanging Roller Type II has a large space between the body and the sheave to allow small fittings such as Snap Hook to pass through.

L



⑯ Auto Shackle Type II [P043]

⑰ Auto Shackle Type IIS [P043]

⑱ Purse Auto Shackle Type II [P044]

These models feature a gate that can be released by pulling a cord attached to the side of the main body. The gate can be operated with no need for a tool, enabling quick, convenient operation.



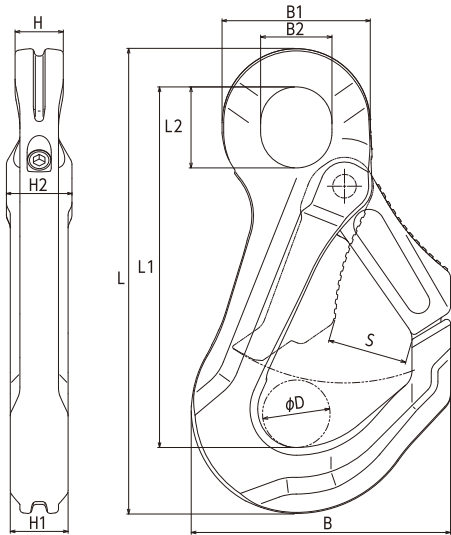
## Product features



The 40 mm gate opening can accommodate large-diameter ropes. The hook part, with its interlocking mechanism, securely engages with the body to allow for heavy loads.



The gate is normally closed. It is designed to open when pressed inward by hand, and to close when released. This one-handed operation makes it easier to work in rough sea conditions. The knurls on the gripping side of the gate help prevent slipping.



**NEW**



The spring to close the gate can be replaced, if it no longer functions properly due to aging or other causes.

## Snap Hook Type C



This hook is designed for use at various connection points in pots fishing and on boats.

No.	Size	S (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	B2 (mm)	H (mm)	H1 (mm)	H2 (mm)	D (mm)	Set screw	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK18330	35	40	242	187	42	135	77	37	25	30	34	35	M12	6	2.5	3.0

\* Material: Special stainless steel, Spring/set screw = SUS304, Lock pin = copper alloy

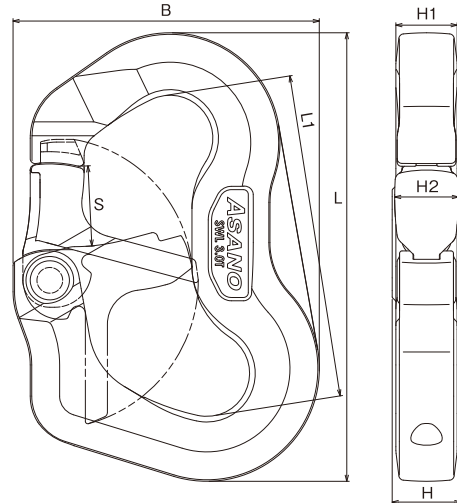


## Snap Hook Type B



No.	Size	S (mm)	L (mm)	L1 (mm)	B (mm)	H (mm)	H1 (mm)	H2 (mm)	Unit weight (kg)	Working load limit (t)
AK18320	30	31	183	132	125	28	25	26	2.0	3.0

\* Material: Special stainless steel, Spring = SUS304, Lock pin = copper alloy, Set screw = SUS304



### Smooth rigging

The product is equipped with an originally developed two room mechanism and ensures smooth rigging of ropes and nets. Ropes and rings up to 30mm in diameter are supported.

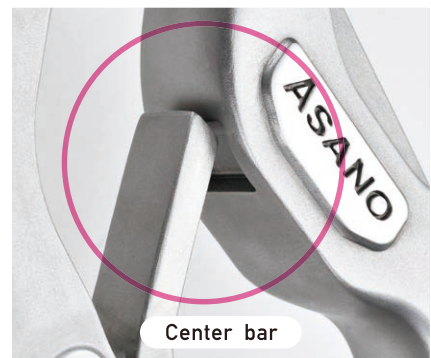
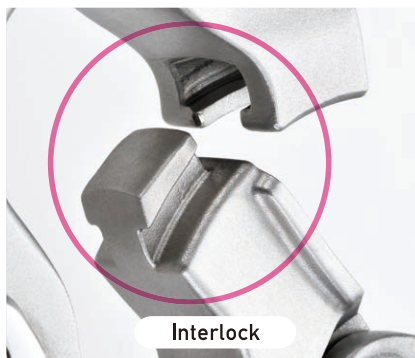


### ● Rigging step



### Working load limit of three tons for safe operations

An interlock system in which the main body is engaged with the gate has been introduced to create a high working load limit. In addition, the intermediate center bar enters the main body securely. This alleviates deformation that may occur during pulling, and helps improve working load limit.

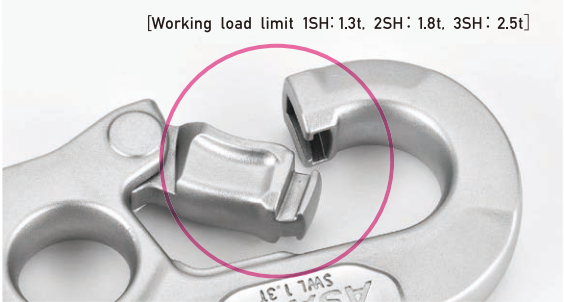




## Product features

### Adopts an interlock system

A large working load limit is achieved with its palm size. An interlock system is employed for greater strength. The hook part firmly supports the load.



Good operability is ensured by smooth movement of the gate and the wide opening.

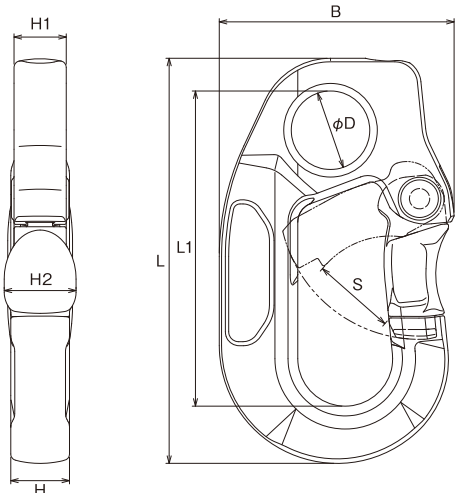
The rounded gate fits well with fingers and ropes.

## Snap Hook



No.	Size	S (mm)	L (mm)	L1 (mm)	B (mm)	H (mm)	H1 (mm)	H2 (mm)	D (mm)	Unit weight (g)	Working load limit (kg)
AK18315	1SH	25	124	96	72	18	16	22	24	600	1,300
AK18316	2SH	28	143	110	81	20	18	24	27	900	1,800
AK18317	3SH	32	177	128	109	22	20	30	30	1,600	2,500

\* Material: Special stainless steel, Spring = SUS304, Lock pin = copper alloy, Set screw = SUS304



### Combination example

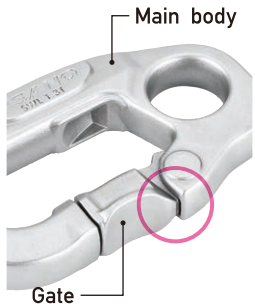
Purse Coupling (P054) + Snap Hook



The friction on the ropes can be reduced by using a Purse Coupling for connection rather than directly attaching a rope to the Snap Hook.

### Usage precautions

Your fingers may be caught between the body and the gate when opening and closing the gate due to the structure of the product. Wear gloves and take care that your fingers do not get caught.

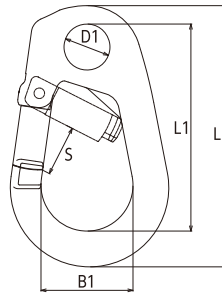


# Snap Ring Type II



No.	Size	L (mm)	L1 (mm)	B1 (mm)	S (mm)	D1 (mm)	Unit weight (kg)	Working load limit (kg)
AK18302	3SR	256	203	90	50	45	3.7	1,500

\* Material: Special stainless steel, Spring = SUS304, Lock pin = HBsB, Set screw = SUS304

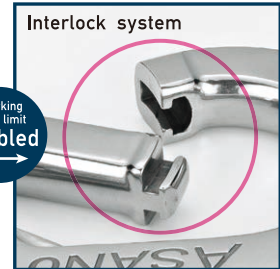


Snap Ring



Size:3SR WLL:0.75t

Snap Ring Type II



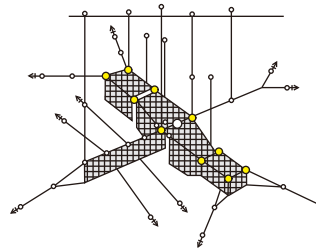
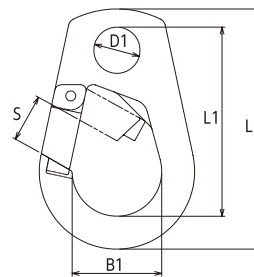
Size:3SR WLL:1.5t

# Snap Ring



No.	Size	L (mm)	L1 (mm)	B1 (mm)	S (mm)	D1 (mm)	Unit weight (kg)	Working load limit (kg)
AK4230	1SR	167	135	64	32	33	1.4	450
AK4231	2SR	205	161	80	40	39	2.2	700
AK4232	3SR	240	187	94	53	45	3.2	750

\* Material: Special stainless steel, Spring = SUS304, Lock pin = HBsB, Set screw = SUS304



● Snap Ring locations for a fixed fishing net

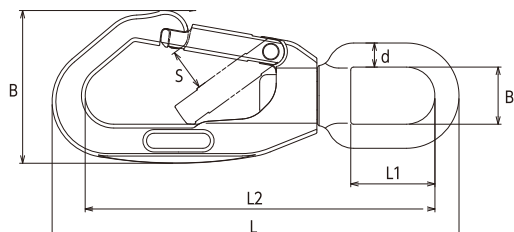
# Swivel Snap Hook Type II



Please refer to P083 for the product features

No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	S (mm)	Unit weight (kg)	Working load limit (kg)
AK12465	16	16	270	56	232	101	38	28	1.6	1,000

\* Material: Special stainless steel, Swivel pin/spring = SUS304  
\* Do not use under conditions of constant rotation.





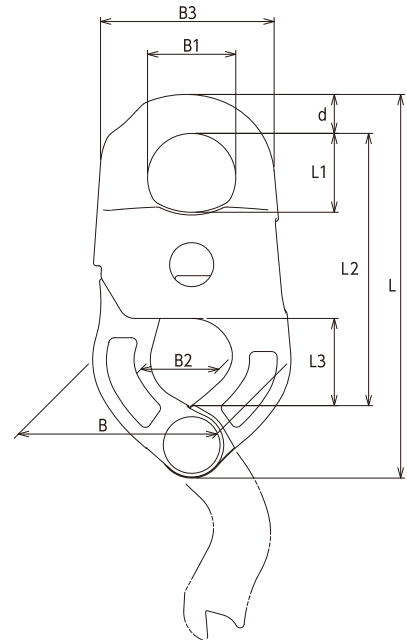
Inserting a tool such as a spike (P085) into the hole of the main body will enable the gate to be easily released.

## Auto Shackle Type III



**High**  
Stainless 2

No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Hex. wrench dia. (mm)	Unit weight (g)	Working load limit (t)
AK18235	M	11	112	20	80	29	58	23.5	28	48	5	370	0.8
AK18236	L	14	139	29	99	32	72	32	30	63	6	860	1.3



- \* Material: Special stainless steel
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock.
- \* Spare springs and screws are available (sold separately). Please contact us.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.



Applications include connecting with purse rings for round haul nets. See P032-033 for details on example combinations.



If the performance of the spring deteriorates due to certain factors such as aging, it can be replaced with a new one by removing the socket head screw at the top of the Auto Shackle using a hexagon wrench.

### ⚠ Caution

- Since the screw may become loose, periodically check it before use.
- When replacing the spring, also replace the screw with a new one.
- After replacing the spring, apply a screw locking agent such as Locktite to the screw, and then tighten it.





**Related product**

Light Spike SG  
P085



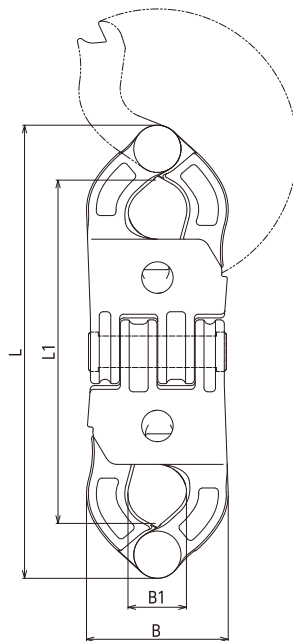
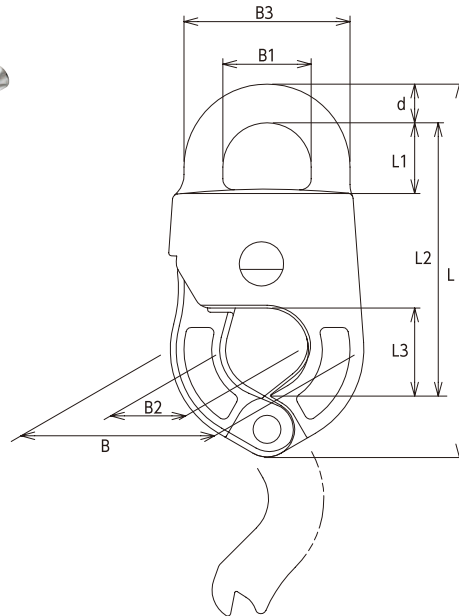
## Auto Shackle

No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Unit weight (g)	Working load limit (t)
AK2195	L	14	135	24	98	32	70	32	30	60	730	1.3

- \* Material: Special stainless steel
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.



The gate can be easily released by inserting a spike.



## Double Auto Shackle



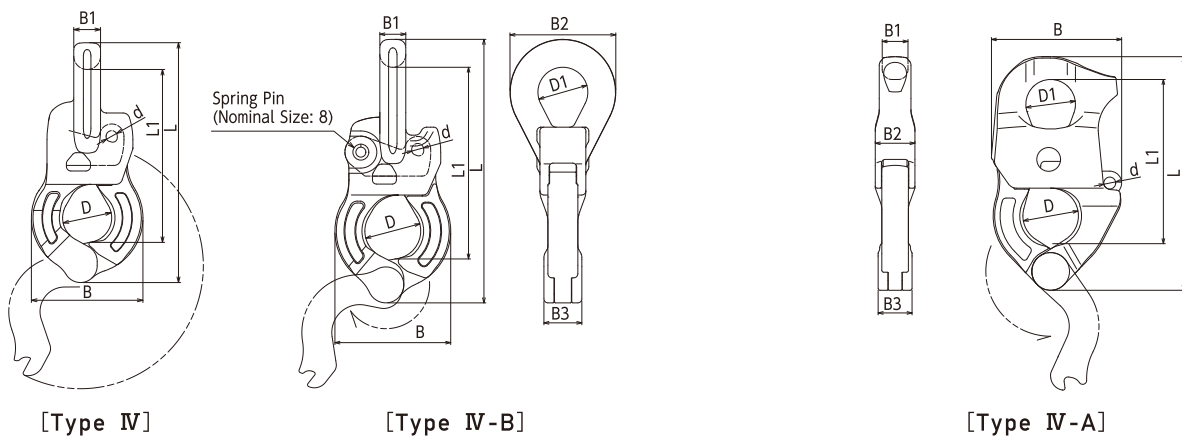
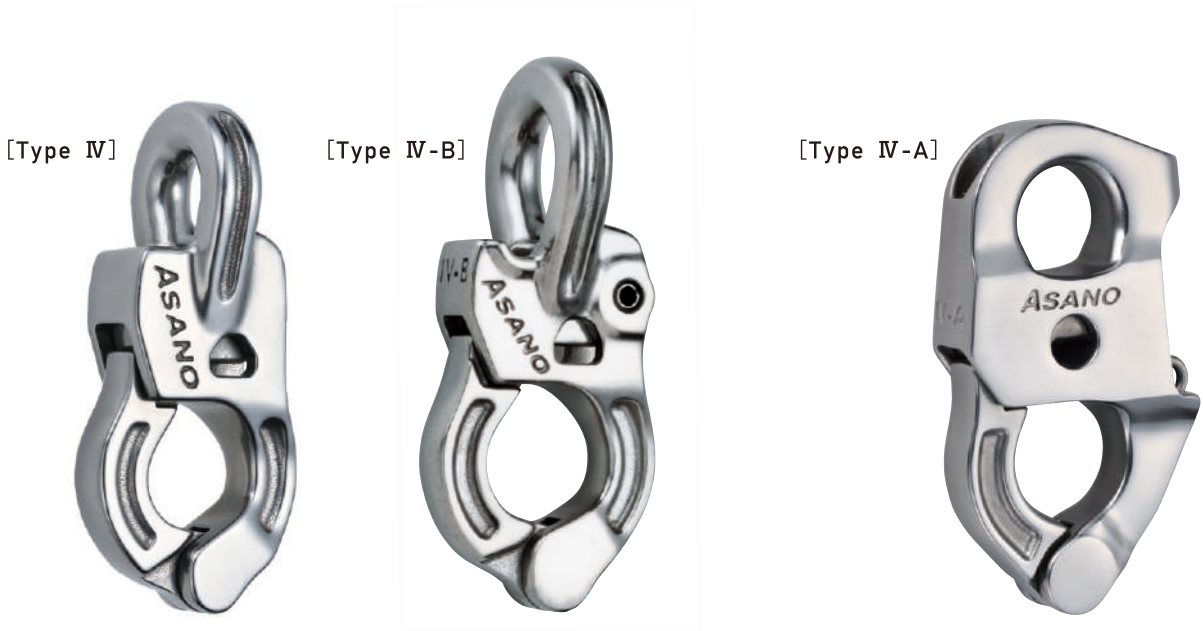
This model combines two Auto Shackles, with gates at both ends to ensure smooth connecting and releasing.

No.	Size	L (mm)	L1 (mm)	B (mm)	B1 (mm)	Unit weight (g)	Working load limit (t)
AK18246	L	230	174	72	30	1,860	1.3

- \* Material: Special stainless steel
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.



The shackles are connected by a  $\phi 16$  shaft that allows the Double Auto Shackle to bend freely, without sacrificing durability, to reduce undue load during use.



**NEW** Auto Shackle Type IV/IV-B/IV-A



Hooks designed for use with aquaculture nets. The gate can be operated from above the surface of the water, reducing the amount of underwater operation necessary.

No.	Type	Size	D (mm)	D1 (mm)	d (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Unit weight (g)	Working load limit (kg)
AK18250	IV	S	22	15	5	108	78	50	12	39	17	350	600
AK18257	IV-B	M	28	25	6	132	96	58	13	53	19	510	900
AK18254	IV-A	M	28	25	6	118	83	66	13	20	17	460	900

- \* Material: Special stainless steel, Spring pin/spring/screw = SUS304
- \* This product is fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.

**Gate release operation**

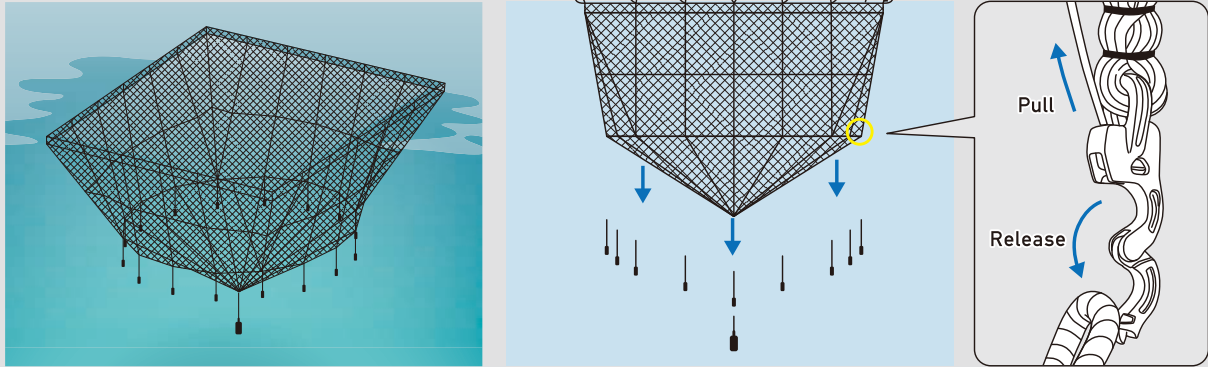
By incorporating the basic concepts of ASANO's Auto Shackle series — "quick release" and "secure rigging" — the gate can be remotely released by pulling on a rope attached to the main body.



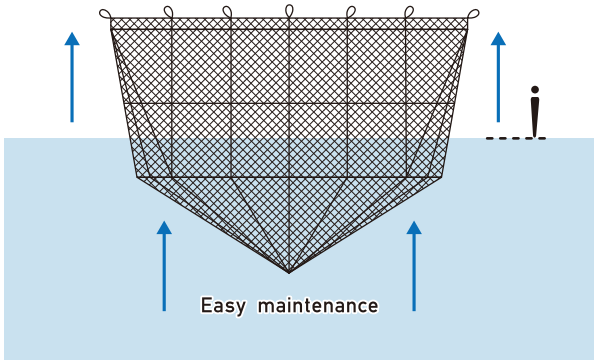
## Product features

### Assumed location of use

The Auto Shackle Type IV series was developed to be used as a connecting part for equipment such as aquaculture nets and weights. Instead of underwater operation to release connected nets and weights, which has conventionally been required each time, pulling a rope attached to the main body can open the gate, releasing weights or other connected objects.

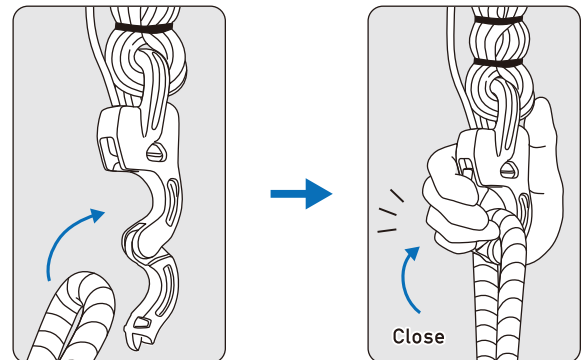


### Easy to raise and lower the net



The simplified process of releasing nets and weights allows nets to be lifted and lowered as necessary for cleaning or other purposes, ensuring proper maintenance frequency.

### Secure gate opening and closing



The opened gate can be easily and securely closed by hand. This facilitates reconnection of the net and weights, which leads to further improvements to work efficiency.

### Spring replaceable (for Types IV-B and IV-A only)

If the performance of the gate spring deteriorates, due to aging or other reasons, it can be replaced with a new one. For Type IV-B (left), the spring can be replaced by removing the spring pin in the main body using a tool such as a punch. For Type IV-A (right), replacement can be performed by removing the screw on top using a hexagonal wrench.



# Auto Shackle Type II/IIIS (P043)

## Purse Auto Shackle Type II/IIIS (P044)

### Product features

#### Strong, sturdy structure

The Type IIIS (right) is a stronger version of the Type II (left). Various parts of the Type IIIS, such as the hinge, have been thickened and enlarged, for a stronger structure to handle heavier loads.



#### Shock-absorbing structure

The Type IIIS (right) has an indent in its body to absorb the impact to the arm when the gate opens forcefully.



#### Gate release operation

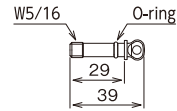
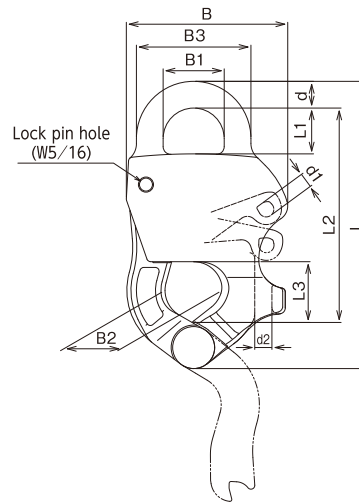


The gate can be released by attaching a rope to the main body and pulling it. With the built-in rope guide, the rope can be pulled from various directions and still release the gate. The gate can also be released easily by inserting a spike, or other pointed tool, into the hole in the side of the main body.

#### Gate locking feature



The gate can be locked by inserting and screwing a lock pin (sold separately) into the lock pin socket in the main body.



Lock pin  
\* Material: SUS304  
\* O-ring: Rubber(size: P4)

## Auto Shackle Type II PAT.



No.	Size	d (mm)	d1 (mm)	d2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Unit weight (g)	Working load limit (t)
AK18231	L	14	7	9	148	24	112	32	85	32	30	60	1,100	2.0

- \* Material: Special stainless steel
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock. Be sure to use a lock pin when sudden loads on connecting objects or the hardware are expected, or when the gate does not need to be opened for a long time.
- \* The lock pin is sold separately.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.

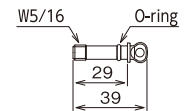
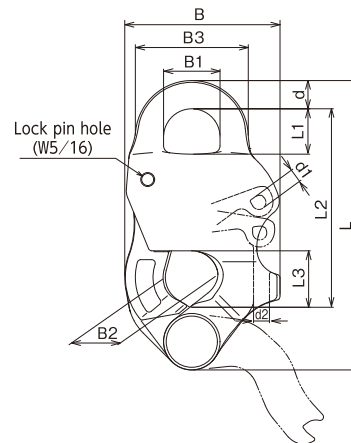


O-ring

- Lock pin (sold separately)

AK18231B9

The lock pin has an O-ring for loosening prevention to prevent it from falling off.



Lock pin  
\* Material: SUS304  
\* O-ring: Rubber(size: P4)

## Auto Shackle Type II S PAT.



No.	Size	d (mm)	d1 (mm)	d2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Unit weight (g)	Working load limit (t)
AK18241	L	16	7	9	164	25	112	32	88	32	30	64	1,330	2.8

- \* Material: Special stainless steel
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock. Be sure to use a lock pin when sudden loads on connecting objects or the hardware are expected, or when the gate does not need to be opened for a long time.
- \* The lock pin is sold separately.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.

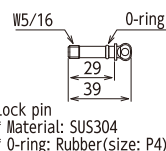
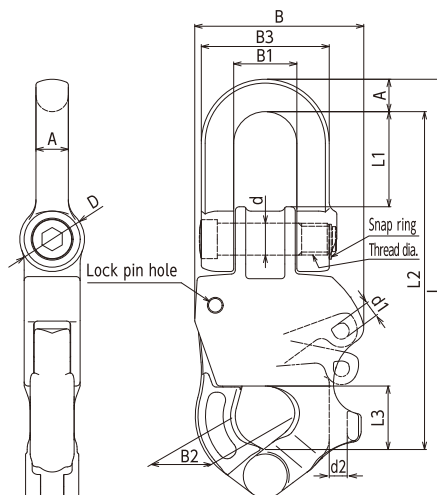


O-ring

- Lock pin (sold separately)

AK18231B9

The lock pin has an O-ring for loosening prevention to prevent it from falling off.



Lock pin  
\* Material: SUS304  
\* O-ring: Rubber(size: P4)

## Purse Auto Shackle Type II PAT.



O-ring

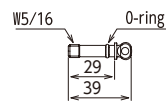
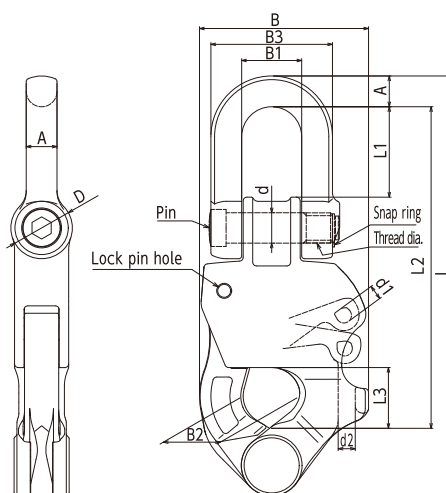
● Lock pin  
(sold separately)

AK18265

The lock pin has an O-ring for loosening prevention to prevent it from falling off.

No.	Size	D (mm)	d (mm)	d1 (mm)	d2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Thread dia.	Hex. wrench dia.	Snap ring size	Unit weight (g)	Working load limit (t)
AK18265	L	32	16	7	9	210	48	169	32	16	85	32	30	64	W5/8	10	10	1,700	2.0

- \* Material: Special stainless steel, Pin = SUS316, Snap ring = SUS316
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock. Be sure to use a lock pin when sudden loads on connecting objects or the hardware are expected, or when the gate does not need to be opened for a long time.
- \* The lock pin is sold separately.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.



Lock pin  
\* Material: SUS304  
\* O-ring: Rubber(size: P4)

NEW

## Purse Auto Shackle Type IIS PAT.



O-ring

● Lock pin  
(sold separately)

AK18270

The lock pin has an O-ring for loosening prevention to prevent it from falling off.

No.	Size	D (mm)	d (mm)	d1 (mm)	d2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Thread dia.	Hex. wrench dia.	Snap ring size	Unit weight (g)	Working load limit (t)
AK18270	L	32	16	7	9	221	48	169	32	16	89	32	30	64	W5/8	10	10	1,880	2.0

- \* Material: Special stainless steel, Pin = SUS316, Snap ring = SUS316
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock. Be sure to use a lock pin when sudden loads on connecting objects or the hardware are expected, or when the gate does not need to be opened for a long time.
- \* The lock pin is sold separately.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.



## Product features

### Pin loosening prevention mechanism

Fixing is performed with a screw and a snap ring. This efficiently prevents loosening of the pin.



When snap ring is attached

### Moderate curved shape

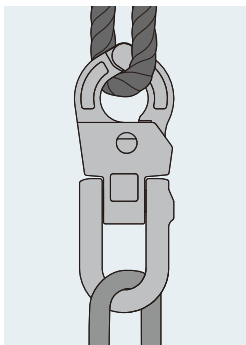
The curved shape is gentle on the ropes. It prevents damage to ropes to improve their service life.



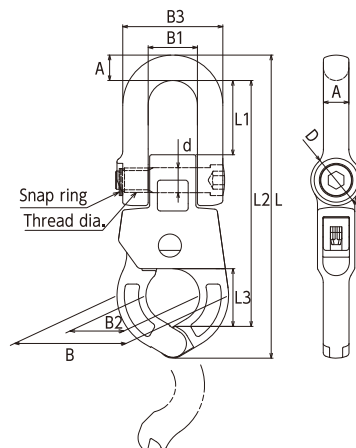
## Purse Auto Shackle



No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	D (mm)	Thread dia.	Hex. wrench dia. (mm)	Snap ring size (mm)	Unit weight (g)	Working load limit (kg)
AK18200	M	13	158	39	128	30	13	58	26	28	52	26	W1/2	8	8	630	800
AK18201	L	16	194	48	156	32	16	70	32	30	64	32	W5/8	10	10	1,345	1,300



This provides excellent convenience when you repeatedly connect and disconnect with ropes and rings.

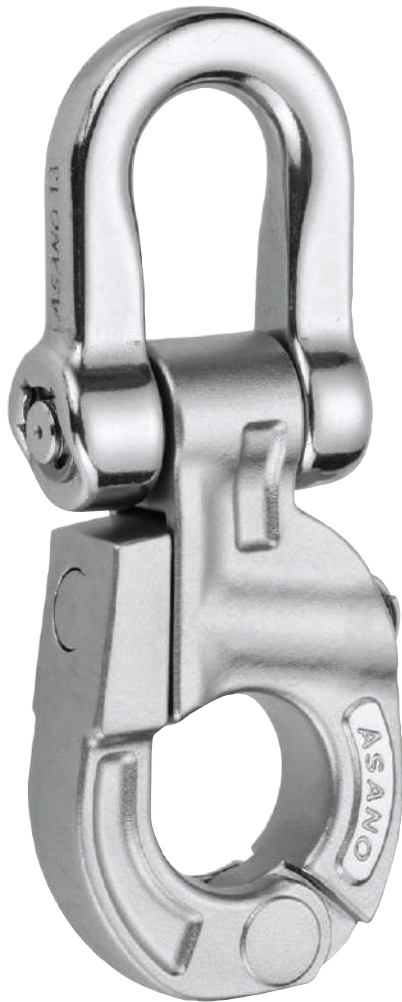


- \* Material: Special stainless steel, Pin = SUS316, Snap ring = SUS316
- \* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.
- \* The gate may open unintentionally due to physical shock.
- \* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.

### Easy gate release

The gate can be easily released by inserting a spike.





## Purse Snap Shackle Type II PAT.

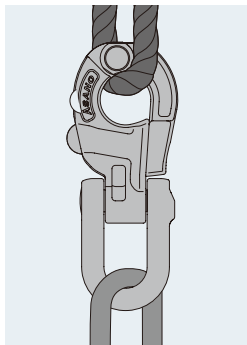


No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	A (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	D (mm)	Thread dia.	Hex. wrench dia. (mm)	Snap ring size (mm)	Unit weight (g)	Working load limit (kg)
AK18225	M	13	159	39	127	13	62	26	30	52	26	W1/2	8	8	840	800

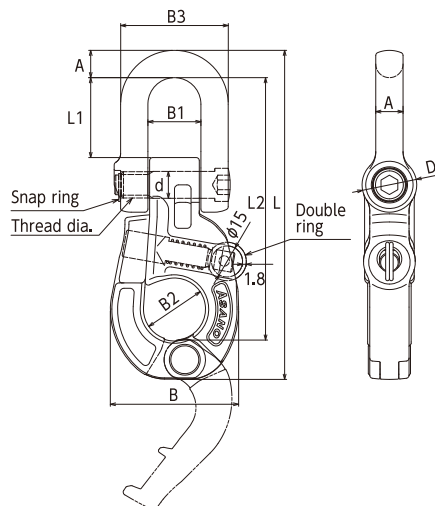
\* Material: Special stainless steel, Shackle pin = SUS316, Snap ring = SUS316, Lock pin = special stainless steel, Double ring (wire diameter  $\Phi 1.8$ , inner diameter  $\Phi 15$ ) = SUS304

\* This product is a fishing gear. Do not use it as a hanging hook for cargo handling.

\* If the gate is released while a load is applied, the main unit may be subjected to strong impact and the product may be damaged, or an accident may occur, such as a released load hitting the surrounding objects or people.



This provides excellent convenience when you repeatedly connect and disconnect with ropes and rings.



## Product features

### Remote release operation by rope

The gate can be widely opened by attaching a rope and pulling it. A great advantage is that the gate can be released by remote control.



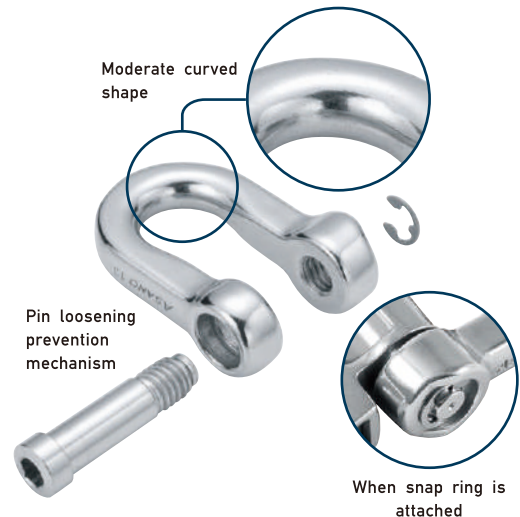
### Significantly increased strength

When the gate is closed, the tab at the tip of the gate securely enters the body to support the load.



### Pin loosening prevention mechanism and moderate curved shape

Fixing is performed with a screw and a snap ring to prevent the pin from falling off. The moderate curve inside the body prevents damage to ropes.





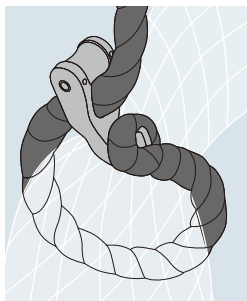


## Choker Hook-R



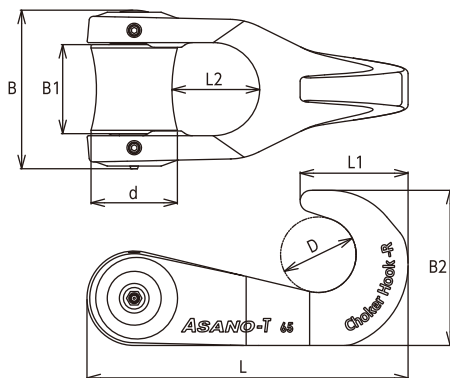
No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	B2 (mm)	D (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK18101	65	64	238	80	65	117.5	66	115	56	4	6.0	3.4

\* Material: Special stainless steel, Roller pin = SUS316, Bush = bronze



The choker hook is designed for round haul net fishing. It allows smooth narrowing because the roller reduces friction of ropes.

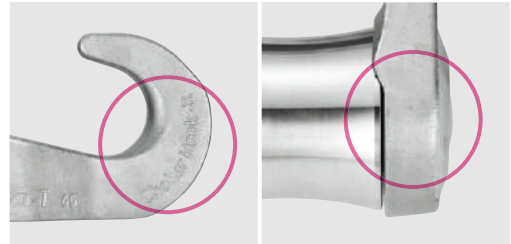
Special stainless steel is used, with excellent strength and durability.



## Product features

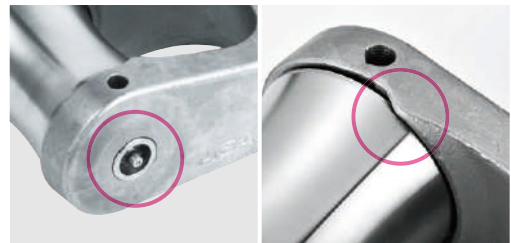
### Increased thickness of the hook and roller support part

The strength of the hook is increased. The thickness of the body that supports the roller pin is also increased. They serve to support stable rotation of the roller.



### Prevents ropes from being caught or wound up

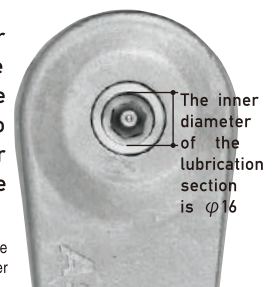
The projection of the grease nipple on the roller shaft edge is restrained to prevent nets and ropes from being caught. In addition, the inside of the body protrudes to prevent ropes from being caught.



### How to lubricate

Lubricate the roller shaft through the grease nipple on the side of the body to maintain good roller rotation. Use a grease gun to lubricate.

\* Use a grease gun with a nozzle size that is smaller than the inner diameter of the lubrication section.



### How to remove the roller

Use a hexagon wrench to remove the roller.

\* When reinstalling a roller, apply ThreeBond MEC thread lock (No. 2446) or similar adhesive to the thread.





Alloy steel roller model

## Product features

Gate can be released from two directions



This Purse Ring is equipped with an Auto Shackle gate mechanism for easy gate release. In addition, the gate spring can be replaced as necessary as it wears out.

Two roller materials available

The alloyed steel roller features a hard surface for use with metallic ropes. The stainless steel rollers are suitable for use with fiber ropes.



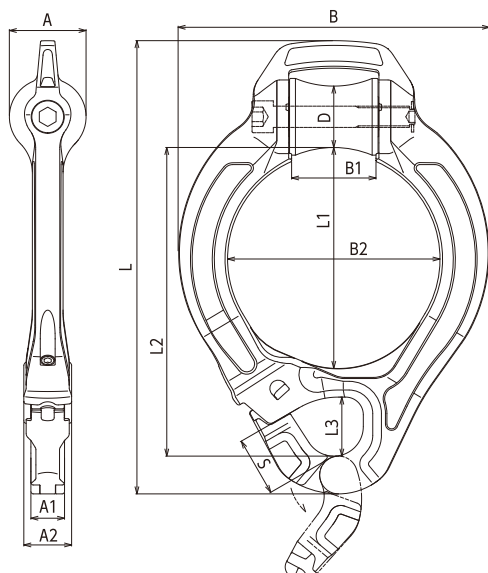
## Purse Ring Type O-II



No.	Size	Roller	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	A1 (mm)	A2 (mm)	B (mm)	B1 (mm)	B2 (mm)	S (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK18298	180	special stainless steel	52	384	187	261.5	50	65	28.5	40.5	263	71.5	180	50	6·14	7.1	3.0
AK18299	180	alloy steel	52	384	187	261.5	50	65	28.5	40.5	263	71.5	180	50	6·14	7.1	3.0

\* Material: Special stainless steel, Roller shaft/set screw = SUS304, Bush = copper alloy, Roller = special stainless steel (AK18298) / alloy steel (AK18299)

\* For AK18298, textile ropes are recommended for use due to the material of the rollers (special stainless steel). If metal wire ropes are used, the roller may be scratched depending on the operating conditions such as the load.



Simple to connect

This Purse Ring helps reduce the number of metal fittings needed to connect a fishing net to the purse line. The incredible simplicity of the process helps make connecting and releasing more efficient.





size 120 with special stainless steel roller

Alloyed steel roller model also available, for use with metallic ropes.



size 180 with alloy steel roller

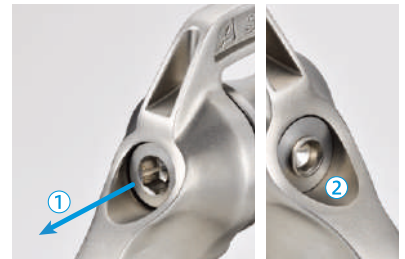
## Product features

### Carefully designed roller edges



The edges of the roller cover the main body, to prevent the body and purse line from rubbing against each other. The body is also shaped to prevent ropes and nets from getting caught.

### Replaceable roller



Worn rollers can be replaced using a hex key. To replace a roller, remove the roller shaft (M18) ①. The end of the roller shaft ② is tightly fixed through crimping. After replacement, fix the end of the roller shaft (M18) again by crimping before use.

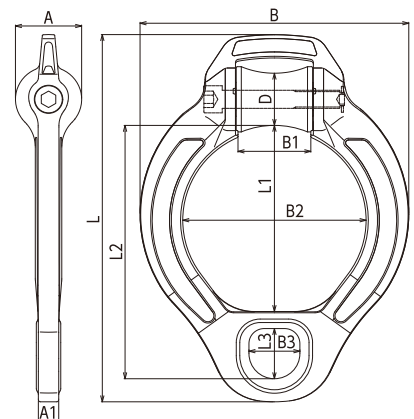
## Purse Ring Type 0



No.	Size	Roller	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	A1 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK18291	120	special stainless steel	52	295	120	187	50	65	20	189	71.5	120	50	4·14	4.4	3.0
AK18292	120	alloy steel	52	295	120	187	50	65	20	189	71.5	120	50	4·14	4.4	3.0
AK18293	180	special stainless steel	52	366	186	253	50	65	20	264	71.5	180	50	14	6.2	3.0
AK18294	180	alloy steel	52	366	186	253	50	65	20	264	71.5	180	50	14	6.2	3.0

\* Material: Special stainless steel, Roller shaft/spring/set screw = SUS304, Bush/lock pin = copper alloy, Roller = special stainless steel (AK18291·AK18293) / alloy steel (AK18292·AK18294)

\* For AK18291 and AK18293, textile ropes are recommended for use due to the material of the rollers (special stainless steel). If metal wire ropes are used, the roller may be scratched depending on the operating conditions such as the load.





special stainless steel roller model



Alloy steel roller model is also available for use with metal wire rope.

## Product features

### Unique gate design

The gate can be opened by pressing the button down. An interlocking system, which enables the hook part to be securely locked into the body, has been employed, to generate a high working load.



### The roller part that makes the difference

The shape of the roller edge part covers the body to prevent the purse line from rubbing against it. The roller can be removed and replaced.

To replace the roller,

- ① Remove the hexagonal socket head set screw (M8).
- ② Remove the roller shaft (M16).

After reinstalling the roller, apply ThreeBond MEC thread lock (No. 2446) or similar adhesive to the thread of ①.



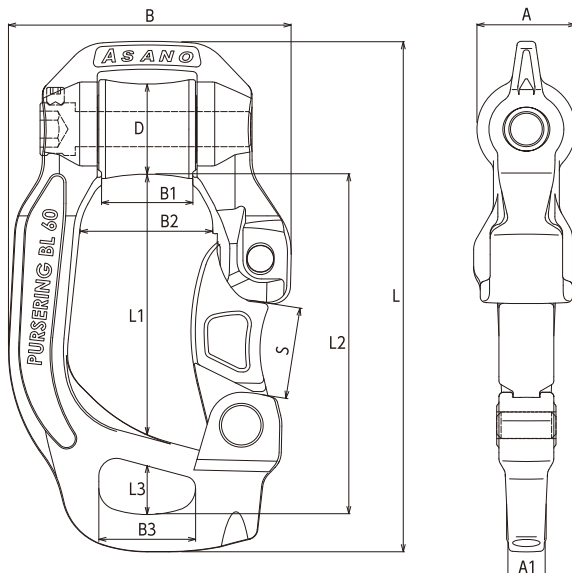
## Purse Ring Type BL (Size 60)



No.	Size	Roller	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	A1 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	S (mm)	Hex wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK18280	60	special stainless steel	41	232.5	119	155	22	45	16	129	41.5	60	44	41.5	4·6·8·14	2.5	2.5
AK18281	60	alloy steel	41	232.5	119	155	22	45	16	129	41.5	60	44	41.5	4·6·8·14	2.5	2.5

\* Material: Special stainless steel, Roller shaft/spring/set screw = SUS304, Bush/lock pin = copper alloy, Roller = special stainless steel(AK18280) / alloy steel (AK18281)

\* For AK18280, textile ropes are recommended for use due to the material of the rollers (special stainless steel). If metal wire ropes are used, the roller may be scratched depending on the operating conditions such as the load.



### Replaceable spring

If the performance of the spring deteriorates due to certain factors such as aging, the built-in spring can be replaced by removing the screw.





## Product features

### Example combination



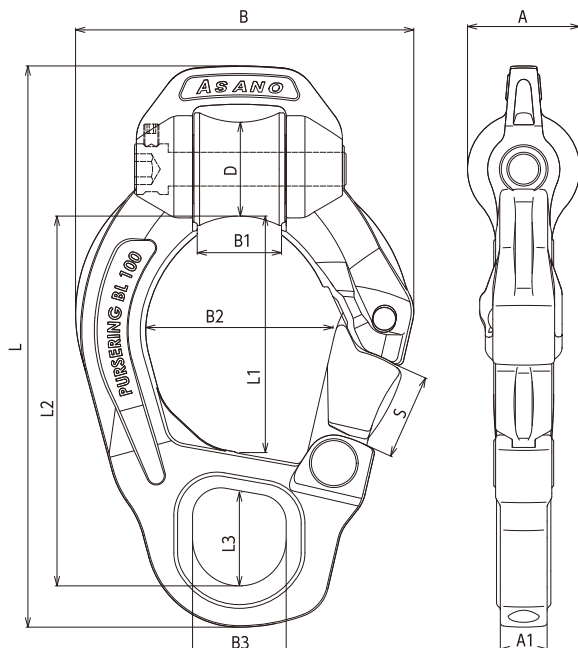
Purse seine fishing demands toughness from equipment, particularly when connecting the net to the purse line at the bottom of the net.

## Purse Ring Type BL (Size100)



No.	Size	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	A1 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	S (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK18285	100	50	299	126	197	50	60	25	181	45	100	50	45	4·8·14	5,5	3,5

\* Material: Special stainless steel, Roller = alloy steel,  
Roller shaft/spring/set screw= SUS304, Bush/lock pin = copper alloy



### Opening/closing the gate



The BL in the name stands for “button lock”: it features a gate locked with a button, to prevent unintentional underwater release. This Purse Ring is made of special stainless steel for excellent seawater resistance, to help prevent the lock button from rusting and getting stuck.



## Product features

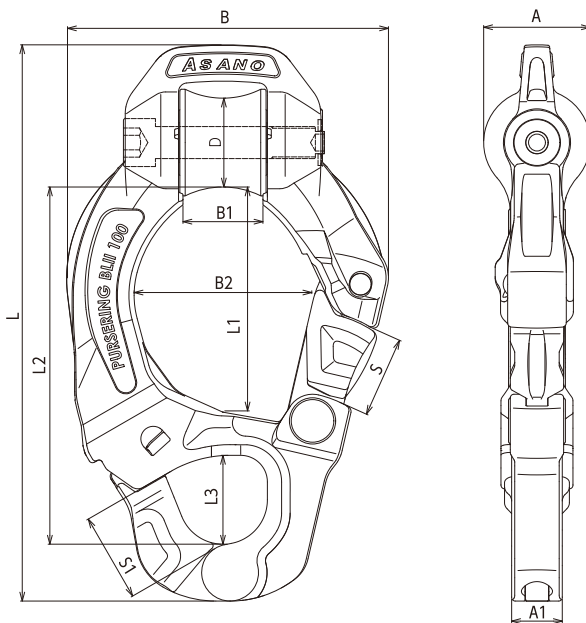
Gate release can be operated from two sides



The Auto Shackle mechanism facilitates gate release operation. The gate spring can be replaced if it has deteriorated due to aging or other causes.

## Unique gate design

The gate can be opened when the button is pressed down, which prevents unintended release underwater. The hook part's interlocking structure engages with the body to securely hold the load.



## Simple to connect

This Purse Ring helps reduce the number of metal fittings needed to connect a fishing net to the purse line. The incredible simplicity of the process helps make connecting and releasing more efficient.



**NEW**

## Purse Ring Type BL-II



No.	Size	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	A1 (mm)	B (mm)	B1 (mm)	B2 (mm)	S (mm)	S1 (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK18288	100	50	313	127	201	50	60	28.5	181	45	100	45	50	6·8·14	6.1	3.0

\* Material: Special stainless steel, Roller shaft/spring/set screw = SUS304, Bush/lock pin = copper alloy, Roller = alloy steel

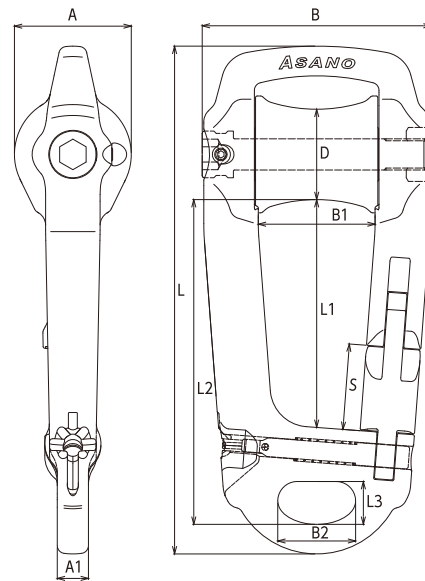


## Purse Ring



No.	Size	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	A1 (mm)	B (mm)	B1 (mm)	B2 (mm)	S (mm)	Double ring	Unit weight (kg)	Working load limit (t)
AK18275	80	58	326	146	209	28	75	20	147	75	50	55	φ2 x Inner diameter 25	7.4	2.5

\* Material: Special stainless steel, Roller = alloy steel, Roller shaft (bolt, nut)/set screw/spring/double ring = SUS304, Lock pin = special stainless steel



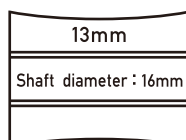
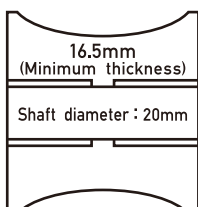
## Product features

### Large-diameter roller and large-diameter shaft

The large-diameter roller and the large-diameter shaft enlarge the volume and surface area to prevent cracks and lengthen service life. The easy-to-disassemble shaft consists of a bolt and nut, and is double-locked with a rivet and set screw.

ASANO roller

Other rollers



### Roller edge part, roofed body

The roller edge part covers the body to prevent this part of the body and wire ropes (purse line) from rubbing against each other. Moreover, the roofed body makes it hard for nets and ropes to get caught.



### Opening/closing gate

You can open the gate by inserting a round bar about φ6 to the hole of the lock pin end. You can keep the lock released by inserting the round bar, as shown below or by pulling the ring on the lock pin end and rotating the lock pin so that the ring is in the diagonal groove.





### Combination example

This is rigging hardware designed for fishing gear used for round haul nets. Use it to connect an Auto Shackle (P039) and a Purse Ring. The large inner diameter of the ring improves the degree of freedom for the connecting part. Special stainless cast steel is used for the body, with excellent strength and durability.

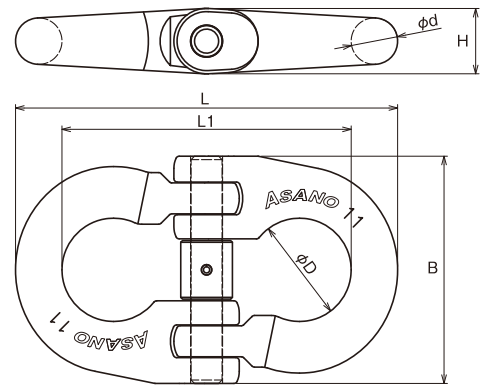


## Purse Coupling



No.	Size	d (mm)	L (mm)	L1 (mm)	B (mm)	H (mm)	D (mm)	Unit weight (g)	Working load limit (t)
AK18153	11	φ13.5	111	84	66	19	φ30	420	1.86

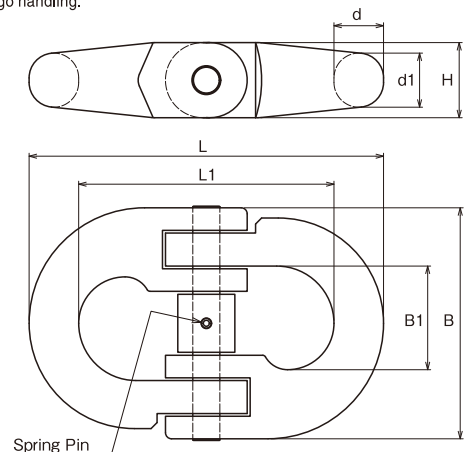
\* Material: Special stainless steel, Pin = SUS316, Sleeve = SUS316, Spring = SUS304  
 \* Do not use it for general cargo handling.



## Coupling

No.	Size	d (mm)	d1 (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)	H (mm)	Spring Pin No.	Unit weight (g)	Working load limit (t)
AK18165	13	16.5	18	118	85	77	34.5	25	3×18	850	3.3
AK18166	16	21.5	22	145	102	99.5	43.5	32	4.5×22	1,700	5.0

\* Material: SUS316, Spring pin: SUS304  
 \* Do not use it for general cargo handling.







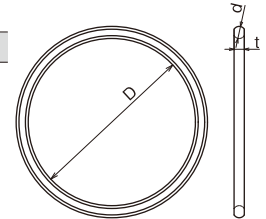
## Flat Ring



This ring is pressed to make the side flat. The flattened design improves durability compared to conventional ring. And they also bundle nicely to save space.

No.	Size	d (mm)	D (mm)	t (mm)	Unit weight (g)	Working load limit (kg)
AK18372F	13×180	13	180	11	630	280

\* Material: SUS304



## Round Ring, Casted (Bright / Unpolished)

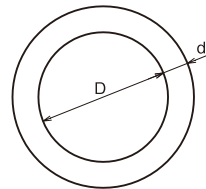
[Bright polished]

No.	Size	d (mm)	D (mm)	Unit weight (g)	Working load limit (kg)
AK7031B	10	10	60	138	200
AK7032B	12	12	80	261	300
AK7033B	13	13	100	377	500
AK7034B	16	16	60	374	800
AK7035B	16L	16	150	838	400

[Unpolished]

No.	Size	d (mm)	D (mm)	Unit weight (g)	Working load limit (kg)
AK7031	10	10	60	138	200
AK7032	12	12	80	261	300
AK7033	13	13	100	377	500
AK7034	16	16	60	374	800
AK7035	16L	16	150	838	400

\* Material: SCS14 (equivalent to SUS316)



[Bright polished]

[Unpolished]

## Dragnet Fitting



[Body]

No.	Size	L (mm)	H (mm)	D (mm)	D1 (mm)	Unit weight (g)	Working load limit (kg)
AK4400	S	200	92	16	13	1,400	1,200
AK4401	M	250	110	20	16	2,400	1,700
AK4402	L	300	130	23	18	3,700	2,400

[Spring]

No.	Size
AK4400B6	S
AK4401B6	M
AK4402B6	L

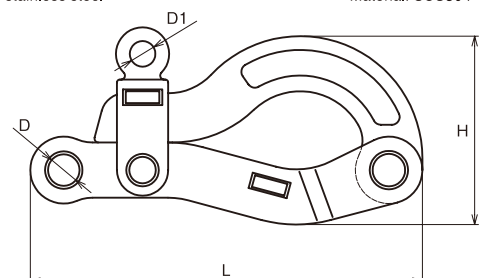
\* Material: Special stainless steel

\* Material: SUS304



Separately sold spring

When a separately sold spring is installed



## Product features

### Ideal functions for gill net fishing

#### ① Round shape of the main body

The edge inside the main body is round and easy on ropes. In addition, the entire body is round, which prevents it from standing up on the reel and helps facilitate easy storage of the net when it is wound up.

#### ② Robust casted design

As the product is designed to be casted with a high degree of freedom, the body thickness does not have to be uniform unlike wire materials, and sections to which a larger load is applied are made thicker to optimize product capacity. In addition, special stainless steel materials with superior abrasion and corrosion resistance are used.

#### ③ Pin improves working load limit

A pin with a larger  $\phi 4.5$  mm diameter compared with the conventional AK Hook product, is used. The adjustment is performed in accordance with the strength of the main body.

### Safe interlock design

The interlock system is used for the gate section. When the main body is engaged with the gate, a high working load limit is achieved. In addition, by taking the interference with the rope and fishing net into account, edges have been eliminated to as great a degree as possible to prevent entanglement.



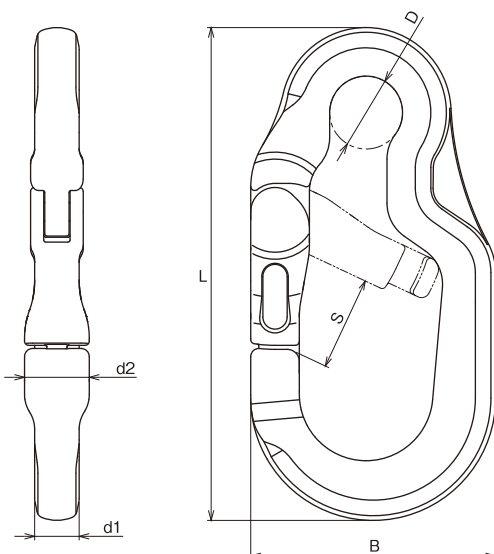
## AK Hook Type G



Hooks designed for connecting during gill net fishing. Various functions have been incorporated by taking intended purposes into account.

No.	Size	d1 (mm)	d2 (mm)	L (mm)	B (mm)	S (mm)	D (mm)	Unit weight (g)	Working load limit (kg)
AK18325	11	11	16	122	60,5	23	18	290	400

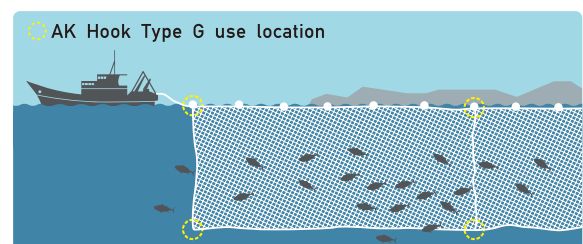
\* Material: Special stainless steel, Spring = SUS304



AK Hook Type G



Conventional AK Hook



### Assumed location of use

This product can be used at rigging locations during gill net fishing as shown in the illustration above.



Chokkiri  
AK6400



P.chokkiri  
AK6401



S.morippa  
AK6402



Morippa  
AK6403



Toku-morippa  
AK6404



Shark-morippa  
AK6405



Minimorippa L  
AK6407



Minimorippa M  
AK6408

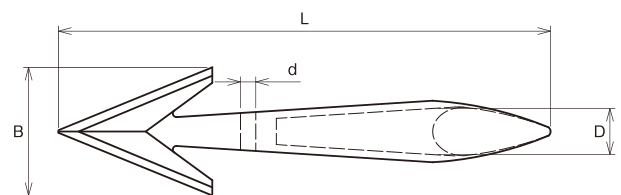


Minimorippa S  
AK6409

## Harpoon Head (Morippa & Chokkiri)



Type	No.	L (mm)	B (mm)	d (mm)	D (mm)	Unit weight (g)
Chokkiri	AK6400	93	27	3	9	23
P.chokkiri	AK6401	96	25	3	9	18
S.morippa	AK6402	90	22	3	8	23
Morippa	AK6403	100	32	3	10	28
Toku-morippa	AK6404	104	36	3	9	30
Shark-morippa	AK6405	167	54	6	14	212
Minimorippa L	AK6407	68	17	2	7	11
Minimorippa M	AK6408	57	13	1.4	5	6
Minimorippa S	AK6409	47	11	1.4	4.6	5



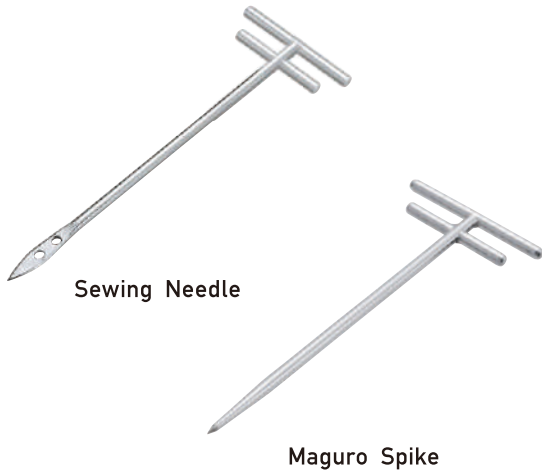
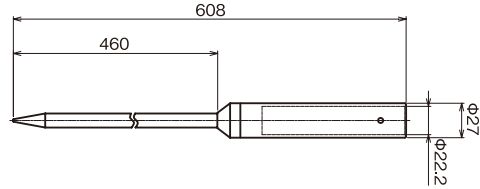
\* Material: Special stainless steel  
\* Note: The point and/or edges are sharpened.  
Handle with caution.



## Spear Head

No.	Unit weight (g)
AK3110	480

\* Material: SUS304  
 \* Note: The point and/or edges are sharpened. Handle with caution.

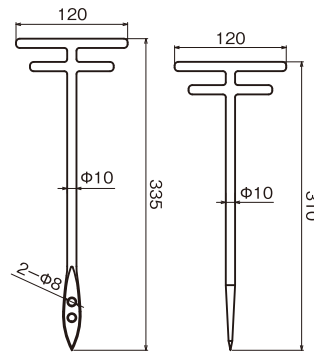


Sewing Needle

Maguro Spike

## Sewing Needle / Maguro Spike

Product name	No.	Unit weight (g)
Sewing needle	AK4270	300
Maguro spike	AK6060	300



\* Material: SUS304  
 \* Note: The point and/or edges are sharpened. Handle with caution.

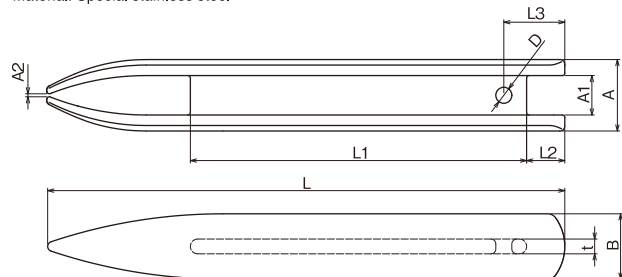


## Needle



No.	Size	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	A (mm)	A1 (mm)	A2 (mm)	B (mm)	D (mm)	t (mm)	Unit weight (g)
AK18055	200	210	136.5	15.5	24.8	29	16	1.2	26.5	6.5	6	500

\* Material: Special stainless steel

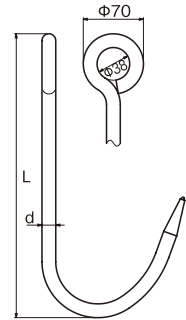


## Gaff



No.	Size	d (mm)	L (mm)	Unit weight (g)
AK6300	S	16	330	1,040
AK6301	M	16	450	1,200
AK6302	L	16	550	1,400

\* Material: SUS304

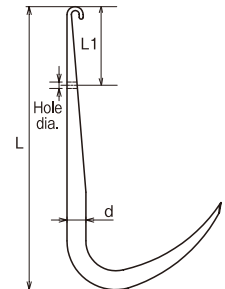


## Gaff Head



No.	Size	d (mm)	L (mm)	L1 (mm)	Hole dia. (mm)	Unit weight (g)
AK4120	6	6	137	30	3.5	45
AK4121	7	7	145	32	3.5	60
AK4122	8	8	155	36	4	80
AK4123	9	9	165	47	4	100
AK4124	10	10	170	50	4	130
AK4125	12	12	180	50	4	200

\* Material: Special stainless steel  
\* Note: The point and/or edges are sharpened. Handle with caution.



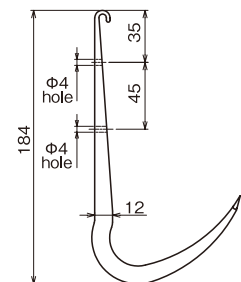
## Gaff Head Type II



No.	Size	Unit weight (g)
AK4135	12	190

- The tip is thicker and stronger than the Gaff Head above.
- The back of the stem is curved, and fits stably with the rod.

\* Material: Special stainless steel  
\* Note: The point and/or edges are sharpened. Handle with caution.

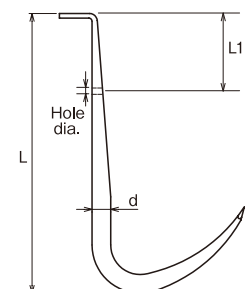


## Owase Gaff Head



No.	Size	d (mm)	L (mm)	L1 (mm)	Hole dia. (mm)	Unit weight (g)
AK3400	6	6	160	60	4	45
AK3401	7	7	170	60	4	60
AK3402	8	8	180	65	4	80
AK3403	9	9	190	75	4	100
AK3404	10	10	200	80	4	130
AK3405	12	12	205	80	4	200

\* Material: SUS304  
\* Note: The point and/or edges are sharpened. Handle with caution.



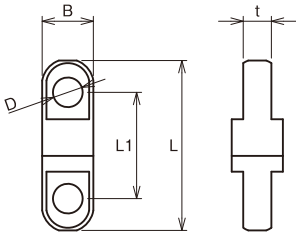


## Heavy Swivel

No.	Size	L (mm)	L1 (mm)	B (mm)	D (mm)	t (mm)	Unit weight (g)	Working load limit (kg)
AK2361	7	23.5	14	7	3.5	4	4	80
AK2363	9	31.5	19.5	9	5	5	9	130
AK2364	10.5	35.5	21.5	10.5	6	6	13	150

\* Material: SUS303

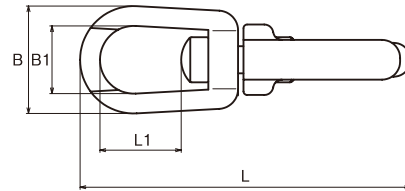
\* Do not use under conditions of constant rotation.



## Maguro Sarukan Swivel

No.	Size	L (mm)	L1 (mm)	B (mm)	B1 (mm)	Unit weight (g)
AK2240	3S	28.1	5	13	7.5	5
AK2241	2S	38.3	9	14.6	9	8

\* Material: SCS14 (equivalent to SUS316), Pin = SUS316  
 \* Do not use under conditions of constant rotation.

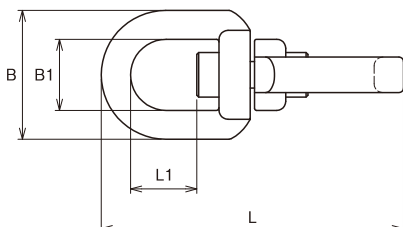


## Maguro Sarukan Swivel Type M

No.	Size	L (mm)	L1 (mm)	B (mm)	B1 (mm)	Unit weight (g)
AK2236	3S	30.5	6.3	13.5	7.5	6
AK2237	2S	34	7.5	14.5	8	8
AK2238	S	42	10.5	18	10	12

\* Material: SCS13 (equivalent to SUS304)

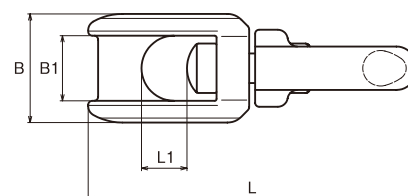
\* Do not use under conditions of constant rotation.



## Maguro Sarukan Swivel, Course Type

No.	Size	L (mm)	L1 (mm)	B (mm)	B1 (mm)	Unit weight (g)
AK2247	3S	33.5	4.6	11	6.6	8
AK2248	2S	39.3	7	14.5	9	12

\* Material: SCS14 (equivalent to SUS316), Pin = SUS316  
 \* Do not use under conditions of constant rotation.



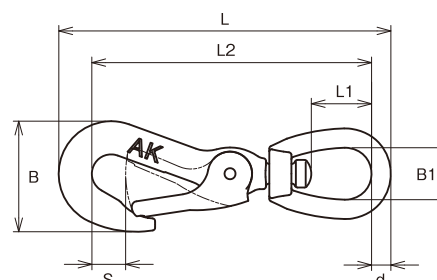
# Tuna Swivel Snap



No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	S (mm)	Unit weight (g)	Working load limit (kg)
AK12450	T0	3.5	60	11	51	20	9	6	17	40
AK12451	T1	4.5	69	11	57	26	12	5	32	60

\* Material: Special stainless steel, Swivel = SCS13 (equivalent to SUS304)

\* Do not use under conditions of constant rotation.

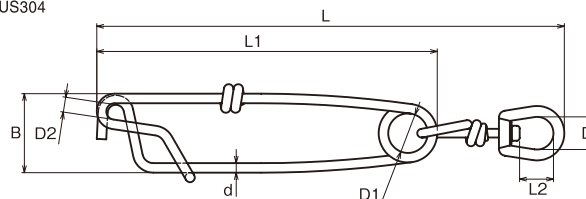


# Branch Hanger



No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	D (mm)	D1 (mm)	D2 (mm)	Unit weight (g)	Remark
AK6021	2	2	—	85	—	21	—	7.5	2	8	Without swivel
AK6022	2.6	2.6	—	100	—	23	—	9	2	18	Without swivel
AK6023	3.5	3.5	—	126	—	28	—	13.5	2	40	Without swivel
AK6030	2.6	2.6	135	100	9	22	10	9	2	25	With swivel
AK6031	3.5	3.5	172	124	9	29	10	14	2	54	With swivel

\* Material: SUS304

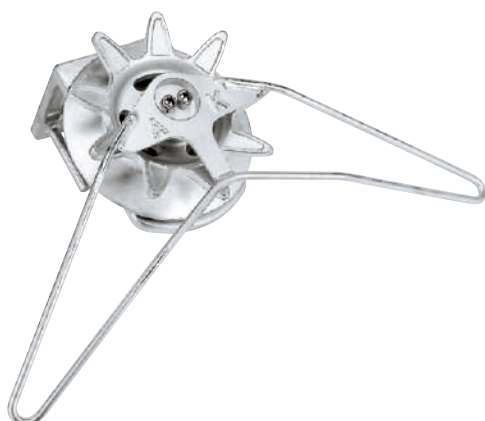
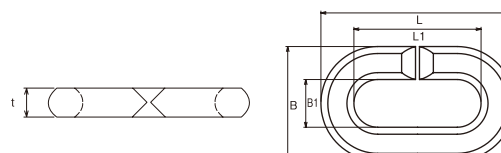


Available in combination with swivels (P079)

# Strong C-Link

No.	Size	L (mm)	L1 (mm)	B (mm)	B1 (mm)	t (mm)	Unit weight (g)	Working load limit (kg)
AK4205	13	77	50	49	20	11.4	170	200
AK4206	16	97	64	57	24	14	320	390
AK4207	19	115	76	67	28	16.6	540	520
AK4208	22	134	88	79	33	19.3	840	690
AK4209	25	152	100	89	37	22	1,230	880
AK4210	28	168	111	96	41	24.5	1,650	1,050

\* Material: SUS304



# Guide Roller

No.	Size	Roller dia. (mm)
AK7775	M	254
AK7776	L	300

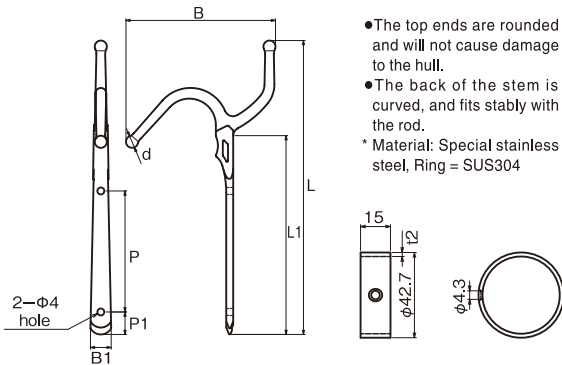
\* Material: SCS13 (equivalent to SUS304)  
Bolt/rod = SUS304



## Boat Hook, Round Point



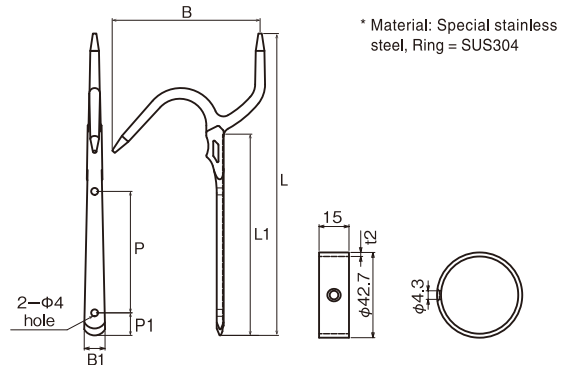
No.	Size	d (mm)	L (mm)	L1 (mm)	P (mm)	P1 (mm)	B (mm)	B1 (mm)	Unit weight (g)
AK5910	7	7	170	116	70	13	87	12	72
AK5911	9	9	192	120	70	13	116	13	120
AK5912	12	12	231	138	80	14	143	17	262



## Boat Hook, Sharp Point



No.	Size	L (mm)	L1 (mm)	P (mm)	P1 (mm)	B (mm)	B1 (mm)	Unit weight (g)
AK5925	7	174	116	70	13	85	12	66
AK5926	9	194	120	70	13	112	13	120
AK5927	12	235	138	80	14	139	17	250

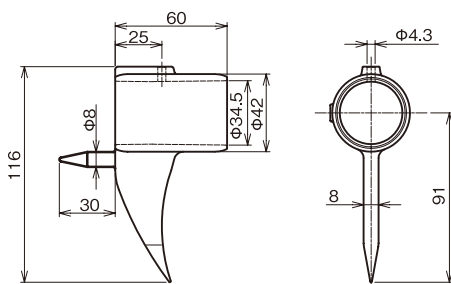


## Kentobi Hook Head



No.	Unit weight (g)
AK5915	300

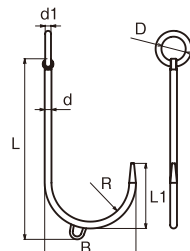
\* Material: Special stainless steel



## Mooring Hook

No.	Size	d (mm)	d1 (mm)	L (mm)	L1 (mm)	B (mm)	D (mm)	R (mm)	Unit weight (g)
AK6310	12×R62.5	12	9	280	124.5	149	50	62.5	540
AK6311	12×R80	12	9	350	132	184	50	80	620
AK6312	14×R80	14	12	350	134	188	55	80	810
AK6313	16×R80	16	12	350	136	192	55	80	1,090
AK6314	19×R80	19	12	350	139	198	55	80	1,380

\* Material: SUS304



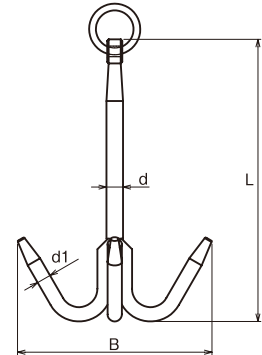




## Subaru Hook Anchor

No.	Size	d (mm)	d1 (mm)	L (mm)	B (mm)	Unit weight (kg)
AK4220	S	12	9	200	140	0.35
AK4221	M	16	12	240	190	0.90
AK4222	L	19	16	315	220	1.80
AK4223	LL	22	19	375	250	3.00

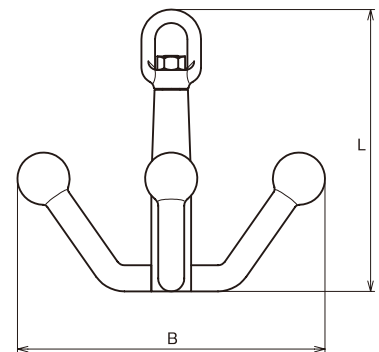
\* Material: SUS304



## Hotate Subaru Hook Round Point

No.	Size	L (mm)	B (mm)	Unit weight (kg)
AK5593	S	217	202	2.14
AK5594	M	230	260	3.54
AK5595	L	270	280	5.52

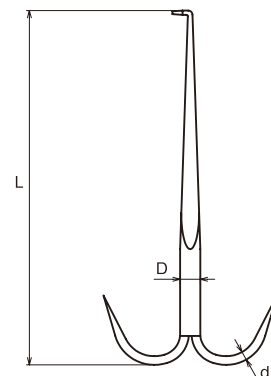
\* Material: SUS304, Hook/swivel = SCS13  
 \* Do not use in parts subject to constant rotation.



## Hayasuke Gaff Head

No.	Size	d (mm)	L (mm)	D (mm)	Unit weight (g)
AK4225	S	5	165	6	80
AK4226	L	6	250	14	255

\* Material: SUS304

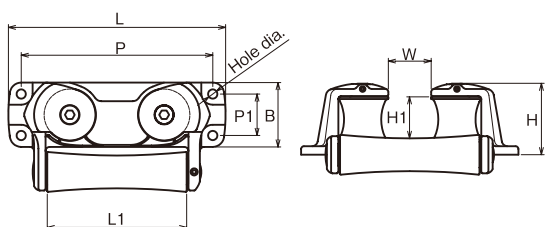




## 3-Way Roller

No.	Size	L (mm)	L1 (mm)	B (mm)	P (mm)	P1 (mm)	W (mm)	H (mm)	H1 (mm)	Hole dia. (mm)	Hex. wrench dia. (mm)	Unit weight (kg)
AK19001	150	152	97	45	134	29	30	50	29	6.5	2·2.5·6	1.1
AK19002	200	204	132	60	182	42	46	66	40	9	2.5·3·8	2.5
AK19003	250	255	177	75	229	54	60	74	42	11	2.5·3·14	4.36
AK19004	300	306	206	90	272	62	72	94	52	11	3·3·17	6.7

\* Material: Special stainless steel, Shaft = SUS304, Bush = nylon



### Product features



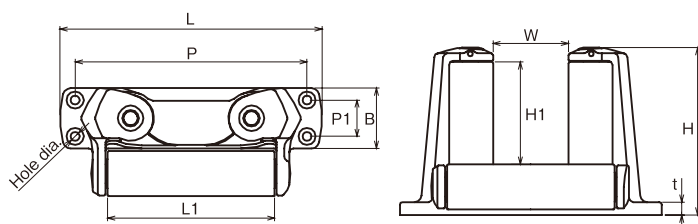
The body is an integrated type with curved lines. This prevents ropes from being caught.



## Deck End Roller

No.	Size	L (mm)	L1 (mm)	B (mm)	P (mm)	P1 (mm)	W (mm)	H (mm)	H1 (mm)	t (mm)	Hole dia. (mm)	Hex. wrench dia. (mm)	Roller dia. (mm)	Unit weight (kg)
AK19010	260	260	166	60	230	36	75	166	101.5	13	9	2.5·3·14	45	7.3
AK19011	320	320	208	75	280	45	90	199	122	15	11	3·3·17	55	13.6

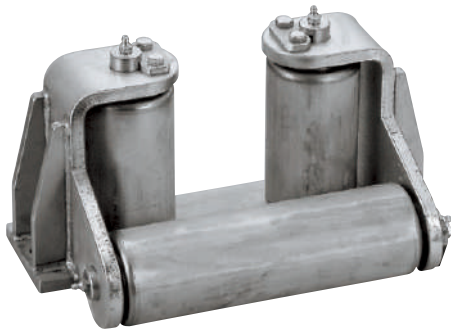
\* Material: Special stainless steel, Roller/shaft = SUS304, Bush = nylon



### Product features



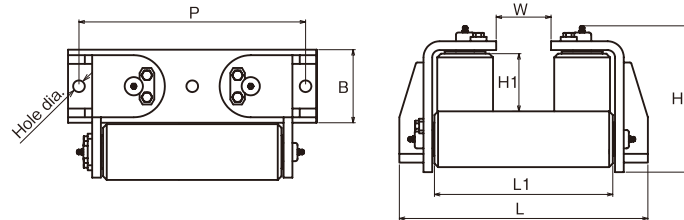
The body is an integrated type with curved lines. This prevents ropes from being caught.



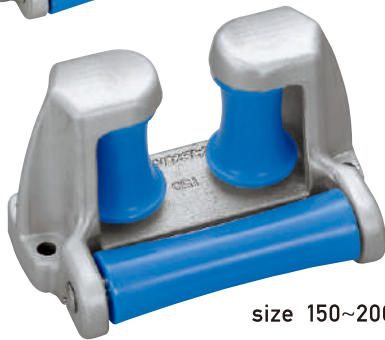
## Deck End Roller JIS Type

No.	Size	L (mm)	L1 (mm)	B (mm)	P (mm)	W (mm)	H (mm)	H1 (mm)	Hole dia. (mm)	Roller dia. (mm)	Unit weight (kg)	Remark
AK3312	340	340	234	100	310	83.7	187	74	16	76.3	20	JISF2020A
AK3313	450	450	300	125	400	122.9	218	100	16	89.1	33	JISF2004A

\* Material: SUS304, Bush = HBsB



size 100



size 150~200

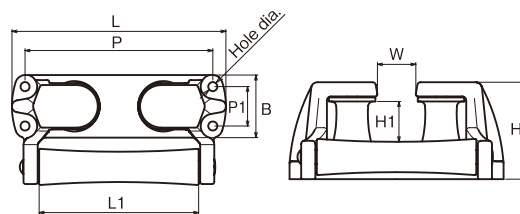
## 3-Way Roller (Aluminum)

No.	Size	L (mm)	L1 (mm)	B (mm)	P (mm)	P1 (mm)	W (mm)	H (mm)	H1 (mm)	Hole dia. (mm)	Unit weight (kg)
AK3950	100	143	88	44	126	-	18	73.5	27	9	0.6
AK3951	150	158	110	50	138	28	22	96	42	9	0.92
AK3952	200	212	157	62	186	39	38	96	40	9	1.43

\* Material: AC7A, Roller = nylon, Shaft/pin = SUS304

\* Surface treatment / anodized aluminum

\* For size 100, one screw hole is provided in each side.



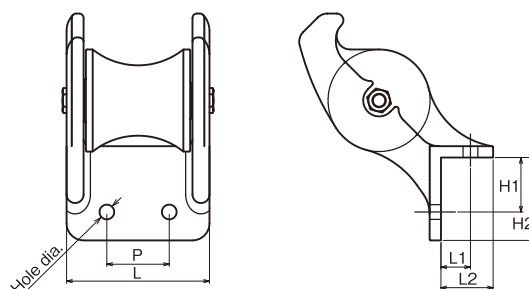
## Anchor Roller (Aluminum)

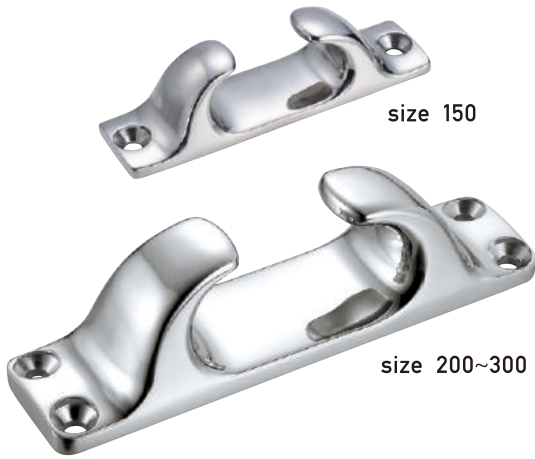


No.	Size	L (mm)	L1 (mm)	L2 (mm)	P (mm)	H1 (mm)	H2 (mm)	Hole dia. (mm)	Roller dia. (mm)	Unit weight (g)
AK3090	50	81	17	35	34	35	55	10	60	600
AK3091	70	103	16	36	44.5	35	60	10	70	1,000
AK3092	90	126	26	46	55	48	73	13	90	1,700

\* Material: AC7A, Roller = nylon, Shaft/pin = SUS304

\* Surface treatment / anodized aluminum



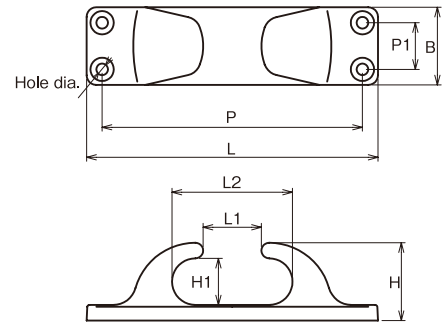


## Fairleader

No.	Size	L (mm)	L1 (mm)	L2 (mm)	B (mm)	P (mm)	P1 (mm)	H (mm)	H1 (mm)	Hole dia. (mm)	Unit weight (g)
AK5700	150	150	31	62	40	130	-	40	24	8.5	380
AK5701	200	200	40	84	50	180	30	54	33	8.5	960
AK5702	250	250	50	102	60	220	34	65	39	11	1,600
AK5703	300	300	62	124	65	270	35	80	48	13	2,830

\* Material: SCS14 (equivalent to SUS316)

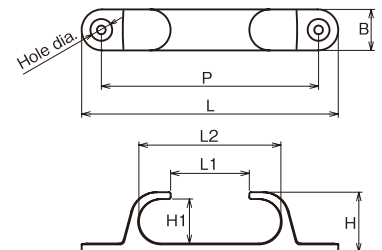
\* For size 150, one screw hole is provided in each side.



## Straight Chock

No.	Size	L (mm)	L1 (mm)	L2 (mm)	B (mm)	P (mm)	H (mm)	H1 (mm)	Hole dia. (mm)	Unit weight (g)
AK5730	5"	130	33	60	24	105.7	27	16	5	198
AK5731	6"	150	47	83	24	127	35	27	6.4	205

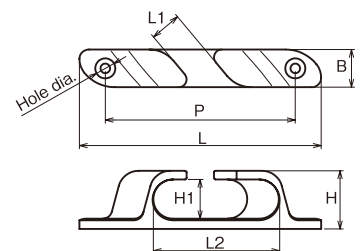
\* Material: SCS14 (equivalent to SUS316)



## Bow Chock

No.	Size	L (mm)	L1 (mm)	L2 (mm)	B (mm)	P (mm)	H (mm)	H1 (mm)	Hole dia. (mm)	Unit weight (g)	Remark
AK5710	4 1/2"	120	13	42	20	84.5	25	12.5	5.1	256	1 L&R set

\* Material: SCS14 (equivalent to SUS316)



size 100

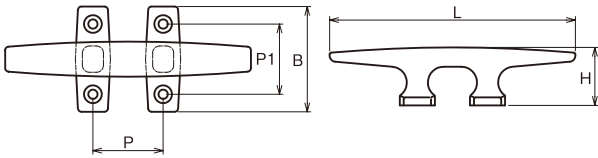


## Cleat

size 140~260

No.	Size	L (mm)	B (mm)	P (mm)	P1 (mm)	H (mm)	Hole dia. (mm)	Unit weight (g)
AK3700	100	100	16	30	-	24	5	120
AK3701	140	140	60	40	40	33	5	310
AK3702	180	180	70	50	50	40	6	540
AK3703	220	220	85	60	60	48	6	930
AK3704	260	260	100	70	70	55	8	1,250

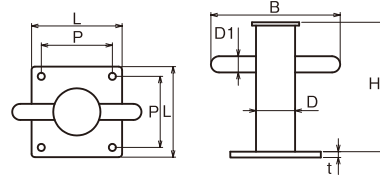
\* Material: SCS14 (equivalent to SUS316)



## Crossbit

No.	Size	L (mm)	B (mm)	P (mm)	H (mm)	t (mm)	D (mm)	D1 (mm)	Hole dia. (mm)	Unit weight (g)
AK3769	125	80	125	55	125	6	42.7	16	10	820
AK3770	150	100	150	70	150	6	48.6	19	11	1,300
AK3771	200	140	200	110	200	9	60.5	25	11	3,300
AK3772	250	190	250	150	250	10	76.3	28	13	5,800
AK3773	300	200	300	160	300	12	89.1	32	13	8,500

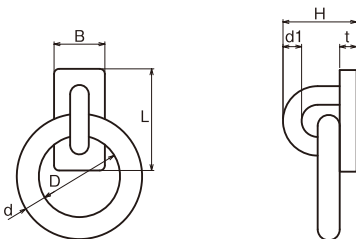
\* Material: SUS304



## Ring Plate Type B

No.	Size	d (mm)	d1 (mm)	D (mm)	L (mm)	B (mm)	H (mm)	t (mm)	Unit weight (g)	Working load limit (t)
AK19100	0.5t	13	11	48	60	30	44	10	400	0.5
AK19101	1t	19	16	70	80	40	61	12	1,110	1.0
AK19102	1.5t	22	19	80	100	50	71	14	1,780	1.5

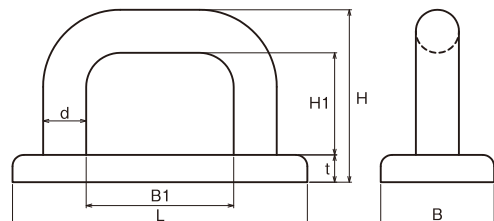
\* Material: SUS304



## Eye Plate Type D

No.	Size	d (mm)	L (mm)	B (mm)	B1 (mm)	H (mm)	H1 (mm)	t (mm)	Unit weight (g)	Working load limit (t)
AK19110	19	19	130	50	65	76	45	12	980	0.5
AK19111	22	22	150	62	75	86	50	14	1,590	1.0
AK19112	28	28	200	80	100	104	60	16	3,150	2.0

\* Material: SUS304

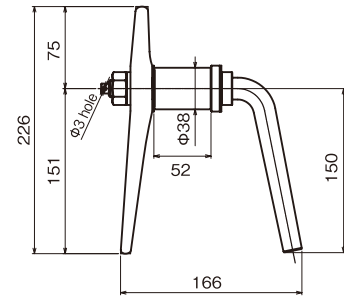




## Door Clip Type B

No.	Unit weight (g)
AK4900	1,550

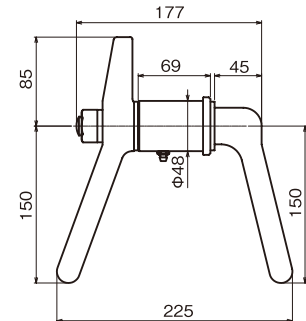
\* Material: SUS304,  
Inner handle = SCS13



## Door Clip Type JIS

No.	Unit weight (g)
AK4903	3,070

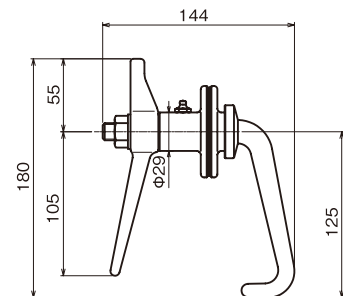
\* Material: SUS304 Inner, outer handle = SCS14 (equivalent to SUS316) Bush/washer/grease nipple = brass  
\* Weathertight door clip B type (JIS F 2316)



## Door Clip Type N

No.	Unit weight (g)
AK4901	1,000

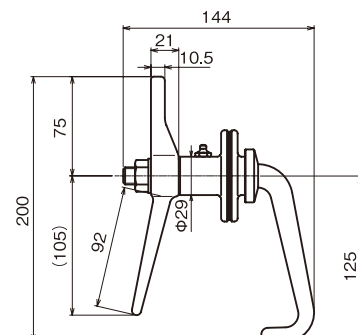
\* Material: SCS14 (equivalent to SUS316), Nut/screw = SUS304  
\* Available for door boards up to 4mm thick.



## Door Clip Type N(S)

No.	Unit weight (g)
AK4906	1,020

\* Material: SCS14 (equivalent to SUS316), Nut/screw = SUS304  
\* Available for door boards up to 4mm thick.

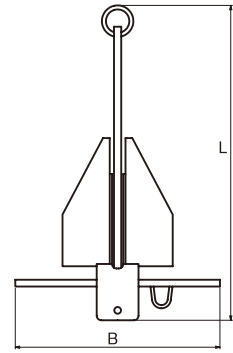




## Danforth Anchor

No.	L (mm)	B (mm)	Unit weight (kg)
AK3082	440	370	3.5
AK3083	520	400	5
AK3084	600	450	7

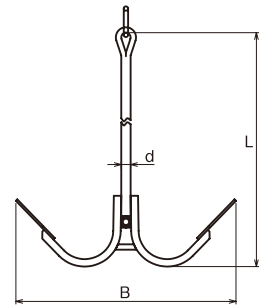
\* Material: SUS304  
 \* This product is made to order.



## Kedge Anchor

No.	d (mm)	L (mm)	B (mm)	Unit weight (kg)
AK3030	22	540	419	3.5
AK3031	22	700	508	5
AK3032	25	870	573	7
AK3033	28	990	653	10
AK3034	28	1,150	697	12
AK3035	32	1,260	815	15
AK3036	36	1,500	875	20

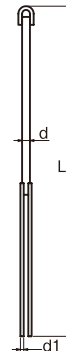
\* Material: SUS304  
 \* This product is made to order.



## Four-Forked Anchor for Free Forming

No.	d (mm)	d1 (mm)	L (mm)	Unit weight (kg)
AK3040	19	8	798	1.6
AK3041	22	8	821	2
AK3042	23	8	983	2.5
AK3043	25	8	995	3
AK3044	28	8	1,021	3.5
AK3045	32	8	1,175	5
AK3046	36	9	1,282	7
AK3047	40	10	1,506	10

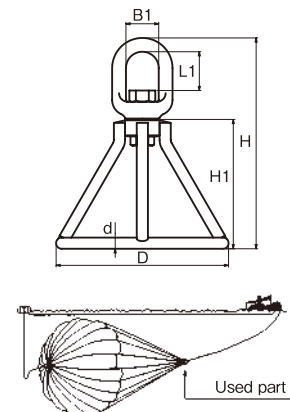
\* Material: SUS304  
 \* This product is made to order.



## Sea Anchor

No.	Size	d (mm)	L1 (mm)	B1 (mm)	H (mm)	H1 (mm)	D (mm)	Unit weight (kg)	Working load limit (kg)
AK4101	6	5	17	16	93	60	75	0.12	130
AK4102	8	6	20	20	122	75	100	0.24	250
AK4103	9	8	22	22	136	85	115	0.4	290
AK4104	10	9	27	24	154	95	125	0.64	300
AK4105	13	10	35	31	196	120	160	1.07	600
AK4106	16	13	45	38	244	150	200	2.09	1,000
AK4107	19	16	50	42	294	180	235	3.6	1,600
AK4108	22	19	52	47	328	205	275	5.7	2,100
AK4109	25	22	67	63	380	235	310	9	2,600
AK18050	28	25	73	70	430	260	345	13.4	3,200

\* Material: SUS304, Swivel = SCS13(equivalent to SUS304)  
 \* Do not use under conditions of constant rotation.  
 \* AK18050 is made to order.

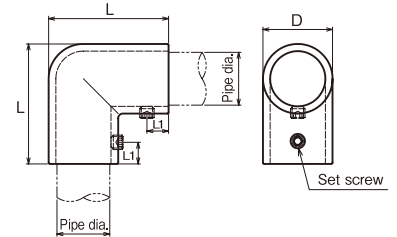




## Elbow

No.	Size (pipe dia.) (mm)	L (mm)	L1 (mm)	D (mm)	Unit weight (g)
AK2460	22	50	9	29	130
AK2461	25	51.5	6	33	160

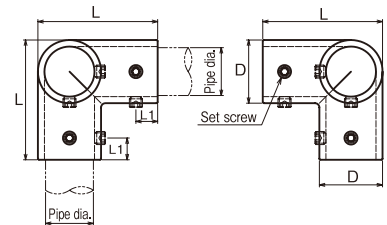
- \* Material: SCS14 (equivalent to SUS316), Set screw = SUS304
- \* Set screws: Hexagon socket set screws (1/4-28UNF)
- \* Use a hexagon wrench (1/8").



## Three-way

No.	Size (pipe dia.) (mm)	L (mm)	L1 (mm)	H (mm)	H1 (mm)	D (mm)	Unit weight (g)
AK2462	22	55	10	55	41	29	190
AK2463	25	57	10	57	41	32	220

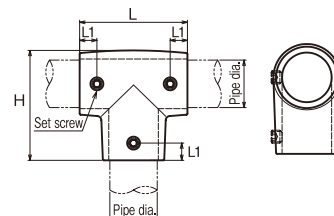
- \* Material: SCS14 (equivalent to SUS316), Set screw = SUS304
- \* Set screws: Hexagon socket set screws (1/4-28UNF)
- \* Use a hexagon wrench (1/8").



## Straight Tee

No.	Size (pipe dia.) (mm)	L (mm)	L1 (mm)	H (mm)	Unit weight (g)
AK2464	22	50	8	51	150
AK2465	25	55	9	55	190

- \* Material: SCS14 (equivalent to SUS316), Set screw = SUS304
- \* Set screws: Hexagon socket set screws (1/4-28UNF)
- \* Use a hexagon wrench (1/8").







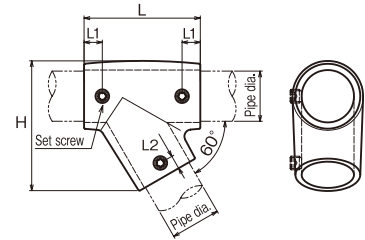
## Angled Tee

No.	Size (pipe dia.) (mm)	L (mm)	L1 (mm)	L2 (mm)	H (mm)	Unit weight (g)
AK2466	22	51	8	6	57	170
AK2467	25	57	7	7	65	200

\* Material: SCS14 (equivalent to SUS316),  
Set screw = SUS304

\* Set screws: Hexagon socket set screws  
(1/4-28UNF)

\* Use a hexagon wrench (1/8").



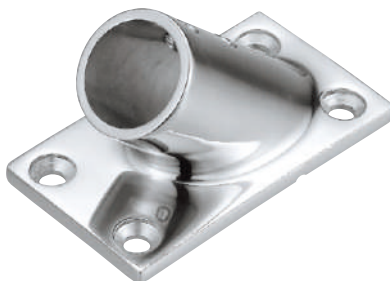
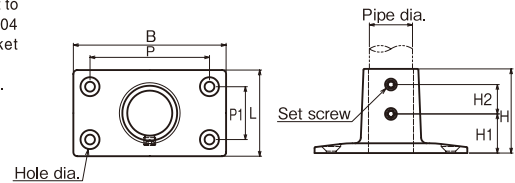
## Straight Base

No.	Size (pipe dia.) (mm)	L (mm)	B (mm)	P (mm)	P1 (mm)	H (mm)	H1 (mm)	H2 (mm)	Hole dia. (mm)	Unit weight (g)
AK2468	22	44	78	61	27	43	20	15	4.5	170
AK2469	25	48	83	66	29	45	21	16	6	220

\* Material: SCS14 (equivalent to  
SUS316), Set screw = SUS304

\* Set screws: Hexagon socket  
set screws (1/4-28UNF)

\* Use a hexagon wrench (1/8").



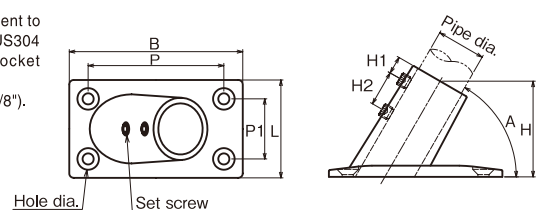
## Angled Base

No.	Size (pipe dia.) (mm)	L (mm)	B (mm)	P (mm)	P1 (mm)	H (mm)	H1 (mm)	H2 (mm)	A (mm)	Hole dia. (mm)	Unit weight (g)
AK2470	22	44	78	61	27	35	8	16	45°	5.5	185
AK2471	25	48	83	66	29	35	8	16	45°	6	195
AK2472	22	44	78	61	27	43	8	16	60°	5	195
AK2473	25	48	83	66	29	43	8	16	60°	6	205

\* Material: SCS14 (equivalent to  
SUS316), Set screw = SUS304

\* Set screws: Hexagon socket  
set screws (1/4-28UNF)

\* Use a hexagon wrench (1/8").

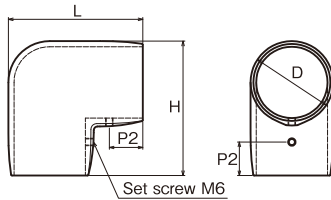




## Elbow

Size (pipe dia.) (mm)	Bright polished	Satin	L (mm)	P1 (mm)	P2 (mm)	H (mm)	D (mm)	Unit weight (g)
φ25	AK2705	AK43855	51	-	12	51	31	140
φ32	AK2706	AK43856	61	-	15	61	38	205
φ34	AK2704	AK43857	66	-	16	66	40	245
φ38	AK2707	AK43858	72	-	18	72	44	270
φ42.7	AK2708	AK43859	80	-	20	80	49	345

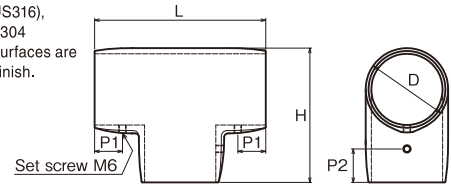
\* Material: SCS14 (equivalent to SUS316), Set screw = SUS304  
 \* Bright polished surfaces are close to a #400 finish.



## Tees

Size (pipe dia.) (mm)	Bright polished	Satin	L (mm)	P1 (mm)	P2 (mm)	H (mm)	D (mm)	Unit weight (g)
φ25	AK2715	AK43865	60	7	12	51	31	160
φ32	AK2716	AK43866	78	12	15	61	38	250
φ34	AK2714	AK43867	86	13	16	66	40	285
φ38	AK2717	AK43868	92	15	18	72	44	350
φ42.7	AK2718	AK43869	104	17	20	80	49	420

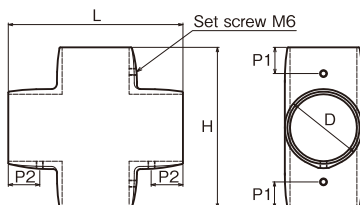
\* Material: SCS14 (equivalent to SUS316), Set screw = SUS304  
 \* Bright polished surfaces are close to a #400 finish.



## Cross

Size (pipe dia.) (mm)	Bright polished	Satin	L (mm)	P1 (mm)	P2 (mm)	H (mm)	D (mm)	Unit weight (g)
φ25	AK2725	AK43875	70	7	12	60	31	195
φ32	AK2726	AK43876	84	12	15	78	38	280
φ34	AK2724	AK43877	92	13	16	86	40	340
φ38	AK2727	AK43878	100	15	18	92	44	420
φ42.7	AK2728	AK43879	110	17	20	104	49	510

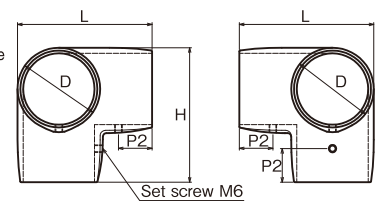
\* Material: SCS14 (equivalent to SUS316), Set screw = SUS304  
 \* Bright polished surfaces are close to a #400 finish.



## Three Sides Elbow

Size (pipe dia.) (mm)	Bright polished	Satin	L (mm)	P1 (mm)	P2 (mm)	H (mm)	D (mm)	Unit weight (g)
φ25	AK2735	AK43885	51	-	12	51	31	140
φ32	AK2736	AK43886	61	-	15	61	38	205
φ34	AK2734	AK43887	66	-	16	66	40	245
φ38	AK2737	AK43888	72	-	18	72	44	270
φ42.7	AK2738	AK43889	80	-	20	80	49	345

\* Material: SCS14 (equivalent to SUS316), Set screw = SUS304  
 \* Bright polished surfaces are close to a #400 finish.

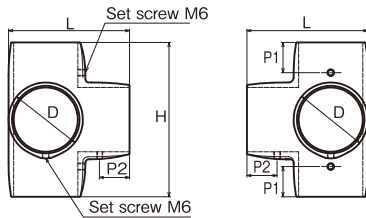




## Stretch

No.	Size (pipe dia.) (mm)	L (mm)	P1 (mm)	P2 (mm)	H (mm)	D (mm)	Unit weight (g)
AK2745	φ25	51	7	12	60	31	180
AK2746	φ32	61	12	15	78	38	290
AK2744	φ34	66	13	16	86	40	325
AK2747	φ38	72	15	18	92	44	410
AK2748	φ42.7	78	17	20	104	49	475

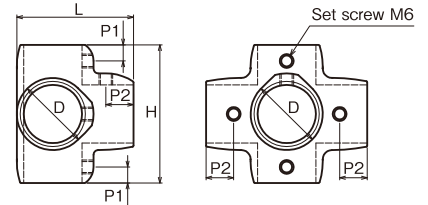
\* Material: SCS14  
(equivalent to SUS316),  
Set screw = SUS304  
\* Bright polish #400  
type only.



## Double Tees

No.	Size (pipe dia.) (mm)	L (mm)	P1 (mm)	P2 (mm)	H (mm)	D (mm)	Unit weight (g)
AK2755	φ25	51	7	12	60	31.3	215

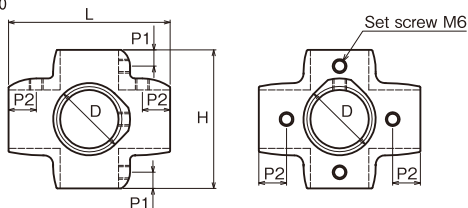
\* Material: SCS14  
(equivalent to SUS316),  
Set screw = SUS304  
\* Bright polish #400  
type only.



## Triple Elbow

No.	Size (pipe dia.) (mm)	L (mm)	P1 (mm)	P2 (mm)	H (mm)	D (mm)	Unit weight (g)
AK2765	φ25	70	7	12	60	31.3	250

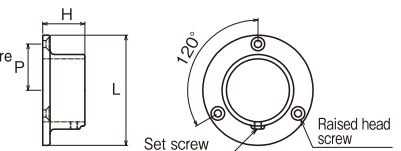
\* Material: SCS14  
(equivalent to SUS316),  
Set screw = SUS304  
\* Bright polish #400  
type only.



## Socket

Size (pipe dia.) (mm)	Bright polished	Satin	H (mm)	L (mm)	P (mm)	Raised head screw	Set screw	Unit weight (g)
φ19	AK2610	AK43805	15	41	16.2	φ3	M4	50
φ25	AK2611	AK43806	16	47	19.2	φ3	M6	50
φ27.2	AK2616	AK43807	18	50	20.3	φ3	M6	60
φ32	AK2612	AK43808	18	58	24.2	φ3.5	M6	100
φ34	AK2617	AK43809	23	60	25.2	φ3.5	M6	100
φ38	AK2613	AK43810	23	64	27.2	φ3.5	M6	120
φ42.7	AK2614	AK43811	26	69	29.7	φ3.5	M6	130
φ50	AK2615	AK43812	30	77	33.5	φ3.5	M6	170

\* Material: SCS14  
(equivalent to SUS316),  
Set screw = SUS304  
\* Bright polished surfaces are  
close to a #400 finish.

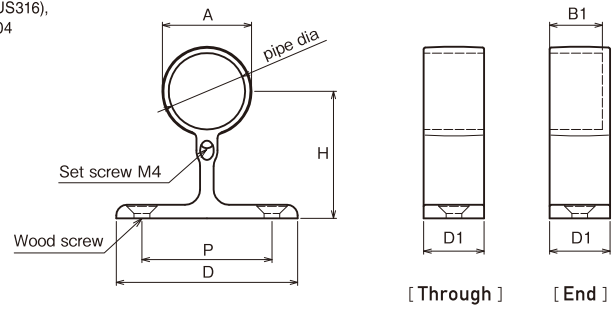




## Stanchion

Size (pipe dia.) (mm)	No.	Type	H (mm)	A (mm)	B1 (mm)	D (mm)	D1 (mm)	P (mm)	Wood screw	Unit weight (g)
φ19	AK2600	End	34	23.3	12.5	50	15	34	φ4.5×2	70
	AK2605	Through			-					60
φ25	AK2601	End	42	29.5	17.5	60	20	43	φ4.5×2	120
	AK2606	Through			-					110
φ32	AK2602	End	50	36.5	22.5	65	25	47×13	φ4.1×4	190
	AK2607	Through			-					170

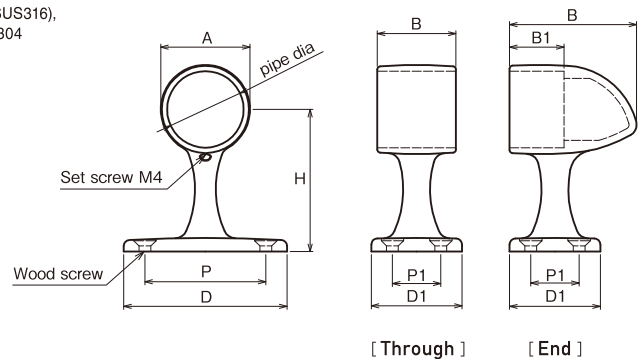
\* Material: SCS14 (equivalent to SUS316), Screws = SUS304



## Stanchion, Shell-Type

Size (pipe dia.) (mm)	No.	Type	H (mm)	A (mm)	B (mm)	B1 (mm)	D (mm)	D1 (mm)	P (mm)	P1 (mm)	Wood screw	Unit weight (g)
φ19	AK2480	End	42	23.3	32	15	48	24	34	13	φ3.5	70
	AK2490	Through			20	-						60
φ25	AK2481	End	47	29.5	42	18	54	30	40	16	φ3.5	120
	AK2491	Through			26	-						100
φ32	AK2482	End	66	37.4	55	25	64	40	48	20	φ4.1	230
	AK2492	Through			32	-						180
φ38	AK2483	End	79	43.4	65	30	70	40	54	20	φ4.1	300
	AK2493	Through			34	-						230
φ42.7	AK2488	End	87.4	48.1	74	32	76	44	60	24	φ4.1	380
	AK2498	Through			42	-						300
φ50	AK2484	End	103	55.4	86	34	82	50	66	30	φ4.1	560
	AK2494	Through			52	-						460

\* Material: SCS14 (equivalent to SUS316), Screws = SUS304

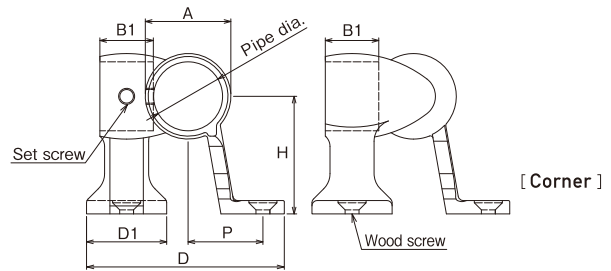
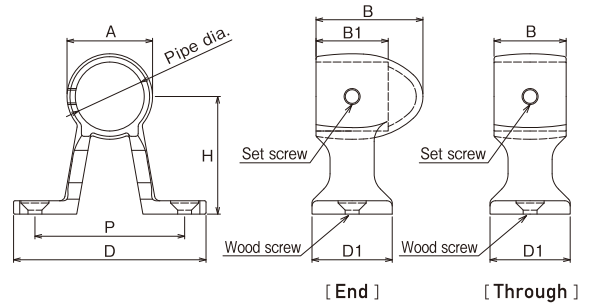


# Stanchion, Two-Leg



No.	Type	Size (pipe dia.) (mm)	H (mm)	A (mm)	B (mm)	B1 (mm)	D (mm)	D1 (mm)	P (mm)	Wood screw	Unit weight (g)
AK2474	End	25	43	32	40	27	72	30	56		125
AK2475	Through	25	43	32	27	-	72	30	56	φ5.1	115
AK2476	Corner	25	43	32	-	20	74	30	28		165

\* Material: SCS14  
(equivalent to SUS316).  
Set screw = SUS304



# Rigging Hardware & Wire Rope

## FEATURE 01

### Various variations to meet demands

About 2,000 products. This is how many ASANO cutting edge rigging hardware product there are. Products with many size variations are available from general products to original products based on unique ideas. Our products are sure satisfy professional requirements. ASANO's monozukuri (manufacturing) spirit is utilized in even small rigging hardware products, which are continually improved.



## FEATURE 02

### Focusing on details

Cost performance is a key factor behind rigging hardware products that connect objects by taking the functionality and intended objectives into account. Simultaneously, we also develop products that emphasize the beauty of stainless steel. For example, Turnbuckle Type A, Pipe Body. A part of the main body is mirror-finished and can be used in locations where aesthetics are required. This goes beyond the simply functions of conventional turnbuckles.



Turnbuckle Type A,  
Pipe Body (P081)

## FEATURE 03

### Wide variety of application possibilities created by integration

ASANO's rigging hardware take advantage of the characteristics of stainless steel. Such rigging hardware is used at sea and on land. In addition, ASANO's rigging hardware is used in a wide variety of applications such as for rigging on ships, for hanging drop prevention boards or signs, and for installing bird prevention nets. Usage possibilities are further expanded by combining wires with rigging hardware products.



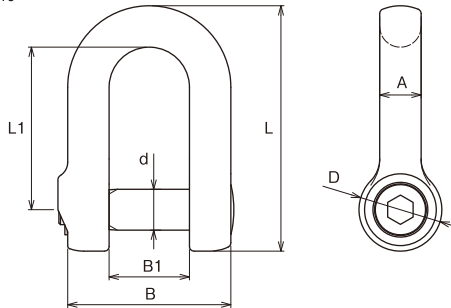


## Purse Shackle PAT.



No.	Size	d (mm)	L (mm)	L1 (mm)	A (mm)	B (mm)	B1 (mm)	D (mm)	Thread dia.	Hex. wrench dia. (mm)	Snap ring size	Unit weight (g)	Working load limit (kg)
AK18258	13	13	78	52	13	52	26	26	W1/2	8	8	275	600
AK18259	16	16	96	64	16	64	32	32	W5/8	10	10	525	1,000

\* Material: Special stainless steel.  
Pin = SUS316, Snap ring = SUS316

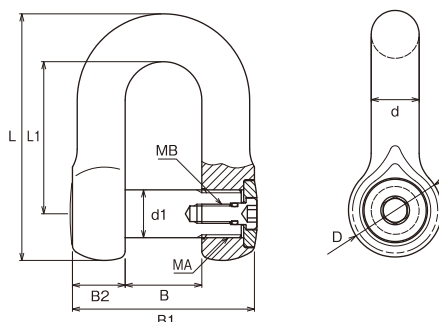


## Free Shackle



No.	Size	d (mm)	d1 (mm)	L (mm)	L1 (mm)	D (mm)	B (mm)	B1 (mm)	B2 (mm)	MA (mm)	MB (mm)	Hex. wrench dia. (mm)	Unit weight (kg)	Working load limit (t)
AK2323	FM19	20	20	100	64	39	32	76	22	M20	M8	6·10	0.77	2.6
AK2324	FM22	23	24	117	74	47	38	88	25	M24	M10	8·14	1.23	3.6
AK2325	FM25	26	27	138	84	57	44	98	27	M27	M12	10·14	1.87	5.2
AK2326	FM28	29	30	154	92	65	50	112	31	M30	M14	12·14	2.75	6.3

\* Material: Special stainless steel,  
Pin = SUS304



## Product features



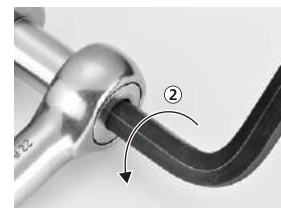
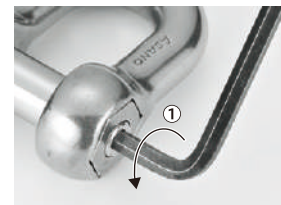
### Pin loosening prevention mechanism

Fixing is performed with a screw and a snap ring. This efficiently prevents loosening of the pin.



### Moderate curved shape

The curved shape is gentle on ropes. It prevents rope damage and improves their service life.



### How to remove the nut

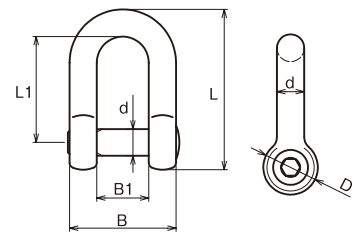
- ① Rotate the pin at the center of the nut with a hexagon wrench to remove it.
- ② Rotate the bolt with a hexagon wrench from the opposite side to remove it.



## D-Shackle with Hex Socket Pin & O-Ring

No.	Size	d (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)	D (mm)	Thread dia.	Hex. wrench dia. (mm)	O-ring size	Unit weight (g)	Working load limit (kg)
AK1980	6	6	36	24	24	12	12	W1/4	4	S6	24	90
AK1981	7	7	42	28	28	14	14	W5/16	5	S7	40	110
AK1982	8	8	48	32	32	16	16	W5/16	5	S9	60	140
AK1983	9	9	54	36	36	18	18	W3/8	6	S10	80	170
AK1984	10	10	60	40	40	20	20	W3/8	6	P10	110	200
AK1985	12	12	72	48	48	24	24	W1/2	8	P12	190	280
AK1986	13	13	78	52	52	26	26	W1/2	8	P12.5	240	400
AK1987	16	16	96	64	64	32	32	W5/8	10	P16	435	600
AK1988	19	19	114	76	76	38	38	W3/4	10	P22	750	720

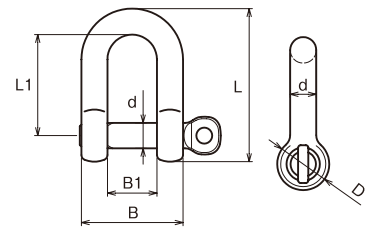
- An O-ring is fitted to reduce loosening caused by vibration.
- \* Material: SCS13 (equivalent to SUS304), Pin = SUS304, O-ring = rubber



## D-Shackle with O-Ring

No.	Size	d (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)	D (mm)	Thread dia.	O-ring size	Unit weight (g)	Working load limit (kg)
AK1960	6	6	36	24	24	12	12	W1/4	S6	27	140
AK1961	7	7	42	28	28	14	14	W5/16	S7	43	170
AK1962	8	8	48	32	32	16	16	W5/16	S9	56	220
AK1963	9	9	54	36	36	18	18	W3/8	S10	90	270
AK1964	10	10	60	40	40	20	20	W3/8	P10	120	320
AK1965	12	12	72	48	48	24	24	W1/2	P12	200	400
AK1966	13	13	78	52	52	26	26	W1/2	P12.5	255	450
AK1967	16	16	96	64	64	32	32	W5/8	P16	480	900

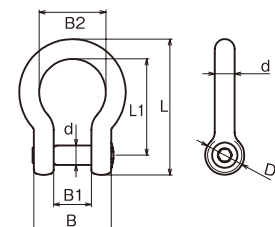
- An O-ring is fitted to reduce loosening caused by vibration.
- \* Material: SCS13 (equivalent to SUS304), Pin = SUS304, O-ring = rubber



## Bow Shackle with Hex Socket Pin & O-Ring

No.	Size	d (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)	B2 (mm)	D (mm)	Thread dia.	Unit weight (g)	Working load limit (kg)
AK11281	6	6	42	30	24	12	21	12	W1/4	32	90
AK11282	8	8	56	40	32	16	28	16	W5/16	72	140
AK11283	10	10	70	50	40	20	35	20	W3/8	135	200
AK11284	12	12	84	60	48	24	42	24	W1/2	233	280

- An O-ring is fitted to reduce loosening caused by vibration.
- \* Material: SCS13 (equivalent to SUS304), Pin = SUS304, O-ring = rubber

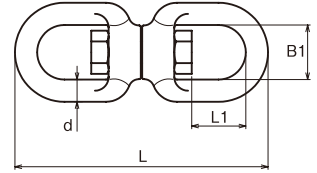






## Swivel

No.	Size	d (mm)	L (mm)	L1 (mm)	B1 (mm)	Unit weight (g)	Working load limit (kg)
AK2199	4	4	51	11	11	22	50
AK2200	5	5	60	14	13	39	80
AK2201	6	6	71	17	15	60	130
AK2202	8	8	94	20	20	147	250
AK2203	9	9	102	22	22	200	290
AK2204	10	10	118	27	24	285	300
AK2215	12	12	132	27	25	420	600
AK2205	13	13	152	35	31	605	600
AK2206	16	16	188	45	38	1,100	1,000
AK2207	19	21	229	52	42	2,250	1,600
AK2208	22	23.5	248	52	47	3,130	2,100
AK2209	25	26	291	66	63	4,820	2,600
AK2210	28	29	340	76	70	6,600	3,200
AK2211	32	33	389	87	80	9,500	4,200



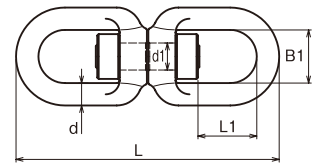
\* Material: SCS13 (equivalent to SUS304), Pin/nut = SUS304  
 \* Do not use under conditions of constant rotation.



## Swivel with Thick Pin

No.	Size	d (mm)	d1 (mm)	L (mm)	L1 (mm)	B1 (mm)	Unit weight (g)	Working load limit (kg)
AK2217	13	13	16	152	31	31	640	1,000
AK2218	16	16	19	188	41	38	1,180	1,600
AK2219	19	21	22	229	50	42	2,190	1,950

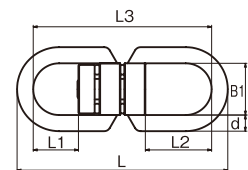
\* Material: SCS13 (equivalent to SUS304), Pin/nut = SUS304  
 \* Do not use under conditions of constant rotation.



## Swivel with Bearing

No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	B1 (mm)	Unit weight (g)	Working load limit (kg)
AK2220	10	10	130	27	41	110	32	410	300
AK2221	13	13	160	33	49	134	38	800	600
AK2222	16	16	182	35	53	150	42	1,300	1,000
AK2223	19	19	222	48	67	184	45	1,800	1,600
AK2224	22	22	256	58	78	212	50	2,600	2,100
AK2225	25	25	280	61	84	230	55	3,600	2,600

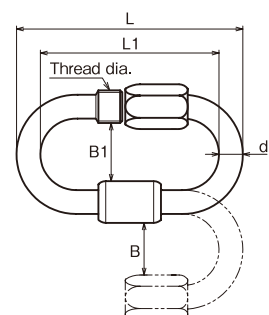
\* Material: SUS304  
 \* Do not use under conditions of constant rotation.



## Turning Link

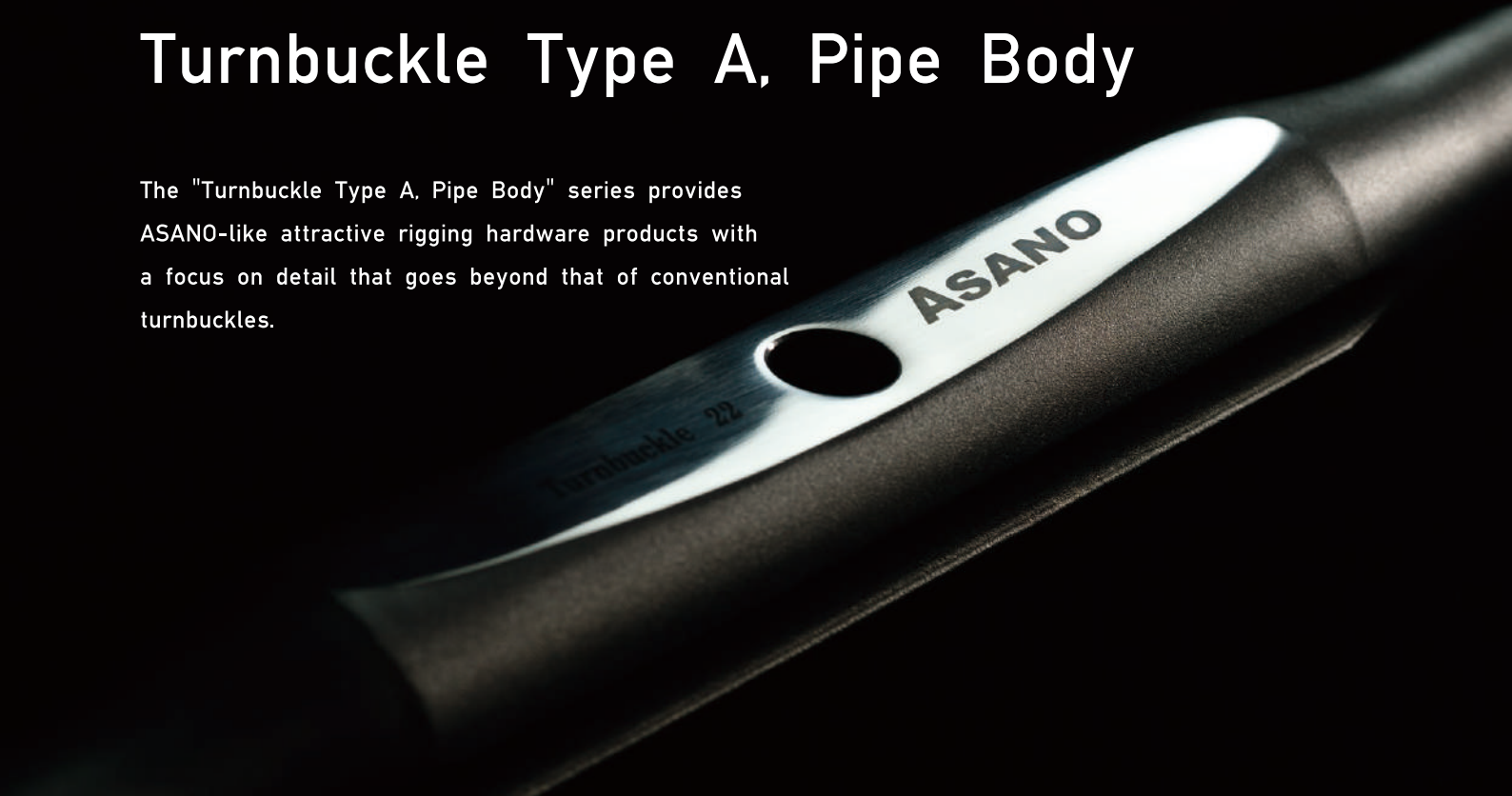
No.	Size	d (mm)	L (mm)	L1 (mm)	B (mm)	B1 (mm)	Thread dia.	Width across flats	Unit weight (g)	Working load limit (t)
AK1272	6	6	57	45	11	13	M9	12	50	0.37
AK1273	8	8	76	60	17	19	M11	13	100	0.62
AK1274	10	10	90	70	20	22	M14	17	200	0.9
AK1275	13	13	119	93	25	28	M18	21	415	1.7
AK1276	16	16	144	112	30	34	M20	24	710	2.2
AK1277	19	19	170	132	36	41	M24	30	1,160	3.1
AK1278	22	22	196	152	41	46	M27	32	1,780	5
AK1279	25	25	225	175	50	55	M33	38	2,670	6.5

\* Material: SUS316



# Turnbuckle Type A, Pipe Body

The "Turnbuckle Type A, Pipe Body" series provides ASANO-like attractive rigging hardware products with a focus on detail that goes beyond that of conventional turnbuckles.



## Product features



Straight Top



Eye Top



Hook Top

Three types are available to meet a range of requirements.



The product is designed so that it can be rotated using various tools such as screwdrivers and adjustable wrenches.



This product can be used not only as a conventional turnbuckle but also in places where attractive rigging hardware can demonstrate its potential.



The main body is made of special stainless steel that ensures superior corrosion resistance and strength. Extremely high attention has been paid to detail such as thicker walls for the screw holes and tool holes where stress is concentrated and strength is required.



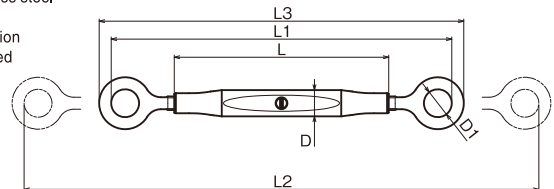
## Turnbuckle Type A, Pipe Body (Eye & Eye)



No.	Size	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	D1 (mm)	Thread dia.	Unit weight (g)	Working load limit (kg)
AK13410	12	200	318	480	340	24.5	26	W1/2	650	600
AK13411	16	250	375	572	403	27.4	25×40	W5/8	1,120	900
AK13412	19	300	435	675	469	33.5	25×40	W3/4	1,800	1,070
AK13413	22	325	487	737	527	39.4	30×48	W7/8	2,700	2,100
AK13414	25	350	532	792	578	42.7	34×54	W1	3,950	2,700

\* Material: Special stainless steel  
Eye bolt = SUS304

\* L2 indicates the dimension at the maximum extended length.



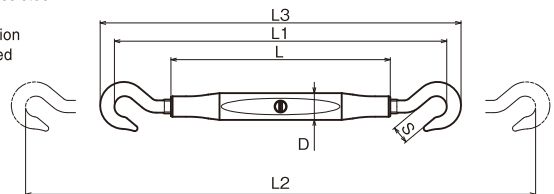
## Turnbuckle Type A, Pipe Body (Hook & Hook)



No.	Size	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	S (mm)	Thread dia.	Unit weight (g)	Working load limit (kg)
AK13420	12	200	303	465	329	24.5	17	W1/2	600	375
AK13421	16	250	368	565	400	27.4	22	W5/8	1,040	600
AK13422	19	300	438	678	478	33.5	25	W3/4	1,720	800
AK13423	22	325	489	739	535	39.4	31	W7/8	2,650	1,000
AK13424	25	350	536	796	590	42.7	36	W1	3,690	1,350

\* Material: Special stainless steel  
Hook bolt = SUS304

\* L2 indicates the dimension at the maximum extended length.



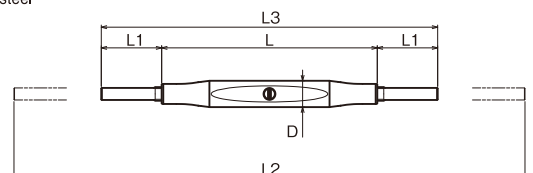
## Turnbuckle Type A, Pipe Body (Stud & Stud)



No.	Size	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	D (mm)	Thread dia.	Unit weight (g)	Working load limit (kg)
AK13430	12	200	56	474	312	24.5	W1/2	540	600
AK13431	16	250	60	567	370	27.4	W5/8	870	900
AK13432	19	300	75	690	450	33.5	W3/4	1,500	1,070
AK13433	22	325	90	755	505	39.4	W7/8	2,170	2,100
AK13434	25	350	100	810	550	42.7	W1	3,040	2,700

\* Material: Special stainless steel  
Stud bolt = SUS304

\* L2 indicates the dimension at the maximum extended length.

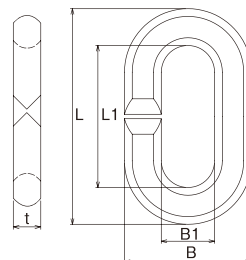




Available in combination with swivels (P079)

## Strong C-Link

No.	Size	L (mm)	L1 (mm)	B (mm)	B1 (mm)	t (mm)	Unit weight (g)	Working load limit (kg)
AK4205	13	77	50	49	20	11.4	170	200
AK4206	16	97	64	57	24	14	320	390
AK4207	19	115	76	67	28	16.6	540	520
AK4208	22	134	88	79	33	19.3	840	690
AK4209	25	152	100	89	37	22	1,230	880
AK4210	28	168	111	96	41	24.5	1,650	1,050



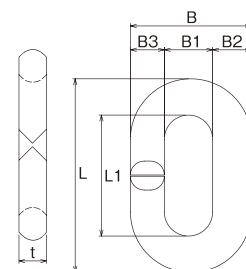
\* Material: SUS304



## Heavyduty C-Link



No.	Size	L (mm)	L1 (mm)	B (mm)	B1 (mm)	B2 (mm)	B3 (mm)	t (mm)	Unit weight (g)	Working load limit (kg)
AK3621	6	37	23	22.5	8	8	6.5	6	22	120
AK3622	8	51	32	31	12	10.5	8.5	7	40	150
AK3623	9	57	36	35	14	11.5	9.5	8	60	190
AK3624	11	69	44	42	17	13.5	11.5	10	110	230
AK3625	13	80	50	50	20	16	14	11.5	200	300
AK3626	16	100	64	61	24	20	17	14	360	520
AK3627	19	120	76	72	28	23.5	20.5	17	630	620
AK3628	22	138	88	84	33	27.5	23.5	20	980	860
AK3629	25	157	100	95	37	31.5	26.5	23	1,390	1,100
AK3630	28	174	111	106	41	35	30	26	1,940	1,260
AK3631	32	196	125	121	50	38	33	29	2,760	1,650



\* Material: Special stainless steel

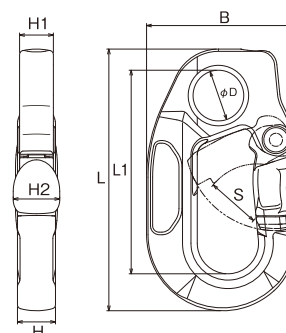
\* Note: Do not deform or weld the product.



## Snap Hook



No.	Size	S (mm)	L (mm)	L1 (mm)	B (mm)	H (mm)	H1 (mm)	H2 (mm)	D (mm)	Unit weight (g)	Working load limit (kg)
AK18315	1SH	25	124	96	72	18	16	22	24	600	1,300
AK18316	2SH	28	143	110	81	20	18	24	27	900	1,800
AK18317	3SH	32	177	128	109	22	20	30	30	1,600	2,500



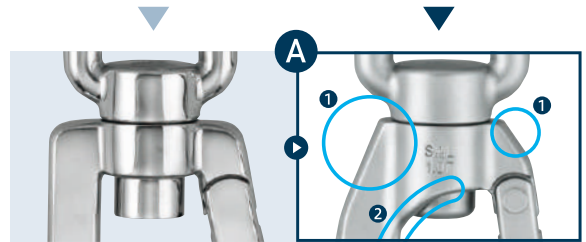
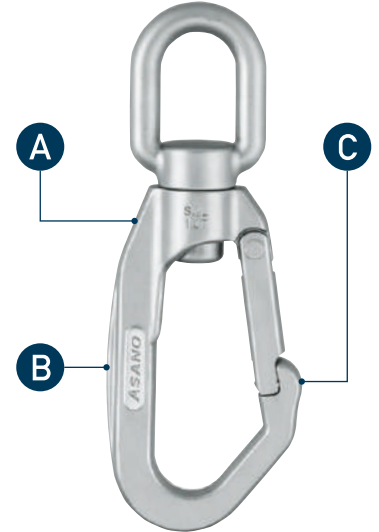
\* Material: Special stainless steel,  
Spring = SUS304, Lock pin = copper alloy,  
Set screw = SUS304



## Comparison with conventional Swivel Snap Hook

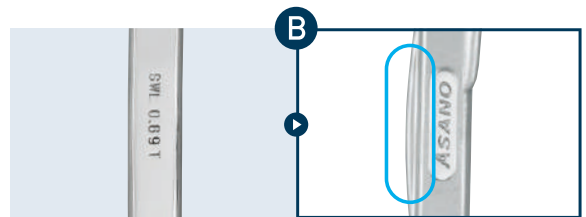
Swivel Snap Hook (P084)

Swivel Snap Hook Type II

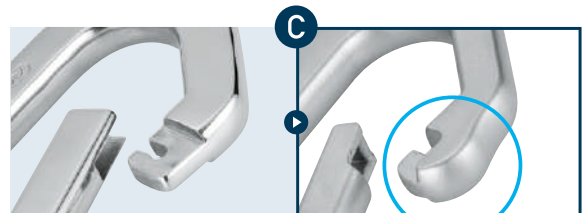


### Changed the swivel shape

- ① Changed the protruding parts to prevent ropes from being caught.
- ② Increased the inside thickness for strength.



### Added a rib to the side of the main body to increase strength



### Changed the shape of the interlocking part to significantly increase the working load limit

The material is changed to special stainless steel with greater strength.

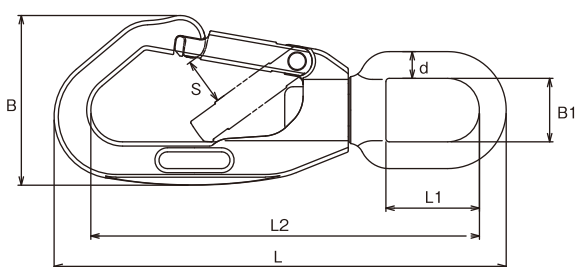
## Swivel Snap Hook Type II



The material used for this product has superior seawater resistance compared to conventional Swivel Snap Hook.

No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	S (mm)	Unit weight (g)	Working load limit (kg)
AK12465	16	16	270	56	232	101	38	28	1,600	1,000

\* Material: Special stainless steel, Swivel pin/spring = SUS304  
 \* Do not use under conditions of constant rotation.



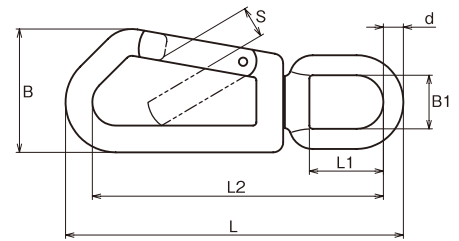


## Swivel Snap Hook

No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	S (mm)	Unit weight (g)	Working load limit (kg)
AK1150	6	5	100	22	87	37	16	10	85	120
AK1151	8	6	110	22	98	45	16	12	126	140
AK1152	10	8	141	26	122	54	20	15	220	150
AK1153	12	10	172	35	148	66	24	17	388	250
AK1154	14	13	225	45	195	82	30	21	1,000	560

\* Material: SCS14 (equivalent to SUS316), Pin/spring = SUS304

\* Do not use under conditions of constant rotation.



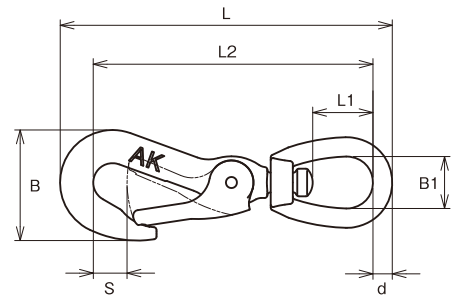
## Tuna Swivel Snap



No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	B (mm)	B1 (mm)	S (mm)	Unit weight (g)	Working load limit (kg)
AK12450	T0	3.5	60	11	51	20	9	6	17	40
AK12451	T1	4.5	69	11	57	26	12	5	32	60

\* Material: Special stainless steel, Swivel = SCS13 (equivalent to SUS304)

\* Do not use under conditions of constant rotation.



## Effective form and finish

Grooves in the body reduce body weight and contact area with ropes.

Ropes smoothly slide on the mirror finish surface.

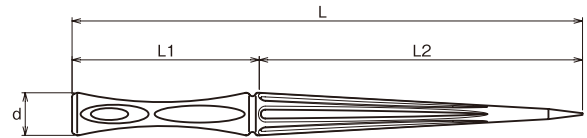


## Light Spike SG



No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	Unit weight (g)
AK4295	25S	25	300	110	190	375
AK4296	25L	25	350	130	220	465
AK4297	28S	28	350	130	220	535
AK4298	28L	28	400	130	270	600
AK4299	32L	32	400	130	270	750

\* Material: Special stainless steel

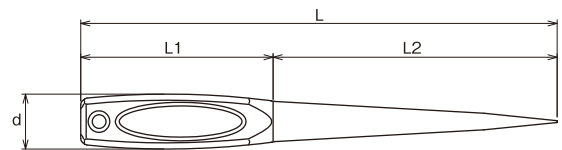


## Light Spike SG-K



No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	Unit weight (g)
AK4275	22S	30	260	105	155	450

\* Material: Special stainless steel

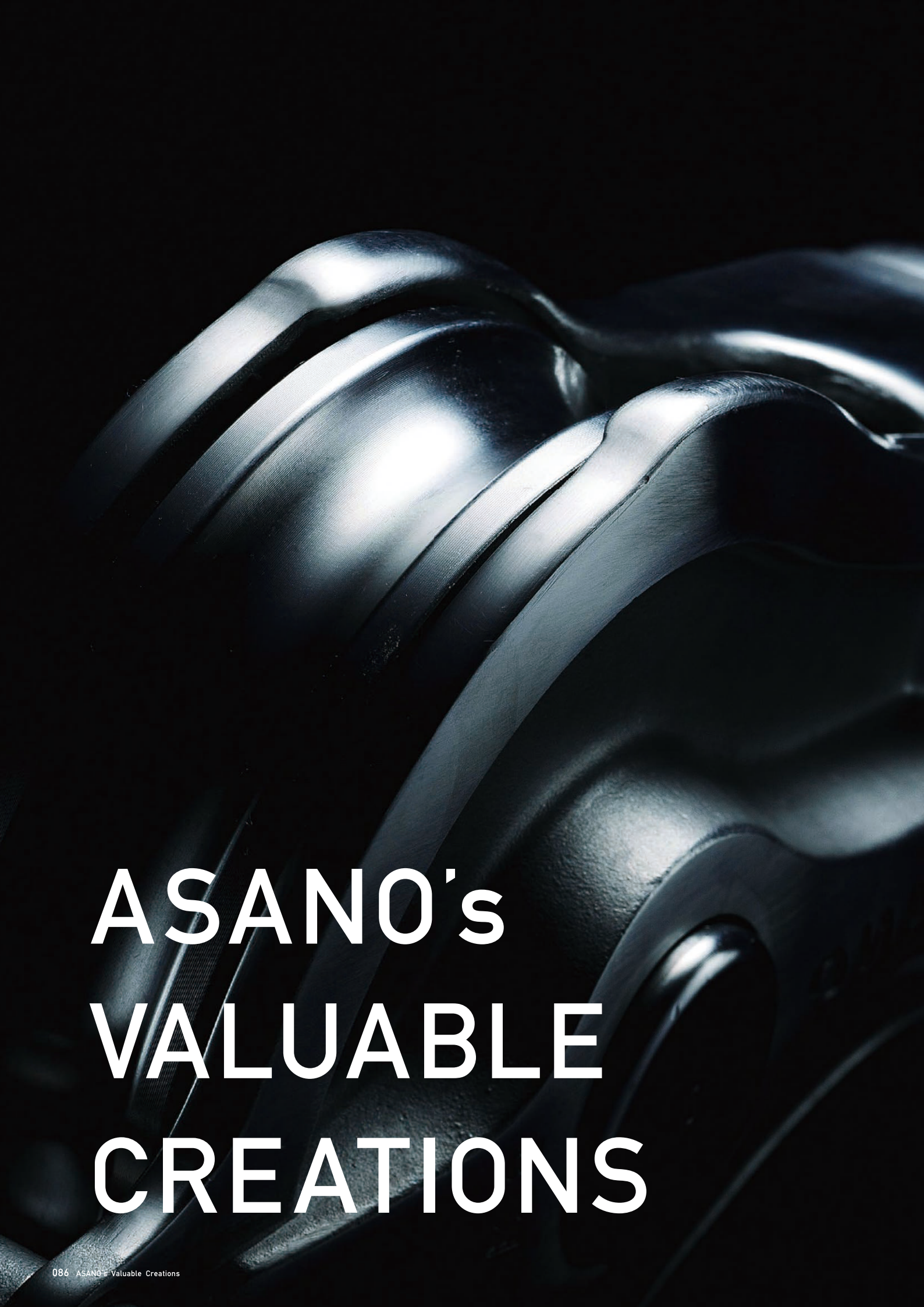


## Spike

No.	Size	d (mm)	L (mm)	L1 (mm)	L2 (mm)	Unit weight (g)
AK4241	16	16	200	70	130	210
AK4242	19	19	200	70	130	300
AK4243	22S	22	250	95	155	450
AK4244	22L	22	300	110	190	510
AK4245	25S	25	300	110	190	700
AK4246	25L	25	350	130	220	900
AK4247	28S	28	350	130	220	1,200
AK4248	28L	28	400	130	270	1,380

\* Material: SUS304



A close-up, high-contrast photograph of a car's headlight assembly. The image is dominated by dark, metallic surfaces with sharp highlights and deep shadows, creating a sense of depth and texture. The lighting is dramatic, coming from the side, which emphasizes the curves and contours of the headlight housing. The overall mood is sophisticated and industrial.

# ASANO's VALUABLE CREATIONS



1

MATERIAL

### Skillfully manipulating stainless steel materials

Providing products with characteristics that are most appropriate for the required usage conditions by utilizing long-held knowledge about stainless steel materials and broad experience in casting.

2

PRODUCTION METHOD

### Extensive knowledge of manufacturing methods

Achieving maximum product performance and responding to requirements of respective usage environments without fail by using both casting and forging manufacturing methods.

3

DESIGN

### Designing shapes without limitations

The basis of ASANO design is integral molding. Making the best use of 3D design, we diligently carry out processes from product conception to realization of top quality products.

AVC

ASANO's VALUABLE CREATIONS

Producing stainless steel products that can solve various problems.

---

# Skillfully manipulating stainless steel materials

## 1 \_ MATERIAL

### Diversified range of stainless steel materials

There are various types of stainless steel including "SUS304", which can be used for a variety of purposes, and "SUS316", which is more corrosion resistant than "SUS304". Each type has its own unique characteristics. Furthermore, the characteristics of stainless steel such as strength and corrosion resistance change depending on the percentage of ingredient components and the method of heat treatment. In other words, even though we simply call it stainless steel, there are a variety of types of it.

### Material characteristics crafted from our experience

The material characteristics of stainless steel are arranged to produce variations with specific characteristics such as high resistance to seawater, high degree of hardness, etc. With broad knowledge of and experience in stainless steel materials that have been nurtured in our casting factory over a long period of time, ASANO has a high level technical background enabling selection of optimum materials and development of products in accordance with the environments in which they are used and with the methods with which they are used.

### Carefully evaluated materials and combinations

Our experience-based technology allows the products, such as the Auto Shackle (P039), which should be small and light enough to fit into the palm of a hand, to be surprisingly strong in relation to their respective sizes. Our technology has also enabled commercialization of our products, such as the Purse Snap Shackle (P046), which is comprised of at least two parts: one part of which must be strong and the other part of which must be corrosion resistant, and each part of which is composed of the optimum stainless steel material.

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## 2 \_ PRODUCTION METHOD

# Extensive knowledge of manufacturing methods

### Possibilities created by casting

Casting is a processing method in which metal is heated to a temperature beyond its boiling point in order to liquefy it, the liquefied metal is poured into a mold, and then the metal is cooled so that it changes from a liquid to a solid and into the desired shape. The strength of products produced by the casting method is inferior to that of the products created by the forging method, which will be described later. However, one advantage of casting is that metal can be formed into a desired shape. In other words, this method enables creation of products via integral molding that allows for relatively freer formation of product shapes.

### What ASANO has pursued

By utilizing the advantages of casting, which makes it easier to produce rounded items, we created products such as fishing gear which, thanks to its shape, has gentle contact with rope and fishing nets, and suppresses wear of both. Furthermore, casting enables production of product shapes of differing thicknesses: the material can be made thick only where load may be applied, otherwise thinner. Casting enables very strong lightweight products to be produced at reasonable costs. The advantage of casting lies in freer formation of product shapes that is derived from integral molding. We carry out a significant amount of casting to produce our products.

### What forging is good for

On the other hand, the forging method incorporates the technique of pressurizing metal (using methods such as hammering) to reduce cavities in it, miniaturize its crystals, and to align the directions of the crystals to improve its strength before the metal is formed into the desired shape. This method is effective for products that are required to be strong. However, it has a disadvantage: That is, unlike the casting method, it is costly to form the metal into the shape suitable for the desired purpose.

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## 3 \_ DESIGN

# Designing shapes without limitations

### Optimum shapes and high performance derived from 3D design

Using the 3D design technique, ASANO implements procedures from designing shapes suitable for the intended purposes to calculating theoretical strength values. Then, ASANO creates the product by checking its shape against 3D print samples. To produce superior products, we improve and refine product design while repeatedly embodying ideas. Through this approach, we work to develop products that always deliver performance that is beyond expectations.

### Aiming to create "organic forms"

Metal projects a cold image. By using metal, we produce metal products with shapes that can fit into the palm of your hand. By this, we always aim to produce metal products that are not perceived as "tools" but as your "partners" with ideal usability and sophisticated quality. Every part of ASANO products represents our commitment to details that only we, who have been continuously pursuing the potential of stainless steel, can achieve.

### Functional design

When creating a product from scratch that optimally meets the actual usage conditions, we need to think of numerous product forms in order to create a product that exhibits optimal performance. The greatest advantage of cast products, which ASANO is highly skilled at producing, is a high degree of design flexibility that is derived from integral molding. Limitless free conceptions have enabled us to produce products with new designs and functions that have never existed before.

### Products that make a difference

ASANO utilizes expertise in stainless steel materials and produces products with characteristics that are most suitable for the intended purposes of the products. This enables ASANO products to improve and enhance work efficiency of users and greatly contribute to achieving the required results.



© Snap Hook: 1SH (P036)

Contrary to its appearance, this metal fitting, which can be held in the palm of a hand, has a high working load limit of 1.3 t. Every part of the metal fitting represents our diligent approach to manufacturing.



### Combination to utilize product advantages

ASANO is particularly strong in the area of free shape forming achieved by casting, which ASANO has a long history of practicing. In addition, we use forged parts for products that are required to have a high degree of strength. For example, swivels are important components of block products that are to be suspended from a height. We adopt forged swivels with the required degree of strength for this purpose. Regarding fishing gear, in many cases strength and operability have a direct effect on fishing results. Therefore, we need to produce products that respond unflinchingly to the severe demands of fishing equipment. The combination of the different characteristics of casting and forging allows us to produce products that satisfy the following conflicting requirements: "downsized", "light-weight", and "high degree of strength".



### Products created from freewheel thinking

© Auto Shackle (P039)

The insertion of a Marline spike or driver into the hole in the center of the main body releases the gate. Handling of the Auto Shackle in ways other than that mentioned above does not release the gate; the shape of the product does not enable the gate to be easily released even when something hits the product under the sea. Creating this shape was difficult since the requirement was not easy to meet. However, we were able to market the first commercialized Auto Shackle in the world. Since then, the product has enjoyed enduring popularity. The product that fits into the palm of your hand is easy to operate.

© Tough Hanging Roller Type II (P014)

Unlike conventional blocks, the main body of the Tough Hanging Roller II has an asymmetrical design that allows the metal fitting to pass through between the sheave and the main body without getting caught. Furthermore, the main body covers the edges of the sheave to prevent a rope from getting caught between the main body and the sheave.



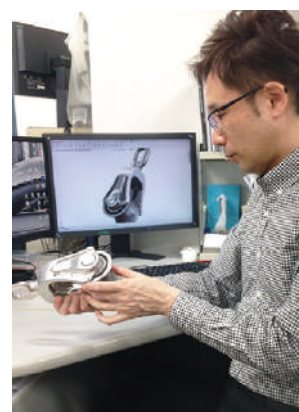




# ASANO Style

## Aiming for products loved at work site

ASANO always cares about users' feedback. Based on the valuable opinions obtained not only from users in Japan, but also from fishermen and dealers abroad, the processes from designing shapes suitable for various tasks to calculating ideal strength values are executed, and products are manufactured while confirming the shapes using 3D printed samples. Development using feedback from the workplace and development speed are our fundamentals.



## Placing value on “Opinions from the workplace” and “Speed”

Two of the pillars that support ASANO’s monozukuri (manufacturing). That is “development using opinions from the workplace” and “development speed”. The expertise that combines these two things, which are sometimes at conflict, is the strength of ASANO manufacturing.



(left) Exhibition in Norway. The Asano product exhibition booth bustling with many customers. Each and every opinion obtained here is used to create the next product.

(right) Meeting with dealers. It is a valuable opportunity to hear their frank opinions from local dealers as a starting point for product development and improvement in the near future.



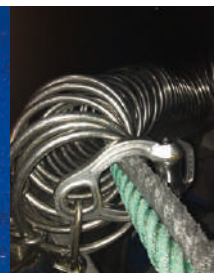
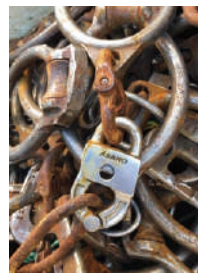
(left) Product development. Sales staff members and people in charge of development work as a team to closely examine information obtained through exhibitions, daily sales activities, and other events.

(right) Constructive use of 3D printing. 3D printing makes it possible to bring an idea into shape within a short time period. It is critical in terms of confirming the 3-dimensional shape and analyzing products before they enter mass production.

## Conducting overseas tests on fishing gear and making progress

There has been an increase in requests from customers, saying that they want to test out our products on their boats and evaluate them. We greatly appreciate this type of request because ASANO has been developing products after receiving various opinions from fishermen in each region so far.

The images show tests conducted on our items, which were sent to us from customers who had tested them. So far, we have received high praise for fishing gear used near the purse-line and nets for such as the “Auto Shackle Series” and “Snap Hook” from purse seine boats mostly in America, Spain as well as Norway. As a result, we have received many orders and these products are being put into actual use.

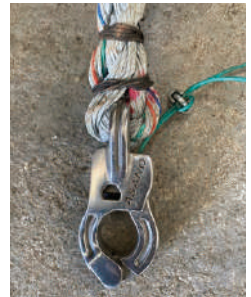
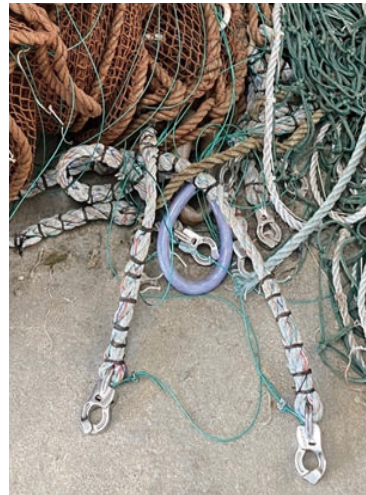


Testing the Auto Shackle(P039), a product that truly represents ASANO, on a purse seine boat in Norway.

A shot from a purse seine boat in Spain. Testing the Purse Ring Type O Size 120 (P049). After receiving the result, we decided to add Size180 in the lineup straight away to support large diameter ropes.



AK Hook Type G (P056)-our new challenge for gill net fishing. A test operation in the U.S.. Local fishermen favorably commented that this product provided good usability.



Auto Shackle Type IV (P040) tested as a part of new method for salmon farming net in Chile. This is also our new challenge to aquaculture industry.

## ASANO products actively used on the world's oceans

ASANO's stainless steel fishing gear and ship equipment have been manufactured since 1977, and they are now used and valued by customers in Japan as well as in the U.S., Norway, Spain, and Australia to name a few countries. Among these products, we would like to introduce three key products, with accompanying photos, that are popular around the world.

### 1 Auto Shackle (P039)



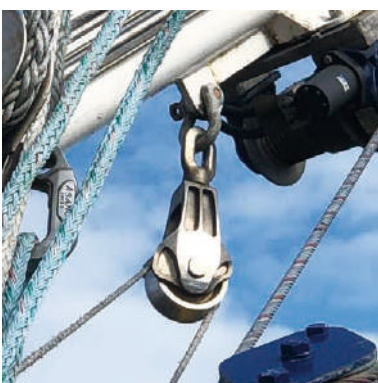
Auto Shackles have been developed to be used to connect a net and rings (purse rings) at the bottom of the net for purse seine fishing. Auto Shackles have been developed to provide two functions that are usually conflicting: "secure rigging" and "quick release". The simple mechanism of a gate that can easily be opened by inserting a sharp tool such as a spike into the hole in the body has gained a good reputation. This is a long selling product that has been on the market for over 20 years. They come in a variety of types such as types II, IIS, and III, and are used in a range of different fields.

### 2 Snap Hook (P036)



Snap Hooks are a component of rigging hardware that can be used for a range of purposes in any locations on ships and land. In contrast to its compact appearance, it is remarkably strong. The 3SH size model (working load limit 2.5 tons) has been newly added to the lineup and is suitable for an environment that requires sturdier tools than the 1SH (1.3 tons) or 2SH (1.8 tons). ASANO's superior casting technology has been applied to trim the thickness of the hook's body to the limit to make the product compact and exceptionally strong. Owing to the highly reliable interlock system that has been incorporated into the gate section, Snap Hooks are used and valued along with Auto Shackles on oceans around the world.

### 3 Tough Hanging Roller Type II (P014)



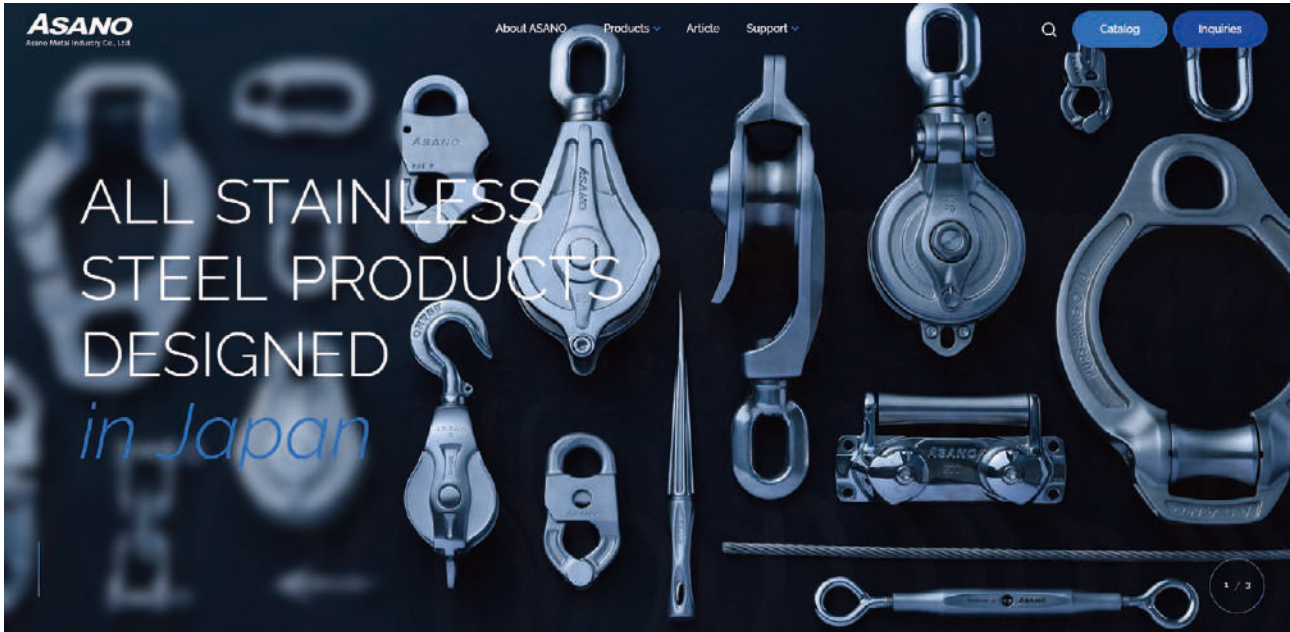
Tough Hanging Roller Type II has a working load limit of 5 tons, which is the highest among ASANO blocks. Sufficient space is provided between the main body and the sheave to allow thick ropes with a diameter of up to 32 mm to be used, and small fittings such as a size 1SH Snap Hook can pass through it smoothly. An asymmetric design has been applied to minimize the risk of metal fittings getting caught and stuck when they are pulled upwards. Assuming that the rollers are used in extreme environments such as at sea, stainless steel materials that have superior resistance to salt and corrosion and that are often used for seawater pumps are used, which provides outstanding durability.

## Corporate Website



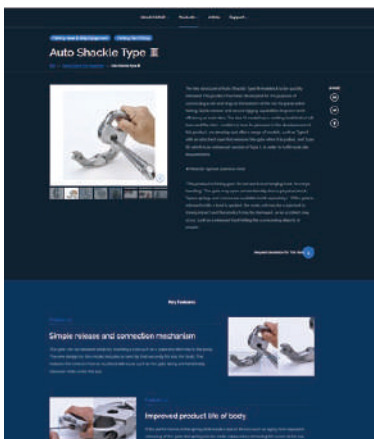
<https://asano-metal.com>

Special website for stainless steel hardware is now available!



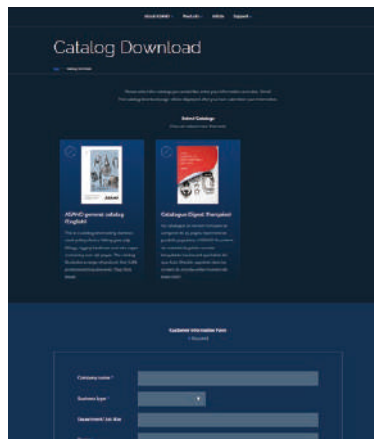
ASANO has built up a rich lineup of stainless steel blocks, fishing gear and ship equipment, and there are many products and functions that we would like to introduce. On this website, you will be able to find more products and learn about ASANO's challenging approach toward monozukuri (manufacturing). You will also be able to enjoy movies about our popular items and download our latest catalog in PDF format. You can access the website by scanning the QR code or entering the above URL into a browser.

### Product details page



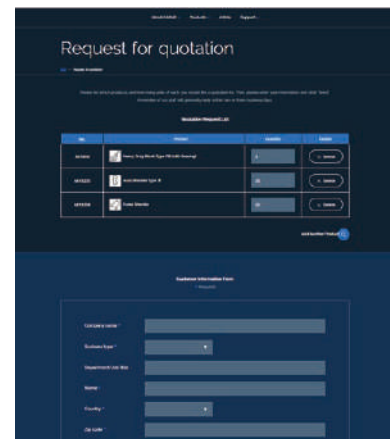
On this page, you will be able to learn about the specifications and key features of our products accompanied by movies and photos. And you can also check the latest list prices for each products.

### Catalog download page



Catalogs in a couple of languages can be downloaded as a PDF file through this page. You will be able to find products that meet the professional requirements of the fishing and marine industries.

### Quotation request page



Simple and easy form for requesting a quotation is available on the site. Just let us know what you want. A member of our staff will generally reply within two or three business days after receiving your quotation request.



## Instagram



<https://www.instagram.com/asanometal/>

## ASANO has just launched corporate Instagram!



On our Instagram, you can of course find not only our latest products, but also developing products! Furthermore, our daily works and the other related informations for you to understand ASANO are there.

Why don't you follow ASANO?  
Your comments and direct messages are always welcome!



## YouTube

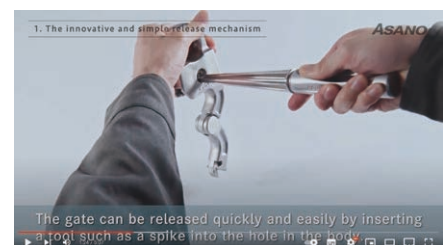
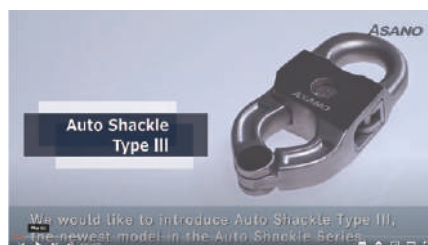


<https://www.youtube.com/user/asanometal>

## Easier to view, easier to learn about ASANO products!



In order to convey appealing facts about ASANO products to a broad audience, we have produced various movies. You will be able to enjoy movies about our popular items prepared by our product development staff.

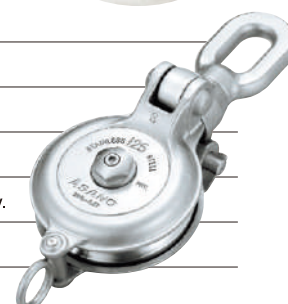


# Sea and Land

We respond to the needs of the present age with proven technology nurtured by our long history.



1892	Founded in Go-no-cho, Sanjo, Niigata, Japan, the company first manufactured wooden articles for two generations.
August, 1944	Established Asano Metal Industry Company (capitalized at 145,000 yen) at 301 Yokka-machi, Sanjo. Started manufacturing pig iron castings.
June, 1960	Established a new pig iron casting factory at 1135 Shinbo, Sanjo. Began manufacturing two kinds of malleable cast iron at 301 Yokka-machi, Sanjo.
November, 1967	Increased the capital to 3.5 million yen.
July, 1968	Discontinued manufacturing pig iron casting. Started to concentrate on malleable iron casting and expanding the business. Established a new factory at Tsukioka, Sanjo, and shifted the former factories from Shinbo and Yokka-machi. Renewed all equipment to improve precision and quality control.
June, 1969	Increased the capital to 7 million yen. Established a new stainless casting factory.
October, 1975	Increased the capital to 14 million yen.
April, 1977	Started manufacture of fishing gear and ship equipment. Started direct marketing all over Japan.
October, 1981	Discontinued malleable iron casting to concentrate on stainless steel to expand production.
June, 1984	Enlarged the factory and introduced the latest equipment to accept massive orders of stainless steel.
January, 1986	Started to manufacture all stainless steel snow melting sprinkler nozzles.
October, 1987	Entered into production of Physical Education equipment. Introduced numerous products to the marketplace, including patented inventions like tennis net posts.
March, 1988	Improved automatic sand process equipment to streamline the stainless steel production with the aim of accepting more orders.
1990	Introduced the automatic warehousing system to streamline delivery, inventory, and logistics management. Renewed equipment to further improve quality.
1991	Introduced a CAD system to respond to the diverse needs of the age and speed up development. Increased the capital to 20 million yen.
1995	Started research of aluminum casting to meet diverse needs.
1998	Constructed the present head office and warehouse to expand the business, and conducted streamlining.
1999	Introduced a new computer system to enhance our core business. Introduced a new CAD system to strengthen planning and development.
2000	Introduced a new logistic system to accept small lot production in great varieties.
March, 2001	Introduced high frequency electric furnaces: one 350 kg and one 150 kg.
May, 2002	Introduced 3D CAD, which helped streamline development processes and improve designability.
July, 2004	Introduced a 3D modeling machine to model designs and simulate basic structures.
2006	Published our website.
December, 2007	Extended the automatic warehousing system to further streamline logistic management.
2008	Started to accept quotes and inquiries through our website to speed up provision of information.
September, 2011	Launched the English version of our website to gain overseas business development.
July, 2013	Fully updated our website, and started to provide detailed product information, such as installation manuals, instruction manuals, and referential design price tables.
September, 2017	Launched our online shopping site in Japanese to create a highly convenient order receiving system.
February, 2018	Completely refurbished the office to make business operations more efficient.
July, 2021	Spun off our overseas sales division as an independent company, with the goal of expanding overseas business.
January, 2023	Change of CEO. CEO Yoshiki Asano appointed as chair of the board; Managing Director Kazushi Asano appointed as CEO.





## ● Company overview

Company name	Asano Metal Industry Co., Ltd.
Representative	Kazushi Asano, CEO
Head office	2866 Tsukioka, Sanjo-shi, Niigata, 955-0803, Japan TEL: +81-256-33-0101 FAX: +81-256-33-0096 <a href="https://asano-metal.com">https://asano-metal.com</a>
Capital	20 million yen
Banks	The Daishi Hokuetsu bank, Sanjo branch Sanjo shinkin bank, Honjyouji branch
Building site of the head office	11,000 m <sup>2</sup>
Building site	Office: 925 m <sup>2</sup> Warehouse: 1,743 m <sup>2</sup> Stainless steel factory: 1,600 m <sup>2</sup> Finishing factory: 169 m <sup>2</sup>
Business items	Cast stainless steel Lost-wax articles Acid resistant steel Heat resistant steel All-stainless steel products Fishing gear / ship equipment Rigging hardware Wire rigging hardware Handrail and handrail brackets Wall greening wire bracket Tennis articles Stainless playground equipment Snow melting sprinkler system nozzles Other
Overseas sales company	Asano Global Co., Ltd. <a href="https://asano-global.com">https://asano-global.com</a>

## ● Main Equipment

· High frequency electric furnace: 2 (350 kg furnace, and 150 kg furnace)	· Universal testing equipment
· Analyzer: 1 (count back)	· Dry sand-mold molding equipment: 1
· Sand processing equipment: 1 (60 tons per month)	· Balancer: 1
· Shot blasting: 2 (2 tons, 1 ton)	· Sand-mold drying furnace: 1
· Crane blasting: 2 (2.5 tons, 2 tons)	· Automatic high-rise warehouse equipment: 4
· Heat treatment furnace (solution heat treatment): 1 (40 tons per month)	· 2D CAD
· Press correcting machine: 2 (50 tons)	· 3D CAD
· Welding machines, 300 A: 4	· 3D molding machine: 4
· Molding equipment: 1	· Digital microscope: 1
· Rockwell hardness testing device: 1	· Wire swaging equipment: 1



Digital microscope



Rockwell hardness test device



3D molding machine test device

## Item Number Index

AK1150~1154	084	AK2460~2465	070	AK3769~3773	067
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AK1690	007	AK2480~2484	074	AK4120~4125	059
AK1691	006	AK2488	074	AK4135	059
AK1696	007	AK2490~2494	074	AK4205~4210	061·082
AK1734	012	AK2498	074	AK4220~4223	062
AK1783	013	AK2600~2602	074	AK4225·4226	063
AK1792	012	AK2605~2607	074	AK4230~4232	037
AK1854~1856	008	AK2610~2617	073	AK4241~4248	085
AK1864	008	AK2704~2708	072	AK4270	058
AK1875	010	AK2714~2718	072	AK4275	085
AK1885~1887	011	AK2724~2728	072	AK4295~4299	085
AK1890~1892	011	AK2734~2738	072	AK4400~4402	055
AK1960~1967	078	AK2744~2748	073	AK4400B6~4402B6	055
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AK2195	039	AK2765	073	AK4903	068
AK2199~2211	079	AK3030~3036	069	AK4906	068
AK2215	079	AK3040~3047	069	AK5593~5595	063
AK2217~2225	079	AK3082~3084	069	AK5700~5703	066
AK2236~2238	060	AK3090~3092	065	AK5710	066
AK2240·2241	060	AK3110	058	AK5730·5731	066
AK2247·2248	060	AK3312·3313	065	AK5910~5912	062
AK2323~2326	077	AK3400~3405	059	AK5915	062
AK2361	060	AK3621~3631	082	AK5925~5927	062
AK2363·2364	060	AK3700~3704	067	AK6021~6023	061

AK6030・6031	061
AK6060	058
AK6300~6302	059
AK6310~6314	062
AK6400~6405	057
AK6407~6409	057
AK7031~7035	055
AK7031B~7035B	055
AK7775・7776	061
AK10001~10004	029
AK10010~10012	013
AK10051・10052	026
AK10065	014
AK10073・10074	016
AK10083	028
AK10141~10144	023
AK10146~10149	023
AK10151・10152	024
AK10156・10157	024
AK10161~10164	025
AK10171・10172	025
AK10181・10182	024
AK10186・10187	024
AK10191・10192	025
AK10202	019
AK10207	019

AK10300~10302	016
AK10310~10312	017
AK10351・10352	027
AK10362	021
AK10372	021
AK11281~11284	078
AK12450・12451	061・084
AK12465	037・083
AK13410~13414	081
AK13420~13424	081
AK13430~13434	081
AK18050	069
AK18055	058
AK18101	047
AK18153	054
AK18165・18166	054
AK18200・18201	045
AK18225	046
AK18231	043
AK18235・18236	038
AK18241	043
AK18246	039
AK18250	040
AK18254	040
AK18257	040
AK18258・18259	077

AK18265	044
AK18270	044
AK18275	053
AK18280・18281	050
AK18285	051
AK18288	052
AK18291~18294	049
AK18298・18299	048
AK18302	037
AK18315~18317	036・082
AK18320	035
AK18325	056
AK18330	034
AK18372F	055
AK19001~19004	064
AK19010・19011	064
AK19100~19102	067
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AK43805~43812	073
AK43855~43859	072
AK43865~43869	072
AK43875~43879	072
AK43885~43889	072

## About product information on this catalog

- The contents of this catalog are current as of April 2023.
- We strive to keep our price lower by streamlining and other effort. However, we may reluctantly have to adjust the prices on short notice if the prices of raw materials change due to economic climate or other reasons. We appreciate your understanding.
- Please be aware that the sizes and specifications may change for improvement without prior notice.
- Please remember that there are some tolerances in the sizes listed in this catalog.
- Actual product colors may vary slightly due to color printing.
- All rights reserved. Do not reproduce any pictures, illustrations, and text from this catalog.





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<https://asano-metal.com>

