

NITTO KOHKI AUTO HINGES

FLAG TYPE

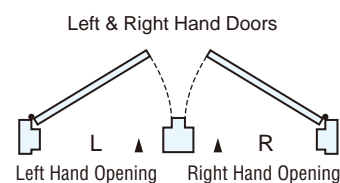


Flag type series (Table of models with specifications)

	Model number			Type of door	Door size applicable (mm)			Door weight (kg) (Max)	Closing force (N-m)	Stop mechanics	Stop angle	Max. Opening angle	Color						
	Right hand opening		Left hand opening		W (Max)	H (Max)	D (Min)												
P.4	300 Series	311S (Available for both right and left)		Wood, aluminum (Indoor use)	800	2000	30	30	5.0	○	85°~180°	180° Left or right one side opening	Silver Bronze Ivory Gold						
		Empty hinge	310 (Available for both right and left)						—	—	—								
P.5	1000 Series	1111R		Wooden door Aluminum door Light steel door	850	2000	30	35	7.9	—	—	180° Left or right one side opening	Silver						
		1111SR								○	85°								
		1121R								—	—		Bronze						
		1121SR								○	85°								
1211R		—	—							Silver									
1211SR		○	85°																
1221R		—	—							Bronze									
1221SR		○	85°																
P.6		Empty hinge	1110R						—	—	—		—	—	—	—	—	Silver	
			1120R															Bronze	
1210R			Silver																
1220R			Bronze																
P.7	100 Series	112R		Wooden door Light steel door (122T for steel frame)	900	2100	30	40	10.0	—	—	180° Left or right one side opening	Silver or Bronze						
112SR		○	85° and 150°																
P.8		122R-T								—	—		85° and 150°	Silver					
		122SR-T													○	85° and 150°			
P.9		113R		Wooden door Aluminum door	1000	2200		60	15.0	—	—								
		113SR								○	85° and 150°								
P.10		113R TRISET						—	—	85° and 150°	80		20.0		—	—			
		113SR TRISET													○	85° and 150°			
P.11		122R-AT		Wooden door Light steel door (122T for steel frame)	900	2100		40	10.0	—	—		Silver						
		122SR-AT								○	85° and 150°								
P.12		132R		Aluminum door Light steel door Partition door						60	15.0				—	—			
		132SR													○	85° and 150°			
P.13		143R-T		Steel door				60	15.0						—	—			
		143SR-T													○	85° and 150°			
P.14		143R-AT								—	—				85° and 150°	40	—	—	—
		143SR-AT																	
P.7		Empty hinge	110R					Wooden door Light steel door (120T for steel frame)	40	—	—			—	—	Silver or Bronze			
P.8			120R-T																
P.11			120R-AT																
P.12			130R					Aluminum door Light steel door Partition door				Silver							
P.13			140R-T					Steel door											
P.14			140R-AT																
P.15	200 Series	244R-T		Steel door	1200	2100	40	120	22.6	—	—	180° Left or right one side opening	Silver						
		244SR-T								○	85° and 150°								
		Empty hinge	240R-T						—	—	—								

	Model number			Type of door	Door size applicable (mm)			Door weight (kg) (Max)	Closing force (N-m)	Stop mechanics	Stop angle	Max. Opening angle	Color					
		Right hand opening	Left hand opening		W (Max)	H (Max)	D (Min)											
P.17	700 Series	733R		733L	Aluminum door Stainless door Steel door	900	2100	40	120	15.0	—	—	180° Left or right one side opening	Silver				
		733SR		733SL							○	85° and 150°						
		Empty hinge	730R	730L							—	—						
P.19	PC Series	113R-PC		113L-PC	Wooden door Aluminum door Light steel door	900	2100	30	40	15.0	—	—	180° Left or right one side opening	Silver				
113SR-PC		113SL-PC	○	85° and 150°														
P.20		133R-PC		133L-PC							Aluminum door Light steel door	—			—			
		133SR-PC		133SL-PC	○							85° and 150°						
P.21		143R-T-PC		143L-T-PC	Steel door				60		—	—						
		143SR-T-PC		143SL-T-PC							○	85° and 150°						
P.22		244R-T-PC		244L-T-PC					1200		2100	40			120	22.6	—	—
		244SR-T-PC		244SL-T-PC													○	85° and 150°
P.19	Empty hinge	110R-PC	110L-PC	Wooden door Light steel door	900	2100	30	40	—	—	—	180° Left or right one side opening	Silver					
P.20		130R-PC	130L-PC	Aluminum door Light steel door														
P.21		140R-T-PC	140L-T-PC	Steel door				60										
P.22		240R-T-PC	240L-T-PC															
P.23	153 Series	NK153R		NK153L	Glass door	900	2100	8 10 12	60	15.0	—	—	180° Left or right one side opening	Silver				
		NK153SR		NK153SL							○	85° and 150°						
P.24		NK153R TRISET		NK153L TRISET		1000	2200	8 10 12	80	—	—							
		NK153SR TRISET		NK153SL TRISET						○	85° and 150°							
		Empty hinge	NK150R	NK150L						—	—							

- Each article is a combination of a spring hinge and a damper hinge (except for empty hinges).
- For opening orientation, each article designation gives an R to represent right-handed opening, and an L to represent left-handed opening. The opening orientation of the 300 series is for both right- and left-handed opening.
- The "S" in an article designation means that the product has a stop (with an internal stop mechanism).
- Every model with a -T or an -AT at the end of its article designation has a tap hole (M6) for installing it on a hinge flap. Nitto Kohki is ready to produce products of the same model but without such tap holes. (Examples: with tap hole, 143R-T; without tap hole, 143-R)
- The 300 and 1000 series with empty hinges are in packages of two pairs each, and the 100, 200, 700 and PC series come in packages of one pair each.



Constant speed of door closing!

Various functions (automatic temperature compensation and drip-proofing) in a slim body

These hinges make entrance doors and outdoor doors look neat.

Flag type PC series

They achieve high reliability in severe outdoor environments.

Simple design

The hinges double as door closers, thus giving the doors a neat-looking finish. Their simple and beautiful designs match all kinds of doors.

Drip-proof types that withstand outdoor use

Being drip-proof, they can be used for entrance doors exposed to outside air and gate doors exposed directly to rain.

No need to adjust door-closing speed

On the PC series with an internal actuator with a temperature sensor, you have only to set the door-closing speed (at a desired setting) initially. The hinges will then maintain the door closing speed without being affected by the ambient temperature.

Easy to set the door-closing speed

The door-closing speed can easily be set and changed with the mere use of a normal screwdriver.

Easy to install and handle

They are handled in exactly the same manner as the company's standard Auto Hinge, flag type, 100 and 200 series.

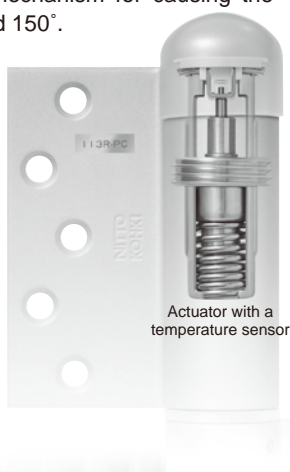
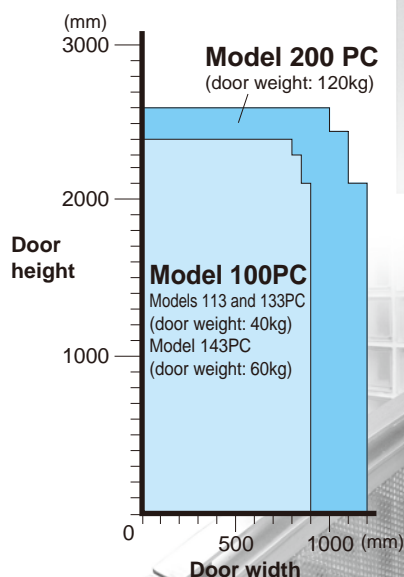
Outstanding durability

They are so structured as to produce little friction, thus achieving outstanding durability.

Equipped with an internal stop mechanism

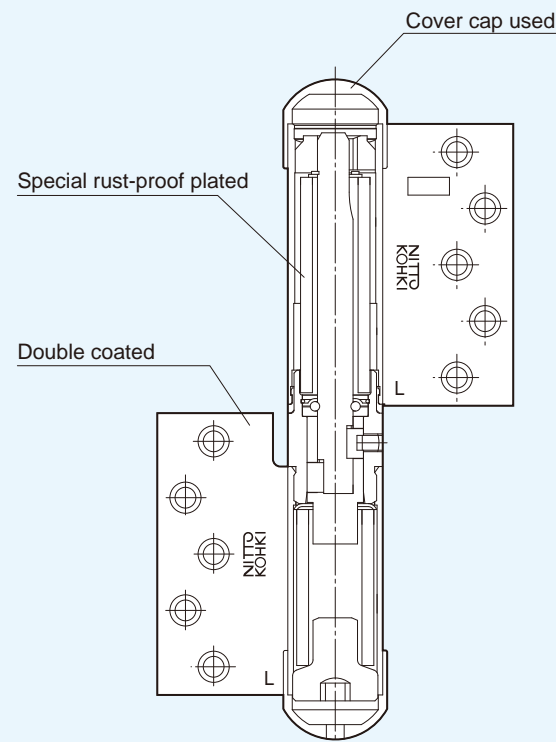
They come with an internal stop mechanism for causing the door to close itself and stop at 85° and 150°.

Table of doors applicable to Auto Hinges PC series



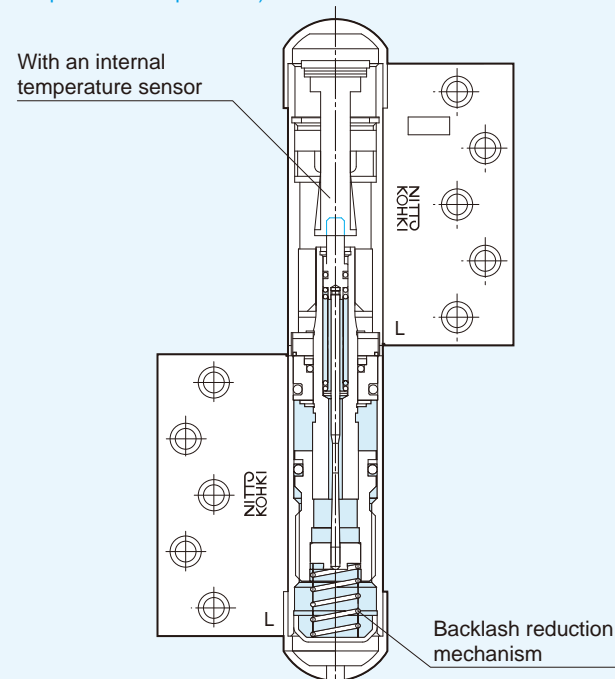
Spring hinge

(with an internal self-closing and stop mechanism)



Damper hinge

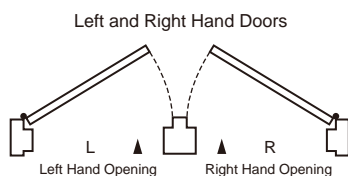
(with an internal closing speed control mechanism with a temperature compensator)



- Each model consists of a spring hinge and a damper hinge.
- This diagram represents the structure of the PC series.

Model Number			Door Size Applicable(mm)			Door Weight (kg)	Closing Force (N-m)	Stop Mechanism	Location of Stop	Max. Opening Angle	Surface Color
Right hand door	Left hand door		W	H	D						
113R-PC	113L-PC		900(Max)	2100(Max)	30(Min)	40(Max)	15.0	—	—	180° Left or Right One-side Opening	Silver *Black *Bronze
113SR-PC	113SL-PC							○	85° & 150°		
Empty Hinge	110R-PC	110L-PC					—	—	—		

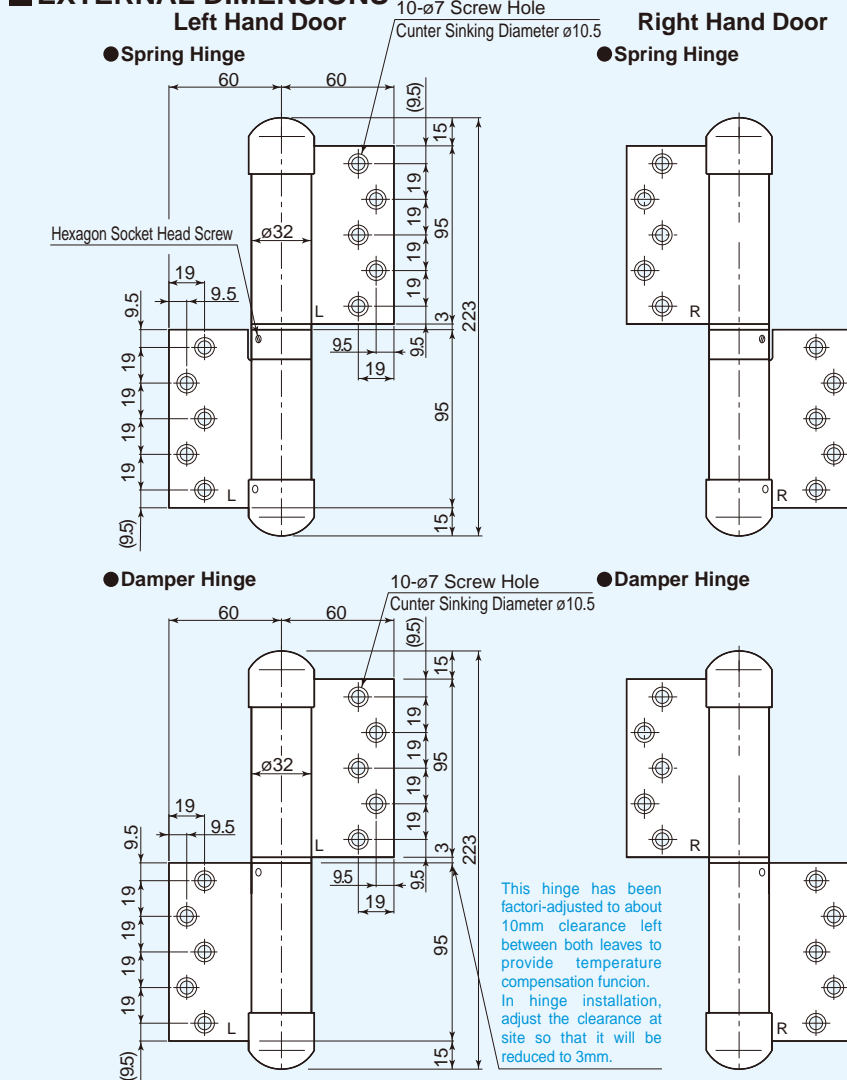
※ Optional Color



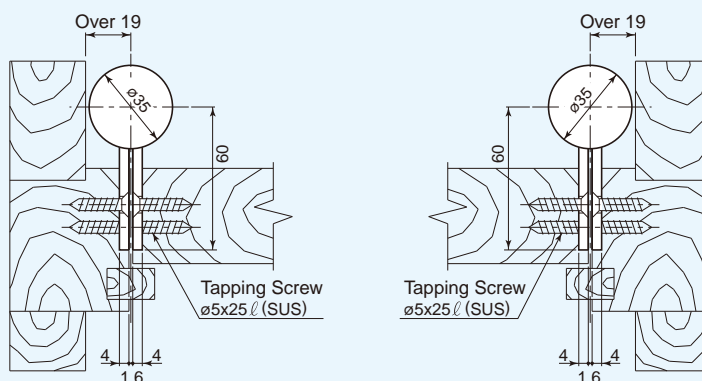
Remarks

1. Surface treatment is by a baked coating of acrylic resin.
2. For the flap mounts on the door and frame, be sure to use a steel plate at least 2.3mm thick and 300mm long made of luan or harder wood or reinforcement. Fix the reinforcement directly on the framework.
3. They come with mounting tapping screws 25mm long. Use a frame at least 25mm.
4. Allow for a door clearance of at least 5mm.
5. Always allow for a door stopper to prevent the door from opening wider than 180°.

EXTERNAL DIMENSIONS

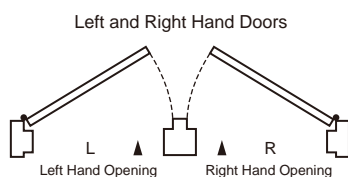


FITTING DIAGRAMS



Model Number			Door Size Applicable(mm)			Door Weight (kg)	Closing Force (N·m)	Stop Mechanism	Location of Stop	Max. Opening Angle	Surface Color
Right hand door	Left hand door		W	H	D						
133R-PC	133L-PC		900(Max)	2100(Max)	30(Min)	40(Max)	15.0	—	—	180° Left or Right One-side Opening	Silver *Black *Bronze
133SR-PC	133SL-PC							○	85° & 150°		
Empty Hinge	130R-PC	130L-PC					—	—	—		

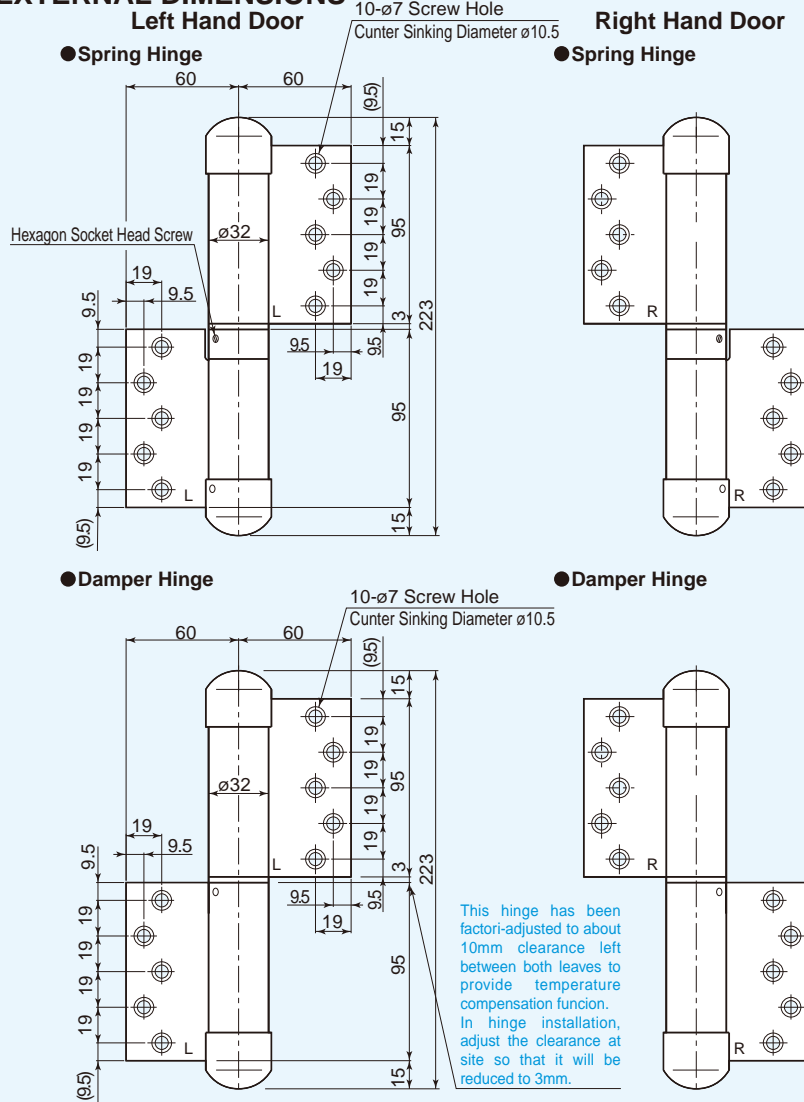
※ Optional Color



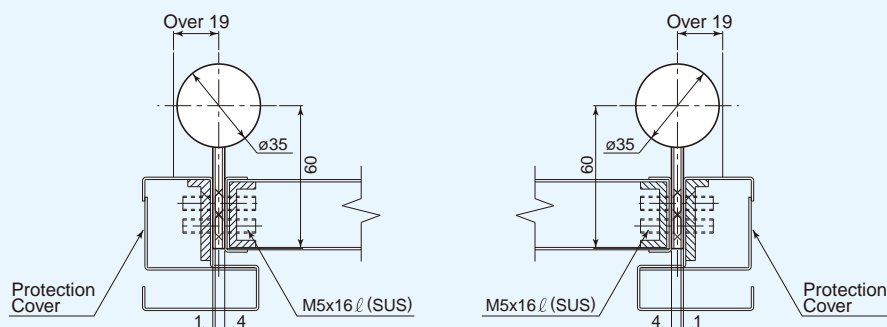
Remarks

1. Surface treatment is by a baked coating of acrylic resin.
2. On the mounts of the flaps for both the door and frame, always use a reinforcing steel plate at least 3.2mm and 300mm long. Fix the reinforcement directly on the framework.
3. They come with flat head screws M5 x 16L (P = 0.8) as mounting screws.
4. Always allow for a clearance of at least 5mm for the door.
5. Always allow for a door stopper to prevent the door from opening wider than 180°.
6. Avoid using them in sauna rooms.

EXTERNAL DIMENSIONS

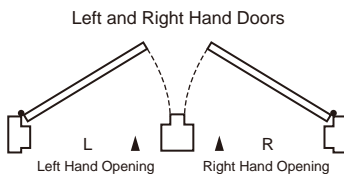


FITTING DIAGRAMS



Model Number			Door Size Applicable(mm)			Door Weight (kg)	Closing Force (N·m)	Stop Mechanism	Location of Stop	Max. Opening Angle	Surface Color
Right hand door	Left hand door		W	H	D						
143RT-PC	143LT-PC		900(Max)	2100(Max)	30(Min)	60(Max)	15.0	—	—	180° Left or Right One-side Opening	Silver ※Black ※Bronze
143SRT-PC	143SLT-PC							○	85° & 150°		
Empty Hinge	140RT-PC	140LT-PC					—	—	—		

※ Optional Color

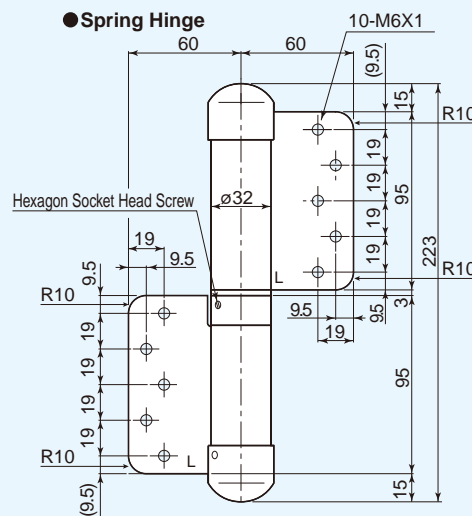


Remarks

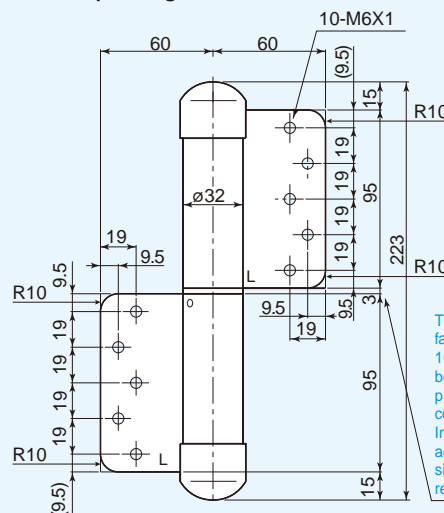
1. Surface treatment is by a baked coating of acrylic resin.
2. For the blade fitting place on the door and frame, a steel plate of over 3.2mm thickness and 300mm length must be used as a reinforcing material.
3. For the blade fitting on the door and frame, use M6 flat screw X6 pcs. (Avoid installation by welding.)(Not include)
4. Allow at least 5mm of space between at outer edge of door and frame.
5. Always allow for a door stopper to prevent the door from opening wider than 180°.

EXTERNAL DIMENSIONS

Left Hand Door

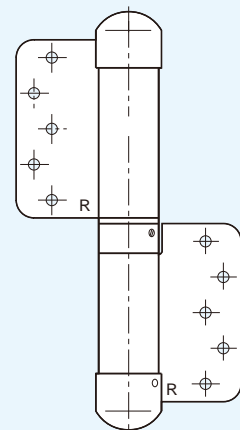


●Damper Hinge

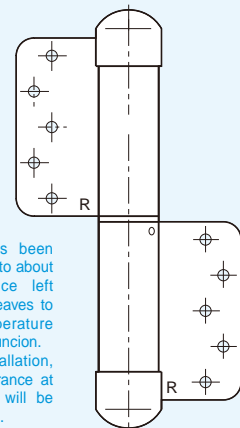


Right Hand Door

●Spring Hinge

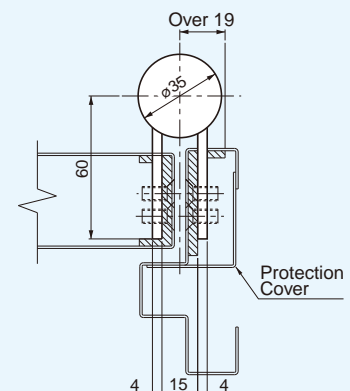
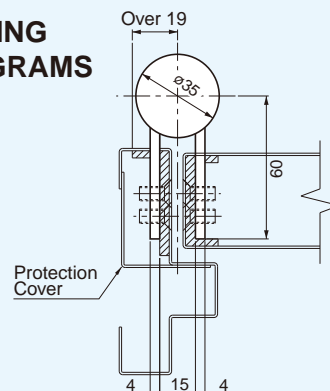


●Damper Hinge



This hinge has been factori-adjusted to about 10mm clearance left between both leaves to provide temperature compensation function. In hinge installation, adjust the clearance at site so that it will be reduced to 3mm.

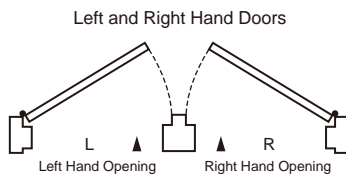
FITTING DIAGRAMS



200PC_{series} Model 244T-PC

STEEL DOORS

Model Number			Door Size Applicable(mm)			Door Weight (kg)	Closing Force (N·m)	Stop Mechanism	Location of Stop	Max. Opening Angle	Surface Color
Right hand door	Left hand door		W	H	D						
244RT-PC	244LT-PC		1200(Max)	2100(Max)	40(Min)	120(Max)	22.6	—	—	180° Left or Right One-side Opening	Silver
244SRT-PC	244SLT-PC							○	85° & 150°		
Empty Hinge	240RT-PC	240LT-PC					—	—	—		



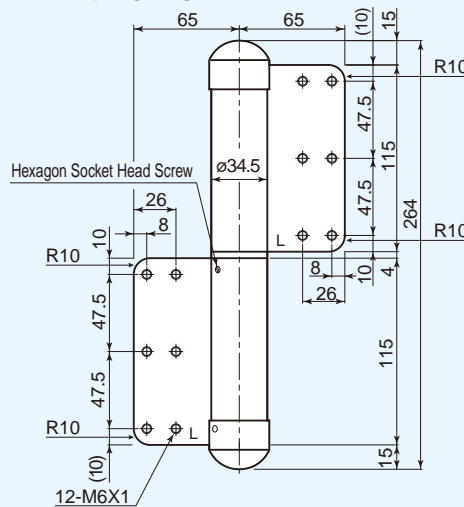
Remarks

1. Surface treatment is by a baked coating of acrylic resin.
2. For the blade fitting place on the door and frame, a steel plate of over 3.2mm thickness and 300mm length must be used as a reinforcing material.
3. For the blade fitting on the door and frame, use M6 flat screw X6 pcs. (Avoid installation by welding.)
4. Allow at least 5mm of space between at outer edge of door and frame.
5. Always allow for a door stopper to prevent the door from opening wider than 180°.

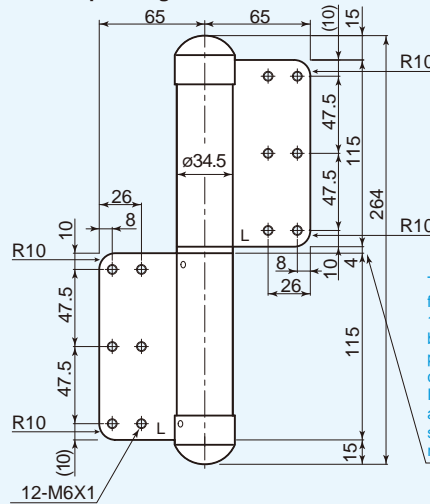
EXTERNAL DIMENSIONS

Left Hand Door

● Spring Hinge

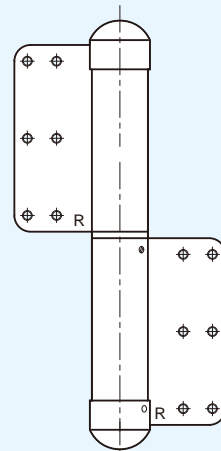


● Damper Hinge

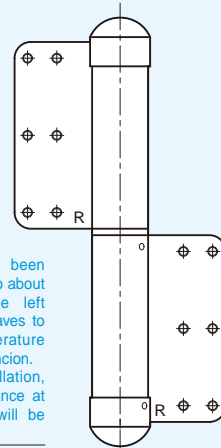


Right Hand Door

● Spring Hinge

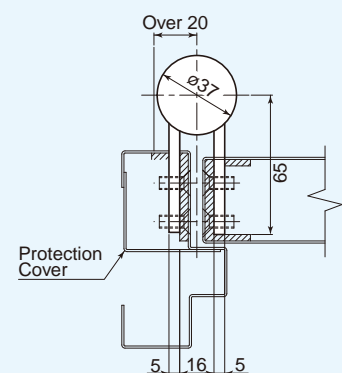
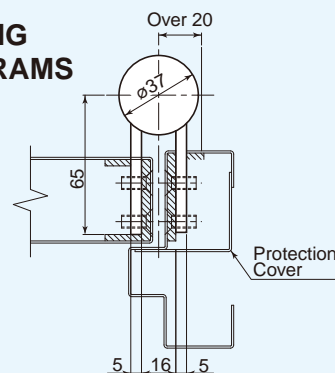


● Damper Hinge



This hinge has been factory-adjusted to about 10mm clearance left between both leaves to provide temperature compensation function. In hinge installation, adjust the clearance at site so that it will be reduced to 4mm.

FITTING DIAGRAMS

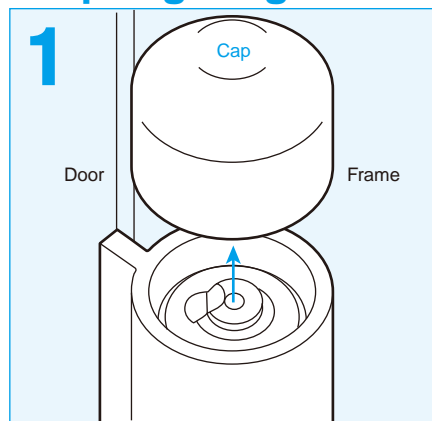


Installation procedure

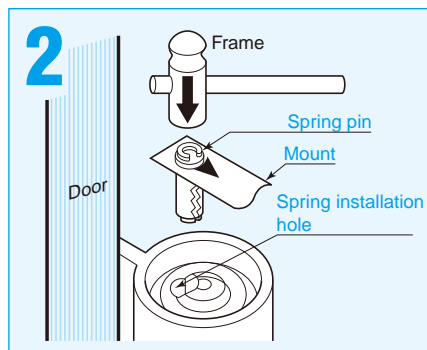
- Suspend the door, then install the hinges.

*When suspending the door, align the notch in the shaft of the damper hinge with the hole in the door-side flap.

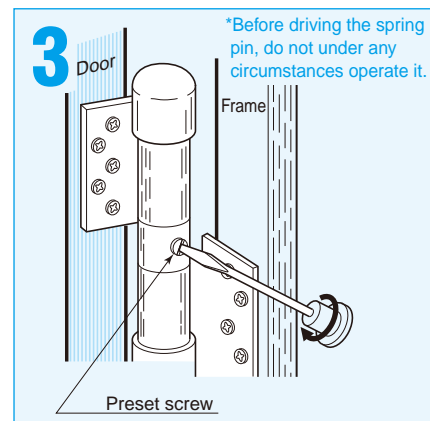
Spring hinge



- Remove the cap.



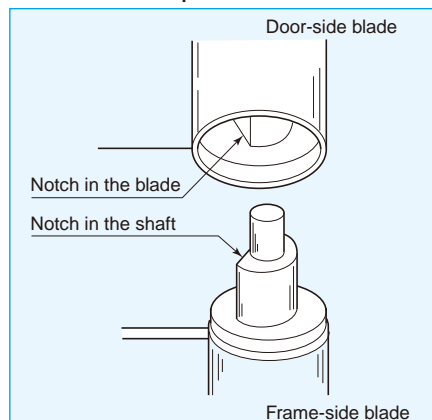
- Drive the spring pin.
- Open the door by about 0° to 10°, align the installation hole, and drive the spring pin securely according to the instructions given on the mount. Do not use a screw or anything similar as an alternative.



- Open the door by about 90°, turn the preset screw counterclockwise by 3-4 turns, and make it stick out by about 1mm from the hinge surface. Before driving the spring pin, do not under any circumstances operate it.

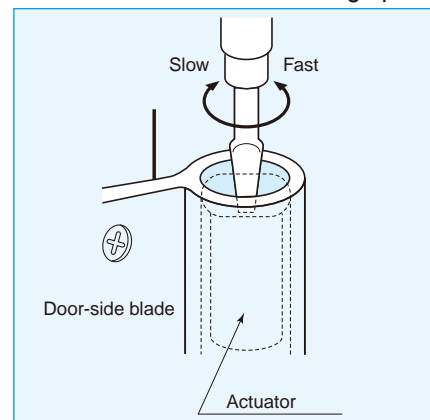
Damper hinge

How to suspend the door

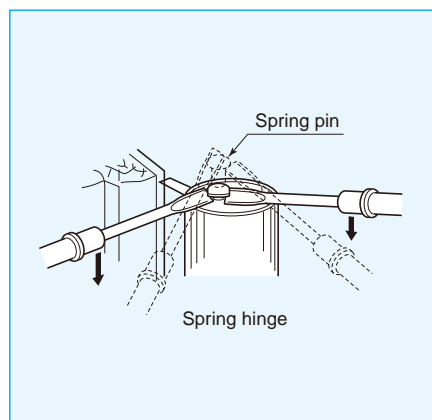


- Align the label on the cap with the notch in the shaft.
- The damper hinge, when handled singly, has a clearance between the top and the bottom blade. When it is installed and the door is suspended, the clearance will disappear, so that it will be installed to automatic speed adjustment. There is therefore no problem. After suspending the door, check that there is no clearance between the top and the bottom blade.

How to set the door-closing speed



How to remove the door



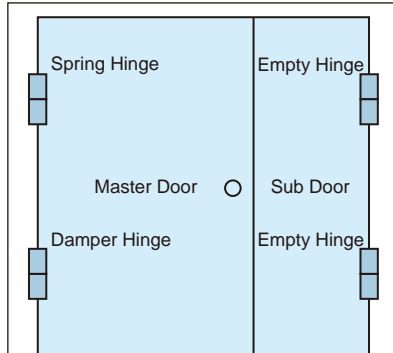
- ① Open the door by about 90°, turn the preset screw clockwise by 3-4 turns, and retighten it as before.
- ② Close the door, and it will stop at about 5°. Therefore pull out the spring pin as shown in the left-hand figure, then remove the door. (*Do not close the door by overstraining it before pulling out the spring pin.)
- ③ To suspend it again, do so at the angle at which the door was removed (the angle at which there is the shaft notch in the damper hinge).

*For any questions about the handling procedure, please consult the Hinge Sales Sect. or any office of Nitto Kohki.

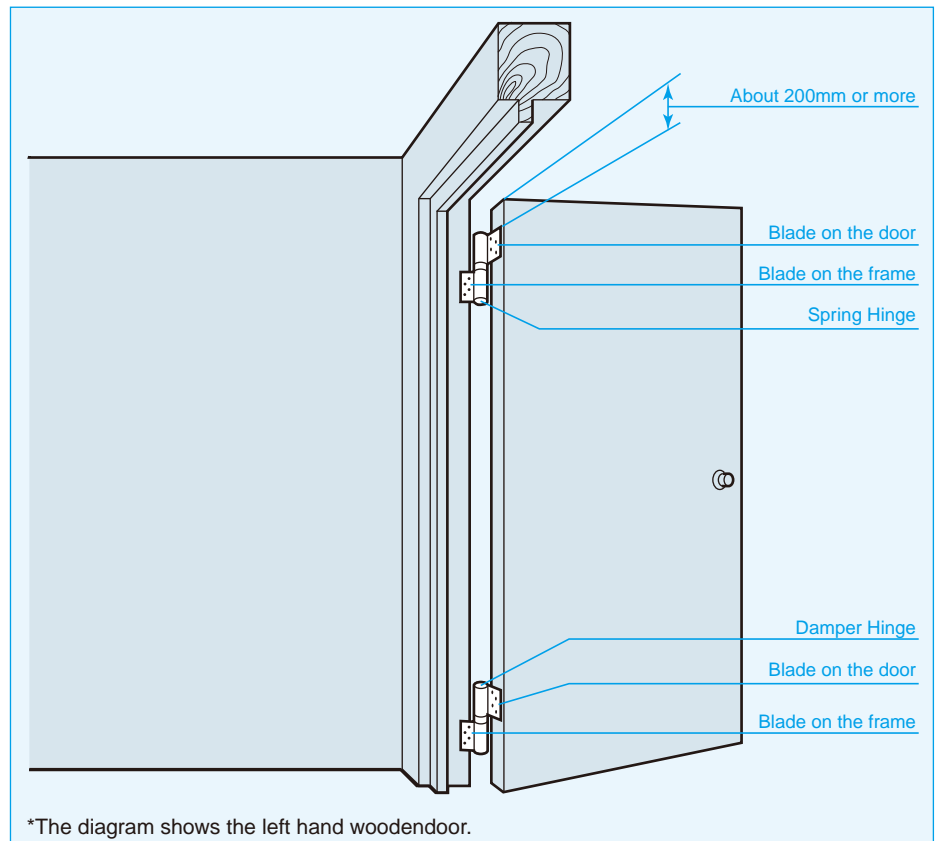
*Should any hinge break down, pull out the spring pin (see "How to remove the door" in the figure above) and turn the speed adjusting screw to maximize the speed. You can then use it similarly to ordinary hinges.

AUTO HINGES

Mounting position Flag Type Auto Hinges



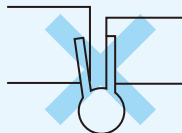
- In case the sub door doesn't require automatic closing mechanism, the empty hinges which is the same appearance as the Auto Hinge without interior mechanism can be applied.



*The diagram shows the left hand wood door.

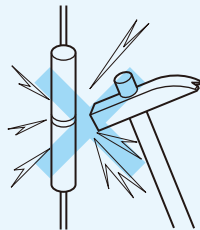
Handling precautions

- Attach the hinge blades in parallel with the door frame.



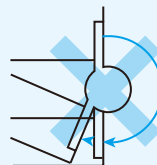
- Do not bend the blades.

- Do not hit the hinge with undue force.



- Hold the door opening to 180 degrees or less.

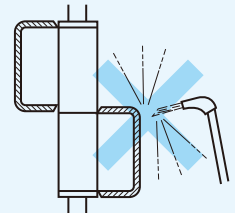
Opening the door wider than 180 degrees would damage the clutch mechanism to prevent it from closing (that is, it remains locked). To avoid this, install a doorstop or similar obstacle.



- Do not leave the Auto Hinge in places where it is exposed to direct moisture, or splash it with water. (Except pc and 700 series)



- Do not weld the blades.



- Avoid bending the hinge blades, or using the hinge in places where it is exposed to strong winds.

OTHER RELATED PRODUCTS

Center Hang type



- Most suitable for fire protection, open smoke ventilation and normally-opened / closed doors and air supply doors.
- Concealed type (door built-in type.)

Concealed



- Can be selected stop or without stop by select.
- 2 way closing speed.
- Door built-in type.

Create



- Projecting type door closer
- Automatically closes a door with quiet in combined use of a capsule with built-in spring and hydraulic device and a special pivot hinge.
- Simple design
- Provided with arm-free construction, presenting simple design and beauty fit for any door.

Sliding closer

- The endless, viscosity resistance system (patent pending) is employed to offer a compact, lightweight, long-life closer.
- The door closing speed can easily be adjusted for a desired level.
- The temperature compensation function (patent pending) is incorporated so that the closing speed remains virtually the same even when the ambient temperature changes.

Horizontal type

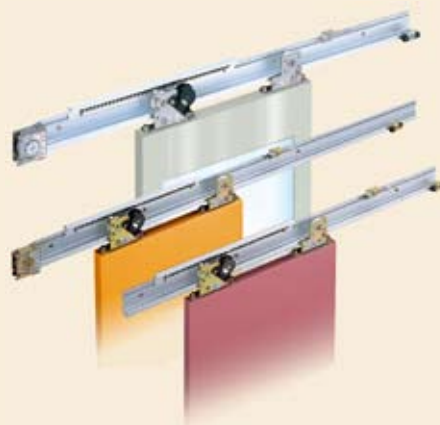
NSC Series

For Bath

NSC-CB Series

Inclined type

DSC Series



⚠ Safety precautions

- To avoid personal injury and other accidents, thoroughly read the precautions set forth in the "Instruction Manual" or "Catalog" and properly complete the installation and adjustment procedures before use.
- Ensure that the door closing speed is properly adjusted at all times. If it is too high, personal injury may result.



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Product Info http://www.nitto-kohki.co.jp/Seihin_Info/HINGE/

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★ Specifications and designs are subject to change at any time without notice.



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