

# NITTO KOHKI AUTO HINGES

## FLAG TYPE



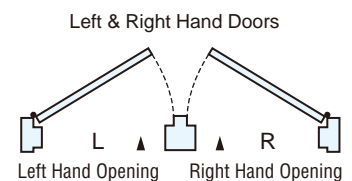
A U T O H I N G E

## 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 Empty hinge	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										
		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  Bronze  Silver  Bronze										
		1111SR							1111SL	○			85°									
		1121R							1121L	—			—									
		1121SR							1121SL	○			85°									
P.6	1000 Series	1211R	Wooden door Aluminum door Light steel door	850	2000	30	35	7.9	—	—	180° Left or right one side opening	Silver  Bronze  Silver  Bronze										
		1211SR							1211SL	○			85°									
		1221R							1221L	—			—									
		1221SR							1221SL	○			85°									
P.5	1000 Series	1110R	Wooden door Aluminum door Light steel door	850	2000	30	35	7.9	—	—	180° Left or right one side opening	Silver  Bronze  Silver  Bronze										
		1110L							1110L	—			—									
		1120R							1120L	—			—									
		1120L							1120L	—			—									
P.6	1000 Series	1210R	Wooden door Aluminum door Light steel door	850	2000	30	35	7.9	—	—	180° Left or right one side opening	Silver  Bronze  Silver  Bronze										
		1210L							1210L	—			—									
		1220R							1220L	—			—									
		1220L							1220L	—			—									
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           Silver										
		112SR							112SL	○			85° and 150°									
		122R-T							122L-T	—			—									
P.8		100 Series	122SR-T	Wooden door Light steel door (122T for steel frame)	900	2100	30	40	10.0	○			85° and 150°	180° Left or right one side opening	Silver or Bronze           Silver							
			113R							113L			—			—						
			113SR							113SL			○			85° and 150°						
P.9			100 Series	113R TRISET	Wooden door Aluminum door	1000	2200	30	80	20.0			—			—	180° Left or right one side opening	Silver or Bronze           Silver				
				113SR TRISET									113SL TRISET			○			85° and 150°			
				122R-AT									122L-AT			—			—			
P.10				100 Series	122SR-AT	Wooden door Light steel door (122T for steel frame)	900	2100	30	40			10.0			○			85° and 150°	180° Left or right one side opening	Silver or Bronze           Silver	
					132R											132L			—			—
					132SR											132SL			○			85° and 150°
P.11	100 Series				143R-T	Steel door	900	2100	30	60	15.0	—	—			180° Left or right one side opening			Silver or Bronze           Silver			
					143SR-T							143SL-T	○									85° and 150°
					143R-AT							143L-AT	—									—
P.12		100 Series			143SR-AT	Steel door	900	2100	30	60	15.0	○	85° and 150°	180° Left or right one side opening	Silver or Bronze           Silver							
					110R							110L	—									—
					120R-T							120L-T	—									—
P.7			100 Series		120R-AT	Wooden door Light steel door (120T for steel frame)	900	2100	30	40	10.0	—	—				180° Left or right one side opening	Silver or Bronze           Silver				
					130R							130L	—									—
					140R-T							140L-T	—									—
P.11				100 Series	140R-AT	Aluminum door Light steel door Partition door	900	2100	30	40	10.0	—	—							180° Left or right one side opening	Silver or Bronze           Silver	
					140R-T							140L-T	—									—
					140R-AT							140L-AT	—									—
P.12	100 Series				244R-T	Steel door	1200	2100	40	120	22.6	—	—			180° Left or right one side opening			Silver			
					244SR-T							244SL-T	○									85° and 150°
					240R-T							240L-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						—	—			—	—	—	—	—		
P.21		133SR-PC	133SL-PC																○	85° and 150°
P.21		143R-T-PC	143L-T-PC	Steel door						1200	2100			40	120	22.6	—	—	180° Left or right one side opening	Silver
P.22		143SR-T-PC	143SL-T-PC														○	85° and 150°		
P.22		244R-T-PC	244L-T-PC														—	—		
P.22		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	—	—	—	—								
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											900	2100	40	120			
P.23	153 Series	NK153R	NK153L	Glass door	900	2100	8 10 12	60	15.0	—	—	180° Left or right one side opening	Silver							
P.24		NK153SR	NK153SL							○	85° and 150°									
		NK153R TRISET	NK153L TRISET							—	—									
		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.



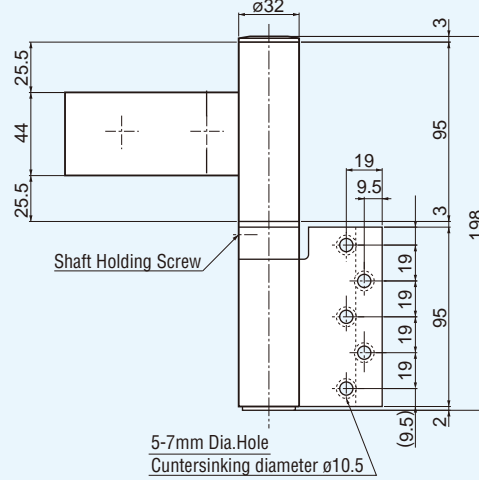
Model Number		Door Size Applicable(mm)			Door Weight (kg)	Closing Force (N·m)	Stop Mechanism	Location of Stop	Max. Opening Angle	Surface Color		
Right hand door	Left hand door	W	H	D								
NK153R	NK153L	900(Max)	2100(Max)	8	10	12	60(Max)	15.0	—	—		
NK153SR	NK153SL										85° & 150°	180° Left or Right One-side Opening
Empty Hinge	NK150R										NK150L	



### EXTERNAL DIMENSIONS

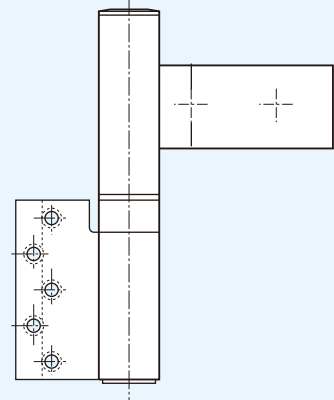
#### Left Hand Door

##### ● Spring Hinge

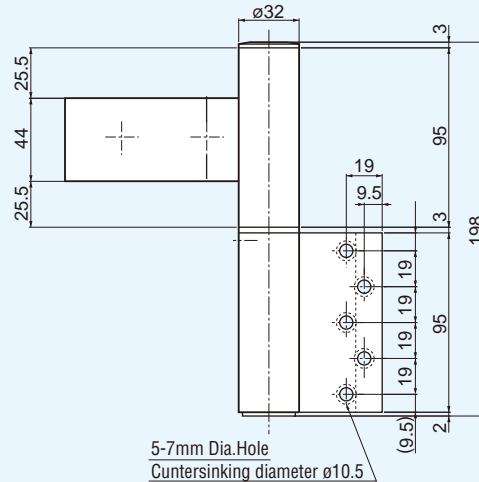


#### Right Hand Door

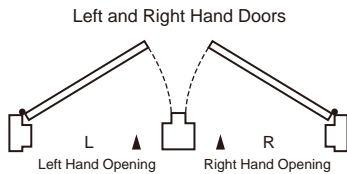
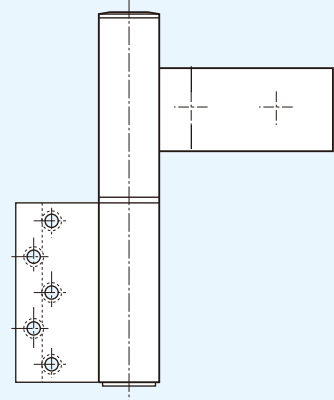
##### ● Spring Hinge



##### ● Damper Hinge



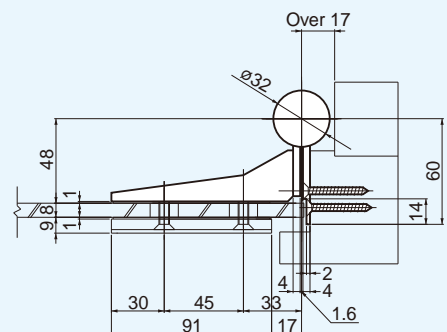
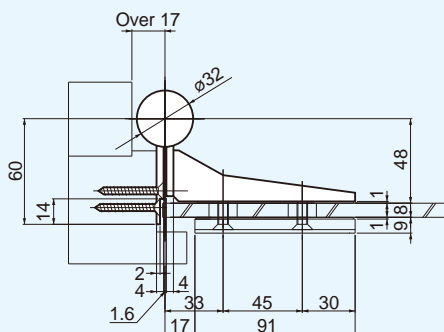
##### ● Damper Hinge



### Remarks

1. The door and frame materials to which the hinge is to be fitted should be of hard wood such as lauan or harder.
2. Surface treatment is by a baked coating of melamine resin.
3. The attached screws for fitting are 5øX35mm long, the thickness of the frame should be over 35mm.
4. Allow at least 5mm of space between outer edge of door and frame.
5. Always allow for a door stopper to prevent the door from opening wider than 180°.

### FITTING DIAGRAMS



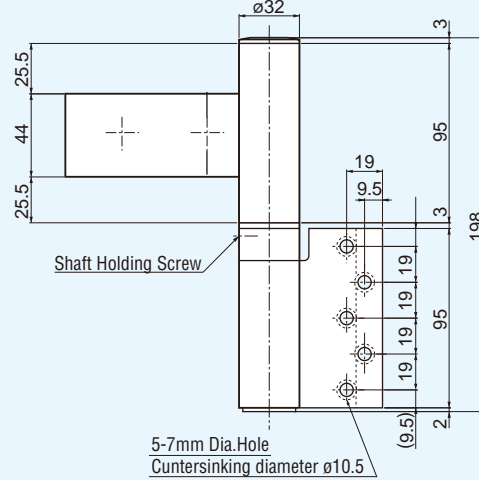
Model Number		Door Size Applicable(mm)				Door Weight (kg)	Closing Force (N-m)	Stop Mechanism	Location of Stop	Max. Opening Angle	Surface Color	
Right hand door	Left hand door	W	H	D								
NK153R (TRI-SET)	NK153L (TRI-SET)	1000(Max)	2200(Max)	8	10	12	80(Max)	20.0	—	180° Left or Right One-side Opening	Silver & Bronze	
NK153SR (TRI-SET)	NK153SL (TRI-SET)											85° & 150°
Empty Hinge	NK150R											NK150L



**EXTERNAL DIMENSIONS**

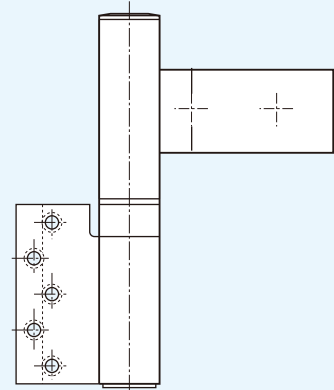
**Left Hand Door**

● Spring Hinge

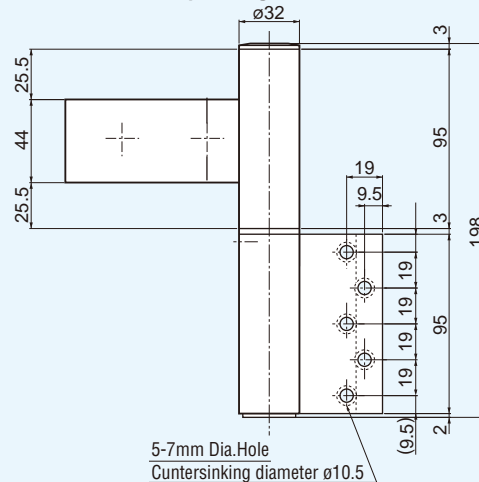


**Right Hand Door**

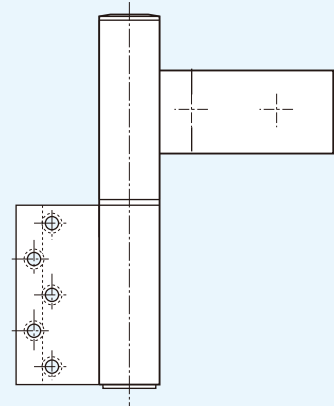
● Spring Hinge



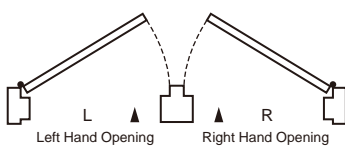
● Damper Hinge



● Damper Hinge



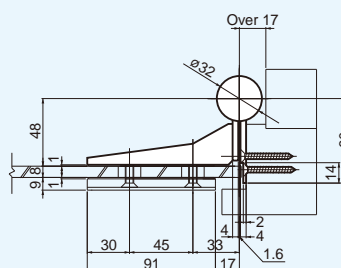
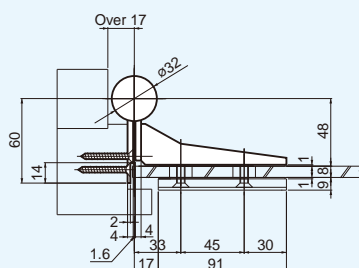
Left and Right Hand Doors



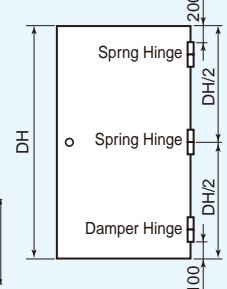
**Remarks**

1. The door and frame materials to which the hinge is to be fitted should be of hard wood such as lauan or harder.
2. Surface treatment is by a baked coating of melamine resin.
3. The attached screws for fitting are 5øX35mm long. the thickness of the frame should be over 35mm.
4. Allow at least 5mm of space between outer edge of door and frame.
5. Always allow for a door stopper to prevent the door from opening wider than 180°.

**FITTING DIAGRAMS**



**Installation**





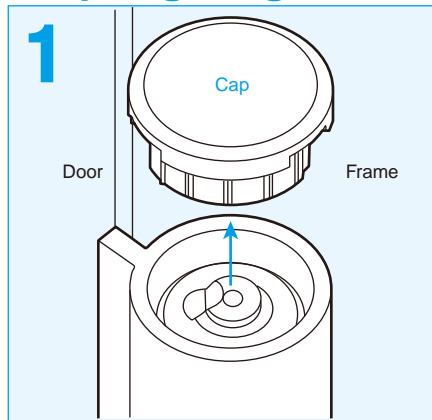
# 100/200/NK series

## Installation procedure

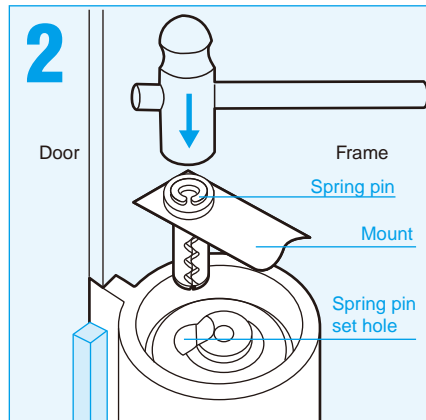
- Suspend the door, then install the hinges.

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

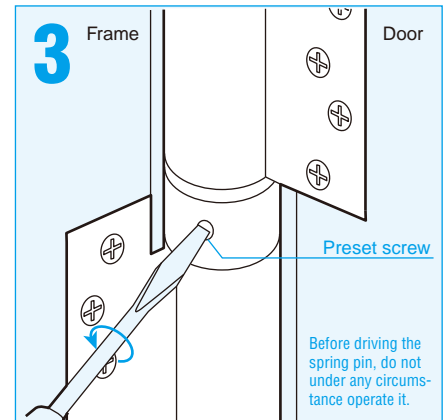
### Spring hinge



- Remove the cap.

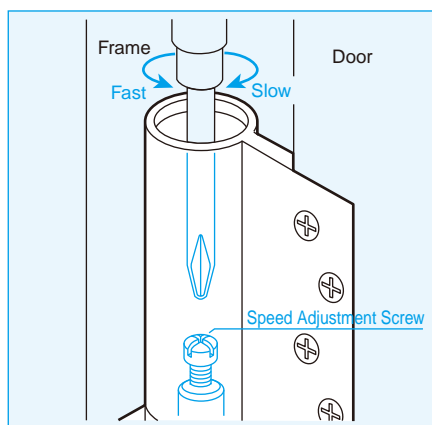


- Drive the spring pin.
- Open the door by about 0° to 10°, align the installation hole, and drive the spring pin securely according to the instructions given on the mount. Do not use a screw or anything similar as an alternative.



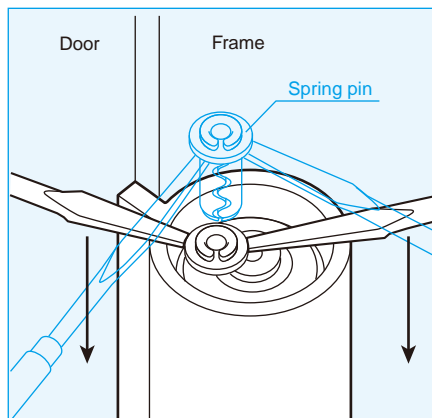
- Open the door by about 90°, turn the preset screw counterclockwise by 3-4 turns, and make it stick out by about 1mm from the hinge surface. Before driving the spring pin, do not under any circumstances operate it.

### Damper hinge



- Finally to set the door closing speed, remove the cap from damper hinge and turn the speed adjustment screw in the damper hinge to the desired.

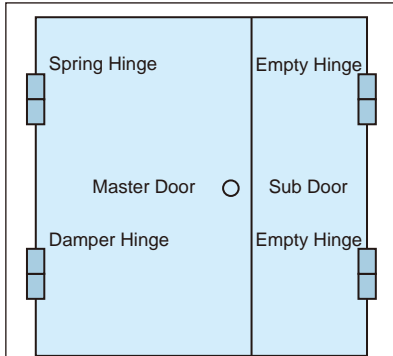
### Removal of the door



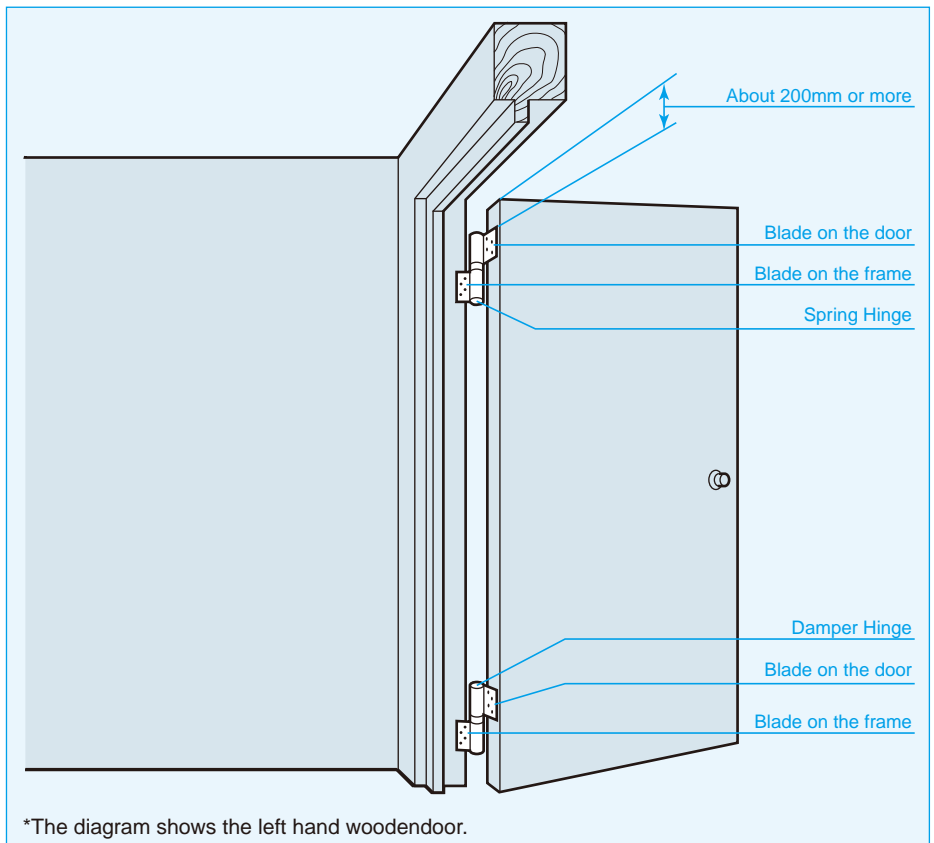
- ① Open the door by about 90°, turn the preset screw clockwise by 3-4 turns, and retighten it as before.
- ② Close the door, and it will stop at about 5°. Therefore pull out the spring pin as shown in the left-hand figure, then remove the door. (\*Do not close the door by overstraining it before pulling 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).

# AUTO HINGES

## Mounting position Flag Type Auto Hinges

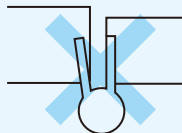


- In case the sub door doesn't require automatic closing mechanism, the empty hinges which is the same appearance as the Auto Hinge without interior mechanism can be applied.



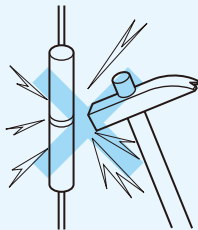
## Handling precautions

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



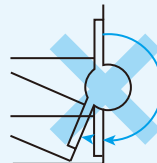
- Do not bend the blades.

- Do not hit the hinge with undue force.

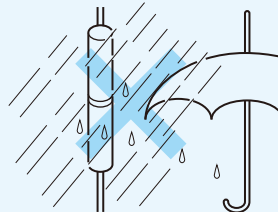


- Hold the door opening to 180 degrees or less.

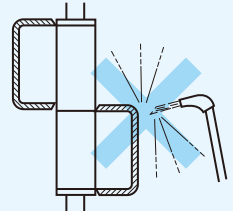
Opening the door wider than 180 degrees would damage the clutch mechanism to prevent it from closing (that is, it remains locked). To avoid this, install a doorstop or similar obstacle.



- 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 with out 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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