

# NITTO KOHKI AUTO HINGES

CENTER HANG

W TYPE

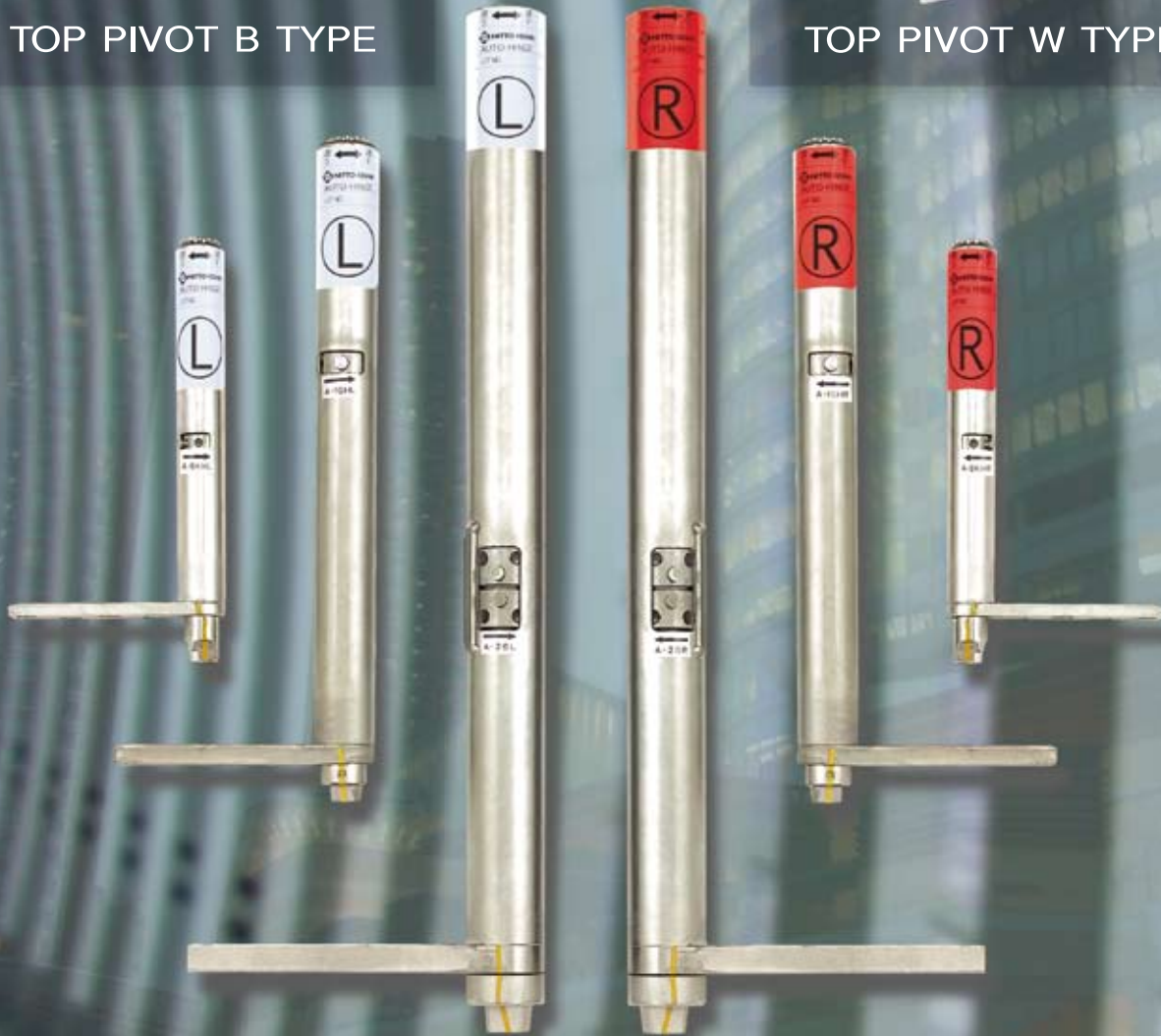
AFD TYPE



TOP PIVOT B TYPE



TOP PIVOT W TYPE



# NITTO KOHKI AUTO HINGE — developed ahead of the world with free use of original closer technology, establishing great confidence in high technological power.

## AUTO HINGES (CENTER HANG TYPE)

based on the accumulation of advanced technology:

### Concealed type (door built-in type)

- Constructed door built-in closer of pivot type, thus being easy to install. In addition, it presents a slim appearance, without affecting the beauty of a door.

### Wide range usability

- Designed with a receptive base meeting the requirements for the recent tendency of thinner floor slabs in buildings, thus not causing any damage to floor surfaces in installation; the AUTO HINGE is most suitable to be used in such a place where floor hinges can be hardly installed and the arm of a door closer becomes an obstacle.

### Most suitable for fire protection, open smoke ventilation and normally-opened/closed doors and air supply doors.

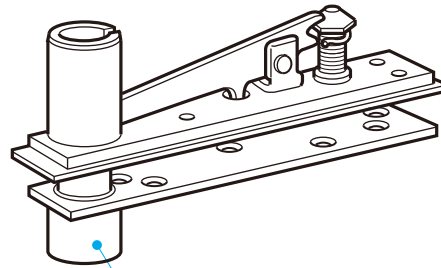
- Keeps closing-up of fire protection doors and opening of smoke ventilation doors & air supply doors reliably, by interlocking of smoke sensors in combined use with an electromagnetic release mechanism.

### Decorated rubber plate

- Provided with a decorated rubber plate for screening the cutout windows for speed control and spring winding.

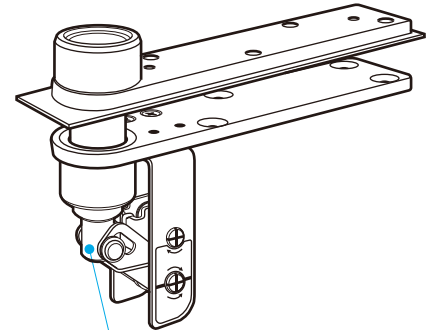
### Sliding receptive base

- Minimized embedding depth
- Can be centered on-site because of having a sliding seat, thus assuring easy installation.



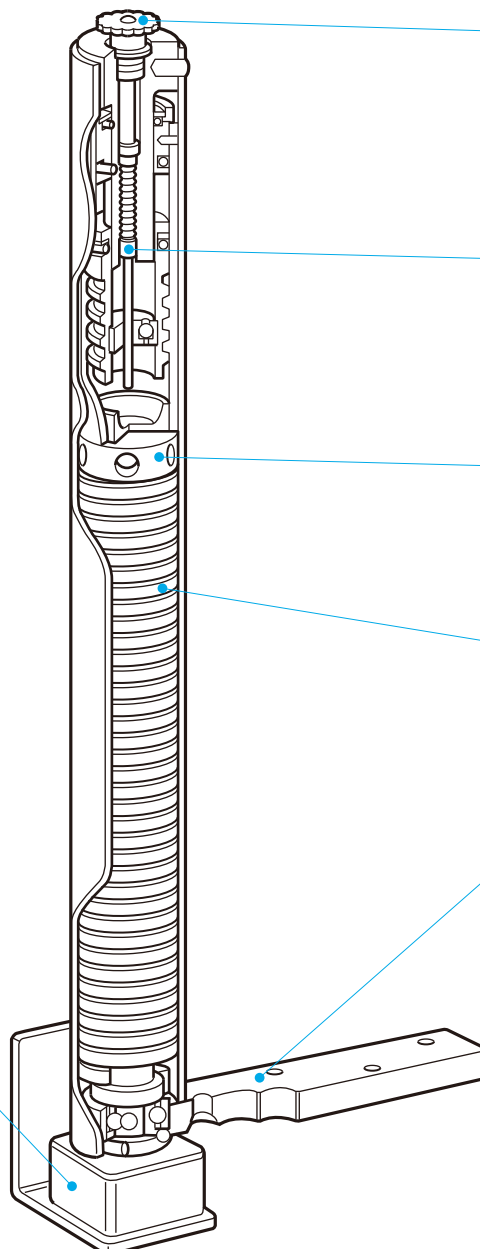
Top pivot B type

- Can be also installed reversely.
- Options — available for special applications.



Top pivot W type

- One-touch Top pivot.
- Easy installation.



### Easy closing speed adjustment

- Able to adjust the closing speed in a wide range merely by turning the speed control gear to right and left, also allowing fine adjustment.

### Smooth closing

- Constructed with unique hydraulic control mechanism, realizing optimum closing operation. Any door closes smoothly and quietly.

### Free closing force adjustment

- Able to adjust the closing force freely by adjusting the spring set seat.

### Powerful closing force

- Has closing force sufficient to meet the sizes of any door, assuring door closing-up. It adopts special ladder type spring, having been already demonstrated for its high persistence.

### Easy installation and reduced cost

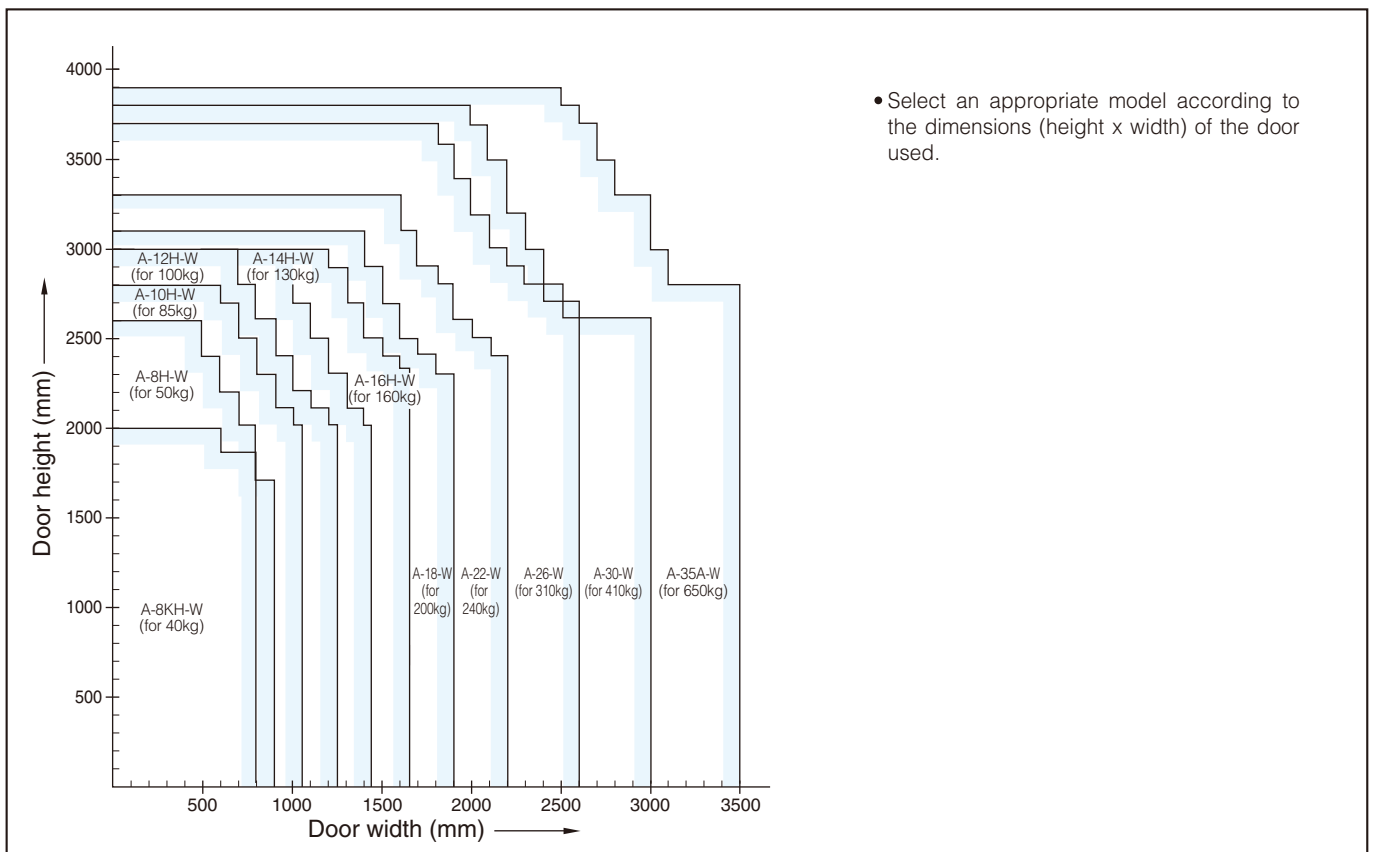
- Provided with a very thin fix base plate, assuring easy installation on any door and reduced cost.

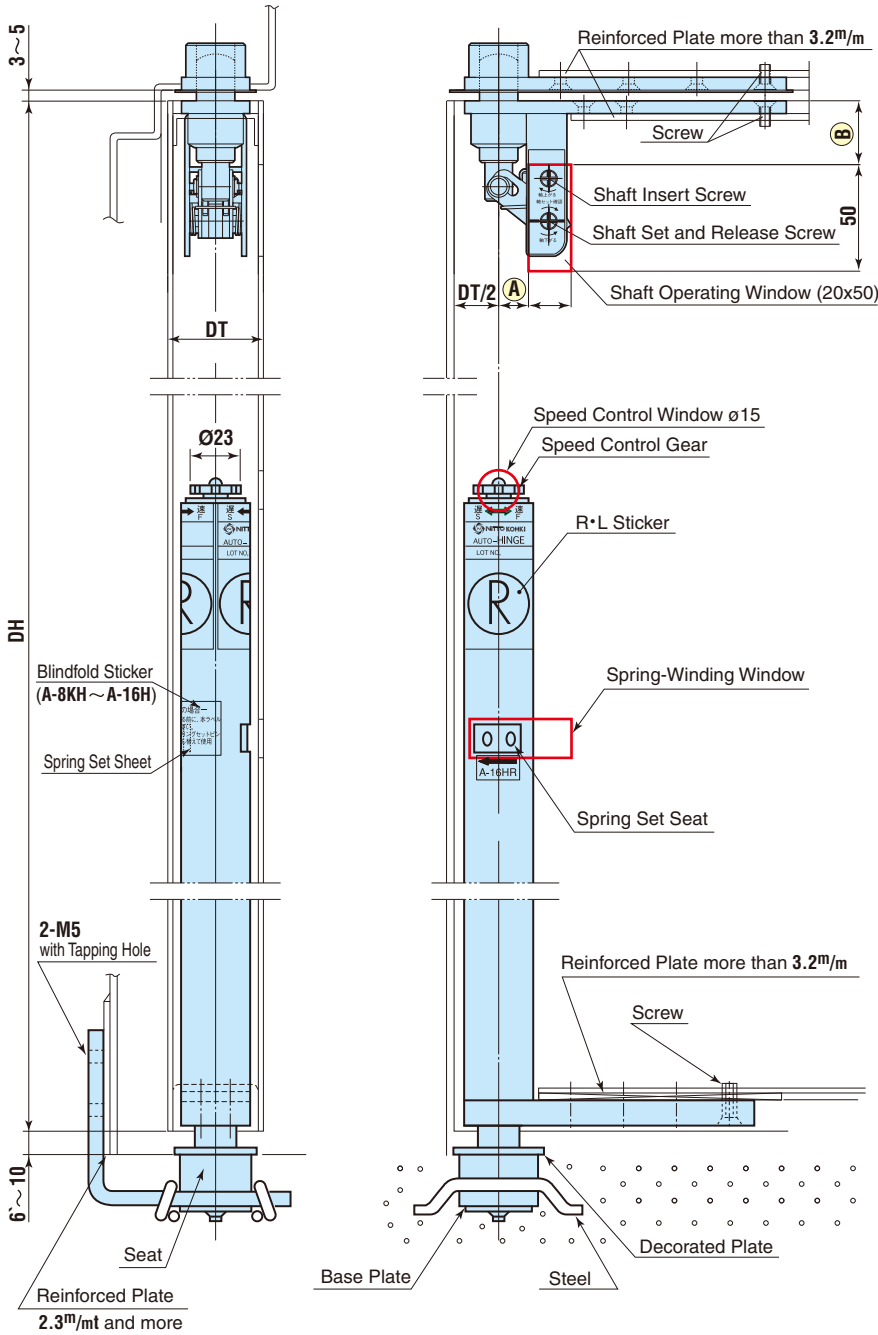
# W-TYPE SPECIFICATIONS

Mode No.	Door size applicable(mm)			Door weight (kg)	Standard closing force(N·m)	Spring set system	Top pivot	Max, opening angle
	W	H	D					
<b>A-8KH-W</b>	800 (max.)	1,850 (max.)	36 (min)	40 (max.)	6.9	Roll-in system	N-21W	180° right or left one-side opening
<b>A-8H-W</b>		2,000		50	8.9			
<b>A-10H-W</b>	1,000	2,100	40	85	10.8			
<b>A-12H-W</b>	1,200			100	15.7			
<b>A-14H-W</b>	1,400			130	19.7			
<b>A-16H-W</b>	1,600	2,400	45	160	24.6			
<b>A-18-W</b>	1,800		50	200	41.2			
<b>A-22-W</b>	2,200			240	49.1			
<b>A-26-W</b>	2,600	2,600	55	310	60.9		N-23W	
<b>A-30-W</b>	3,000			410	68.7			
<b>A-35A-W</b>	3,500	2,800	60	650	73.6			

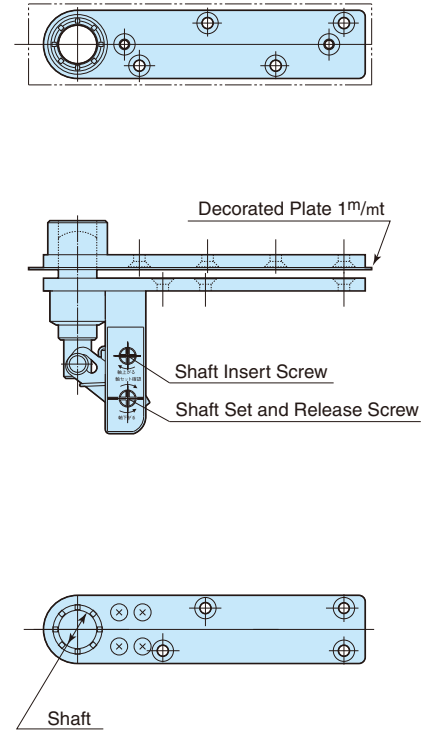
- Note: 1. Difference in opening directions are shown by the symbols, "R" for right-hand door and "L" for left-hand door, suffixed at the end of model number.  
 2. Pre-set type can be used as roll-in system by unwinding the spring.  
 3. Each AUTO HINGE (center hang type) consists of a main body, a receptive base, a top pivot, and a decorated rubber plate.  
 4. Stop mechanism is not built in.  
 5. For selection of a model refer to the [Chart for Applicable Doors] shown below.  
 6. Handling of the fixed type (floor type) receptive base  
 The fixed type (floor type) receptive base is prepared for a place to which the sliding receptive base is not applicable.  
 7. There is a spring winding-window on both sides from A-8KH-W to A-16H-W.  
 8. Main body of W-type is same as A-type. (Except top pivot)

## CHART OF APPLICABLE DOORS



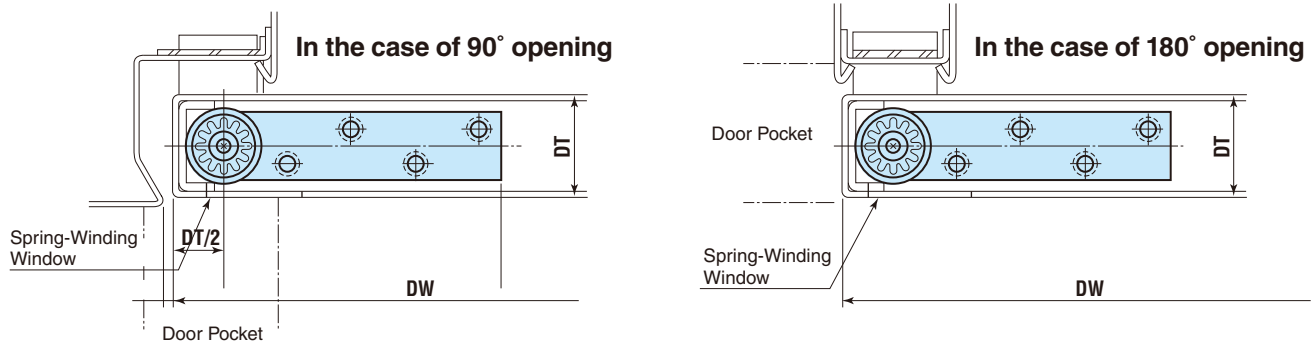


ONE-TOUCH TOP PIVOT



Model	Top pivot	A	B
A-8KH-W ~ A-14H-W	N-21W	11	22
A-16H-W ~ A-22-W	N-22W	14	30
A-26-W ~ A-35A-W	N-23W		

SPRING SET PIN

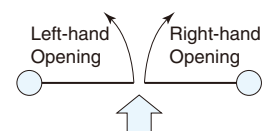


Unit: mm

REMARKS

1. This diagram shows the case of right-hand opening doors. There is a spring winding-window on both sides.
2. This receptive base should be adjusted and centered according to the plumb bob from the top pivot. The seat should be firmly welded on the base plate.
3. For speed control windows and spring-winding windows use the decorated rubber plate. (see page 15)
4. The pan head screw (M3x50L) is prepared for mounting the spring set pin.

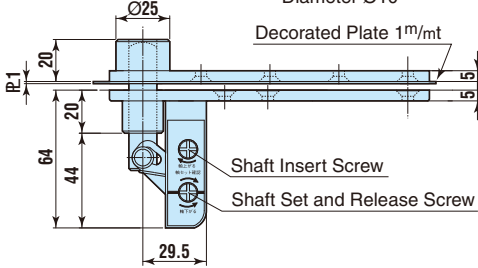
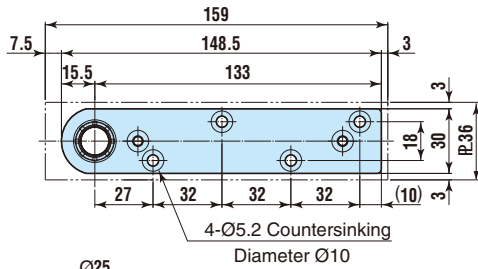
Right and Left Hand Doors



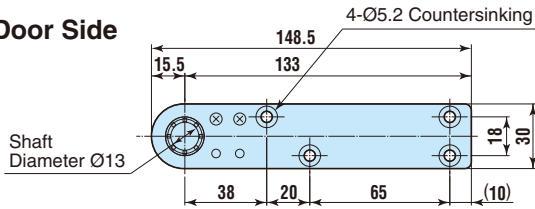
A-8KH-W ~ A-14H-W

TOP PIVOT N-21W TYPE

Door Frame Side



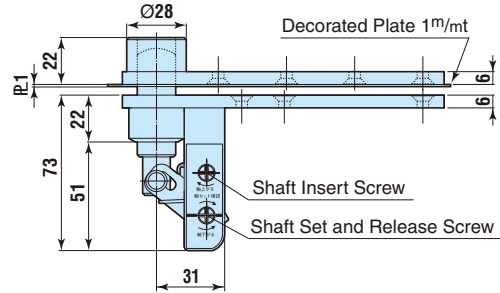
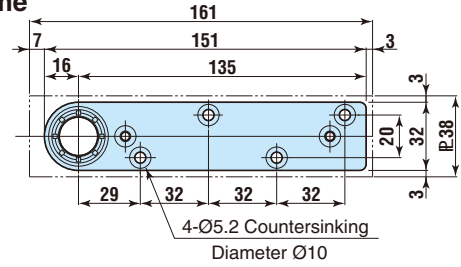
Door Side



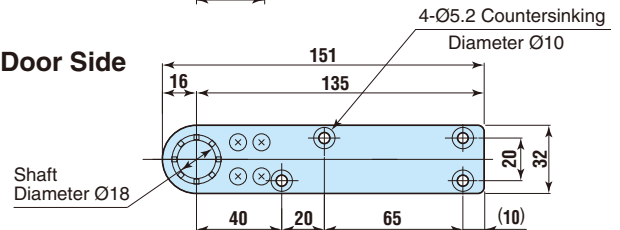
A-16H-W ~ A-22-W

TOP PIVOT N-22W TYPE

Door Frame Side



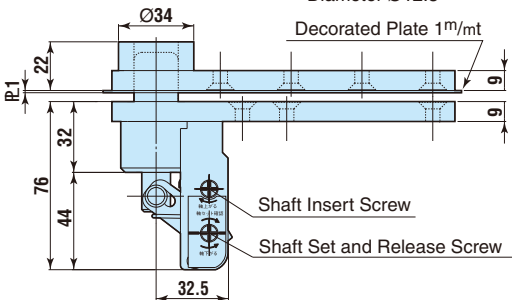
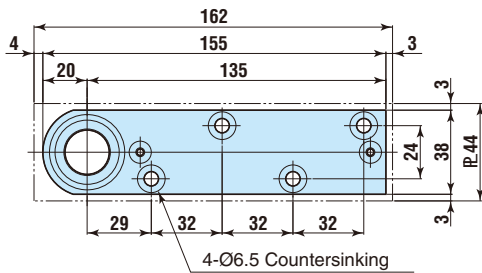
Door Side



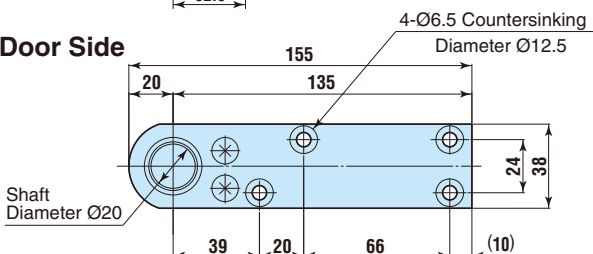
A-26-W ~ A-35A-W

TOP PIVOT N-23W TYPE

Door Frame Side



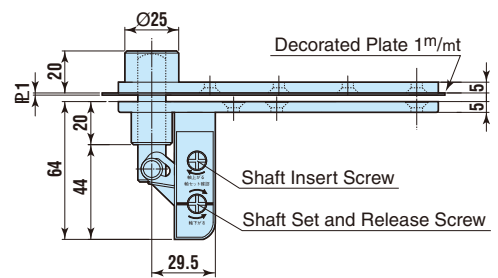
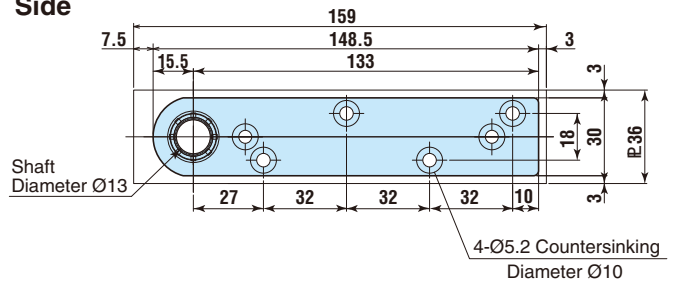
Door Side



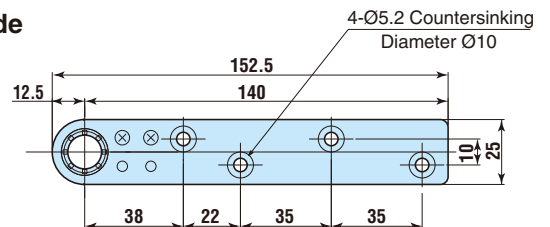
SP-A-8KH-W

TOP PIVOT N-21W TYPE

Door Frame Side

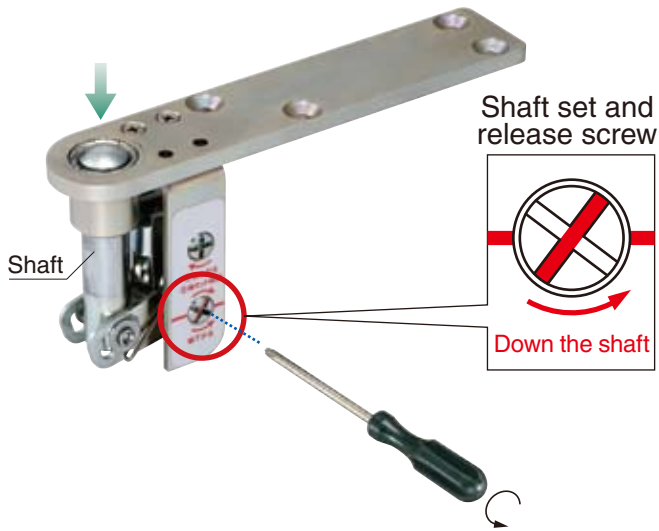


Door Side



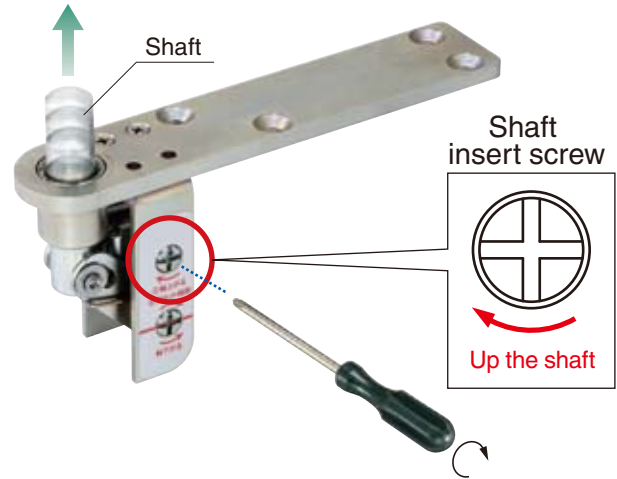
## 1 DOWN THE SHAFT

After install the door frame side and door side top pivot, Down the pivot shaft with the shaft set and release screw. (Turn the shaft set and release screw around 45 degree)



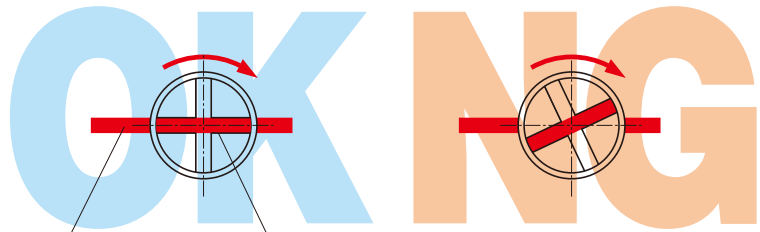
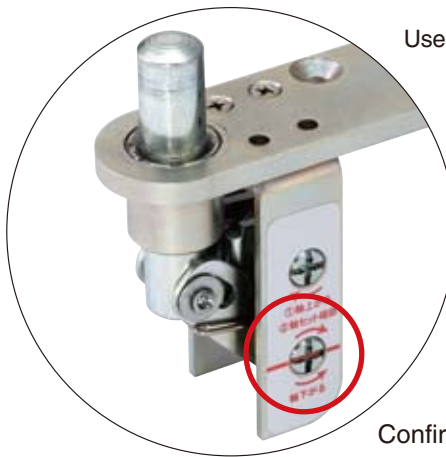
## 2 UP THE SHAFT

Center the top pivot, Use a screwdriver and turn the shaft to insert screw around 30 degree, Then the pivot shaft come out by spring.



## 3 CONFIRMATION OF THE PIVOT SHAFT POSITION

Use a screwdriver and turn the shaft set and release screw till red line become straight.

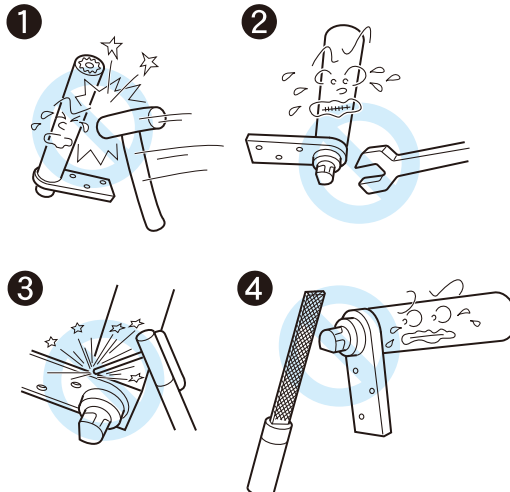


Red-line must be straight

Confirmation of shaft position (Red-line)

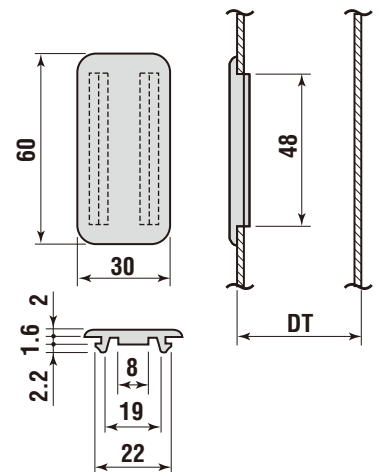
## Precautions for Handling

- Do not strike or drop it.
- Do not turn the lower leg.
- Do not joint by welding.
- Do not file the tapered part of the lower leg.
- Be sure to confirm the red-line on the top pivot is straight.



## DECORATED RUBBER PLATE FOR ONE-TOUCH PIVOT

A-8H-W ~ A-16H-W

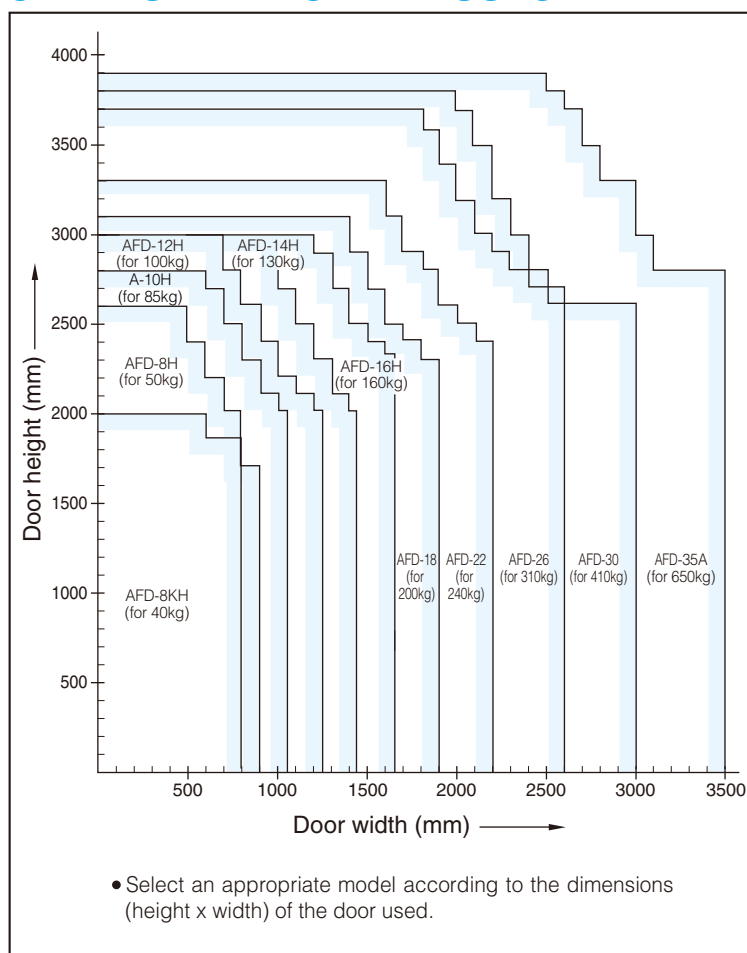


# CENTER HANG AFD TYPE SPECIFICATIONS

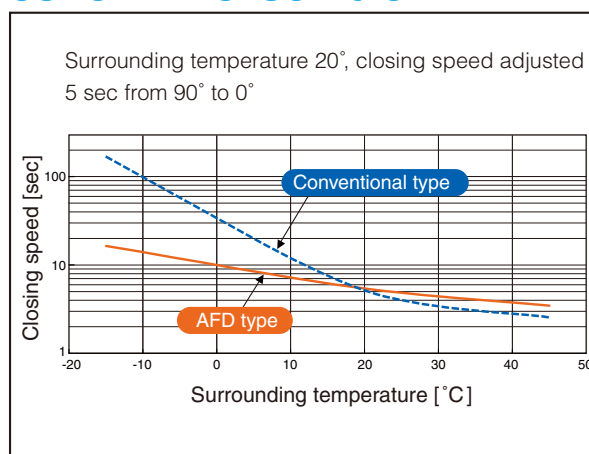
Mode No.	Door size applicable(mm)			Door weight (kg)	Standard closing force(N·m)	Spring set system	Top pivot	Max, opening angle
	W	H	D					
<b>AFD-A-8KH</b>	800 (max.)	1,850 (max.)	36 (min)	40 (max.)	6.9	Roll-in system	N-21W	180° right or left one-side opening
<b>AFD-A-8H</b>		2,000		50				
<b>AFD-A-10H</b>	1,000	2,100	85	10.8				
<b>AFD-A-12H</b>	1,200		100	15.7				
<b>AFD-A-14H</b>	1,400		130	19.7				
<b>AFD-A-16H</b>	1,600	2,400	45	160	24.6		N-22W	
<b>AFD-A-18</b>	1,800		50	200	41.2			
<b>AFD-A-22</b>	2,200	240	49.1					
<b>AFD-A-26</b>	2,600	2,600	55	310	60.9		N-23W	
<b>AFD-A-30</b>	3,000			410	68.7			
<b>AFD-A-35A</b>	3,500	2,800	60	650	73.6			

- Note: 1. Difference in opening directions are shown by the symbols, "R" for right-hand door and "L" for left-hand door, suffixed at the end of model number.  
 2. Pre-set type can be used as roll-in system by unwinding the spring.  
 3. Each AUTO HINGE (center hang type) consists of a main body, a receptive base, a top pivot, and a decorated rubber plate.  
 4. Stop mechanism is not built in.  
 5. For selection of a model refer to the [Chart for Applicable Doors] shown below.  
 6. Handling of the fixed type (floor type) receptive base  
 The fixed type (floor type) receptive base is prepared for a place to which the sliding receptive base is not applicable.  
 7. There is a spring winding-window on both sides from AFD-8KH to AFD-16H.  
 8. Main body of AFD-type is same as A-type. (Except top pivot)

## CHART OF APPLICABLE DOORS



## CONSTANT CLOSING SPEED



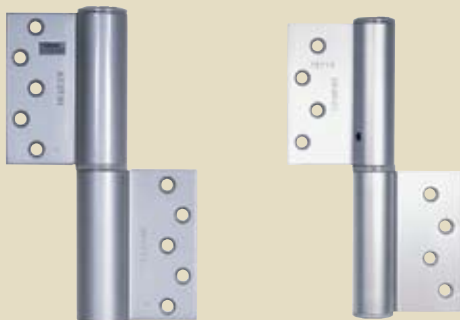
## EXTERNAL DRAWING

External drawing of AFD type is exactly same as W type. (One-touch top pivot is standard)

## OTHER RELATED PRODUCTS (AUTO HINGE)

### FLAG TYPE

- Flag type door closer making a boast of NITTO KOHKI, being easily installed on an arch door, etc.
- Various models according to types and sizes of doors (wooden, aluminum, lightweight steel, steel doors) are available from us.



### FLAG DRIPPROOF CONSTRUCTION TYPE

- Drip-proof design
- Adopts an actuator with unique temperature sensor, thus assuring constant closing speed all the year round.



### BUTTERFLY TYPE

- Small, slim door closer, being most suitable for lightweight doors (for indoor type).
- Easy to install because of having butterfly shape.
- Usable in common for both right- and left-side opening.



### SLIDING CLOSER SYSTEM

- 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

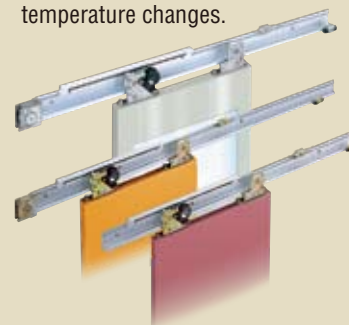
**NSC-C Series**

For Bath

**NSC-CB Series**

Inclined type

**DSC-C Series**



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