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## HORIZONTAL AND VERTICAL PIVOT WINDOWS

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# H11.13 PIVOTS SERIES 490

01.11.2015



## PIVOTS SERIES 490

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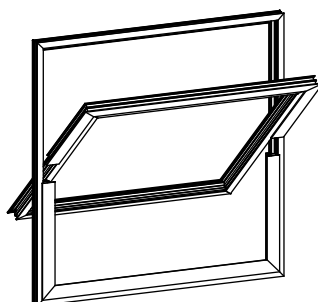
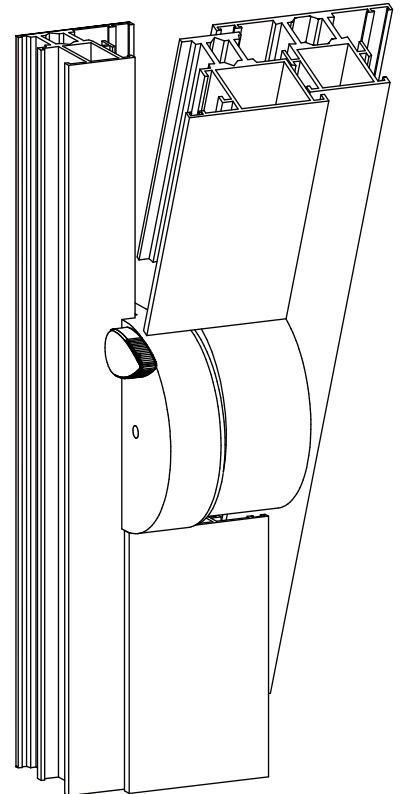
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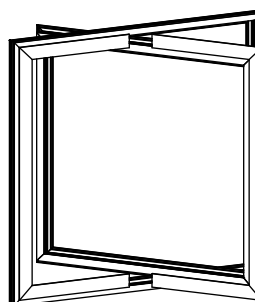
## 1. Characteristics and advantages

### 1.1. General information

- Pivots with integral adjustable friction mechanism, from 0° to 180°.
- Option: all pivots are available with integral restrictor with ventilation stop at 10° or 15° or 22° and reverse stop at 180°:
  - restrictor n° BLOC T-.. and n° BLOC K-.. : fully automatic
  - restrictor n° BLOC V-.. : semi-automatic
- Loose adapter and thickness plates are not used. The vent and frame halves of the pivot are both cast in one piece, in aluminium. The two halves of the pivot are connected together by the friction mechanism and its adjusting screw.
- The Sobinco pivot ensures a smooth and quiet operation because of the plastic bush eliminating metal to metal contact.
- The pivots are demountable or non-demountable. The demountable pivots are supplied with a frame plate which makes it easy to demount the vent, by unscrewing two screws in each pivot.
- Each pivot is cast to the exact shape of the section. Therefore the pivot fits perfectly, enabling quick assembly.
- For new pivots, please submit detailed die drawings (preferably on disc).
- Finish: special high endurance aluminium alloy anodised, coated natural colour or polyester powder coated in more than 450 RAL colours.
- The pivots can be used for both horizontal and vertical pivoting windows:
  - Horizontal: maximum vent weight 180 kg
  - Vertical: maximum vent weight 120 kg
 Note: these weights do not apply on the working of the friction device.



horizontal pivoting  
window



vertical pivoting  
window



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**1.2. Declaration of performance**

- The pivots series 490 are tested in accordance with the European standard EN 13126-9 : 2013 and obtained the following classification code:

**Horizontal pivoting window**

Category of use	Durability	Mass	Fire resistance	Safety	Corrosion resistance	Security	Application part	Test sizes
-	5	90	0	1	3	-	9/1	1600x1400

**Vertical pivoting window**

Category of use	Durability	Mass	Fire resistance	Safety	Corrosion resistance	Security	Application part	Test sizes
-	5	120	0	1	3	-	9/3	1400x1600

- The pivots series 490 are tested in accordance with the European standard EN 13126-5/A1 : 2015 and obtained the following classification code:

**Restrictor V**

Category of use	Durability	Mass	Fire resistance	Safety	Corrosion resistance	Security	Application part	Test sizes
-	5	25	0	3/5 (10°) 3/5 (15°) 2/5 (22°)	3	-	5/6 (10°) 5/6 (15°) 5/4 (22°)	1200x600
-	5	35	0	3/5 (10°) 3/5 (15°) 2/5 (22°)	3	-	5/6 (10°) 5/6 (15°) 5/4 (22°)	1200x900
-	5	45	0	3/5 (10°) 2/5 (15°) 2/5 (22°)	3	-	5/6 (10°) 5/4 (15°) 5/4 (22°)	1200x1200
-	5	65	0	2/5 (10°) 2/5 (15°) 2/5 (22°)	3	-	5/4 (10°) 5/4 (15°) 5/4 (22°)	1200x1800

**Restrictor K and T**

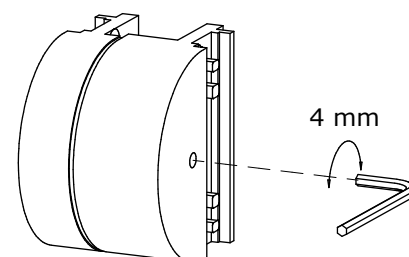
Category of use	Durability	Mass	Fire resistance	Safety	Corrosion resistance	Security	Application part	Test sizes
-	5	25	0	2/5 (10°) 2/5 (15°) 2/5 (22°)	3	-	5/4 (10°) 5/4 (15°) 5/4 (22°)	1200x600
-	5	35	0	2/5 (10°) 2/5 (15°) 2/5 (22°)	3	-	5/4 (10°) 5/4 (15°) 5/4 (22°)	1200x900
-	5	45	0	2/5 (10°) 2/5 (15°) 2/5 (22°)	3	-	5/4 (10°) 5/4 (15°) 5/4 (22°)	1200x1200
-	5	65	0	2/5 (10°) 2/5 (15°) 2/5 (22°)	3	-	5/4 (10°) 5/4 (15°) 5/4 (22°)	1200x1800

Note: the pivots were tested in a window with the Salto perimeter locking sets 4603, 4606 and 4608.



### 1.3. Adjustment of friction device

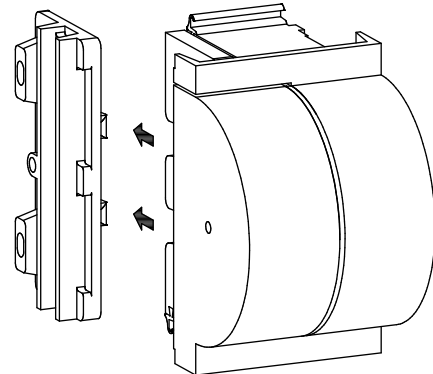
- Powerful integral adjustable friction device that adjusts the opening speed and the operating force of the window. The more the friction is adjusted, the lower the opening speed and the higher the operating force. The necessary friction force to hold open the window in any position between 0° and 180° depends on the profile choice, the dimensions and weight of the window.
- The friction is adjusted by means of a hexagonal spanner of 4 mm through a small hole on the vent side of the pivot (see figure right).
- The adjustment is possible in open as well as in closed positions.
- Procedure: First, tighten the friction up hard on both pivots and rotate the vent several times to bed in the friction. Then slacken off and adjust the friction according to the dimensions and weight of the window.





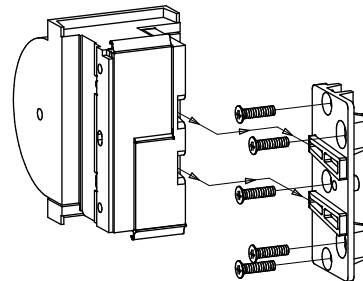
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## 2. Demountable pivots

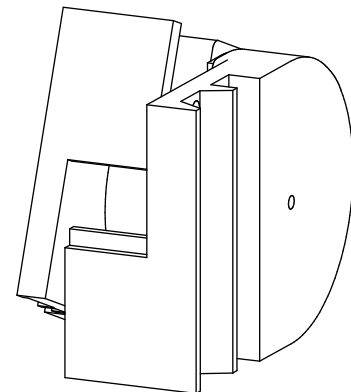


left hand = illustrated  
right hand = opposite view

- If required new pivots can be made demountable.
- These pivots are supplied with a frame plate which makes it easy to demount the vent by unscrewing two screws in each pivot.

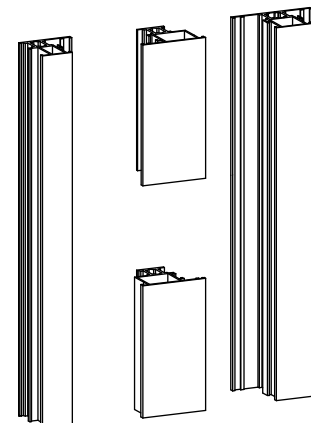


## 3. Pivots with angular legs



left hand = illustrated  
right hand = opposite view

- The pivots have angular legs.
- The advantage of a pivot with angular legs is that the intermediate section can be cut straight (see figure right).

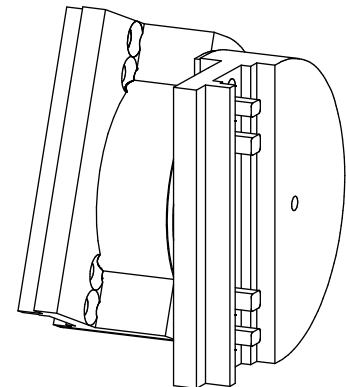




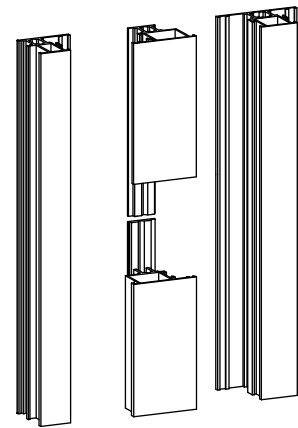
## 4. Pivots with straight legs



left hand = illustrated  
right hand = opposite view



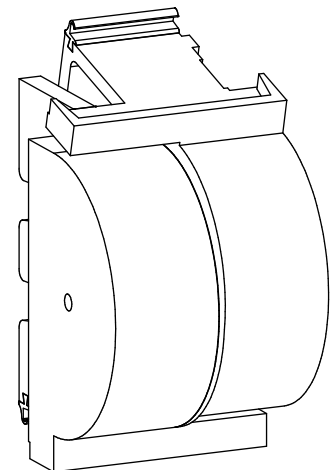
- The pivots have straight legs.
- In case of a pivot with straight legs, the intermediate section may have to be cut out angle-shaped (see figure right). Except where wiper seals are used.



## 5. Pivots with boxed angular legs and skirts



left hand = illustrated  
right hand = opposite view



- The special skirts on the inside of the pivot cover the ends of the intermediate section, leaving a clean finish.
- The skirts in combination with the boxed angular legs with top and bottom seal assure that even if the intermediate section is cut too short (up to maximum 3 mm on both sides) the wind and water tightness is preserved.
- The joint between the boxed legs and the section is sealed with a gasket to prevent wind and water ingress.
- This unique gasketed pivot remains wind and water tight without the use of sealants.

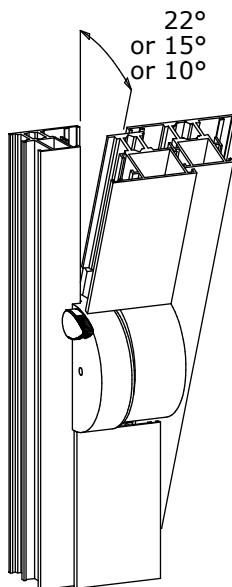


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## 6. Fully automatic restrictor (option)

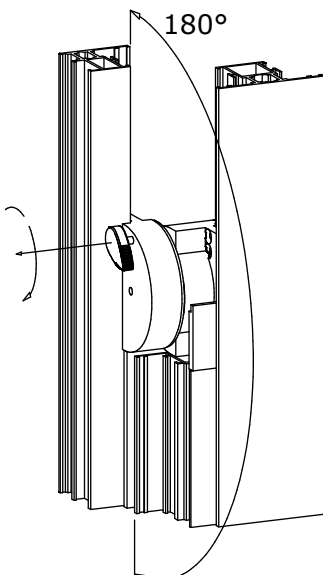
### 6.1. General information

- Most pivots can be provided with an integral fully automatic restrictor n° BLOC T-.. or n° BLOC K-.. . The restrictor has a fully automatic ventilation stop at an angle of 10° or 15° or 22° and a spring loaded reverse stop at 180°.
- The restrictor automatically resets on closing or fully reversing.
- The restrictor in black plastic should always be positioned on the frame side and never on the vent side of the pivot.
- The pivots are supplied with the restrictor-mechanism isolated by means of a plastic clip, in order to avoid damage or misuse during the finishing of the building. At the final 'hand over' of the building, the clip must be removed.
- Generally one pivot, usually the left one, is supplied with a restrictor. For large and heavy windows we recommend to order both pivots with a restrictor.
- The restrictor is optional. So when ordering please indicate type of restrictor, degree of ventilation stop and quantity of left hand and/or right hand restricted pivots.



### 6.2. Ventilation stop at 10° or 15° or 22°

- Advantages:
  - Safety: In schools, hospitals and other buildings it may be desirable that the windows do not open further.
  - Aesthetic: In large buildings all windows are in an identical opening degree for ventilation.
- In the normal position of the restrictor, the window can only be opened to the ventilation position. When you turn the button 45° in the direction of the arrow, the window can be opened further up to 180°. At this position a reverse stop is engaged.



### 6.3. Reverse stop at 180°

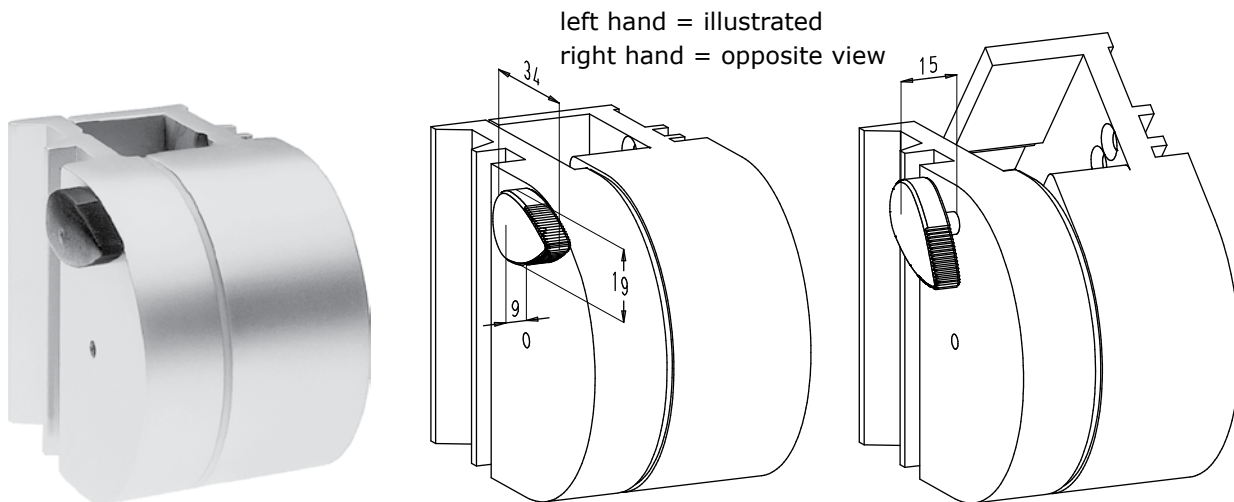
- Advantage: At 180° the spring-loaded reverse stop locks the window automatically providing safety when cleaning. In many countries this is required in most public buildings.
- The window is in a safe cleaning position. After cleaning the window, turn the button in the indicated direction to put the window in closed or ventilation position.





### 6.4. Restrictor n° BLOC T-..

- For ease of use: to release the restrictor simply push down the oval operating knob.



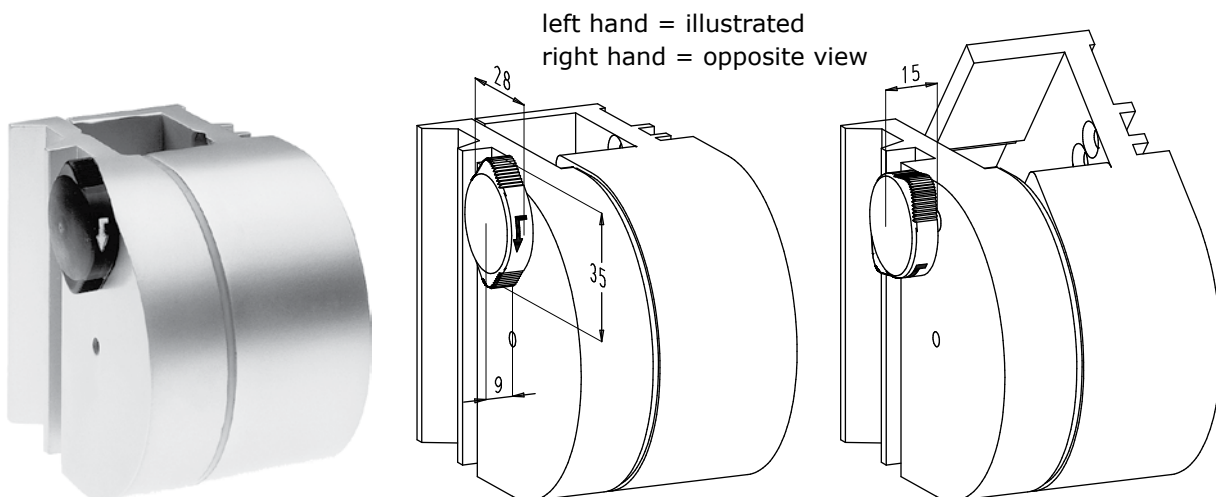
Order code	Ventilation stop	Reverse stop
BLOC T-10	10°	180°
BLOC T-15	15°	180°
BLOC T-22	22°	180°

Projection of operating button between 0° and ventilation stop

Projection of operating button between ventilation stop and 180°

### 6.5. Restrictor n° BLOC K-..

- The restrictor is designed with safety in mind. To release the restrictor two operations are necessary: pull out and then turn the round operating button (see arrow).



Order code	Ventilation stop	Reverse stop
BLOC K-10	10°	180°
BLOC K-15	15°	180°
BLOC K-22	22°	180°

Projection of operating button between 0° and ventilation stop

Projection of operating button between ventilation stop and 180°

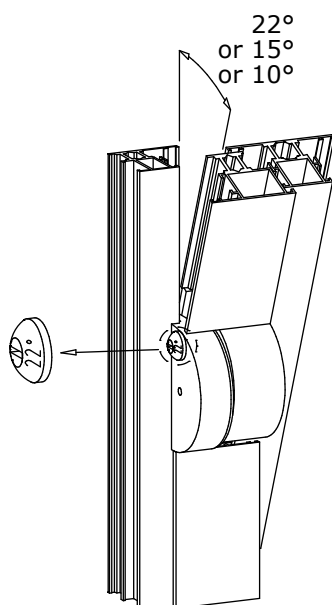


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## 7. Semi-automatic restrictor (option)

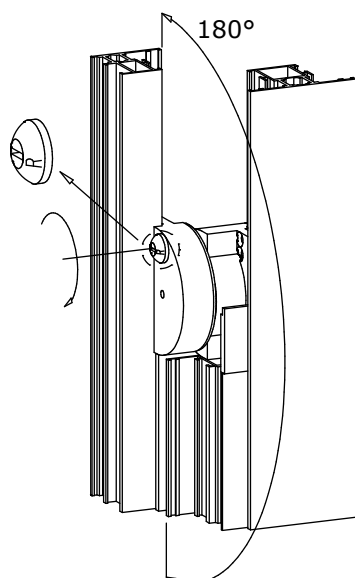
### 7.1. General information

- Tool operated for approved users only.
- Most pivots can be provided with an integral semi-automatic restrictor n° BLOC V-... . The restrictor has a ventilation stop at an angle of 10° or 15° or 22° and a spring loaded reverse stop at 180°.
- The restrictor and reverse lock only automatically reset on full reversal of window.
- The restrictor should always be positioned on the frame side and never on the vent side of the pivot.
- The pivots are supplied with the restrictor-mechanism isolated by means of a plastic clip, in order to avoid damage or misuse during the finishing of the building. At the final 'hand over' of the building, the clip must be removed.
- Generally one pivot, usually the left one, is supplied with a restrictor. For large and heavy windows we recommend to supply both pivots with a restrictor.
- The restrictor is optional. So when ordering please indicate type of restrictor, degree of ventilation stop and quantity of left hand and/or right hand restricted pivots.



### 7.2. Ventilation stop at 10° or 15° or 22°

- Advantages:
  - Safety: In schools, hospitals and other buildings it may be desirable that the windows do not open further.
  - Aesthetic: In large buildings all windows are in an identical opening degree for ventilation.
- With the knob in flush position and the angle indication visible, the window can only be opened up to ventilation position. When you turn the button, the character 'R' (Reverse position) becomes visible and the window can be opened further up to 180°. At this position a reverse stop is engaged.



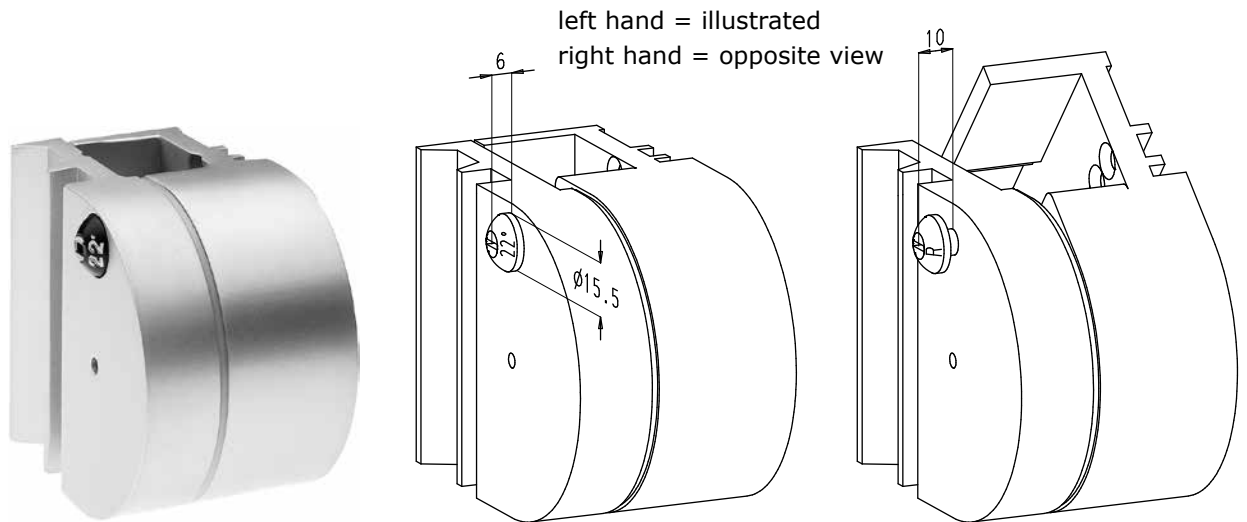
### 7.3. Reverse stop at 180°

- Advantage: At 180° the spring-loaded reverse stop locks the window automatically providing safety when cleaning. In many countries this is required in most public buildings.
- The window is in a safe cleaning position when at 180°, the knob is in flush position and the indication 'R' is visible. After cleaning the window, turn the button so that the restriction angle becomes visible and put the window in closed or ventilation position.



### 7.4. Restrictor n° BLOC V-..

- A tool operated restrictor.
- The restrictor can be released by using a special tool n° 490V.



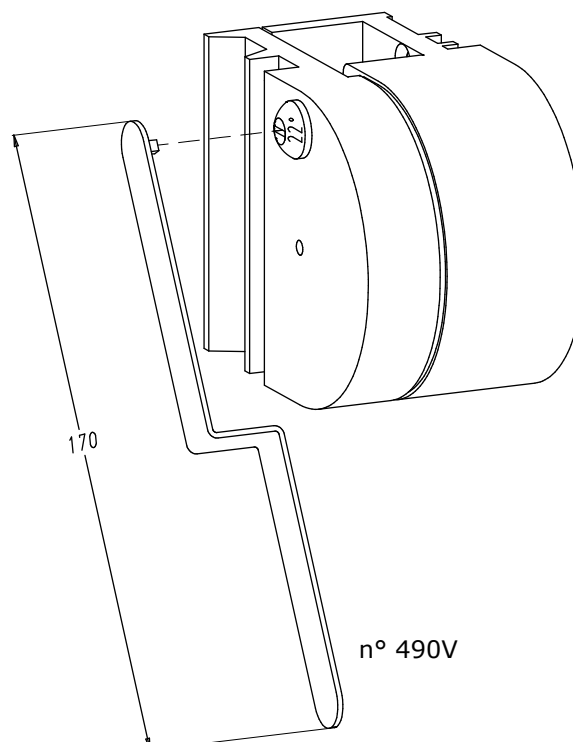
Order code	Ventilation stop	Reverse stop
BLOC V-10	10°	180°
BLOC V-15	15°	180°
BLOC V-22	22°	180°

Projection of operating button between 0° and ventilation stop

Projection of operating button between ventilation stop and 180°

### 7.5. Special tool n° 490V

- The special tool for restrictor n° BLOC V-.. must be ordered separately.

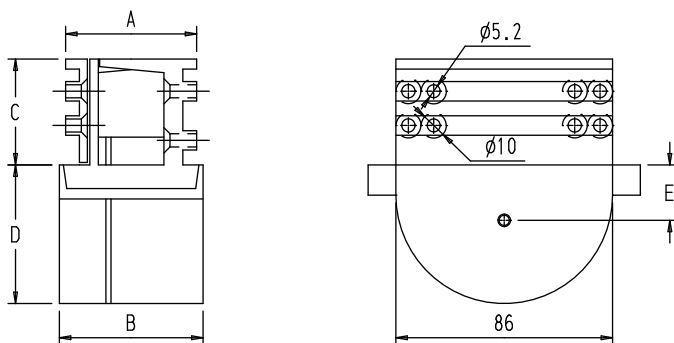




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## 8. Most important dimensions

### 8.1. Demountable pivots



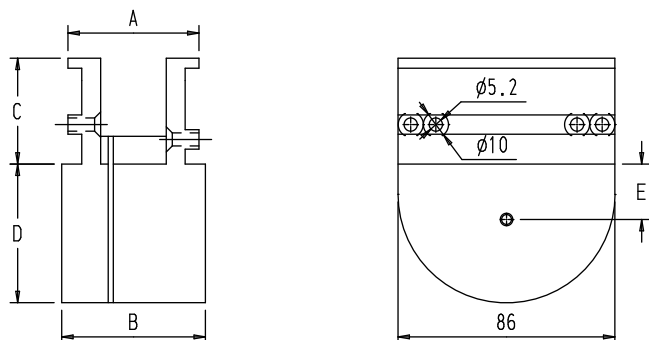
A = Width inside the sections  
 B = Visible width  
 C = Depth inside part  
 D = Depth outside part  
 E = Distance between turning point and section surface

left hand = illustrated  
 right hand = opposite view

Order code	A mm	B mm	C mm	D mm	E mm	Manufacturer section	Section series
490-96B	44	40	35	48	15	Wood	
490-169	57	69	43	60.6	27.6	Rehau	Serie 60
490-169B	55	69	43	60.6	27.6	Rehau	Serie 70
490-172	47	69	41.6	62	29	Veka	

And many others ...

### 8.2. Pivots with straight legs



A = Width inside the sections  
 B = Visible width  
 C = Depth inside part  
 D = Depth outside part  
 E = Distance between turning point and section surface

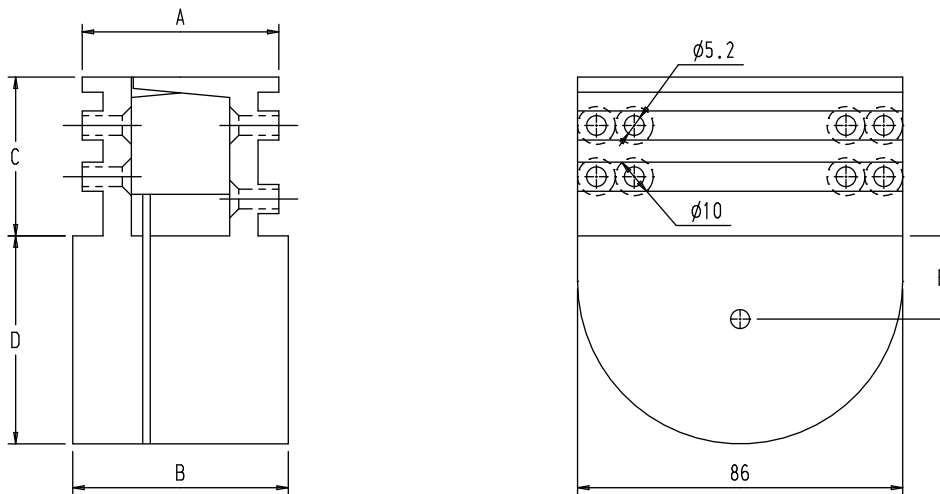
left hand = illustrated  
 right hand = opposite view

Order code	A mm	B mm	C mm	D mm	E mm	Manufacturer section	Section series	Section numbers
490-10E	50	54	31.5	46	15	Van Beveren	Isomer	IS01 + IS08 + IS06
490-82	59	61	26.5	48	15	Reynaers	TS50	033136 + 033122 + 033120
490-88	28	37	23	46	15	miscellaneous		
490-136	58.7	62.3	19.7	61	28	Van Beveren	Top200	02304 + 02315 + 02300
490-138	58.5	61	24.5	46	15	Sapa	RC 60	89100 + 892951 + 891200
490-163	67.5	74	26.7	57	24	FAL	Profel P-600	
490-164	54.1	61	33.5	44	13	Heroal		6422 + 6406 + 6407
490-168	58	59	23.1	48.7	15.7	Ajax		
490-179	58.5	61	24.5	46	13	Agrisovgaz		

And many others ...



### 8.3. Pivots with angular legs



A = Width inside the sections

B = Visible width

C = Depth inside part

D = Depth outside part

E = Distance between turning point and section surface

left hand = illustrated

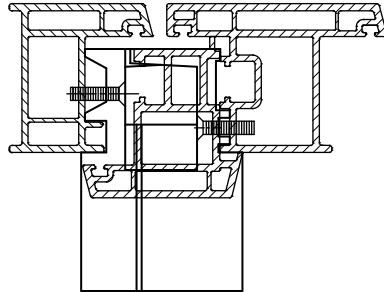
right hand = opposite view

Order code	A mm	B mm	C mm	D mm	E mm	Manufacturer section	Section series	Section numbers
490-5D	40	46	42	46	15	Wicona	T 8500	126T1 + AR6417 + 131T1
490-5F	53	53	27.5	59	26	Wicona	TC2000	
490-95	42	65	36	48	15	Janssens	Serie 40	
490-97B	53	64	44	55	22	Deceuninck	400-800	P852 + P403 + P813
490-104	52	57	42	55	22	Kömmerling		SP865 + SP1108 + SP1107
490-104B	41.5	57	42	55	22	Kömmerling		
490-105B	56.4	64.5	44	55	22	Profialis	Serie 60	P103B + P212 + P207
490-105C	45	64	46	53	20	Gealan		
490-108	47.5	57	42	55	22	Edil		P1320 + P1180 + P1178
490-113	36	40	42.5	48	15	Alcoa		
490-116	66.5	76	45	55	22	Trocal	Serie 900	
490-120B	55	62	45	55	22	Plus Plan		
490-125	53	56	35.5	48	15	Indalex		
490-128	42	54	43.5	48	15	Kaye		
490-146	47	63	42	55	22	Veka		
490-148	53	64	45.5	55	22	Deceuninck	400-800	P852 + P400 + P812
490-151	54.3	68	42	57	24	Veka		101019 + 102020 + 102019
490-151B	52.7	68	42	57	24	Veka		
490-165	53.7	64	41	55	22	Deceuninck	Mondial	2001 + 2040 + 2023
490-166	53	67.5	44	55	22	Rehau	S730	
490-167	52	64	45.5	55	22	Profialis	2000	
490-170	56.1	65	45.5	56	23	KBE		707 + 734 + 511
490-171	59.6	61	42.5	57.5	24.5	Sapa	Excellence65	38K01 + 76V01 + 38K23
490-173	49.7	62	51	55	22	Plus Plan		
490-176	49.6	52	37.6	55	22	Metal Technology		
490-188	46.8	64	48	52	19	WHS	Halo	

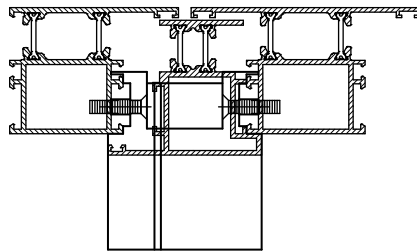
And many others ...



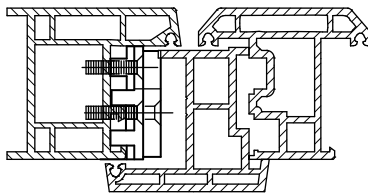
## 9. Installation examples



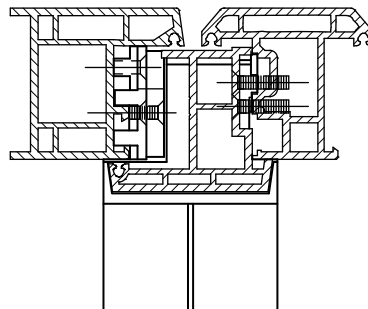
Left hand pivot with angular legs in PVC section.



Left hand pivot with straight legs in aluminium section.



Installation fixing piece



Left hand demountable pivot with angular legs in PVC section.