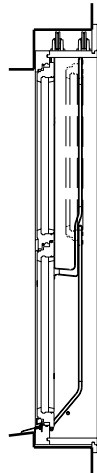
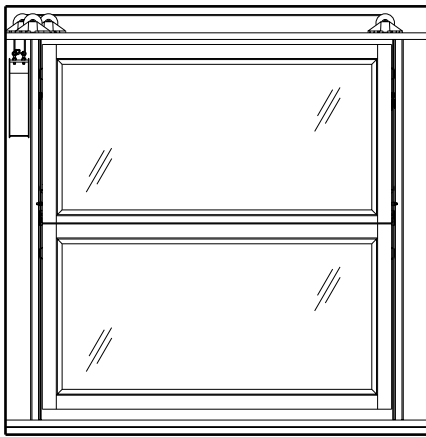


**Hardware system for vertically sliding windows weighing up to 150 kg (330 lbs.).**



**Description**

Each sliding panel is guided laterally in plastic tracks and is equipped with a counterweight which moves on one side behind the window jamb. The counterweight has to be supplied by a contractor to suit the panel weight, and the panel is locked using a standard central locking device.

The cable length of 8 m (26'2 <sup>61</sup>/<sub>64</sub>" ) is designed for the following dimensions:

Window height up to 900 mm (2'11 <sup>7</sup>/<sub>16</sub>" ),  
 maximum window width 3200 mm (10'6" ) or  
 window height up to 1200 mm (3'11 <sup>1</sup>/<sub>4</sub>" ),  
 maximum window width 2000 mm (6'6 <sup>3</sup>/<sub>4</sub>" ).

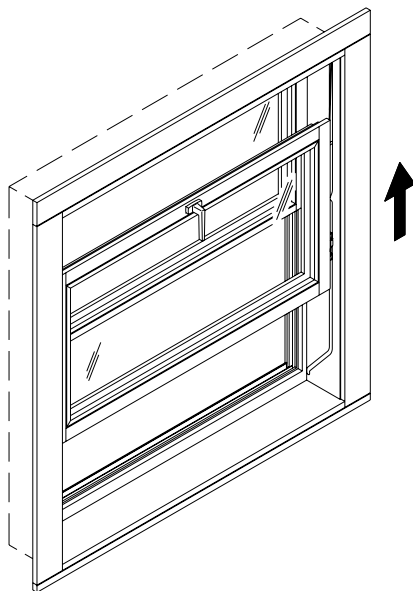
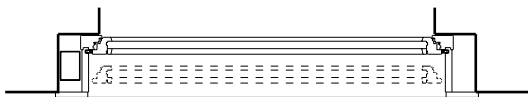
For larger panels, the cable must be ordered separately.  
 (→ calculation for the cable length)

**Features of the Hawa Vertical 150**

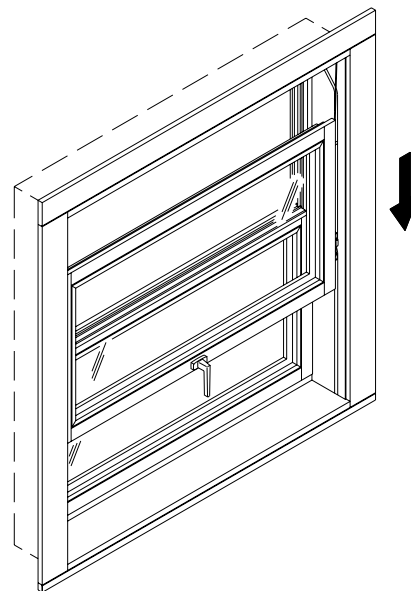
- One sliding panel
- White, black or brown plastic guide profiles
- Smooth sliding properties
- Maintenance-free
- Mortising of guide channel with all-purpose mortising template
- Standard window and frame rebates

**Ventilation**

To permit additional ventilation, the upper panel (Hawa Vertical 150/3) can be fitted with a standard tilting window mechanism.



Hawa Vertical 150/3















Hawa Vertical 150/5

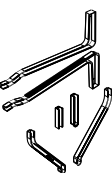
**Set**

	panel	code
Hawa Vertical 150/3, 150/5 Partial set, without guide channels	1	20915




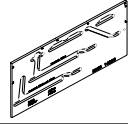

**Set comprising**

	pieces	code	
 Cable retainer, complete	2	20914	
 Edge fixed guide bracket	2	20913	
 Safety pin	2	20912	
 Pulley block, alu	3	10527	
 Plastic wheel with ball bearings, Ø 70 mm (2 $\frac{3}{4}$ " )	3	10764	
 Cable 4 mm ( $\frac{5}{16}$ " ), unit 8 m (26'2 $\frac{11}{16}$ " )	1	10575	
 Self-adhesive rubber spacer	brown	2	10650
	white	2	10651
 Set of eye bolt and cable clamp for counterweight	1	10797	
 Set of screws for particle board	1	20911	
 Track deadbolt lock, steel galvanized, deadbolt 8 mm ( $\frac{5}{16}$ " )	2	20899	
 Set of 2 pieces press fit roses, brass dull nickel finish	1	13926	
 Panel bracket with wheel	2	14465	

**Set of guide channels to Hawa Vertical 150/3 and 150/5**

	code	
 Set of guide channels, plastic for code 20915	brown	10322
	black	17135
	white	10324

**Accessories**

		code
 Middle part of guide channel, 600 mm (1'11 $\frac{5}{8}$ " ) plastic	brown	10566
	black	17140
	white	10580
 Cable 4 mm ( $\frac{5}{16}$ " ) cut to size		10531
 Key for deadbolt lock		10723
 All-purpose mortising template		14399
 Drilling jig for edge fixed guide bracket		12909

The hardware system components are supplied for a maximum window height of 1200 mm (3'11 $\frac{1}{4}$ " ). To accommodate panels of a greater height, additional guide channels have to be ordered: 10566/600 mm (1'11 $\frac{5}{8}$ " ) brown, 17140/600 mm (1'11 $\frac{5}{8}$ " ) black, or 10580/600 mm (1'11 $\frac{5}{8}$ " ), white.

**Calculation for the cable length**

Length of cable = 2 x H + 1 x W + 1000 mm (3'3 $\frac{3}{8}$ " )

**Order specifications**

Order specifications for panels larger than 900 mm x 3200 mm (2'11 $\frac{7}{16}$ " x 10'6" ), or 1200 mm x 2000 mm (3'11 $\frac{1}{4}$ " x 6'6 $\frac{3}{4}$ " ):

- Height of sliding panel
- Jamb inside dimension
- Quantity of hardware sets
- Quantity and type of guide channels
- Quantity and type of accessories

**Planning/installation**

For planning and installation purposes, please use the installation drawing code 20463. (→ [www.hawa.ch](http://www.hawa.ch) → Hawa Productfinder)