

# The PRIMAT-Programme

Perfect hardware for fanlights



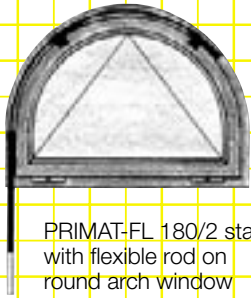
for windows in timber, PVC-U and metal

**HAUTAU**

QUALITÄTSBESCHLÄGE

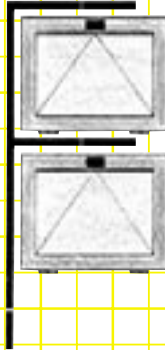


# PRIMAT - Solutions for any problem

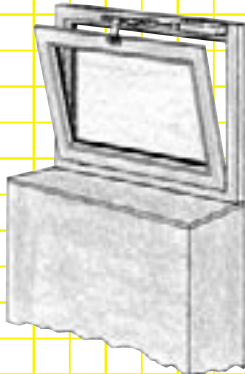
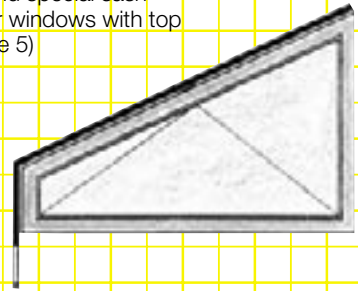


PRIMAT-FL 180/2 stays with flexible rod on round arch window (page 7)

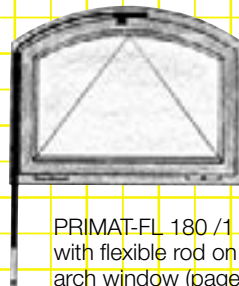
PRIMAT-FL 180 with chain guide for double-sash bottom-hung windows on top of each other (page 9)



PRIMAT-FL 180 with 2 extra lockings and special sash bracket for windows with top bevel (page 5)

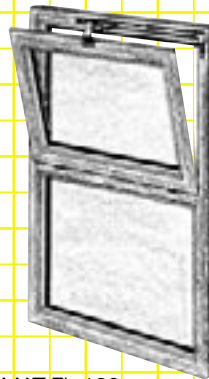
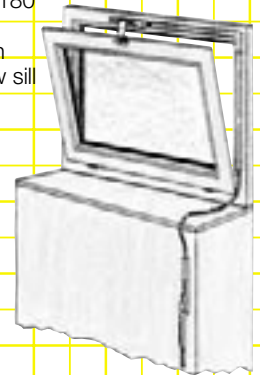


PRIMAT-FL 180 with electric drive on top of a window with sill (page 12)

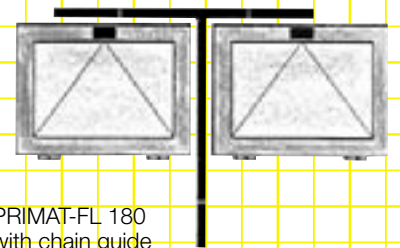


PRIMAT-FL 180 /1 stay with flexible rod on a flat arch window (page 7)

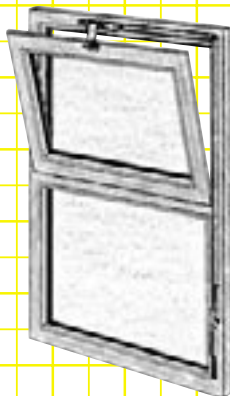
PRIMAT-FL 180 with flexible transmission over window sill (page 9)



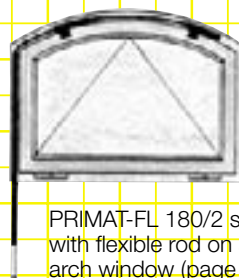
PRIMAT-FL 180 with spindle gear 200 WA (page 10)



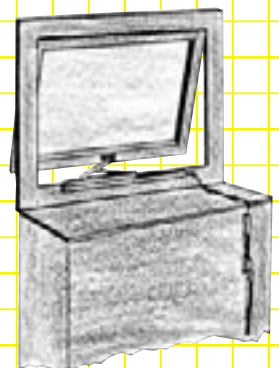
PRIMAT-FL 180 with chain guide for double-sash bottom-hung windows next to each other (page 9)



PRIMAT-FL 180 with lever handle (page 3)



PRIMAT-FL 180/2 stays with flexible rod on a flat arch window (page 7)



PRIMAT-A with flexible transmission over window sill (page 9)



# Extra lockings for high sashes

## Extra locking ZV/S



### Advantages

- Extra locking laterally mounted on the rods, especially for high sashes
- Increased security by further locking points.
- High density and contact pressure against driving rain and wind pressure.

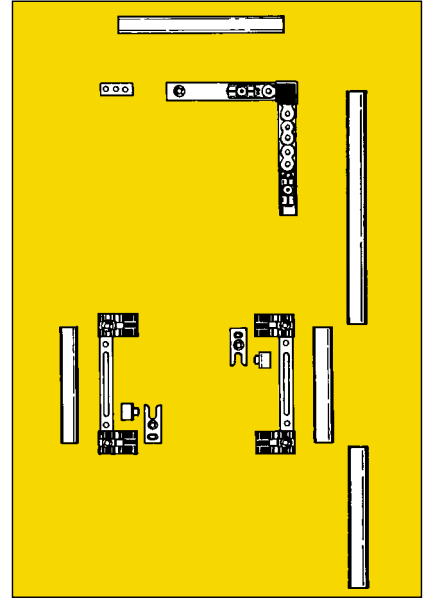
### Applications

For bottom-hung inward opening windows in timber, PVC-U and metal (on request).

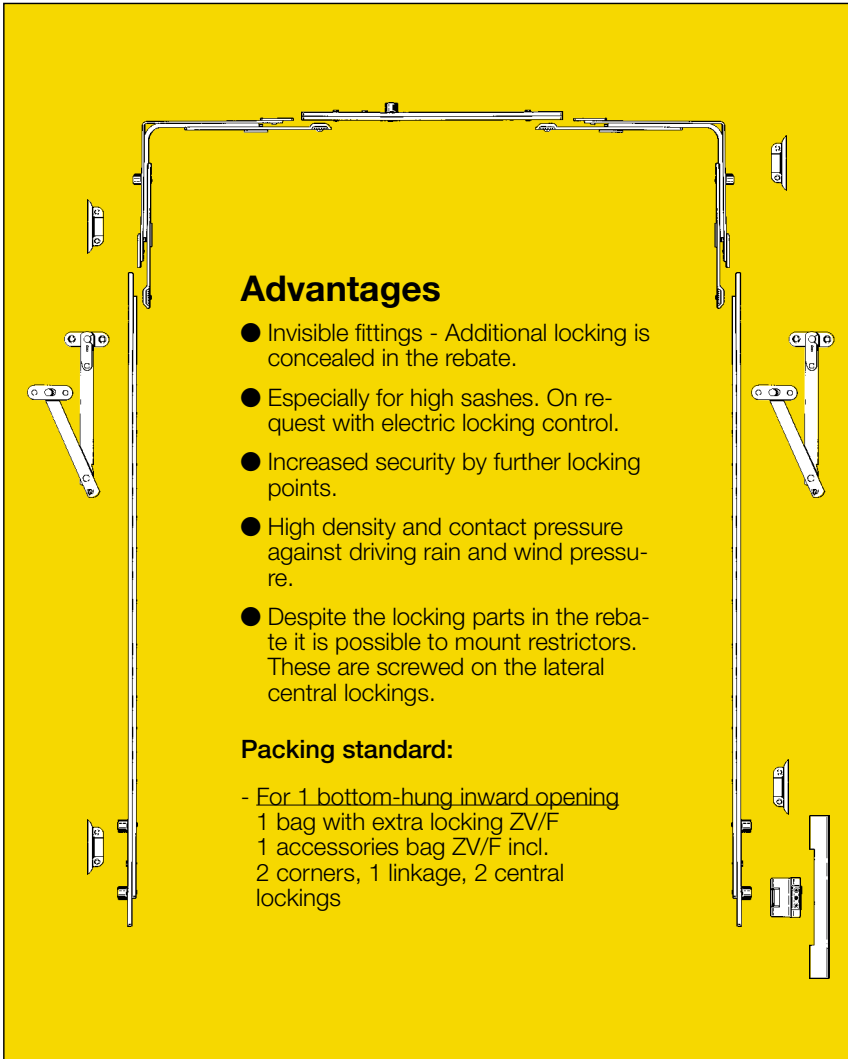
Space required: 24 mm.

#### Packing standard:

- For 1 bottom-hung inward opening  
2 bags with extra locking ZV/S  
1 bag with chain guide exec.: K
- For 1 bottom-hung inward opening  
bevelled windows  
1 bag with extra locking ZV/S



## Extra locking ZV/F

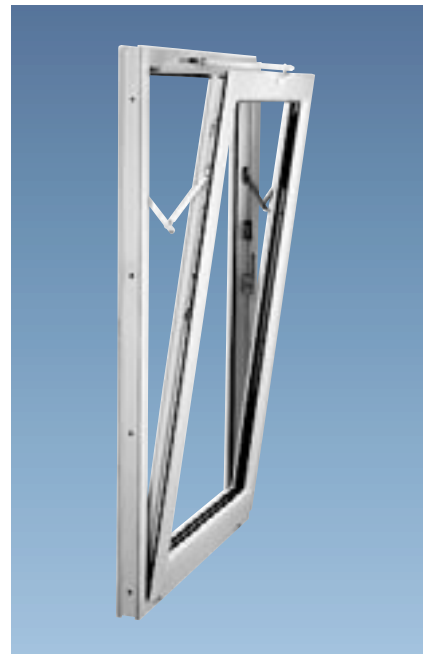


### Applications

For bottom-hung inward opening windows in timber, PVC-U and metal.

Space required: Dependent on the profile system 22-26 mm, rebate depth min. 25mm, Fittings cavity min. 12 mm.

Also available for other locking systems.



# Windows with top bevel

Flexible corner for windows with top bevel of 60° to 150°

PRIMAT-FL 180/1S with angle sash bracket AS 0-25

PRIMAT-FL 180/1S with additional locking and angle sash bracket AS 0-25

Angle sash bracket AS 0-25 for timber, PVC-U and metal windows, sash overrebate 0-25 mm

Sash bracket AS 14-22 for timber and PVC-U windows, sash overrebate 14-22 mm

PRIMAT - FL 180/1S with 2 central lockings and sash bracket AS14-22

## Flexible corner

- Corrosion-free spring-hinge corner
- Stroke max. 60 mm
- Rod is clamped into the coupling bushes
- Available for bevel windows for standing bevelling max. 150° for acute angle min 60°.



## Sash brackets for bevel windows

Bevel max. 135°

Minimum-mounting height for sash bracket:

150 mm	36 mm stroke
250 mm	55 mm stroke

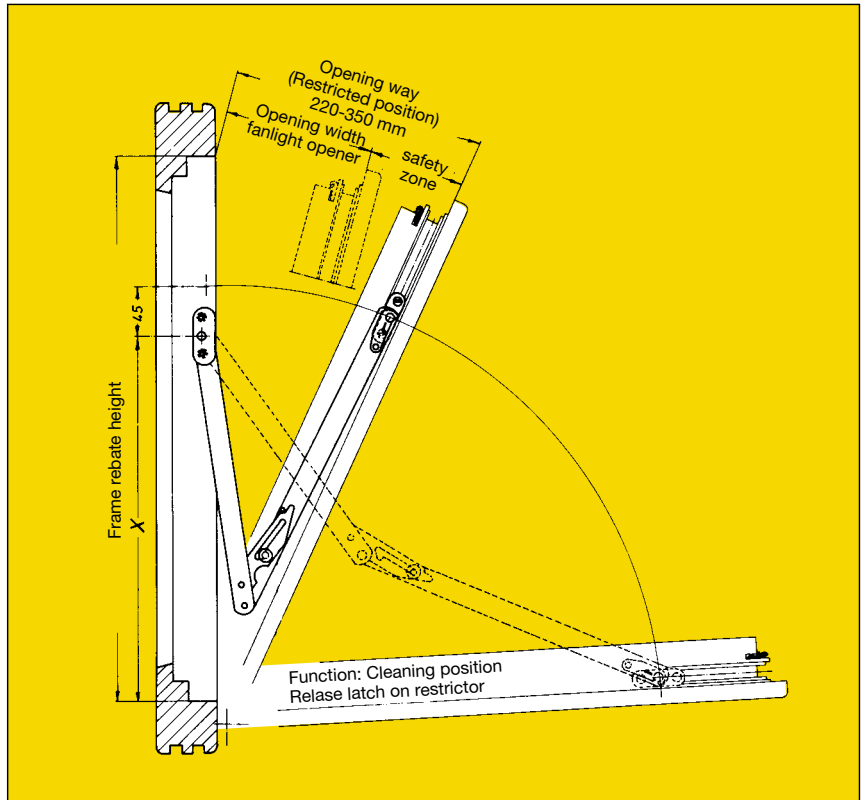
sash width

max. 1200 mm -	1 stay
max. 1600 mm -	1 stay with 1 extra locking
max. 2000 mm -	1 stay with 2 extra lockings

The sash contact pressure is directly adjustable with an Allen key. A swivel cam enables the full opening width of 180 mm.

# KSP-restrictor for fanlight openers

Regarding the product liability, hardware manufacturers lay down restrictors besides the fanlight hardware. **HAUTAU** supplies restrictors, rebate restrictors and especially the safety and cleaning restrictor KSP for extra security.



## Advantages

- When releasing fanlight opener bracket for cleaning of outside glass, the KSP-restrictor holds the window in tilt position. Getting the window into fully opened position is now done by easy and controlled release of both KSP-restrictors by means of intergrated latches. After cleaning, the window is pushed back up until both KSP-restrictors automatically engage. Reconnecting for light opener bracket can be done easily and securely.
- Restrictor prevents a bottom-hung window from falling in when opened, especially when cleaned. Opening angle of KSP-restrictor is slightly bigger than that of the fanlight opener.
- **Automatic security.**
- **Easy handling.**

- **Reliable technics:**  
A special stay design perfectly holds the sash near the gravity centre.
- **Extra solid execution:**  
Steel material. Frame-screw plate with mounting cam for strong fixing. Clamp sash bracket for metal window fitting to the profile series.
- **Separate mounting** of sash and frame possible: Stay arm can be released from sash screw plate
- **Economic storekeeping:**  
Only 2 restrictor sizes for frame rebate height up to 1200 mm.

## Applications

For timber, PVC-U and metal windows in conjunction with bottom hung fanlight-openers; later fitting also possible.

**Frame rebate height**  
Size 1 = 300 - 500 mm  
Size 2 = 500 - 1200 mm

If height between 800 and 1200 mm, the restrictor is mounted at 500 mm. Aperture angle in cleaning position is then approx 60°.

**Max. sash weight** 120 kg using 2 stays  
(Drop weight 40 kg)

**Assembly dimensions:** Rebate depth 18 mm. Fitting cavity 11 mm. Fittings groove for sash screw plate 16 mm.

**Opening way** in safe - position: approx. 220-350 mm.

**Aperture angle** in cleaning position: approx. 60°-90° (dependent on frame rebate height).

Applications				
Frame rebate height mm	Restrictor-size	Dim.x mm	Opening way in safe position	Opening width in cleaning position
300 - 350	1	210	ca. 220 - 255	ca. 86°
350 - 400	1	250	ca. 220 - 255	ca. 73°
400 - 500	1	290	ca. 220 - 270	ca. 62°
500 - 600	2	320	ca. 220 - 255	ca. 90°
600 - 700	2	370	ca. 220 - 255	ca. 80°
700 - 800	2	440	ca. 220 - 250	ca. 68°
800 - 1200	2	500	ca. 230 - 350	ca. 60°



# Flexible rods for round- and flat arch windows

## Elegant for individual window designs

### Advantages

- Improved execution: Elegant and safe. Loading capacity on pressure max. 600 N, on traction max. 1000N.
- Finish: grey, white and black
- Easy running, also for small radius.
- Packing unit incl. accessories, no further parts for flat arch required.
- Individually adjustable.



### PRIMAT-FL 180 with flexible rods

Flat fanlight-opener with flexible rods for vertically fitted bottom-hung inward opening sashes as round - and flat arch windows. LH and RH usage for timber, PVC-U and metal windows.

#### Packing standard:

1. Additional carton PRIMAT-FL 180 with 1 stay.  
Finish: EV1, white, dark brown, black and medium bronze.
2. Aluminium lever handle  
Finish: EV1, white, dark brown, black and medium bronze.
3. Rod 8 mm Ø
4. Aluminium cover profile PRIMAT-FL 180.  
Finish: EV1, white, dark brown, black and medium bronze.
5. Flexible rods  
Finish: grey, white and black



### Applications

For 1-stay and 2-stay installation  
Mounting plan: No. 3/632 and 3/706

Sash weight max. 80 kg.

Glazing weight max. 30kg/m<sup>2</sup>.

Stroke: 55mm.

Sash height min. 250 mm.

Sash width

Flat arch, 1 stay

Sash width B 500-1300 mm

Round arch, 1 stay

Sash width B mm	Flex. rod mm
850	700
1200	1000
1300	1250

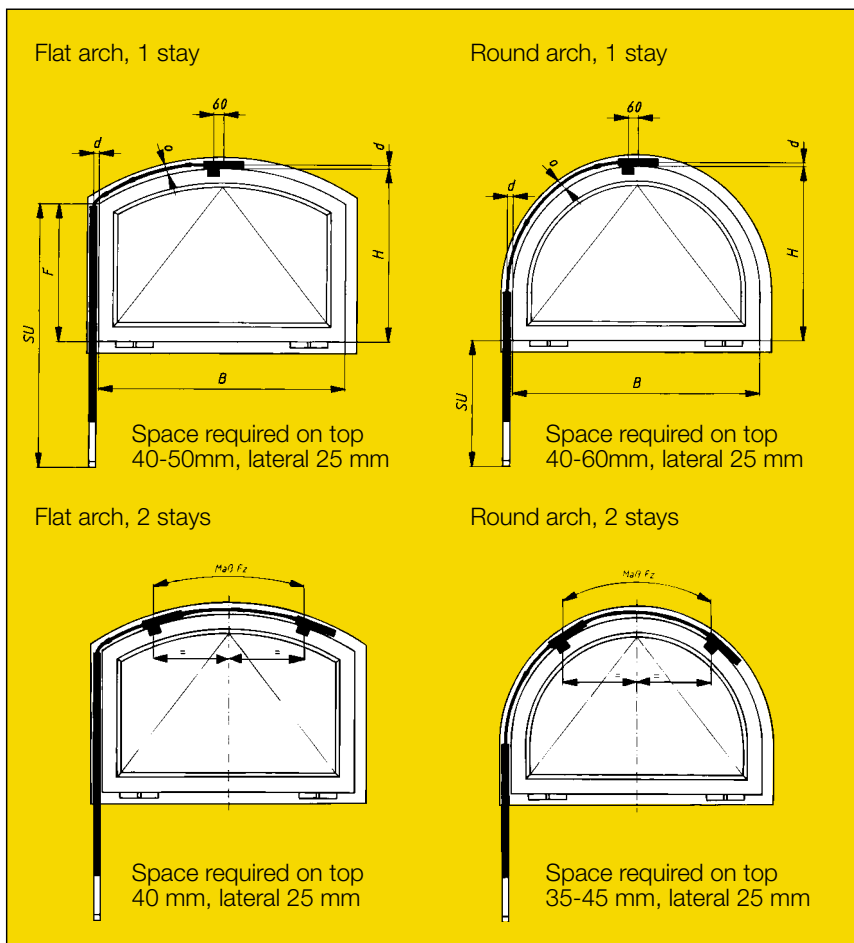
Flat arch, 2 stays

Sash width B mm	Flex. rod mm	Dim. FZ mm
1200-1500	700 + 400	690
1501-1800	700 + 700	990
1801-2100	700 + 1000	1290
2101-2400	700 + 1250	1540

Round arch, 2 stays

Sash width B mm	Flex. rod mm	Dim. FZ mm
1200-1400	700 + 400	690
1401-1600	1000 + 400	690
1601-2000	1000 + 700	990

**Attention:** Use exclusively sash bracket AS 0-25 (for bevel windows) with 2-stay installations.



# Flat type opener PRIMAT-A

## Elegant. Functional-safety.



### Applications:

For outward opening.

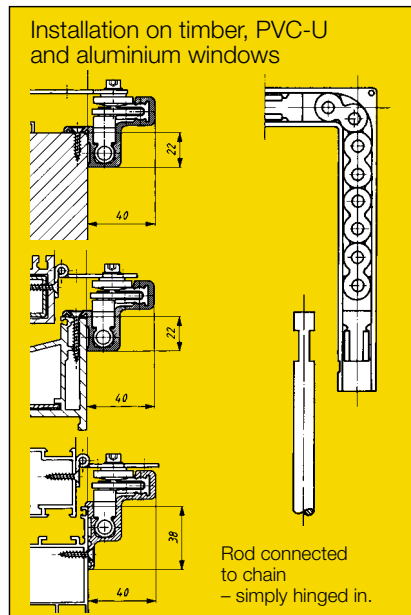
sash width  
 min. 360 mm  
 max. 1000 mm - 1 scissor stay  
 max. 2000 mm - 2 scissor stays  
 max. 3000 mm - 3 scissor stays

glazing weight\* max. 30 kg/m<sup>2</sup>  
 \*weight by 1 mm thickness per m<sup>2</sup> ~ 2,5 kg/m<sup>2</sup>

sash height	space requirements	stroke
off 150 mm	22 mm	36 mm
off 250 mm*	22 mm	55 mm

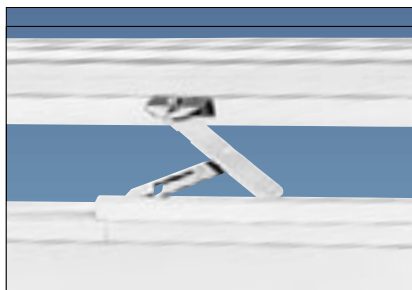
\*standard execution

Sash weight: max. 80 kg.



### Advantages

- **Softline design:** elegant appearance, modern flat construction (Control rod, cover profile and handle out of the PRIMAT-FL 180 programme).
- **Wide adjustable opening:** 130 to max. 170 mm
- Rod connected to chain, **no screws**, no clamping - rod only hinged into position.  
**Control rods fully covered.**
- Three types of **sash brackets**: for **sash recesses** 0 - 25, 26 - 50 and 51 - 75 mm. Sash bracket screwed self-locking to the stay arm. Sash pressure adjustable.
- **Visible parts made of aluminium** (handle, cover profile, stay holder and stay arm), functional parts of the stay and sash bracket made of stainless steel.
- **No mitre cuts:** aluminium cover profile with straight cut and cover caps on chain guide.
- **Easy Fitting:** Stays and control rods can be fitted from the front. Stays held by clamping screw in stay holder. Easy changing of the stay from LH to RH fixing. Delivery form: LH fixing.
- **Operation:** by lever handle, pivoted lever, lever with transmission, spindle drive, electric drives SM 120/E.
- Covered fixing screws (exception: recess less 15 mm). Lever base and chain guide have also fitting pins.
- Sturdy, elegant lever handle. All functional parts are covered.
- PVC-rod guide
- Drilling jig for easy, quick mounting.

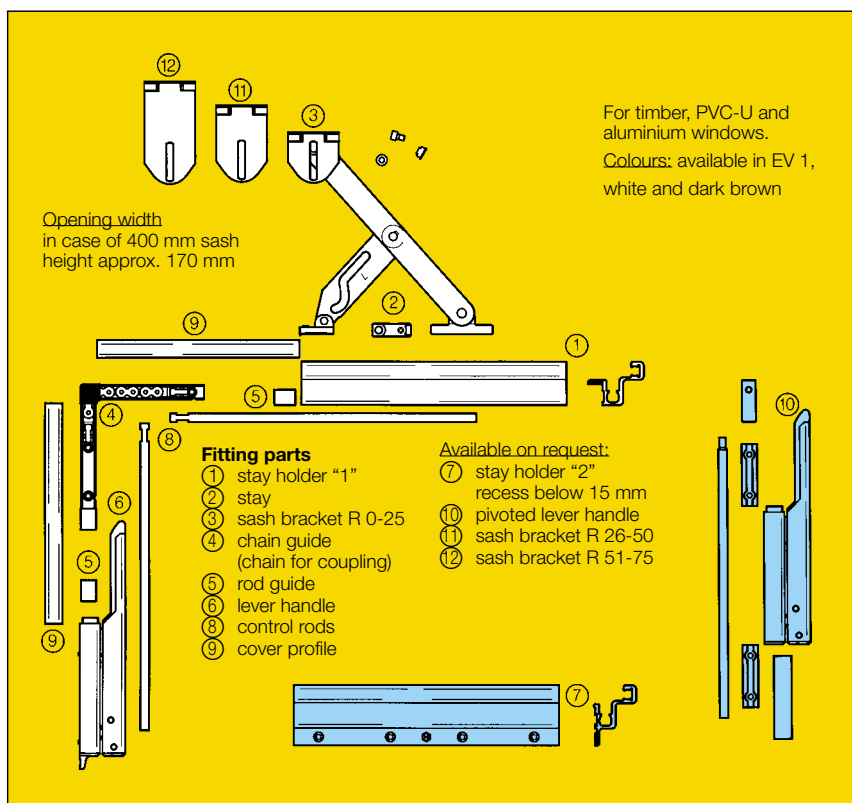


### Stock lengths

Control rods = 1000, 2000, 2500 and 3000 mm,  
 cover profile = 2000, 3000, 6000 mm.

#### Packaging standard:

1. Basic carton for 1 stay
  2. Additional carton for further stays
  3. Control rods and cover profile
- Available in EV1 (silver colored), white, and dark brown.



# Flexible transmission for individual window-designs

## Characteristics:

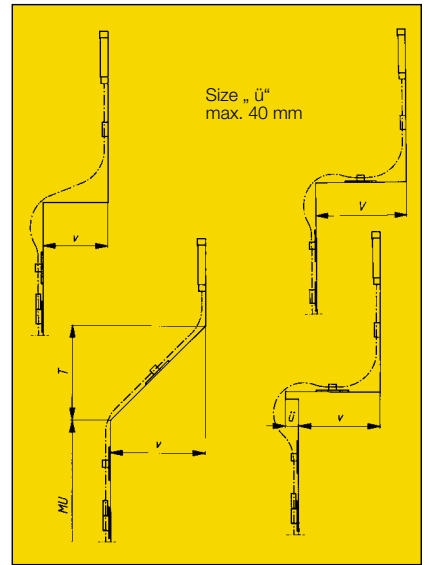
- Simple, adjustable transmission for fanlight openers with lever handle.
- Finish: grey, white and black
- No cranks.
- No transmission angles.
- Quick and easy assembly.

## Applications

Linkage length	„Dim v“
700 mm	0 – 400 mm
1000 mm	0 – 700 mm
1250 mm	0 – 950 mm

- for 1- and 2-stay windows
- max. glazing weight 30 kg/m<sup>2</sup>
- not to use with spindle gear or electric drive

Mounting Plan No. 3/629



# Chain guide for double-sash windows

## Type: f

**Two 1-stay sashes on top of each other**  
other Handle position RH or LH

Sash width (for each sash):  
PRIMAT-FL 180 max. 1200 mm  
PRIMAT-A max. 1000 mm

LH and RH operation by turning the chain. Control rod with lever handle to be hung in (Clamping bush to the top).

Space required for PRIMAT-FL 180  
Handle side at the top and between the sashes\*:  
22 mm  
\*Dimension between hinges of the top window and top edge of the bottom one.

Space required for PRIMAT-A  
Handle side and bottom:  
22 mm between the sashes\*:  
stay holder 1 22 mm  
stay holder 2 38 mm  
\*Dimension between bottom edge of the top window and hinges of the bottom one

## Type: hm

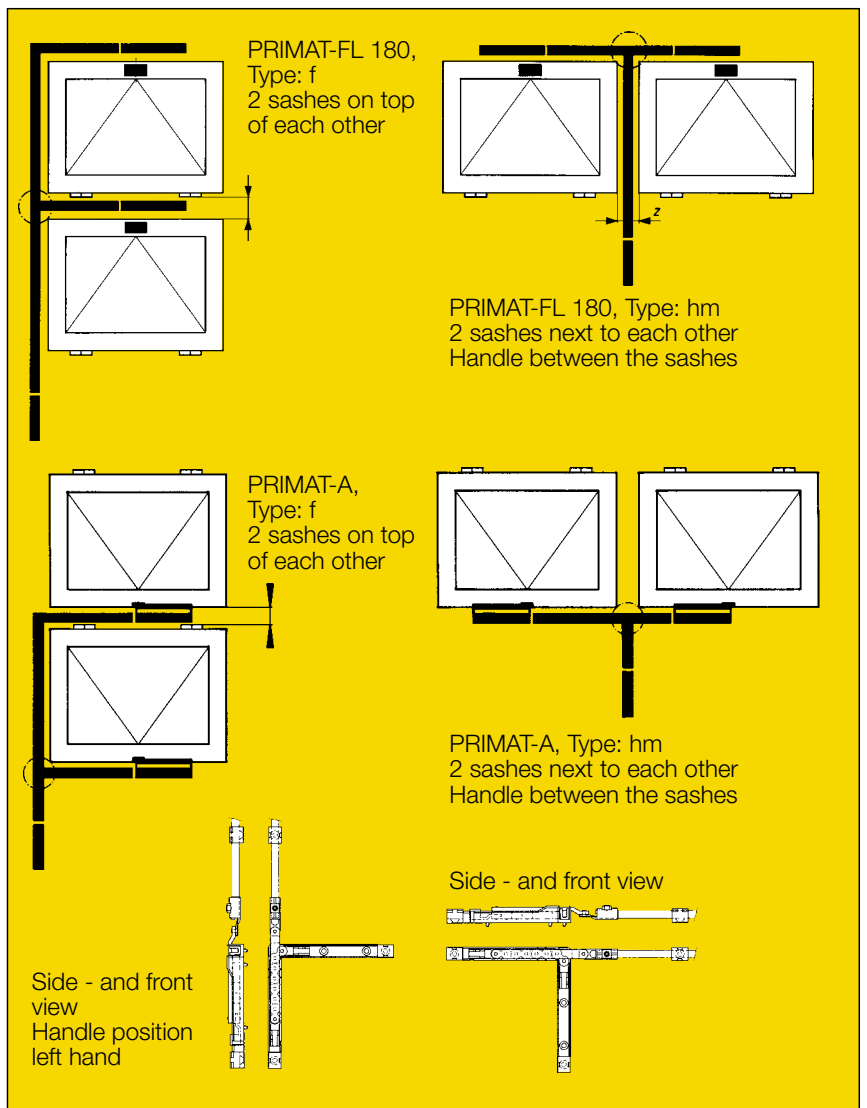
**Two 1-stay sashes next to each other**  
other Handle between the sashes

sashes width (for each sash):  
PRIMAT-FL 180 max. 1200 mm  
PRIMAT-A max. 1000 mm

Control rod with lever handle to be hung in (Clamping bush lateral).

Space required for PRIMAT-FL 180  
at the top: 22 mm  
between the sashes (Dim. Z): 24 mm

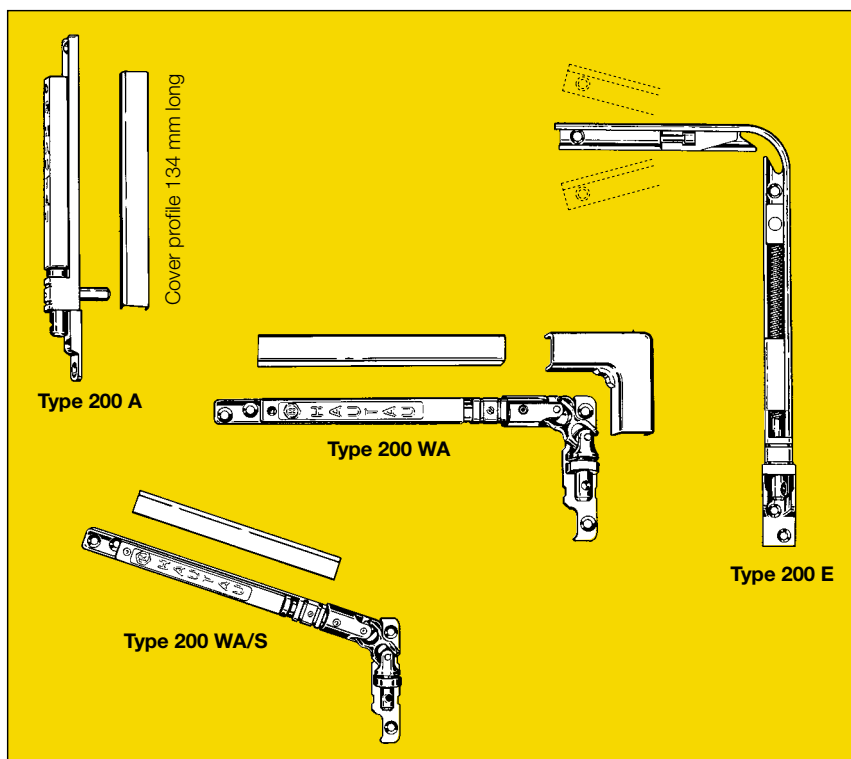
Space required for PRIMAT-A  
At the bottom:  
Stay holder 1: 22 mm  
Stay holder 1: 38 mm



# Spindle gear: Lots of combinations. More comfort. More ventilation.

## Advantages

- **Softline Design:** Cover profile of 16 mm only. Screw down area 18 mm wide.
- **Concealed installation** under the aluminium cover profile of the PRIMAT-FL 180 and PRIMAT-A.
- **Simple stocking;** spindle gear in galvanized finish. The colour finish is determined by the aluminium cover profile (F1, white or brown)
- **Trapeziod Thread with 6 mm lead.** Great stroke with few crank turns.
- **Sturdy fastening** on to the frame by means of additional bore-in pin on the base plate.
- **Smooth regulation of the fan-light's opening width;** permanent ventilation by small ventilation gap.
- **Powerful closing** force plus easy and safe operation particularly for heavy fanlight openers. Prevents the sash from being blown open or shut.
- **Brass Bearing** and brass sleeve for the motion thread assure smooth running and maximum durability (Type 200 A, 200 WA, 200 WA/S)
- **Universal joint** with corner cover cap for left and right hand (Type 200 WA/S). Without corner cover cap also applicable for all angles (Type 200 WA/S).
- **Axial bearing** of the spindle in brass (Type 200 E).
- **Expensive dual universal joints for bevel windows** are no longer necessary (Type 200 E).
- Corners of **corrosion-free** spring band steel (Type 200E).
- Coupling pieces for the stay side allow quick **connection with the horizontal rod** (Type 200E).
- Available for bevel windows for standing bevelling max. 150°, for acute angle min 60°.
- **Many combination possibilities** by -various crank rod versions. For the detachable version (SA), 1 crank rod is sufficient for several windows thereby preventing an unauthorised operation of the openers.
- **Advantageous and elegant solution** for difficult installations. In case of linkage carried down below the window sill, the spindle gear, equipped with corresponding universal joints, guides and rod extensions replaces extensive angle transmissions and rod cranks.



## Execution

### Finish: F1/standard execution

- spindle gear bright galvanized
- aluminium cover profile F1
- universal joints, guides galvanized
- Aluminium tube F1 anodized
- spring clip in grey
- crank with silver grey PVC-U handle

### Finish: White

- spindle gear bright galvanized
- aluminium cover profile in white
- universal joints bright galvanized
- aluminium tube coated in white
- spring clip in white
- crank with silver grey PVC-U handle.

#### Note:

For this finish state  
"crank rod in white".

### Finish: Brown

- spindle gear bright galvanized
- aluminium cover profile in brown
- universal joints galvanized and chromated black
- aluminium tube anodized in dark bronze
- spring clip in brown
- crank with brown PVC-U handle

#### Note:

For this finish state  
"crank rod in brown"

# Spindle gear operating modes

## Operation

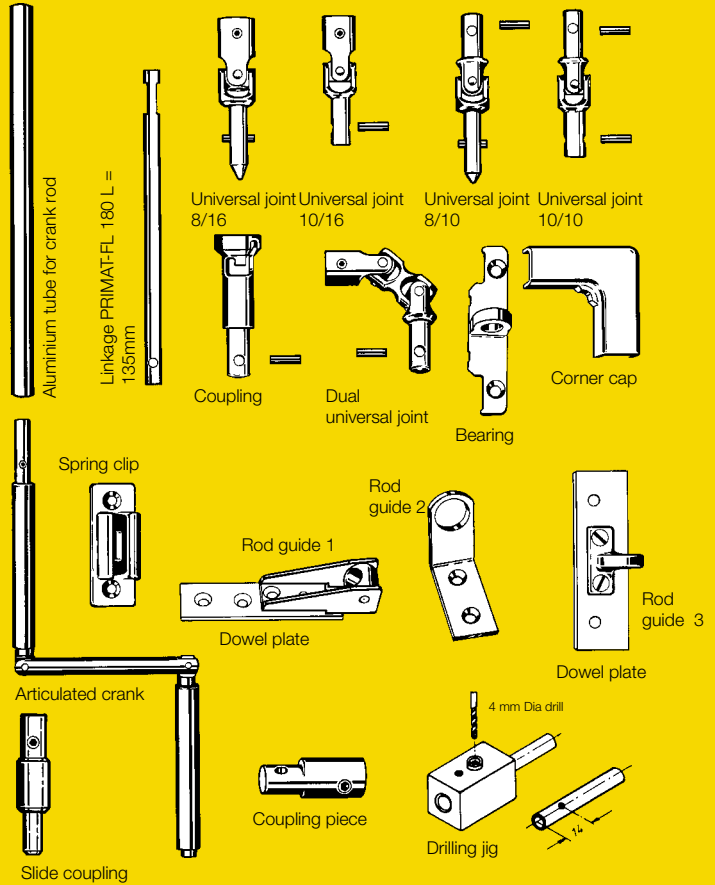
The spindle gear is operated by a crank rod, the bottom end can be snapped in and then used as an artificial crank. The connection between crank rod and spindle gear is secured by a universal joint which permits swing-out 45° and thus makes the crank rod even more flexible. A spring clip retains the extended crank rod in its resting position.

The linkage connects the spindle gear with the chain guide (stays) or bar of the fanlight opener.

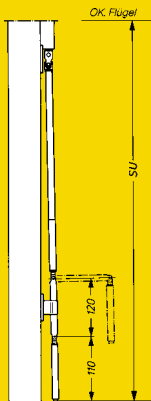
## Order details

(made to measure)

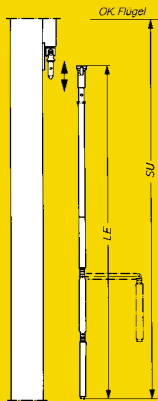
1. **Type** (200 A, 200 WA, 200 E etc.)
2. **Finish:** F1, white and brown.
3. **Execution** (SA, SF, SG etc.)
4. **Dim. SU**
5. For transmissions **dimensions L, FL, MU, MK, LE, v,d** or drawing and/or true-to-scale sketch.
6. Used fanlight opener
7. Quantity of crank rods (For type: SA)



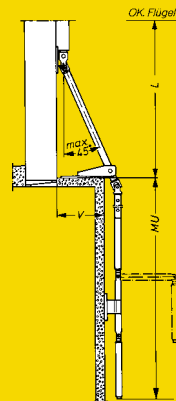
OK Flügel = Top edge of sash



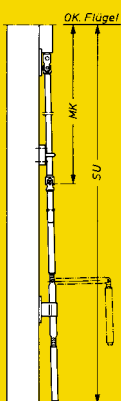
**Exec.: SF**  
Crank rod fixed



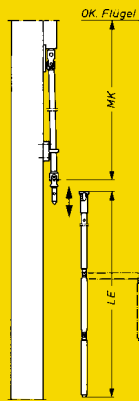
**Exec.: SA**  
Crank rod removable



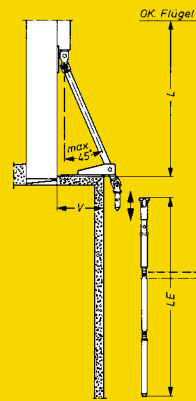
**Exec.: SG**  
Crank rod with transmission, fixed



**Exec.: SF/1**  
Crank rod fixed, identical to exec. SF but with additional universal joint 10/10 and rod guide 3



**Exec.: SA/1**  
Crank rod removable, identical to exec. SA but with universal joint 8/10 instead of 8/16 and with additional universal joint 10/16 and rod guide 3



**Exec.: SG/A**  
Crank rod with transmission removable, identical to exec. SA but with universal joint 8/10 instead of 8/16 and with additional universal joint 10/16 as well as with rod guide 1 on dowel plate

# Controlled ventilation with comfort Electric drives for fanlight opener

## Electrical window operation – with comfort and more security

Normally, fanlights are operated manually by means of connecting rods. This requires time and an expenditure of force or energy. In addition, the person who does this must always be present so that he open or close the fanlights.

Our SM 100 electric drive with new control technology simplifies the

operation and permits the monitoring and control of ventilation systems according to requirements. An automatic control operation based on the temperature, air moisture, rain or wind. By connecting to higher ranking systems in the in-house process control technique, a programmable ventilation is possible.

## Safety through 24 V DC protective voltage

In some countries, compulsory impositions have already been drawn-up for all power operated plant components on facades, so that such installations are only to be operated with protection voltage in order to protect people and material assets.

Contrary to a direct power supply of the electric drives which in extreme situation can result in mortal accidents or more often, to smouldering fires, the 24V DC provides optimal safety at the window.

## The technology

The SM electric drives for fanlight openers are supplied and controlled with 24 DC via central ventilation system. The individual control systems can be overridden by group and central control systems. In addition to the main power line leading to the central system, all other lines (electric drives, buttons, thermostat, wind/rain indicator) 24V DC. Intermediate stopping via stop function of the switch/ventilation button and therefore a variable opening of the window sash.

Our new 24V central ventilation systems are of a modular design and can be individually put together. Due to the technology, the central systems are

- tailored to the needs of the project,
- can be adapted and expanded at all times,
- are easy to assemble and maintain.

