



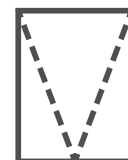
# OUTWARD OPENING

WIDE RANGE OF SOLUTIONS  
FOR OUTWARD OPENING



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# OUTWARD OPENING THE TOP-HUNG WINDOW



Over time Giesse has developed various solutions for top-hung windows, to cover the diverse needs of the market.

Below is a representative diagram of a top-hung window, which shows the main products available for this type of sash.

They include:

- Top-hung arms (A)
- Opening limitation arms (B)
- Mechanisms (C)
- Locking points (D)

The Giesse hardware allows you to create extremely heavy openings with locking points on all four sides to maximise air/water/wind tightness.

## Top-Hung Arms **A**

Sash weight	
GS HD type P (10 products)	from 50 to 180 kg
GS HD type M (8 products)	from 12 to 35 kg
GS HD type A (8 products)	from 16 to 32 kg
GS HD Euro Groove (4 products)	from 50 to 100 kg

## Limitation Arms **B**

Can be combined with	
Type L limitation arms	GS HD type P and A
LASER type limitation arms (*)	GS HD type P and A
Type I limitation arms	GS HD type P and A
Type N limitation arms	GS HD type M
FRIZ type limitation arms	GS HD type P and A

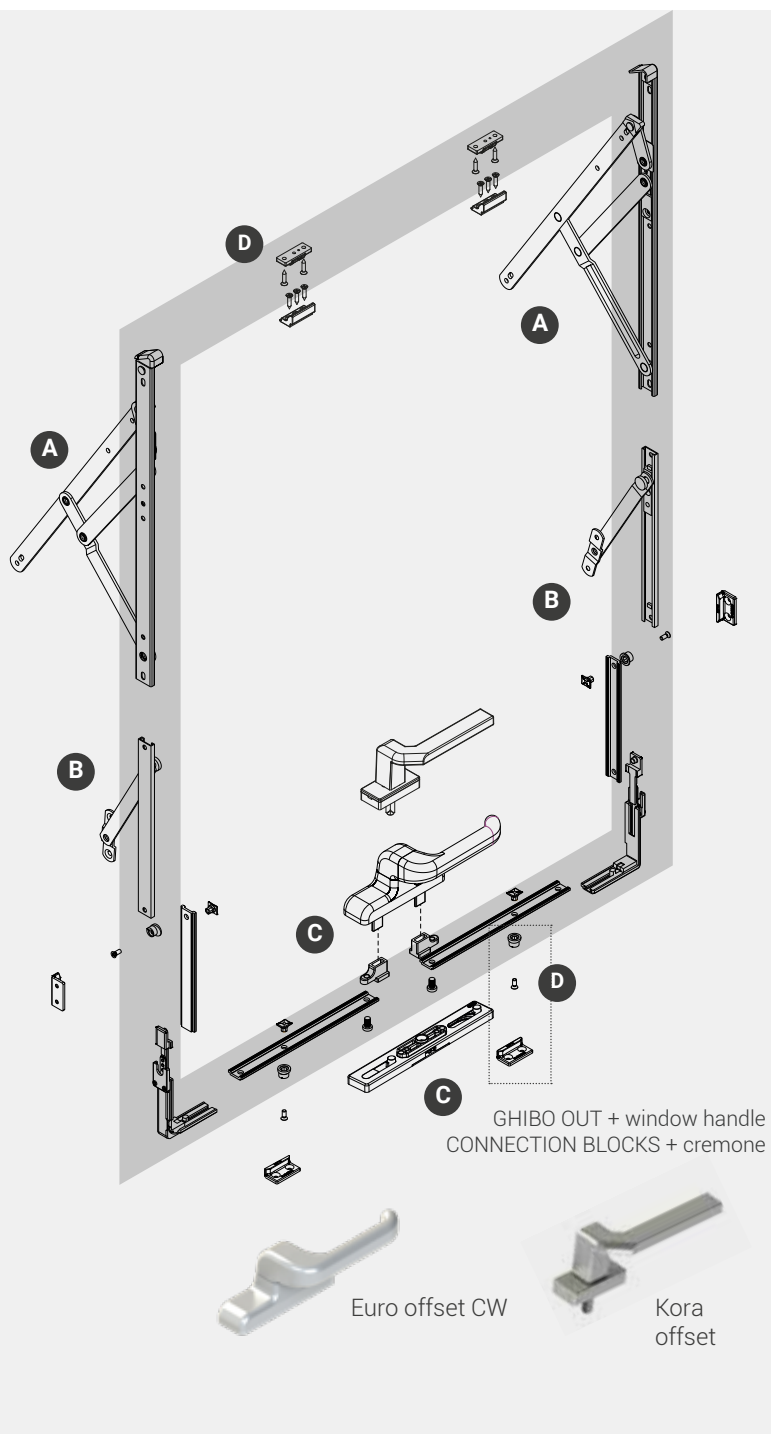
## Mechanisms **C**

Type of stroke		
Euro CW2 cremone	two-way	+ blocks
Unica CW2 cremone	two-way	+ blocks
Euro CW1 cremone	one-way	connection with rod
Kora window handle	one-way	+ Ghibo

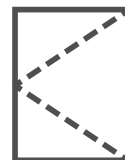
(\*) only some products

## Locking Points **D**

Fixed or adjustable pawl
Fixed or adjustable striker
Adjustable fastening element



# OUTWARD OPENING THE SIDE-HUNG WINDOW



Over time Giesse has developed various solutions for side-hung windows, to cover the diverse needs of the market.

Below is a representative diagram of a side-hung window, which shows the main products available for this type of sash.

They include:

- Side-hung arms (A)
- Opening limitation arms (B)
- Mechanisms (C)
- Locking points (D)

The Giesse hardware allows you to create medium-weight openings with locking points on all four sides to maximise air/water/wind tightness.

## Side-Hung Arms **A**

Sash weight	
GS HD type C (5 products)	from 36 to 45 kg
GS HD type M (5 products)	from 15 to 21 kg
GS HD type A (5 products)	from 14 to 22 kg
GS HD Euro Groove (2 products)	from 35 to 60 kg

## Limitation Arms **B**

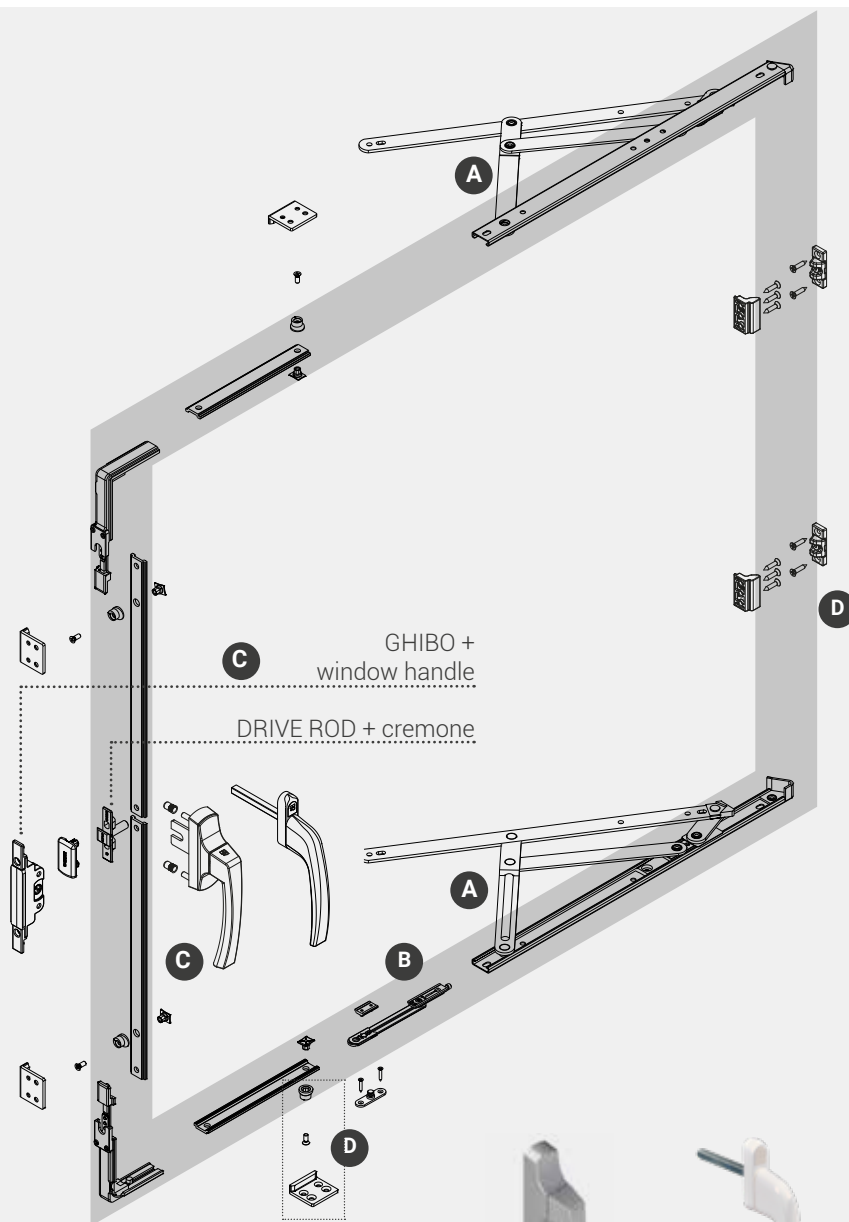
Can be combined with	
FRIZ type limitation arms	GS HD type C

## Mechanisms **C**

Type of stroke		
Cremona	one-way	+ drive rod
ASIA Plus 0-90		
Kora window handle	two-way	+ Ghibo out

## Locking Points **D**

Fixed or adjustable pawl
Fixed or adjustable striker
Adjustable fastening element



Asia Plus 0-90  
Outward



Window handle  
Bas



# OUTWARD OPENING THE PARALLEL WINDOW



Giesse also offers specific solutions for parallel outward openings. This type of opening has gradually gained in popularity thanks to the fact that this type of window does not negatively impact the appearance of curtain walls. Light shining on this type of opening is reflected in the same way as on the fixed sash, thus ensuring a seamless look for people looking at the building from outside. Below is a representative diagram of a parallel window, which shows the main products available for this type of sash.

- They include:
- Parallel arms (A)
  - Mechanisms (B)
  - Locking points (C)

The Giesse hardware allows you to create medium-weight/heavy openings with locking points on all four sides to maximise air/water/wind tightness.

## Parallel Arms **(A)**

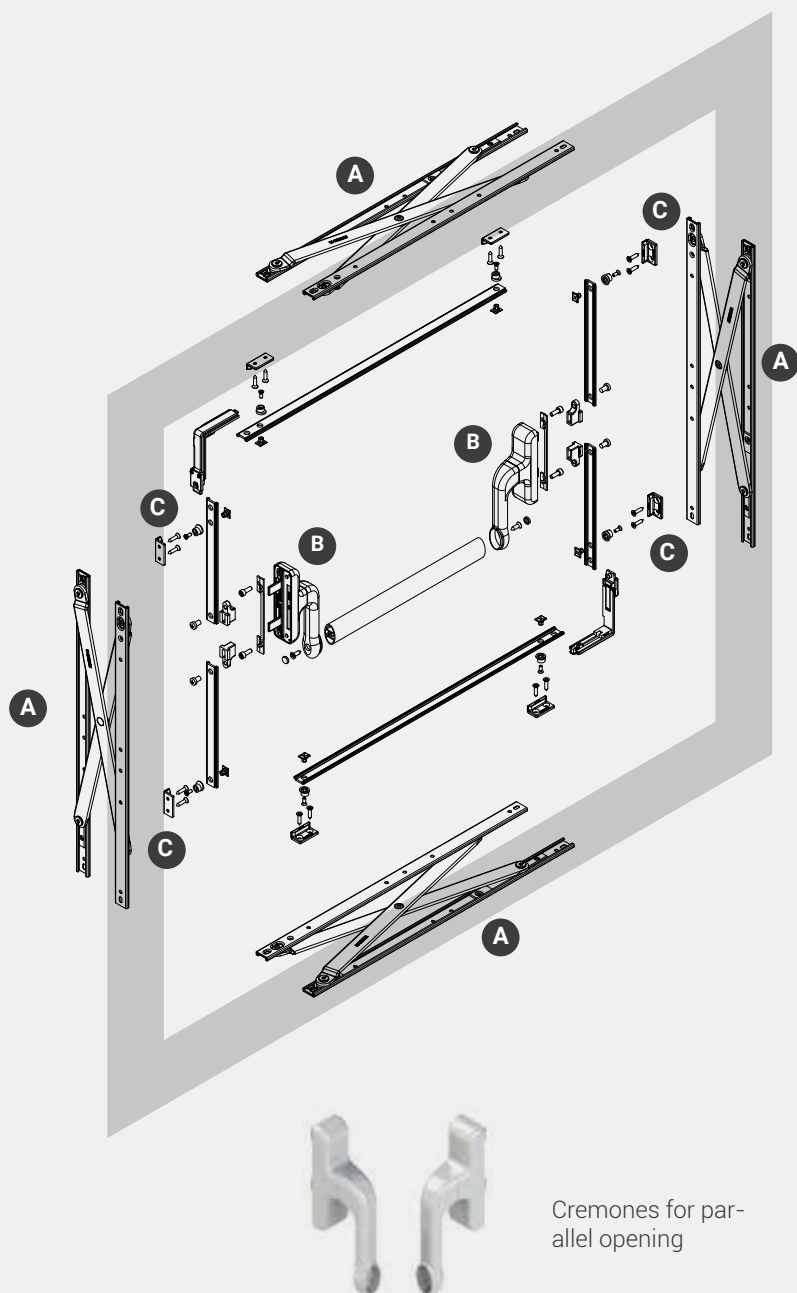
	Sash weight
Aligned parallel arms (2 products)	from 100 to 200 kg
Offset parallel arms (5 products)	from 55 to 200 kg

## Mechanisms **(B)**

	Type of stroke
Cremones for parallel opening	two-way

## Locking Points **(C)**

Fixed or adjustable pawl
Fixed or adjustable striker

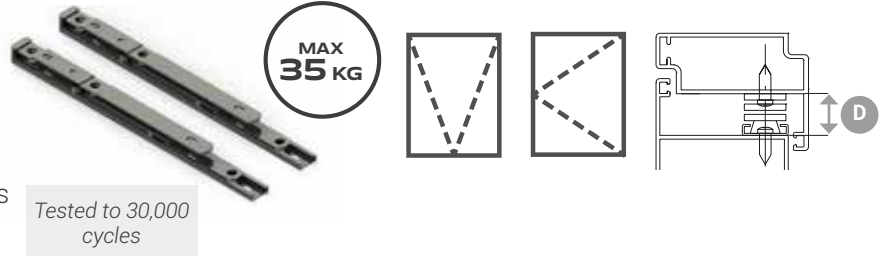


# OUTWARD OPENING ARMS

## GS HD TYPE A

Type-A GS HD arms are suitable for making medium-low size/weight top- or side-hung windows (see table).

They are particularly suitable for small windows or skylights. Arms are sold in pairs.

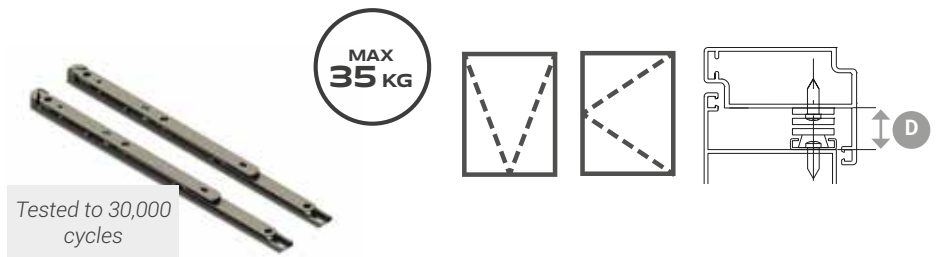


Tested to 30,000 cycles

Description	Item code	Type of Opening	Base arm width (mm)	Sash-frame distance $\text{\textcircled{D}}$ (mm)	Arm length (mm)	Maximum opening angle	Dimensions for top-hung sashes			Dimensions for side-hung sashes		
							Max height (mm)	Max width (mm)	Max weight (kg)	Max height (mm)	Max width (mm)	Max weight (kg)
GS HD – 10" type A	08127N	Top - Side	18	15.5 +0.5	261	84°	400	1200	16	1200	550	14
GS HD – 12" type A	08128N	Top - Side	18	15.5 +0.5	305	85°	550	1200	18	1200	600	16
GS HD – 14" type A	08129N	Top - Side	18	15.5 +0.5	351	87°	650	1200	20	1200	600	18
GS HD – 16" type A	08130N	Top - Side	18	15.5 +0.5	407	87°	750	1200	21	1200	600	20
GS HD – 18" type A	08831N	Top - Side	18	15.5 +0.5	457	87°	850	1200	24	1200	650	22

## GS HD TYPE M

GS HD type M arms are suitable for both top-hung and side-hung windows of small-medium size for medium/low loads. They are particularly suitable for hung sash windows. Arms are sold in pairs.



Tested to 30,000 cycles

Description	Item code	Type of Opening	Base arm width (mm)	Sash-frame distance $\text{\textcircled{D}}$ (mm)	Arm length (mm)	Maximum opening angle	Dimensions for top-hung sashes			Dimensions for side-hung sashes		
							Max height (mm)	Max width (mm)	Max weight (kg)	Max height (mm)	Max width (mm)	Max weight (kg)
GS HD – 8" type M	08201	Top	18	13.5 +0.5	214	70°	350	1200	12	-	-	-
GS HD – 10" type M	08202	Top - Side	18	13.5 +0.5	270	87°	400	1200	16	1200	550	15
GS HD – 12" type M	08195	Top - Side	18	13.5 +0.5	310	87°	550	1200	20	1200	600	16
GS HD – 14" type M	08196	Top - Side	18	13.5 +0.5	358	87°	650	1200	22	1200	600	17
GS HD – 16" type M	08197	Top - Side	18	13.5 +0.5	412	87°	750	1200	24	1200	650	20
GS HD – 18" type M	08198	Top - Side	18	13.5 +0.5	459	87°	850	1200	26	1200	650	21
GS HD – 20" type M	08193	Top	18	13.5 +0.5	512	40°	1000	1200	28	-	-	-
GS HD – 24" type M	08194	Top	18	13.5 +0.5	615	40°	1100	1200	35	-	-	-

## GS HD TYPE C

GS HD type C arms are extremely versatile products, suitable for side-hung windows with medium and high load capacities, and are particularly suitable for medium-sized windows.



Tested to 30,000 cycles

Dimensions for side-hung sashes

Description	Item code	Type of Opening	Base arm width (mm)	Required sash-frame distance $\text{\textcircled{D}}$ (mm)	Arm length (mm)	Maximum opening angle	Max permissible height (mm)	Maximum permissible width (mm)	Max permissible weight (kg)
GS HD – 10" type C	0814701	Side	23	15.5 +0.5	263	82°	1200	550	36
GS HD – 12" type C	0814801	Side	23	16.5 +0.5	313	85°	1200	600	38
GS HD – 14" type C	0814901	Side	23	16.5 +0.5	365	87°	1200	650	40
GS HD – 16" type C	0815101	Side	23	16.5 +0.5	414	87°	1200	700	42
GS HD – 18" type C	0815201	Side	23	16.5 +0.5	463	87°	1200	750	45

## GS HD TYPE TS

GS HD TS type arms are extremely versatile items, suitable for side-hung and top-hung windows with medium load capacity.



Tested to 30,000 cycles

Dimensions for top-hung sashes

Dimensions for side-hung sashes

Description	Item code	Arm length (mm)	Sash-frame distance $\text{\textcircled{D}}$ (mm)	Loose rivet	Dimensions for top-hung sashes				Dimensions for side-hung sashes			
					Maximum opening angle	Max height (mm)	Max width (mm)	Max weight (kg)	Maximum opening angle	Max height (mm)	Max width (mm)	Max weight (kg)
GS HD – 10" type TS	08340	259	16.5	No	50°	650	1500	50	50°/84°	1500	660	35
GS HD – 10" type TS – L/R	08341	259	16.5	Yes	50°	650	1500	50	50°/84°	1500	660	35
GS HD – 16" type TS	08342	259	16.5	No	30°/50°	800	1500	100/55	50°/90° 30°	1600	760 700	42 60
GS HD – 16" type TS – L/R	08343	259	16.5	Yes	30°/50°	800	1500	100/55	30°/50°/90° 30°	1600	760 700	42 60

## GS HD TYPE P

Type-P GS HD arms may be frictioned by way of the grub screw on the slider and, depending on the model, you can also choose the maximum sash opening angle. Can be combined with height adjustment device art. 02006K.



Tested to 30,000 cycles

Dimensions for top-hung sashes

Description	Item code	Type of Opening	Base arm width (mm)	Required sash-frame distance $\text{\textcircled{D}}$ (mm)	Arm length (mm)	Maximum opening angle	Max permissible height (mm)	Maximum permissible width (mm)	Max permissible weight (kg)
GS HD – 10" type P	08534N	Top	23	16.5 +0.5	261	35°	700	1200	50
GS HD – 12" type P	08535N	Top	23	16.5 +0.5	317	30°/35°	800	1200	60
GS HD – 14" type P	08536N	Top	23	16.5 +0.5	353	30°/35°	1000	1300	69
GS HD – 16" type P	08537N	Top	23	16.5 +0.5	414	30°/35°	1200	1400	88
GS HD – 18" type P	08538N	Top	23	16.5 +0.5	458	25°/30°	1400	1500	102
GS HD – 20" type P	08539N	Top	23	16.5 +0.5	511	25°/30°	1600	1500	135
GS HD – 22" type P	08540N	Top	23	16.5 +0.5	556	20°/25°	1700	1500	137
GS HD – 24" type P	08541N	Top	23	16.5 +0.5	602	20°/25°	1800	1500	139
GS HD – 28" type P	08542N	Top	23	16.5 +0.5	707	10°/15°/20°	2000	1500	155
GS HD – 26" 180 type P	08348	Top	23	16.5 +0.5	690	20° 7°	2000 2500	1500 1700	155 180

# OUTWARD OPENING ARMS

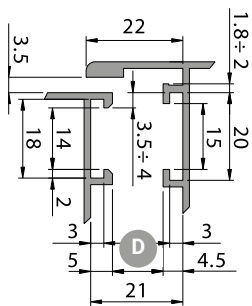
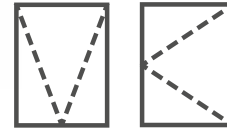
## GS HD EURO GROOVE

GS HD Euro Groove Arms are ideal for Standard Euro Groove systems with 15-20 channel on the sash and sash-frame distance of 11.5 mm or 12 mm (depending on the model).

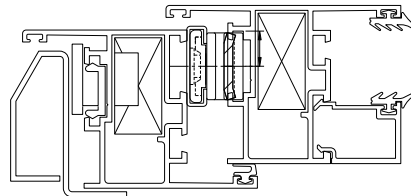
The GS HD arms are self-positioning in the 15-20 channel of the sash, guaranteeing fast and precise positioning for the window maker. They are compatible with the Friz limitation arms for Euro Groove art. 02030 (side-hung) and with the laser arms art. 01954/55 (top-hung).



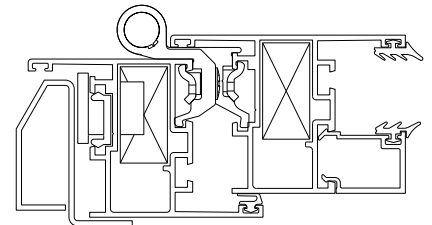
Tested to 30,000 cycles



European Groove system - specific dimensions



Euro Groove profile with arm installed

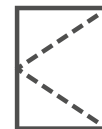


Euro Groove profile with Flash base hinge installed

Description	Item code (**)	Arm length (mm)	Sash-frame distance D (mm)	Dimensions for top-hung sashes				Dimensions for side-hung sashes			
				Maximum opening angle	Max height (mm)	Max width (mm)	Max weight (kg)	Maximum opening angle	Max height (mm)	Max width (mm)	Max weight (kg)
GS HD – Top/Side-Hung 10" Euro groove	08349	259	11.5	50°	650	1500	50	50° 84° (*)	1500	650	35
GS HD – Top/Side-Hung 16" Euro groove	08350	412	11.5	30°/50°	800	1500	100/55	30° 50°/90° (*)	1600	700	60 42
GS HD – Top/Side-Hung 22" Euro groove	08351	567	11.5	20°/45°	1500	1700	100/80		-		
GS HD – Top/Side-Hung 28" Euro groove	08352	711	11.5	15°	2000	1700	100		-		

(\*) for window cleaning only.

(\*\*) for US market the codes of the Euro Groove arms in the table must be replaced by codes 08359/08360/08361/08362



Description	Item code (**)	Arm length (mm)	Sash-frame distance D (mm)	Dimensions for top-hung sashes				Dimensions for side-hung sashes			
				Maximum opening angle	Max height (mm)	Max width (mm)	Max weight (kg)	Maximum opening angle	Max height (mm)	Max width (mm)	Max weight (kg)
GS HD – Side-Hung 10"	08300	263.5	12	-	-	-	-	89°	1600	550	50
GS HD – Side-Hung 14"	08301	358.5	12	-	-	-	-	89°	2000	700/800	65/55

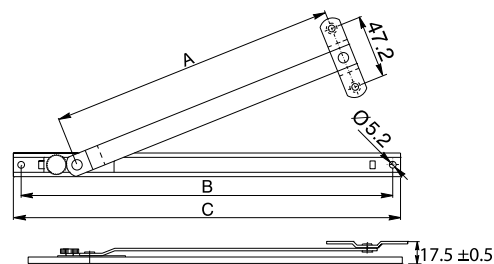


# OUTWARD OPENING LIMITATION ARMS

## GS HD TYPE I



Compatible with arms:  
GS HD type A  
GS HD type P

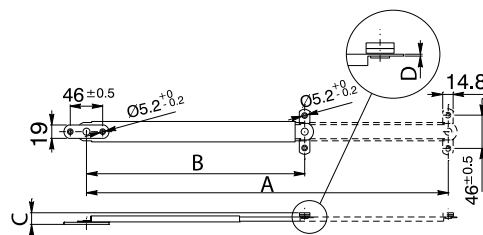


Description	Item code	Type of opening	A (mm)	B (mm)	C (mm)
Limitation arm – 8,5" type I	08123	Top	140	205	217
Limitation arm – 10,5" type I	08124	Top	191	256	268
Limitation arm – 12" type I	08177	Top	221	286	298
Limitation arm – 14" type I	08178	Top	267	332	244
Limitation arm – 16" type I	08179	Top	318	388	400
Limitation arm – 18" type I	08183	Top	365	435	447

## GS HD TYPE L



Compatible with arms:  
GS HD type A  
GS HD type P

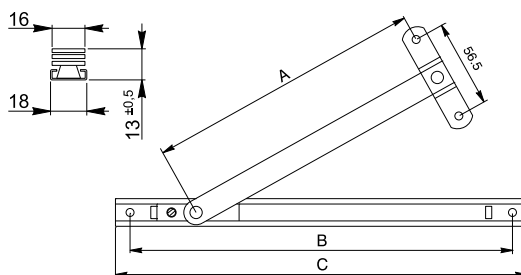


Description	Item code	Type of opening	A (mm)	B (mm)	C (mm)	D (mm)
Limitation arm – 8" type L	08184	Top	205	155	16.5	1.2
Limitation arm – 10" type L	08185	Top	255	180	16.5	1.2
Limitation arm – 12" type L	08186	Top	305	205	16.5	1.2
Limitation arm – 14" type L	08187	Top	355	230	16.5	1.2
Limitation arm – 16" type L	08188	Top	406	257	16.5	1.2
Limitation arm – 20" type L	08189	Top	515	310	16.5	1.2

## GS HD TYPE N



Compatible with arms:  
GS HD type M



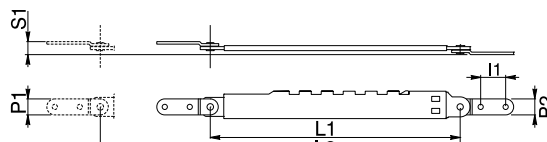
Description	Item code	Type of opening	A (mm)	B (mm)	C (mm)
Limitation arm – 10.5" type N	08199	Top	180	249	268
Limitation arm – 16" type N	08200	Top	314	381	400

# OUTWARD OPENING LIMITATION ARMS

## Laser type limitation arms



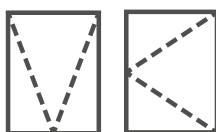
The LASER limitation arm is telescopic and has 5 settings that allow the sash to be opened to different angles. Compatible with arms: Top-hung according to distance S1



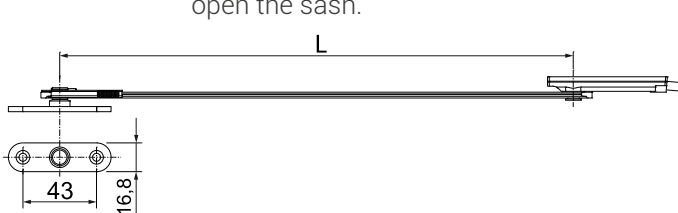
Description	Item code	Type of opening	Applicable in combination with	Material	No. positions	Type of Fixing	P1 mm	P2 mm	L1 mm	L2 mm	I1 mm	S1 mm
Laser Arm	01950	Top	hinge	Stainless steel (austenitic) AISI 304	5	Self-threading	14.8	11.8	250	360	15	28
Laser Arm	01951	Top	universal	Stainless steel (austenitic) AISI 304	1	Self-threading	16	16	155	186	20.5	13.5
Laser Arm	01952	Top	hinge	Stainless steel (austenitic) AISI 304	5	Self-threading	15	15	250	360	15	34
Laser Arm	01954	Top	Euro Groove hinges, arms	Stainless steel (austenitic) AISI 304	5	Self-threading	13.4	13.4	250	360	15	23
Laser Arm	01955	Top	Euro Groove hinges, arms	Galvanised steel	5	Self-threading	13.4	13.4	250	360	15	23
Laser Arm	01956	Top	hinge	Stainless steel (austenitic) AISI 304	5	Contrast grub screws	-	-	250	360	-	24
Laser Arm Type Q	01959	Top	universal	Stainless steel (austenitic) AISI 304	5	Self-threading	16	16	250	360	23	13
Laser Arm	01960	Top	universal	Stainless steel (austenitic) AISI 304	5	Self-threading	16	16	250	360	20	16.5
Laser Arm	01961	Top	universal	Galvanised steel	5	Self-threading	16	16	250	360	20	16.5

## Detachable limitation arms

### Friz



The FRIZ limitation arm is detachable to enable the sash to be positioned at maximum opening. The arm can also be frictioned to adjust the force required to open the sash.



Description	Item code	Type of opening	Applicable in combination with top-hung arms	Rod Length L (mm)
FRIZ arm	02036	Top - Side	Type A - Type P - Type C	300
FRIZ arm	02037	Top - Side	Type A - Type P - Type C	140
FRIZ arm	02030K	Top - Side	Euro Groove arms	300

# OUTWARD OPENING ULK KIT

The Ulk kit has been created to meet the need for top-hung and bottom-hung openings of considerable weight and size. Thanks to the Ulk Kit, windows can be constructed with sashes weighing **up to 250 kg** with top-hung opening and **up to 300 kg** with outward bottom-hung opening (smoke vents).

The Ulk Kit has been specifically designed for **17 mm sash/frame stack** systems, which is the sash/frame distance of all the main systems used for curtain walls.

The Ulk kit is composed of several components, all made of stainless steel: **a pair of hinges, a pair of arms** and **a pair of adjustment devices** for adjusting the sash height when Ulk is applied on top-hung windows.



## Ulk Kit for top-hung windows

Maximum load capacity **250 kg**

Manual operation	Only for sashes ≤ 100 kg
Automatic operation	For sashes > 100 kg
Sash height	from 1500 to 3500 mm
Sash width	up to 2000 mm

Article	Item code
Ulk Kit	<b>08500</b>



## Ulk Kit for bottom-hung windows (smoke vents)

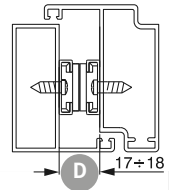
Maximum load capacity **300 kg**

Manual operation	NO
Automatic operation	Always
Sash height	from 1500 to 4500 mm
Sash width	up to 2000 mm

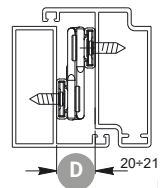
The Ulk Kit is ideal for large openings with sashes of considerable weight, for this reason it is advisable to use **appropriate automations** for opening and closing the sash. Top-hung windows can be manually operated if the sash weighs less than 100 kg, but always in combination with limitation arms. In the case of bottom-hung openings (smoke vents), the opening must always be automated.

**The maximum permitted sash opening in both top-hung and bottom-hung windows is 300 mm.**

# PARALLEL OPENING ARMS AND MECHANISMS



Description	Item code	Sash-frame distance $\text{\textcircled{D}}$ (mm)	Arm length (mm)	Maximum opening (mm)	Maximum height (mm)	Maximum width (mm)	Maximum Weight (kg)	Type of opening
Single Parallel Arm - 16,9	0199001	17 +1/-0	470	180	1000	1000	100	Motorised for weights > 60 kg or dimensions 1250 x 1250
Double Parallel Arm - 16,9	0199101		940	180	2000	2000	200	



Description	Item code	Sash-frame distance $\text{\textcircled{D}}$ (mm)	Arm length (mm)	Maximum opening (mm)	Maximum height (mm)	Maximum width (mm)	Maximum Weight (kg)	Type of opening
Single Parallel Arm 18" - 21	0196901	21 +1	450	174-219	1000	1000	55	Manual/ motorised
Single Parallel Arm 20" - 21	0197601		500		1000	1000	55	
Double Parallel Arm 25" - 21	0197701		640		1200	1200	75	
Double Parallel Arm 39" - 21	0197801		950	172-242	1500	1500	200 (172 mm max opening) 170 (242 mm max opening)	Motorised
Double Parallel Arm 50" - 21	0197901		1250		1800	1800	200	



## MECHANISMS FOR PARALLEL OPENING: CW BAR WITH CREMONES

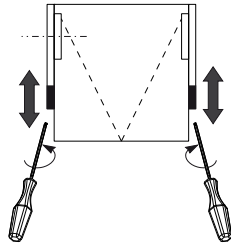


Description	Item code	Type of stroke	C/C distance	Compatibility
Cremones for parallel opening (Cp)	00993	Two-way 18 mm	104-98-84	Connection blocks 02236/02262/02194
Connecting bar length 1200 mm	04157	-	-	art. 00993
Connecting bar length 1800 mm	04158	-	-	

# TOP-HUNG OUTWARD OPENING HARDWARE FOR ARMS

## TOP-HUNG ARM ADJUSTMENT DEVICES

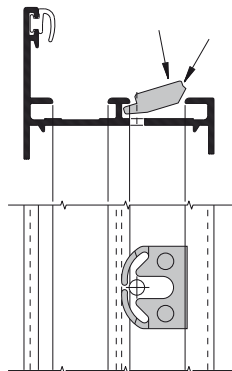
Fitted on Type-P GS HD arms (suitably prepared), they enable height adjustment of the top-hung sash.



Description	Item code	Applicable on
Height adjustment component for GS HD – CP arms (22/23)	02006K	GS HD arms type P

## SHIMS FOR TOP/SIDE-HUNG ARMS

Hardware that allows quick installation and adjustment of the range of top-hung arms.



Description	Item code	Applicable on
Polyamide filling shim	01971	for 14/18 or 13.5/16.8 channel (frame)
Polyamide filling shim	01974	for 15/20 channel (frame)

# OUTWARD OPENING: LIMITATION ARM WITH LOCK

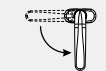
In many designs, the limiting function of the sash has become fundamentally important. This is for safety reasons, as it is necessary to avoid objects or people accidentally falling, or the sash being closed by a gust of wind. The limitation arm with lock art. 01700 000 is a product that increases the security of a side-hung or top-hung outward opening built into a curtain wall, for example. Giesse has developed a new concept of "security" sashes for outward opening in which the maximum limited opening position of the sash can be locked by turning the handle of the cremone (or window handle) to 0°. At the same time, the sash can be fully opened by rotating the handle 180°.



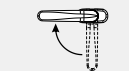
## Top-hung Operation



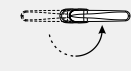
Sash closed



Limited opening, without lock



Sash locked in position of maximum limitation

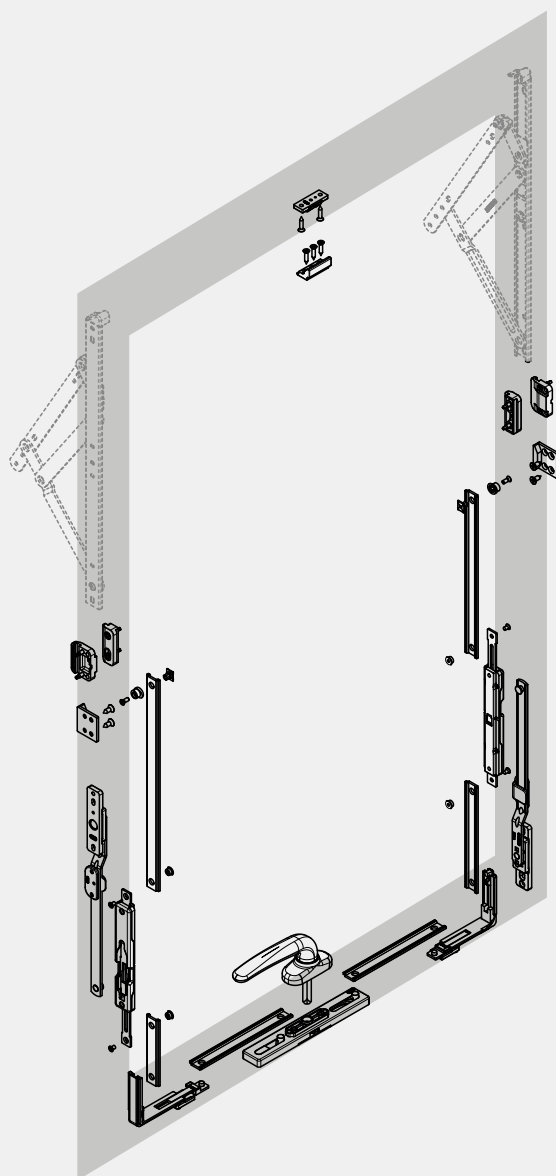


Sash can be opened fully

## Top-hung

### Example configuration

	Item code	Quantity
Limitation arm with lock	01700	2
Ghibo Plus internal mechanism	02079	1
Corner drive	04020 K	2
Fixed pawl – H 10.5	04049	2
Adjustable striker	01396	2
Window handle	choice	1
Centring bushing	01717	2
Fastening element	01410	1



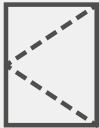
**NEW**

Description	Item code	Type of opening	Sash-frame distance (mm)	Rod length (mm) (*)	Type of one-way stroke
Limitation arm with lock	01700	Top-hung	17	235	18 + 18
		Side-hung			

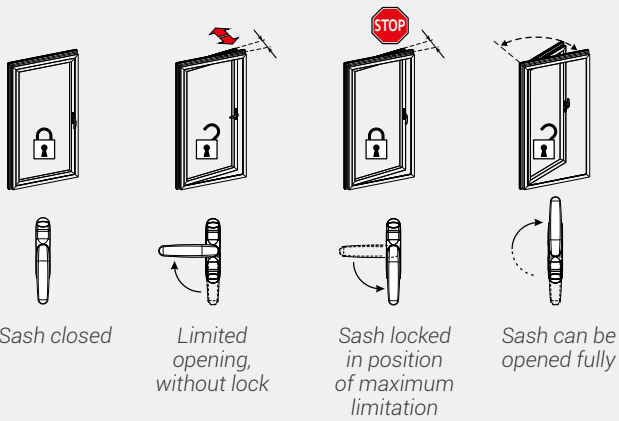
\*versions shorter than the standard length can be made on request.

**Some examples of compatibility**

- One-way cremone; art. 01108
- Giesse window handles (various products) + Ghibo Plus mechanism; art. 02079
- Unica cremone 01150 001 + outward opening kit; art. 02407/08



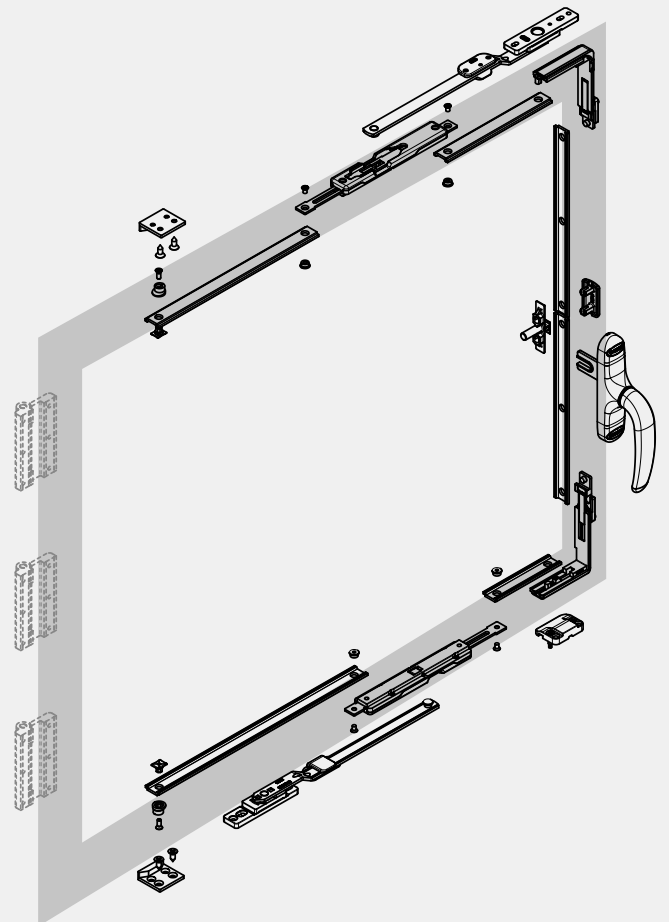
**Side-hung**  
Operation



**Side-hung**

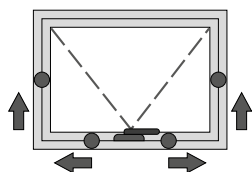
Example configuration

	Item code	Quantity
Limitation arm with lock	01700	2
Unica cremone	1150 01	1
Outward opening kit	02407/08	1
Drive rod	04049001	1
Corner drive	04020 K	2
Fixed pawl – H 10.5	04049	2
Adjustable striker	01396	2
Window handle	choice	1
Centring bushing	01717	1



# OUTWARD OPENING: TOP-HUNG MECHANISM COMPONENTS

## TWO-WAY



Euro CW2  
cremone

Also with key



B.P. 005  
376  
410  
430  
500  
+ other RAL

Cremone  
Unica CW2



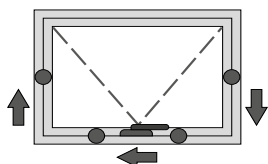
B.P. 005  
376  
410  
430  
500  
+ other RAL

## Top-hung two-way fasteners with cremone

	Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
	Euro CW2 RH Cremone	05007...1	two-way 18 mm	104 – 98 – 84	connection blocks 02236 / 02262 / 02194
	Euro CW2 LH cremone	05007...2			
	Euro CW2 KEY cremone – reversible	05008...			
	Euro CW2 KEY RH cremone	05008...1			
	Unica CW2 RH cremone	01170...1		104	
	Unica CW2 LH cremone	01170...2			

	Description	Item code	H (mm)	Compatibility
	Connection block	02236	18	two-way cremones 05007 / 05008 / 01170
		02262	15	
		02194	12	

## ONE-WAY



Euro CW2  
cremone



B.P. 005  
376  
410  
430  
500  
+ other RAL

Kora offset  
window handle



376  
410  
430  
500  
+ other RAL

**TREND**

## Top-hung one-way fasteners with cremone

	Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
	Euro CW1 cremone – reversible	05006...	one-way 18 mm	104 – 98 – 84	slider directly connected with the rod
	Euro CW1 RH cremone	05006...1			
	Euro CW1 LH cremone	05006...2			

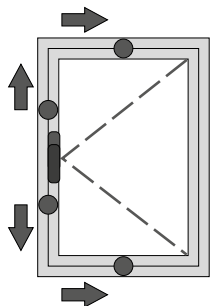
**NEW**

	Description	Item code	Type of stroke	C/C distance (mm)
	GHIBO Plus CW1 mechanism	02079	one-way 18+18 mm	43
	Kora offset RH window handle	00996...1	–	43
	Kora offset LH window handle	00996...2	–	



# OUTWARD OPENING: SIDE-HUNG MECHANISM COMPONENTS

## TWO-WAY



Cremone  
Unica Apex

B.P. 005  
376  
410  
430  
500  
+ other RAL


**TREND**

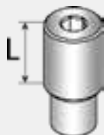


Window  
handle  
Bas


376  
410  
430  
500  
+ other RAL


### Side-hung two-way fasteners with cremone

Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
 Unica Apex cremone	01154...001	two-way 18 mm	104	Requires the use of 2 pins: 02251K/ 02252K/ 02253K/02254K/ 02255K

Description	Item code	Pin length (mm)	Adjuster key
 Connecting pin	02251K	L = 10	3 mm hex key
	02252K	L = 13	
	02253K	L = 16	
	02254K	L = 24	
	02255K	L = 20	

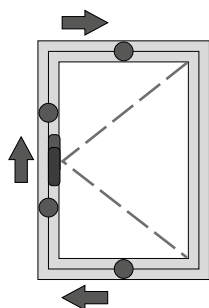
### Side-hung two-way fasteners with window handle

Description	Item code	Spindle length (mm)	C/C distance (mm)	Compatibility
 Bas window handle	02491...	70	43	Mechanisms with 7 mm spindle housing

Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
 GHIPO OUT mechanism Back Set 23	04094	two-way 17 mm	43	Window handles with square pin 7 mm
GHIPO OUT mechanism Back Set 29	04093	two-way 18 mm	43	

# OUTWARD OPENING: SIDE-HUNG MECHANISM COMPONENTS

## ONE-WAY



Cremone  
Unica

B.P.	005
	376
	410
	430
	500

+ other RAL

**TREND**



Cremone  
Asia 0-180

B.P.	005
	376
	410
	430
	500

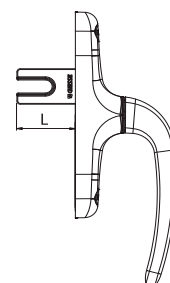
+ other RAL



Cremone  
Asia Plus 0-90

B.P.	005
	376
	410
	430
	500

+ other RAL



## Side-hung one-way fasteners with cremone

	Description	Item code	Drive rod length (mm)	C/C distance (mm)	Compatibility	Notes
	Unica cremone	01150...001	–	104	for combination with art. 02407/08/03	Versions with pre-assembled slider are available
	Unica cremone with key	01151...001	–	104		–
	Asia Plus 0-180 cremone	01063	–	104	for combination with art. 02407/08/03	–
	Outward opening kit for Asia 0-180 cremone	02407	L = 20	–	for combination with art. 01150/51/01063	Crem. Unica pre-assembled art. 01165N
		02403	L = 28			–
		02408	L = 35			Crem. Unica pre-assembled art. 01165N

**NEW**

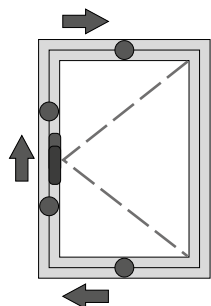


	Description	Item code	Drive rod length (mm)	C/C distance (mm)	Compatibility	Notes
	Asia Plus 0-90 cremone	01401	–	70	for combination with art. 02407/08/03	–
	Outward opening kit for Asia Plus 0-90 cremone	02025	L = 20	–	for combination with art. to art. 01401	–
		02026	L = 28			
		02027	L = 35			
		02028	L = 45			
		02029	L = 55			
02050	L = 65					

	Description	Item code	Drive rod length (mm)	C/C distance (mm)	Compatibility	Notes
	Rod drive rod (zamak)	04098001	L = 9.5	–	for 15/20 channel	–
		04099001	L = 18.5	–	for 15/20 channel	–
		04097001	L = 26	–	for R40 channel	–
	Rod drive rod (steel)	04091	L = 40	–	for 15/20 channel	–

# OUTWARD OPENING: SIDE-HUNG MECHANISM COMPONENTS

## ONE-WAY



Window handle  
Bas  
 376  
 410  
 430  
 500  
 + other RAL



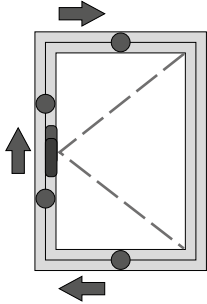
Cover plate  
 B.P.: 005  
 376  
 410  
 430  
 500

## Top-hung one-way fasteners with window handle and lock

	Description	Item code	Pin length (mm)	C/C distance (mm)	Compatibility
	Bas window handle	02491...	70	43	mechanisms with 7 mm spindle housing
	Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
	GHIBO OUT mech. Back Set 22	04082	one-way 18 mm	43	window handles with 7 mm square pin and locks
	GHIBO OUT mech. Back Set 27	04083			
	GHIBO OUT mech. Back Set 32	04084			
	Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
	GHIBO OUT KEY lock Back Set 22	04086	-	63	mechanism 04082 compatible with European cylinders
	GHIBO OUT KEY lock Back Set 27	04087			mechanism 04083 compatible with European cylinders
	GHIBO OUT KEY lock Back Set 32	04088			mechanism 04084 compatible with European cylinders
	Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
	IN cylinder cover plate	04096...			
	Description	Item code	Type of stroke	C/C distance (mm)	Compatibility
	Mechanism M180 with incorrect operation safety device - Backset 30 mm	04089	one-way 36 mm	43	window handles with 7 mm square pin

# OUTWARD OPENING: SUPRA7 MECHANISM COMPONENTS

## ONE-WAY



Supra7  
Apex


B.P. 005  
376  
410  
430  
500

+ other RAL

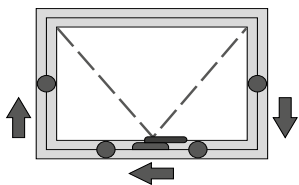
**TREND**



### Side-hung one-way fasteners with Supra7 window handle

	Description	Item code	Spindle length (mm)	Spindle type (mm)	Compatibility	Notes
	Supra7 Apex window handle	04164	75	7x7	04082/83/84	Can also be used with two-way mechanism
	Ghibo Out backset mechanism 22/28/32	04082/83/84	–	7x7		One-way stroke 18 mm

## ONE-WAY



Supra7


B.P. 005  
376  
410  
430  
500

+ other RAL

**TREND**

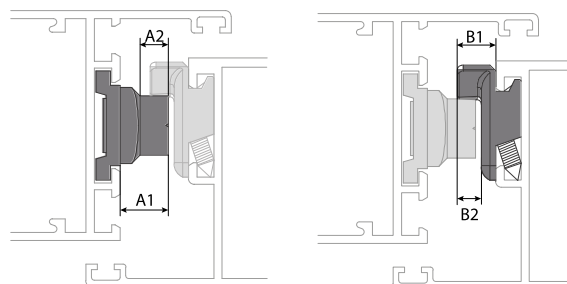


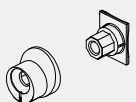
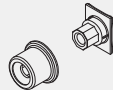
### Top-hung one-way fasteners with Supra7 window handle

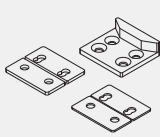
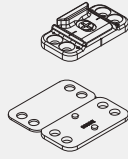
	Description	Item code	Spindle length (mm)	Spindle type (mm)	Compatibility	Notes
	Supra7 offset RH window handle	052621	45	7x7	Ghibo Plus CW1 mechanism art. 02079	
	Supra7 offset LH window handle	052622	45	7x7		
	Supra7 Asia window handle	04153	45	7x7		
	Supra7 Kora window handle	04154	45	7x7		
	Supra7 Prima window handle	04155	45	7x7		
	Supra7 Aria window handle	04156	45	7x7		
	Ghibo Plus CW1 mechanism	02079	–	7x7	–	Type of stroke: one-way 18+18

# OUTWARD OPENING: STANDARD LOCKING POINTS

The locking point consists of a striker on the frame and a pawl on the rod that runs in the sash channel. Giesse offers different solutions depending on the geometry of the system used.



	Description	Item code	Material	Sash type	Adjustment (mm)	Height from	Useful pawl	
						rod face	height	
						A1 (mm)	A2 (mm)	
Sash pawl		Adjustable pawl	04030K	Zamak	R40 and 15/20 channel	-1.2	8.5	5
		Fixed pawl	04027K	Zamak	R40 and 15/20 channel	-	8.5	7
		Base with 6 pawls	04682K	Zamak	15/20 sash channel	±1.5	15.7	12.7
						±1.8	13.3	10.3
						±1.8	12.3	9.3
						±1.5	11.7	8.7
±1.5						10	7	
±1.5	7.7	4.7						

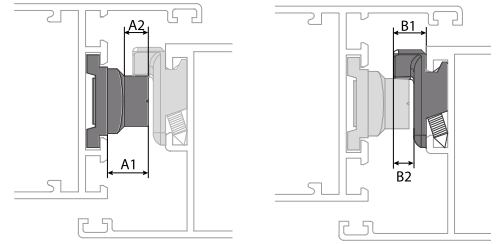
	Description	Item code	Material	Frame type	Adjustment (mm)	Height from	Useful retainer	Note
						frame face	height	
						B1 (mm)	B2 (mm)	
Frame striker		01266K	Zamak	flat frame	-	9.5	6.5	with shims for height adjustment
		01267K	Zamak	flat frame	-	10.5	7	
		01268K	Zamak	frame with step	-	8.3	4.8	
		01343K	Zamak	frame 14/18	-	6.7	4.2	
		Adjustable striker	01269K	Zamak	flat frame	±1.8	10.7	5.2
		01362K	Zamak	frame 14/18	±1.8	7.7	5.2	

# OUTWARD OPENING: HP LOCKING POINTS

HP locking points feature extraordinary tensile strength. They are recommended for applications that require a particular fastener, for example in extremely tall buildings where the openings need to withstand high positive and negative wind pressure.



Resistance



	Description	Item code	Material	Channel type	Adjustment (mm)	Height from rod face A1 (mm)	Useful pawl height A2 (mm)	
Sash pawl		04047K	Zamak	15/20 channel	–	8	4.7	
		04662K	Zamak	15/20 channel	–	13	5.5	
		04664K	Zamak	15/20 channel	–	8	4.7	
		04663K	Zamak	15/20 channel	–	13	5.5	
		01399	Zamak	15/20 channel	–	–	–	
		Pawl 009 adjustable	01394	Stainless steel	15/20 channel	±0.75	10.5	8
			01395	Stainless steel	15/20 channel	±0.75	8	5.5
		Pawl 009 fixed	04054	Stainless steel	15/20 channel	–	10.5	8
			04052	Stainless steel	15/20 channel	–	8	5.5
		Fixed pawl	04050	Stainless steel	R40 and 15/20 channel	–	7.8	6.4
04066			Stainless steel	R40 and 15/20 channel	–	10.5	9.2	

	Description	Item code	Material	Frame type	Adjustment (mm)	Height from frame face B1 (mm)	Useful retainer height B2 (mm)	
Frame striker		01393	Zamak	Flat	–	11.5	10	
		01213	Zamak	Flat	–	12	8.5	
		01214	Zamak	Flat	–	14	10.5	
		Adjustable striker	01396	Zamak	14/18 channel	±1.8	11.7	9.2
			01280	Zamak	Flat	±1.8	12.5	6

# OUTWARD OPENING: OTHER PRODUCTS

## MULTI-LOCK PRODUCTS

**NEW**

		Description	Item code	Notes	Sash-frame distance (mm)	Adjustment (mm)
		Adjustable anti-burglar/anti-typhoon	04134	Compatible with base 01399	Profile cross-section 16.5 ±0.5	±1
		Anti-burglar/anti-typhoon	04041K	-	Profile cross-section 16.5 ±0.5	-
		Fastening element	01410	-	Profile cross-section 17 ±3	±5
		Central anti-lifting plug	01717	-	Profile cross-section 17	-

Description			Item code	Notes	Compatibility	Stroke
		Corner drive	04019K	Fixing with clips	15/20 channel	40
			04020K	Fixing with grub screws	15/20 channel	40

## MECHANISM COMPONENTS WITH SINGLE LOCKING POINT

		Description	Item code	Design	Step	Finish
		Bravo 1 flat handle	01650N	Euro line	6.5-7-8	410, 430, 500 + other RAL
			01651N	Euro line	4-5	
			01652N	Euro line	0 mm – internal flush	
		Bravo 2 flat handle	01640N	Prima line	6.5-7-8	
			01641N	Prima line	4-5	
			01642N	Prima line	0 mm – internal flush	

		Description	Item code	Arm length (mm)	Maximum opening (mm)	Finish
		Short OMBU arm	00889N	150	172	410, 412, 415, 372, 500 + other RAL
		Long OMBU arm	00890N	224	300	

# OUTWARD OPENING: **OS OPERATOR 2.0**

**OS Operator 2.0 is the revolutionary patented mechanism for outward openings that combines extreme functionality, renewed styling and high levels of performance.**

**In addition to all these features, OS Operator can even be applied to small windows, to meet the needs of different markets. Thanks to the positioning of the cremone on the frame, it enables the fitting of internal and integral mosquito netting panels.**

OS Operator 2.0 is the mechanism that features multi-locking as standard. With a simple 180° movement of the cremone you can open and close the sash, disengaging multiple locking points simultaneously.

OS Operator is the perfect solution for both top-hung and side-hung windows.

With OS Operator three functions are combined in a single fastening solution: simply by turning the handle of the cremone you open and close the sash, even with multiple locking points, with opening limited to the length of the OS mechanism's arm.





## System design for the OS Operator

OS Operator was designed simultaneously with the window profile housing it, in order to be able to get the best performance and functionality from the set of the hardware plus profile. OS Operator requires a specific type of profile cross-section. For information and guidance on possible applications, contact Giesse Technical Assistance.

### Dimensions

The window limit dimensions for installation of OS Operator depend on many factors, such as the type of arms used, the type of glass and the required wind resistance specifications.

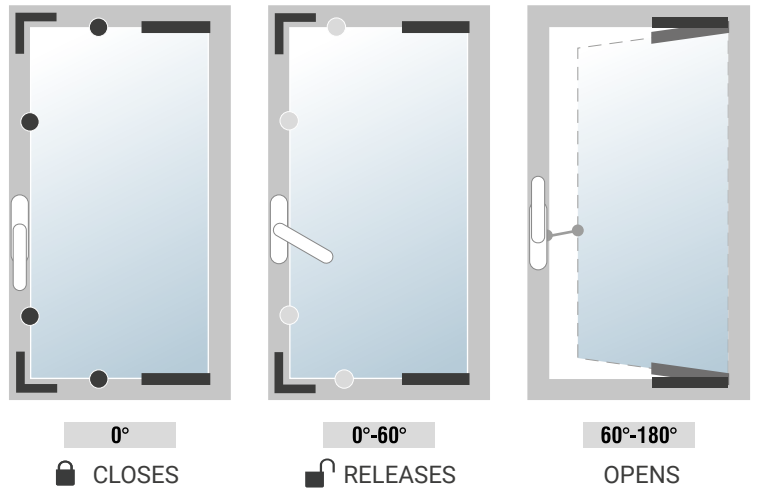
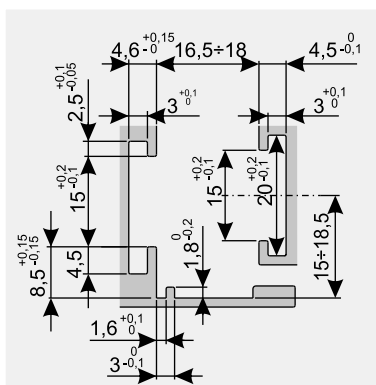
The minimum size is related to the number and location of the locking points.

### Mechanisms

OS Operator is combined with a specific cremone, available with different handle lengths, optionally with key and with removable handle.

### Test results

OS Operator has successfully passed 15,000 cycles with both the top-hung and side-hung type, to AAMA test specifications.



At 0° of cremone rotation the window is closed and the locking points are engaged. On turning the cremone to 60°, the locking points are released and during the next 120° of movement, the mechanism pushes the sash to maximum opening (according to the length of the OS arm).

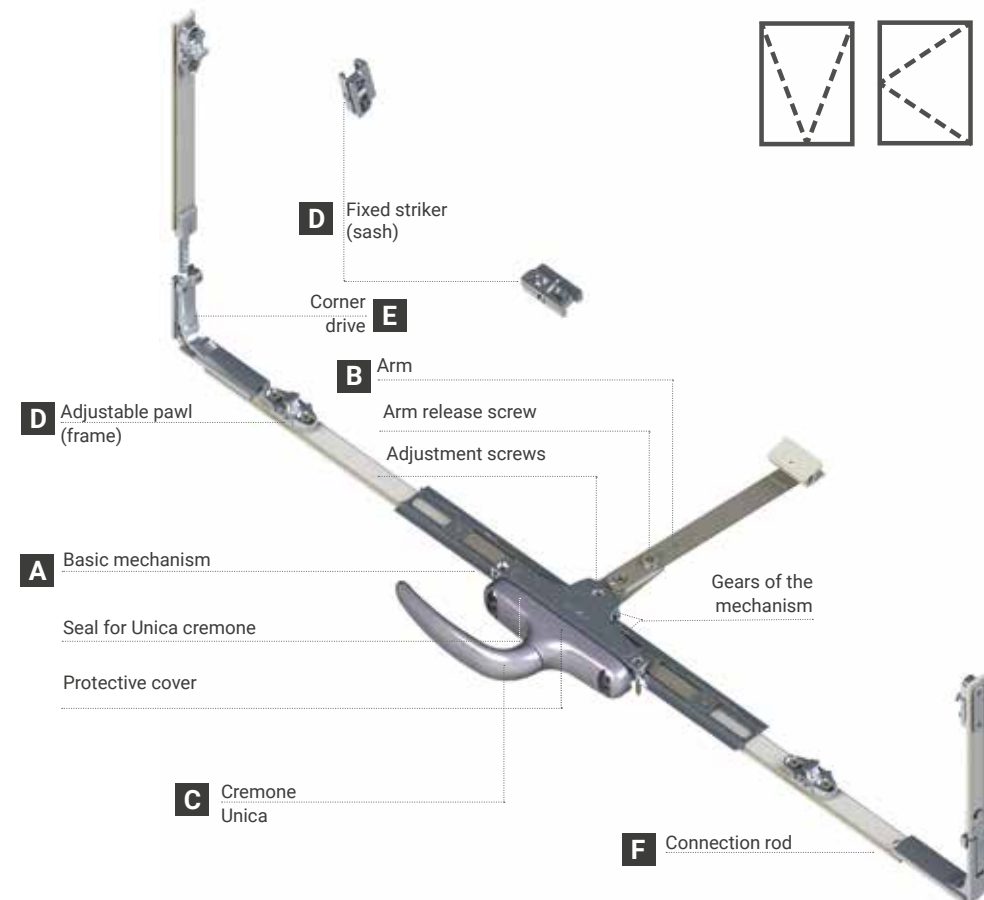


- 372
- 410
- 430
- 500
- + other RAL



# OUTWARD OPENING: OS OPERATOR 2.0

	Description	Item code	Mechanism length (mm)	Mechanism length (inches)
<b>A Mechanism</b>	OS Operator 2.0 basic mechanism	02009	317	12.480
	Description	Item code	Arm length (mm)	Arm length (inches)
<b>B Arm</b>	OS Operator arm – polyamide – 172	02054	172	6 <sup>3</sup> / <sub>4</sub>
	OS Operator arm – polyamide – 152	02055	152	6
	OS Operator arm – aluminium – 172	02064	172	6 <sup>3</sup> / <sub>4</sub>
	OS Operator arm – aluminium – 152	02065	152	6
	Description	Item code	Handle length (mm)	Handle length (inches)
<b>C Cremone</b>	Unica cremone	01171...	120	4 <sup>23</sup> / <sub>32</sub>
	Unica Key cremone	01172...	120	4 <sup>23</sup> / <sub>32</sub>
	Long handle cremone	01128...	172	6 <sup>25</sup> / <sub>32</sub>
	Unica Away cremone	01127...	–	–
	Handle for Unica Away	01129...	172	6 <sup>25</sup> / <sub>32</sub>
<b>D Locking point</b>	Pawl + striker	02067		
<b>E Corner drive</b>	Corner drive	02066		
<b>F Connection rod</b>	Roll, for 15/20 channel	03524590N (black)	200 m roll	656.17 ft roll
	Roll, for 15/20 channel	03524542N (grey)	200 m roll	656.17 ft roll
Other products	Seal for Unica cremone	06951		
	Tools for fixing OS Operator	02003		



OS Operator can be fitted with rotation either to the right or to the left. It can be fitted on both side-hung and top-hung windows. The cremone, arm and locking points are purchased separately, to deliver customisable solutions according to need.

# AUTOMATIONS: CHAIN ACTUATORS

The range of VARIA chain actuators is the perfect answer to the needs for automation systems in bottom-hung windows, top-hung windows, pivoting windows and skylights. Their attractive design makes them ideal for both residential and industrial applications. Varia Tube RWA is the optimal solution for smoke and heat evacuation systems. Varia Slim actuators are also available in the Syncro version, which allows for multiple thrust points in a single window.



**Varia**  
230 V AC  
24 V DC



**Varia Slim Base**  
230 V AC  
24 V DC



**Varia Slim**  
230 V AC  
24 V DC



**Varia Slim Plus**  
230 V AC  
24 V DC



**Varia Slim Small**  
24 V DC



**Varia Tube**  
230 V AC  
24 V DC RWA



**ST 450**  
230V AC

## ROD ACTUATORS

Rod actuators are ideal for the automation of windows that require high reliability and resistance to medium loads. They are particularly suitable for top-hung windows, skylights, roof domes, jalousie windows and brise-soleils. Their salient features are high speed, low noise and great versatility.

**NEW**

## RACK ACTUATORS

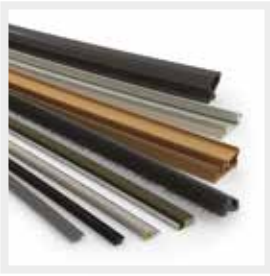
Rack Max rack actuators are ideal for automating top-hung windows, skylights, roof domes, jalousie windows, brise-soleils and sliding doors (speed version). LC are available with different chain strokes and thrust forces up to 650 N, with the possibility of combining two or three actuators to increase the number of thrust points.



**Rack Max 450**  
230 V AC



**Rack Max 650**  
230 V AC  
24 V DC



**Schlegel**

High performance sealing solutions



**GIESSE**

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**JATEC**

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