

A/S J. PETERSENS BESLAGFABRIK



SYSTEM FITTINGS

FOR OUTWARD OPENING

WINDOWS AND DOORS

2024

- established 1869 -

A/S J. PETERSENS BESLAGFABRIK

WOOD PROFILE
FOR IPA SYSTEM FITTINGS

A

HINGES & FITTINGS
FOR SIDE HUNG WINDOWS AND DOORS

B

HINGES & FITTINGS
FOR TOP HUNG WINDOWS

C

SAFETY CATCH & -RESTRICTORS
FOR IPA SYSTEM FITTINGS

D

ESPAGNOLETTE BOLTS

E

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MORE THAN 150 YEARS OF GENUINE CRAFTSMANSHIP



IPA - New factory with the new production facilities

J. Petersens Beslagfabrik A/S - IPA - represents more than 150 years of experience and expertise in developing and producing builders hardware and fittings.

Founded in 1869 in Nibe, a small town at the Limfjord in Northern Jutland of Denmark, IPA has made the development from a small local locksmith based in the town center to a modern technology based industry with world wide business relations.

IPA is still owned by the founding families, and the topmanagers today are third and fourth generation of the founders.

In a complex of modern buildings covering more than 25000 m² 250 employees combine skills, tradition and respect for genuine craftsmanship.

A lot of emphasis is put on the environmental side. Good and healthy working conditions are key issues in everybody's daily working life. At IPA such issues are put into focus. This is probably one of the reasons why life long employment so often is the case at IPA.

A wide range of standard products as well as a flexible production capacity enable IPA to produce and sell products which comply with customer's individual needs.

IPA standard products as well as specially made items meet today's function and quality requirements. The quality management system which is awarded with a certificate of approval in accordance with the international DS/ISO 9001 ensures consistent quality.

The standard product programme includes all kinds of fittings and builders hardware. From the smallest hobby fittings to large garage door fittings. From furniture fittings to gutter brackets. A very important part of the IPA product programme is the IPA system fittings for the window and door manufacturing industry.

The IPA system fittings represent a genuine break through for flexible productions of windows and doors. The system consists of a comprehensive range of fittings for windows and doors which all fit into the same timber profile.

By using the same timber profile for different types of windows, the window manufacturer will achieve a much more flexible production. He will reduce manufacturing time, decrease stocking levels, and save on overall operating costs.



A NorthWest Air Photo of the new factory

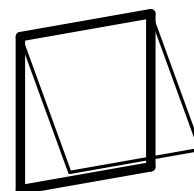
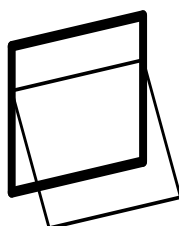
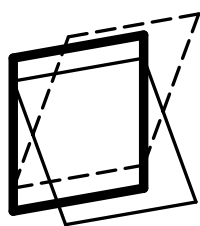


A SouthWest Air Photo of both the old and the new factory

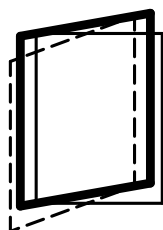


IPA SYSTEM FITTINGS

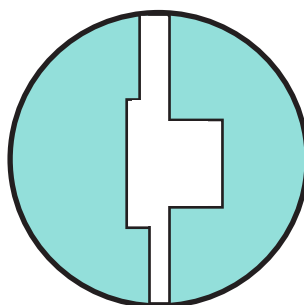
A COMPREHENSIVE RANGE OF FITTINGS FOR WINDOWS AND DOORS WHICH ALL FIT INTO THE SAME WOOD PROFILE.



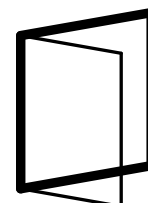
THE ORIGINAL IPA SYSTEM GROOVE



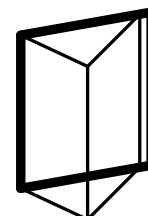
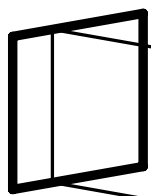
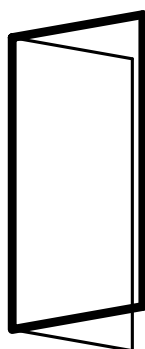
17,3 X 3 MM
GROOVE IN
THE SASH



12 X 7 MM
GROOVE IN
THE FRAME



DEVELOPED BY IPA MORE THAN 30 YEARS AGO



BY USING THE SAME PROFILE FOR DIFFERENT TYPES OF WINDOWS YOU WILL ACHIEVE MORE FLEXIBLE PRODUCTION - REDUCE MANUFACTURING TIME - DECREASE STOCKING LEVELS - AND SAVE ON OVERALL OPERATING COSTS.



The IPA SYSTEM FITTINGS represent a genuine break-through for flexible production of windows and doors.

The IPA SYSTEM FITTINGS are precision made and developed through many years experience - and the development will continue.

IPA - A/S J. Petersens Beslagfabrik - has probably the largest and most efficient range of architectural ironmongery today. The following information is designed to assist window and door manufacturers in selecting the proper series of IPA SYSTEM FITTINGS.

IPA SYSTEM for flexible production.

It is important to study each fitting instruction very carefully and position the fittings properly in the rebates which are 12x7 mm in the frame and 17,3x3 mm in the sash.

In this brochure you will find all the IPA SYSTEM articles with No's, descriptions, specifications of window escape opening as well as fitting instructions.

In case you might want supplementary information concerning the fittings mentioned above, we shall be pleased to be at your service.



A/S J. PETERSENS BESLAGFABRIK

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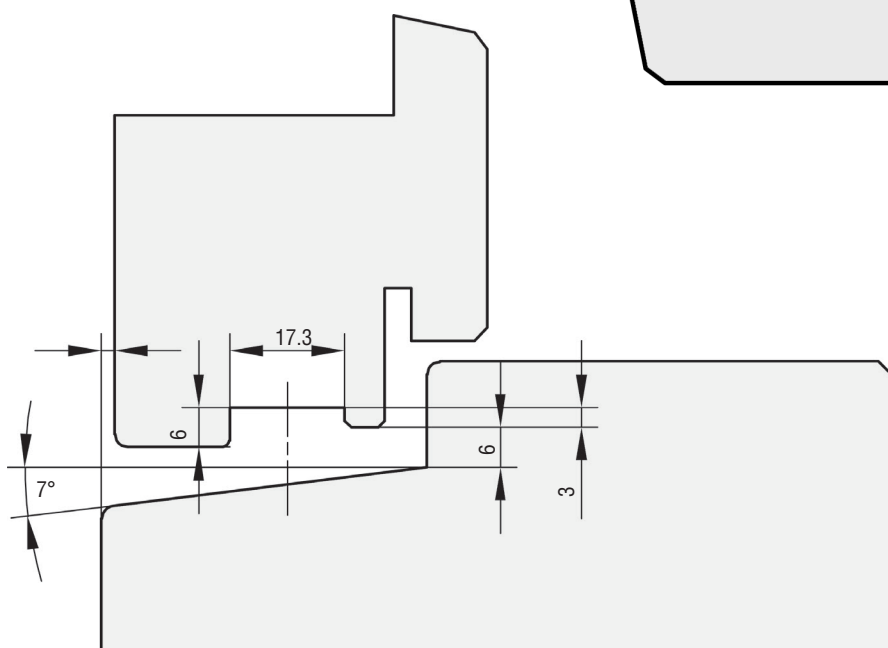
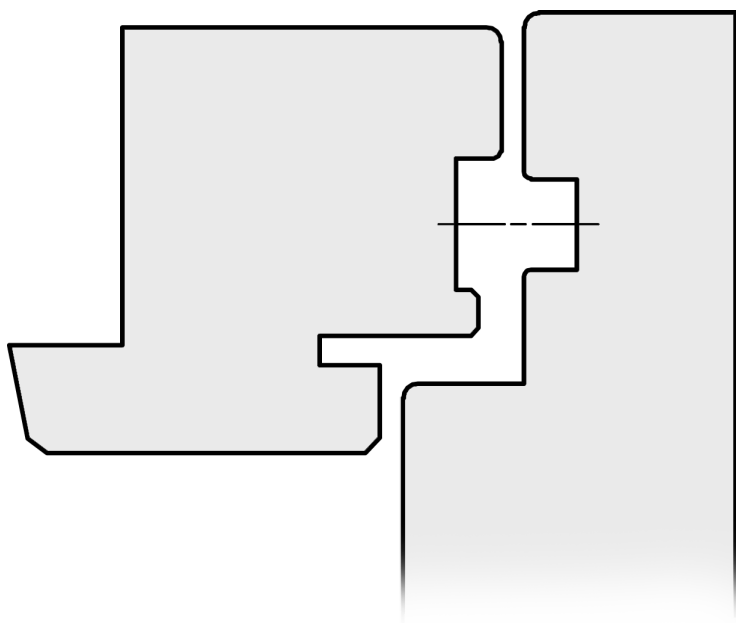
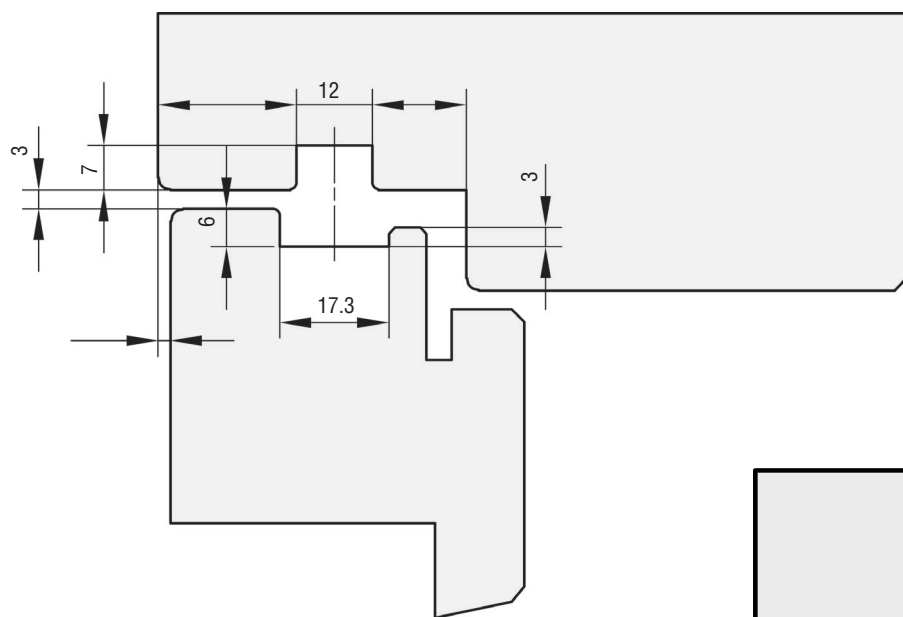
E-mail: ipa@ipafittings.com

www.ipafittings.com



SYSTEM FITTINGS

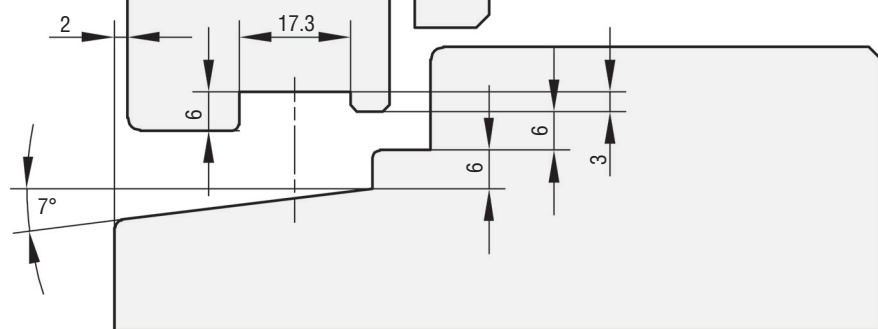
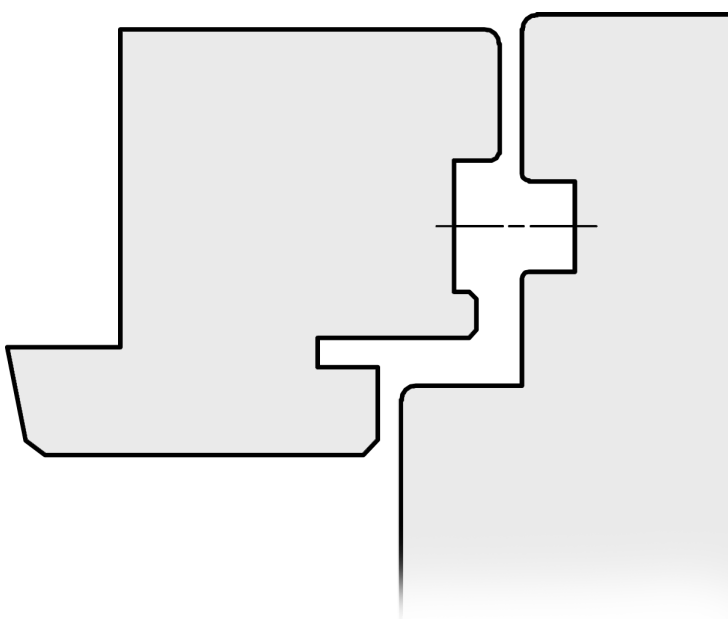
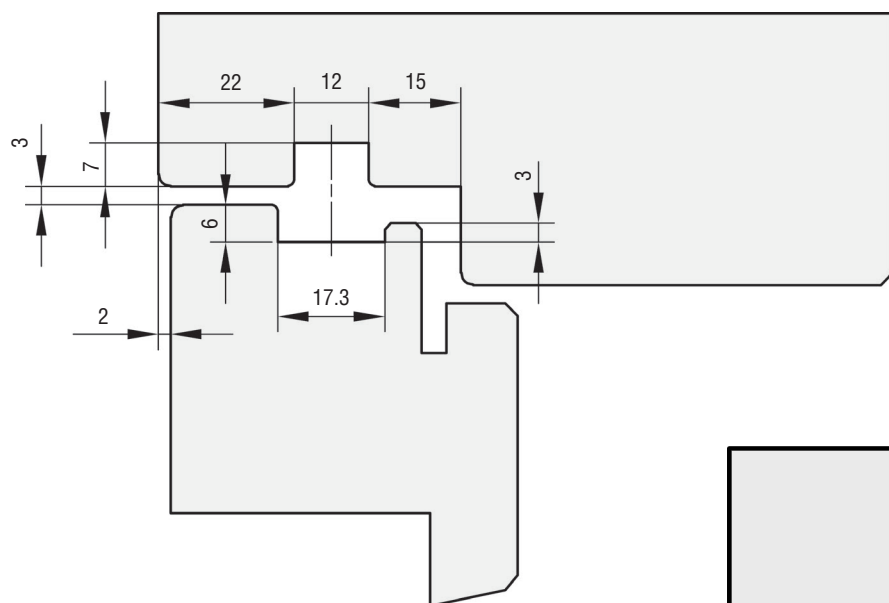
EXAMPLE - WOOD PROFILE





SYSTEM FITTINGS

EXAMPLE - WOOD PROFILE





SYSTEM FITTINGS

SUGGESTION - NUMBER OF HINGES

The charts below show the number of hinges, we suggest to use on different sizes of windows and doors. The charts shall ONLY be considered as a guidance, as the number of hinges also will depend on the use and weight of the window/door. If the window/door is mounted in a public building with many users (Schools, Railway Stations etc.) then more or even larger hinges are recommended.

Also we suggest to use a support fitting whenever possible.

WINDOW HINGES: Valid for the window hinges shown in this catalogue. SASH MEASURES.

All window hinges meets the requirements of class 9 (60 Kgs.) in accordance with DS/EN 1935. The numbers in brackets are number of hinges in windows with 3-layer glass.

Width \ Height	< 500	501 - 600	601 - 700	701 - 800
1401 - 1500	2 (3)	3 (3)	3 (3)	3 (4)
1301 - 1400	2 (3)	3 (3)	3 (3)	3 (4)
1201 - 1300	2 (3)	3 (3)	3 (3)	3 (4)
1101 - 1200	2 (3)	3 (3)	3 (3)	3 (4)
1001 - 1100	2 (3)	3 (3)	3 (3)	3 (3)
901 - 1000	2 (2)	2 (2)	2 (2)	3 (3)
801 - 900	2 (2)	2 (2)	2 (2)	3 (3)
701 - 800	2 (2)	2 (2)	2 (2)	3 (3)
601 - 700	2 (2)	2 (2)	2 (2)	
501 - 600	2 (2)	2 (2)		
< 500	2 (2)			

DOORHINGES: Valid for door hinges shown in this catalogue. DOOR PLATE MEASURES.

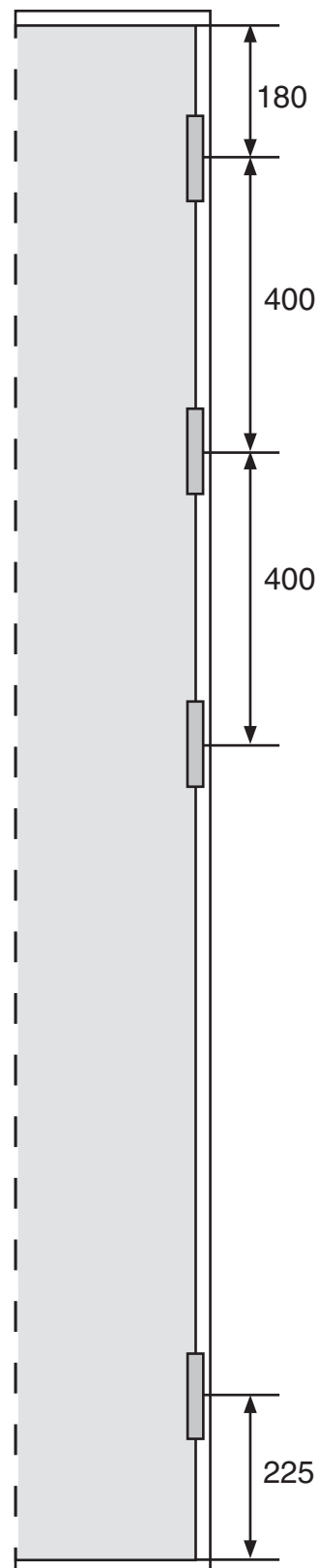
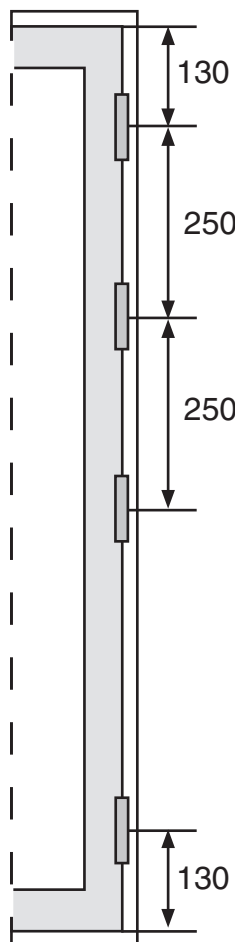
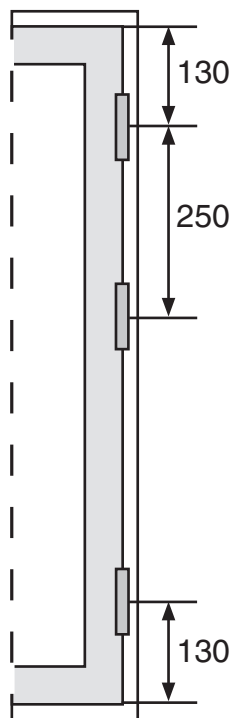
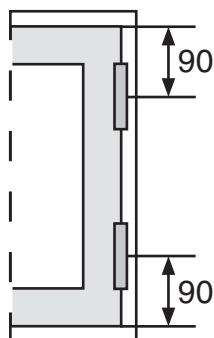
All door hinges with steel pin meets the requirements of class 13 (120 Kgs.) in accordance with DS/EN 1935. The same hinges with brass pin meets the requirements of class 11 (80 Kgs.) in accordance with DS/EN 1935

Width \ Height	< 700	701 - 800	801 - 900	901 - 1000	1001 - 1100
2501 - 2600	5	5	5		
2401 - 2500	5	5	5	5	
2301 - 2400	4	4	4	5	5
2201 - 2300	4	4	4	4	5
2101 - 2200	3	3	3	4	4
2001 - 2100	3	3	3	3	4
< 2000	3	3	3	3	4



SYSTEM FITTINGS

SUGGESTION - HINGE POSITIONS



ATTENTION:

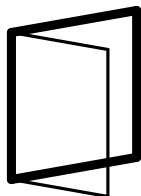
The suggested placement of the hinges is **ONLY** a recommendation.

When mounting Window - or Door elements in buildings the fastening points of the Frame should be by the hinges, supporting the Frame as best as possible in the areas where the load from the sash/door is transferred to the Frame.



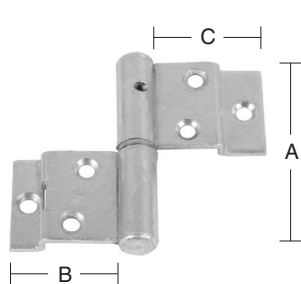
HINGES FOR SIDE HUNG WINDOWS

IPA NO.s 11166-67, 11173-74 & 11177-79

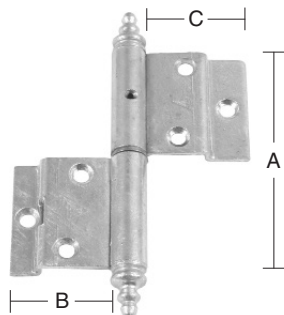


ORDERING NO.																							
IPA NO.	MATERIAL				SQUARE EDGES LEFT	SQUARE EDGES RIGHT	SURFACE								STANDARD PACKING IN BOXES OF 10 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES.	A MM	B MM	C MM	THICKNESS PLATE MM	PIN MM	SCREW	APPROX WEIGHT KG /EACH
	STEEL FIXED STEEL PIN	STEEL FIXED BRASS PIN	BRASS FIXED S.S. PIN	STAINLESS STEEL			GALVBANIZED/WHITE	ELECTROPLATED	ELECTROPL. SEALET	ELECTROPL. YELLOW	ELECTROPL. GREY	POLISHED	UNMACHINED	GALVANIZED									
11166	2	-	-	-	3	4	-	-	-	-	64	-	-	87	-	2	90	47	49,5	2,8	8	4,0	0,18
	-	3	-	-	3	4	-	-	-	-	-	-	-	87	-	2							
11167	2	-	-	-	3	4	-	-	-	-	64	-	-	87	-	2	90	50	52,5	2,8	8	4,0	0,22
11173	2	-	-	-	3	4	-	-	-	-	64	-	-	-	-	2	70	37	39,5	2,5	8	4,0	0,13
	2	-	-	-	3	4	-	-	-	-	-	-	87	1	2								
	-	3	-	-	3	4	-	-	-	-	-	-	87	1	2								
	-	3	-	-	3	4	06	21	-	25	-	-	-	1	-								
11174	2	-	-	-	3	4	-	-	23	-	-	-	-	-	-	2	90	37	39,5	2,5	8	4,0	0,17
	2	3	-	-	3	4	-	-	-	-	-	-	87	1	2								
	-	3	-	-	3	4	-	21	-	-	-	-	-	-	2								
	-	3	-	-	3	-	-	-	25	-	-	-	-	1	2								
	-	3	-	-	3	4	06	-	-	-	-	-	-	1	-								
	-	-	7	-	3	4	-	-	-	-	-	85	-	1	-								
	-	-	-	8	3	4	-	-	-	-	-	86	-	1	-								
11177	-	3	-	-	3	4	-	-	-	-	-	-	-	87	1	2	90	37	39,5	2,5	8	4,0	0,19
	-	3	-	-	3	4	06	-	-	-	-	-	-	1	-								
11178	-	3	-	-	3	4	06	-	-	-	-	-	-	87	1	-	90	37	39,5	2,5	8	4,0	0,19
11179	-	3	-	-	3	4	06	-	-	-	-	-	-	87	1	-	90	30	30	2,5	8	4,0	0,16

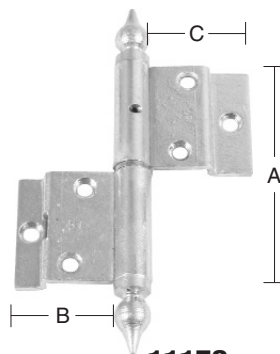
*11174-73851 & 11174-74851 WHIT STAINLESS STEEL PIN



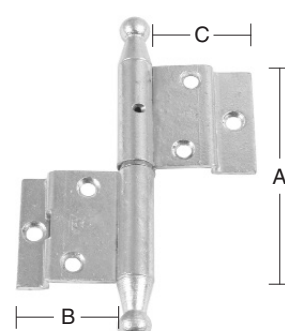
11166-67 + 11173-74
RIGHT HAND



11177
RIGHT HAND



11178
RIGHT HAND



11179
RIGHT HAND



FITTING INSTRUCTIONS

EXAMPLE WOOD PROFILE

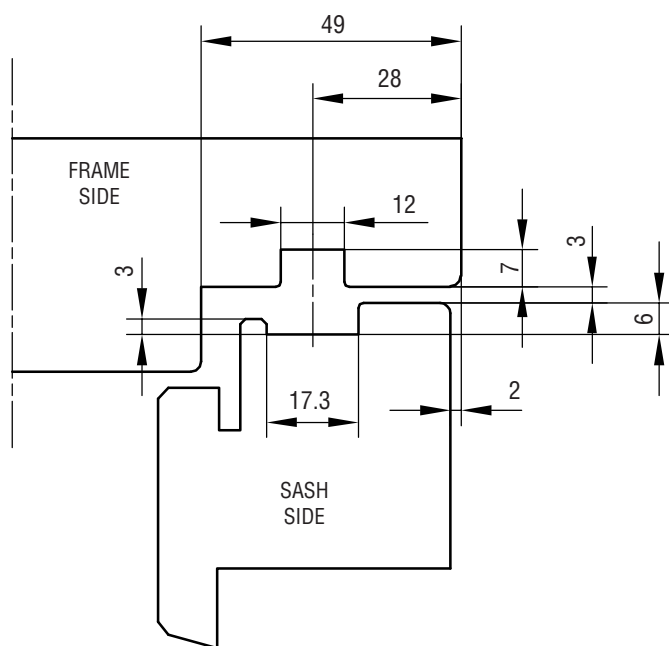


FIG. 1

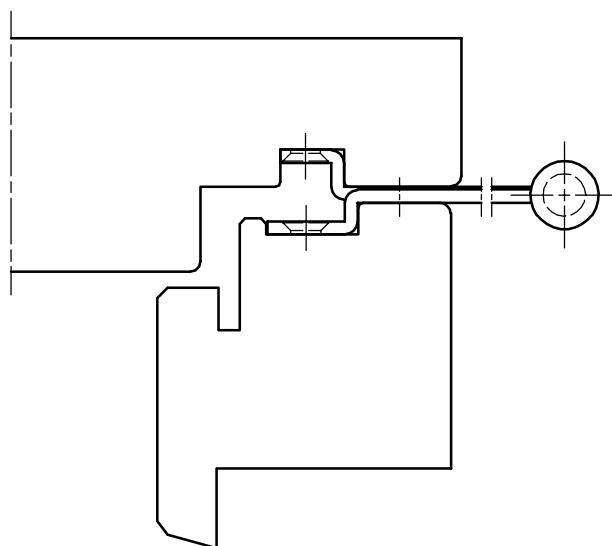


FIG. 2

MAINTENANCE:

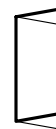
TEST THE OPERATION FROM TIME TO TIME.

WHEN FITTING - GREASE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER GREASE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



DOOR HINGE

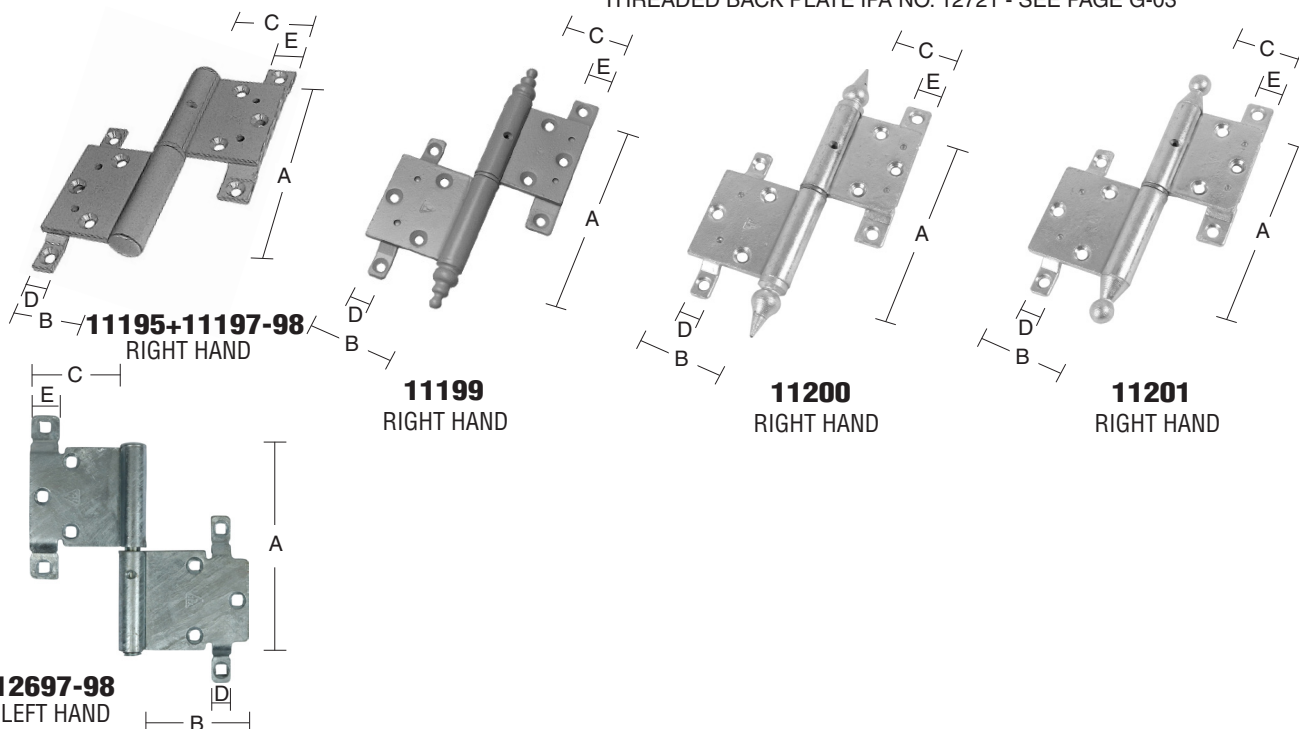
IPA NO.s 11195-99 & 11200-201 & 12697-98



ORDERING NO.																
IPA NO.	MATERIAL						SURFACE									
	STEEL FIXED STEEL PIN	STEEL FIXED BRASS PIN	BRASS FIXED S.S. PIN	STAINLESS STEEL			ELECTROPL. WHITE	ELECTROPLATED	ELECTROPL. SEALET	ELECTROPL. YELLOW	ELECTROPL. GREY	POLISHED	UNMACHINED	GALVANIZED	STANDARD PACKING IN BOXES OF 10 PIECES	INDUSTRY PACKING IN BOXES OF 50 PIECES
					SQUARE EDGES LEFT	SQUARE EDGES RIGHT										
11195	2	-	-	-	3	4	-	-	-	-	-	-	-	87	1	-
11197	2	-	-	-	3	4	-	-	-	-	64	-	-	87	-	2
	-	3	-	-	3	4	-	-	-	25	-	-	-	87	1	2
11198	2	-	-	-	3	4	-	21	23	-	64	-	-	87	-	2
	2	-	-	-	3	4	-	-	-	-	-	-	-	87	1	-
	-	3	-	-	3	4	-	21	-	-	-	-	-	87	-	2
	-	3	-	-	3	4	06	-	-	-	-	-	-	-	1	-
	-	-	7	-	3	4	-	-	-	-	-	85	-	-	1	-
	-	-	-	8	3	4	-	-	-	-	-	-	86	-	1	-
11199	-	3	-	-	3	4	06	-	-	-	-	-	-	87	1	-
11200	-	3	-	-	3	4	06	-	-	-	-	-	-	87	1	-
11201	-	3	-	-	3	4	-	-	-	-	-	-	-	87	1	-
12697	2	-	-	-	3	4	06	-	-	-	-	-	-	87	-	2
12698	2	-	-	-	3	4	06	-	-	-	-	-	-	87	-	2

*11198-73851 & 11198-74851 WHIT STAINLESS STEEL PIN

THREADED BACK PLATE IPA NO. 12721 - SEE PAGE G-03





FITTING INSTRUCTIONS

EXAMPLE WOOD PROFILE

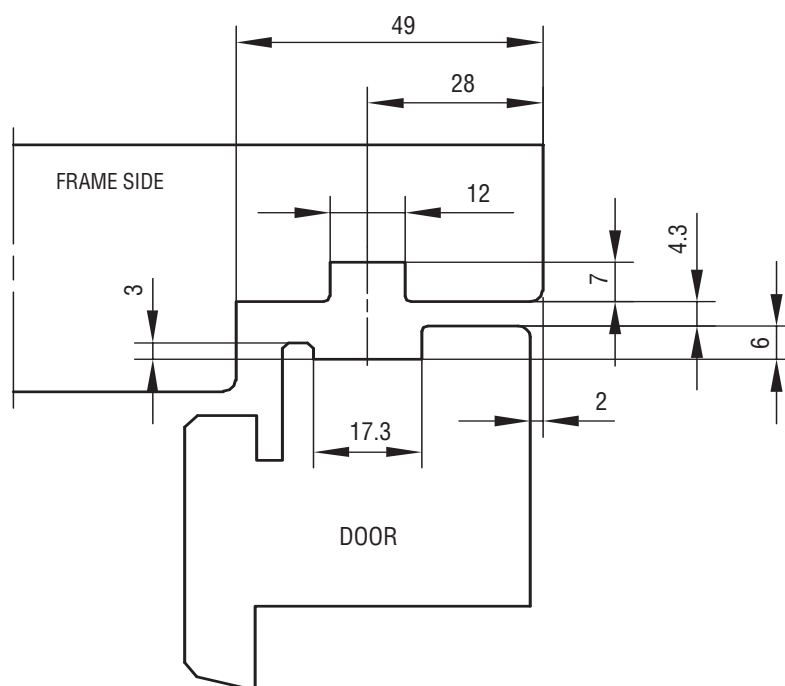


FIG. 1

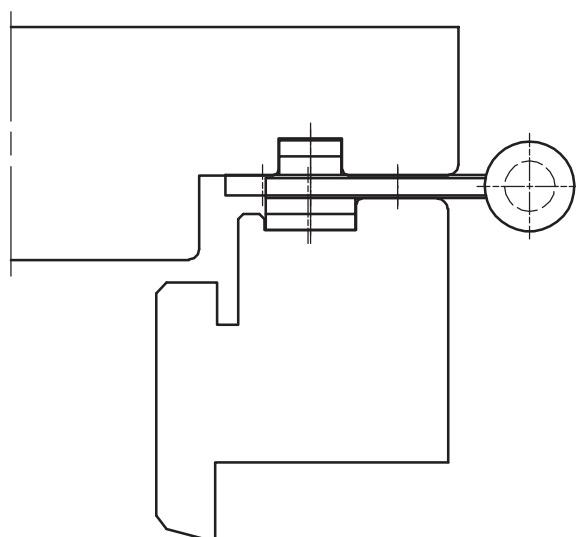


FIG. 2

MAINTENANCE:

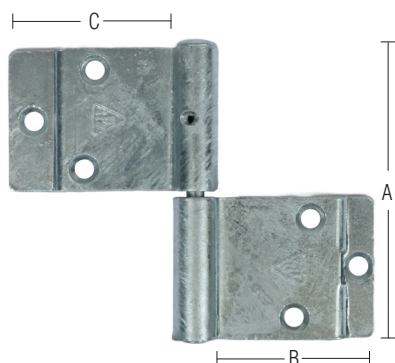
TEST THE OPERATION FROM TIME TO TIME.

WHEN FITTING - GREASE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER GREASE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



WINDOW HINGE - ADJUSTABLE

IPA NO. 12067 & 12074



12067 & 12074

LEFT

ORDERING NO.													
IPA NO.	MATE- RIAL	SQUARE EDGES LEFT	SQUARE EDGES RIGHT	SUR- FACE		INDUSTRY PACKING IN BOXES OF 50 PIECES	A MM	B MM	C MM	PLATE MM	PIN MM	SCREW	APPROX. WEIGHT KG / PIECES
	STEEL												
12067	2	3	4	87	06	2	90	50	52,5	2,8	8	4,0	0,22
12074	2	3	4	-	06	2	90	37	39,5	2,5	8	4,0	0,17



FITTING INSTRUCTIONS

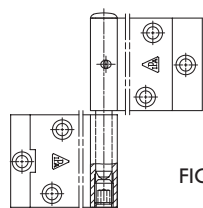


FIG. 1

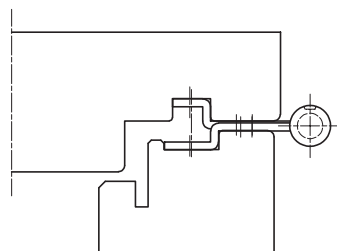


FIG. 3 IPA NO. 12074

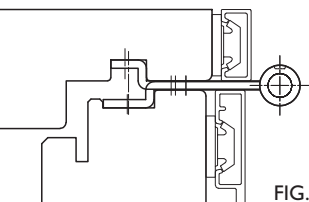


FIG. 5 IPA NO. 12067

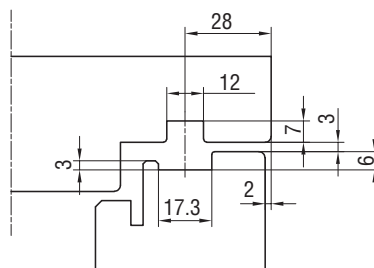


FIG. 2 EXAMPLE WOOD PROFILE

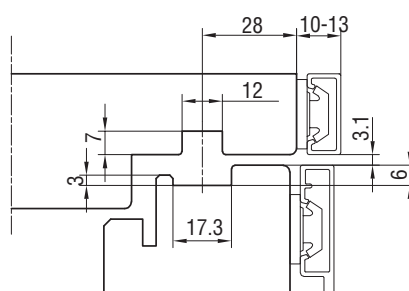


FIG. 4 EXAMPLE WOOD PROFILE

FITTING:

1. SIDE FRAME AND SIDE SASH IS MADE WITH IPA SYSTEM GROOVES. SEE FIG. 2.
2. MOUNT THE HINGE IN FRAME AND SASH IN THE WANTED POSITIONS - SEE SUGGESTIONS ON PAGE A-05 AND A-06.

ADJUSTMENT:

VERTICALLY: ADJUST TO WANTED POSITION ON THE SCREW IN THE BOTTOM OF THE HINGE PART - +/- 2,5 MM.

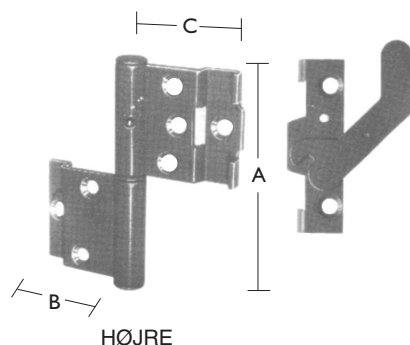
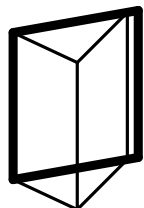
MAINTENANCE:

TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HERAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



HINGES

FOR COUPLED SASH WINDOWS WITH SASH COUPLERS IPA NO.s 11717-18



ORDERING NO.													
IPA NO.	MATERIAL			SURFACE			A MM	B MM	C MM	THICKNESS PLATE MM	PIN MM	SCREW	APPROX.WEIGHT KG/EACH
	STEEL FIXED BRASS PIN	SQUARE EDGES LEFT	SQUARE EDGES RIGHT	GALVANIZED	STANDARD PACKING IN BOXES OF 10 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES							
11717	3	3	4	87	1	-	90	36,5	39	2,5	8	4,0	0,20
11718	3	3	4	87	1	2	90	36,5	39	2,5	8	4,0	0,22

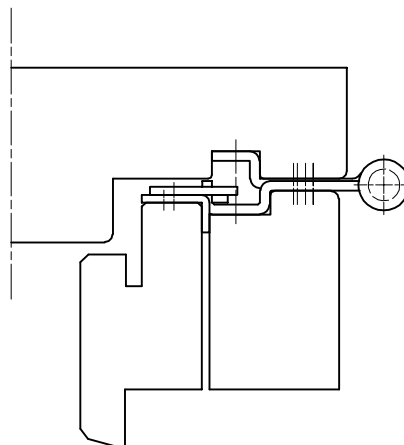
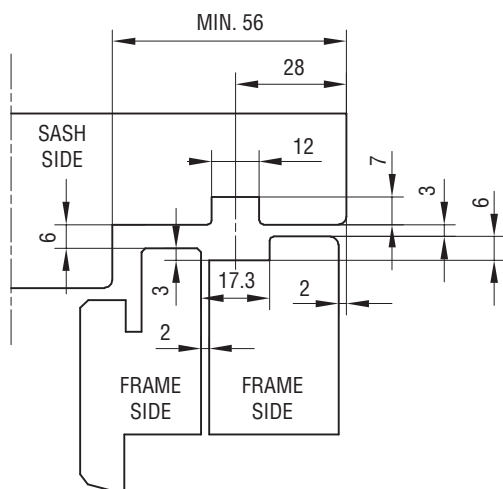
COUPLING HINGES IPA NO.s 13241-43 - SEE PAGE G-03.

IPA NO. 11718 IS WITH SPECIAL FINIALS →



FITTING INSTRUCTIONS

EXAMPLE WOOD PROFILE



MAINTENANCE:

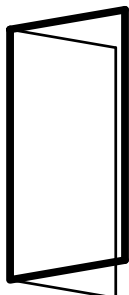
TEST THE OPERATION FROM TIME TO TIME.

WHEN FITTING - GREASE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER GREASE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



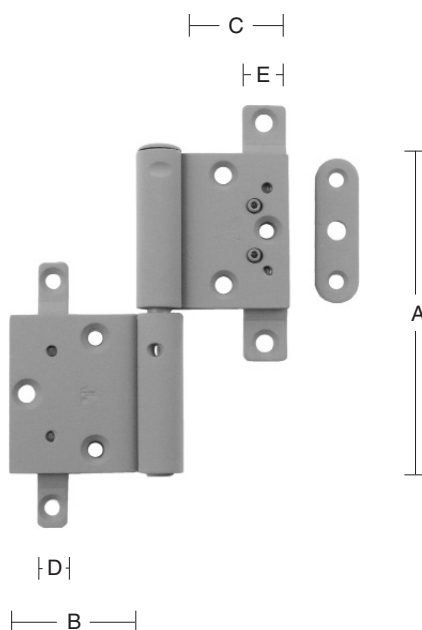
DOOR HINGE - ADJUSTABLE

IPA NO. 12197-98



ORDERING NO.																	
IPA NO.	MATERIAL			SURFACE					A MM	B MM	C MM	D MM	E MM	PLATE MM	PIN MM	SCREW	APPROX. WEIGHT KG / PIECES
	STEEL FIXED PIN	SQUARE EDGES LEFT	SQUARE EDGES RIGHT	ELECTROPL. BLUE	ELECTROPL. GREY	GALVANIZED	STANDARD PACKING IN BOXES OF 10 PIECES	INDUSTRY PACKING IN BOXES OF 50 PIECES									
12197	2	3	4	-	64	87	-	2	120	59	51,5	12	17	4	9,5	5,0	0,52
12198	2	3	4	21	-	-	1	-	120	49	41,5	12	17	4	9,5	5,0	0,47
	2	3	4	-	-	87	1	2									
	2	3	4	-	64	-	-	2									

● HORIZONTALLY AND VERTICALLY ADJUSTABLE



RIGHT HAND



FITTING INSTRUCTIONS

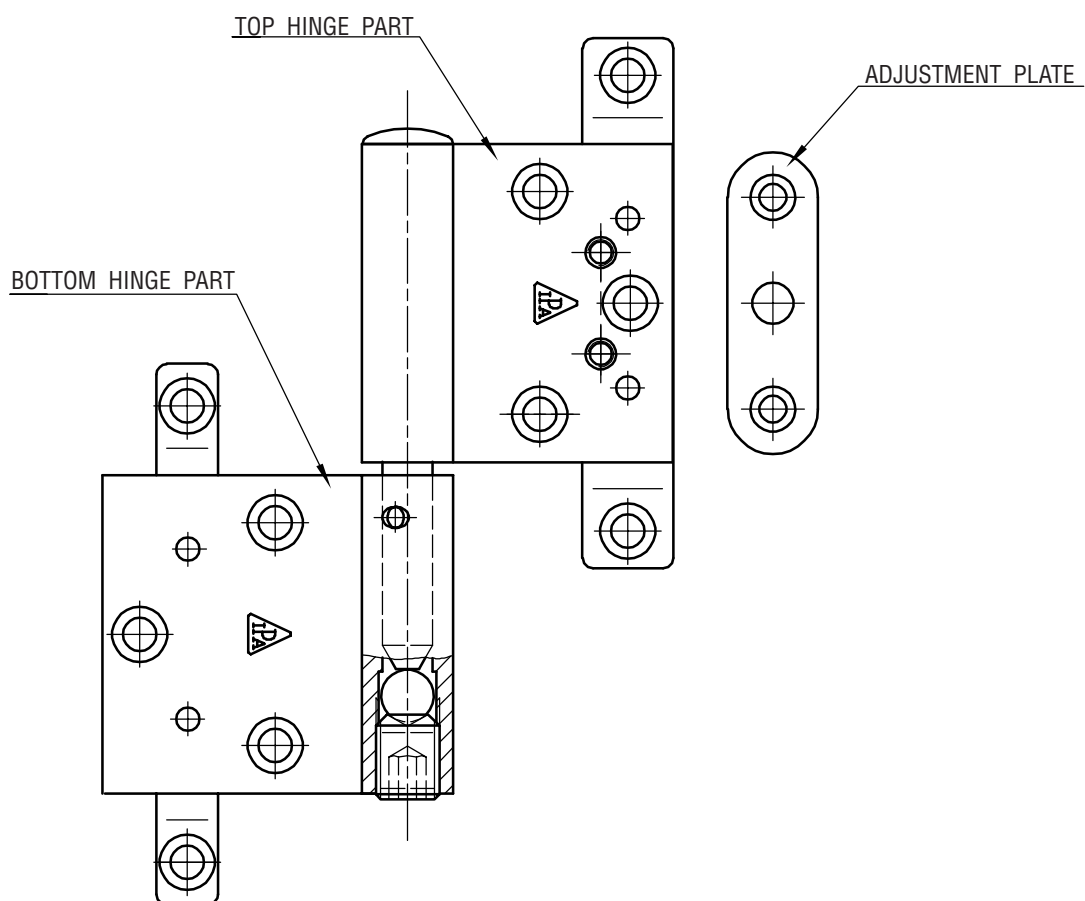


FIG. 1

FITTING:

1. MOUNT THE ADJUSTMENT PLATE IN THE GROOVE OF THE DOOR IN THE MIDDLE OF WHERE THE TOP HINGE PART IS BEING MOUNTED.
2. PLACE THE TOP HINGE PART OVER THE ADJUSTMENT PLATE AND FASTEN IT. THE ADJUSTMENT SCREWS SHOULD BE LOOSENED.

ADJUSTMENT:

HORIZONTALLY: LOOSEN THE MOUNTING SCREWS AND ADJUST TO WANTED POSITION. FASTEN THE MOUNTING SCREWS.

VERTICALLY: ADJUST TO WANTED POSITION ON THE LARGE SCREW IN THE BOTTOM HINGE PART - ± 3 MM.

MAINTENANCE:

TEST THE OPERATION FROM TIME TO TIME.
WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY.
HEREAFTER LUBRICATE MINIMUM TWICE A YEAR.
SEE ALSO SECTION H.

EXAMPLE WOOD PROFILE

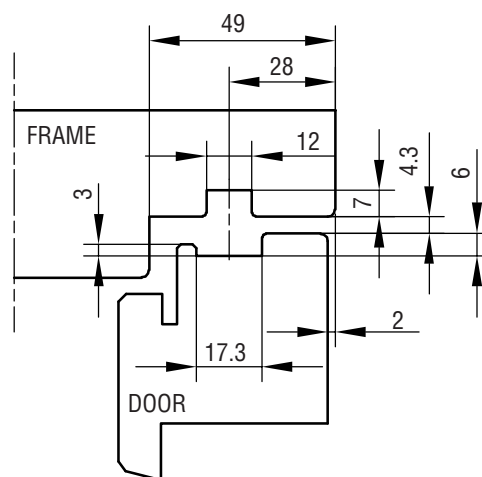
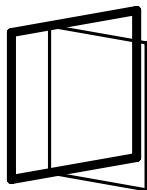


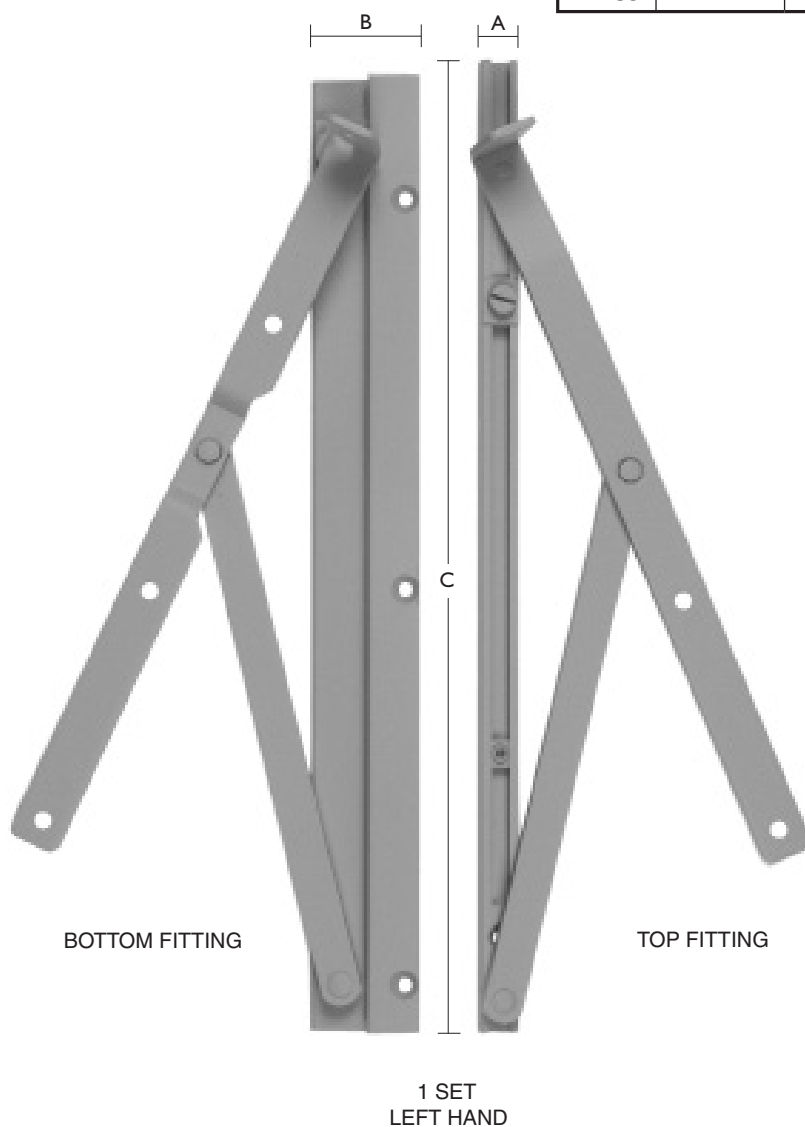
FIG. 2



SIDE SWING WINDOW 90° WITH FRICTION IPA NO. 21193



ORDERING NR.										
IPA NR.	MATERIAL			SURFACE		A MM	B MM	C MM	SCREW	APPROX WEIGHT KG / SETS
	STEEL			ELECTROPLATED	STANDARD PACKING IN BOXES OF 5 SETS					
21193	1	7	8	21	1	12	36	313	4,0	0,55



- CONVINIENT FOR CLEANING
- SWINGS 90°
- OPENS CLEAR FROM CURTAINS AND WINDOW FRAME
- MAX. VENTILATION
- CONCEALED FITTINGS
- FRICTION IN ALL POSITIONS
- ADJUSTABLE FRICTION
- ANODIZED ALUMINIUM RAILS
- EASY TO OPERATE
- EASY TO FIT
- ELECTROPLATED STEEL PARTS

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE



FITTING INSTRUCTIONS

IMPORTANT: WHEN FITTING/MOUNTING THE WINDOW IT IS NECESSARY THAT THE TOP AND BOTTOM FRAMES ARE STRAIGHT. THIS IS IMPERATIVE FOR THE SLIDES TO TRAVEL FREELY IN THEIR ALUMINIUM RAILS.

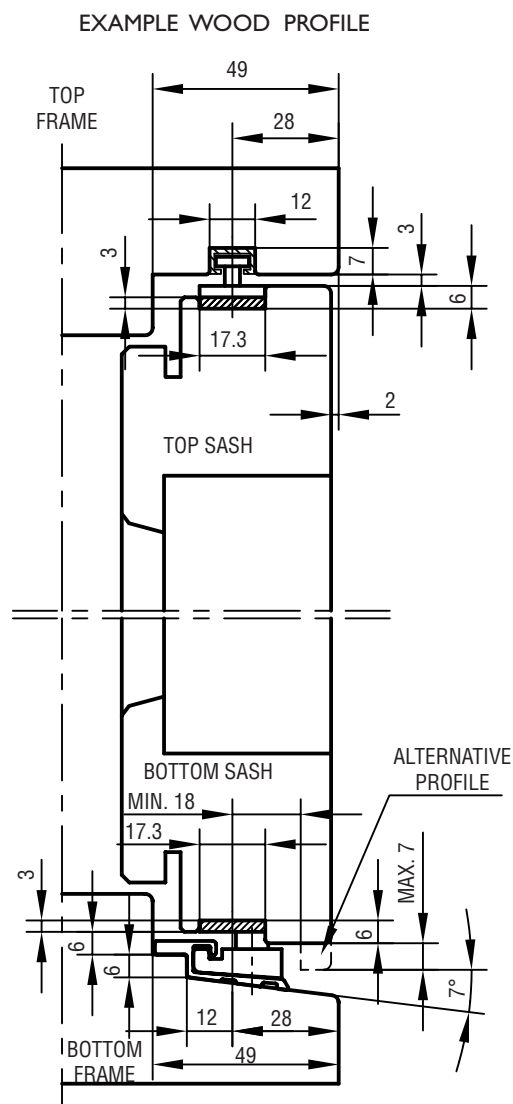


FIG. 1
VERTICAL PLAN

SIDE FRAME AND SIDE SASH MUST HAVE THE SAME PROFILE AS TOP FRAME AND TOP SASH.

FITTING:

1. FIT THE ALUMINIUM RAILS INTO TOP AND BOTTOM FRAME SO THAT THE BOTTOM RAIL IS PLACED AGAINST THE FRAME ON THE HINGE SIDE. FASTEN THE SCREWS (FIGURE 1 AND 2).
2. INSERT SASH INTO POSITION OF THE STEERING KNUCKLE ARMS - GUIDED BY THE SASH GROOVE. FASTEN THE SCREWS.
3. NOW THE FRICTION CAN BE ADJUSTED BY MEANS OF THE NYLON SCREW ON THE TOP FITTING.

MAINTENANCE:

DO NOT PAINT THE ALUMINIUM RAILS.

WHEN FITTING - LUBRICATE THE MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

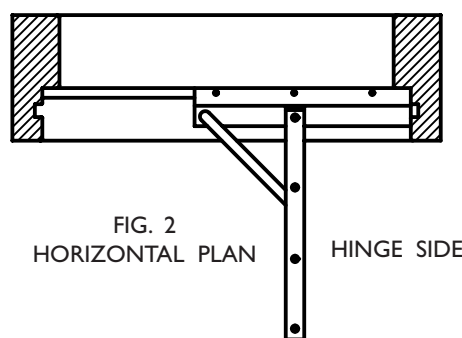


FIG. 2
HORIZONTAL PLAN HINGE SIDE

FITTING SHOWN ON BOTTOM CILL
RIGHT HAND ILLUSTRATION

IPA NO.	21193
MAX. WEIGHT OF SASH KG	40
MIN. WIDTH NOF SASH	320
MAX. WIDTH OF SASH	820
USE SCREW NO.	4.0

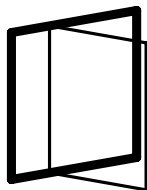
FIG. 3

REG. TALL WINDOWS:

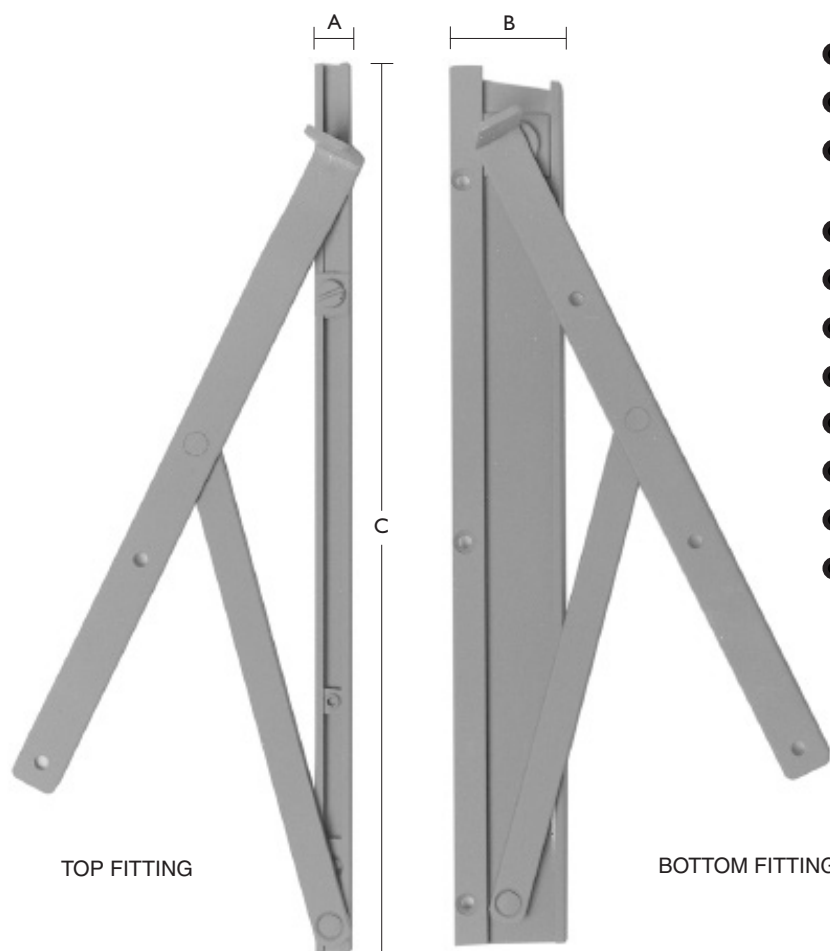
FOR TALL AND NARROW SASHES PLEASE NOTE THAT THE TOP AND BOTTOM SLIDING ELEMENTS MAY NOT MOVE EXACTLY ALIKE, BECAUSE OF THE DISTANCE BETWEEN THE TWO ELEMENTS. THIS MAY MAKE THE MOVEMENT OF THE SASH A LITTLE MORE DIFFICULT. EVT. USE BOTH HANDS.



SIDE SWING WINDOW 90° WITH FRICTION IPA NO. 21194-95



ORDERING NR.										
IPA NR.	MATERIAL	LEFT	RIGHT	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	C MM	SCREW	APPROX WEIGHT KG / SETS
	STEEL			ELECTROPLATED						
21194	1	7	8	21	1	12	40	157	4,0	0,28
21195	1	7	8	21	1	12	40	313	4,0	0,55



TOP FITTING

BOTTOM FITTING

1 SET

RIGHT HAND ILLUSTRATION

- CONVENIENT FOR CLEANING
- SWINGS 90°
- OPENS CLEAR FROM CURTAINS AND WINDOW FRAME
- MAX. VENTILATION
- EASY TO OPERATE
- EASY TO FIT
- CONCEALED FITTINGS
- FRICTION IN ALL POSITIONS
- ADJUSTABLE FRICTION
- ANODIZED ALUMINIUM RAILS
- ELECTROPLATED STEEL PARTS

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE



FITTING INSTRUCTIONS

IMPORTANT: WHEN MANUFACTURING THE WINDOW AND MOUNTING THE FITTINGS THE SLIDING SHOES NEED TO BE IN CENTER POSITION IN THE ALUMINIUM PROFILE; THIS ENABLES THE WOOD TO WORK. WHEN MOUNTING THE WINDOW THE TOP AND BOTTOM FRAME SHOULD BE PARALLEL. THIS IS NECESSARY, IN ORDER TO LET THE SLIDING SHOES GLIDE WITHOUT FRICTION IN THE ALUMINIUM PROFILE.

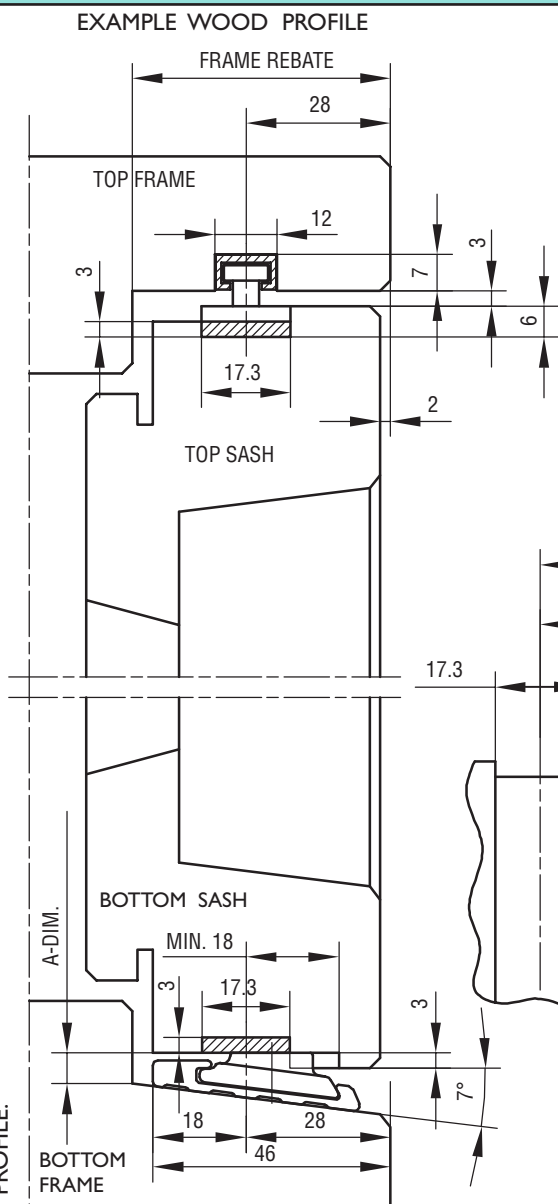


FIG. 1
VERTICAL PLAN

FRAME SIDE AND SASH SIDE NEED TO HAVE THE SAME PROFILE AS TOP FRAME AND TOP SASH.

FITTING:

1. THE FITTING SHOULD BE POSITIONED IN THE GROOVES AT HEAD AND CILL OF FRAME AND SCREWED ON (FIGURE 1 AND 2)
2. NOW PUSH THE WINDOW SASH INTO POSITION BY SASH SLOTS AND FASTEN THE SCREWS.
3. NOW THE FRICTION CAN BE ADJUSTED BY MEANS OF THE NYLON SCREW ON THE TOP FITTING. IF A LARGER OPENING ANGEL IS WANTED THEN MOVE THE ADJUSTABLE STOP FITTING IN THE TOP FRAME ALUMINIUM RAIL.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.

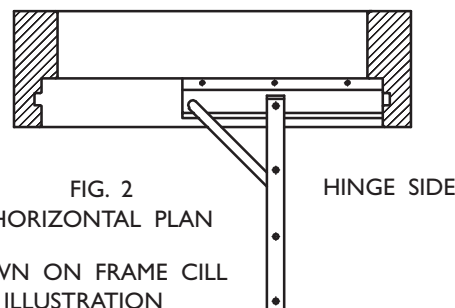


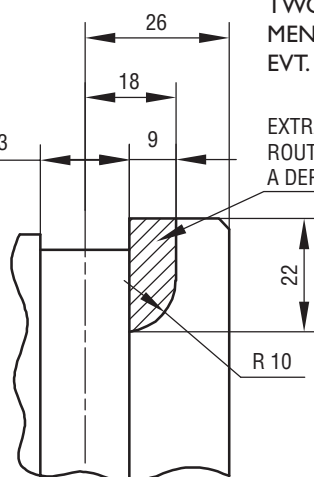
FIG. 2
HORIZONTAL PLAN

FITTING SHOWN ON FRAME CILL
RIGHT HAND ILLUSTRATION

REG. TALL WINDOWS:

FOR TALL AND NARROW SASHES PLEASE NOTE THAT THE TOP AND BOTTOM SLIDING ELEMENTS MAY NOT MOVE EXACTLY ALIKE, BECAUSE OF THE DISTANCE BETWEEN THE TWO ELEMENTS. THIS MAY MAKE THE MOVEMENT OF THE SASH A LITTLE MORE DIFFICULT. EVT. USE BOTH HANDS.

EXTRA CUT OUT IN SASH FROM UNDERNEATH. THE SLOT ROUTE-RED OUT MUST HAVE A WIDTH OF 22 X 9 MM AND A DEPTH OF 3 MM.



FRAME REBATE	A-DIM.
46	6.5
50	6.0
54	5.5

FIG. 3

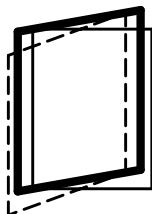
IPA NO.	21194	21195
MAX. WEIGHT OF SASH KGS	20	40
MIN. WIDTH OF SASH	150	320
MAX. WIDTH OF SASH	320	820
USE SCREW NO.	4.0	4.0

FIG. 4

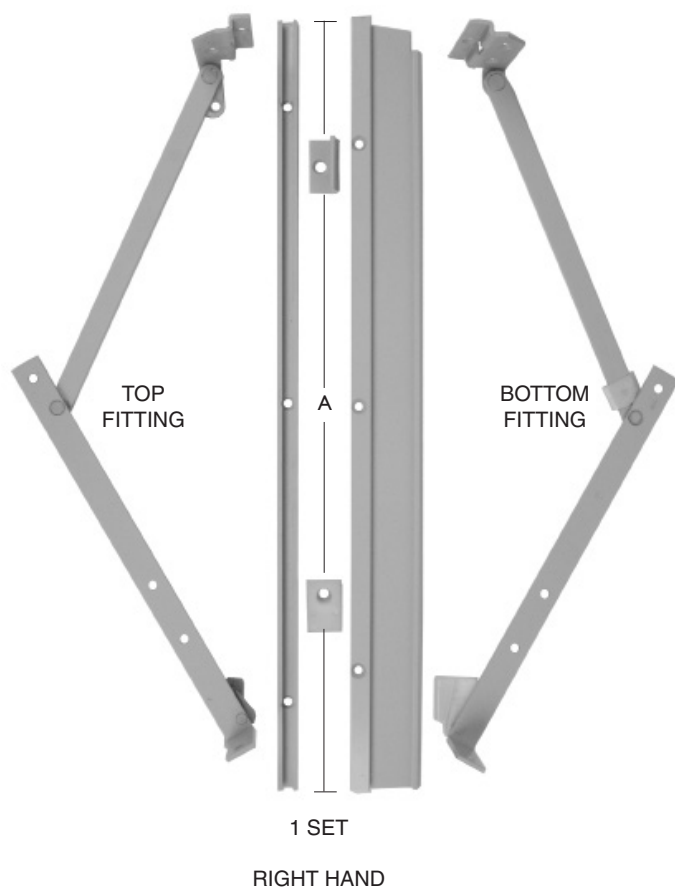


SIDE SWING WINDOW 180°

IPA NO.s 21290-95



ORDERING NO.											
IPA NO.	MATERIAL			SURFACE				FRAME DIMENSION INSIDE MM	STEEL PARTS MM	SCREW	APPROX WEIGHT KG /SET
	STEEL			ELECTROPLATED	STANDARD PACKING IN BOXES OF 5 SETS						
21290	1	7	8	21	1	3	346	204 - 346	13 X 4	3,5 & 4,0	0,50
21291	1	7	8	21	1	4	446	347 - 446	13 X 4	3,5 & 4,0	0,62
21292	1	7	8	21	1	5	546	447 - 546	13 X 4	3,5 & 4,0	0,74
21293	1	7	8	21	1	6	646	547 - 646	13 X 4	3,5 & 4,0	0,86
21294	1	7	8	21	1	7	746	647 - 746	13 X 4	3,5 & 4,0	0,98
21295	1	7	8	21	1	8	846	747 - 846	13 X 4	3,5 & 4,0	1,10



- CONVENIENT FOR CLEANING
- FULLY REVERSIBLE 180°
- OPENS CLEAR OF CURTAINS AND WINDOW FRAMES
- MAX. VENTILATION
- CONCEALED FITTINGS
- ANODIZED ALUMINIUM RAILS

FIRE-ESCAPE OPENING:
600 MM FROM MODULE 8



FITTING INSTRUCTIONS

IMPORTANT: WHEN FITTING/MOUNTING THE WINDOW IT IS NECESSARY THAT THE TOP AND BOTTOM FRAMES ARE STRAIGHT. THIS IS IMPERATIVE FOR THE SLIDES TO TRAVEL FREELY IN THEIR ALUMINIUM RAILS.

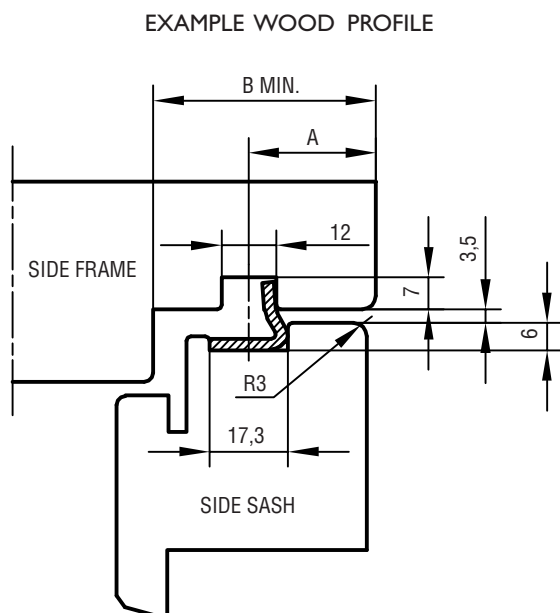


FIG. 2
SHOWN WITH SUPPORT FITTING
HORIZONTAL PLAN

FITTING:

1. CUT OFF THE ENDS OF ALUMINIUM RAILS - IF NECESSARY - CUT OFF MUST BE MADE IN THE END OPPOSITE THE HINGE SIDE.
2. ASSEMBLE SLIDE BARS AND SLIDE BLOCKS.
3. FIT THE ALUMINIUM RAILS INTO TOP AND BOTTOM FRAME SO THAT THE BOTTOM RAIL IS PLACED AGAINST THE FRAME ON THE HINGE SIDE. SHOWN IN FIG. 6. THEN MOUNT THE FRAME BRACKETS INTO GROOVES OF THE SIDE FRAMES AND FASTEN THE SCREWS.
4. INSERT SASH INTO POSITION OF THE STEERING KNUCKLE ARMS - GUIDED BY THE SASH GROOVE. FASTEN THE SCREWS.
5. FIT THE BEARING BLOCK (PLASTIC) INTO THE GROOVE OF THE BOTTOM SASH - APPROX. IN THE MIDDLE OF THE FREE PART OF THE GROOVE. FASTEN THE SCREWS.
6. THE SUPPORT FITTING IS FITTED IN THE MIDDLE OF THE SIDE SASH IN THE HINGE SIDE. SEE FIG. 2.

IPA NO.	MODULE	INSIDE FRAME MM	LENGTH OF FITTINGS MM	MAX. WEIGHT KG
21290	3	204 - 346	346	40
21291	4	347 - 446	446	40
21292	5	447 - 546	546	40
21293	6	547 - 646	646	40
21294	7	647 - 746	746	40
21295	8	747 - 846	846	40

FIG. 3

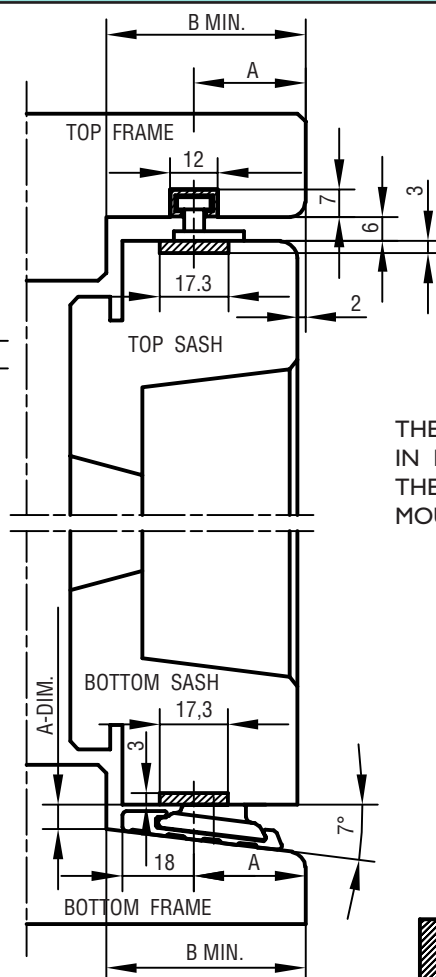


FIG. 1
VERTICAL PLAN

A	B MIN.
28.0	49.0
27.5	48.0
27.0	47.0
26.5	46.0

FIG. 4

THE DIMENSIONS INDICATED IN FIG. 4 MEAN THAT THE WEATHERSTRIP MUST BE MOUNTED ON THE SASH

FRAME REBATE	A-DIM.
46	6.5
50	6.0
54	5.5

FIG. 5

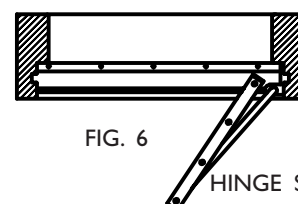


FIG. 6

FITTING SHOWN ON BOTTOM CILL RIGHT HAND ILLUSTRATION

NO. 3.5 SCREWS ARE USED FOR TOP ALU-RAIL OTHERWISE SCREWS NO. 4.0.

REG. TALL WINDOWS:

FOR TALL AND NARROW SASHES PLEASE NOTE THAT THE TOP AND BOTTOM SLIDING ELEMENTS MAY NOT MOVE EXACTLY ALIKE, BECAUSE OF THE DISTANCE BETWEEN THE TWO ELEMENTS. THIS MAY MAKE THE MOVEMENT OF THE SASH A LITTLE MORE DIFFICULT. EVT. USE BOTH HANDS.

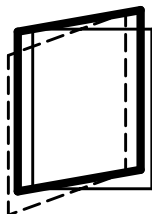
MAINTENANCE:

DO NOT PAINT THE ALUMINIUM RAILS. WHEN FITTING - LUBRICATE THE MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

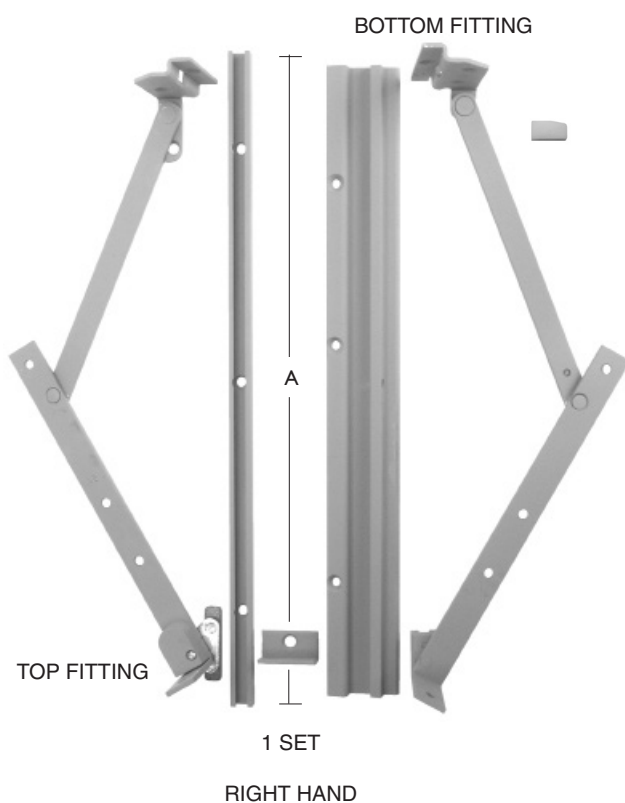


SIDE SWING WINDOW 180°

IPA NO.s 21281-86



ORDERING NO.											
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	MODULE	A MM	FRAME DIMENSION INSIDE MM	STEEL PARTS MM	SCREW	APPROX WEIGHT KG /SET
	STEEL	LEFT	RIGHT	ELECTROPLATED							
21281	1	7	8	21	1	3	342	204 - 331	13 X 4	3,5 & 4,0	0,50
21282	1	7	8	21	1	4	442	332 - 431	13 X 4	3,5 & 4,0	0,62
21283	1	7	8	21	1	5	542	432 - 531	13 X 4	3,5 & 4,0	0,74
21284	1	7	8	21	1	6	642	532 - 631	13 X 4	3,5 & 4,0	0,86
21285	1	7	8	21	1	7	742	632 - 731	13 X 4	3,5 & 4,0	0,98
21286	1	7	8	21	1	8	842	732 - 831	13 X 4	3,5 & 4,0	1,10



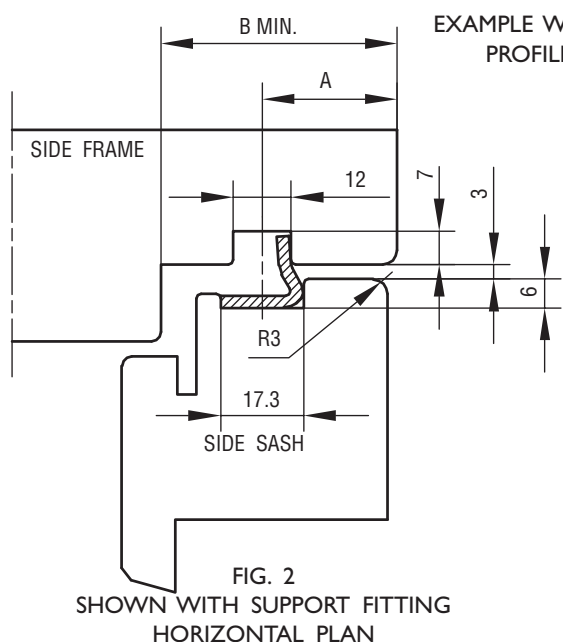
- CONVENIENT FOR CLEANING
- FULLY REVERSIBLE 180°
- OPENS CLEAR OF CURTAINS AND WINDOW FRAMES
- MAX. VENTILATION
- CONCEALED FITTINGS
- ANODIZED ALUMINIUM RAILS

FIRE-ESCAPE OPENING:
600 MM FROM MODULE 8



FITTING INSTRUCTIONS

IMPORTANT: WHEN FITTING/MOUNTING THE WINDOW IT IS NECESSARY THAT THE TOP AND BOTTOM FRAMES ARE STRAIGHT. THIS IS IMPERATIVE FOR THE SLIDES TO TRAVEL FREELY IN THEIR ALUMINIUM RAILS.



FITTING:

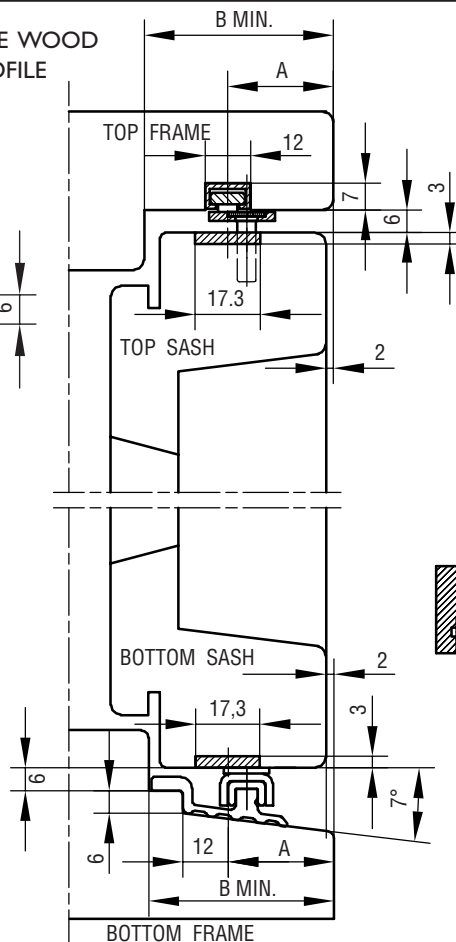
1. CUT OFF THE ENDS OF ALUMINIUM RAILS - IF NECESSARY - CUT OFF MUST BE MADE IN THE END OPPOSITE THE HINGE SIDE.
2. ASSEMBLE SLIDE BARS AND SLIDE BLOCKS.
3. FIT THE ALUMINIUM RAILS INTO TOP AND BOTTOM FRAME SO THAT THE BOTTOM RAIL IS PLACED AGAINST THE FRAME ON THE HINGE SIDE. SHOWN IN FIG. 6. THEN MOUNT THE FRAME BRACKETS INTO GROOVES OF THE SIDE FRAMES AND FASTEN THE SCREWS.
4. INSERT SASH INTO POSITION OF THE STEERING KNUCKLE ARMS - GUIDED BY THE SASH GROOVE. FASTEN THE SCREWS.
5. FIT THE BEARING BLOCK (PLASTIC) INTO THE GROOVE OF THE BOTTOM SASH - OPPOSITE THE HINGE SIDE. FASTEN THE SCREW.
6. THE SUPPORT FITTING IS FITTED IN THE MIDDLE OF THE SIDE SASH IN THE HINGE SIDE. SEE FIG. 2.

IPA NO.	MODULE	INSIDE FRAME MM	LENGTH OF FITTINGS MM	MAX. WEIGHT KG
21281	3	204 - 331	342	40
21282	4	332 - 431	442	40
21283	5	432 - 531	542	40
21284	6	532 - 631	642	40
21285	7	632 - 731	742	40
21286	8	732 - 831	842	40

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.

EXAMPLE WOOD PROFILE



A	B MIN.
28.0	49.0
27.5	48.0
27.0	47.0

FIG. 4

THE DIMENSIONS INDICATED IN FIG. 4 MEAN THAT THE WEATHERSTRIP MUST BE MOUNTED ON THE SASH

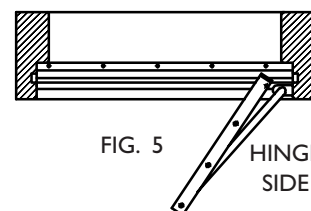


FIG. 5

FITTING SHOWN ON BOTTOM CILL RIGHT HAND ILLUSTRATION

REG. TALL WINDOWS:

FOR TALL AND NARROW SASHES PLEASE NOTE THAT THE TOP AND BOTTOM SLIDING ELEMENTS MAY NOT MOVE EXACTLY ALIKE, BECAUSE OF THE DISTANCE BETWEEN THE TWO ELEMENTS. THIS MAY MAKE THE MOVEMENT OF THE SASH A LITTLE MORE DIFFICULT. EVT. USE BOTH HANDS.

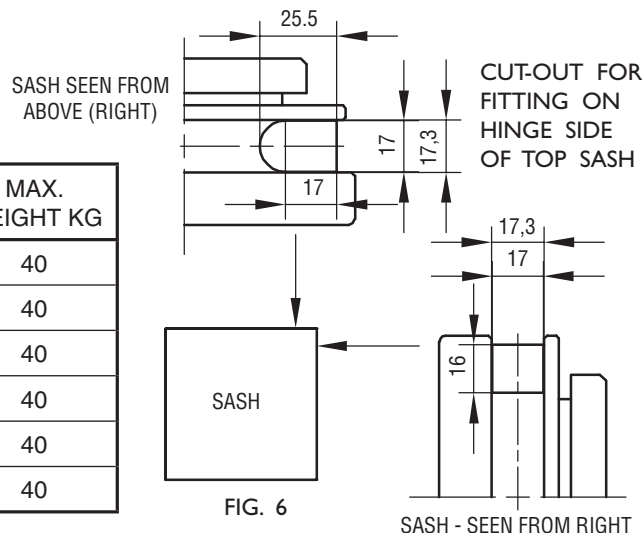


FIG. 6

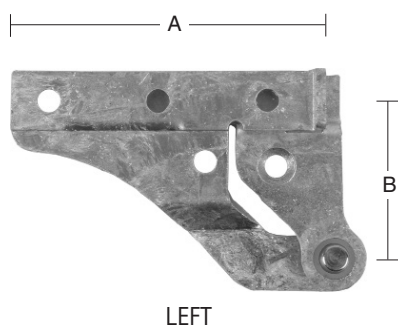
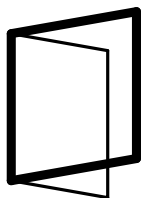
SASH - SEEN FROM RIGHT



HINGES

FOR TOP MOUNTING

IPA NO.s 11907-08 & 11924-25



ORDERING NO.												
IPA NO.	MATERIAL			SURFACE			STANDARD PACKING IN BOXES OF 10 PIECES	A MM	B MM	THICKNESS PLATE MM	SCREW	APPROX WEIGHT KG / EACH
	STEEL			ELECTROPL. / GREY	ELECTROPL. / WHITE	GALVANIZED						
11907	1	7	8	64	66	87	1	80	51,5	2,5	4,5	0,11
11908	1	7	8	64	66	87	1	80	41,5	2,5	4,5	0,10
11924	1	7	8	-	-	87	1	80,5	51	2,5	4,5	0,11
11925	1	7	8	-	-	87	1	80,5	37,5	2,5	4,5	0,09

IPA NO. 11907: USED IN CONJUNCTION WITH
DOOR HINGE IPA NO. 11197.

IPA NO. 11908: USED IN CONJUNCTION WITH
DOOR HINGE IPA NO. 11198.

IPA NO. 11924: USED IN CONJUNCTION WITH
WINDOW HINGE IPA NO. 11167.

IPA NO. 11925: USED IN CONJUNCTION WITH
WINDOW HINGE IPA NO. 11174.



FITTING INSTRUCTIONS

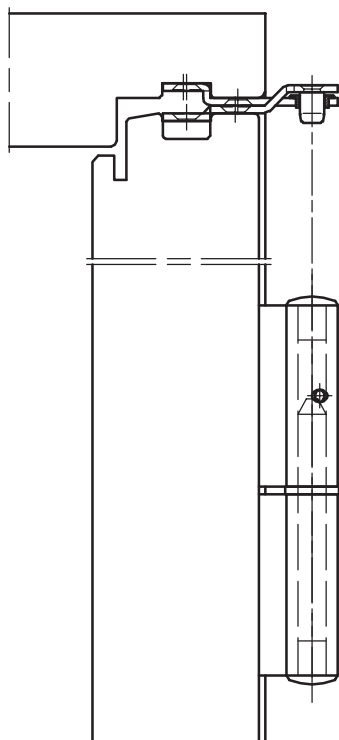


FIG. 1

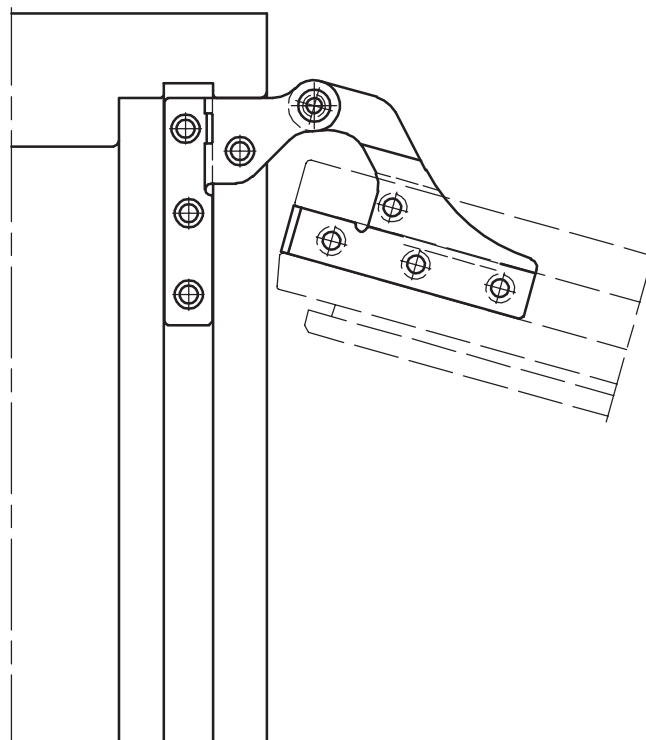


FIG. 2

IPA NO. 11907-08 + 11924-25 IS MOUNTED ON HINGE SIDE ON TOP SASH AND TOP FRAME AS SHOWN ON FIG. 1 AND FIG. 2

MAINTENANCE:

DO NOT PAINT THE FITTING.

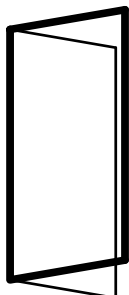
WHEN FITTING - LUBRICATE THE MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR.

SEE ALSO SECTION H.



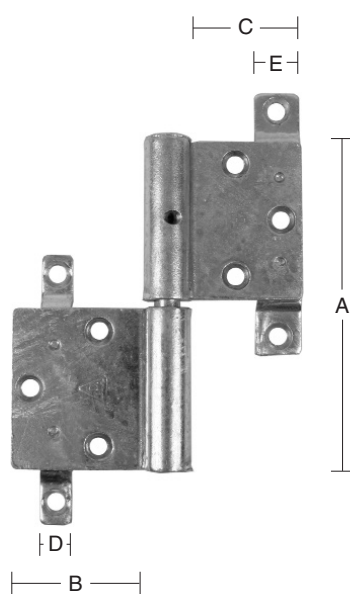
DOOR HINGE - ADJUSTABLE

IPA NO.s 12097-98



ORDERING NO.															
IPA NO.	MATERIAL			SURFACE		INDUSTRY PACKING IN BOXES OF 50 PIECES	A MM	B MM	C MM	D MM	E MM	PLATE MM	PIN MM	SCREW	APPROX. WEIGHT KG / PIECES
	STEEL FIXED PIN	SQUARE EDGES LEFT	SQUARE EDGES RIGHT	ELECTROPL. / GREY	GALVANIZED										
12097	2	3	4	64	-	2	120	59	51,5	12	17	4	9,5	5,0	0,50
12098	2	3	4	64	87	2	120	49	41,5	12	17	4	9,5	5,0	0,45

● VERTICALLY ADJUSTABLE



RIGHT HAND



FITTING INSTRUCTIONS

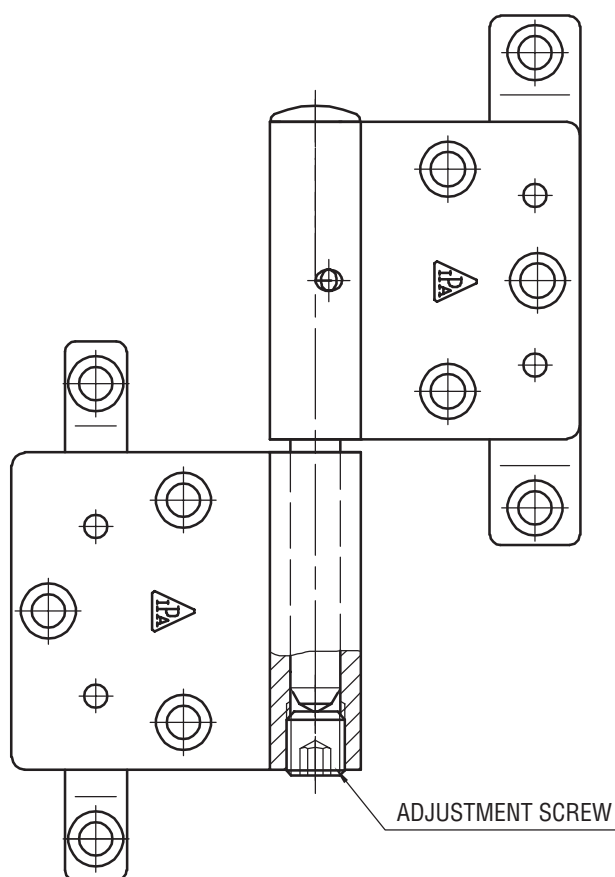


FIG. 1

ADJUSTMENT:

VERTICALLY: ADJUST TO WANTED POSITION ON THE LARGE SCREW IN THE BOTTOM HINGE PART - ± 3 MM.

MAINTENANCE:

TEST THE OPERATION FROM TIME TO TIME.
WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY.
HEREAFTER LUBRICATE MINIMUM TWICE A YEAR.
SE ALSO SECTON H.

EXAMPLE WOOD PROFILE

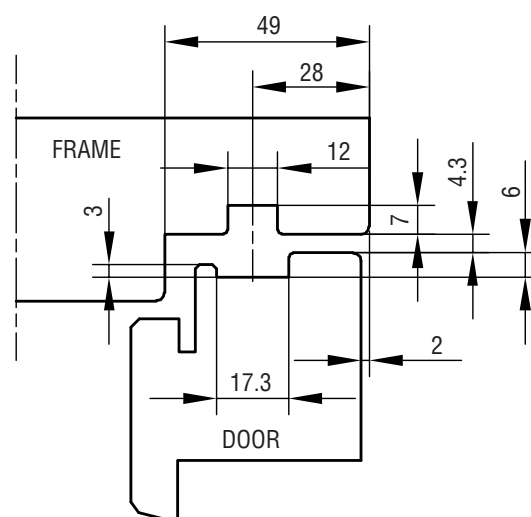
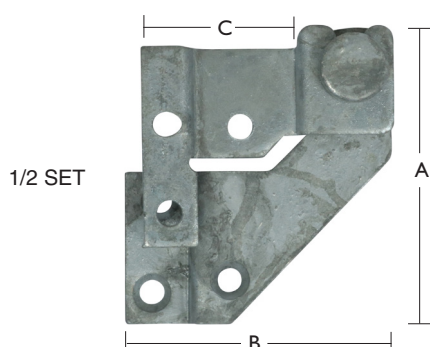
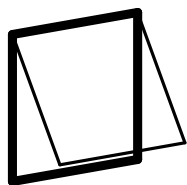


FIG. 2



TOP HINGE

IPA NO. 21125



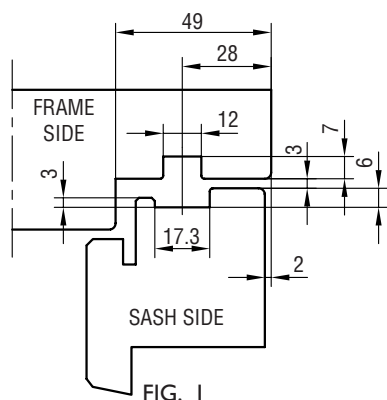
ORDERING NO.									
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	GALVANIZED	STANDARD PACKING IN BOXES OF 10 SETS	A MM	B MM	C MM	THICKNESS PLATE MM	SCREW
	STEEL								
21125	1	0	87	1	68	62	40	2,5	4,0
									0,16

FIRE-ESCAPE OPENING:
500 MM FROM MODULE 7
600 MM FROM MODULE 8

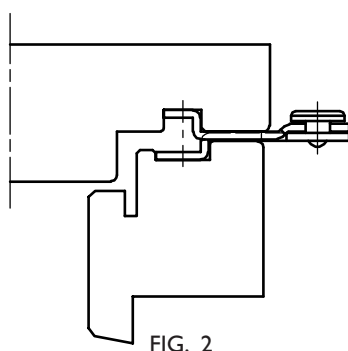


FITTING INSTRUCTIONS

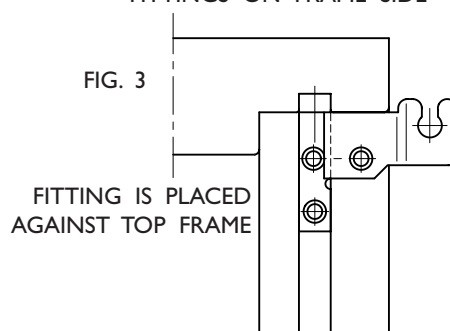
EXAMPLE WOOD PROFILE



MAX. SASH WEIGHT: 40 KGS

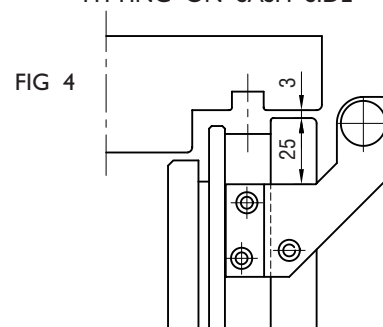


FITTINGS ON FRAME SIDE



FITTING IS PLACED
AGAINST TOP FRAME

FITTING ON SASH SIDE



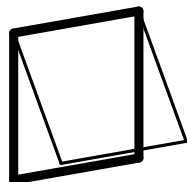
MAINTENANCE:

TEST THE OPERATION FROM TIME TO TIME.
WHEN FITTING - GREASE THE PIVOT/MOVABLE
METAL PARTS OF THE MECHANISM WHILE ACTI-
VATING REPEATEDLY.
HEREAFTER GREASE MINIMUM TWICE A YEAR.
SEE ALSO SECTION H.

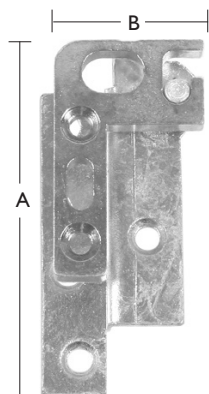


TOP HINGE

IPA NO. 21127-28



1/2 SET



ORDERING NO.											
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE		STANDARD PACKING IN BOXES OF 10 SETS	INDUSTRY PACKING IN BOXES OF 100 SETS	A MM	B MM	THICKNESS PLATE MM	SCREW	APPROX. WEIGHT KG / SET
	STEEL		ELECTROPL. YELLOW	GALVANIZED							
21127	1	0	-	87	1	2	79	36	2,5	4,0	0,17
21128	1	0	-	87	-	2	79	36	2,5	4,0	0,17

● CONCEALED FITTINGS



IPA NR. 21128
W/SECURITY PIN

FIRE-ESCAPE OPENING:
500 MM FROM MODULE 7
600 MM FROM MODULE 8



FITTING INSTRUCTIONS

EXAMPLE WOOD PROFILE

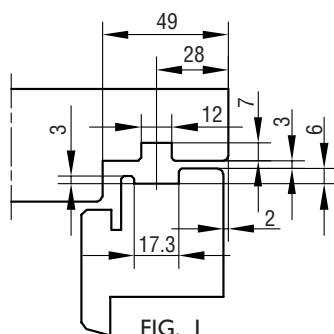


FIG. 1

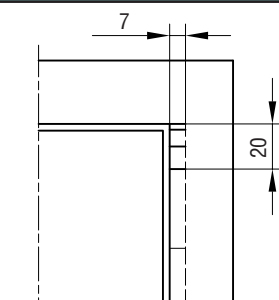


FIG. 3

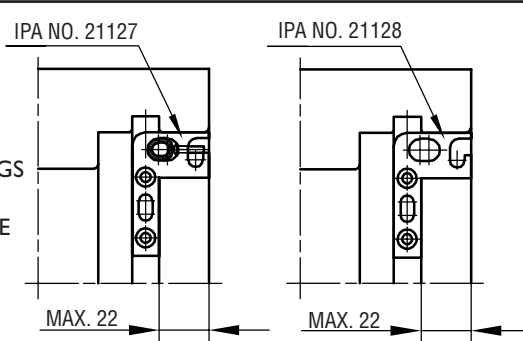


FIG. 4

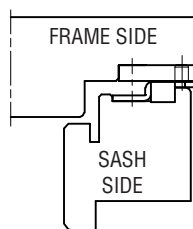


FIG. 2

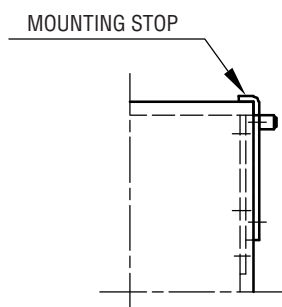


FIG. 5

FITTINGS
ON
SASH

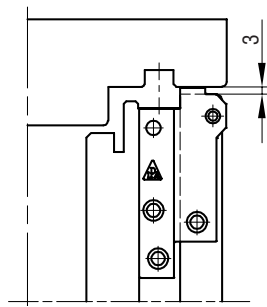


FIG. 6

MAX. SASH WEIGHT: 50 KGS

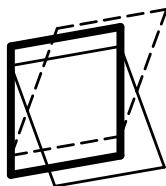
MAINTENANCE:
TEST THE OPERATION
FROM TIME TO TIME. WHEN
FITTING - GREASE THE PIVOT/
MOVABLE METAL PARTS OF THE
MECHANISM WHILE ACTIVATING
REPEATEDLY. HEREAFTER GREASE
MINIMUM TWICE A YEAR. SEE
ALSO SECTION H.



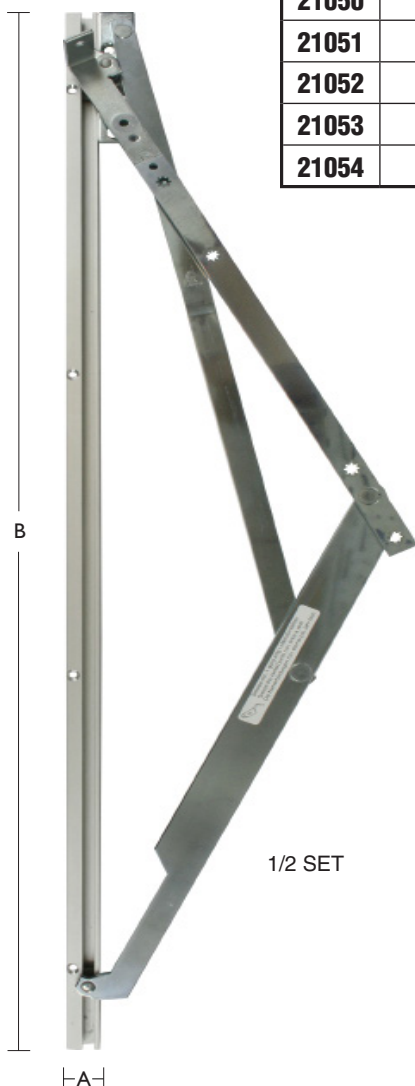
TOP SWING FITTING

WOOD/ALU

IPA NO.s 21044-54



ORDERING NO.										
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 1 SET	MODULE	A MM	B MM	FRAME DIMENSION INSIDE MM	SCREW	APPROX WEIGHT KG /SET
	STEEL		ELECTROPLATED							
21044	1	0	21	1	6	18	513	513 - 612	3,5 & 4,0	1,1
21045	1	0	21	1	7	18	613	613 - 712	3,5 & 4,0	1,3
21046	1	0	21	1	8	18	713	713 - 812	3,5 & 4,0	1,3
21047	1	0	21	1	9	18	813	813 - 912	3,5 & 4,0	1,5
21048	1	0	21	1	10	18	913	913 - 1012	3,5 & 4,0	1,9
21049	1	0	21	1	11	18	1013	1013 - 1112	3,5 & 4,0	2,1
21050	1	0	21	1	12	18	1113	1113 - 1212	3,5 & 4,0	2,3
21051	1	0	21	1	13	18	1213	1213 - 1312	3,5 & 4,0	2,5
21052	1	0	21	1	14	18	1313	1313 - 1412	3,5 & 4,0	2,7
21053	1	0	21	1	15	18	1413	1413 - 1513	3,5 & 4,0	3,2
21054	1	0	21	1	16	18	1513	1513 - 1612	3,5 & 4,0	3,5



- CONCEALED FITTINGS
- FULLY REVERSIBLE 170°
- OPENS CLEAR OF CURTAINS AND WINDOW FRAME
- MUSHROOM HEAD ESPAGNOLETTE IPA NO.s 23051-70, ROLLER BOLT ESPAGNOLETTE IPA NO.s 23151-70 AND SIDE BOLT ESPAGNOLETTE IPA NO.s 23701-69 CAN BE USED
- ANODIZED RAILS

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE

RESTRICTORS, SEE SECTION D



FITTING INSTRUCTIONS

IMPORTANT: THE SIDE FRAMES MUST BE STRAIGHT TO THE EFFECT THAT THE DISTANCE BETWEEN THE SIDE FRAMES (SLIDING RAILS) IS EXACTLY THE SAME FOR ANY HEIGHT OF THE FRAME. THIS IS IMPERATIVE FOR THE SLIDES TO TRAVEL FREELY IN THEIR ALUMINIUM RAILS.

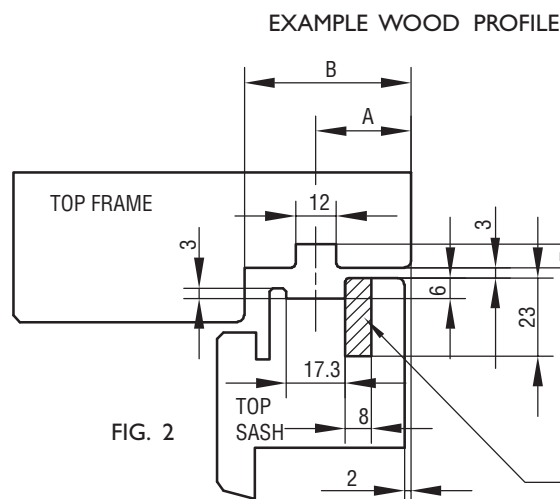


FIG. 2

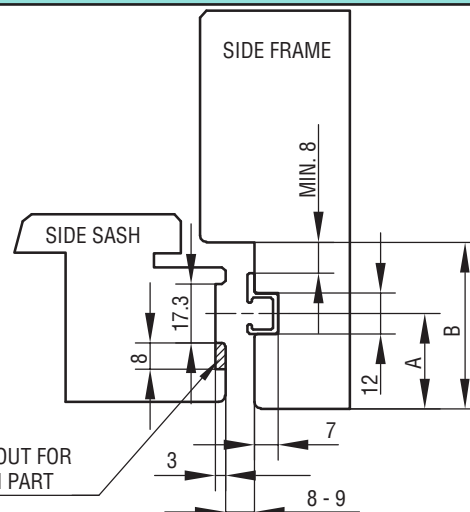


FIG. 3

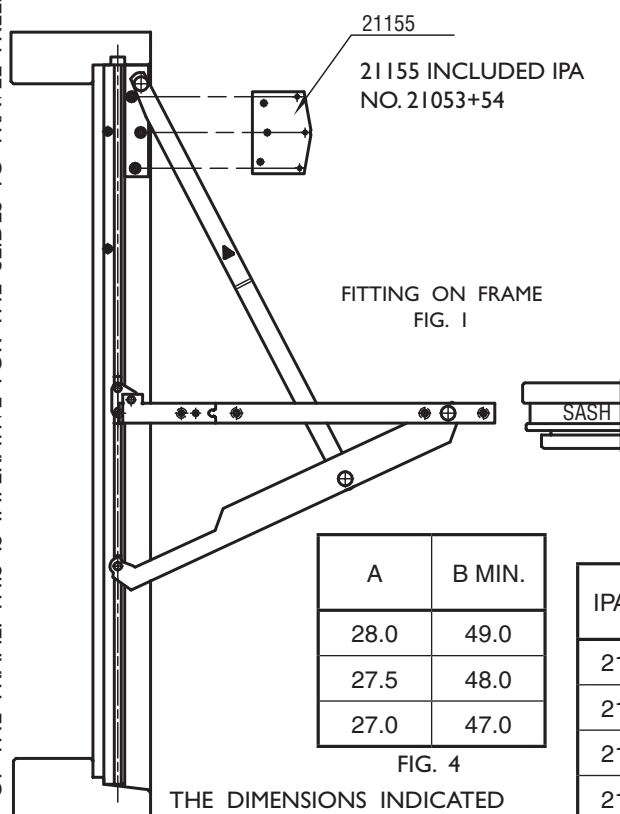


FIG. 4

THE DIMENSIONS INDICATED IN FIGURE 4 MEAN THAT THE WEATHERSTRIP MUST BE MOUNTED ON THE SASH.

21053+21054:
BACK-PLATES ARE RECOMMENDED. MOUNT THE BACK-PLATES IN CONJUNCTION WITH THE BEARING PLATES. USE MACHINE SCREWS M4.

MAINTENANCE:
DO NOT PAINT THE FITTING. WHEN FITTING - LUBRICATE THE MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

FITTING:

1. PLACE THE FITTING INTO BOTH SIDES OF THE FRAME.
2. POSITION ALUMINIUM RAIL AGAINST TOP FRAME. USE SCREW NO. 3.5.
3. PLACE THE BEARING PLATE AGAINST THE TOP AND AGAINST THE ALUMINIUM RAIL. USE SCREW NO. 4.0.
4. INSERT THE SASH BETWEEN HINGE ARMS AND PUSH THE SASH AGAINST THE STOP BRACKET. FASTEN THE SASH WITH SCREWS NO. 4.0. STARTING WITH THE SCREW IN THE STOP BRACKET.

IPA NO.	MODULE	INSIDE FRAME MM	LENGTH OF FITTINGS MM	MAX. WEIGHT KG
21044	6	513 - 612	513	60
21045	7	613 - 712	613	60
21046	8	713 - 812	713	60
21047	9	813 - 912	813	60
21048	10	913 - 1012	913	60
21049	11	1013 - 1112	1013	60
21050	12	1113 - 1212	1113	60
21051	13	1213 - 1312	1213	60
21052	14	1313 - 1412	1313	60
21053	15	1413 - 1512	1413	52
21054	16	1513 - 1612	1513	52

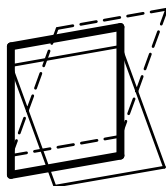
USE THE LARGEST POSSIBLE FITTING

ATTENTION: MAX. WIDTH = HEIGHT + 300 MM, HOWEVER MAX. 1600 MM.



TOP SWING FITTING

IPA NO.s 21144-54



ORDERING NO.										
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 1 SET	MODULE	A MM	B MM	FRAME DIMENSION INSIDE MM	SCREW	APPROX WEIGHT KG /SET
	STEEL		ELECTROPLATED							
21144	1	0	21	1	6	18	513	513 - 612	3,5 & 4,0	1,1
21145	1	0	21	1	7	18	613	613 - 712	3,5 & 4,0	1,3
21146	1	0	21	1	8	18	713	713 - 812	3,5 & 4,0	1,5
21147	1	0	21	1	9	18	813	813 - 912	3,5 & 4,0	1,7
21148	1	0	21	1	10	18	913	913 - 1012	3,5 & 4,0	1,9
21149	1	0	21	1	11	18	1013	1013 - 1112	3,5 & 4,0	2,1
21150	1	0	21	1	12	18	1113	1113 - 1212	3,5 & 4,0	2,3
21151	1	0	21	1	13	18	1213	1213 - 1312	3,5 & 4,0	2,5
21152	1	0	21	1	14	18	1313	1313 - 1412	3,5 & 4,0	2,7
21153	1	0	21	1	15	18	1413	1413 - 1512	3,5 & 4,0	3,2
21154	1	0	21	1	16	18	1513	1513 - 1612	3,5 & 4,0	3,5



- CONCEALED FITTINGS
- FULLY REVERSIBLE 170°
- OPENS CLEAR OF CURTAINS AND WINDOW FRAME
- MUSHROOM HEAD ESPAGNOLETTE IPA NO.s 23051-70, ROLLER BOLT ESPAGNOLETTE IPA NO.s 23151-70 AND SIDE BOLT ESPAGNOLETTE IPA NO.s 23701-69 CAN BE USED
- ANODIZED RAILS

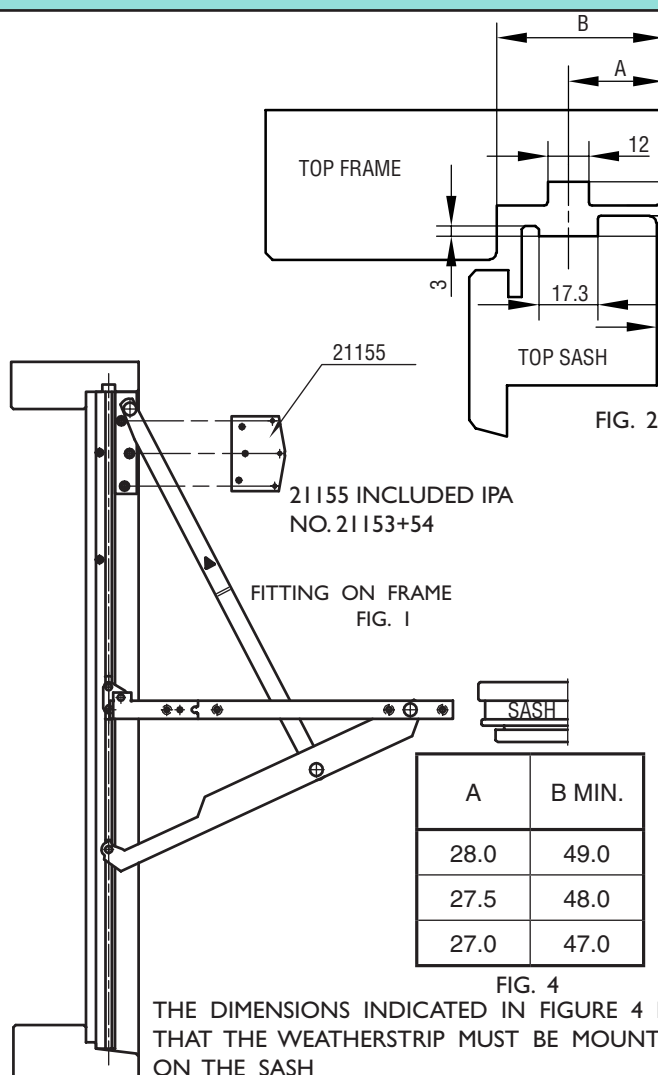
FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE

RESTRICTORS, SEE SECTION D



FITTING INSTRUCTIONS

IMPORTANT: FOR THE FITTING OF ANY WINDOW OF A SIZE LARGER THAN M 10 AT LEAST THREE FIXING POINTS (EXPANSION BOLTS) ARE REQUIRED FOR EACH SIDE FRAME. THE SIDE FRAMES MUST BE STRAIGHT TO THE EFFECT THAT THE DISTANCE BETWEEN THE SIDE FRAMES (SLIDING RAILS) IS EXACTLY THE SAME FOR ANY HEIGHT OF THE FRAME. THIS IS IMPERATIVE FOR THE SLIDES TO TRAVEL FREELY IN THEIR ALUMINIUM RAILS.



IPA NO.	MODULE	INSIDE FRAME MM	LENGTH OF FITTINGS MM	MAX. WEIGHT KG
21144	6	513 - 612	513	60
21145	7	613 - 712	613	60
21146	8	713 - 812	713	60
21147	9	813 - 912	813	60
21148	10	913 - 1012	913	60
21149	11	1013 - 1112	1013	60
21150	12	1113 - 1212	1113	60
21151	13	1213 - 1312	1213	60
21152	14	1313 - 1412	1313	60
21153	15	1413 - 1512	1413	52
21154	16	1513 - 1612	1513	52

USE THE LARGEST POSSIBLE FITTING

ATTENTION: MAX. WIDTH = HEIGHT + 300 MM,
HOWEVER MAX. 1600 MM.

FITTING:

1. PLACE THE FITTING INTO BOTH SIDES OF THE FRAME.
2. POSITION FITTING AGAINST TOP FRAME. USE SCREWS NO. 3,5.
3. PLACE THE BEARING PLATE AGAINST THE TOP AND AGAINST THE ALUMINIUM RAIL. USE SCREWS NO. 4,0
4. INSERT THE SASH BETWEEN HINGE ARMS AND PUSH THE SASH AGAINST THE STOP BRACKET. FASTEN THE SASH WITH SCREWS NO. 4,0, STARTING WITH THE SCREW IN THE STOP BRACKET.

21153+21154:

BACK-PLATES ARE RECOMMENDED. MOUNT THE BACK-PLATES IN CONJUNCTION WITH THE BEARING PLATES. USE MACHINE SCREWS M4.

DO NOT REMOVE THE ARMS OF THE FITTING FROM THE ALUMINIUM RAILS.

FOLLOW THE FITTING INSTRUCTIONS.

IN CASE IT BECOMES NECESSARY TO REMOVE THE ARMS FROM THE ALUMINIUM RAILS PLEASE CONTACT US AND WE WILL SUPPLY A SPECIAL TOOL FOR THE REFITTING OF THE ARMS INTO THE ALUMINIUM RAILS.

MAINTENANCE:

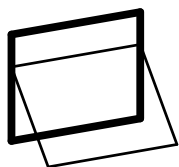
THE FITTINGS ARE NOT TO BE PAINTED. WHEN FITTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT GREASE THE ALUMINIUM RAILS. TEST THE OPERATION FROM TIME TO TIME. SEE ALSO SECTION H.



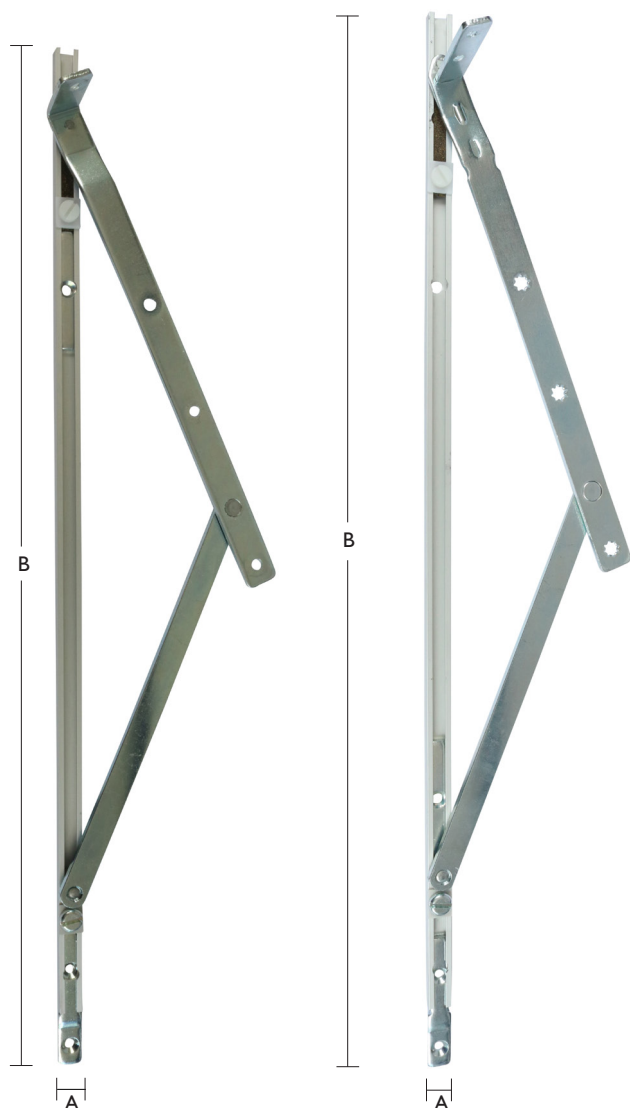
ADJUSTABLE CANOPY STAYS

WITH ADJUSTABLE FRICTION

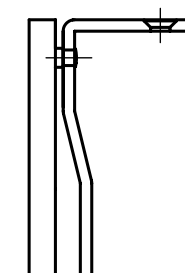
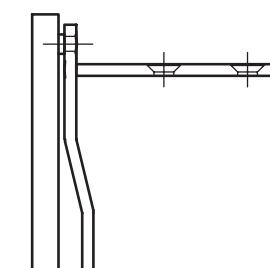
IPA NO.s 21167, 78 & 88



ORDERING NO.									
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	INDUSTRY PACKING IN BOXES OF 25 SETS	A MM	B MM	SCREW	APPROX WEIGHT KG / SET
	STEEL		ELECTROPLATED						
21167	1	0	21	1	-	12	473	4,0	0,55
21178	1	0	21	-	2	12	516	4,0	0,60
21188	1	0	21	-	2	12	536	4,0	0,59

**21167****21178**

- CONCEALED FITTINGS
- ADJUSTABLE FRICTION
- FRICTION IN ALL POSITIONS
- ANODIZED ALUMINIUM RAILS
- IPA NO. 21188 IS VERTICALLY
ADJUSTABLE ± 1.5 MM
- EASY TO MOUNT

**21167****21178 + 88**

← IPA NR. 21188

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE



FITTING INSTRUCTIONS

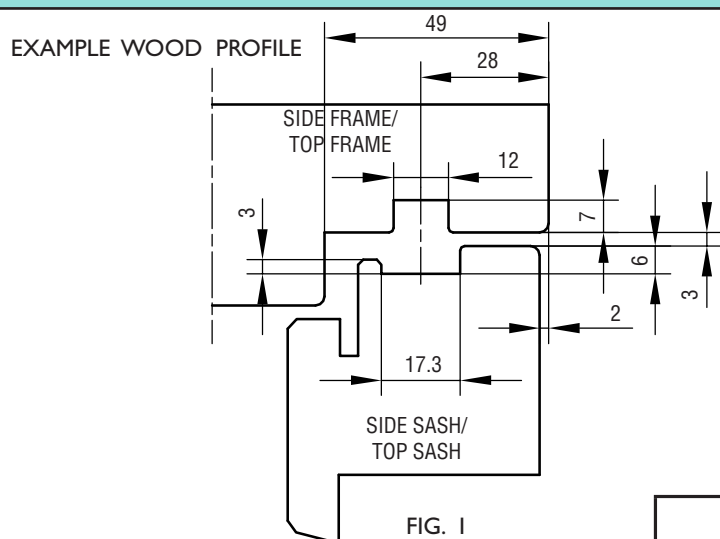


FIG. 1

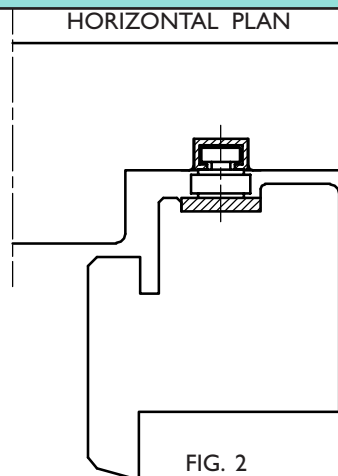


FIG. 2

FITTING:

1. 21167: SIDE FRAME AND SIDE SASH HAS TO BE FITTED WITH FULL LENGTH GROOVES. SEE FIG. 1 + 2.

21178, 88

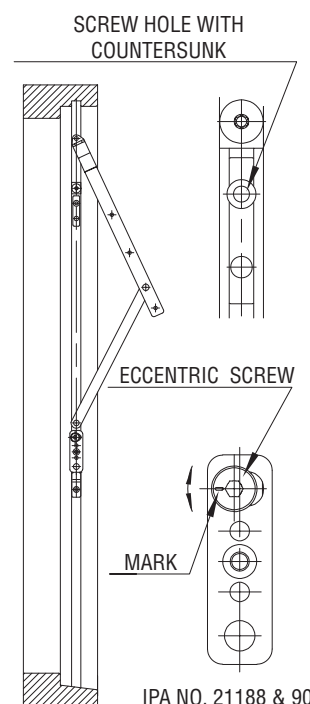
& 90: SIDE/TOP FRAME AND SIDE/TOP SASH HAS TO BE WITH FULL LENGTH GROOVES, SEE FIG. 1 + 2.

IPA NO.	21167	21178	21188	21190
MAX. SASH WEIGHT KG	70	70	70	70
MAX. INSIDE FRAME HEIGHT MM	1344	1344	1344	1344
RECOMMENDED SASH WEIGHT KG	40	40	40	50
RECOMMENDED UP TO INSIDE FRAME HEIGHT MM	1044	1044	1044	1344
USE SCREW NO.	4.0	4.0	4.0	4.0

2. CLOSE THE FITTING AND PLACE IT IN THE GROOVE OF THE SIDE FRAME.
 21167: PLACE THE FITTING UP AGAINST THE TOP FRAME
 21178, 88 & 90: PLACE THE FITTING UP AGAINST THE BOTTOM OF THE GROOVE IN THE TOP FRAME.
 THE BOTTOM SCRES IS FASTENED, THE FITTING IS OPENED AND THE TOP SCREW IN THE ALUMINIUM RAIL IS FASTENED. THE STOP IN THE ALUMINIUM RAIL SHOULD NOT BE FASTENED UNTIL THE SASH HAS BEEN MOUNTED. THE STOP IS FASTENED THROUGH THE COUNTERSUNK SCREW HOLE. SEE FIG. 3.
3. PUSH THE SASH INTO ITS PLACE BY INSERTING IT BETWEEN THE FITTINGS GUIDED BY THE GROOVES IN THE SASH, PUSH UNTIL THE SASH HITS THE UPPER BRACKET OF THE FITTING. FASTEN THE SCREWS, START WITH THE SCREW IN THE TOP BRACKET. YOU CAN FREELY CHOOSE BETWEEN THE SCREW HOLES IN THE UPPER BRACKET, ALTERNATIVELY USE BOTH HOLES.
 21167: WHEN THE TOP SASH IS MADE WITH GROOVE ACCORDING TO FIG. 1 USE THE 2 DISTANCE PIECES. ONE IN BOTH ENDS OF THE UPPER SASH GROOVE.
4. NOW THE FRICTION MAY BE ADJUSTED BY MEANS OF THE SCREWS IN THE ALUMINIUM RAILS. BEFORE ADJUSTMENT, PRESS THE SLIDING PART DOWN TO THE STOPS. THE BEST RESULT FOR THE WINDOW MOVEMENT IS ACHIEVED BY EQUAL FRICTION AT BOTH SIDES AND TO SECURE THIS THE SCREWS MUST NEVER BE FASTENED MORE THAN JUST ENOUGH TO HOLD THE WINDOW IN OPEN POSITION. PLEASE NOTE THAT WITH A SMALL WINDOW OPENING, THE FRICTION IS NOT INFLUENCED BY TIGHTENING THE SCREWS HARDER. TO ENSURE THE WINDOW IN STAYING OPENED WITH A SMALL WINDOW OPENING, WE RECOMMEND MOUNTING A SAFETY CATCH.
5. 21188 & 90: THE SASH CAN BE ADJUSTED ± 1.5 MM UP OR DOWN. ADJUST BY USING A TORX-20 KEY TO TURN THE ECCENTRIC SCREW. BY DELIVERY THE MARK ON THE ECCENTRIC SCREW IS IN A VERTICAL POSITION INDICATING THE 0-POSITION. WHEN THE MARK IS IN HORIZONTAL POSITION IN EITHER TOP OR BOTTOM, THE FITTING IS ADJUSTED TO IT'S MAX OF ± 1.5 MM.

MAINTENANCE:

DO NOT PAINT THE ALUMINIUM RAILS. WHEN FITTING - LUBRICATE THE MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



IPA NO. 21188 & 90

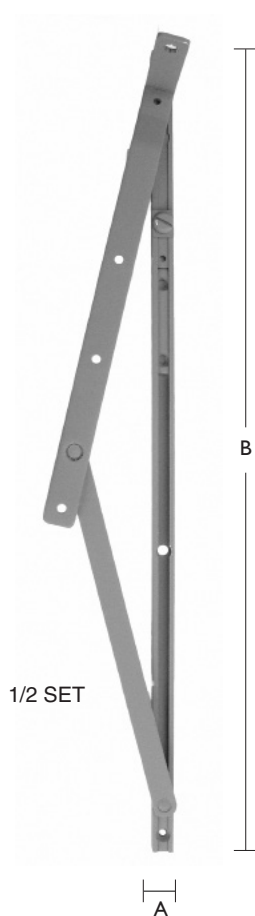
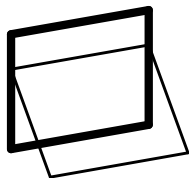
FIG. 3



CANOPY STAYS

WITH FRICTION

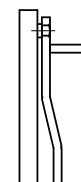
IPA NO.s 21175, 79 & 21182



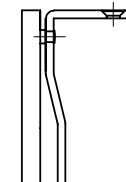
ORDERING NO.									
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	INDUSTRY PACKING IN BOXES OF 25 SETS	A MM	B MM	SCREW	APPROX WEIGHT KG /SET
	STEEL		ELECTROPLATED						
21175	1	0	21	1	-	12	160	4,0	0,27
21179	1	0	21	1	-	12	250	4,0	0,40
21182	1	0	21	1	-	12	440	4,0	0,50

- CONCEALED FITTINGS
- ADJUSTABLE FRICTION
- FRICTION IN ALL POSITIONS
- ANODIZED ALUMINIUM RAILS

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE



21175



21179+82



FITTING INSTRUCTIONS

EXAMPLE
WOOD PROFILE

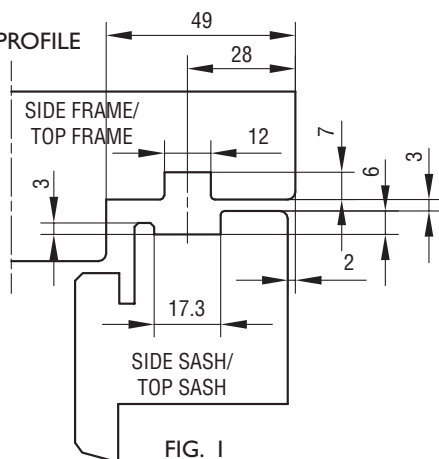


FIG. 1

HORIZONTAL PLAN

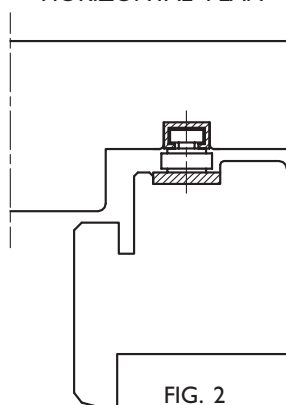


FIG. 2

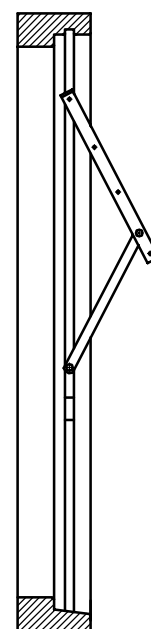


FIG. 3

IPA NO.	21179	21182	21175
MAX. SASH WEIGHT KG	40	50	20
MAX. INSIDE FRAME HEIGHT MM	844	1344	330
USE SCREW NO.	4.0	4.0	4.0

FITTING:

- 21175: SIDE SASH & - FRAME AND TOP SASH & -FRAME ARE MADE WITH THROUGH-GOING GROOVES, SEE FIGURE 1.

21179-82: SIDE SASH & - FRAME ARE MADE WITH THROUGH-GOING GROOVES, SEE FIGURE 1.
- CLOSE THE FITTING AND PLACE IT IN THE GROOVE OF THE SIDE FRAME.

21175: PLACE THE FITTING AGAINST THE BOTTOM OF THE GROOVE IN THE TOP FRAME.

21179-82: PLACE THE FITTING AGAINST THE TOP FRAME.

PLACE AND FASTEN THE SCREW IN THE BOTTOM HOLE OF THE FITTING. OPEN THE FITTING AND FASTEN THE REMAINING SCREWS.
- PUSH THE SASH INTO ITS PLACE BY INSERTING IT BETWEEN THE FITTINGS, GUIDED BY THE GROOVES IN THE SASH, TILL THE SASH HITS THE STOPS OF THE FITTING. THESE STOPS WILL GUARANTEE A 3 MM GAB BETWEEN FRAME AND SASH. FASTEN THE SCREWS, BEGINNING WITH THE ONES IN THE TOP BRACKETS (IPA NOS 21179 & 21182)

21179-82: IF THE TOP SASH IS MADE WITH GROOVE, FIG. 1, FIRST PLACE THE SMALL MOUNTING BRACKETS IN EACH SIDE UNDER TOP BRACKET OF THE FITTING BEFORE FASTEN THE SCREWS.
- NOW THE FRICTION MAY BE ADJUSTED BY MEANS OF THE SCREWS IN THE SLIDES. BEFORE ADJUSTMENT, PRESS THE SLIDING PART DOWN TO THE STOPS. THE BEST RESULT FOR THE WINDOW MOVEMENT IS ACHIEVED BY EQUAL FRICTION AT BOTH SIDES AND TO ENSURE THIS THE SCREWS MUST NEVER BE FASTENED MORE THAN JUST ENOUGH TO HOLD THE WINDOW IN OPEN POSITION. PLEASE NOTE THAT WITH A SMALL WINDOW OPENING, THE FRICTION IS NOT INFLUENCED BY TIGHTENING THE SCREWS HARDER. TO ENSURE THE WINDOW IN STAYING OPENED WITH A SMALL WINDOW OPENING, WE RECOMMEND MOUNTING A SAFETY CATCH.

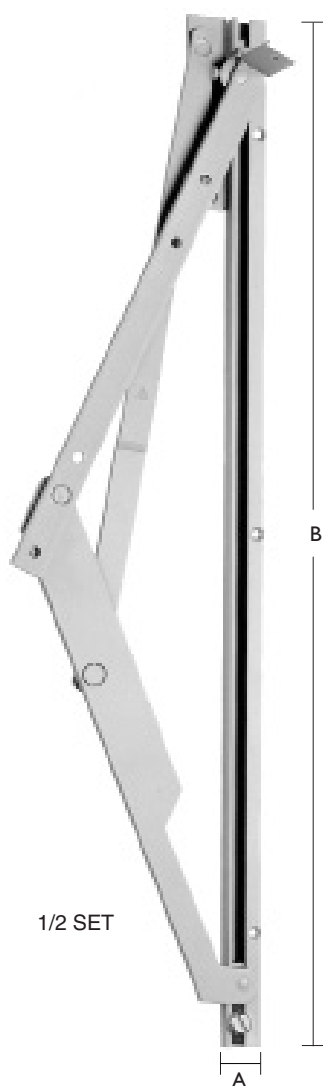
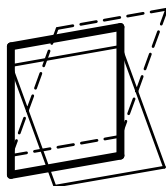
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



TOP SWING FITTING

IPA NO.s 21874-84



ADJUSTABLE
FRICTION



ORDERING NO.									
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 1 SET	A MM	B MM	FRAME DIMENSION INSIDE MM	SCREW	APPROX WEIGHT KG /SET
	STEEL		ELECTROPLATED						
21874	1	0	21	1	18	534	534 - 633	3,5 & 4,0	1,1
21875	1	0	21	1	18	634	634 - 733	3,5 & 4,0	1,3
21876	1	0	21	1	18	734	734 - 833	3,5 & 4,0	1,5
21877	1	0	21	1	18	834	834 - 933	3,5 & 4,0	1,7
21878	1	0	21	1	18	934	934 - 1033	3,5 & 4,0	1,9
21879	1	0	21	1	18	1034	1034 - 1133	3,5 & 4,0	2,1
21880	1	0	21	1	18	1134	1134 - 1233	3,5 & 4,0	2,3
21881	1	0	21	1	18	1234	1234 - 1333	3,5 & 4,0	2,5
21882	1	0	21	1	18	1334	1334 - 1433	3,5 & 4,0	2,7
21883	1	0	21	1	18	1434	1434 - 1533	3,5 & 4,0	3,3
21884	1	0	21	1	18	1534	1534 - 1612	3,5 & 4,0	3,5

- ADJUSTABLE FRICTION
- CONCEALED FITTINGS
- FULLY REVERSIBLE 170°
- OPENS CLEAR OF CURTAINS AND WINDOW FRAME
- MUSHROOM HEAD ESPAGNOLETTE IPA NO.s 23051-70, ROLLER BOLT ESPAGNOLETTE IPA NO.s 23151-70 AND SIDE BOLT ESPAGNOLETTE IPA NO.s 23701-69 CAN BE USED
- ANODIZED RAILS

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE

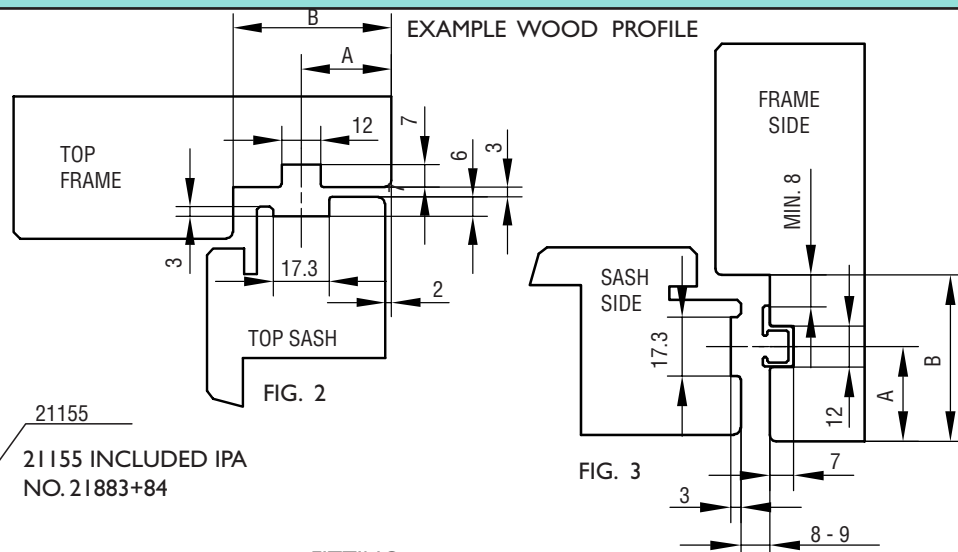
RESTRICTORS, SEE SECTION D



FITTING INSTRUCTIONS

FOR THE FITTING OF ANY WINDOW OF A SIZE LARGER THAN M 10 AT LEAST THREE FIXING POINTS (EXPANSION BOLTS) ARE REQUIRED FOR EACH SIDE FRAME. THE SIDE FRAMES MUST BE STRAIGHT TO THE EFFECT THAT THE DISTANCE BETWEEN THE SIDE FRAMES (SLIDING RAILS) IS EXACTLY THE SAME FOR ANY HEIGHT OF THE FRAME. THIS IS IMPERATIVE FOR THE SLIDES TO TRAVEL FREELY IN THEIR ALUMINIUM RAILS.

IMPORTANT:



FITTING:

1. PLACE THE FITTING INTO BOTH SIDES OF THE FRAME.
2. POSITION FITTING AGAINST TOP FRAME. USE SCREW NO. 3,5.
3. PLACE THE BEARING PLATE AGAINST THE TOP AND AGAINST THE ALUMINIUM RAIL. USE SCREW NO. 4,0
4. INSERT THE SASH BETWEEN HINGE ARMS AND PUSH THE SASH AGAINST THE STOP BRACKET. FASTEN THE SASH WITH SCREW NO. 4,0, STARTING WITH THE SCREW IN THE STOP BRACKET.
5. THE SASH CAN BE OPENED TO ANY ANGLE. WITH LARGE OPENING ANGLE A LIGHT FRICTION CAN BE OBTAINED BY MEANS OF THE FRICTION SCREWS IN THE SIDES. THE FRICTION HAS TO BE THE SAME ON BOTH SIDES. PLEASE NOTE THAT THE SASH IS NOT SECURED FOR HEAVY WINDS AND OTHER HEAVY INFLUENCE.

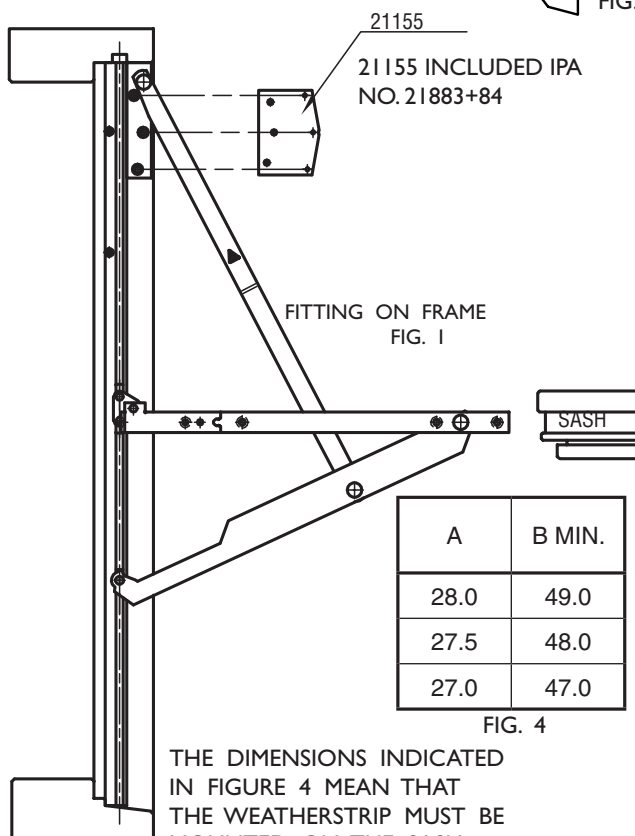


FIG. 4

THE DIMENSIONS INDICATED
IN FIGURE 4 MEAN THAT
THE WEATHERSTRIP MUST BE
MOUNTED ON THE SASH

21883+21884:

BACK-PLATES ARE RECOMMENDED. MOUNT THE BACK-PLATES IN CONJUNCTION WITH THE BEARING PLATES. USE MACHINE SCREWS M4.

DO NOT REMOVE THE ARMS OF THE FITTING FROM THE ALUMINIUM RAILS.
FOLLOW THE FITTING INSTRUCTIONS.
IN CASE IT BECOMES NECESSARY TO REMOVE THE ARMS FROM THE ALUMINIUM RAILS PLEASE
CONTACT US AND WE WILL SUPPLY A SPECIAL TOOL FOR THE REFITTING OF THE ARMS INTO THE ALUMINIUM RAILS.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT GREASE THE ALUMINIUM RAILS. TEST THE OPERATION FROM TIME TO TIME. SEE ALSO SECTION H.

IPA NO.	LENGHT OF FITTINGS	MAX. WEIGHT KG	INSIDE FRAME MM
21874	534	60	534-633
21875	634	60	634-733
21876	734	60	734-833
21877	834	60	834-933
21878	934	60	934-1033
21879	1034	60	1034-1133
21880	1134	60	1134-1233
21881	1234	60	1234-1333
21882	1334	60	1334-1433
21883	1434	52	1434-1533
21884	1534	52	1534-1612

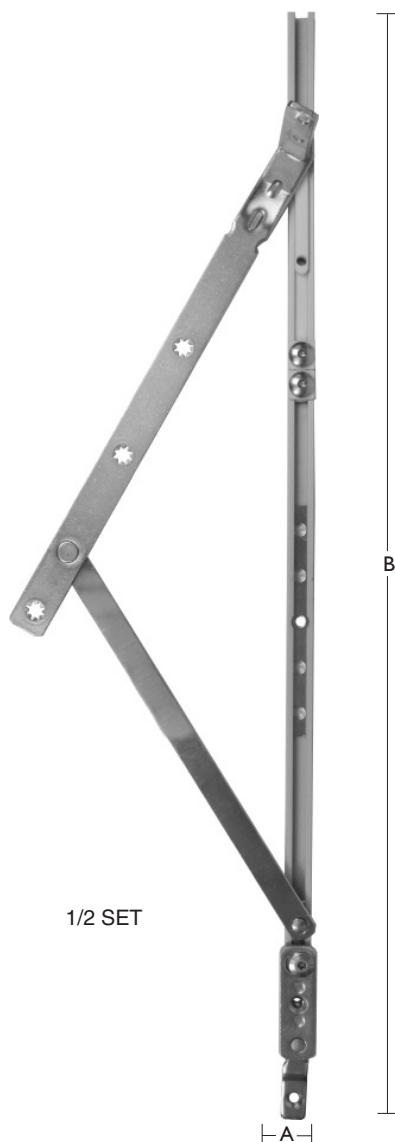
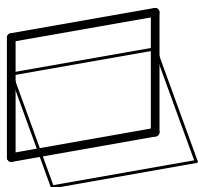
USE THE LARGEST POSSIBLE FITTING

ATTENTION: MAX. WIDTH = HEIGHT + 300 MM, HOWEVER
MAX. 1600 MM.



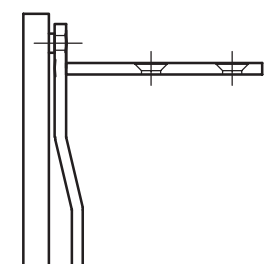
ADJUSTABLE CANOPY STAYS WITH FRICTION

IPA NO.s 21186-87 & 89



ORDERING NO.								
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	INDUSTRY PACKING IN BOXES OF 25 SETS	A MM	B MM	SCREW	APPROX WEIGHT KG / SET
	STEEL		ELECTROPLATED					
21186	1	0	21	2	12	330	4,0	0,46
21187	1	0	21	2	12	520	4,0	0,60
21189	1	0	21	2	12	778	4,0	0,78

- CONCEALED FITTINGS
- ADJUSTABLE FRICTION
- FRICTION IN ALL POSITIONS
- ANODIZED ALUMINIUM RAILS
- VERTICALLY ADJUSTABLE ± 1.5 MM
- EASY TO MOUNT
- MAXIMUM SEALING



21186-87 + 21189

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE



FITTING INSTRUCTIONS

EXAMPLE WOOD PROFILE

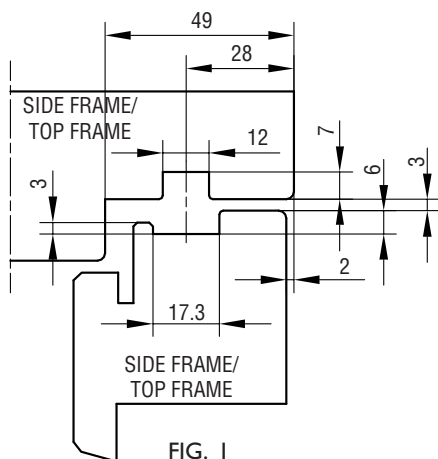


FIG. 1

HORIZONTAL PLAN

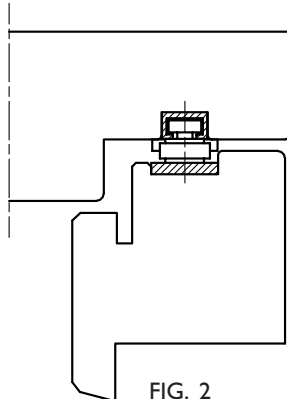


FIG. 2

OBS! RE. IPA NO. 21187:

FOR BIG WINDOWS (>1200 MM) WITH 3-LAYER GLASS AND NO REQUIREMENTS FOR EGRESS OPENINGS THE USE OF IPA NO. 21189 IS RECOMMENDED, AS THE VENTILATION POSITION OTHERWISE MAY BE DIFFICULT TO ACHIEVE BECAUSE OF THE OPENING GEOMETRY OF THE GEARS.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.

IPA NO.	21186	21187	21189
MAX. SASH WEIGHT KG	40	50	70
MAX. INSIDE FRAME HEIGHT MM	844	1344	1544
USE SCREW NO.	4.0	4.0	4.0

FITTING:

1. SIDE SASH & -FRAME AND TOP SASH & -FRAME ARE MADE WITH THROUGH-GOING GROOVES, SEE FIGURE 1.
2. CLOSE THE FITTING AND PLACE IT IN THE GROOVE OF THE SIDE FRAME. PLACE THE FITTING UP AGAINST THE BOTTOM OF THE GROOVE IN THE TOP FRAME. FASTEN THE SCREW BELOW, OPEN THE FITTING AND FASTEN THE REMAINING SCREWS.
 21187: FASTEN THE STOP PLATE PLACED IN THE ALUMINIUM RAIL BY USING A SCREW IN THE TOP SCREW HOLE FOR MAXIMUM FIRE-ESCAPE OPENING. IF THE BOTTOM SCREW HOLE IS USED THEN THE FITTING WILL CARRY A MAX. SASH WEIGHT OF 60 KGS., BUT THE FIRE-ESCAPE OPENING WILL BE REDUCED.
 21189: FASTEN THE STOP PLATE PLACED IN THE ALUMINIUM RAIL BY USING A SCREW IN THE TOP SCREW HOLE FOR MAXIMUM FIRE-ESCAPE OPENING. IF ONE OF THE OTHER SCREW HOLE ARE USED THEN THE FIRE-ESCAPE OPENING WILL BE REDUCED, BUT THE MAX. SASH WEIGHT WILL THEN BE:
 SECOND UPPER HOLE: 85 KGS - MIDDLE HOLE: 100 KGS.
3. PUSH THE SASH INTO ITS PLACE BY INSERTING IT BETWEEN THE FITTINGS, GUIDED BY THE GROOVES IN THE SASH, TILL THE SASH HITS THE STOPS OF THE FITTING. THESE STOPS WILL GUARANTEE A 3 MM GAB BETWEEN FRAME AND SASH. FASTEN THE SCREWS, STARTING WITH THE ONES IN THE TOP BRACKETS.
4. NOW THE FRICTION MAY BE ADJUSTED BY MEANS OF THE SCREWS IN THE SLIDES. BEFORE ADJUSTMENT, PRESS THE SLIDING PART DOWN TO THE STOPS. THE BEST RESULT FOR THE WINDOW MOVEMENT IS ACHIEVED BY EQUAL FRICTION AT BOTH SIDES AND TO ENSURE THIS THE SCREWS MUST NEVER BE FASTENED MORE THAN JUST ENOUGH TO HOLD THE WINDOW IN OPEN POSITION. PLEASE NOTE THAT WITH A SMALL WINDOW OPENING, THE FRICTION IS NOT INFLUENCED BY TIGHTENING THE SCREWS HARDER. TO ENSURE THE WINDOW IN STAYING OPENED WITH A SMALL WINDOW OPENING, WE RECOMMEND MOUNTING A SAFETY CATCH.
5. THE SASH CAN BE ADJUSTED ± 1.5 MM UP OR DOWN. ADJUST BY USING A TORX-20 KEY TO TURN THE ECCENTRIC SCREW. BY DELIVERY THE MARK ON THE ECCENTRIC SCREW IS IN A VERTICAL POSITION INDICATING THE 0-POSITION. WHEN THE MARK IS IN HORIZONTAL POSITION IN EITHER TOP OR BOTTOM, THE FITTING IS ADJUSTED TO IT'S MAX OF ± 1.5 MM.

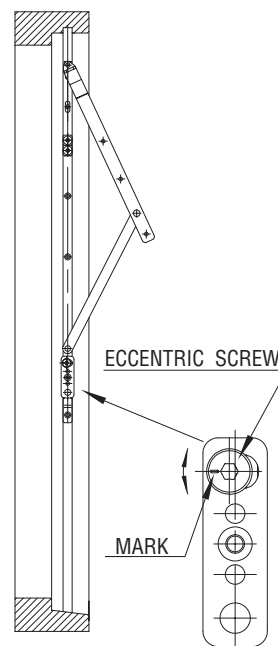
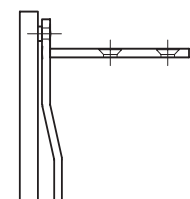
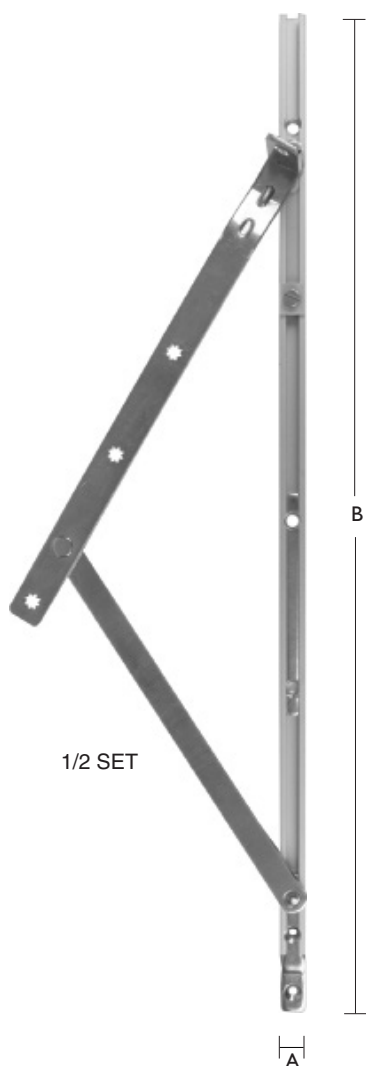
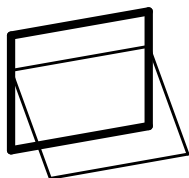


FIG. 3



CANOPY STAYS WITH FRICTION

IPA NO.s 21180-81 & 84



21180-84

ORDERING NO.								
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	INDUSTRY PACKING IN BOXES OF 25 SETS	A MM	B MM	SCREW	APPROX WEIGHT KG / SET
	STEEL		ELECTROPLATED					
21180	1	0	21	2	12	293	4,0	0,46
21181	1	0	21	2	12	483	4,0	0,60
21184	1	0	21	2	12	741	4,0	0,78

- CONCEALED FITTINGS
- ADJUSTABLE FRICTION
- FRICTION IN ALL POSITIONS
- ANODIZED ALUMINIUM RAILS

FIRE-ESCAPE OPENING:
PLEASE SEE WWW.IPAFITTINGS.COM/RESCUE



FITTING INSTRUCTIONS

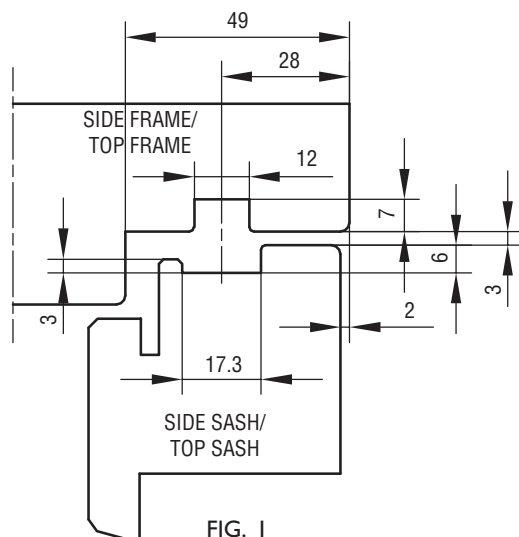


FIG. 1

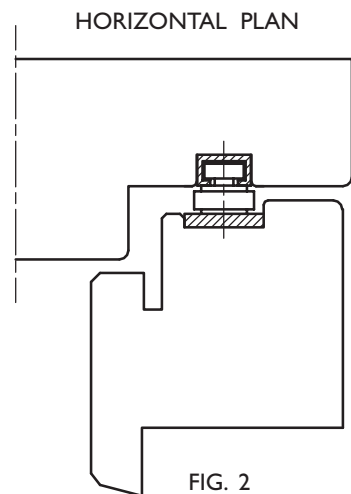


FIG. 2

IPA NO.	21180	21181	21184
MAX. SASH WEIGHT KG	40	50	70
MAX. INSIDE FRAME HEIGHT MM	844	1344	1544
SCREW	4.0	4.0	4.0

OBS! RE. IPA NO. 21181:

FOR BIG WINDOWS (>1200 MM) WITH 3-LAYER GLASS AND NO REQUIREMENTS FOR EGRESS OPENINGS THE USE OF IPA NO. 21184 IS RECOMMENDED, AS THE VENTILATION POSITION OTHERWISE MAY BE DIFFICULT TO ACHIEVE BECAUSE OF THE OPENING GEOMETRY OF THE GEARS.

MONTERING:

1. SIDE SASH & -FRAME AND TOP SASH & -FRAME ARE MADE WITH THROUGH-GOING GROOVES, SEE FIGURE 1.
2. CLOSE THE FITTING AND PLACE IT IN THE GROOVE OF THE SIDE FRAME. PLACE AND FASTEN THE SCREW IN THE BOTTOM HOLE OF THE FITTING. OPEN THE FITTING AND FASTEN THE REMAINING SCREWS.
 - 21181: FASTEN THE STOP PLATE THROUGH THE UPPER SCREW HOLE IN THE STOP PLATE AND THROUGH THE UPPER SCREW HOLE IN THE ALURAIL. THIS ENABLES MAX. FIRE ESCAPE OPENING. USE LOWER SCREW HOLE IN STOP PLATE TO ACHIEVE A MAX. SASH LOAD OF 60 KGS. IF LOWER SCREW HOLE IS USED THE FIRE ESCAPE OPENING WILL BE REDUCED.
 - 21184: ALWAYS USE THE UPPER SCREW HOLE IN THE ALURAIL FOR FASTENING THE STOP PLATE. USE THE UPPER SCREW HOLE IN STOP PLATE FOR MAX. FIRE ESCAPE OPENING. USE THE SECOND UPPER SCREW HOLE IN THE STOP PLATE TO ACHIEVE A MAX. SASH LOAD OF 85 KGS. USE THE MIDDLE SCREW HOLE IN THE STOP PLATE TO ACHIEVE A MAX. SASH LOAD OF 100 KGS. IF MIDDLE OR LOWER SCREW HOLES IN STOP PLATE ARE USED THE FIRE ESCAPE OPENING WILL BE REDUCED.
- 21180-84: THE METAL PLATE IN THE BOTTOM OF THE ALU-RAIL HAS TWO SCREW HOLES. THE MOUNTING OF THE UPPER SCREW IS NEEDED - THE LOWER SCREW IS OPTIONAL, BUT GIVES STABILITY OVER TIME FOR THE WINDOW.
3. PUSH THE SASH INTO ITS PLACE BY INSERTING IT BETWEEN THE FITTINGS GUIDED BY THE GROOVES IN THE SASH, PUSH UNTIL THE SASH HITS THE UPPER BRACKET OF THE FITTING. FASTEN THE SCREWS, START WITH THE SCREW IN THE TOP BRACKET. YOU CAN FREELY CHOOSE BETWEEN THE SCREW HOLES IN THE UPPER BRACKET, ALTERNATIVELY USE BOTH HOLES.
4. THE FRICTION MAY NOW BE ADJUSTED BY USING THE SCREWS IN THE SLIDING ELEMENTS. THE BEST RESULT FOR WINDOW MOVEMENT IS ACHIEVED BY EQUAL FRICTION OF BOTH SIDES.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.

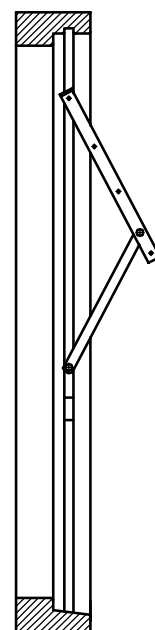
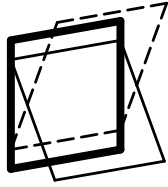


FIG. 3



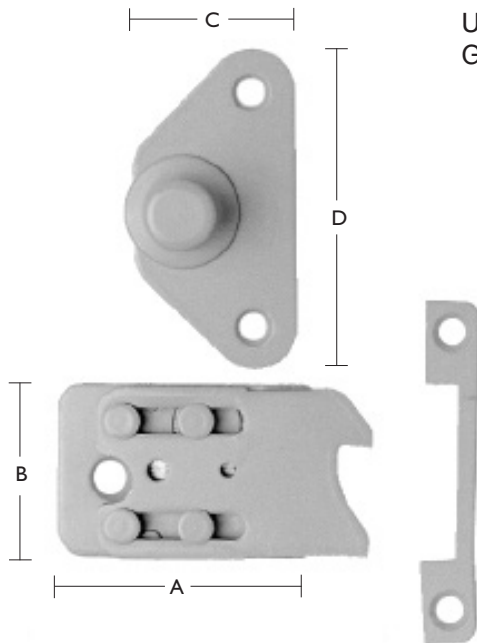
SAFETY RESTRICTOR

IPA NO. 21160



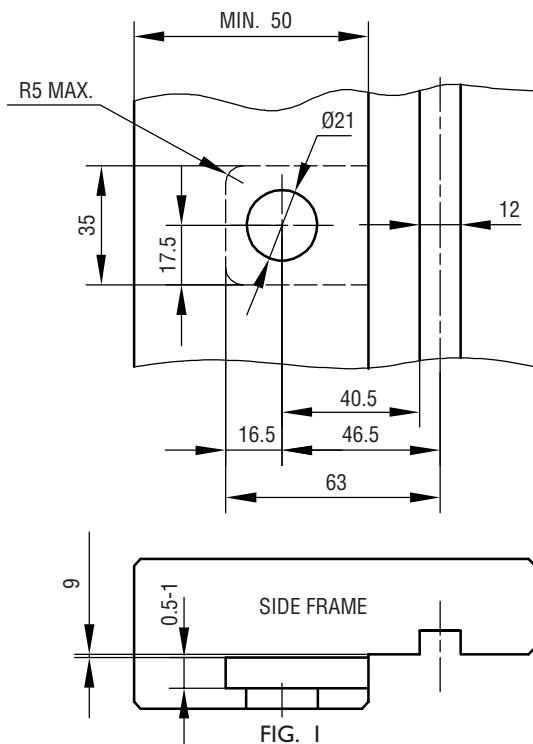
ORDERING NO.									
IPA NO.	MATERIAL	LEFT	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	A MM	B MM	C MM	D MM	SCREW
	STEEL		ELECTROPLATED						
21160	1	7	21	1	50	34	30	60	3,5 & 4,0
									0,12

USED IN CONJUNCTION WITH REVERSIBLE PROJECTING
GEAR IPA NO.S 21144-52 AND IPA NO.s 21874-82





FITTING INSTRUCTIONS



EXAMPLE WOOD PROFILE - SEE FIG. 1.

MOUNTING:

1. PLACE THE SAFETY CATCH INTO THE CUT OUT, HOLD AGAINST THE EDGE OF THE ALUMINIUM CHANNEL. THEN FASTEN WITH A NO. 4 SCREW RIGHT THROUGH THE 21 MM HOLE.
2. PLACE THE COVER PLATE OVER THE CUT OUT AND THE VISIBLE PART OF THE SAFETY CATCH, FASTEN WITH TWO NO. 3.5 SCREWS.
3. PLACE THE RESTRICTOR KNOB OVER THE 21 MM HOLE. THE PIN ON THE BACKSIDE OF THE OPERATING HANDLE MUST BE MOUNTED IN THE HOLE (4 MM) ON THE SAFETY CATCH. PUSH THE FRONT PLATE AWAY FROM THE WINDOW SO THAT THE RESTRICTOR KNOB HAS THE MAXIMUM POSSIBLE MOVEMENT - FASTEN THE TWO NO. 3.5 SCREWS ON THE FRONT PLATE.
4. CONTROL OF FUNCTION:
THE RESTRICTOR KNOB MUST HAVE A MOVEMENT OF APPROXIMATELY 7 MM AND BE ABLE TO RETURN BY ITSELF. THE SAFETY CATCH MUST FOLLOW THE MOVEMENT OF THE RESTRICTOR KNOB.

OPERATING INSTRUCTIONS:

1. OPEN THE SASH UNTIL THE SAFETY CATCH ENGAGES.
2. PULL IN THE SASH APPROXIMATELY 20 MM. DRAW THE RESTRICTOR KNOB DIRECTLY TOWARDS YOU, AND OPEN SASH.
3. THE SASH STOPS AUTOMATICALLY IN THE CLEANING POSITION. TO RELEASE THE SASH FOLLOW PROCEDURE AS GIVEN IN POINTS 1 AND 2.

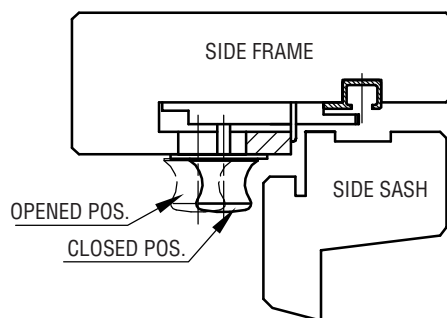
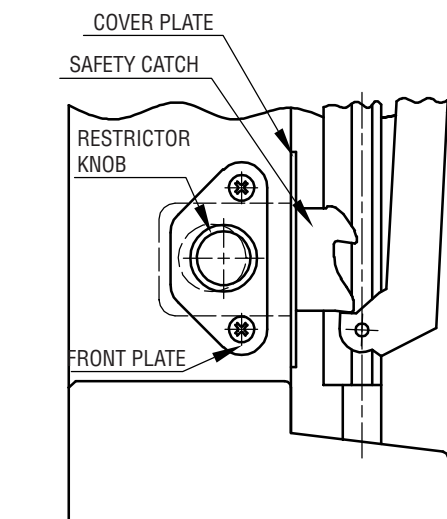


FIG. 2

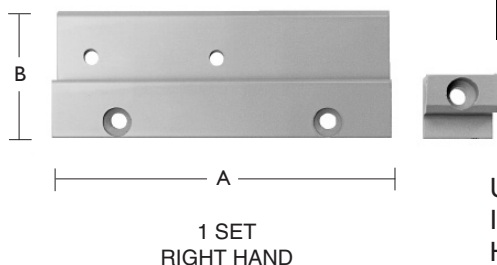
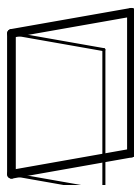
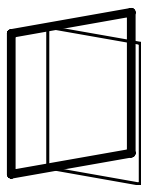
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



SUPPORT RAIL

IPA NO. 21227



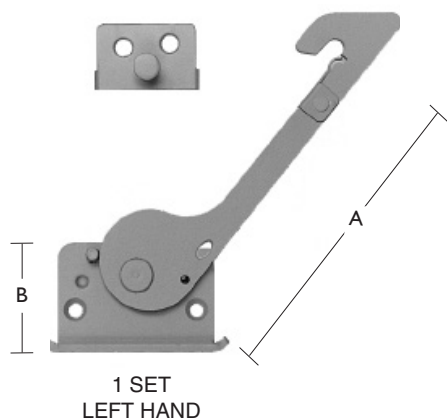
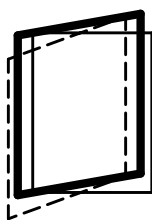
ORDERING NO.									
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW	APPROX. WEIGHT KG / SET
	ALUMINIUM/PLASTIC			ANODIZED					
21227	0	7	8	00	1	95	35,5	4,0	0,03

USED IN CONJUNCTION WITH SAFETY RESTRICTOR
IPA NO. 21228 AND:
HINGES IPA NO. 11173-74 & 77
SIDE SWING WINDOW 90° WITH FRICTION IPA NO.
21193



SAFETY RESTRICTOR

IPA NO. 21228



ORDERING NO.									
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW	APPROX. WEIGHT KG / SET
	STEEL			ELECTROPLATED					
21228	1	7	8	21	1	92	31,5	4,0	0,07



FITTING INSTRUCTIONS

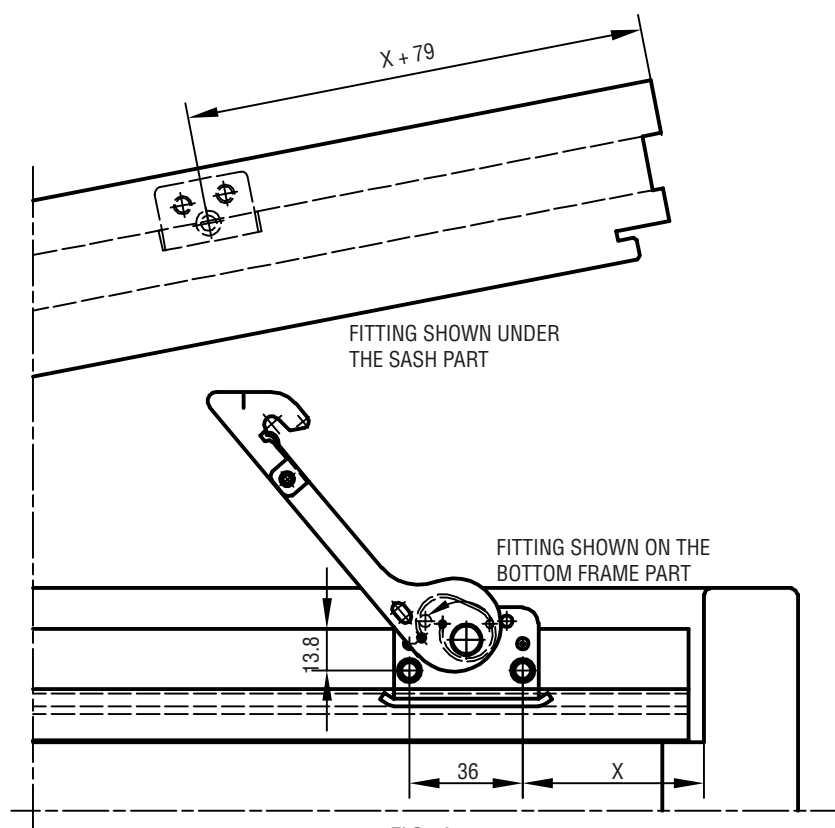
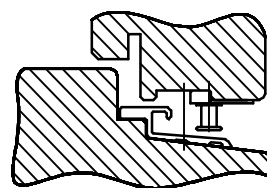


FIG. 1
RIGHT HAND ILLUSTRATION

X-DIMENSION IS OPTIONAL. WE SUGGEST 25 MM AS MINIMUM. BY USING LARGER X-DIMENSION THE VENTILATION OPENING WILL BE EXTENDED. AT THE SAME TIME THE TURNING OF SASH TO CLEANING POSITION WILL BE REDUCED AS THE RESTRICTOR WILL STOP THE SLIDING PART.

IMPORTANT: THE PIVOT CATCH OF THE RESTRICTOR IS FITTED IN THE BOTTOM CHANNEL OF THE SASH. USE THE MARK SHOWN ON THE RESTRICTOR ARM AS LOCATION POINT FOR THE PIVOT CATCH.



WHEN USING THE RESTRICTOR FOR SIDE HUNG LIFT-OFF WINDOWS MOUNT THE RESTRICTOR ON THE SUPPORT RAIL IPA NO. 21227. FIT THE BEARING BLOCK (PLASTIC) INTO THE IPA GROOVE IN THE BOTTOM CHANNEL OF THE SASH OVER THE FREE PART OF THE SUPPORT PLATE - OPPOSITE THE HINGE SIDE.

OPERATING INSTRUCTIONS:

1. OPEN THE SASH UNTIL THE RESTRICTOR CATCH ENGAGES.
2. PULL THE SASH IN APPROXIMATELY 20 MM.
3. PRESS THE RESTRICTOR ARM IN THE DIRECTION OF THE ARROW AND OPEN THE SASH.
4. WHEN THE WINDOW IS CLOSED THE RESTRICTOR RE-ENGAGES AUTOMATICALLY.

USE SCREW NO. 4.0

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.

EXAMPLE WOOD PROFILE

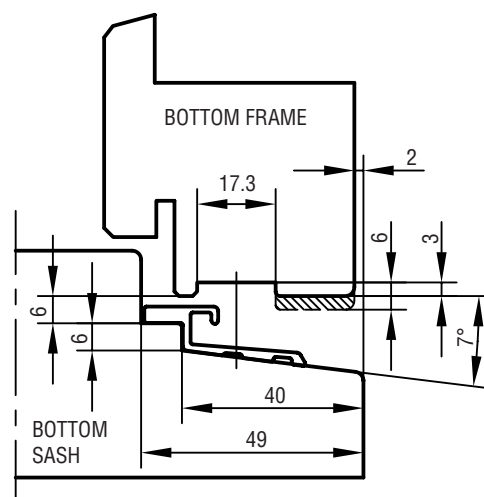
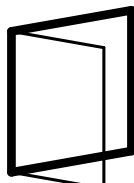
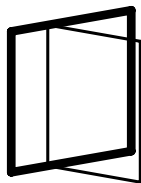


FIG. 2



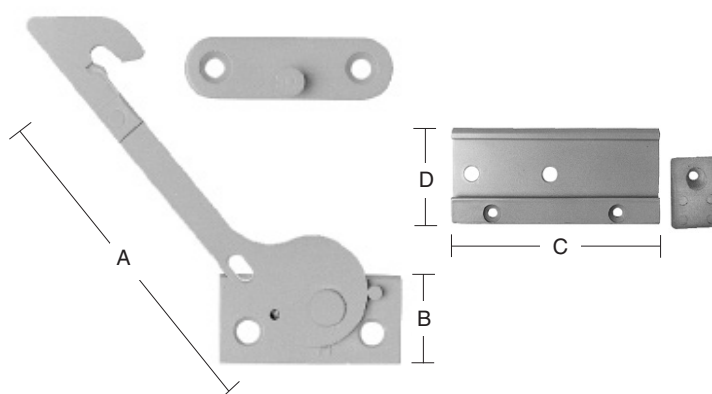
SAFETY RESTRICTOR

IPA NO. 21230



ORDERING NO.											
IPA NO.	MATERIAL	LEFT	RIGHT	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	C MM	D MM	SCREW	APROX. WEIGHT KG / SET
	STEEL			ELECTROPLATED							
21230	1	7	8	21	1	92	25	90	40	4,0	0,09

USED IN CONJUNCTION WITH:
 HINGES IPA NO. 11173-74 & 77-79
 SIDE SWING WINDOW 90° WITH FRICTION IPA NO.s 21195



21230
RIGHT HAND



FITTING INSTRUCTIONS

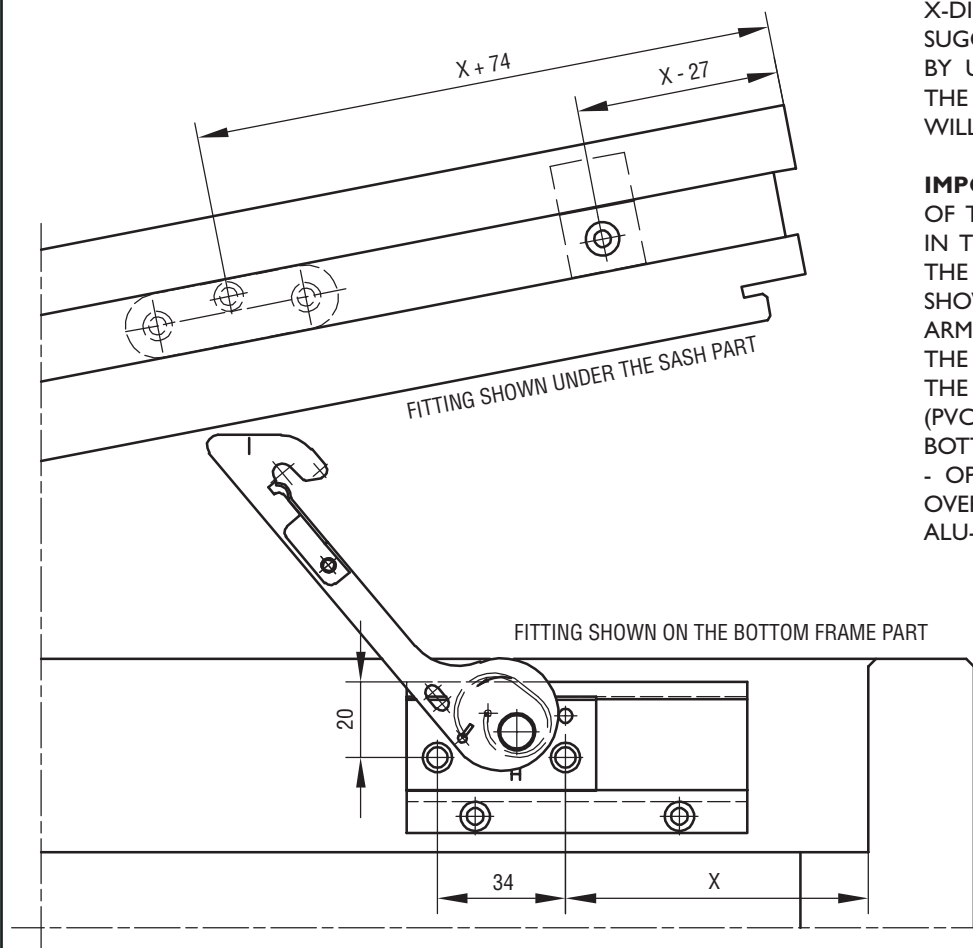
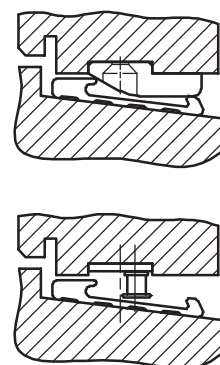


FIG. 1
RIGHT HAND ILLUSTRATION

X-DIMENSION IS OPTIONAL. WE SUGGEST 35 MM AS MINIMUM. BY USING LARGER X-DIMENSION THE VENTILATION OPENING WILL BE EXTENDED.

IMPORTANT: THE PIVOT CATCH OF THE RESTRICTOR IS FITTED IN THE BOTTOM CHANNEL OF THE SASH. USE THE MARK SHOWN ON THE RESTRICTOR ARM AS LOCATION POINT FOR THE PIVOT CATCH. THE INCLUDED SUPPORT FITTING (PVC-BLOCK) IS MOUNTED IN THE BOTTOM CHANNEL OF THE SASH - OPPOSITE THE HINGE SIDE - JUST OVER THE FREE PART OF THE SMALL ALU-RAIL.



BOTTOM FRAME

OPERATING INSTRUCTIONS:

1. OPEN THE SASH UNTIL THE RESTRICTOR CATCH ENGAGES.
2. PULL THE SASH IN, APPROXIMATELY 20 MM.
3. PRESS THE RESTRICTOR ARM IN THE DIRECTION OF THE ARROW AND OPEN THE SASH.
4. WHEN THE WINDOW IS CLOSED THE RESTRICTOR RE-ENGAGES AUTOMATICALLY.

USE SCREW NO. 4.0

MAINTENANCE:

THE FITTINGS MUST NOT BE PAINTED. TEST THE OPERATION AND LUBRICATE THE PIVOT (CENTRE OF ROTATION) FROM TIME TO TIME, MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

EXAMPLE WOOD PROFILE

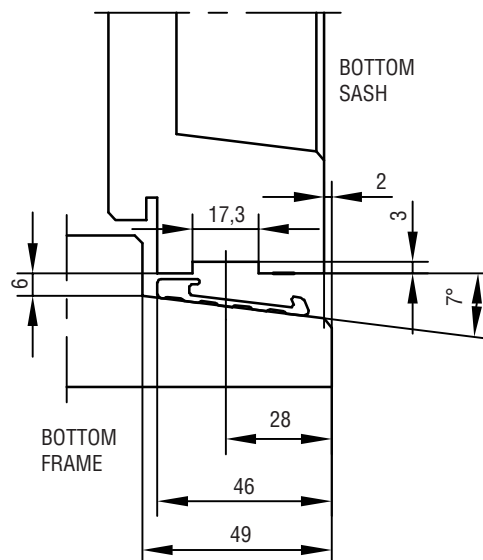
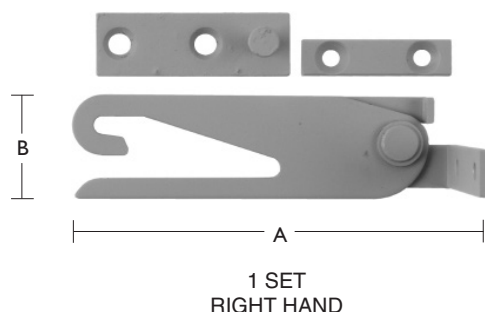
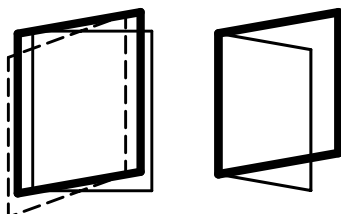


FIG. 2



SAFETY RESTRICTOR

IPA NO. 21231



ORDERING NO.								
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW
	STAINLESS STEEL	LEFT	RIGHT	UNMACHINED				
21231	8	7	8	86	1	105	28	4,0
						APPROX. WEIGHT KG / SET		
						0,080		

● RETAINS THE WINDOW IN OPENING POSITION 60 MM

USED IN CONJUNCTION WITH:
HINGES IPA NO.s 11173-74 & 77
SIDESWING FITTING IPA NO.s 21201-17



FITTING INSTRUCTIONS

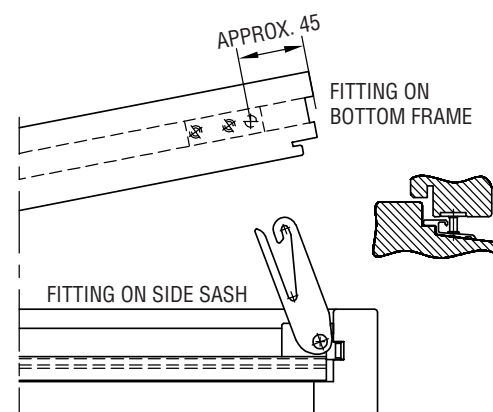


FIG. 1
RIGHT HAND ILLUSTRATION

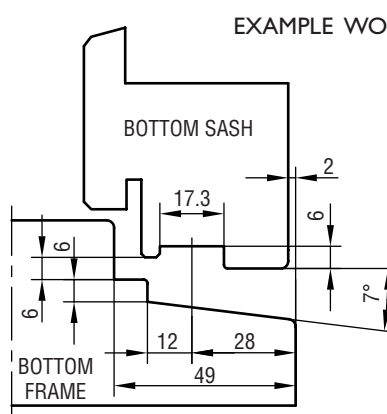


FIG. 2

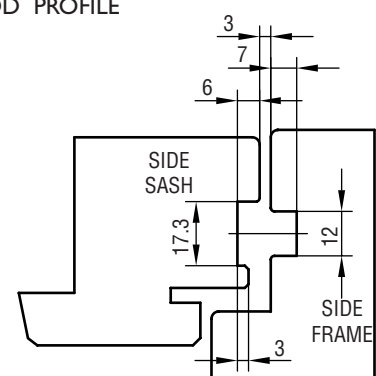


FIG. 3

OPERATING INSTRUCTIONS:

1. OPEN THE WINDOW UNTIL THE RESTRICTOR IS IN POSITION.
2. DRAW THE SASH 20 MM BACKWARDS.
3. PRESS THE RESTRICTOR AGAINST THE FRAME AND THE SASH IS RELEASED.

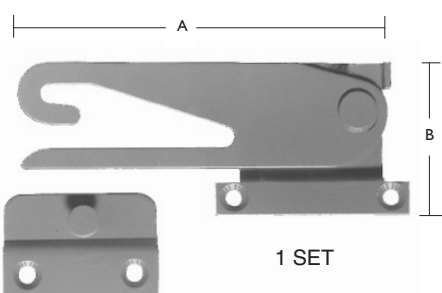
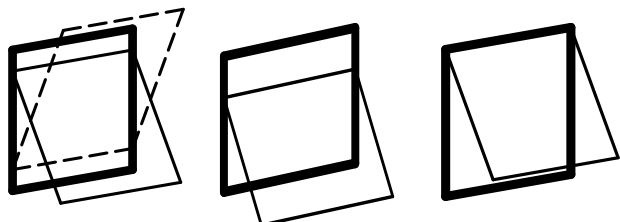
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



SAFETY RESTRICTOR

IPA NO. 21233



ORDERING NO.								
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW	APPROX. WEIGHT KG / SET
	STAINLESS STEEL		UNMACHINED					
21233	8	0	86	1	97	40	3,5	0,075

- RETAINS THE WINDOW IN OPENING POSITION 60 MM

USED IN CONJUNCTION WITH:
TOP HINGES IPA NO.s 21125-28
REV. PROJ. GEAR IPA NO.s 21144-52 & IPA NO.s 21874-82
CANOPY STAY IPA NO.s 21167-82



FITTING INSTRUCTIONS

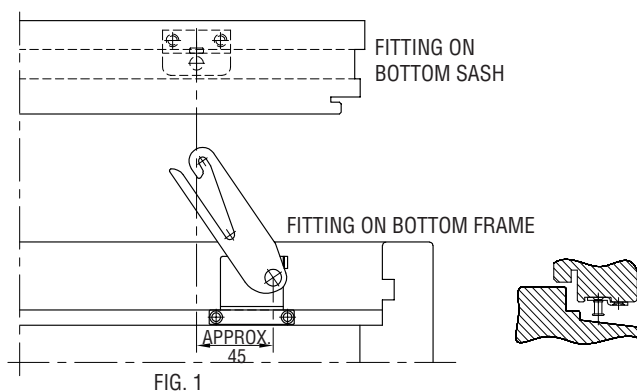


FIG. 1

OPERATING INSTRUCTIONS:

1. OPEN THE WINDOW UNTIL THE RESTRICTOR IS IN POSITION.
2. DRAW THE SASH 20 MM BACKWARDS.
3. PRESS THE RESTRICTOR TO THE RIGHT AND OPEN THE SASH.

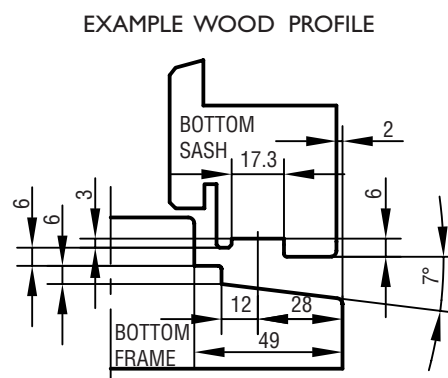


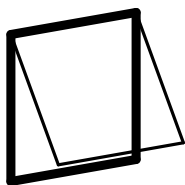
FIG. 2

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



FIRE ESCAPE FITTING FOR TOP HUNG WINDOWS IPA NO. 21321



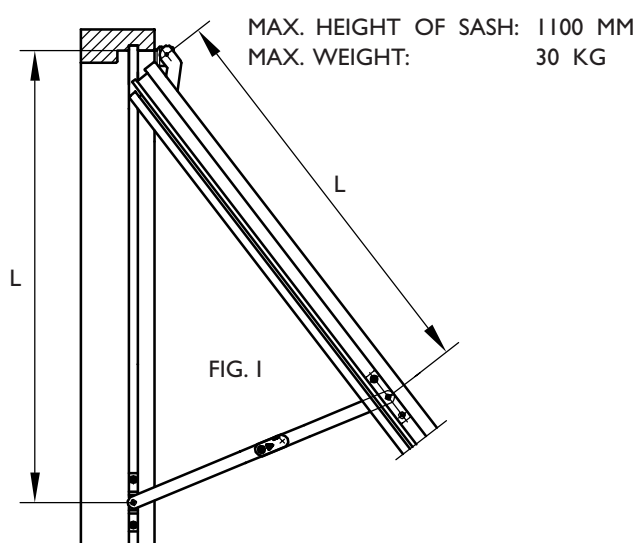
1/2 SET
LEFT HAND

ORDERING NO.								
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	LENGTH MM	MATERIAL MM	SCREW	APPROX. WEIGHT KG / SET
	STEEL		ELECTROPLATED					
21321	1	0	21	1	350	17x2	4,0	0,34

USED IN CONJUNCTION WITH:
TOP HINGES IPA NO.s 21125-28



FITTING INSTRUCTIONS



THE FITTINGS ARE PLACED IN THE GROOVES ON BOTH SIDES, SO THAT THE WANTED OPENING IS OBTAINED. MEASURES L SHOULD BE THE SAME ON BOTH SASH AND FRAME. USE SCREW NO. 4,0.

EXAMPLE WOOD PROFILE

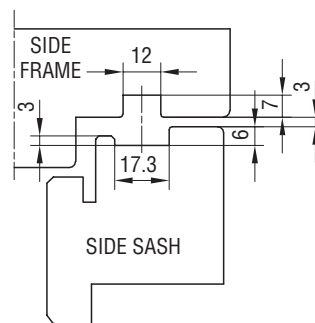


FIG. 2

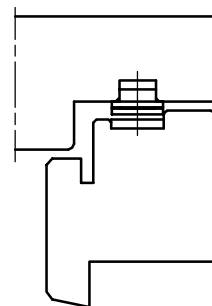


FIG. 3

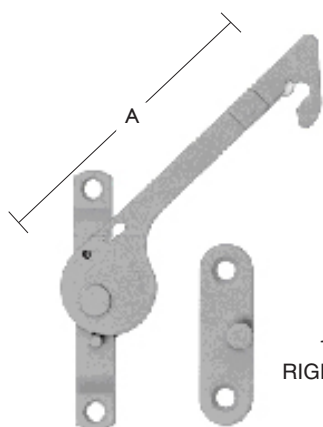
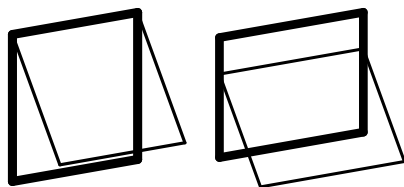
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



SAFETY RESTRICTOR

IPA NO. 21236



1 SET
RIGHT HAND

ORDERING NO.								
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	SCREW	APPROX. WEIGHT KG / SET
	STEEL			ELECTROPLATED				
21236	1	7	8	21	1	92	3,5 & 4,0	0,06



FITTING INSTRUCTIONS

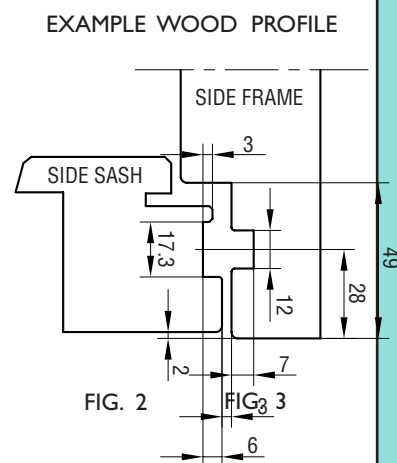
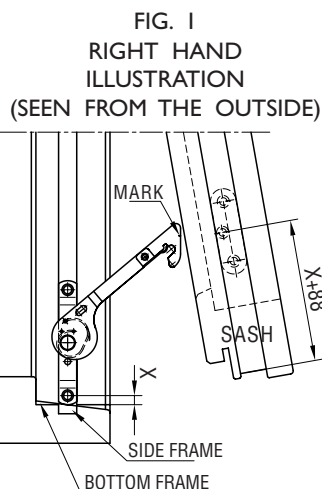
RESTRICTOR NO. 21236 CAN BE USED ON TOP HUNG AS WELL AS ON CANOPY STAY WINDOWS. PLACE THE RESTRICTOR IN THE PROFILE GROOVE IN THE BOTTOM OF THE SIDE FRAME AND PLACE THE RECEIVER IN THE PROFILE GROOVE IN THE SIDE OF THE SASH AS SHOWN ON FIG. 1. THE RESTRICTOR CAN ALSO BE USED ON A SIDE HUNG WINDOW. IN THIS CASE: PLACE THE RESTRICTOR IN THE PROFILE GROOVE IN THE TOP OF THE FRAME AND THE RECEIVER IN THE PROFILE GROOVE IN THE TOP OF THE SASH.

X-DIMENSION IS OPTIONAL. WE SUGGEST 6 MM AS A MINIMUM. BY USING LARGER X-DIMENSIONS THE VENTILATION OPENING WILL BE EXTENDED.

IMPORTANT: THE RECEIVER MUST BE FITTED IN THE PROFILE GROOVE OF THE SASH. USE THE MARK SHOWN ON THE RESTRICTOR ARM AS A LOCATION POINT FOR THE PIVOT CATCH.

OPERATING INSTRUCTIONS:

1. OPEN THE WINDOW UNTIL THE RESTRICTOR IS IN POSITION.
2. DRAW THE SASH 20 MM BACKWARDS.
3. PRESS THE RESTRICTOR IN THE DIRECTION OF THE ARROW AND OPEN THE WINDOW.
4. WHEN THE WINDOW IS CLOSED THE RESTRICTOR RE-ENGAGES AUTOMATICALLY.



MAINTENANCE:

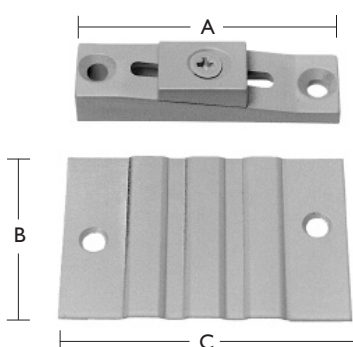
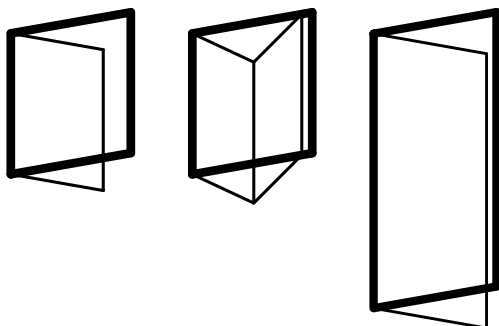
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



SUPPORT FITTING

FOR WINDOWS & DOORS - ADJUSTABLE

IPA NO. 21226



ORDERING NO.									
IPA NO.	MATERIAL	SURFACE		STANDARD PACKING IN BOXES OF 25 PIECES	A MM	B MM	C MM	SCREW	APPROX. WEIGHT KG/100 PC.
	ALUMINIUM/PLASTIC	WITHOUT SPECIFICATION	ANODIZED						
21226	0	0	00	1	60	40	61	3,0 & 4,0	1,40



FITTING INSTRUCTIONS

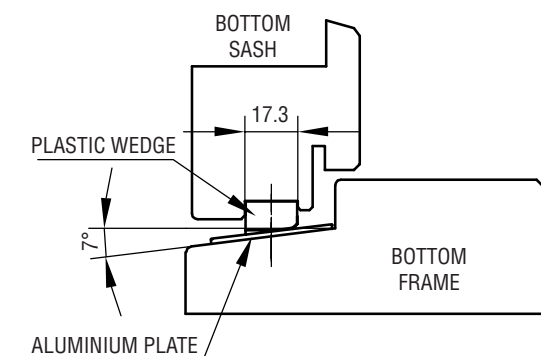


FIG. 1

THE SUPPORT FITTING IS USED TO SUPPORT WINDOWS AND DOORS. THE PLASTIC WEDGE IS MOUNTED IN THE IPA SYSTEM GROOVE ON THE SASH AND THE ALUMINIUM RAIL IS MOUNTED ON THE BOTTOM FRAME, AS SHOWN.

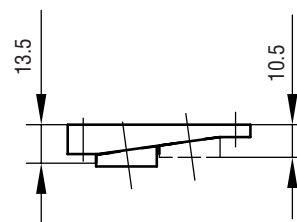


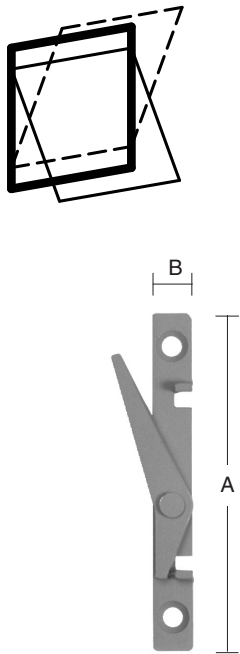
FIG. 2

THE SUPPORT FITTING CAN BE ADJUSTED BY LOOSENING THE SCREW IN THE SMALL PLASTIC BLOCK AND BY ADJUSTING THE MENTIONED PLASTIC BLOCK TO THE LEFT OR TO THE RIGHT. MAXIMUM AND MINIMUM HEIGHT OF THE FITTING IS SHOWN ABOVE - PLEASE REMEMBER TO ADD THE THICKNESS OF THE ALUMINIUM RAIL.



FIRE-ESCAPE CATCH

IPA NO. 21156



ORDERING NO.							
IPA NO.	MATERIAL	SURFACE		STANDARD PACKING IN BOXES OF 10 PIECES	A MM	B MM	SCREW
	STEEL	WITHOUT SPECIFICATION	ELECTROPLATED				
21156	1	0	21	1	70	8	3,0
					APPROX. WEIGHT KG/EACH		
					0,02		

USED IN CONJUNCTION WITH:
REVERSIBLE PROJECTING GEAR IPA NO.s 21144-52.



FITTING INSTRUCTIONS

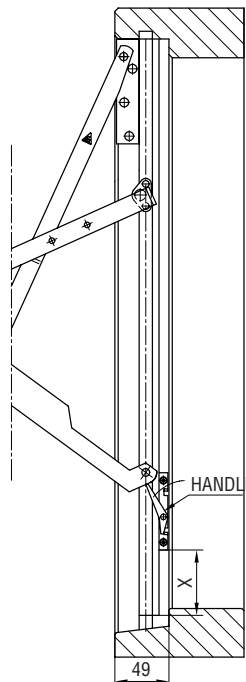


FIG. 1

IPA NO.	X
21144	50
21145	76
21146	102
21147	128
21148	155
21149	177
21150	195
21151	209
21152	223

FIG. 2

MOUNTING:

1. THE FITTING IS PLACED IN RIGHT SIDE FRAME, SEEN FROM THE INSIDE. PLACE THE FITTING AGAINST THE REAR EDGE OF THE ALUMINIUM RAIL, SEE FIG. 1.
2. TO OBTAIN MAXIMUM FIRE-ESCAPE OPENING PLACE THE FITTING ACCORDING TO DIMENSION, SEE FIG. 2.

OPERATING INSTRUCTIONS:

1. OPEN THE WINDOW UNTIL THE FIRE-ESCAPE CATCH ENGAGES.
2. THE WINDOW CAN BE CLOSED BY OPENING IT ANOTHER 2 CM, AND PULLING THE HANDLE BACKWARDS, THEN CLOSE THE WINDOW AND LET GO OF THE HANDLE WHEN THE BOTTOM ARM OF THE FITTING HAS PASSED THE FIRE-ESCAPE CATCH, SEE FIG. 1.
3. THE FIRE-ESCAPE CATCH WILL AUTOMATICALLY ENGAGE NEXT TIME THE WINDOW IS OPENED.
5. IF THE WINDOW IS FULLY REVERSED THEN THE FIRE-ESCAPE CATCH HAS TO BE RELEASED AS MENTIONED IN 2.

USE SCREW NO. 3,0

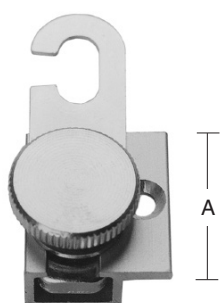
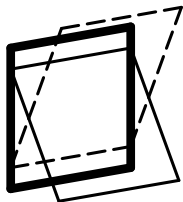
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



VENTILATION CATCH

IPA NO. 21157

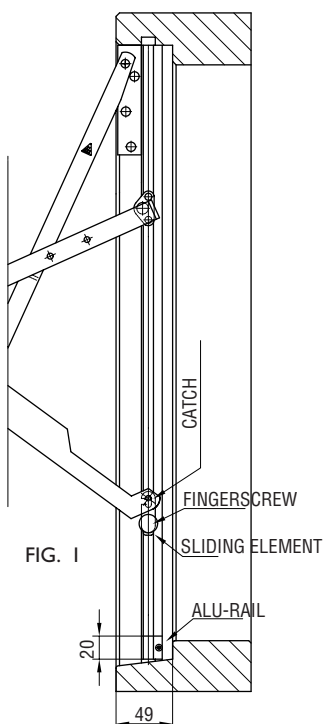


ORDERING NO.							
IPA NO.	MATERIAL	SURFACE		STANDARD PACKING IN BOXES OF 10 PIECES	A MM	SCREW	APPROX. WEIGHT KG/EACH
	STEEL	LEFT	ELECTROPLATED				
21157	1	7	21	1	20	3,0	0,02

USED IN CONJUNCTION WITH:
REVERSIBLE PROJECTING GEAR IPA NO. 21144-52, A
MINIMUM OF 20 MM BETWEEN BOTTOM ALU-RAIL AND
BOTTOM FRAME IS NEEDED.



FITTING INSTRUCTIONS



MOUNTING INSTRUCTIONS: (USE SCREW NO. 3.0)

1. THE FITTING IS MOUNTED ON THE RIGHT SIDE SEEN FROM THE INSIDE. THE FITTING IS MOUNTED AT THE BOTTOM END OF THE ALURAIL OF 21144-52, SEE FIG. 1.

IMPORTANT: THE SMALL PIECE OF ALU-RAIL FOR THE VENTILATION CATCH MUST BE PLACED CAREFULLY RIGHT UNDER THE ALU-RAIL IN THE FRAME. MAKE SURE THAT NOTHING PREVENTS THE SMOOTH MOVING OF THE VENTILATION CATCH BETWEEN THE TWO ALU-RAILS.

2. THE FINGERSCREW IS LOOSENED AND THE FITTING IS CONNECTED TO THE BOTTOM SLIDING ELEMENT OF 21144-52, THIS WAY THE FITTING WILL ALWAYS FOLLOW THE BOTTOM SLIDING ELEMENT OF 21144-52.

OPERATING INSTRUCTIONS:

1. THE WINDOW IS OPENED TO THE WANTED POSITION AND THE FINGERSCREW IS FASTENED.
2. WHEN CHANGING THE OPENING POSITION OF THE WINDOW THE FINGER-SCREW MUST BE LOOSENED BEFORE OPERATING THE WINDOW.

IMPORTANT: THE VENTILATION FITTING WILL BE DESTROYED IF THE FINGER-SCREW IS NOT LOOSENED BEFORE OPERATING THE WINDOW.

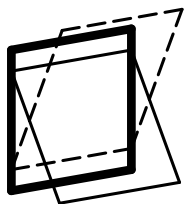
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN LUBRICATING THE THREAD AVOID LUBRICANT BETWEEN THE SLIDING ELEMENT AND THE ALU-RAIL AS THIS COULD RESULT IN MAL-FUNKTION OF THE FITTING. SEE ALSO SECTION H.



SAFETY RESTRICTOR

IPA NO. 21158

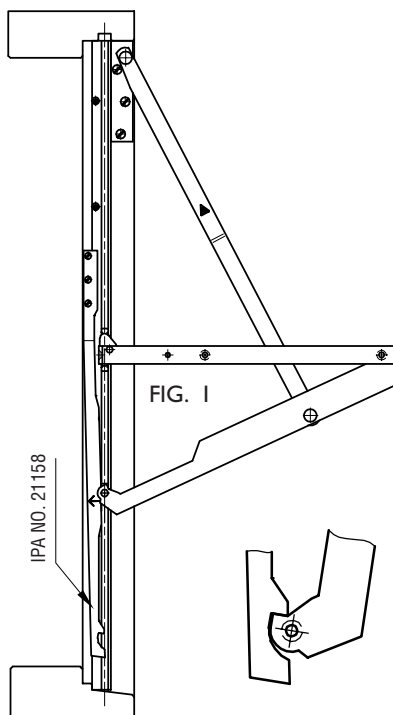


ORDERING NO.					A MM	MATERIAL MM	SCREW	APPROX. WEIGHT KG/EACH
IPA NO.	MATERIAL		SURFACE	STANDARD PACKING IN BOXES OF 20 PIECES				
	STEEL		ELECTROPLATED					
21158	1	7	21	1	385	4	3,0	0,12

USED IN CONJUNCTION WITH:
REVERSIBLE PROJECTING GEAR IPA NO.s 21144-52
AND IPA NO.s 21874-82.



FITTING INSTRUCTIONS



MOUNTING INSTRUCTIONS:

1. SAFETY CATCH IPA NO. 21158 IS MOUNTED ON THE LEFT SIDE SEEN FROM THE INSIDE - USING SCREW NO. 3.0 SEE FIG. 1. THE SAFETY OPENING OF THE WINDOW IS APROX. 100 MM.

OPERATING INSTRUCTIONS:

1. THE WINDOW IS OPENED UNTIL THE SAFETY CATCH AUTOMATICALLY ENGAGES.
2. TO OPEN THE WINDOW - CLOSE THE WINDOW APROX. 2 CM. PRESS THE SAFETY CATCH, SEE FIG. 1, IN THE DIRECTION SHOWN BY THE ARROW, THEN OPEN THE WINDOW.
3. THE SAFETY CATCH AUTOMATICALLY RE-ENGAGES NEXT TIME THE WINDOW IS OPENED.

USE SCREW NO. 3.0.

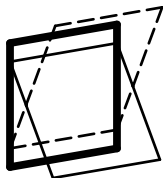
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



SAFETY RESTRICTORS

IPA NO.s 21162-64

**21162-63****21164**

ORDERING NO.					A MM	SCREWS	APPROX. WEIGHT KG / PIECES
IPA NO.	MATERIAL	SURFACE		STANDARD PACKING IN BOXES OF 20 PIECES			
	STEEL	LEFT	ELECTROPLATED				
21162	1	7	21	1	170	3,5	0,06
21163	1	7	21	1	170	3,5	0,06
21164	1	7	21	1	170	3,5	0,06

IPA NO.s 21162-63:
USED IN CONJUNCTION WITH REVERSIBLE
PROJECTING GEAR IPA NO.s 21046-52,
IPA NO.s 21144-52 AND IPA NO.s 21874-82.

IPA NO. 21164:
USED IN CONJUNCTION WITH REVERSIBLE
PROJECTING GEAR IPA NO.s 21046-52 AND
IPA NO.s 21144-52.



FITTING INSTRUCTIONS

FITTING:

1. PLACE THE SAFETY CATCH IN THE LEFT SIDE FRAME SO THAT THE FRONT EDGE OF THE FITTING PLATE LIES AGAINST THE REAR EDGE OF THE ALUMINIUM RAIL.
2. THE VERTICAL POSITION DECIDING THE SIZE OF THE OPENING GAP IS OPTIONAL. THE OPENING GAP DEPENDS ON BOTH THE VERTICAL POSITION OF THE SAFETY CATCH AND THE MODULE SIZE.

OPERATING INSTRUCTIONS:

1. THE WINDOW IS OPENED UNTIL THE SAFETY RESTRICTOR AUTOMATICALLY ENGAGES.
2. IPA NO 21162-63: TO FURTHER OPEN THE WINDOW CLOSE THE WINDOW APPROX. 2 CM, PRESS THE BOTTOM PART OF THE SAFETY RESTRICTOR IN THE DIRECTION SHOWN BY THE ARROW. PUSH THE SASH TO OPEN WINDOW. LET GO OF THE SAFETY RESTRICTOR AND IT WILL ENGAGE IN THE NEXT POSITION. TO FULLY OPEN THE WINDOW - REPEAT THE PROCES.
- IPA NO. 21164: TO OPEN AND CLOSE THE WINDOW PRESS THE BOTTOM PART OF THE SAFETY RESTRICTOR IN THE DIRECTION SHOWN BY THE ARROW. PUSH/PULL THE SASH TO OPEN/CLOSE THE WINDOW.

3. NEXT TIME THE WINDOW IS OPENED THE SAFETY RESTRICTOR AUTOMATICALLY REENGAGES.

MAINTENANCE:

DO NOT PAINT THE FITTING.
WHEN FITTING - LUBRICATE THE MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

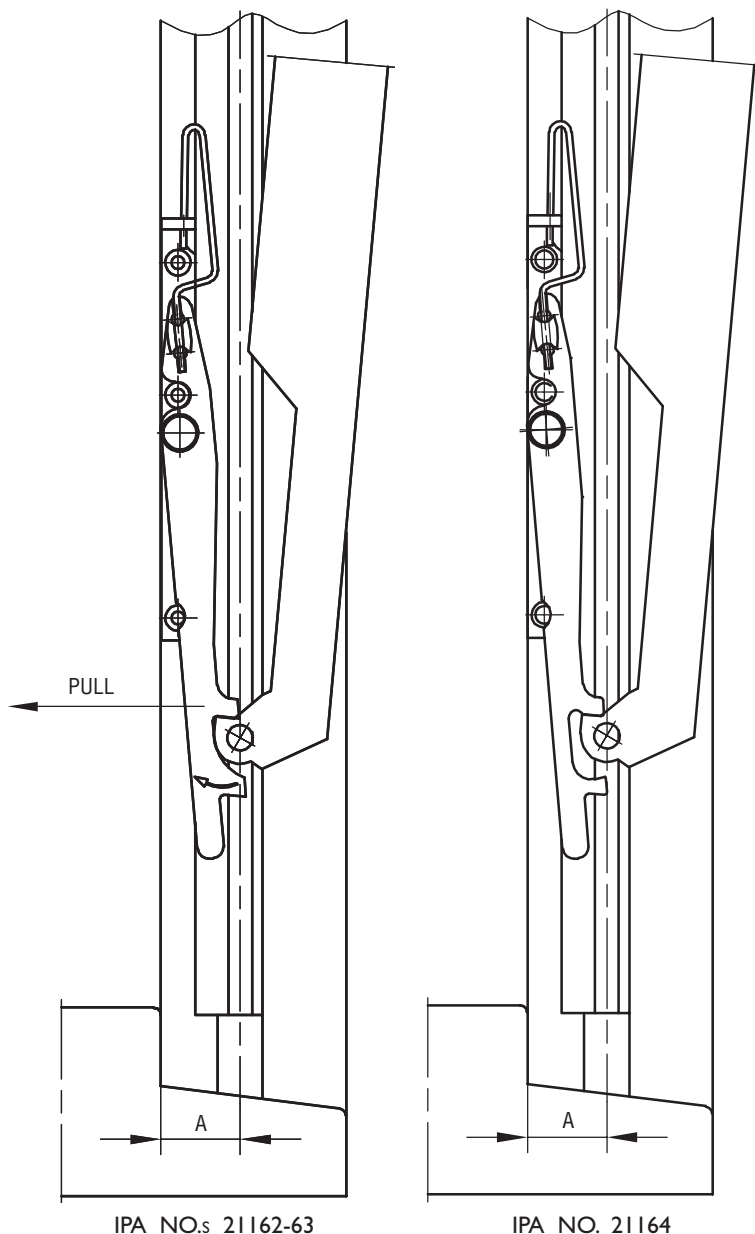


FIG. 1

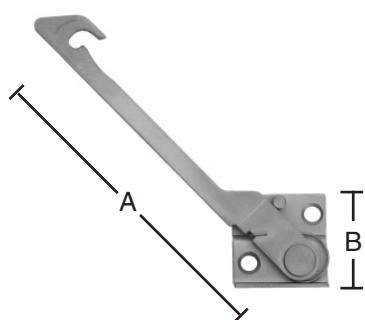
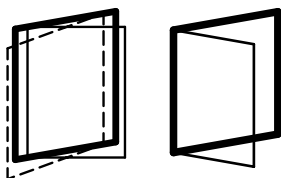
IPA NO.	A
21162	MIN. 23
21163 + 64	MIN. 21 MAX. 22.9

FIG. 2

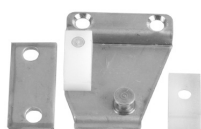


SAFETY RESTRICTOR

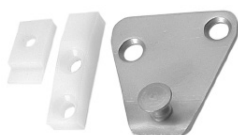
IPA NO. 21232



21232
LEFT HAND



21218 - LEFT HAND



21219



21220 - LEFT HAND

RESTRICTOR

ORDERING NO.								
IPA NO.	MATERIAL				SURFACE		STANDARD PACKING IN BOXES OF 10 PCS.	A MM
	STAINLESS STEEL				UNMACHINED			B MM
21232	8	7	8	86	1		119	34,5
								4,0
								0,05

- MOUNTED ON THE SASH
- EASY TO OPERATE
- STAINLESS STEEL
- RETAINS THE WINDOW IN VENTILATION POSITION

RESTRICTOR CATCH

ORDERING NO.								
IPA NO.	MATERIAL		W/O SPECIFICATION	LEFT	RIGHT	SURFACE		STANDARD PACKING IN BOXES OF 10 PCS.
	STEEL	STAINLESS STEEL				ELECTROPLATED	UNMACHINED	
21218	-	8	-	7	8	-	86	1
21219	-	8	0	-	-	-	86	1
21220	1	-	-	7	8	21	-	1
								0,03
								0,01

- IPA NO. 21218 IS TO BE USED ON WINDOWS WITH EXTRA REBATE SILL
- IPA NO. 21219 IS TO BE USED ON WINDOWS WITH 7° EVEN SILL
- IPA NO. 21220 IS TO BE USED IN CONJUNCTION WITH IPA NO. 21281-86

IPA NO. 21218 & 21219 ARE SUPPLIED WITH SUPPORT FITTING TO ENSURE A SAFE CATCH BY EACH OPENING.



FITTING INSTRUCTIONS

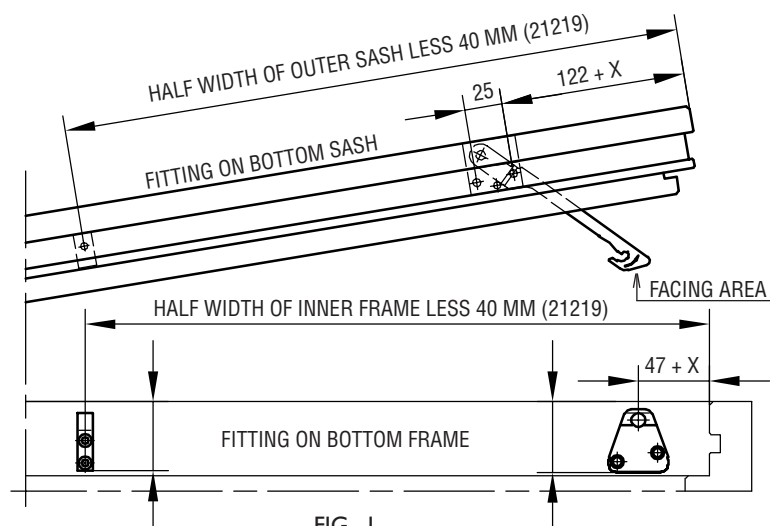


FIG. 1
RIGHT HAND
ILLUSTRATION

X-DIMENSION IS OPTIONAL. WE SUGGEST 6 MM AS MINIMUM. BY USING LARGER X-DIMENSION THE VENTILATION OPENING WILL BE EXTENDED. AT THE SAME TIME THE TURNING OF SASH TO CLEANING POSITION WILL BE REDUCED AS THE RESTRICTOR WILL STOP THE SLIDING PART.

EXAMPLES WOOD PROFILES

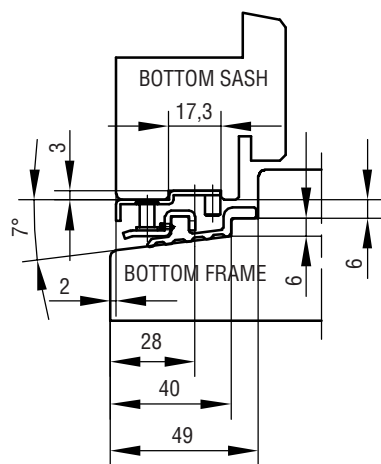


FIG. 2
IPA NO. 21220

IS USED IN CONJUNCTION WITH IPA NO. 21281-86. THE PIVOT CATCH IS MOUNTED ON THE BOTTOM ALU-RAIL.

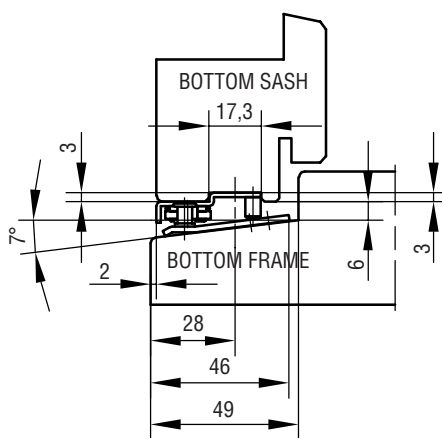


FIG. 3
IPA NO. 21219

IS USED ON WINDOWS WITH 7° EVEN SILL. THE PIVOT CATCH AND THE SUPPORT FITTING IS MOUNTED 46 MM FROM THE FRONT OF BOTTOM FRAME

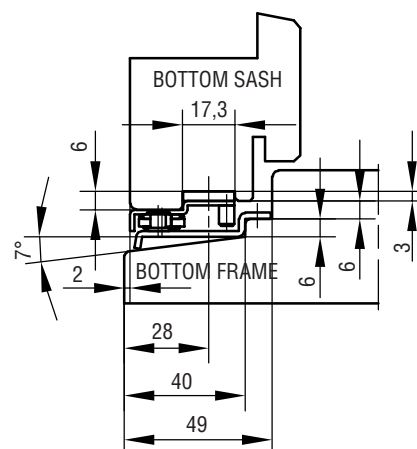


FIG. 4
IPA NO. 21218

IS USED ON WINDOWS WITH EXTRA REBATE SILL. A FITTING PLATE HAS TO BE MOUNTED UNDER THE RESTRICTOR ON THE BOTTOM SASH

OPERATING INSTRUCTIONS:

1. OPEN THE WINDOW UNTIL THE RESTRICTOR ENGAGES.
2. PULL THE SASH APPROXIMATELY 20 MM BACKWARDS.
3. PRESS THE RESTRICTOR OUTWARDS AS YOU OPEN THE WINDOW.
4. WHEN THE WINDOW IS CLOSED THE RESTRICTOR RE-ENGAGES AUTOMATICALLY.

MAINTENANCE:

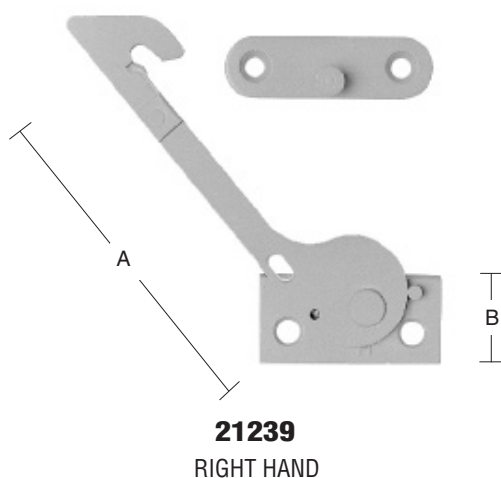
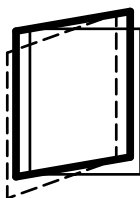
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.

USE SCREW NO. 4.0 FOR IPA NO. 21232+21219-20
USE SCREW NO. 3.5 FOR IPA NO. 21218



SAFETY RESTRICTOR

IPA NO. 21239



ORDERING NO.									
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW	APROX WEIGHT KG / SET
	STEEL			ELECTROPLATED					
21239	1	7	8	21	1	92	25	4,0	0,06

USED IN CONJUNCTION WITH FULLY REVERSIBLE
FITTINGS FOR SIDE SWING WINDOW 180°
IPA NO.s 21290-95



FITTING INSTRUCTIONS

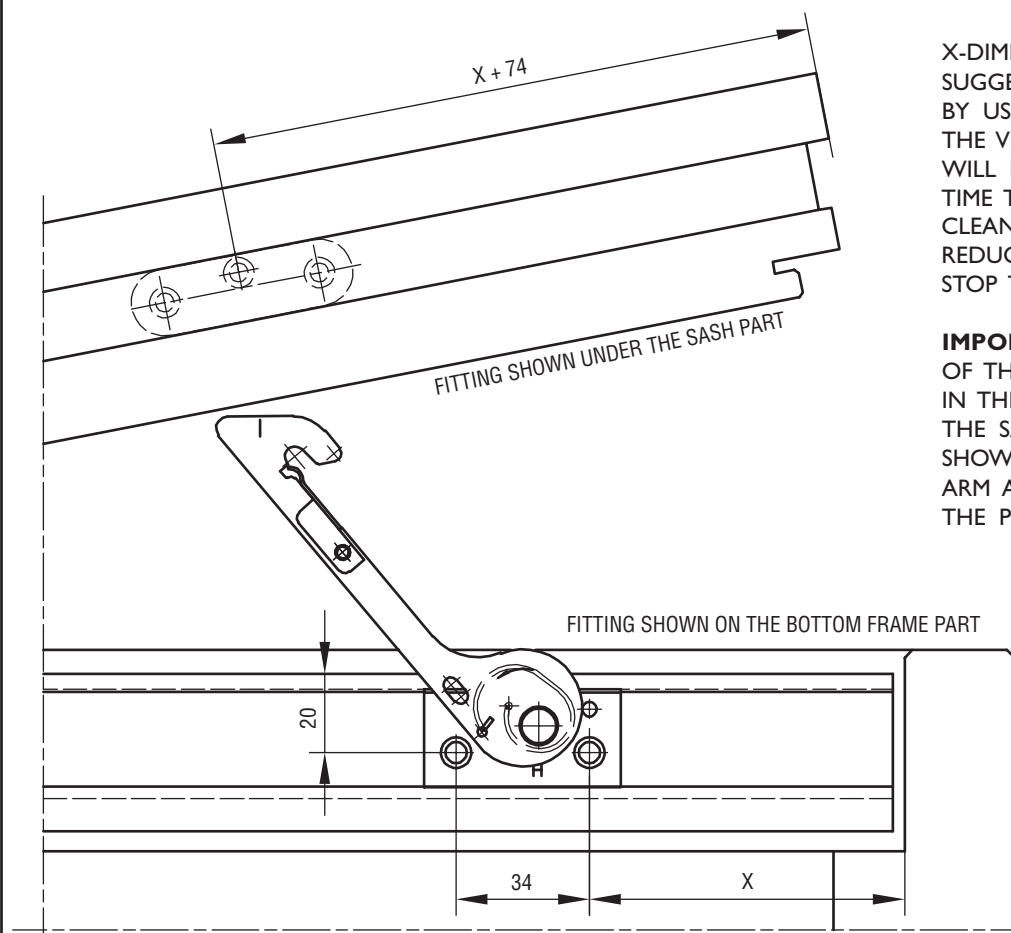
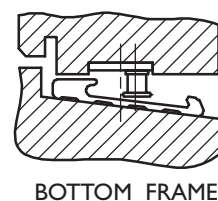


FIG. 1
RIGHT HAND ILLUSTRATION

X-DIMENSION IS OPTIONAL. WE SUGGEST 25 MM AS MINIMUM. BY USING LARGER X-DIMENSION THE VENTILATION OPENING WILL BE EXTENDED. AT THE SAME TIME THE TURNING OF SASH TO CLEANING POSITION WILL BE REDUCED AS THE RESTRICTOR WILL STOP THE SLIDING PART.

IMPORTANT: THE PIVOT CATCH OF THE RESTRICTOR IS FITTED IN THE BOTTOM CHANNEL OF THE SASH. USE THE MARK SHOWN ON THE RESTRICTOR ARM AS LOCATION POINT FOR THE PIVOT CATCH.



BOTTOM FRAME

OPERATING INSTRUCTIONS:

1. OPEN THE SASH UNTIL THE RESTRICTOR CATCH ENGAGES.
2. PULL THE SASH IN, APPROXIMATELY 20 MM.
3. PRESS THE RESTRICTOR ARM IN THE DIRECTION OF THE ARROW AND OPEN THE SASH.
4. WHEN THE WINDOW IS CLOSED THE RESTRICTOR RE-ENGAGES AUTOMATICALLY.

USE SCREW NO. 4.0

MAINTENANCE:

THE FITTINGS MUST NOT BE PAINTED. TEST THE OPERATION AND LUBRICATE THE PIVOT (CENTRE OF ROTATION) FROM TIME TO TIME, MINIMUM TWICE A YEAR.

EXAMPLE WOOD PROFILE

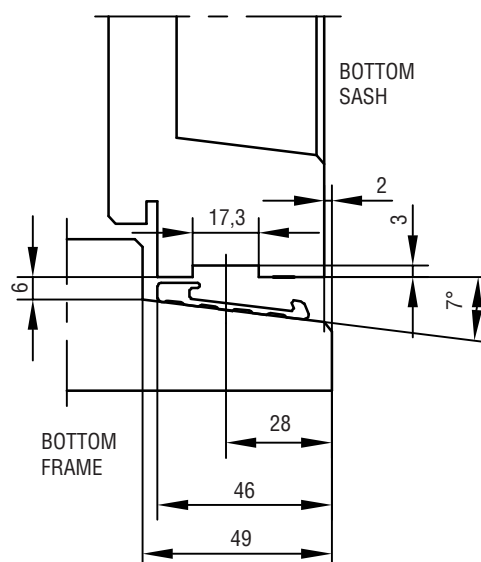


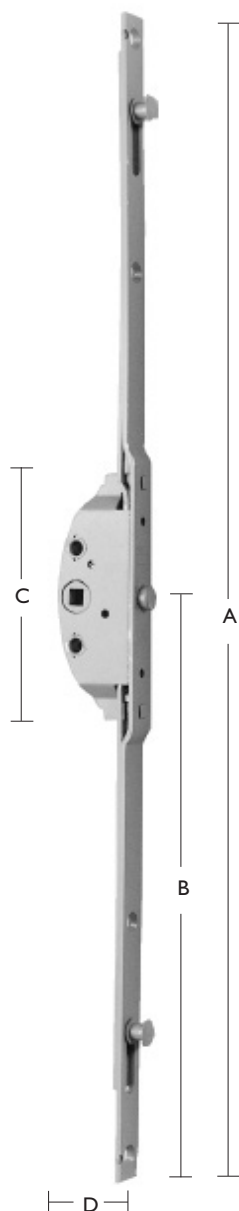
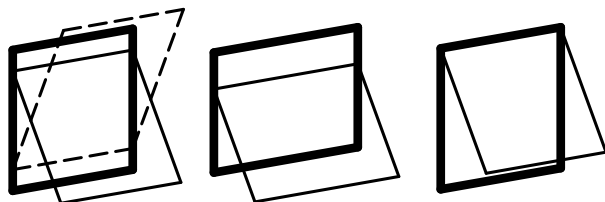
FIG. 2



ESPAGNOLETTES

WITH MUSHROOM HEAD BOLTS

IPA NO.s 23051-60 & 23061-70



ORDERING NO.															
IPA NO.	MATERIAL	SURFACE		STANDARD PACKING IN BOXES OF 10 PIECES.	INDUSTRY PACKING IN BOXES OF 25 PIECES.	A MM	B MM	BACKSET MM	PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL	SQUARE EDGES	ELECTROPLATED												
23051	1	6	21	1	-	300	150	25	8	106	34	16/17	2,5	4,0	0,24
23052	1	6	21	1	2	400	200	25	8	106	34	16/17	2,5	4,0	0,29
23053	1	6	21	1	-	500	250	25	8	106	34	16/17	2,5	4,0	0,34
23054	1	6	21	1	2	600	300	25	8	106	34	16/17	2,5	4,0	0,39
23055	1	6	21	1	-	700	350	25	8	106	34	16/17	2,5	4,0	0,44
23056	1	6	21	1	2	800	400	25	8	106	34	16/17	2,5	4,0	0,49
23057	1	6	21	1	-	900	450	25	8	106	34	16/17	2,5	4,0	0,54
23058	1	6	21	1	2	1000	500	25	8	106	34	16/17	2,5	4,0	0,59
23059	1	6	21	1	-	1100	550	25	8	106	34	16/17	2,5	4,0	0,64
23060	1	6	21	1	2	1200	600	25	8	106	34	16/17	2,5	4,0	0,69
23061	1	6	21	1	-	300	150	28	8	106	37	16/17	2,5	4,0	0,24
23062	1	6	21	1	-	400	200	28	8	106	37	16/17	2,5	4,0	0,29
23063	1	6	21	1	-	500	250	28	8	106	37	16/17	2,5	4,0	0,34
23064	1	6	21	1	2	600	300	28	8	106	37	16/17	2,5	4,0	0,39
23065	1	6	21	1	-	700	350	28	8	106	37	16/17	2,5	4,0	0,44
23066	1	6	21	1	2	800	400	28	8	106	37	16/17	2,5	4,0	0,49
23067	1	6	21	1	-	900	450	28	8	106	37	16/17	2,5	4,0	0,54
23068	1	6	21	1	2	1000	500	28	8	106	37	16/17	2,5	4,0	0,59
23069	1	6	21	1	-	1100	550	28	8	106	37	16/17	2,5	4,0	0,64
23070	1	6	21	1	2	1200	600	28	8	106	37	16/17	2,5	4,0	0,69

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- GUIDING PIN FOR SASH
- ADJUSTABLE MUSHROOM HEAD BOLTS

ACCESSORIES - SEE SECTION F



FITTING INSTRUCTIONS

IPA NO.	L MM	C MM	A MM BACKSET	B MM
23051	300	195	25	34
23052	400	295		
23053	500	395		
23054	600	495		
23055	700	595		
23056	800	695		
23057	900	795		
23058	1000	895		
23059	1100	995		
23060	1200	1095		
23061	300	195	28	37
23062	400	295		
23063	500	395		
23064	600	495		
23065	700	595		
23066	800	695		
23067	900	795		
23068	1000	895		
23069	1100	995		
23070	1200	1095		

FIG. 1

USE SCREW NO. 4.0

EXAMPLE WOOD PROFILE

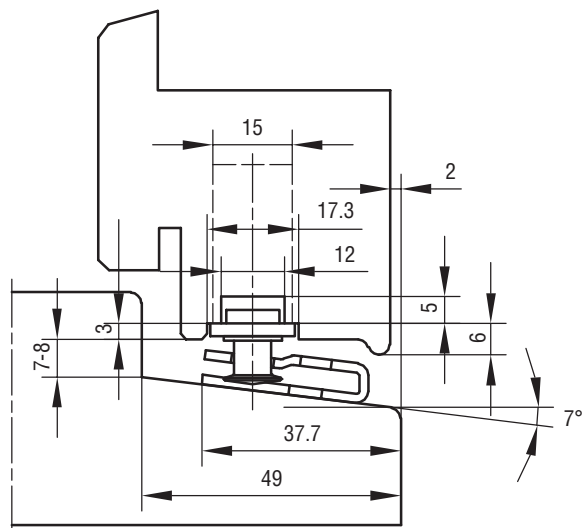


FIG. 2

SHOWN WITH BOLT RECEIVER IPA NO. 23190

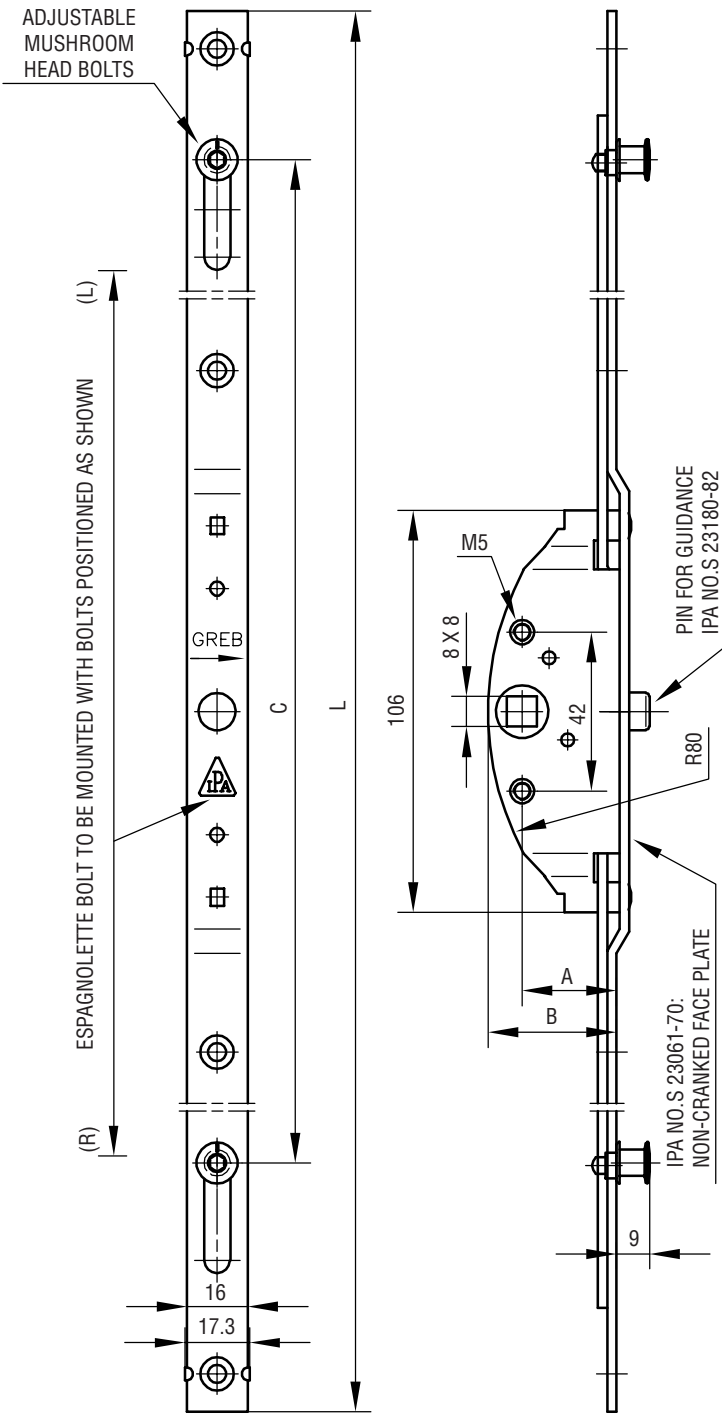


FIG. 3

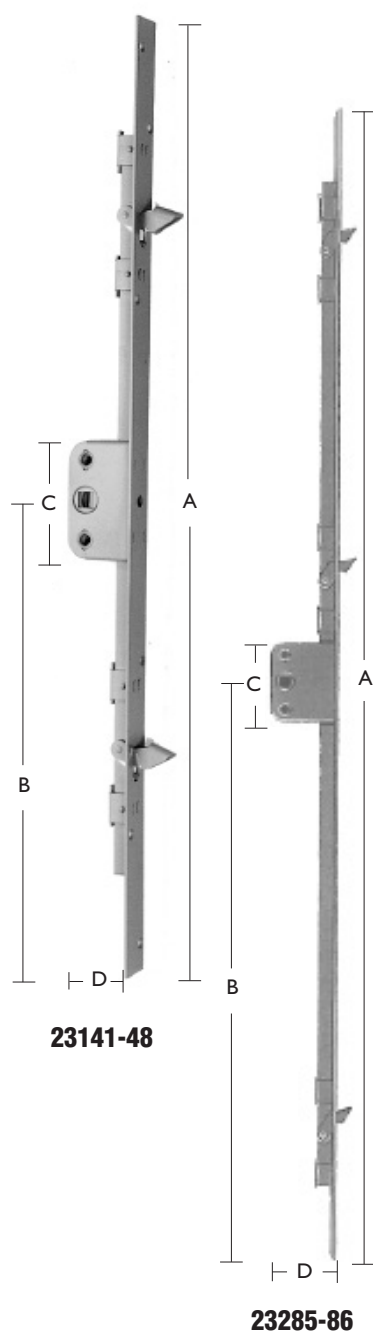
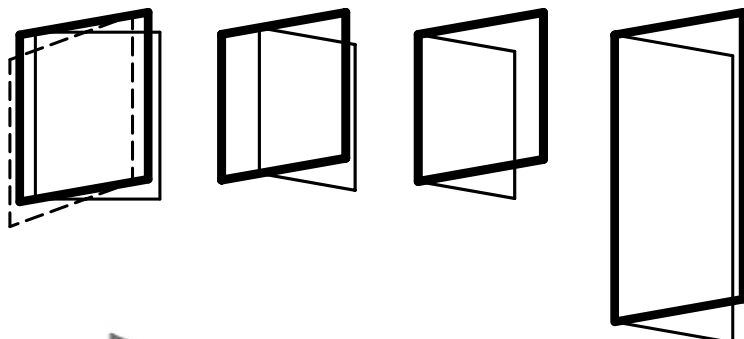
MAINTENANCE:
WHEN FITTING - LUBRICATE THE MOVABLE PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



ESPAGNOLETTES

WITH SIDE BOLTS

IPA NO.s 23141-48 & 23285-86



ORDERING NO.															
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 5 PIECES.	L MM	A MM	BACKSET MM	PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	THREADED NIPPLE FOR HANDLE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL		ELECTROPLATED												
23141	1	6	21	1	500	250	25	8	63	35	17	2	5	3,0	0,30
23142	1	6	21	1	500	250	28	8	63	38	17	2	5	3,0	0,30
23143	1	6	21	1	800	400	25	8	63	35	17	2	5	3,0	0,50
23144	1	6	21	1	800	400	28	8	63	38	17	2	5	3,0	0,50
23145	1	6	21	1	1000	500	25	8	63	35	17	2	5	3,0	0,60
23146	1	6	21	1	1000	500	28	8	63	38	17	2	5	3,0	0,60
23147	1	6	21	1	1300	650	25	8	63	35	17	2	5	3,0	0,80
23148	1	6	21	1	1300	650	28	8	63	38	17	2	5	3,0	0,80
23285	1	6	21	1	2110	1050	40	8	63	50	17	2	5	3,0	1,20
23286	1	6	21	1	2110	1050	40	8	63	50	17	2	5	3,0	1,20

- CONSEALED FITTINGS
- 19 MM SIDE BOLTS

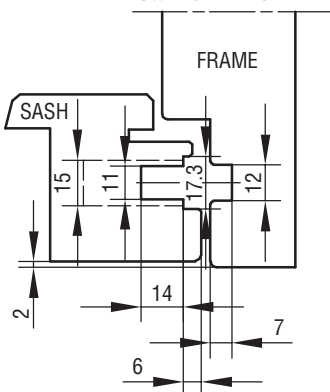
ACCESSORIES - SEE SECTION F



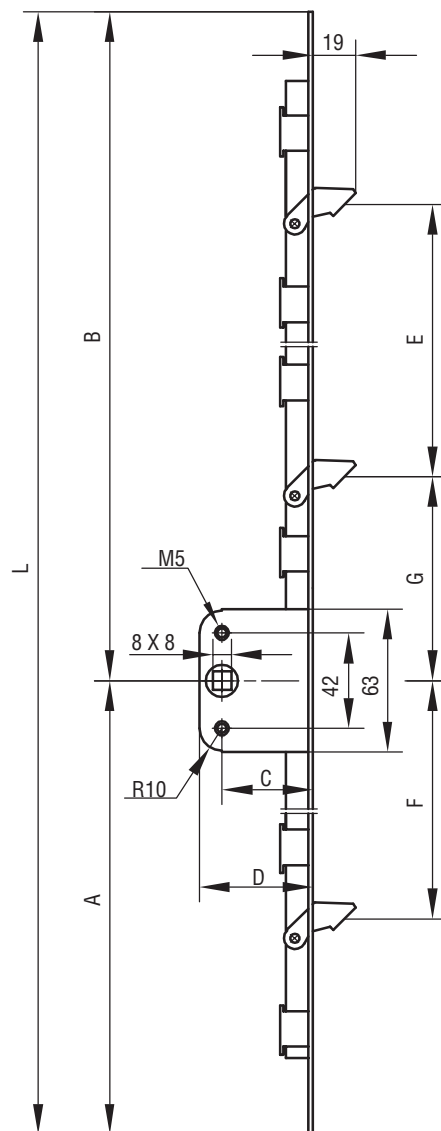
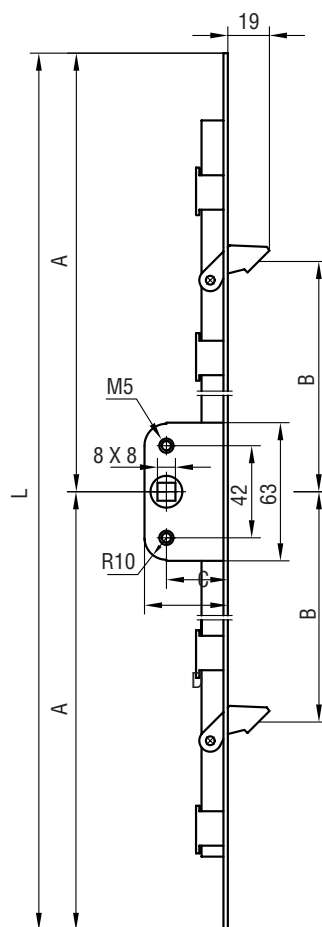
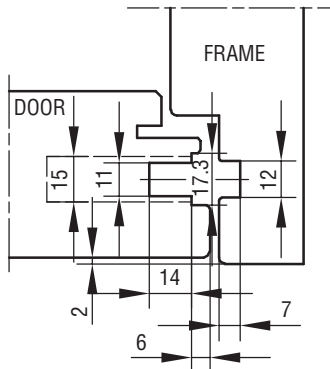
FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	C MM BACKSET	D MM	E MM	F MM	G MM
23141	500	250	140	25	35	-	-	-
23142	500	250	140	28	38	-	-	-
23143	800	400	290	25	35	-	-	-
23144	800	400	290	28	38	-	-	-
23145	1000	500	390	25	35	-	-	-
23146	1000	500	390	28	38	-	-	-
23147	1300	650	540	25	35	-	-	-
23148	1300	650	540	28	38	-	-	-
23285	2110	1050	1060	40	50	660	840	90
23286	2110	1050	1060	40	50	450	840	90

EXAMPLE WOOD PROFILE
IPA NO.s 23141-48



EXAMPLE WOOD PROFILE
IPA NO.s 23285-86



23141-48: FACE PLATE CAN BE SHORTENED 50 MM IN EACH END.

23285: AT HANDLE HEIGHT 1050 MM THE FACE PLATE CAN BE SHORTENED IN THE TOP TO 1850 MM.

23286: AT HANDLE HEIGHT 1050 MM THE FACE PLATE CAN BE SHORTENED IN THE TOP TO 1640 MM.

MAINTENANCE:

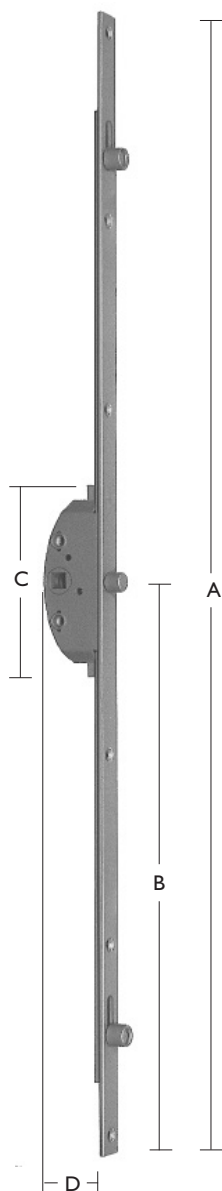
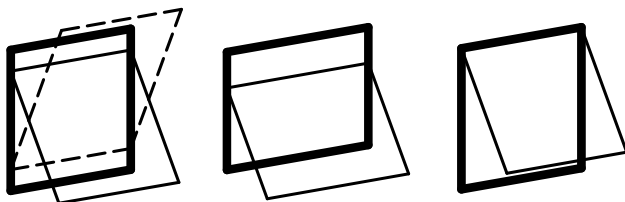
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



ESPAGNOLETTES

WITH ROLLER BOLTS

IPA NO.s 23151-70



23151-70

ORDERING NO.															
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	A MM	B MM	BACKSET MM	PIN MM	C MM	D MM	FACE PLATE MM	THICKNESS PLATE MM	THREADED HOLE FOR HANDLE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL		ELECTROPLATED												
23151	1	6	21	1	300	150	25	8	106	34	16/17	2,5	5	4,0	0,24
23152	1	6	21	1	400	200	25	8	106	34	16/17	2,5	5	4,0	0,29
23153	1	6	21	1	500	250	25	8	106	34	16/17	2,5	5	4,0	0,34
23154	1	6	21	1	600	300	25	8	106	34	16/17	2,5	5	4,0	0,39
23156	1	6	21	1	800	400	25	8	106	34	16/17	2,5	5	4,0	0,49
23158	1	6	21	1	1000	500	25	8	106	34	16/17	2,5	5	4,0	0,59
23160	1	6	21	1	1200	600	25	8	106	34	16/17	2,5	5	4,0	0,69
23161	1	6	21	1	300	150	28	8	106	37	16/17	2,5	5	4,0	0,24
23162	1	6	21	1	400	200	28	8	106	37	16/17	2,5	5	4,0	0,29
23163	1	6	21	1	500	250	28	8	106	37	16/17	2,5	5	4,0	0,34
23164	1	6	21	1	600	300	28	8	106	37	16/17	2,5	5	4,0	0,39
23166	1	6	21	1	800	400	28	8	106	37	16/17	2,5	5	4,0	0,49
23168	1	6	21	1	1000	500	28	8	106	37	16/17	2,5	5	4,0	0,59
23170	1	6	21	1	1200	600	28	8	106	37	16/17	2,5	5	4,0	0,69

- CONCEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- GUIDE PIN FOR SASH

ACCESSORIES - SEE SECTION F



FITTING INSTRUCTIONS

IPA NO.	L MM	C MM	A MM BACKSET	B MM
23151	300	195	25	34
23152	400	295		
23153	500	395		
23154	600	495		
23156	800	695		
23158	1000	895		
23160	1200	1095		
23161	300	195	28	37
23162	400	295		
23163	500	395		
23164	600	495		
23166	800	695		
23168	1000	895		
23170	1200	1095		

FIG. 1

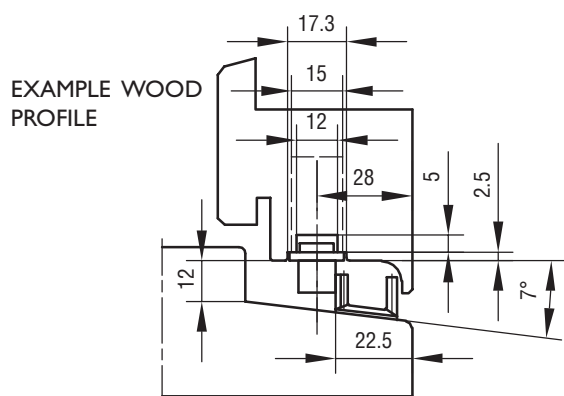
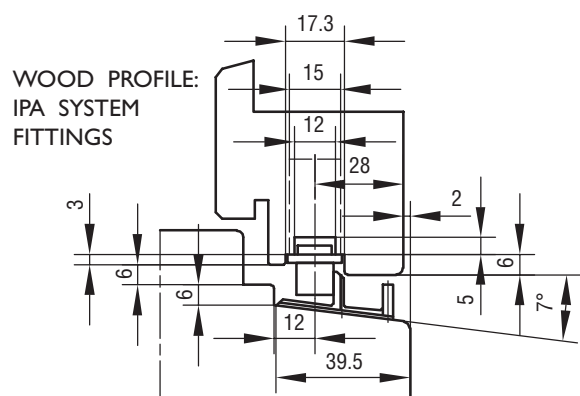
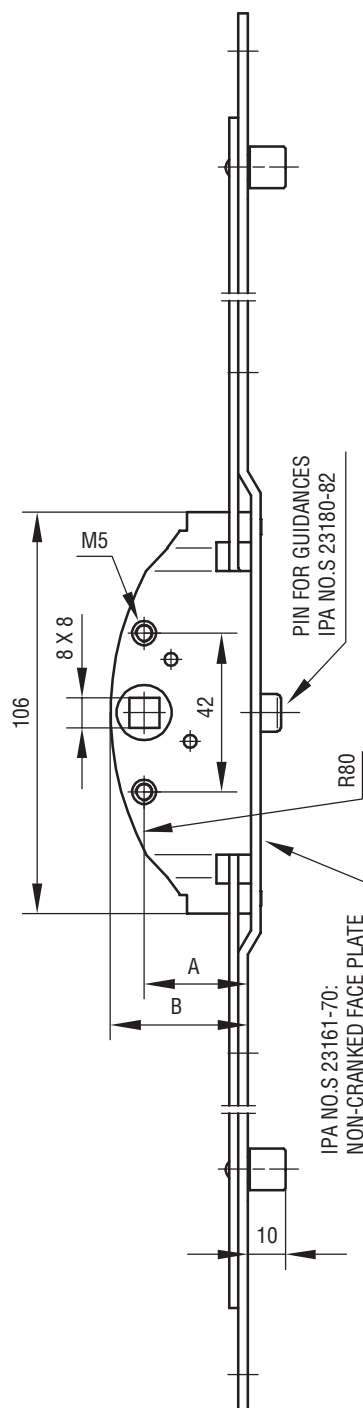
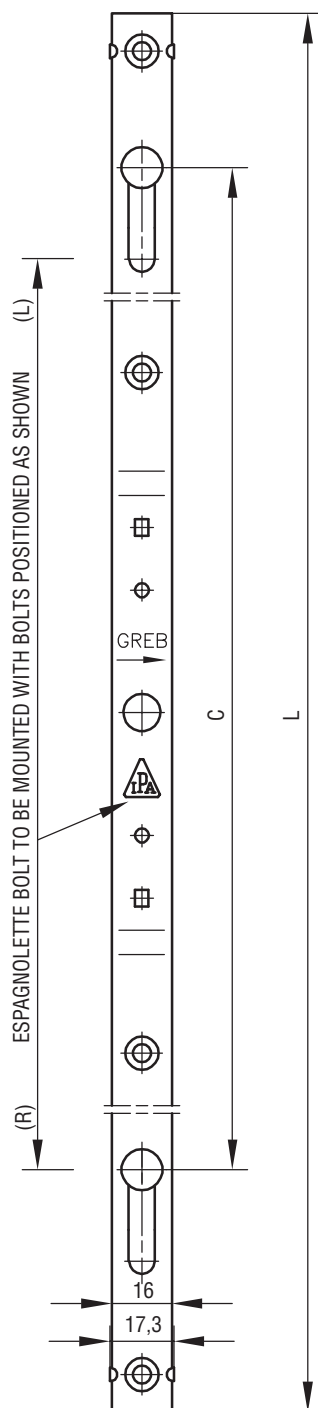
FIG. 2
SHOWN WITH BOLT RECEIVER IPA NO. 23183FIG. 3
SHOWN WITH IPA SYSTEM BOLT RECEIVER IPA NO. 23185

FIG. 4

USE SCREW NO. 4.0

MAINTENANCE:

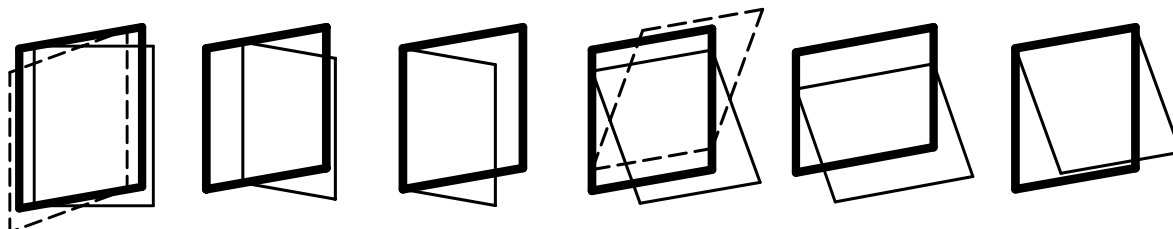
WHEN FITTING - LUBRICATE THE MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



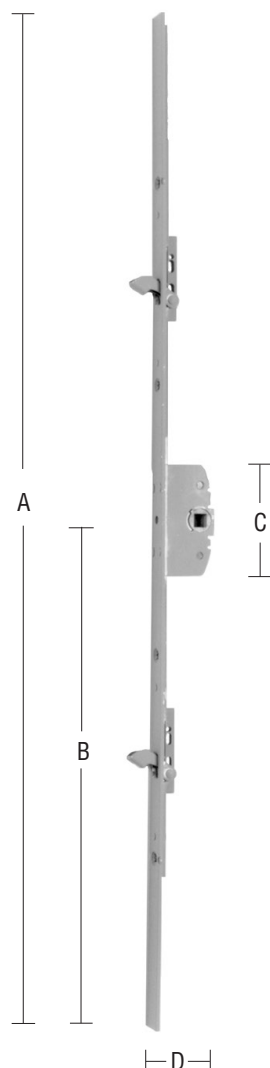
ESPAGNOLETTES

WITH SIDE BOLTS

IPA NO.s 23701-10 & 23715-24



PREPARED FOR FRICTION STAY
12 MM SIDE BOLTS



23701-24

ORDERING NO.														
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKNING IN BOXES OF 10 PIECES	A MM	B MM	BACKSET MM	PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX WEIGHT KG / EACH
	STEEL		ELECTROPLATED											
23701	1	6	21	1	600	300	25	8	66	34	16/17	2,5	4,0	0,30
23702	1	6	21	1	720	360	25	8	66	34	16/17	2,5	4,0	0,35
23703	1	6	21	1	820	410	25	8	66	34	16/17	2,5	4,0	0,40
23704	1	6	21	1	920	460	25	8	66	34	16/17	2,5	4,0	0,45
23705	1	6	21	1	1020	510	25	8	66	34	16/17	2,5	4,0	0,50
23706	1	6	21	1	1120	560	25	8	66	34	16/17	2,5	4,0	0,55
23707	1	6	21	1	1220	610	25	8	66	34	16/17	2,5	4,0	0,60
23708	1	6	21	1	1320	660	25	8	66	34	16/17	2,5	4,0	0,65
23709	1	6	21	1	1420	710	25	8	66	34	16/17	2,5	4,0	0,70
23710	1	6	21	1	1400	700	25	8	66	34	16/17	2,5	4,0	0,75
23715	1	6	21	1	600	300	28	8	66	37	16/17	2,5	4,0	0,30
23716	1	6	21	1	720	360	28	8	66	37	16/17	2,5	4,0	0,35
23717	1	6	21	1	820	410	28	8	66	37	16/17	2,5	4,0	0,40
23718	1	6	21	1	920	460	28	8	66	37	16/17	2,5	4,0	0,45
23719	1	6	21	1	1020	510	28	8	66	37	16/17	2,5	4,0	0,50
23720	1	6	21	1	1120	560	28	8	66	37	16/17	2,5	4,0	0,55
23721	1	6	21	1	1220	610	28	8	66	37	16/17	2,5	4,0	0,60
23722	1	6	21	1	1320	660	28	8	66	37	16/17	2,5	4,0	0,65
23723	1	6	21	1	1420	710	28	8	66	37	16/17	2,5	4,0	0,70
23724	1	6	21	1	1400	700	28	8	66	37	16/17	2,5	4,0	0,75

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- USABLE FOR TOP HUNG WINDOWS ALSO
- CAN BE USED WITH FRICTION STAY NO.s 23810-21, EXTENTION PIECES NO.s 23580-97 AND CONNECTION PIECES NO.s 23782-90



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	D MM
23701 / 23715	600	300	140	12
23702 / 23716	720	360	140	12
23703 / 23717	820	410	190	12
23704 / 23718	920	460	240	12
23705 / 23719	1020	510	290	12
23706 / 23720	1120	560	340	12
23707 / 23721	1220	610	390	12
23708 / 23722	1320	660	440	12
23709 / 23723	1420	710	490	12
23710 / 23724	1400	700	540	12

FIG. 1

FACE PLATE: 16/17 MM

SHORTENING POSSIBILITIES:

WITHOUT FRICTION STAY:

130 MM AT THE TOP WITH SIDE BOLTS OUT.

130 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE TOP:

(TO MOUNT FRICTION STAY MIN. 60 MM HAS TO BE CUT OF.)

60 - 110 MM AT THE TOP WITH SIDE BOLTS OUT.

130 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE BOTTOM:

(TO MOUNT FRICTION STAY MIN. 60 MM HAS TO BE CUT OF)

130 MM AT THE TOP WITH SIDE BOLTS OUT.

60 - 110 MM AT THE BOTTOM WITH SIDE BOLTS IN.

SHORTENING POSSIBILITIES FOR IPA NO.s 23701/23715 AND 23710/23724:

WITHOUT FRICTION STAY:

70 MM AT THE TOP WITH SIDE BOLTS OUT.

70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE TOP:

50 MM AT THE TOP WITH SIDE BOLTS OUT.

70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE BOTTOM:

70 MM AT THE TOP WITH SIDE BOLTS OUT.

50 MM AT THE BOTTOM WITH SIDE BOLTS.

USE SCREW NO. 4.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

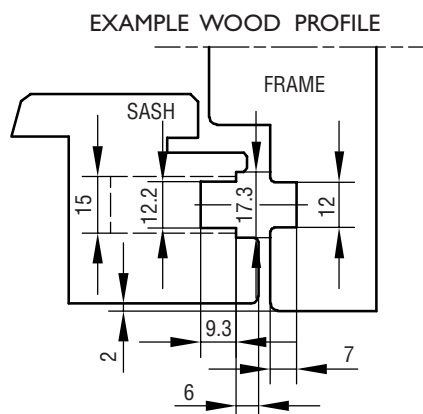


FIG. 2

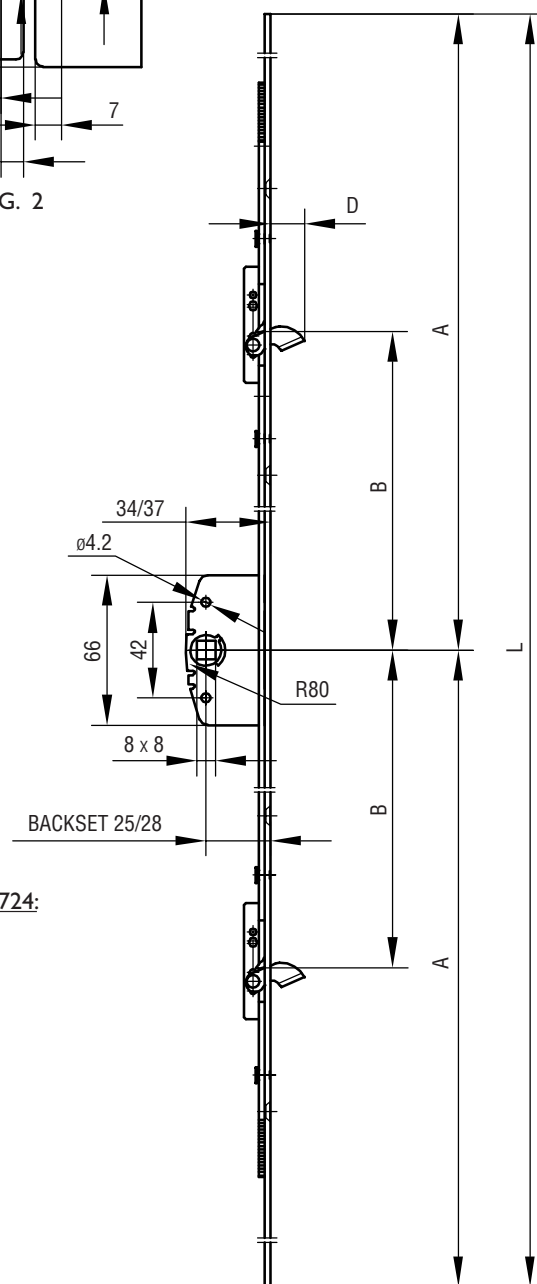


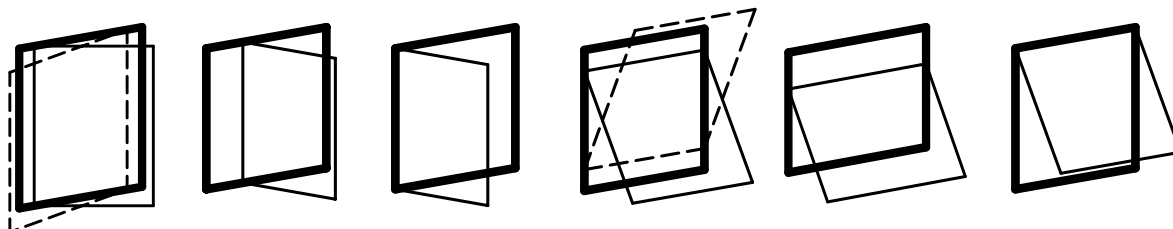
FIG. 3



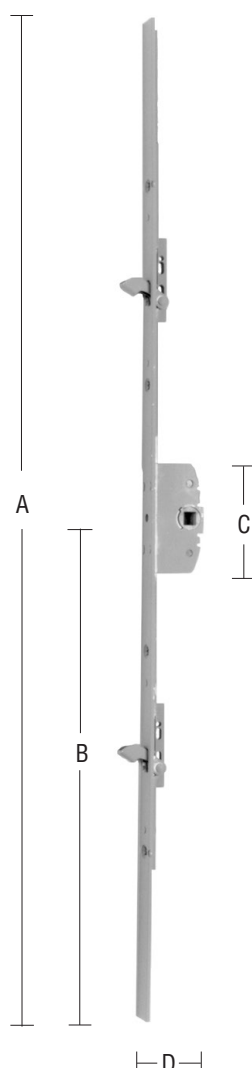
ESPAGNOLETTES

WITH SIDE BOLTS

IPA NO.s 23745-54 & 23760-69



PREPARED FOR FRICTION STAY
15 MM SIDE BOLTS



23745-69

ORDERING NO.															
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKNING IN BOXES OF 10 PIECES	A MM	B MM	BACKSET MM	PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX.WEIGHT KG / EACH	
	STEEL		ELECTROPLATED												
23745	1	6	21	1	600	300	25	8	66	34	16/17	2,5	4,0	0,30	
23746	1	6	21	1	720	360	25	8	66	34	16/17	2,5	4,0	0,35	
23747	1	6	21	1	820	410	25	8	66	34	16/17	2,5	4,0	0,40	
23748	1	6	21	1	920	460	25	8	66	34	16/17	2,5	4,0	0,45	
23749	1	6	21	1	1020	510	25	8	66	34	16/17	2,5	4,0	0,50	
23750	1	6	21	1	1120	560	25	8	66	34	16/17	2,5	4,0	0,55	
23751	1	6	21	1	1220	610	25	8	66	34	16/17	2,5	4,0	0,60	
23752	1	6	21	1	1320	660	25	8	66	34	16/17	2,5	4,0	0,65	
23753	1	6	21	1	1420	710	25	8	66	34	16/17	2,5	4,0	0,70	
23754	1	6	21	1	1400	700	25	8	66	34	16/17	2,5	4,0	0,75	
23760	1	6	21	1	600	300	28	8	66	37	16/17	2,5	4,0	0,30	
23761	1	6	21	1	720	360	28	8	66	37	16/17	2,5	4,0	0,35	
23762	1	6	21	1	820	410	28	8	66	37	16/17	2,5	4,0	0,40	
23763	1	6	21	1	920	460	28	8	66	37	16/17	2,5	4,0	0,45	
23764	1	6	21	1	1020	510	28	8	66	37	16/17	2,5	4,0	0,50	
23765	1	6	21	1	1120	560	28	8	66	37	16/17	2,5	4,0	0,55	
23766	1	6	21	1	1220	610	28	8	66	37	16/17	2,5	4,0	0,60	
23767	1	6	21	1	1320	660	28	8	66	37	16/17	2,5	4,0	0,65	
23768	1	6	21	1	1420	710	28	8	66	37	16/17	2,5	4,0	0,70	
23769	1	6	21	1	1400	700	28	8	66	37	16/17	2,5	4,0	0,75	

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- USABLE FOR TOP HUNG WINDOWS ALSO
- CAN BE USED WITH FRICTION STAY NO.s 23810-21, EXTENTION PIECES NO.s 23580-97 AND CONNECTION PIECES NO.s 23782-90



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	D MM
23745 / 23760	600	300	140	15
23746 / 23761	720	360	140	15
23747 / 23762	820	410	190	15
23748 / 23763	920	460	240	15
23749 / 23764	1020	510	290	15
23750 / 23765	1120	560	340	15
23751 / 23766	1220	610	390	15
23752 / 23767	1320	660	440	15
23753 / 23768	1420	710	490	15
23754 / 23769	1400	700	540	15

FIG. 1

FACE PLATE: 16/17 MM

SHORTENING POSSIBILITIES:

WITHOUT FRICTION STAY:

130 MM AT THE TOP WITH SIDE BOLTS OUT.
130 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE TOP:

(TO MOUNT FRICTION STAY MIN. 60 MM HAS TO BE CUT OF.)
60 - 110 MM AT THE TOP WITH SIDE BOLTS OUT.
130 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE BOTTOM:

(TO MOUNT FRICTION STAY MIN. 60 MM HAS TO BE CUT OF.)
130 MM AT THE TOP WITH SIDE BOLTS OUT.
60 - 110 MM AT THE BOTTOM WITH SIDE BOLTS IN.

SHORTENING POSSIBILITIES FOR IPA NO.s 23745/23760 AND 23754/23769:

WITHOUT FRICTION STAY:

70 MM AT THE TOP WITH SIDE BOLTS OUT.
70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE TOP:

50 MM AT THE TOP WITH SIDE BOLTS OUT.
70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE BOTTOM:

70 MM AT THE TOP WITH SIDE BOLTS OUT.
50 MM AT THE BOTTOM WITH SIDE BOLTS.

USE SCREW NO. 4.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

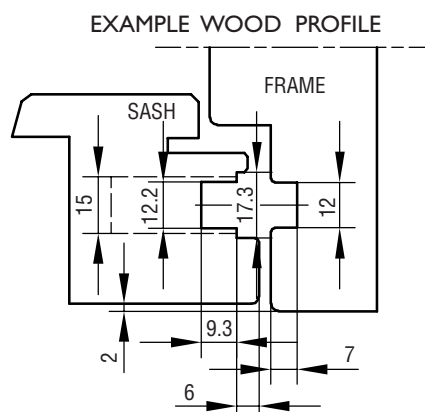


FIG. 2

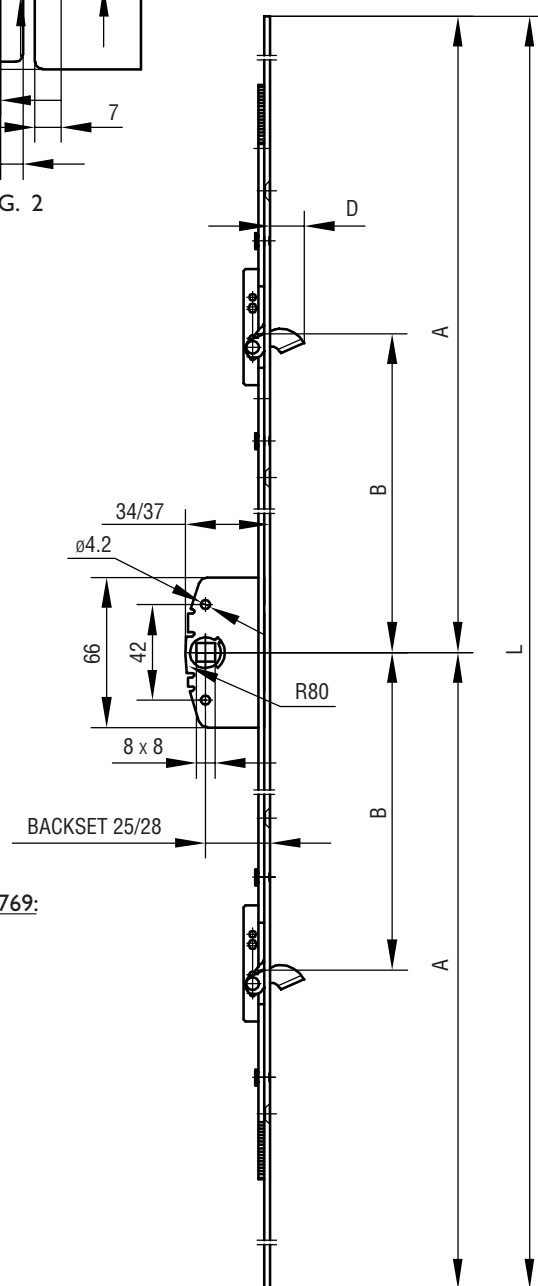


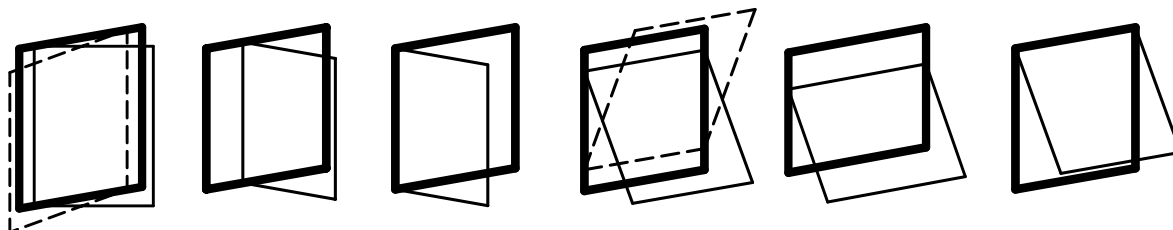
FIG. 3



ESPAGNOLETTES

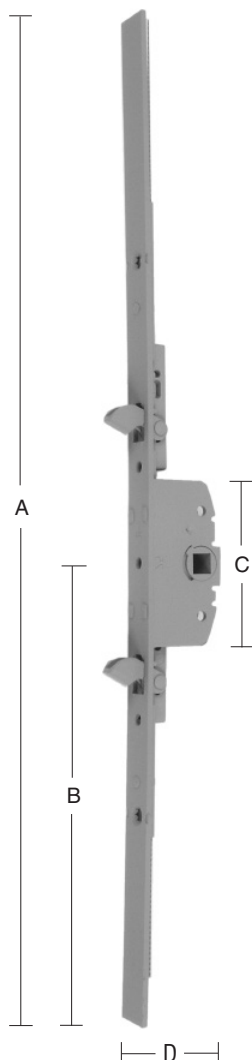
WITH SIDE BOLTS

IPA NO.s 23841-48



PREPARED FOR FRICTION STAY
12 MM SIDE BOLTS

ORDERING NO.														
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARDPACKING IN BOXES OF 10 PIECES	A MM	B MM	BACKSET MM	PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL		ELECTROPLATED											
23841	1	6	21	1	440	220	25	8	66	34	16/17	2,5	4,0	0,26
23842	1	6	21	1	520	250	25	8	66	34	16/17	2,5	4,0	0,31
23843	1	6	21	1	440	220	28	8	66	37	16/17	2,5	4,0	0,27
23844	1	6	21	1	520	250	28	8	66	37	16/17	2,5	4,0	0,32



23841-48

PREPARED FOR FRICTION STAY
15 MM SIDE BOLTS

ORDERING NO.														
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARDPACKING IN BOXES OF 10 PIECES	A MM	B MM	BACKSET MM	PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL		ELECTROPLATED											
23845	1	6	21	1	440	220	25	8	66	34	16/17	2,5	4,0	0,26
23846	1	6	21	1	520	250	25	8	66	34	16/17	2,5	4,0	0,31
23847	1	6	21	1	440	220	28	8	66	37	16/17	2,5	4,0	0,27
23848	1	6	21	1	520	250	28	8	66	37	16/17	2,5	4,0	0,32

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- USABLE FOR TOP HUNG WINDOWS ALSO
- CAN BE USED WITH FRICTION STAY NO.s 23810-21, EXTENTION PIECES NO.s 23580-97 AND CONNECTION PIECES NO.s 23782-90



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	C MM	D MM	E MM	F MM	G MM
23841	440	220	220	40	60	12	25	34
23842	520	250	270	90	110	12	25	34
23843	440	220	220	40	60	12	28	37
23844	520	250	270	90	110	12	28	37
23845	440	220	220	40	60	15	25	34
23846	520	250	270	90	110	15	25	34
23847	440	220	220	40	60	15	28	37
23848	520	250	270	90	110	15	28	37

FIG. 1

SHORTENING POSSIBILITIES FOR IPA NO. 23841+43+45+47:

WITHOUT FRICTION STAY:

70 MM AT THE TOP WITH SIDE BOLTS OUT.

90 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE TOP:

50 MM AT THE TOP WITH SIDE BOLTS OUT.

90 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE BOTTOM:

70 MM AT THE TOP WITH SIDE BOLTS OUT.

70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

SHORTENING POSSIBILITIES FOR IPA NO. 23842+44+46+48:

WITHOUT FRICTION STAY:

70 MM AT THE TOP WITH SIDE BOLTS OUT.

70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE TOP:

50 MM AT THE TOP WITH SIDE BOLTS OUT.

70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE BOTTOM:

70 MM AT THE TOP WITH SIDE BOLTS OUT.

50 MM AT THE BOTTOM WITH SIDE BOLTS IN.

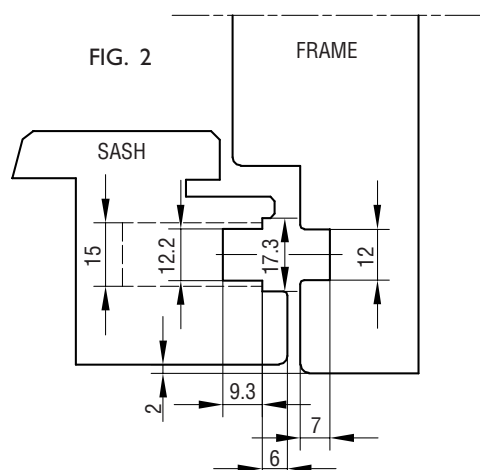


FIG. 2

FRAME

SASH

FACEPLATE: 16/17 MM

USE SCREW NO. 4.0

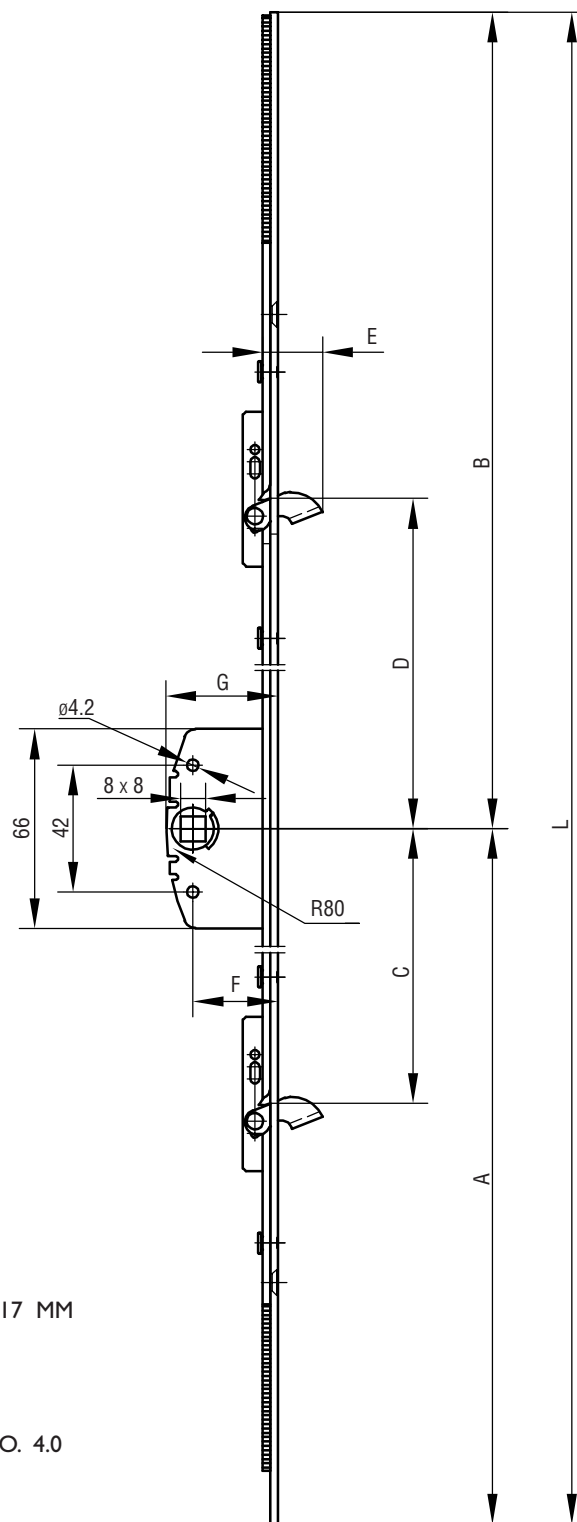


FIG. 3

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



A large, empty rectangular box with a black border, intended for a drawing or diagram.



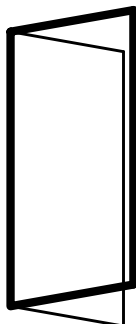
A large, empty rectangular box with a black border, intended for a drawing or diagram.



ESPAGNOLETTES

WITH SIDE BOLTS FOR PATIO DOORS

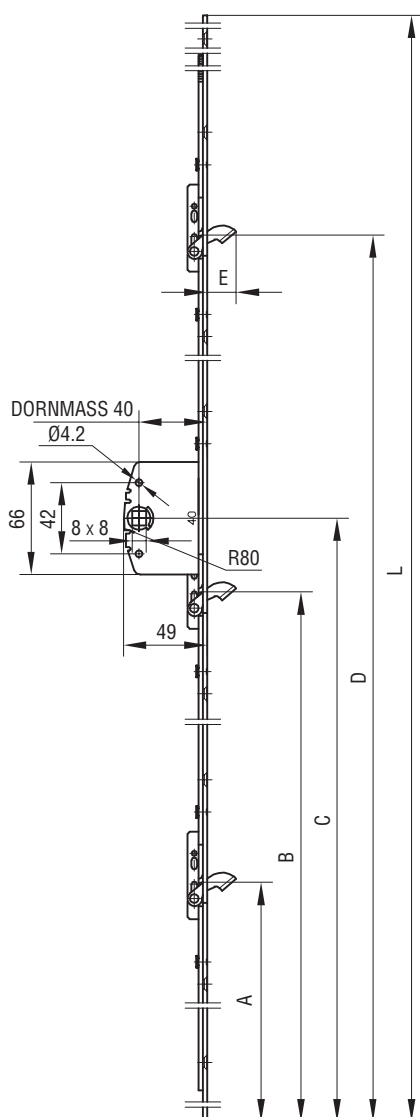
IPA NO.s 23551-53



ORDERING NO.																
IPA NO.	MATERIAL	SURFACE		STANDARD PACKING IN BOXES OF 5 PIECES.	L MM	A MM	B MM	C MM	D MM	E MM	BACKSET MM	PIN MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX. WEIGHT KG/SET
	STEEL	SQUARE EDGES	ELECTROPLATED													
23551	1	6	21	1	2110	270	1005	1050	1540	17	40	8	16/17	2,5	4,0	1,08
23553	1	6	21	1	2110	270	1005	1050	1750	17	40	8	16/17	2,5	4,0	1,10

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- 17 MM SIDE BOLTS
- CAN BE USED WITH FRICTION STAY NO.s 23820-23, EXTENTION PIECES NO.s 23583 AND 23790 AND CONNECTION PIECES NO.s 23782-90

ACCESSORIES - SEE SECTION F



23551-53



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	C MM	D MM	E MM	FACEPLATE MM
23551	2110	270	1005	1050	1540	17	16/17
23553	2110	270	1005	1050	1750	17	16/17

FIG. 1

SHORTENING POSSIBILITIES (AT THE TOP):

IPA NO. 23551: WITHOUT RESTRICTOR:
475 MM WITH SIDEBOLTS OUT.

WITH RESTRICTOR:
MIN. 235 MM WITH SIDEBOLTS OUT.
MAX. 455 MM WITH SIDEBOLTS OUT.

IPA NO. 23553: WITHOUT RESTRICTOR:
255 MM WITH SIDEBOLTS OUT.

WITH RESTRICTOR:
MIN. 65 MM WITH SIDEBOLTS OUT.
MAX. 235 MM WITH SIDEBOLTS OUT.

USE SCREW NO. 4.0

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

EXAMPLE WOOD PROFILE

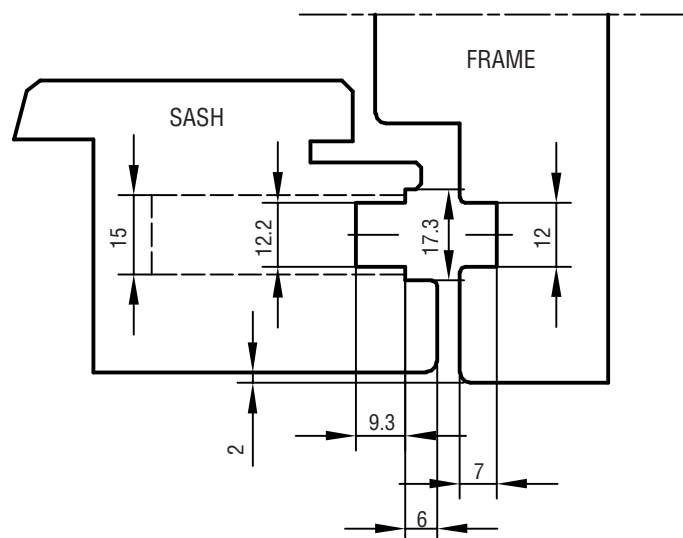


FIG. 2

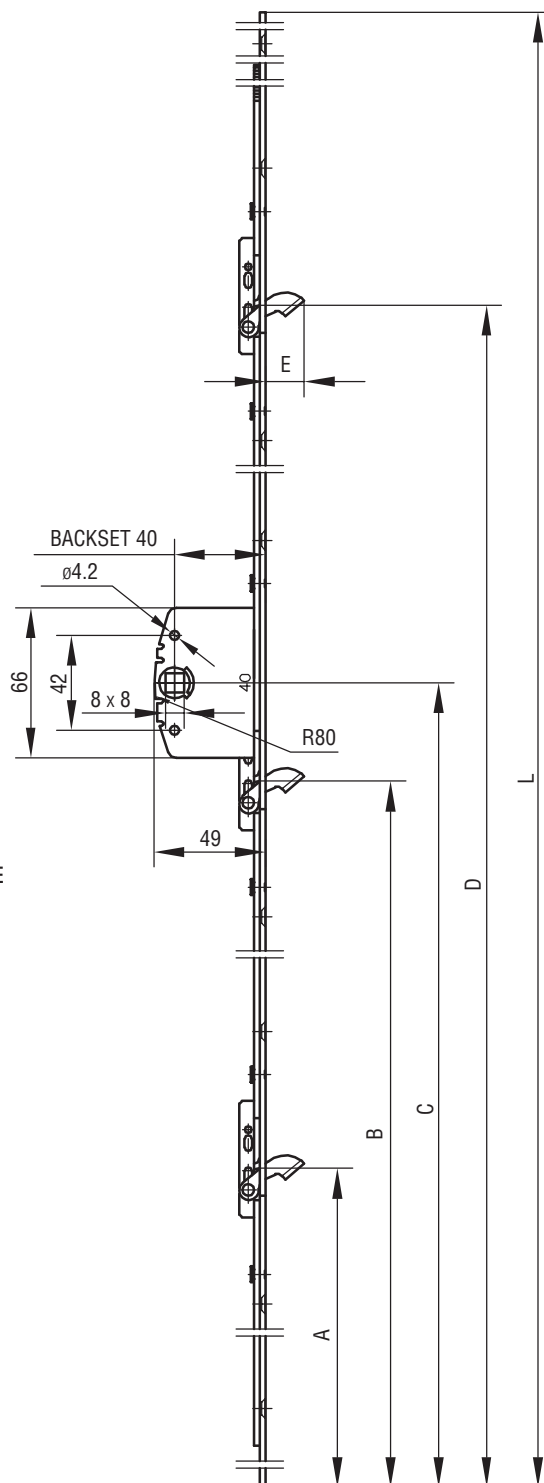


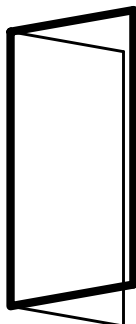
FIG. 3



ESPAGNOLETES 2-PARTS

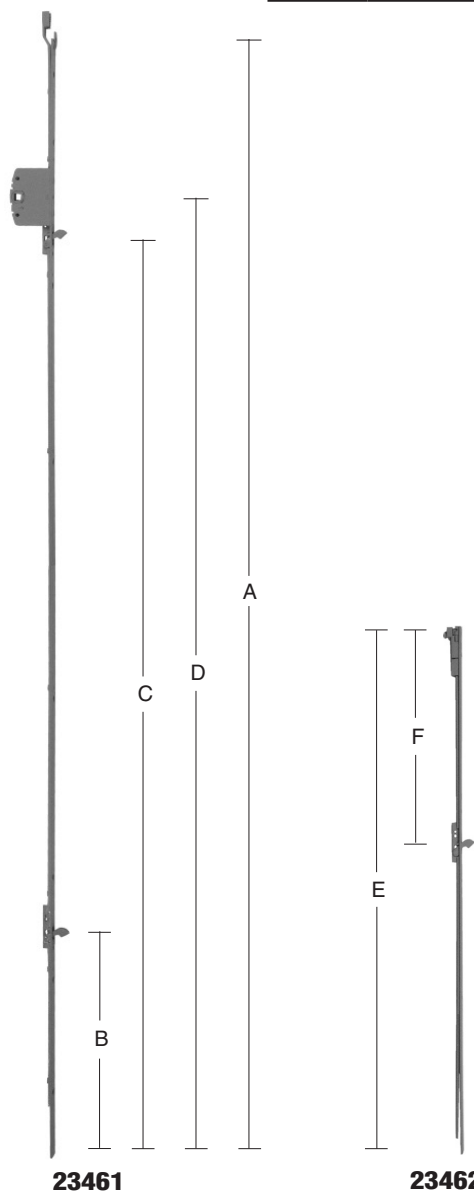
WITH SIDE BOLTS FOR PATIO DOORS

IPA NO. 23461 & IPA NO.s 23462-67



ESPAGNOLETTE LOWER PART

ORDERING NR.														
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 25 PIECES	A MM	B MM	C MM	D MM	BACKSET MM	PIN MM	FACEPLATE MM	THICKNISS PLATE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL		ELECTROPLACED											
23461	1	6	21	1	1230	270	1000	1050	40	8	16	2,5	4,0	0,7



23461

23462-67

EXTENTION PIECES UPPER PART

ORDERING NO.											
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	E MM	F MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX.WEIGHT KG / EACH	
	STEEL		ELECTROPLATED								
23462	1	6	21	1	520	270	16	2,5	4,0	0,26	
23463	1	6	21	1	670	270	16	2,5	4,0	0,32	
23464	1	6	21	1	820	270	16	2,5	4,0	0,38	
23465	1	6	21	1	970	270	16	2,5	4,0	0,44	
23466	1	6	21	1	1120	270	16	2,5	4,0	0,50	
23467	1	6	21	1	1270	270	16	2,5	4,0	0,56	

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- 17 MM SIDE BOLTS
- CAN BE FITTED TO ANY DOORS SIZE ON SIGHT
- CAN BE USED WITH FRICTION STAY NO.s 23820-23 AND EXTENTION PIECES NO.s 23581, 23584, 23587, 23590, 23593 & 23596 (FACEPLATE 16/17 MM) - SEE SECTION F

ACCESSORIES - SEE SECTION F



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	C MM	D MM	FACEPLATE MM
23461	1230	270	1000	1050	17	16

FIG. 1

SHORTENING POSSIBILITIES:

THE TOP PARTS OF THE ESPAGNOLETTE ARE AVAILABLE IN 6 LENGTHS 520, 670, 820, 970, 1120 & 1270 MM.

THEY CAN ALL BE SHORTENED UP TO 150 MM, WHICH GIVES THE POSSIBILITY OF ESPAGNOLETES FROM 1600 - 2500 MM.

USE SCREW NO. 4,0.

TO ENSURE THE FUNCTION OF THE ESPAGNOLETTE, PLEASE MAKE SURE WHEN MOUNTING THAT THE FACEPLATE IS NOT DEFORMED.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

EXAMPLE WOOD PROFILE

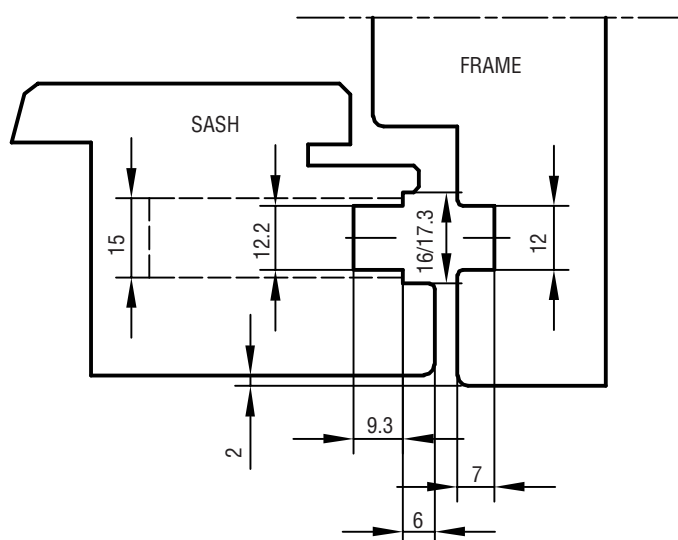


FIG. 2

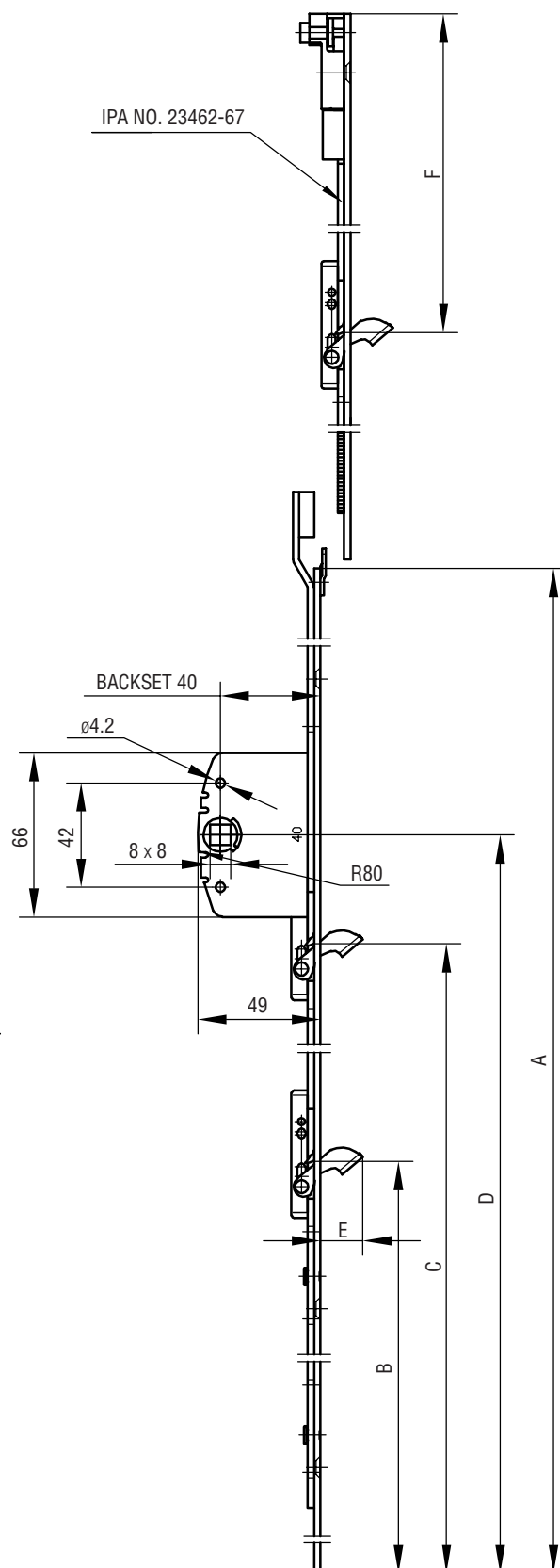
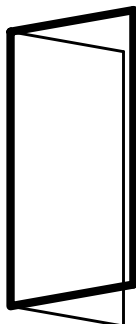


FIG. 3



ESPAGNOLETTES 2-PARTS WITH SIDE BOLTS FOR PATIO DOORS IPA NO. 23481 & IPA NO.s 23482-87

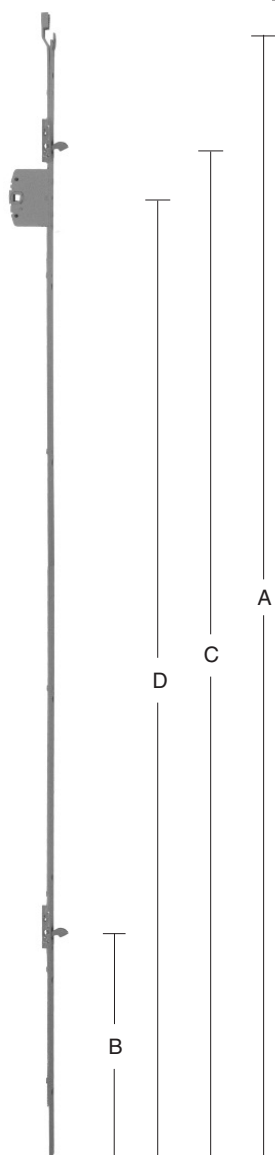


ESPAGNOLETTE LOWER PART

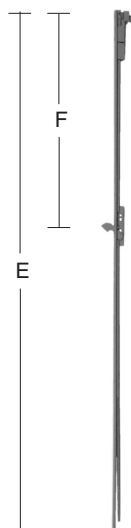
ORDERING NR.														
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 25 PIECES	A MM	B MM	C MM	D MM	BACKSET MM	PIN MM	FACEPLATE MM	THICKNISS PLATE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL		ELECTROPLACED											
23481	1	6	21	1	1230	200	1075	1000	40	8	16	2,5	4,0	0,7

EXTENTION PIECES UPPER PART

ORDERING NO.										
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	E MM	F MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX.WEIGHT KG / EACH
	STEEL		ELECTROPLATED							
23482	1	6	21	1	520	200	16	2,5	4,0	0,26
23483	1	6	21	1	670	200	16	2,5	4,0	0,32
23484	1	6	21	1	820	200	16	2,5	4,0	0,38
23485	1	6	21	1	970	200	16	2,5	4,0	0,44
23486	1	6	21	1	1120	200	16	2,5	4,0	0,50
23487	1	6	21	1	1270	200	16	2,5	4,0	0,56



23481



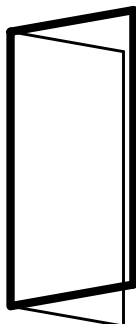
23482-87

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- 17 MM SIDE BOLTS
- CAN BE FITTED TO ANY DOORS SIZE ON SIGHT
- CAN BE USED WITH FRICTION STAY NO.s 23820-23 AND EXTENTION PIECES NO.s 23581, 23584, 23587, 23590, 23593 & 23596 (FACEPLATE 16/17 MM) - SEE SECTION F

ACCESSORIES - SEE SECTION F



ESPAGNOLETTES 2-PARTS WITH SIDE BOLTS FOR PATIO DOORS IPA NO. 23498 & IPA NO.s 23482-87

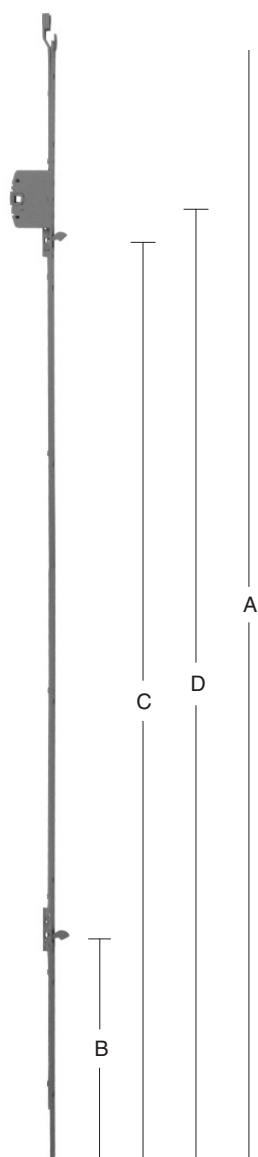


ESPAGNOLETTE LOWER PART

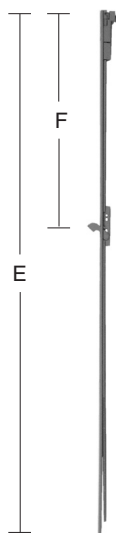
ORDERING NO.															
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 25 PIECES	A MM	B MM	C MM	D MM	BACKSET MM	PIN MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX. WEIGHT KG / EACH	
	STEEL		ELECTROPLATED												
23498	1	6	21	1	1230	200	935	1000	40	8	16	2,5	4,0	0,7	

EXTENTION PIECES UPPER PART

ORDERING NO.											
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	E MM	F MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX.WEIGHT KG / EACH	
	STEEL		ELECTROPLATED								
23482	1	6	21	1	520	200	16	2,5	4,0	0,26	
23483	1	6	21	1	670	200	16	2,5	4,0	0,32	
23484	1	6	21	1	820	200	16	2,5	4,0	0,38	
23485	1	6	21	1	970	200	16	2,5	4,0	0,44	
23486	1	6	21	1	1120	200	16	2,5	4,0	0,50	
23487	1	6	21	1	1270	200	16	2,5	4,0	0,56	



23498



23482-87

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- 17 MM SIDE BOLTS
- CAN BE FITTED TO ANY DOORS SIZE ON SIGHT
- CAN BE USED WITH FRICTION STAY NO.s 23820-23 AND EXTENTION PIECES NO.s 23581, 23584, 23587, 23590, 23593 & 23596 (FACEPLATE 16/17 MM) - SEE SECTION F

ACCESSORIES - SEE SECTION F



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	C MM	D MM	FACEPLATE MM
23498	1230	200	935	1000	17	16

FIG. 1

SHORTENING POSSIBILITIES:

THE TOP PARTS OF THE ESPAGNOLETTE ARE AVAILABLE IN 6 LENGTHS 520, 670, 820, 970, 1120 & 1270 MM.

THEY CAN ALL BE SHORTENED UP TO 150 MM, WHICH GIVES THE POSSIBILITY OF ESPAGNOLETES FROM 1600 - 2500 MM.

USE SCREW NO. 4,0.

TO ENSURE THE FUNCTION OF THE ESPAGNOLETTE, PLEASE MAKE SURE WHEN MOUNTING THAT THE FACEPLATE IS NOT DEFORMED.

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.

EXAMPLE WOOD PROFILE

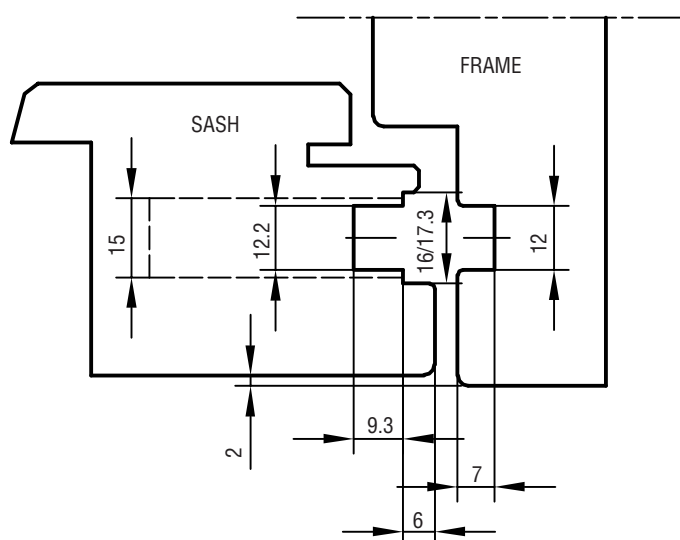


FIG. 2

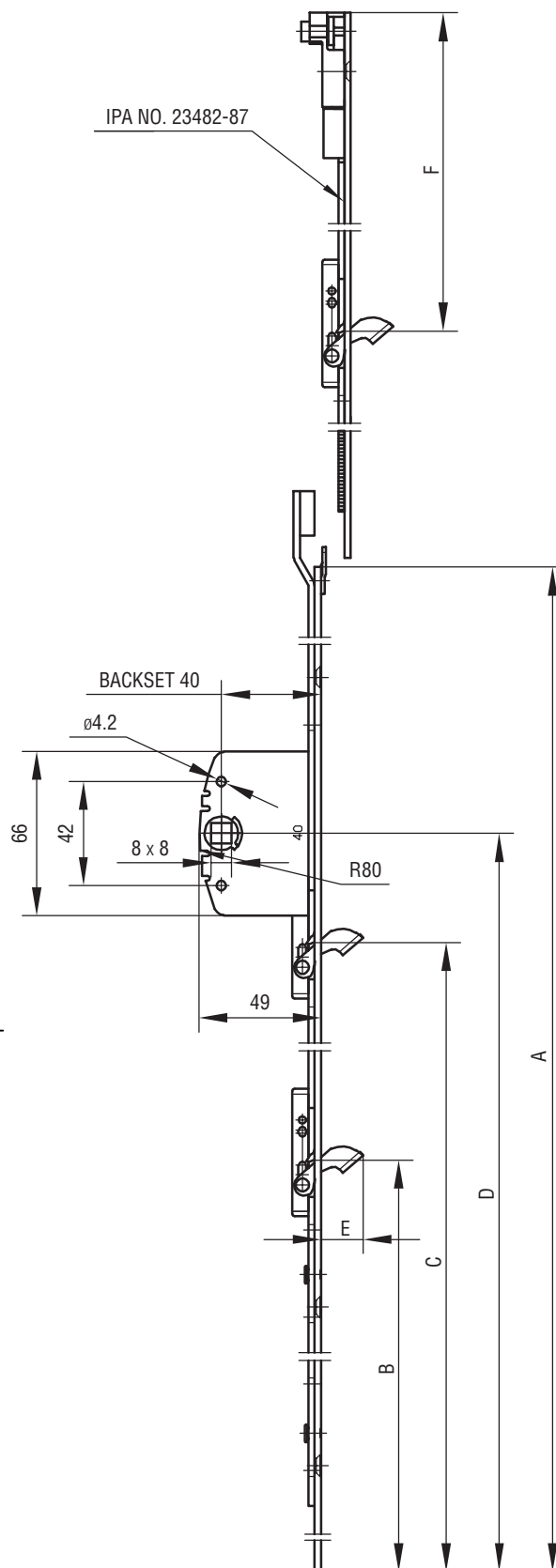


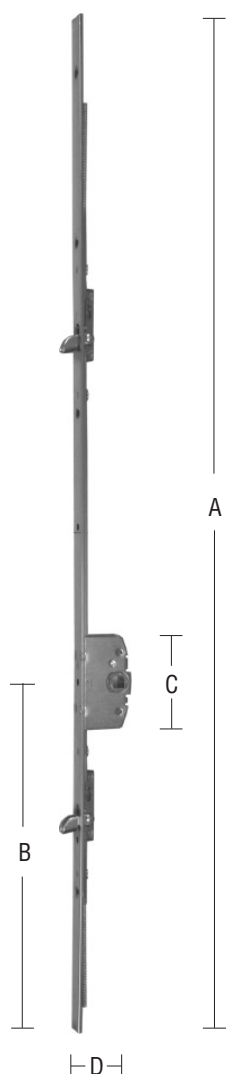
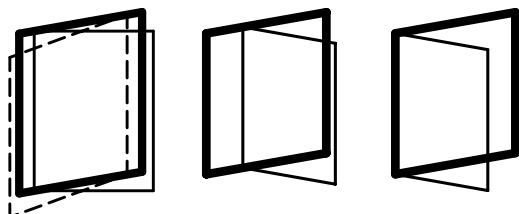
FIG. 3



ESPAGNOLETTES

WITH SIDE BOLTS

IPA NO.s 23131-34



23131-34

ORDERING NO.														
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	A MM	B MM	BACKSET MM	PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL		ELECTROPLATED											
23131	1	6	21	1	720	250	28	8	66	37	16	2,5	4,0	0,35
23132	1	6	21	1	920	250	28	8	66	37	16	2,5	4,0	0,45
23133	1	6	21	1	1120	250	28	8	66	37	16	2,5	4,0	0,55
23134	1	6	21	1	1320	250	28	8	66	37	16	2,5	4,0	0,65

- TO BE USED WHERE LOW HANDLE HEIGHT IS REQUIRED - FROM 160 MM FROM BOTTOM OF SASH
- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- CAN BE USED WITH FRICTION STAY NO.s 23810-21, EXTENTION PIE-
- CES NO.s 23580-97 AND CONNECTION PIECES NO.s 23782-90

ACCESSORIES - SEE SECTION F



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM	C MM	D MM	E MM	F MM	G MM
23131	720	250	470	90	250	15	28	37
23132	920	250	670	90	450	15	28	37
23133	1120	250	870	90	650	15	28	37
23134	1320	250	1070	90	850	15	28	37

FIG. 1

SHORTENING POSSIBILITIES FOR IPA NO. 23131-34:

WITHOUT FRICTION STAY:

- 130 MM AT THE TOP WITH SIDE BOLTS OUT.
- 70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE TOP:

- (TO MOUNT FRICTION STAY MIN. 60 MM HAS TO BE CUT OF)
- 60 - 110 MM AT THE TOP WITH SIDE BOLTS OUT.
- 70 MM AT THE BOTTOM WITH SIDE BOLTS IN.

FRICTION STAY AT THE BOTTOM:

- 130 MM AT THE TOP WITH SIDE BOLTS OUT.
- 50 MM AT THE BOTTOM WITH SIDE BOLTS IN.

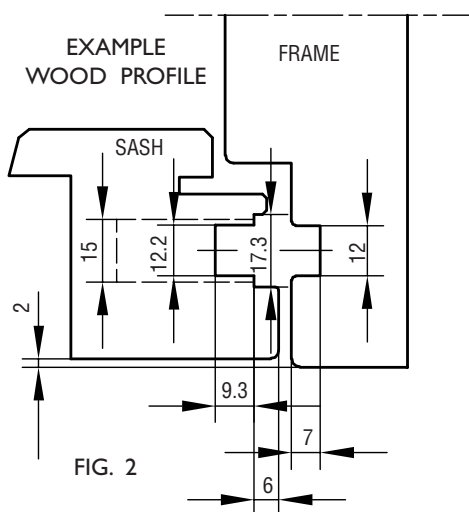


FIG. 2

USE SCREW NO. 4.0

FACEPLATE: 16/17 MM

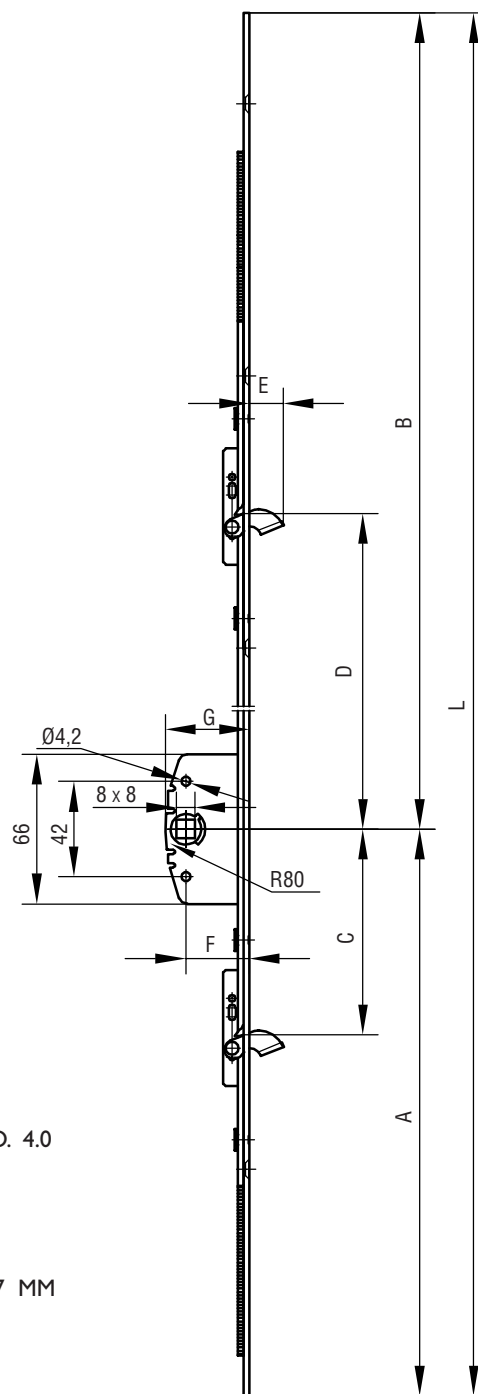


FIG. 3

MAINTENANCE:

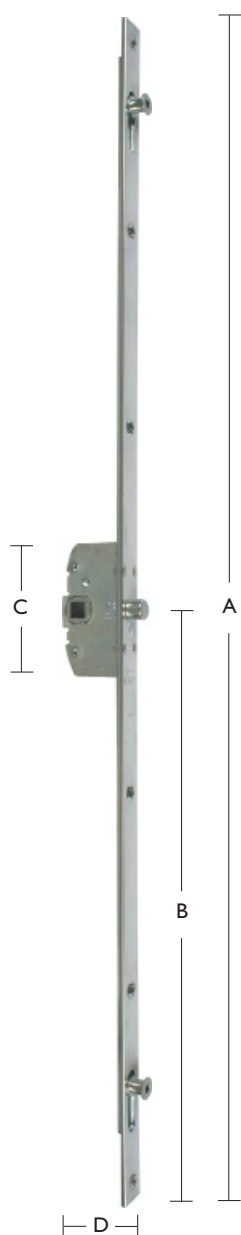
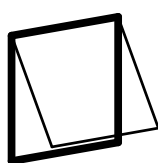
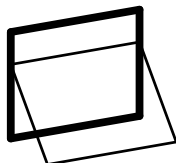
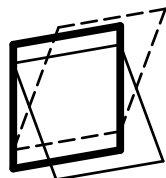
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



ESPAGNOLETTES

WITH MUSHROOM HEAD BOLTS

IPA NO.s 63021-30 & 63041-50



ORDERING NO.														
IPA NO.	MATERIAL	SURFACE	INDUSTRY PACKING IN BOXES OF 25 PCS.		A MM	B MM	BACKSET MM	FOR PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	WEIGHT APPROX. KGS / 100 PIECES
	STEEL													
63021	1	6	21	2	300	150	28	8	66	37	16	2,5	4,0	0,20
63022	1	6	21	2	400	200	28	8	66	37	16	2,5	4,0	0,24
63024	1	6	21	2	600	300	28	8	66	37	16	2,5	4,0	0,34
63026	1	6	21	2	800	400	28	8	66	37	16	2,5	4,0	0,44
63028	1	6	21	2	1000	500	28	8	66	37	16	2,5	4,0	0,54
63030	1	6	21	2	1200	600	28	8	66	37	16	2,5	4,0	0,64
63041	1	6	21	2	300	150	25	8	66	34	16	2,5	4,0	0,20
63042	1	6	21	2	400	200	25	8	66	34	16	2,5	4,0	0,24
63044	1	6	21	2	600	300	25	8	66	34	16	2,5	4,0	0,34
63046	1	6	21	2	800	400	25	8	66	34	16	2,5	4,0	0,44
63048	1	6	21	2	1000	500	25	8	66	34	16	2,5	4,0	0,54
63050	1	6	21	2	1200	600	25	8	66	34	16	2,5	4,0	0,64

- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- GUIDING PIN FOR SASH
- ADJUSTABLE MUSHROOM HEAD BOLTS

ACCESSORIES - SEE SECTION F

**63021-30 +
63041-50**



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM	B MM BACKSET
63021	300	195	28
63022	400	295	
63024	600	495	
63026	800	695	
63028	1000	895	
63030	1200	1095	
63041	300	195	25
63042	400	295	
63044	600	495	
63046	800	695	
63048	1000	895	
63050	1200	1095	

FIG. 1

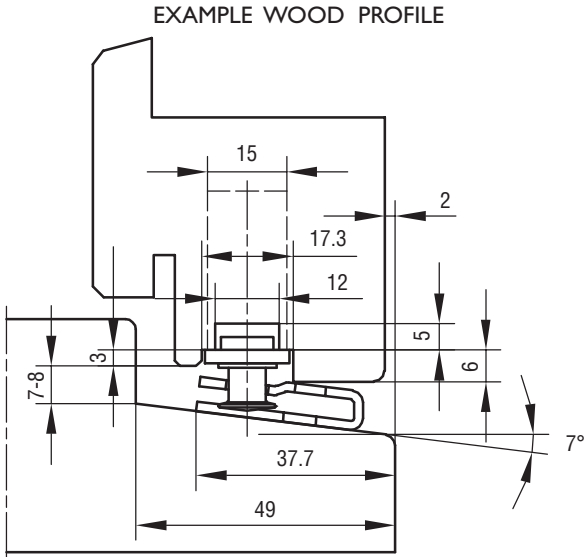


FIG. 2
SHOWN WITH RECEIVER IPA NO. 23190

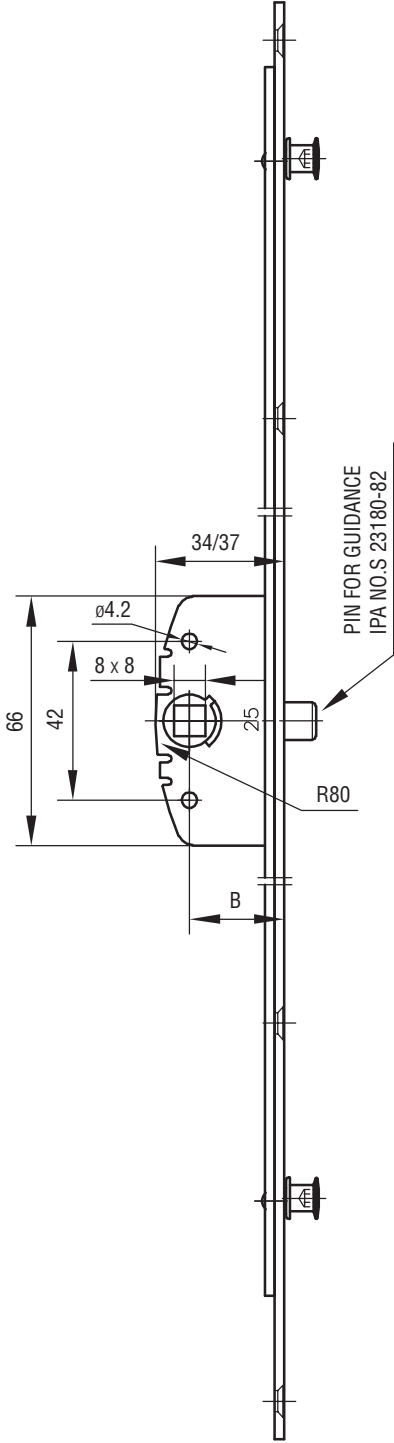
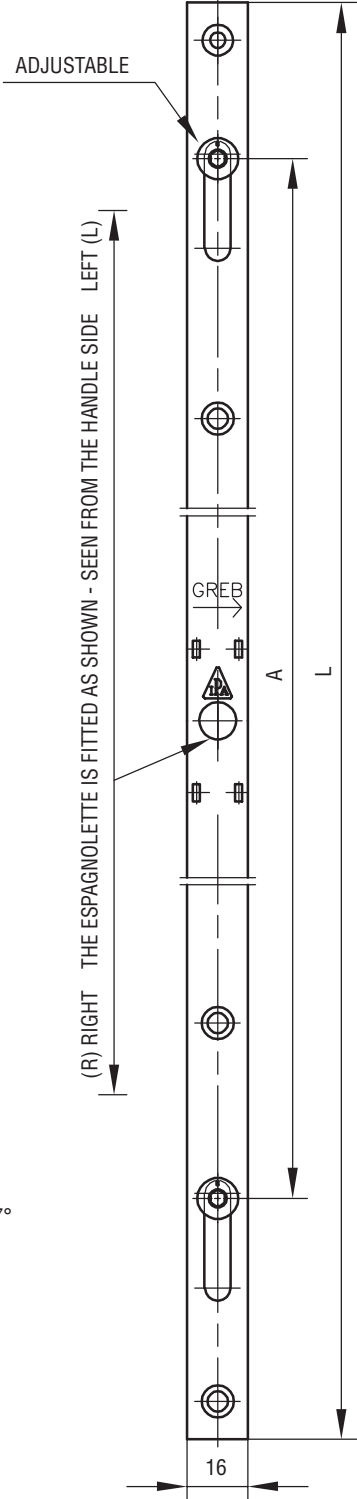


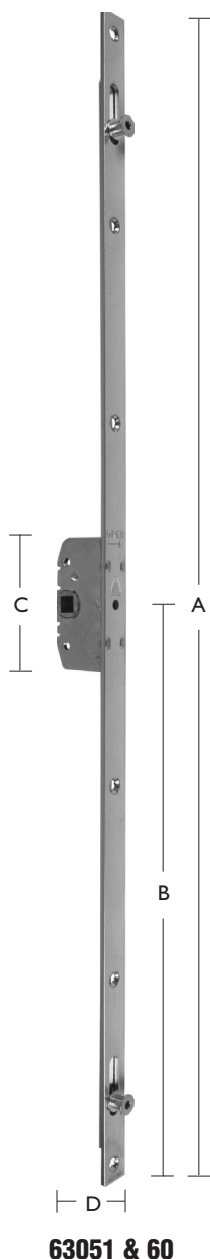
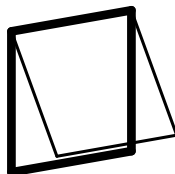
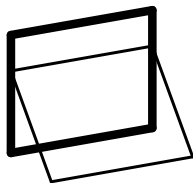
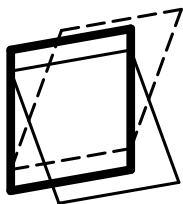
FIG. 3

USE SCREW NO. 4.0.

MAINTENANCE:
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HERAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



ESPAGNOLETTES WITH MUSHROOM HEAD BOLTS IPA NO.s 63051-60



ORDERING NO.														
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	INDUSTRY PACKING IN BOXES OF 25 PCS.	A MM	B MM	BACKSET MM	FOR PIN MM	C MM	D MM	FACEPLATE MM	THICKNESS PLATE MM	SCREW	WEIGHT APPROX. KGS / 100 PIECES
	STEEL		ELECTROPLATED											
63051	1	6	21	2	300	150	25	8	66	34	16	2,5	4,0	0,20
63060	1	6	21	2	1200	600	25	8	66	34	16	2,5	4,0	0,64

- 16 MM FACEPLATE
- CONSEALED FITTINGS
- IMPROVED SECURITY IN CLOSED POSITION
- GUIDE PIN IPA NO. 63081 - IS OPTIONAL
- ADJUSTABLE MUSHROOM HEAD BOLTS

RECEIVERS IPA NO. 23190-92 - SEE SECTION F.

GUIDE PIN



ORDERING NO.								
IPA NO.	MATERIAL	W/O SPECIFICATION	SURFACE	INDUSTRY PACKING IN BOXES OF 100 PCS.	A MM	B MM	SCREW	WEIGHT APPROX. KGS / 100 PIECES
	PLASTIC		GRAPHITE					
63081	9	0	57	2	8	8,3	4,0	0,05



FITTING INSTRUCTIONS

IPA NO.	L MM	A MM
63051	300	195
63052	400	295
63054	600	495
63056	800	695
63058	1000	895
63060	1200	1095

FIG. 1

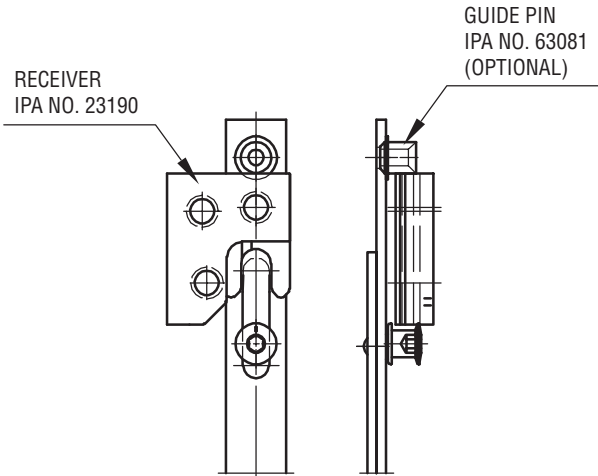


FIG. 4

WHEN USING IPA GUIDE PIN NO. 63081, THE PIN MUST BE PLACED IN THE SCREW HOLE JUST TO THE RIGHT SIDE OF THE RIGHT LOCKING POINT (SEEN FROM THE OUTSIDE)

EXAMPLE WOOD PROFILE

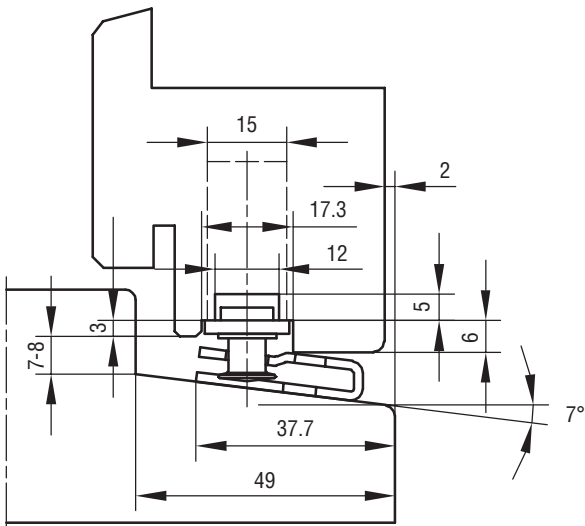


FIG. 2

SHOWN WITH RECEIVER IPA NO. 23190

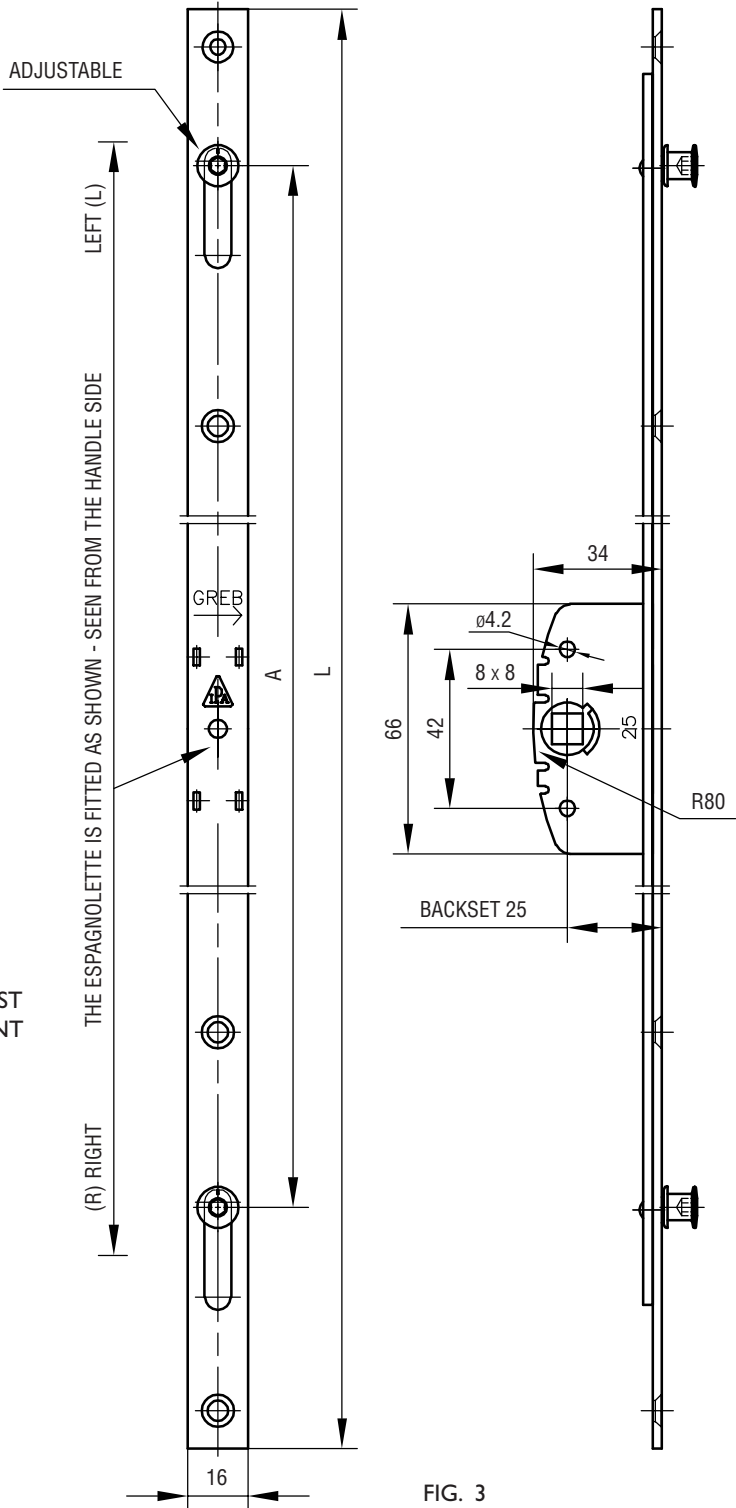


FIG. 3

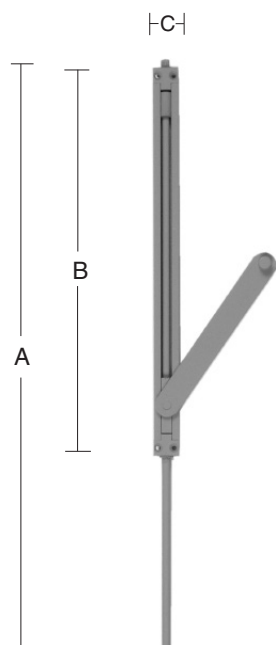
USE SCREW NO. 4.0.

MAINTENANCE:
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



FRICITION STAYS AND FRAME FIXTURES

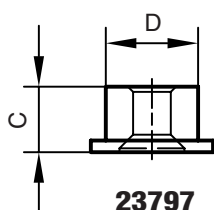
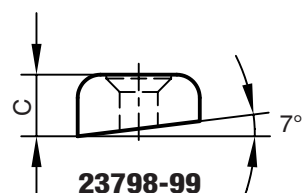
IPA NO.s 23810-18 & 23797-99

**23810-18**

ORDERING NO.										
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKNING IN BOXES OF 10 PIECES	A MM	B MM	SASH WIDTH MM	C MM	SCREW	APPROX.WEIGHT KG / EACH
	STEEL		ELECTROPLATED							
23810	1	0	21	1	500	250	330-480	16	3,0	0,18
23811	1	0	21	1	650	330	481-690	16	3,0	0,25
23812	1	0	21	1	750	435	691-900	16	3,0	0,34
23813	1	0	21	1	1025	465	901-1100	16	3,0	0,43
23815	1	0	21	1	500	250	330-480	16	3,0	0,18
23816	1	0	21	1	650	330	481-690	16	3,0	0,25
23817	1	0	21	1	750	435	691-900	16	3,0	0,34
23818	1	0	21	1	1025	465	901-1100	16	3,0	0,43

23810-13: TO BE USED IN TOP SASH

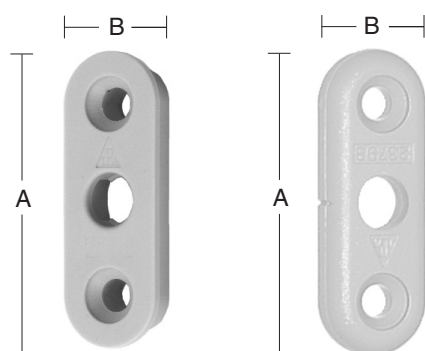
23815-18: TO BE USED IN BOTTOM SASH

**23797****23798-99**

ORDERING NO.											
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE		STANDARD PACKING IN BOXES OF 10 PIECES.	A MM	B MM	C MM	D MM	SCREW	WEIGHT APPROX. KGS / 100 PCS.
23797	0	0	00	-	1	45	16	8,5	12	4,0	0,20
23798	0	0	-	00	1	45	16	6,1	-	4,0	0,20
23799	0	0	-	00	1	45	16	10,7	-	4,0	0,40

23797: TO BE USED IN TOP FRAME

23798-99: TO BE USED IN BOTTOM FRAME

**23797****23798-99**



FITTING INSTRUCTIONS

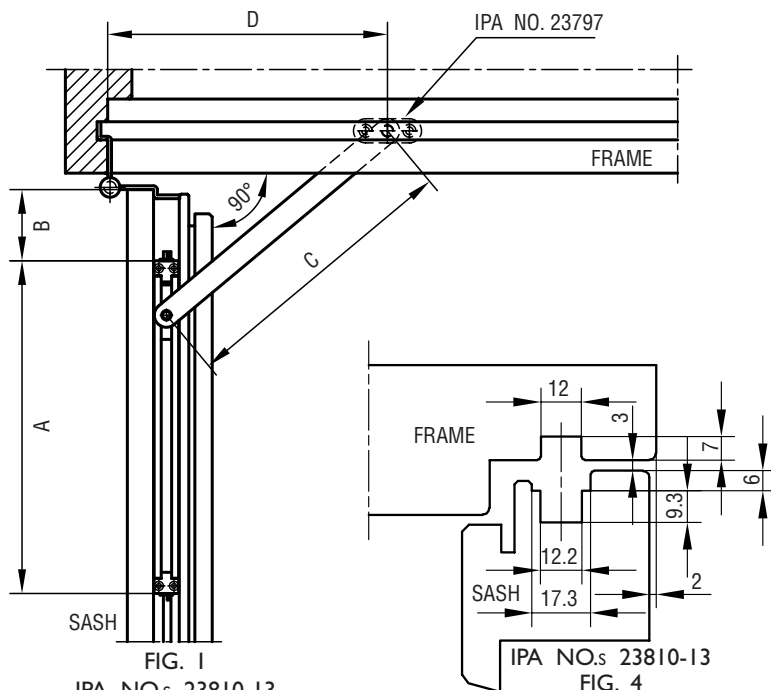


FIG. 1
IPA NO.s 23810-13
FOR THE TOP

WHEN THE OPENING ANGEL IS MORE THAN 90° A MECHANICAL RESTRICTOR WHICH PREVENTS THE DOOR FROM OPENING MORE THAN 90° MUST BE FITTED.

FITTING INSTRUCTIONS:

1. ALUMINIUM RAIL WITH ARM IS MOUNTED IN THE TOP OF THE SASH (23810-13) OR AT THE BOTTOM OF THE SASH (23815-18). USE 4 PCS SCREW NO. 3.
2. THE PLASTIC FRAME FIXTURE IS MOUNTED IN THE TOP OF THE FRAME (23797) OR AT THE BOTTOM OF THE FRAME (23798-99). USE 2 PCS. SCREW NO. 4.
3. THE ARM IS PRESSED IN PLACE IN THE FRAME FIXTURE.

IPA NO.	SASH WIDTH MM	A MM	B MM	C MM	D MM
23810	330 - 480	250	15	110	102
23811	481 - 690	330	90	200	152
23812	691 - 900	435	195	330	230
23813	901 - 1100	465	305	450	280
23815	330 - 480	250	15	110	102
23816	481 - 690	330	90	200	152
23817	691 - 900	435	195	330	230
23818	901 - 1100	465	305	450	280

FIG. 3

MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.

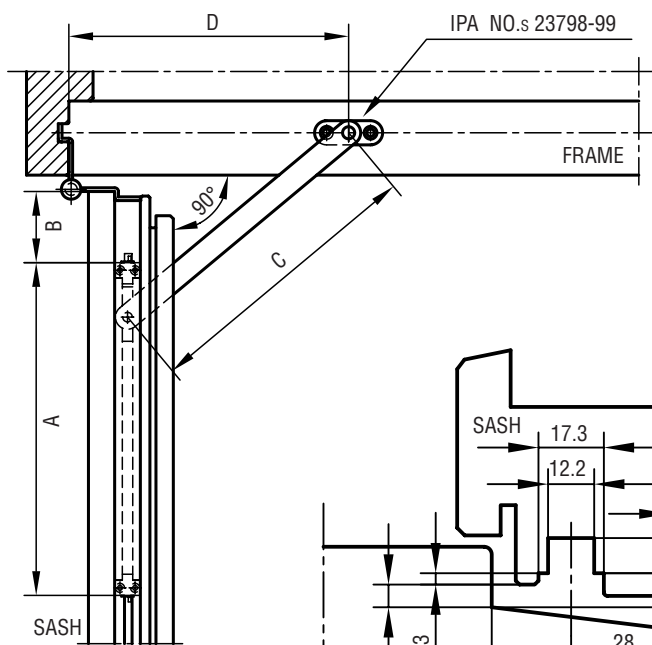


FIG. 2
IPA NO.s 23815-18
FOR THE BOTTOM

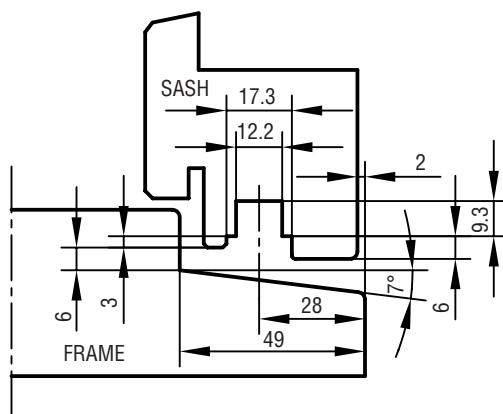


FIG. 5

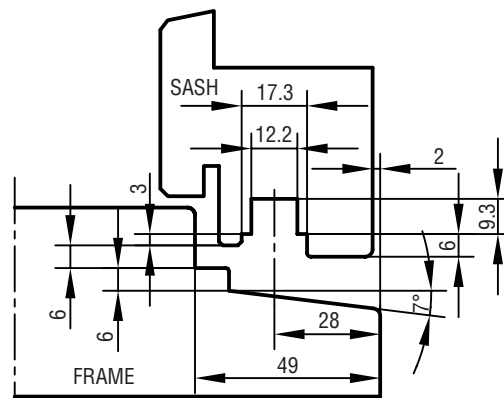
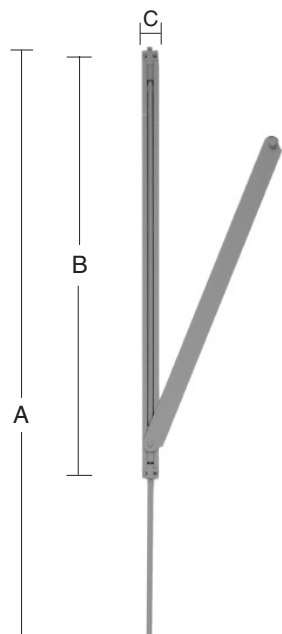


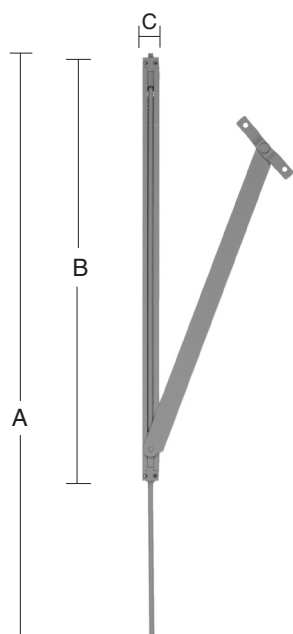
FIG. 6



FRICITION STAYS FOR DOORS IPA NO.s 23820-23



23820-21
LEFT



23822-23
LEFT

ORDERING NO.											
IPA NO.	MATERIAL	LEFT	RIGHT	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	A MM	B MM	SASH WIDTH MM	C MM	SCREW	APPROX. WEIGHT KG / EACH
	STEEL			ELECTROPLATED							
23820	1	7	8	21	1	750	435	691-900	16	3,0	0,34
23821	1	7	8	21	1	1025	465	901-1100	16	3,0	0,43
23822	1	7	8	21	1	750	435	691-900	16	3,0	0,35
23823	1	7	8	21	1	1025	465	901-1100	16	3,0	0,44

FRAME FIXTURES IPA NO. 23797, SEE PAGE F-01



FITTING INSTRUCTIONS

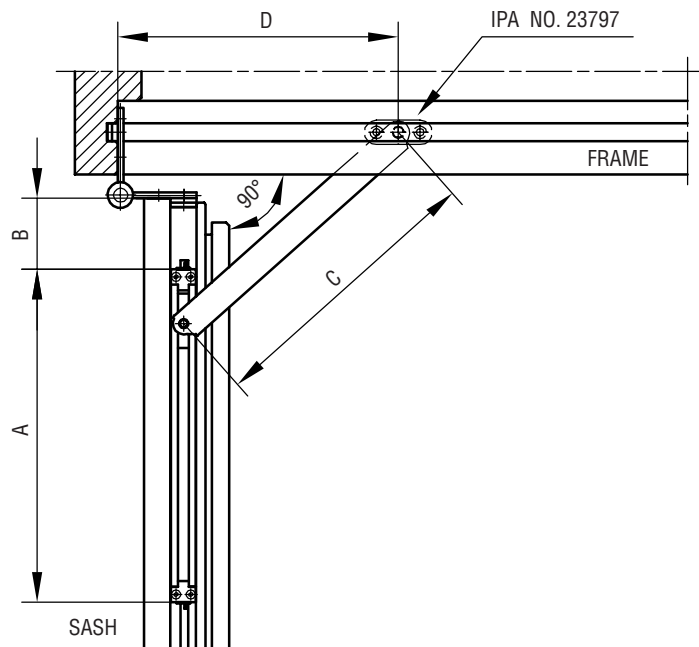


FIG. 1
IPA NO. 23820-21
LEFT

THE FRICTION STAY FOR DOORS
COMES AS LEFT AND RIGHT
USE LEFT FOR A LEFTHUNG DOOR.

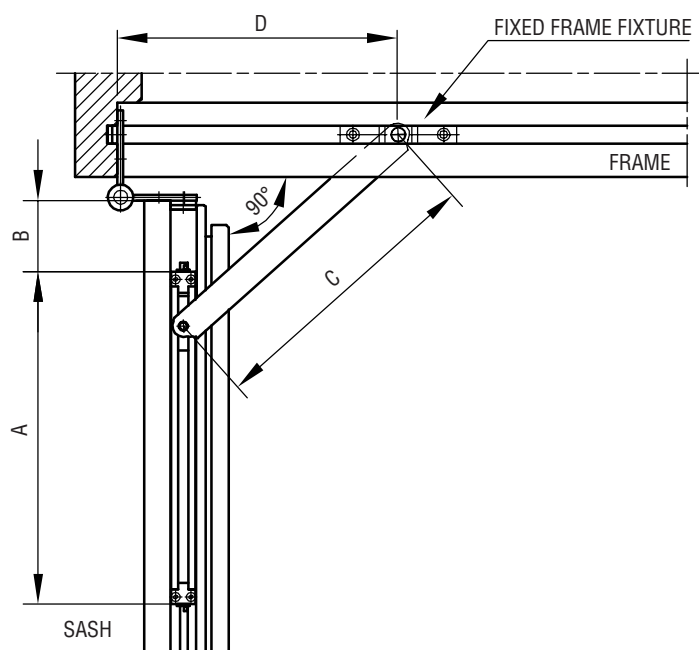


FIG. 2
IPA NO. 23822-23
LEFT

THE FRICTION STAY FOR DOORS
COMES AS LEFT AND RIGHT
USE LEFT FOR A LEFTHUNG DOOR.

IPA NO.	SASH WIDTH MM	A MM	B MM	C MM	D MM
23820	691 - 900	435	195	330	230
23821	901 - 1100	465	305	450	280
23822	691 - 900	435	195	330	230
23823	901 - 1100	465	305	450	280

FIG. 3

FITTING INSTRUCTIONS:

1. ALUMINIUM RAIL WITH ARM IS MOUNTED IN THE TOP OF THE SASH.
USE 4 PCS SCREW NO. 3.
2. 21820-21: THE PLASTIC FRAME FIXTURE IS MOUNTED IN THE TOP OF THE FRAME.
USE 2 PCS. SCREW NO. 4. - SEE FIG. 1.
21822-23: THE FIXED FRAME FIXTURE IS MOUNTED IN THE TOP OF THE FRAME.
USE 2 PCS. SCREW NO. 4. - SEE FIG. 2.
3. 21820-21: THE ARM IS PRESSED IN PLACE IN THE FRAME FIXTURE.

WHEN THE OPENING ANGEL IS MORE THAN 90° A MECHANICAL RESTRICTOR WHICH PREVENTS THE DOOR FROM OPENING MORE THAN 90° MUST BE FITTED.

EXAMPLE WOOD PROFILE

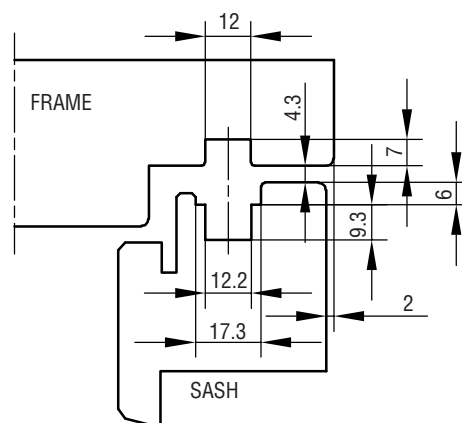


FIG. 4

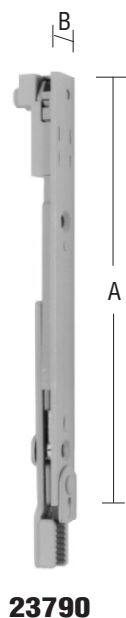
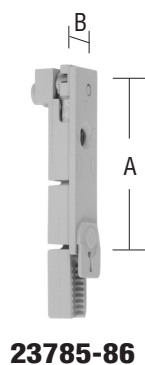
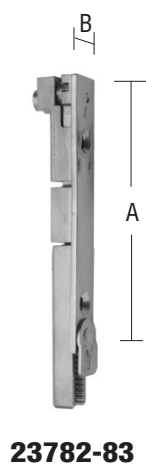
MAINTENANCE:

THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME.
WHEN MOUNTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



CONNECTION PIECES

IPA NO.s 23782-90



ORDERING NO.					A MM	B MM	SCREW	APPROX. WEIGHT KG/EACH
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES				
	STEEL/ALLOY		ELECTROPLATED					
23782	0	0	21	1	100	16	4,0	0,09
23783	0	0	21	1	100	16	4,0	0,09
23785	0	0	21	1	63	16	4,0	0,07
23786	0	0	21	1	63	16	4,0	0,07
23790	0	0	21	1	160	16	4,0	0,11

23783, 23786:

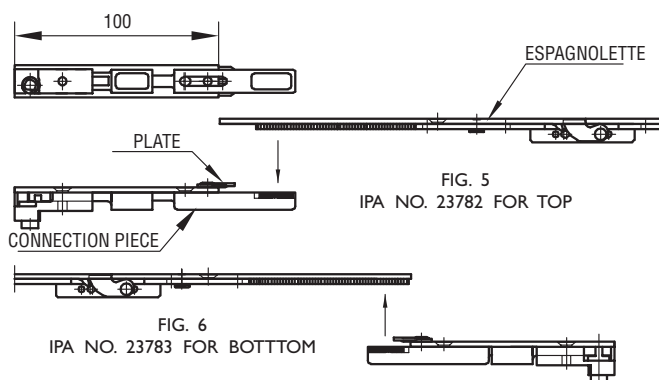
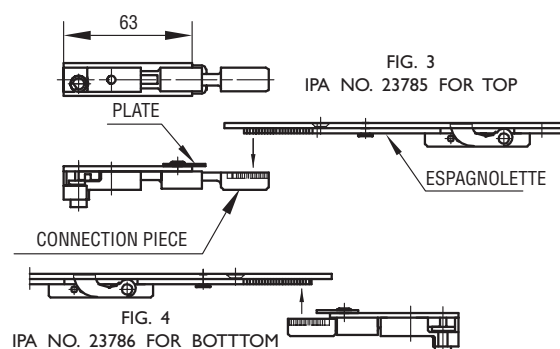
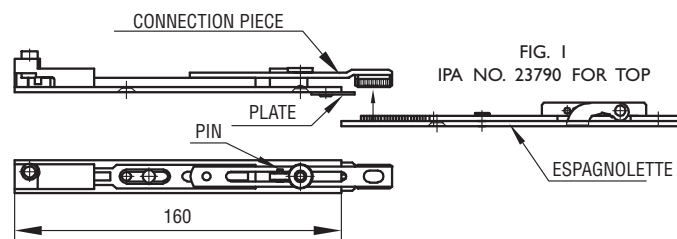
TO BE USED AT THE BOTTOM

23782, 23785 AND 23790:

TO BE USED AT THE TOP

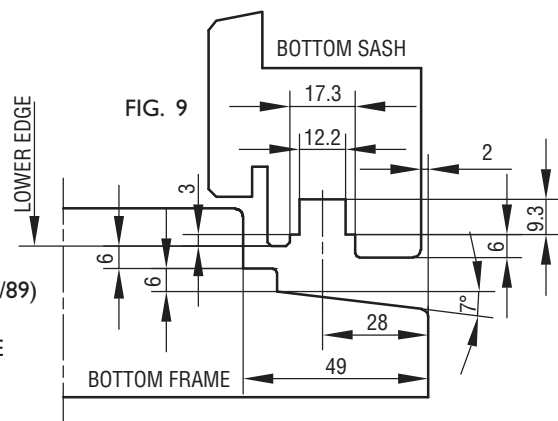
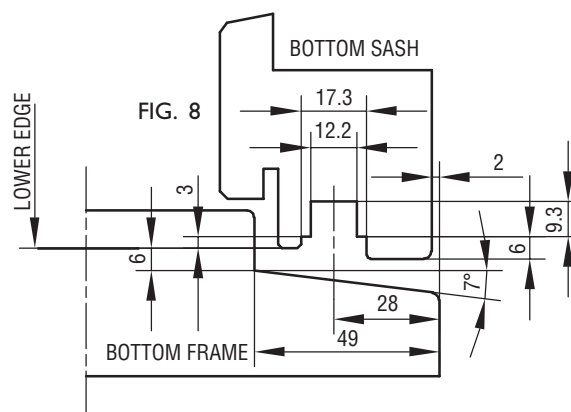
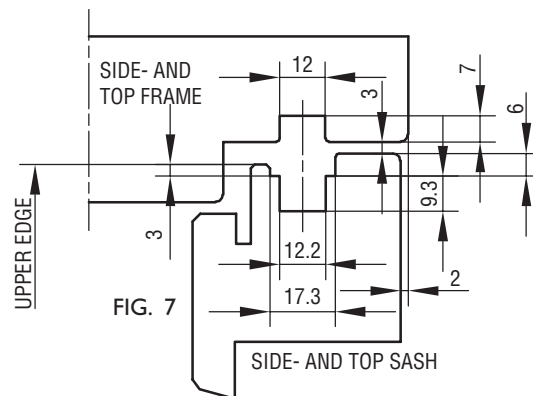


FITTING INSTRUCTIONS



FITTING INSTRUCTIONS:

1. THE CONNECTION PIECE IS PLACED IN THE BOTTOM (23783/86/89) OF THE SIDE SASH OR IN THE TOP (23782/85/90) OF THE SIDE SASH, SO THAT THE UPPER/LOWER EDGE IS IN LEVEL WITH THE LOWER/UPPER EDGE OF THE SASH. USE SCREW 4,0 x 50.
IPA NO. 23782/85: WHEN MOUNTED AT THE TOP THE CONNECTION PIECE HAS TO BE FULLY EXTRACTED.
IPA NO. 23783/86: WHEN MOUNTED AT THE BOTTOM THE CONNECTION PIECE HAS TO BE FULLY COMPRESSED.
2. THE PLATE IS TURNED FOR MOUNTING OF ESPAGNOLETTE.
3. THE EXPAGNOLETTE (FOR EXAMPLE IPA NO. 23702) IS SET IN OPEN POSITION (SIDE BOLTS IN) THE TOOTHED PART OF THE ESPAGNOLETTE IS CONNECTED WITH THE CONNECTION PIECE, SO THAT THE FACE PLATE OF THE ESPAGNOLETTE FITS TIGHTLY AGAINST THE FACE PLATE OF THE CONNECTION PIECE.
4. PLATE ON CONNECTION PIECE IS TURNED BACK.
5. FRICTION STAY IS MOUNTED, IPA NO.s 23791-96.
6. WHEN THE ESPAGNOLETTE IS ACTIVATED THE MOUNTING SECURITY PIN BRAKES OFF (IPA NO: 23810-21) AND THE SYSTEM IS NOW FULLY OPERATIONAL.



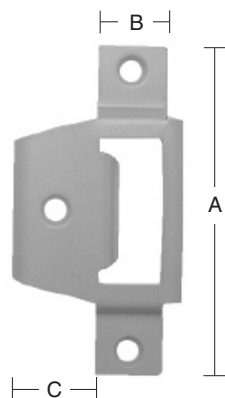
PLEASE NOTE! WHEN MOUNTING THE CONNECTION PIECE IN THE ESPAGNOLETTE HAS TO BE OPENED (SIDE BOLTS IN) BEFORE SHORTENING.

MAINTENANCE:

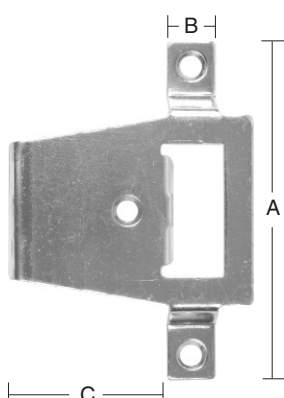
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/ MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT GREASE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



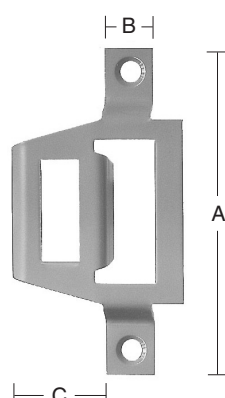
ACCESSORIES FOR SIDE BOLT ESPAGNOLETES



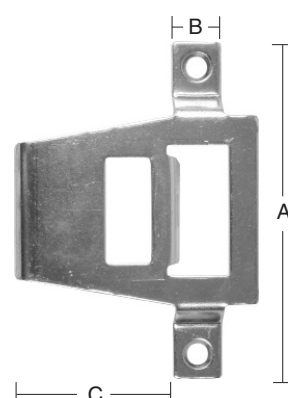
23248-50
23448-50 *



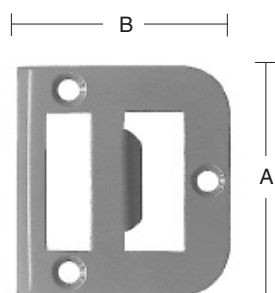
23853



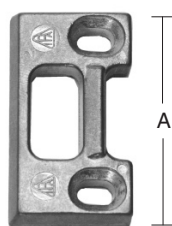
23252+60
23452-60 *



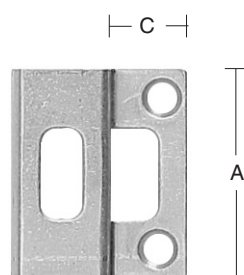
23854



23259



23269 *



23270 *

RECEIVERS

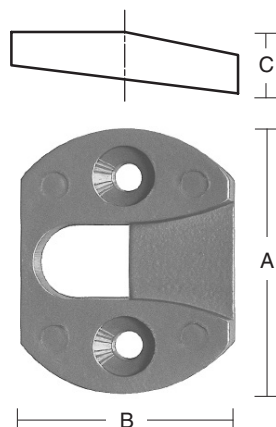
ORDERING NO.															
IPA NO.	MATERIAL			WITHOUT SPECIFICATION	SURFACE		STANDARD PACKING IN BOXES OF 20 PIECES	STANDARD PACKING IN BOXES OF 25 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES	A MM	B MM	C MM	THICKNESS PLATE MM	SCREW	WEIGHT APPROX. KG / 100 PIECES
	ALLOY	STEEL	STAINLESS STEEL		ELECTROPLATED	UNMACHINED									
23248		1	-	0	21	-	-	1	-	79,5	17	21	1,5	3,5	2,0
23249		1	-	0	21	-	-	1	-	78,5	12	23	1,5	3,5	2,0
23250		1	-	0	21	-	-	1	-	78,5	12	24	1,5	3,5	2,0
23252		1	-	0	21	-	-	1	-	78,5	12	24	1,5	3,5	2,0
23259		1	-	0	21	-	-	1	-	50	47	-	1,5	3,5	2,0
23260		1	-	0	21	-	-	1	-	79,5	17	21	1,5	3,5	2,0
23269	1	-	-	0	21	-	-	1	2	46	25	-	7	4,0	3,0
23270	-	-	8	0	-	86	1	-	-	46	38,5	18	1,75	4,0	2,6
23448		1	-	0	21	-	-	1	-	79,5	17	21	1,5	3,5	2,0
23450		1	-	0	21	-	-	1	-	78,5	12	24	1,5	3,5	2,0
23452		1	-	0	21	-	-	1	-	78,5	12	24	1,5	3,5	2,0
23460		1	-	0	21	-	-	1	-	79,5	17	21	1,5	3,5	2,0
23853		1	-	0	21	-	-	1	-	80,5	12	38	1,5	3,5	2,3
23854		1		0	21	-	-	1	-	80,5	12	38	1,5	3,5	2,2

* THESE RECEIVERS HAVE BEEN DESIGNED SPECIALLY FOR THE ESPAGNOLETTE PRO-GRAMME IPA NO. 23701-69/23841-48 AND THE RECEIVERS IPA NO. 23269 OR 23270 HAS TO BE USED WHEN THE ESPAGNOLETTE IS MOUNTED IN THE BOTTOM SASH.



ACCESSORIES FOR ROLLER BOLT ESPAGNOLETTES

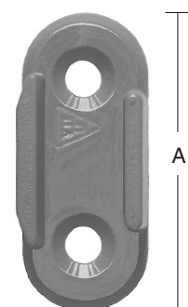
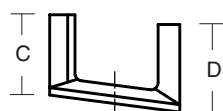
GUIDES



23180-82

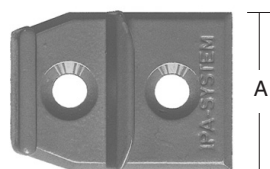
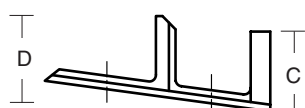
ORDERING NO.											
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE		STANDARD PACKING IN BOXES OF 10 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES	A MM	B MM	C MM	SCREW	WEIGHT APPROX. KG / EACH
	PLASTIC		BROWN	WHITE							
23180	9	0	-	56	1	-	38	30	8	4,0	0,005
	9	0	52	56	-	2					
23181	9	0	-	56	1	-	38	30	11	4,0	0,006
	9	0	52	56	-	2					
23182	9	0	-	56	1	-	38	30	13	4,0	0,008

RECEIVERS

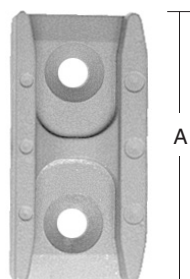
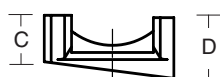


23183

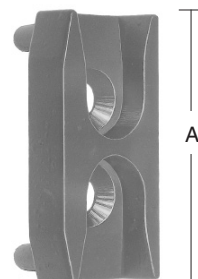
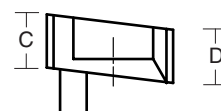
ORDERING NO.											
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 20 PIECES	A MM	B MM	C MM	D MM	SCREW	WEIGHT APPROX. KG / EACH	
	ALLOY		ELECTROPLATED								
23183	1	0	21	1	43	18	11	12	4,0	0,016	
23184	1	0	21	1	39	19	6,5	8,5	4,0	0,022	
23185	1	0	21	1	25	35	10	12	4,0	0,015	
23186	1	0	21	1	39	19	8,5	10,5	4,0	0,022	
23187	1	0	21	1	39	20	8	8	4,0	0,022	



23185



23184 & 23186

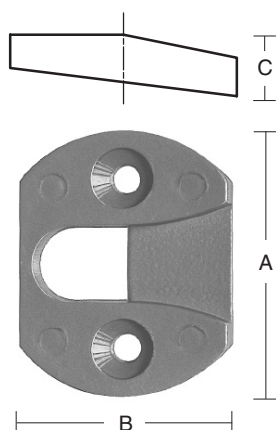


23187



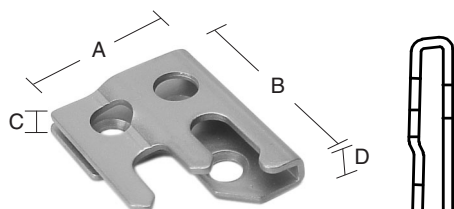
ACCESSORIES FOR MUSHROOM HEAD BOLT ESPAGNOLETTES

GUIDES

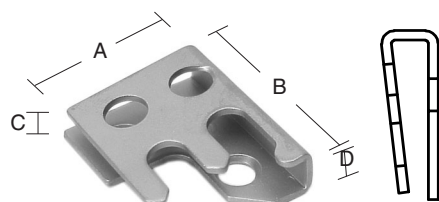


23180-82

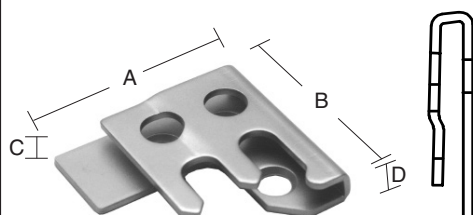
ORDERING NO.											
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE		STANDARD PACKING IN BOXES OF 10 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES	A MM	B MM	C MM	SCREW	WEIGHT APPROX. KG / EACH
	PLASTIC		BROWN	WHITE							
23180	9	0	-	56	1	-	38	30	8	4,0	0,005
	9	0	52	56	-	2					
23181	9	0	-	56	1	-	38	30	11	4,0	0,006
	9	0	52	56	-	2					
23182	9	0	-	56	1	-	38	30	13	4,0	0,008



23190



23191



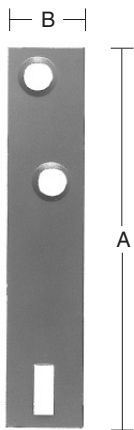
23192

RECEIVERS

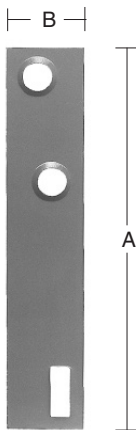
ORDERING NO.											
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 25 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES	A MM	B MM	C MM	D MM	SCREW	WEIGHT APPROX. KG / 100 PIECES
	STAINLESS STEEL		UNMACHINED								
23190	8	0	86	1	2	32,5	40	7	8	4,0	0,024
23191	8	0	86	-	2	31	40	7	10	4,0	0,024
23192	8	0	86	1	2	44	40	7	8	4,0	0,026



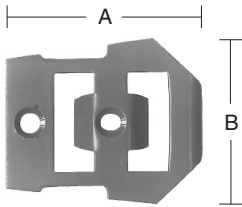
ACCESSORIES FOR ESPAGNOLETTES



23220

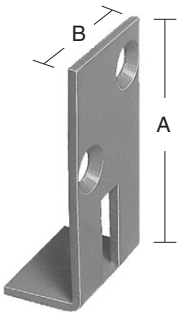


23221



23222

GUIDE PLATE AND RECEIVER



23521

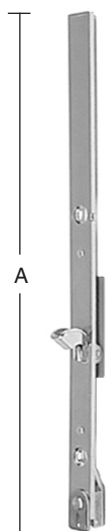
ORDERING NO.										
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 20 PIECES	STANDARD PACKING IN BOXES OF 50 PIECES	A MM	B MM	THICKNESS PLATE MM	SCREW	WEIGHT APPROX. KG / EACH
	STEEL		ELECTROPLATED							
23220	1	0	21	-	1	85	17	3	4,0	0,03
23221	1	0	21	-	1	85	17	3	4,0	0,03
23222	1	0	21	-	1	47	40	2	3,5	0,03
23521	1	0	21	1	-	35	17	1,5	3,0	0,01



EXTENSION PIECES

IPA NO.s 23580-96

**WITH
SIDE BOLTS
TOP**



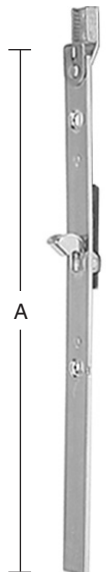
**23580+
83+86+89+
92+95+97**

**WITHOUT
SIDE BOLTS**



**23582+
85+88**

**WITH
SIDE BOLTS
BOTTOM**



**23581+
84+87+90+
93+96**

ORDERING NO.											
IPA NO.	MATERIAL	SQUARE EDGES	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES	A MM	SIDE BOLTS MM	FACE PLATE MM	THICKNESS PLATE MM	SCREW	POSITIONING	WEIGHT APPROX. KG / EACH
	STEEL		ELECTROPLATED								
23580	1	6	21	1	250	12	16	2,5	4,0	TOP	0,13
23581	1	6	21	1	250	12	16	2,5	4,0	BOTTOM	0,13
23582	1	6	21	1	250	-	16	2,5	4,0	TOP/BOTTOM	0,13
23583	1	6	21	1	380	12	16	2,5	4,0	TOP	0,20
23584	1	6	21	1	380	12	16	2,5	4,0	BOTTOM	0,20
23585	1	6	21	1	380	-	16	2,5	4,0	TOP/BOTTOM	0,20
23586	1	6	21	1	500	12	16	2,5	4,0	TOP	0,26
23587	1	6	21	1	500	12	16	2,5	4,0	BOTTOM	0,26
23588	1	6	21	1	500	-	16	2,5	4,0	TOP/BOTTOM	0,26
23589	1	6	21	1	250	15	16	2,5	4,0	TOP	0,13
23590	1	6	21	1	250	15	16	2,5	4,0	BOTTOM	0,13
23592	1	6	21	1	380	15	16	2,5	4,0	TOP	0,20
23593	1	6	21	1	380	15	16	2,5	4,0	BOTTOM	0,20
23595	1	6	21	1	500	15	16	2,5	4,0	TOP	0,26
23596	1	6	21	1	500	15	16	2,5	4,0	BOTTOM	0,26
23597	1	6	21	1	1000	15	16	2,5	4,0	TOP	0,48



FITTING INSTRUCTIONS

IPA NO.	A MM	B MM	C MM	POSITION	FACEPLATE MM
23580	250	12	90	TOP	16
23581	250	12	90	BOTTOM	16
23582	250	-	-	TOP / BOTTOM	16
23583	380	12	220	TOP	16
23584	380	12	220	BOTTOM	16
23585	380	-	-	TOP / BOTTOM	16
23586	500	12	340	TOP	16
23587	500	12	340	BOTTOM	16
23588	500	-	-	TOP / BOTTOM	16
23589	250	15	90	TOP	16
23590	250	15	90	BOTTOM	16
23592	380	15	220	TOP	16
23593	380	15	220	BOTTOM	16
23595	500	15	340	TOP	16
23596	500	15	340	BOTTOM	16
23597	1000	15	840	TOP	16

FIG. 1

SHORTENING POSSIBILITIES:

WITHOUT FRICTION STAY:

70 MM AT TOP/BOTTOM WITH SIDE BOLTS OUT/IN.

WITH FRICTION STAY:

50 MM AT TOP/BOTTOM WITH SIDE BOLTS OUT/IN.

USE SCREW NO. 4,0.

EXAMPLE WOODPROFILE

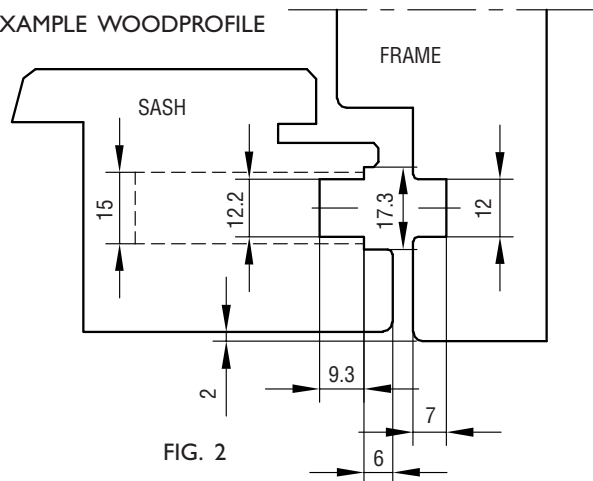


FIG. 2

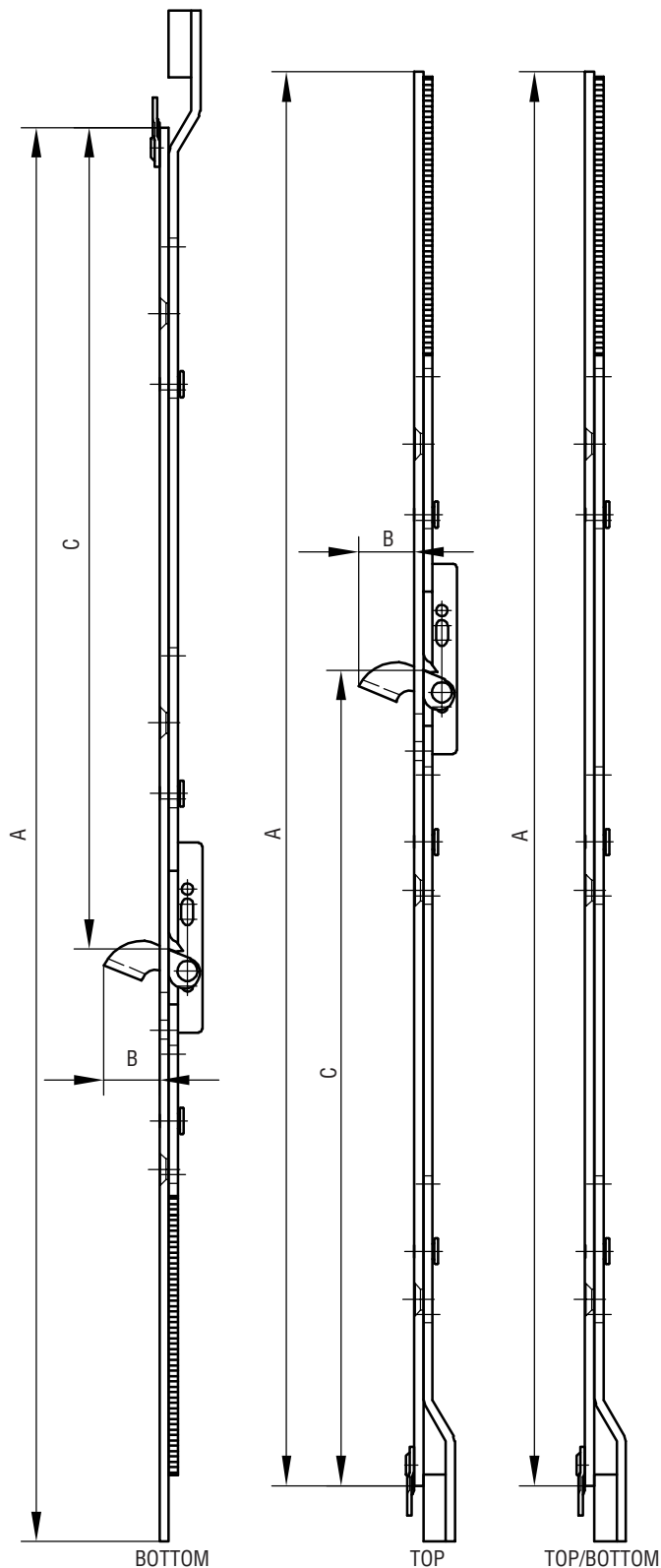


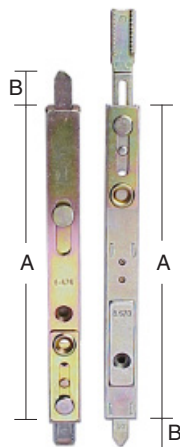
FIG. 3

MAINTENANCE: THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. SEE ALSO SECTION H.



SHOOTBOLTS EXTENSIONS

IPA NO. 23780



23780
SET

ORDERING NO.					A MM	B MM	FACEPLATE MM	SCREW	WEIGHT APPROX. KG / SET
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS					
	ALLOY		ELECTROPLATED						
23780	0	0	21	1	160	16	16	4,0	0,26

FOR MOUNTING IN TOP/BOTTOM OR IN RIGHT/LEFT SIDES



HANDLES FOR WINDOW ESPAGNOLETTES

HANDLES

ORDERING NO.											
IPA NO.	MATERIAL.			SURFACE		STANDARDPACKING IN BOXES OF 10 PCS.	PIN MM	DISTANCE BETWEEN SCREWHOLES MM	LENGHT OF PIN MM	HOLES FOR MASCHINE SCREWS / WOODEN SCREWS	WEIGHT APPROX. KG / PIECES
	ALLOY			DULL CROME	CROME						
23228	0	7	8	80	-	1	8	42	43	M5 / 4,0	0,15
23229	0	7	8	-	81	1	8	42	43	M5 / 4,0	0,15
23233	0	7	8	80	-	1	7	42	43	M5 / 4,0	0,15
23234	0	7	8	-	81	1	7	42	43	M5 / 4,0	0,15



23228-34

RIGHT



23238

SAFETY LOCK

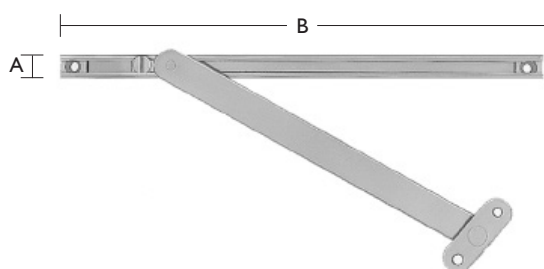
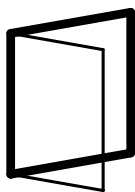
ORDERING NO.						
IPA NO.	MATERIAL	W/O SPECIFICATION	SURFACE		STANDARDPACKING IN BOXES OF 5 PCS.	HOLE MM
	STEEL		DULL CROME	CROME		
23238	1	0	80	81	1	8 X 8

FOR HANDLES 23228-29+33-34



ADJUSTABLE FRICTION STAY

IPA NO. 21327

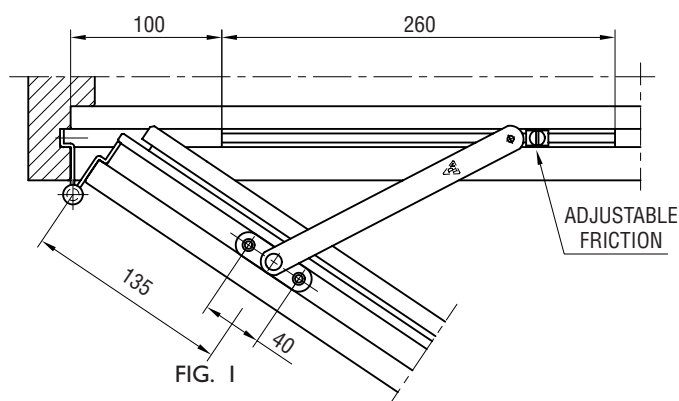


ORDERING NO.									
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 25 PCS.	A MM	B MM	MATERIAL MM	SCREW	APPROX. WEIGHT KG / PCS.
	STEEL		ELECTROPLATED						
21327	1	0	21	1	12	260	17 x 3	4,0	0,14

- CONCEALED FITTING
- OPENS UP TILL 100°
- FRICTION IN ALL POSITIONS
- ADJUSTABLE FRICTION
- ANODIZED ALUMINIUM RAIL



FITTING INSTRUCTIONS



EXAMBLE WOOD PROFILE

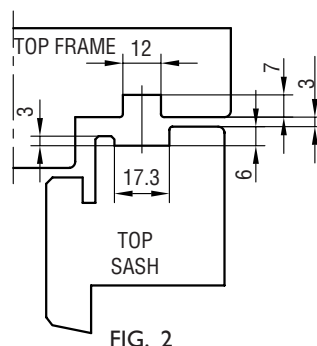


FIG. 2

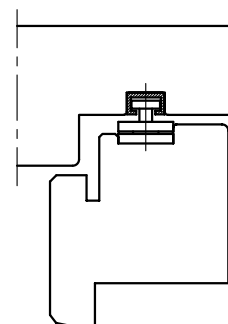


FIG. 3

MAINTENANCE:

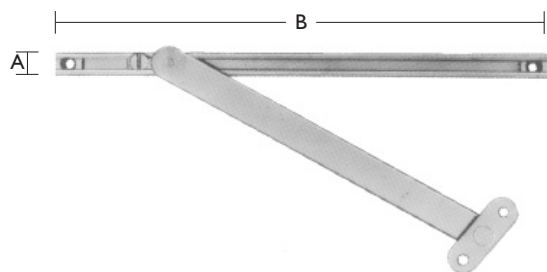
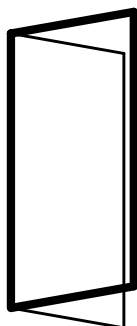
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME.

WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



ADJUSTABLE FRICTION STAY

IPA NO. 22411



ORDERING NO.									
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 25 PCS.	A MM	B MM	MATERIAL MM	SCREW	APPROX. WEIGHT KG / PCS.
	STEEL		ELECTROPLATED						
22411	1	0	21	1	12	400	17 X 3	4,0	0,21

- CONCEALED FITTING
- OPENS UP TILL 100°
- FRICTION IN ALL POSITIONS
- ADJUSTABLE FRICTION
- ANODIZED ALUMINIUM RAIL



FITTING INSTRUCTIONS

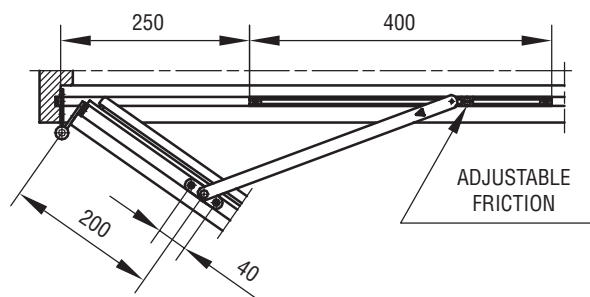


FIG. 1

EXAMPLE WOOD PROFILE

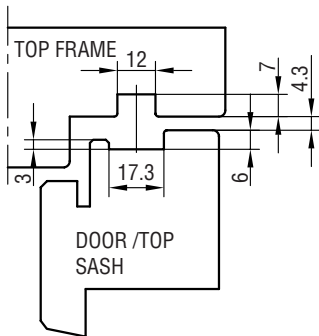


FIG. 2

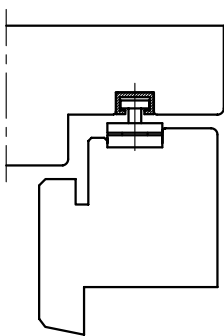


FIG. 3

MAINTENANCE:
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME.
WHEN MOUNTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



ACCESSORIES FOR IPA SYSTEM FITTINGS



COUPLING
HINGES
IPA NO.s 13241-43



SUPPORT
FITTING
IPA NO. 21221



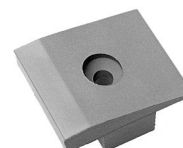
SUPPORT
FITTING
IPA NO. 21222



RECEIVER
FOR 21221
IPA NO. 21223



SUPPORT
FITTING
IPA NO. 21225



GUIDE BLOCKS
FOR SASHES/
DOORS
IPA NO. 23230-31



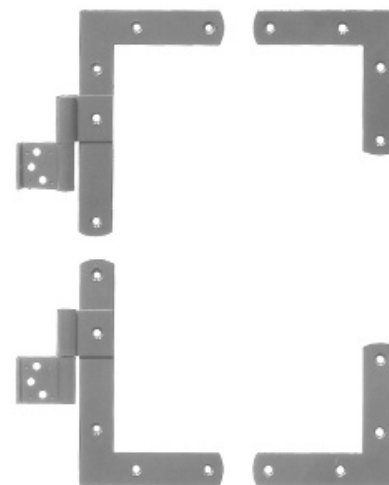
DISTANCE BLOCK
IPA NO. 23232



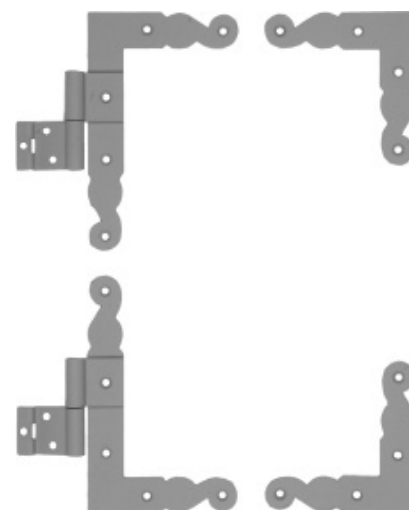
CLOSING CATCH
IPA NO. 21460



CENTER HINGE
IPA NO. 21541



HINGED ANGLE BRACKETS
IPA NO.s 21552+62



HINGED ANGLE BRACKETS
IPA NO.s 21554+64

ORDERING NO.

IPA NO.	MATERIAL					WIHTOUT SPECIFICATION	SQUARE EDGES	LEFT	RIGHT	SURFACE					STANDARD PACKING IN BOXES OF 5 SETS	STANDARD PACKING IN BOXES OF 10 PIECES	STANDARD PACKING IN BOXES OF 20 PIECES	STANDARD PACKING IN BOXES OF 25 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES
	ALUMINIUM	STEEL	STEEL W/ BRASS PIN	STEEL W/ LOOSE STEEL PIN	PLASTIC					ANODIZED	ELECTROPLATED	ELECTROPLATED YELLOW	WHITE	GREY					
13243	-	-	3	-	-	-	6	-	-	-	21	-	-	-	-	-	-	-	2
21221	-	1	-	-	-	0	-	-	-	-	21	-	-	-	-	-	-	1	-
21222	0	-	-	-	-	0	-	-	-	00	-	-	-	-	-	-	-	1	-
21223	-	1	-	-	-	0	-	-	-	-	21	-	-	-	-	-	-	1	-
21225	0	-	-	-	-	0	-	-	-	00	-	-	-	-	-	-	-	1	-
21541	-	1	-	-	-	0	-	-	-	-	-	-	-	-	87	1	-	-	-
21552	-	1	-	-	-	-	-	7	8	-	-	-	-	-	87	1	-	-	-
21554	-	1	-	-	-	-	-	7	8	-	-	-	-	-	87	1	-	-	-
21562	-	1	-	-	-	-	-	7	8	-	-	-	-	-	87	1	-	-	-
21564	-	1	-	-	-	-	-	7	8	-	-	-	-	-	87	1	-	-	-
23230	-	-	-	-	9	0	-	-	-	-	-	-	56	-	-	-	-	1	-
23231	-	-	-	-	9	0	-	-	-	-	-	-	56	-	-	-	-	1	-
23232	-	-	-	-	9	0	-	-	-	-	-	-	-	54	-	-	1	-	2



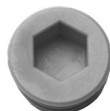
ACCESSORIES FOR IPA SYSTEM FITTINGS



FLUSH BOLT
IPA NO. 23301



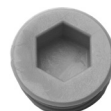
FLUSH BOLT
IPA NO. 23303



FLUSH BOLT
IPA NO. 23305

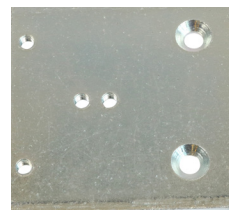


RECEIVER
IPA NO. 23340

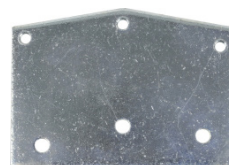


WINDOW STAY
IPA NO. 21318

FLUSH BOLT
IPA NO.S 23308-09



THREADED PLATE
FOR DOOR HINGE
IPA NO. 12721



THREADED PLATE
FOR REVERSIBLE
PROJECTING GEARS
IPA NO. 21155

ORDERING NO.											
IPA NO.	MATERIAL		WITHOUT SPECIFICATION	ROUND EDGES	SQUARE EDGES	LEFT	SURFACE				STANDARD PACKING IN BOXES OF 25 PIECES
	STEEL	PLASTIC					ELECTROPLATED	ELECTROPLATED / YELLOW	WHITE	GALVANIZED	
12721	1	-	0	-	-	-	21	-	-	-	1
21155	1	-	0	-	-	-	21	-	-	-	1
23301	1	-	0	-	6	-	21	-	-	-	1
23303	1	-	-	-	6	-	21	-	-	-	1
23305	1	-	-	5	-	-	21	-	-	-	1
23308	1	-	-	-	6	-	21	-	-	-	1
23309	1	-	-	-	6	-	21	-	-	-	1
23340	-	9	0	-	-	-	-	-	56	-	1
23501	1	-	0	-	-	-	-	-	-	87	1
23531	1	-	0	-	-	-	21	-	-	-	1



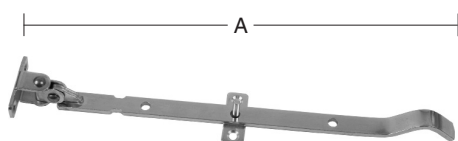
BRACKETS FOR
SASHES
IPA NO. 23531



COVER STRIP
IPA NO. 23501



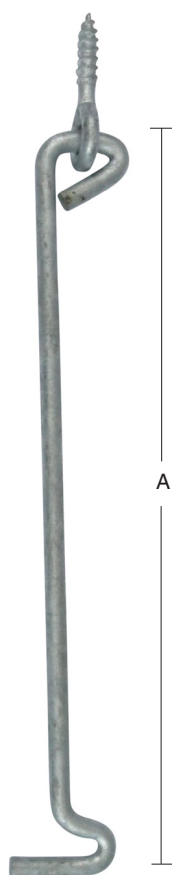
CASEMENT STAYS AND - HOOKS



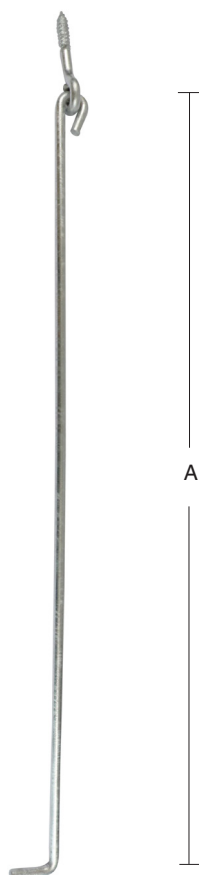
21311-13

CASEMENT STAYS

ORDERING NO.									
IPA NO.	MATERIAL.	WITHOUT SPECIFICATION	SURFACE		STANDARD PACKING IN BOXES OF 10 PCS.	A MM	MATERIEL	SCREW	APPROX. WEIGHT KGE/ACH
	STEEL		ELECTROPL./WHITE	ELECTROPLATED					
21311	1	0	06	21	1	220	15x4	4,0	0,17
21313	1	0	06	21	1	310	15x4	4,0	0,21



21343-55



21357

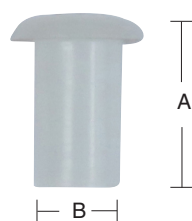
CASEMENT HOOKS

ORDERING NO.										
IPA NO.	MATERIAL.	WITHOUT SPECIFICATION	SURFACE			STANDARD PACKING IN BOXES OF 25 PCS.	SINGLE PCS.	AMM	MATERIEL	APPROX. WEIGHT KG/100 PCS.
	STEEL		ELECTROPL./WHITE	ELECTROPL./YELLOW	GALVANIZED					
21343	1	0	06	-	87	1	-	105	6	5,0
21345	1	0	06	-	87	1	-	155	6	6,4
21347	1	0	06	25	87	1	-	210	6	7,5
21349	1	0	06	25	87	1	-	260	6	8,8
21351	1	0	06	25	87	1	-	310	6	10,0
21353	1	0	06	-	87	1	-	390	6	11,8
21355	1	0	06	-	87	1	-	470	6	13,5
21357	1	0	-	-	87	-	3	625	8	36,6



HOOK HOLDERS, HOOK CATCHES AND NAILS

HOOK HOLDERS



21359



21360

ORDERING NO.										
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE		STANDARD PACKING IN BOXES OF 25 PIECES	STANDARD PACKING IN BOXES OF 100 PIECES	A MM	B MM	SCREW	WEIGHT APPROX KG / 100 PIECES
	PLASTIC		GREY	WHITE						
21359	9	0	-	56	-	1	18,5	9,5	-	0,10
21360	9	0	54	56	1	-	19	12	3,5	0,19

HOOK CATCHES AND NAILS



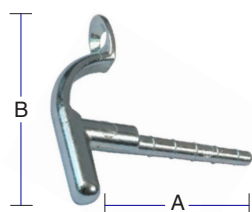
21361-63



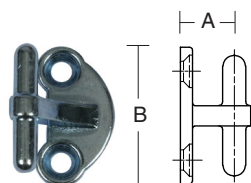
21369

ORDERING NO.													
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE				STANDARD PACKING IN BOXES OF 25 PIECES	STANDARD PACKING IN BOXES OF 100 PIECES	STANDARD PACKING IN BOXES OF 1 KG	A MM	EYE HOLE MM	THICKNESS MM	WEIGHT APPROX. KG / 100 PIECES
	STEEL		ELECTROPL. / WHITE	ELECTROPLATED	ELECTROPL. / YELLOW	GALVANIZED							
21361	1	0	-	21	25	-	-	1	-	25	8	4,0	0,6
21363	1	0	06	21	-	87	1	-	-	25	8	4,7	0,8
21369	1	0	06	21	25	-	-	-	1	25	-	2,5	0,1

HOOK CATCHES



21381

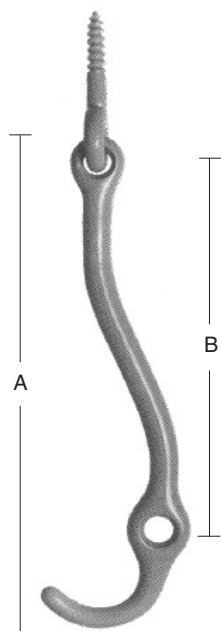


21382

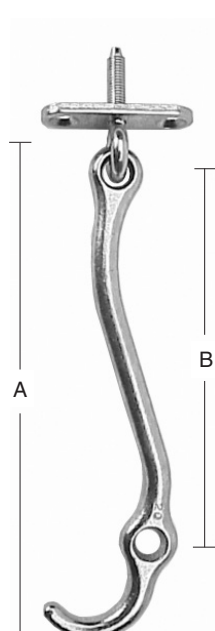
ORDERING NO.																	
IPA NO.	MATERIAL			WITHOUT SPECIFICATION	SURFACE			STANDARD PACKING IN BOXES OF 50 PIECES	STANDARD PACKING IN BOXES OF 100 PIECES	INDUSTRY PACKING IN BOXES OF 100 PIECES	INDUSTRY PACKING IN BOXES OF 250 PIECES	A MM	B MM	PIN MM	HOLE MM	SCREW	WEIGHT APPROX. KG / 100 PIECES
	STEEL	BRASS	ZINC		ELECTROPL. / WHITE	ELECTROPLATED	POLISHED										
21381	1	-	-	0	06	21	-	-	1	-	2	28	47	5,5	3,5	-	0,75
	-	6	-	0	-	-	85	1	-	2	-						
	-	-	0	0	06	21	-	-	-	-	2						
21382	1	-	-	0	06	-	-	1	-	-	-	13,3	34	5,6	-	3,5	1,4
	1	-	-	0	-	21	-	1	-	-	2						



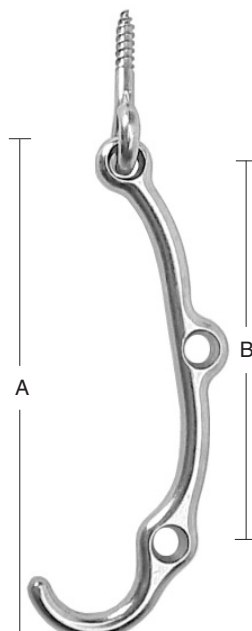
CASEMENT HOOKS



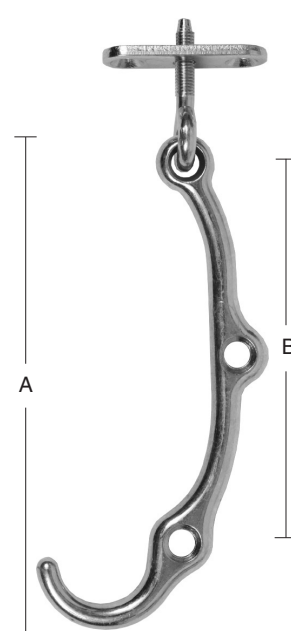
21370+72-73



21371

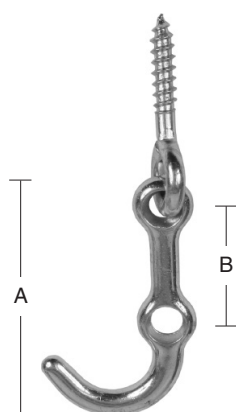


21378



21379

CASEMENT HOOK AND HOOK CATCH



21376

ORDERING NO.											
IPA NO.	MATERIAL				SURFACE						
	ZINK ALLOY	STEEL	BRASS		WITHOUT SPECIFICATION	ELECTROPL. / WHITE	ELECTROPLATED	POLISHED			
21370	0	-	-	0	06	21	-	-	-	-	2
21371	0	-	-	0	06	21	-	-	-	-	2
21372	-	1	-	0	06	-	-	1	-	-	-
	-	1	-	0	-	21	-	1	-	-	2
	-	-	6	0	-	-	85	1	-	2	-
21373	-	1	-	0	06	21	-	1	-	-	2
21376	-	1	-	0	06	21	-	-	1	-	-
	-	1	-	0	-	21	-	-	-	-	2
21378	0	-	-	0	06	21	-	-	-	-	2
21379	0	-	-	0	-	21	-	1	-	-	-
	0	-	-	0	06	21	-	-	-	-	2

ATTENTION: IPA NO. 21378 + 79 IN POWDER PAINTED VERSIONS CAN ONLY BE USED TOGETHER WITH IPA NO. 21382.



FITTING INSTRUCTIONS

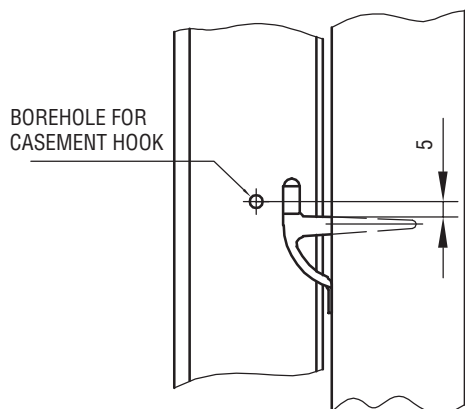


FIG. 1
IPA NO. 21381
FOR HOOK-CATCHES Ø3-Ø3,2 MM
PRE-DRILLING IS RECOMMENDED

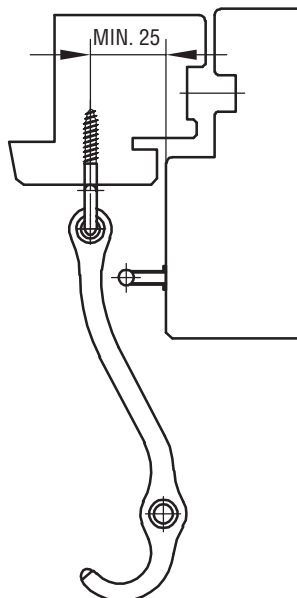


FIG. 2
IPA NO. 21372 WITH 21381

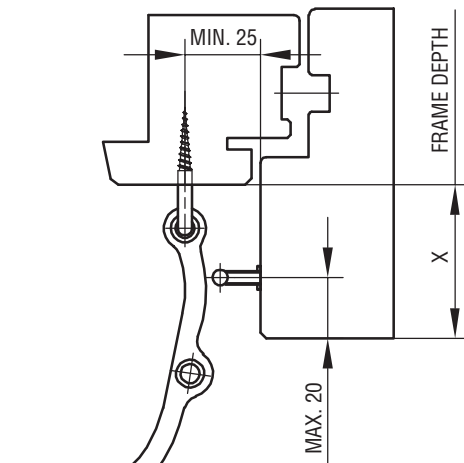


FIG. 3
IPA NO. 21378 WITH 21381

THE MENTIONED MAX. AND MIN. DIMENSIONS APPLY FOR A FRAME DEPTH (X ON THE DRAWING) OF AS MUCH AS 50 MM. IF X IS BIGGER THAN 50 MM, WE RECOMMEND USING IPA NO. 21372

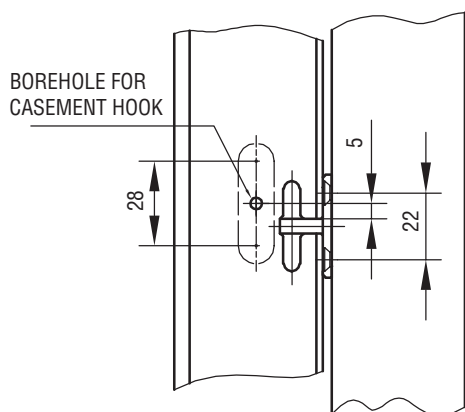


FIG. 4
IPA NO. 21382

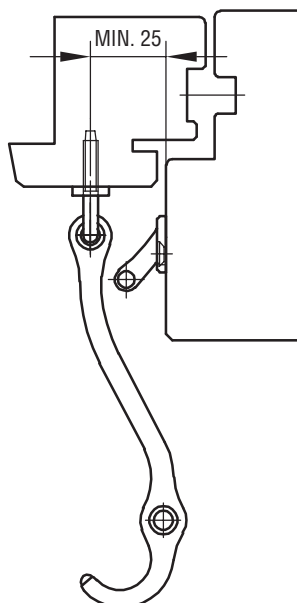


FIG. 5
IPA NO. 21371 WITH 21382

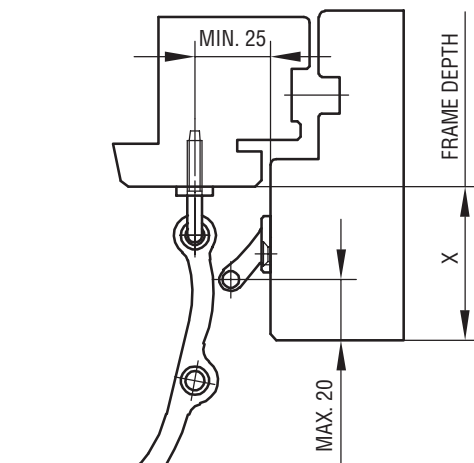


FIG. 3
IPA NO. 21379 WITH 21382

THE MENTIONED MAX. AND MIN. DIMENSIONS APPLY FOR A FRAME DEPTH (X ON THE DRAWING) OF AS MUCH AS 50 MM. IF X IS BIGGER THAN 50 MM, WE RECOMMEND USING IPA NO. 21371

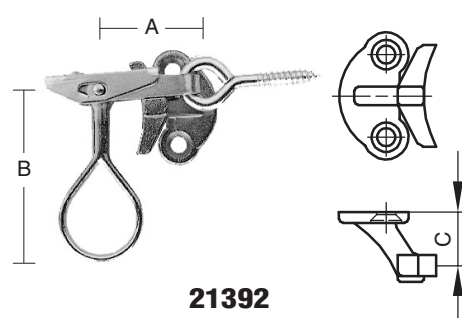
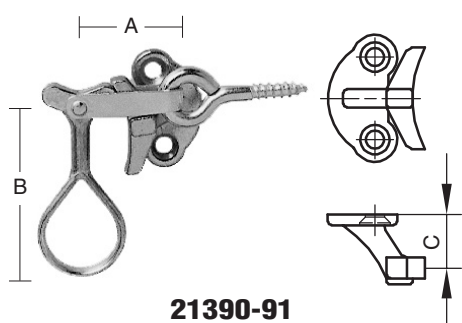
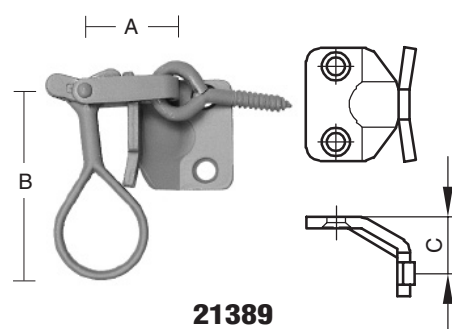
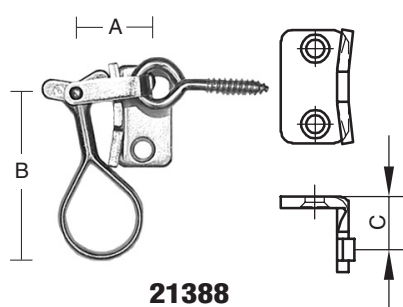
ATTENTION: IPA NO. 21378 + 79 IN POWDER PAINTED VERSIONS CAN ONLY BE USED TOGETHER WITH IPA NO. 21382.



CASEMENT FASTENERS

CASEMENT HOOK WITH EYE SCREW

ORDERING NO.																
IPA NO.	MATERIAL		WITHOUT SPECIFICATION	SURFACE			STANDARD PACKING IN BOXES OF 25 PIECES	STANDARD PACKING IN BOXES OF 50 PIECES	INDUSTRY PACKING IN BOXES OF 200 PIECES	INDUSTRY PACKING IN BOXES OF 500 PIECES	WITH BARCODE	A MM	B MM	C MM	SCREW	WEIGHT APPROX. KG / 100 PIECES
	STEEL	BRASS		ELECTROPL. / WHITE	BROWN	ELECTROPLATED										
21388	1	-	0	06	-	21	-	1	-	-	-	21	50	14	3,5	4,0
21389	1	-	0	06	-	-	-	1	-	-	-	24	50	15	3,5	4,6
	1	-	0	-	-	21	-	-	-	2	-					
21390	1	-	0	-	-	21	-	-	-	2	-	24	50	14	3,5	3,8
21391	1	-	0	06	-	21	-	1	-	2	-	28	50	14	3,5	4,0
21392	1	-	0	-	-	21	1	-	-	-	-	28	50	14	3,5	4,4





FITTING INSTRUCTIONS

CASEMENT HOOK
WITH EYE SCREW

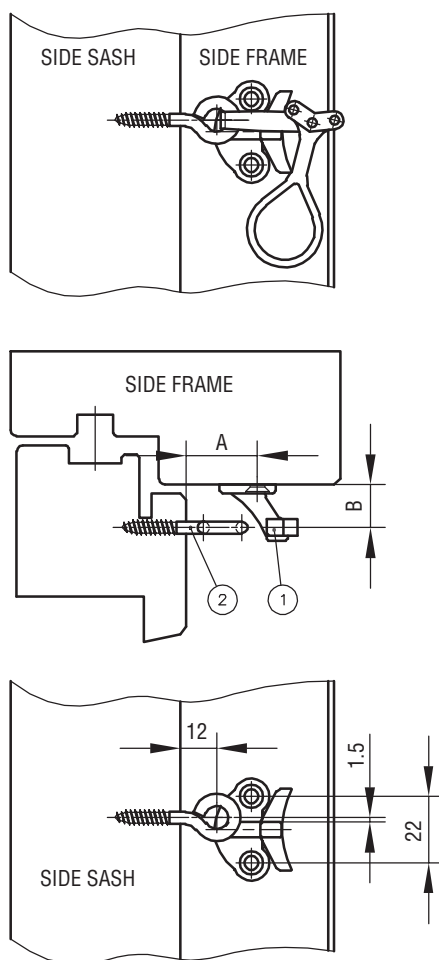


FIG. 1
IPA NO. 21388-92

IPA NO.	21391 - 92	21388	21389	21390
A MM	23	19	10	19
B MM	14	14	15	14

MOUNTING:

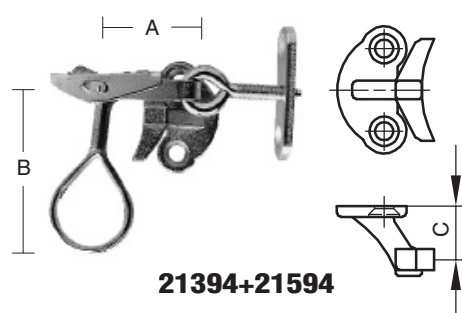
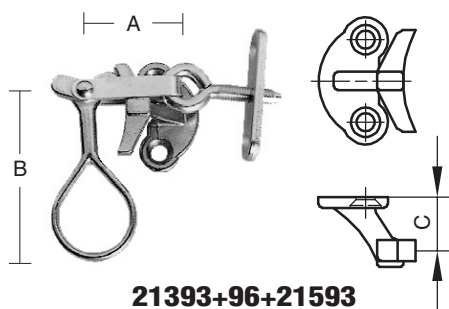
1. MOUNT THE RECEIVER (1), ON SIDE FRAME IN THE WANTED HEIGHT.
2. MEASURE PRECISELY ON THE SIDE SASH FOR THE CASEMENT HOOK WITH EYE SCREW (2).
PRE-DRILL A HOLE FOR THE EYE SCREW. FASTEN THE CASEMENT HOOK WITH EYE SCREW.



CASEMENT FASTENERS

CASEMENT HOOK

ORDERING NO.															
IPA NO.	MATERIAL	SURFACE				STANDARD PACKING IN BOXES OF 25 PIECES	STANDARD PACKING IN BOXES OF 50 PIECES	INDUSTRY PACKING IN BOXES OF 500 PIECES	WITH BARCODE	A MM	B MM	C MM	SCREW	EYE SCREW	WEIGHT APPROX. KG / 100 PIECES
	STEEL	WITHOUT SPECIFICATION	ELECTROPL. / WHITE	BROWN	ELECTROPLATED										
21393	1	0	-	12	-	-	-	-	7	28	50	14	3,5	M5 X 20	4,4
	1	0	06	-	21	-	1	2	-	28	50	14	3,5	M5 X 20	5,0
21394	1	0	-	-	21	1	-	-	-	28	50	14	3,5	M5 X 20	5,0
21396	1	0	06	-	21	-	-	2	-	24	50	14	3,5	M5 x 20	5,0
21593	1	0	06	-	21	-	-	2	-	28	50	19	3,5	M5 x 20	4,4
21594	1	0	-	-	21	1	-	-	-	28	50	19	3,5	M5 X 20	5,0





FITTING INSTRUCTIONS

CASEMENT HOOK
WITH SCREW PLATE

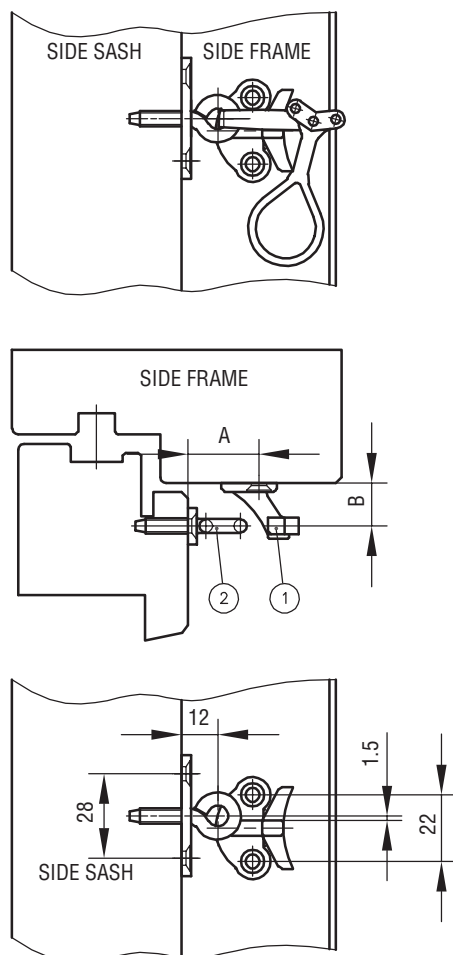


FIG. I
IPA NO. 21393-96

IPA NR.	21396	21393 - 94	21593 - 94
A MM	19	23	23
B MM	14	14	19

MOUNTING:

1. MOUNT THE RECEIVER (1), ON SIDE FRAME IN THE WANTED HEIGHT.
2. MEASURE PRECISELY ON THE SIDE SASH FOR THE CASEMENT HOOK WITH SCREW PLATE (2). PRE-DRILL A 5.0 MM HOLE FOR THE THREADED SCREW AND PRE-DRILL THE HOLES FOR THE EYE SCREWS. MARK UP FOR THE 2 SCREW HOLES ON THE SASH AND PRE-DRILL THE HOLES. FASTEN THE CASEMENT HOOK WITH SCREW PLATE.



MAINTENANCE GENERAL INSTRUCTIONS

GENERALLY all parts of a building have to be looked after and maintained from time to time. This of course also applies for fittings in windows and doors.

How often fittings in windows and doors should be maintained depends to a large extent on how they are used, how often they are operated, and not least on the environment the fittings are exposed to.

Corrosion may also be caused by other factors, such as corrosive liquids, air pollution etc. Special attention should be given to fittings used in windows and doors in urban and industrial areas or other areas with a high traffic intensity as well as coastal areas. Fittings in such environments should be checked and greased more often than fittings used in areas with less corrosive effects.

HINGES AND FITTINGS should be lubricated when necessary, or at the minimum twice a year.

SLIDING ELEMENTS AS WELL AS ALL ALURAILS with sliding surfaces are to be kept clean and free from dust and dirt to ensure a smooth sliding function. Stearin wax or a clean lubricating film (but no oil and no grease!) can be applied onto the aluminium rails.

ESPANOULETTES AND OTHER LOCKING FITTINGS should be greased or lubricated with acid free grease or acid free oil on spray. The grease/oil should be applied into the mechanism box as well as on the joints of the side bolts, the roller bolts, or the mushroom head bolts while activating the mechanism repeatedly. Grease or lubricate when necessary or at the minimum twice a year.

BRASS will sooner or later get some discolouration in a brownish tone depending on the environment in which it is placed. The original brass surface can be maintained by polishing from time to time.

STAINLESS STEEL can get some discolouration, although this rarely happens. Different chemical influences like acid fumes, contamination from wood preservation treatments, or air pollution may cause discoloration of the metal, sometimes to a reddish tone which could look like rust. Thin discoloration can be removed just by using common cleaner or polish.



MAINTENANCE GENERAL INSTRUCTIONS

PAINTED FITTINGS will from time to time need repainting. Before painting all parts should be cleaned carefully. When choosing type of paint and when applying the paint remember to follow the instructions from the paint manufacturer very carefully.

When painting a wooden window in a house, it is a good idea also to paint the visible parts of the fittings (please note: No alurails nor sliding parts should ever be painted!). The painting of the fitting will minimize corrosion and add to the lifetime of the fitting. Always make sure that the proper function of a fitting is not affected by the painting.

ANODIZED ALUMINIUM should be cleaned from time to time, depending on the surroundings in which it is placed. Cleaning of the surface with a cloth or sponge is recommended. Eventually a neutral solvent can be used. Emery cloth, steel wool, sodium carbonate, and other cleansers or abrasives containing alkalies or acid should never be used.

ON THE WINDOW AND DOOR FACTORY SITE all fittings should be lubricated or greased before shipment. Hinges should be lubricated with acidfree oil while activating repeatedly an acidfree grease can also be used. When using grease it should be applied directly onto the pin of the hinges. It may be necessary to dismantle the sash before greasing. Especially hinges with a brass pin should be greased.

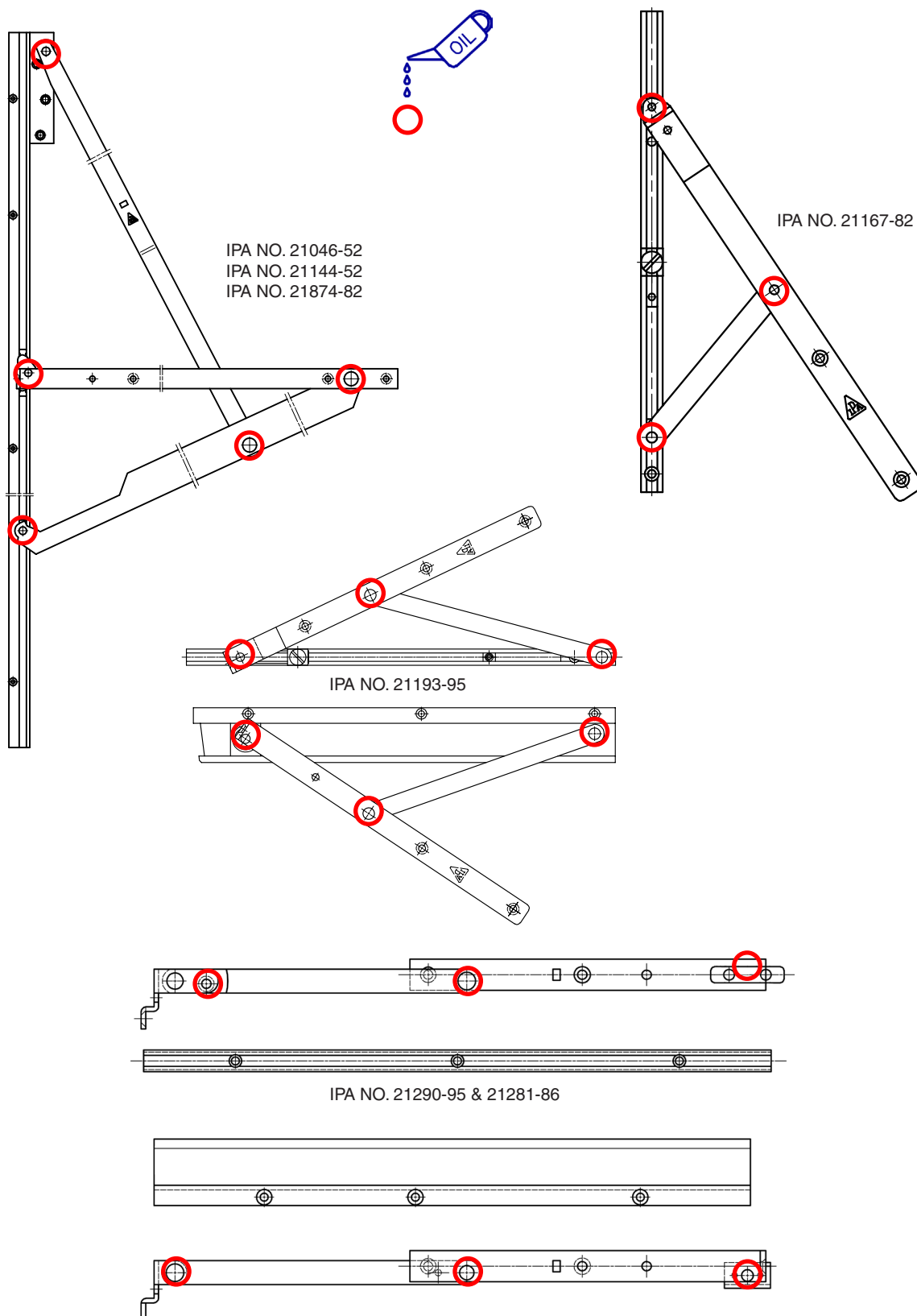
When mounting fittings, please make sure that the tools do not damage the original surface treatment. When original surface has been damaged make sure that remedial take place as soon as possible.

**WHEN IN DOUBT PLEASE CONTACT YOUR LOCAL SUPPLIER OR A/S J. PETERSENS
BESLAGFABRIK.**



MAINTENANCE

LUBRICATION INSTRUCTIONS

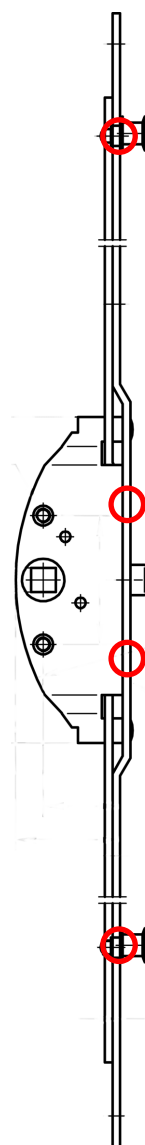
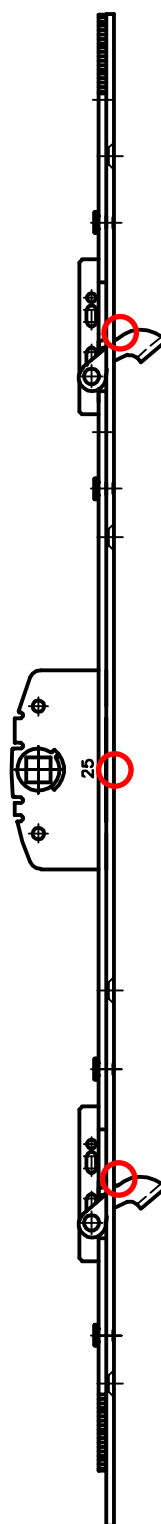
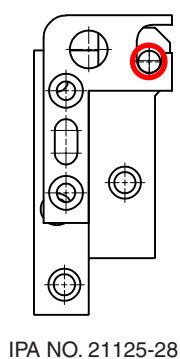
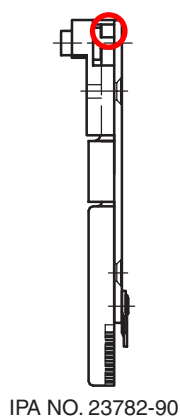
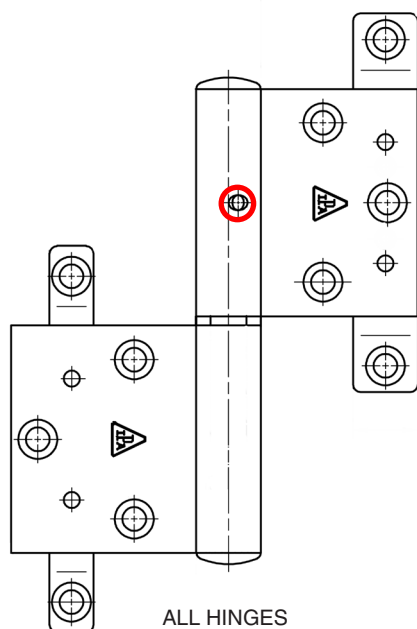


**LUBRICATE BETWEEN THE MOVING PARTS WHILE ACTIVATING REPEATEDLY.
DO NOT GREASE THE ALUMINIUM RAILS.**



MAINTENANCE

LUBRICATION INSTRUCTIONS



**LUBRICATE BETWEEN THE MOVING PARTS WHILE ACTIVATING REPEATEDLY.
DO NOT GREASE THE ALUMINIUM RAILS.**



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