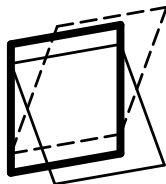




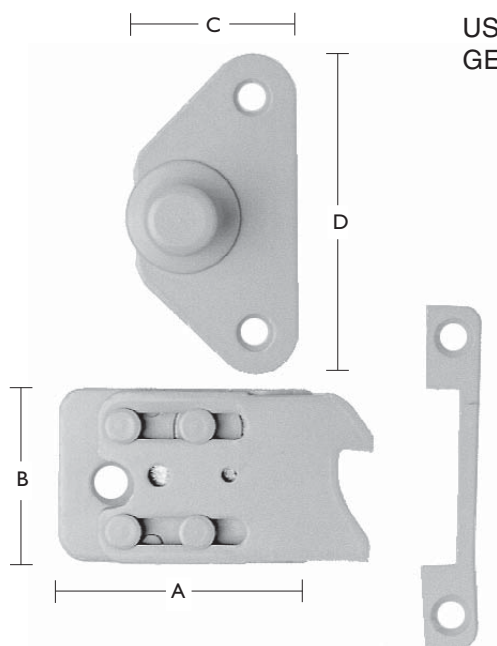
SAFETY RESTRICTOR

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	APPROX. WEIGHT KG/EACH
	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



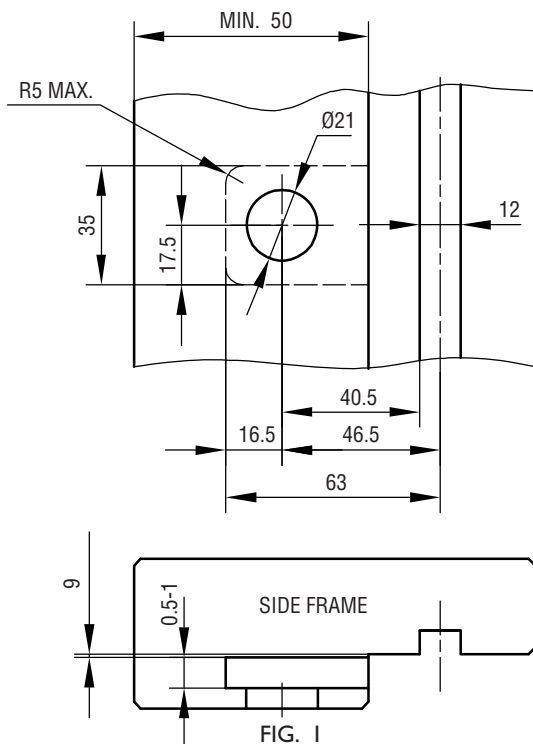
National
Seal Systems &
Limited



Unit 210 Holly Road, Western Industrial Estate, Naas Road, Dublin 12
Ph: 01 -4565170 Fax: 01-4502371 Email: -info@nationalseal.ie Web: -www.nationalseal.ie



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.

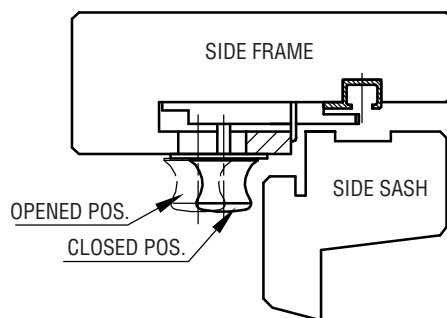
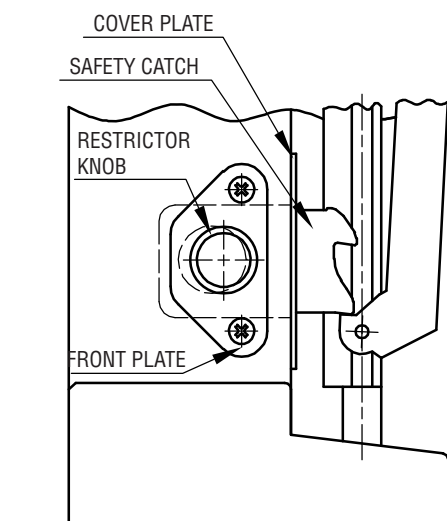


FIG. 2

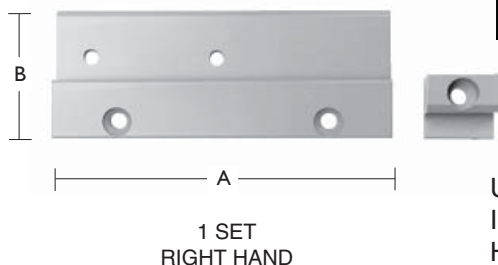
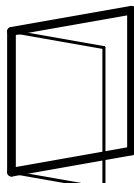
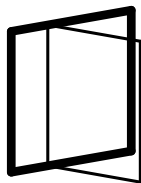
MAINTENANCE:

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



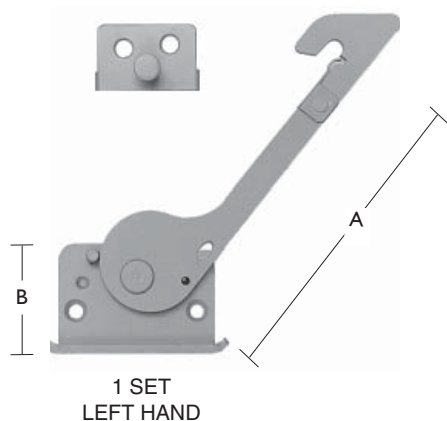
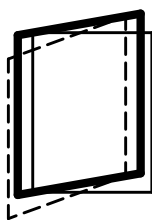
ORDERING NO.									
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW	APPROX. WEIGHT KG / SET
	ALUMINIUM/PLASTIC			ANODIZED					
21227	0	7	8	00	1	95	35,5	4,0	0,03

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

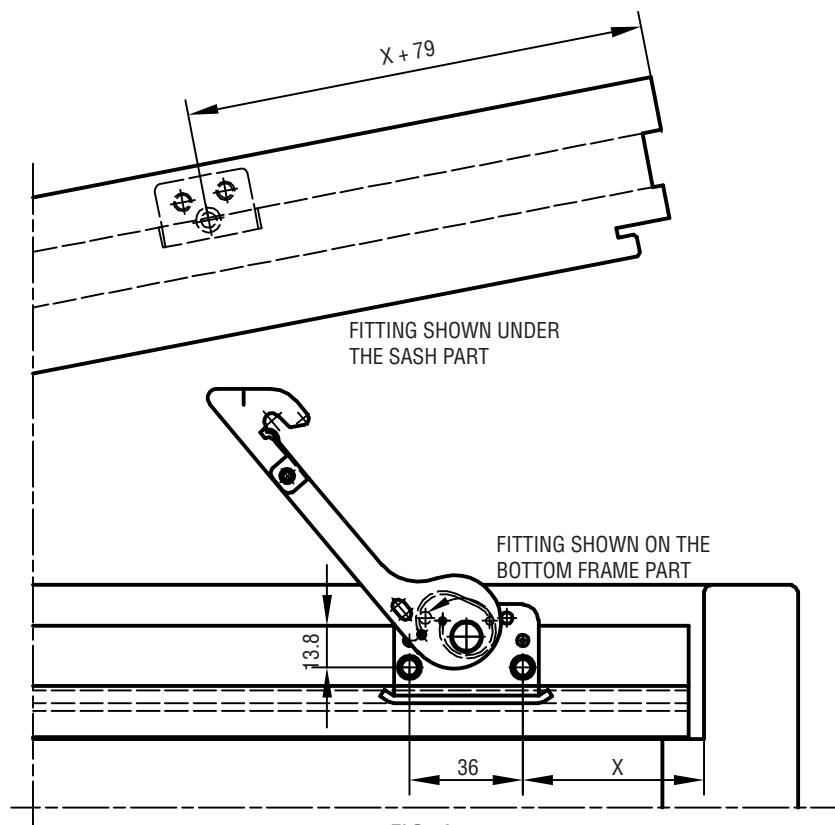
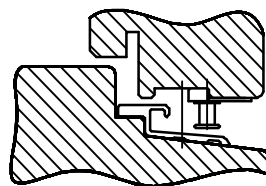


FIG. 1
RIGHT HAND ILLUSTRATION

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

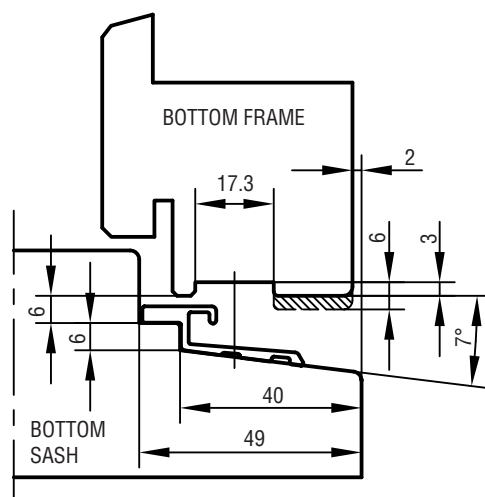
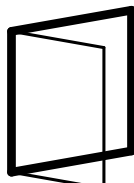
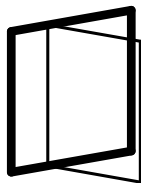


FIG. 2



SUPPORT RAIL

IPA NO. 21229



1 SET
RIGHT HAND

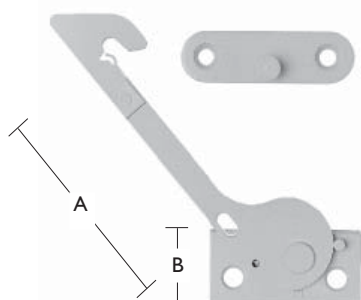
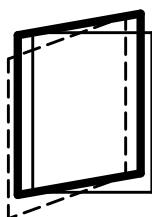
ORDERING NO.									
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW	APPROX. WEIGHT KG / SET
	ALUMINIUM/PLASTIC			ANODIZED					
21229	0	7	8	00	1	90	40	4,0	0,03

USED IN CONJUNCTION WITH SAFETY RESTRICTOR
IPA NO. 21230 AND:
HINGES IPA NO. 11173-74 & 77
SIDE SWING WINDOW 90° WITH FRICTION IPA NO.
21195



SAFETY RESTRICTOR

IPA NO. 21230



1 SET
RIGHT HAND

ORDERING NO.									
IPA NO.	MATERIAL			SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	A MM	B MM	SCREW	APPROX. WEIGHT KG / SET
	STEEL			ELECTROPLATED					
21230	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.
21290-95



FITTING INSTRUCTIONS

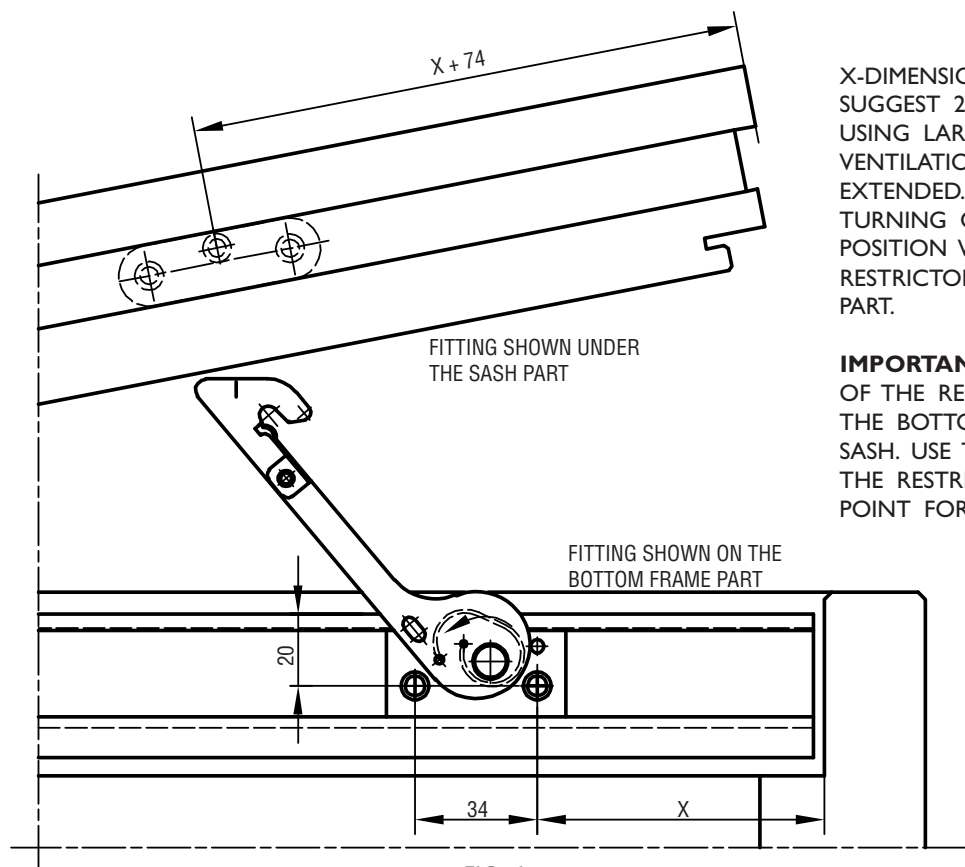


FIG. 1
RIGHT HAND ILLUSTRATION

WHEN USING THE RESTRICTOR FOR SIDE HUNG LIFT-OFF WINDOWS MOUNT THE RESTRICTOR ON THE SUPPORT RAIL IPA NO. 21229. 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

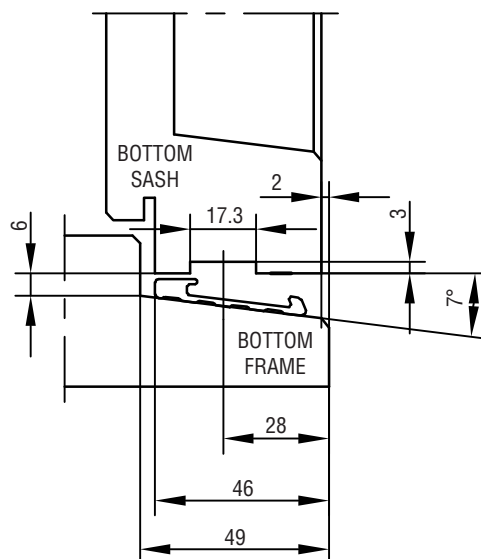
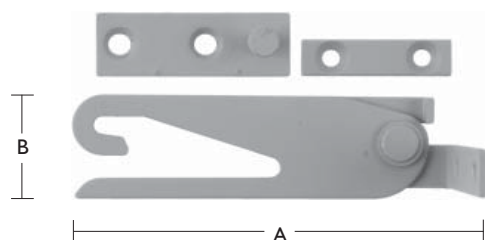
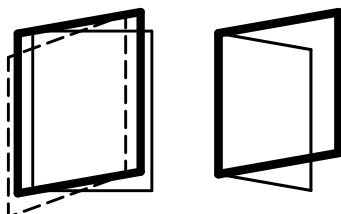


FIG. 2



SAFETY RESTRICTOR

IPA NO. 21231



1 SET
RIGHT HAND

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

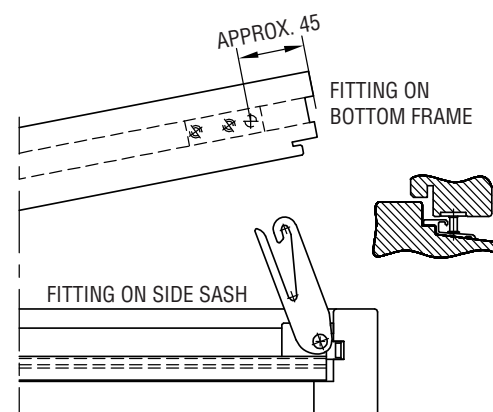


FIG. 1
RIGHT HAND ILLUSTRATION

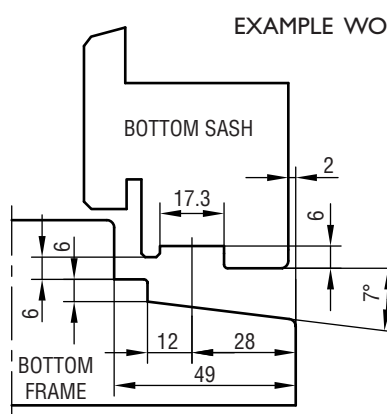


FIG. 2

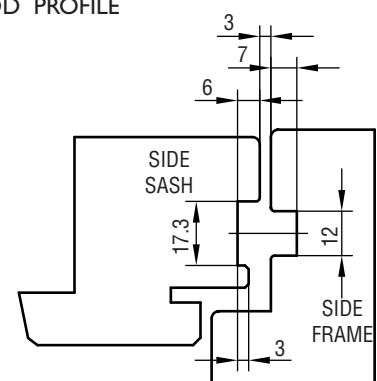


FIG. 3

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.

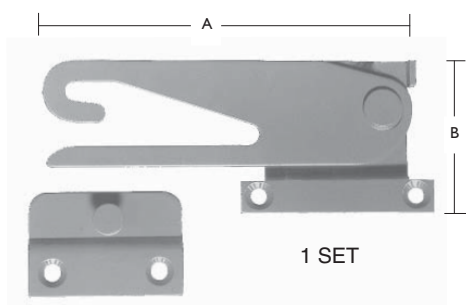
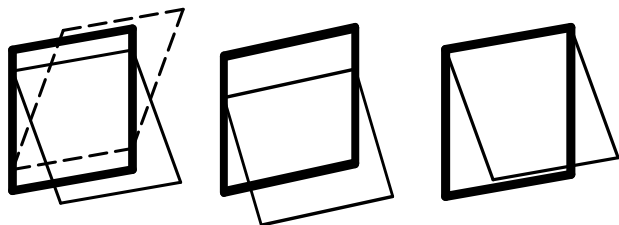
MAINTENANCE:

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

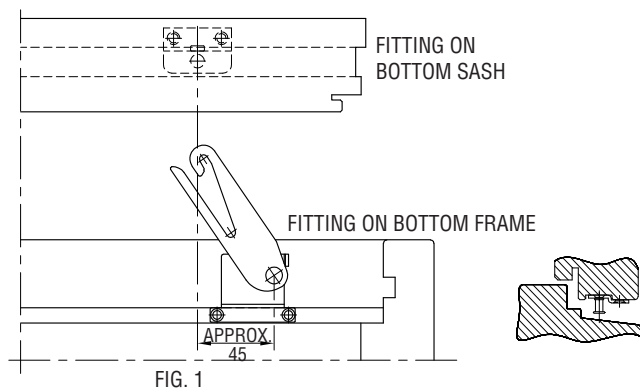


FIG. 1

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

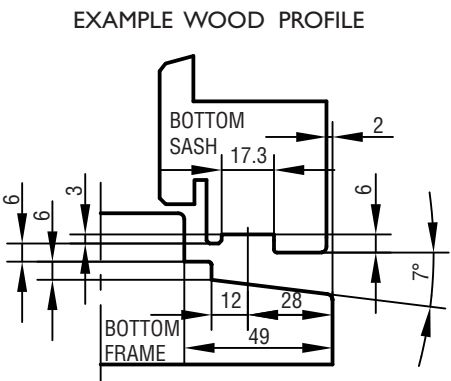
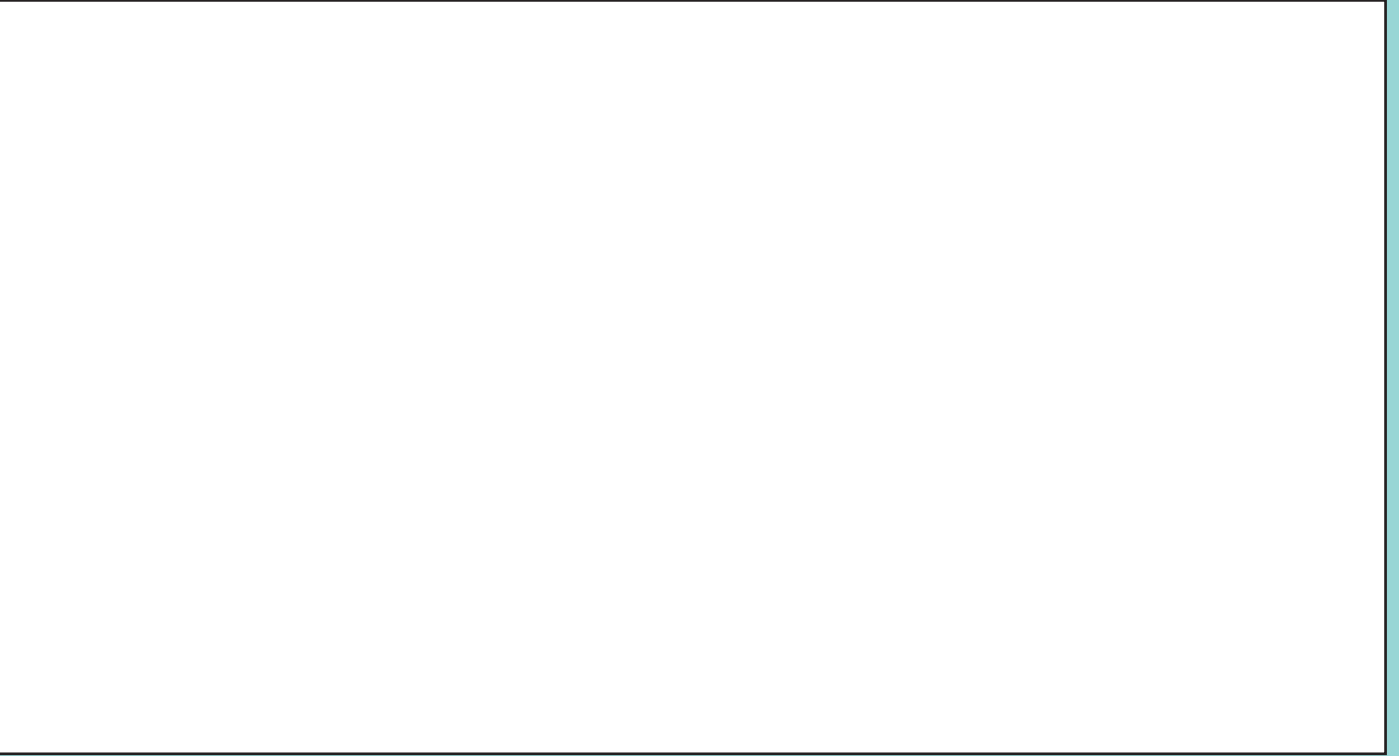


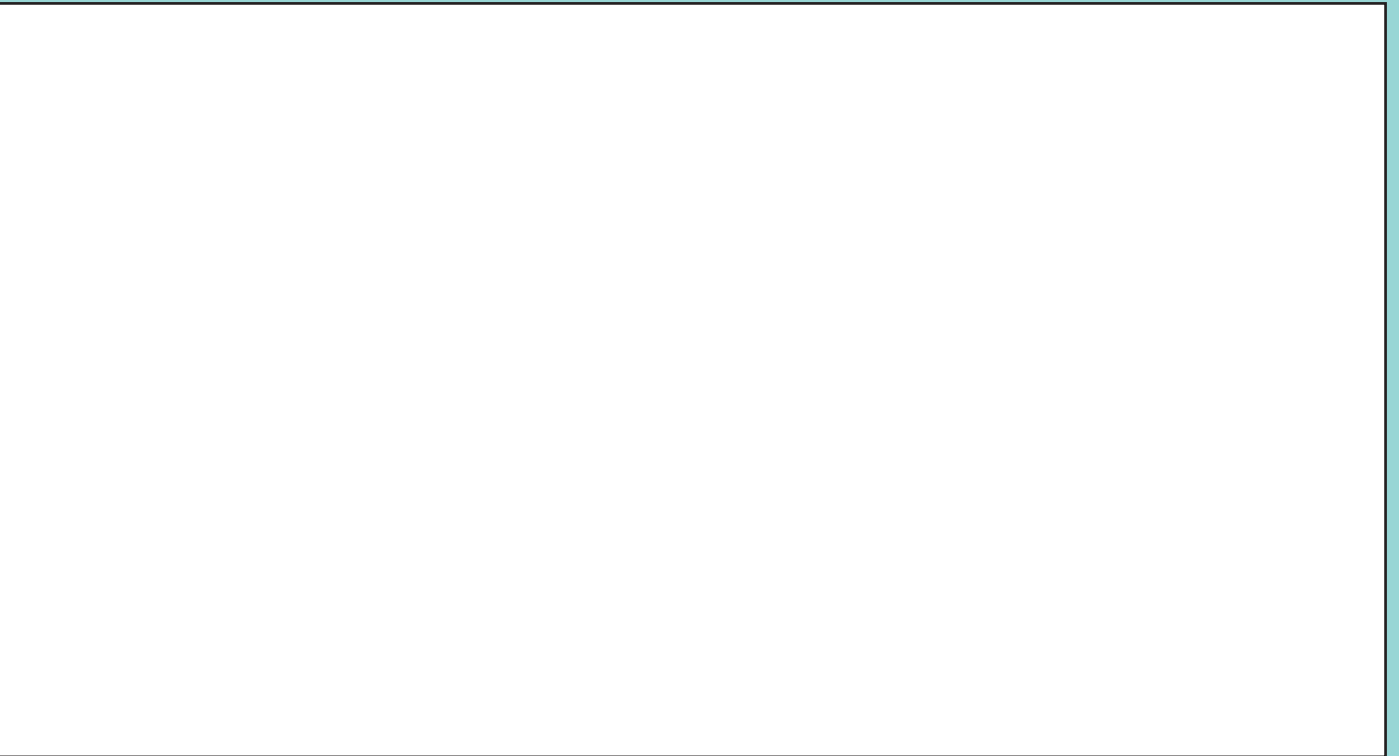
FIG. 2

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. SEE ALSO SECTION H.

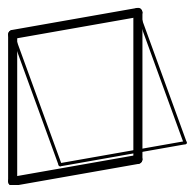


FITTING INSTRUCTIONS





FIRE ESCAPE FITTING FOR TOP HUNG WINDOWS IPA NO. 21321



1/2 SET
RIGHT HAND

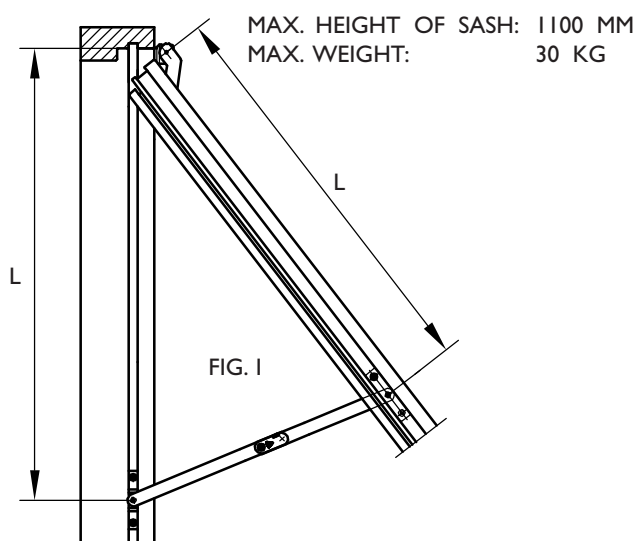


ORDERING NO.								
IPA NO.	MATERIAL	WITHOUT SPECIFICATION	SURFACE	STANDARD PACKING IN BOXES OF 5 SETS	LENGTH MM	MATERIAL MM	SCREW	APPROX. WEIGHT KG / SET
	STEEL		ELECTROPLATED					
21321	1	0	21	1	350	17x2	4,0	0,34

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

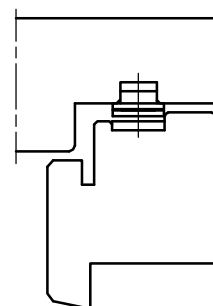
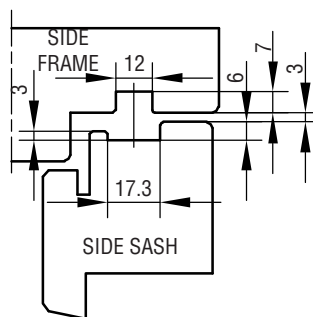


FITTING INSTRUCTIONS



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



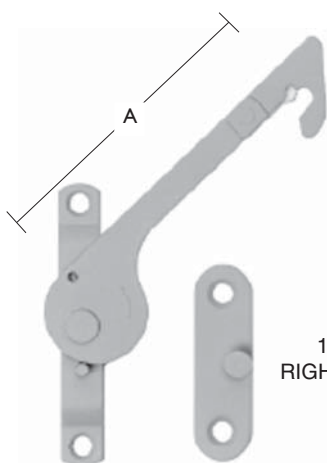
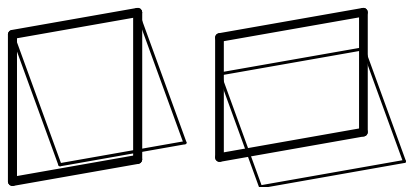
MAINTENANCE:

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

USED IN CONJUNCTION WITH:
TOP HINGES IPA NO.s 21125-28
CANOPY STAY IPA NO.s 21167-82



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.

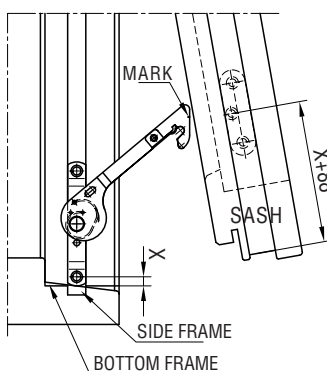
X-DIMENSION IS OPTIONAL. WE SUGGEST 6 MM AS A MINIMUM. BY USING LARGER X-DIMENSIONS THE VENTILATION OPENING WILL BE EXTENDED.

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.

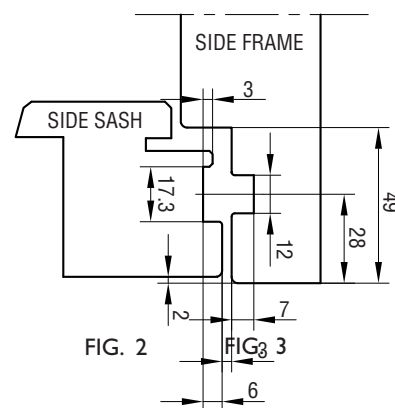
OPERATING INSTRUCTIONS:

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.

FIG. 1
RIGHT HAND
ILLUSTRATION



EXAMPLE WOOD PROFILE



MAINTENANCE:

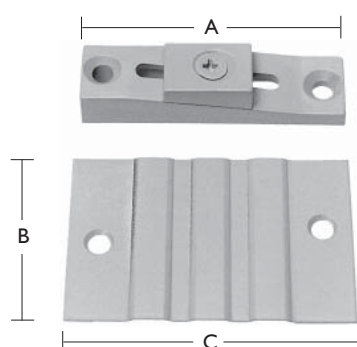
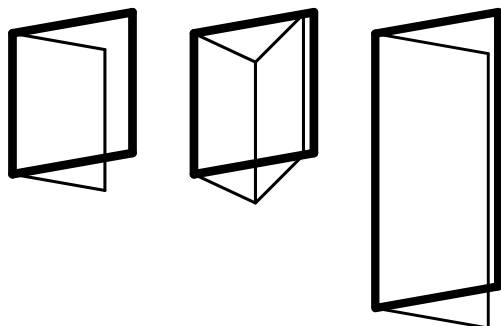
THE FITTINGS ARE NOT TO BE PAINTED. TEST THE OPERATION FROM TIME TO TIME. WHEN FITTING - LUBRICATE THE PIVOT/MOVABLE METAL PARTS OF THE MECHANISM WHILE ACTIVATING REPEATEDLY. HEREAFTER LUBRICATE MINIMUM TWICE A YEAR. DO NOT LUBRICATE THE ALUMINIUM RAILS. SEE ALSO SECTION H.



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

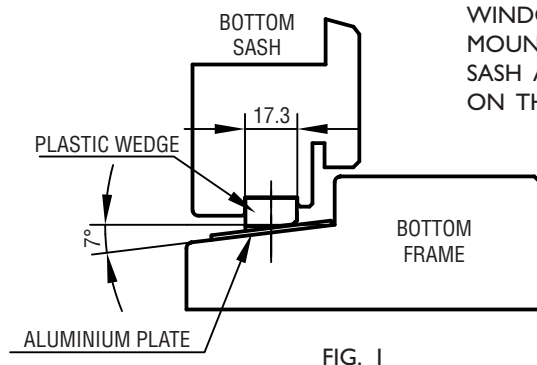


FIG. 1

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.

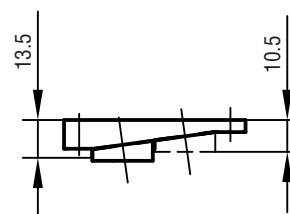


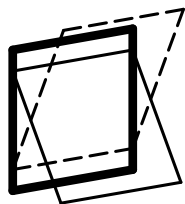
FIG. 2

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

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



FITTING INSTRUCTIONS

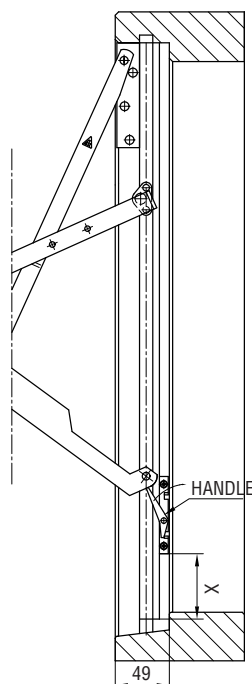


FIG. 1

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

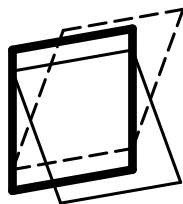
MAINTENANCE:

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

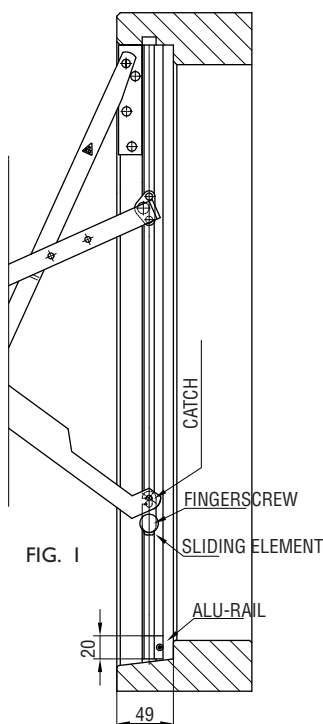


ORDERING NO.							
IPA NO.	MATERIAL	SURFACE		STANDARD PACKING IN BOXES OF 10 PIECES	A MM	SCREW	APPROX. WEIGHT KG/EACH
	STEEL	LEFT	ELECTROPLATED				
21157	1	7	21	1	20	3,0	0,02

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.

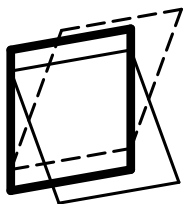
MAINTENANCE:

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

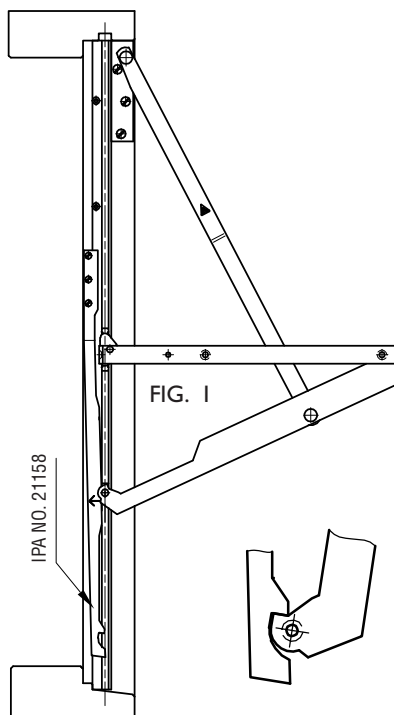


ORDERING NO.					A MM	MATERIAL MM	SCREW	APPROX. WEIGHT KG/EACH
IPA NO.	MATERIAL	LEFT	SURFACE	STANDARD PACKING IN BOXES OF 10 PIECES				
	STEEL		ELECTROPLATED					
21158	1	7	21	1	385	4	3,0	0,12

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.

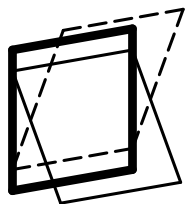
MAINTENANCE:

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 21162-63



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

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



FITTING INSTRUCTIONS

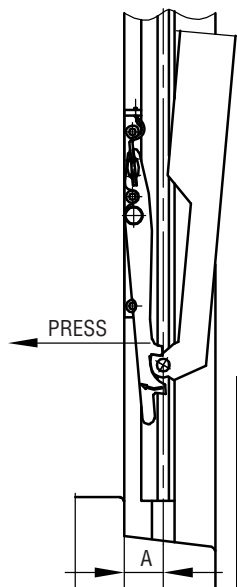


FIG. 1

IPA NR.	A
21162	MIN. 50.5
21163	MIN. 48.5 MAX. 50.5

FIG. 2

MOUNTING INSTRUCTIONS:

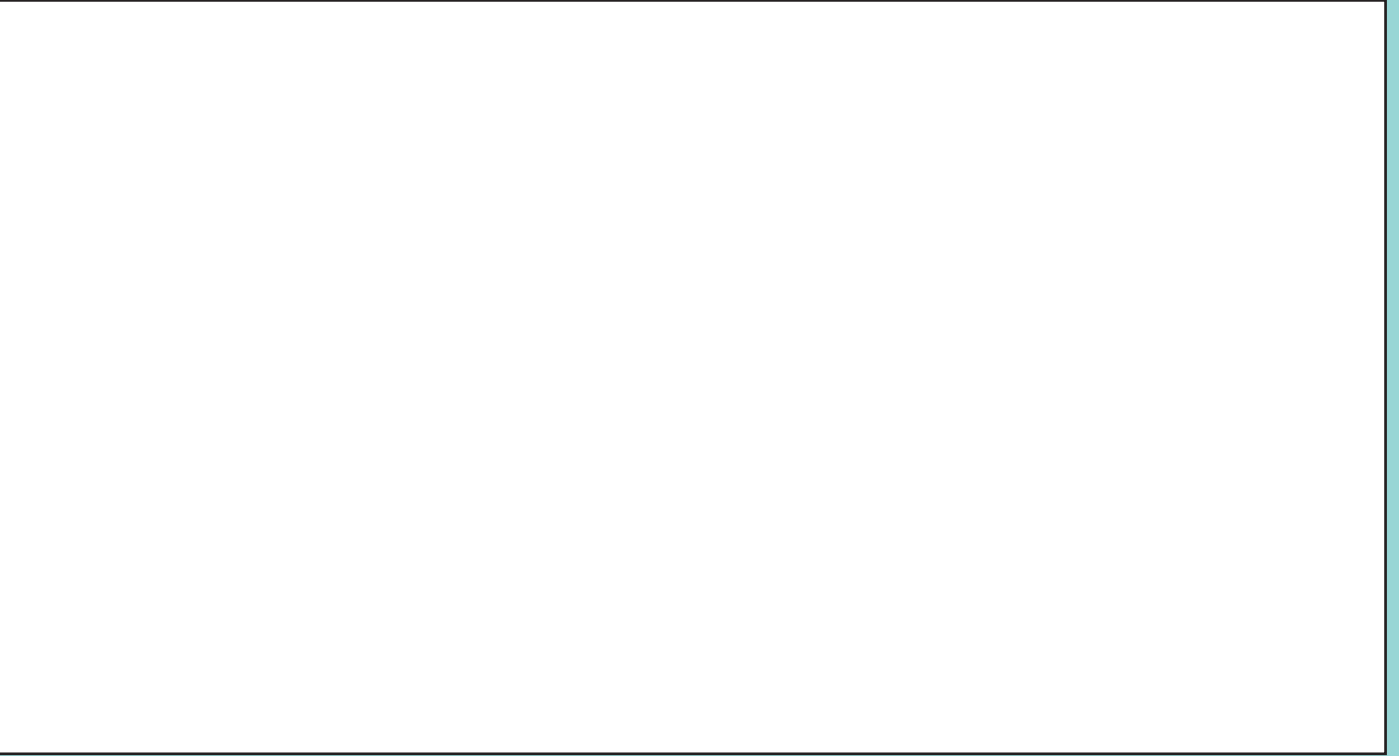
1. THE SAFETY CATCH IS PLACED ON THE LEFT SIDE FRAME - SEEN FROM THE INSIDE - WITH THE FRONT EDGE OF THE MOUNTING PLATE PLACED AGAINST THE EDGE OF THE ALURAIL.
2. HORIZONTALLY THE FITTING CAN BE PLACED FREELY DEPENDING ON THE WANTED OPENING.

OPERATING INSTRUCTIONS:

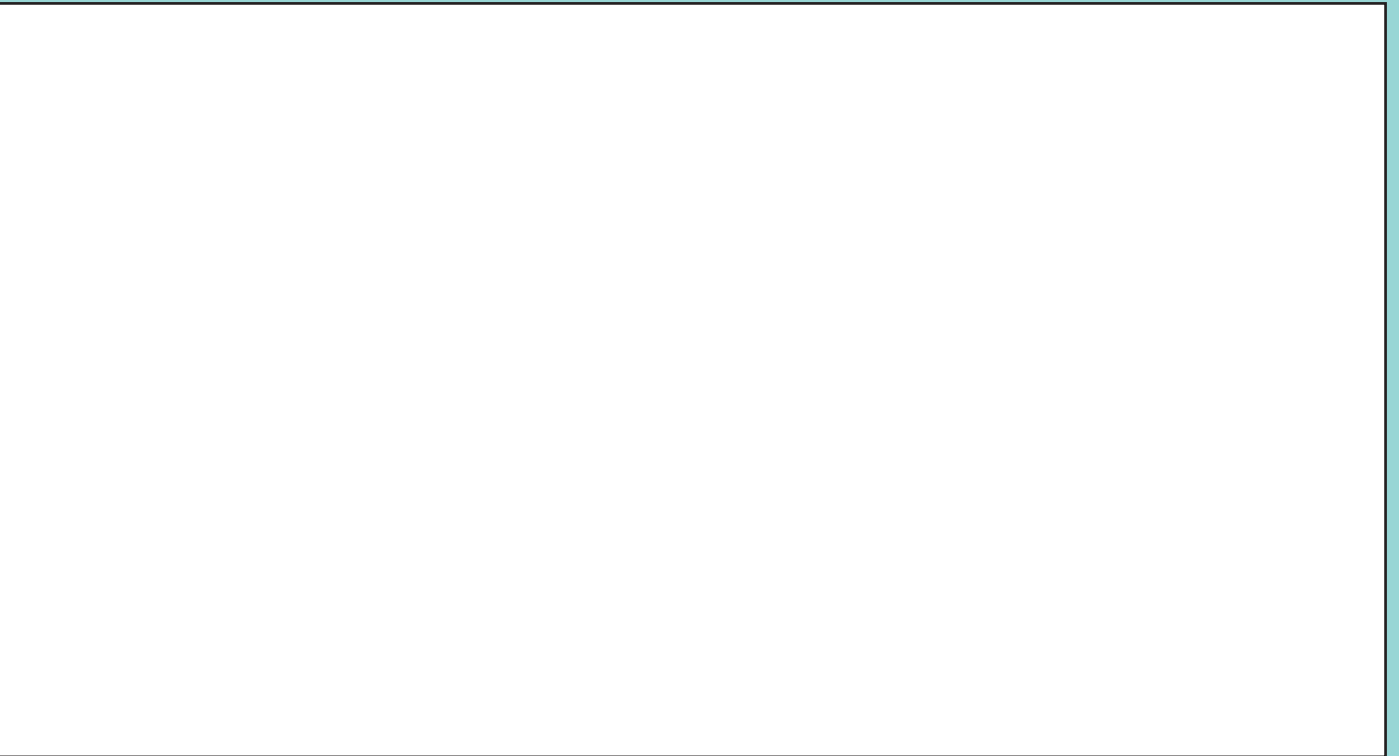
1. THE WINDOW IS OPENED UNTIL THE SAFETY CATCH AUTOMATICALLY ENGAGES.
2. TO FURTHER OPEN THE WINDOW CLOSE THE WINDOW APROX. 2 CM, PRESS THE BOTTOM PART OF THE SAFETY CATCH IN THE DIRECTION SHOWN BY THE ARROW. PUSH OPEN THE WINDOW. LET GO OF THE SAFETY CATCH AND IT WILL ENGAGE IN THE NEXT POSITION.
3. TO FULLY OPEN THE WINDOW REPEAT NO. 2.
4. NEXT TIME THE WINDOW IS OPENED THE SAFETY CATCH AUTOMATICALLY RE-ENGAGES.

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.



FITTING INSTRUCTIONS



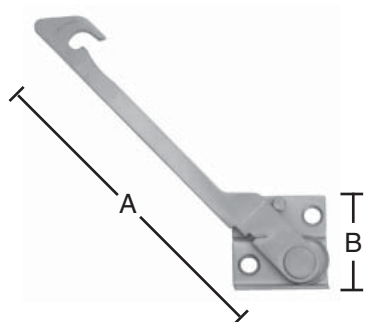
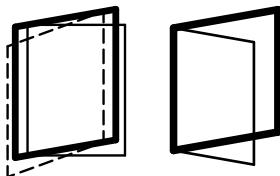


A large, empty rectangular box with a black border, intended for a drawing or diagram.



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
								0,03
								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

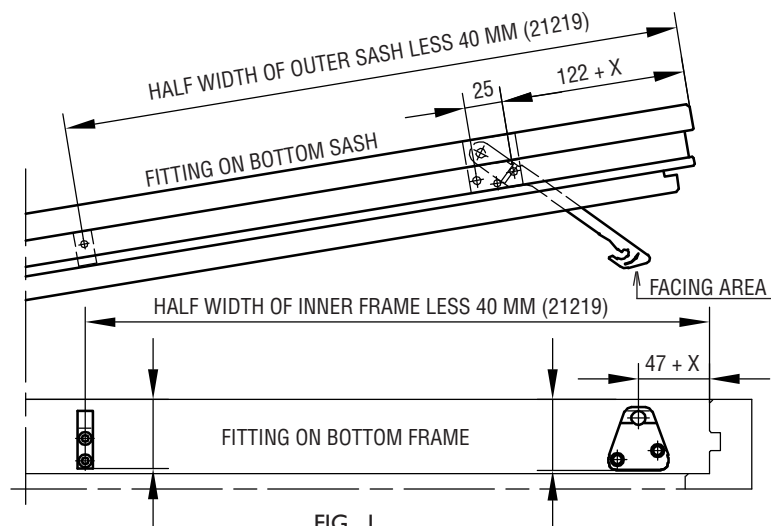


FIG. 1
RIGHT HAND

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

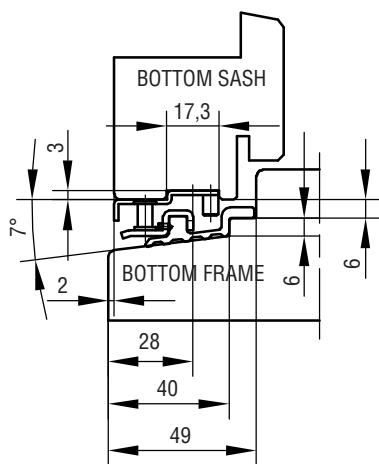


FIG. 2
IPA NO. 21220

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

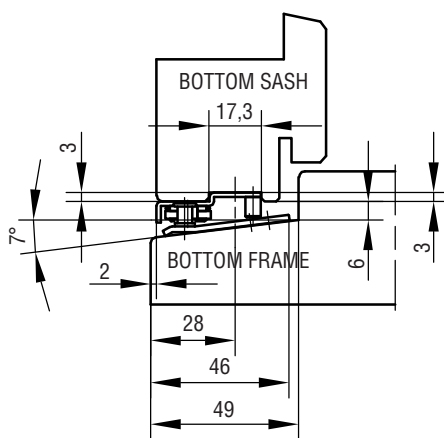


FIG. 3
IPA NO. 21219

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

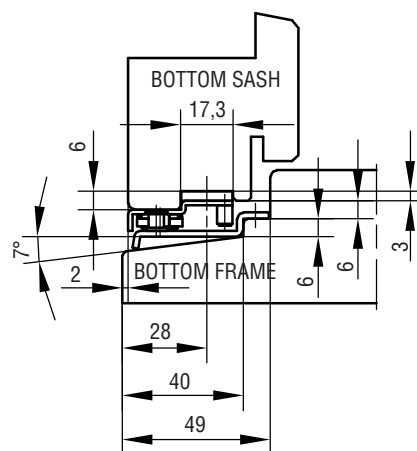


FIG. 4
IPA NO. 21218

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