

AF

PVC Face-fix

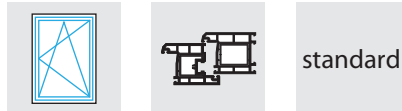
Standard TBT

Hinge options: 12/20/13 - 12/18/9 - 12/20/9

Drive gear options: 15mm backset - 7mm backset

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Installation instructions



1-sash square tilt before turn (TBT)

PVC

standard

centre handle pos. (variable)

hinge side Face-fix

surface TS

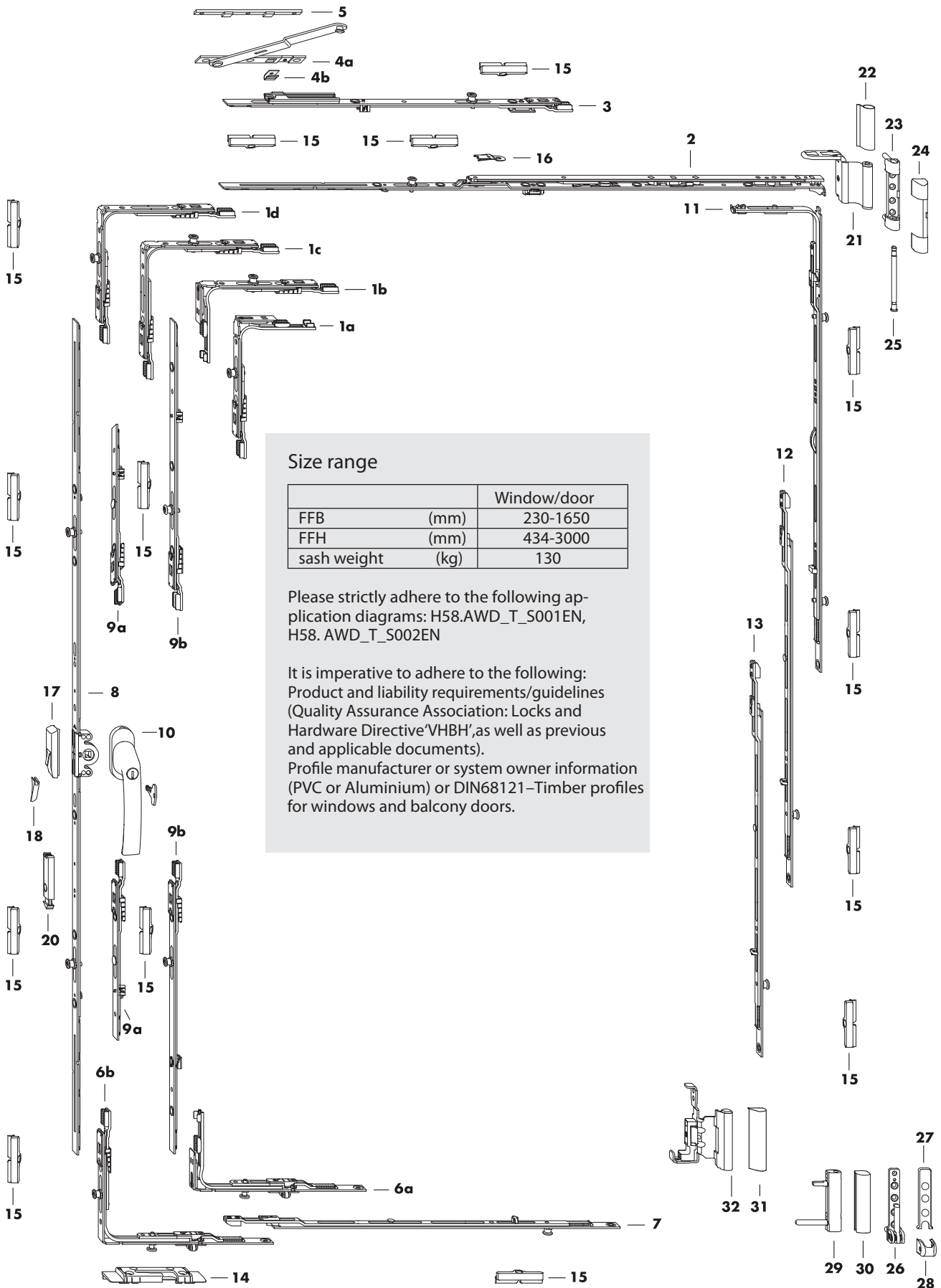
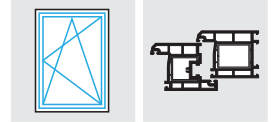
backset 15 mm

alternative hinge and backset options

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standard

hardware layout
 1-sash square tilt before turn (TBT)
 hinge side Face-fix
 PVC 13mm axis (15mm drive gear)



Size range

		Window/door
FFB	(mm)	230-1650
FFH	(mm)	434-3000
sash weight	(kg)	130

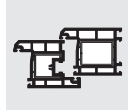
Please strictly adhere to the following application diagrams: H58.AWD_T_S001EN, H58.AWD_T_S002EN

It is imperative to adhere to the following: Product and liability requirements/guidelines (Quality Assurance Association: Locks and Hardware Directive 'VHBH', as well as previous and applicable documents). Profile manufacturer or system owner information (PVC or Aluminium) or DIN68121-Timber profiles for windows and balcony doors.

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standard

list of fittings
1-sash square tilt before turn (TBT)
hinge side Face-fix
PVC 13mm axis (15mm drive gear)



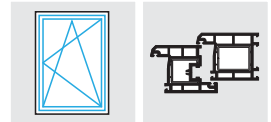
Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							14	15
1a	corn.drive AF VSO narrow 1RS	TEUL4020-100050	1	230-340	601-3000			1
1b	corn.drive AF VSO narrow 1RS	TEUL4020-100050	1	341-1200	434-600			1
1c	corn.drive VSO 1RS	TEUL4010-100050	1	341-1250	601-3000			1
1d	corn.drive VSO 1RS	TEUL4010-100050	1	1251-1650	601-3000			1
2	stay AF TBT sz 0	TSKT2000-100041	1	230-340				
	stay AF TBT sz 1	TSKT2010-100040		341-480				
	stay AF TBT sz 2 1RS	TSKT2120-100040		481-680				
	stay AF TBT sz 3 1RS	TSKT2030-100040		681-850				1
	stay AF TBT sz 4 1RS	TSKT2040-100040		851-1050				1
	stay AF TBT sz 3 1RS	TSKT2030-100040		1051-1250				1
3	linkage add. stay AF TBT 1RS	TMZS1050-100040	1	1251-1450				1
	additional stay 13mm			1451-1650				1
4 ab	packer Z	Profile related parts	1	1251-1650				
5	linkage BS/FH sz 1+1RS	TZBS0180-100043	1	851-1050				1
6a	corn.drive AFVSVU/K+ nar. FH 1S	TEUL5090-100050		1	230-1200	434-600		1
6b	corn.drive AF VSVU/K+ A0055 FH 2S 1RS	TEUL5020-100050		1	230-1650	601-3000		1
7	linkage BS/FH sz 2+1RS	TZBS0190-100043	1	1051-1450				1
	linkage BS/FH sz 3+1RS	TZBS0200-100043		1451-1650				1
	linkage BS/FH sz 3+1RS	TZBS0200-100043		1451-1650				1
8	gear 15 AF sz 20	TGMK4010-100040	1		434-460	217- 230		
	gear 15 AF sz 20	TGMK4010-100040			461-600	230- 300		
	gear 15 AF sz 60	TGMK4020-100040			601-800	300- 400		
	gear 15 AF sz 80 1RS	TGMK4040-100040			801-1200	400- 600		1
	gear 15 AF sz 120 1RS	TGMK4050-100040			1201-1600	600- 800		1
	gear 15 AF sz 160 2RS 70	TGMK4170-100020			1601-2000	800- 1000		2
9a	linkage AF sz 1	TZZS0150-100040	2		2401-2800			
	linkage KK/AF sz 2 1RS	TZKK1020-100040			2801-3000			2
10	handle Globe TBT lockable	ZHGT0020-004020	1		434-3000			
11	corn.drive BS/K3 sz 1+2RS	TEUL2380-100044	1		801-1200			2
	corn.drive BS/K3 sz 2+2RS	TEUL2390-100045			1201-3000			2
12	linkage BS/FH sz 1+1RS	TZBS0180-100043	1		1401-1600			1
	linkage BS/FH sz 2+1RS	TZBS0190-100043			1601-2000			1
	linkage BS/FH sz 3+1RS	TZBS0200-100043			2001-3000			1
13	linkage BS/FH sz 1+1RS	TZBS0180-100043	1		2401-2600			1
	linkage BS/FH sz 2+1RS	TZBS0190-100043			2601-2800			1
	linkage BS/FH sz 3+1RS	TZBS0200-100043			2801-3000			1
14	tilt lock bear. S-ES FH TBT	Profile related part						
15	striker plate S 56	Profile related part						
on request								
16	tilt restrictor	TFKB0010-100081	1		434-800			
17	mishandling device	TFBS0010-040072	1					
18	pressure piece (13mm) rh	TFFD0021-023070	1					
	pressure piece (13mm) lh	TFFD0022-023070						

Hinge side						
Pos.	Description	Part number	Part number			Qty
			TS	White	Brown	
21	stay hinge DH 12/20/13	TBWB6050-100062				1
22	cover cap W PVC					
23	top hinge 130kg					
24	cover cap S					
25	top hinge poly pin					
26	bottom hinge 130kg					
27	cover cap EL O MB					
28	cover cap EL U					
29	symmetrical sash corner hinge PVC 130kg					
30	cover cap EB					
31	cover cap FEB rh					
	cover cap FEB lh					
32	rebate corner hinge rh PVC 130kg (12/20/13)	TBFE1021-100053	rebate corner hinge is not in the bag and must be ordered separately			1
	rebate corner hinge lh PVC 130kg (12/20/13)	TBFE1022-100053				

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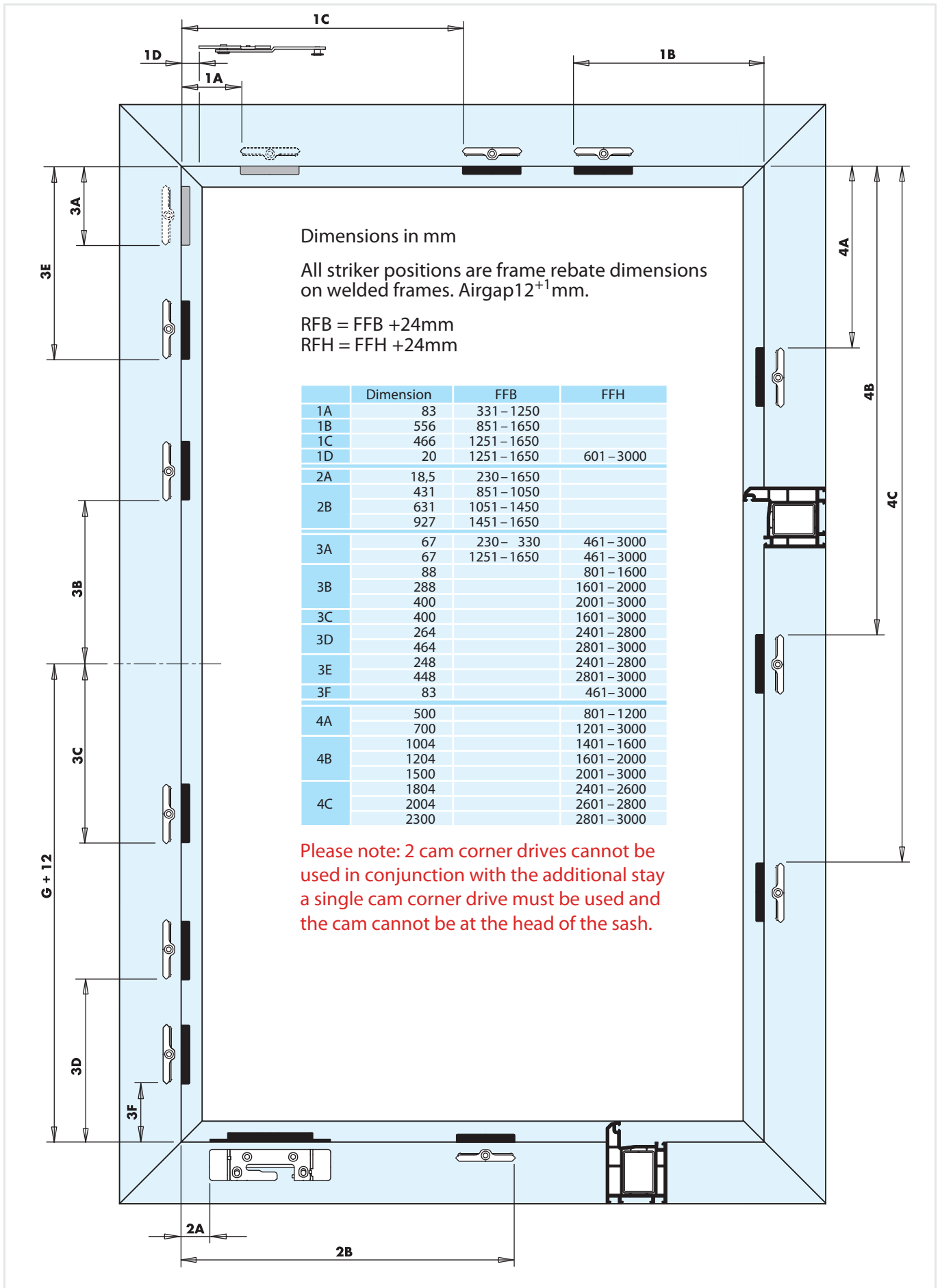
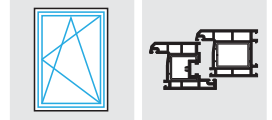
standard

hardware layout
1-sash square tilt before turn (TBT)
hinge side Face-fix
PVC 9mm axis (7mm drive gear)



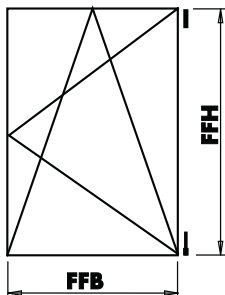
profile axis and drive gear backset options

Pos.	Description	Part number	QTY	FFB	FFH	Dimension G	Number of frame parts / Pos.	
							14	15
3	linkage add. stay AF TBT 1RS	TMZS1040-100040	1	1251-1650				1
4 ab	additional stay 9mm			1251-1650				
8	gear 7 AF sz 20	TGMK1310-100041	1		434 – 600	217 – 300		
	gear 7 AF sz 60	TGMK1320-100041			601 – 800	300 – 400		
	gear 7 AF sz 80 1RS	TGMK1340-100041			801 – 1200	400 – 600		1
	gear 7 AF sz 120 1RS	TGMK1350-100041			1201 – 1600	600 – 800		1
	gear 7 AF sz 160 2RS 70	TGMK1410-100020			1601 – 2000	800 – 1000		2
	gear 7 AF sz 200 2RS	TGMK1380-100021			2001 – 3000	1000 – 1500		2
on request								
18	pressure piece (9mm) rh	TFFD0011-023070	1					
	pressure piece (9mm) lh	TFFD0012-023070						
hinge side								
Pos.	Description	Part number						required as per sash
21	stay hinge DH 12/18/9	TBWB6000-100060	the hinge side bag part numbers are the same for all hinge types					1
	stay hinge DH 12/20/9	TBWB6020-100061						
32	rebate corner hinge rh PVC 130kg (12/18/9)	TBFE1031-100053	rebate corner hinge is not in the bag and must be ordered separately					1
	rebate corner hinge lh PVC 130kg (12/18/9)	TBFE1032-100053						
	rebate corner hinge rh PVC 130kg (12/20/9)	TBFE1011-100053	rebate corner hinge is not in the bag and must be ordered separately					1
	rebate corner hinge lh PVC 130kg (12/20/9)	TBFE1012-100053						



Application diagram

Surface-mounted hinge



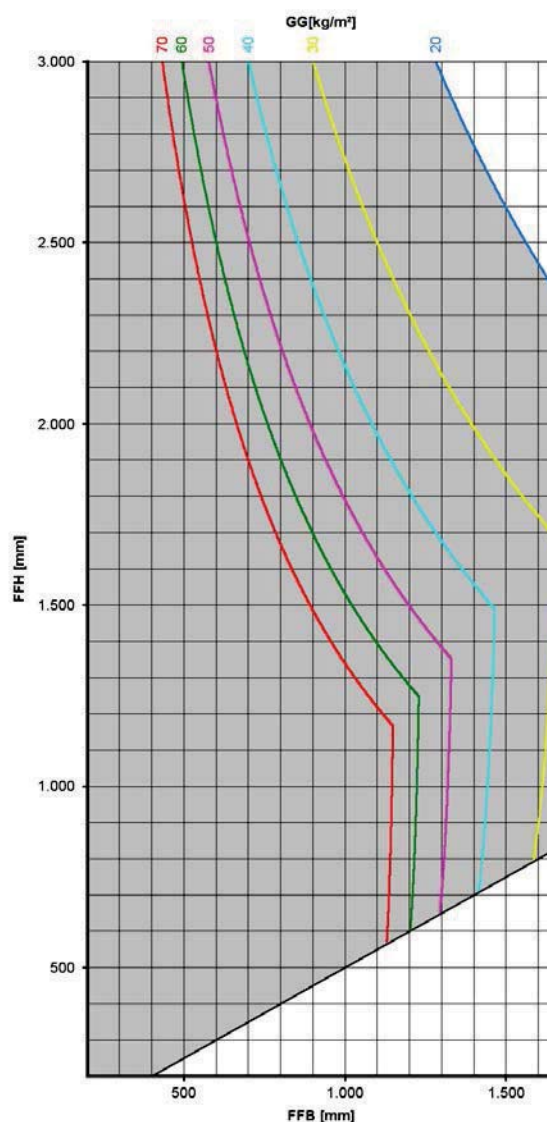
Restrictions on sash formats for tilt and turn elements
 Hinged on the right or left – inward opening window units only
 For vertical installation of windows in vertical walls only

Testing and calculation specifications:

- Tilt & turn testing in accordance with QM 328 Appendix 2 - Figure A:
 - 15,000 tilt & turn cycles
 - 10,000 turn cycles
- Additional loads in accordance with EN 14608 (Figure A.1) / Class 4 in accordance with EN 13115 (800 N)

Requirements for the use of the application diagram:

- Proof that the load-bearing components have been mounted to the window system by the window manufacturer in accordance with TBDK using the following forces:
 - To the top hinge with 2,710 N
 - To the bottom hinge with 2,890 N
- The following values must be adhered to for all window systems:
 - Max. width-to-height ratio $Q_{w/h} \leq 2.0$
 - Reduction in glass size $CG \geq 28$ mm
 - Profile weight $PW \leq 3.25$ kg/m
- Observe the notes on proper use - technical principles and use of the application diagrams (see document H58.AWD_BG_EN)!



FFH = sash rebate height
 FFB = sash rebate width

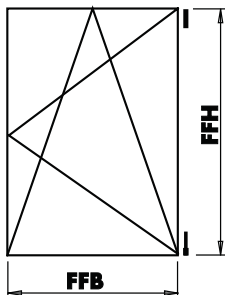
permissible application range

impermissible application range



Application diagram

Surface-mounted hinge



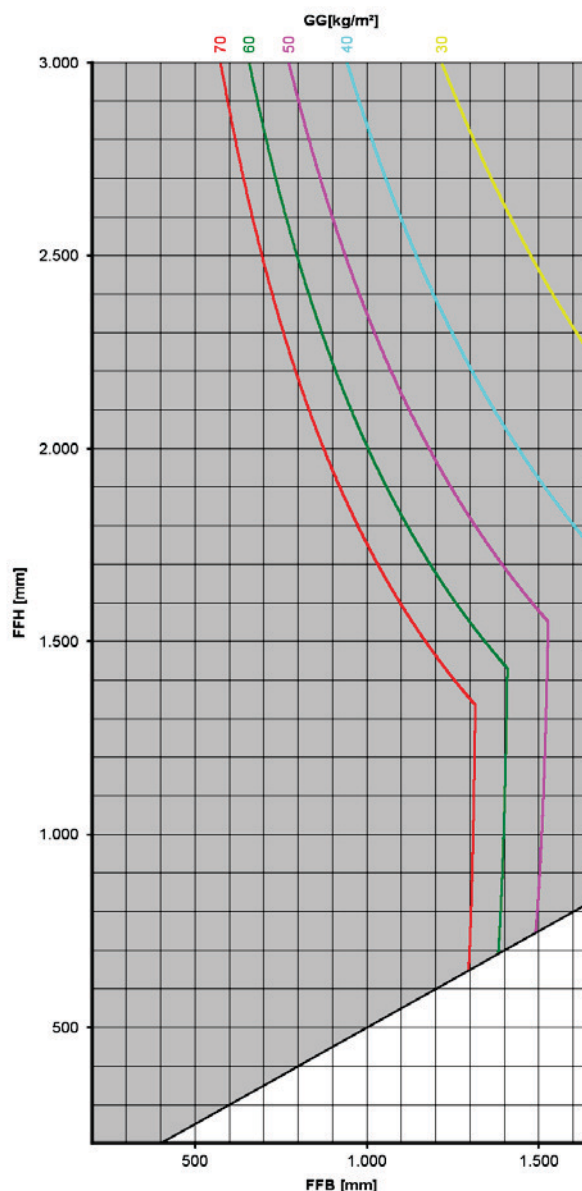
Restrictions on sash formats for tilt and turn elements
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Testing and calculation specifications:


- Tilt & turn testing in accordance with QM 328 Appendix 2 - Figure A:
 - 15,000 tilt & turn cycles
 - 10,000 turn cycles
- Additional loads in accordance with EN 14608 (Figure A.1) / Class 4 in accordance with EN 13115 (800 N)


Requirements for the use of the application diagram:

- Proof that the load-bearing components have been mounted to the window system by the window manufacturer in accordance with TBDK using the following forces:
 - To the top hinge with 3,525 N
 - To the bottom hinge with 3,760 N
- The following values must be adhered to for all window systems:
 - Max. width-to-height ratio $Q_{w/h} \leq 2.0$
 - Reduction in glass size $CG \geq 28$ mm
 - Profile weight $PW \leq 3.25$ kg/m
- Observe the notes on proper use - technical principles and use of the application diagrams (see document H58.AWD_BG_EN)!



FFH = sash rebate height
 FFB = sash rebate width

permissible application range 

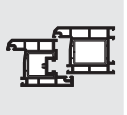
impermissible application range 

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reference notes

notes

1-sash square tilt before turn (TBT)
hinge sideFace-fix



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