

# TBT Gear





QUALITY HARDWARE. A PARTNERSHIP YOU CAN TRUST

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Mila has been in partnership with leading German hardware manufacturer Siegenia for over 35 years.

Mila stocks the widest range of Siegenia products in the UK including its TITAN, ALU and PORTAL product ranges. From standard locking applications to specialist requirements - folding, sliding, tilt & turn, arched, concealed, magnetic, security systems - Mila and Siegenia have got a hardware solution in stock.

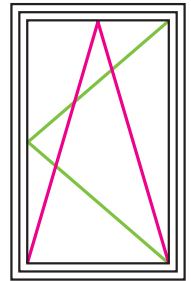
GUIDE TO TILT BEFORE TURN APPLICATIONS

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### Tilt Before Turn (TBT)

TBT windows open inwards to the “tilt” position for ventilation and “turn” position for additional ventilation, cleaning or emergency egress.

TBT windows function via central locking gear which operates around the sash. The number of locking points can vary according to the window size. The highest security solutions featuring mushroom cam locking on all four sides.



Tilt before turn

The individual tilt and turn functions for TBT windows are achieved as follows:

#### 1. Closed Position



#### 2. Tilt Position



#### 3. Turn Position



Lockable TBT handles can be locked in all 3 positions to enhance window safety and security. In high-rise applications, for example, they can be locked to access the tilt position only to provide child safety.



## AT A GLANCE [PRODUCT MATRIX](#)

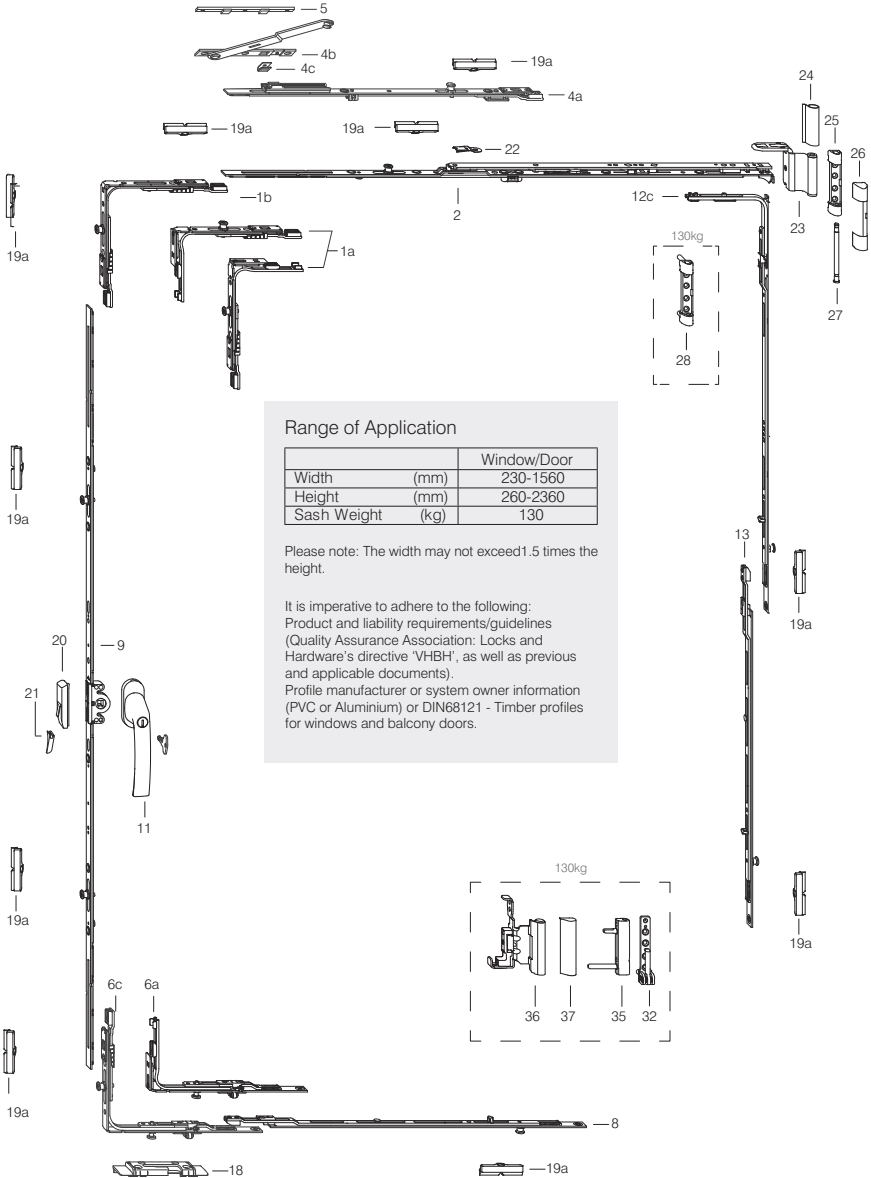
	Page	Accreditation: Secured by Design	Guarantee: 5 Years	Variant: Security	Variant: Concealed	Variant: Face-fixed	Application: Aluminium	Application: Timber	Application: PVC
Siegenia Titan AF Std	419	✓	✓			✓	✓	✓	✓
Siegenia Titan AF PAS24	421	✓	✓	✓		✓	✓	✓	✓
Siegenia Titan AF 24+	423		✓		✓		✓	✓	✓
Siegenia Titan AF 24+PAS24	425	✓	✓	✓	✓		✓	✓	✓



# Siegenia Titan AF

## Face-Fixed Tilt & Turn Gearing

### TECHNICAL DRAWINGS

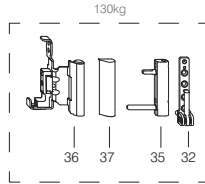


#### Range of Application

		Window/Door
Width	(mm)	230-1560
Height	(mm)	260-2360
Sash Weight	(kg)	130

Please note: The width may not exceed 1.5 times the height.

It is imperative to adhere to the following:  
Product and liability requirements/guidelines  
(Quality Assurance Association: Locks and  
Hardware's 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.



# Siegenia Titan AF

## Face-Fixed Tilt & Turn Gearing

TBT  
Gear



### PART LIST

No.	Description
1a	Narrow Corner Drive
1b	Corner Drive
2	Stay
4	Additional Stay
5	Packer Z
6a	Bottom Corner Drive Narrow
6c	Bottom Corner Drive
8	Linkage
9	Drive Gear
11	ProLinea TBT Handle
12c	Back Corner Drive
13	Linkage
18	Tilt Lock Bearing
19	Striker Plate
20	Mishandling Device
21	Pressure Piece
22	Tilt Restrictor
23	Stay Hinge
36	Corner Rebate Hinge (handed only)
24, 25, 26, 27, 30, 31, 34	Basic Bag non-handed
24, 25, 26, 27, 29, 37	Basic Bag Rebated R/H or L/H

### PRODUCT DESCRIPTION

Face-fixed tilt and turn gear. Profile related.

Suitable for PVCu, timber and eurogroove aluminium systems.

- Locking mushroom cams with self-adjusting height for smooth operation
- Suitable for manual, semi and fully automated assembly
- Integrated sash lift roller cushions the sash and allows it to slide smoothly into the frame
- Face mounted hinges available in white or brown
- Universal or handed rebated hinges available
- Suitable for sash weights up to 130kg

### GUARANTEES



#### HOW TO ORDER TBT GEAR WITH US

Simply provide us with the following information & we will select your profile related kit for you.

1. Profile system
2. Rebate width & height
3. Hinge colour required
4. Handle colour required
5. Which way it needs to be handed

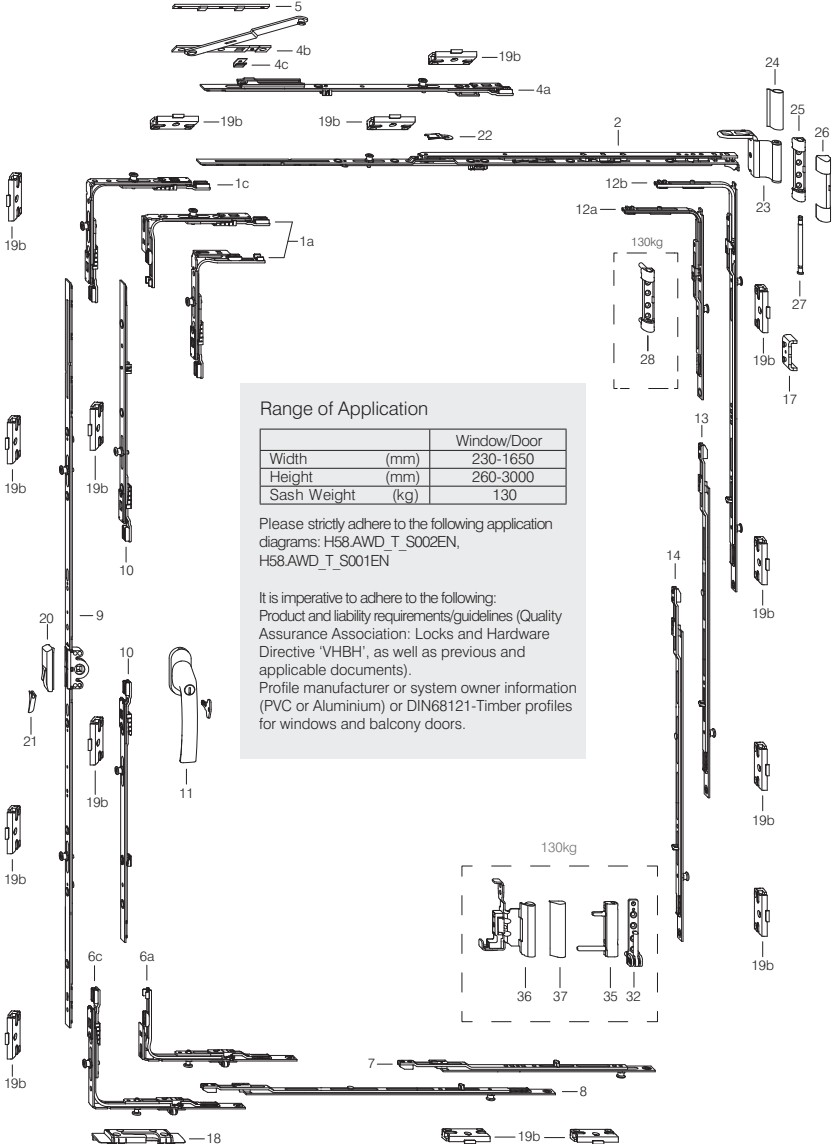


# Siegenia Titan AF PAS24

**SIEGENIA**  
brings spaces to life

Face-fixed Enhanced Security

TECHNICAL DRAWING



Range of Application

	Window/Door
Width (mm)	230-1650
Height (mm)	260-3000
Sash Weight (kg)	130

Please strictly adhere to the following application diagrams: H58.AWD\_T\_S002EN, H58.AWD\_T\_S001EN

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.

# Siegenia Titan AF PAS24

## Face-fixed Enhanced Security

TBT  
Gear



### PART LIST

No.	Description
1a	Narrow Corner Drive
1b	Corner Drive
2	Stay
4	Additional Stay
5	Packer Z
6a	Bottom Corner Drive Narrow
6c	Bottom Corner Drive
7	Extension
8	Linkage
9	Drive Gear
10	Linkage KK
11	ProLinea TBT Handle
12c	Back Corner Drive
13	Linkage
14	Linkage
17	Anti-Lift Device
18	Tilt Lock Bearing
19	Striker Plate SRS
20	Mishandling Device
21	Pressure Piece
22	Tilt Restrictor
23	Stay Hinge
36	Corner Rebate Hinge (handed only)
24, 25, 26, 27, 30, 31, 34	Basic Bag non-handed
24, 25, 26, 27, 29, 37	Basic Bag Rebated R/H or L/H

### PRODUCT DESCRIPTION

- Enhanced security, face-fixed tilt and turn gear. Profile related.
- Suitable for PVCu, timber and eurogroove aluminium systems.
- Locking mushroom cams with self adjusting height for smooth operation
- Additional locking points to meet the requirements of PAS24:2012
- Suitable for manual, semi and fully automated assembly
- Integrated sash lift roller cushions the sash and allows it to slide smoothly into the frame
- Face mounted hinges available in white or brown
- Universal or handed rebated hinges available
- Suitable for sash weights up to 130kg
- High security keeps

### GUARANTEES



### HOW TO ORDER TBT GEAR WITH US

Simple provide us with the following information & we will select your profile related kit for you.

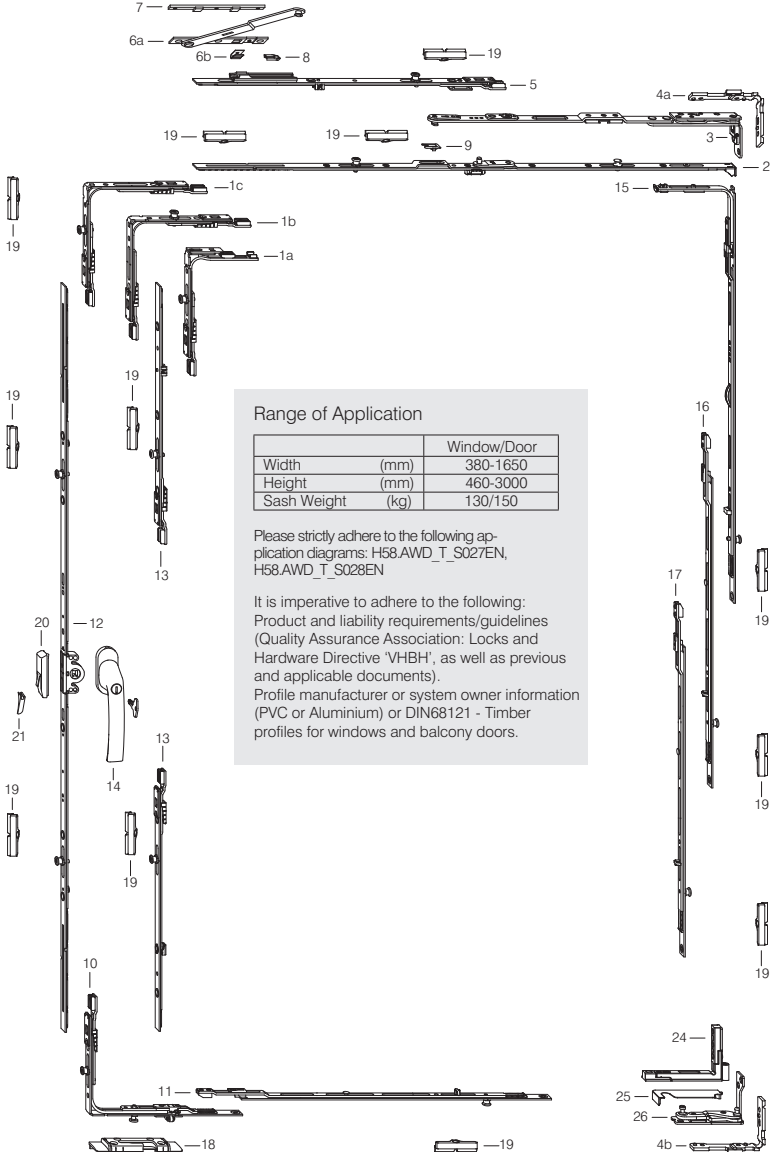
1. Profile system
2. Rebate width & height
3. Hinge colour required
4. Handle colour required
5. Which way it needs to be handed



# Siegenia Titan AF 24+

Concealed Tilt & Turn Gearing

TECHNICAL DRAWINGS



Range of Application

	Window/Door
Width (mm)	380-1650
Height (mm)	460-3000
Sash Weight (kg)	130/150

Please strictly adhere to the following application diagrams: H58.AWD\_T\_S027EN, H58.AWD\_T\_S028EN

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.



# Siegenia Titan AF 24+

## Concealed Tilt & Turn Gearing

TBT  
Gear



### PART LIST

No.	Description
1a	Narrow Corner Drive
1b	Corner Drive
1c	Corner Drive
2	Stay Sash Part
3	Stay Arm
4	Accessories
5/6	Additional Stay
7	Packer Z
8	Tilt Restrictor Additional Stay
9	Tilt Restrictor
10	Back Corner Drive
11	Linkage
12	Drive Gear
13	Linkage KK
14	ProLinea TBT Handle
15	Back Corner Drive
16	Linkage
17	Linkage
18	Tilt Lock Bearing
19	Striker Plate
20	Mishandling Device
21	Pressure Piece
24/25	Corner Hinge
26	Bottom Hinge

### PRODUCT DESCRIPTION

Completely concealed tilt and turn gearing. Profile related.

Suitable for PVCu, timber and eurogroove aluminium systems

- Locking mushroom cams with self adjusting height for smooth operation
- Suitable for manual, semi and fully automated assembly
- Integrated sash lift roller cushions the sash and allows it to slide smoothly into the frame
- Suitable for sash weights up to 150kg

### GUARANTEES



#### HOW TO ORDER TBT GEAR WITH US

Simply provide us with the following information & we will select your profile related kit for you.

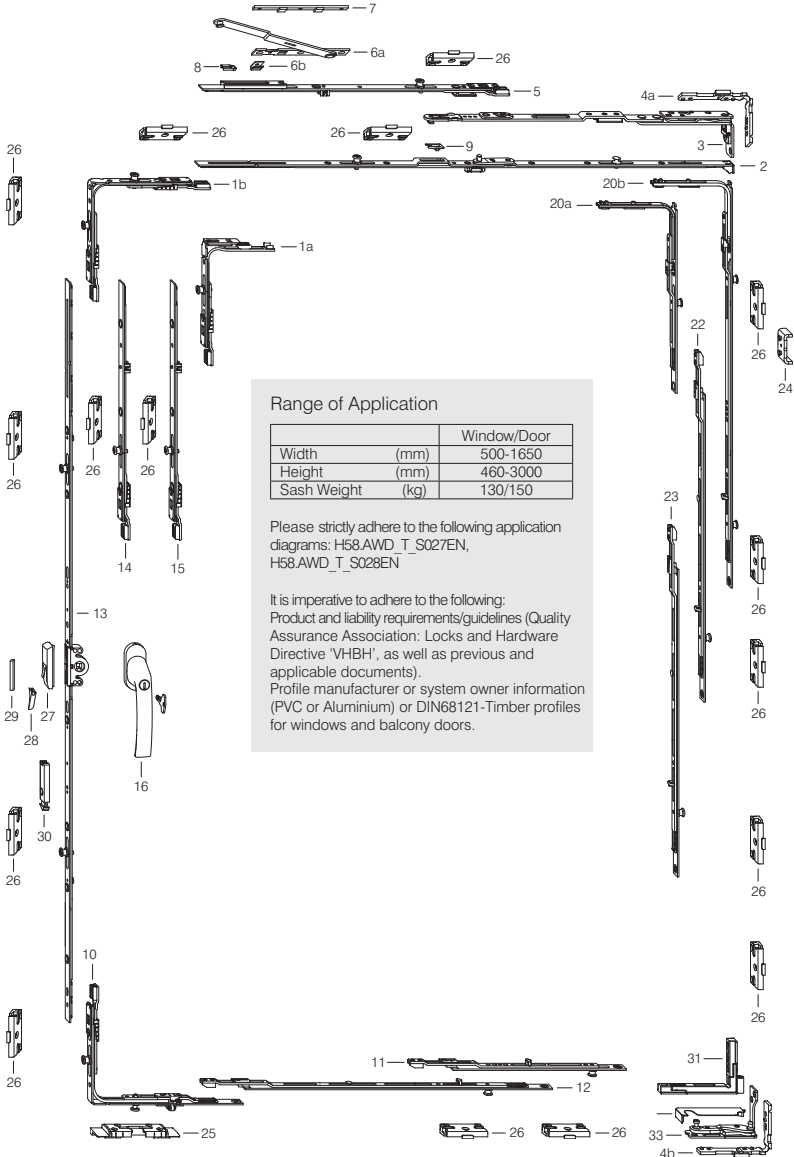
1. Profile system
2. Rebate width & height
3. Hinge colour required
4. Handle colour required
5. Which way it needs to be handed



# Siegenia Titan AF 24+ PAS24

Concealed Tilt & Turn Gearing, Enhanced Security

TECHNICAL DRAWINGS



**Range of Application**

		Window/Door
Width	(mm)	500-1650
Height	(mm)	460-3000
Sash Weight	(kg)	130/150

Please strictly adhere to the following application diagrams: H58.AWD\_T\_S027EN, H58.AWD\_T\_S028EN

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# Siegenia Titan AF 24+ PAS24

Concealed Tilt & Turn Gearing, Enhanced Security

TBT  
Gear



## PART LIST

No.	Description
1a	Narrow Corner Drive
1b	Corner Drive
2	Stay Sash Part
3	Stay Arm
4	Accessories
5/6	Additional Stay
7	Packer Z
8	Tilt Restrictor Additional Stay
9	Tilt Restrictor
10	Back Corner Drive
11	Extension
12	Linkage
13	Drive Gear
14	Linkage KK
15	Linkage KK
16	ProLinea TBT Handle
20	Back Corner Drive
22	Linkage
23	Linkage
24	Anti-Lift Device
25	Tilt Lock Bearing
26	Striker Plate SRS
27	Mishandling Device
28	Pressure Piece

## PRODUCT DESCRIPTION

Completely concealed tilt and turn gearing. Profile related.

Suitable for PVCu, timber and eurogroove aluminium systems

- Locking mushroom cams with self adjusting height for smooth operation
- Additional locking points to meet the requirements of PAS24:2012
- Suitable for manual, semi and fully automated assembly
- Integrated sash lift roller cushions the sash and allows it to slide smoothly into the frame
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- High security keeps

## GUARANTEES



## HOW TO ORDER TBT GEAR WITH US

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1. Profile system
2. Rebate width & height
3. Hinge colour required
4. Handle colour required
5. Which way it needs to be handed