

# HOPO Sliding-folding Doors Type 60



Specification and Fabrication  
Manual 2013.4

# Company Introduction

- **History:** The company was established in early 2000's by a group of hardware experts including experts from Germany. Through starting business of OEM for European companies, HOPO has undertaken strict quality control, and thus ensured the product quality.
- **Product Range:** HOPO is the first Chinese company to produce MA lock in China. Complete solution for sliding doors (MA lock, locking pin and places, roller carriages) had launched in Chinese market, and made HOPO the leading brand for sliding doors in Chinese market.

The design of HOPO lift-sliding and sliding-folding systems had completed from thorough study of all systems of top-brands in Europe, achieving the final optimized solution with features of stable usage, easy adjustment and operation, and maintenance-free. HOPO sliding-folding system for PVC and aluminium doors has become the leading brand in south-east Asia, even better than European products.

HOPO tilt-turn fittings made of SS304 will be launched in 2013, the upmost anti-rust feature made it specially suitable for window in the most humid environments like buildings on sea beaches, can provide 20 years' quality guarantee for its functional parts.

- **Advantages:** HOPO technical department is one of the key factors for its reliable functional fittings, as well as its up-to-date decorative hardwares (like handles). Investments in high-tech machines and a modern painting production line are other factors to ensure quality of HOPO products.

Computerized management for stock of parts and finished products and sales record made the production more efficient than traditional manual management system, and made more efficient delivery as a result.

- **International Cooperation:** HOPO international cooperation is developed from merely exporting HOPO products overseas, to cooperating with famous foreign companies for Chinese customers. Wehag, the oldest manufacturer of window and door hardware in Germany, will start to enter China soon under cooperation with HOPO.

- A solution to achieve the **MAXIMUM** opening width in comparison with other solutions!
- Same sealing effect as windows.
- Similar security level as windows can be achieved with window locking system.
- The active leaf can be used as a normal door when other folding leafs don't need to be opened.
- Suitable for entrance doors, balcony doors and patio doors.

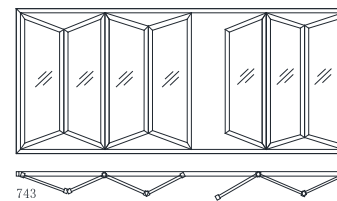
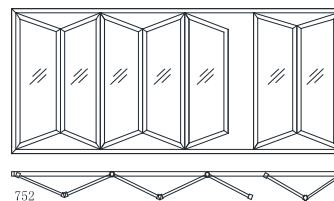
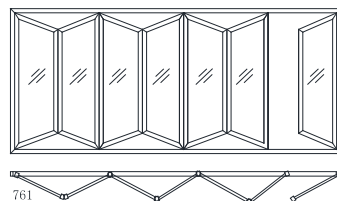
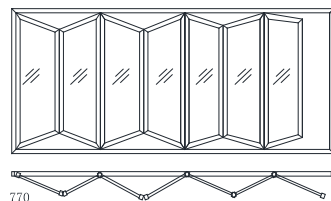
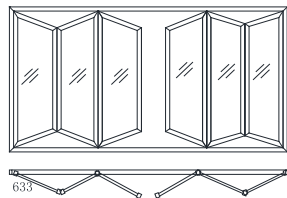
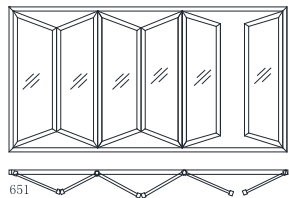
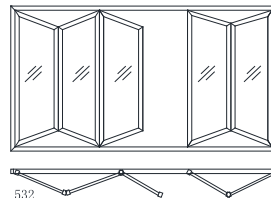
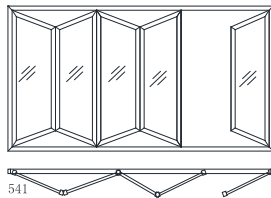
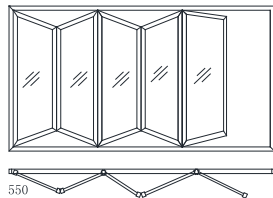
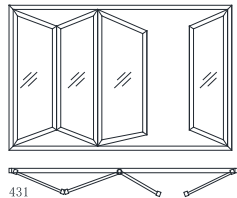
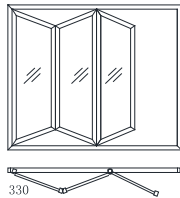
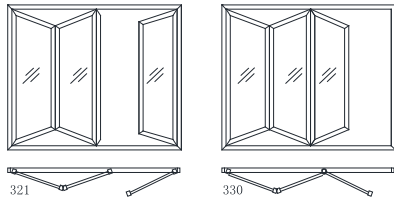
## Planning of Shide Sliding-Folding Doors

The following information is based on profile system of Shide S106 that is different from other systems and that of other brands. Please contact HOPO technicians when other profile systems would be used. HOPO will not be responsible for any claim caused by misusing of the information contended in the following pages.

- Application ranges:
  - Rebate sash height: 2100mm
  - Rebate sash width: 800mm
  - Max. sash weight: 80kg



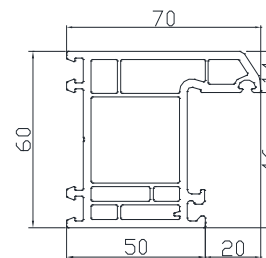
## ● Schemes of the sliding folding doors:



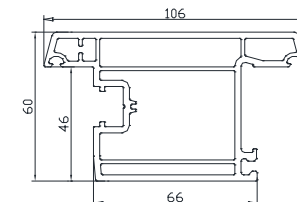
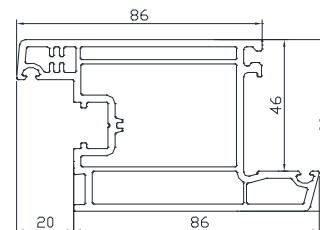
- 321, 330
- 431
- 550, 541, 532
- 651, 633
- 770, 761, 752, 743

- The main profiles of the Type 106 for the sliding folding doors are:

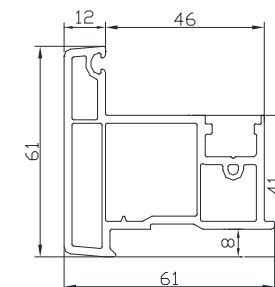
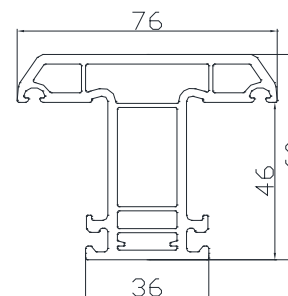
□ Frame profile: MK60N



□ Sash profile: FR106, SF106



□ Mullion profiles: ST76N, JT61

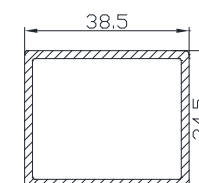
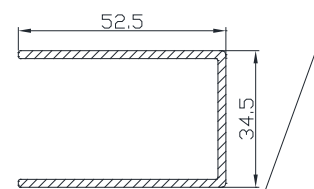


□ Reinforcement profile:

➤ ST52.5 × 34.5

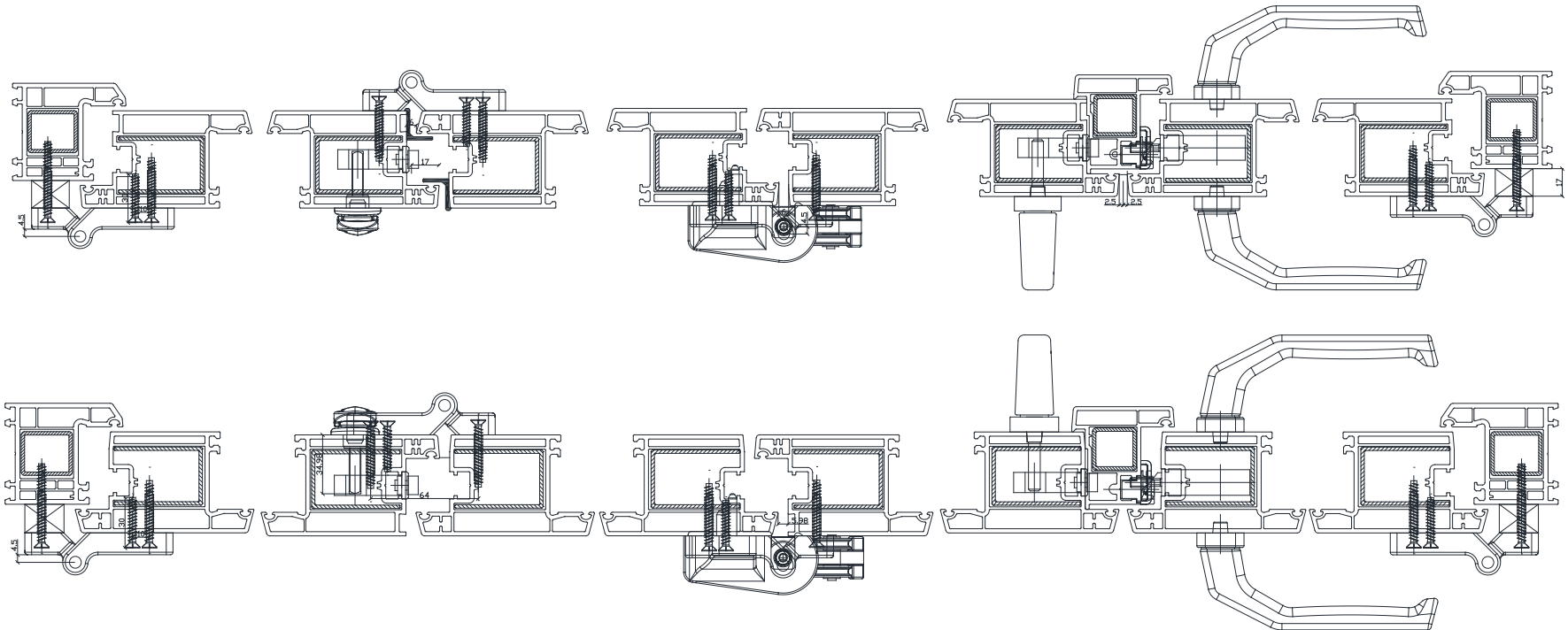
➤ ST38.5 × 34.5

*Note: the reinforcement profiles must be strong enough due to the load of sliding-folding sashes.*



- Outward opening is available with different arrangement of profiles.

*Note: The outward opening solution is not suggested to be used for entrance door, as there is no security arrangement for rollers and tracks that mounted outside.*





## Specifications of Shide Sliding-Folding Doors

# Specifications 1: Hinges

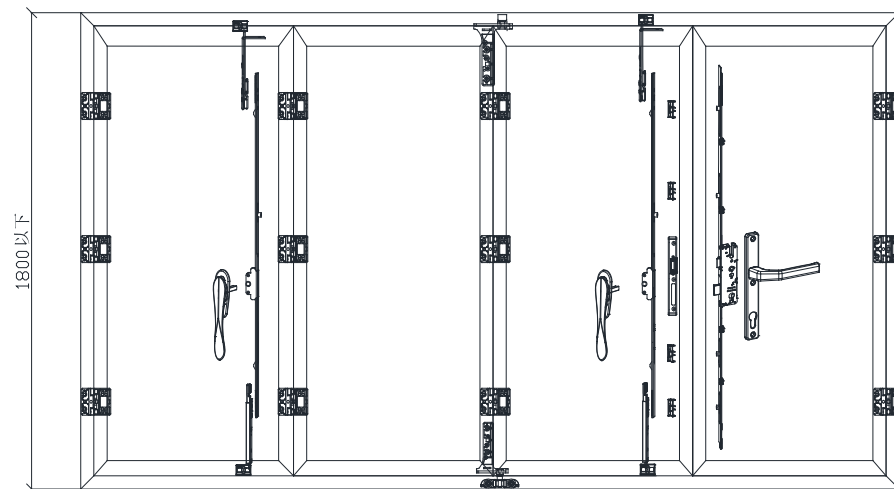
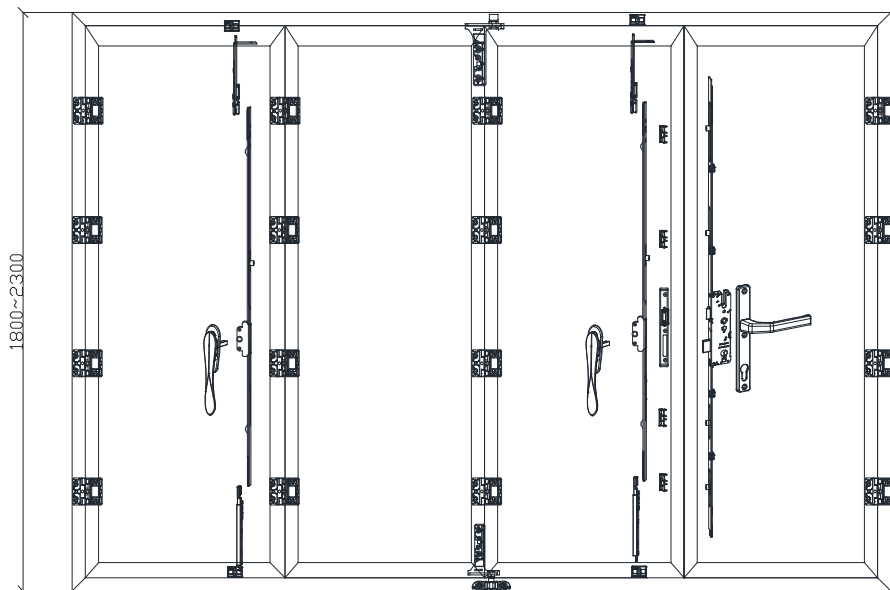
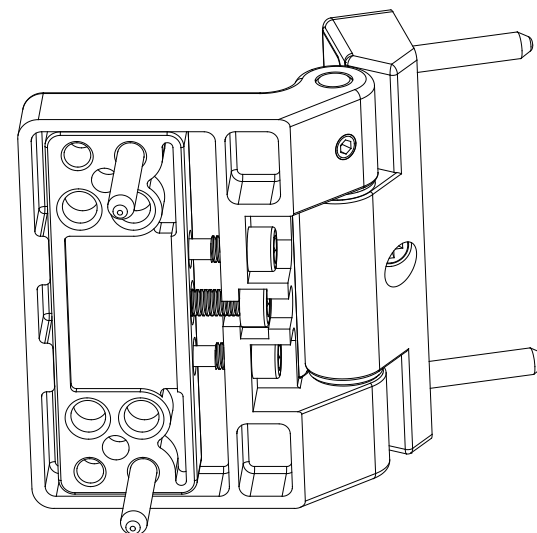
*Hinge numbers shall be specified according to the height of sash to bear the load of sash and to prevent distortion of profiles.*

- Sash height: less than 1800mm

- ❑ Numbers of each hinge line: 3 hinges
- ❑ Total number of hinges = 3 X n (n stands for number of sashes)

- Sash height: 1800mm - 2100mm

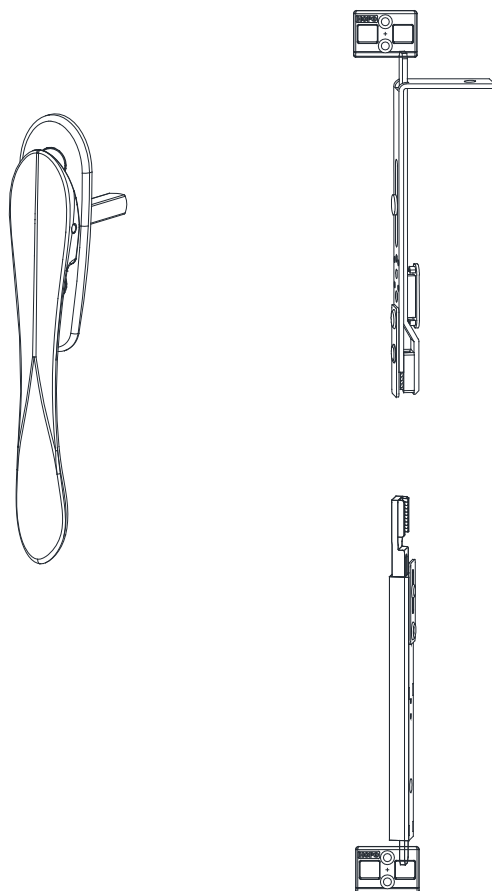
- ❑ Numbers of each hinge line: 4 hinges
- ❑ Total number of hinges = 4 X n (n stands for number of sashes)



- Handles for folding sashes should be the Short Neck Handle to prevent crashing to folding sashes. Short Neck Handle on passive sash can prevent false operation of the passive sash (passive sash should always be opened after the active sash).



- A locking system (consisting of gear transmission, top & bottom shoot bolts, locking plates and short neck handle) will be arranged on the folding side of sash.



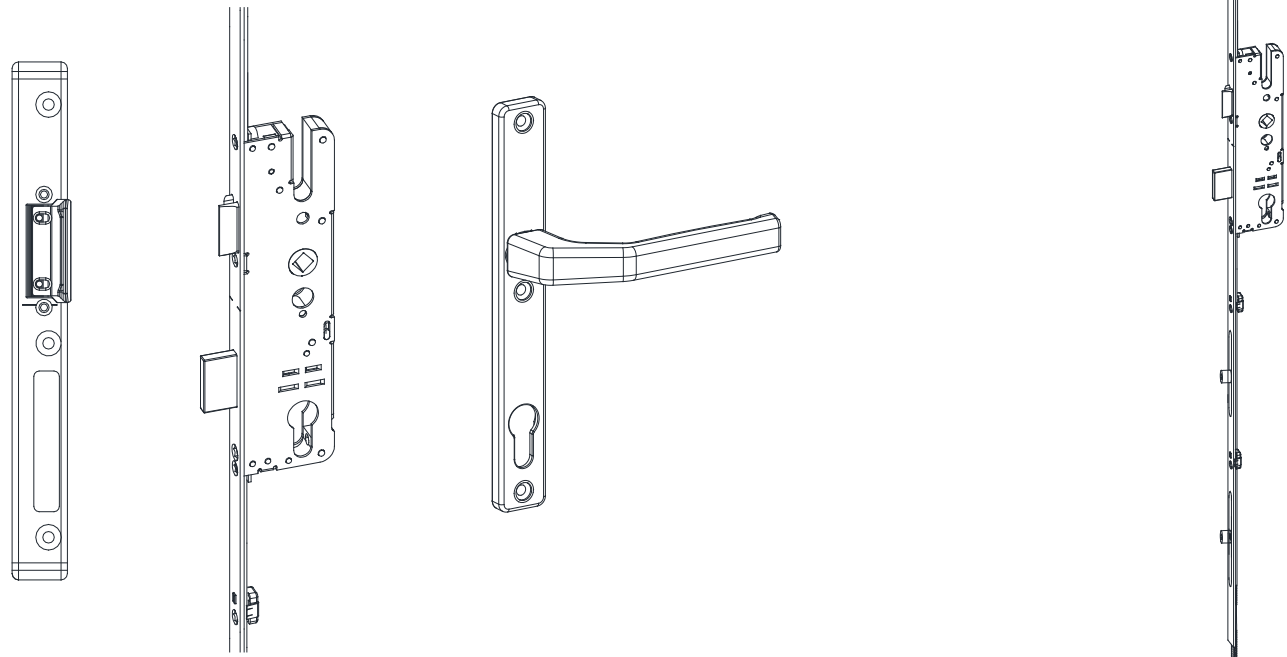
Application range for gears:

GV10.30.21C021 for SH 1951~2450

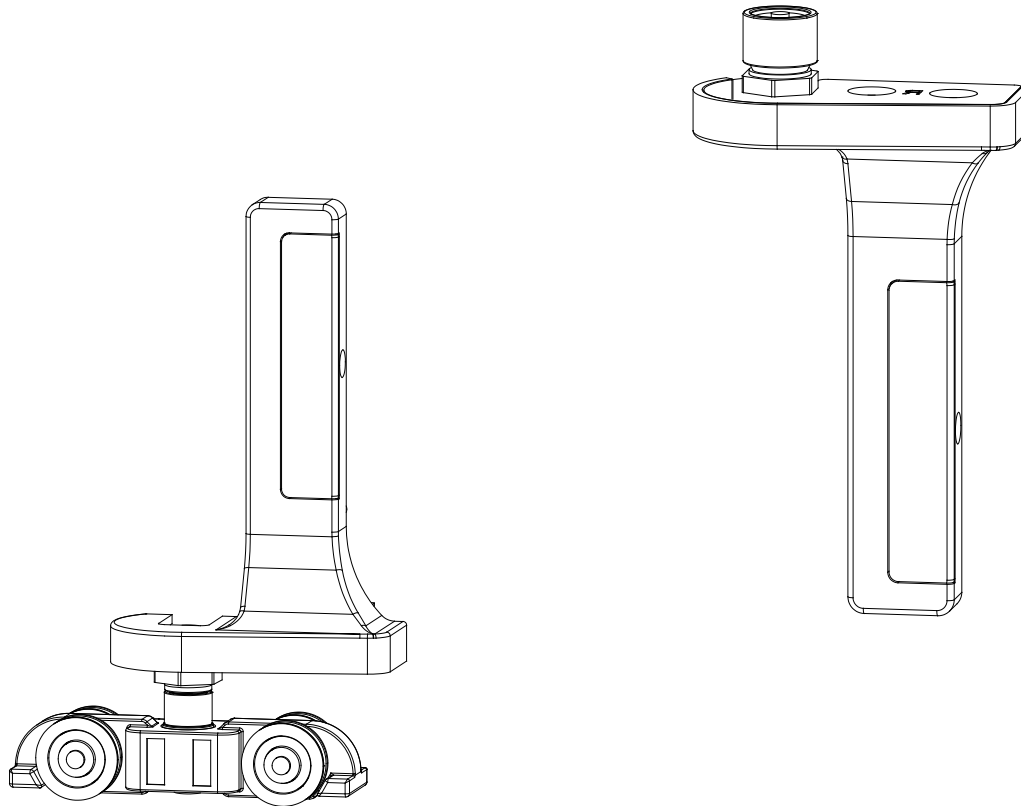
GV10.30.16C021for SH 1451~1950

GV10.30.14C021for SH 1201~1700

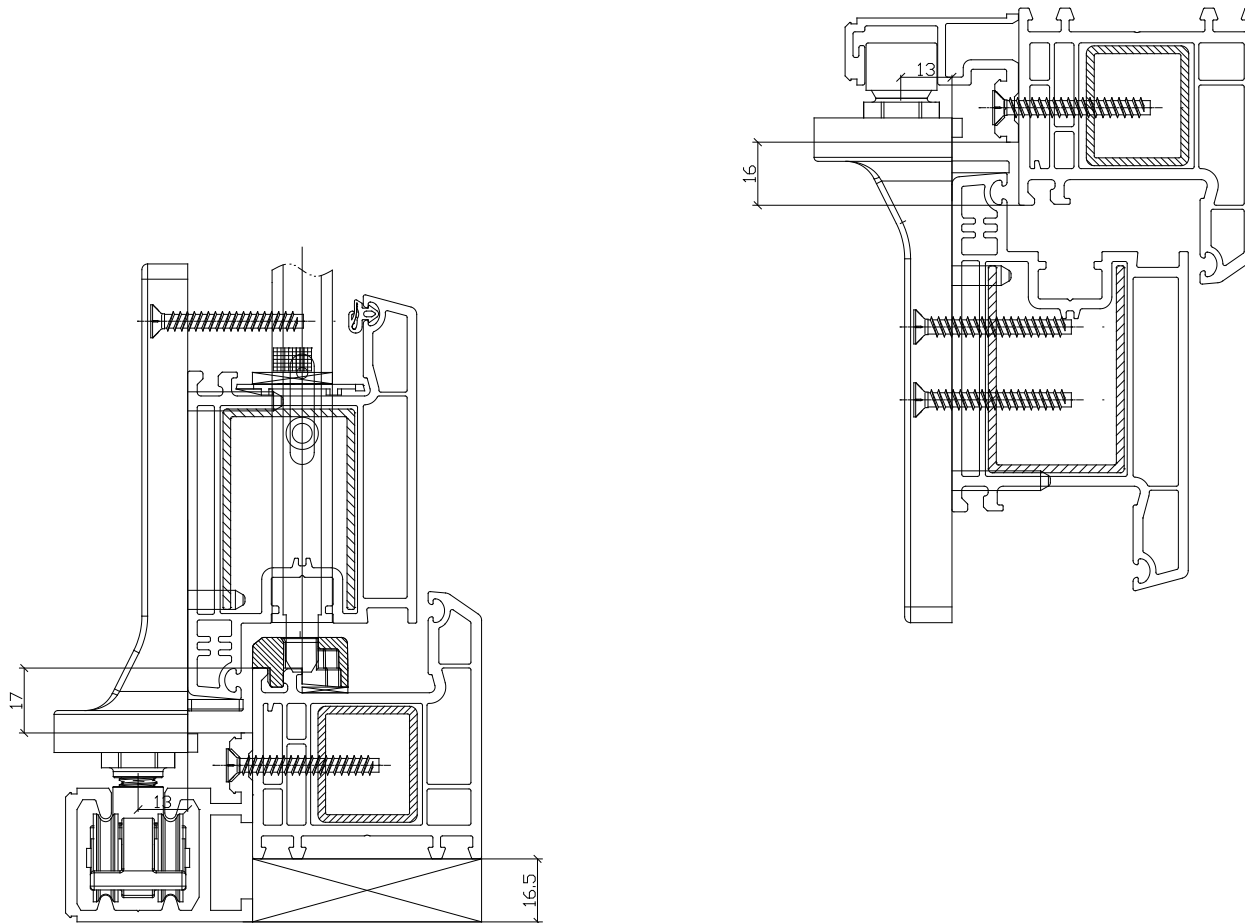
- The locking system for active sash is an handle operated multi-point lock with a cylinder, and a door handle.
- The handle-operated multi-points lock is special designed lock, especially suitable for PVC doors for its better performance for sealing and for preventing distortion.



- Each folding point along the door frame must be arranged with a top roller and a bottom roller on the guiding rails on both top and bottom frame.



- Guiding rails on top and bottom have to be ordered according to overall width of the door frame. Standard length of the guiding rails is 4m, and 6m guiding rails can ordered specially.



Items	Descriptions	Unit	Quantity				
			321/330	431	550/541/532	651/633	770/761/752/743
1	Box of rollers	set	1	1	2	2	3
2	Sash hinge*	set	9	12	15	18	21
3	Short Neck Handle	pcs	1	2	2	3	3
4	Gear	pcs	1	2	2	3	3
5	Top shoot bolt	pcs	1	2	2	3	3
6	Bottom shoot bolt	pcs	1	2	2	3	3
7	Shoot locking plate	pcs	2	4	4	6	6
8	Locking plate**	pcs	4	4	4	4	4
9	Locking plate for door lock (R/L)	pcs	1	1	1	1	1
10	Double sides handle set	set	1	1	1	1	1
11	Cylinder	pcs	1	1	1	1	1
12	Door lock series K	pcs	1	1	1	1	1
13	Bag of guide rails (4m)	set	1	1	1	1	1

*\*The quantity of sash hinges should increased if the sash height is more than 1800mm, increased number of hinges is equal to the number of total sashes.*

*\*\*Locking plates for schemes 330, 550, 770 are different from that for other schemes.*



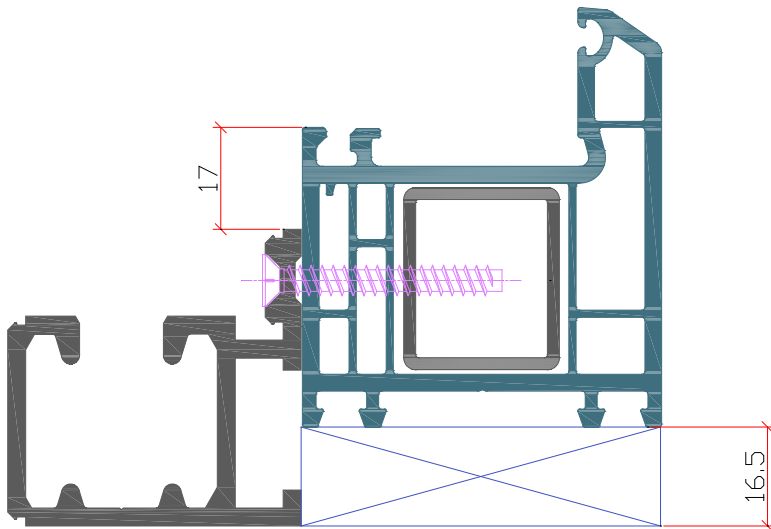
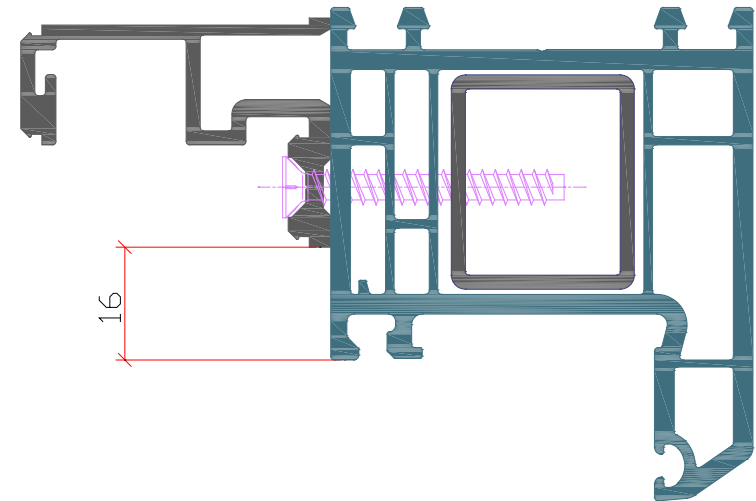
## Fabrication of Shide Sliding-Folding Doors

- ✓ The principle of cutting sash profiles is to ensure all folding sashes must be strict vertical (90°) to the surface of the door.
- ✓ TFW=Total Frame Width
- ✓ T is the distance from the middle of hinge spindle to the middle of roller spindles.
- ✓ SW=Sash Width
- ✓ Dimensions on the below table is the total width of each sash in mm.

**Note: the following table is just for your reference. Please check or consult HOPO technician before fabrication!**

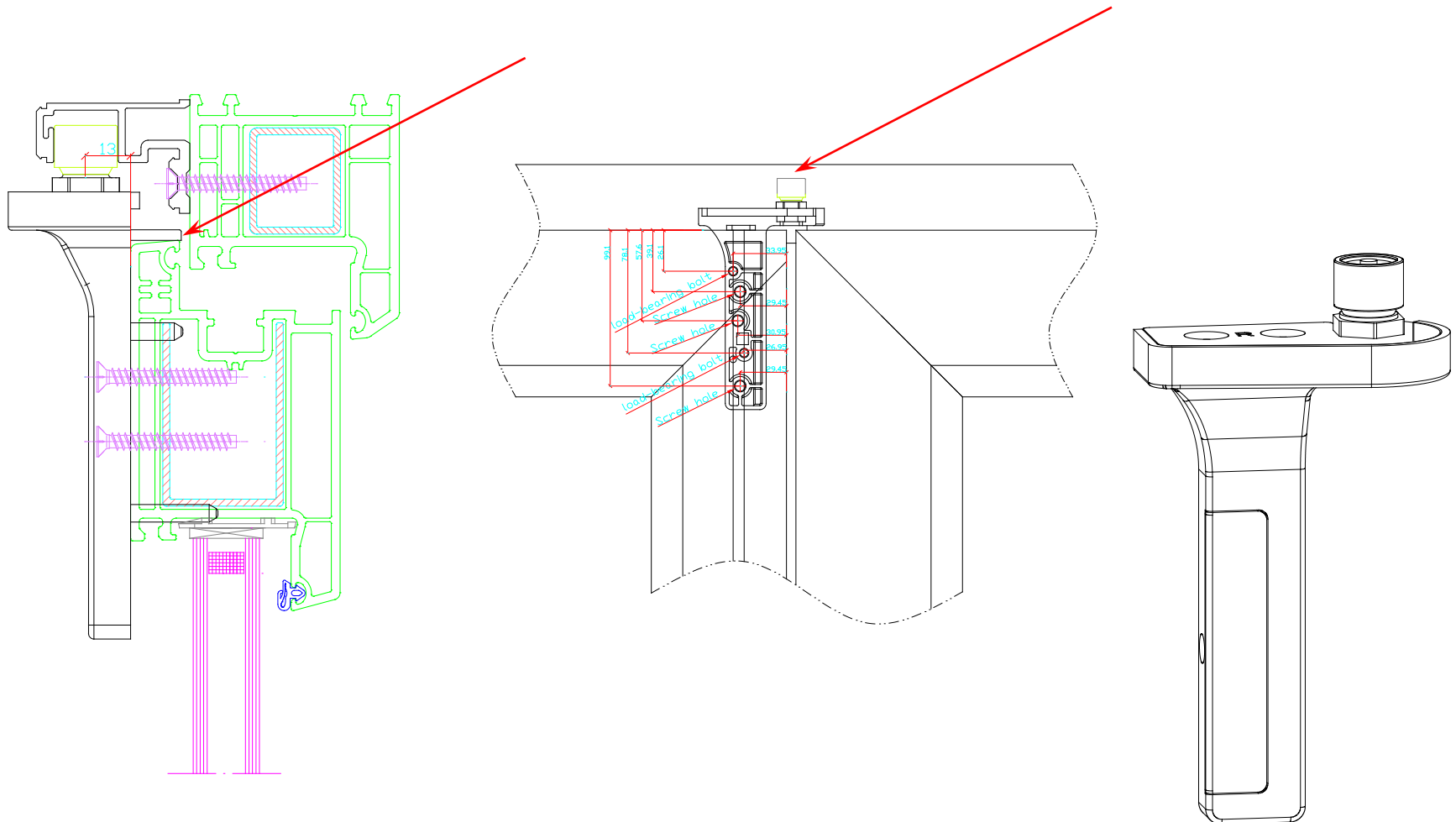
	321	330	431	550	541	532	651	633	770	761	752	743
T	(TFW-84)/3		(TFW-84)/4	(TFW-84)/5			(TFW-84)/6		(TFW-84)/7			
SW1	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5	T+12.5
SW2	T-5.5	T+14	T+14	T+14	T+14	T+14	T+14	T+14	T+14	T+14	T+14	T+14
SW3	T+2	T+1.5	T-5.5	T+14	T+14	T+3.5	T+14	T-1	T+14	T+14	T+14	T+14
SW4			T+2	T+14	T-5.5	T-5.5	T+14	T+1	T+14	T+14	T+14	T-5.5
SW5				T+1.5	T+2	T+12.5	T-5.5	T+14	T+14	T+14	T+3.5	T+3.5
SW6							T+2	T+12.5	T+14	T-5.5	T-5.5	T+14
SW7									T+1.5	T+2	T+12.5	T+12.5

- ✓ The distance between the bottom edge of guiding rail and the upper frame profile is 16mm.
- ✓ The distance between the top edge of running track and the upper frame profile is 17mm.
- ✓ A block of min. 16.5mm height on the bottom of the frame should be arranged for the track.



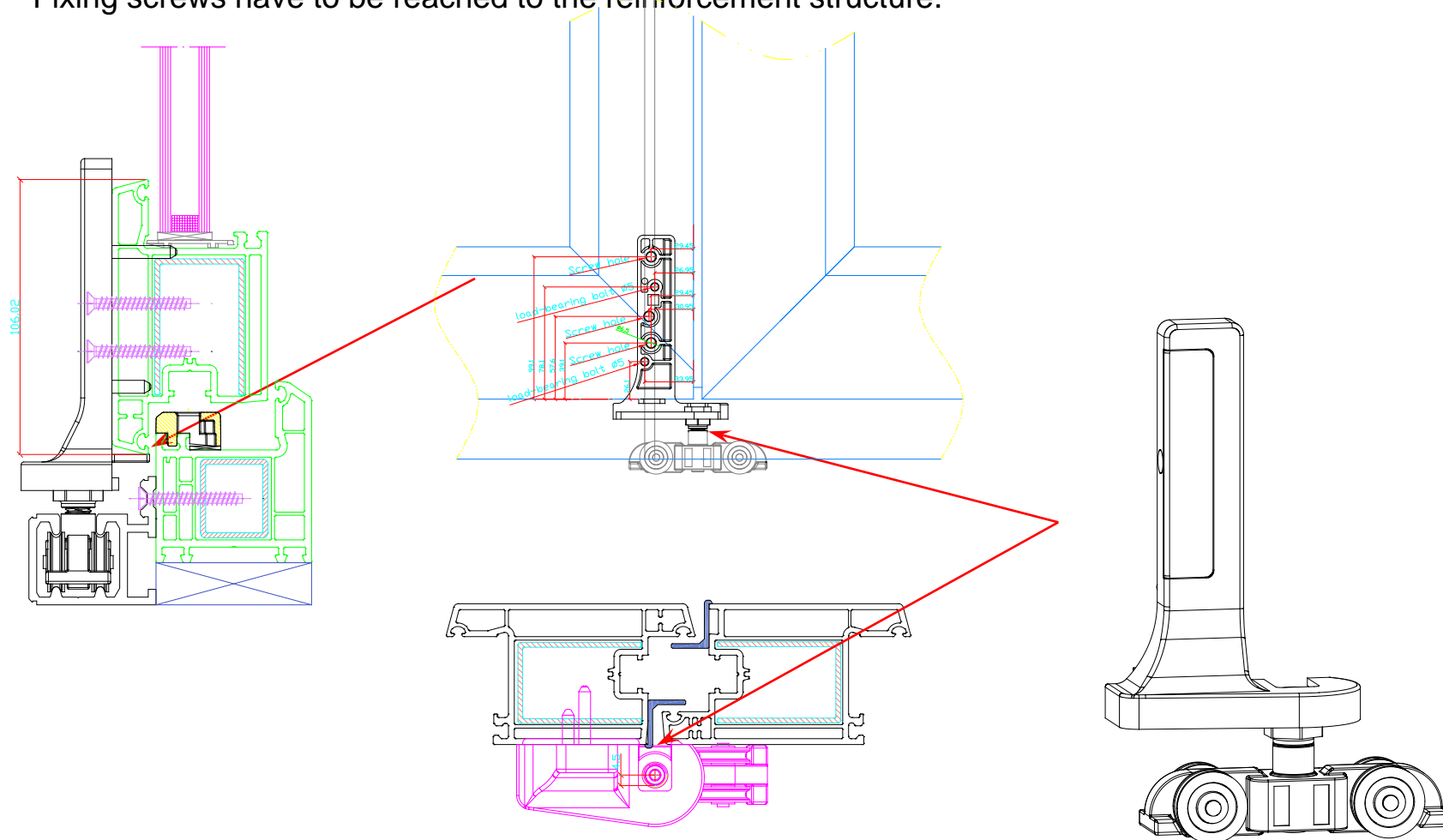
## □ Fabrication: Upper roller(s)

- ✓ The positioning plate of the top roller must touch the upper-edge of the frame profile.
- ✓ The middle of the guide-roller must at the center position of the gap between two sashes.
- ✓ Fixing screws have to be reached to the reinforcement structure.



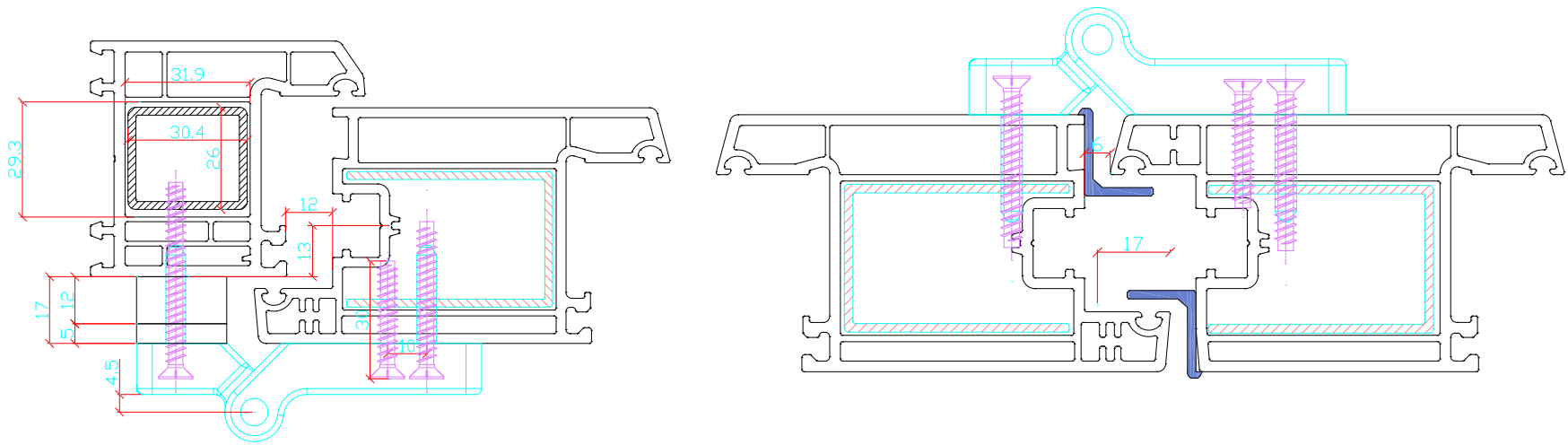
## □ Fabrication: Bottom roller(s)

- ✓ The positioning plate of the bottom roller must touch the bottom-edge of the frame profile.
- ✓ The middle of the turning gear of the bottom roller carriage must at the center position of the gap between two sashes.
- ✓ Fixing screws have to be reached to the reinforcement structure.



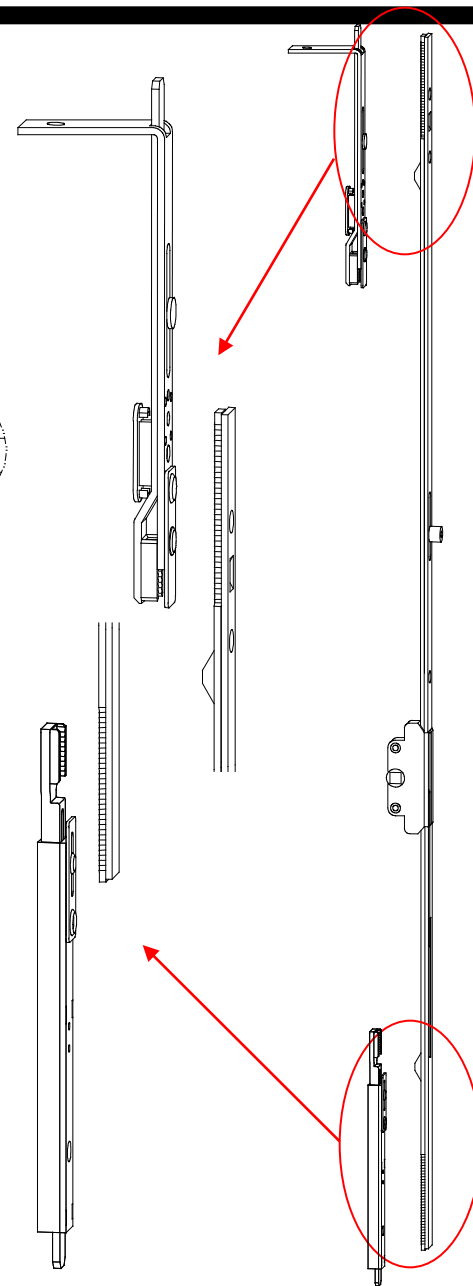
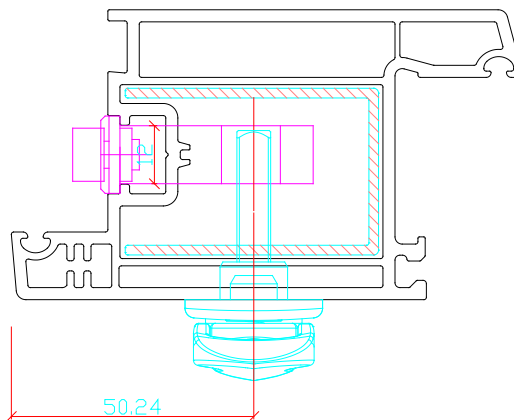
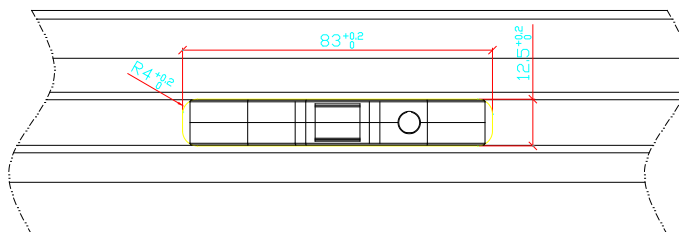
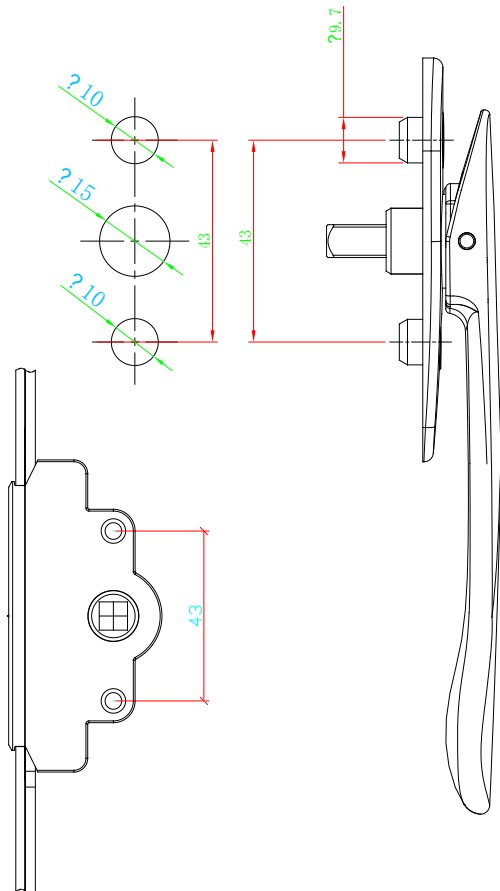
- ✓ Right lengths of screws should be chosen to reach the reinforcement.
- ✓ Spacers for hinge mounted on frame profile are within the package of the hinge! Total height of 17mm spacers is needed for the profile system.
- ✓ For side leaf, the center of the hinge spindle should be on the line of edge of leaf profile.

**Note:** Never try to disassembly spindles of the hinges in any case like fabrication, mounting door leafs, transportation, etc. Disassembly the leafs trough the middle screw on the long side of the hinges. When re-assembly the leafs, adjust the gap of between two leafs carefully through hinges.

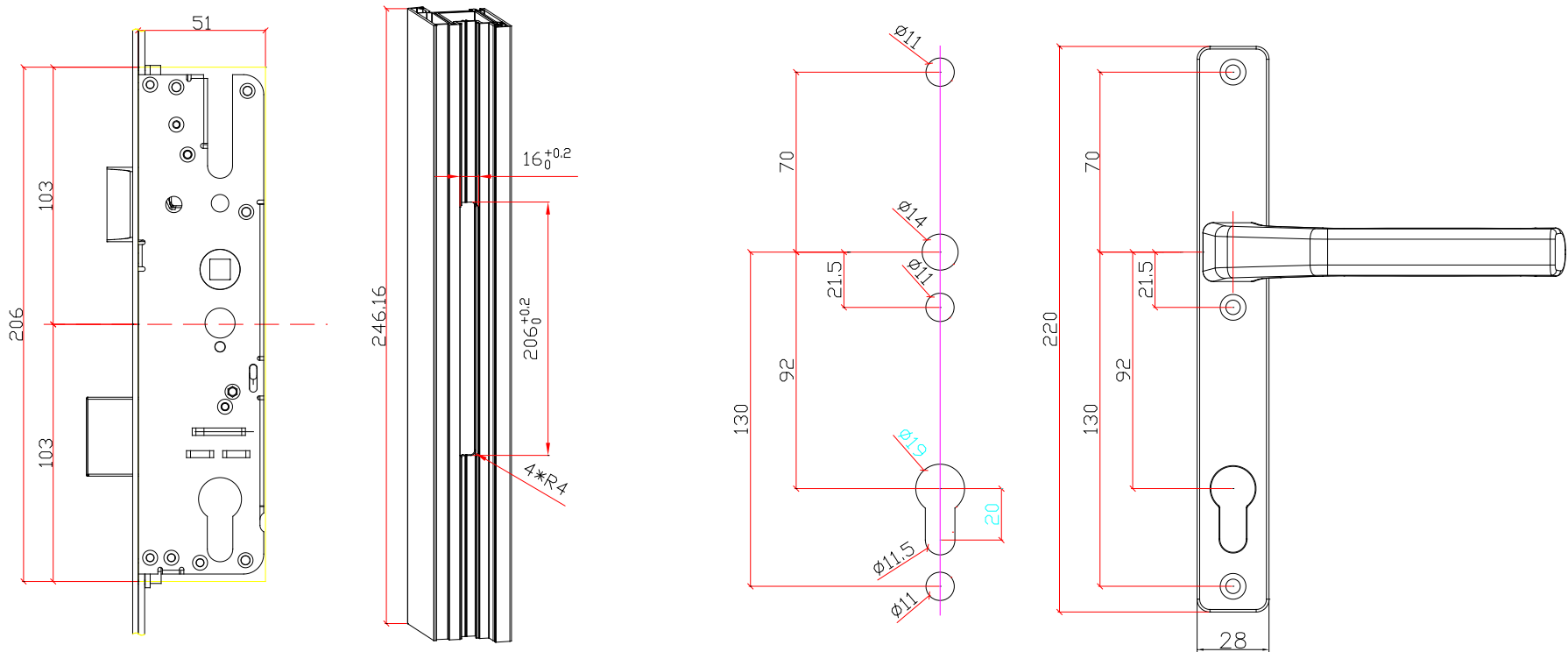


## ■ Fabrication: Parts on folding sash

- ✓ The center position of the Gear is fixed, and the short end should be mounted down side of the leaf, and top & bottom shoot-bolt will be connected to the end of the gear. The total length of the gear is 2100mm, the tooth-end should be cut according to the height of the door leaf.
- ✓ The gear mounted along the sash groove, and the sash groove should be milled according to the size of the gear box.
- ✓ The Short-neck handle will be screwed on the gear through the drilled holes on profile,



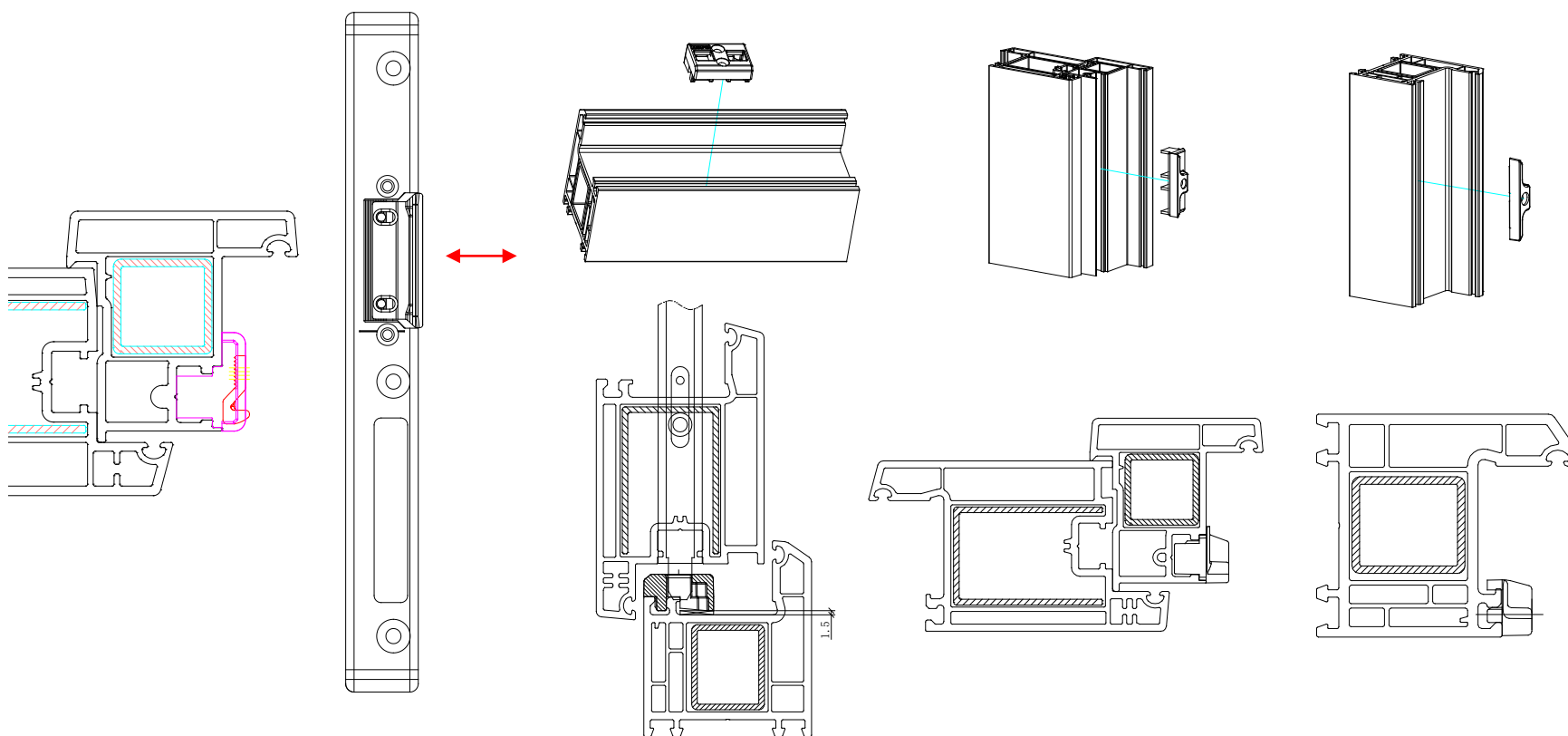
- ✓ To drill holes for handle according to the diagram.





# ■ Fabrication: Locking plates

- ✓ To mount the locking plate into the groove on the passive leaf with a false-mullion, and to make adjustment to hold the door leaf properly.
- ✓ Locking plates for shoot-bolts (top and bottom) should not be mounted until adjustment of sash hinges have been finished. Otherwise, either shoot-bolts or even the gear(s) could be broken. Spacers of 1.5mm should be prepared for the shoot bolt locking plates at site!
- ✓ Locking plates for the multi-points door lock should be mounted finally. Locking plates for Schemes 330, 550 and 770 are different from that of others.

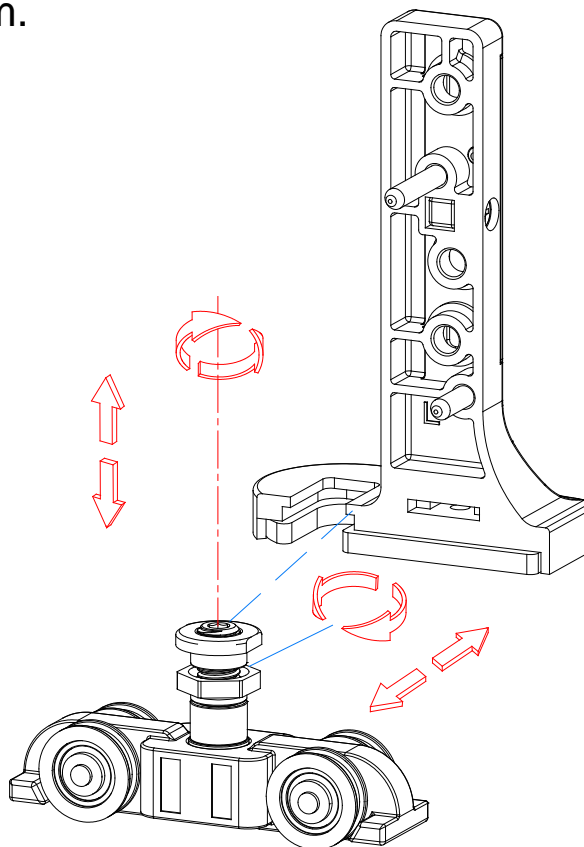


## Adjustment of Shide Sliding-Folding Doors

## Adjustment: Running roller

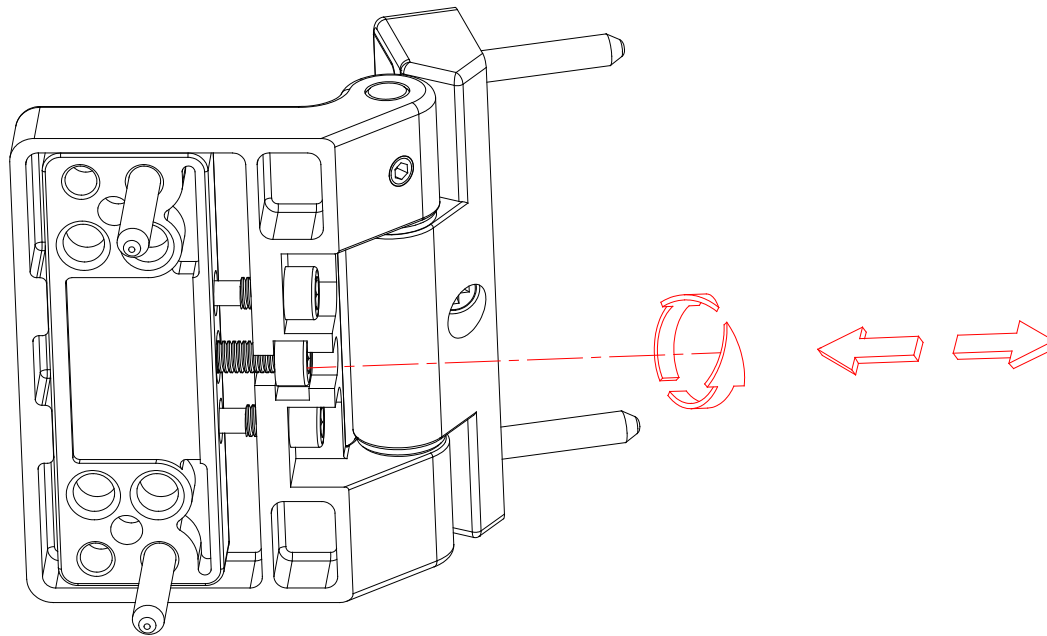
Two ways of adjustment:

- Height adjustment: To use Allen Key Size 4mm to adjust sash height. Adjustment range is  $\pm 3\text{mm}$ . *Please release loads of leafs whenever height adjustment is needed.*
- To use spanner Size 17 to adjust the distance between sash and frame. Adjustment range is  $\pm 3\text{mm}$ .



## □ Adjustment: Hinge

- To use Allen Key Size 4mm to adjust distance between two sashes. Adjustment range is  $\pm 3\text{mm}$ .



## Operation of Shide Sliding-Folding Doors

- To close the door: always close the side-hung door after all folding sashes are closed and locked.
- To open the door: before the side-hung door opened, don't try to open the folding sash.

**Thank you for your attention!**