

Good Feature & Tight
Hardware System

Huzentum

H&T Hardware System
Horizontality & Tight



The only horizontally tightness window system - HUZENTUM

H&T Horizontality & Tight
Hardware Technology

New Sliding Single Window, Hardware System
with perfect Insulation and air tightness

- ✓ All 4 side tightness function with high Insulation and Air Tightness, excellent Security Performance
- ✓ The world first Ventilation with locking state
- ✓ The world first ergonomic design for easy open



시험성적서

시험서번호 : EC20-01918K

7-1) 시험성적서 요약서

시험방법	물리적 시험		
소비효율등급	1 등급		
모델명	HT1220_수평밀착		
프레임 재질	합성수지		
개폐방식	FIX & 미서기		
단창/이중창	단창		
프레임 폭(mm)	220		
유리 구성	두께(mm)	47	상세 로이5(소프트, PLAONE) + 아르곤16 + 일반5 + 아르곤16 + 로이5(소프트, PLAONE)
스틱이서 재질	단열간판		
열관류율 [W/(㎡·K)]	0.656		
통기량 [㎡/(h·㎡)]	0.00		
기밀성 등급	1 등급		

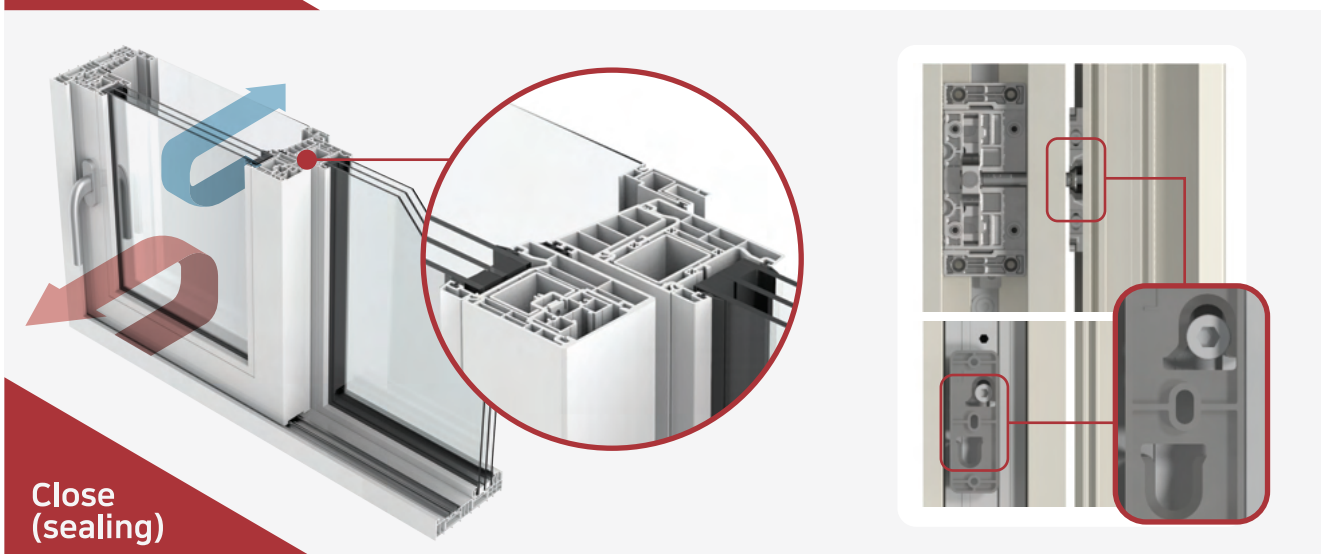
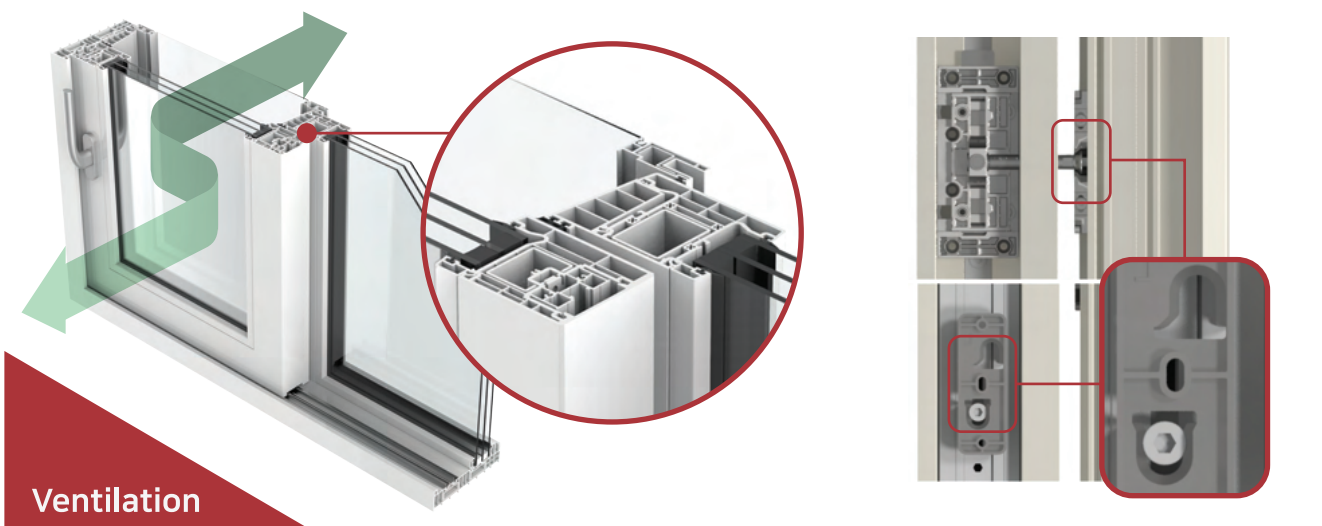
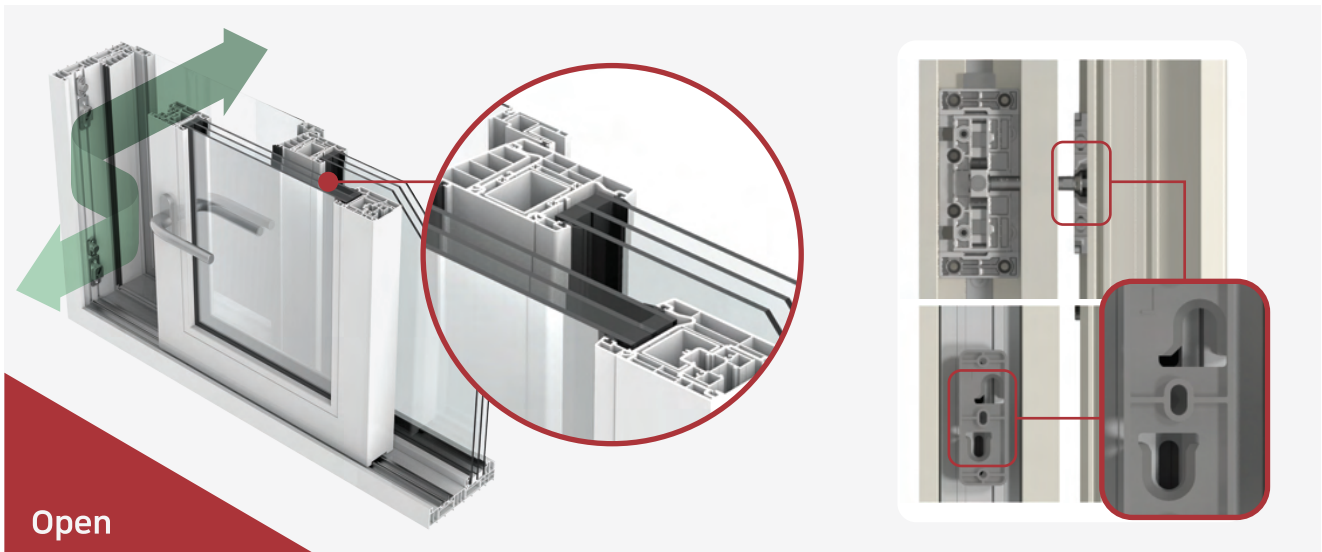
총 6 페이지 중 2 페이지

양산TCP-12-01-01(1)

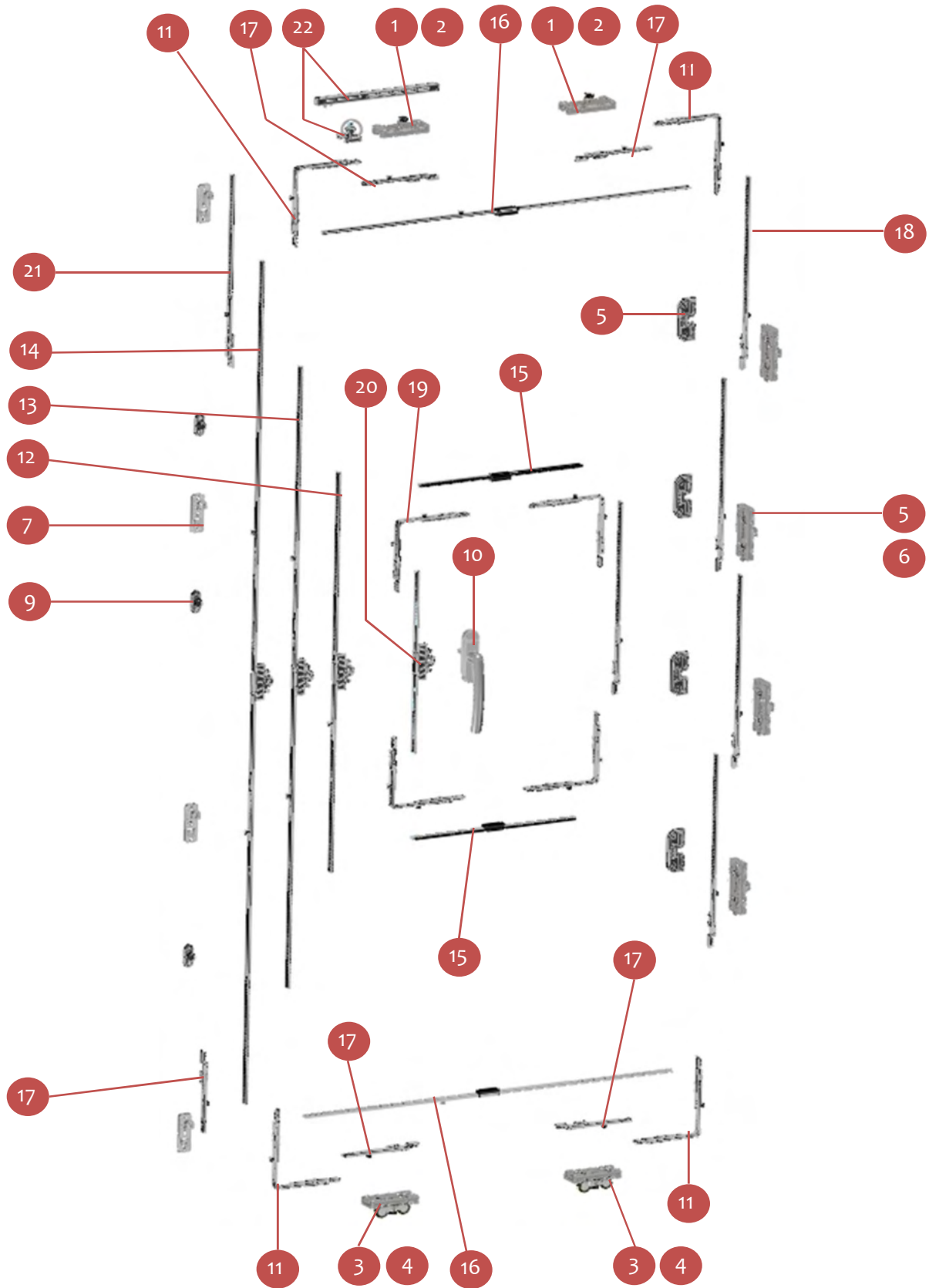


Advantage of Hardware System

- | 1 | According to handle rotation, 3 step modes
- | 2 | When handle horizontal, becomes OPEN mode so tightness released and front striker lock released
- | 3 | When handle up, becomes VENTILATION mode so tightness released but front striker locked
- | 4 | When handle down, becomes CLOSE mode so tightness and front striker locked



Hardware Diagram



Hardware Installation

No	Code	Product name	Coverage	Quantity
1	V0001	UPPER BOGIE (L)		8
2	V0002	UPPER BOGIE (R)		8
3	V0003	BOTTOM BOGIE (L)		8
4	V0004	BOTTOM BOGIE (R)		8
5	V0005	MC LOCKER (L) + With MC Striker		8
6	V0006	MC LOCKER (R) + With MC Striker		8
7	V0007	Horizontal & Adhesion STRIKER (L)		42
8	V0008	Horizontal & Adhesion STRIKER (R)		42
9	V0009	RUBBER BUFFER		90
10	H0163	Patio Handle(Middle) 7mm*40mm(90°)T/S		25
	H0171	Patio Handle(Large)7mm*40mm(90°)T/S		25
11	S0300	CORNER TRANSMISSION (MBK 703)		50
12	S0301	Tilt & Turn Gear-Secury 35Axis 700~1200 (ISP 202-G2/35)	(SFH) 747~1282	10
13	S0302	Tilt & Turn Gear-Secury 35Axis 1200~1700 (ISP 202-G4/35)	(SFH) 1283~1782	10
14	S0303	Tilt & Turn Gear-Secury 35Axis 1700~2200 (ISP 202-G5/35)	(SFH) 1783~2500	10
15	S0304	Tilt & Turn Espagnolette (ISP 202-1)	(SFW) 700~1030	10
16	S0305	Tilt & Turn Espagnolette (ISP 202-2)	(SFW) 1031~1500	10
17	S0306	150mm EXTENSION PART-WITH PIVOT (UP150-1)		50
18	S0307	400mm EXTENSION PART-WITH PIVOT (UP150-2)		10
19	S0308	CORNER TRANSMISSION (MBK 803)		50
20	S0309	Tilt & Turn Gear-Secury 35Axis 400~700 (ISP 202-1/35)	(SFH) 560~746	10
21	S0310	400mm EXTENSION PART-WITH SECURITY (UP150-G2)		10
22	V0010	Damper & Damper bracket -35N		10
	V0014	Damper & Damper bracket -20N		10

[1] Application Range

- Width (SFW) : 420 ~ 1500
- Height (SFH) : 560 ~ 2500
- Sash weight : max 200kg

[2] Bottom Bogie ③, ④ and Upper Bogie ①, ② indicate the Open direction (Left/Right) of “Doorm Window” and install 2 respectively.

[3] MC Locker + MC striker ⑤, ⑥ / Extension (18) is set for Locker center distance not to exceed 410mm (Quantity/Postion), and install symmetrically about the “Door, Window” center. “Door, Window” open direction indication (L/R)

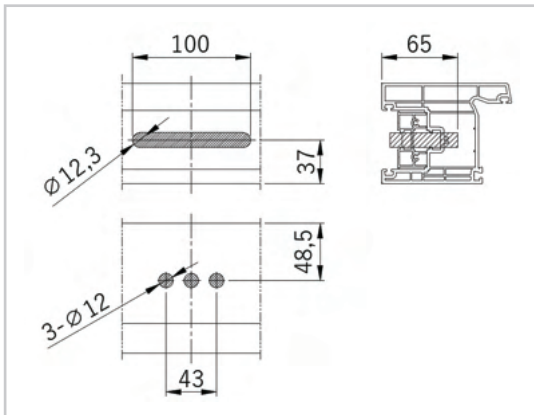
[4] Horizontal tight striker ⑦, ⑧ is install at 3 places when “Door, Window” height(SFH) is 800mm~1782mm and 4 places when it is 1783mm~2500mm

[5] RUBBER BUFFER ⑨ is for damping between door frame and “Door, Window” and install at least 2 at both ends.

[6] When “Door, Window”(SFH) is 2282~2500, Extension (17, 21)is installed additionally (refer to picture)

[7] Damper optionally uses two specifications depending on the weight of the “Door, Window” (20N , 35N)

Hardware Installation



GEAR POCKET & HANDLE HOLE

- 1 | "Door, Window" (SASH) is referenced to Handle installation position.
- 2 | After aluminum profile is fixed, Handle, it is cut at the position of Tilt & Turn Gear installation as referring to left picture

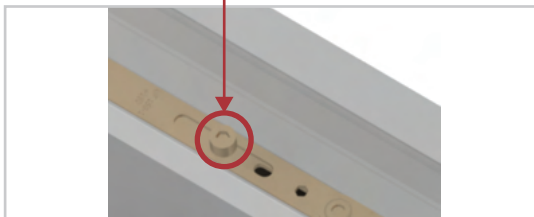
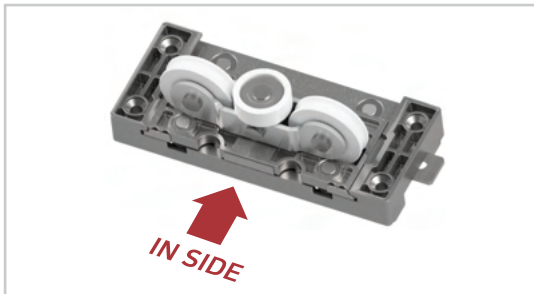
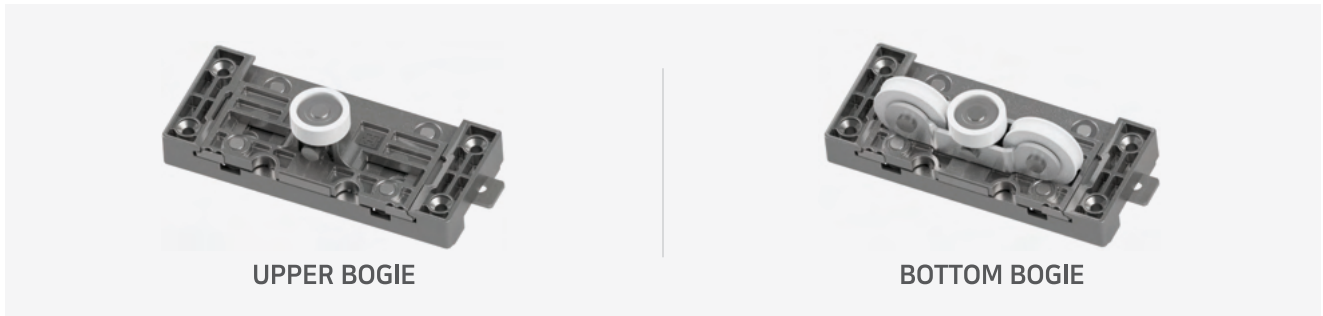
HANDLE INSTALLATION

- 1 | HARDWARE (TILL & TURN ESPAGNOLETTE, CORNER TRANSMISSION, EXTENSION PART ...) is fixed to PVC profile.
- 2 | Install handle horizontally to the location of hole as shown in picture.
- 3 | Fixing it completely with M5x50 (dish head, 2 places) bolts and 8x30 nuts (for steel)
- 4 | Repeatedly rotate handle 2~3 times to 90 ° up and down (assembled hardware operation check)

MC BUFFER ASSEMBLY

- 1 | It is recommended to install at each upper/lower end and need additional construction depending on the size of Door, Window

Hardware Installation

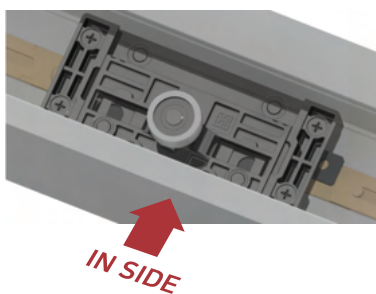


BOGIE INSTALLATION (UPPER BOGIE, BOTTOM BOGIE, MC LOCKER)

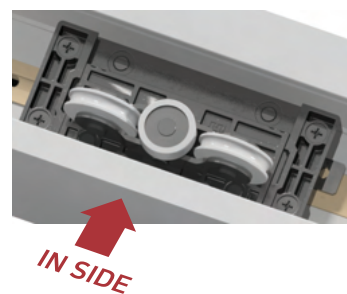
- 1 | Rotate handle to down direction (tightening)
- 2 | Arrange it as considering each BOGIE installation position and profile inside direction (refer to picture)
- 3 | Assemble CAM ($\Phi 11.0$ circular extrusion) of 150mm Extension Part(17) into the hole at lower of BOGIE.
- 4 | Fasten it at minimum 4 and maximum 6 places with 8x30 steel direct connection screw.

※ Fasten the screw as keeping the complete tightness of BOGIE toward locking direction
(Mandatory compliance for uniform movement)

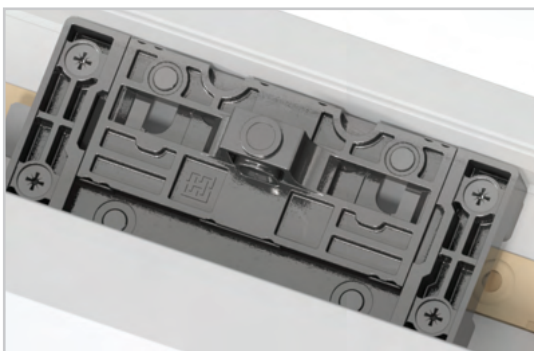
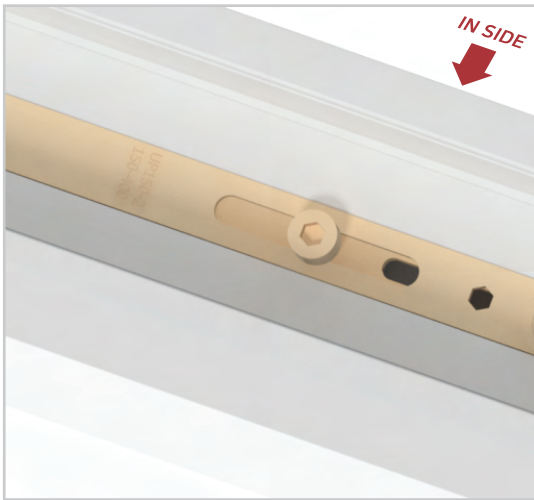
UPPER BOGIE (L) Example of installation



BOTTOM BOGIE (L) Example of installation



Hardware Installation



MC LOCKER PIN HOLE PROCESS

- 1 | HARDWARE is installed at PVE profile.
- 2 | Rotate handle to down direction ((tightening)
- 3 | Assemble CAM ($\Phi 11.0$ circular extrusion) of 400mm Extension Part(17) into the hole at lower of MC Locker and then pushing to PVC profile completely.
(Processing of indication (Left & Right direction))
- 4 | As shown in left picture, first drill the center with $\Phi 8$ and additionally drill complete hole with $\Phi 12$
(foundation drill first and then $\Phi 12$ drill)

MC LOCKER INSTALLATION

- 1 | Rotate the handle to down direction (tightening)
- 2 | Arrange it as considering profile inside direction
(refer to picture)
- 3 | Assemble cam ($\Phi 11.0$ circular extrusion) of 400mm Extension Part(17) into the hole at lower of MC Locker.
- 4 | Fasten it at minimum 4 and maximum 6 places with 8x30 steel direct connection screw

※ Fasten the screw as keeping the complete tightness of BOGIE toward locking direction
(Mandatory compliance for uniform movement)

Hardware Installation

STRIKER(L,R) INSTALLATION



| 1 | Assembled HARDWARE to PVC profile.



| 2 | Rotate handle to horizontal (opening) direction

| 3 | Insert Jig for striker assembly to the CAM of Tilt & Turn Gear(12, 13, 14)

| 4 | Push SF to BF direction (with small impact)
(Center screw location of striker is marked at BF frame)



| 5 | After fastening 8x30 direction screw to hole at the center of STRIKER, as rotating HANDLE with closing door, check operation state of HARDWARE and tightening & locking operation of Door. (Longitudinal geometry of center hole of striker for operation sensitivity control)

| 6 | When operation is smooth, fasten the 8x30 direction screw to Upper/ Bottom hole and completely fixing STRIKER

Hardware Installation

MC STRIKER INSTALLATION



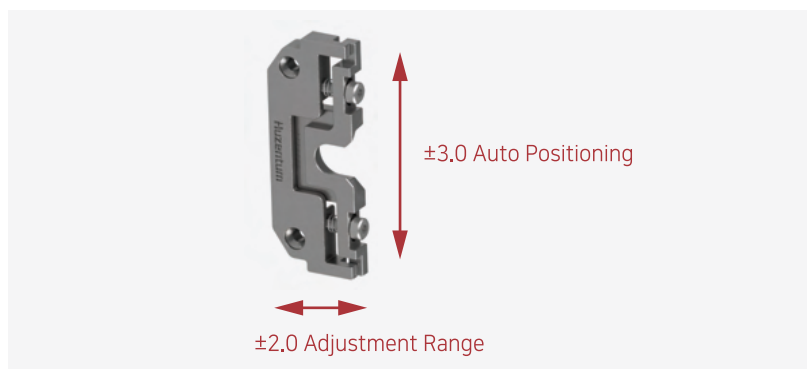
PVC PROFILE + HARDWARE + DRILL JIG

- | 1 | After inserting "Door, Window (SASH)" to BF profile, which is completely assembled with UPPER BOGIE, BOTTOM, BOGIE and MC Locker etc, check the operation condition of Door, Window.
- | 2 | After inserting JIG to LOCKER PIN HOLE ($\Phi 12$) of "Door, Window (SASH)" and closing Door, Window, then push Door, Window as rotating handle.
- | 3 | After open the Door, Window as turning handle, check the marked location on middle bar (Mullion).



PVC PROFILE + MC STRIKER

- | 4 | After locating MC striker and fasten 8x50 direct connection screw at each hole of marked place (need to fasten with steel stiffener)



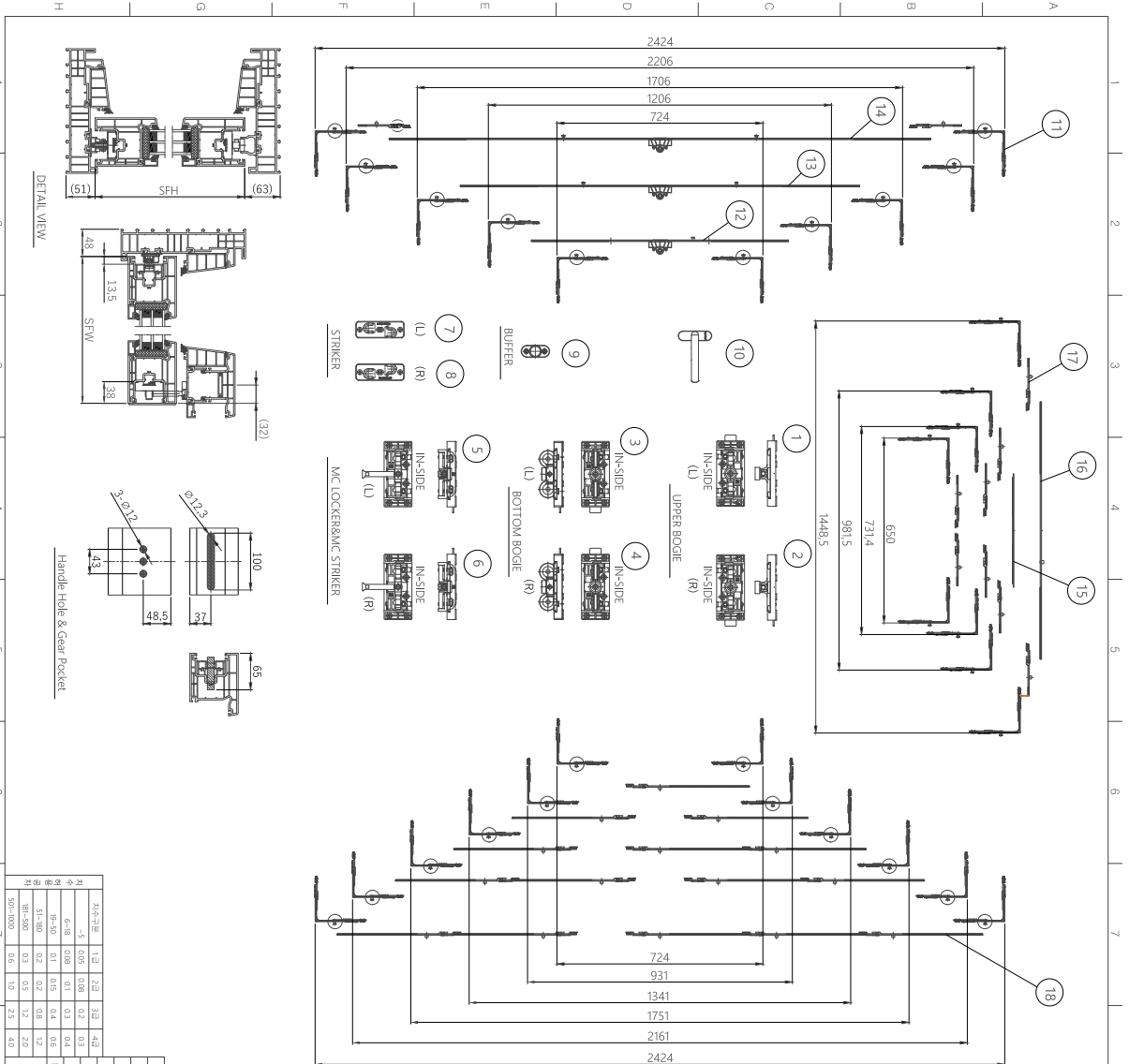
MC LOCKER & MC STRIKER

- | 5 | After inserting Locker PIN and closing Door, Window, check whether Locker is working properly as rotating handle to 180 ° .

Drawing

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NO	PART NO	PART NAME	REMARK
18	S0307	400mm EXTENSION PART-WITH PIVOT	
17	S0306	150mm EXTENSION PART-WITH PIVOT	
16	S0305	Tilt & Turn Espandente (SF 202-2)	SFW-1031-1500
15	S0304	Tilt & Turn Espandente (SF 202-1)	SFW-7200-1030
14	S0303	Tilt & Turn Gear-Security 35x46x 700-2200 (SF 202-6525)	SFH-1783-2500
13	S0302	Tilt & Turn Gear-Security 35x46x 700-1700 (SF 202-6425)	SFH-1283-1782
12	S0301	Tilt & Turn Gear-Security 35x46x 700-1200 (SF 202-6275)	SFH-800-1782
11	S0300	CORNER TRANSMISSION (NRK 703)	
10	H0163	핀더오버롤 (중)7mm-domin90 도 175	
9	V0009	완충구 (RUBBER BUFFER)	
8	V0008	수평밀착 STRIKER (R)	
7	V0007	수평밀착 STRIKER (L)	
6	V0006	MC LOCKER(R)+MC 스트로키어	
5	V0005	MC LOCKER(L)+MC 스트로키어	
4	V0004	하부롤러 (BOTTOM BOGIE) (R)	
3	V0003	하부롤러 (BOTTOM BOGIE) (L)	
2	V0002	상부롤러 (UPPER BOGIE) (R)	
1	V0001	상부롤러 (UPPER BOGIE) (L)	

1. 적용범위
 1. 내폭 (SFH) : 700 ~ 1500
 2. 내폭 (SFH) : 800 ~ 2500
 3. 내폭 (SFH) : 800 ~ 2500
 4. 하부 롤러 (Bottom Bogie) (3)와 상부 롤러 (Upper Bogie) (1) (2)는 400mm를 초과하지 않도록 설정하며, "문, 창" 중앙 기둥 단청이 되도록 설치한다.
 5. MC Locker+MC 스트로키어 (5) (6) / Extension (9)는 Locker의 중심 거리가 400mm를 초과하지 않도록 설정하며, "문, 창" 중앙 기둥 단청이 되도록 설치한다.
 6. * 문, 창 (SFH) 800 ~ 1782일 때 3개소,
 1783 ~ 2500일 때는 4개소를 설치한다.
 7. 완충구 (Rubber Buffer) (9)는 문틀 (R) 및 문틀 (L)의 충격을 완화하는 목적으로 문틀에 최소 2개 이상 설치한다.
 8. * 문, 창 (SFH)가 2282 ~ 2500의 경우 Extension (10)을 추가 설치한다.

UNIT	SCALE	NO.	DESCRIPTION	QTY.	MATERIAL	DRAWING NO.
mm	NS					

DATE	NAME	REVISION	REASON
21.05.04	JS LEE		수평밀착 하드웨어 구성도

ISSUE	CONTENTS	ENGINEER	APPROVER	DATE



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