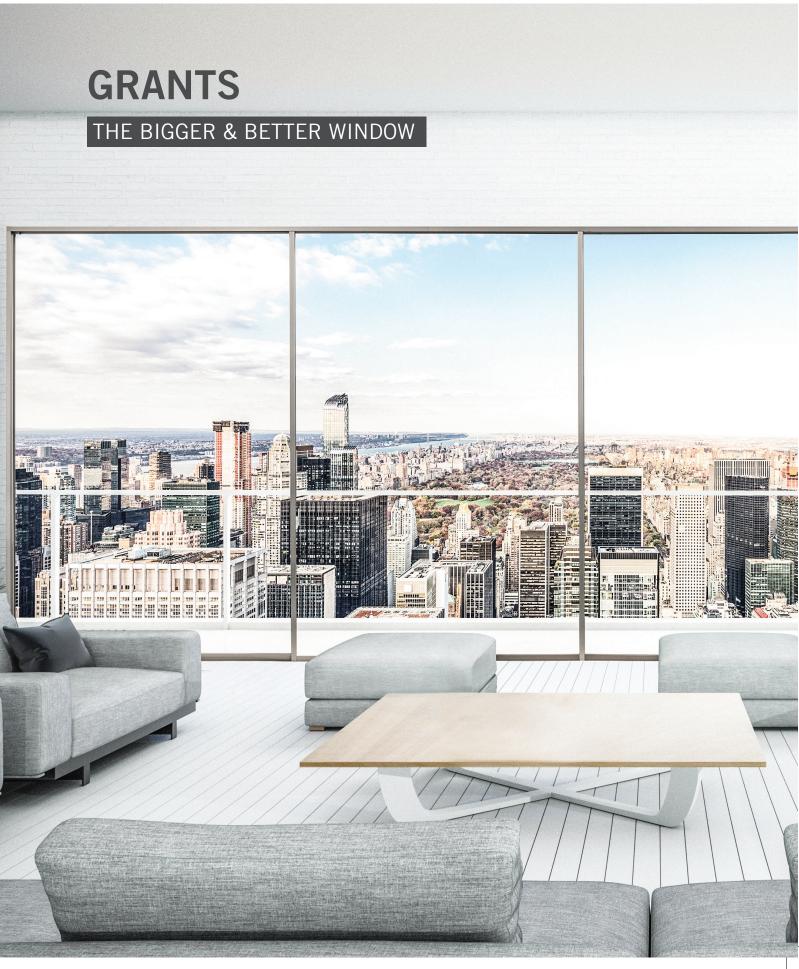
# TOSTEM PRE-ENGINEERED WINDOWS





LIXIL Window Systems Private Limited Corp. Office: Plot No. 75, Sector 8, IMT Manesar, Gurgaon, Haryana, India - 122050., Ph: +91 124 4350000, E-mail: lws.india@LIXIL.com

### LIXIL Group Corporation

36F, Kasumigaseki Building, 3-2-5 Kasumigaseki, Chiyoda-ku, Tokyo 100-6036, Japan http://global.LIXIL.co.jp/e

LIXIL International Pte. Ltd. 8 Temasek Boulevard, #12-03 Suntec Tower 3, Singapore 038988 Tel : +65 6690 4988 Fax : +65 6690 4986 http://global.LIXIL.co.jp/e

### TOSTEM Thai Co., Ltd.

60/2 Soi Navanakorn 11, Moo19 Phaholyothin Road, Tambon Khlongnueng, Amphoe Khlongluang, Pathumthani 12120, Thailand Tel :+66 2529 0474-5 Fax : +66 2909 4487 http://www.LIXIL.TOSTEM.co.th

### LIXIL Housing Products Manufacturing (Shanghai) Corporation

No14 Building Huabin Industrial Park 99 Huajia Road Songjiang Shanghai 201611

### LIXIL (Thailand) Public Co., Ltd.

1/6 Moo 1, Phaholyothin Road K.M.32, Klong Neung, Klong Luang, Pathumthani 12120, Thailand Tel : +66 2901 4455 Fax : +66 2901 4488 http://www.LIXIL.co.th

## PT LIXIL Aluminium Indonesia

JV entity with Rodamas group JI. Let. Jend. S. Parman Kav. 32-34 Jakarta 11480, Indonesia Tel :+62 21 2939 3388 Fax : +62 21 5367 4394 http://global.LIXIL.co.jp/e

### LIXIL Vietnam Corporation

Charm Vit Tower, 18th Floor, 117 Tran Duy Hung, Hanoi, Vietnam Tel : +84 4 3556 6639 Fax : +84 4 3556 6031 http://www.INAX.com.vn

### LIXIL Philippines Ltd. Co.

18/F The Pearlbank Centre, 146 Valero Street, Salcedo Village, Makati City 1227, Philippines Tel : +63 2893 3113 Fax : +63 2893 9980 http://americanstandard.com.ph

LIXIL Taiwan Rm. 701, 7F., No.225, Nanjing E. Rd., Zhongshan, Dist., Taipei City 104, Taiwan



PART OF

# **ABOUT LIXIL**

Every person on the planet dreams of a better home. LIXIL makes that possible with pioneering housing and water products.

A better home is made up of surprisingly simple things - doors and windows that connect you with the world outside; baths to escape in after a long day; kitchens that unleash creativity; toilets that provide cleanliness and comfort; showers and faucets to experience water in new ways; interiors and exteriors that bring spaces to life.

LIXIL makes better homes a reality for everyone, everywhere.

Drawing on our Japanese heritage, we create and innovate using world-leading technologies to make high quality products that solve everyday, real life challenges.

### But the LIXIL difference isn't what we do, it's the way we do it:

Meaningful design. We innovate because we should, not because we can. Entrepreneurial spirit. Working with partners, experimenting often, and learning fast from failures to move with speed.

Access to all. Adapting existing technologies to meet universal consumer needs. Responsible business growth. Impacting global issues like sanitation, water conservation and environmental sustainability.

to do so much more.

Being path pavers in consumer centricity uncovers opportunities for real differentiation enabling us to find a unique, clutter breaking proposition. Our deep understanding of our consumers' lives drive us to create truly differentiated products, services and business models. As we continue to expand across Asia Pacific, our endeavor is to reach beyond our current channels and capabilities, to understand existing and undiscovered needs and become relevant to even more people. We will learn, experiment and continue to create solutions for better living spaces for today and tomorrow. The real work starts now...





American Standard



### We are proud that our products touch the lives of more than a billion people every day, but there is potential







# **GRANTS**

## **SERIES**

**GRANTS** series is the flagship series of TOSTEM. The innovative design results in larger surface area of glass for panoramic view. Taking the standard of aluminium windows and doors to another level.





Wind pressure ASTM E330: 2000 Pa



Air tightness ASTM E283: 10.7m3/ h·m2 Water tightness ASTM E300: 300 Pa

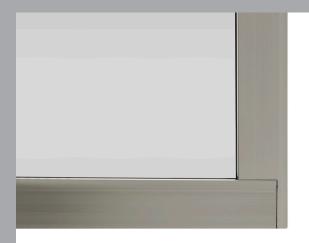


Noise insulation

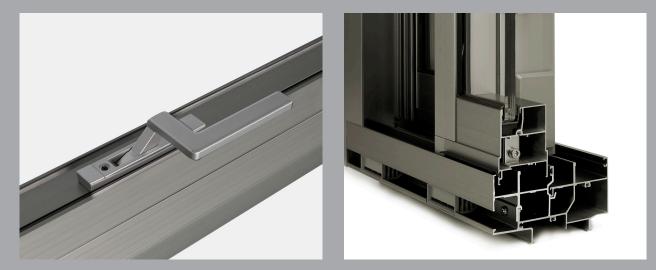
JIS: 25 dB

\* Sound performance test has been done in JIS standard controlled environment. Performance will vary with room condition. Please consult with sound insulation specialist.

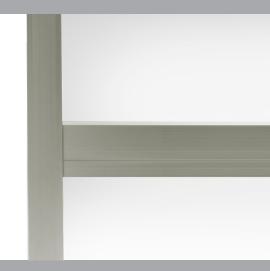
Frame depth	101.6 mm/ 120 mm (Sliding)	
Height of sill	50 mm	
Glass thickness	Up to 31.5 mm	



Conceal panel design



"L-Fit" design hardware, concealed hinges



Proportionally designed Mullion and Transom

# **UNIQUE FEATURES**



Overlapping meeting stiles (4 Panels Sliding)

Double barrier drainage system

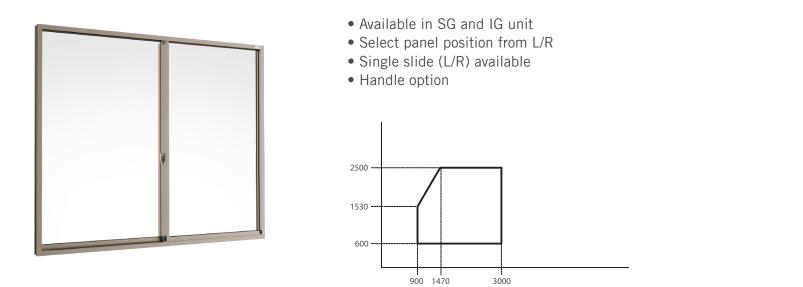


Concealed ventilation system (Optional)

# WINDOW

Sliding Window (2 panels on 2 tracks)

Sliding Window (3 panels on 2 tracks) SFS

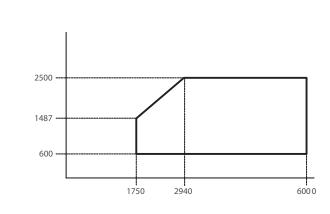




Sliding Window (4 panels on 2 tracks)

- Available in SG and IG unit
- Handle option

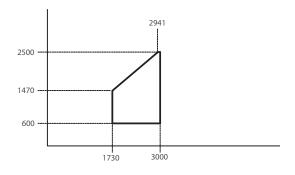






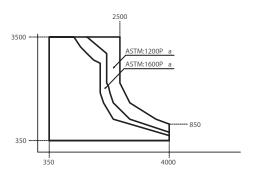
# WINDOW

- Available in SG and IG uint
- Handle option



## FIX Window

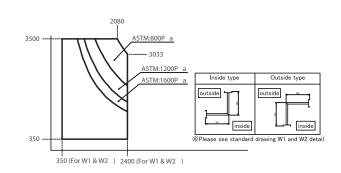
• For oversize fix windows, please consult with our technician



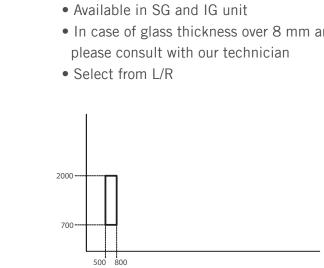
# WINDOW

## Corner FIX Window

- Only available in SG
- Only available with sealant finish
- Both in/outward corner available

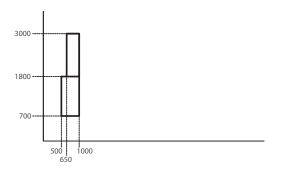




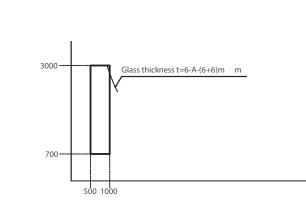


## Awning Window

- Available in SG and IG unit
  - In case of IG, please consult with our technician for size and performance







# WINDOW

Casement Window

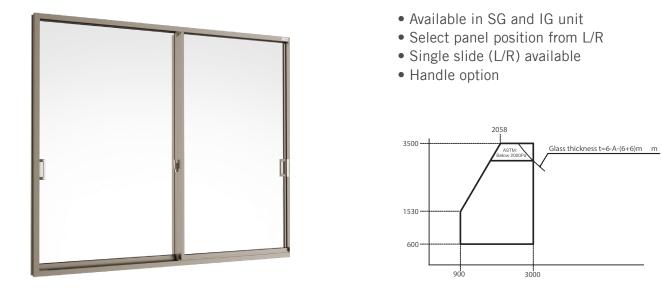
• In case of glass thickness over 8 mm and IG unit

## Casement Window (with hinge)

• Available in SG and IG unit • Select from L/R

# DOOR

Sliding Door (2 panels on 2 tracks)



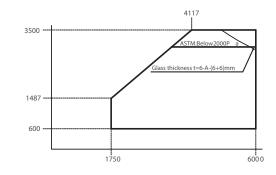


Sliding Door (4 panels on 2 tracks)

Sliding Door (3 panels on 3 tracks)



• Available in SG and IG unit Handle option



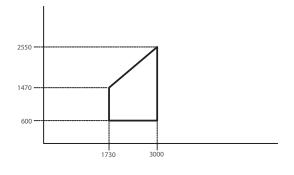


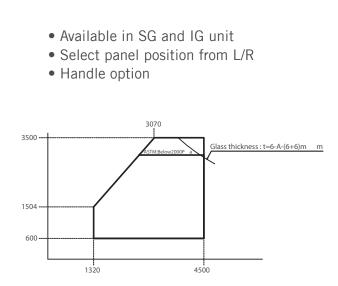
8

# DOOR

## Sliding Door (3 panels on 2 tracks) SFS

• Available in SG and IG unit Handle option





# DOOR

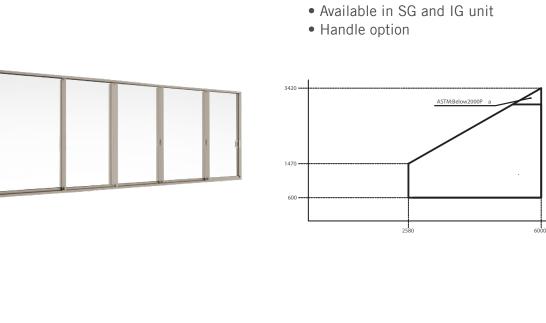
Sliding Door (6 panels on 3 tracks)

- Mullions are available for each window and door. Please consult with our sales representative for selection.
  - 180° mullion. (Standard and Reinforced)
  - 90° mullion. (Only for Outward Corner)

# **UNIT WINDOWS**

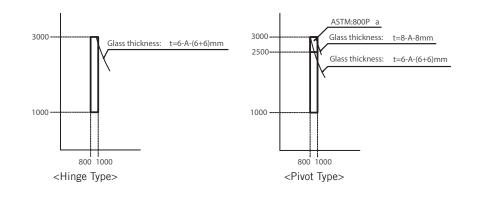
Bottom Windows	Top Windows				
	Single Awning	Single Casement	Single Fix	Sliding	
Single Awning			٠		
Single Casement			٠		
Swing Door			٠		
Single Fix	٠	٠	٠		
Double Fix				•	





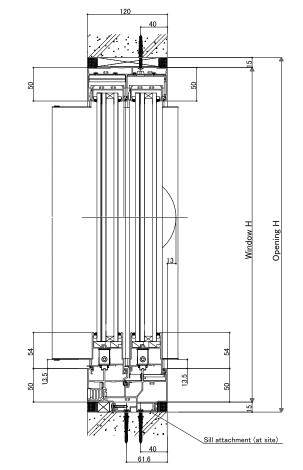
Out-Swing Door (Single)

- Available in SG and IG unit
- Pivot hinge option
- Door closer NOT available
- Select from L/R

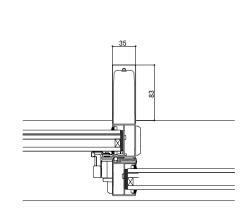


# **MIX & COMBINATION WINDOW**

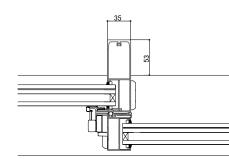
# **GRANTS WINDOW SERIES**



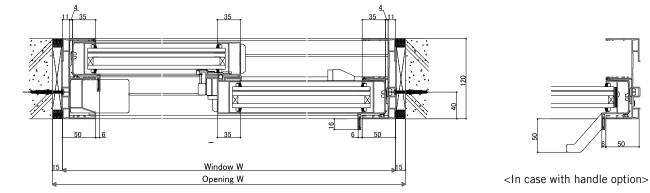
<Vertical section:2 panels sliding window >



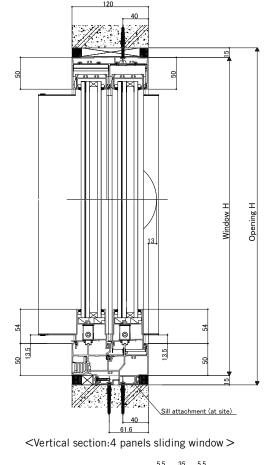
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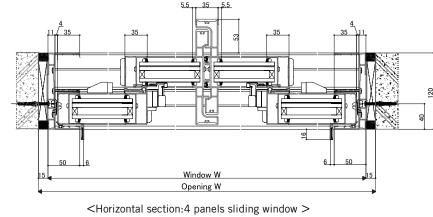


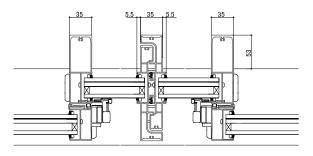
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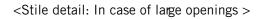


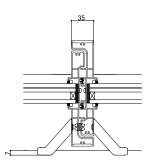
<br/>
<br/>
Horizontal section: 2<br/>
panels sliding window >



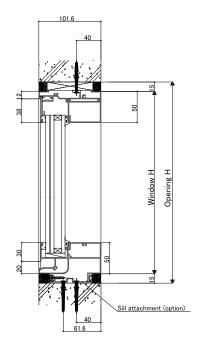




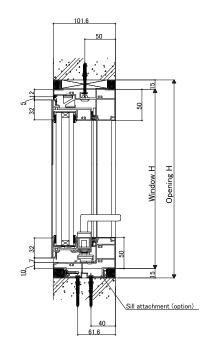




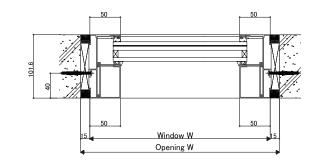
<In case with handle option>



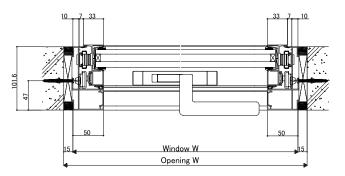
<Vertical section: Fix window><



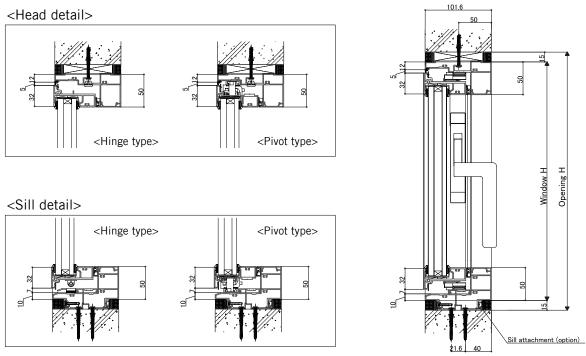
Vertical section: Awning window>

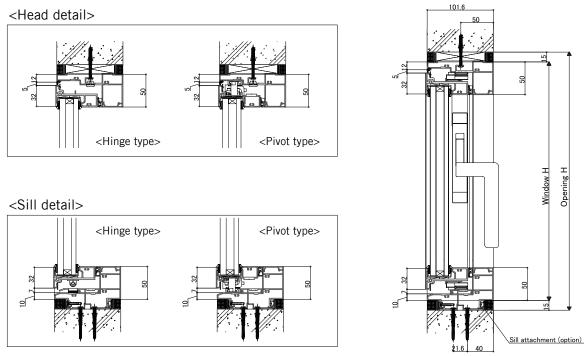


<Horizontal section: Fix window>

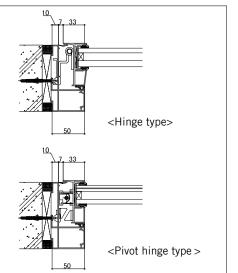


<Horizontal section: Awning window>

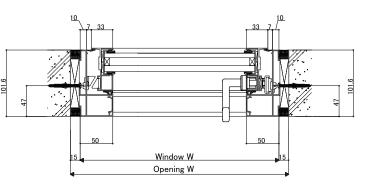




<Jamb detail>

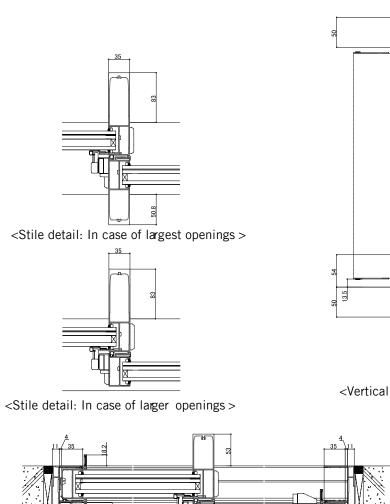


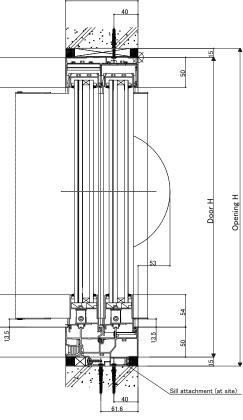
<Vertical section: Casement (with friction stay)>



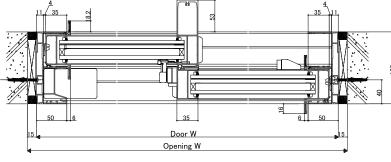
<Horizontal section: Casement (with friction stay)>

# **GRANTS DOOR SERIES**

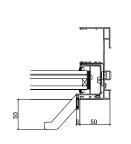




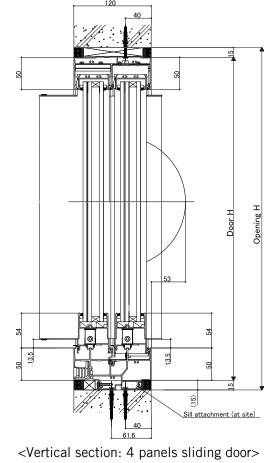
<Vertical section: 2 panels sliding door>

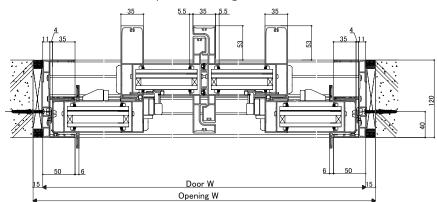


<Horizontal section: 2 panels sliding door >

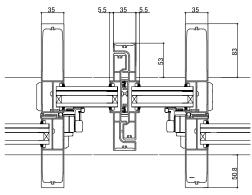


<In case with handle option>

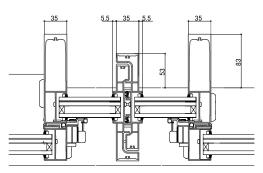




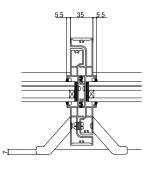
<Horizontal section: 4 panels sliding door>



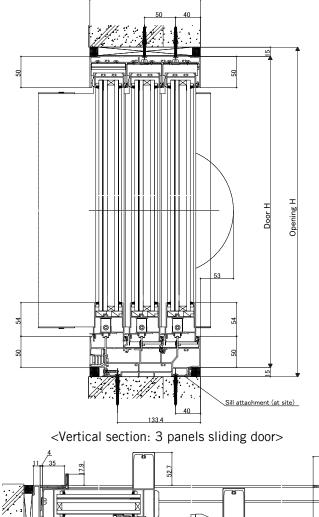
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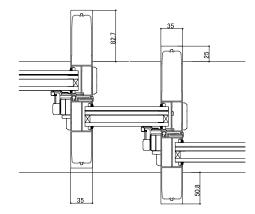


<Stile detail: In case of larger openings >

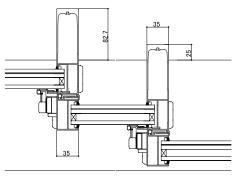


<In case with handle option>

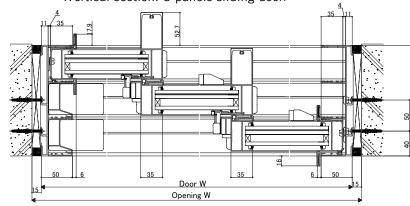




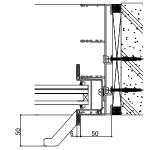
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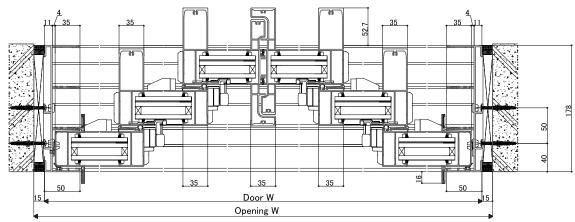
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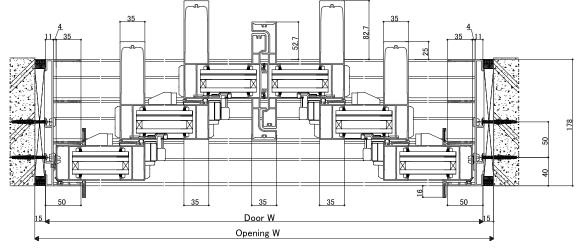


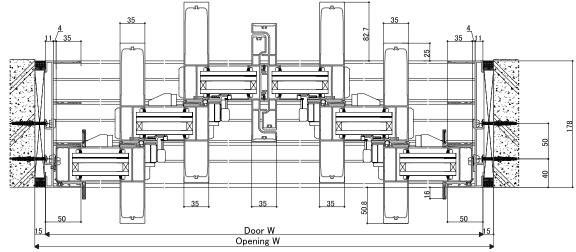
<Horizontal section: 3 panels sliding door>



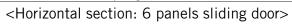
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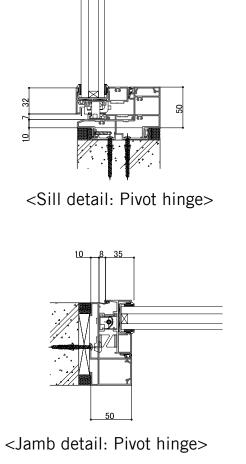


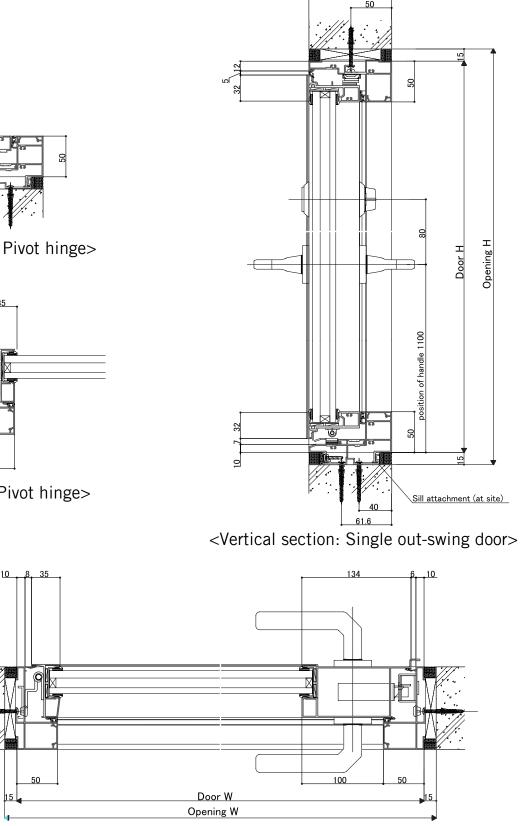


<Horizontal section: 6 panels sliding door (largest) >

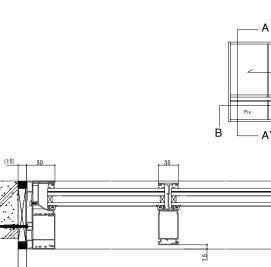


<Horizontal section: 6 panels sliding door (larger) >



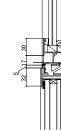


<Horizontal section: Single out-swing door>



<Horizontal section: Sliding/Fix B-B'>

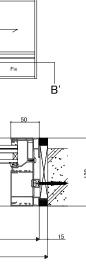
Window W Opening W

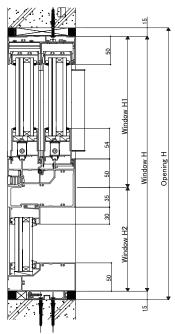


<Vertical: Fix/Fix transom><

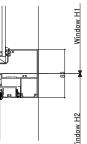
101.6

# **GRANTS COMBINATION**

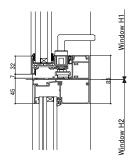




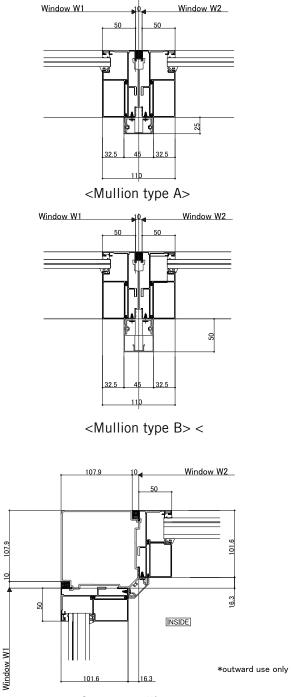
<Vertical section: Sliding/Fix A-A'>

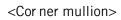


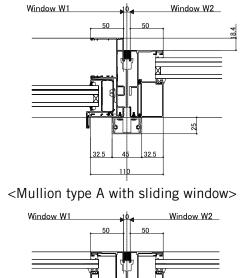
Vertical: Fix/Projection transom>

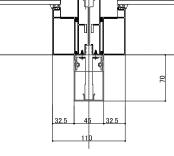


<Vertical: Projection/Fix transom>

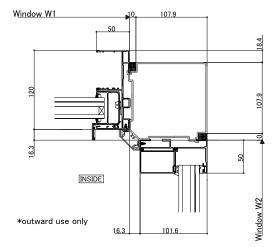








Mullion type C>



<Cor ner mullion with sliding window>