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*Brings 48 years of
International
Experience to India*



Hurricane Proof Sliding

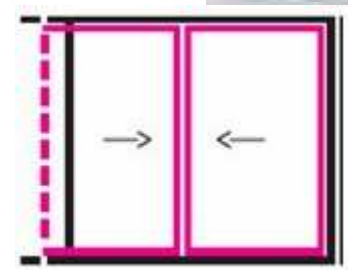
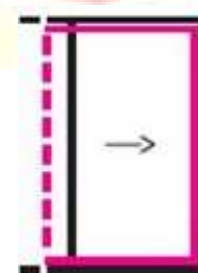
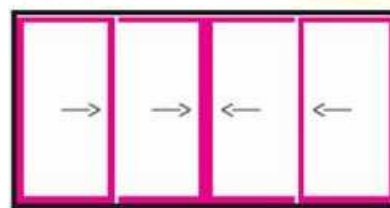
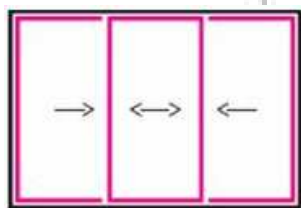
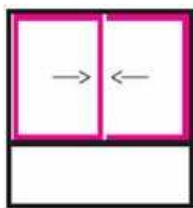
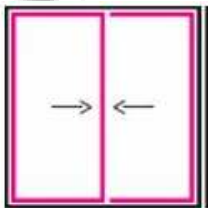
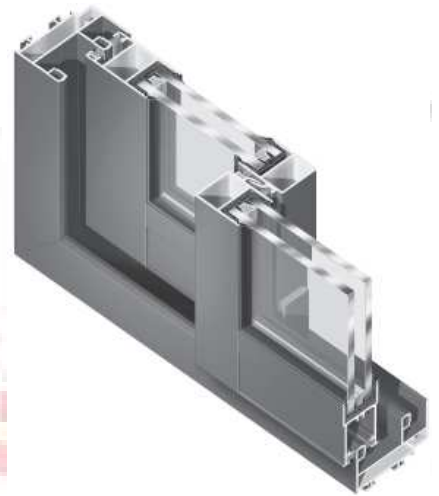
Topaze

GB 20 mm



Application

- *2-leaf windows & doors.*
- *3-leaf windows & doors.*
- *4-leaf windows & patio doors.*
- *3-leaf 3-rail windows and doors.*
- *6-leaf 3-rail windows & doors.*
- *Fully-retractable applications.*
- *Composite windows.*



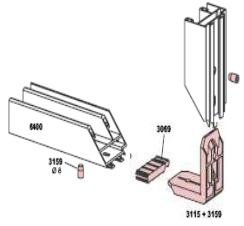


Hurricane Proof Sliding

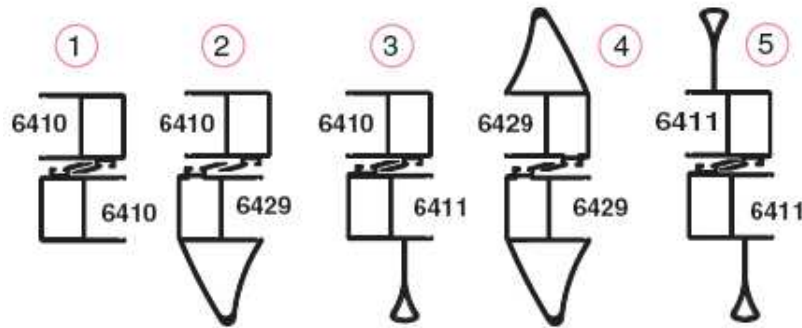
Topaze

GB 20 mm

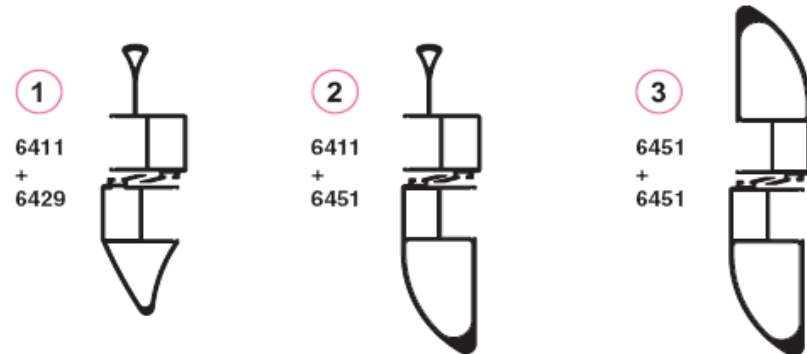
Product Concept



- *36 mm slim line interlocking styles providing a maximum day lighting.*
- *Reinforced interlocking styles can resist to hurricane.*
- *EPDM U marine quality wrap around gaskets & 5 to 20 mm single or double glazing.*
- *Double brush gasket with central blade to enhance water tightness & air permeability.*
- *Rollers for leaf weights between 80 kgs & 140 kgs and rollers can be changed without dismantling leaf.*
- *Different mullions- Reinforced mullion, Styled mullion, Hurricane proof mullion, etc*



Standard Option



Hurricane Proof Option

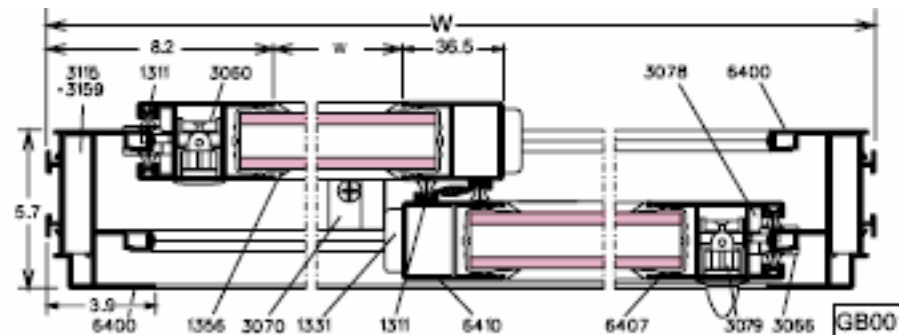
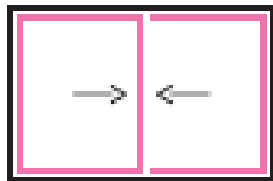


Examples of Application

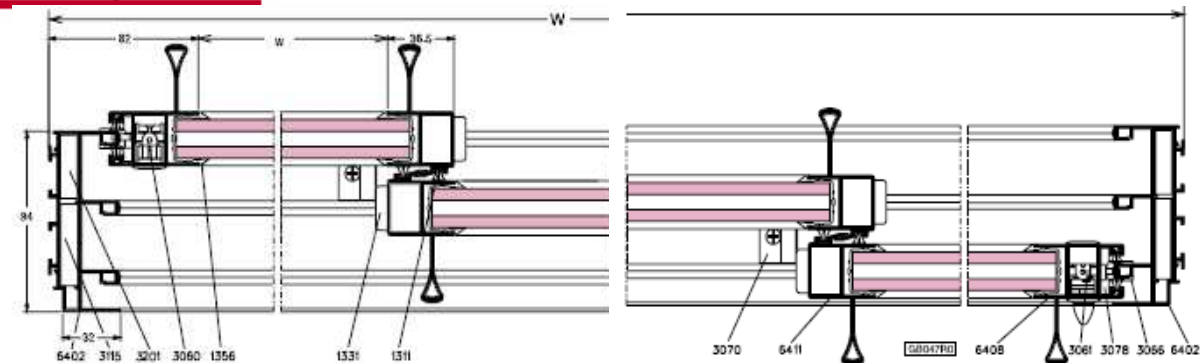
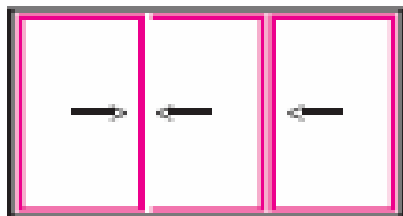
Topaze

GB 20 mm

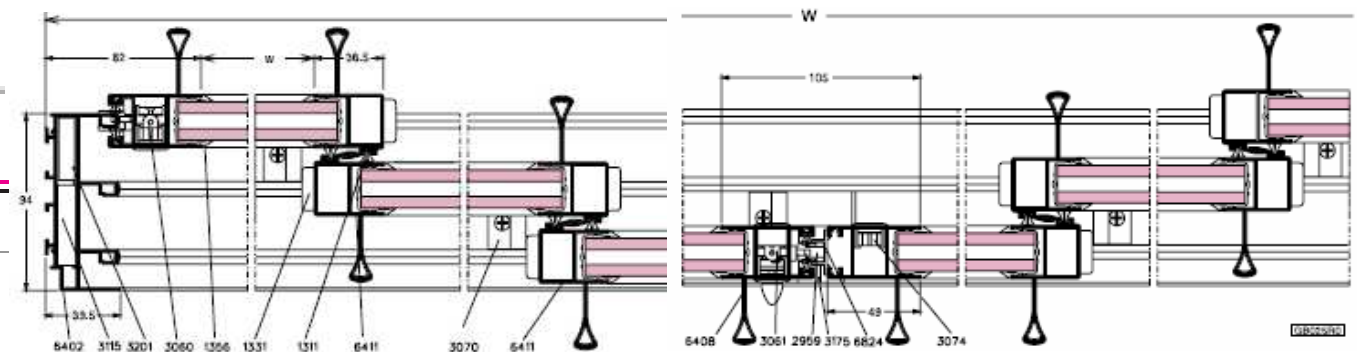
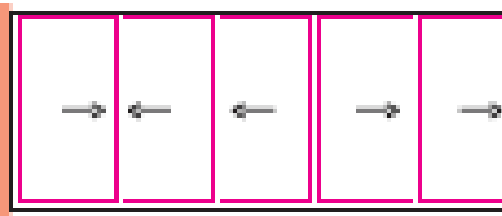
2-leaf window



3-leaf 3-rail window and patio door



6-leaf 3-rail window and patio door



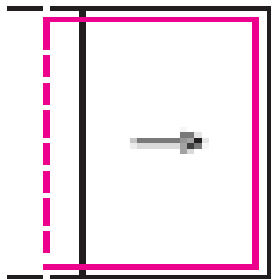
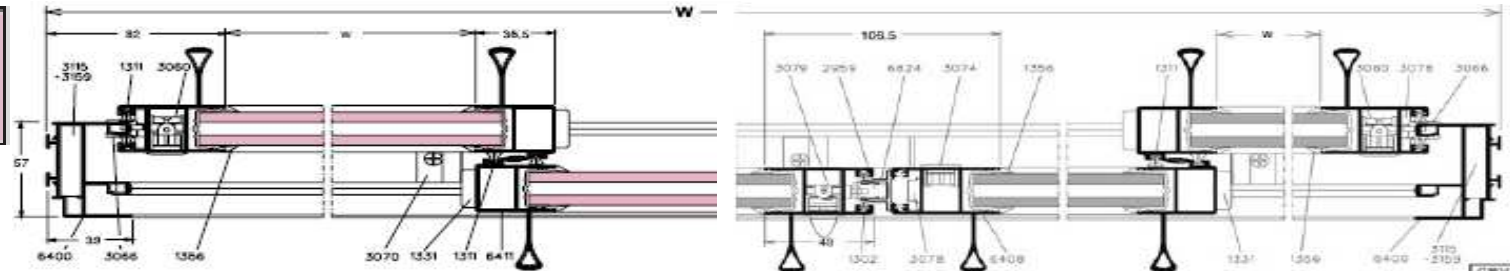
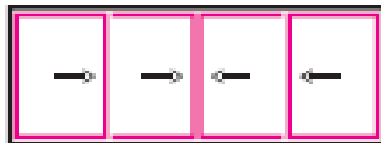


Examples of Application

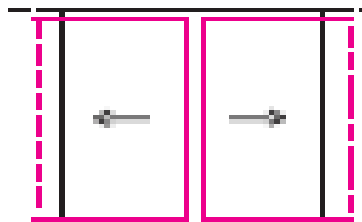
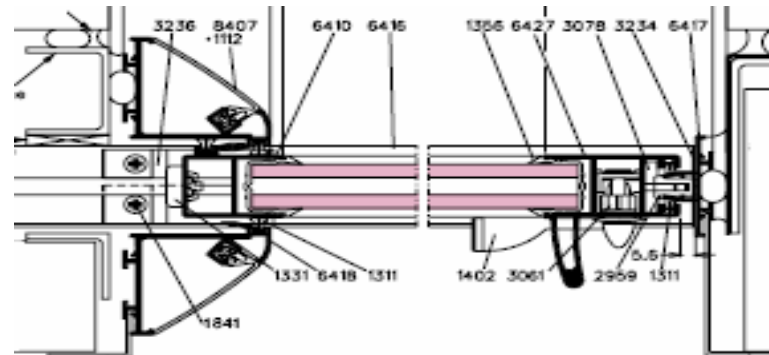
Topaze

GB 20 mm

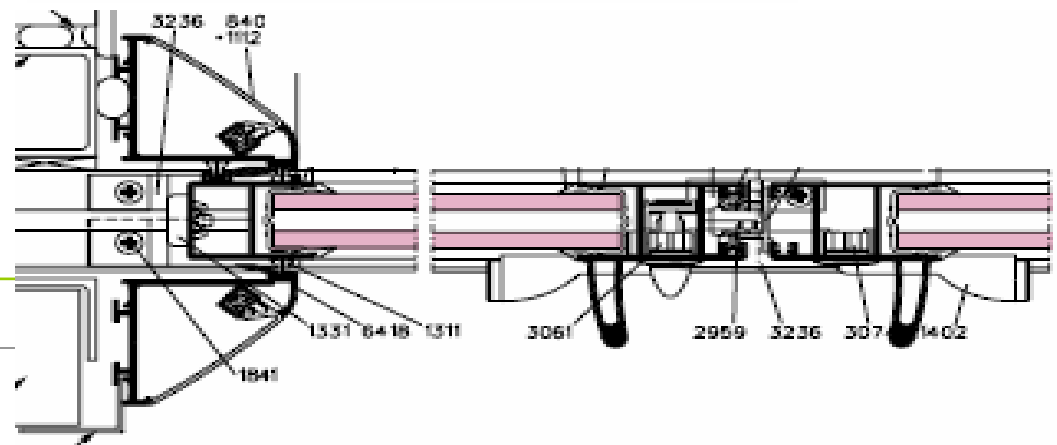
4-leaf window and patio door



1 Leaf Full Access

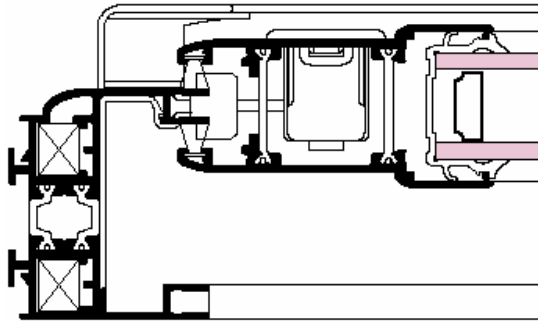


2 Leaf Full Access

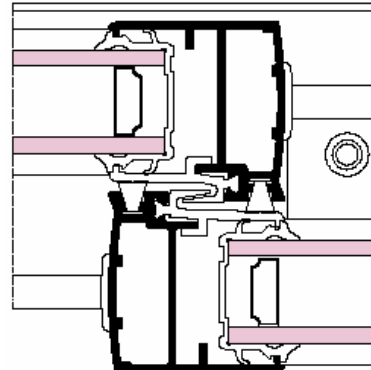




Sliding with 26 mm Infill

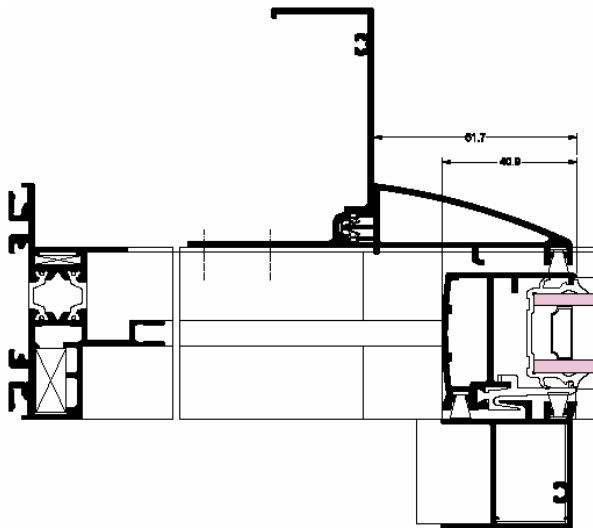
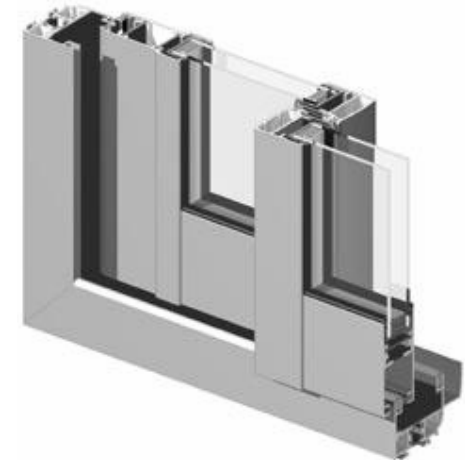


2-rails perimetral fixed frame

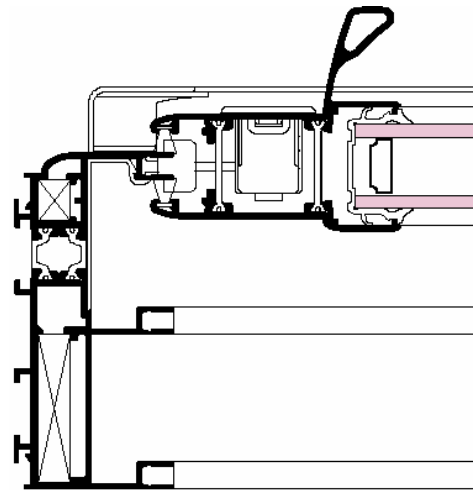


TOPAZE

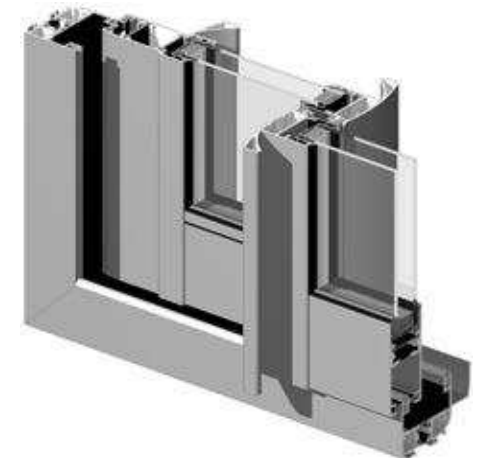
GB - GBi 26



Full-access slider single-rail frame



3-rails perimetral fixed frame





Sliding with 31 mm Infill

A range of sliders combining sturdiness, comfort and elegance.

Horizontal sliding windows

Aesthetics and ergonomics :

- Concealed drainage of bottom rail
- Maximum glazing area due to the fineness of the styles
- Half-moon locking system with built-in handle for easy manipulation.
- Meticulous detail : invisible fixing, incorporated gasket in the frame finish

Sturdiness and user comfort :

- Up to **200kg** per leaf
- Opening and closing tests up to **20 000 cycles** (rollers and locking systems).
- Added roller track for better manoeuvrability and durability.

Reinforced safety :

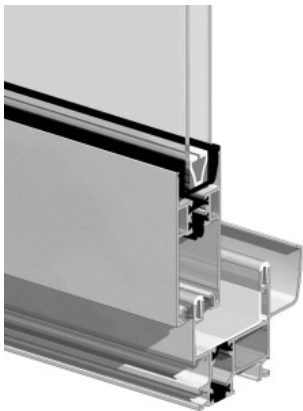
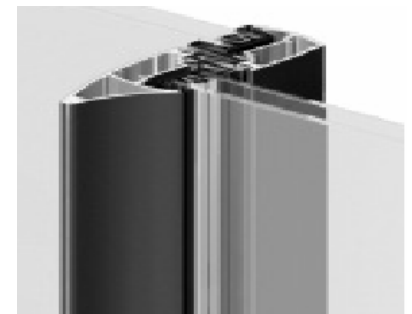
- Specific solutions tested by the CNPP (National Prevention and Protection Centre).
- A break-in delay of over 3 minutes created by a combination of laminated glazing and multi-point locking system

Design and installation :

- Complete range of 1point and multipoint locking systems
- Fixed frames adapted to different installation configurations.
- Renovation, wedge or face fixed installation using specific corner-cleats.
- Sash frame rigidity allowing for the creation of large frames.
- Compatibility with FXi hinged windows and PXi doors.

Saphir

GX-GXi





Casement Hinged Window/ Door with upto 60 mm infill possibility

TOPAZE
FB

Meticulous aesthetics

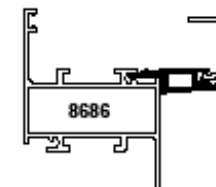
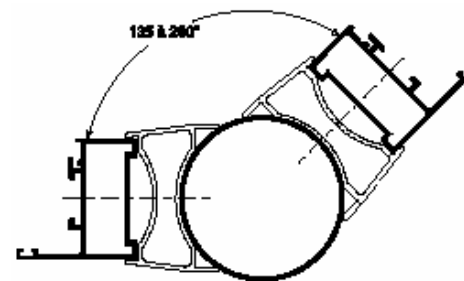
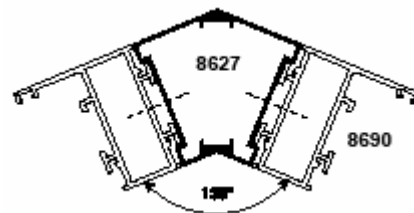
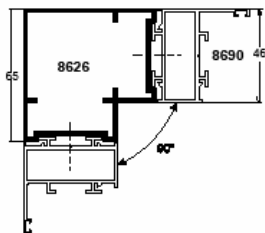
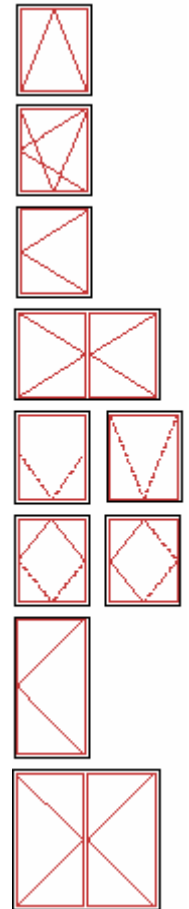
- Curved sash frame sections and central rebate.
- Concealed drainage possible on frame and completed fittings (patented system).
- Discreet glazing seals with less flashing.

Sturdiness and user confort

- 52mm module for the fixed frame and 60mm module for the sash frame (making large dimensions possible).
- Tilt-and-turn frame up to 130kg.
- Volume capacity up to 35mm for high-performance glazing.
- Reinforced anti-intruder security solutions approved by A2P certification (2nd half of 2003).

Pivoting frame : maximum performance

- Large dimensions (L = 2m50 x H = 2m20).
- Invisible spring built into the groove.
- Maximum glazed area.
- Strength : tested to 2000 cycles.
- Security : sash frame can lock at all angles.





Single and Double Post Balustrade

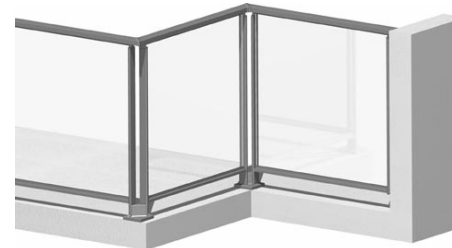
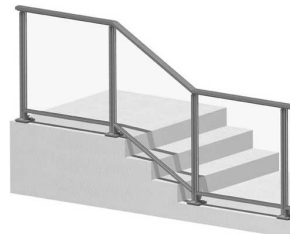
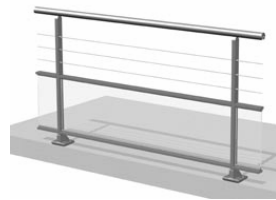
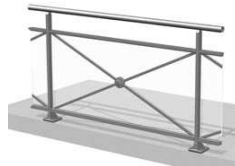
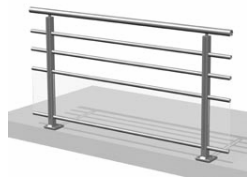
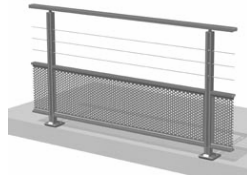
GYPSE
BY

The advantage of Gypse

- Rail and infill positioning inside face, outside face and between posts
- Change of post appearance : bracketed or spaced
- Invisible post to rail fixing
- Detached ridge section for hand-rail: 20mm for spaced post version or V-shape for bracketed post version
- Console for 150mm offset hand-rail
- Extra flat 20mm rail and angle plate
- Balcony separation available
- Cladding support parts
- Slab fixing plate

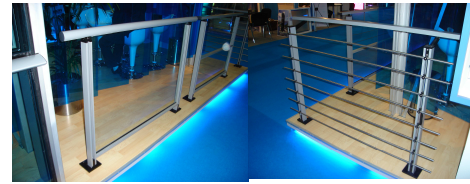
Performance

- Conforms to standards almost 80 test reports
- Several applications for patents for the Gypse guard-rail
- Hand-rail console

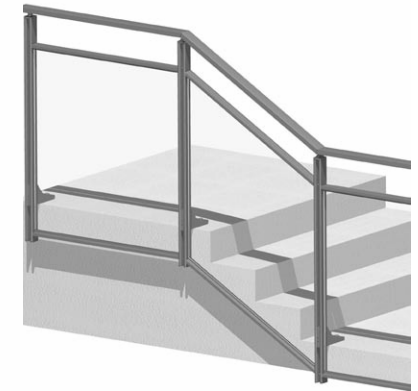
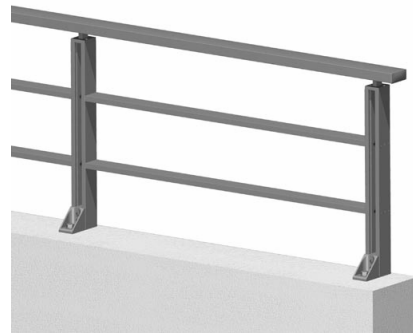
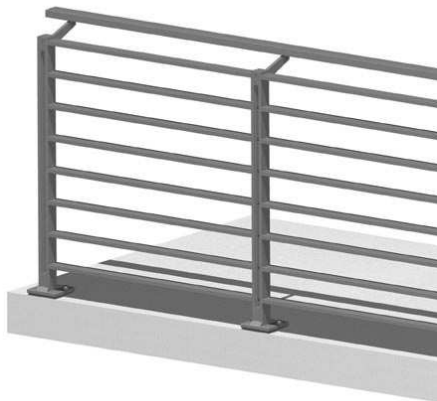
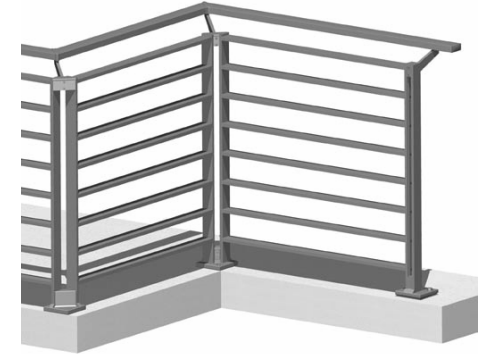
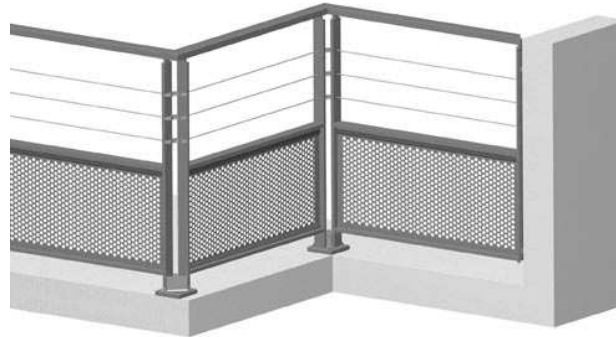
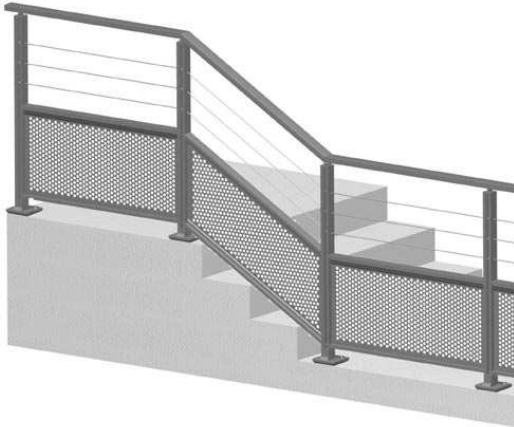




Application of Balustrade



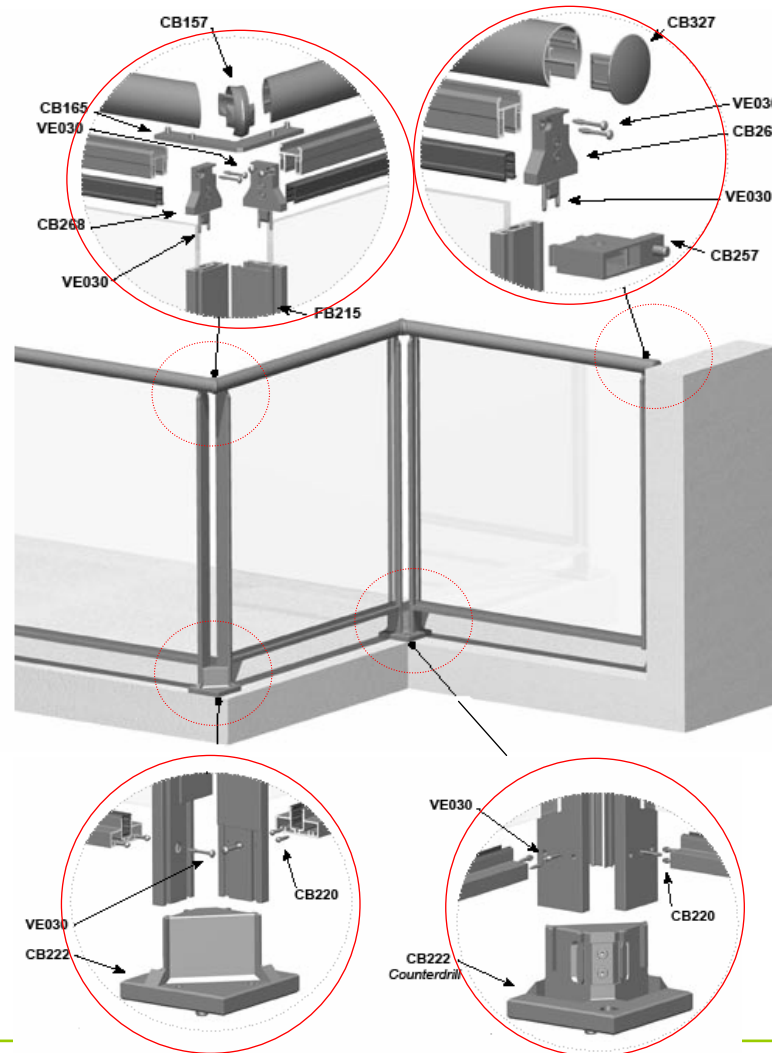
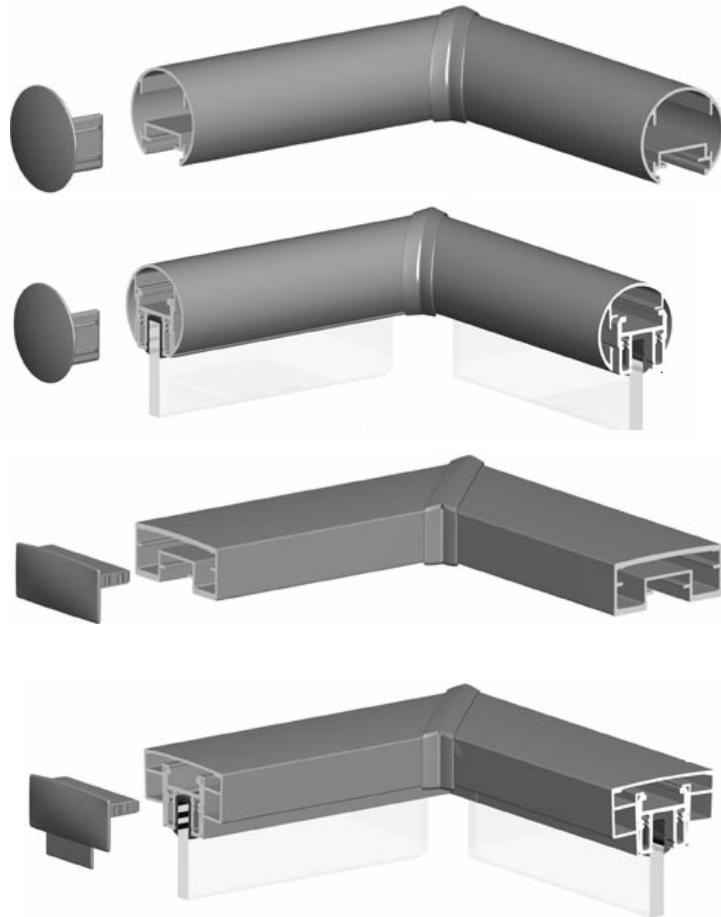
GYPSE
BY





Gypse is easy to Fabricate & Install

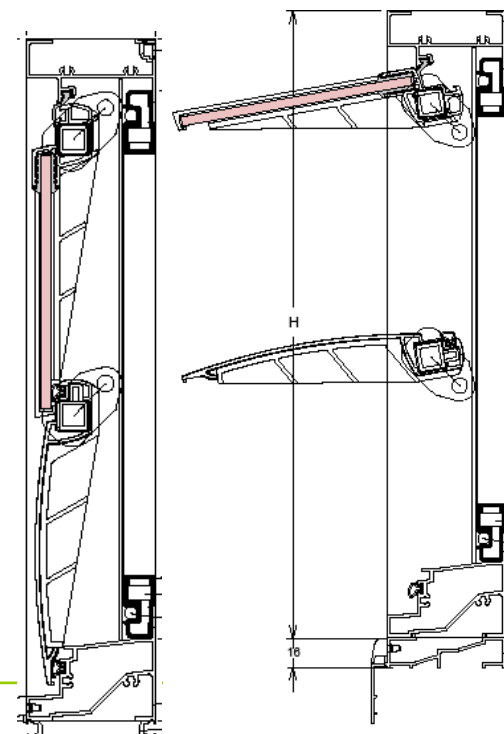
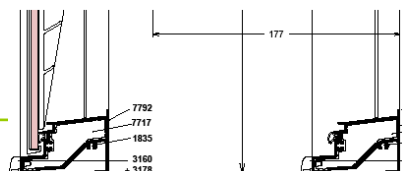
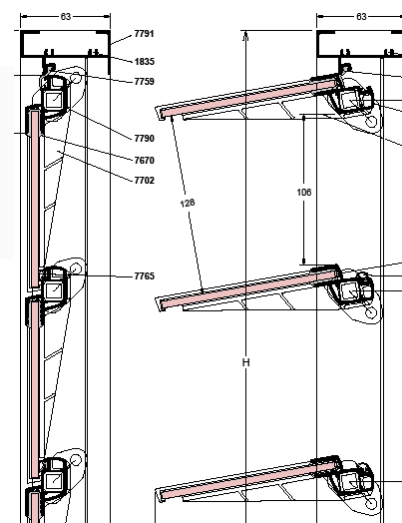
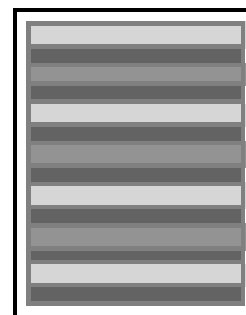
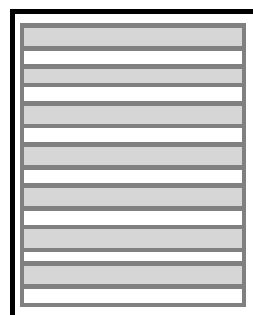
GYPSE
BY





Louvers

Safetyline
JX



Frame with glass louvers

Frame with fly screen



Frame with glass louvers



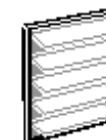
Frame with aluminium louvers



Frame with combination of louvers



Frame with opening window unit



Frame with fly screen



Façade Solution

Curtain wall frames :

Unique structure for several design effects.
Compliance with standards

Skylight :

Identical structure and capping profile sections for façade and glazing continuity

Solar protection :

Full range external solar protection systems on the outside to provide comfort in terms of daylight and temperature control on the inside

Structural Glazing :

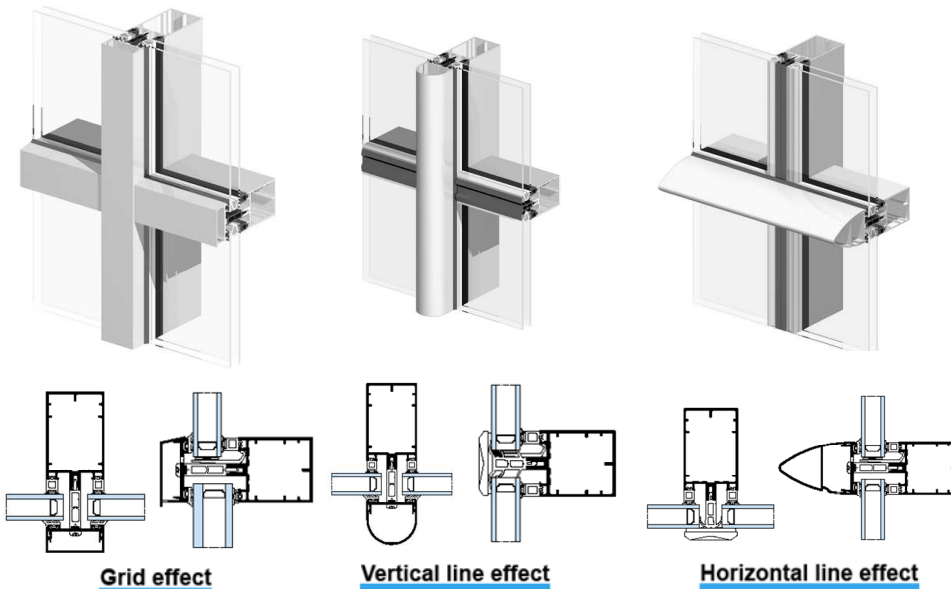
Semi unitised and unitised solution. Two way and Four way effect.



Géode
MX



Curtain Wall Concept



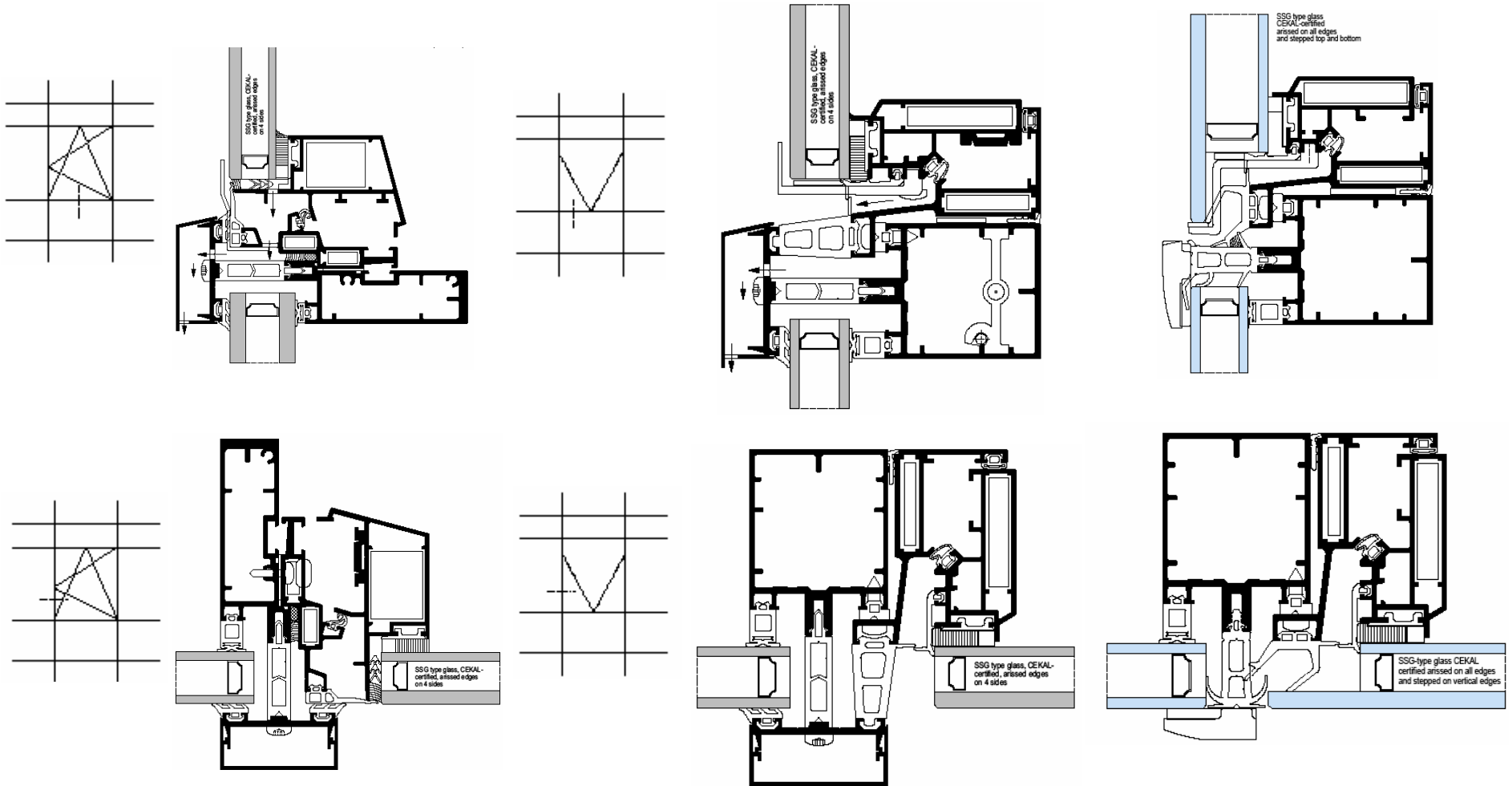
Grid effect

- Caps clipped onto aluminium pressure plates.
- Vertical 52mm x 23mm cap and horizontal 52mm x 15mm cap.
- Convex and concave angles from 0 deg min and 10 deg max

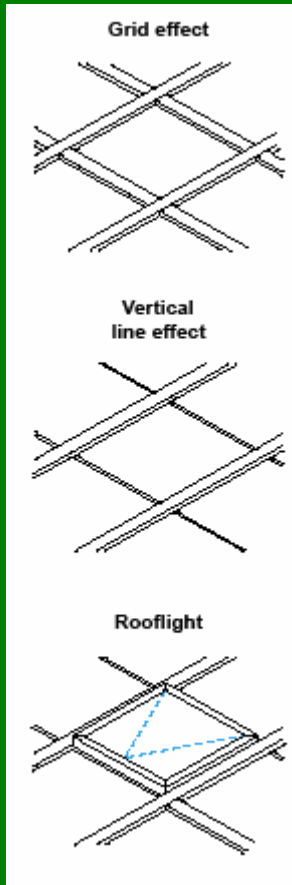
STRUCTURE

- 52mm module mullion-transom grid.
- 20-240mm depth.
- Steel reinforcement (standard).
- Aluminium sleeve sections.
- Square-cut mullion/transom linkage.
- Assembly using connectors fixed on the transom (punch tool machining) for face-on mounting. Specific junction piece for side-on mounting.
- Weathering on mullion/transom assemblies using connector plugs.
- Weathering of external structure ensured by aluminium pressure plates equipped with EPDM gaskets and plugs. Internally, EPDM gaskets are used. Any water ingress drained through pressure plate and horizontal caps.
- 6-32mm infill thicknesses.
- Thermal insulation ensured by a horizontal and vertical PVC spacer gasket installed between the structure and the external pressure plates.
- Clipped external aluminium caps.

Concealed Shutter Opening



Rooflight : 18 Deg – 60 Deg Roof Pitch



Grid

- 52mm module mullion-transom grid, assembled square cut with drainage continuity ensured.
- Profiles should be dimensioned according to applicable calculation formulae.

Infills

- 8-32mm infills are maintained vertically by a pressure plate and horizontally by glass roof capping pressure blocks

Weatherproofing

- Collection and drainage of any water ingress is via profile rebates.
- Internal weatherproofing is by EPDM gasket. Externally, a butyl strip on mullions and transoms is used, or a foam seal + silicone weatherproofing on transoms for vertical line effect

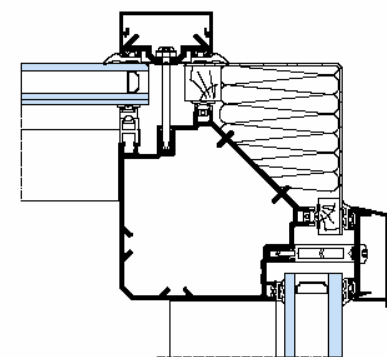
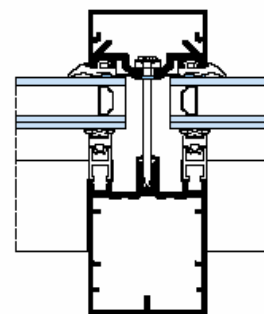
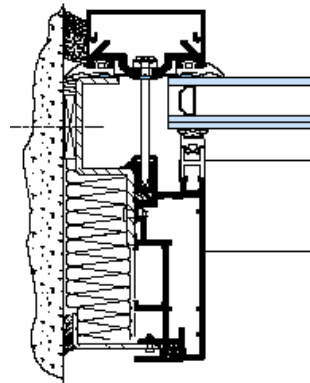
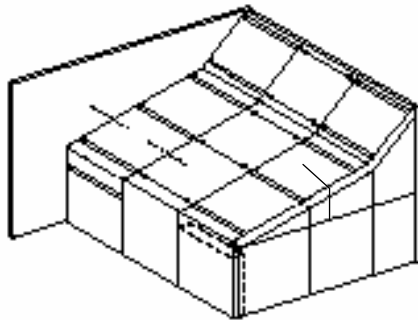
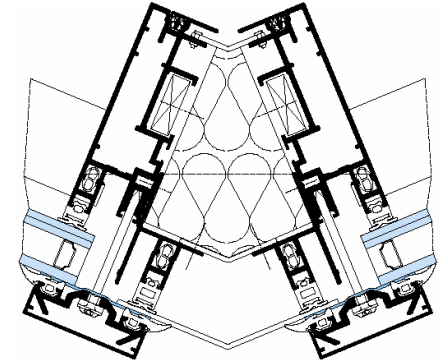
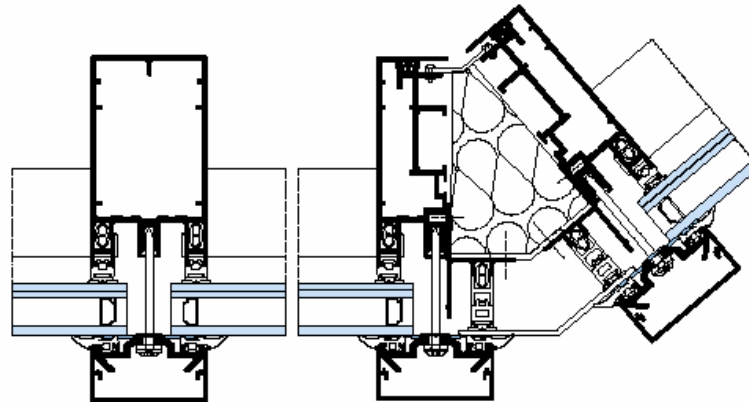
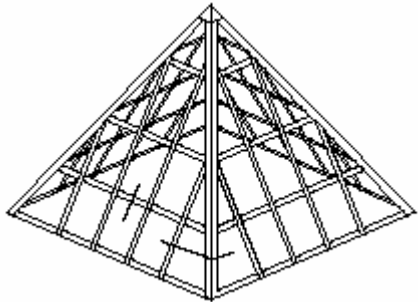
Grid effect

- Vertical and horizontal caps secured on pressure plates.
- Minimum slope: 45° with cap clipped to pressure plate, 30° with glass roof capping pressure plate.

Roof opening frames

- Roof vents may be integrated: 6-30mm glazing.
- 60° opening, electrically controlled.

Rooflight examples



International Projects



TECHNAL[®]

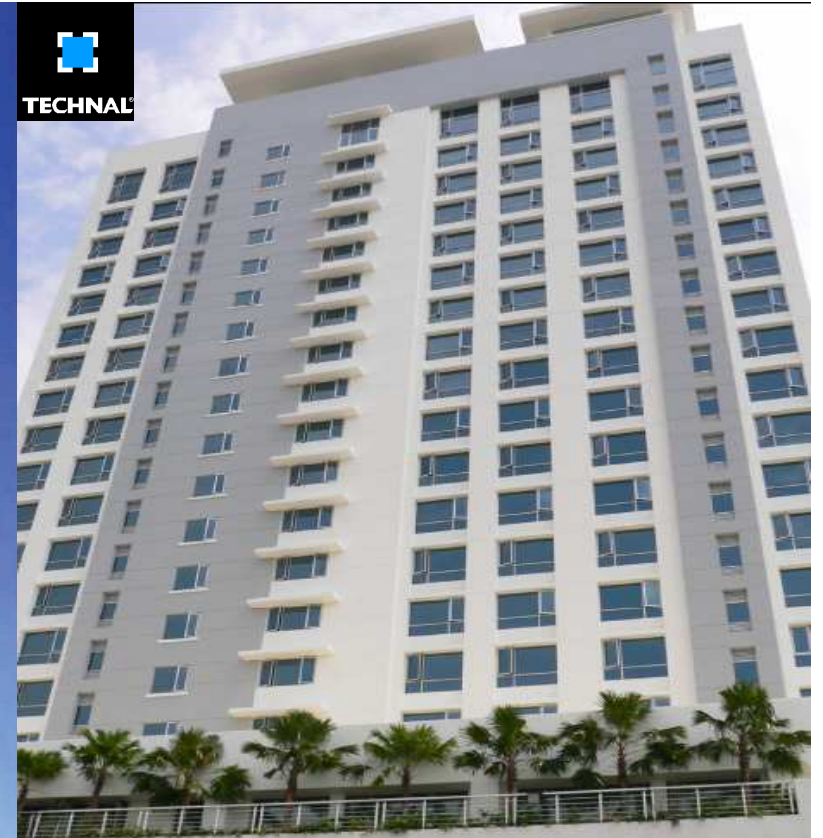


TECHNAL[®]

20 4 2008



Q Tower Manila, 41 Storey, 18500 sqm CW



Holiday Inn, Melaka, Malaysia



Pacific Palace, Hanoi



TECHNAL



**BANGKOK AIRPORT ,CONTROL TOWER
133m HIGH
VERY STRINGENT SPECS**



TECHNAL



Grupo Totta - Lisbon - Portugal



S D Towers, Mumbai

(Under construction)

The tallest residential tower in India with 63 Floors. All windows above 43^d Floor is using TECHNAL Hurricane Proof Window





**Polaris World Office
building in
Torre Pacheco, Spain**





•Curtain wall

**BEL-GHAILAM
RESIDENTIAL TOWER
AT KHALIDIA
*UNITED ARAB EMIRATES***



Type of construction: Residential - High luxury duplex apartments

Metal Builder: Technal Middle East / Manama / Bahrain

Architect: Architectural Consulting Group (ACG)

BAHRAIN NATIONAL HOLDING GROUP H.Q.

MANAMA

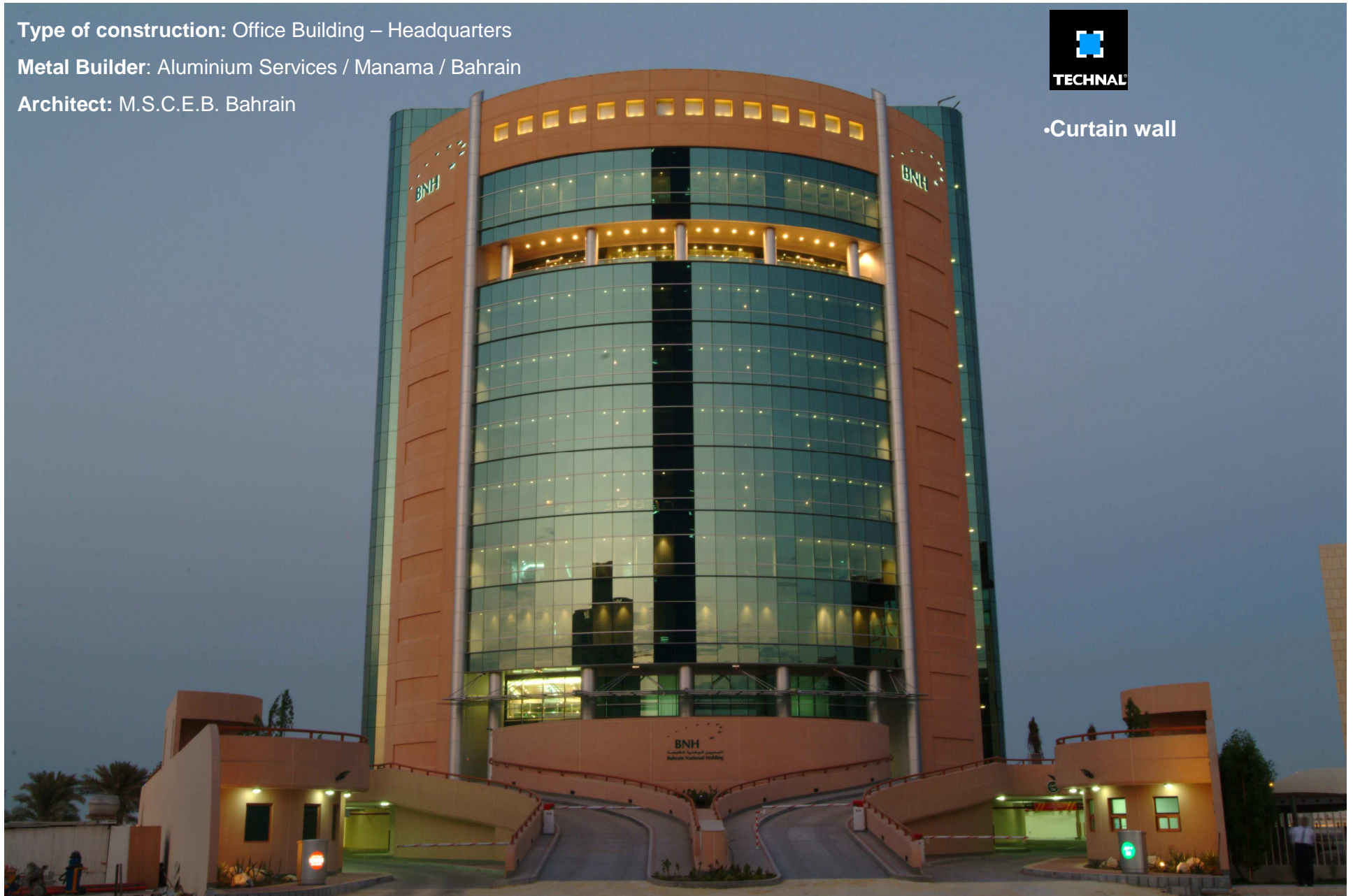
Type of construction: Office Building – Headquarters

Metal Builder: Aluminium Services / Manama / Bahrain

Architect: M.S.C.E.B. Bahrain



•Curtain wall



KHALIDIA COMPLEX

ABU DHABI – U.A.E.



- MX Curtain wall
- PX door



NATIONAL COMMERCIAL BANK H.Q. (NCB) RIYADH - KINGDOM OF SAUDI ARABIA



• Curtain wall





UNIVERSAL TOWER KUWAIT



•Curtain wall

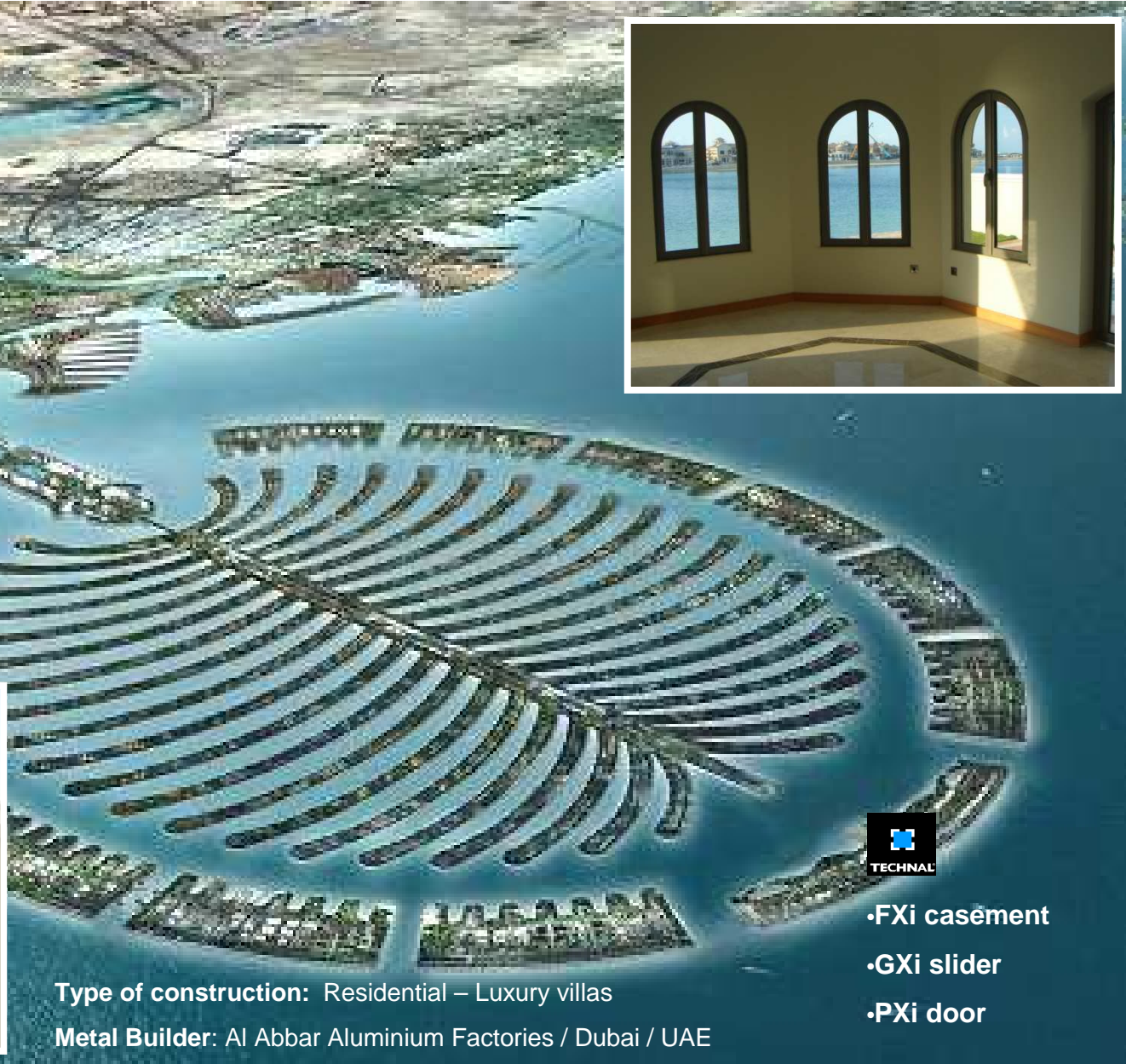
Type of construction: Office building

Metal Builder: Al Khalid Aluminium / Kuwait

Architect: Saleh Al Qallaf Consultants

THE PALM VILLAS - JUMEIRAH

DUBAI – U.A.E.



Type of construction: Residential – Luxury villas

Metal Builder: Al Abbar Aluminium Factories / Dubai / UAE



- FXi casement
- GXi slider
- PXi door

ATHENEE TOWER BANGKOK - THAILAND

Type of construction: Office Building

Metal Builder: Alumayer Thailand / Bangkok / Thailand

Architect: A 49



•Unitized façade

PARK CHILDOM

BANGKOK - THAILAND



- FBI casement frame
- GBi26 sliding system
- PBi door
- MX curtain wall (dual -colour)
- BY balustrade

Type of construction: Collective housing / 2 towers - 29 & 37 floors

Metal Builder: Alumayer Thailand / Bangkok / Thailand

Architect: Palmer and Turner

ZHU JIANG NEW CITY CHINA



- FB casement frame
- Curtain wall

Type of construction: Residential – collective housing

Subcontractor: Nonfemet International / Shenzhen / China

Zhu Jiang New City

TONG GU GARDEN CHINA



- FB casement frame
- PB door
- GB slider

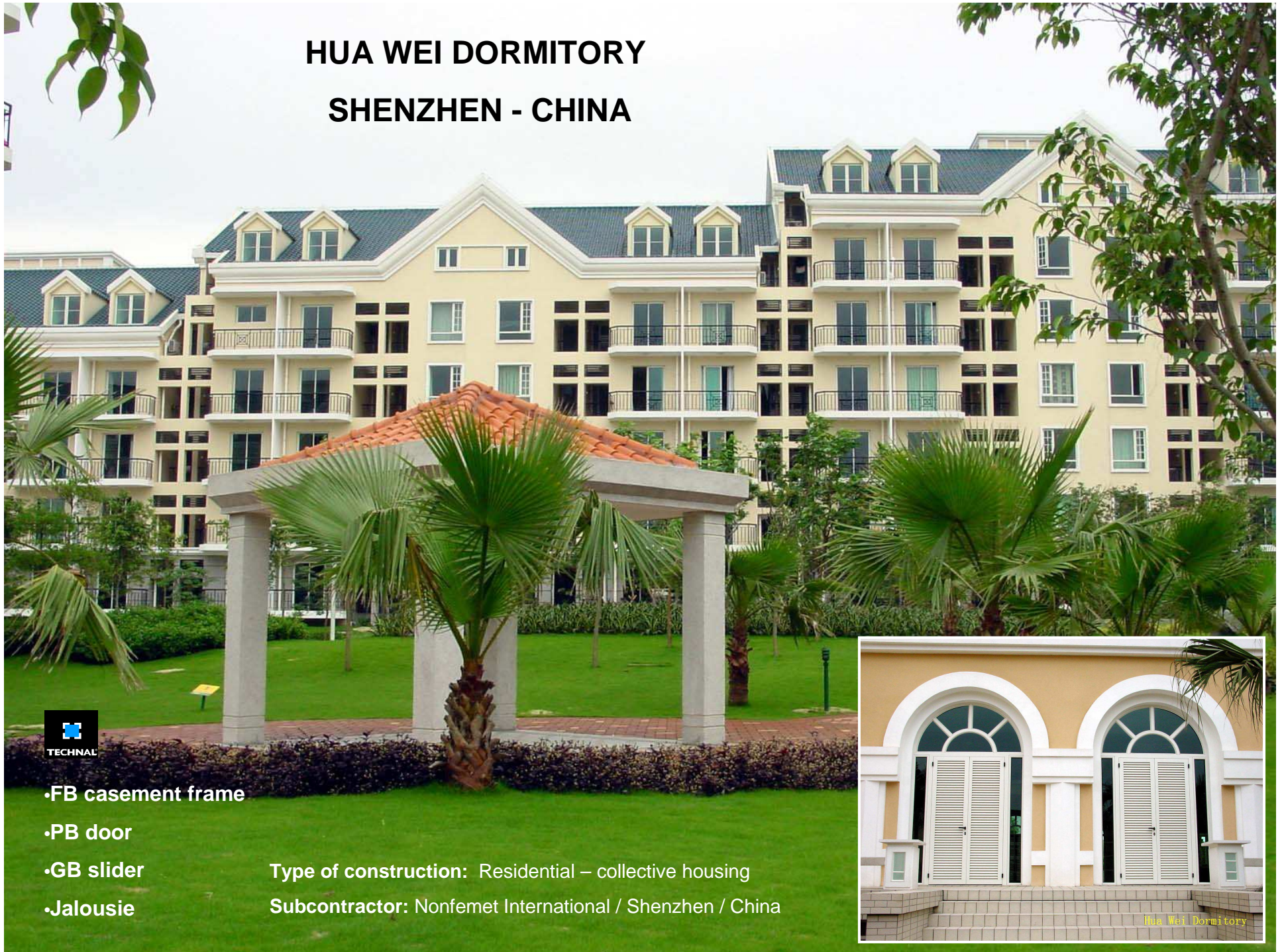


Type of construction: Residential – collective housing
Subcontractor: Nonfemet International / Shenzhen / China



HUA WEI DORMITORY

SHENZHEN - CHINA



- FB casement frame
- PB door
- GB slider
- Jalousie

Type of construction: Residential – collective housing

Subcontractor: Nonfemet International / Shenzhen / China

Hua Wei Dormitory

GREEN LAND
CHINA



Greenland

Thank you

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Our values

Courage
Respect
Determination
Cooperation
Foresight



HYDRO

Progress of a different nature

