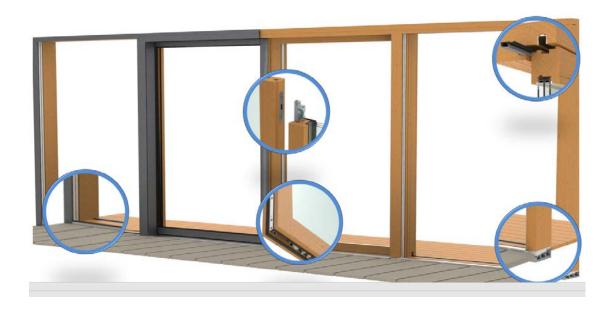


# HST Panorama wooden or wood-aluminum lift and sliding doors



...you will understand the difference.





#### HST Panorama: lift&slide doors













BERTRAND hardware features a full range of the highest quality from a single source. Including drive gear, rollers, sealing profiles and thresholds. The fittings are suitable for moving sash weights up to 400 kg in timber and timber/aluminium. Product innovations include the revolutionary retractable locking hooks and flush-closing striker plates.

Other new features in addition to frameless fixed glazing include narrow timber profiles for very large-format doors up to 3600 mm sash height and 300 kg sash weight.



# Frameless fixed glazing

In addition to narrow frame friezes, flameless fixed glazing serves to continue the trend towards the ultimate design goal of achieving large-area glazing with minimal framing.

The material savings is another compelling advantage of this construction. Accommodated at the bottom, the fixed glazing is surrounded by a thermally broken compensation profile.





## Narrow wooden frame mouldings

Ultimate daylight surface areas and glassdependent optimal U-values are benefits in terms of both comfort and energy balance.

Thanks to the narrow friezes, users enjoy the advantages of a sliding glass front and the frame is kept intentionally in the background. Lift and slide doors become design elements in the room. Both the standard lift and slide fittings and steel hook drive gear can be integrated into either timber or timber aluminium profiles from 76 mm height.



#### Maximum area

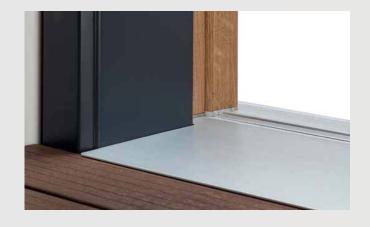


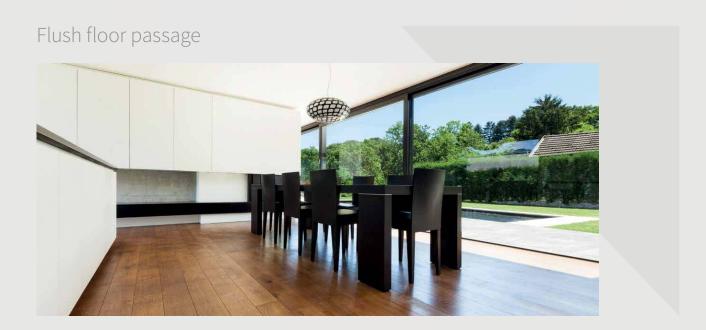


#### Ground beam

The ground beam is an aesthetically elegant solution which ideally compensates the level difference between indoor and outdoor surfaces. The ground beam can be easily exchanged at any time.

Combined with the flat roller track it makes the lift&slide solution suitable for the handicapped.







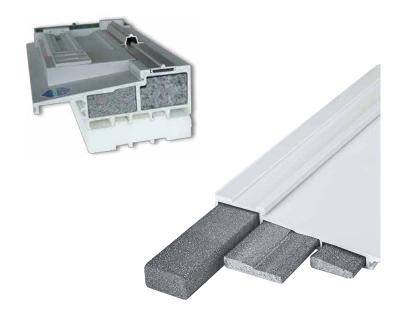




#### GFRP threshold

The corrosion and chemical resistant threshold provides effective insulation against cold and heat. Its glass-fibre reinforced PVC ensures heating cost savings at the bottom of the door.

Two single-section thresholds are available in basic widths of 180 and 240 mm. These extremely light and strong thresholds can be individually widened. Optional insertable insulating profiles ensure for optimal thermal insulation.





# PVC multi-chamber gasket track

Two opposite rail bodies accommodate a single external sealing strip and an internal bubble gasket.

The external sealing strip effectively combats driving rain rain and strong winds. The hose gasket forms the primary seal. The multi-chamber PVC body provides an optimal thermal barrier.

The gasket track can be mounted vertically and horizontally on extremely narrow timber and timber-aluminium systems. It can accommodate sash tolerances of +/- 3 mm.





Discrete: The fixing screws securing the gasket track are covered by the bubble gasket. The track is available in silver, white and black.



#### Guide track

The concealed overhead guide track is milled flush with the frame.

Regardless of the sash weight this guarantees safe, easy guidance of the lift and slide door and ensures for maximum viewing area.

A choice of optional buffers or limit dampers for the roller-assisted guidance unit additionally increases the exceptional locking convenience. They also help to support the surrounding masonry with very heavy sash weights.



#### Safe and easy sash guidance





#### Steel hook drive gear

The locking technology is similar to multilocking for front doors. When the door is open, the steel locking hooks are fully retracted into the lift-and-slide sash via the handle position. No protruding locking parts, nothing disturbs the aesthetics.

When the door closes, the hooks engage smoothly into the frame-sided flush recessed locking parts.

In addition, the steel hooks ensure high mechanical protection against burglary.





#### Drive gear damper

The drive gear damper reduces the resistance force and produces a soft, delayed return of the handle.

The drive gear damper is not visible when fitted and can be flexibly retrofitted. It contributes to operating convenience, especially on heavy doors.















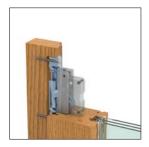


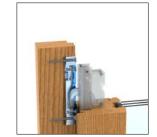
















#### Characteristic elements of the HST Panorama system

- Hs espagnolette with hidden hook closure
- Frameless solid glazing
- Customized solutions
- Asymmetric lower rail (5 mm)













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Bertrand windows and doors



