

## DESCRIPTION OF THE STRUCTURE

The MB-59HS lift & slide door system with a thermal break has been designed to execute elements of architectural external development, featuring high thermal and sound insulation performance and tightness to water and air infiltration.

The system meets any requirements regarding energy efficiency and environmental protection.

The parameters of doors made from elements of the MB-59HS system exceed the requirements of the most stringent regulations and standards.

### Characteristics of the MB-59HS system:

- The constructional depth of door profiles equals: 59 mm (leaf), 120 mm (2-guide rail frame), 199 mm (3-guide rail frame).
- The profiles applied in the system have three-chamber construction, the core of which is an insulating chamber placed between shaped thermal spacers of the width 50, 42, 36 or 34 mm.
- The system allows obtaining two variants of the structure of different thermal insulation, without having to change basic profiles and accessories. The first variant (MB-59HS ST) with an empty central chamber features the lowest thermal insulation performance, while the other door variant (MB-59HS HI) - with the central chamber filled with special insulation insert or with a break between thermal spacers, dividing the inner air chamber into two parts - features higher insulation performance. Thanks to various options in which the structure comes, it is possible to meet different needs of users, while retaining low costs of door fabrication and storage of the system elements.
- Relatively low value of thermal transmittance for frames  $U_f$  is ensured due to the application of wide thermal spacers, polyurethane inserts and plastic profiles fitted in thermal insulation belts.
- High tightness to water and air infiltration is possible due to the special shape of closing gaskets (compression seals) and glazing gaskets and hardware enabling the leaf to "fall" on the frame during the last stage of leaf closing.
- Most gaskets (e.g. glazing gaskets and internal closing gasket) are fitted in a continuous manner, without corner trimming, by joining two ends of gaskets in mid-length of the door frame header. The leaf closing gasket (compression seal) is trimmed at the angle of 45° and glued in the corners or it is trimmed at the angle of 90° and glued to the rubber corner. Such technique of gasket fitting ensures efficient tightness to water and air infiltration.
- Glazing beads of the closed shape, allow secure installation of infills, thanks to which it is much easier to construct anti-jemmy structures. Positioning EPDM rollers are fitted in these beads to facilitate the process of beads fitting in the window or door frame.
- Internal glazing gaskets are deeply set in glazing beads, that is why they are hardly visible from the outside.
- Allowable thickness of glass panes to be fitted in the door leaf ranges between 10.5 and 42 mm. This wide glazing range enables installation - two-chamber, acoustic or anti-burglary glass.
- Application of standard grooves makes it possible to fit most types of overhead & sliding or sliding hardware available on the market, e.g. G-U, Hautau, Siegenia, Roto.
- Drainage of profiles comes in two options - either as concealed or visible with a decorative cover.
- Compound profiles applied in the MB-59HS ST and HI versions may be subjected to powder coating or anodizing.
- Corners are offered as elements made from extruded profiles and allow crimping or pinning with the use of two-component Coralglue.
- The technology of structure fabrication is simplified as much as possible in order to enhance time efficiency.
- Most workings can be performed with the use of tooling (drilling templates, presses, blanking dies).
- Maximum dimensions of door leaves significantly increase the values recognized as the standard ones: Hs=2.8m, Ls=3.3m. Maximum leaf weight - 300 kg.

# MB-59HS

Podizno-klizna vrata

- MB-59HS lift and slide doors can now be fitted with a Document M compliant low level threshold to ensure easy access for all.
- The MB-59HS system is compatible with other Aluprof systems, especially with the MB-59S. Hence a number of elements are applied in more than one system, e.g. gaskets, hardware and most accessories.

