

Best performance features for highly frequented  
entrance areas, emergency exits and escape routes

# Commercial Door System heroyal D 72



**heroyal**

## Commercial Door System

First-class materials, technical perfection down to the smallest detail and a wide variety of design options are the unique characteristics of heroal's efficient system technology. Advantages that are convincing. For decades, heroal has been the reliable partner for architects, builders and fabricators, offering innovative solutions for the building shell made from aluminium and aluminium composites.

Planners appreciate the wide range of versatile design options, builders are able to create individual requirements with a reliable system, and our partners benefit from economically efficient heroal system solutions.

The system heroal D 72 offers functional versatility and sophisticated designs, achieves perfect insulation values and meets the highest static requirements. The certified, reliable heroal system is suitable for all standard opening types including automatic door systems and burglary resistant front doors - also with emergency exit function.

Explore the variety of the commercial door system heroal D 72!



### heroal D 72

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Commercial door system for heavily frequented entrance areas

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### System dimensions and system features

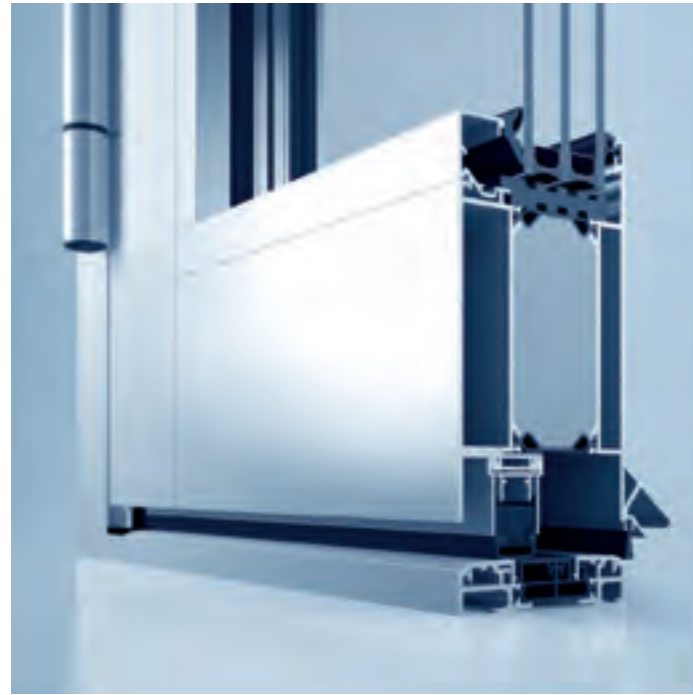
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# heroal D 72

Commercial door system for heavily frequented entrance areas



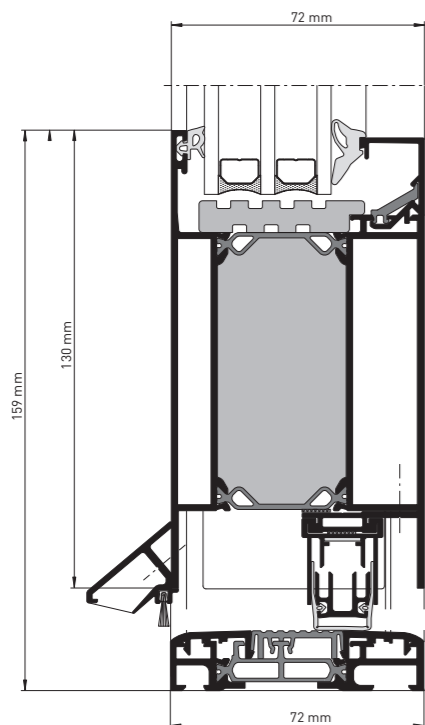
The commercial door system heroal D 72 offers functional versatility, a wide range of opening variants and the characteristic heroal performance features. With this tested and certified heroal system, all standard opening variants can be created, incl. emergency exits and escape routes acc. to DIN EN 179/1125, automatic door systems, doors with finger guards and burglary-resistant doors – also with emergency exit function.

### System dimensions and system features

- » design depth: 72 mm (frame/bars), 65-72 mm (sash)
- » variable face widths: frame 60-250 mm, sash 56-124 mm, bars 70-254 mm
- » smallest combinable face width: 145 mm
- » max. sash width/ height: 1,400 mm/ 3,000 mm
- » max. sash weight: 180 kg
- » max. thickness of glass /infill panel: frame up to 54 mm, sash up to 68 mm (glass) and 72 mm (panel)
- » thermal insulation:  $U_f > 1.7 \text{ W/m}^2\text{K}$  (meeting all requirements of GEG 2020, the German Buildings Energy Act)
- » air permeability: 4
- » tightness against driving rain: up to E900
- » wind load resistance: C4
- » soundproofing: up to  $R_w = 43 \text{ dB}$
- » certified burglary resistance up to resistance class RC 3
- » impact resistance: class 4
- » operating forces: class 2
- » mechanical strength: class 3
- » continuous function: up to class 8
- » behaviour between different climates: class 2 (d/e)
- » meeting requirements of load bearing capacity of safety devices
- » patented, warp-resistant compound profile

### Design options

- » opening variants: single or multi-part single-action doors with sidelights and toplights, push-pull, half-swing, French and automatic doors
- » special forms of single or multi-part doors with sidelights or toplights as segmental, round and basket arch
- » design variant heroal D 72 PF „Panel Fixed“ with fixed stop, no glazing strip required
- » all-round sash frame, with base, single or doubled-sided FüF
- » sash variants inside/outside flush and recessed
- » compatible window system: heroal W 72
- » integration into curtain wall systems heroal C 50/ C 50 HI possible
- » high-quality colour design with heroal hwr powder coating, heroal SD surface designs and Les Couleurs® Le Corbusier

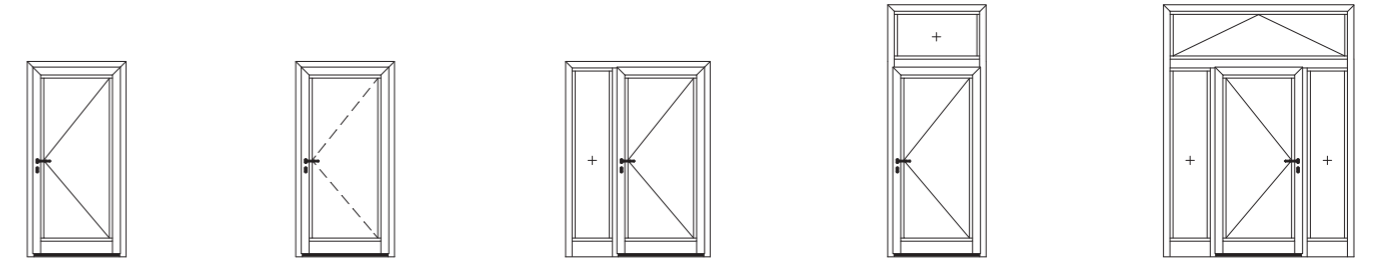


heroal D 72, cross section

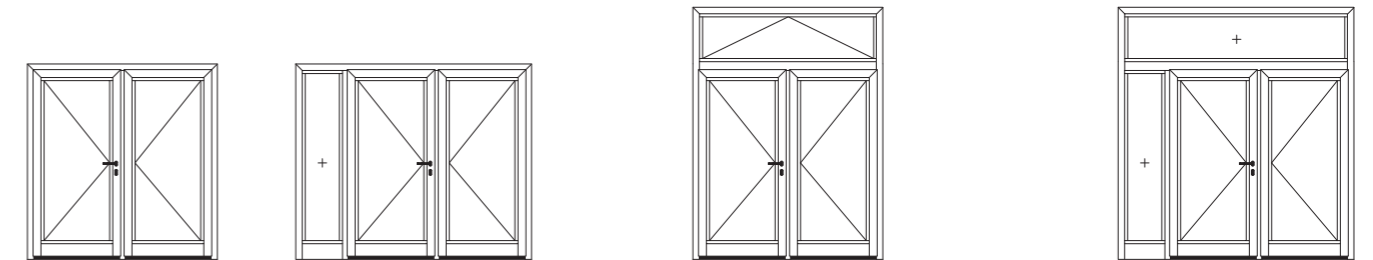
# Types of doors and opening variants

Flexible designs for all demands

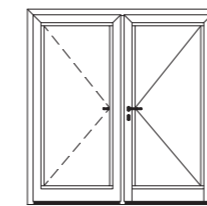
### Single-sash elements



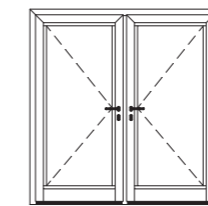
### Double-sash elements



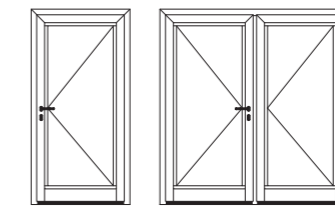
### Push-pull door



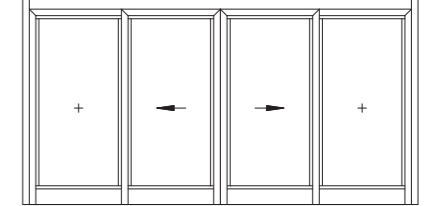
### Half-swinging door



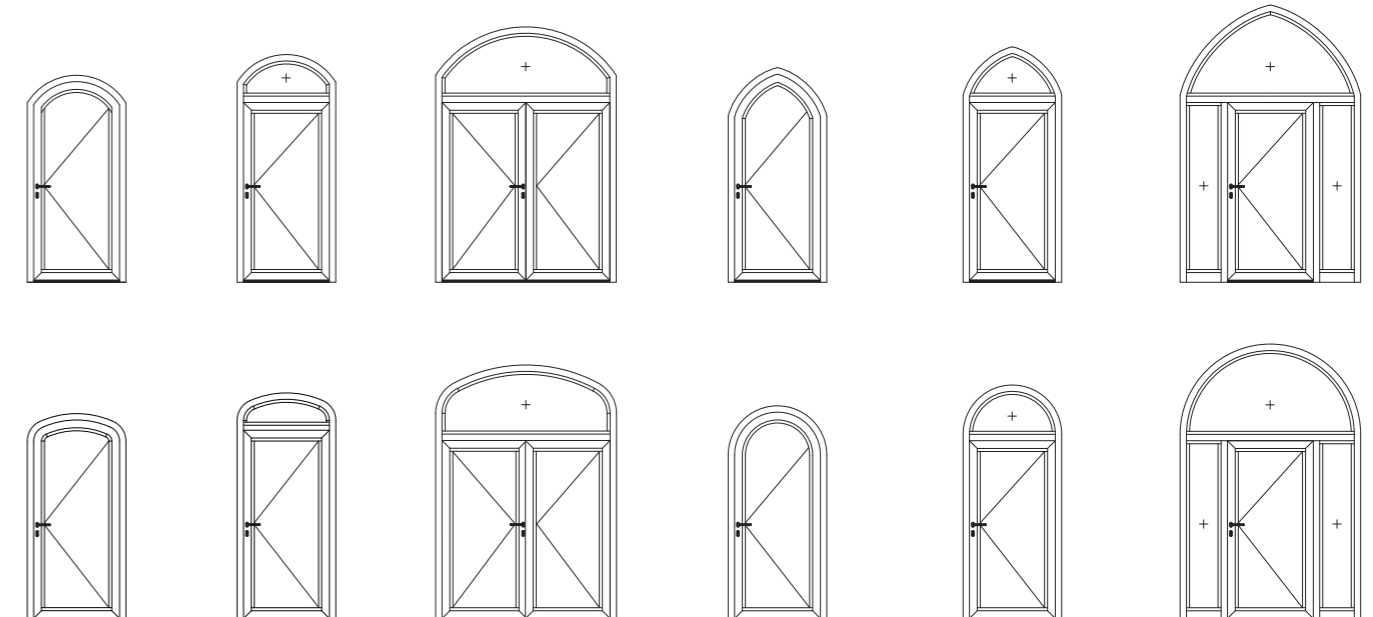
### Door with finger guard



### Automatic door



### Special forms with one or two sashes



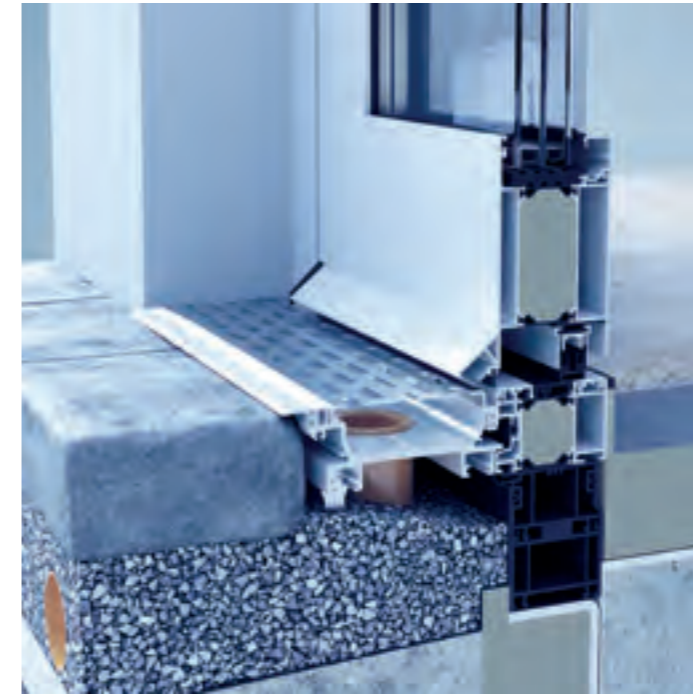
## Barrier-free threshold solutions

For all requirements and applications

The German industry norms DIN 18040-1 for public places and DIN 18040-2 for accessible dwellings explicitly ask for step-free threshold solutions. A maximum design height of 20 mm is only admissible as an exception, i.e. for lack of alternatives. In Germany, the legislative body supports these normative requirements by an amendment to the KfW programme 159 "age-friendly retrofiting". The German state-owned development bank KfW grants subsidies for barrier-free commercial doors and apartment doors. These subsidies are based on DIN 18040-2 for single and two family houses and apartments.

To meet these legal requirements, heroal offers cross-system solutions for all large openings in the fields of commercial doors, French doors and lifting-sliding doors. The sophisticated, universally applicable threshold solutions for commercial doors offered by heroal can be used for all opening variants, for inward or outward opening elements and for elements with all-round sash frame or base profile.

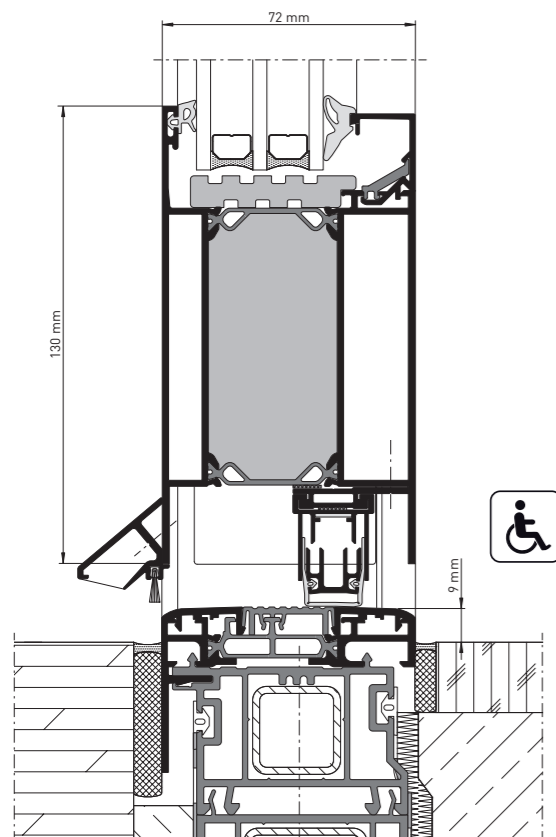
Zero-barriers make sure that entrance elements can be crossed easily, i.e. without limitations due to threshold variants that may be technically necessary in order to ensure the general tightness of the element.



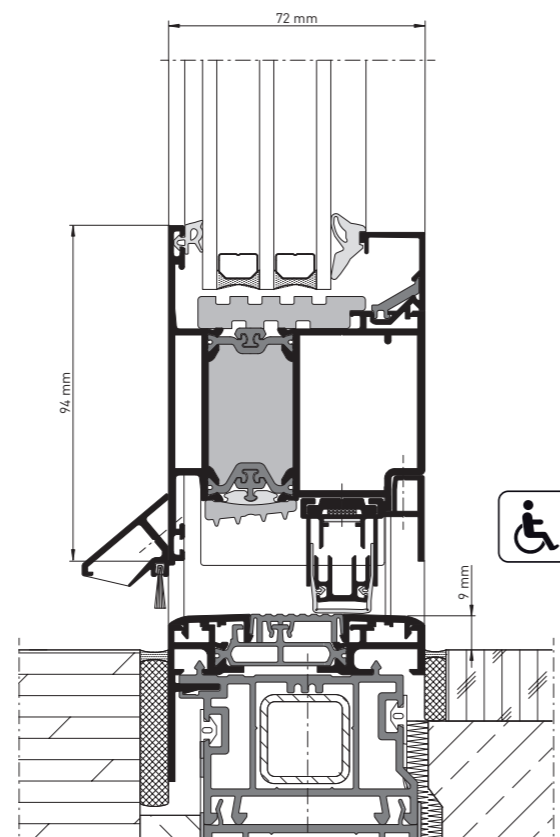
### The drainage system heroal DS for all applications

In order to create barrier-free thresholds for door elements and at the same time protect the inside against moisture damages, it is necessary to meet specific requirements. A suitable solution is the installation of a drainage system that returns the accumulating surface water without backing-up. The amount of rain to be expected and the quality of the paved surface outside are important factors for planning an efficient surface drainage system for the return of water, and choosing the suitable drainage.

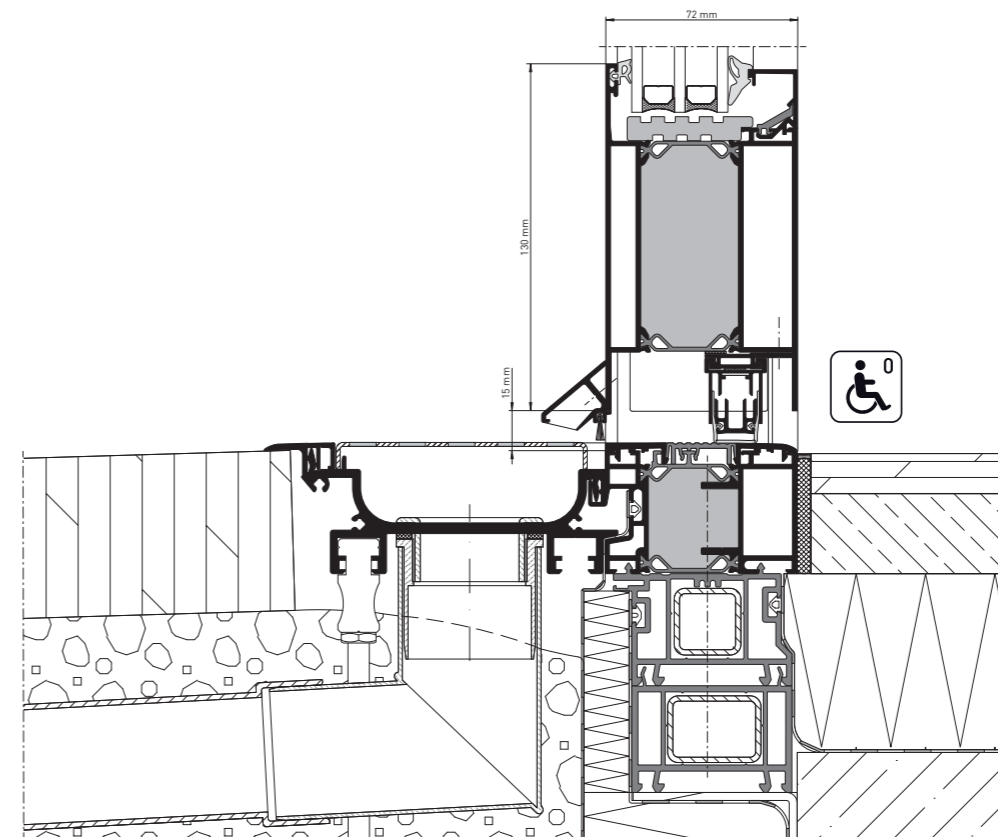
The variety of possible combinations of different heroal systems grants builders, architects and fabricators a high planning reliability.



heroal D 72, cross section barrier-free acc. to DIN 18040



heroal D 72, cross section barrier-free acc. to DIN 18040



heroal D 72, cross section zero-barrier acc. to DIN 18040

## Integration into curtain walls

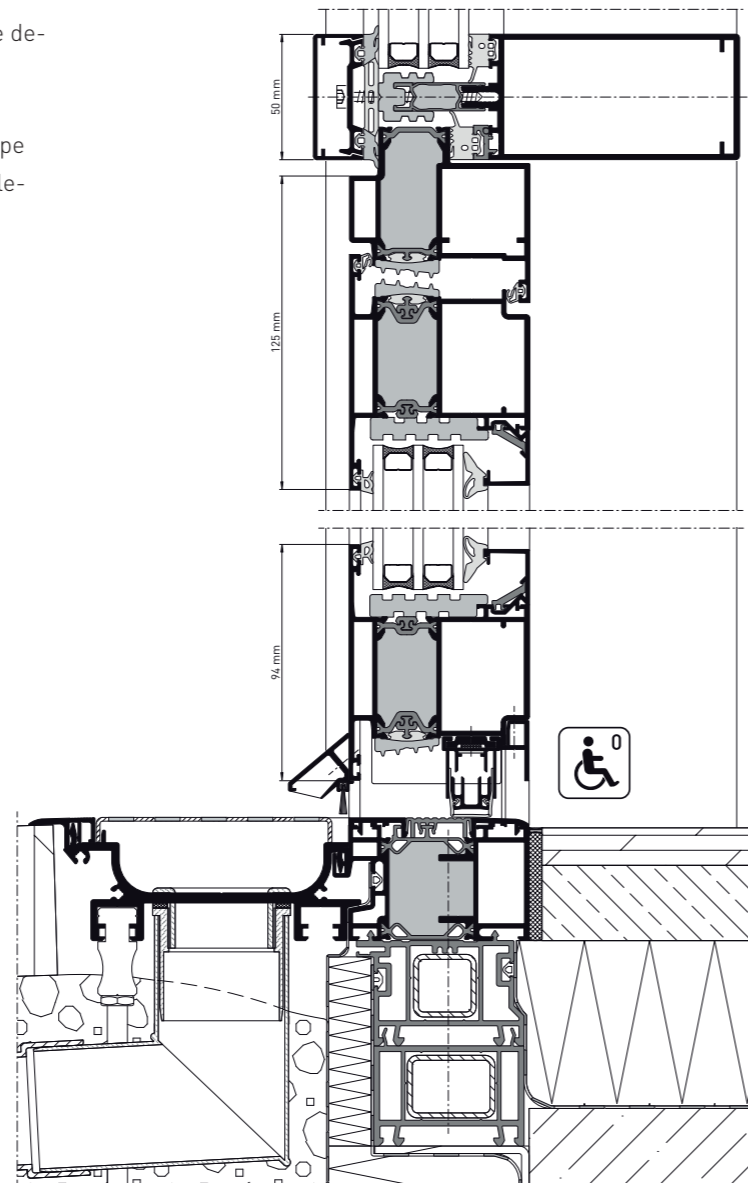
The commercial door system heroal D 72 offers a wide range of versatile profile designs, which is an important basis for its integration into the curtain wall system heroal C 50. The curtain wall system heroal C 50 with its modular design represents the ideal solution for the different demands on the transparency and energetics of buildings.

Since it is possible to integrate window and door systems by heroal into the curtain wall, architects and fabricators have great freedom of design when planning their projects. The variable system components also show the many advantages and benefits of the heroal system – aesthetically appealing, fail-safe and tested. Zero-barrier and universal design are key words which are consistently emphasized when discussing the planning and transfer of public and non-public building projects during the design process.

For us, certified door solutions for emergency exits and escape routes, durable fitting variants, even for heavily frequented ele-

ments, as well as maximum manufacturing dimensions are a matter of course. According to EN 12101-2, this regulated construction product consists of a window with its essential parts (profiles, sealants, fittings), the infills (glass panes, panels etc.) and the driving system with its essential parts (drive, consoles, fittings).

In combination with heroal profiles, certified NSHEV and SHEVS systems can be used. A number of partners offering various solutions are available to support you. NSHEV is a naturally operating smoke and heat exhaust ventilation system. It releases smoke and hot flue gas developed by a fire inside a building.



heroal D 72, cross section integration into curtain wall



## heroal technologies

For optimised and time-saving manufacture



### heroal corner angle technology

The innovative heroal sealant injection ensures the optimal sealing of the mitre joints of the elements, while requiring only low material input. At all four sides, the corner connectors are completely covered with sealant, providing for even more system reliability. An efficient and hence time-saving production of doors is made possible through heroal corner connector technology, which enhances the production process during the installation of corner angles. The ideal, guided distribution of sealant and the innovative corner angle geometries lead to considerable savings of material. heroal expandable corner angles support the adjustment of mitre-cut aluminium profiles, so that doors can easily and immediately be further manufactured and processed without the need for any additional alignments.



### heroal fitting technology

The fitting technology heroal DF ensures a great flexibility because its concept of a universal design can be adapted to the individual requirements of the user at any time. It also stands out for its intuitive operation and easy usability. heroal offers tested and certified fitting components for door elements with one or two sashes serving as emergency exits and escape routes acc. to DIN EN 179/1125. heroal door fittings are compatible with sophisticated techniques, such as keyless entry and Bluetooth, which further increase the ease of use. The high-quality, aesthetically appealing hinge technology not only offers various options for barrel and surface hinges, but also a concealed solution. These hinges are suited for door sash weights up to 250 kg, and made of aluminium and stainless steel.



### heroal T-connector technology

The optimised and time-saving production of doors is made possible by heroal T-connector technology. The innovative heroal sealant injection has been developed for an optimal sealing of T-connections and joints. The use of closed-cell foam rubber to seal the rebate ensures a high system reliability. The innovative heroal sealant injection guarantees the optimal sealing of T-connectors and joints with a low material input.



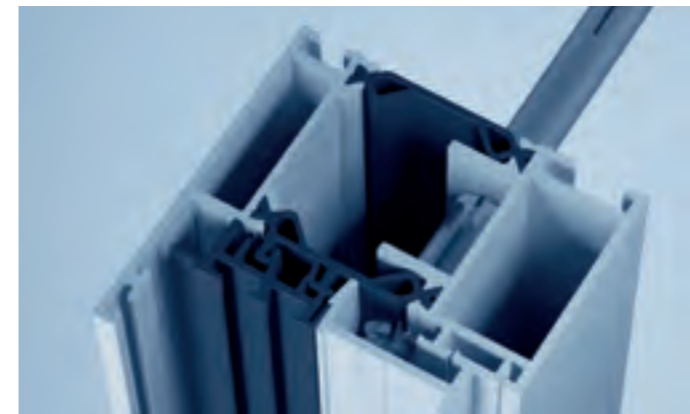
### Reversible panel fixing

For its commercial door system heroal D 72, heroal offers a reversible panel attachment - an innovation in the aluminium sector. This way of attaching the panel to the sash is made by way of joining and has received RC 2 and RC 3 certification. The reversible panel attachment is suitable for the sash profiles heroal D 72, heroal D 72 CL, heroal D 72 RL and heroal D 72 PF. This way of attaching the panel to the sash, without the need of any bonding technique using 2K adhesives, saves time and makes the fabrication easier and more process reliable. At the same time, fabricators benefit from shorter lead times.



### heroal compound technology

By means of three innovative production steps, the commercial door system heroal D 72 offers an effective protection against the bimetal effect, which might cause warping of the sash frame due to considerable temperature differences between the outside and inside. The patented, warp-resistant heroal profile compound, consisting of an inserted, tight insulating strip and a slide-in spring, protects the profile against damaging shear forces.



### Profile geometries for optimised production

The commercial door system heroal D 72 offers a stop bar geometry with optimised processing and fabrication, a variable and concealed fixing of the element, a safe screw connection of fittings by means of an additional aluminium profile cladding that also increases burglary resistance, enhanced U-values in the area of the element frames, and a reduction of required parts due to the standardisation of rebate insulations for element and sash frames. An additional insulation of the frame towards the wall is not necessary.

## Ability to release

### Commercial door system as emergency exit or panic door

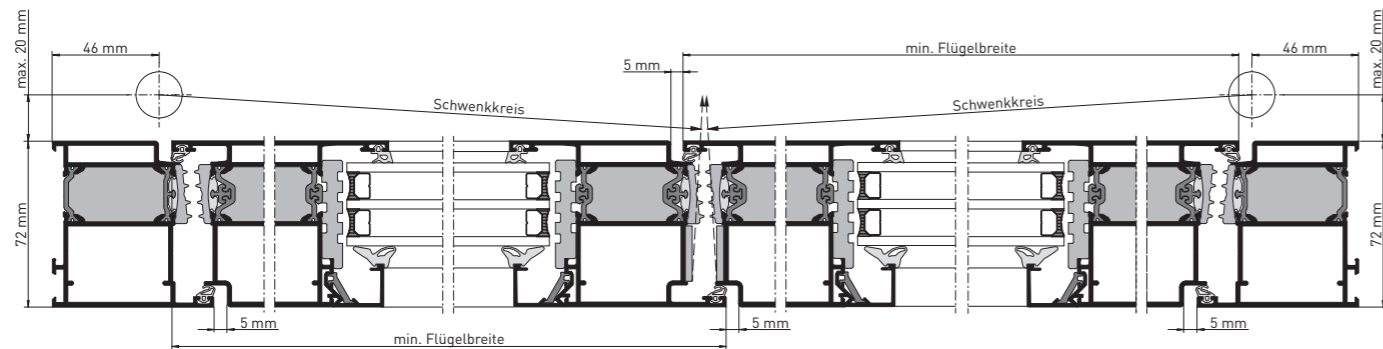
The commercial door system heroal D 72 offers tested door solutions for emergency exits and escape routes, maximum manufacturing dimensions, and durable fitting variants suitable for heavily frequented doors. Doors installed in escape or emergency routes are called escape or panic doors. The demands on external doors in escape routes are regulated in product norm EN 14351-1; component parts are subject to conformity assessment procedure 1. This procedure requires the verification of elements by independent bodies, and internal manufacturing controls integrated into the management of a business. Any CE-marking is subject to these requirements.

The interplay of frame, sash, fittings and their individual installation situation is essential for escape or panic doors. Simply joining components with CE-marking does not necessarily create reliably functioning escape doors. Depending on the installation

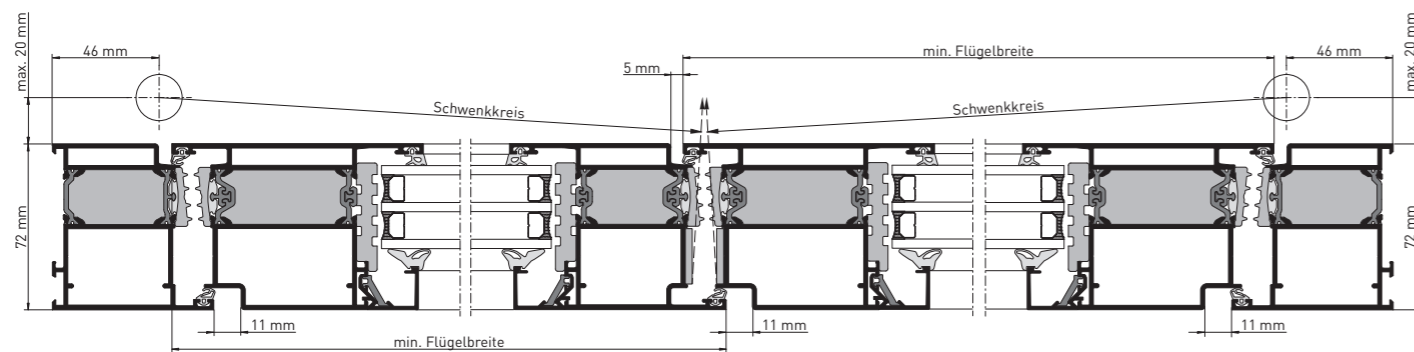
situation, opening the door may be blocked, if both door sashes are opened at the same time. This is also called jamming. When escape and panic doors are opened, the two door sashes “merge” via the inactive sash, because of the rebate geometry of the door sash and the gap size between the door sashes.

The design of a durable and reliably functioning door without jamming starts in the planning phase, by choosing the ideal profiles and fittings. The required gap sizes depend on the widths of both active and inactive sash, and need to be observed during profile cutting and manufacture. heroal offers coordinated profiles, panic sashes with 5/11 mm gap size and matching fitting variants.

It is also necessary to verify whether a specific locking system for escape and panic doors is required.



heroal D 72, cross section, ability to release, gap size 5 mm



heroal D 72, cross section, ability to release, gap size 11 mm

## System dimensions and system features

### System dimensions

| Description                               |                | heroal D 72 |
|-------------------------------------------|----------------|-------------|
| Profile design depth (mm)                 | Frame profiles | 72          |
|                                           | Sash profiles  | 65-72       |
|                                           | Bar profiles   | 72          |
| Profil face width (mm)                    | Frame profiles | 60-250      |
|                                           | Sash profiles  | 56-124      |
|                                           | Bar profiles   | 70-254      |
| Max. thickness of glass/infill panel (mm) | Frame profiles | 54          |
|                                           | Sash profiles  | 68/72       |
| Max. sash weight (kg)                     |                | 180         |
| Max. sash width (mm)                      |                | 1,400       |
| Max. sash height                          |                | 3,000       |

### System features

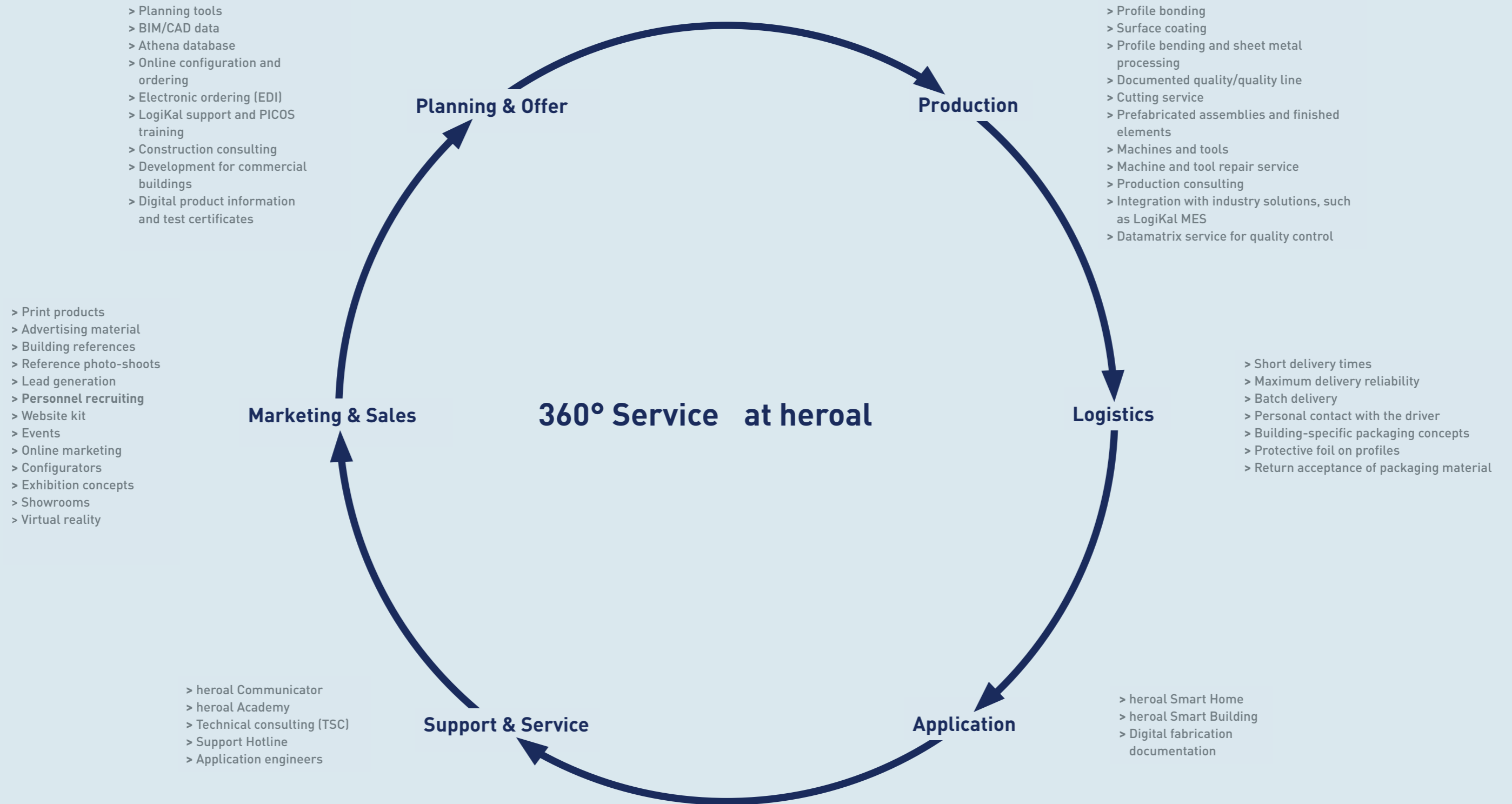
| Bezeichnung                                       | heroal D 72 |
|---------------------------------------------------|-------------|
| Thermal insulation ( $U_i$ in $W/m^2K$ )          | $\geq 1,7$  |
| Thermal insulation ( $U_D$ in $W/m^2K$ )          | $\geq 1,0$  |
| Wind load resistance                              | C4          |
| Tightness against driving rain                    | E900        |
| Impact resistance                                 | 4           |
| Soundproofing                                     | Rw=43 dB    |
| Air permeability                                  | 4           |
| Burglary resistance (RC)                          | RC 3        |
| Operating forces                                  | 2           |
| Mechanical strength                               | 3           |
| Continuous function                               | 8           |
| Behaviour between different climates EN 12219 d/e | 2 (d/e)     |

# The heroal all-round service

Support across the entire process chain

## Comprehensive support. Comprehensive satisfaction.

Success is when every cog is perfectly in sync to ensure that everything runs smoothly. So we have designed our service offers to provide optimum support in every aspect of your work. From marketing through to planning and production as well as application, our comprehensive service supports you along the entire process chain.





# heroal



simply better *spaces for life*

As a manufacturer of aluminium system solutions for roller shutters, sun protection, roller doors, windows, doors, sliding doors, curtain walls and patio roofs, heroal is an international market leader, supporting high-quality residential and commercial construction projects worldwide. heroal products are developed and manufactured in Germany and set themselves apart with their premium quality and exceptional performance features. As a result, the innovative system solutions contribute to greater sustainability, security, comfort and architectural freedom for both current and future building projects and impress with simple and efficient planning and fabrication by heroal specialist partners.

Roller shutters | Sun protection | Roller doors

Windows | Doors | Sliding doors | Curtain walls | Patio roofs

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