

High-performance front door system for highest thermal efficiency requirements and use in passive houses

# Front Door System heroal D 92 UD

**heroal**

## Door system

The efficient system technology from heroal sets itself apart with first-class materials, technical solutions tuned to perfection and a wide variety of design options. These are impressive advantages. With its innovative solutions made of aluminium and aluminium composite materials for building shells, heroal has been a reliable partner for architects, developers and fabricators for decades.

Planners value the variety of possible designs, developers can realise their individual wishes with a reliable system and our partners benefit from the economical and efficient heroal system solutions.

heroal door systems open up new dimensions for design, sustainability and functionality. Statistically speaking, front doors are the building components that remain in structures the longest. That makes the flexible, adaptable serviceability and appearance of front doors all the more important. heroal door systems are durable, come in many variants and are functional. They feature impressive standards like multi-point locking, patented retaining devices in the fitting area and the heroal profile compound. Thanks to their modularly constructed insulation zones and three-level sealing technology, they can offer excellent heat insulation.

Discover the versatile, high-performance, multi-generational door system!



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# heroal D 92 UD

The versatile and high-performance front door system



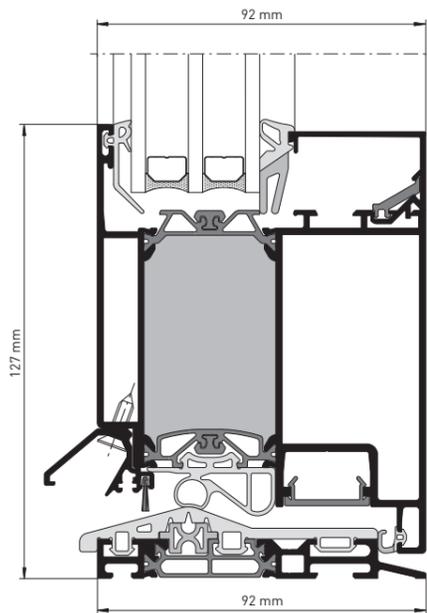
The heroal D 92 UD stands out thanks to its intuitively recognizable operability and adaptive design. With its modular construction, the system offers many design options. Appearance and performance characteristics can easily be adjusted to suit users' changed capabilities or new requirements. That has no impact on the system's excellent performance features or functional operability.

### System Dimensions and Performance Features

- » Installation depths: 92/92 mm
- » Variable view widths: frame 85–120 mm, cross bars 94–120 mm, casements 56–85 mm
- » Max. glass/filling thickness: frame up to 70 mm (glass ) and 92 mm (infill panel), casement up to 70 mm (glass) and 92 mm (infill panel)
- » Air permeability: class 4
- » Tightness against driving rain: class 9A
- » Heat insulation:  $U_D \geq 0.7 \text{ W/m}^2\text{K}$
- » fulfils all requirements of the current EnEV 2016
- » ift passive house certified
- » certified burglary resistance up to resistance class RC 3 for profile, fitting and infill technologies
- » 3-chamber profile system features great heat insulation
- » sealing technology for frames and casements with corner-cured sealing frames meet the highest requirements placed on element tightness
- » corner-cured seal frames for all element sizes in very short delivery times

### Configuration Options and Design

- » Types of opening: one-piece, opening inward with side section and transom window
- » single- and multi-piece elements with side section or transom window as round, stitched and wicker arches
- » continuous casement frames, profile and design options for infill panels, one- and double-sided flush-mounted casement-enclosing infill
- » fastening options for infill panels with conventional adhesive technology or innovative reversible heroal infill panel fastening
- » design freedom for side sections thanks to the integration of infill panels and casement-enclosing infills
- » threshold solutions for new buildings (barrier-free) and renovations
- » colour design with high-quality heroal hwr powder coating



heroal D 92 UD, sectional view

# Sustainability

Innovative building component reduction for optimum production advantages



### Building component reduction / design options

The building component reduction of heroal D 92 UD speaks for the system's optimum production advantages and sustainability. Compared to conventional processing, pre-production of assemblies enables a building component/individual part reduction of up to 70% in the lower door area. Sustainability is reflected in the performance features as well: tests for air, wind, water and U-values conform to the values and classifications of window elements thanks to the innovative door thresholds and sealing technology.

### heroal thermal break technology

The system's sustainability and patented warp resistance are the most important features in heroal thermal break technology. The optimum thermal break geometry makes better U-values possible for the entire system without necessitating the use of additional insulating material. heroal offers the thermal breaks from renewable resources as a green option. This allows architects, planners and developers to use even more environmentally friendly options in modern building concepts.

## System Dimensions

| Description                       |                    | heroal D 92 UD |
|-----------------------------------|--------------------|----------------|
| Profile depth (mm)                | Frame profiles     | 92             |
|                                   | Casement profiles  | 78–92          |
|                                   | Cross bar profiles | 92             |
| Profile view width (mm)           | Frame profiles     | 85–120         |
|                                   | Casement profiles  | 56–85          |
|                                   | Cross bar profiles | 94–120         |
| Max. glass/filling thickness (mm) |                    | 92             |
| Max. casement weights (kg)        |                    | 180            |
| Max. casement leaf widths (mm)    |                    | 1,400          |
| Max. casement leaf heights (mm)   |                    | 2,500          |

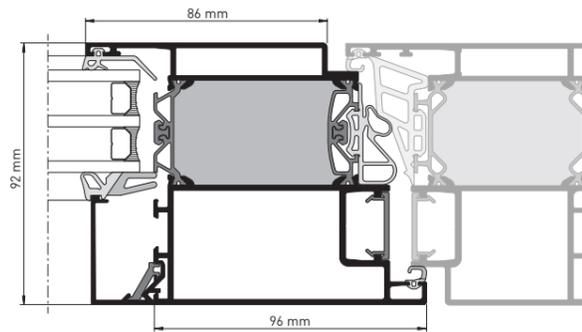
## System Properties

| Description   | heroal D 92 UD |
|---|----------------|
| Heat insulation ( $U_f$ in $\text{W/m}^2\text{K}$ )                                   | 1.3            |
| Heat insulation ( $U_f$ in $\text{W/m}^2\text{K}$ ) for standard visible widths ( mm) | 1.3            |
| Heat insulation ( $U_d$ in $\text{W/m}^2\text{K}$ )*                                  | $\geq 0.70$    |
| Air permeability  | 4              |
| Tightness against driving rain  | 9A             |
| Wind load resistance  | C5             |
| Soundproofing class (SSK)   | 1–3            |
| Burglary resistance (RC) up to  | RC 3           |
| Operating forces  | 2              |
| Shock resistance  | -              |
| Mechanical durability   | 3              |
| Continuous function   | 6              |
| Differential climate testing EN 12219 d/e   | 2              |

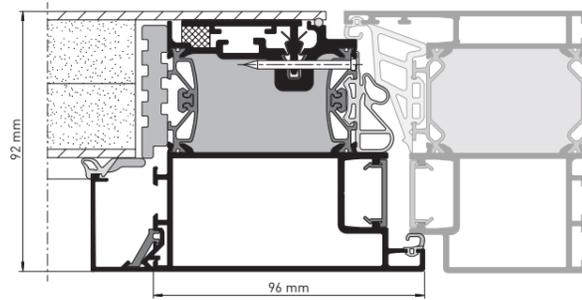
## heroal Casement Options

Comprehensive design options with maximum performance features

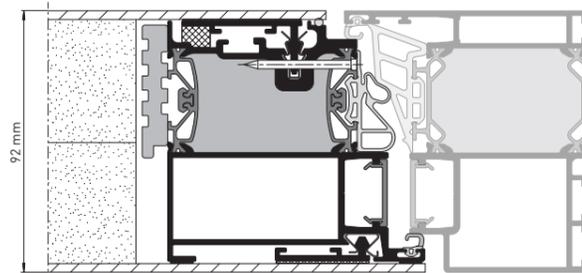
Diverse design possibilities are some of the main features of the heroal D 92 UD front door system. Whether you want individually designed infill panels extending over one side or casement-enclosing ones on both sides, we can produce many design options. heroal gives you the option of having all casement-enclosing filling variations as completely flush-mounted or recessed on the outside.



Infill panel



Casement-enclosing on one side, reversible



Casement-enclosing on both sides, reversible



## heroal D 92 UD Production Technology

Innovative, reversible infill panel fastening and side section integration



With its front door system heroal D 92 UD, heroal offers an innovative infill panel attachment for the aluminium area. This option allows you to use jointing to attach the pre-fabricated infill panel to the casement. The different possibilities offered by heroal filling attachments make it possible to produce maximum casement leaf sizes. Expanding the heroal D 92 UD system by adding a profile construction for this type of filling attachment is advantageous for fabricators: it is incredibly easy to install, even on construction sites, and can be reversed, allowing for design changes and time-saving processing of the entire system – and those are only a couple aspects of the new design.

### Variety of design

heroal opens up new possibilities for fabricators thanks to its profile extension for connecting the side sections of the heroal D 92 UD front door system. Upon request, side sections with surrounding frames or with connected side sections can be produced. That creates new design possibilities for side sections, e.g. the same look in the casement and in the side section. Fabricators can choose the ideal option for processing. heroal offers its customary short and simple processing times for side section design.



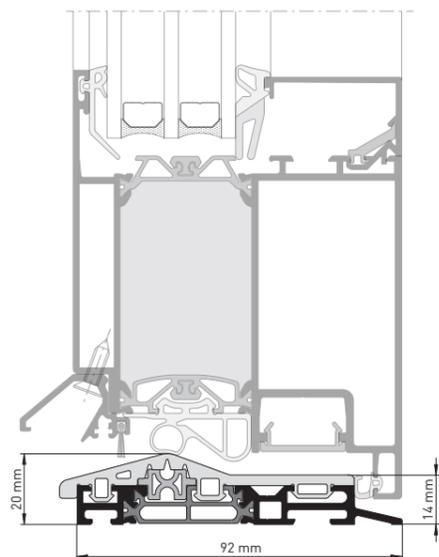
## heroal Threshold Solutions

Completely redesigned

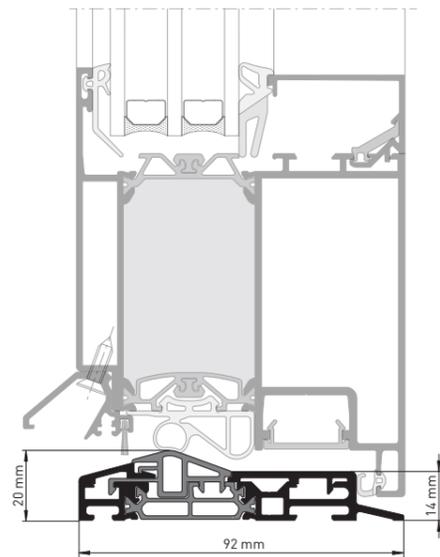
The threshold form was also completely redesigned in the heroal D 92 UD front door system. We paid special attention to considerably reducing building components. That includes the heroal T-connector technology with sealant injection.

The new threshold connection offers fabricators up to a 20% time savings during production compared to conventional threshold forms. For this purpose, heroal offers a repetition accuracy of almost 100% and excellent, enduring performance features. The system is designed with corner-cured seal frames by default.

The threshold installation depth is adapted to the profile installation depth. The integrated heroal break technology makes it possible to achieve U-values, as in the window area. This version is comparable with a surrounding frame. No transport help is necessary thanks to the continuous threshold form. This construction method makes it possible to adjust the door directly ex-works and creates considerable time advantages during installation. It can be combined with the integrated drainage system (heroal DS).



Threshold, corner-cured surrounding seal frame



Threshold, three-sided corner-cured seal frame and aluminium look in the threshold area

## High Processing Security

Individually adjustable, can be produced quickly



### heroal Corner Angle Technology

The innovative heroal sealant injection guarantees optimum seal for the element mitre with minimum use of material and a complete four-sided sealant coating of the corner cleating set for even more system safety. With the optimisation of production processes during corner angle installation, heroal's corner-cleating technology ensures a more rational, and thus time-saving, form of door production. Optimal and guided sealant distribution and the innovative corner angle geometries make it possible to save a considerable amount of material. Special heroal tool solutions that are adapted to different production solution sizes make it possible to produce elements economically and efficiently.

### heroal T-connector Technology

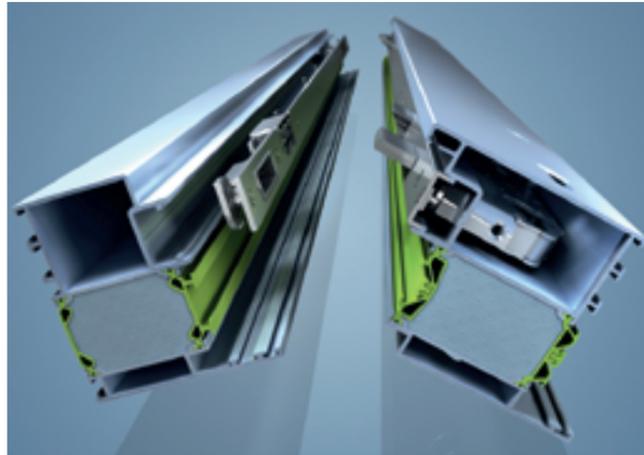
Optimised and thus time-saving door production is made possible by heroal T-connector technology. The innovative, new heroal sealant injection has been developed to seal T-connections/joints optimally. Closed-cell sponge material seals the rebate and guarantees a high level of system security.

The innovative sealant injection guarantees optimum sealing of T-connections/joints with minimum use of material.



# heroal Fitting Technology

System technology for proven security and accustomed comfort



The profile geometry of the heroal 92 UD front door system is constructed using a fitting groove, which makes it possible to use a wide range of heroal fitting components. Additionally, the geometry offers a visually appealing door rebate when one-piece keeps are used for individual opening technologies. The clampable installation of lock and hinge systems ensures processing takes place as quickly as possible. It is possible to completely integrate concealed hinge systems without interfering with the insulation layer. All heroal hinge systems can be adjusted three-dimensionally. Barrel hinges with a high-grade steel look are also available in the portfolio. The product range of heroal multi-point lockings consists of mechanical, semi-automatic and fully automatic multi-point lockings.



### The Concealed heroal Door Hinge

heroal fitting technology is an important component of the modular system technology. Architecturally speaking, the concealed door hinge is a particularly sophisticated option. That is why the machining takes place only in the inner half shell, which produces no interruptions in the thermal and sealing levels in the system. The comfortable and simple adjustment of the three-dimensional hinge system makes variations possible in the three levels: height, side and pressure. Another option is the concealed hinge with integrated cable transition for all common, electronically controlled, motorised locks produced by well-known manufacturers.



### The clampable heroal barrel hinge

The classic heroal barrel hinge features the typical hinge look for front doors. The three-dimensionally configurable hinge system is a clampable option. One notable feature of this hinge system is its fast installation, which requires no machining for the profile system. By default, the system is equipped with a hinge-side safety mechanism. That prevents interruptions in the thermal and sealing levels. The comfortable and easy adjustment of the three levels height, side and pressure is also standard in this hinge system. The barrel hinge is available from heroal in white and silver and in a high-grade steel look.

# 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.

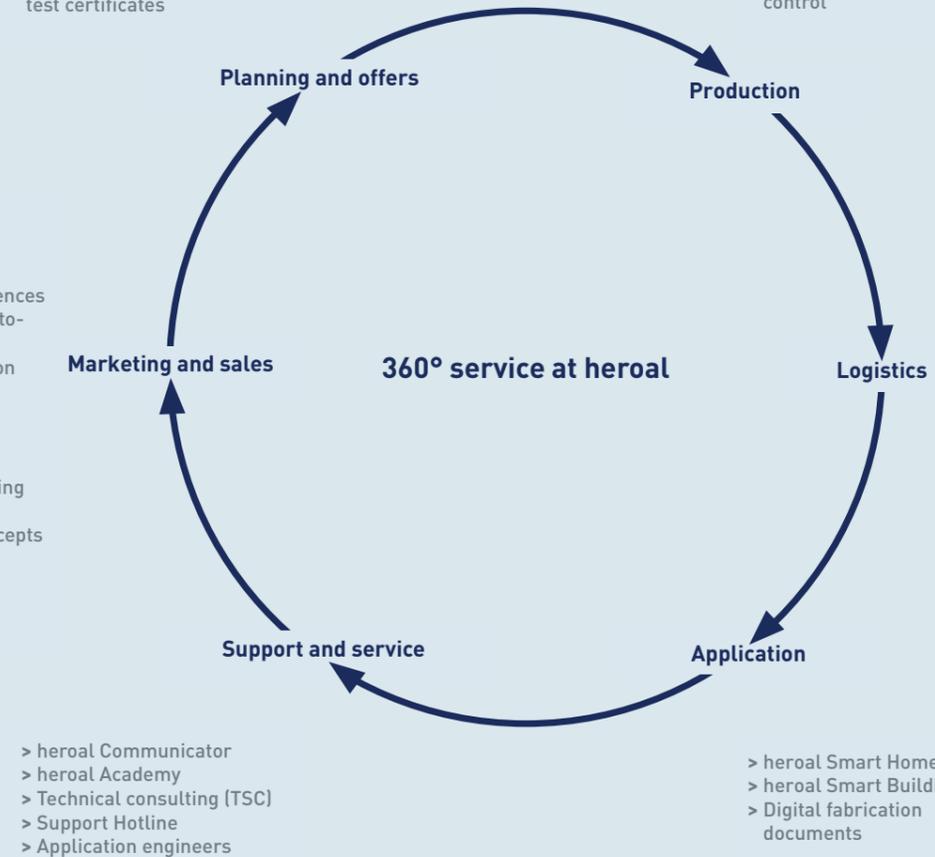
From marketing through to planning and production as well as application, our comprehensive service supports you along the entire process chain.

- > Planning tools
- > BIM/CAD data
- > Athena database
- > Online configuration and ordering
- > Electronic ordering (EDI)
- > LogiKal support and PICOS training
- > Construction consulting
- > Development for commercial buildings
- > Digital product information and test certificates

- > Profile bonding
- > Surface coating
- > Profile bending and sheet metal processing
- > Documented quality/quality line
- > Cutting service
- > Prefabricated assemblies and finished elements
- > Machines and tools
- > Machine and tool repair service
- > Production advising
- > Integration with industry solutions such as LogiKal MES
- > Datamatrix service for quality control

- > Print products
- > Advertising materials
- > Building references
- > Reference photo-shoots
- > Lead generation
- > Personnel recruiting
- > Website kit
- > Events
- > Online marketing
- > Configurators
- > Exhibition concepts
- > Showrooms
- > Virtual reality

- > Shortest delivery times
- > Maximum delivery reliability
- > Batch delivery
- > Personal contact with the driver
- > Building-specific packaging concepts
- > Protective foil on profiles
- > Return acceptance of packaging material



- > heroal Communicator
- > heroal Academy
- > Technical consulting (TSC)
- > Support Hotline
- > Application engineers

- > heroal Smart Home
- > heroal Smart Building
- > Digital fabrication documents



## 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, heroyal is an international market leader, supporting high-quality residential and commercial construction projects worldwide. heroyal 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 heroyal specialist partners.

Roller shutters | Sun protection | Roller doors | Windows | Doors | Sliding doors | Curtain walls | Patio roofs

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