**1** **RP Technik GmbH Profilsysteme**

**Manufacturer Information**

RP Technik GmbH Profilsysteme

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**4.9.. RP-hermetic 55N stainless steel doors - non-insulated**



Non-insulated stainless steel doors

The invitation to tender specifies the manufacture, supply and installation of thermally insulated steel doors. The profile system consists of roll formed profiles made of stainless steel X5CrNiMo 17-12-2 as per EN 10088-1, material no. 1.4401, strip made of stainless steel, ground outer surfaces - 400 grain size.

The following technical prerequisites and mounting depths must be met
Over all profiles: 55 mm

Profile technique
Outer frames, leaf frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove, internal and external flush mounted - alternatively with overlap.
The lock face plate must be integrated flush in the fitting rebate.
The insulation strip on the glass rebate side in the region of the lock case must not be milled completely through.
Variable elevation widths through the use of neutral profiles
Unified modular dimensions across all series
Unified set of accessories across all series

Glazing technology
Dry and wet glazing possible
System glazing beads as adjustable insertion glazing beads. In the case of deviating forms, the gap between the glazing bead and main profile is to be sealed.
Standard profiles to be used as an alternative to glazing beads.
Sealing system
Gaskets form-fitted in the main profiles
EPDM glazing gaskets - external and internal, all-around
Single-piece internal glazing gasket, all-around
EPDM inner and outer compression weather seals
Drainage and pressure compensation integrated into the sealing system
Tightness against driving rain force without a weather bar
Verification
System test as per product standard EN 14351-1 by an certified inspection agency

System description of RP-hermetic 55N
The specifications in the invitation to tender are based on the design characteristics, materials and processes of the "RP Technik" profile system, and the RP-hermetic 55N door series in particular, according to the following system description; these are contractually binding product and performance requirements.
The permissible axis dimensions, infill thicknesses and weights possible in the named system are taken into account in the planned distribution of elements and specification of the infill elements. If not otherwise specified in the individual item descriptions, the static loading requirements of the system, including anchorage, are the responsibility of the contractor.
Other systems are permitted in the offer to the extent that they are of equivalent quality, satisfy the specified technical prerequisites in a comparable manner and satisfy the application purpose in a suitable manner; where the offered systems in this case must be clearly indicated and the customer has the right to demand verification of equivalent quality from the customer, including related quality control verification.

Specifications of offered door design:
Offered system: ..............................

Non-insulated door made of stainless steel 1.4401

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Profile technique
Outer frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove. Profiles with system fitting rebate for mounting tested, system-specific fittings.
Main profiles / profile depth
frame, door leaf and crossbeam profiles are 55 mm deep. Leaf profiles externally and internally flush with the frame - alternatively with overlap.
Systems requiring a weather bar at the leaf profiles to ensure tightness against driving rain force are not permitted.

Main profile / elevation widths
Complete system for 1-leaf and 2-leaf doors, optionally with side parts and fanlights having the following minimum main profile elevation widths:

Elevation widths of outer frames and inner crossbars: 15 - 30 - 40 - 50 - 60 - 80 - 100 mm
Elevation widths of outer frames and outer crossbars: 35 - 40 - 50 - 60 - 70 - 80 - 100 mm
Door leaf elevation widths (internal and external): 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100 mm
Main profiles / cross-sections
Steel profiles with wall thickness of 1.5 mm or 3 mm at rebates (1.25 mm or 2.5 mm for glazing beads). The profiles have triangular or rectangular grooves for mounting gaskets, fittings, glazing beads and connecting profiles.
Profile combination
Fully combinable with the system window series

Glazing beads
The widths of the standard glazing beads are sized in steps according to the frame, crossbar and crossbeam profiles for infill thicknesses between 4 and 54 mm. Glazing beads 15 mm wide or more have a hollow section design.

Opening types
Single-leaf single-action doors opening inwards and outwards.
Double-leaf single-action doors opening inwards and outwards.
Combination elements: Single-leaf and double-leaf single-action doors opening inwards and outwards, single-leaf and double-action doors, panic and emergency exits; combined with fixed fanlight glazing or fanlight bottom-hung casements, fixed and movable side parts depending on the functional requirements and fittings used.

Profile connection technology
The profiles are connected via fusion welding on the inner and outer surfaces of the profiles. Welding and subsequent processing of the seams according to the applicable state of the art in conformance to the processing guidelines of the system manufacturer. In the mitre region and in the butt joint, the area that has not been welded is sealed using a narrow joint sealant compound.
Door base
Door base with a base profile or a base of any hight with neutral profiles and sheet metal cladding.

Leaf formats (clear passage)
Single-leaf: max. 1500 x 3000 mm
Double-leaf: max. 3000 x 3000 mm
Leaf weight
max. 400 kg depending on the leaf format and door hinges used.
Surface treatment
The final surface treatment of the outer frames, crossbeam and door leaf profiles is performed on the finally welded frame, according to the processing guidelines of the system manufacturer. The desired surface treatment will be defined in the project-specific requirements specification.
Glazing technology
Glazing rebate dimensions (glass rebate depth and glass rebate air gap) and glazing covering according to the applicable regulations
Close water channelling system in the glass rebate according to the currently applicable guidelines of the glass manufacturer. Double-sided sealing profiles mounted in a groove in the glass rebate and mitre trimmed - cut surfaces to be glued using an appropriate approved adhesive / sealant; internally as a rolled gasket all around, pressed into the rebate corners without interruption or cuts and pressed upwards in the middle of the rebate. The glazing beads and inner gaskets are to be selected according to the specifications of the system manufacturer, depending on the infill thickness, so that the required and permissible application pressure on the glass surface needed for sealing is permanently applied. Setting block according to the currently applicable regulations using commonly available blocks on the pre-setting blocks of the system program.
Weather stripping
Large volume EPDM internal and external gaskets.
Drainage and pressure compensation
Internal areas
Measures not usually necessary
External areas and internal wet areas
From the rebate base of the profiles to the outside area, through openings in the gasket and profile, on door leaf profiles covered by the hollow chamber insulation strip in the pre-chamber in front of the centre gasket. The arrangement, size and clearances of the openings are specified in the application guidelines of the system manufacturer, in agreement with the applicable trade regulations and recommendations of the glass manufacturer. The external openings are created using moulded parts.
Fittings
The complete versions of the fittings as specified by the system manufacturer and listed in the manufacturer's sales and technical documentation are to be used. These are selected according to function and door leaf weight. The fittings are specified in the position description as a complete group or are specified individually. If fittings not contained in the system are proposed, then their suitability and usability are to be checked with the system and fitting manufacturer.
Fastening of the windows
The fastener parts are provided by the contractor according to the respective application cases, under consideration of the requirements for adjustment, expansion compensation and loading capacity.
Joints to the building
The existing junction situations are described schematically in the position descriptions and details, together with version specifications. The comprehensive details according to these specifications are to be developed by the contractor in conformance with the applicable regulations.
The contractor is to supply and install all interfaces between the elements and the brickwork, specifically:
Installation and fastening of sealing webs, as a vapour barrier on the internal side and as a moisture barrier on the outer side.
Filling of the hollow spaces between these interfaces, according to the applicable regulations.
Alternative sealing of the connecting joints between the elements using permanently elastic sealant on appropriate backing material.

Performance properties as per product standard 14351-1
Resistance to wind loads (EN 12210): at least class C2
Tightness against driving rain force (EN 12208): at least class 4A
Impact strength (EN 13049): non performance determined
Bearing capacity of safety devices (EN 14351-1): Prerequisite met
Height and width: job-specific
Sound insulation (EN ISO 717-1): project-specific verification
Thermal transmission coefficient (EN 10077-1 and EN ISO 10077-2):
Uf: 5.5 - 7.1 W/(m²K) /
Project-specific impermeability verification
Air permeability (EN 12207): at least class 2
Operating forces (EN 13115): non performance determined)
Mechanical strength: Class 4
Functional endurance test (EN 12400): format-dependent class 6 to 8
burglary resistance: RC2 / RC3

**4.9.. RP-hermetic 55N steel doors - uninsulated**



Non-insulated doors made of continuous hot-dip treated steel

The invitation to tender specifies the manufacture, delivery and installation of uninsulated steel doors. The profile system consists of roll formed profiles made of steel, S280 GD + ZM 130-B-0 as per EN 10346, material no. 1.0244, strip made of steel, continuous hot-dip treated with a zinc-magnesium coating, minimum application weight of the coating of 130 g/m² on both sides, surface type B (improved by cold rolling), surface treatment O (oiled).

The following technical prerequisites and mounting depths must be met
Over all profiles: 55 mm

Profile technique
Outer frames, leaf frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove, internal and external flush mounted - alternatively with overlap.
The lock face plate must be integrated flush in the fitting rebate.
The insulation strip on the glass rebate side in the region of the lock case must not be milled completely through.
Variable elevation widths through the use of neutral profiles
Unified modular dimensions across all series
Unified set of accessories across all series

Glazing technology
Dry and wet glazing possible
System glazing beads as adjustable insertion glazing beads. In the case of deviating forms, the gap between the glazing bead and main profile is to be sealed.
Standard profiles to be used as an alternative to glazing beads.
Sealing system
Gaskets form-fitted in the main profiles
EPDM glazing gaskets - external and internal, all-around
Single-piece internal glazing gasket, all-around
EPDM inner and outer compression weather seals
Drainage and pressure compensation integrated into the sealing system
Tightness against driving rain force without a weather bar
Verification
System test as per product standard EN 14351-1 by an certified inspection agency

System description of RP-hermetic 55N
The specifications in the invitation to tender are based on the design characteristics, materials and processes of the "RP Technik" profile system, and the RP-hermetic 55N door series in particular, according to the following system description; these are contractually binding product and performance requirements.
The permissible axis dimensions, infill thicknesses and weights possible in the named system are taken into account in the planned distribution of elements and specification of the infill elements. If not otherwise specified in the individual item descriptions, the static loading requirements of the system, including anchorage, are the responsibility of the contractor.
Other systems are permitted in the offer to the extent that they are of equivalent quality, satisfy the specified technical prerequisites in a comparable manner and satisfy the application purpose in a suitable manner; where the offered systems in this case must be clearly indicated and the customer has the right to demand verification of equivalent quality from the customer, including related quality control verification.

Specifications of offered door design:
Offered system: ..............................

Non-insulated door made of continuous hot-dip treated steel

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Profile technique
Outer frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove. Profiles with system fitting rebate for mounting tested, system-specific fittings.
Main profiles / profile depth
Outer frame, door leaf and crossbeam profiles are 55 mm deep. Leaf profiles internally and externally flush with the frames. - alternatively with overlap
Systems requiring a weather bar at the leaf profiles to ensure tightness against driving rain force are not permitted.

Main profile / elevation widths
Complete system for 1-leaf and 2-leaf doors, optionally with side parts and fanlights having the following minimum main profile elevation widths:

Elevation widths of outer frames and inner crossbars: 15 - 30 - 40 - 50 - 60 - 80 - 100 mm
Elevation widths of outer frames and outer crossbars: 35 - 40 - 50 - 60 - 70 - 80 - 90 - 100 mm
Door leaf elevation widths (internal and external): 30 - 40 - 50 - 60 - 70 - 80 - 90 - 100 mm

Main profiles / cross-sections
Steel profiles with wall thickness of 1.5 mm or 3 mm at folds (1.25 mm or 2.5 mm for glazing beads). The profiles have triangular or rectangular grooves for mounting gaskets, fittings, glazing beads and connecting profiles.
Profile combination
Fully combinable with the system window series

Glazing beads
The widths of the standard glazing beads are sized in steps according to the frame, crossbar and crossbeam profiles for infill thicknesses between 4 and 54 mm. Glazing beads 15 mm wide or more have a hollow section design - made of continuous hot-dip treated steel or aluminium EN-AW 6060 T66 as desired

Opening types
Single-leaf single-action doors opening inwards and outwards.
Double-leaf single-action doors opening inwards and outwards.
Combination elements: Single-leaf and double-leaf single-action doors opening inwards and outwards, single-leaf and double-action doors, panic and emergency exits; combined with fixed fanlight glazing or fanlight bottom-hung casements, fixed and movable side parts depending on the functional requirements and fittings used.

Profile connection technology
The profiles are connected via fusion welding on the inner and outer surfaces of the profiles. Welding and subsequent processing of the seams according to the applicable state of the art in conformance to the processing guidelines of the system manufacturer. In the mitre region and in the butt joint, the area that has not been welded is sealed using a narrow joint sealant compound.
Door base
Door base with a base profile or a base of any hight with neutral profiles and sheet metal cladding.
Leaf formats (clear passage)
Single-leaf: max. 1500 x 3000 mm
Double-leaf: max. 3000 x 3000 mm
Leaf weight
max. 400 kg depending on the leaf format and door hinges used.
Surface treatment
The final surface treatment of the outer frames, crossbeam and door leaf profiles is performed on the finally welded frame, according to the processing guidelines of the system manufacturer. The desired surface treatment will be defined in the project-specific requirements specification.
Glazing technology
Glazing rebate dimensions (glass rebate depth and glass rebate air gap) and glazing covering according to the applicable regulations
Close water channelling system in the glass rebate according to the currently applicable guidelines of the glass manufacturer. Double-sided sealing profiles mounted in a groove in the glass rebate and mitre trimmed - cut surfaces to be glued using an appropriate approved adhesive / sealant; internally as a rolled gasket all around, pressed into the rebate corners without interruption or cuts and pressed upwards in the middle of the rebate. The glazing beads and inner gaskets are to be selected according to the specifications of the system manufacturer, depending on the infill thickness, so that the required and permissible application pressure on the glass surface needed for sealing is permanently applied. Setting block according to the currently applicable regulations using commonly available blocks on the pre-setting blocks of the system program.
Weather stripping
Large volume EPDM internal and external gaskets.

Internal drainage and pressure compensation
Measures not usually required
External areas and internal damp rooms
From the rebate base of the profiles to the outside area, through openings in the gasket and profile, on door leaf profiles covered by the hollow chamber insulation strip in the pre-chamber in front of the centre gasket. The arrangement, size and clearances of the openings are specified in the application guidelines of the system manufacturer, in agreement with the applicable trade regulations and recommendations of the glass manufacturer. The external openings are created using moulded parts.
Fittings
The complete versions of the fittings as specified by the system manufacturer and listed in the manufacturer's sales and technical documentation are to be used. These are selected according to function and door leaf weight. The fittings are specified in the position description as a complete group or are specified individually. If fittings not contained in the system are proposed, then their suitability and usability are to be checked with the system and fitting manufacturer.
Fastening of the windows
The fastener parts are provided by the contractor according to the respective application cases, under consideration of the requirements for adjustment, expansion compensation and loading capacity.
Joints to the building
The existing junction situations are described schematically in the position descriptions and details, together with version specifications. The comprehensive details according to these specifications are to be developed by the contractor in conformance with the applicable regulations.
The contractor is to supply and install all interfaces between the elements and the brickwork, specifically:
Installation and fastening of sealing webs, as a vapour barrier on the internal side and as a moisture barrier on the outer side.
Filling of the hollow spaces between these interfaces, according to the applicable regulations.
Alternative sealing of the connecting joints between the elements using permanently elastic sealant on appropriate backing material.

Performance properties as per product standard 14351-1
Resistance to wind loads (EN 12210): at least class C2
Tightness against driving rain force (EN 12208): at least class 4A
Impact strength (EN 13049): non performance determined
Bearing capacity of safety devices (EN 14351-1): Prerequisite met
Height and width: job-specific
Sound insulation (EN ISO 717-1): project-specific verification
Thermal transmission coefficient (EN 10077-1 and EN ISO 10077-2):
Uf: 5.5 - 7.1 W/(m²K) /
Project-specific impermeability verification
Air permeability (EN 12207): at least class 2
Operating forces (EN 13115): non performance determined)
Mechanical strength: Class 4
Functional endurance test (EN 12400): format-dependent class 6 to 8
burglary resistance: RC2 / RC3

**4.9.. RP-ISO-hermetic 70 stainless steel doors - thermally insulated**



Thermally insulated stainless steel doors

The invitation to tender specifies the manufacture, supply and installation of thermally insulated steel doors. The profile system consists of roll formed profiles made of stainless steel X5CrNiMo 17-12-2 as per EN 10088-1, material no. 1.4401, strip made of stainless steel, ground outer surfaces - 400 grain size.

The following technical prerequisites must be met
Mounting depths
Over all profiles: 70 mm

Profile technique
Outer frames, leaf frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove, internal and external flush mounted.
The lock face plate must be integrated flush in the fitting rebate.
The insulation strip on the glass rebate side in the region of the lock case must not be milled completely through.
Variable elevation widths through the use of neutral profiles
Unified modular dimensions across all series
Unified set of accessories across all series

Thermal insulation
Continuous insulation layer in the profile design and filling basic insulation using form-fitting insulation strips made of PA6.6 GF25 - recyclable without restrictions

Glazing technology
Dry and wet glazing possible
System glazing beads as adjustable insertion glazing beads. In the case of deviating forms, the gap between the glazing bead and main profile is to be sealed.
Standard profiles to be used as an alternative to glazing beads.
Sealing system
Gaskets form-fitted in the main profiles
EPDM glazing gaskets - external and internal, all-around
Single-piece internal glazing gasket, all-around
EPDM inner and outer compression weather seals
Drainage and pressure compensation integrated into the sealing system
Tightness against driving rain force without a weather bar
Verification
System test as per product standard EN 14351-1 by a certified inspection agency

System description of RP-ISO-hermetic 70
The specifications in the invitation to tender are based on the design characteristics, materials and processes of the "RP Technik" profile system, and the RP-ISO-hermetic 70 door series in particular, according to the following system description; these are contractually binding product and performance requirements.
The permissible axis dimensions, infill thicknesses and weights possible in the named system are taken into account in the planned distribution of elements and specification of the infill elements. If not otherwise specified in the individual item descriptions, the static loading requirements of the system, including anchorage, are the responsibility of the contractor.
Other systems are permitted in the offer to the extent that they are of equivalent quality, satisfy the specified technical prerequisites in a comparable manner and satisfy the application purpose in a suitable manner; where the offered systems in this case must be clearly indicated and the customer has the right to demand verification of equivalent quality from the customer, including related quality control verification.

Specifications of offered door design:
Offered system: ..............................

Thermally insulated door made of stainless steel 1.4401

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Profile technique
Outer frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove. Profiles with system fitting rebate for mounting tested, system-specific fittings.
Main profiles / profile depth
Outer frame, door leaf and crossbeam profiles are 70 mm deep. Leaf profiles internally and externally flush with the frames.
Systems requiring a weather bar at the leaf profiles to ensure tightness against driving rain force are not permitted.

Main profile / elevation widths
Complete system for 1-leaf and 2-leaf doors, optionally with side parts and fanlights having the following minimum main profile elevation widths:

Elevation widths of outer frames and inner crossbars: 30 - 50 - 60 -
80 - 100 mm
Elevation widths of outer frames and outer crossbars: 50 - 70 - 80 -
100 mm
Door leaf elevation widths (internal and external): 30 - 40 - 50 - 60 - 70 - 80 - 90 mm
Main profiles / cross-sections
Steel profiles with wall thickness of 1.5 mm or 3 mm at rebates (1.25 mm or 2.5 mm for glazing beads). The profiles have triangular or rectangular grooves for mounting gaskets, fittings, glazing beads and connecting profiles.
Profile combination
Fully combinable with the system window series

Glazing beads
The widths of the standard glazing beads are sized in steps according to the frame, crossbar and crossbeam profiles for infill thicknesses between 4 and 54 mm. Glazing beads 15 mm wide or more have a hollow section design. Profile connection
The profile connection is made using a continuous, profiled insulation strip made of polyamide 6.6 with 25% fibreglass. Lateral and longitudinal form-fitting mechanical connection to the steel shells. The insulating zone lies at the same level for all profiles
For the stainless steel - plastic composite profile connection , conformance to the requirements of EN 14024 category CW / TC2 must be verified by a certified inspection agency. In Germany, a general building authority test certificate must also be provided.
Only insulation strips of recyclable thermoplastic are permitted.

Opening types
Single-leaf single-action doors opening inwards and outwards.
Double-leaf single-action doors opening inwards and outwards.
Combination elements: Single-leaf and double-leaf single-action doors opening inwards and outwards, single-leaf and double-action doors, panic and emergency exits; combined with fixed fanlight glazing or fanlight bottom-hung casements, fixed and movable side parts depending on the functional requirements and fittings used.

Profile connection technology
The profiles are connected via fusion welding on the inner and outer surfaces of the profiles. Welding and subsequent processing of the seams according to the applicable state of the art in conformance to the processing guidelines of the system manufacturer. In the mitre region and in the butt joint, the area that has not been welded is sealed using a narrow joint sealant compound.
Door base
Door base with a base profile or a base of any hight with neutral profiles and sheet metal cladding.
Thresholds
Thermally insulated thresholds made of stainless steel 1.4401 with surface flush seals. Base profile welded to outer frame
Leaf formats (clear passage)
Single-leaf: max. 1500 x 3000 mm
Double-leaf: max. 3000 x 3000 mm
Leaf weight
max. 400 kg depending on the leaf format and door hinges used.
Surface treatment
The final surface treatment of the outer frames, crossbeam and door leaf profiles is performed on the finally welded frame, according to the processing guidelines of the system manufacturer. The desired surface treatment will be defined in the project-specific requirements specification.
Glazing technology
Glazing rebate dimensions (glass rebate depth and glass rebate air gap) and glazing covering according to the applicable regulations
Close water channelling system in the glass rebate according to the currently applicable guidelines of the glass manufacturer. Double-sided sealing profiles mounted in a groove in the glass rebate and mitre trimmed - cut surfaces to be glued using an appropriate approved adhesive / sealant; internally as a rolled gasket all around, pressed into the rebate corners without interruption or cuts and pressed upwards in the middle of the rebate. The glazing beads and inner gaskets are to be selected according to the specifications of the system manufacturer, depending on the infill thickness, so that the required and permissible application pressure on the glass surface needed for sealing is permanently applied. Setting block according to the currently applicable regulations using commonly available blocks on the pre-setting blocks of the system program.
Weather stripping
Large volume EPDM internal and external gaskets.
Drainage and pressure compensation
From the rebate base of the profiles to the outside area, through openings in the gasket and profile, on door leaf profiles covered by the hollow chamber insulation strip in the pre-chamber in front of the centre gasket. The arrangement, size and clearances of the openings are specified in the application guidelines of the system manufacturer, in agreement with the applicable trade regulations and recommendations of the glass manufacturer. The external openings are created using moulded parts.
Fittings
The complete versions of the fittings as specified by the system manufacturer and listed in the manufacturer's sales and technical documentation are to be used. These are selected according to function and door leaf weight. The fittings are specified in the position description as a complete group or are specified individually. If fittings not contained in the system are proposed, then their suitability and usability are to be checked with the system and fitting manufacturer.
Fastening of the windows
The fastener parts are provided by the contractor according to the respective application cases, under consideration of the requirements for adjustment, expansion compensation and loading capacity.
Joints to the building
The existing junction situations are described schematically in the position descriptions and details, together with version specifications. The comprehensive details according to these specifications are to be developed by the contractor in conformance with the applicable regulations.
The contractor is to supply and install all interfaces between the elements and the brickwork, specifically:
Installation and fastening of sealing webs, as a vapour barrier on the internal side and as a moisture barrier on the outer side.
Filling of the hollow spaces between these interfaces, according to the applicable regulations.
Alternative sealing of the connecting joints between the elements using permanently elastic sealant on appropriate backing material.

Performance properties as per product standard 14351-1
Resistance to wind loads (EN 12210): at least class C2
Tightness against driving rain force (EN 12208): at least class 4A
Impact strength (EN 13049): non performance determined
Bearing capacity of safety devices (EN 14351-1): Prerequisite met
Height and width: job-specific
Sound insulation (EN ISO 717-1): project-specific verification
Thermal transmission coefficient (EN 10077-1 and EN ISO 10077-2):
Uf: 2.1 - 2.4 W/(m²K) /
Project-specific impermeability verification
Air permeability (EN 12207): at least class 2
Operating forces (EN 13115): non performance determined)
Mechanical strength: Class 4
Functional endurance test (EN 12400): format-dependent class 6 to 8
burglary resistance: RC2 / RC3

**4.9.. RP-ISO-hermetic 70 steel doors - thermally insulated**



Thermally insulated doors made of continuous hot-dip treated steel

The invitation to tender specifies the manufacture, delivery and installation of non-insulated steel doors. The profile system consists of roll formed profiles made of steel, S280 GD + ZM 130-B-0 as per EN 10346, material no. 1.0244, strip made of steel, continuous hot-dip treated with a zinc-magnesium coating, minimum application weight of the coating of 130 g/m² on both sides, surface type B (improved by cold rolling), surface treatment O (oiled).

The following technical prerequisites must be met
Mounting depths
Over all profiles: 70 mm

Profile technique
Outer frames, leaf frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove, internal and external flush mounted.
The lock face plate must be integrated flush in the fitting rebate.
The insulation strip on the glass rebate side in the region of the lock case must not be milled completely through.
Variable elevation widths through the use of neutral profiles
Unified modular dimensions across all series
Unified set of accessories across all series

Thermal insulation
Continuous insulation layer in the profile design and filling. Basic insulation using form-fitting insulation strips made of PA6.6 GF25 - recyclable without restrictions

Glazing technology
Dry and wet glazing possible
System glazing beads as adjustable insertion glazing beads. In the case of deviating forms, the gap between the glazing bead and main profile is to be sealed.
Standard profiles to be used as an alternative to glazing beads.
Sealing system
Gaskets form-fitted in the main profiles
EPDM glazing gaskets - external and internal, all-around
Single-piece internal glazing gasket, all-around
EPDM inner and outer compression weather seals
Drainage and pressure compensation integrated into the sealing system
Tightness against driving rain force without a weather bar
Verification
System test as per product standard EN 14351-1 by a certified inspection agency
Surface / corrosion protection
continuous hot-dip treated with a zinc-magnesium coating, application weight of the coating of 130 g/m² as per EN 10346.
Post-rolled quality B for improved visual appearance.

System description of RP-ISO-hermetic 70
The specifications in the invitation to tender are based on the design characteristics, materials and processes of the "RP Technik" profile system, and the RP-ISO-hermetic 70 door series in particular, according to the following system description; these are contractually binding product and performance requirements.
The permissible axis dimensions, infill thicknesses and weights possible in the named system are taken into account in the planned distribution of elements and specification of the infill elements. If not otherwise specified in the individual item descriptions, the static loading requirements of the system, including anchorage, are the responsibility of the contractor.
Other systems are permitted in the offer to the extent that they are of equivalent quality, satisfy the specified technical prerequisites in a comparable manner and satisfy the application purpose in a suitable manner; where the offered systems in this case must be clearly indicated and the customer has the right to demand verification of equivalent quality from the customer, including related quality control verification.

Specifications of offered door design:
Offered system: ..............................

Thermally insulated door made of continuous hot-dip treated steel

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Profile technique
Outer frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove. Profiles with system fitting rebate for mounting tested, system-specific fittings.
Main profiles / profile depth
Outer frame, door leaf and crossbeam profiles are 70 mm deep. Leaf profiles internally and externally flush with the frames.
Systems requiring a weather bar at the leaf profiles to ensure tightness against driving rain force are not permitted.

Main profile / elevation widths
Complete system for 1-leaf and 2-leaf doors, optionally with side parts and fanlights having the following minimum main profile elevation widths:

Elevation widths of outer frames and inner crossbars: 30 - 50 - 60 -
80 - 100 mm
Elevation widths of outer frames and outer crossbars: 50 - 70 - 80 -
100 mm
Door leaf elevation widths (internal and external): 30 - 40 - 50 - 60 - 70 - 80 - 90 mm
Main profiles / cross-sections
Steel profiles with wall thickness of 1.5 mm or 3 mm at rebates (1.25 mm or 2.5 mm for glazing beads). The profiles have triangular or rectangular grooves for mounting gaskets, fittings, glazing beads and connecting profiles.
Profile combination
Fully combinable with the system window series

Glazing beads
The widths of the standard glazing beads are sized in steps according to the frame, crossbar and crossbeam profiles for infill thicknesses between 4 and 54 mm. Glazing beads 15 mm wide or more have a hollow section design - made of continuous hot-dip treated steel or aluminium EN-AW 6060 T66 as desired.
Profile connection
The profile connection is made using a continuous, profiled insulation strip made of polyamide 6.6 with 25% fibreglass. Lateral and longitudinal form-fitting mechanical connection to the steel shells. The insulating zone lies at the same level for all profiles
For the stainless steel - plastic composite profile connection , conformance to the prerequisites of EN 14024 category CW / TC2 must be verified by a certified inspection agency. In Germany, a general building authority test certificate must also be provided.
Only insulation strips of recyclable thermoplastic are permitted.

Opening types
Single-leaf single-action doors opening inwards and outwards.
Double-leaf single-action doors opening inwards and outwards.
Combination elements: Single-leaf and double-leaf single-action doors opening inwards and outwards, single-leaf and double-action doors, panic and emergency exits; combined with fixed fanlight glazing or fanlight bottom-hung casements, fixed and movable side parts depending on the functional requirements and fittings used.

Profile connection technology
The profiles are connected via fusion welding on the inner and outer surfaces of the profiles. Welding and subsequent processing of the seams according to the applicable state of the art in conformance to the processing guidelines of the system manufacturer. In the mitre region and in the butt joint, the area that has not been welded is sealed using a narrow joint sealant compound.
Door base
Door base with a base profile or a base of any hight with neutral profiles and sheet metal cladding.
Thresholds
Thermally insulated thresholds made of stainless steel 1.4401 with surface flush gaskets. Base profile welded to outer frame
Leaf formats (clear passage)
Single-leaf: max. 1500 x 3000 mm
Double-leaf: max. 3000 x 3000 mm
Leaf weight
max. 400 kg depending on the leaf format and door hinges used.
Surface treatment
The final surface treatment of the outer frames, crossbeam and door leaf profiles is performed on the finally welded frame, according to the processing guidelines of the system manufacturer. The desired surface treatment will be defined in the project-specific requirements specification.
Glazing technology
Glazing rebate dimensions (glass rebate depth and glass rebate air gap) and glazing covering according to the applicable regulations
Close water channelling system in the glass rebate according to the currently applicable guidelines of the glass manufacturer. Double-sided sealing profiles mounted in a groove in the glass rebate and mitre trimmed - cut surfaces to be glued using an appropriate approved adhesive / sealant; internally as a rolled gasket all around, pressed into the rebate corners without interruption or cuts and pressed upwards in the middle of the rebate. The glazing beads and inner gaskets are to be selected according to the specifications of the system manufacturer, depending on the infill thickness, so that the required and permissible application pressure on the glass surface needed for sealing is permanently applied. Setting block according to the currently applicable regulations using commonly available blocks on the pre-setting blocks of the system program.
Weather stripping
Large volume EPDM internal and external gaskets.
Drainage and pressure compensation
From the rebate base of the profiles to the outside area, through openings in the gasket and profile, on door leaf profiles covered by the hollow chamber insulation strip in the pre-chamber in front of the centre gasket. The arrangement, size and clearances of the openings are specified in the application guidelines of the system manufacturer, in agreement with the applicable trade regulations and recommendations of the glass manufacturer. The external openings are created using moulded parts.
Fittings
The complete versions of the fittings as specified by the system manufacturer and listed in the manufacturer's sales and technical documentation are to be used. These are selected according to function and door leaf weight. The fittings are specified in the position description as a complete group or are specified individually. If fittings not contained in the system are proposed, then their suitability and usability are to be checked with the system and fitting manufacturer.
Fastening of the windows
The fastener parts are provided by the contractor according to the respective application cases, under consideration of the requirements for adjustment, expansion compensation and loading capacity.
Joints to the building
The existing junction situations are described schematically in the position descriptions and details, together with version specifications. The comprehensive details according to these specifications are to be developed by the contractor in conformance with the applicable regulations.
The contractor is to supply and install all interfaces between the elements and the brickwork, specifically:
Installation and fastening of sealing webs, as a vapour barrier on the internal side and as a moisture barrier on the outer side.
Filling of the hollow spaces between these interfaces, according to the applicable regulations.
Alternative sealing of the connecting joints between the elements using permanently elastic sealant on appropriate backing material.

Performance properties as per product standard 14351-1
Resistance to wind loads (EN 12210): at least class C2
Tightness against driving rain force (EN 12208): at least class 4A
Impact strength (EN 13049): non performance determined
Bearing capacity of safety devices (EN 14351-1): Prerequisite met
Height and width: job-specific
Sound insulation (EN ISO 717-1): project-specific verification
Thermal transmission coefficient (EN 10077-1 and EN ISO 10077-2):
Uf: 2.1 - 2.4 W/(m²K) /
Project-specific impermeability verification
Air permeability (EN 12207): at least class 2
Operating forces (EN 13115): non performance determined)
Mechanical strength: Class 4
Functional endurance test (EN 12400): format-dependent class 6 to 8
burglary resistance: RC2 / RC3

**4.9.. RP-ISO-hermetic 70 plus stainless steel doors - heavily thermally insulated**



Heavily thermally insulated stainless steel doors

The invitation to tender specifies the manufacture, supply and installation of thermally insulated steel doors. The profile system consists of roll formed profiles made of stainless steel X5CrNiMo 17-12-2 as per EN 10088-1, material no. 1.4401, strip made of stainless steel, ground outer surfaces - 400 grain size.

The following technical prerequisites must be met
Mounting depths
Over all profiles: 70 mm

Profile technique
Outer frames, leaf frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove, internal and external flush mounted.
The lock face plate must be integrated flush in the fitting rebate.
The insulation strip on the glass rebate side in the region of the lock case must not be milled completely through.
Variable elevation widths through the use of neutral profiles
Unified modular dimensions across all series
Unified set of accessories across all series

Thermal insulation
Continuous insulation layer in the profile design and filling basic insulation using form-fitting insulation strips made of PA6.6 GF25 - recyclable without restrictions
Additional insulation made of hard foam strips between the insulation strips and foam strips fastened to the glass rebate

Glazing technology
Dry and wet glazing possible
System glazing beads as adjustable insertion glazing beads. In the case of deviating forms, the gap between the glazing bead and main profile is to be sealed.
Standard profiles to be used as an alternative to glazing beads.
Sealing system
Gaskets form-fitted in the main profiles
EPDM glazing gaskets - external and internal, all-around
Single-piece internal glazing gasket, all-around
EPDM inner and outer compression weather seals
Drainage and pressure compensation integrated into the sealing system
Tightness against driving rain force without a weather bar
Verification
System test as per product standard EN 14351-1 by a certified inspection agency

System description of RP-ISO-hermetic 70
The specifications in the invitation to tender are based on the design characteristics, materials and processes of the "RP Technik" profile system, and the RP-ISO-hermetic 70 plus door series in particular, according to the following system description; these are contractually binding product and performance requirements.
The permissible axis dimensions, infill thicknesses and weights possible in the named system are taken into account in the planned distribution of elements and specification of the infill elements. If not otherwise specified in the individual item descriptions, the static loading requirements of the system, including anchorage, are the responsibility of the contractor.
Other systems are permitted in the offer to the extent that they are of equivalent quality, satisfy the specified technical prerequisites in a comparable manner and satisfy the application purpose in a suitable manner; where the offered systems in this case must be clearly indicated and the customer has the right to demand verification of equivalent quality from the customer, including related quality control verification.

Specifications of offered door design:
Offered system: ..............................

Heavily thermally insulated door made of stainless steel 1.4401

Sales
RP Technik profile systems are marketed by: RP Technik GmbH Profilsysteme
Edisonstr. 4
59199 Bönen
Contact: Mr. Robert Bäuml, Mobile: (+49 160) 530 74 36,
Fax: (+49 2383) 9149 - 420,
e-mail: r.baeuml@rp-technik.com, homepage: www.rp-technik.com

Profile technique
Outer frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove. Profiles with system fitting rebate for mounting tested, system-specific fittings.
Main profiles / profile depth
Outer frame, door leaf and crossbeam profiles are 70 mm deep. Leaf profiles internally and externally flush with the frames.
Systems requiring a weather bar at the leaf profiles to ensure tightness against driving rain force are not permitted.

Main profile / elevation widths
Complete system for 1-leaf and 2-leaf doors, optionally with side parts and fanlights having the following minimum main profile elevation widths:

Elevation widths of outer frames and inner crossbars: 30 - 50 - 60 -
80 - 100 mm
Elevation widths of outer frames and outer crossbars: 50 - 70 - 80 -
100 mm
Door leaf elevation widths (internal and external): 30 - 40 - 50 - 60 - 70 - 80 - 90 mm
Main profiles / cross-sections
Steel profiles with wall thickness of 1.5 mm or 3 mm at rebates (1.25 mm or 2.5 mm for glazing beads). The profiles have triangular or rectangular grooves for mounting gaskets, fittings, glazing beads and connecting profiles.
Profile combination
Fully combinable with the system window series

Glazing beads
The widths of the standard glazing beads are sized in steps according to the frame, crossbar and crossbeam profiles for infill thicknesses between 4 and 54 mm. Glazing beads 15 mm wide or more have a hollow section design.
Profile connection
The profile connection is made using a continuous, profiled insulation strip made of polyamide 6.6 with 25% fibreglass. Lateral and longitudinal form-fitting mechanical connection to the steel shells. The insulating zone lies at the same level for all profiles
For the stainless steel - plastic composite profile connection , conformance to the requirements of EN 14024 category CW / TC2 must be verified by a certified inspection agency. In Germany, a general building authority test certificate must also be provided.
Only insulation strips of recyclable thermoplastic are permitted.

Opening types
Single-leaf single-action doors opening inwards and outwards.
Double-leaf single-action doors opening inwards and outwards.
Combination elements: Single-leaf and double-leaf single-action doors opening inwards and outwards, single-leaf and double-action doors, panic and emergency exits; combined with fixed fanlight glazing or fanlight bottom-hung casements, fixed and movable side parts depending on the functional requirements and fittings used.

Profile connection technology
The profiles are connected via fusion welding on the inner and outer surfaces of the profiles. Welding and subsequent processing of the seams according to the applicable state of the art in conformance to the processing guidelines of the system manufacturer. In the mitre region and in the butt joint, the area that has not been welded is sealed using a narrow joint sealant compound.
Door base
Door base with a base profile or a base of any hight with neutral profiles and sheet metal cladding.
Thresholds
Thermally insulated thresholds made of stainless steel 1.4401 with surface flush gaskets. Base profile welded to outer frame
Leaf formats (clear passage)
Single-leaf: max. 1500 x 3000 mm
Double-leaf: max. 3000 x 3000 mm
Leaf weight
max. 400 kg depending on the leaf format and door hinges used.
Surface treatment
The final surface treatment of the outer frames, crossbeam and door leaf profiles is performed on the finally welded frame, according to the processing guidelines of the system manufacturer. The desired surface treatment will be defined in the project-specific requirements specification.
Glazing technology
Glazing rebate dimensions (glass rebate depth and glass rebate air gap) and glazing covering according to the applicable regulations
Close water channelling system in the glass rebate according to the currently applicable guidelines of the glass manufacturer. Double-sided sealing profiles mounted in a groove in the glass rebate and mitre trimmed - cut surfaces to be glued using an appropriate approved adhesive / sealant; internally as a rolled gasket all around, pressed into the rebate corners without interruption or cuts and pressed upwards in the middle of the rebate. The glazing beads and inner gaskets are to be selected according to the specifications of the system manufacturer, depending on the infill thickness, so that the required and permissible application pressure on the glass surface needed for sealing is permanently applied. Setting block according to the currently applicable regulations using commonly available blocks on the pre-setting blocks of the system program.
Weather stripping
Large volume EPDM internal and external gaskets.
Drainage and pressure compensation
From the rebate base of the profiles to the outside area, through openings in the gasket and profile, on door leaf profiles covered by the hollow chamber insulation strip in the pre-chamber in front of the centre gasket. The arrangement, size and clearances of the openings are specified in the application guidelines of the system manufacturer, in agreement with the applicable trade regulations and recommendations of the glass manufacturer. The external openings are created using moulded parts.
Fittings
The complete versions of the fittings as specified by the system manufacturer and listed in the manufacturer's sales and technical documentation are to be used. These are selected according to function and door leaf weight. The fittings are specified in the position description as a complete group or are specified individually. If fittings not contained in the system are proposed, then their suitability and usability are to be checked with the system and fitting manufacturer.
Fastening of the windows
The fastener parts are provided by the contractor according to the respective application cases, under consideration of the requirements for adjustment, expansion compensation and loading capacity.
Joints to the building
The existing junction situations are described schematically in the position descriptions and details, together with version specifications. The comprehensive details according to these specifications are to be developed by the contractor in conformance with the applicable regulations.
The contractor is to supply and install all interfaces between the elements and the brickwork, specifically:
Installation and fastening of sealing webs, as a vapour barrier on the internal side and as a moisture barrier on the outer side.
Filling of the hollow spaces between these interfaces, according to the applicable regulations.
Alternative sealing of the connecting joints between the elements using permanently elastic sealant on appropriate backing material.

Performance properties as per product standard 14351-1
Resistance to wind loads (EN 12210): at least class C2
Tightness against driving rain force (EN 12208): at least class 4A
Impact strength (EN 13049): non performance determined
Bearing capacity of safety devices (EN 14351-1): Prerequisite met
Height and width: job-specific
Sound insulation (EN ISO 717-1): project-specific verification
Thermal transmission coefficient (EN 10077-1 and EN ISO 10077-2):
Uf: 1.2 - 1.9 W/(m²K) /
Project-specific impermeability verification
Air permeability (EN 12207): at least class 2
Operating forces (EN 13115): non performance determined
Mechanical strength: Class 4
Functional endurance test (EN 12400): format-dependent class 6 to 8
burglary resistance: RC2 / RC3

**4.9.. RP-ISO-hermetic 70 plus steel doors - heavily thermally insulated**



Heavily thermally insulated doors made of continuous hot-dip treated steel

The invitation to tender specifies the manufacture, delivery and installation of non-insulated steel doors. The profile system consists of roll formed profiles made of steel, S280 GD + ZM 130-B-0 as per EN 10346, material no. 1.0244, strip made of steel, continuous hot-dip treated with a zinc-magnesium coating, minimum application weight of the coating of 130 g/m² on both sides, surface type B (improved by cold rolling), surface treatment O (oiled).

The following technical prerequisites must be met
Mounting depths
Over all profiles: 70 mm

Profile technique
Outer frames, leaf frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove, internal and external flush mounted.
The lock face plate must be integrated flush in the fitting rebate.
The insulation strip on the glass rebate side in the region of the lock case must not be milled completely through.
Variable elevation widths through the use of neutral profiles
Unified modular dimensions across all series
Unified set of accessories across all series

Thermal insulation
Continuous insulation layer in the profile design and filling basic insulation using form-fitting insulation strips made of PA6.6 GF25 - recyclable without restrictions
Additional insulation made of hard foam strips between the insulation strips and foam strips fastened to the glass rebate

Glazing technology
Dry and wet glazing possible
System glazing beads as adjustable insertion glazing beads. In the case of deviating forms, the gap between the glazing bead and main profile is to be sealed.
Standard profiles to be used as an alternative to glazing beads.
Sealing system
Gaskets form-fitted in the main profiles
EPDM glazing gaskets - external and internal, all-around
Single-piece internal glazing gasket, all-around
EPDM inner and outer compression weather seals
Drainage and pressure compensation integrated into the sealing system
Tightness against driving rain force without a weather bar
Verification
System test as per product standard EN 14351-1 by a certified inspection agency
Surface / corrosion protection
continuous hot-dip treated with a zinc-magnesium coating, application weight of the coating of 130 g/m² as per EN 10346.
Post-rolled quality B for improved visual appearance.

System description of RP-ISO-hermetic 70 plus
The specifications in the invitation to tender are based on the design characteristics, materials and processes of the "RP Technik" profile system, and the RP-ISO-hermetic 70 door series in particular, according to the following system description; these are contractually binding product and performance requirements.
The permissible axis dimensions, infill thicknesses and weights possible in the named system are taken into account in the planned distribution of elements and specification of the infill elements. If not otherwise specified in the individual item descriptions, the static loading requirements of the system, including anchorage, are the responsibility of the contractor.
Other systems are permitted in the offer to the extent that they are of equivalent quality, satisfy the specified technical prerequisites in a comparable manner and satisfy the application purpose in a suitable manner; where the offered systems in this case must be clearly indicated and the customer has the right to demand verification of equivalent quality from the customer, including related quality control verification.

Specifications of offered door design:
Offered system: ..............................

Heavily thermally insulated door made of continuous hot-dip treated steel

Sales
RP Technik profile systems are marketed by: RP Technik GmbH Profilsysteme
Edisonstr. 4
59199 Bönen
Contact: Mr. Robert Bäuml, Mobile: (+49 160) 530 74 36,
Fax: (+49 2383) 9149 - 420,
e-mail: r.baeuml@rp-technik.com, homepage: www.rp-technik.com

Profile technique
Outer frames and crossbeams with grooves for mounting the gaskets and glazing beads. Rounded door leaf overlaps. External and internal views with all-around shadow groove. Profiles with system fitting rebate for mounting tested, system-specific fittings.
Main profiles / profile depth
Outer frame, door leaf and crossbeam profiles are 70 mm deep. Leaf profiles internally and externally flush with the frames.
Systems requiring a weather bar at the leaf profiles to ensure tightness against driving rain force are not permitted.

Main profile / elevation widths
Complete system for 1-leaf and 2-leaf doors, optionally with side parts and fanlights having the following minimum main profile elevation widths:

Elevation widths of outer frames and inner crossbars: 30 - 50 - 60 -
80 - 100 mm
Elevation widths of outer frames and outer crossbars: 50 - 70 - 80 -
100 mm
Door leaf elevation widths (internal and external): 30 - 40 - 50 - 60 - 70 - 80 - 90 mm
Main profiles / cross-sections
Steel profiles with wall thickness of 1.5 mm or 3 mm at rebates (1.25 mm or 2.5 mm for glazing beads). The profiles have triangular or rectangular grooves for mounting gaskets, fittings, glazing beads and connecting profiles.
Profile combination
Fully combinable with the system window series

Glazing beads
The widths of the standard glazing beads are sized in steps according to the frame, crossbar and crossbeam profiles for infill thicknesses between 4 and 54 mm. Glazing beads 15 mm wide or more have a hollow section design, made of continuous hot-dip treated steel or aluminium EN-AW 6060 T66 as desired.
Profile connection
The profile connection is made using a continuous, profiled insulation strip made of polyamide 6.6 with 25% fibreglass. Lateral and longitudinal form-fitting mechanical connection to the steel shells. The insulating zone lies at the same level for all profiles
For the stainless steel - plastic composite profile connection , conformance to the prerequisites of EN 14024 category CW / TC2 must be verified by a certified inspection agency. In Germany, a general building authority test certificate must also be provided.
Only insulation strips of recyclable thermoplastic are permitted.

Opening types
Single-leaf single-action doors opening inwards and outwards.
Double-leaf single-action doors opening inwards and outwards.
Combination elements: Single-leaf and double-leaf single-action doors opening inwards and outwards, single-leaf and double-action doors, panic and emergency exits; combined with fixed fanlight glazing or fanlight bottom-hung casements, fixed and movable side parts depending on the functional requirements and fittings used.

Profile connection technology
The profiles are connected via fusion welding on the inner and outer surfaces of the profiles. Welding and subsequent processing of the seams according to the applicable state of the art in conformance to the processing guidelines of the system manufacturer. In the mitre region and in the butt joint, the area that has not been welded is sealed using a narrow joint sealant compound.
Door base
Door base with a base profile or a base of any hight with neutral profiles and sheet metal cladding.
Thresholds
Thermally insulated thresholds made of stainless steel 1.4401 with surface flush gaskets. Base profile welded to outer frame
Leaf formats (clear passage)
Single-leaf: max. 1500 x 3000 mm
Double-leaf: max. 3000 x 3000 mm
Leaf weight
max. 400 kg depending on the leaf format and door hinges used.
Surface treatment
The final surface treatment of the outer frames, crossbeam and door leaf profiles is performed on the finally welded frame, according to the processing guidelines of the system manufacturer. The desired surface treatment will be defined in the project-specific requirements specification.
Glazing technology
Glazing rebate dimensions (glass rebate depth and glass rebate air gap) and glazing covering according to the applicable regulations
Close water channelling system in the glass rebate according to the currently applicable guidelines of the glass manufacturer. Double-sided sealing profiles mounted in a groove in the glass rebate and mitre trimmed - cut surfaces to be glued using an appropriate approved adhesive / sealant; internally as a rolled gasket all around, pressed into the rebate corners without interruption or cuts and pressed upwards in the middle of the rebate. The glazing beads and inner gaskets are to be selected according to the specifications of the system manufacturer, depending on the infill thickness, so that the required and permissible application pressure on the glass surface needed for sealing is permanently applied. Setting block according to the currently applicable regulations using commonly available blocks on the pre-setting blocks of the system program.
Weather stripping
Large volume EPDM internal and external gaskets.
Drainage and pressure compensation
From the rebate base of the profiles to the outside area, through openings in the gasket and profile, on door leaf profiles covered by the hollow chamber insulation strip in the pre-chamber in front of the centre gasket. The arrangement, size and clearances of the openings are specified in the application guidelines of the system manufacturer, in agreement with the applicable trade regulations and recommendations of the glass manufacturer. The external openings are created using moulded parts.
Fittings
The complete versions of the fittings as specified by the system manufacturer and listed in the manufacturer's sales and technical documentation are to be used. These are selected according to function and door leaf weight. The fittings are specified in the position description as a complete group or are specified individually. If fittings not contained in the system are proposed, then their suitability and usability are to be checked with the system and fitting manufacturer.
Fastening of the windows
The fastener parts are provided by the contractor according to the respective application cases, under consideration of the requirements for adjustment, expansion compensation and loading capacity.
Joints to the building
The existing junction situations are described schematically in the position descriptions and details, together with version specifications. The comprehensive details according to these specifications are to be developed by the contractor in conformance with the applicable regulations.
The contractor is to supply and install all interfaces between the elements and the brickwork, specifically:
Installation and fastening of sealing webs, as a vapour barrier on the internal side and as a moisture barrier on the outer side.
Filling of the hollow spaces between these interfaces, according to the applicable regulations.
Alternative sealing of the connecting joints between the elements using permanently elastic sealant on appropriate backing material.

Performance properties as per product standard 14351-1
Resistance to wind loads (EN 12210): at least class C2
Tightness against driving rain force (EN 12208): at least class 4A
Impact strength (EN 13049): non performance determined
Bearing capacity of safety devices (EN 14351-1): Prerequisite met
Height and width: job-specific
Sound insulation (EN ISO 717-1): project-specific verification
Thermal transmission coefficient (EN 10077-1 and EN ISO 10077-2):
Uf: 1.2 - 1.8 W/(m²K) /
Project-specific impermeability verification
Air permeability (EN 12207): at least class 2
Operating forces (EN 13115): non performance determined
Mechanical strength: Class 4
Functional endurance test (EN 12400): format-dependent class 6 to 8
burglary resistance: RC2 / RC3