

Installation / Shielded doors and gates

Requirements regarding the place of installation

Since the floor shielding panels are installed flat on the floor of the building, the max. unevenness of the floor must not exceed ± 5 mm, measured across a length of 5.0 m. All deviations above this value must be considered before installation of the chamber, e.g. compensated by installation of a floating floor. If the floor of the building is not dry enough, the chamber must be protected against rising humidity (e.g. rubber membrane also used for garden ponds etc.). The main power supply of the chamber will be realized through power line filters according to customers' specification (current / voltage). The electrical earth connection point must be provided by the customer, with a value of max. 0.5Ω and wire cross section of at least 16 mm^2 .

Shielded doors and gates

The following door types are available:

- hinged doors (single-leaf and double-leaf)
- sliding doors / gates
- customized solutions

Special attention must be drawn on the RF-shielded contact between door leaf and door frame. To assure a good electrical connection we are using copper beryllium contact springs, which are pressed onto opposite contact surfaces during the closing procedure. These highly flexible springs, which are installed on the circumference of the door frame, are provided with a holding clip which latches onto a groove in the supporting material. This permits an easy exchange of these wearing parts without special tools and assures a good electrical and RF proof contact. The doors are provided as a standard with three rows of contact springs on all sides. All bright surfaces are protected against corrosion by hot galvanizing.

Options

- Integrated door stopper at the top of the door in order to limit the door movement or to fix the door at a certain position
- Integrated lock (operated by key) inside the axis of the handle
- Door preparation for badge- and code pin locking system (available for pneumatic and electric drive)
- Sluice gate function (available for pneumatic and electric drive)
- Switch for interlock system



Hinged standard doors



Door with ferrite absorbers



Double-leaf door



Sliding door with pyramid absorbers



Contact switch for interlock system



Door stopper

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Sliding doors and gates:

A considerable advantage of sliding doors / gates is the fact that pyramid absorbers up to a length of 2.5 m may be installed on the door leaves directly. In this case, the opening procedure of the sliding doors is performed in two steps as follows:

- a) Disengaging from the contact spring system and reverse movement over the full length of the pyramid absorbers
- b) Lateral movement of the door leaf to the left or right until the passage is completely opened

For automatic operation, electric / pneumatic controls with a safety circuit can be delivered. For the bridging of the door step, several automated ramp systems are available. If the chamber can be placed into a pit, it is also possible to choose a solution without doorstep.

Standard doors

Type	Standard dimensions (width x height)
Single-leaf doors	
SLD 09 / 19	938 mm x 1.968 mm
SLD 10 / 20	1.013 mm x 2.043 mm
SLD 12 / 21	1.238 mm x 2.118 mm
SLD 15 / 21	1.538 mm x 2.118 mm
Double-leaf doors	
DLD 18 / 21	1.838 mm x 2.163 mm
DLD 21 / 21	2.138 mm x 2.163 mm
DLD 21 / 24	2.138 mm x 2.463 mm
DLD 24 / 24	2.438 mm x 2.463 mm
DLD 30 / 30	3.038 mm x 3.063 mm
DLD 39 / 39	3.938 mm x 3.963 mm
Sliding doors	
SD 12 / 21	1.238 mm x 2.118 mm
SD 15 / 21	1.538 mm x 2.118 mm
SD 18 / 21	1.838 mm x 2.118 mm
SD 21 / 21	2.138 mm x 2.118 mm
SD 24 / 21	2.438 mm x 2.118 mm
Sliding gates	
SG 24 / 24	2.438 mm x 2.493 mm
SG 30 / 30	3.038 mm x 3.093 mm
SG 39 / 39	3.938 mm x 3.993 mm
SG 42 / 42	4.238 mm x 4.293 mm
SG 51 / 51	5.138 mm x 5.193 mm
Options	
• pneumatical drive / • electrical drive	
• manual ramp / • pneumatical ramp	
Customized versions are available on request	



Special features

- 3 rows of contact springs, made of tinned bronze beryllium
- 3 knife contact system
- Easy maintenance, no need of special tools for exchange of the contact springs
- Many different door sizes available
- Manual, electrical or pneumatical latching
- Surface hot galvanized
- Two strong hinges and two strong latching points are integrated in the door frame
- Direct lining with ferrite tiles and pyramid absorbers is possible

Installation of RF-absorbers on doors / gates directly

All Frankonia doors / gates are designed strong enough for installation of ferrite absorbers as well as of pyramid absorbers directly on the door leaves. In most cases, separate mobile absorber walls are dispensable. If pyramid absorbers with a larger size (>30 cm) shall be installed, sliding doors must be used.