

# **COLD STORAGE AND DEEP-FREEZE ROOMS**

The high-quality range with accessories from A to Z.

# SBS COLD STORAGE AND DEEP-FREEZE ROOMS

## Specialities are our standard.

Quality and safety: we attach great importance to making our cold storage and deep-freeze rooms to exacting standards. Which is why we go to great lengths to ensure the hygienic storage of your chilled goods, such as by installing easy-to-clean surfaces. You can also rest assured that all safety-related aspects meet the recognised quality standards.

We believe it is important to take ecological aspects into account in the production of our cold storage and deep-freeze rooms. This is evident in our use of CFC-free insulating materials, which ensures efficient cooling processes despite using little energy.



All components that make up SBS cold storage and deep-freeze rooms, whether ceilings, floor elements or doors, are systematically made to match.

Various layouts and temperature zones can be achieved by installing partition walls, such as a combined system with cold and deep-freeze sections.

## Furnishings as required

- + Lighting, thermometer
- + Emergency call system
- + Special surfaces
- + Ramps



# Strong performance, coolly calculated.

- + Cold storage and deep-freeze rooms for individual requirements
- + Flexible dimensions, optimum use of space
- + Short production periods
- + Quick assembly, immediate commissioning
- + First-class quality and safety standards
- + Economic, energy-saving insulation
- + Robust equipment, long service life
- + Ecological profile and sustainability
- + On-site professional consultation: from one source.



## THE STRUCTURE AND SYSTEM

## Sophisticated system - perfected to the last detail.

By opting for an SBS cold storage or deep-freeze room, you can look forward to a highly flexible, individual product. In a nutshell: your cold storage or deep-freeze room is available in all sizes — and will be made to order.

A combined cold storage and deep-freeze room also offers flexible temperature options. Partition walls create a division with separate temperature zones, enabling different types of products to be stored.

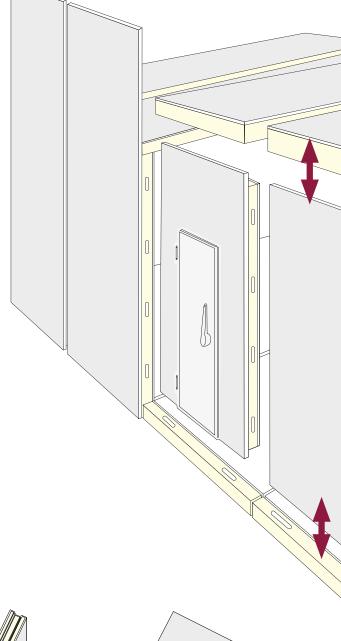
We also offer flexibility with regard to dimensions, partitioning and insulation: whether you choose an insulation thickness of 80, 100 or 150 mm — your chilled goods should be stored appropriately, but of course by using as little energy as possible. Polyurethane rigid foam has the best insulating properties; according to DIN 4108, it is classified in thermal conductivity category 025. The volume weight is 40 – 45 kg/m³.

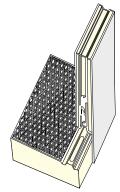
Optimum insulation is an elementary requirement in refrigeration engineering. A brief overview:

U-values	Recommended tem- perature difference
0,27 W/Km <sup>2</sup>	36 K
0,22 W/Km <sup>2</sup>	45 K
0,18 W/Km <sup>2</sup>	55 K
0,14 W/Km <sup>2</sup>	70 K
0,12 W/Km <sup>2</sup>	80 K
0,11 W/Km <sup>2</sup>	88 K
	0,27 W/Km <sup>2</sup> 0,22 W/Km <sup>2</sup> 0,18 W/Km <sup>2</sup> 0,14 W/Km <sup>2</sup> 0,12 W/Km <sup>2</sup>

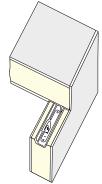
We will be happy to advise you.

Exterior walls can be adapted to the ceiling height

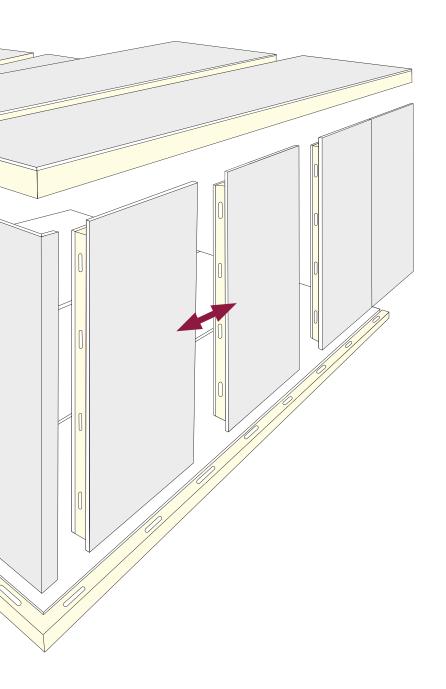


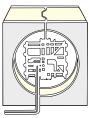


The wall is connected to the floor using a toggle-type fastener



The wall is connected to the ceiling using a toggle-type fastener





The wall is connected to the other wall using a toggle-type fastener





When assembling our cold storage and deep-freeze rooms, individual elements are connected to each other securely using tongue and groove joints and foamed-in corrosion-resistant cam toggle-type fasteners. The fasteners are usually operated from inside. In addition to being easy to use, robust and reliable, this system (pictures left) offers a maximum degree of flexibility for developments and alterations, facilitating convenient spatial variation.



# WALL AND CEILING PANELS

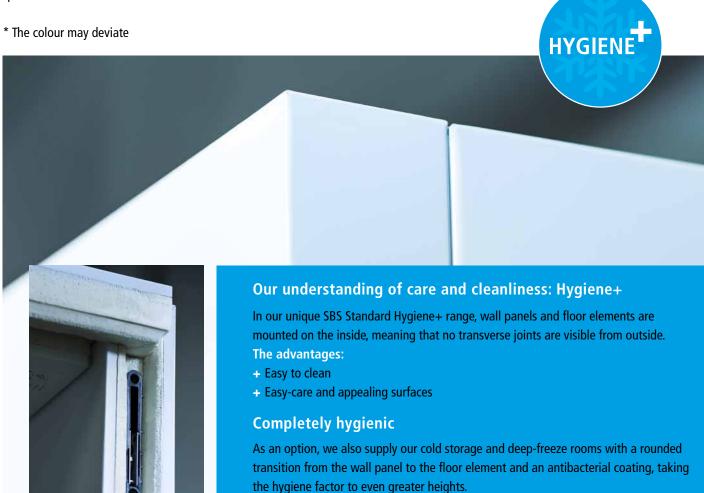
## With us, your chilled goods are in good walls.

The standard version features wall and ceiling panels that are furnished with galvanized thin sheet with a white synthetic coating (RAL 9010\*) on the inside and outside.

Other designs are possible, depending on your individual requirements:

- + Aluminium RAL 9010\*
- + Stainless steel ground with 240 grain
- + Stainless steel linen texture
- + Stainless steel rolled blank 2B
- + Antibacterial coating
- + Special colour shades

The maximum self-supporting span of the ceiling panels depends on the insulation thickness. The span is 5.4 m with an insulation thickness of 80 mm, for example, or 6 m in the case of 150 mm insulation. With divided ceiling panels or larger spans, the panels are suspended from the customer's ceiling or a self-supporting steel construction using a special device.



# **WIDE RANGE OF FLOORING**

## Safety on solid ground.

The design of the floor elements matches the wall and ceiling panels. They are additionally equipped with an anti-slip stainless steel surface as a standard feature, beneath which is a 15 mm pressure distribution plate. The thickness of the pressure distribution plate is adapted to suit thicker surfaces. All floors installed in SBS cold storage and deepfreeze rooms meet the highest hygiene requirements.

## Standard floor surfaces

The standard floor has a pattern rolled bulb plate surface: material 1.4301 (anti-slip category R11), material thickness dependent on the load.



Floor element with a surface made of pattern rolled stainless steel-bulb plate, anti-slip category R11.



The floor surface with resin coated plywood board is available in three different thicknesses.

Stainless steel plate Material 1.4301	<b>Rubber wheel load</b> Load area 4 cm² per rubber wheel	Distributed load
0.7 mm pattern rolled bulb plate Anti-slip category R11 or R12	1000 N	30 KN/m²
1.5 / 2.0 / 3.0 mm pattern rolled bulb plate Anti-slip category R11 or R12	2500 N to 4000 N	40 KN/m <sup>2</sup> to 50 KN/m <sup>2</sup>

Resin coated plywood board	<b>Rubber wheel load</b> Load area 4 cm² per rubber wheel	Distributed load
9 / 15 / 21 mm Anti-slip coating	2000 N to 3500 N	30 KN/m² to 50 KN/m²

Floor coating	<b>Rubber wheel load</b> Load area 4 cm² per rubber wheel	Distributed load
Elastic, continuous polyurethane coating with scattered plastic chips to increase anti-slip resistance, for a temperature range of -30°C to +40°C.	3000 N	50 KN/m²

## Individual floor surfaces

We look forward to advising you on your choice of floor design. Many variants are possible – the decision depends largely on the load requirements related to the intended use.



Elastic, continuous polyurethane coating, with hygienic ground radius on request. Suitable for a temperature range of -30°C to +40°C, quick and easy cleaning.



Ground radius: the rounded transition from the floor element to the wall panels takes the hygiene factor to even greater heights.



The welded stainless steel floor tray with recess in the wall element offers considerable hygiene benefits and is easy to clean.

## Strong performance, coolly calculated.

- + Variety of designs, depending on application
- + Compliance with standardised anti-slip categories
- + Robust design, highly resilient
- + Hygienic, quick and easy cleaning
- + Individual consultation even at the planning stage



# **STANDARD DOORS**

## Tightly closed. Easy to open.

The doors of cold storage and deep-freeze rooms must close tightly, and be easy to use from both inside and outside. Conditions relating to hygiene, such as cleaning and maintenance, must of course also be met. Doors are made to the dimensions required.



All deep-freeze rooms are equipped with a pressure compensation valve. Since the volume decreases when air is cooled, pressure equalization is required.



Robust door hinges made of high-quality materials (stainless steel / plastic) automatically lift the door leaf upon opening.



A robust press lever with an integrated profile cylinder lock ensures optimum closing. When the door is closed, it can be opened at all times from inside using an emergency release system.



All doors for SBS cold storage rooms are equipped with a cold interruption profile. A frame heater can be retrofitted with little effort.



All doors for SBS deep-freeze rooms are equipped with a cold interruption profile and a frame heater.



The hollow chamber seal attached to the door leaf is supplemented by a brush seal on the underside of the leaf, which is easy to clean and replace.



All doors are built into an element frame.

The threshold is equipped with a flush stainless steel plate.

# **SELF-CLOSING HINGED DOORS**

## Automatic closing, made simple.

Self-closing hinged doors, available for cold storage and deep-freeze rooms. In addition to the magnet handle bar, hinged doors are equipped with an innovative spring hinge that acts as a closing device, making sure the door closes automatically after opening.



Stainless steel handle bar with threestage adjustable magnetic adhesive system. The operating force of the door can be adjusted optimally as needed.



Upward spring hinge that acts as a closing device. The hinge ensures that the door is closed automatically after opening.



Bolt lock



Emergency release system (inside)

#### Available as an option

+ As an option, doors are also available lockable with a bolt lock.



# HINGED DOORS FOR EXISTING COLD STORAGE ROOMS

## The right door for every wall.



Installation is possible in virtually all walls, whether in cold storage or deep-freeze rooms



Facing wall with D8 cold storage room hinged doors

	D8	D12
Place of installation	Cold storage room	Deep-freeze room
Temperature range	0°C to +8°C	0°C to -28°C
Door leaf	Single-leaf   double-leaf	Single-leaf   double-leaf
Leaf thickness	80 mm PU-foamed (CFC-free)	120 mm PU-foamed (CFC-free)
Leaf surface	Galvanised thin sheet, plastic-coated or stainless steel	Galvanised thin sheet, plastic-coated or stainless steel
Frame variant Installation in masonry	Thermotec block frame or Thermotec flat frame in RAL 9002 with threshold	Thermotec block frame or Thermotec flat frame in RAL 9002 with frame heater (230 V/50 Hz) and threshold
Frame variant Installation in panels	Thermotec block frame with clip frame or Thermotec flat frame in RAL 9002 with threshold	Thermotec block frame with clip frame or Thermotec flat frame in RAL 9002 with frame heater (230 V/50 Hz) and threshold
Door fitting	Press lever with profile cylinder and integrated emergency release	Press lever with profile cylinder and integrated emergency release
Door hinges	Selfrising hinges made of CNS/plastic	Selfrising hinges made of CNS/plastic
Seal	Three-sided hollow section sealing profile, highly elastic, exchangeable without use of tools, with a brush seal at the base	Three-sided hollow section sealing profile highly elastic, exchangeable without use of tools, with a double brush seal at the base
Safety certificates	CE, VDE, TÜV GS, TÜV type tested,	CE, VDE, TÜV GS, TÜV type tested,

Models D8 and D12 offer reliable solutions for every temperature range.

DIN EN 13241-1

Safety certificates



The attractive hinged doors ensure perfect operation

High-quality materials, sophisticated technology, and high level of user comfort: the hinged doors from the D type series meet the highest demands and impress with their value for money. They come complete with frame (freezer room door D12 with frame heater), enabling them to be installed in almost any wall.

DIN EN 13241-1

# **SHELVING SYSTEM**

## Safe, effective storage.

We recommend the use of robust, high-quality processed shelves made of anodised aluminium or rust-proof stainless steel. Featuring seamless manufacture, smooth easy-to-clean surfaces and plastic end caps on the shelf supports, these systems meet the highest safety and hygiene requirements.

## Strong performance, coolly calculated.

- + Available in either rust-proof stainless steel or a light-weight aluminium design
- + Flexible adjustment to existing room dimensions (also L- or U-shaped)
- + First-class workmanship, robust design
- + Shelf height individually adjustable at 150 mm intervals
- + Good stability, even on uneven floors, with use of screw feet
- + Extremely sturdy, resilient and robust
- + Quick to assemble, easy to clean



The height catch at 150 mm intervals enables the shelves to be arranged flexibly



Closed stainless steel shelf rest



Closed aluminium shelf rest



Stainless steel grid plate



Aluminium grid plate

#### **Shelf rests**

The load-bearing capacity of shelf rests is a decisive factor. Closed shelf rests or grid plates are used, depending on the individual area of application. Depending on dimensions, the load-bearing capacity of the shelf rests is up to 200 kg (shelf load). A shelf bay can take up to 600 kg (bay load).

## GLASSDOORS + SHELVES

## **Cool storage – attractively presented.**



The goods are clearly visible behind insulated glass doors

Wherever chilled goods need to be presented attractively to promote sales, whilst saving on energy, glass doors with optimum insulating properties are the right solution, e.g. in petrol filling stations or drinks markets and supermarkets.

Glass doors are available in frame modules with anything from 1 to 5 doors. Naturally anodised aluminium door profiles and outer frames are available for door clear dimensions of 590 mm and 690 mm width and 1521 mm and 1721 mm height.

#### Strong performance, coolly calculated.

- + Promotional presentation of goods
- + Energy-efficient storage
- + Simple, user-friendly operation
- + Clear view, even at low temperatures
- + In combination with shelves: removal of goods is easy and convenient

Shelves are aligned to the widths of the glass doors, offering customers optimum access. The shelving system is filled from the rear.

#### Cold facts:

#### glass doors for cold-storage rooms

- + Heated door frame
- + Hard double insulation glass for optimum insulation
- + Free of condensation with a maximum ambient temperature of +25°C, maximum relative air humidity of 70% and a temperature within the chamber of +2°C

#### Ice-cold facts: glass doors for deep-freeze rooms

- + Heated pane and door frame
- + Condensation-free view
- + Optimum insulation due to hard, heated, triple insulation glass
- + Free of condensation with a maximum ambient temperature of +25°C, maximum relative air humidity of 60% and a temperature within the chamber of -25°C



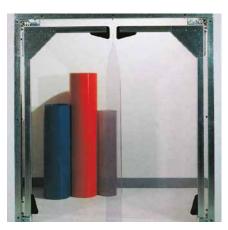
#### Shelves for glass doors in shops

- + Frame with sliding racks with adjustable tilt, as well as dividers and front panels
- + Neat, safe positioning of products
- + Rail for barcodes and price labels, clearly visible and easily removable
- + Various models matching the glass doors of SBS cold storage rooms
- + Variable number of vertical elements and sliding racks, depending on the model

# **SWING DOORS, STRIP CURTAINS**

## P for practical, (low-)price, PVC.

Our PVC swing doors are designed to be robust. They are used wherever people and fork lifts need to enter cold storage rooms and refrigerated warehouses frequently.



The double-leaf PVC swing door provides a good view of the adjacent room



The galvanised steel frame profile is also available in stainless steel

# PVC swing doors: practical and robust.

- Transparent door leaf made of 7 mm thick plasticised PVC
- Plastic corner reinforcement to prevent tearing
- + Temperature-resistant from -20°C to +60°C
- Robust, galvanised steel frame profile (gallows and door frame), with a choice of single or double leaf, also available in stainless steel
- + 90 degree opening angle, from both sides
- + Closing force individually adjustable
- Fully pre-assembled for simple selfinstallation

PVC strip curtains are often used as a lowpriced, energy-efficient solution for door areas. They are ideal for low to moderate demands in cold storage and deep-freeze rooms.



PVC strip curtains are the low-cost solution for low to moderate demands in cooling or deep-freeze zones

# PVC strip curtains: low-priced and energy efficient.

- + Metal parts made of aluminium
- + Width of plastic strips 200/300 mm, either 2 or 3 mm thickness
- + Can be installed below or behind the lintel
- Optional: strip curtains made of a particularly cold-resistant material for operating conditions at temperatures between 0°C and -40°C

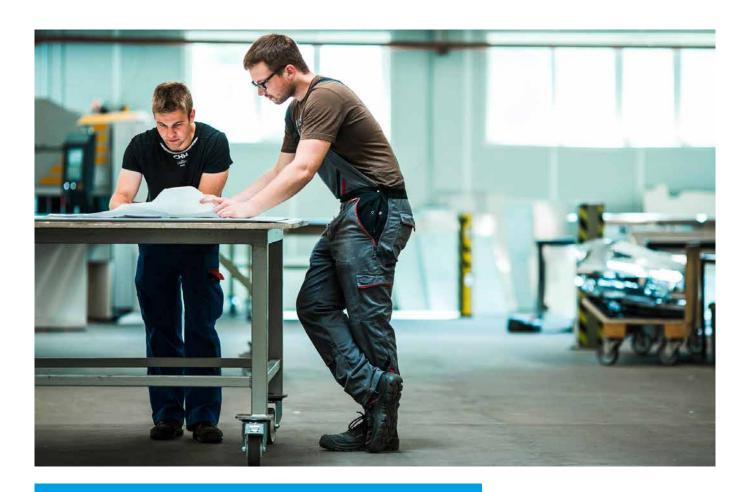
# THE IDEAL SOLUTION FOR YOUR NEEDS

## Cool heads, dedication with a passion.

#### **Consultation & planning**

Our team of reliable and motivated experts enjoy thinking outside the box to find the optimum solution for your requirements. We only start designing your cold storage or deep-freeze rooms once all of your individual requirements have been defined. We plan, organise and coordinate to ensure that you always maintain an overview.

Our success is based on reliability, promptness and expertise, and the dedication of our employees.



#### SBS - cool facts.

- + Professional full-range supplier of cold storage and deep-freeze rooms
- + Service-oriented philosophy
- + Dedicated, excellently trained and motivated team
- + Competent contact partners for individual custom-made products





# Service-Plus

# Our strengths – your advantages:

- + Consultation by specialists
- + 80% individual customised solutions
- + Quick quotations (usually one hour after receiving an enquiry)
- + Short delivery times
- + Keen adherence to schedules
- + Absolutely reliable
- + Service with a guaranteed feel-good factor

#### Service & maintenance

Cold storage and deep-freeze rooms by SBS are characterised by top quality and a long service life. Our products are low-maintenance and easy to clean. In the unlikely event of a problem, our service team will always be there to assist you.

#### **Production & quality control**

Every SBS module is made to order in state-of-the-art conditions and in compliance with recognised quality standards, enabling us to meet customers' individual requirements precisely and in no time at all.

#### **Delivery & assembly**

Carefully packed, complete and punctual: that's all we really need to say on the subject of delivery. And what about assembly? Prompt, clean and straightforward.



### SBS – ice-cold advantages.

- + Quality "Made in Germany"
- + Standard and individual solutions
- + Short production and delivery times
- + Great value for money
- + Ecological profile, sustainability

