Rheinhold & Mahla

Since 1887

Walls

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Introduction

Walls

Interior outfitting manufactured by the R&M Group

The products of the R&M Group provide efficient, individual and turnkey solutions for interior outfitting. The extensive portfolio ranges from doors, wet units and pods to furniture, which are manufactured at our production facilities in Wismar and in Rostock (Germany) as well as in Kunshan (China). With our own modern product facilities, we are able to offer very flexible accordingly to customers` requirements and wishes. We consider simultaneously the design as well as economic issues, which play a key role in our daily business.

All the high-quality products meet the highest standards and the most stringent international guidelines. They are characterized with the best fire, noise and vibration protection ensuring comfort and safety on board for passengers as well as crew members. We deliver just-in-time to any desired location in the world.

Production facilities

Wismar

In Wismar, we produce furniture according to standard specifications and individual customer requirements. Our excellent design solutions are continuously developed. Thanks to the latest computerized numerical control (CNC) machines, we are also able to meet the most specific requirements in a short turnaround time while maintaining our quality guarantee. Furthermore, together with our suppliers we can offer a range of products, from sophisticated stainless-steel work and superior solid surfaces to creative mirrors, glass features, and high-grade upholstery.

Rostock

In Rostock, which is very close to Wismar, our central warehouse and logistics center is located as well as the facility for final assembly of our furniture manufacture from Wismar.

Kunshan

Further production facility is located in Kunshan, near Shanghai. It is the larger facility, where we manufacture for example wet units, doors, wall and ceiling systems. European standards of quality and international logistic guidelines are strictly observed during the entire manufacturing process. The team is multinational and has long-term experience and knows each important characteristics of products.

Our competences

- Individual customizations and configurations on request
- Complete installation for electrical, air-conditioning and sprinkler systems
- Just-in-time delivery
- Guarantee of quality
- Products at best price-performance ratio
- Assembly line for prefabricated wet units and cabins on site
- Tested and approved structural materials
- Worldwide shipping, assembly and installation on board

Quality management system

- Quality management system in accordance with the international norm ISO 9001
- Quality assurance system are compliant with Maritime Equipment Directive, Modul D
- It consists of incoming inspection per category, in-process quality control and outgoing inspection and release to delivery
- Quality standards are monitored by the multicultural R&M Quality Management Team

Lining panels

Type W25, W25-AS & W25-AA
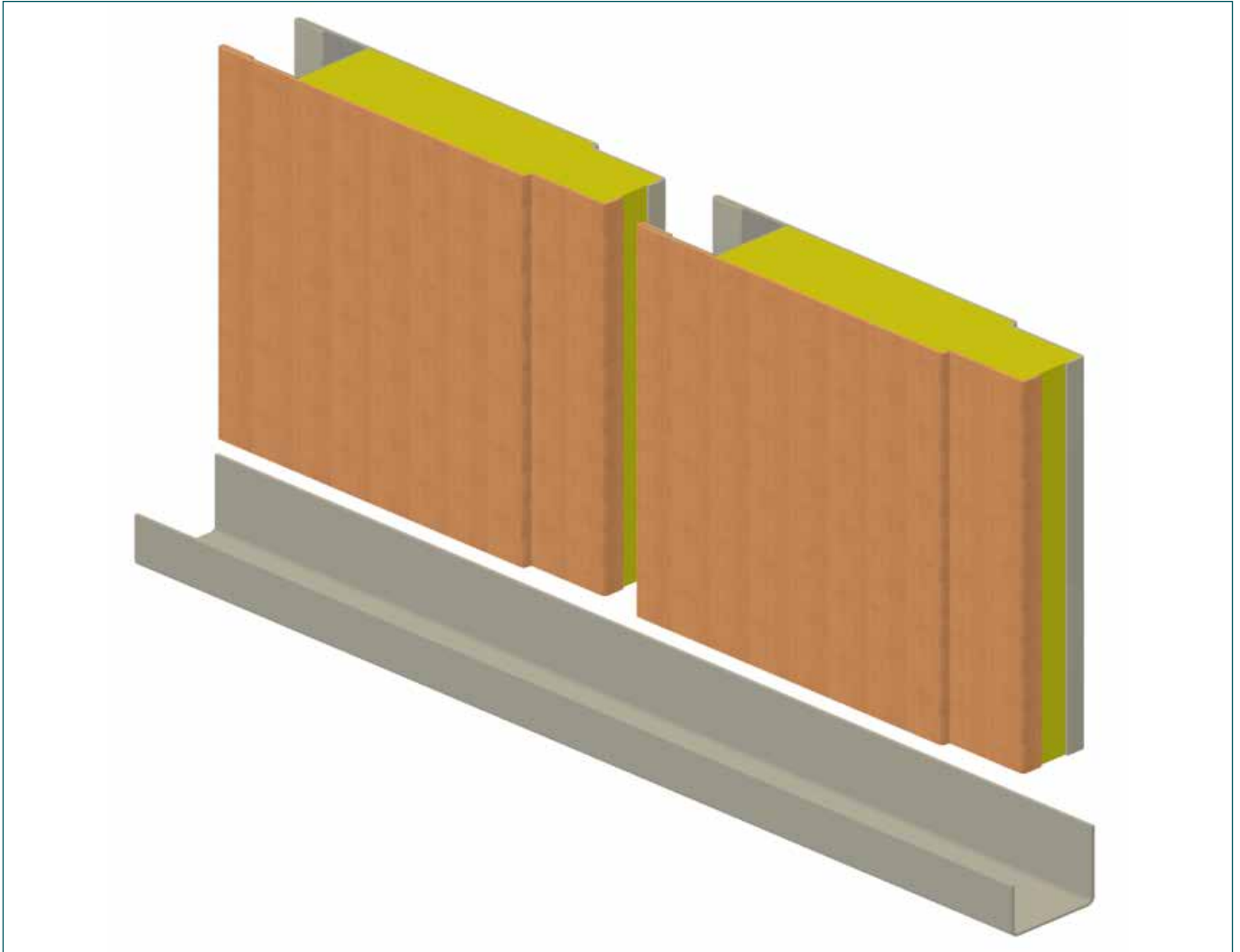
The W25, W25-AS and W25-AA wall elements represent the standard system when it comes to the application of single-sided decorative lining panels. Depending on the customer specifications regarding fire rating and weight different covering layer combinations can be chosen. Besides the W25 wall panel is certified with several fixtures. For all assembly situations, mutable connection types are available whereat as a standard the panel type with integrated tongue is being used.

A large variety of surface finishes are available, all of them fitted with a removable protection foil to prevent any damage from occurring during installation. The design of the W25, W25-AS and W25-AA panel system and all components have been tested and approved according to international standards.

Lining panels

Type W25, W25-AS & W25-AA

Longitudinal Section   Cross Section

Bottom profile
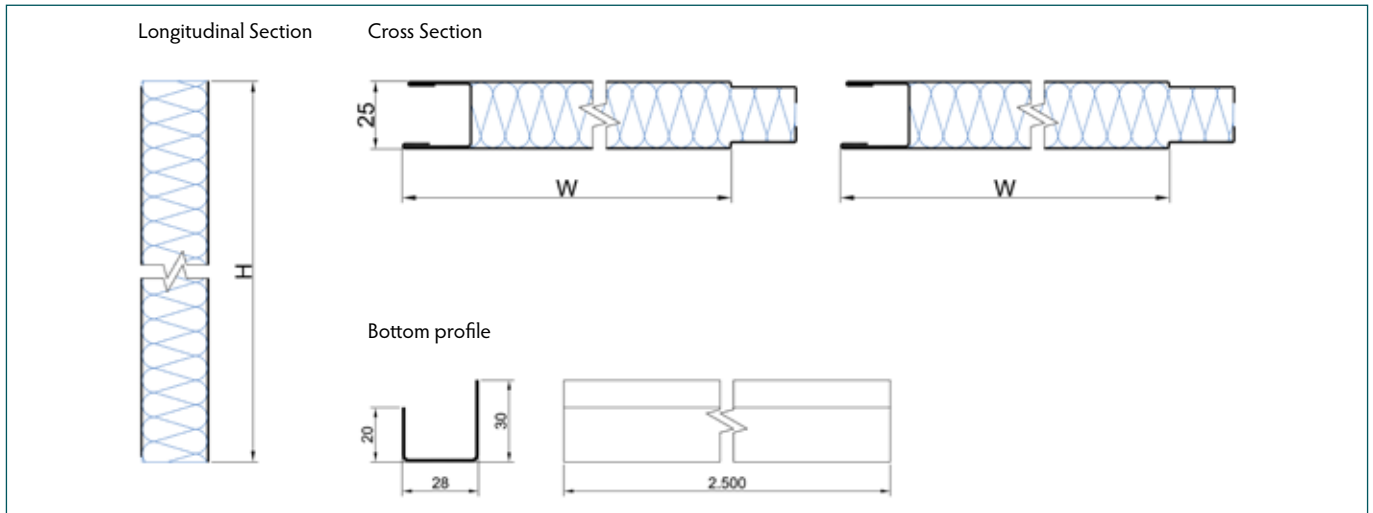
| Technical data	W25	W25-AS	W25-AA
Covering layer (visible side)	Steel	Steel	Aluminum
Covering layer (back side)	Steel	Aluminum	Aluminum
Fire classification	B-15	B-0	C
Sound reduction	up to 30 dB	---	---
Thickness	25 mm	25 mm	25 mm
Element width - Standard	550 mm	550 mm	550 mm
- Range	250 - 1,200 mm	250 - 650 mm	250 - (not limited) mm
Element height	up to 2,475 mm	up to 2,475 mm	(not limited) mm
Weight - Panel	14.5 kg/m^2	11.5 kg/m^2	8.6 kg/m^2
- Bottom profile	0.6 kg/m	0.6 kg/m	0.6 kg/m
Certified fixtures	Cable duct Reinforcements Backside cover WC with backside cover box	---	---
Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)
Certification	MED, USCG	MED, USCG	---

Lining panels

Certified fixtures for W25
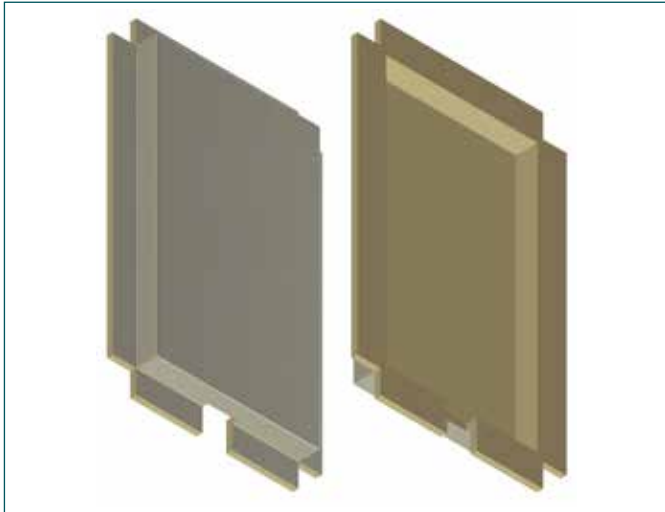
Technical data	Backside cover (hard)
Fire class	B-15
Dimensions	up to 450 x 700 mm
Height	min. +9 mm behind fixture

Technical data	Backside cover (soft)
Fire class	B-15
Dimensions	up to 235 x 400 mm
Depth	min. +3 mm behind fixture
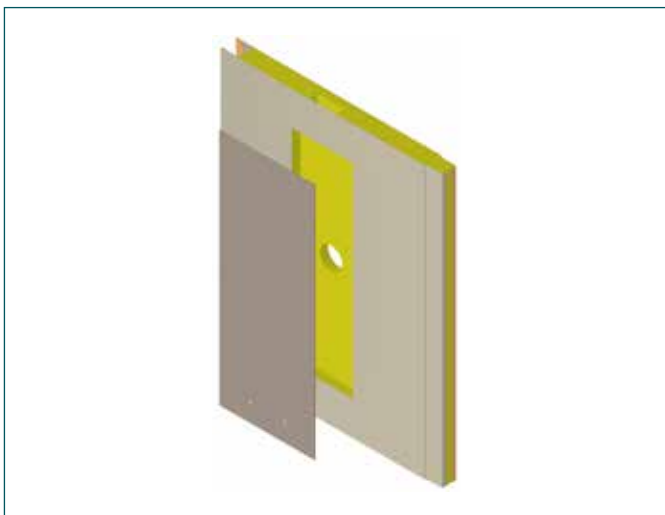
Technical data	Cable duct
Fire class	B-15
Dimensions	up to 90 x 2,075 mm
Depth	12.5 mm
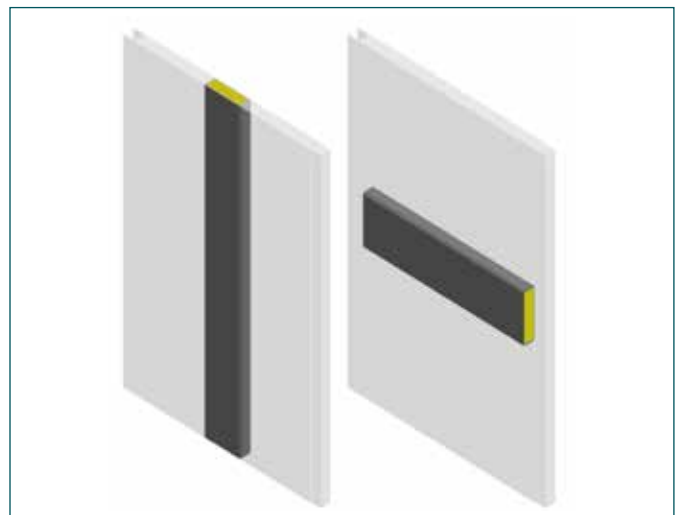
Technical data	Vertical & horizontal reinforcements
Fire class	B-15
Dimensions	according to customer specifications

Lining panels

Certified fixtures for W25
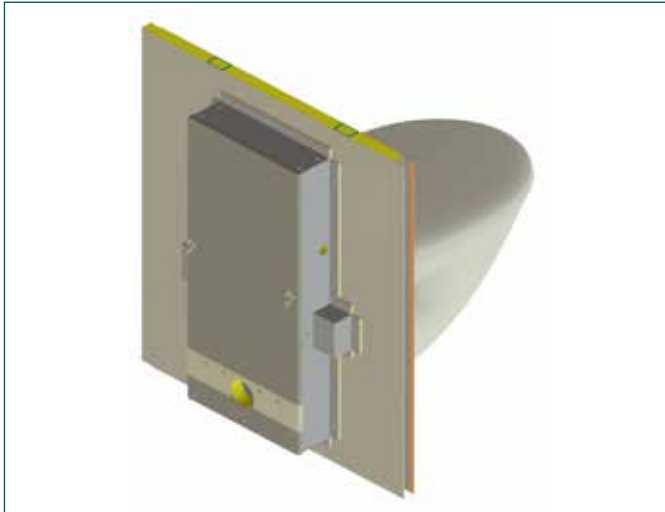
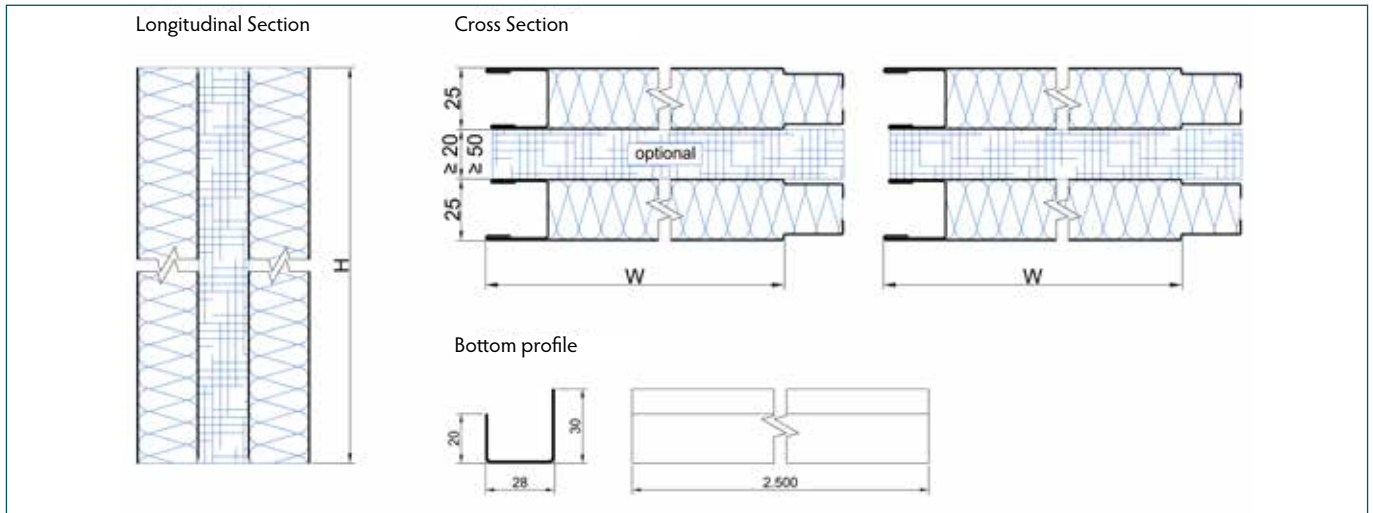| Technical data	WC with accessible back box
Fire class	B-15
Dimensions	up to 300 x 635 mm
Depth	depending on WC

Double wall systems

Type W25 & W25-AA
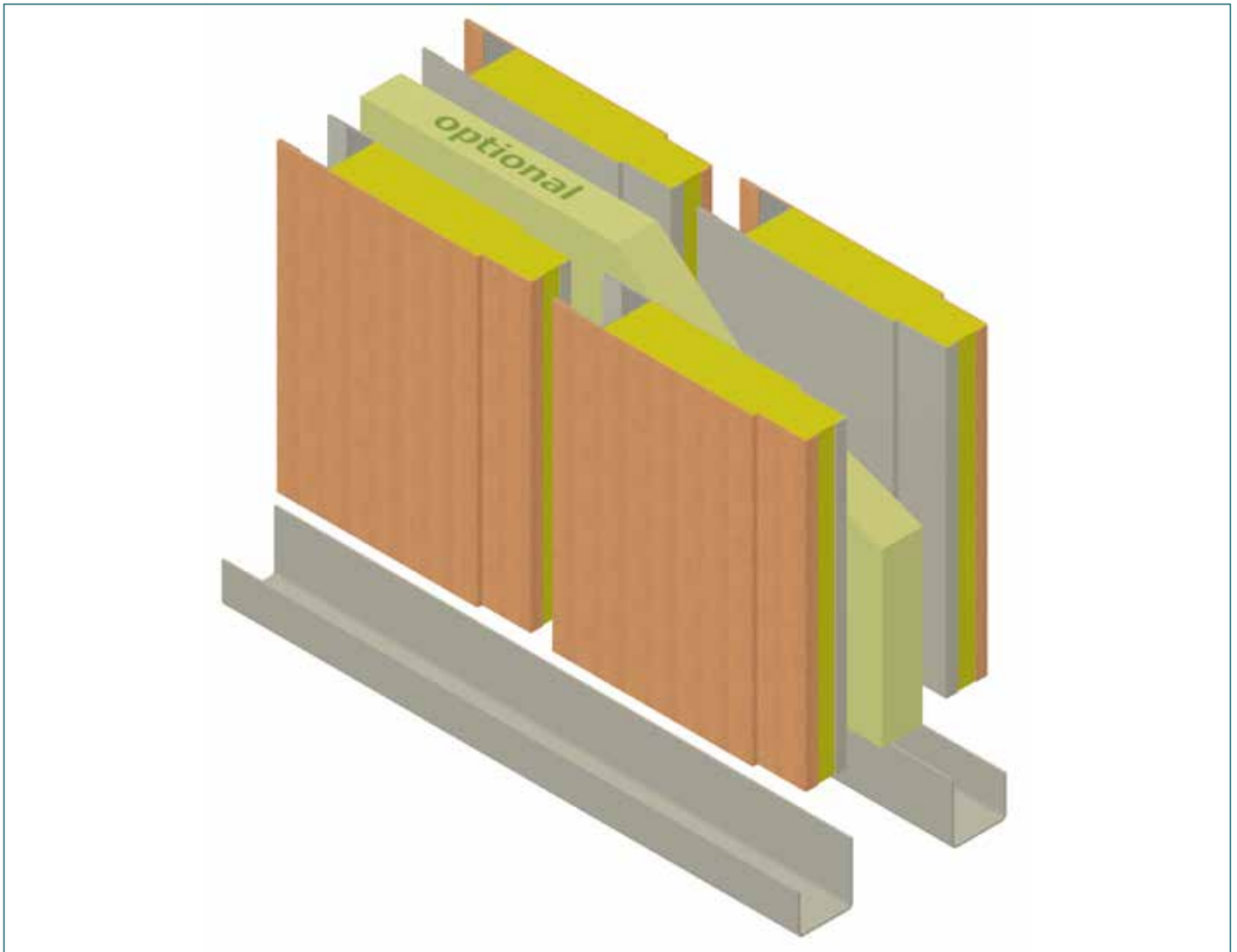
Besides the W25 and W25-AA single walls the panels can be assembled as double wall systems as well. According to customer requirements, the double wall systems can be produces with steel or lightweight aluminum layers. With a mass of only 2 x 9.1 kg/m² the aluminum version is especially used when the weight on board plays an important role. Both variants ensure B-15 fire rating. For all assembly situations, mutable connection types are available whereat as a standard the panel type with integrated tongue is being used.

A large variety of surface finishes are available, all of them fitted with a removable protection foil to prevent any damage from occurring during installation. The design of the W25 and W25-AA double wall systems and all components have been tested and approved according to international standards.
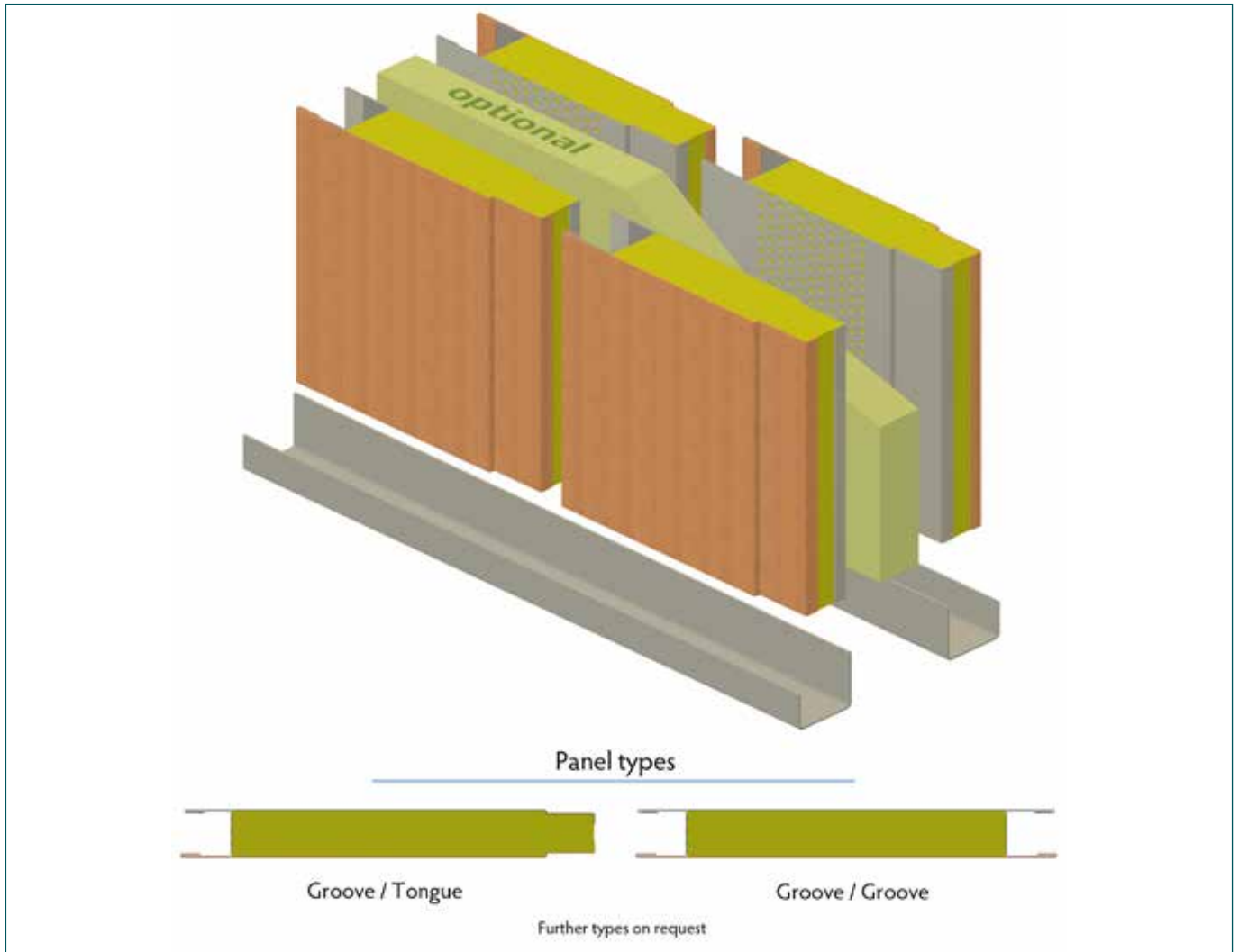
Double wall systems

Type W25 & W25-AA

Longitudinal Section   Cross Section

Bottom profile

Technical data	W25	W25-AA
Covering layer (visible side)	Steel	Aluminum
Covering layer (back side)	Steel	Aluminum
Fire classification	B-15	B-15

Sound reduction
  - 20 mm distance
  - 50 mm distance
	
	37 dB / 44 dB*
	39 dB / 50 dB*
		
		  --- / ---

Thickness	25 + ≥ 20 + 25 mm	25 + ≥ 50 + 25 mm
Element width - Standard - Range	550 mm 250 - 1,200 mm	550 mm 250 - 600 mm
Element height	up to 2,475 mm	up to 2,475 mm

Weight - Panel
     - Cavity insulation (air gap)
 	
     - Bottom profile
	2 x 14.5 kg/m²
	+0.7 kg/m² (20 mm)
	+1.2 kg/m² (50 mm)
	2 x 0.6 kg/m
		2 x 9.1 kg/m²
		
		+1.2 kg/m² (50 mm)
		2 x 0.6 kg/m

Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)
Certification	MED, USCG	MED, USCG

* without / with cavity insulation

Perforated double wall systems

Type W25P, W25PR & W70ML

Panel types

Groove / Tongue   Groove / Groove
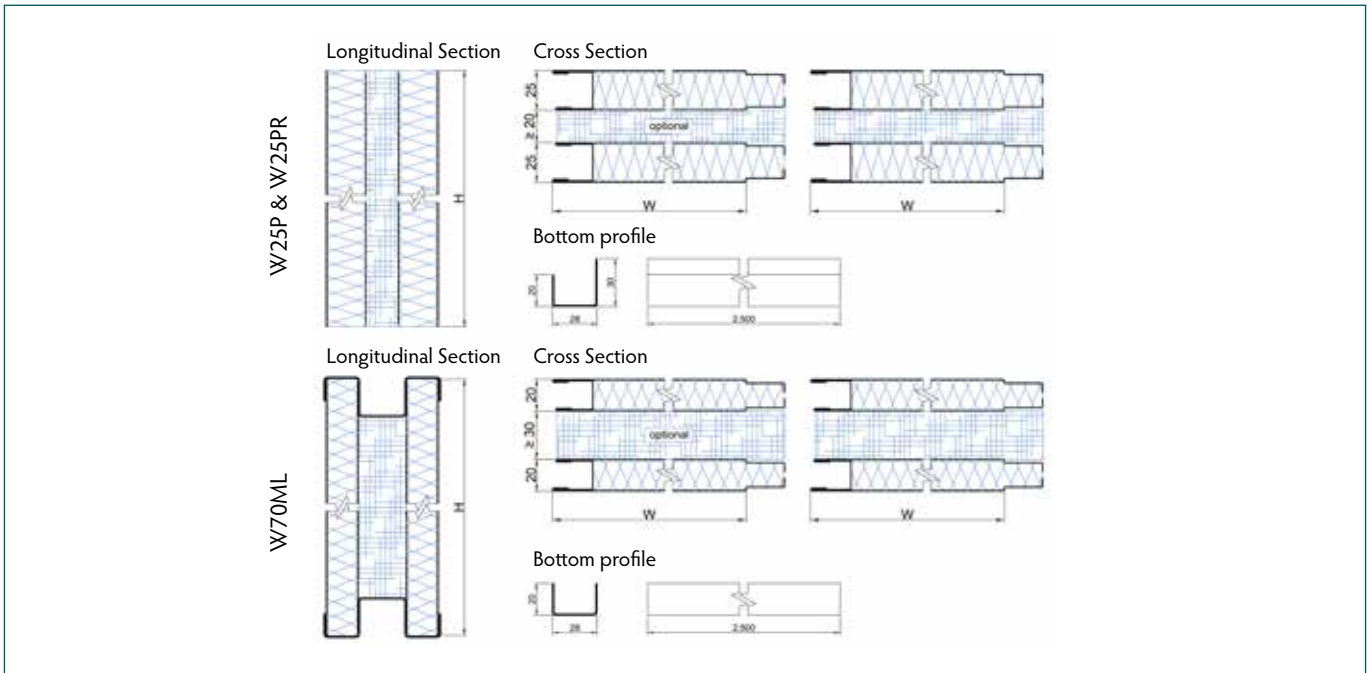
Further types on request

The W25P & W25PR double wall systems represent the standard system when it comes to very high noise reduction requirements. By perforating the backsides of each panel and the optional adding cavity insulation, the double wall systems reaches a sound reduction of up to R_w = 61 dB. The W70ML is a special type whereas the assembly can be done by mounting each side separately or as a prefabricated double wall element. For all assembly situations mutable connection types are available whereat as a standard the panel type with integrated tongue is being used.

A large variety of surface finishes are available, all of them fitted with a removable protection foil to prevent any damage from occurring during installation. The design of the W25P, W25PR & W70ML double wall systems and all components have been tested and approved according to international standards.

Perforated double wall systems

Type W25P, W25PR & W70ML

Technical data	W25P	W25PR	W70ML
Covering layer (visible side)	Steel	Steel	Steel
Covering layer (back side)	Steel (perforated)	Steel (perforated)	Steel (perforated)
Fire classification	B-15	B-15	B-15
Sound reduction - 20 mm distance - 30 mm distance - 50 mm distance - 70 mm distance - 100 mm distance	44 dB / 46 dB* --- / --- 43 dB / 49 dB* --- / --- --- / ---	46 dB / 53 dB* --- / --- 47 dB / 57 dB* --- / 59 dB* --- / 61 dB*	--- / --- 45 dB / 48 dB* --- / --- --- / --- --- / ---
Thickness	25 + ≥ 20 + 25 mm	25 + ≥ 20 + 25 mm	20 + ≥ 30 + 20 mm
Element width - Standard - Range	550 mm 250 - 600 mm	550 mm 250 - 600 mm	550 mm 250 - 600 mm
Element height	up to 2,975 mm	up to 3,175 mm	up to 2,475 mm

Weight - Panel
        - Cavity insulation (air gap)
 	
        - Bottom profile
        - Spacing profile
	2 x 14.1 kg/m²
	+0.7 kg/m² (20 mm)
	+1.2 kg/m² (50 mm)
	
	2 x 0.6 kg/m
		2 x 18.5 kg/m²
		+0.7 kg/m² (20 mm)
		+1.2 kg/m² (50 mm)
		+1.9 kg/m² (70 mm)
		+2.4 kg/m² (100 mm)
		2 x 0.6 kg/m
			2 x 13.1 kg/m²
			+0.7 kg/m² (30 mm)
			
			1 x 0.5 kg/m
			2 x 1.2 kg/m

Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)
Certification	MED, USCG	MED, USCG	MED, USCG

* without / with cavity insulation

Perforated single & double wall systems

Type W25P (light weight)

Panel types

Groove / Tongue   Groove / Groove

Further types on request
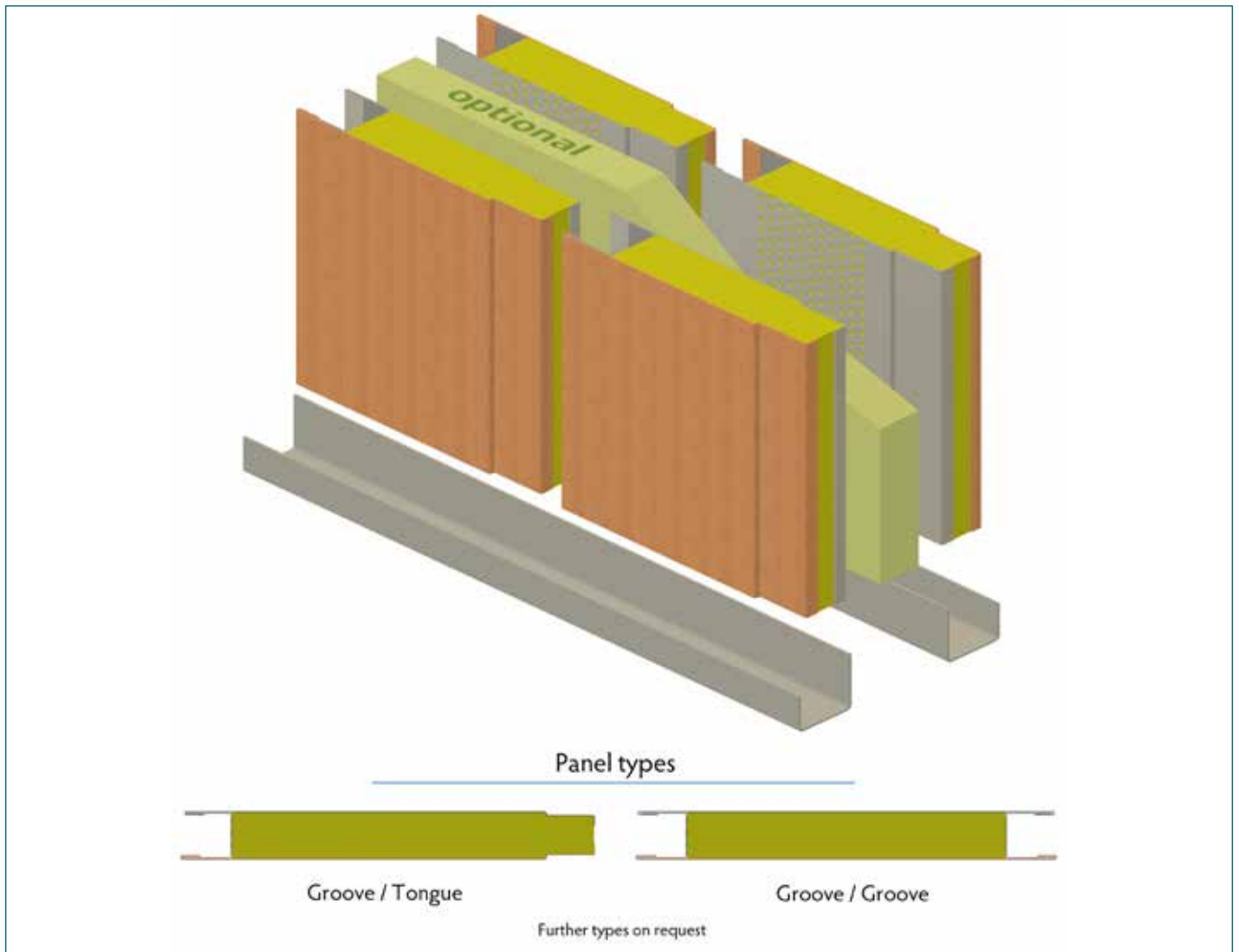
The W25P (light weight) system represent the alternative system when it comes to very high noise reduction in combination with low weight requirements for prefabricated cabins. The W25P (light weight) is certified as single wall with several fixtures. By perforating the backsides of each panel and the option of adding cavity insulation as well as being placed as double wall (prefab cabin to prefab cabin) a sound reduction of up to R_w = 54 dB can be reached. For all assembly situations mutable connection types are available whereat as a standard the panel type with integrated tongue is being used.

A large variety of surface finishes are available, all of them fitted with a removable protection foil to prevent any damage from occurring during installation. The design of the W25P (light weight) system and all components have been tested and approved according to international standards.
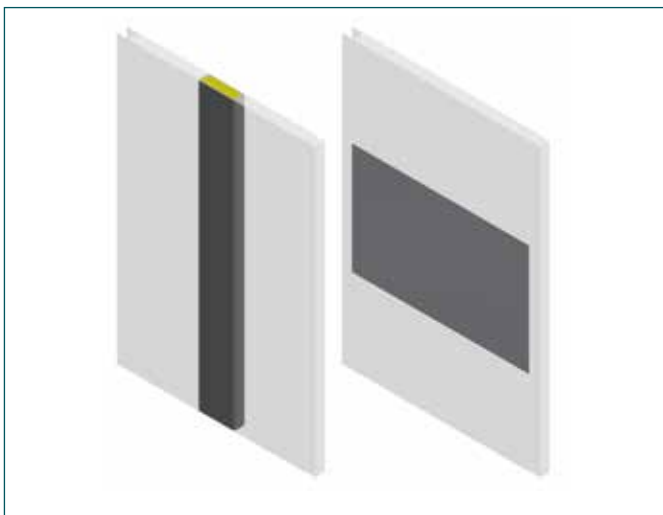
Perforated single & double wall systems

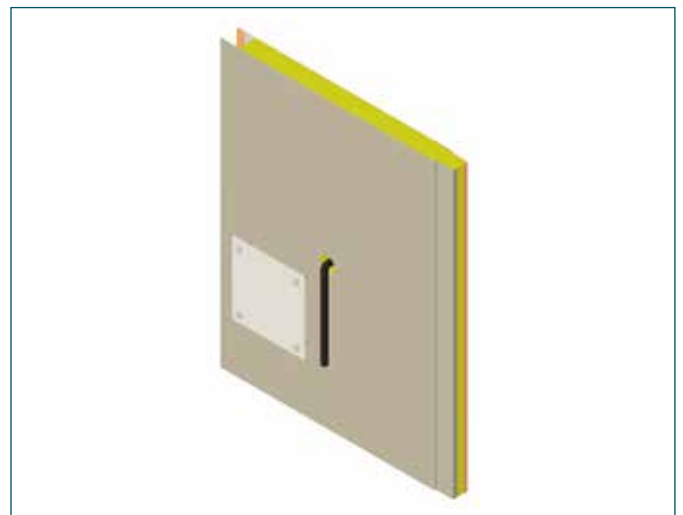# Certified fixtures for W25P (light weight)

Technical data	Backside cover (soft)
Fire class	B-0
Dimensions	up to 235 x 400 mm
Depth	min. +3 mm behind fixture
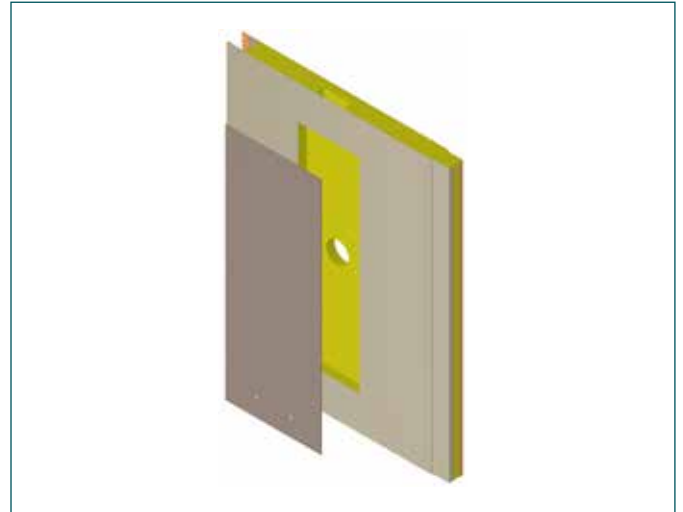
Technical data	Cable duct
Fire class	B-0
Dimensions	up to 90 x 2,075 mm
Depth	12.5 mm

Technical data	Reinforcements
Fire class	B-0
Dimensions	according to customer specifications

Technical data	Cable penetration
Fire class	B-0
Dimensions	cut out Ø 20mm with cover 100 x 100 mm
Depth	min. +3 mm behind cable

Perforated single & double wall systems

Type W25P (light weight)
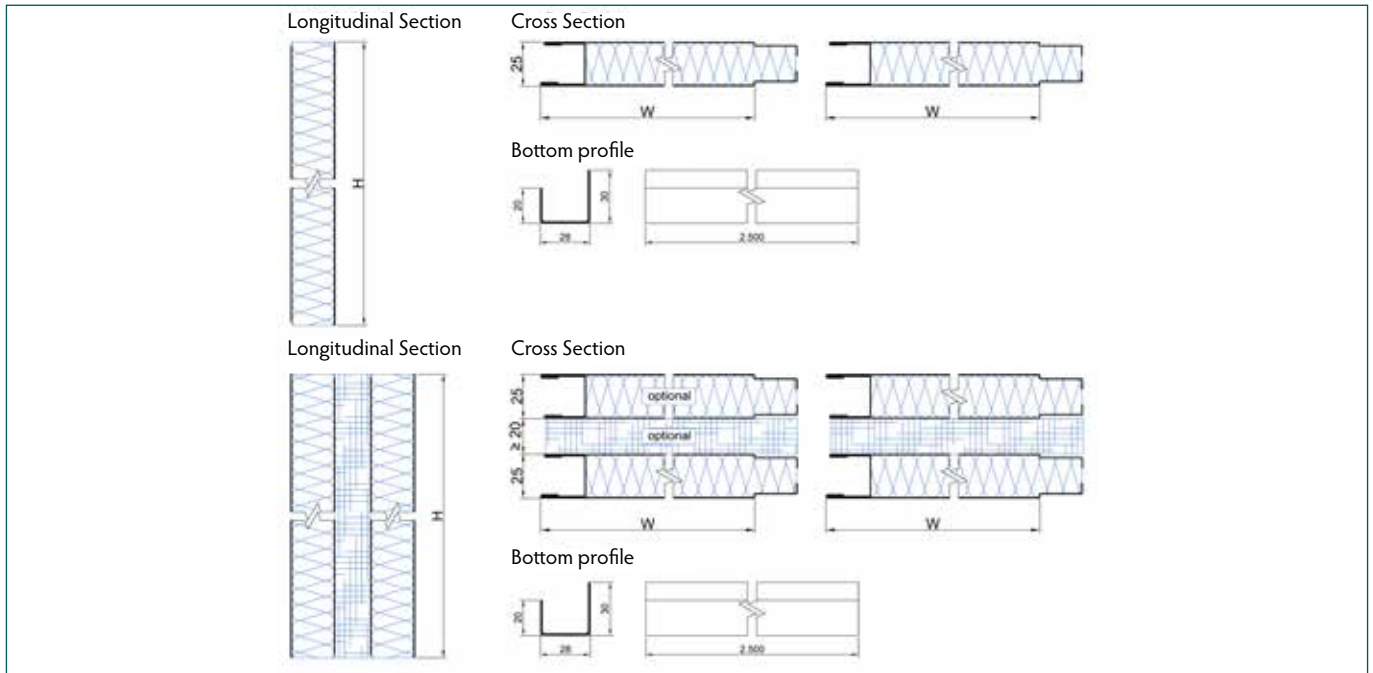
Technical data	W25P (light weight)
Covering layer (visible side)	Steel
Covering layer (back side)	Steel (perforated)
Fire classification	B-0 (single wall)
Sound reduction - single wall - 20 mm distance - 30 mm distance - 50 mm distance	 30 dB 30 dB / 50 dB* 46 dB / 52 dB* 48 dB / 54 dB*
Thickness	25 mm
Element width - Standard - Range	550 mm 250 - 600 mm
Element height	up to 2,475 mm

Weight - Panel
           - Cavity insulation (air gap)
 	
           - Bottom profile
	12.2 kg/m²
	+0.7 kg/m² (20 & 30 mm)
	+1.2 kg/m² (50 mm)
	0.6 kg/m

Certified fixtures	Cable duct Reinforcements Backside cover Cable penetration
Coating	PVC foil varnish coated (others on request)
Certification	MED, USCG

* without / with cavity insulation

Partition panels

Type W50 & AP5SN

Panel types

| Groove/Tongue | Groove/Groove | Groove/Plain | Plain/Tongue |

Further types on request

The W50 and AP5SN wall elements represent the standard system when it comes to the application of double-sided decorative partition panels. Depending on the customer specifications regarding sound reduction requirements different panel structures can be chosen. For all assembly situations, mutable connection types are available whereat as a standard the panel type with integrated tongue is being used.

A large variety of surface finishes are available, all of them fitted with a removable protection foil to prevent any damage from occurring during installation. The design of the W50 and AP5SN panel system and all components have been tested and approved according to international standards.

Partition panels

Type W50 & AP5SN
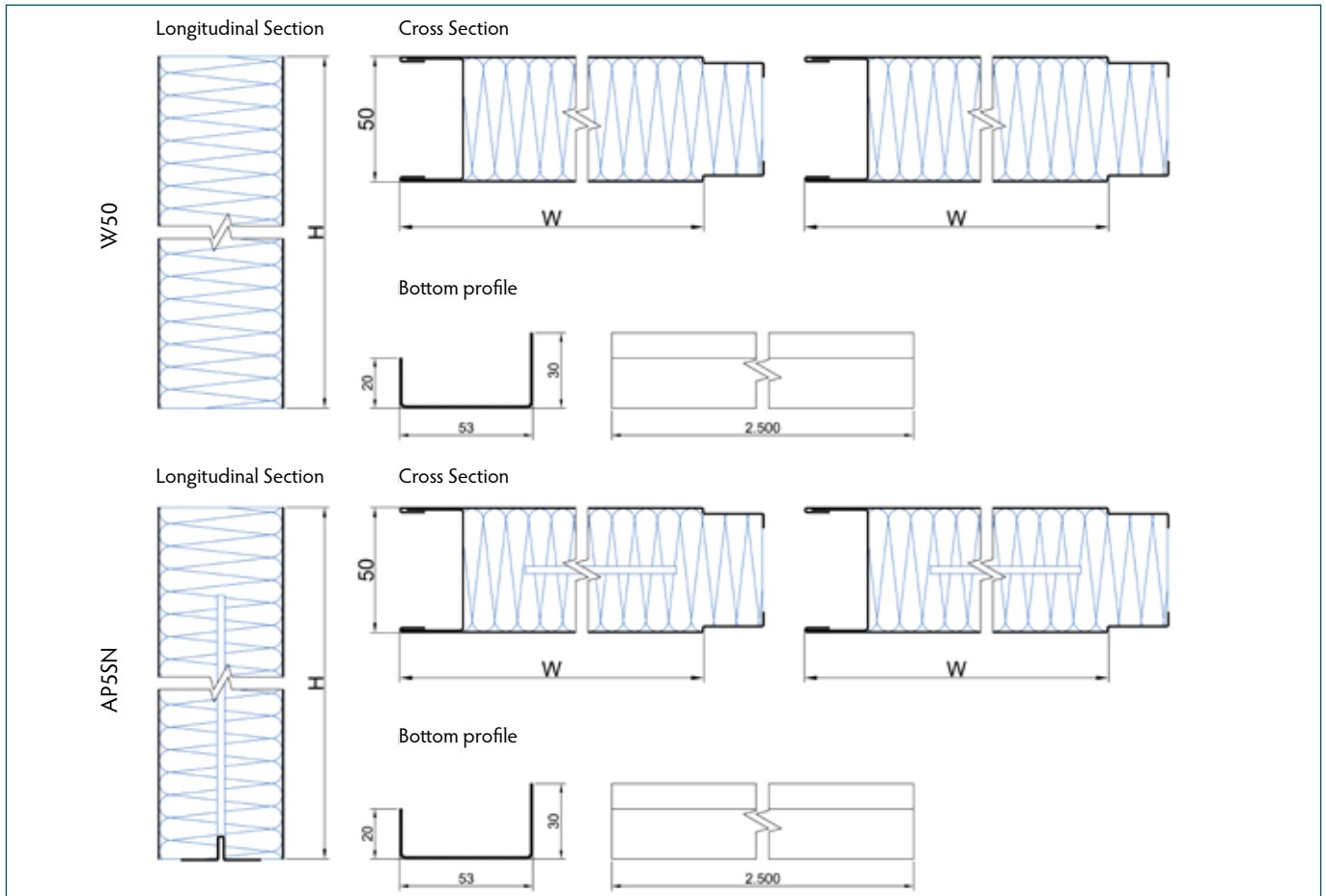
Technical data	W50	AP5SN
Covering layer (visible side)	Steel	Steel
Covering layer (back side)	Steel	Steel
Fire classification	B-15	B-15
Sound reduction	28 dB	40 dB
Thickness	50 mm	50 mm
Element width - Standard	550 mm	550 mm
- Range	250 - 1,100 mm	250 - 600 mm
Element height	up to 2,500 mm	up to 2,500 mm
Weight - Panel	18.0 kg/m²	20.1 kg/m²
- Bottom profile	0.8 kg/m	0.8 kg/m
Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)
Certification	MED, USCG	MED, USCG

## Removable wall element
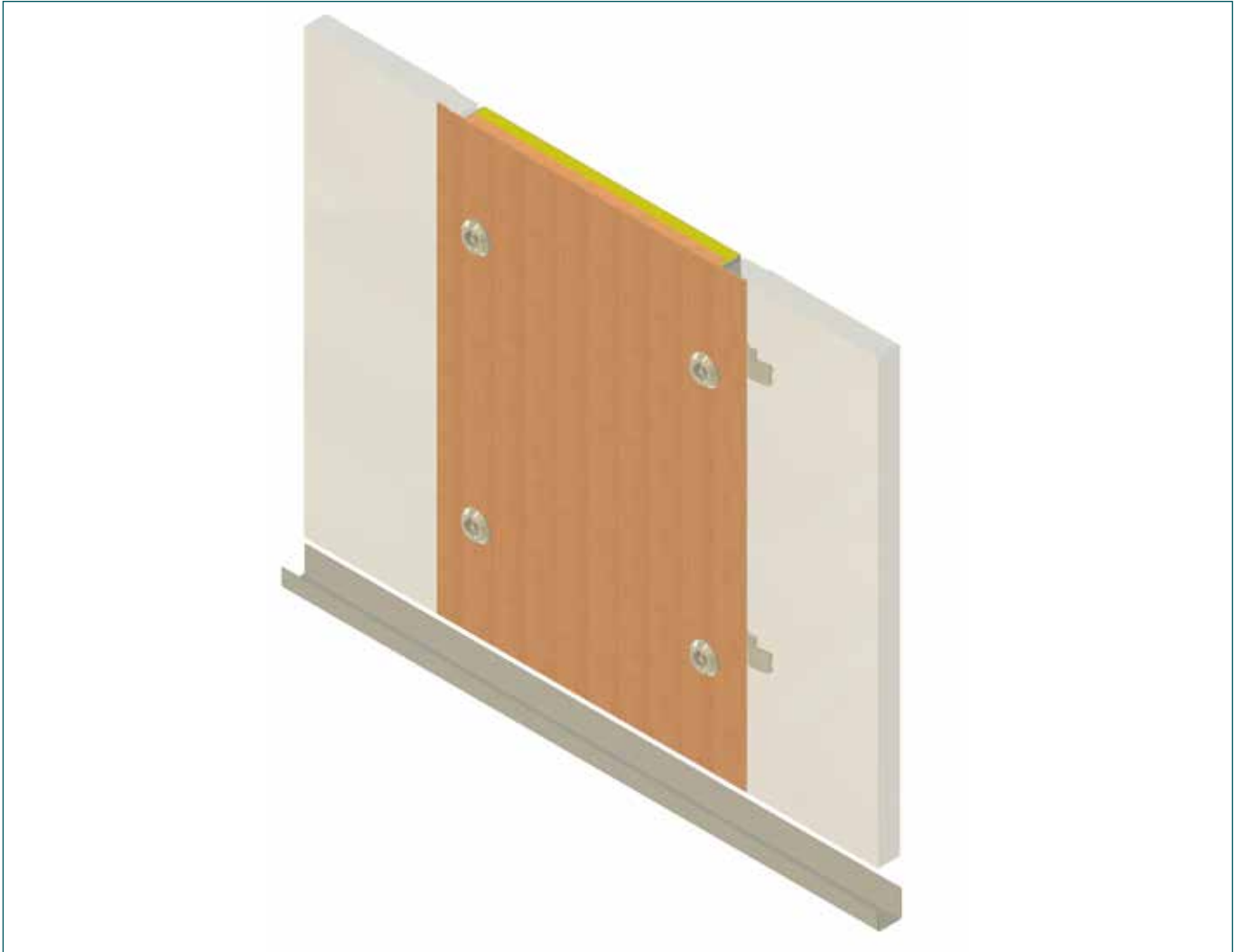
Assembly panel

The assembly panel is used in areas where additional outfitting or technical components are placed behind the wall. By using different locking hooks, the panel can be easily incorporated into 25 mm and 50 mm wall constructions.

A large variety of surface finishes are available. All of them fitted with a removable protection foil to prevent any damage from occurring during installation. The design of the assembly panel system all components have been tested and approved according to international standards.

Removable wall element
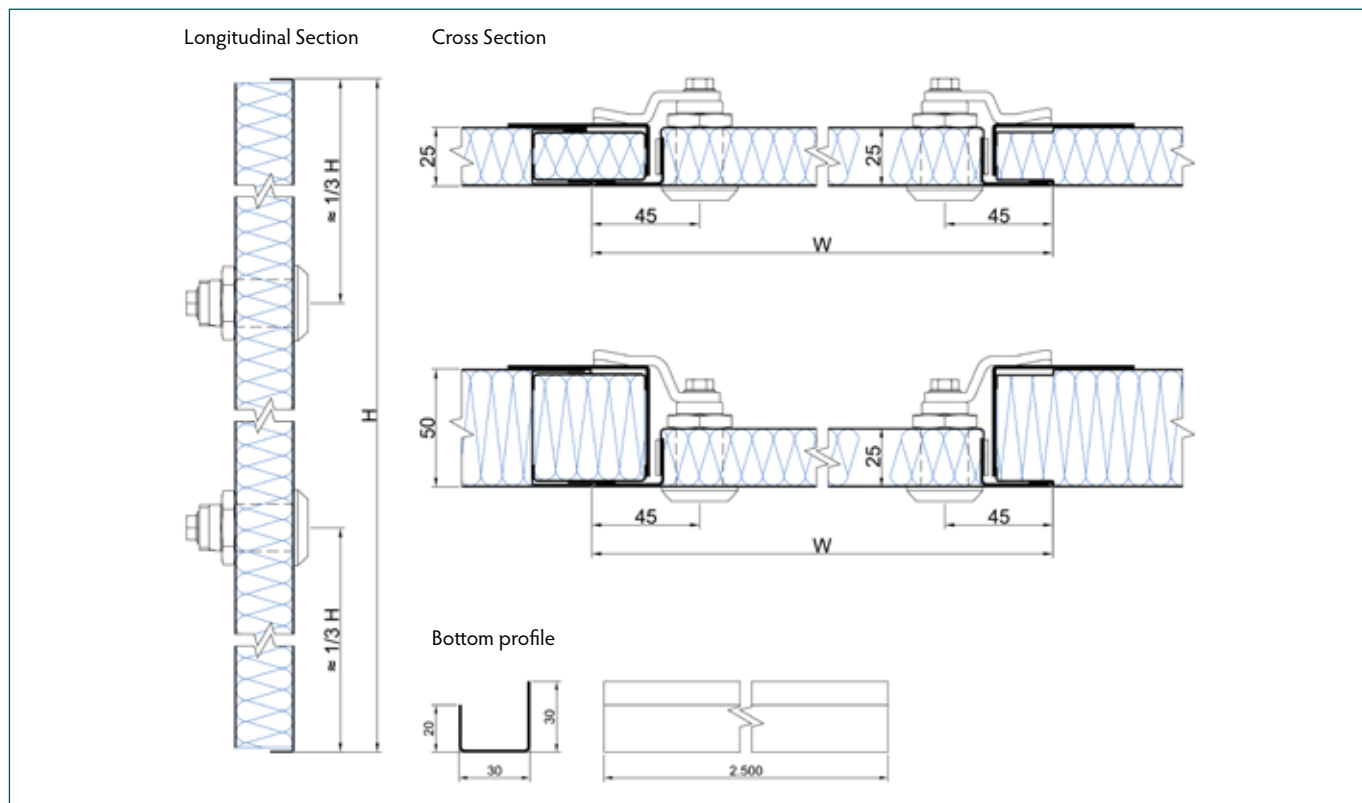
Assembly panel

| Technical data	Assembly panel
Covering layer (visible side)	Steel
Covering layer (back side)	Steel
Fire classification	B-0
Sound reduction	---
Thickness	25 mm
Element width - Standard	550 mm
- Range	250 - 800 mm
Element height	up to 2,475 mm
Weight - Panel	14.9 kg/m^2
- Bottom profile	0.6 kg/m
Coating	PVC foil varnish coated (others on request)
Certification	MED, USCG

Wall panel connections

Corner elements

Cross Sections
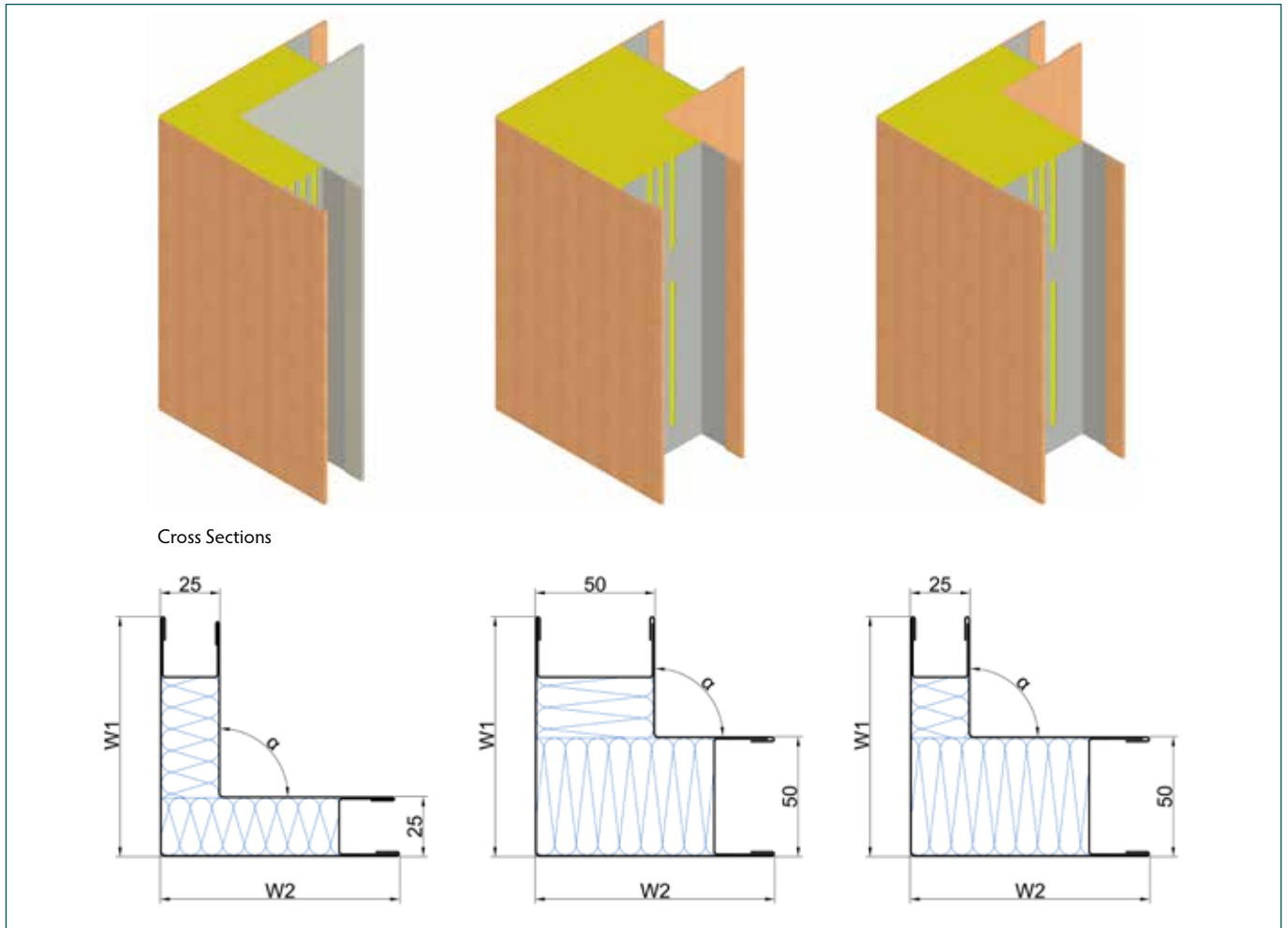
Technical data	W25CR	W50CR	W2550CR
Covering layer (visible side)	Steel or aluminum - according to adjacent wall panels		
Covering layer (back side)	Steel or aluminum - according to adjacent wall panels		
Thickness	25 mm	50 mm	25 / 50 mm
Element angle - Standard	90° - other angles according to customer specification		
Element width - Standard	150 x 150 mm - other sizes according to customer specification		
Element height	According to adjacent wall panels		

Weight - Steel / Steel*
            - Steel / Aluminum*
            - Aluminum / Aluminum*
	9.1 kg
	7.8 kg
	5.7 kg
		10.3 kg
		--- 	
		7.3 kg
			9.9 kg
			--- 	
			6.8 kg

Bottom execution	Standard & Moist room		
Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)

* based upon standard dimensions (150 x 150 x 2,200 mm)

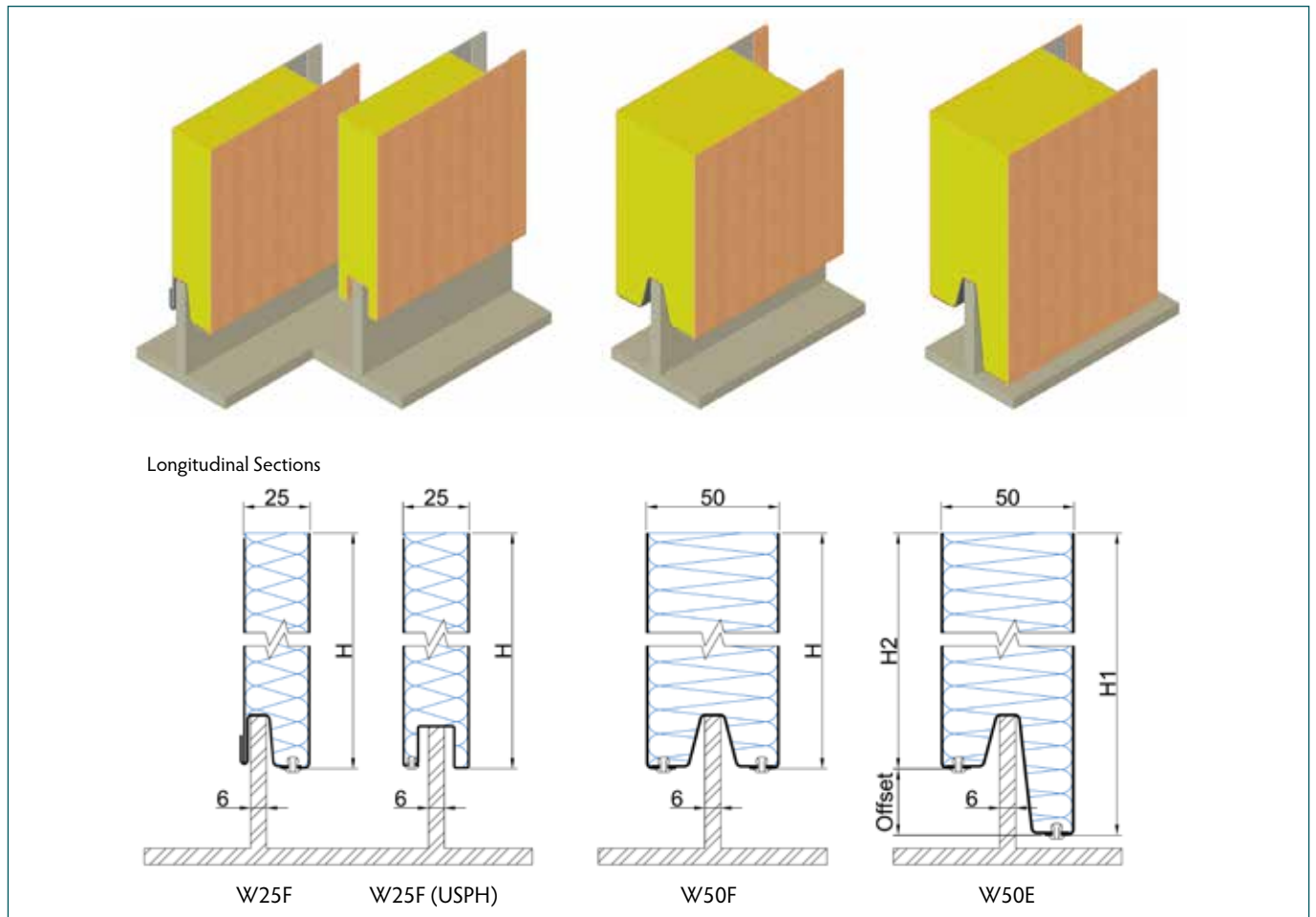## Wall panel connections

Pillar covering

Cross Section
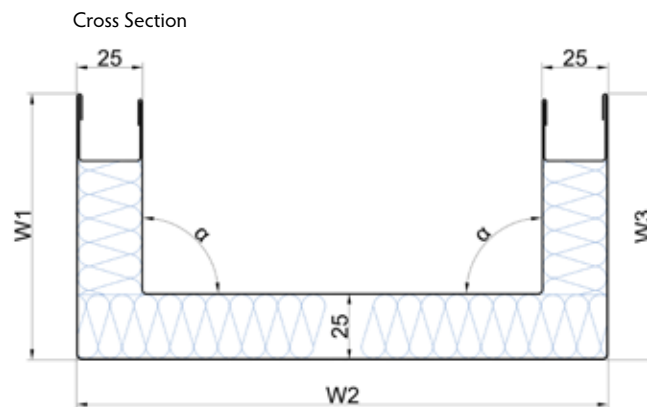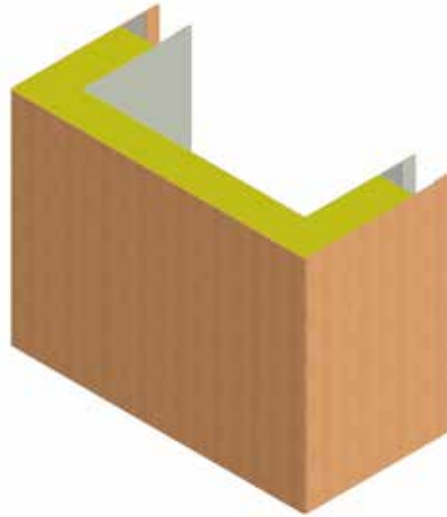
Technical data	W25CU
Covering layer (visible side)	Steel or aluminum - according to adjacent wall panels
Covering layer (back side)	Steel or aluminum - according to adjacent wall panels
Thickness	25 mm
Element angle	2 x 90°
Element width - Standard	150 x 200 x 150 mm - other sizes according to customer specification
Element height	According to adjacent wall panels

Weight - Steel / Steel*
            - Steel / Aluminum*
            - Aluminum / Aluminum*
	12.2 kg
	10.4 kg
	7.2 kg

Coating	PVC foil varnish coated (others on request)

* based upon standard dimensions (150 x 200 x 150 x 2,200 mm)

Wall panel connections

Moist room panels

Longitudinal Sections

W25F   W25F (USPH)   W50F   W50E

| Technical data	W25F / W25F (USPH)	W50F	W50E
Covering layer (visible side)	Steel or aluminum - according to adjacent wall panels		
Covering layer (back side)	Steel or aluminum - according to adjacent wall panels		
Thickness	25 mm	50 mm	50 mm
Element width			
- Standard	550 mm	550 mm	550 mm
- Steel / Steel	250 - 1,200 mm	250 - 1,100 mm	250 - 1,100 mm
- Steel / Aluminum	250 - 650 mm	---	---
- Aluminum / Aluminum	250 - (not limited) mm	250 - (not limited) mm	250 - (not limited) mm
Element height	up to 2,475 mm	up to 2,500 mm	up to 2,500 mm
Weight - Steel / Steel	14.4 kg/m²	17.9 kg/m²	17.9 kg/m²
- Steel / Aluminum	11.7 kg/m²	---	---
- Aluminum / Aluminum	8.8 kg/m²	12.6 kg/m²	12.9 kg/m²
Moist room sill - Standard	6 mm	6 mm	6 mm
Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)

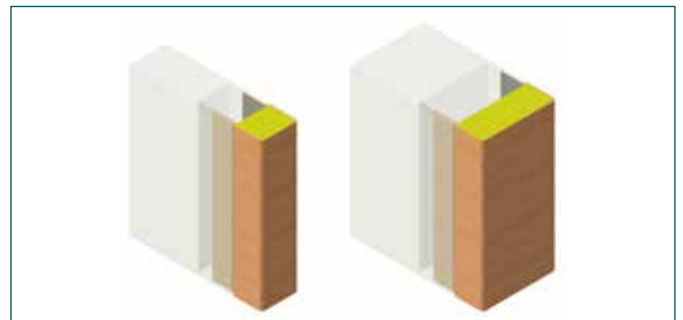**Wall panel connections**

Profiles & Intersections
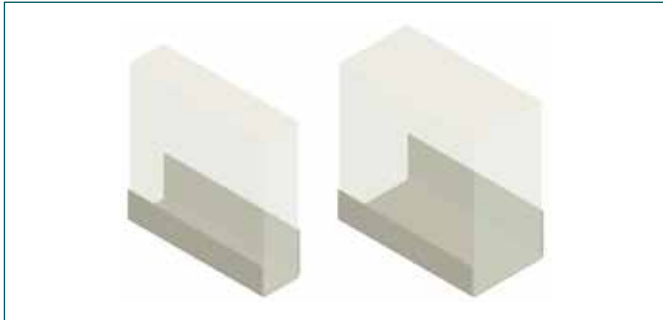
Technical data	Bottom profile 25 / 50
Material	Steel
Weight	0.6 / 0.8 kg/m
Length	2,500 mm (to be cut at site)
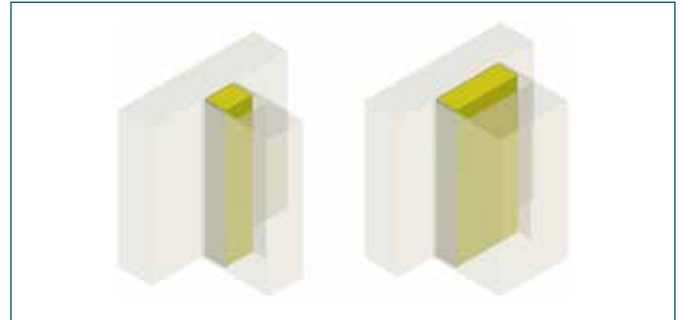
Technical data	Half tongue 25 / 50
Material	Steel
Weight	0.3 / 0.5 kg/m
Length	2,500 mm (to be cut at site)
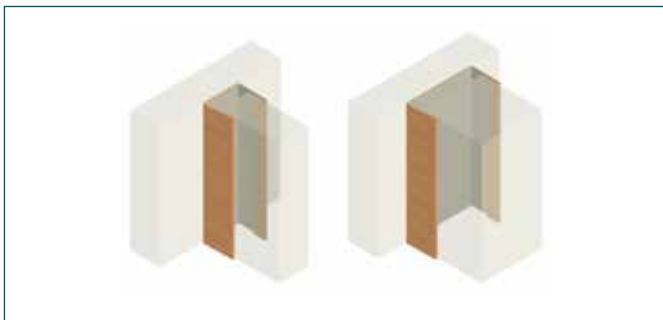
Technical data	Tolerance profile 25 / 50
Material	Steel
Weight	0.5 / 0.7 kg/m
Length	according to wall height

Technical data	End fitting profile 25 / 50
Material	Steel
Weight	0.5 / 0.7 kg/m
Length	according to wall height

Technical data	Intersection profile 25 to 50
Material	Steel or aluminum
Weight	1.4 kg/m²
Length	according to wall height

Technical data	Horizontal joint profile 25
Material	Steel
Weight	1.2 kg/m
Length	2,500 mm (to be cut at site)

Contact us

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