Ceilings

R&M Products

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Introduction

Ceilings

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

Ceiling panels

Type C30 & C40

Border profile types

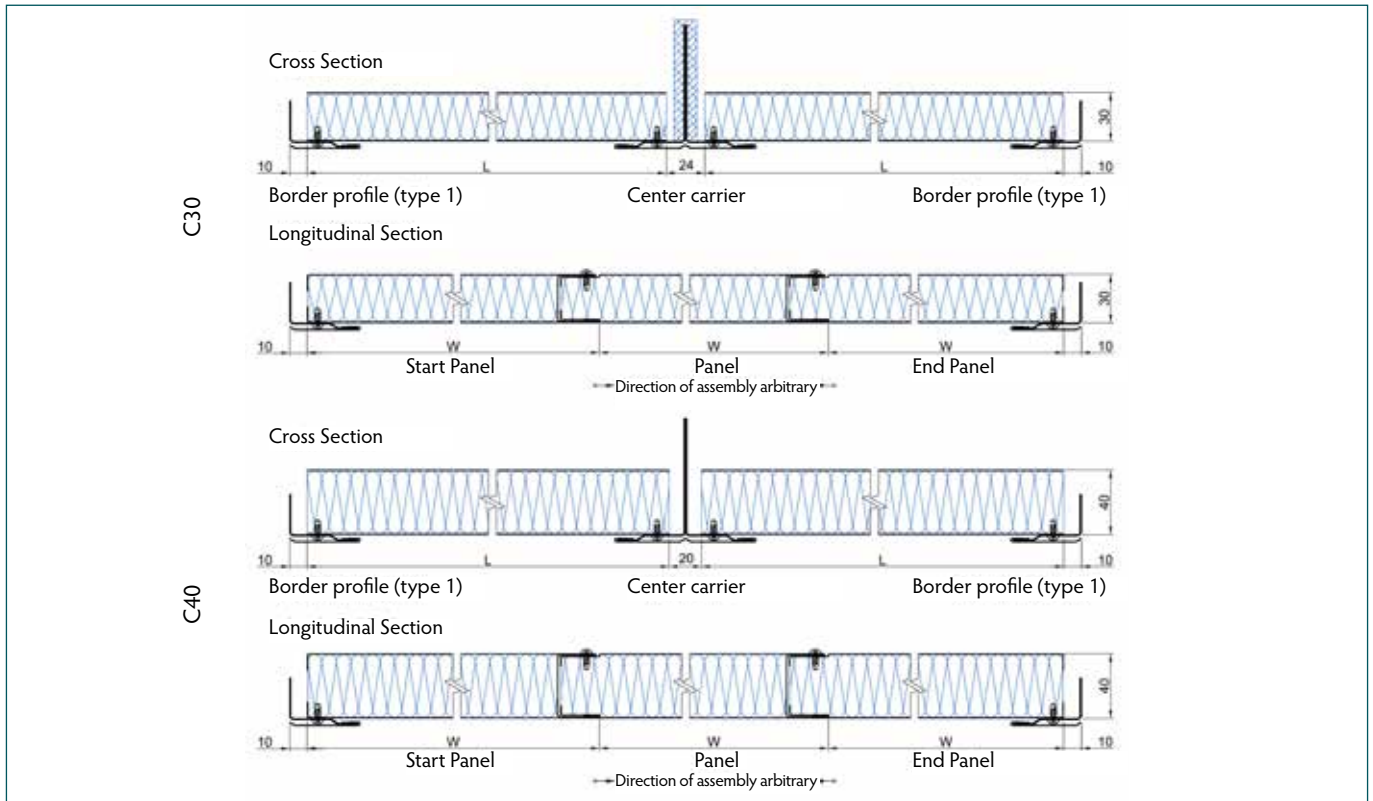Type 1
Metal cover profile

Type 2
PVC cover profile
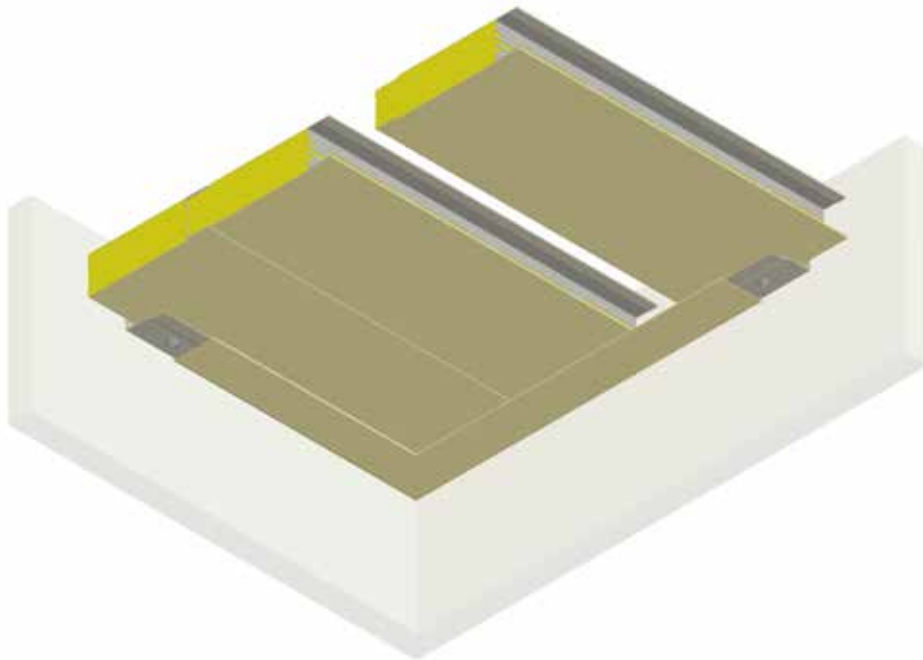
The C30 and C40 ceiling elements represent the standard system when it comes to the assembly of prefabricated cabins. While the C30 is especially designed for wet units, the C40 is used for the cabin living area. Depending on the customer specifications different border profile types can be chosen. Both panel types are certified with several fixtures.

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 C30 and C40 panel system and all components have been tested and approved according to international standards.

Ceiling panels

Type C30 & C40

Technical data	C30	C40
Covering layer (visible side)	Steel	Steel
Covering layer (back side)	Steel	Steel
Fire classification	B-15 / A-30*	B-15 / A-30*
Thickness	30 mm	40 mm
Element width - Standard	550 mm	550 mm
- Range	250 - 1,200 mm	250 - 710 mm
Element length	up to 3,000 mm - continuous ceiling	up to 3,000 mm - continuous ceiling
Weight - Panel	14.5 kg/m²	16.1 kg/m²
- Border profiles	0.8 kg/m / 0.6 kg/m**	0.8 kg/m / 0.6 kg/m**
- Center carrier	2.3 kg/m / 1.6 kg/m**	2.3 kg/m / 1.6 kg/m**
Certified fixtures	Topside cover for fixtures (downlight, speaker, etc.) Smoke detector Sprinkler/Hi-Fog Hatch for airconditioning	Topside cover or fixtures (downlight, speaker, etc.) Smoke detector Cable penetration Hatch for air conditioning
Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)
Certification	MED, USCG	MED, USCG

* with overlying steel deck spaced min. 300 mm apart
** border profiles and center carrier type 1 (including cover profile) / type 2 (without customer specific PVC cover profile)
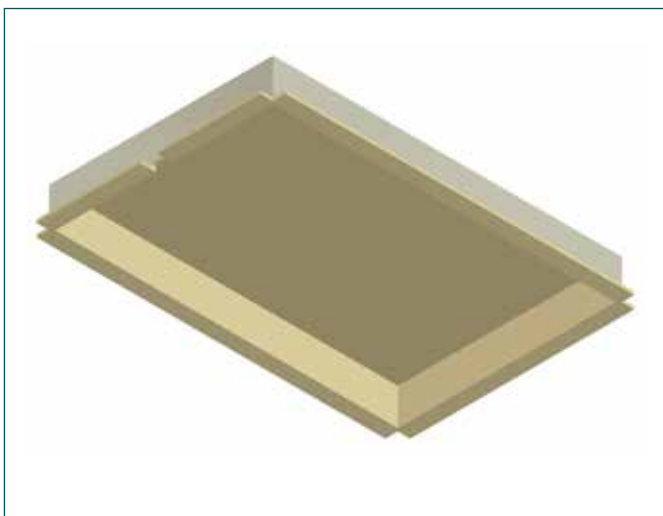
Ceiling panels

Certified fixtures for C30

Technical data	Topside cover (soft)
Fire class	B-15
Dimensions	up to 265 x 480 mm
Height	min. +3 mm above fixture

Technical data	Sprinkler/Hi-Fog
Fire class	B-15
Cut out	up to Ø 28 mm

Certified fixtures for C30 & C40

Technical data	Topside cover (hard)
Fire class	B-15
Dimensions	up to 450 x 700 mm
Height	min. +9 mm above fixture

Technical data	Smoke detector
Fire class	B-15
Feature	including penetration for cable

Ceiling panels

Certified fixtures for C30 & C40
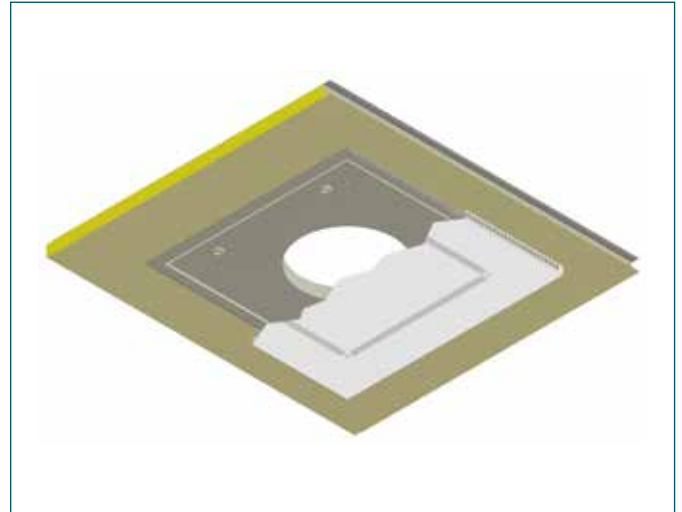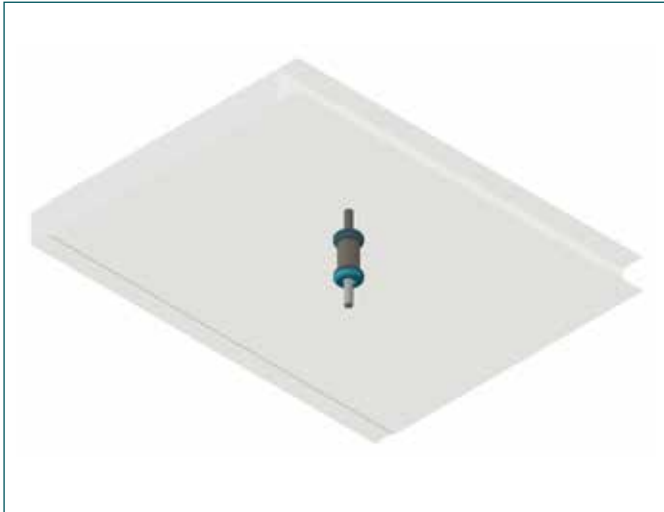
Technical data	Cable penetration
Fire class	B-15
Cut out	up to Ø 33 mm

Technical data	Hatch for air conditioning units
Fire class	B-15
Dimensions	up to 657 x 657 mm
Feature	including diffuser

Ceiling panels

Type ED35 & SD35

Border profile types

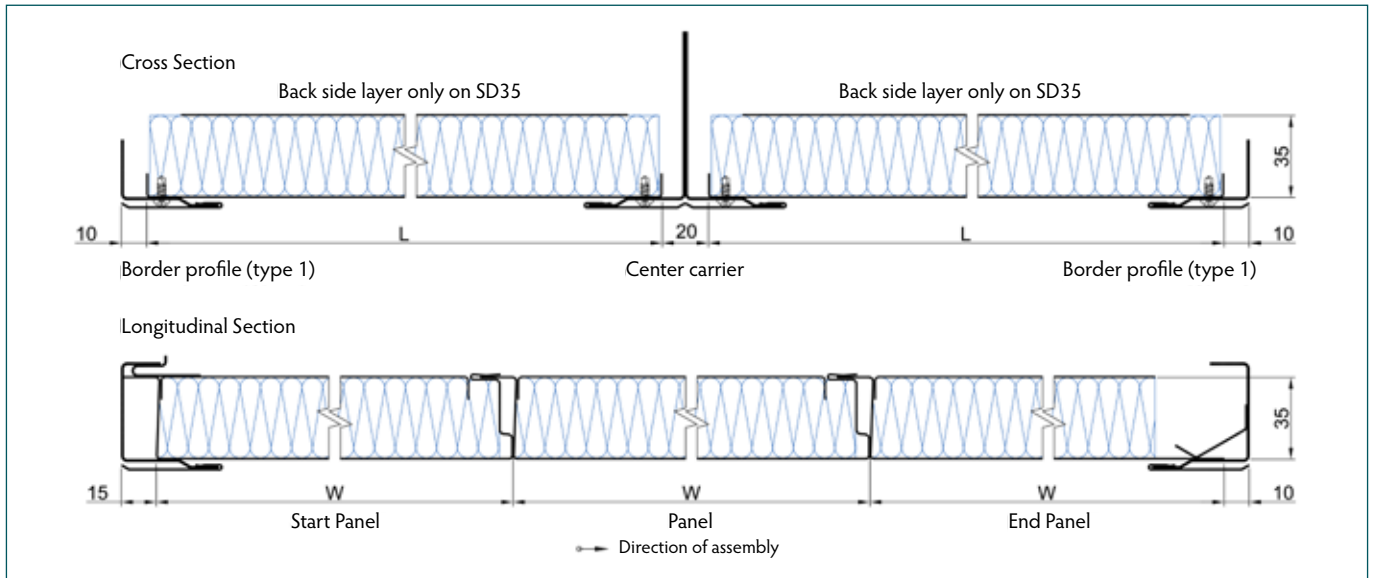| Type 1	Type 2	Type 3
Metal cover profile	PVC cover profile	Retention hook
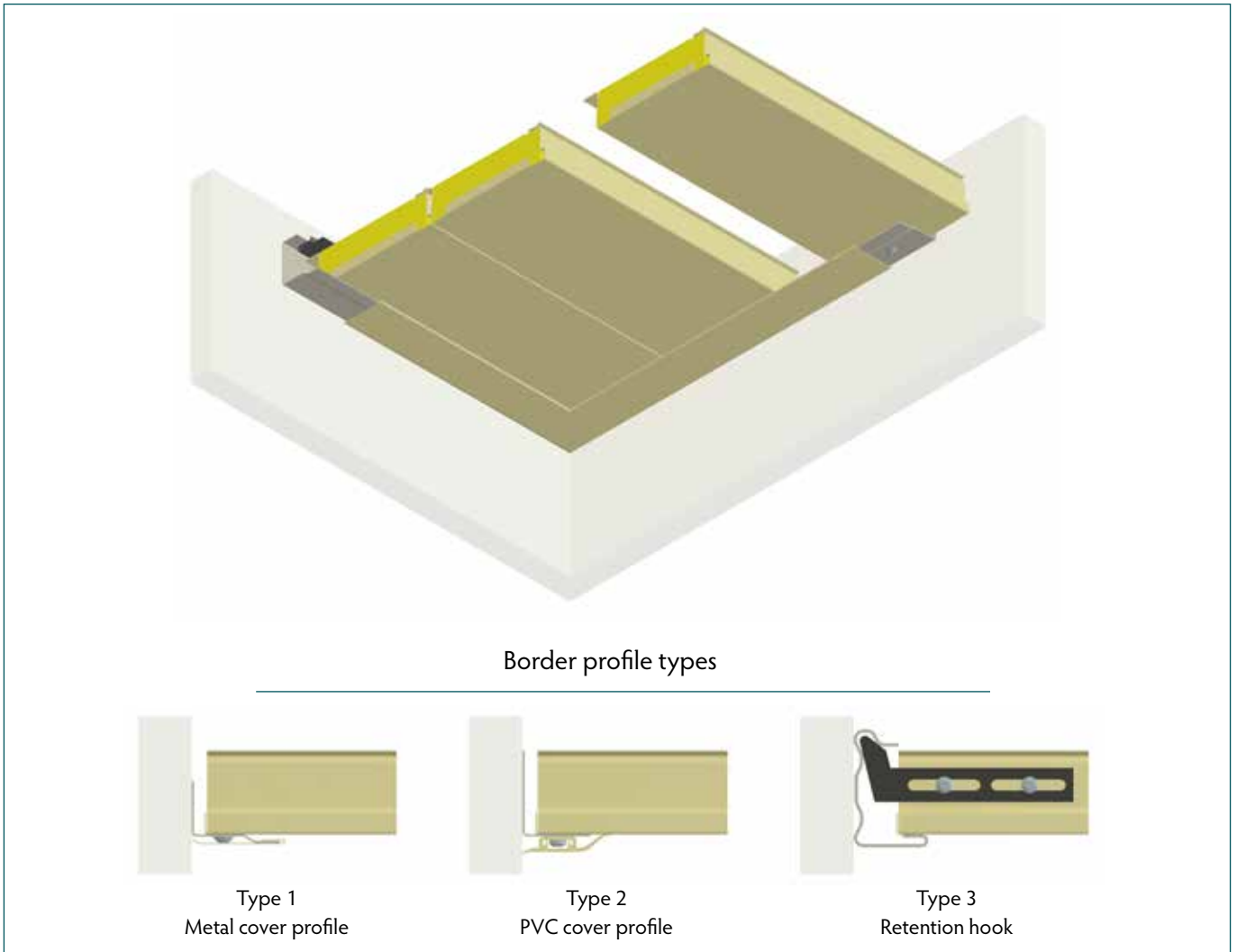
The ED35 and SD35 ceiling elements represent the standard system when it comes to the assembly of conventional build areas. While the SD35 is fabricated as a sandwich panel the ED35 is a single shell ceiling whereat the shell can optionally be perforated. Depending on the customer specifications regarding possible removability different border profile types can be chosen.

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 ED35 and SD35 panel system and all components have been tested and approved according to international standards.

Ceiling panels

Type ED35 & SD35

Cross Section
Back side layer only on SD35 ... Back side layer only on SD35

Border profile (type 1) ... Center carrier ... Border profile (type 1)

Longitudinal Section

Start Panel ... Panel ... End Panel

Direction of assembly

Technical data		ED35	SD35
Covering layer (visible side)		Perforated steel / steel	Steel
Covering layer (back side)		---	Steel
Fire classification		B-0 / A-15*	B-0 / A-30*
Thickness		35 mm	35 mm
Element width	- Standard	300 mm	300 / 450 mm
	- Range	280 - 450 mm	280 - 600 mm
Element length		up to 3,000 mm - continuous ceiling	up to 3,000 mm - continuous ceiling
Weight	- Panel	7.5 kg/m² / 8.1 kg/m²	13.1 kg/m²
	- Border profiles	0.8 kg/m / 0.6 kg/m / 1.4 kg/m**	0.8 kg/m / 0.6 kg/m / 1.4 kg/m**
	- Center carrier	2.3 kg/m / 1.6 kg/m / 2.8 kg/m**	2.3 kg/m / 1.6 kg/m / 2.8 kg/m**
Certified fixtures		---	Topside cover for fixtures (downlight, speaker, etc.) Smoke detector Cable penetration Hatches
Coating		PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)
Certification		MED, USCG, RMRS	MED, USCG, RMRS

* with overlying steel deck spaced min. 300 mm apart

** border profiles and center carrier type 1 (including cover profile) / type 2 (without customer specific PVC cover profile) / type 3
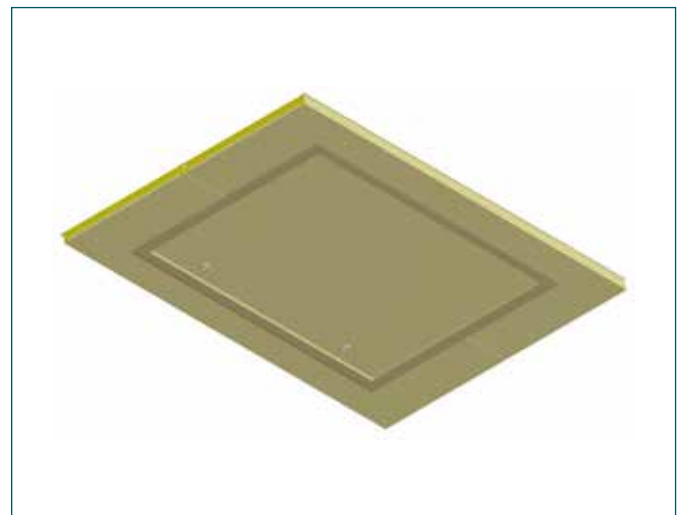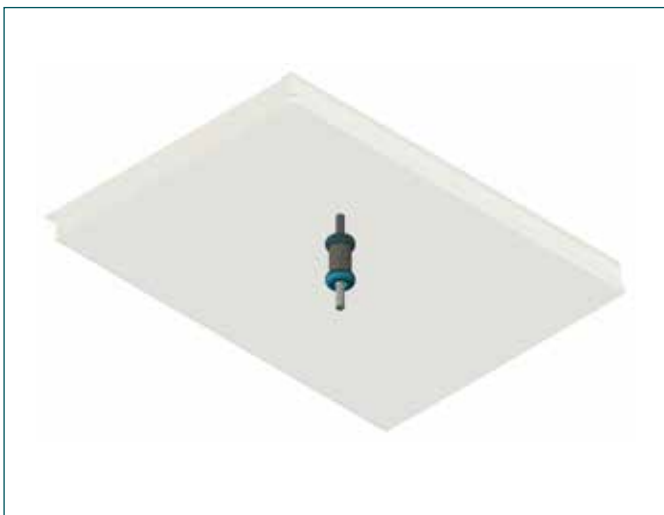
Ceiling panels

Certified fixtures for SD35

Technical data	Topside cover (soft)
Fire class	B-0
Dimensions	up to 450 x 700 mm
Height	min. +3 mm above fixture

Technical data	Smoke detector
Fire class	B-0
Feature	including penetration for cable

Technical data	Cable penetration
Fire class	B-0
Cut out	up to Ø 20 mm

Technical data	Hatches
Fire class	B-0
Dimensions	Clear opening up to 600 x 800 mm

Ceiling panels
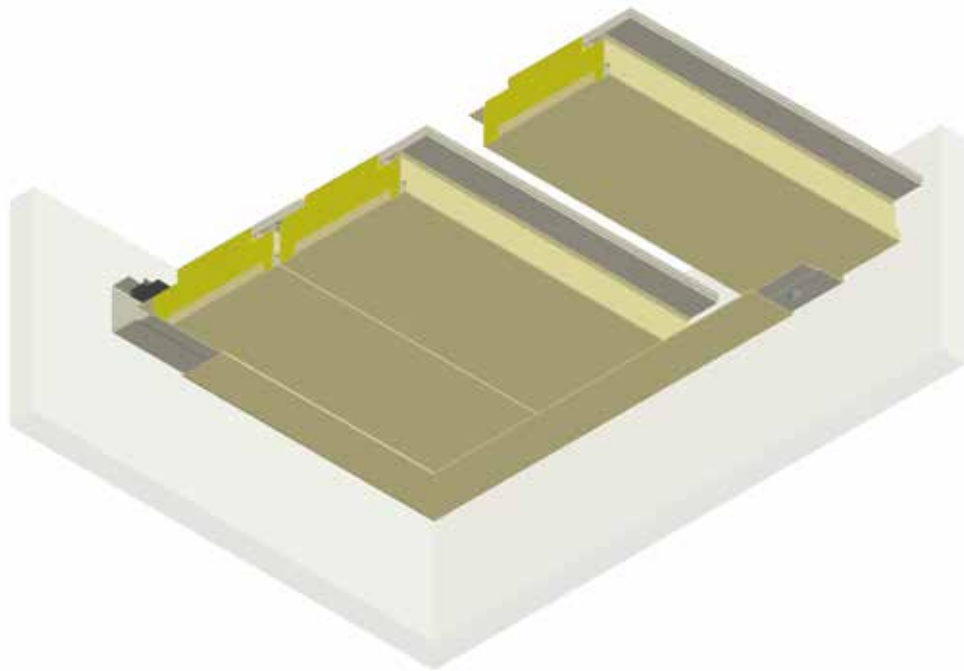
Type SD48

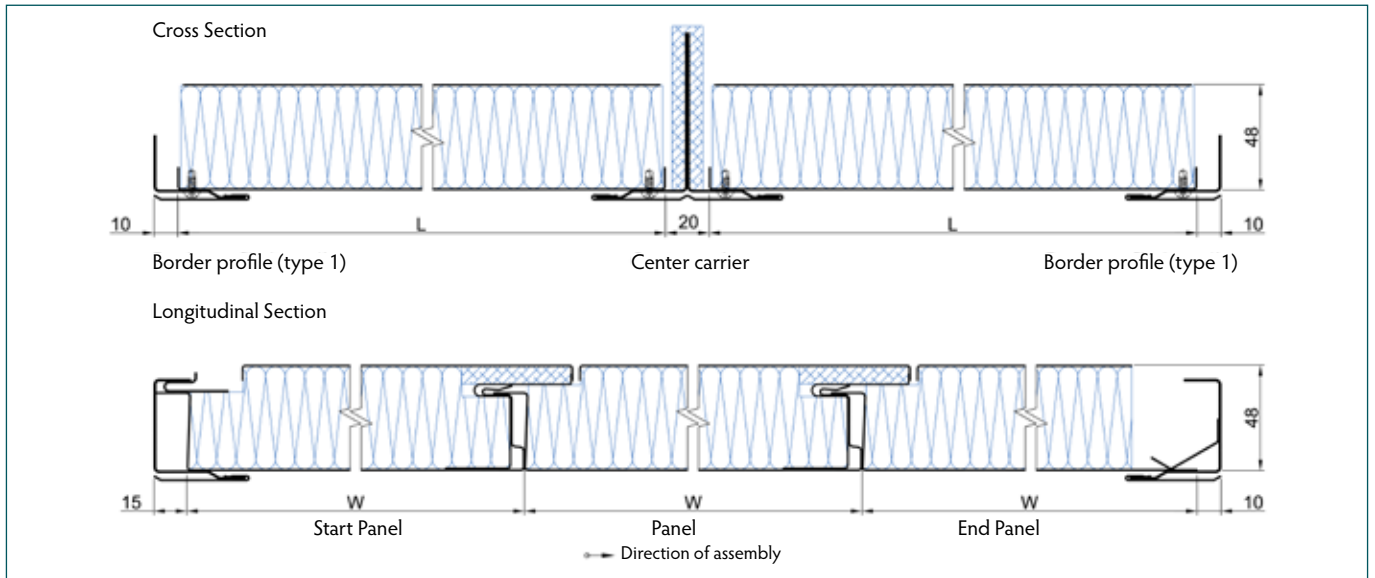### Border profile types

Type 1
Metal cover profile

Type 2
PVC cover profile

The SD48 ceiling elements represent the standard system when it comes to the assembly of conventional build areas that require a B-15 fire rating. For easier maintenance purposes the higher fire rating, compared to the SD35 ceiling panel, is completely integrated into the panel structure without the need of an additional insulation layer on top. Depending on the customer specifications regarding possible removability different border profile types can be chosen.

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 SD48 panel system and all components have been tested and approved according to international standards.

Ceiling panels

Type SD48

Cross Section

Border profile (type 1) Center carrier Border profile (type 1)

Longitudinal Section

Start Panel Panel End Panel

Direction of assembly

Technical data	SD48
Covering layer (visible side)	Steel
Covering layer (back side)	Steel
Fire classification	B-15 / A-30*
Thickness	48 mm
Element width - Standard	300 / 450 mm
- Range	280 - 600 mm
Element length	up to 3,000 mm - continuous ceiling
Weight - Panel	16.5 kg/m²
- Border profiles	0.8 kg/m / 0.6 kg/m **
- Center carrier	2.5 kg/m / 1.8 kg/m **
Certified fixtures	Cover for fixtures (downlight, speaker) Smoke detector Cable penetration Hatches
Coating	PVC foil varnish coated (others on request)
Certification	MED, USCG (in application)

*   with overlying steel deck spaced min. 300 mm apart

** border profiles and center carrier type 1 (including cover profile) / type 2 (without customer specific PVC cover profile)
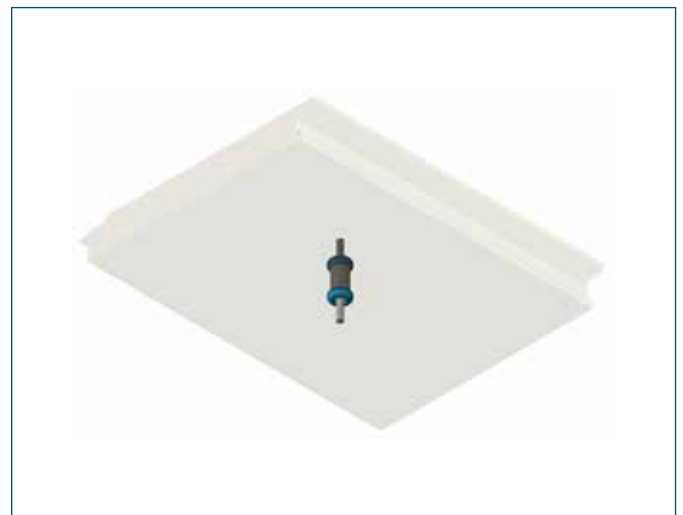
Ceiling panels

Certified fixtures for SD48
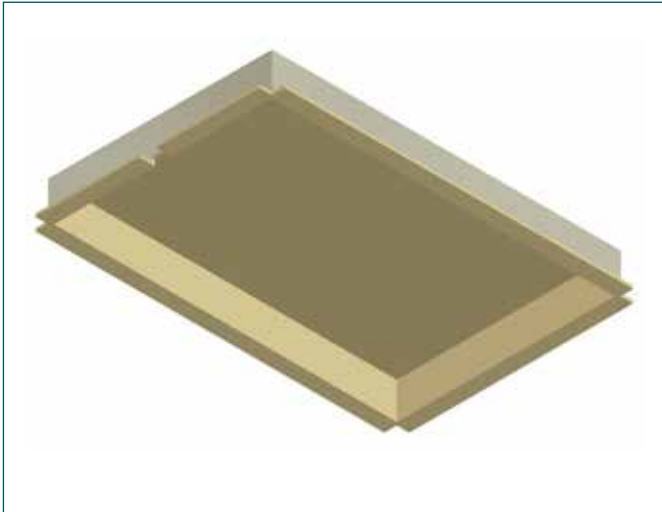
Technical data	Topside cover (hard)
Fire class	B-15
Dimensions	up to 450 x 700 mm
Height	min. +9 mm above fixture

Technical data	Topside cover (soft)
Fire class	B-15
Feature	up to 200 x 450 mm
Height	min. +3 mm above fixture

Technical data	Smoke detector
Fire class	B-15
Cut out	including penetration for cable

Technical data	Cable penetration
Fire class	B-15
Dimensions	up to Ø 20 mm

Ceiling panels

Certified fixtures for SD48
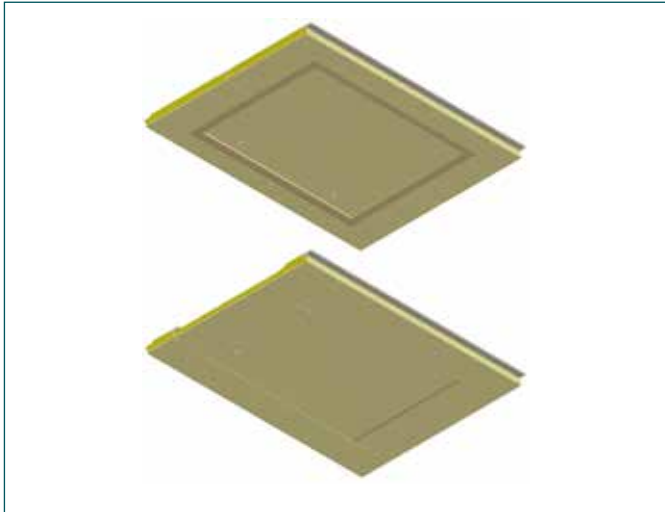
Technical data	Hatches
Fire class	B-15
Dimensions	Clear opening up to 600 x 800 mm

Ceiling panels

Type ED20K

Border profile types

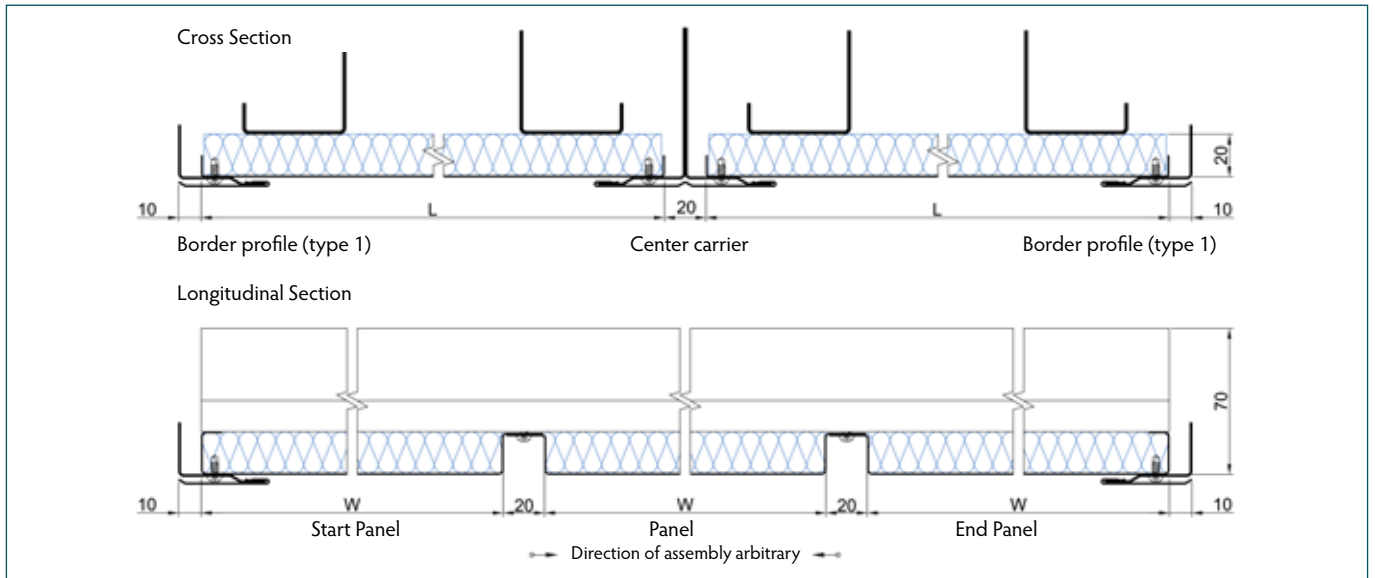| Type 1 | Type 2 | Type 2 |
| Metal cover profile | PVC cover profile | PVC cover profile |
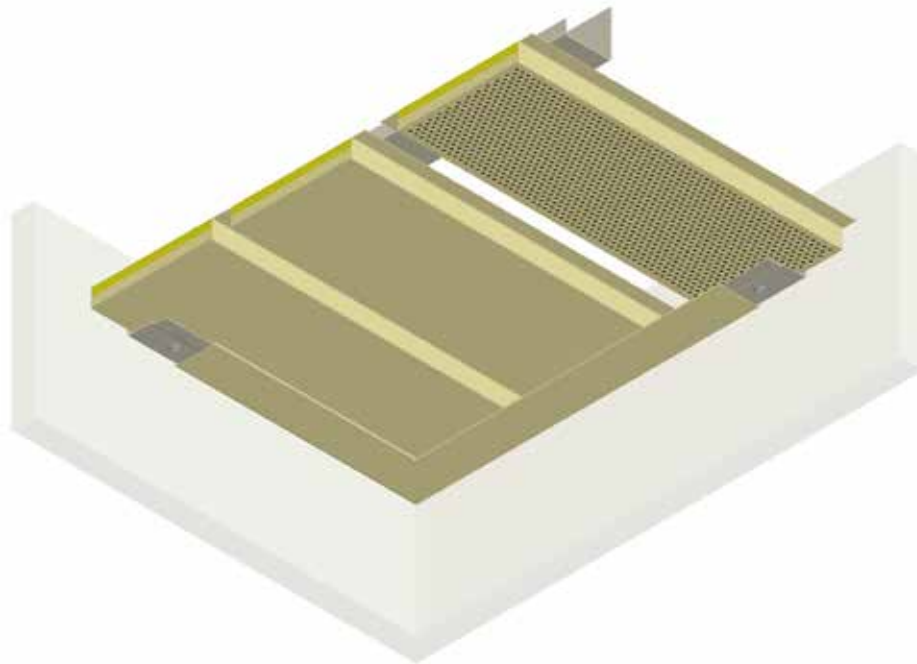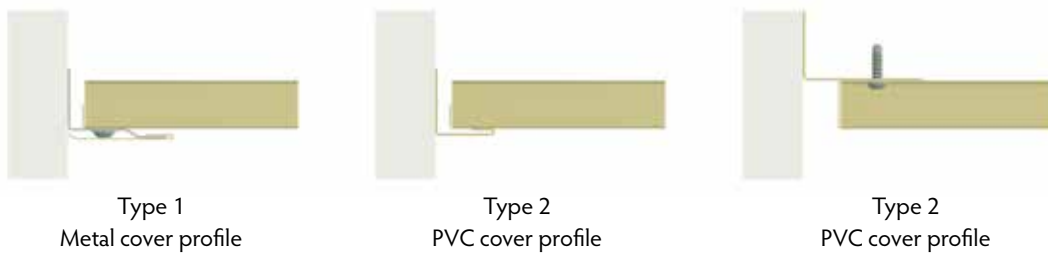
The ED20K ceiling system joins the adjacent panels with a shadow gap. The panels are screwed together and arbitrary removable. Depending on the customer specifications different shadow gap widths and border profile types can be chosen.

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 components of the ED20K panel system have been tested and approved according to international standards.

Ceiling panels

Type ED20K

Cross Section

Border profile (type 1) Center carrier Border profile (type 1)

Longitudinal Section

Start Panel Panel End Panel

Direction of assembly arbitrary

Technical data	ED20K	ED20K
Covering layer (visible side)	perforated steel / steel	perforated aluminum / aluminum
Covering layer (back side)	---	---
Fire classification	C	C
Thickness	20 mm	20 mm
Element width - Standard	280 + 20 mm (panel + shadow gap)	280 + 20 mm (panel + shadow gap)
- Range	according to customer specification	according to customer specification
Element length	up to 3,000 mm - continuous ceiling	up to 3,000 mm - continuous ceiling
Weight - Panel	6.1 kg/m² / 6.9 kg/m²	3.4 kg/m² / 3.7 kg/m²
- Border profiles	0.8 kg/m / 0.5 kg/m / 0.6 kg/m*	0.8 kg/m / 0.5 kg/m / 0.6 kg/m*
- Center carrier	2.3 kg/m / 1.0 kg/m / 1.2 kg/m*	2.3 kg/m / 1.0 kg/m / 1.2 kg/m*
- Substructure	1.3 kg/m	1.3 kg/m
Coating	PVC foil varnish coated (others on request)	PVC foil varnish coated (others on request)
Certification	---	---

* border profiles and center carrier type 1 (including cover profile) / type 2 / type 3

Contact us

Image credit
René Garmider

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illustrations and guidelines. The specifications given in our
quotations are valid only.