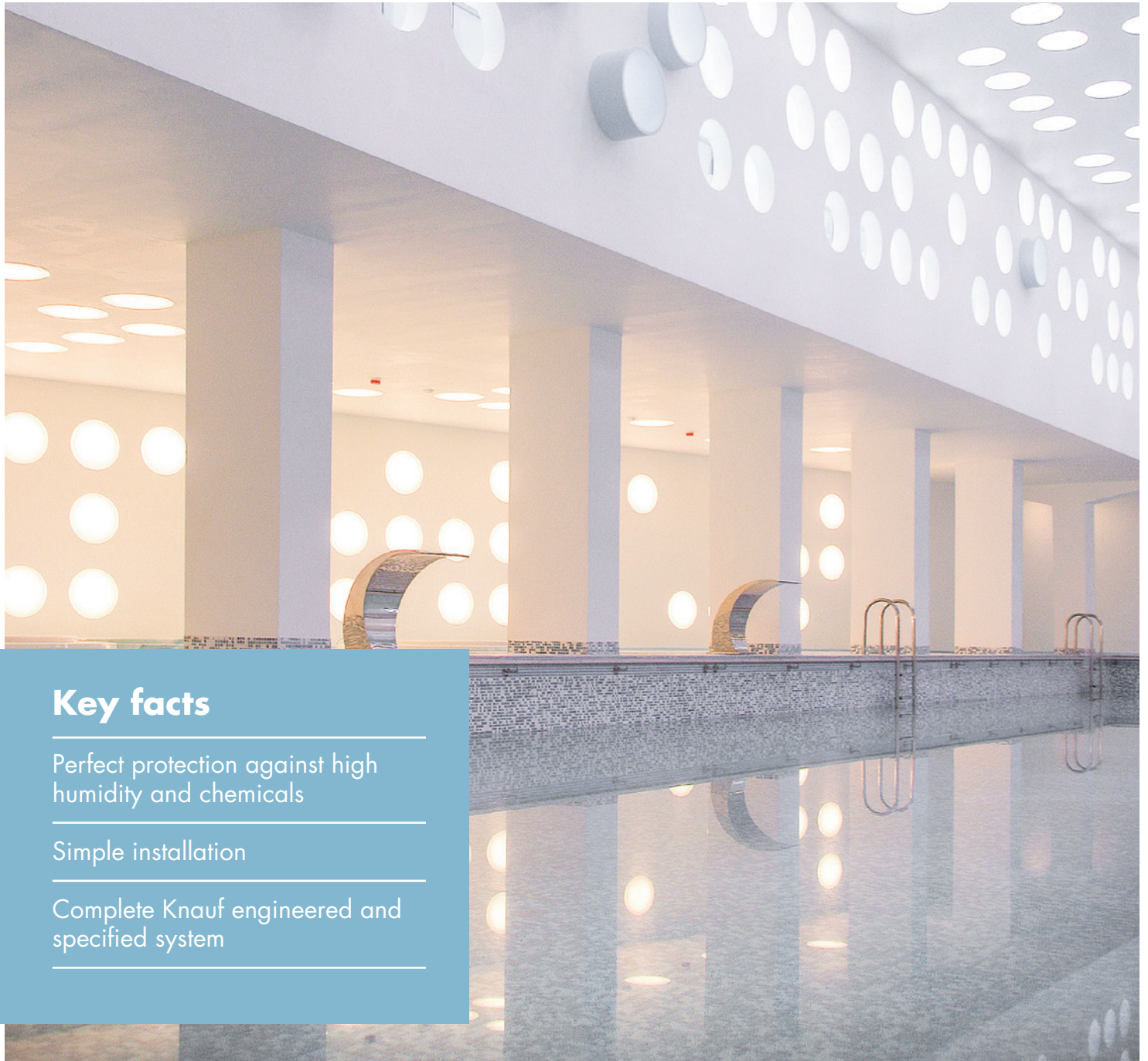![Knauf]

Knauf AQUAPANEL®
Interior Ceiling System

For wet indoor areas

Key facts

Perfect protection against high humidity and chemicals

Simple installation

Complete Knauf engineered and specified system

AQUAPANEL®

Build for the world we live in

A world leader in building materials, Knauf's commitment to innovation, quality and service provides effective solutions for the construction industry.

The Knauf AQUAPANEL® Interior Ceiling System provides a cost-effective complete system with the highest standards in design, installation and sustainability.

Ideal for use in wet areas, from swimming pools and spas through to bathrooms, wet rooms and communal showers, Knauf AQUAPANEL® Interior Ceiling System prevents damage from water, chlorine and salt, and provides perfect protection from moisture and mildew.
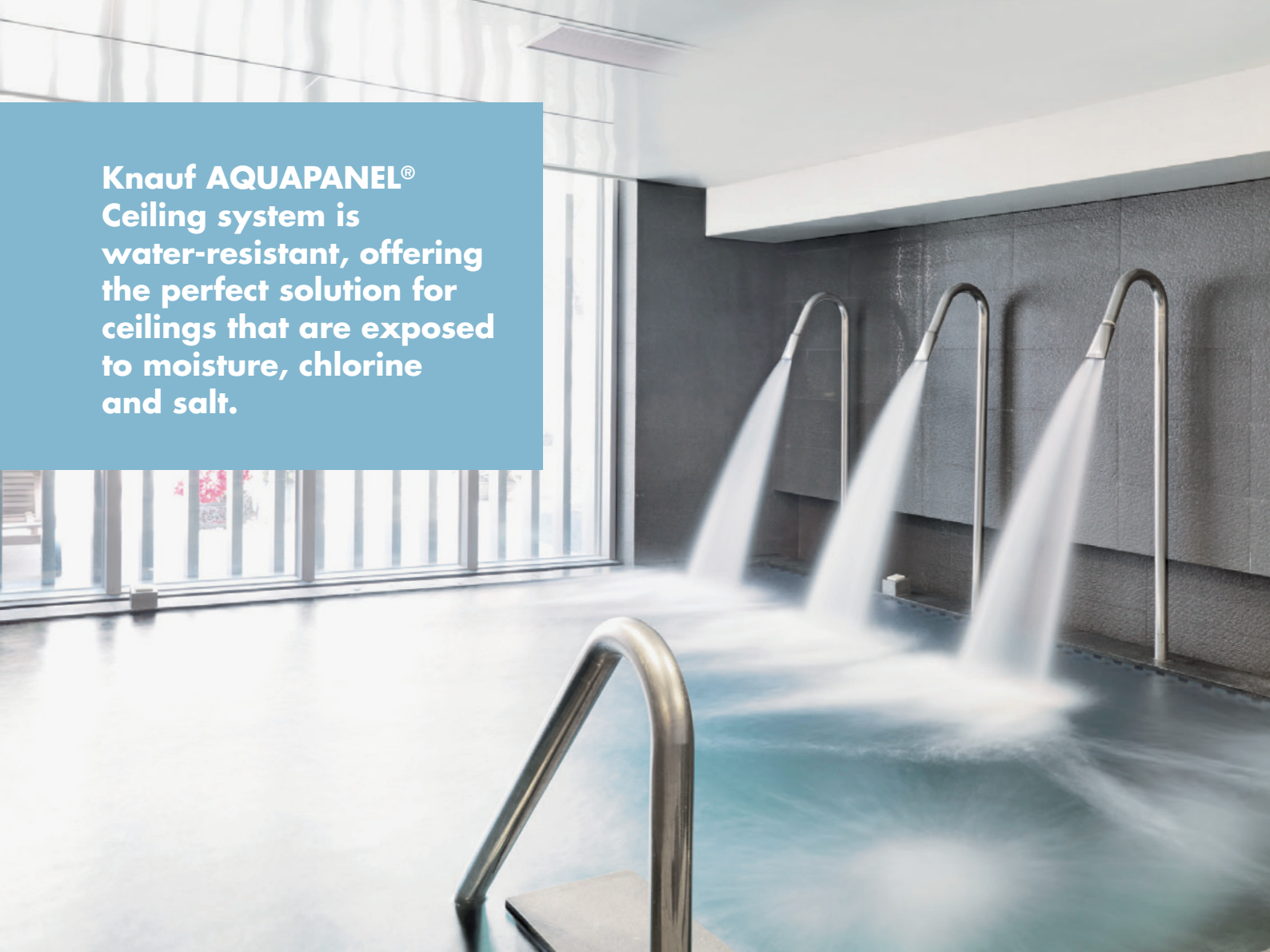
From spectacularly large and impressive ceiling surfaces to round, organic shapes, these lightweight, resilient and easy to install materials ensure quality and durability.

Meaning you can specify Knauf AQUAPANEL® Interior Ceiling System with confidence.

Contents

Knauf AQUAPANEL®
Ceiling system is
water-resistant, offering
the perfect solution for
ceilings that are exposed
to moisture, chlorine
and salt.

System Introduction

Knauf AQUAPANEL® Ceiling System provides high-performance, economical and sustainable solutions for dry lining style construction of any wet indoor environment.

From ceilings for swimming pools and spa rooms to bathroom and shower rooms, Knauf solutions are engineered to withstand the most challenging wet conditions.

Perfect protection against high humidity and chemicals

Knauf AQUAPANEL® Ceiling System is the perfect solution for ceilings exposed to moisture, chlorine and salt. All components are designed and tested to achieve the highest performance of construction.

Knauf AQUAPANEL® cement boards are water-resistant and made of inorganic materials, which prevents mildew from forming and spreading.

Our suspended ceiling structure features metal components coated to achieve a C3 class for corrosion resistance, making it suitable for indoor areas with high humidity and chemicals.

Finally Knauf AQUAPANEL® Interior Skim is a marble based product developed for optimum water resistance

and remains unaffected by chlorine, making it ideal for swimming pools, spa rooms and other highly humid indoor environments.

Simple installation

Our ceiling components are easy to construct, install and apply.

Complete Knauf engineered and specified system with one single point of contact

Our team of Project & Specification Managers and Area Sales Managers will provide you with support throughout the project. From the architect's drawings at the very early stage so that the initial specification can be created, to regular visits on site to ensure optimum system performance.

Working with our team of specialists will guarantee you highest standards in design, construction, cost-effectiveness and durability.
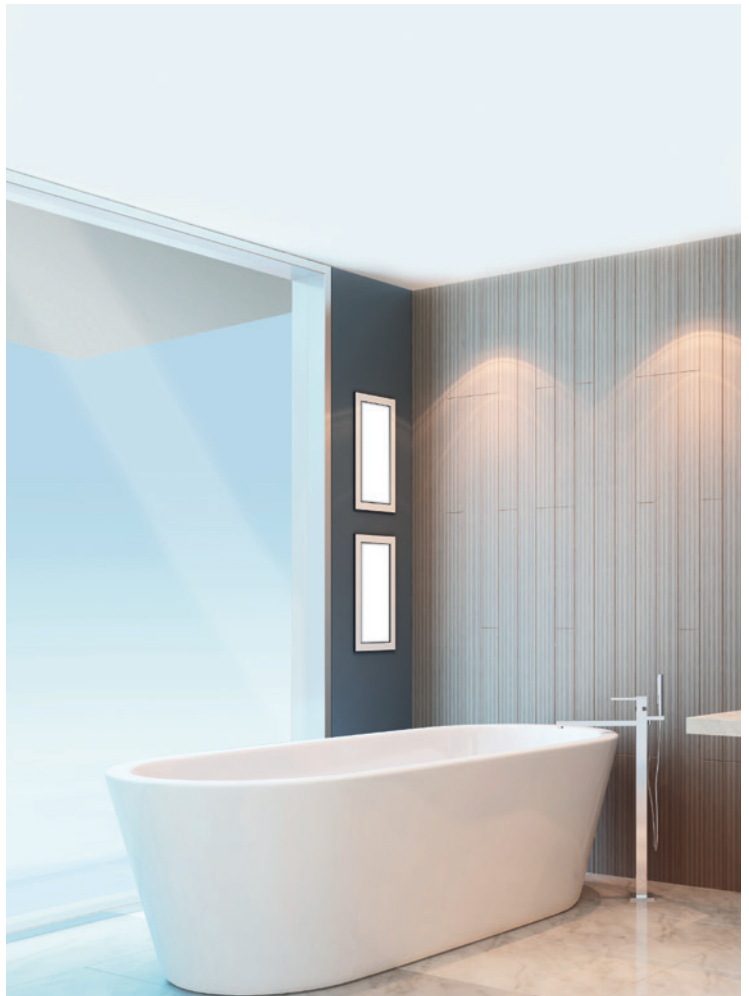
Internal ceilings and swimming pools
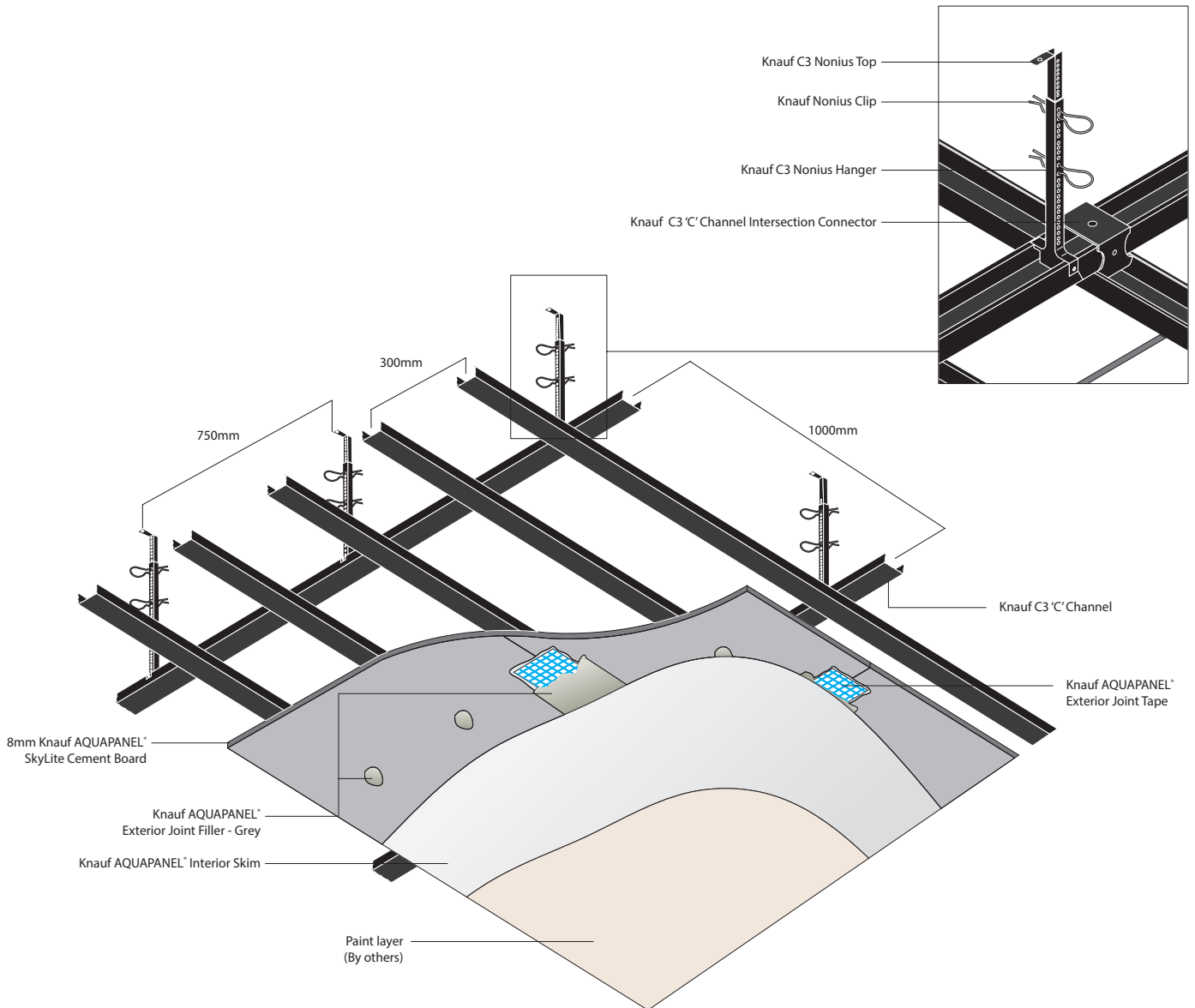
Benefits

- **Simple installation**

- **Moisture and chemical resistant**

- **Mildew-resistant**

- **Highly stable and durable**

- **Creative design opportunities**

  - Options for the creation of curved ceilings

  - Spectacular ceilings thanks to expansion joints that are only needed every 15m and enable a 225m^2 closed area without a visible joint

Be it shower rooms, bathrooms, swimming pools and spa rooms, in any interior area where moisture and humidity are prone to spread extensively, Knauf AQUAPANEL® Ceiling System is the ideal solution.

The physical properties of the components in the systems ensure that water and chlorine have no effect on the construction; enabling the implementation of creative architectural solutions which cannot be accomplished with other products.

System overview

Knauf C3 Nonius Top

Knauf Nonius Clip

Knauf C3 Nonius Hanger

Knauf C3 'C' Channel Intersection Connector

300mm

750mm

1000mm

Knauf C3 'C' Channel

Knauf AQUAPANEL®
Exterior Joint Tape

8mm Knauf AQUAPANEL®
SkyLite Cement Board

Knauf AQUAPANEL®
Exterior Joint Filler - Grey

Knauf AQUAPANEL® Interior Skim

Paint layer
(By others)

System component details

Knauf C3 "C" Channel

C3 steel section for use as support channel in Knauf AQUAPANEL® Interior and Exterior Ceiling Systems.
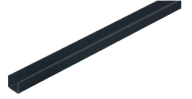
Dimensions (mm)				Material No.	Ex Stock	Pack Details	
Gauge	Size/webb	Length	Flange			Items/Pack	Kg (Approx.)
0.60	60	4000	27	57983	–	12	27
0.60	60	cut to order	27	322198	–	12	-

Compliance: EN 13964

Knauf C3 "U" Channel

C3 steel section for use as perimeter channel in Knauf AQUAPANEL® Interior and Exterior Ceiling Systems.

Dimensions (mm)				Material No.	Ex Stock	Pack Details		
Gauge	Size/webb	Length	Flange			Items/Pack	Kg (Approx.)	Per Length
0.60	28	3000	27	59877	–	16	18	**£5.13**

Compliance: EN 13964

Knauf C3 Nonius Hanger

C3 suspending brackets for use in Knauf AQUAPANEL® Interior and Exterior Ceiling Systems.

Material No.	Ex Stock	Pack Details	
		Items/Pack	Kg (Approx.)
157088	–	50	2

Compliance: EN 13964

Knauf C3 Nonius Top

C3 suspending brackets for use in Knauf AQUAPANEL® Interior and Exterior Ceiling Systems. Select the maximum length to suit drop and ensure full insertion in the Knauf C3 Nonius Hanger.

Dimensions (mm)	Material No.	Ex Stock	Pack Details	
			Items/Pack	Kg (Approx.)
147.5	61953	–	50	2
245.0	61947	–	50	2.5
342.5	61948	–	50	3
440.0	61949	–	50	4
537.5	61950	–	50	5
635.0	61955	–	50	6
732.5	61951	–	50	7
830.3	61952	–	50	8
927.5	61946	–	50	9
1122.5	60401	–	50	10.5
1415.0	97723	–	50	13
1707.5	75063	–	50	15

Compliance: EN 13964

System component details

Knauf C3 "C" Channel Intersection Connector

Connects the upper and lower channels in the Knauf AQUAPANEL® Interior and Exterior Ceiling Systems.

Material No.	Ex Stock	Pack Details	
		Items/Pack	Kg (Approx.)
157014	–	50	2

Compliance: EN 13964

Knauf C3 "C" Channel Connector

Used for connecting abutting Knauf C3 "C" Channels in the Knauf AQUAPANEL® Interior and Exterior Ceiling Systems.

Material No.	Ex Stock	Pack Details	
		Items/Pack	Kg (Approx.)
466068	–	100	2.3

Compliance: EN 13964

Knauf C3 "U" Mounting Bracket

Locates Knauf "C" Channel to background support.

Dimensions (mm)			Material No.	Ex Stock	Pack Details	
Size/webb	Length	Flange			Items/Pack	Kg (Approx.)
60	120	27	322021	–	50	3
60	200	27	323977	–	50	4

Compliance: EN 13964

Knauf Nonius Clip

Stainless steel clip for use in combination of the Knauf Nonius top for adjustment of ceiling heights.

Material No.	Ex Stock	Pack Details	
		Items/Pack	Kg (Approx.)
3437	–	100	0.7

Compliance: EN 13964

Knauf Blackstar Screws TN 3.5 25

Material No.	Ex Stock	Pack Details	
		Items/Pack	Kg (Approx.)
322622	–	1000	1.37

Compliance: EN 13964

Corrosion Resistant Paint

C3 rated corrosion resistant paint for use in the Knauf AQUAPANEL® Interior and Exterior Ceiling Systems.

Tub Size	Material No.	Ex Stock	Pack Details	
Litres			Items/Pack	Kg (Approx.)
0.75	64776	–	6	5

System component details

Knauf AQUAPANEL® SkyLite

Knauf AQUAPANEL® SkyLite is a lightweight 8mm cement board suitable for interior ceilings in wet and humid areas as well as some exterior soffits dependant on specification. Contact Knauf for exterior specification. See pages 7-8 associated coated metal components for the substructure of Knauf AQUAPANEL® Interior and Exterior Ceiling System.

Dimensions (mm)			Material No.	Ex Stock	Pallet Details		
Thickness	Width	Length			Boards	m²	Tonnes (Approx.)
8	900	1200	433850	✓	80	86.4	1.01

Compliance: ETA-13/0608

Knauf AQUAPANEL® Maxi Screws (SN)

Corrosion-protected screws for fixing AQUAPANEL® to light gauge steel profiles (up to 0.7mm) as part of Knauf AQUAPANEL® Interior and Exterior systems. They have a needle point and countersunk heads.

Dimensions (mm)		Material No.	Ex Stock	Pack Details	
Length	Diameter			Items per Carton	Kg (Approx.)
25	4.2	87319	✓	1000	1.8
25	4.2	431010	–	100	0.19
39	4.2	87283	–	100	0.39
39	4.2	53500	–	500	2.0
55	4.2	95644	–	250	2.0

Compliance: EN 14566

Knauf AQUAPANEL® Exterior Joint Tape

Knauf AQUAPANEL® Exterior Joint Tape is a 100mm wide, glass fibre tape with an alkaline-resistant coating. It is embedded into Knauf AQUAPANEL® Exterior Joint Filler to reinforce exterior joints as part of the Knauf AQUAPANEL® Ceiling Systems.

Roll Size		Material No.	Ex Stock	Carton Details	
Length (m)	Width (mm)			Rolls per Carton	Kg (Approx.)
50	100	429471	–	12	4

Estimating Guide: 2.1m/m²

Knauf AQUAPANEL® Exterior Joint Filler – Grey

Knauf AQUAPANEL® Exterior Joint Filler – Grey is a cement-based material for filling joints and embedding Knauf AQUAPANEL® Exterior Joint Tapes and Knauf AQUAPANEL® Exterior Reinforcing Mesh as part of the Knauf AQUAPANEL® Exterior and Knauf AQUAPANEL® Ceiling Systems.

Bag Size	Material No.	Ex Stock	Pallet Details	
Kg			Bags	Tonnes (Approx.)
20	131094	–	48	1.0

Estimating Guide: One bag will cover approximately 28m². Compliance: EN 998. Available in part pallet quantities.
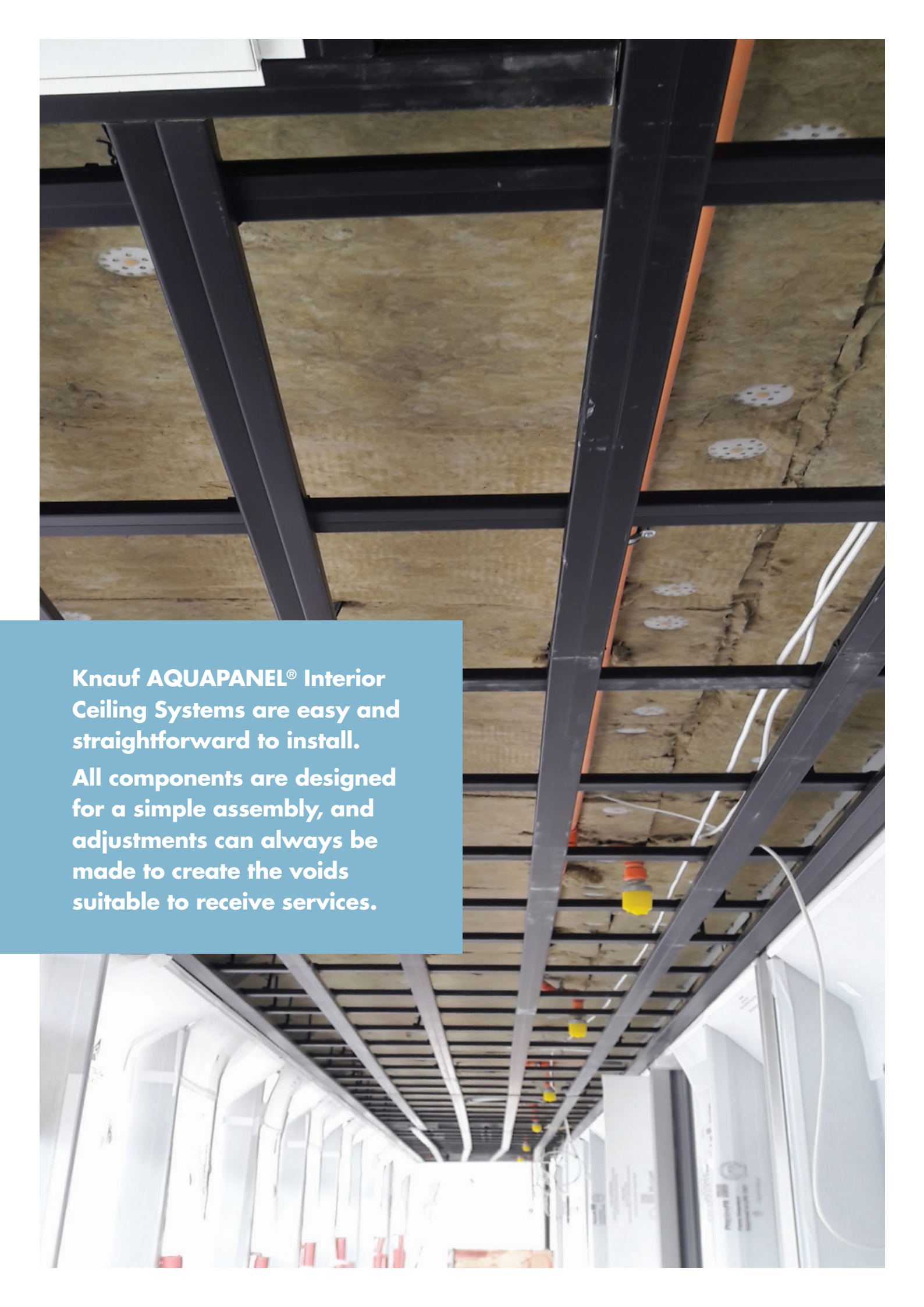
Knauf AQUAPANEL® Interior Skim

Ready-mixed water-resistant skim coat for use over Knauf AQUAPANEL® Interior and Knauf AQUAPANEL® Ceiling Systems to create a smooth and level finished surface, ready for painting.

Bag Size	Material No.	Ex Stock	Pallet Details	
Kg			Bags	Tonnes (Approx.)
25	258278	–	40	0.8

Shelf life: 9 months. Estimating Guide: Coverage 10m² per bag at 1.5mm thickness. Available in part pallet quantities.

Knauf AQUAPANEL® Interior Ceiling Systems are easy and straightforward to install.

All components are designed for a simple assembly, and adjustments can always be made to create the voids suitable to receive services.

Installation

The Knauf AQUAPANEL® Interior Ceiling System must be installed in accordance with Knauf recommendations and in accordance with BS: 8000-0:2014. Any cut, chipped or exposed edged metalwork should be painted with Knauf C3 Corrosion Resistant Paint.

1. Perimeter

Knauf C3 'U' Channel – Perimeter Support forms the perimeter of the ceiling. Channels should be installed at required heights, fixings* should be installed at maximum 600mm centres and 50mm centres from ends of channels. Where ceiling runs exceed the Perimeter Support Channels length, additional channels should be installed and butted together to continue the run.

2 & 3. Suspension

When creating a shallow void, Knauf C3 'U' Mounting Bracket can be used. For drops less than 150mm, use the 'U' Mounting Bracket to secure the upper channel. Screw and securely fix the 'U' Mounting Bracket into the superstructure using appropriate fixings* which are designed to take the required loadings. These are to be fixed at maximum 750mm centres and allow for measurement of the channel to the required depth on the bracket. Once the required measurement is located, screw the channel into the bracket using 2 Knauf Blackstar Screws TN 3.5 25.

For greater void depths Knauf Nonius Hangers in combination with Knauf Nonius Tops should be used. The connection of Knauf Nonius Hangers with Knauf Nonius Tops is fixed using two Knauf Nonius Clips and should be fully engaged. The suspension hangers should be installed at maximum 750mm centres to the superstructure using appropriate fixings* which are designed to take the required loadings.
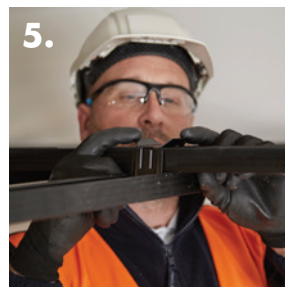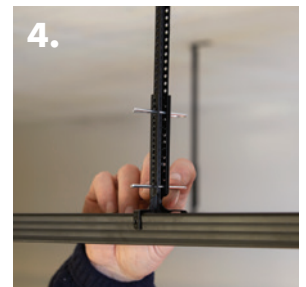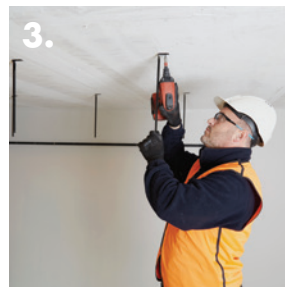
4. Upper Channels

The Knauf C3 'C' channels are located at maximum 1000mm centres. Hangers should be mechanically clipped and screwed to Knauf C3 'C' Channel using Knauf Blackstar Screws TN 3.5 25. The C3 'C' channels should lay on top of the upper flange of the Knauf C3 'U' Channel - Perimeter Support.

5, 6 & 7. Lower Channels

The Knauf C3 'C' channels are located at maximum 300mm centres within the perimeter channel, to coincide with the abutments of the Knauf AQUAPANEL® SkyLite, which will be fixed later. The upper and lower Knauf C3 'C' channels are connected using a Knauf C3 Channel Intersection Connector. The connectors ensure positioning is maintained throughout the ceiling. Connectors fit over the upper channels and snap fix into the lower channels. Knauf Blackstar Screws TN 3.5 25 should be applied either side of connectors to secure them in place. When ceilings exceed more than 4m, a Knauf C3 Channel Connector is required between 'C' channels. Knauf Blackstar Screw TN 3.5 25 should be used to secure the connector in place. For cut C3 metal section, paint the ends with the corrosion resistant paint.

Although these figures are included as guidance, all framework and hangers should be engineered to suit the project. Contact Knauf to confirm frame.

* fixings supplied by other manufacturers

Installation

Movement Control Joints

Movement control joints should be created within the system when runs of ceiling exceed 15m, as well as coinciding with existing movement joints in the surrounding structure.

8. Board Preparation

Knauf AQUAPANEL® SkyLite can be easily and accurately cut using a coarse bladed saw, or by simply scoring and snapping. Score one side with a sharp knife, cutting through the mesh. Snap the board along the score, and then cut through the mesh on the other side. Smooth any rough areas caused by scoring with a rasp.

9. Fixing Board

Apply Knauf AQUAPANEL® SkyLite to lower 'C' channels which are at maximum 300mm centres. Ensure there is a gap of 3-5mm between the boards and that the members are central behind both boards.

Use Knauf AQUAPANEL® Maxi Screws SN25 to fix the Knauf AQUAPANEL® SkyLite to the metal 'C' channels. Screws should be at least 15mm in from the edge from Knauf Aquapanel SkyLite and spaced at maximum 200mm centres. Screws should not be over tightened.

10 & 11. Reinforcing Joints

All cement board joints should be filled with Knauf AQUAPANEL® Exterior Joint Filler – Grey and Knauf AQUAPANEL® Interior Joint Tape.

All screw heads should be covered with Knauf AQUAPANEL® Exterior Joint Filler – Grey.

12 & 13. Finish

Empty the Knauf AQUAPANEL® Interior Skim into the spray hopper of the machine, or bucket if hand applying. Apply the first coat of Knauf AQUAPANEL® Interior Skim to ceilings, to a depth of 1 -1.5mm.

Level out with a spatula. Use a corner trowel on internal angles. Allow drying, this typically takes 12 - 24 hours. Any material removed in the levelling can be placed back in the hopper or bucket and reused, providing no contamination has taken place.

Apply the second coat of Knauf AQUAPANEL® Interior Skim and repeat the process of the first coat, applying more pressure to flatten the surface. Plaster depth will be 1.5 - 2mm total. Allow drying, this typically takes12 - 24 hours.

Check the surface of the walls and ceilings and sand away any high spots etc. with 120 grit sand paper. A drywall sander, with vacuum attached, is ideal for reducing dust. Allow 12 - 24 hours before commencing decoration.

Paint Finish

Suitable paint finish as specified by paint manufacturer and in accordance with BS EN 11998 or any approved paint manufacturers recommendation.

Fitnessklub, Cologne (Germany)

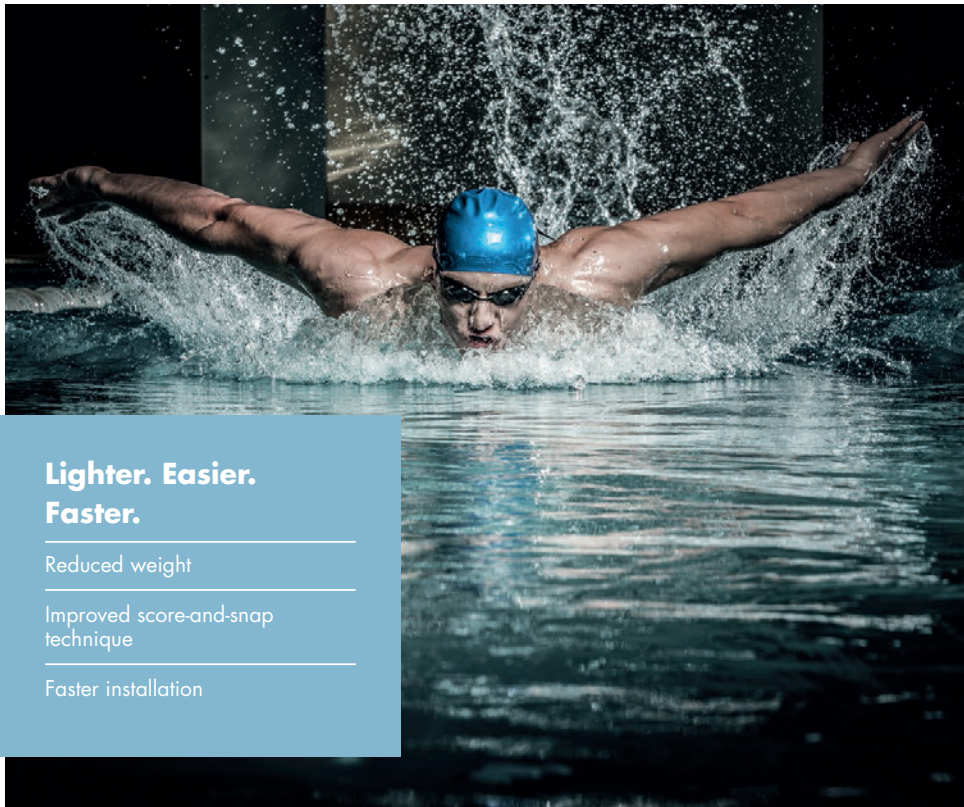## Potaissa Hotel & Spa (Romania)

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