Keku®

The Original.
Simply good.

The connection and
functional fittings for furniture
construction and interior fitting

Technical data and processing instructions:

Keku® fitting system
Keku®R aluminium system

Kusanke
BESCHLAGTECHNIK

Keku® fitting and room system

Table of contents

Keku® fittings

EH and EHS suspension fitting, EH and EHS panel component,
AS and ASR push-in fitting,
AD 15 and AD 30 double partition fitting

Keku® fittings are suitable for reversible attachment of wall and ceiling panels in interior fitting and for many applications in furniture construction.
Any screw-resistant, dimensionally stable panels with a material thickness of 10 to 30 mm can be used as panel material.
The Keku® fittings are attached using 4mm Hospa screws or 6.2 mm Varianta screws.
The panel manufacturer's specifications must be followed!

The construction suggestions and application examples shown in our brochures and on our web pages relate to 19 mm chipboard panels with decorative surfaces. The specifications concerning the load values and the fitting arrangements are also geared to 19 mm decorative panels. For special constructions and the applications shown in the following, test constructions are required to determine the quantity and arrangement of the fittings and the type of fitting.

- Extremely heavy weights and panel thicknesses of more than 30 mm
- Extremely large panels
- Flexible panel materials, unstable panel materials, panel materials that are conditionally screw-resistant
- Use with moving parts such as door leaf doubling, inspection hatches
- Structural elements which are subjected to shaking and vibration such as partition walls with doors or automatic doors
- Cladding which is used as support panels for washbasins, WCs, dispensers, towel rails or the like
- Walk-on elements such as double floors
- Installations which are subjected to climatic fluctuations

The fittings are unsuitable for drywalls with grouted joints.

Several rules also apply for the use of the fittings.

- Only use suspension fittings with lip for ceiling panels
- The Keku® fittings made from polycarbonate must not be lacquered over or treated with grease or other chemical substances
- The fittings must only be attached to lacquered surfaces after the lacquer has sufficiently hardened
- The locking effect must not be manipulated by grease or by puncturing the lip
- Ensure that the full locking effect is achieved and is not affected by premature contact with adjacent components
- Keku R ceiling panels and substructures must not be used as supports for external installations
- Ceiling panels cannot be walked on

If objects such as washbasins, shelves, dispensers, towel rails or similar devices that cause shaking or vibration when they are operated and contribute to additional stress of the cladding are attached to cladding panels, the locking effect and load bearing capacity of the Keku fittings can be adversely affected. In cases such as this, additional support must be provided.

Cladding panels which are removed for maintenance work on the building systems behind them or to replace light housings should be provided with sufficient anti-fall protection. The maintenance personnel must be briefed in the functionality of the inspection panels.
Any broken fittings must be replaced before hooking the panels back in.
Inappropriate stress caused by tolerances during the positioning of the fittings or erroneous adjustment of the substructure must be avoided.
Craftsmanship-like and conscientious implementation is required.
We recommend pre-drilling the screw fixings. Screw fixing tests must be carried out if necessary.

Ambient conditions:
Interior rooms in which the fitting will not become contaminated with grease, lye or other chemical substances, including those of a volatile nature.

According to a standard statement from the material testing institutes, fittings must generally only be assessed with regard to fire resistance in accordance with DIN 4102 in the installed condition and in connection with a component.
This means that the Keku® fittings are also not tested as individual components in the non-installed condition and are not regarded as materials such as the substructure or the panelling and finishing material, which is evaluated in accordance with fire protection class A1, A2 (not flammable) or B1 (hardly inflammable), B2 (normally inflammable) or B3 (easily flammable).
Keku® fittings are made from polycarbonate (PC). According to examinations made by the Underwriter`s Laboratories (UL) in the USA, this basic material is classified according to type in (fire safety) classes V-0, V-1 and V-2. The polycarbonate that we use corresponds to the standard type 2600/2800 – V1, B1 by comparison.

Keku® EH and EHS suspension fitting and Keku® EH and EHS panel component

Keku® fittings are made from polycarbonate (PC). The production of the fittings is subject to continuous quality and material control.
When doing this, the fittings must withstand brief compression and elongation loads of 300N and then return to their original shape.
The maximum load bearing capacity of a pair of fittings with proper use: See table

Panel, frame and panel components are individual and can be put together in any way. The smallest load value always applies.

Name	Type	Screw	Version	Cat. No.	Vertical load Wall cladding	Lying load Platform panels	Horizontal load Ceiling cladding	Locking effect
Panel component	EH	Hospa	With lip	262.49.356	20 kg	30 kg	8 kg	The locking effect depends on many factors. Screw tests are imperative for determining the locking effect.
Panel component	EH	Varianta	With lip	262.49.357	20 kg	30 kg	8 kg	
Panel component	EH	Hospa	Without lip	262.49.350	20 kg	30 kg		
Panel component	EH	Varianta	Without lip	262.49.351	20 kg	30 kg		
Frame component	EH	Hospa		262.49.365	20 kg	30 kg	8 kg	
Frame component	EH	Varianta		262.49.366	20 kg	30 kg	8 kg	
Frame component	EHS	Hospa		262.49.367	20 kg	30 kg	8 kg	
Frame component	EHS	Varianta		262.49.368	20 kg	30 kg	8 kg	
Frame component	EH	Hospa	For groove mounting	262.49.360	20 kg		8 kg	
Panel component	EH	Hospa		262.49.358	12 kg		6 kg	
Panel component	EH	Varianta		262.49.359	12 kg		6 kg	
Panel component	EHS	Hospa		262.49.369	12 kg		6 kg	
Panel component	EHS	Varianta		262.49.370	12 kg		6 kg	

At least 4 pairs of fittings are needed to hook in a rectangular panel. The spacing depends on the panel thickness and the arrangement of the fixing points, and should not exceed 600 mm. For even load distribution, the fittings must be screwed on in exactly the right position. Because of the large number of usage options, we recommend that the processing company carries out trial mountings in the event of special requirements. Supporting plastic fittings may not be treated with chemical solutions or aggressive greases.

Keku® AS and ASR push-in fitting



Keku® fittings are made from polycarbonate (PC). The production of the fittings is subject to continuous quality and material control.
When doing this, the fittings must withstand brief compression and elongation loads of 300N and then return to their original shape.
The maximum load bearing capacity of a pair of fittings with proper use: See table

Panel and frame components are individual and can be put together in any way. The smallest load value always applies.

Name	Type	Screw	Version	Cat. No.	Vertical load of wall cladding	Lying load of platform panels	Horizontal load of ceiling cladding	Latching effect
Panel component	AS	Hospa		262.50.359	20 kg	30 kg		The locking effect depends on many factors. Screw tests are imperative for determining the locking effect.
Panel component	AS	Varianta		262.50.358	20 kg	30 kg		
Frame component	AS	Hospa		262.50.368	20 kg	30 kg		
Frame component	AS	Varianta		262.50.377	20 kg	30 kg		
Frame component	ASR	Hospa		262.50.390	20 kg	30 kg		
Frame component	ASR	Varianta		262.50.391	20 kg	30 kg		

The locking effect depends on many different parameters. Panel material, panel thickness, tightening force of the screw connections, accuracy of the Keku® positions etc., own tests are essential for determining the locking effect.
Push-in fittings must not be used for suspended loads such as ceiling panels etc.
At least 4 pairs of fittings are needed to secure a rectangular panel. The spacing depends on the panel thickness and the arrangement of the fixing points, and should not exceed 600 mm. For even load distribution, the fittings must be screwed on in exactly the right position.
Because of the large number of usage options, we recommend that the processing company carries out trial mountings in the event of special requirements. Supporting plastic fittings may not be treated with chemical solutions or aggressive greases. The processing parameters specified in the Häfele catalogue must be adhered to.

Guideline values for the number of AS fittings, pitch length with panel thickness of 19 mm max. 1000 mm,

Panel weight	*Number of fittings*
Up to 20 kg	*4 fittings*
Up to 30 kg	*6 fittings*
Up to 40 kg	*8 fittings*

Keku® AD15 and AD30 double partition fitting



Keku® fittings are made from polycarbonate (PC). The production of the fittings is subject to continuous quality and material control.
When doing this, the fittings must withstand brief compression and elongation loads of 300N and then return to their original shape.
The maximum load bearing capacity of a pair of fittings with proper use: See table

Panel and angled components are individual and can be put together in any combination. The smallest load value always applies.

Name	Type	Screw	Version	Cat. No.	Vertical load Wall cladding	Lying load Platform panels	Horizontal load Ceiling cladding	Locking effect
Panel component	EH	Hospa	With lip	262.49.356	20 kg	30 kg	8 kg	The locking effect depends on many factors. Screw tests are imperative for determining the locking effect.
Panel component	EH	Varianta	With lip	262.49.357	20 kg	30 kg	8 kg	
Panel component	EH	Hospa	Without lip	262.49.350	20 kg	30 kg		
Panel component	EH	Varianta	Without lip	262.49.351	20 kg	30 kg		
Angled component	AD15	Hospa		262.51.380	20 kg			
Angled component	AD15	Varianta		262.51.381	20 kg			
Angled component	AD30	Hospa		262.51.390	20 kg			
Angled component	AD30	Varianta		262.51.391	20 kg			

At least 4 pairs of fittings are required to double and connect panels. When elements are being linked, the spacing of the fittings should be approx. 600 mm. For even distribution of the load, the fittings must be screwed on in exactly the right position.
Because of the large number of usage options, we recommend that the processing company carries out trial mountings in the event of special requirements. Supporting plastic fittings may not be treated with chemical solutions or aggressive greases. The processing parameters specified in the Häfele catalogue must be adhered to.

Tip:
If two panels are doubled following the same contours, the same drilling group can be drilled on both panels with 3 drill holes at intervals of 32 mm, one on top of the other. On one of the panels the panel components are attached to the upper drill holes, and the angled components are attached to the lower drill holes of the other panels.

Keku® EH-M and EHS-M suspension fitting

The production of the fittings is subject to continuous quality control.
Various special screws are available for attaching the fittings to the Keku®R system.

Name	Type	Screw	Version	Cat. No.	Vertical load of wall cladding	Lying load of platform panels	Horizontal load of ceiling cladding	Locking effect
Panel component 782.16.120	EH	Hospa	Metal	600.003.001	20 kg	30 kg	8 kg	The locking effect depends on many factors. Screw tests are imperative for determining the locking effect.
Frame component 782.16.910	EH	4x25	Metal	600.03.002	20 kg	30 kg	8 kg	
Side guide 782.16.940	EH	4x30	Metal	600.03.003	20 kg	30 kg	8 kg	
System screw 782.16.930		4x25 RH	For light metal	600.03.004				
System screw 782.16.950		4x30 CSH	For light metal	600.03.005				

At least 4 pairs of fittings are needed to hook in a rectangular panel.
The spacing of the fittings depends on the panel thickness and the arrangement of the fixing points, and should not exceed 800 mm. For even distribution of the load, the fittings must be screwed on in exactly the right position.
The panel components are attached with 2 pan head screws D = 4mm.
The system screws are suitable for attaching the frame components to the Keku® support profile.
Attachment to external rectangular profiles takes place using pan head or Hospa screws of an appropriate length D = 4mm. The attachment points of the metal fittings are identical to those of the EH and EH Hospa PC fittings.
The side guide washer can be used at points where an exact gap width is required.

	Keku® EH-M panel component	Keku® EH-M frame component	Keku® EHS-M side guide
Material	Spring steel 1.4310	Steel, galvanized	Steel, galvanized
Weight	0.013 kg	0.008 kg	0.002 kg
Dimensions	78.5 x 16 x 12 mm	L=20 mm D1= 13.5 mm D2 = 8 mm	L= 4 mm D= 14mm
Fixing	Pan head screw 4 x 16/20 mm	System screw 4 x 25 mm raised head for light metal (for aluminium profiles Keku R / 2.7Nm)PZ 2	System screw 4 x 30 mm countersunk head for light metal (for aluminium profiles Keku R / 2.7Nm) PZ 2
Hook-in stroke	12 mm		
Pull out resistances*	>20 kg with 4 x 16mm pan head screws in 19 mm MDF board	>20 kg of lateral shearing force in the aluminium profile	>20 kg of lateral shearing force in the aluminium profile
Remark	Mounting holes in Keku system		
Characteristics	Material class A1, non-flammable, stainless	Material class A1, non-flammable	Material class A1, non-flammable
Application	Manufacture of non-flammable structural elements, wall and ceiling panelling with increased requirements		Side guide

Because of the large number of usage options, we recommend that the processing company carries out trial mountings in the event of special requirements.

Keku® room system

The Keku® R system is a universal aluminium substructure for the manufacture of individual wall panellings, ceiling cladding and partition walls with refined panel materials.

The system consists of the following profiles and accessories:

Name	Cat. No.	Material	Shape	Length	Cross section	Remark
Support profile	782.10.006	Alu, untreated	H-profile	6 m	36 x 36 mm	Base profile
Floor profile	782.11.006	Alu, untreated	H-profile	6 m	36 x 26 mm	Base profile
Adjusting profile	782.12.003	Alu untreated	Profile	3 m	34 x 6 mm	For guiding the floor profiles
Gap profile	782.13.003	Alu, untreated	Profile	3 m	33 x 5 mm	For clipping in after basic assembly
Gap profile, with slots	782.14.003	Alu, untreated	Profile	3 m	33 x 5 mm	Slot perforation at 50 mm intervals
Gap profile, horizontal	782.14.010	Alu, untreated	Profile	3 m	57 x 6 mm	For horizontal gap backing
3D wall and ceiling installation	782.00.900	Steel, nick.pl.			100 x 40 mm	For wall distance 40-50 mm
3D wall spacer	782.00.910	Steel, nick.pl.			100 x 40 mm	For threaded bars 8 mm
Profile connector	782.15.060	Alu, bright				Connecting the support profile and the floor profile
Elevating insert	782.16.000	Steel, galv.				For regulating the height of the support profiles
Corner bracket	782.15.082	Alu, untreated	Bracket		35 x 35 x 35 mm	Connecting support profiles 90°
Slide-in connector 50/50	782.15.070	Alu, untreated	Bracket		50 x 50 x 33 mm	For T-shaped transitions at the support profile
Tie bar	782.15.030	Alu, untreated	Bracket		50 x 6 x 33 mm	For mounting cross braces to the support profile
Gap profile securing clip	782.15.090	Alu, untreated	Profile		40 x 25 x 12 mm	For securing perforated gap profiles
Vertical connector	782.15.010	Alu, untreated	Track		124 x 33 x 5 mm	For extending the support and floor profiles
Mitre-joint connector	782.15.050	Alu, untreated			124 x 124 x5mm	For 90° corners of floor profiles
Slide-in connector	782.15.110	Alu, untreated	Profile		70 x 70 x 33 mm	For connecting 2 support profiles
Insert suspension fitting	782.15.100	Alu, untreated	Profile		60 x 60 x 33 mm	For suspending support profiles
Panel connector	782.15.120	Alu, untreated	Profile		48 x 57 x 6 mm	For connecting panels
System screw	782.17.900	Steel, galv.	PZ2		4 x 10 mm	For mounting the Keku fittings to the support profile
Keku EH-M panel component	782.16.120	Spring steel	Punched part		78.5x16x12 mm	Suspension fitting made from metal
Keku EH-M frame component	782.16.910	Steel, galv.	Turned part		4.2 x 20 mm	Suspension fitting made from metal
Keku EHS-M side guide	782.16.940	Steel, galv.	Turned part		14 x 4 mm	Suspension fitting made from metal
System screw	782.16.930	Steel, galv.	PZ2	RH	4 x 25 mm	EH-M frame component
System screw	782.16.950	Steel, galv.	PZ2	CSH	4 x 30 mm	EHS-M frame component

The material of the profiles is aluminium T66, and the accessory consists of aluminium and steel.
The system includes all fittings and accessories which are needed for a substructure.
The Keku® EH / EHS / EH-M and ASR fittings are specially coordinated with the Keku® R system, and make reversible attachment of the cladding panels possible.
All screw-resistant panels from 10 to 30 mm thick are suitable as cladding materials. Plywood, chipboard, MDF boards, plastic boards, acrylic sheets, plasterboard, cement fibre boards etc. The processing instructions of the respective manufacturer applies for all boards.
The system is not suitable for gap-free plasterboard walls and ceilings.

The load value specifications relate to 19 mm cladding panels with decorative surfaces. Trials by the processing company and possibly reinforced construction are required for special constructions, special boards or particularly heavy loads.
The profiles are processed using normal joinery machines.
The following data sheets containing well-tried factory specifications are available for planning.

- Suspended ceiling
- Wall cladding
- Stud wall cladding
- Wall cladding without floor connection
- Stud wall cladding without floor connection
- Impact-resistant stud wall cladding

Material characteristics

Keku® fitting system and Keku® R room system

Millions of Keku fittings have been sold by Häfele GmbH & Co.KG since 1982.

Polycarbonate combines many outstanding properties of metals, glass and plastics such as rigidity, impact resistance, dimensional stability, good insulating properties and good heat resistance.
It is regarded as a high-quality technical plastic with outstanding strength, hardness and durability. Its good electrical insulating properties are almost independent of the ambient temperature and the humidity. The high dimensional stability in hot conditions and the low thermal expansion coefficient are evidence of its good thermal behaviour.
Polycarbonate is flame-resistant, but burns brightly with a sooty flame, and is also self-extinguishing. The polycarbonate (PC) which we use is the ideal material for the functions of the Keku-R fitting system.

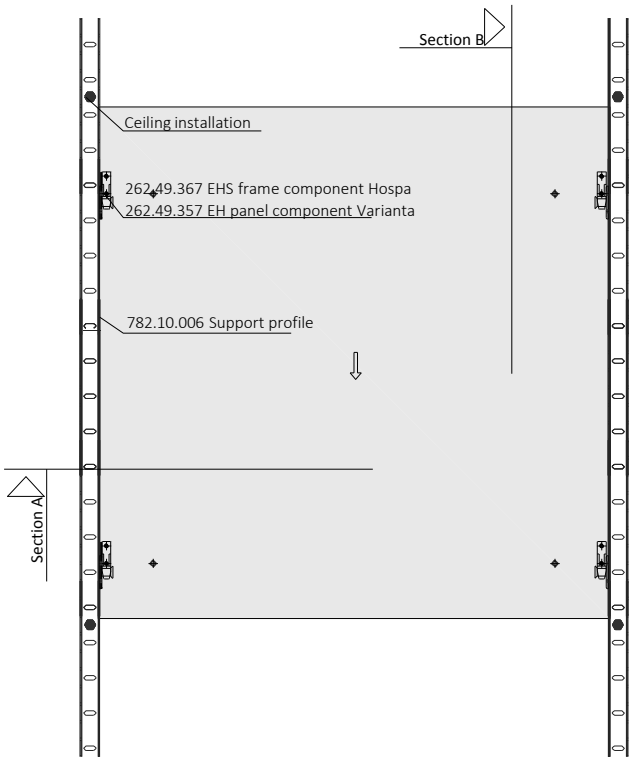
Information from the Berlin and Dortmund material testing authorities that is subject to the duty of disclosure

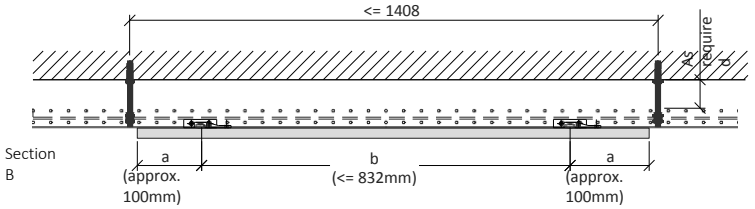
The metal parts of the substructure can be assigned to material class Al (non-flammable) in accordance with DIN 4102-4.
The polycarbonate fittings do not require proof of fire behaviour, provided that the following marginal conditions are complied with:
Weight less than 50 g and dimensions smaller than 50 mm x 50 mm.
The contribution thereof to the development and transfer of fire can then be disregarded. Separate proof of usability with regard to fire behaviour must be provided for the panel materials that are used:
Either by means of general appraisal certificates (ABP), general technical approvals (ABZ) or CE marking.

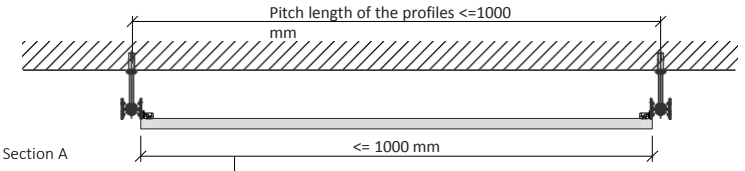
Because of the purpose of use, there is no requirement for technical approval for the metal components of the room system at the present time.

Für die Richtigkeit:
Karl Ernst Kusanke

Keku®R







The width of the CEILING PANEL depends on: Panel characteristics (sag) Screw fixing strength of panel material (pay attention to the panel manufacturer's information) Use centre profile if necessary.

Standard values as per factory specification

Ceiling panel

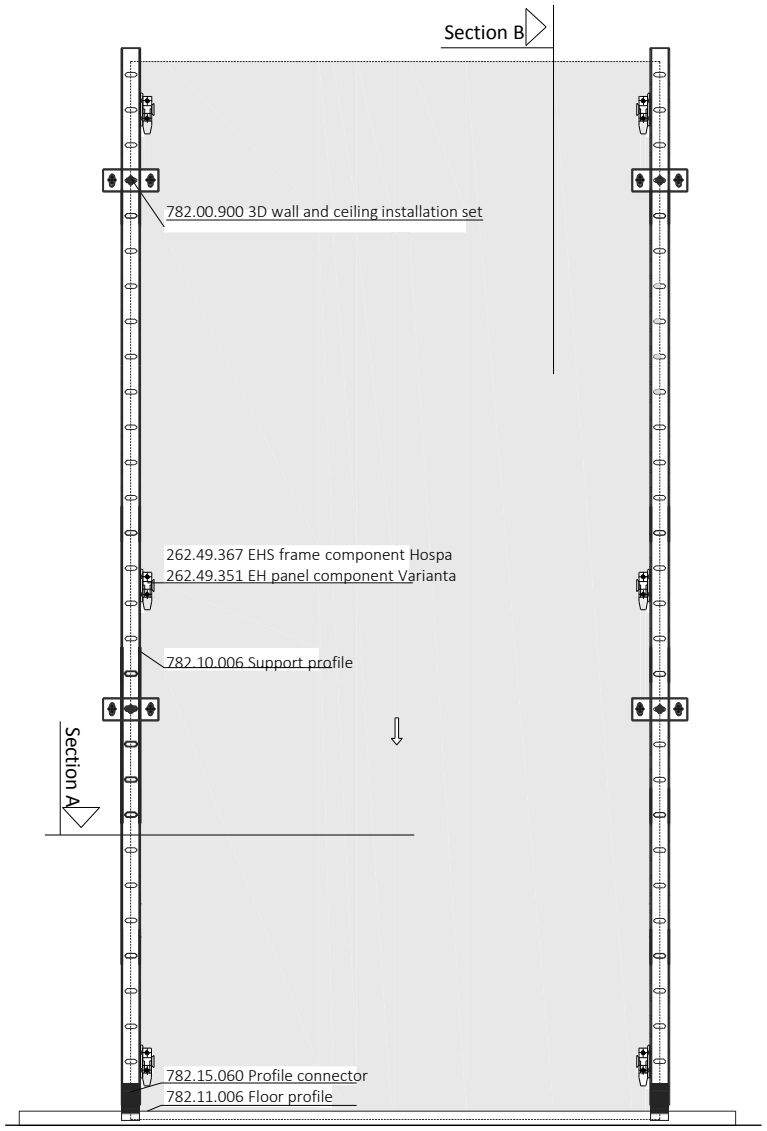
Material:	MDF board 19mm
Weight:	13.3kg (700kg/cbm)
Dimensions:	1000 x 1000 x 19 mm

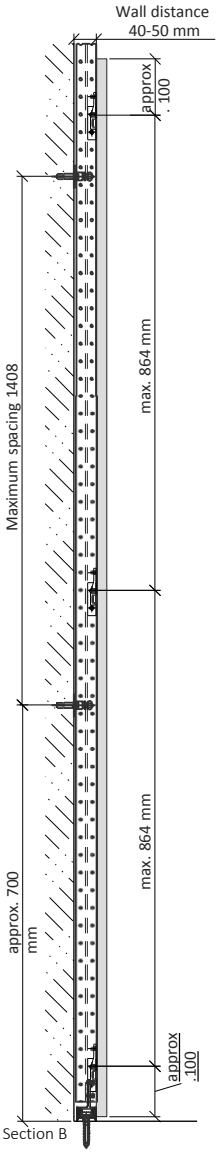
Attachment

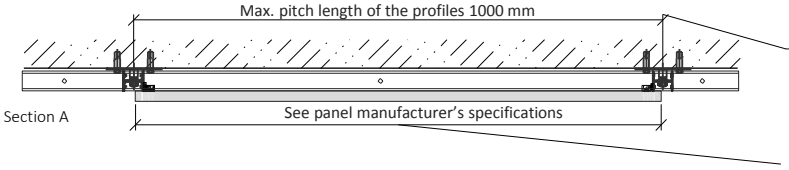
Fitting type:	Keku EH panel component Varianta (suspension fitting with lip 262.49.357)
Material:	Polycarbonate (PC)
Load values:	With ceiling cladding 8 kg per pair of fittings
Screw fitting:	Varianta screw 6.2 x 13.5 mm / Spax 4 x 20 mm
Pull-out resistance:	Varianta/Spax > 20 kg (MDF board 19 mm)

Substructure	**Keku R**
Material: Dimensions:	Aluminium T66 H-profile 6 metres 36 x 36 mm
Ceiling installation:	Threaded bolt M8 with approved, suitable compact dowels (not included in scope of delivery) Screw fixing to support profile with M8 nuts and U-washers. The permissible load of the screw connection at the support profile is 50 kg. (Threaded bolts and nuts not included in scope of supply)
Type of fitting:	Keku EHS frame component Hospa (suspension fitting with lateral guide 262.49.367)
Material:	Polycarbonate (PC)
Tensile vertical load:	With ceiling cladding 8 kg per pair of fittings
Screw fitting:	DT screw 4 x 10 mm 782.17.900 A system screw is mandatory for screwing the Keku fittings to the support profile

Keku fittings
must not be treated with chemical solutions and aggressive greases, do not adjust by hammering
Use at least 4 Keku fittings per panel
Wall plugs and fixing materials
must be selected in accordance with the respective requirements
Pay attention to the panel manufacturer's instructions
Pay attention to table for tensile load
Carry out screw fixing tests if necessary







The spacing of the SUPPORT PROFILES depends on:
Panel format and gap distribution
Panel characteristics

The width of the PANEL depends on:
Panel characteristics (sagging)

Standard values as per factory specification

Cladding panel

Material:	MDF board 19mm
Weight:	26.6 kg (700kg/cbm)
Dimensions:	2000 x 1000 x 19 mm
Type of fitting:	Keku EH panel component Varianta 262.49.351 Keku EH panel component Hospa 262.49.350
Material:	Polycarbonate (PC)
Load values:	20 kg per pair of fittings with wall cladding
Screw fitting:	Varianta screw 6.2 x 13,5 mm / Spax 4 x 20 mm
Pull-out resistance:	Varianta/Spax > 20 kg (MDF board 19 mm)

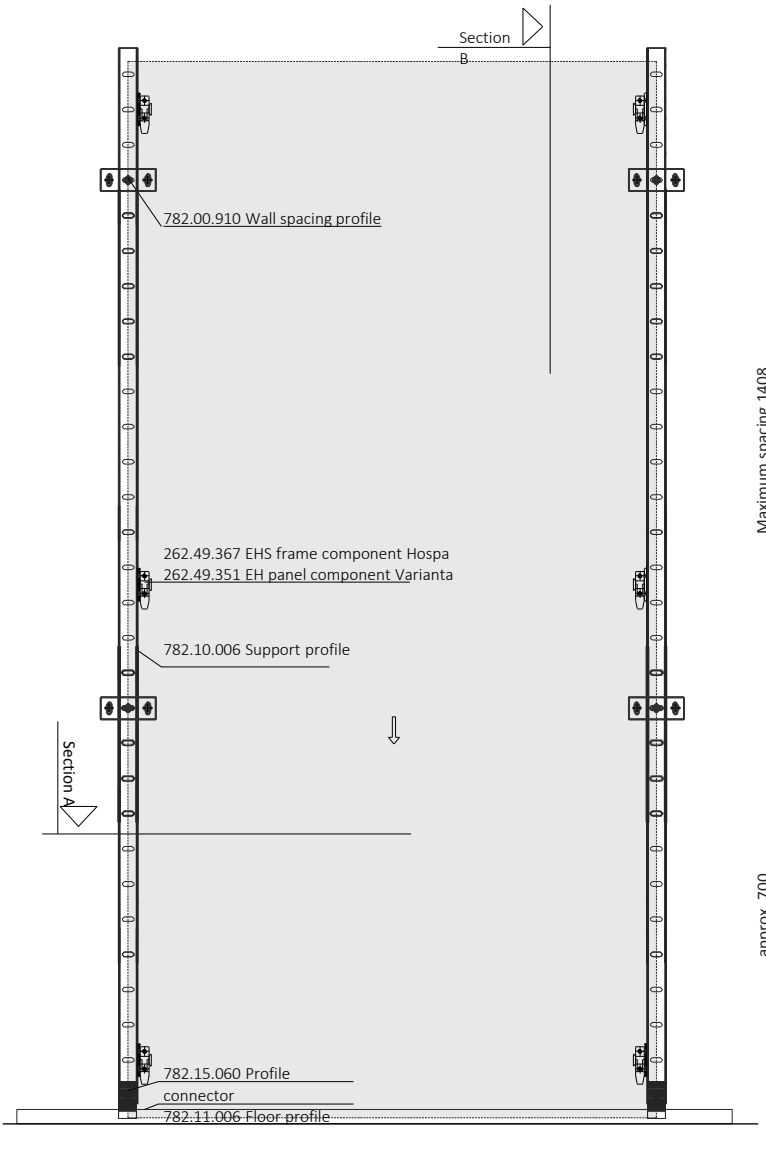
Keku fittings
must not be treated with chemical solutions and aggressive greases,
do not adjust by hammering
Use at least 4 Keku fittings per panel
Wall plugs and fixing materials
must be selected in accordance with the respective requirements
Pay attention to the panel manufacturer's instructions
Pay attention to table for tensile load
Carry out screw fixing tests if necessary

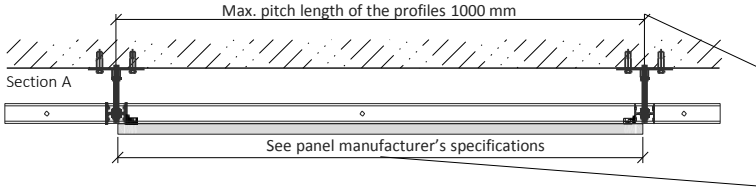
Substructure **Keku R**

Material:	Aluminium T66
Dimensions:	H-profile 6 metres 36 x 36 mm
Wall mounting:	3D wall/ceiling mounting 782.00.900 with approved, suitable compact wall plugs*
Load values:	40 kg with wall spacing of 40-50 mm (adjusting screw)
Floor connection:	Floor profile with profile connector
Support values:	80 kg -Profile connector clamped in support profile- -Floor profile screwed to floor as load distribution
Type of fitting:	Keku EHS frame component Hospa 262.49.367 Keku EH frame component Hospa 262.49.365
Material:	Polycarbonate (PC)
Tensile load, vertical:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	DT screw 4 x 10 mm 782.17.000 (for the series drilled holes on the support profile) System screw mandatory for screwing to support profile

*Wall plugs and screws not included in Keku product range

With panel widths of 1000 mm or special surface loads, we recommend an additional centrally located support profile.





The spacing of the SUPPORT PROFILES depends on:
Panel format and gap distribution
Panel characteristics

The width of the PANEL depends on:
Panel characteristics (sag)

Standard values as per factory specification

Cladding panel

Material:	MDF board 19mm
Weight:	26.6 kg (700kg/cbm)
Dimensions:	2000 x 1000 x 19 mm
Attachment	
Fitting type:	Keku EH panel component Varianta 262.49.351 Keku EH panel component Hospa 262.49.350
Material:	Polycarbonate (PC)
Load values:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	Varianta screw 6.2 x 13.5 mm / Spax 4 x 20 mm
Pull-out resistance:	Varianta/Spax > 20 kg (MDF board 19 mm)

Keku fittings
must not be treated with chemical solutions and aggressive greases,
do not adjust by hammering
Use at least 4 Keku fittings per panel
Wall plugs and fixing materials
must be selected in accordance with the respective requirements
Pay attention to the panel manufacturer's instructions
Pay attention to table for tensile load
Carry out screw fixing tests if necessary

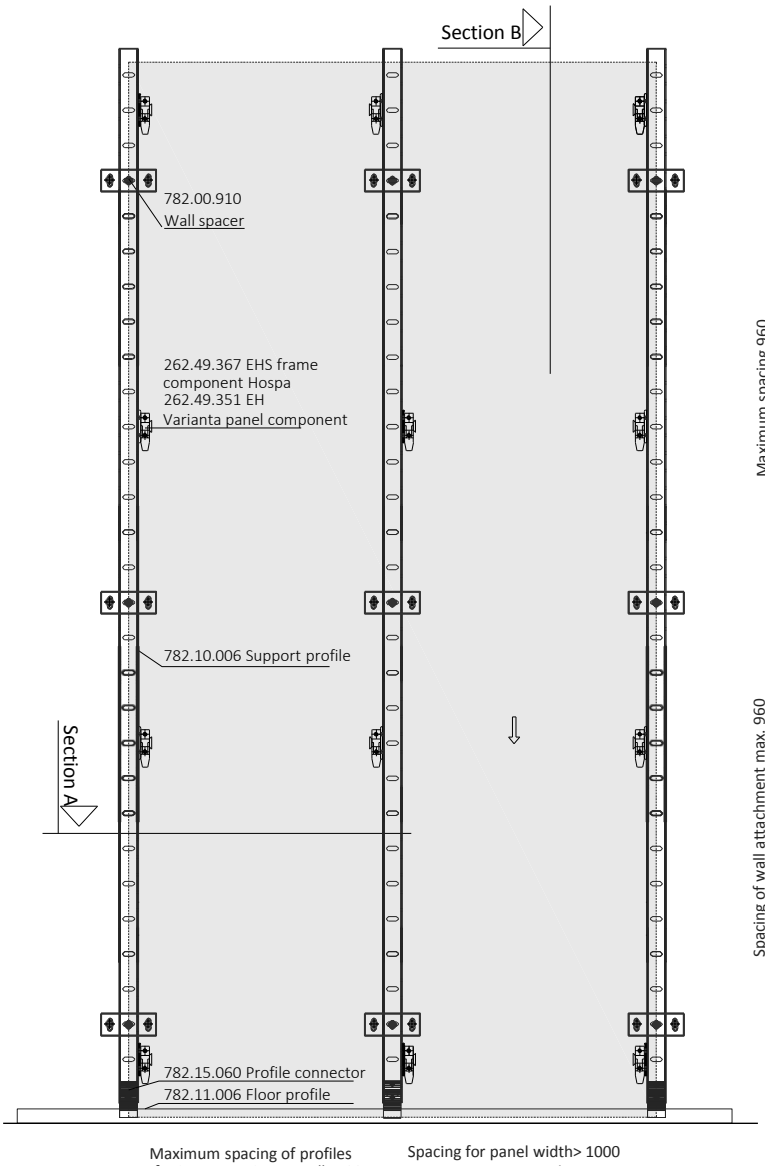
Substructure **Keku R**

Material:	Aluminium T66
Dimensions:	H-profile 6 metres 36 x 36 mm
Wall mounting:	Wall spacer 782.00.910 with threaded bar M8* and approved, suitable compact wall plugs*
Load values:	40 kg with wall spacing of 50-300 mm (threaded bar)
Floor connection:	Floor profile with profile connector
Support values:	80 kg -Profile connector clamped in support profile- -Floor profile screwed to floor as load distribution
Type of fitting:	Keku EHS frame component Hospa 262.49.367 Keku EH frame component Hospa 262.49.365
Material:	Polycarbonate (PC)
Tensile load, vertical:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	DT screw 4 x 10 mm 782.17.000 (for the series drilled holes on the support profile) System screw mandatory for screwing to support profile

*Wall plugs, screws and threaded bars not included in Keku product range

With panel widths of 1000 mm or special surface loads, we recommend an additional centrally located support profile.

Stud wall cladding



Middle profile for:
Impact-resistant wall cladding and panel widths of more than 1000 mm

Standard values as per factory specification

Wall panel

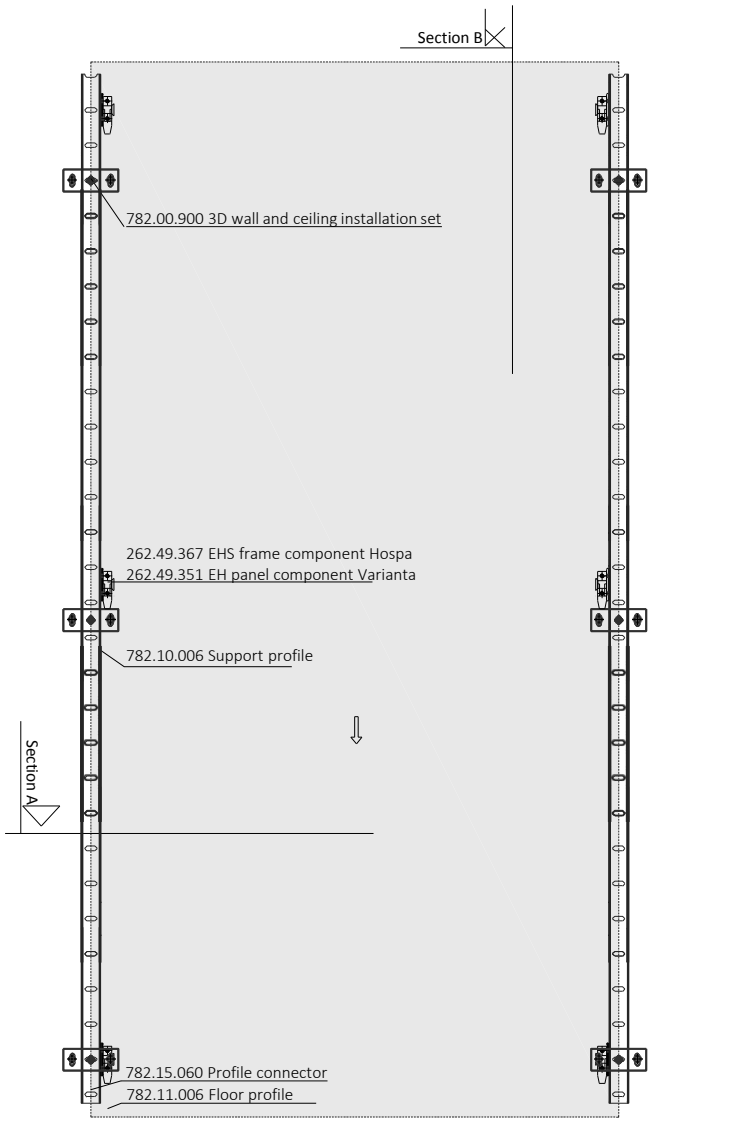
Material:	MDF board 19mm
Weight:	26.6 kg (700kg/cbm)
Dimensions:	2000 x 1000 x 19 mm
Attachment	
Fitting type:	Keku EH panel component Varianta 262.49.351 Keku EH panel component Hospa 262.49.350
Material:	Polycarbonate (PC)
Load values:	20 kg per pair of fittings with wall cladding
Screw fitting:	Varianta screw 6.2 x 13,5 mm / Spax 4 x 20 mm
Pull-out resistance:	Varianta/Spax > 20 kg (MDF board 19 mm)

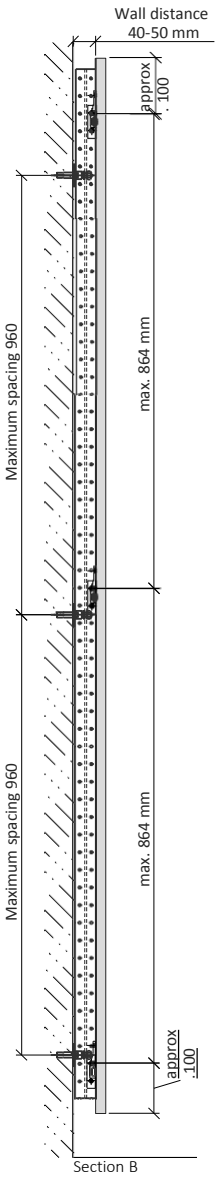
Keku fittings
must not be treated with chemical solutions and aggressive greases,
do not adjust by hammering
Use at least 4 Keku fittings per panel
Wall plugs and fixing materials
must be selected in accordance with the respective requirements
Pay attention to the panel manufacturer's instructions
Pay attention to table for tensile load
Carry out screw fixing tests if necessary

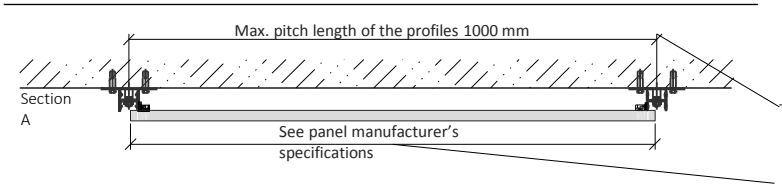
Substructure **Keku R**

Material:	Aluminium T66
Dimensions:	H-profile 6 metres 36 x 36 mm
Wall mounting:	Wall spacer 782.00.910 with threaded bar M8* and approved, suitable compact wall plugs*
Load values:	40 kg with wall spacing of 50-300 mm (threaded bar)
Floor connection:	Floor profile with profile connector
Support values:	80 kg -Profile connector clamped in support profile--Floor profile screwed to floor as load distribution
Type of fitting:	Keku EHS frame component Hospa 262.49.367 Keku EH frame component Hospa 262.49.365
Material:	Polycarbonate (PC)
Tensile load, vertical:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	DT screw 4 x 10 mm 782.17.000 (for the series drilled holes on the support profile) System screw mandatory for screwing to support profile

*Wall plugs, screws and threaded bars not included in Keku product range







The spacing of the SUPPORT PROFILES depends on:
Panel format and gap distribution
Panel characteristics

The width of the panel depends on:
Panel characteristics (sag)

Standard values as per factory specification

Cladding panel

Material:	MDF board 19mm
Weight:	26.6 kg (700kg/cbm)
Dimensions:	2000 x 1000 x 19 mm
Attachment	
Fitting type:	Keku EH panel component Varianta 262.49.351 Keku EH panel component Hospa 262.49.350
Material:	Polycarbonate (PC)
Load values:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	Varianta screw 6.2 x 13.5 mm / Spax 4 x 20 mm
Pull-out resistance:	Varianta/Spax > 20 kg (MDF board 19 mm)

Substructure **Keku R**

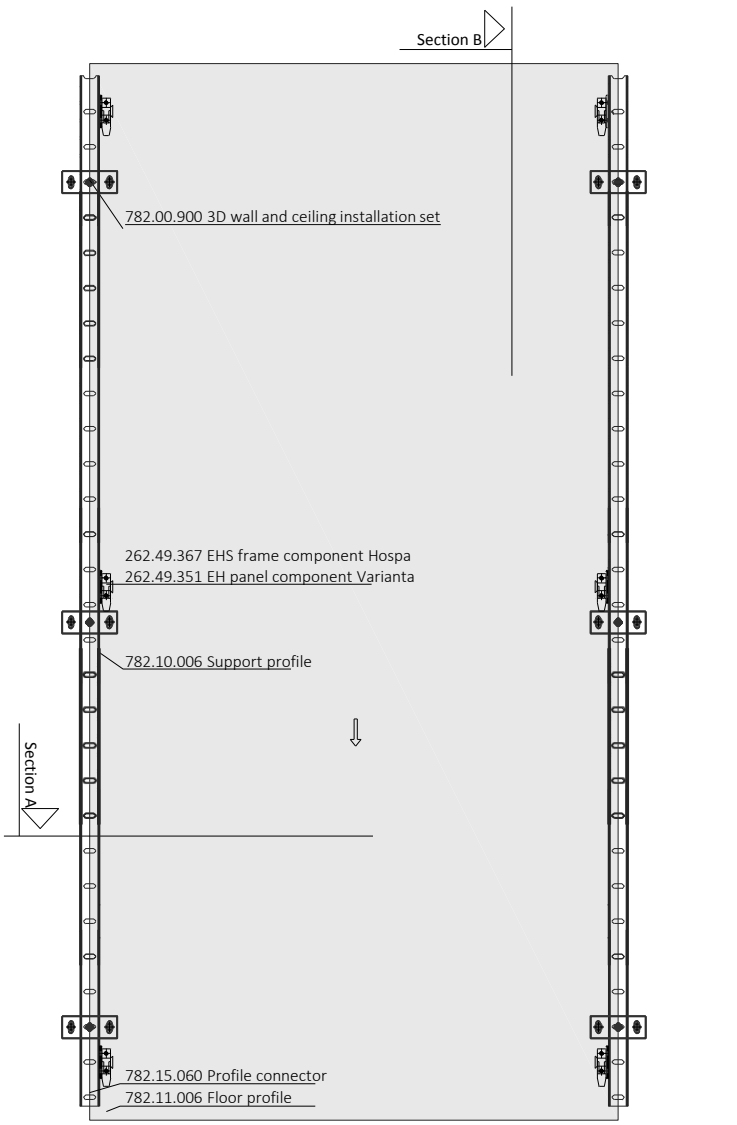
Material:	Aluminium T66
Dimensions:	H-profile 6 metres 36 x 36 mm
Wall mounting:	3D wall/ceiling mounting 782.00.900 with approved, suitable compact wall plugs*
Load values:	40 kg with wall spacing of 40-50 mm (adjusting screw)
Type of fitting:	Keku EHS frame component Hospa 262.49.367 Keku EH frame component Hospa 262.49.365
Material:	Polycarbonate (PC)
Tensile load, vertical:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	DT screw 4 x 10 mm 782.17.000 (for the series drilled holes on the support profile) System screw mandatory for screwing to support profile

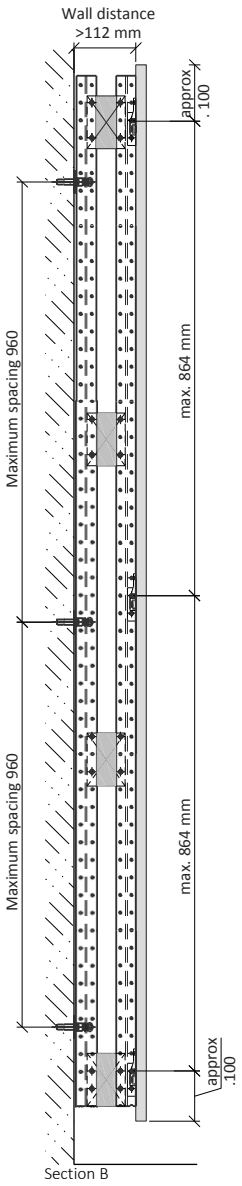
Keku fittings
must not be treated with chemical solutions and aggressive greases, do not adjust by hammering
Use at least 4 Keku fittings per panel
Wall plugs and fixing materials
must be selected in accordance with the respective requirements
Pay attention to the panel manufacturer's instructions
Pay attention to table for tensile load
Carry out screw fixing tests if necessary

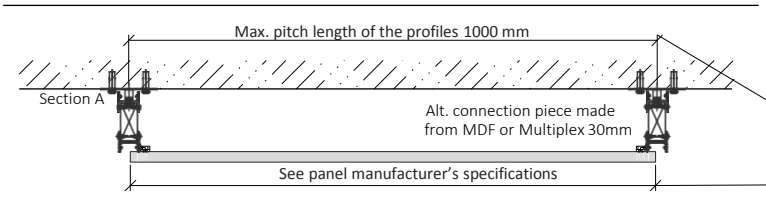
*Wall plugs and screws not included in Keku product range

With panel widths of 1000 mm or special surface loads, we recommend an additional centrally located support profile.

Wall cladding without floor connection







The spacing of the SUPPORT PROFILES depends on:
Panel format and gap distribution
Panel characteristics

The width of the panel depends on:
Panel characteristics (sag)

Standard values as per factory specification

Cladding panel

Material:	MDF board 19mm
Weight:	26.6 kg (700kg/cbm)
Dimensions:	2000 x 1000 x 19 mm
Attachment	
Fitting type:	Keku EH panel component Varianta 262.49.351 Keku EH panel component Hospa 262.49.350
Material:	Polycarbonate (PC)
Load values:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	Varianta screw 6.2 x 13.5 mm / Spax 4 x 20 mm
Pull-out resistance:	Varianta/Spax > 20 kg (MDF board 19 mm)

Keku fittings
must not be treated with chemical solutions and aggressive greases,
do not adjust by hammering
Use at least 4 Keku fittings per panel
Wall plugs and fixing materials
must be selected in accordance with the respective requirements
Pay attention to the panel manufacturer's instructions
Pay attention to table for tensile load
Carry out screw fixing tests if necessary

Substructure **Keku R**

Material:	Aluminium T66
Dimensions:	H-profile 6 metres 36 x 36 mm
Support elements:	2 support profiles with push-in connectors 782.15.110 connected to one support element 109mm. For support elements with depth of 108-500 mm, connection pieces made from MDF 30mm or Multiplex 30 mm screwed through the series drilled holes.
Wall mounting:	3D wall/ceiling mounting 782.00.900 with approved, suitable compact wall plugs*
Load values:	40 kg with wall spacing of 40-50 mm (adjusting screw)
Type of fitting:	Keku EHS frame component Hospa 262.49.367 Keku EH frame component Hospa 262.49.365
Material:	Polycarbonate (PC)
Tensile load, vertical:	20 kg per pair of fittings -with wall cladding-
Screw fitting:	DT screw 4 x 10 mm 782.17.000 (for the series drilled holes on the support profile) System screw mandatory for screwing to support profile

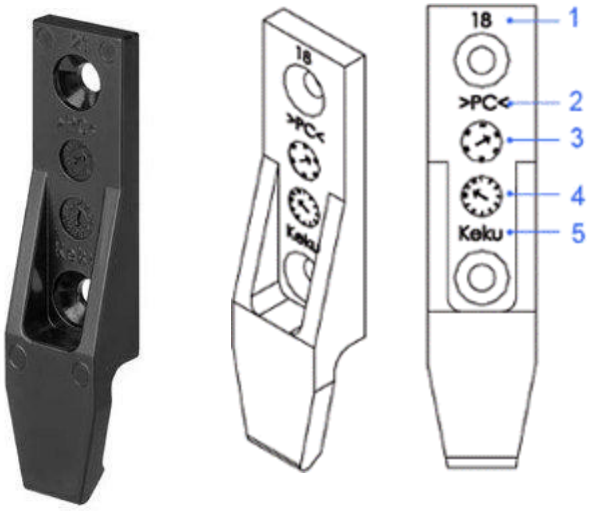
*Wall plugs and screws not included in Keku product range

With panel widths of 1000 mm or special surface loads, we recommend an additional centrally located support profile.

Stud wall cladding without floor connection

Quality assurance

The authenticity of our Keku® fittings, which are protected by trade mark, can be verified by the following markings:



1: Nest number
2: Material
3: Year of manufacture
4: Month
5: Make

- A certified quality assurance system monitors all manufacturing processes and checks the materials which are used.
- The basic material for the Keku suspension, push-in and double partition fittings is a polycarbonate (PC).
- A structural FEM calculation confirms that the assemblies have been made using the material that we have specified.
- The Keku fittings and the Keku R room system fulfil all requirements of the latest version of the REACH and RoHs legislation.
- The legal SCCP limit - short chain chlorinated paraffins - is complied with.
- A load test at TÜV Rheinland LGA Products confirms our factory specifications. (Download test report: https://www.keku.de/informationen/)

Type	Keku suspension fitting					Unhooking stroke Upwards	Max. load bearing capacity / pair of fittings			Testing of the fitting components for tensile-compression force*
Type	**Hospa**	**Varianta**	**Material**	**Standard type**	**Temperat. range**		**Wall panel**	**Base plates**	**Ceiling panels**	
Frame component EHS	262.49.367	262.49.368	Polycarbonate	2600/2800	-100 to + 135°C	25mm	20 kg	30 kg	8 kg	300 N
Frame component EHS	262.49.365	262.49.366	Polycarbonate	2600/2800	-100 to + 135°C	25mm	20 kg	30 kg	8 kg	300 N
Frame component EH-L	262.49.360		Polycarbonate	2600/2800	-100 to + 135°C	25mm	20 kg	30 kg	8 kg	300 N
Panel comp. w/o lip	262.49.356	262.49.357	Polycarbonate	2600/2800	-100 to + 135°C	25mm	20 kg	30 kg	8 kg	300 N
Panel comp. w/o lip	262.49.350	262.49.351	Polycarbonate	2600/2800	-100 to + 135°C	25mm	20 kg	30 kg	unsuitable	300 N
Panel component EH	262.49.358	262.49.359	Polycarbonate	2600/2800	-100 to + 135°C	25mm	12 kg	unsuitable	6 kg (special construction)	300 N
Panel component EHS	262.49.369	262.49.370	Polycarbonate	2600/2800	-100 to + 135°C	25mm	12 kg	not suitable	6 kg (special construction)	300 N

Type	Keku push-in fitting					Unhooking stroke towards the front	Max. load bearing capacity / pair of fittings			Testing of the fitting components for tensile-compression force
Type	**Hospa**	**Varianta**	**Material**	**Standard type**	**Temperat. range**		**Wall panel**	**Base plates**	**Ceiling panels**	
Frame component AS	262.50.368	262.50.377	Polycarbonate	2600/2800	-100 to + 135°C	25 mm	20 kg	20 kg	not suitable	300 N
Frame component ASR	262.50.390	262.50.391	Polycarbonate	2600/2800	-100 to + 135°C	25 mm	20 kg	20 kg	not suitable	300 N
Panel component AS	262.50.359	262.50.358	Polycarbonate	2600/2800	-100 to + 135°C	30 mm	20 kg	20 kg	not suitable	300 N

Type	Keku double partition fitting					Unhooking stroke Upwards	Max. load bearing capacity / pair of fittings			Testing of the fitting components for tensile-compression force
Type	**Hospa**	**Varianta**	**Material**	**Standard type**	**Temperat. range**		**Wall panel**	**Base plates**	**Ceiling panels**	
Angled comp. AD 15	262.51.380	262.51.381	Polycarbonate	2600/2800	-100 to + 135°C	25 mm	20 kg	not suitable	not suitable	300 N
Angled comp. AD 30	262.51.390	262.51.391	Polycarbonate	2600/2800	-100 to + 135°C	25 mm	20 kg	not suitable	not suitable	300 N

The processing of the Keku® system requires conscientious, skilful handling. Trial assemblies are recommended for special loads and unusual designs.

Persons unfamiliar with the trade and maintenance personnel must be provided with instruction about the handling of the inspection panels. At least 4 pairs of fittings are needed to secure a rectangular panel. The spacing of the Keku fittings depends on the panel thickness and the arrangement of the fixing points, and should not exceed 600 mm. For even distribution of the load, the fittings must be screwed on in exactly the right position.

Supporting plastic fittings may not be treated with chemical solutions or aggressive greases. The processing parameters in the Häfele catalogue must be adhered to.

A certified quality assurance system monitors all manufacturing processes. A structural FEM calculation confirms that the assemblies have been made using the material that we have specified. The Keku® fittings fulfil all requirements of the latest version of the REACH and RoHs legislation. The legal SCCP limits - short chain chlorinated paraffins - are complied with.

The fire class of the components depends on the materials of the processed panelling and cladding materials.

According to a uniform statement from the material testing institutes, fittings must generally only be assessed with regard to fire resistance in accordance with DIN 4102 in the installed condition and in connection with a component. This means that the Keku® fittings are also not tested as individual components in the non-installed condition and are not regarded as materials such as the substructure or the cladding and finishing material, which is evaluated in accordance with fire protection class A1, A2 (not flammable), B1 (hardly inflammable), B2 (normally inflammable). Keku® fittings are made from polycarbonate (PC). According to examinations made by the Underwriter`s Laboratories (UL) in the USA, this basic material is classified according to type in (fire safety) classes V-0, V-1 and V-2. The polycarbonate that we use corresponds to the standard type 2600/2800 – V1, B1 by comparison.

*During the tension and compression test, the fittings are briefly overextended with 300 N, and must then return to the original position.

Table 1 Fixing of ceiling panels with Keku suspension fittings

Spacing of EHS frame components on aluminium support profile No. 782.10.006

Aufgestellt:
Dipl.-Ing. Klaus Quint
Hulsberger Waldweg 3
58513 Lüdenscheid

The permissible load per fitting is 8kg. With the distances specified below, each fitting bears approx. the same load.
The reference point of each fixing is the centre of the EH or EHS frame component. Intermediate values can be nterpolated.

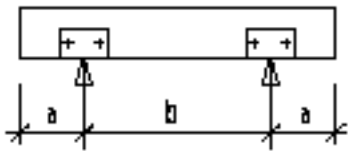
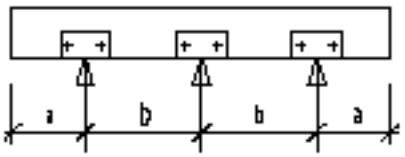
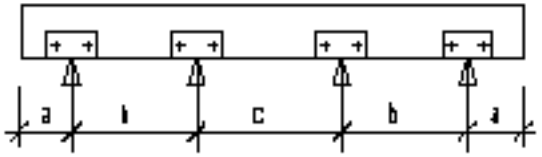
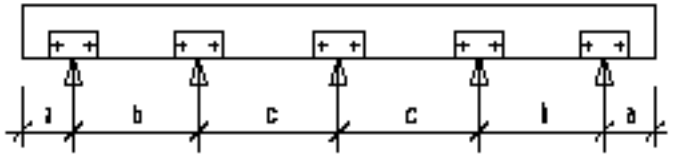
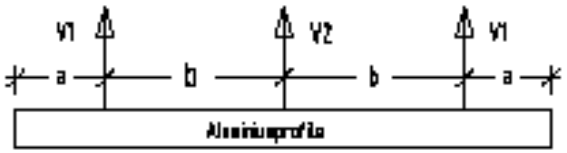
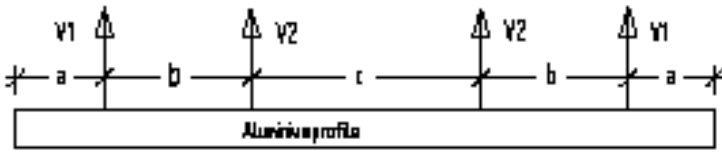
Panel length (mm)	2 x 2 fixings Perm.panel weight = 32 kg  			2 x 3 fixings Perm.panel weight = 48 kg  				2 x 4 fixings Perm.panel weight = 64 kg  					2 x 5 fixings Perm.panel weight = 80 kg  					
640	64	512	64															
768	64	640	64															
896	64	768	64															
1024	96	832	96	128	384	384	128											
1152	160	832	160	160	416	416	160											
1344				192	480	480	160											
1536				224	544	544	224	160	384	448	384	160						
1728				256	608	608	256	192	416	512	416	192						
1920				288	672	672	288	256	448	512	448	256	192	384	384	384	384	192
2176				320	768	768	320	256	512	640	512	256	192	416	480	480	416	192
2368								288	544	704	544	288	224	480	480	480	480	224
2624								320	608	768	608	320	224	544	544	544	544	224
2816								352	672	768	672	352	256	576	576	576	576	256
3072													288	608	640	640	608	288
3200													288	672	640	640	672	288

Table 2 — Suspension Keku aluminium support profile No. 782.10.006

Aufgestellt:
Dipl.-Ing. Klaus Quint
Holsbergar Waldweg 3
58513 Lüdenscheid

Explanation of table information: The reference point of each suspension fitting is the centre of the hole in the bar of the aluminium profile.
Panel weight = permissible sum total of panel weights on length of aluminium profile. Sag = sag of aluminium profile
The subsurface for fixing the suspension fittings must be checked for sufficient load bearing capacity by the company carrying out the work.





Aluminium profile length (mm)	2 Suspension fittings						3 Suspension fittings						4 Suspension fittings						
	Spacing (mm)		Suspension fitting (kg)		Panel weight (kg)	Sag (mm)	Spacing (mm)		Suspension fitting (kg)		Panel weight (kg)	Sag (mm)	Spacing (mm)			Suspension fitting (kg)		Panel weight (kg)	Sag (mm)
	a	b	V1	V2			a	b	V1	V2			a	b	c	V1	V2		
1152	96	960	24	24	48	2.9													
1472	160	1152	24	24	48	6.4	96	640	12	26	50	0.3							
1792	224	1344	24	24	48	8.7	128	768	18	34	70	0.8							
2112	256	1600	24	24	48	14.2	224	832	26	44	96	0.8							
2432							256	960	26	44	96	1.2							
2752							288	1088	26	44	96	1.5							
3072							288	1248	25	46	96	2.7	160	896	960	23	42	130	1.0
3392							288	1408	24	48	96	4.2	160	960	1152	21	44	130	1.2
3712													224	1088	1088	24	41	130	2.3
4032													224	1152	1280	23	42	130	2.4
4352													288	1216	1344	24	41	130	2.5
4672													288	1344	1408	24	41	130	3.8
4992													352	1408	1472	31	49	160	4.3
5312													352	1536	1536	24	41	130	5.3
5952													352	1728	1792	23	42	130	8.5

Keku® fitting system

Keku®
suspension fittings

EH panel component with lip
Hospa 262.49.356
Varianta 262.49.357

EH panel component w/o lip
Hospa 262.49.350
Varianta 262.49.351

Keku®
panel fittings

EH panel component
Hospa 262.49.358
Varianta 262.49.359

Keku®
push-in fittings

AS panel component
Hospa 262.50.35
Varianta 262.50.35

EH frame component
Hospa 262.49.365
Varianta 262.49.366

EHS panel component
Hospa 262.49.369
Varianta 262.49.370

AS frame component
Hospa 262.50.368
Varianta 262.50.377

EHS frame component
Hospa 262.49.367
Varianta 262.49.368

Keku® double partition fittings

AD 15 angled component
Hospa 262.51.380
Varianta 262.51.381

ASR frame component
Hospa 262.50.390
Varianta 262.50.391

EH frame component for groove mounting
Hospa 262.49.360

AD 30 angled component
Hospa 262.51.390
Varianta 262.51.391

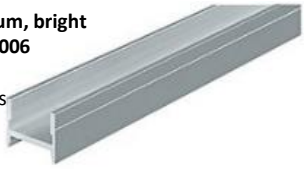
AS spacer plate 1.5 mm
Hospa 262.50.352
Varianta 262.50.354

EH spacer plate 1.5 mm
Hospa 262.49.353
Varianta 262.49.355

Keku® R room system

Support profile aluminium, bright
HÄ. Cat. No.: 782.10.006
Length 6 metres
Hole pattern 32mm for holding the Keku fittings
Slot perforation 8x20, interval 64mm
for wall mounting
Grooves for inserting the Accessories and gap profiles

Floor profile aluminium, bright
HÄ. Cat. No.: 782.11.006
Length 6 metres
With notched grooves as drill mark
As a guide profile for receiving and clamping the support profiles



Adjusting profile aluminium, bright
HÄ. Cat. No.: 782.12.003
Length 3 metres
For adjusting the floor profile
For guiding the uprights

Gap profile aluminium, bright
HÄ. Cat. No.: 782.13.003
Length 3 metres
For clipping into support profile
Gap size 2-30mm

Gap profile, perforated aluminium, bright
HÄ. Cat. No.: 782.14.003
Length 3 metres
Slotting 6x25, intervals 50mm
For clipping into support profile

Gap profile, horizontal aluminium, bright
HÄ. Cat. No.: 782.14.013
Length 3 metres
For filling horizontal joints
Mounting with Keku fittings

3D wall and ceiling installation set
HÄ. Cat. No.: 782.00.900
Steel, nickel plated
For adjusting the support profiles in all directions

3D wall spacer
HÄ. Cat. No.: 782.00.910
Steel, nickel plated
For threaded bars 8mm

Profile connector
HÄ. Cat. No.: 782.15.060
Aluminium, bright
For connecting supporting profiles to floor and ceiling profiles

Elevating insert
HÄ. Cat. No.: 782.16.000
Steel, galvanized
Screw M 8x50
For clamping and for height compensation of the support profiles

Corner bracket 90°
HÄ. Cat. No.: 782.15.080
Aluminium, vibratory ground
For connecting support profiles into 90° corners

Slide-in connector 50/50
HÄ. Cat. No.: 782.15.070
Aluminium, vibratory ground
For T-shaped transitions on the support profile

Tie bar
HÄ. Cat. No.: 782.15.030
Aluminium, vibratory ground
For fixing cross braces on the support profile

Gap profile securing clip
HÄ. Cat. No.: 782.15.090
Aluminium, vibratory ground
For securing perforated gap profiles

Vertical connector
HÄ. Cat. No.: 782.15.010
Aluminium, vibratory ground
For extending the support and floor profiles

Mitre-joint connector
HÄ. Cat. No.: 782.15.050
Aluminium, vibratory ground
For connecting support and floor profiles to form 90° corners

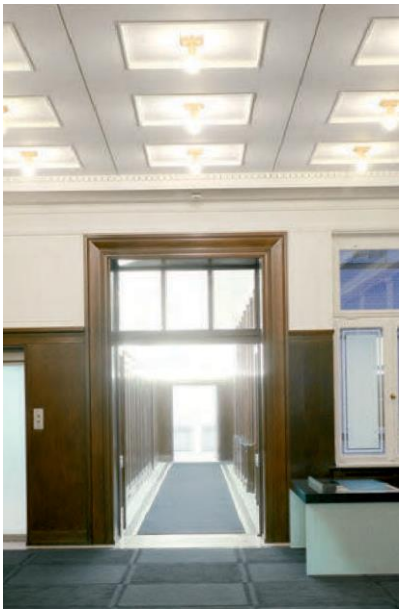
Slide-in connector
HÄ. Cat. No.: 782.15.110
Aluminium
For connecting support profiles to make double stands for load-bearing partition walls

Insert suspension fitting
HÄ. Cat. No.: 782.15.100
Aluminium
For suspending support and floor/ceiling profiles on suspended ceilings

Panel connector
HÄ. Cat. No.: 782.15.120
Aluminium
For connecting panels with Keku fittings

Slot nut
HÄ. Cat. No.: 782.16.010
Steel, galvanized
for inserting into the grooves of the support profiles in combination with M8 threaded bars and screws

System screw 4x10
HÄ. Cat. No.: 782.17.900
Steel, galvanized
For fitting all Keku fittings and connectors to the support profile



Keku® Fitting and room system

Sales

HÄFELE

HÄFELE GmbH & Co KG
Postfach 1237
72192 Nagold
Phone: +49 (0) 7452 – 95 - 0
Fax: +49 (0) 7452 – 95 - 200
E-mail: info@haefele.de
www.haefele.de

Project advice

Kusanke BESCHLAGTECHNIK

KUSANKE Beschlagtechnik GmbH & Co. KG
Im Wiesental 37
58513 Lüdenscheid
Phone: +49 (0) 2351 – 9508 - 0
Fax: +49 (0) 2351 – 9508 - 20
E-mail: info@keku.de
www.keku.de