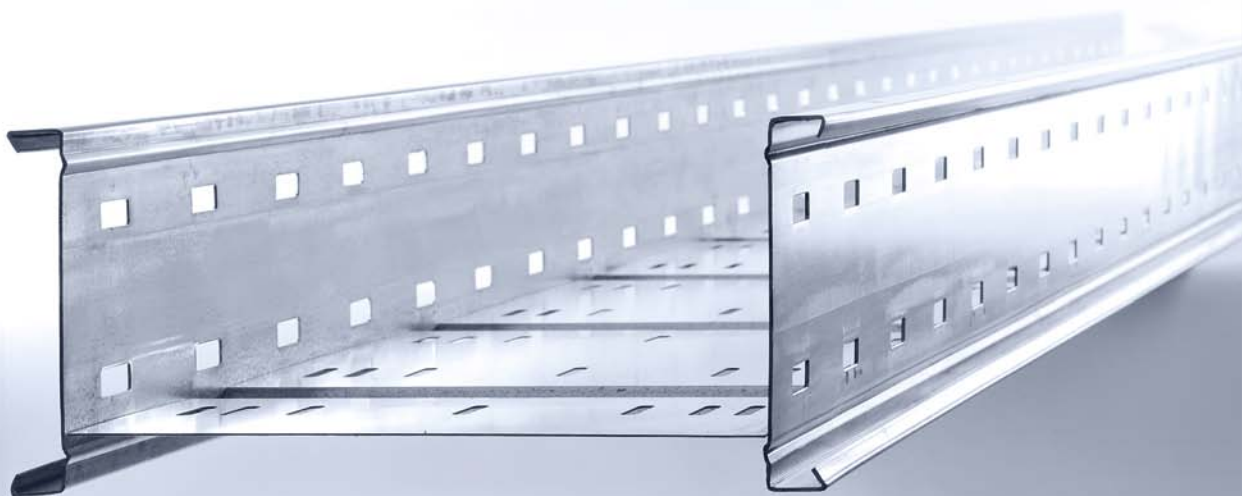


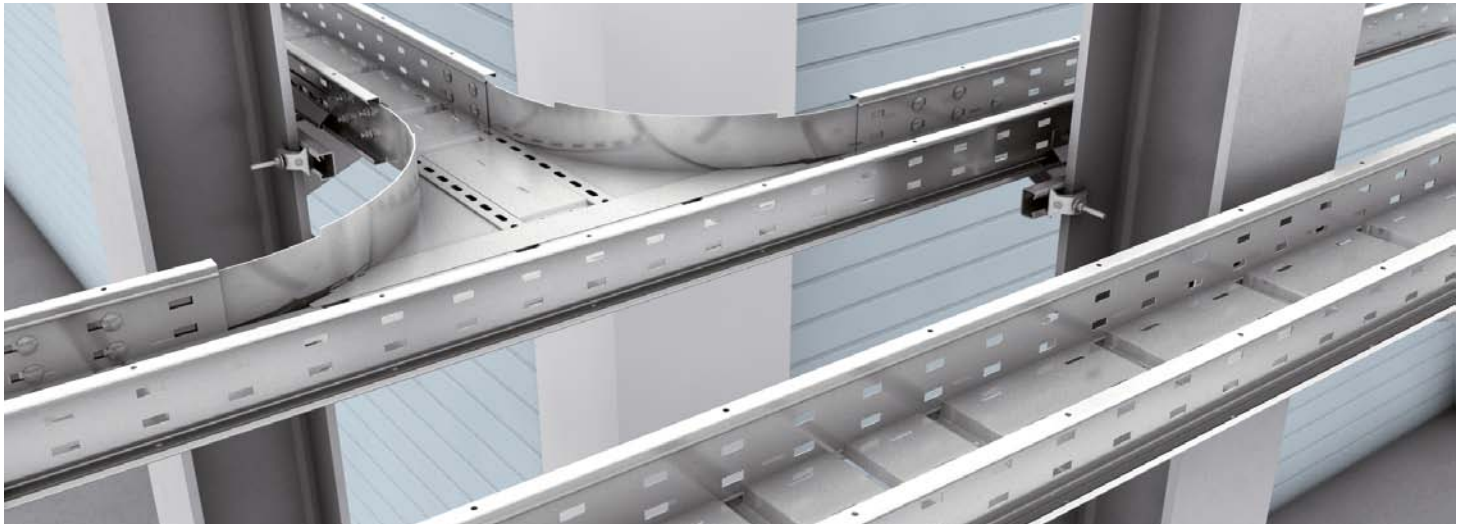


Wide-span cable trays WPR Assembly instruction



Wide-span cable trays WPR

Assembly instruction



Wide-span cable trays are for bridging large fastening gaps. The fastening constructions must be planned by engineer and the use of side rail bearers on the brackets must be strictly kept. The permissible torque must be comply with in all screw connections.



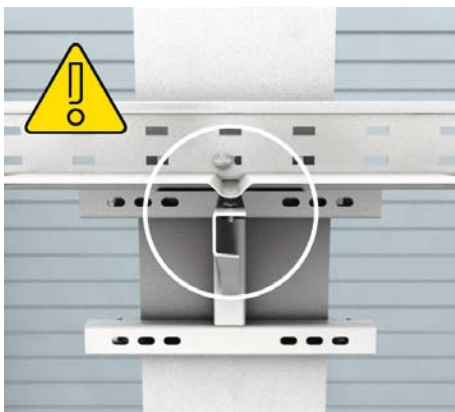
1 | Flange mounting clamp
Screw backside flange mounting clamp (WPHS) on the bracket.



2 | Flange mounting clamp
Place wide-span cable tray in position and push against screwed flange mounting clamp (WPHS). Make sure the wide-span cable tray is in the correct position!



3 | Correctly positioned
Make sure the bracket is positioned correctly between the seams of the wide-span cable tray.



4 | Wide-span cable ladder's
Attention: The mounting clamp (WPHS) has to be bolted to the bracket, even if a rung is positioned directly above the bracket.



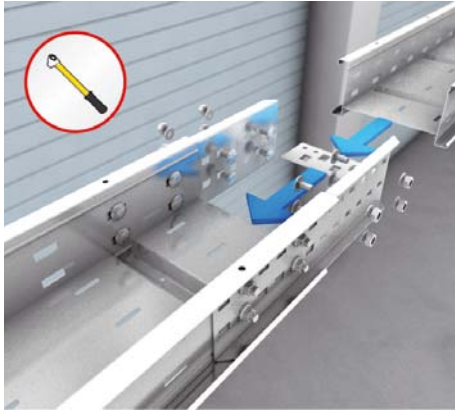
5 | Flange mounting clamp
Push flange mounting clamp (WPHS) onto the bracket and screw together with the wide-span cable tray and the bracket.



6 | Wide-span coupler
Push wide-span coupler (WPV) into the side rail of the wide-span cable tray and screw four times per side rail with clamping screw (KLS 10x20).

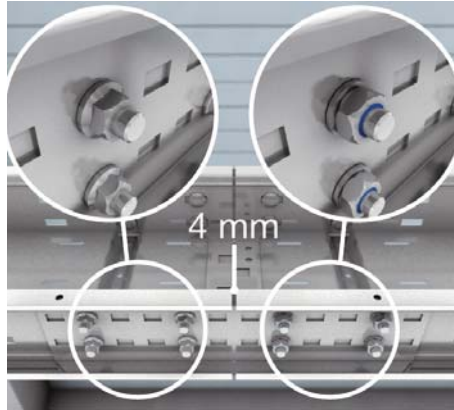
Wide-span cable trays WPR

Assembly instruction



7 | Connection plate

Insert connection plate (VB) on the bottom of the wide-span cable tray, push in connecting tray with a space of 4 mm and screw to coupler (WPV) using self-securing screw nuts (SEMSS 10 or SEMB 10). Permissible torque: 3 Nm.



8 | Fixed and floating bearing

View: left fixed bearing (with integral washer), right loose bearing (with loose washer) and a 4 mm clearance. Connector accessories see page 6.



9 | Horizontal bend

Insert horizontal bend (WPRB) with connection plate (VB) into wide-span cable tray and screw two times per side rail.



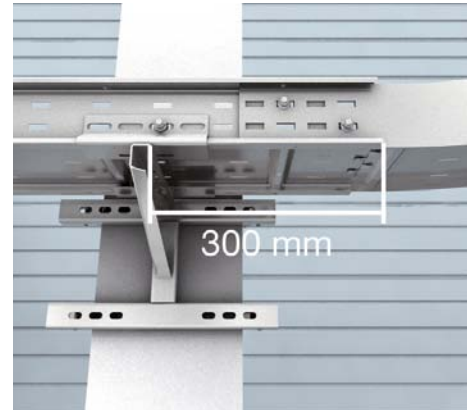
10 | Connecting tray

Insert connecting tray with connection plate (VB) into horizontal bend (WPRB) and screw two times per side rail.



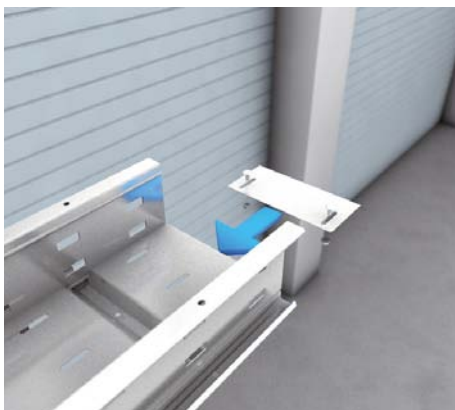
11 | Branch-piece

Insert branch-piece (WPRA) with connection plate (VB) into wide-span cable tray and screw two times per side rail.



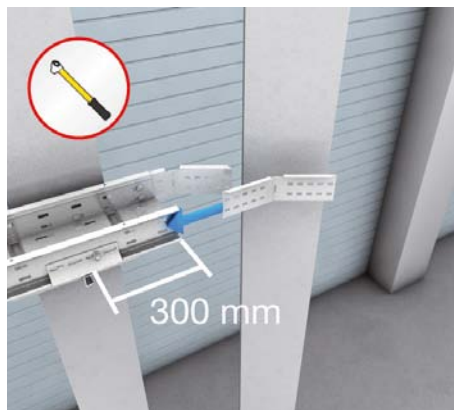
12 | Maximum space

It applies to all formed components or turnarounds: The maximum space of 300 mm with regard to formed component end and bracket must be complied to.



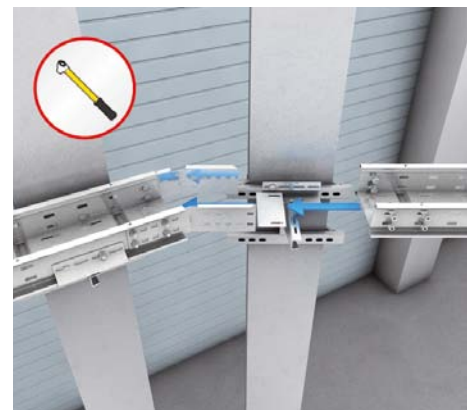
13 | Horizontal directional changes

Horizontal turnaround < 30 degrees – open tray bottom. Insert wide-span tray end plate (WPREB) into wide-span cable tray bottom at the wide-span cable tray ends or at open turnarounds and screw together.



14 | Horizontal directional changes

Bend both side connectors (WPVH) into the angle required for the construction. Insert into the side rails of the wide-span cable tray and screw four times per side rail. The maximum space of 300 mm must be kept with regard to the wide-span tray end and bracket.



15 | Horizontal directional changes

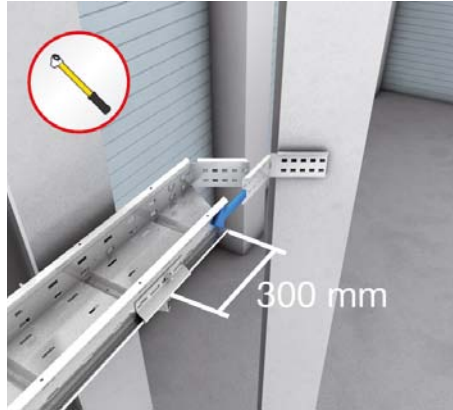
Push connector cable tray into the coupler (WPVH) and screw four times per side rail.

Wide-span cable trays WPR

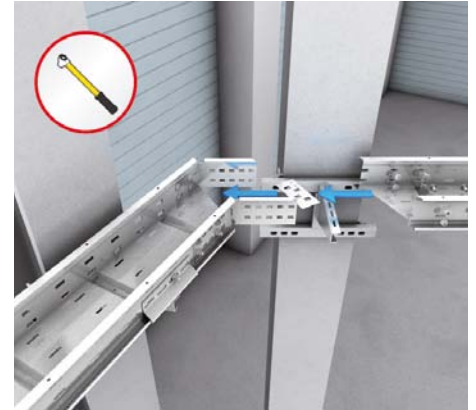
Assembly instruction



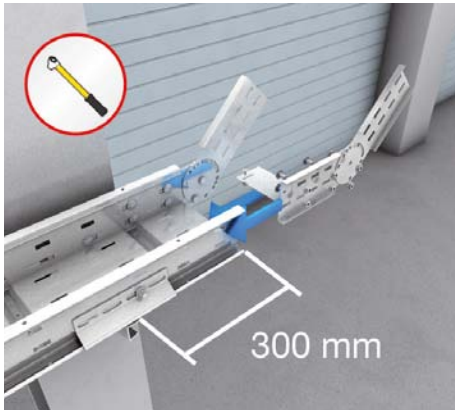
16 | Horizontal directional change
Horizontal turnaround > 30 degrees – closed tray bottom. Mitre wide-span cable tray as required, deflash and



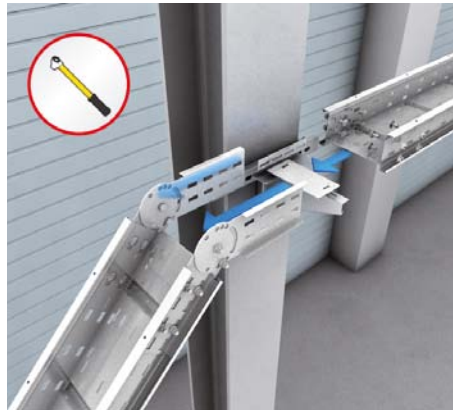
17 | Wide-span coupler
Bend both wide-span coupler (WPVH) into the angle required for the construction. Insert into the side rails of the wide-span cable tray and screw four times per side rail. The maximum space of 300 mm must be kept with respect to the wide-span tray end and the bracket.



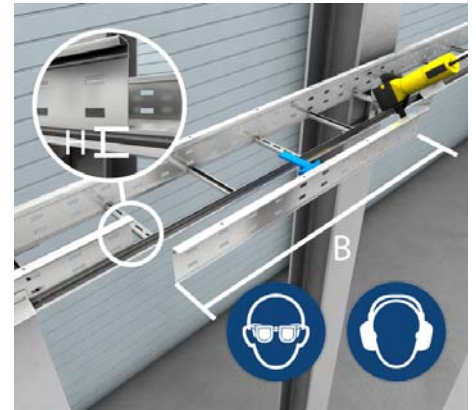
18 | Connection plate
Insert connection plate (VB) into bottom of the wide-span cable tray, push connecting cable tray into coupler (WPVH) and screw four times per side rail.



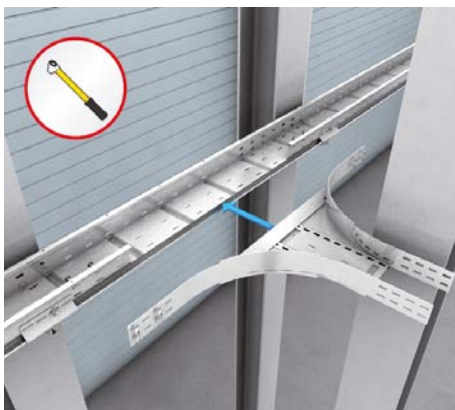
19 | Vertical directional change
To install a vertical turnaround, adjust and screw both couplers (WPVV) to the angle required for the construction, push into the side rails of the wide-span cable tray and screw four times per side rail. The maximum space of 300 mm must be kept with respect to the wide-span cable tray end and the bracket.



20 | Vertical directional change
Insert connecting tray into coupler (WPVV) and screw four times per side rail. Insert wide-span tray end plate (WPRES) into wide-span cable tray bottom at the wide-span cable tray ends or at open turnarounds and screw together.



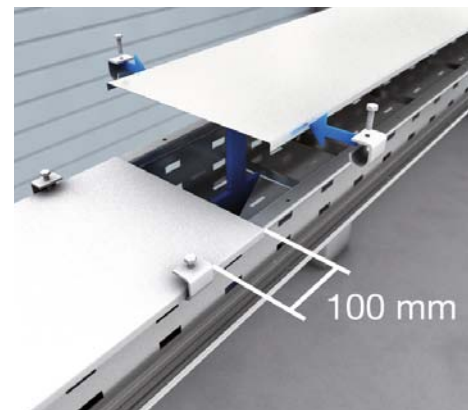
21 | Branch-piece
To install branch-piece (WPRAA) cut out the side rail of the wide-span cable tray in a width B = connecting cable tray width + 900 mm flush with the floor (H = 23 mm).



22 | Branch-piece
Attach branch-piece (WPRAA) and screw four times per side rail side.



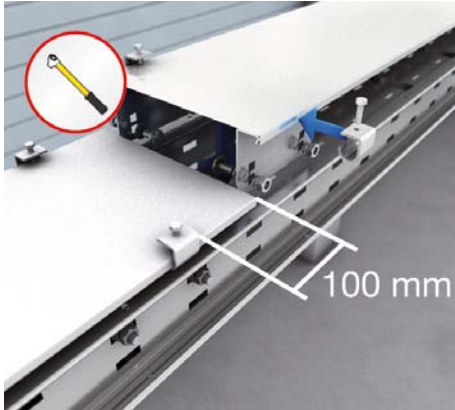
23 | Branch-piece
Insert connecting tray with connection plate (VB) into extension branch-piece (WPRAA) and screw four times per side rail.



24 | Cover clamps
Secure covers (WPD) with cover clamps (WPD-K) at 100 mm from each end of the cover and in the middle. (6 pieces / 3m)
For wind-exposed areas, the number of cover clamps must be increased to at least 10 pcs.

Wide-span cable trays WPR

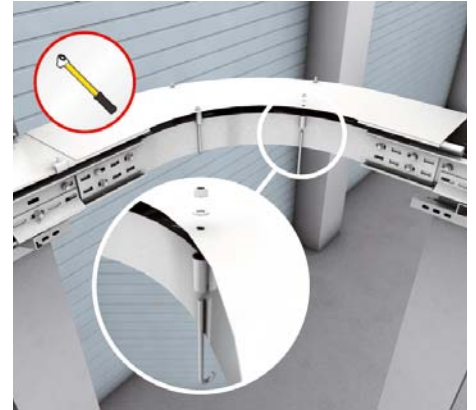
Assembly instruction



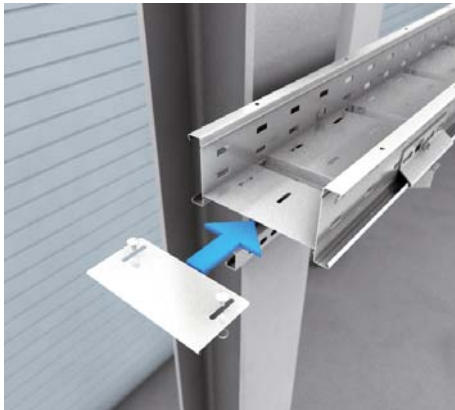
25 | Secure elevated covers
Secure elevated covers (WPD) with cover clamps (WPD-K and WPDA) at 100 mm from each end of the cover and in the middle. (6 pieces / 3m)
For wind-exposed areas, the number of cover clamps must be increased to at least 10 pcs.



26 | Cover clamps
Screw covers onto the wide-span cable tray form parts (WPBD, WPAD or WPKD) with cover clamps (WPFDK) into all drill holes of the covers.



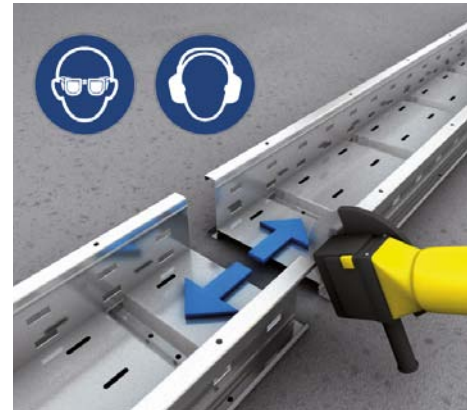
27 | Cover clamps
Screw elevated covers onto the wide-span cable tray form parts (WPBD, SPAD or WPKD) with cover clamps (WPFDKA) into all drill holes of the covers.



28 | Wide-span cable tray end plate
Push wide-span cable tray panel sheet (WPRES) up against tray bottom and screw tight.



29 | Barrier strip
Screw barrier strip (WPTR) three times (front, middle, back).



30 | Cutting and severing work
Cutting and severing work must be done with greatest care complying to all industrial safety regulations.



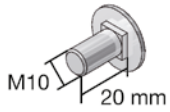
31 | Galvanize
All cutting and partition areas must be galvanised by customers with cold zinc paint (KZF) or cold zinc spray (KZS) after the deburring on site.

Wide-span cable trays WPR

Assembly instruction

Legend Accessories

FRS 10x20



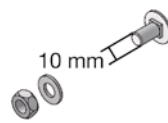
SEMS 10



SEMSS 10



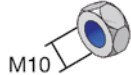
KLS 10x20



SEM 10



SEMB 10



US 10x21



Underline Symbols



Wear protection glasses



Wear ear protection



Correct



Wrong



Observe tightening torque for fasteners



Attention!

S

Sendzimir-hot-dip galvanised according to DIN EN 10346

F

Hot-dip galvanised according to DIN EN ISO 1461

E

High-grade steel material No. 1.4301 (V 2A)

Screw tightening torques

Bolt diameter	Strength category screw (DIN 267 part 3)	Strength category nut (DIN 267 part 4)	Screw tightening torque (Nm) acc. VDI 2230
M10	4.6	5	16
M10	8.8	8	68

connector accessories

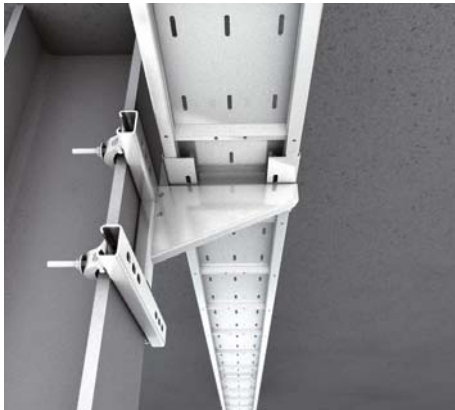
	fixed bearing (16 Nm)		floating bearing (3 Nm)		
S	FRSV 10x20	SEMS 10	FRSV 10x20	SEMSS 10	US 10x21
F	FRSV 10x20F	SEM 10F	US 10x21F	FRSV 10x20F	SEMB 10F
E	FRSV 10x20E	SEM 10E	US 10x21E	FRSV 10x20E	SEMSS 10E

Wide-span cable trays WPR

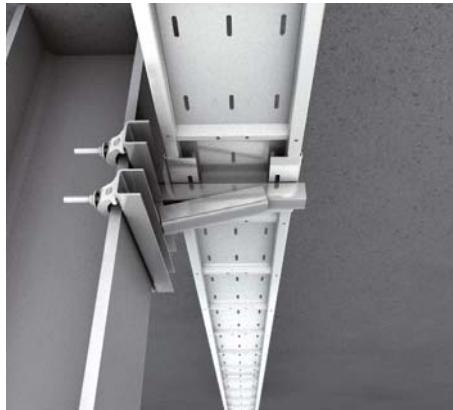
Assembly instruction



Supporting structures must be assemble torsion-free! The assembly to ceiling profiles (one- or double-sided) is prohibited. Solely the assembly to (wall) brackets or pendant suspensions is allowed.



1 | Heavy wall bracket KIS
Heavy wall bracket (KIS) are to be clamped to steel support with side-rail support (WPHS-K) and clamping claws (SKS H).



2 | Heavy wall bracket KISS
Heavy wall bracket (KISS) are to be clamped to steel support with side-rail support (WPHS-A) and clamping claws (SKS M).



3 | Heavy wall bracket KWS
Heavy wall bracket (KWS) are to be plugged to concrete wall with bracket rail support (WPHS-A).



4 | Heavy wall bracket KWSS
Heavy wall bracket (KWSS) are to be plugged to concrete wall with bracket rail support (WPHS-A).



5 | Heavy corner installation EBW
Heavy corner installation (EBW) for horizontal 90-degree turnarounds with side rail support (WPHS-K) are to be plugged to concrete support.
L = width of wide-span cable tray + 560 mm



6 | Pendant suspension
Pendant suspension from profiles (e.g. KHU 60) with equaliser bar and side-rail support (WPHS-K) are to be plugged to concrete ceiling.



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