

Raceways and junction boxes

for screed floors



0896 67



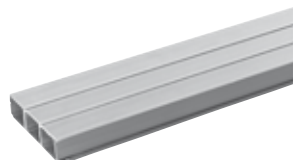
0896 68



6895 00



6895 02



0896 69



6895 03



6895 05

Dimensions **p. 46**
 Technical characteristics **p. 46**

Confirms to EN 50 085 - 2 - 2
 Raceways are made from PVC and Galvanised sheet.
 Compatible with Cat.6 structured cabling system.

Pack	Cat.Nos	Raceways - PVC
		IP 20 - IK 08 For distributing LV and ELV cabling in screed floors installations. PVC Raceways combines with junction boxes, backboxes for wiring devices, fixing and coupler accessories Optimized profile to increase cabling capacity
		Raceways - PVC - height 38mm; length 2m.
24*	0896 67	50mm x 38mm - 1 compartment
32*	0896 68	100mm x 38mm - 2 compartments
20*	0896 69	150mm x 38mm - 3 compartments



* Number of meters in pack

Pack	Cat.Nos	Raceways - Metal / GI
		IP 20 - IK 08 For distributing LV and ELV cabling in screed floors installations. Particularly suitable for applications requiring EMC screening Pre-Galvanised sheet with thickness of 1.5mm Can be combined with junction boxes, backboxes (floorboxes) for wiring devices, fixing and coupler accessories Consist of body & cover. Cover fitted on to the body with screws & can be opened easily if required.
		Raceways - Metal - height 25mm; length 2.44m.
3/54 ⁽¹⁾	6895 10	50mm x 25mm - 1 compartment
3/21 ⁽¹⁾	6895 11	75mm x 25mm - 1 compartment
3/54 ⁽¹⁾	6895 12	100mm x 25mm - 1 compartment
3/18 ⁽¹⁾	6895 13	150mm x 25mm - 1 compartment
3/12 ⁽¹⁾	6895 14	225mm x 25mm - 3 compartments
3/18 ⁽¹⁾	6895 15	300mm x 25mm - 3 compartments
		Raceways - Metal/GI - height 38mm; length 2.44m
3/54 ⁽¹⁾	6895 00	50mm x 38mm - 1 compartment
3/21 ⁽¹⁾	6895 01	75mm x 38mm - 1 compartment
3/54 ⁽¹⁾	6895 02	100mm x 38mm - 1 compartment
3/36 ⁽¹⁾	6895 03	150mm x 38mm - 1 compartment
3/12 ⁽¹⁾	6895 04	225mm x 38mm - 3 compartments
3/18 ⁽¹⁾	6895 05	300mm x 38mm - 3 compartments



⁽¹⁾ Unit of measure in numbers

Raceways and junction boxes

for screed floors



Dimensions **p. 48-49**
 Technical characteristics **p. 48-49**

Confirms to EN 50 085 - 2 - 2
 Raceways are made from PVC and Galvanised sheet.
 Compatible with Cat.6 structured cabling system.

Pack Cat.Nos Raceways accessories

Pack	Cat.Nos	Description
		Fixing bracket
9	6897 09	For fixing Raceways on the floor 50mm x 25mm (metal)
9	6897 10	75mm x 25mm (PVC and metal)
9	6897 12	100mm x 25mm (metal)
9	6897 15	150mm x 25mm (PVC and metal)
9	6897 20	225mm x 25mm (PVC and metal)
9	6897 30	300mm x 25mm (PVC and metal)
9	6897 27	50mm x 38mm (PVC and metal)
9	6897 28	75mm x 38mm (metal)
9	6897 37	100mm x 38mm (PVC and metal)
9	6897 38	150mm x 38mm (PVC and metal)
9	6897 25	225mm x 38mm (metal)
9	6897 35	300mm x 38mm (metal)
		Riser
1	6897 23	Vertical - 225mm width Raceways
1	6897 33	Vertical - for 300mm width Raceways
		Coupler for joining Raceways
6	6897 77	Coupling 38
6	6897 79	Coupling 25

Pack Cat.Nos Junction box

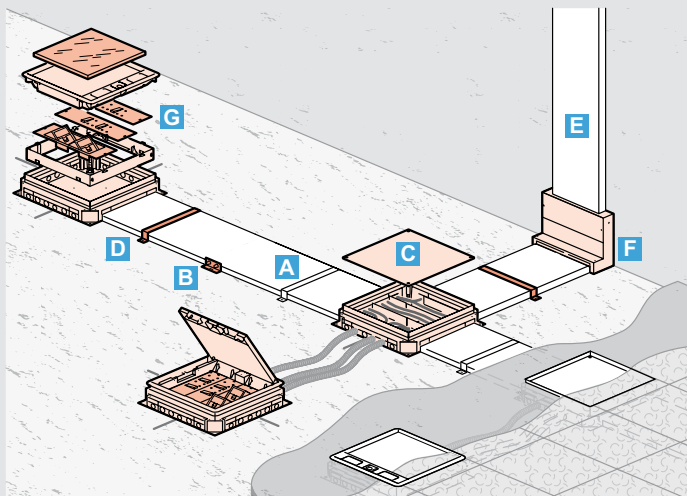
Pack	Cat.Nos	Description
		For direct access to cables at the intersection of Raceways Supplied completely with base and cover plate (Lid)
		Height adjustable junction box 65 - 90mm
1	6896 10	150 x 150 x 65 - 90mm
1	6896 11	225 x 225 x 65 - 90mm
1	6896 12	300 x 300 x 65 - 90mm
1	6896 13	400 x 400 x 65 - 90mm
		Height adjustable junction box 65 - 90mm with fly over
		For direct access to cables at the intersection of floor Raceways while maintaining perfect separation and 90° cross overs between data and power cables
1	6896 14	225 x 225 x 65 - 90mm with flyover
1	6896 15	300 x 300 x 65 - 90mm with flyover
1	6896 16	400 x 400 x 65 - 90mm with flyover
		Height adjustable junction box 50 - 70mm
1	6896 22	150 x 150 x 50 - 70mm
1	6896 23	225 x 225 x 50 - 70mm
1	6896 24	300 x 300 x 50 - 70mm
1	6896 25	400 x 400 x 50 - 70mm
		Optional site cover for junction box
10	6896 18	150 x 150mm metal cover
10	6896 19	225 x 225mm metal cover
10	6896 20	300 x 300mm metal cover
10	6896 21	400 x 400mm metal cover

Optional SS lid for junction boxes available against order

Raceways system

for screed floor

System overview



- A** Raceways
- B** Coupler
- C** Junction box
- D** Fixing bracket
- E** Vertical trunking such as DLP
- F** Riser
- G** Floor box (back-box + lid and trim)
Socket outlets and data socket plates to be ordered separately

Standards - PVC and Metal / GI

Standard EN 60-670 and EN 50085-2-2 concerns systems for distributing currents in the floor (sunken or surface mounted) It ensures constant performance along the entire distribution up to the user connection point

Classification chart

Classification for screed floor		Screed floor
6.2	Resistance to impact for installation and application	2.0 J
6.3	Minimum storage and transport temperature	- 25 °C
6.3	Minimum installation and application temperature	- 5 °C
6.3	Maximum application temperature	+ 60 °C
6.4	Resistance to flame propagation	Non-flame propagating
6.5	Electrical continuity characteristics	Without electrical continuity characteristic (PVC Raceways) with electrical continuity characteristic (metal Raceways & accessories)
6.6	Electrical insulating characteristics	With electrical insulating characteristic (PVC Raceways) Without electrical insulating characteristic (Metal Raceways & accessories)
6.7	Degree of protection provided by enclosure	IP 20
6.9	System access cover retention	With a tool
6.101	Floor treatment	For dry-treatment of floor
6.102	Resistance to vertical load applied through small surface area	1500 N ⁽¹⁾
6.103	Optional classification: resistance to vertical load applied through large surface area	3 000 N
	Rated voltage (PVC Raceways)	500 V
	Protection against mechanical impact	IK 08
	Linear impedance in mΩ/m of metal Raceways length	5 mΩ/m

(1) For 4 compartments, resistance to vertical load applied over a small surface area = 750 N

Raceways - PVC

Materials

Raceway straight lengths are extruded from PVC
Appearance: all PVC Raceway are in grey colour and with smooth finish
Chemical resistance: non-corrosive and not affected by sea water
Excellent resistance to mineral acids, alkalis and detergents but liable to attack from solvents. PVC Raceway is non-conductive
Workability: the Raceway is light weight and can be easily cut with hand tools
Fire: non flame propagating

Product details PVC

Raceways - PVC Cat.Nos 0896 67/68/69/70

PVC floor Raceway allows :

- Distribution of power and data in a concrete floor.

Combines with metal underfloor boxes for cable junction or floor box installation. IP40/IK08, length 2m.

Cabling capacity for PVC floor Raceway : 38mm height

Ø maxi / compartment : → Ø 34mm for floor Raceway height 38mm

Cat.Nos	Dimensions	Number of compartments	Section 45% Fill mm ²
0896 67	50 x 38	1	689
0896 68	100 x 38	1 2	689/689
0896 69	150 x 38	1 2 3	689/689/689

Raceways - Metal / GI

Metal trunkings Cat.Nos 6895 00/01/02/03/04/05/10/11/12/13/14/15

Materials

Raceway - metal and accessories

Material pre-galvanised sheet (DX51D Z120 MAC)
Standard thickness: 1.5mm for body and cover / 1mm for divider
Standard length: 2.44m
Number of compartments: 1 and 3 compartments
Standard depth: 25mm and 38mm

Product details - Metal / GI

Raceways - metal (for example with 225 x 25):

- compartment 1, 2 and 3 have the same capacity

Metal Raceways allows: distribution of power data underneath to the screed floor.

Cat.Nos	Dimensions	Number of compartments	Section 45% Fill mm ²
6895 00	50 x 38		663
6895 01	75 x 38		1040
6895 02	100 x 38		1417
6895 03	150 x 38		2171
6895 04	225 x 38		1118/1150/1118
6895 05	300 x 38		1512/1544/1512
6895 10	50 x 25		397
6895 11	75 x 25		637
6895 12	100 x 25		867
6895 13	150 x 25		1328
6895 14	225 x 25		703/723/703
6895 15	300 x 25		950/970/950

Raceways system

for screed floor

Selection chart

for PVC and metal

Trunkings Cat.Nos 6895 00 to 05, 6895 10 to 15, 0896 67 to 70, 6897 00/01

Trunking	50 x 25 (mm)	75 x 25 (mm)	100 x 25 (mm)	150 x 25 (mm)	225 x 25 (mm)	300 x 25 (mm)	50 x 38 (mm)	75 x 38 (mm)	100 x 38 (mm)	150 x 38 (mm)	225 x 38 (mm)	300 x 38 (mm)
PVC	-	-	-	-	-	-	0896 67	-	0896 68	0896 69	-	-
Metal	6895 10	6895 11	6895 12	6895 13	6895 14	6895 15	6895 00	6895 01	6895 02	6895 03	6895 04	6895 05

Cable capacity guide

The number and location of boxes will depend on the end user requirements.

If the furniture layout is available, a lid & trim should be considered for each workstation or desk.

If the final furniture layout is not available, the minimum recommended distribution is one lid & trim for every 10m², and the maximum being one lid & trim per 4m².

45% available cross section: POWER/DATA CABLES

Trunking	Available section at 45% fill mm ²	Capacity: maximum number of conductors per compartment (for one specific cable type)													
		PVC stranded							Twin & earth			Data cables			
		1,5 ² Ø3.3	2,5 ² Ø4	4 ² Ø4.6	6 ² Ø5.2	10 ² Ø6.7	16 ² Ø7.8	25 ² Ø9.7	2,5 ² Ø10.5	4 ² Ø11.2	6 ² Ø13.7	cat. 5e UTP Ø5.5	cat. 5e STP Ø6	cat. 6 UTP Ø6.5	cat. 6 STP Ø7
225x25	703	82	56	42	33	20	15	10	8	7	5	23	20	17	14
	723	84	57	44	34	20	15	10	8	7	5	24	20	17	15
	703	82	56	42	33	20	15	10	8	7	5	23	20	17	14
225x38	1118	130	89	67	53	32	23	15	13	11	8	37	31	26	23
	1150	134	91	69	54	33	24	16	13	12	8	38	32	27	23
	1118	130	89	67	53	32	23	15	13	11	8	37	31	26	23
300 x 25	950	111	75	57	45	27	20	13	11	10	6	31	26	23	19
	970	113	77	58	46	27	20	13	11	10	7	32	27	23	20
	950	111	75	57	45	27	20	13	11	10	6	31	26	23	19
300 x 38	1512	176	120	91	71	43	32	20	18	15	10	50	42	36	31
	1544	179	123	93	73	44	32	21	18	16	10	51	43	37	32
	1512	176	120	91	71	43	32	20	18	15	10	50	42	36	31
50 x 25	397	46	31	24	19	11	8	5	5	4	3	13	11	9	8
75 x 25	637	74	51	38	30	18	13	9	7	6	4	21	18	15	13
100 x 25	867	101	69	52	41	25	18	12	10	9	6	29	24	21	18
150 x 25	1328	154	105	80	63	38	28	18	15	13	9	44	37	31	27
50 x 38	663	77	53	40	31	19	14	9	8	7	4	22	18	16	14
75 x 38	1040	121	83	63	49	29	22	14	12	11	7	34	29	25	21
100 x 38	1417	165	112	85	67	40	30	19	16	14	10	47	39	34	29
150 x 38	2171	252	172	131	102	61	45	29	25	22	15	72	60	51	44
	754	88	60	45	36	21	16	10	9	8	5	25	21	18	15
	680	79	54	41	32	19	14	9	8	7	5	23	19	16	14
225 x 25	671	78	53	40	32	19	14	9	8	7	5	22	19	16	14
	680	79	54	41	32	19	14	9	8	7	5	23	19	16	14
	689	80	55	41	32	20	14	9	8	7	5	23	19	16	14
100 x 38	689	80	55	41	32	20	14	9	8	7	5	23	19	16	14
	689	80	55	41	32	20	14	9	8	7	5	23	19	16	14
	689	80	55	41	32	20	14	9	8	7	5	23	19	16	14
150 x 38	689	80	55	41	32	20	14	9	8	7	5	23	19	16	14
	689	80	55	41	32	20	14	9	8	7	5	23	19	16	14
	689	80	55	41	32	20	14	9	8	7	5	23	19	16	14

Screed system Raceways complies with EN50085-1: 2005 and draft EN50085 Part 2-2.

The above table gives the available capacity units on 45% factor, applied to the internal wiring area.

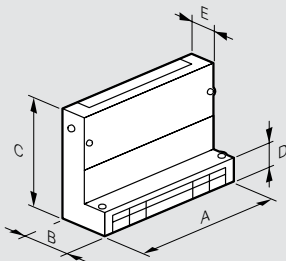
Raceways accessories for screed floor

Junction box for screed floor

■ Dimensions

Riser Cat.Nos 6897 23/33

The riser allows a change of direction (horizontal to vertical) of the Raceways. Conduit or Raceways can be run vertically from the box.

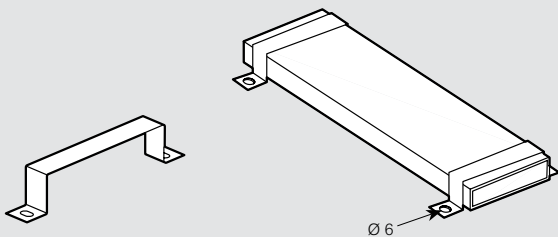


Use for Raceways	Cat.Nos
225 x 38mm PVC or metal	6897 23
300 x 25 / 38mm PVC or metal	6897 33

Cat.Nos	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
6897 23	250	89	201	43	52
6897 33	325	89	201	43	52

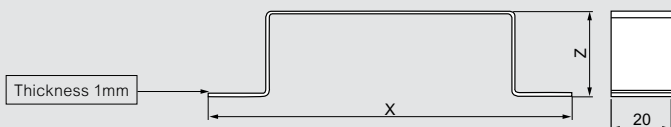
■ Dimensions

Fixing bracket Cat.Nos 6897 09/10/12/15/20/25/27/28/30/35/37/38



For fixing Raceways onto the slab.

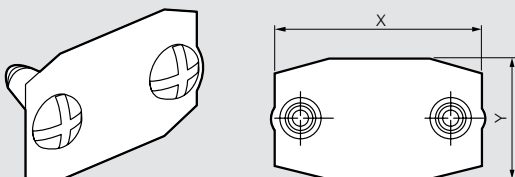
Dimension (mm)



Dimension (mm)

Cat.Nos	Fixing brackets	X	Z
6897 09	50 x 25mm	92	27.5
6897 10	75 x 25mm	120	27.5
6897 12	100 x 25mm	142	27.5
6897 15	150 x 25mm	194	27.5
6897 20	225 x 25mm	267	27.5
6897 30	300 x 25mm	342	27.5
6897 27	50 x 38mm	92	40.5
6897 28	75 x 38mm	120	40.5
6897 37	100 x 38mm	142	40.5
6897 38	150 x 38mm	194	40.5
6897 25	225 x 38mm	267	40.5
6897 35	300 x 38mm	342	40.5

Couplings Cat.Nos 6897 77/79



Used to connect two Raceways lengths

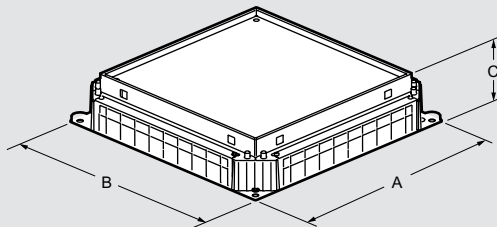
Cat.Nos	Designation	X	Z
6897 77	Coupling 38	55	32
6897 79	Coupling 25	55	19

Thickness: 1mm, Comes with 2 screws M6 x 10

■ Dimensions

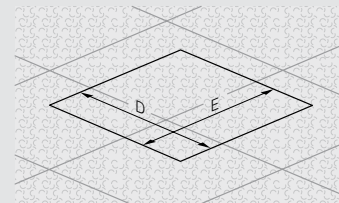
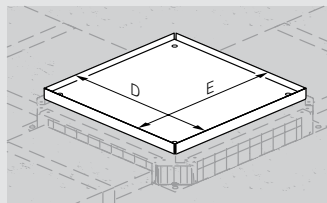
Junction box Cat.Nos 6896 10/11/12/13/14/15/16/22/23/24/25

The junction box should be positioned directly on the slab. It provides access to cables at the intersection of trunkings or changes of direction. The junction box allows deviation of power and data cables. Screen height should be between 65 to 90mm. Junction boxes are supplied with a base with flyovers and a lid. A disposable cover protection is available as an option. Side plates are pierced to suit Raceways.



Dimensions (mm)

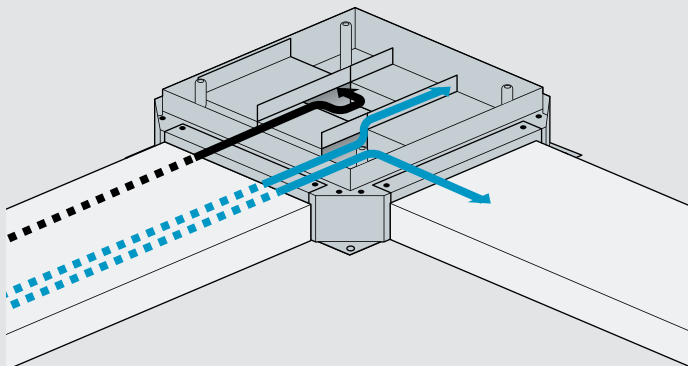
Cat.Nos	A	B	C
6896 10	252	252	65-90
6896 11/14	325	325	65-90
6896 12/15	402	402	65-90
6896 13/16	500	500	65-90
6896 22	252	252	50-70
6896 23	325	325	50-70
6896 24	402	402	50-70
6896 25	500	500	50-70



Dimensions (mm) for carpet cut out

Cat.Nos	D	E
6896 10/22	192.5	192.5
6896 11/14/23	263	263
6896 12/15/24	340	340
6896 13/16/25	437	437

Note: junction box with flyovers include for Cat.Nos 6896 14/15/16



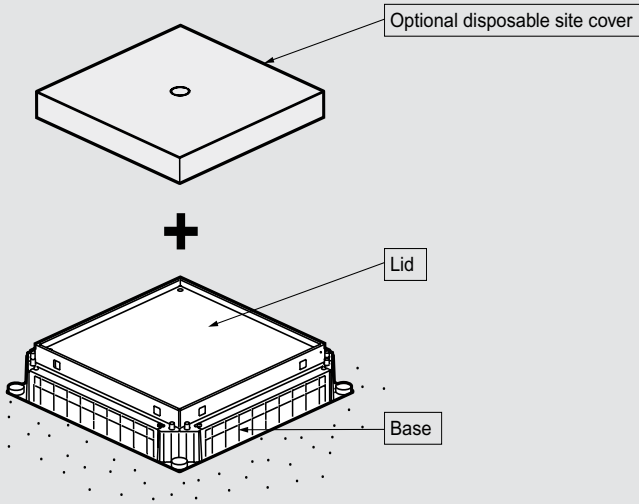
For adjustable junction box, resistance to vertical load applied over a small surface area = 500N
For adjustable junction box, resistance to vertical load applied over a large surface area = 2000N

Junction box for screed floor

Raceways system for screed floor

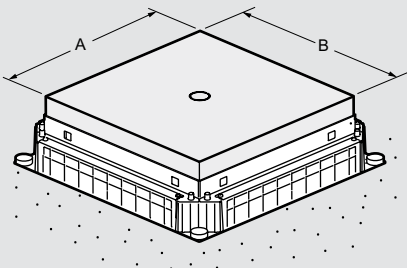
■ Dimensions (continued)

Junction box Cat.Nos 6896 10/11/12/13 & mask Cat.No 6896 18/19/20/21



Raceways	150mm max.	225mm max.	300mm max.	400mm max.
Disposable site cover	6896 18	6896 19	6896 20	6896 21
Junction box	6896 10	6896 11 6896 14	6896 12 6896 15	6896 13 6896 16

A (mm)	B (mm)	A (mm)	B (mm)	A (mm)	B (mm)	A (mm)	B (mm)
198	198	287	267	348	348	446	446

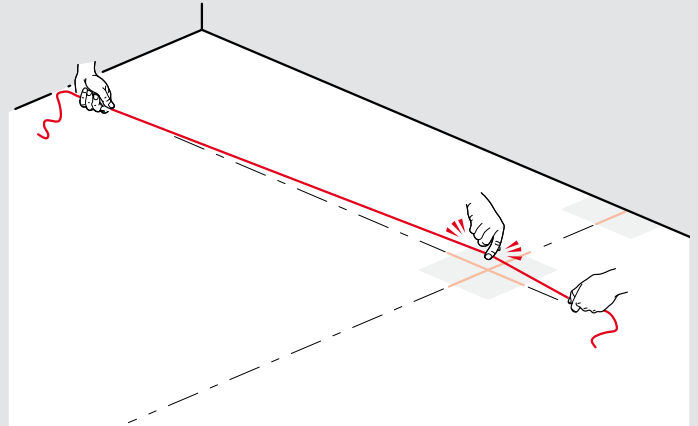


The junction box includes a base, flyovers, lid and the disposable cover protection. The junction box is designed to suit Raceways allows cables to be pulled over long distances.

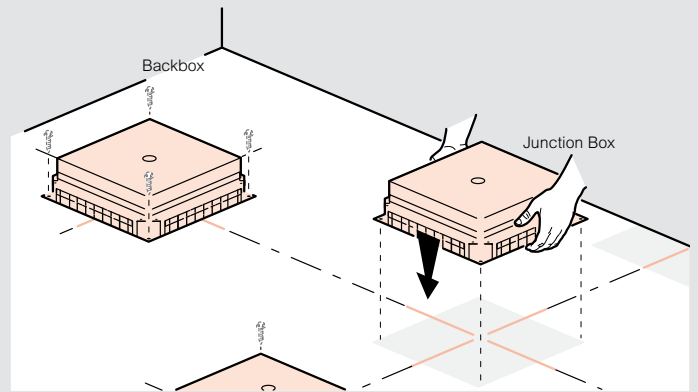
For adjustable junction box, resistance to vertical load applied over a small surface area = 500N
 For adjustable junction box, resistance to vertical load applied over a large surface area = 2000N

■ Installation process

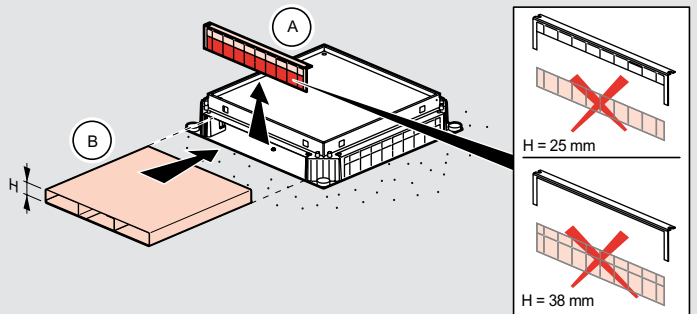
Mark the pathway for Raceways, junction boxes and backboxes.



Fix risers, junction boxes and backboxes on the slab.



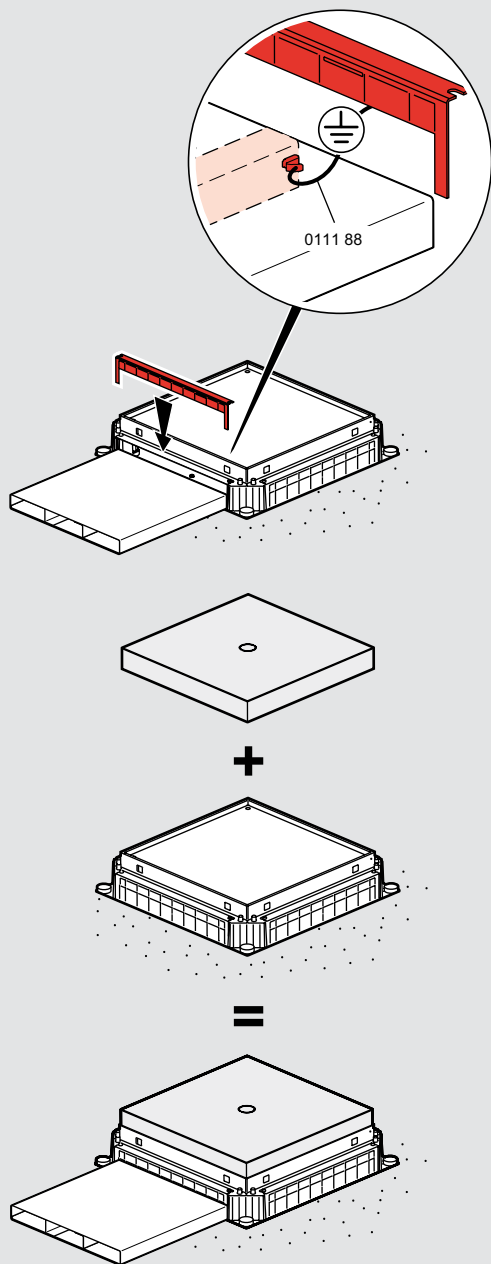
Remove knockouts as per Raceway dimension.



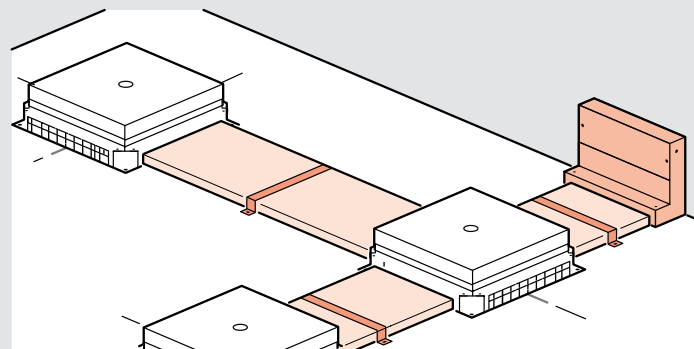
Raceways system for screed floor

Installation process (continued)

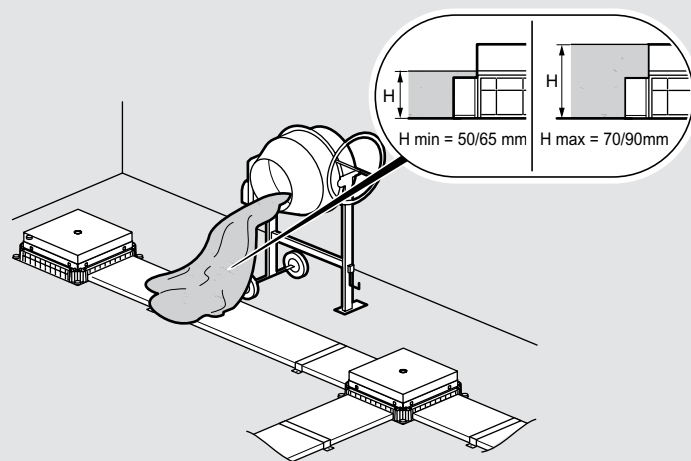
Connect the Raceways to the junction box & fix the knock out to fit the required Raceway.



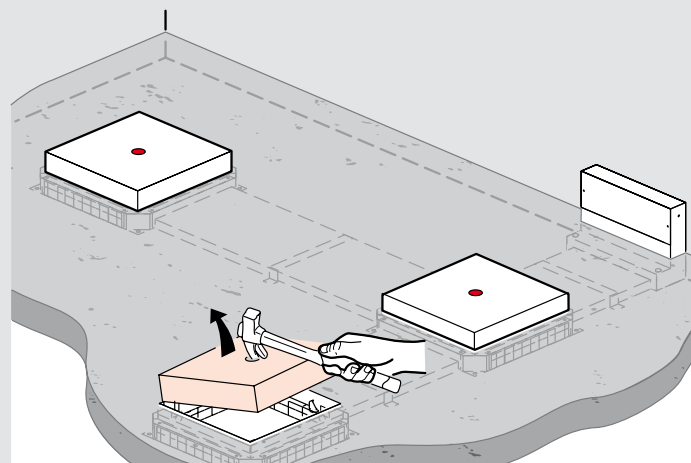
Fix Raceways with couplers and fixing brackets



Execute screeding



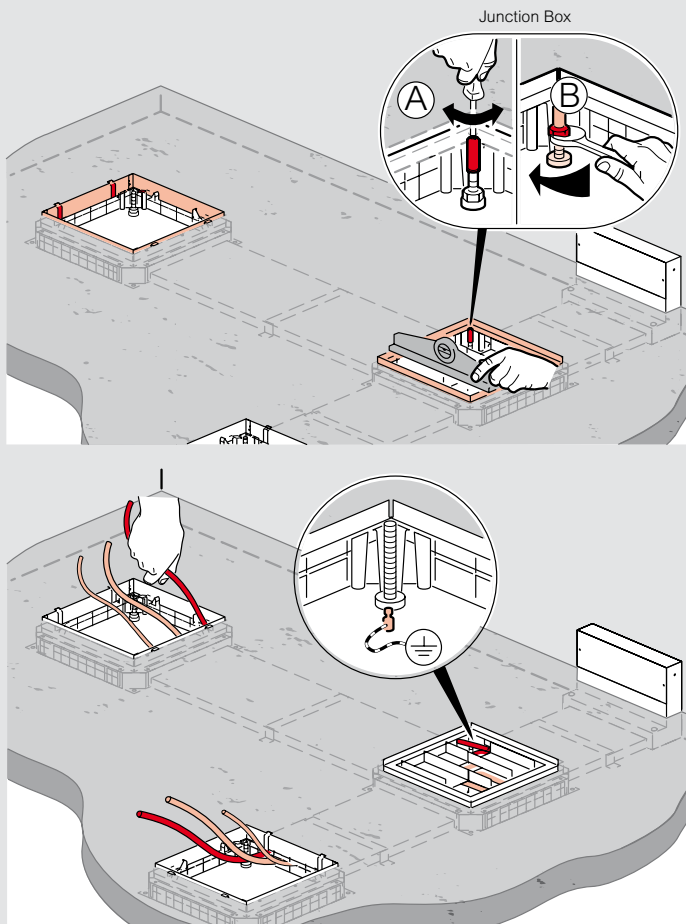
Remove disposable metal cover



Raceways system for screed floor

Installation process (continued)

Adjust junction box to floor level

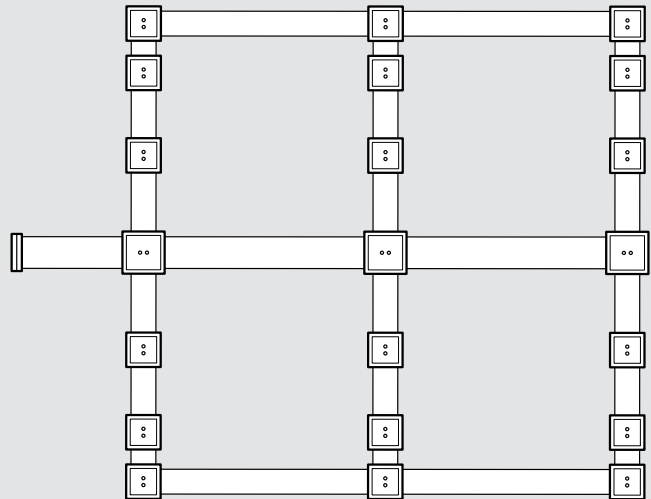


Backboxes and junction boxes don't need to be levelled to screed height. Height adjustment can be done after pouring screed.

Example of layout

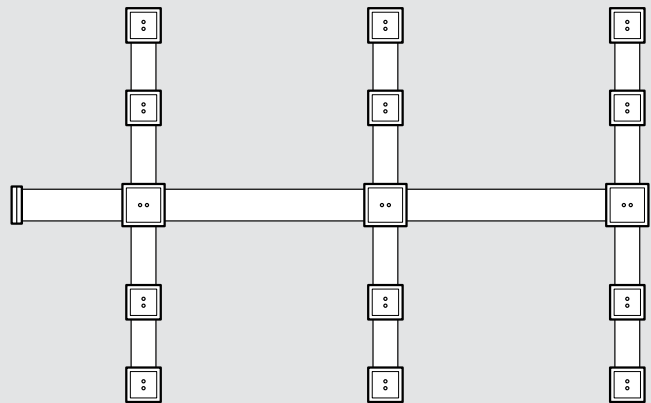
For optimal flexibility of the installation, the trunking is usually installed on either a Grid, Fishbone or a Comb Pattern of single, double or triple runs.

Grid Pattern



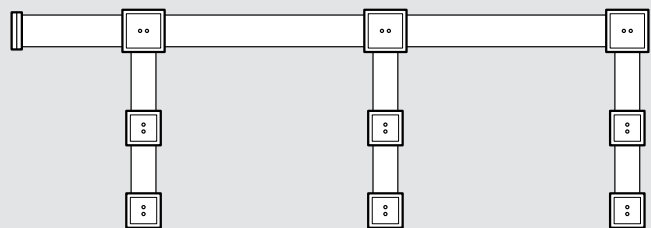
A Grid Pattern is widely used in areas where the occupants require the highest degree of flexibility in reconfiguring workspace. Capacity can be increased by returning individual ring mains through different runs of trunking, which in itself allows easier installation.

Fishbone Pattern



The Fishbone Pattern is ideal for a medium sized area where fewer boxes are required.

Comb Pattern



The Comb Pattern is the most economical way of installation in which a minimum of trunking is used. The Comb Pattern is suited for small to medium office areas.