vektron   ceiling solutions
specification sheet

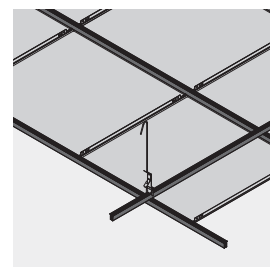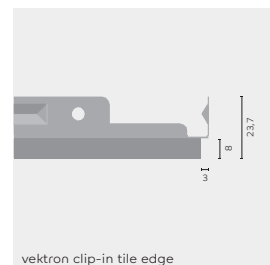| product name	vektron clip-in ceiling system
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vektron ceiling solutions specification sheet

product name	vektron clip-in ceiling system
vektron quality standard	
	vektron metal ceilings are manufactured to the highest international quality standards and must be installed, maintained and cleaned in accordance to our **Operation and maintenance manual**. vektron metal ceilings can be expected to remain durable for over 30 years. All vektron ceiling systems comply with the standard EN 13964.
vektron tiles	
	vektron tiles are manufactured from hot-dipped galvanised steel with a variety of perforations and colours. vektron ceiling tiles are clipped into a concealed suspension system, in accordance with European and TAIM standards.
tile specifications	
material	0,5-0,7 mm hot-dipped galvanised steel with a minimum zinc coating of 50 g/m².
size	vektron clip-in standard tile size: 600 x 600mm cassette panels. Other sizes are available on request and are manufactured with a thickness depending on the dimensions of the vektron tile.
edge	vektron clip-in tiles have a shadow gap of 3mm wide and 8mm high, on every side of the tile.
perforation pattern	The standard perforation has a hole diameter of 2.5mm with a square pitch and an open area of 16.5%. Other perforations are available. (see annex A). Custom perforations on request.
finish	Electrostatically applied polyester powder coating with a paint thickness of minimum 60μm.
colour	8 standard colours available (see annex B) Other RAL colours on request.
gloss rate	≤5% - ≤20% depending on colour. (see annex B)
light reflection	>80%
access to ceiling void	All ceiling panels are removable with access tool.
suspension system	
	Components are manufactured from cold rolled, bended or punched galvanised steel.
clip-in carrier	The clip-in carriers are roll formed double-walled T-shaped profiles (H 25mm x flange width 18mm) out of 0,5mm hot-dipped galvanised steel (DX51D+Z140MA), used as primary and secondary profile. Primary clip-in carrier to be suspended from structural load-bearing ceiling with lower part support hanger. Secondary clip-in carriers are identical to the primary.
carrier splice	Carrier splice made of galvanised steel for connection of clip-in carriers.
support hanger	Hanger made out of galvanised steel with variable system for wire hooks diameter 4mm.
nonius hanger & locking clip	Hanger made of galvanised steel and fully perforated for suspension of ceiling systems. The upper and lower part nonius hanger are connected with a clip, made of galvanised steel.
cross connector	Cross connector made of galvanised steel for connection of primary and secondary clip-in carriers. Available in 2 sizes: H0 = 0mm between carriers H25 = 25mm between carriers

vektron clip-in tile edge

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product name	vektron clip-in ceiling system

edge finishing

vektron ceiling solutions offers several perimeter solutions to finish edges and hide underlying structures.

Surface mounted to the wall
- c-wall
- w-wall
- l-wall

Connecting ceiling system with gypsum ceiling
- edge cover L-connection
- edge cover plaster

Finish for floating ceilings
- edge cover 20
- edge cover 80

bulkhead

Bulkhead panels create an elegant transition between two ceiling levels. Tiles are clipped into the same profiles ensuring a rigid construction to the ceiling transition and can be tailored to specified depths.

luminaries and integrated techniques

The metal ceiling system is compatible with multiple vektron luminaires, vektron integrated techniques and other luminaries and techniques.

acoustics

sound absorption

Perforated cassette panels fitted with acoustic soundtex can achieve a sound absorption ratio of α_w = 0,5-0,9 (DIN EN ISO 11 654) measured in accordance with DIN EN 20 354 (ISO 354).
Perforated cassette panels fitted with acoustic soundtex and extra mineral wool (35cm; 35kg/m^3) can achieve a sound absorption ratio of α_w = 0,95 (DIN EN ISO 11 654) measured in accordance with DIN EN 20 354 (ISO 354)

perfo type	size	non perfo border (mm)	perfo open area (%)	overal open area (%)	α_w
non perfo			0	0	0,1
RS**2516**	round 2,5mm	100	16,5	7,1	0,45
		12	16,5	15,0	0,70
RS**0802**	round 0,8mm	100	1,5	-	-
		12	1,5	1,5	0,60
RD**1821**	round 1,8mm	100	21,0	9,0	0,50
		12	21,0	19,0	0,90
RD**3028**	round 3,0mm	100	30,1	13,2	0,45
		12	30,1	27,7	0,60
RS**3238**	round 3,2mm	100	38,3	16,5	
		12	38,3	27,7	
RS**5048**	round 5,0mm	100	48,2	22,3	0,45
		12	48,2	44,2	0,60
SS**5025**	square 5,0mm	100	25,6	11,7	
		12	25,6	23,4	
SS**8041**	square 8,0mm	100	41,9	18,2	
		12	41,9	37,6	

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product name	**vektron clip-in ceiling system**
longitudinal sound reduction	Max. longitudinal sound reduction in accordance with EN ISO 717-1 for a full perforated tile with backing of 35mm wool (35 kg/m^3) and gypsum board of 9.5mm: $D_{n,c,w}(C;C_{tr}) = 50(-3;-10)$ dB
reaction to fire	
	Reaction to fire: vektron clip-in ceiling systems are tested in accordance with EN 13501-1 and DIN 4102 part 1, the vektron clip-in ceiling system achieves the class A2-s2,d0.
manufacturing tolerances	
	vektron cassette panels and all corresponding subconstruction parts are manufactured in accordance with international quality standard for metal ceilings TAIM (Technical Association of Industrial Metal Ceiling Manufacturers) and EN 13964.
installation & maintenance	
	The installation and maintenance has to be executed in accordance with the **Operation and maintenance manual**.

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annex A   **perforations**
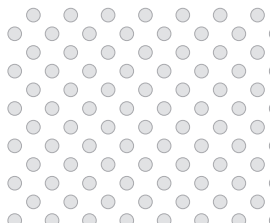
RD**1821**
diameter: 1,8mm
diagonal pitch: 2,47mm
% open area / perfofield: 21%
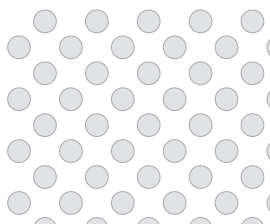
RD**3028**
diameter: 3,0mm
diagonal pitch: 3,43mm
% open area / perfofield: 30,1%

RS**0802**
diameter: 0,8mm
square pitch: 5,0mm
% open area / perfofield: 1,5%
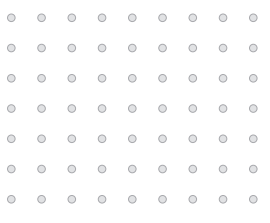
RS**1005**
diameter: 1,0mm
square pitch: 4mm
% open area / perfofield: 5%

RS**1810**
diameter: 1,8mm
square pitch: 2,47mm
% open area / perfofield: 10%
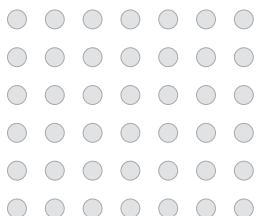
RS**2516**
diameter: 2,5mm
square pitch: 5,5mm
% open area / perfofield: 16,5%
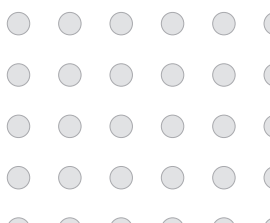
RS**3015**
diameter: 3,0mm
square pitch: 6,86mm
% open area / perfofield: 15%

vektron ceiling solutions specification sheet

RS**3238**
diameter: 3,2mm
square pitch: 4,6mm
% open area / perfofield: 38,3%
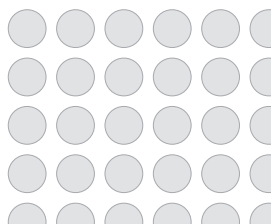
RS**5048**
diameter: 5mm
square pitch: 6,4mm
% open area / perfofield: 48,2%

SS**5025**
diameter: 5mm
square pitch: 10mm
% open area / perfofield: 25,6%
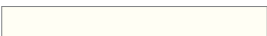
SS**8041**
diameter: 8mm
square pitch: 12,5mm
% open area / perfofield: 41,9%
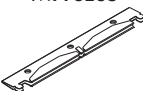
vektron ceiling solutions specification sheet

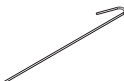| annex B	colours and gloss rate
	vektron grey, gloss ≤ 10%
	vektron white, gloss ≤ 6%
	RAL9006, gloss ≤ 20%
	RAL7035, gloss ≤ 5%
	RAL7044, gloss ≤ 3%
	RAL9010, gloss ≥ 20%
	RAL9016, gloss ≤ 5%
	RAL9004, gloss ≤ 3%

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VK**770033**	clip-in carrier	VK**770126**	clip-in locking part
VK**770123**	cross connector H0	VK**7770185/1**	low nonius hanger 45mm lower part
VK**770125**	end cross connector H0	VK**770185/2**	low nonius hanger 75mm lower part
VK**770133**	cross connector H25	VK**770186/1**	low nonius hanger 45mm upper part
VK**770135**	end cross connector H25	VK**770186/2**	low nonius hanger 75mm upper part
VK**770163**	carrier splice + t-connection	VK**770184**	nonius hanger lower part
VK**770164**	t-connection	VKX**770184xxx**	nonius hanger upper part
VKX**770033016**	clip-in carrier mounting corner	VK**710113**	nonius locking clip
VK**770120**	profile wall anchor	VK**770183**	support hanger lower part
VK**770174**	flat mounting bracket	VKX**770183xxx**	support hanger ø 4mm upper part
VK**770182**	threaded support hanger H20	VK**760133**	c-wall profile clip
VK**770181**	threaded support hanger H100		