

DATA CENTRES

Basket cable trays and accessories for Data Centres

Security is a must in Data Centers. These are critical infrastructures, where each risk must be detailed, evaluated, and controlled to guarantee its operativity.

As a result of our deep knowledge and commitment to innovation, VALDINOX offers the best wire mesh cable tray which provides a patented self-assembling system that eliminates fixing accessories between tray sections, thus reducing cost and time.

EASYCONNECT is resistance and safety in just 1 click

Always attentive to the needs of our clients, we bring our extensive experience, highly specialized technical knowledge and one of the largest production capacities in Europe, to exceed our clients' expectations by offering the appropriate solutions and the shortest delivery delays.



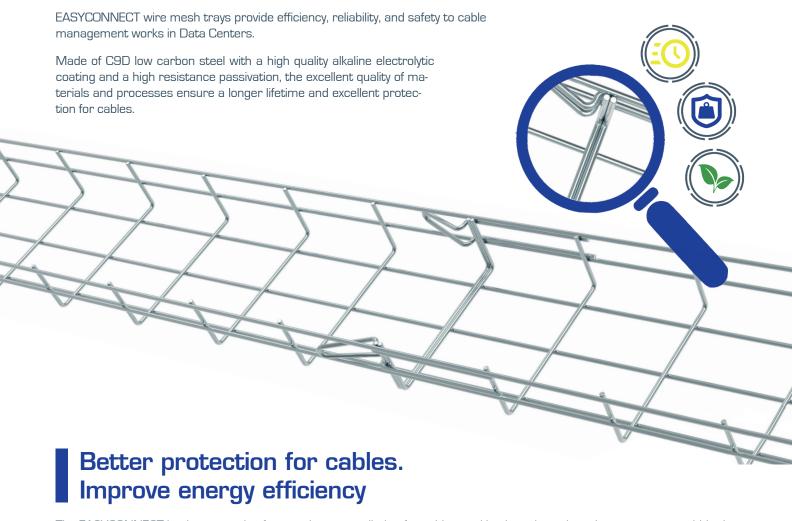




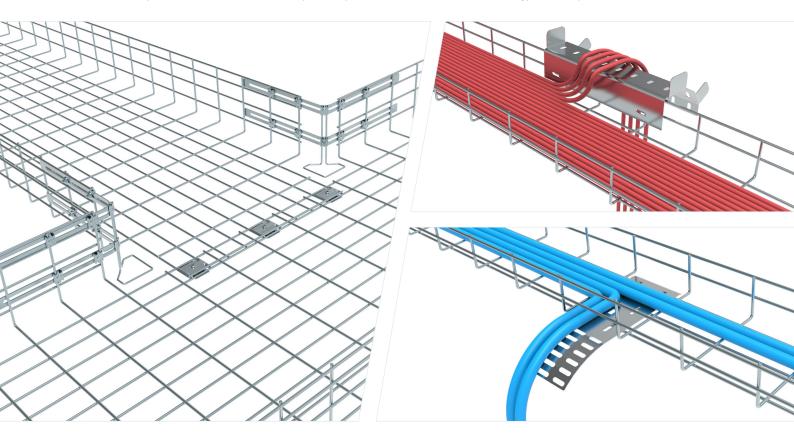




EASYCONNECT, Resistance and Safety in 1 click



The EASYCONNECT basket trays also favors a better ventilation for cables, making it easier to keep its temperature within the limits indicated by the manufacturer, for the optimal operation and more efficient energy consumption.



Optimal management of fiber optic cables

Characteristics of fiber optic cables require that cable layout is carefully designed, considering the limits for the bending radius to avoid attenuation of transmission capacity and ensure a reliable and uninterrupted signal quality.

Attenuation can be minimized by reducing the number of bends and by increasing the bend radius. Each fiber optic cable manufacturer specifies the minimum bend radius. This parameter must be respected to guarantee the properties and transmission capacity of the cables.

TIP: Take the dimension of the external diameter of the Cable and multiply it by 20, in order to obtain an approximate reference value of the minimum bend radius [Rc]. That is, Rc = 20 x Dc [where Dc is the outer diameter of the cable jacket].

VALDINOX cable trays and accessories for Data Centers have been designed considering the characteristics of fiber optic cables

> PATENTED DESIGN

The patented design of EASYCONNECT fixing system, not only provides a faster and safer installation, but it also eliminates fixing accessories, bolts and screws that might constitute a risk to the integrity of the cables due to their angular shapes.

> CFK ACCESSORIES

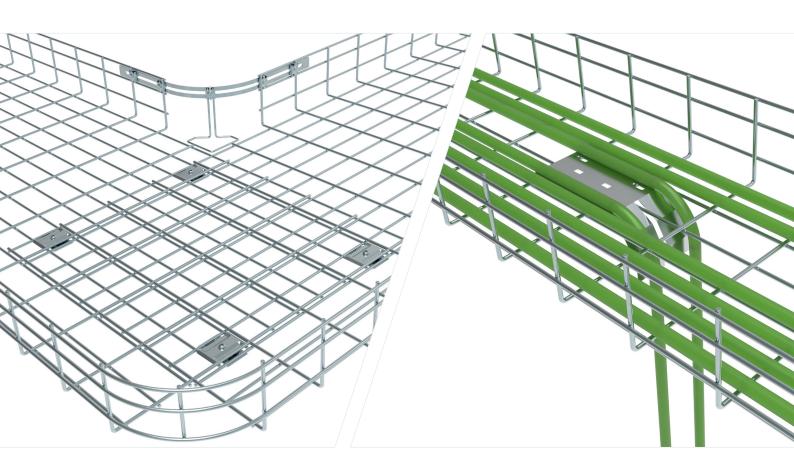
CFK accessories provide additional protection for cables at bends and crossings.

> CABLE DROP-OUT PLATES

Cable drop-out plates comply with the bending radius of fiber optic cable allowing optimal performance and transmission capabilities

> QUICK FIXING SYSTEM

All accessories provide quick fixing systems, no-screws required.



High quality coating The zink whiskers phenomenon

This phenomenon, little studied to date, has regained interest in recent years due to the increasing miniaturization of electronic components and the proliferation of data processing centers..

Zinc-based electrolytic coatings generate microfilaments of zinc of about 10 µm in size that, transported by air, could cause short circuits in electronic components. However, this risk is negligible as well as being quite difficult to verify since these microfilaments would vaporize without leaving evidence of their existence the moment the short circuit is produced.

VALDINOX has conducted a pioneer study to evaluate different types of electrolytic coatings, including different passivation layers and sealants, both metallic and organic and mixed, concluding that there is no zinc-based coating or any type of sealant or subsequent passivation that prevents the generation of Zink Whiskers.

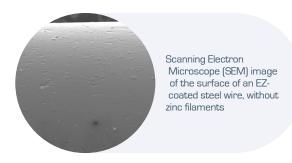
The results of the study confirm the theory that the surface tension is a determining parameter in the appearance of zinc microfilaments.

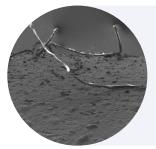
This research has been published by the prestigious MDPI Scientific Open Access Journal in a special issue dedicated to corrosion and protection of metallic materials in extreme environments.

There are plenty of electro-plated zinc components in addition to cable trays, such as screws, mounting profiles, frames, doorknobs, etc., within a Data Center, however their design is constantly improving, incorporating advanced cooling systems that include air filters capable of block the dispersion of particles smaller than $0.3\,\mu m$.

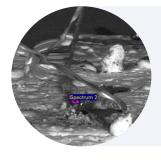
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The full report is available here: https://www.mdpi.com/2075-4701/11/2/325

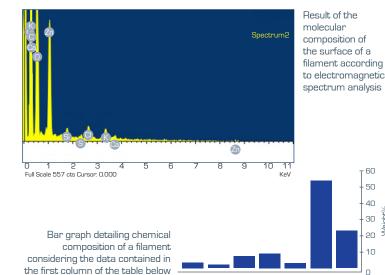




Zinc whisker: Scanning electron microscope (SEM) image of zinc whiskers on the surface of EZ-coated steel wire



Magnified image of the filament and selection of the surface under analysis (spectrum 2)



Element	Weight%	Atomic%	Compd%	Formula
Si K	3.36	4.12	7.18	Si02
S K	1.83	1.97	4.57	SO3
CI K	7.00	6.81	0.00	
KK	8.46	7.46	10.19	K20
Ca K	2.97	2.55	4.15	CaO
Zn L	53.75	28.34	66.90	ZnO
0	22.63	48.76		
Totals	100.00			

Zn

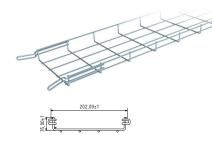
Table detailing chemical analysis of a filament (traces of other molecules and elements are detected due to exogenous contamination over the surface)

Easyconnect basket cable trays and accessories



EZ	HDG	304 IN 316L	H (mm)	W (mm)	Su* (cm²)	SWL (N/m)
EC30.060EZ	EC30.060HDG	EC30.060IN	35	70	16,92	172
EC30.100EZ	EC30.100HDG	EC30.100IN	35	102	26,87	178
EC30.150EZ	EC30.150HDG	EC30.150IN	35	152	42,42	188
EC30.200EZ	EC30.200HDG	EC30.200IN	35	202	57,97	199
EC30.300EZ	EC30.300HDG	EC30.300IN	35	302	87,43	221





EZ	HDG	IN IN 316L	H (mm)	W (mm)	Su* (cm²)	SWL (N/m)
EC60.060EZ	EC60.060HDG	EC60.060IN	55	60	22,69	290
EC60.060EZ-6W	EC60.060HDG-6W	EC60.060IN-6W**	51	66	23,74	290
EC60.100EZ	EC60.100HDG	EC60.100IN	60	102	48,47	323
EC60.150EZ	EC60.150HDG	EC60.150IN	60	152	76,52	345
EC60.200EZ	EC60.200HDG	EC60.200IN	60	202	104,57	368
EC60.300EZ	EC60.300HDG	EC60.300IN	60	302	158,63	413
EC60.400EZ	EC60.400HDG	EC60.400IN	60	402	211,86	457
EC60.500EZ	EC60.500HDG	EC60.500IN	60	502	266,73	502
EC60.600EZ	EC60.600HDG	EC60.600IN	60	602	321,93	547
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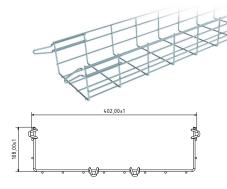


Length: 3 m

EZ	HDG	IN IN 316L	H (mm)	W (mm)	Su* (cm²)	SWL (N/m)
EC100.150EZ	EC100.150HDG	EC100.150IN	108	152	139,79	441
EC100.200EZ	EC100.200HDG	EC100.200IN	108	202	191,64	462
EC100.300EZ	EC100.300HDG	EC100.300IN	108	302	292,88	504
EC100.400EZ	EC100.400HDG	EC100.400IN	108	402	395,46	546
EC100.500EZ	EC100.500HDG	EC100.500IN	108	502	498,66	588
EC100.600EZ	EC100.600HDG	EC100.600IN	108	602	601,86	630

Length: 3 m

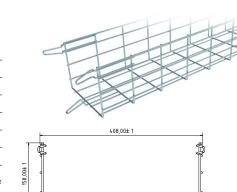
^{*} Sección transversal / Cross Section / Section transversale



EZ	HDG	N N N N	H (mm)	W (mm)	Su* (cm²)	SWL (N/m)
EC150.200EZ	EC150.200HDG	EC150.200IN	155	208	285,08	599
EC150.300EZ	EC150.300HDG	EC150.300IN	158	308	443,05	606
EC150.400EZ	EC150.400HDG	EC150.400IN	158	408	596,25	615
EC150.450EZ	EC150.450HDG	EC150.450IN	155	458	659,68	623
EC150.500EZ	EC150.500HDG	EC150.500IN	158	508	749,45	631
EC150.600EZ	EC150.600HDG	EC150.600IN	158	608	902,04	638

Length: 3 m

^{*} Sección transversal / Cross Section / Section transversale



Length: 3 m

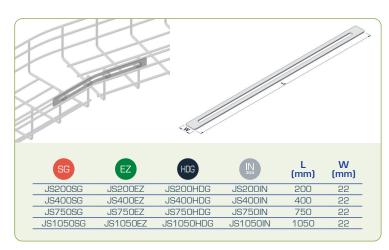
^{*} Sección transversal / Cross Section / Section transversale ** H=55 mm; W=73 mm; Su=29,4 cm²



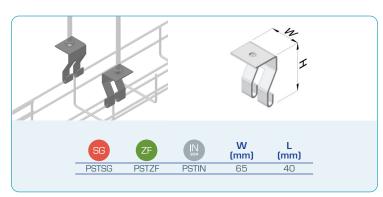
TYPE OF ACCESSORY

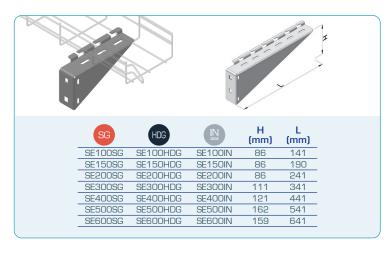
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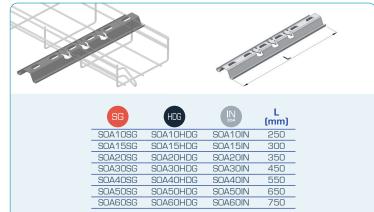
Supporting



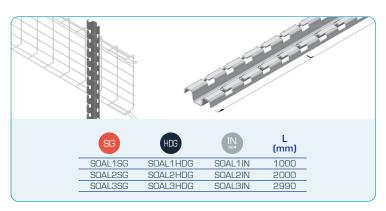


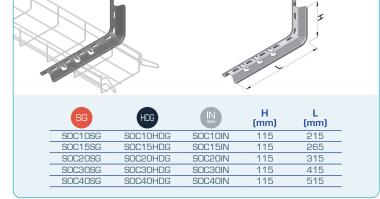


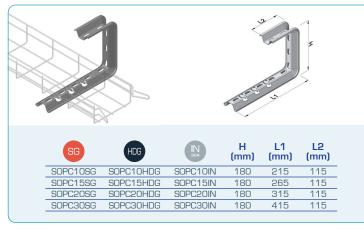




Installation











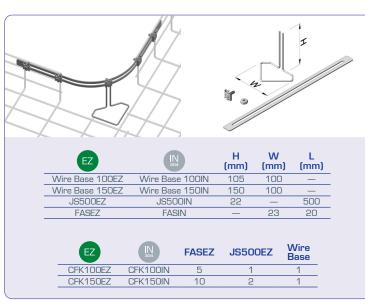


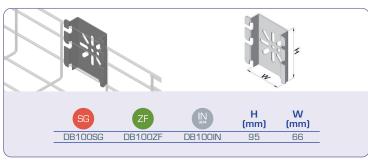


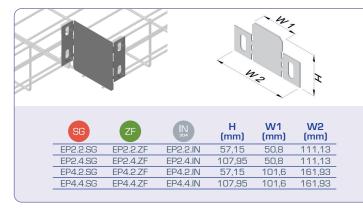


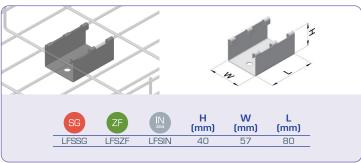


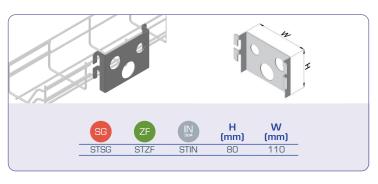


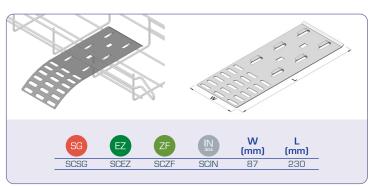


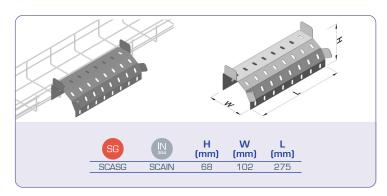


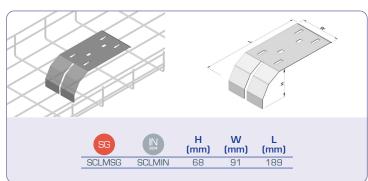


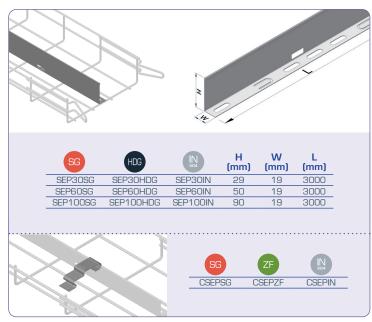














Experience

VALDINOX supplies wire mesh trays for all types of projects around the world, guaranteeing quality and performance. We provide in-depth knowledge as a result of a 40 year industrial experience working alongside engineering firms, construction companies and installers.









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