

Valdinox

THE CABLE TRAY COMPANY



Discover new concepts:
FAST. EASY.



Easyconnect is Easy. Just Click It!

Easyconnect es fácil. Haz Click!

Easyconnect est facile. Faites click!

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1. INTRODUCTION / INTRODUCCIÓN / PRESENTATION

VALDINOX EasyConnect smart design for faster cable installations.

Patented EasyConnect basket tray offers a true and unique "easy to install" alternative to traditional cable and basket tray systems. **EasyConnect minimizes time and cost on cable installations.**

VALDINOX EasyConnect: diseño inteligente para instalaciones más rápidas.

Las bandejas portacables EasyConnect ofrecen la auténtica alternativa "fácil de instalar" respecto a los sistemas tradicionales. **EasyConnect minimiza el tiempo y el coste de las instalaciones.**

VALDINOX EasyConnect: superbe concept pour installations plus rapides.

Les chemins de câble EasyConnect offrent une véritable alternative "facile à installer" aux systèmes traditionnels de chemins de câble. **EasyConnect minimise le temps et le coût des installations de câbles.**

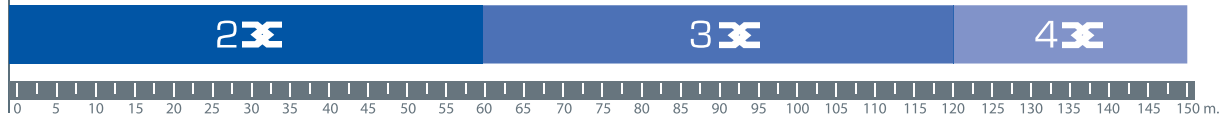
SAVE TIME: INSTANT ASSEMBLING!
AHORRE TIEMPO: ENSAMBLAJE INSTANTÁNEO!
GAGNEZ DU TEMPS: ASSEMBLAGE INSTANTANÉE!

EASYCONNECT

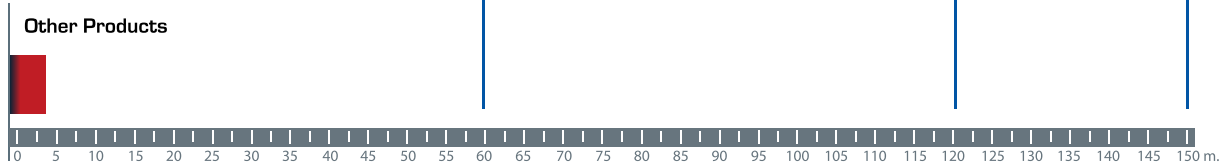
EC30.60 - EC30.100 - EC30.150 - EC30.200
 EC60.060 - EC60.100 - EC60.150

EC30.300 - EC60.200 - EC60.300 - EC100.200
 EC100.300

EC60.400 - EC60.500 -
 EC60.600 - EC100.400 -
 EC100.500 - EC100.600



INCREASE PRODUCTIVITY (COEFICIENT): X20 X40 X50



SAVE MONEY: No fittings needed to get the basket trays connected.
AHORRE DINERO: No necesita accesorios para su unión.
RÉDUISSEZ LES COÛTS: Aucun accessoire n'est nécessaire pour l'assemblage.

COST SAVING ANALYSIS TRAY SIZE 60.100	NORMAL BASKET TRAY	EC SYSTEM 3x	
Number of fittings needed	1000	0	SAVE MONEY: No fittings needed. Reduce the cost of installation by 30%.
Time for assembly per tray (seconds)	60	3	
Costs of Joints (Average unit cost 1 Euro)	1.000,00 Euros	0,00 Euro	
Total time of installation assembly (seconds)	20.000	1.000	SAVE TIME: Instant assembling, Only 3 seconds; metres installed increase x 20
Total time of installation assembly (h/m/s)	5:33:20	0:16:40	ENVIRONMENTALLY FRIENDLY
Weight / Material Steel (kg) per joint 0,03 kg	30	0	



02 | VALDINOX: FAST. EASY.



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2. QUALITY CERTIFICATION / CERTIFICADOS DE CALIDAD / CERTIFICATS DE QUALITE

EASYCONNECT COMPLIES WITH ALL INDUSTRY REGULATIONS.
 EASYCONNECT CUMPLE CON TODOS LOS REGLAMENTOS REQUERIDOS.
 EASYCONNECT EST CONFORME À TOUTES LES RÉGLAMENTATIONS REQUIS.



CE - IEC 61537:2007 - Cable tray systems and cable ladder systems for electrical installations.

Classified UL - Certificate Number 20120618-E35049

EasyConnect trays have been investigated by **UL** in accordance with the Standard(s) for Safety: **Article 392 of NFPA 70, "National Electrical Code" - 2011, NEMA VE 1-2009, CSA C22.2 No. 126.1-09, Cable Tray Systems.**

Valdinox applies the following international regulations and tests to assure the highest quality and performance.

MAXIMUM SAFE WORKING LOADS

- **IEC 61537:2007** "cable tray systems and cable ladder systems for electrical installations"
- **NEMA VE 1-2009, CSA C22.2 No. 126.1-09, Cable Tray Systems**
- **National Fire Protection Agency's standard NFPA 70 - Article 392 "National Electrical Code" - 2011.**

ELECTRICAL CONTINUITY

- **IEC 61537: 2007** "cable tray systems and cable ladder systems for electrical installations" **Clause. 11.1.**

SHORTCUT

- **UNE 61914:2009** Cable Cleats for Electrical Installations. Applies only to cable cleats and it is advisory, not regulatory. EasyConnect trays have been used to comply with shortcut tests.

FIRE RESISTANCE: E-30-60-90

- **IEC 61537: 2007 -** Resistance to Flame Spread. **Clause 13.1.3.**
- **DIN 4102-2:1977-09:** Fire behavior of Building Materials and Building Components.
- **DIN4102-12:1998-11:** Fire behavior of building materials and building components. **Part 12: Circuit integrity maintenance of electric cable systems; requirements and testing.**

IMPACT RESISTANCE

- **IEC 61537: 2007 Clause 10.9 - Up to 20J impact.**

FREE FROM HEXAVALENT CHROMIUM

- **RoHS 2002/95/CE and WEEE 2002/96/CE**








CORROSION PROTECTION














- **IEC 61537** establish equivalence between the corrosion resistance class and the duration of the neutral salt spray test **UNE-EN ISO 9227:2012**, going from Class 0 [no protection] to Class 8 [More than 850 hours in salt spray chamber].
- **ISO 9227:2012**, "Corrosion tests in artificial atmospheres — Salt spray tests". This International Standard specifies the apparatus, the reagents and the procedure to be used in conducting the **neutral salt spray (NSS)**, **acetic acid salt spray (AASS)** and **copper accelerated acetic acid salt spray (CASS)** tests for assessment of the corrosion resistance of metallic materials, with or without permanent or temporary corrosion protection.

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3. TECHNICAL INFORMATION / INFORMACIÓN TÉCNICA / INFORMATIONS TECHNIQUES

3.1. Finishing Type - Corrosion Protection / Tipo de acabado - Protección contra la corrosión / Type de finition - Protection contre la corrosion

SYMBOL	BASKET TRAY FINISHING TYPE	THICKNESS OF COATING	TEST RESULTS STANDARD ISO9227:2012		CLASS IEC 61537
			No Corrosion (Hours)	Hours to Red Corrosion <2%	
	EZ: ZINC Electro plated (Fe/ZN)	Thickness Min 8- Max 12 mm // Average 10.1 mm	190	900	2
	EZ-D: Dichromium ZINC Electro plated (Fe/ZN)	Thickness Min 8- Max 12 mm // Average 10.1 mm	440	1000	4
	HDG: Hot Dip Galvanized*	Thickness Min 85mm // Average 100 mm	850	1500	8
	EP: Epoxy Polyester	Thickness Min 60mm - Max 80 mm	300	800	4
	AL: ZnAl Aluminum Alloy	Thickness Average 55 mm	800	1200	8
	SS 304: Stainless Steel with after treatment Classification 9D		700	3000	8
	SS 316: Stainless Steel with after treatment Classification 9D		4300	no corrosion detected	8
* Test methods of ISO 9227:2012 do not apply to HDG plating. Tests applied according to ISO 1461:2010					

ENVIROMENT CONDITIONS	FINISHING TYPE
Humidity Levels	BASKET TRAY
Indoors Normal	
Indoors High Humidity	
Outdoors Normal	
Outdoors High Humidity	
Chemical characteristics	
Saline Environment	
Environment with presence of SO2	
Acid environment	
Alkaline environment	
Environment with presence of halogens	
Industry type	
Food & Pharma Industries: IN, EP, G	
Marine & Shipbuilding Industries	
Chemical Industries	
Oil & Gas Industries	



3. TECHNICAL INFORMATION / INFORMACIÓN TÉCNICA / INFORMATIONS TECHNIQUES

3.2 ELECTRICAL CONTINUITY

To ensure electrical continuity according to IEC 61537, always install grounding clamps in the basket trays. Grounding clamps should be placed every **12 metres (3 Lengths) - 16 metres (4 Lengths)** of basket tray.

3.2 CONTINUIDAD ELÉCTRICA

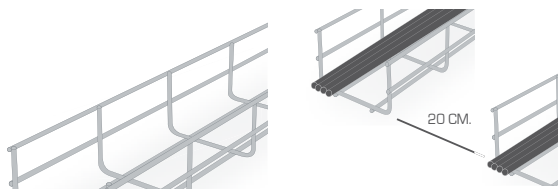
Para asegurar la continuidad eléctrica de acuerdo con la IEC 61537, siempre instalar tomas de tierra. **Las tomas de tierra deben de ser situadas cada 12 metros (3 bandejas) a 16 metros (4 bandejas).**

3.2. CONTINUITÉ ÉLECTRIQUE

Pour assurer la continuité électrique conformément à la norme IEC 61537, installez toujours mis à terre. **Les visser de terre doivent être placés tous les 12 mètres (3 longueurs) à 16 mètres (4 longueurs).**



3. TECHNICAL INFORMATION / INFORMACIÓN TÉCNICA / INFORMATIONS TECHNIQUES



3.3 ELECTROMAGNETIC COMPATILTY - ECM

A cable tray installation must have an excellent electrical continuity and must be connected to earthing system in order to achieve a good ECM of theelectric installation.

Patented EasyConnect trays and MClic fittings assure electrical continuity.

3.3 COMPATIBILIDAD ELECTROMAGNÉTICA - ECM

Las instalaciones de cableado mediante bandejas de acero deben tener una excelente continuidad eléctrica y disponer de conexión a tierra para asegurar la buena ECM de la instalación eléctrica.

Las bandejas patentadas EasyConnect y las uniones MClic permiten la continuidad eléctrica del sistema.

3.3 COMPATIBILITE ELECTROMAGNETIQUE - ECM

Les installations de câblage utilisant chemin de câbles en fil métallique doivent avoir une excellente continuité électrique et être connectés au système de mise à terre pour assurer une bonne ECM.

Les Chemins de câbles EasyConnect et les fixations MClic permettant la continuité électrique du système.

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3. TECHNICAL INFORMATION / INFORMACIÓN TÉCNICA / INFORMATIONS TECHNIQUES

3.4 SAFE WORKING LOAD CAPACITY

All Safe Load Test have been performed and certified by independent external engineering under the requirements of IEC 61537.

3.4 CAPACIDAD DE CARGA SEGURA







Todos los Test de Carga Segura han sido realizados y certificados por ingenierías externas independientes bajo los requisitos de la norma IEC 61537.

3.4 CAPACITÉ DE CHARGE DE TRAVAIL MAXIMALE

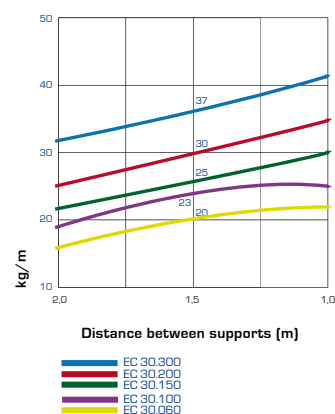
Tout les tests de charge sécurisée ont été effectués et certifiés par des firmes d'ingénierie indépendantes en vertu des exigences de la norme IEC 61537.

IEC 61537 TYPE 2 TEST REQUIREMENTS	
TEST CONDITIONS:	
* Longitudinal Deflection <1% (distance between supports) = 15 mm	
* Transversal Deflection <5% Base Tray	
* The tray must bear a Load 1.7 times the working load without collapsing	
SAFE LOAD is:	
* The load creating a deflection of L/20 at the end = 1 cm.	
* The load divided by 1,7 when it reaches deflection of L/20 = 1 cm	
SAFETY MARGIN is the worst value for:	
* The load creating a deflection equal to 1%	
* The load divided by 1.7 when deflection of 1% does not cause damage.	

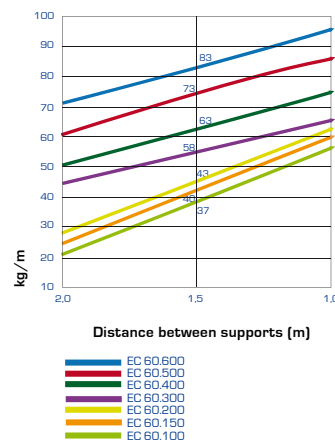
Load Distribution: Uniform along the tray	(metres)
Tray Length	3
First support (L)	1,5
Distance between supports	2
Distance between tray connection and support	0,5
Safe Load Longitudinal Deflection (1% of L)	0,015

 LIGHT DUTY / CARGA LIGERA / CHARGE LEGER	  MEDIUM DUTY / CARGA MEDIA / CHARGE MOYENNE	   HEAVY DUTY / CARGA PESADA / CHARGE LOURDE
EC-30.060	EC-30.200	EC-60.400
EC-30.100	EC-30.300	EC-60.500
EC-30.150	EC-60.100	EC-60.600
EC-60.060	EC-60.150	EC-100.200
	EC-60.200	EC-100.300
	EC-60.300	EC-100.400
		EC-100.500
		EC-100.600

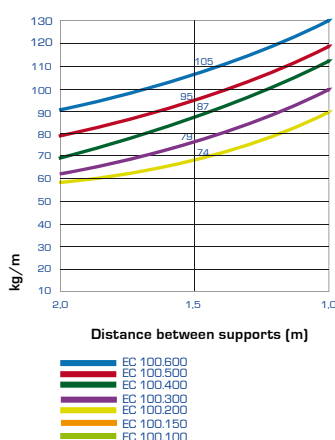
SAFE WORKLOAD - EASYCONNECT 30



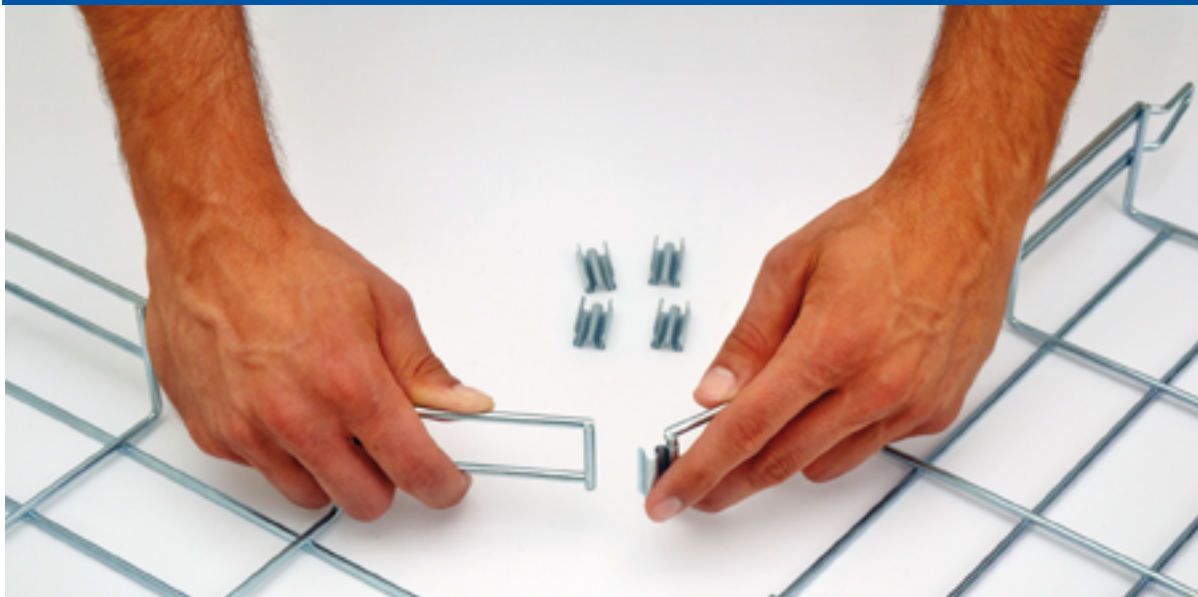
SAFE WORKLOAD - EASYCONNECT 60



SAFE WORKLOAD - EASYCONNECT 100



3. TECHNICAL INFORMATION / INFORMACIÓN TÉCNICA / INFORMATIONS TECHNIQUES



Basket trays provide advantages compared to trays made of metal sheet:

- Allows complete visualization and inspection of cables.
- Easiest and fastest maintenance and repair operations.
- Provides appropriate ventilation and temperature of cables.
- Prevents from dirt accumulation among cables and reduce risks.
- Provide same workload capacities.
- Saves material, using less steel.
- Requires less accessories.

Las bandejas de rejilla proporcionan muchas ventajas frente a las bandejas de chapa perforada:

- Permite la visualización completa y facilita la inspección de cables.
- Facilitan las operaciones de mantenimiento y reparación.
- Proporcionan ventilación y temperatura adecuada de los cables.
- Evita la acumulación de suciedad y reduce riesgos.
- Proporciona capacidades de carga similares.
- Ahorra material, minimizando el uso de acero.
- Requiere menos accesorios.

Les chemins de câble en fil métallique offrent plusieurs avantages par rapport aux autres alternatives:

- Permettent la visualisation complète et l'inspection des câbles.
- La réparation et l'entretien des câbles est plus facile et rapide.
- Assurent la ventilation et la température appropriée des câbles.
- Empêchent l'accumulation de poussière et réduits les risques.
- Donnent mêmes capacités de charge de travail.
- Économise matériel, en utilisant moins d'acier.
- Requier moins d'accessoires.

Installation of Supports:

VALDINOX guarantees safe load capacity of EasyConnect trays providing that the space between supports is no greater than 2 meters. VALDINOX recommends a distance between supports of 1.5m.

Colocación de los Soportes:

EasyConnect garantiza una capacidad de carga segura siempre que la distancia entre soportes no sea superior a 2 metros. VALDINOX recomienda una distancia de 1,5 m. entre soportes.

Emplacement des Supports:

VALDINOX garantit la capacité de charge sécurisé pour les chemins de câble EasyConnect tandis que l'espace entre les supports ne dépasse pas 2 mètres. VALDINOX recommande une distance entre supports de 1,5 m.

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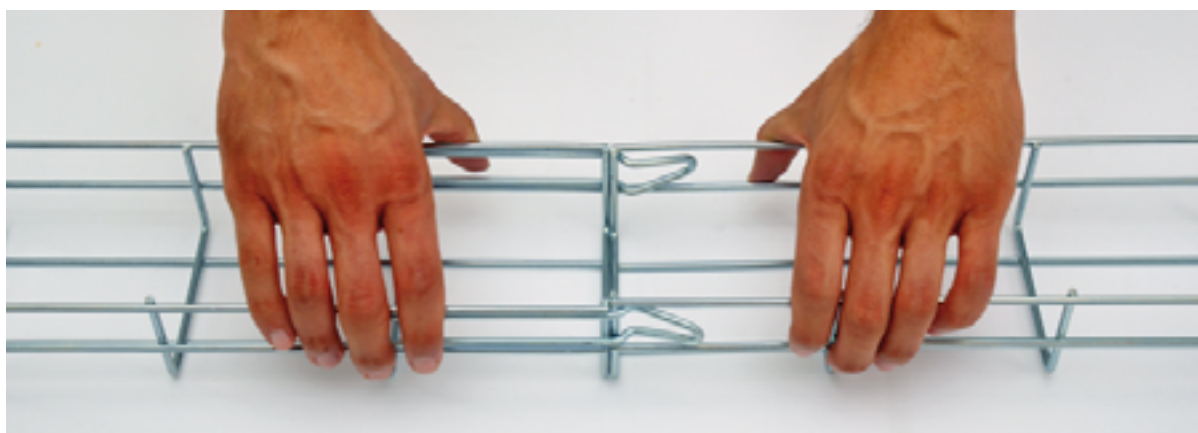
4. INSTALLING EASYCONNECT / INSTALACIÓN DE EASYCONNECT / INSTALATION DU EASYCONNECT



1^o Place the opposite ends of 2 EasyConnect trays. / Sitúe los extremos opuestos de 2 bandejas EasyConnect. / Placez les extrémités opposées de 2 chemins de câble EasyConnect



2^o Slide the clips of one tray to fit them into the side and base wires of the other tray. / Coloque uno de los clips por el exterior y aproxime ambas bandejas. / Glissez les clips du chemin de câble pour les faire entrer dans les fils latéraux et la base de l'autre chemin de câble



3^o Press to click them in!..CLICK, and READY!. / Presione una bandeja contra la otra... CLICK, y LISTO!. / Puis poussez et .. CLICK, C'EST PRÊT!



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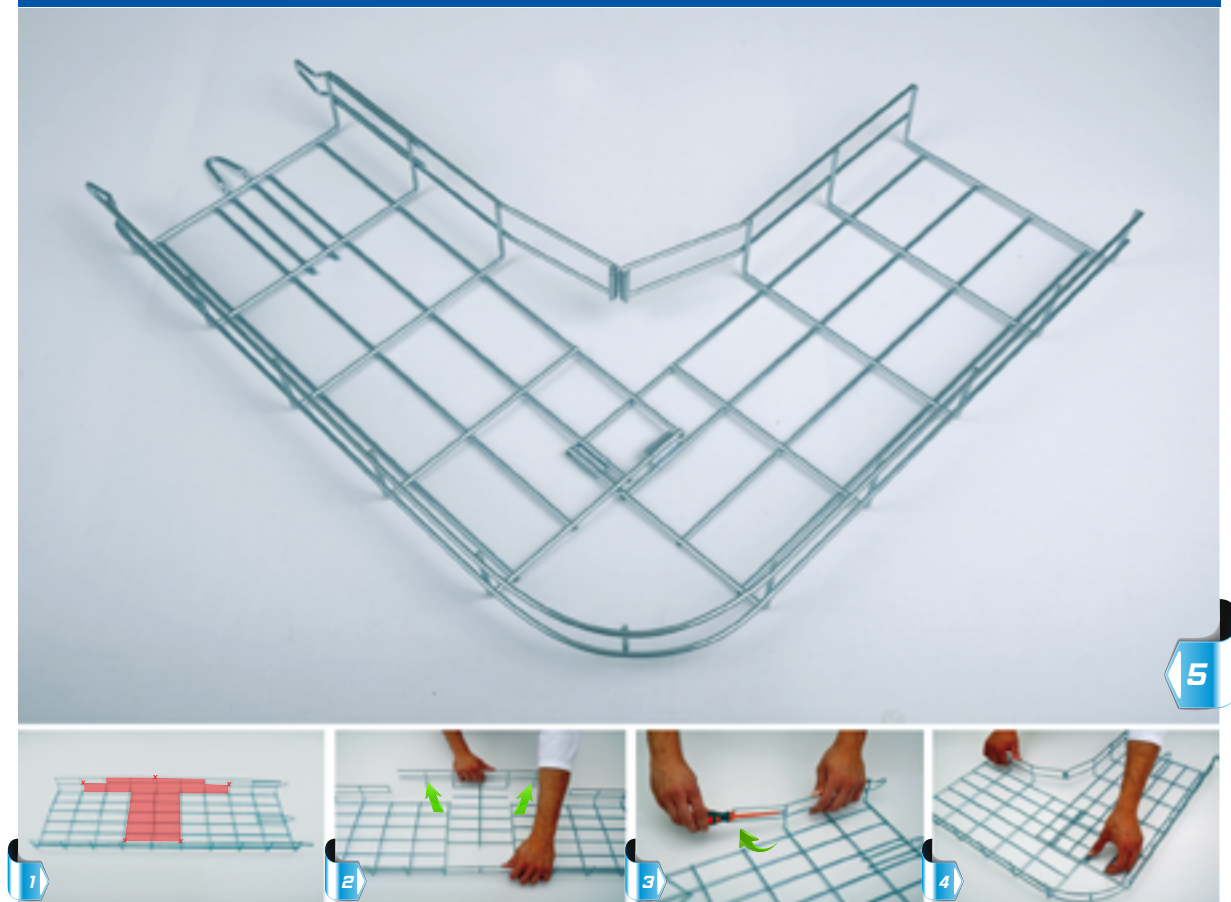
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4.1 MAKING ANGLES / FORMAR ÂNGULOS / RÉALISATION D'ANGLES



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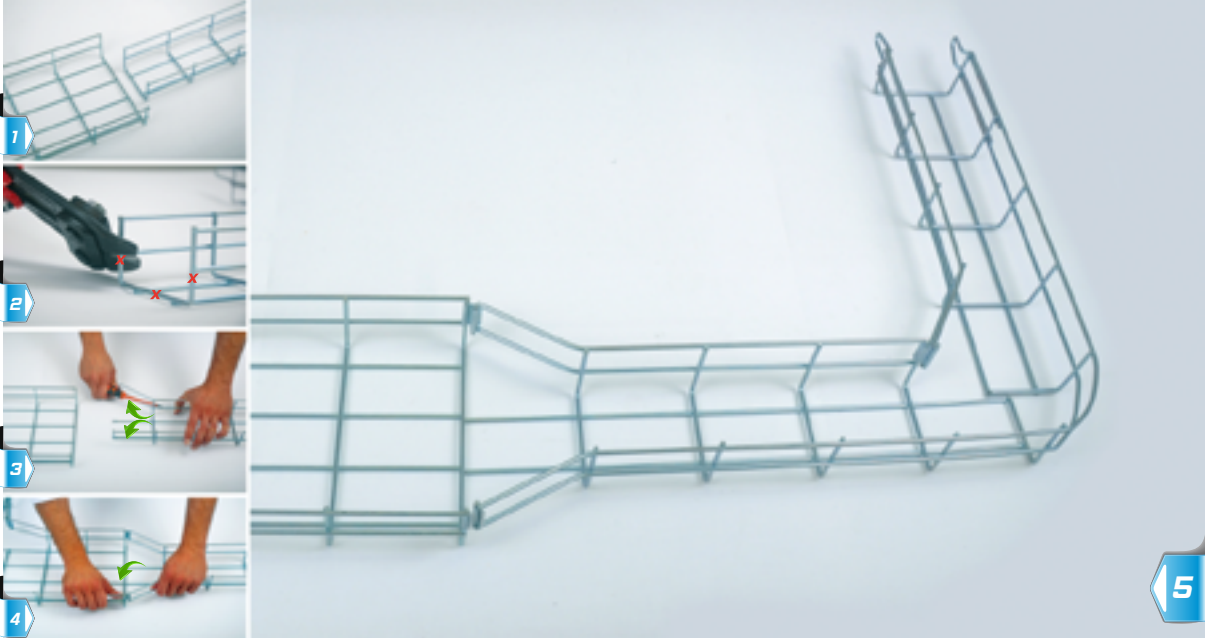


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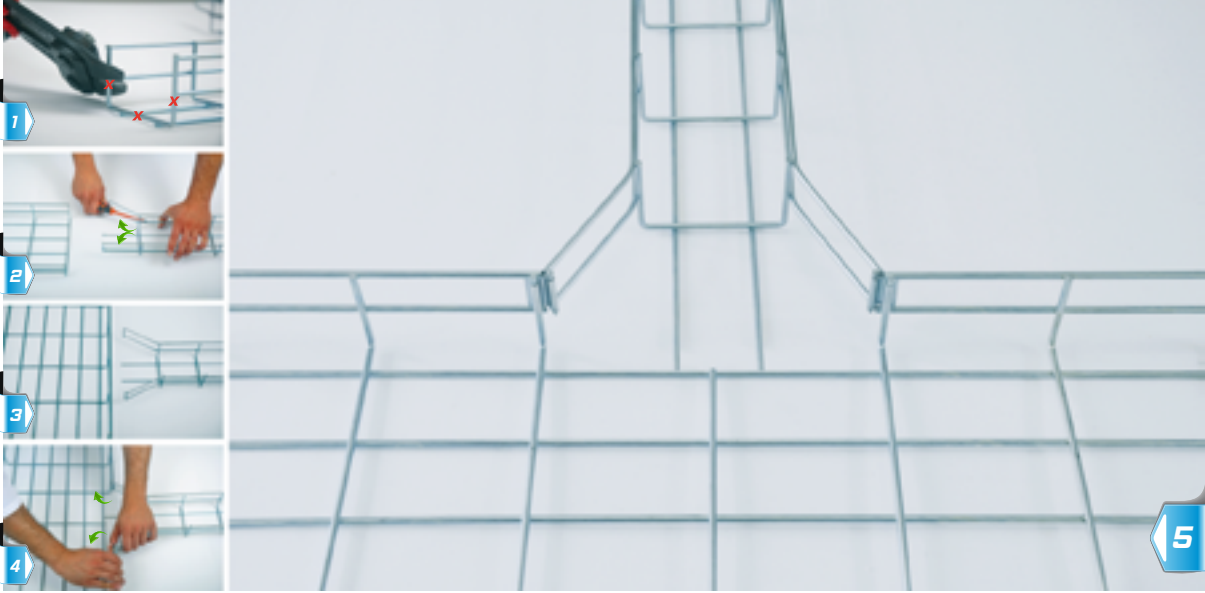
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4.4 SIZE REDUCTION / REDUCCIONES / RÉDUCTIONS

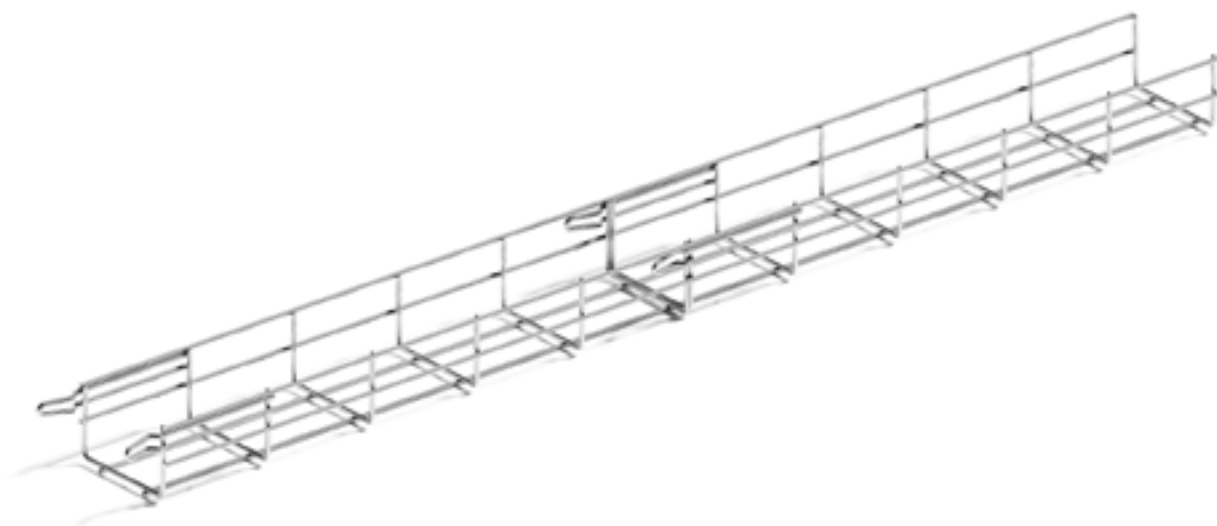


4.5 T-JOINTS / UNIONES EN T / JONCTIONS EN T



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www.valdinox.com



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