

WARNING : Do not use a cable tray as a walkway, ladder or support for people; cable tray is a mechanical support system for cables and raceways. Using cable trays as walkways can cause personal injury and also damage cable tray and installed cables.

Installation and maintenance of cable tray & wiring works shall be performed by qualified personnel familiar with standard electrical construction practices, electrical equipment, and safety of electrical wiring systems.

When considering the installation of the cable supports system it is imperative to avoid the cutting or drilling of structural building members without the approval of the project leader on site.

Cable ladders, cable trays, wire mesh cable trays and their supports should be strong enough to meet the load requirements of the cable management system including cables and any future cable additions and any other additional loads applied to the system.

People on the working site must wear protective helmets, shoes, gloves and other safety requirements as per necessary regulations.

Hazardous voltages in electrical equipment can cause severe personal injury or death. Safety related work practices should be followed at all times. The performance of a cable tray wiring system is dependent on its proper installation, including supports and cables. Neglecting above guidelines may lead to personal injury as well as damage to property.

LOADING, UNLOADING & STORAGE INSTRUCTIONS:

Site deliveries should preferably only be made where suitable forklift truck or cranes. The delivered material must be treated with care. Lifting must only be carried out from the sides and the forklift truck tines must pass below a complete bundle. Tines must never be inserted into the end of the bundle, unless provision is made such as special packaging and/or extended tines. For unloading by crane suitable lifting beams should be inserted from side to side beneath a bundle and these must be sufficiently long to avoid undue pressure on the edges of the bottom components. The tensioned banding used for securing bundles of equipment during transport is not suitable for lifting purposes. When cutting this banding appropriate eye protection must be worn to avoid injury. Sheared steel (particularly pre-galvanized or stainless steel) does have relatively sharp edges and protective gloves must be worn during handling. All products must be warehoused in roofed closed and aired premises. Keep away from any water! For protection of uncovered places / damaged at assembly, applying zinc spray paint is recommended.

Wet storage stain (White Rust) is caused by the entrapment of moisture between surfaces of closely packed and poorly ventilated material for an extended period. Wet storage stain is usually superficial, having no affect on the properties of the metal.

Light staining normally disappears with weathering. Medium to heavy build up should be removed in order to allow the formation of normal protective film. Proper handling and storage will help to assure stain-free material. If product arrives wet, it should be unpacked and dried before storage. Dry material should be stored in a well ventilated low moisture" environment to avoid condensation formation.

UYARI : Kablo kanal / merdivenlerini insanlar için yürüme, merdiven ya da bir destek gibi kullanmayınız. Kablo kanalı, kablolar için mekanik destek olarak kullanılır. Kablo kanalları merdiven veya yürüyüş yolları gibi kullanılırsa kişisel yaralanmalar neden olabilir ve ayrıca kablo kanalının kendisine ve yüklü olan kablolara hasar da verebilir. Kablo kanalın performansı, düzgün kurulumuna bağlıdır. Kablo kanalın montajı ve sonraki bakımı sadece yetkili ve yeterli eğitim görmüş personel tarafından yapılmalıdır.

Güvenlik kurallarına uygun olarak bu kişiler, ürünlerimizin montajı, kablo çekimi ve bakımı sırasında, koruyucu ayakkabı, eldiven, kask vb. gerekli tüm güvenlik ekipmanları kullanılmalıdır.

YÜKLEME, BOŞALTMA ve DEPOLAMA TALİMATLARI:

İndirme ve boşaltma işlemleri mümkünse forklift ya da vinç kullanarak dikkatle yapılmalıdır. Forklift bıçakları kablo kanallarının içine sokulmamalıdır. Vinç kullanıldığında yüke uygun kasnak seçilmelidir. Ürünler metal ve ağır olduğundan tüm işlemlerde koruyucu ayakkabı, eldiven, kask vb. gerekli tüm güvenlik ekipmanları kullanılmalıdır. Ürünler üstü kapalı ve kuru ortamda depolanmalı, nemli ve ıslak şartlardan uzak tutulmalıdır.

Islak depolama lekesi (beyaz pas), kötü havalandırılan ve bitişik paketlenen metallerin yüzeylerinde oluşur. Beyaz pas yüzeysel olduğu için malzemenin karakteristiğini etkilemez. Küçük lekeler havalandırınca geçer. Malzeme ıslak ise paketlenmemeli ve kuruması için bekletilmelidir. Kuru ürünler iyi havalandırılmış ve az nemli ortamlarda saklanmalıdır. Dış ortamda depolama tercih edilmemelidir.

Firmamız bu katalogta belirtilen bütün bilgileri habersiz olarak değiştirme hakkına sahiptir. Katalogta yapılmış hatalar için firmamız yasal olarak sorumlu tutulamaz. Yine, üretim şartları nedeniyle ürünlerimizin ölçülerinde +/- %10 tolerans bulunmaktadır.

CHOICE OF METAL FINISHING:

Hot Dip Galvanised (HDG) (Galvanised after manufacturing of cable trays):

The minimum zinc coating thickness on the surfaces is 45µm (325gr/m²) and the average coating thickness on the surfaces is about 55µm (395gr/m²) in accordance with EN ISO 1461 quality standard. Usage life of hot-dip galvanised cable trays & support units is predictable in any environments and it can keep its protective feature even in the heaviest atmospheric conditions. It can last at least 10-20 years in the heaviest industrial mediums and in regions close to seaside, and longer than 25 years in less harmful environments, without requiring any repair maintenance service. In situations where a maintenance is actually required, galvanising is very simple compared with the repair required by other protection methods. If any hot dip galvanised product is cut or deformed then it must be galvanised again for protection against corrosion on cut or deformed surfaces.

Note: The zinc coating color being bright view at the first times, will later have a protective layer with a dull gray color.

Pregalvanised (PG) (Galvanised before manufacturing of cable trays):

Its zinc coating thickness on the pregalvansed steel surfaces has a changing value from 10µm to 20µm (70gr/m² 140gr/m²) in accordance with EN 10346. Cable trays & support elements manufactured from pregalvanized steel is recommended to be used closed and dry (inside buildings) lacking corrosive effects. Consequently, choosing cable trays made of pregalvanised steel where suitable conditions are available provides an economical advantage. If any pregalvanised product is cut or deformed then it must be galvanised again for protection against corrosion on cut or deformed surfaces.

Electrogalvanised (EG) (Galvanised after manufacturing of cable trays):

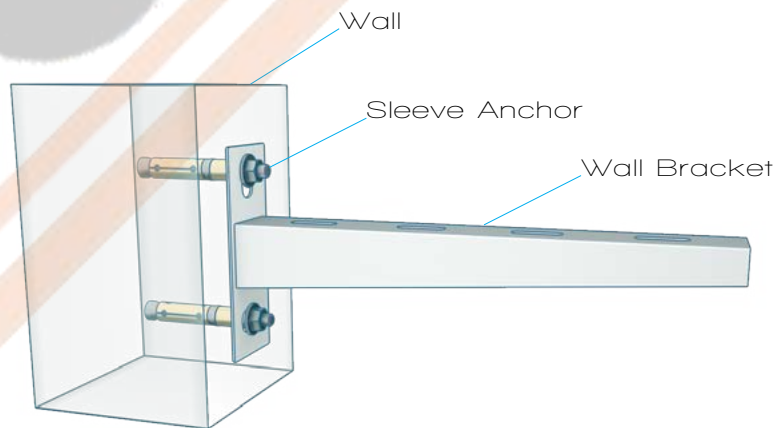
The zinc coating thickness by this method is 8µm. Electrogalvanised products are recommended to be used closed and dry (inside buildings) lacking corrosive effects. If any electrogalvanised product is cut or deformed then it must be galvanised again for protection against corrosion on cut or deformed surfaces.

Stainless Steel (SS):

Stainless steel products are ideal for use indoors & outdoors in hard environments (e.g. industrial sites where there are high levels of potent airborne pollution: chemical industries, cellulose related industries, refineries, artificial fertiliser factories, highly humid tunnels, etc.) and/or environments where special hygiene requirements are in force, such as dairies, abattoirs, other food industries as well as pharmaceuticals factories.

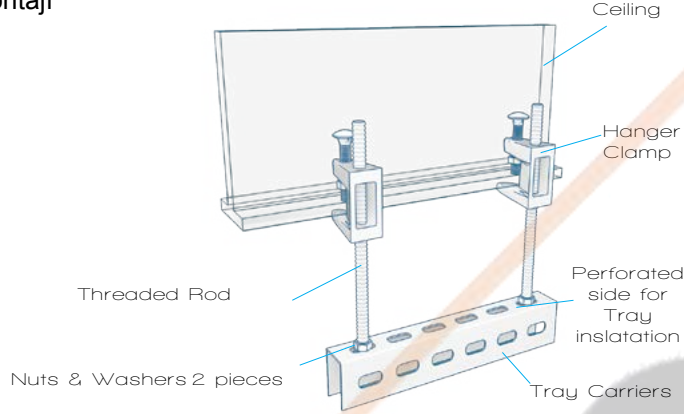
Mounting of Horizontal Wall Brackets

Duvar Konsollu Montajı



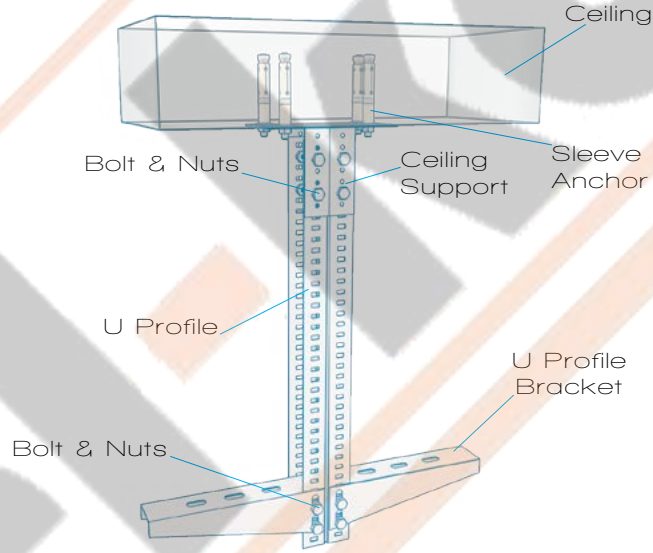
Mounting of Tray Carrier with Threaded Rod

Tijli Kanal Taşıyıcıların Montajı



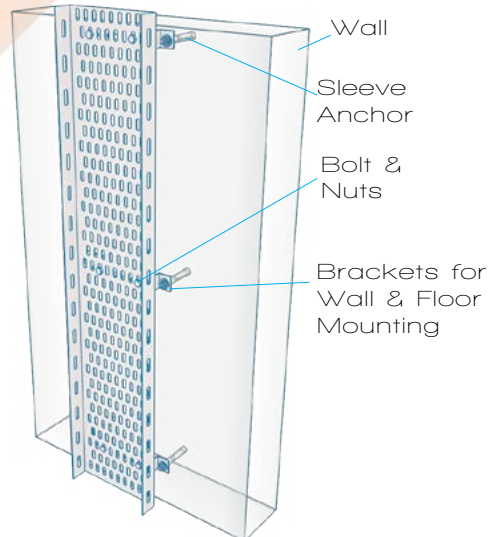
Mounting of U support, C support, I Support, L Support

U, C, I ve L Destek Sistemlerinin Montajı



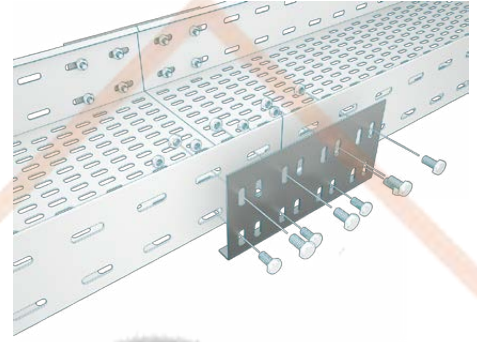
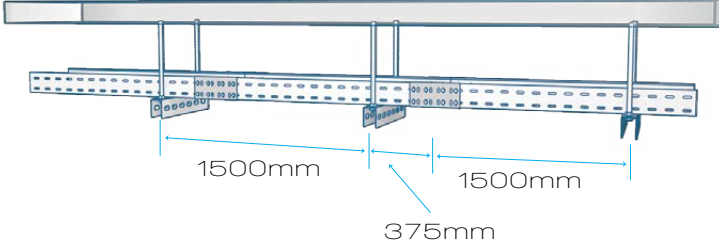
Mounting of Wall & Floor Bracket

Yere ve Duvara Sabitleme Elemanının Montajı



Mounting of Straight Connectors (Couplers)

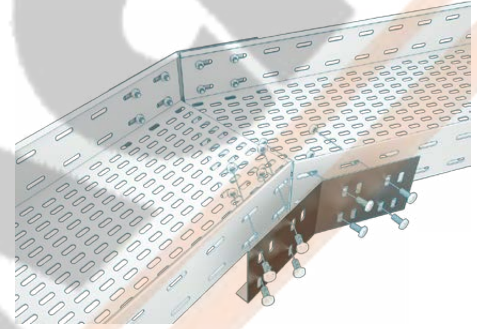
Bağlantı Elemanlarının Montajı



Mounting of Horizontal Adjustable Connectors

Yatay Seviye Değişirme Elemanının Montajı

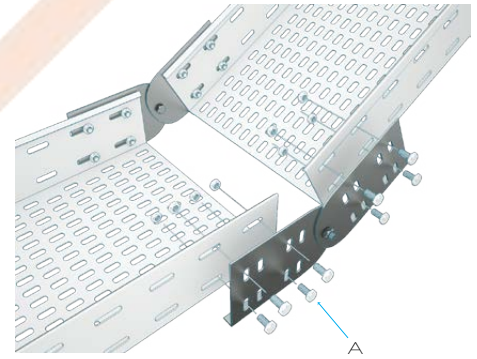
For changes in horizontal direction not requiring a radius, horizontal adjustable connectors can be used. Supports should be located within 600 mm of each side of horizontal adjustable connectors.



Mounting of Vertical Adjustable Connectors

Dikey Seviye Değişirme Elemanının Montajı

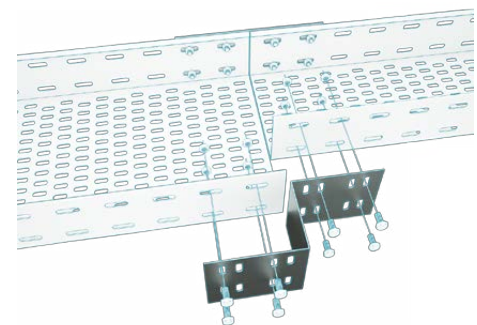
For vertical level changes not requiring a radius, vertical adjustable connectors can be used. Supports should be located within 600 mm of each side of vertical adjustable connectors.



Mounting of Reducers

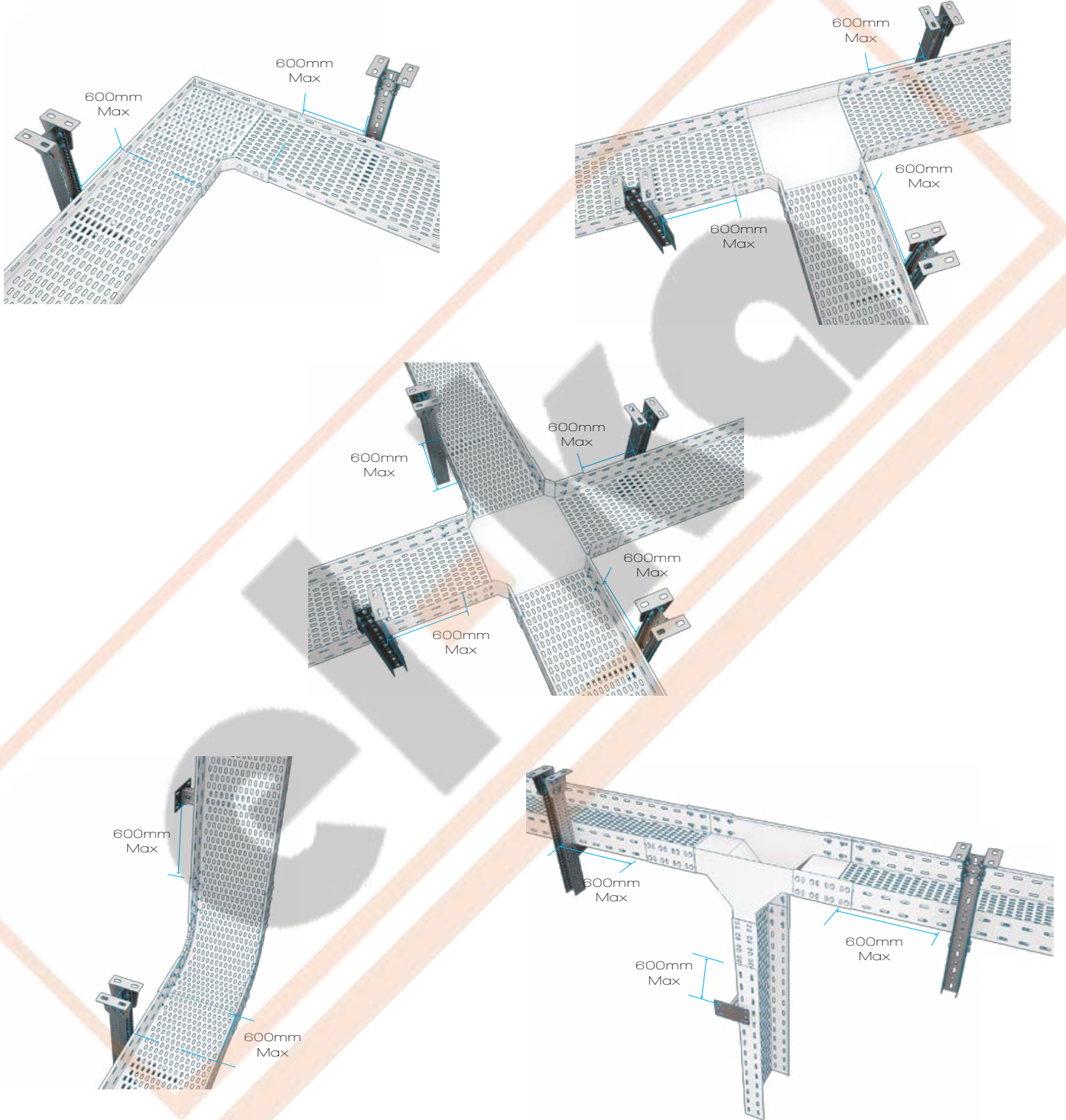
Redüksiyon Montajı

For immediate width changes, use reducers. Supports should be located within 600 mm of each side of reducers.



Recommended Support Locations for Bends

Kanal Dönüşlerinin Montajı



Kanal dönüş radyüsleri, döşenecek kabloların bükülme yarıçap değerlerine bağlıdır. Genellikle üreticiler kabloların minimum yarıçapını açıklar. Kanal dönüşleri en kalın kablo minimum bükülme yarıçapına eşit veya ondan büyük radyüslü olmalıdır. Konulacak desteklerin mesafesi yukarıdaki resimlerde açıklanmıştır. Dönüşlerden sonra gelen kanalların destekleri maksimum 600mm uzaklığa konulmalıdır.

Maximum Loading Capacity of Cable Trays (support distance 1.5mt)

Kablo Kanallarının Maksimum Yükleme Kapasiteleri (destek aralığı 1.5mt)

VALUES
DEĞERLER

H=40 H=50 H=60 H=80 H=100

Width, W	Cross-section, mm ² Nominal Kesit, mm ²	Overall Diameter,mm Kablo Dış Çapı, mm	Net Weight, kg / mt Net Ağırlık kg/ mt	H=40		H=50		H=60		H=80		H=100	
				Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık
50	4x1.5	13	0,25	8	2	12	3	12	3				
	4x2.5	14,5	0,33	8	2,64	8	2,64	10	3,3				
	4x4	16,5	0,435	6	2,61	6	2,61	9	3,915				
	4x6	17,5	0,545	5	2,725	6	3,27	7	3,815				
	4x10	19,5	0,745	3	2,235	3	2,235	5	3,725				
	4x16	21,5	1,03	3	3,09	4	4,12	4	4,12				
	4x25	27,5	1,61	1	1,61	2	3,22	2	3,22				
	4x35	30	2,08	1	2,08	1	2,08	2	4,16				
100	4x50	33	2,69	1	2,69	1	2,69	1	2,69				
	4x1.5	13	0,25	21	5,25	28	7	33	8,25	42	10,5		
	4x2.5	14,5	0,33	15	4,95	19	6,27	24	7,92	30	9,9		
	4x4	16,5	0,435	12	5,22	18	7,83	19	8,265	25	10,875		
	4x6	17,5	0,545	10	5,45	15	8,175	15	8,175	20	10,9		
	4x10	19,5	0,745	9	6,705	9	6,705	14	10,43	18	13,41		
	4x16	21,5	1,03	7	7,21	8	8,24	11	11,33	12	12,36		
	4x25	27,5	1,61	3	4,83	5	8,05	6	9,66	6	9,66		
150	4x35	30	2,08	3	6,24	3	6,24	5	10,4	6	12,48		
	4x50	33	2,69	2	5,38	3	8,07	3	8,07	5	13,45		
	4x1.5	13	0,25	32	8	42	10,5	48	12	63	15,75	84	21
	4x2.5	14,5	0,33	23	7,59	31	10,23	39	12,87	48	15,84	67	22,11
	4x4	16,5	0,435	16	6,96	24	10,44	27	11,745	40	17,4	48	20,88
	4x6	17,5	0,545	15	8,175	22	11,99	24	13,08	32	17,44	48	26,16
	4x10	19,5	0,745	14	10,43	15	11,175	21	15,645	28	20,86	36	26,82
	4x16	21,5	1,03	10	10,3	12	12,36	17	17,51	19	19,57	30	30,9
200	4x25	27,5	1,61	5	8,05	5	8,05	9	14,49	9	14,49	18	28,98
	4x35	30	2,08	4	8,32	6	12,48	8	16,64	8	16,64	14	29,12
	4x50	33	2,69	4	10,76	4	10,76	6	16,14	8	21,52	11	29,59
	4x1.5	13	0,25	44	11	58	14,5	65	16,25	87	21,75	116	29
	4x2.5	14,5	0,33	25	8,25	38	12,54	50	16,5	65	21,45	91	30,03
	4x4	16,5	0,435	23	10,005	33	14,355	33	14,355	55	23,925	66	28,71
	4x6	17,5	0,545	21	11,445	27	14,715	32	17,44	42	22,89	63	34,335
	4x10	19,5	0,745	19	14,155	22	16,39	29	21,605	40	29,8	60	44,7
250	4x16	21,5	1,03	13	13,39	17	17,51	22	22,66	26	26,78	43	44,29
	4x25	27,5	1,61	7	11,27	10	16,1	13	20,93	13	20,93	26	41,86
	4x35	30	2,08	6	12,48	8	16,64	11	22,88	12	24,96	18	37,44
	4x50	33	2,69	5	13,45	6	16,14	9	24,21	11	29,59	17	45,73
	4x1.5	13	0,25	53	13,25	74	18,5	83	20,75	111	27,75	148	37
	4x2.5	14,5	0,33	40	13,2	51	16,83	68	22,44	83	27,39	117	38,61
	4x4	16,5	0,435	29	12,615	44	19,14	47	20,445	73	31,755	87	37,845
	4x6	17,5	0,545	27	14,715	41	22,345	41	22,345	56	30,52	81	44,145
250	4x10	19,5	0,745	23	17,135	27	20,115	35	26,075	42	31,29	67	49,915
	4x16	21,5	1,03	16	16,48	20	20,6	27	27,81	33	33,99	55	56,65
	4x25	27,5	1,61	9	14,49	13	20,93	17	27,37	17	27,37	34	54,74
	4x35	30	2,08	8	16,64	10	20,8	15	31,2	15	31,2	23	47,84
	4x50	33	2,69	7	18,83	7	18,83	11	29,59	14	37,66	21	56,49

Maximum Loading Capacity of Cable Trays (support distance 1.5mt)

Kablo Kanallarının Maksimum Yükleme Kapasiteleri (destek aralığı 1.5mt)

VALUES
DEĞERLER

H= 40 H= 50 H= 60 H= 80 H= 100

Width, W	Cross-section, mm ² Nominal Kesit, mm ²	Overall Diameter,mm Kablo Dış Çapı, mm	Net Weight, kg / mt Net Ağırlık kg/ mt	H= 40		H= 50		H= 60		H= 80		H= 100	
				Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık	Quantities Adet	Tot. Weight Top. Ağırlık
300	4x1.5	13	0,25	65	16,25	86	21,5	97	24,25	132	33	176	44
	4x2.5	14,5	0,33	48	15,84	59	19,47	78	25,74	100	33	140	46,2
	4x4	16,5	0,435	36	15,66	53	23,055	58	25,23	87	37,845	94	40,89
	4x6	17,5	0,545	32	17,44	47	25,615	47	25,615	66	35,97	99	53,955
	4x10	19,5	0,745	29	21,605	32	23,84	44	32,78	62	46,19	91	67,795
	4x16	21,5	1,03	20	20,6	26	26,78	38	39,14	39	40,17	65	66,95
	4x25	27,5	1,61	10	16,1	14	22,54	20	32,2	24	38,64	36	57,96
	4x35	30	2,08	9	18,72	12	24,96	18	37,44	18	37,44	29	60,32
	4x50	33	2,69	8	21,52	8	21,52	13	34,97	17	45,73	26	69,94
	4x1.5	13	0,25	89	22,25	118	29,5	130	32,5	150	37,5	210	52,5
400	4x2.5	14,5	0,33	68	22,44	80	26,4	107	35,31	133	43,89	186	61,38
	4x4	16,5	0,435	47	20,445	71	30,885	71	30,885	118	51,33	141	61,335
	4x6	17,5	0,545	41	22,345	65	35,425	65	35,425	88	47,96	132	71,94
	4x10	19,5	0,745	40	29,8	46	34,27	59	43,955	82	61,09	112	83,44
	4x16	21,5	1,03	26	26,78	35	36,05	44	45,32	54	55,62	90	92,7
	4x25	27,5	1,61	14	22,54	19	30,59	28	45,08	32	51,52	56	90,16
	4x35	30	2,08	13	27,04	17	35,36	26	54,08	25	52	38	79,04
	4x50	33	2,69	11	29,59	11	29,59	18	48,42	23	61,87	35	94,15
	4x1.5	13	0,25	113	28,25	113	28,25	163	40,75	225	56,25	300	75
	500	4x2.5	14,5	0,33	80	26,4	99	32,67	115	37,95	168	55,44	235
4x4		16,5	0,435	57	24,795	87	37,845	93	40,455	118	51,33	177	76,995
4x6		17,5	0,545	55	29,975	55	29,975	74	40,33	112	61,04	168	91,56
4x10		19,5	0,745	49	36,505	49	36,505	44	32,78	102	75,99	156	116,22
4x16		21,5	1,03	35	36,05	44	45,32	54	55,62	68	70,04	113	116,39
4x25		27,5	1,61	18	28,98	26	41,86	32	51,52	53	85,33	70	112,7
4x35		30	2,08	16	33,28	20	41,6	14	29,12	32	66,56	48	99,84
4x50		33	2,69	14	37,66	14	37,66	22	59,18	29	78,01	44	118,36
4x1.5		13	0,25	134	33,5	178	44,5	196	49	270	67,5	360	90
600		4x2.5	14,5	0,33	98	32,34	116	38,28	155	51,15	203	66,99	284
	4x4	16,5	0,435	72	31,32	105	45,675	108	46,98	178	77,43	213	92,655
	4x6	17,5	0,545	65	35,425	65	35,425	98	53,41	134	73,03	201	109,55
	4x10	19,5	0,745	58	43,21	58	43,21	88	65,56	126	93,87	158	117,71
	4x16	21,5	1,03	41	42,23	53	54,59	65	66,95	81	83,43	135	139,05
	4x25	27,5	1,61	21	33,81	31	49,91	42	67,62	53	85,33	84	135,24
	4x35	30	2,08	19	39,52	25	52	37	76,96	38	79,04	57	118,56
	4x50	33	2,69	17	45,73	17	45,73	27	72,63	36	96,84	54	145,26