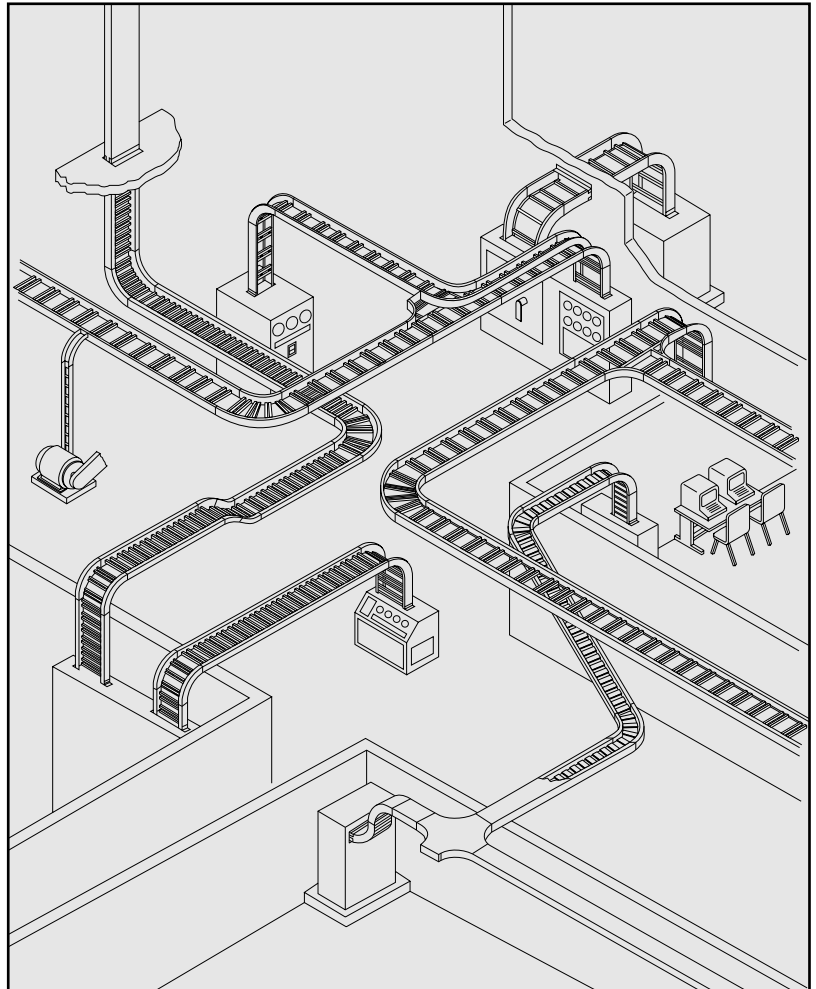


Cable Tray

Ladder, Trough, Solid Bottom, Channel

Class 5160



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SQUARE D
GROUPE SCHNEIDER

General Information

Cable tray is an **economical wire management system** designed to support and protect electrical wire and cable. **Article 318 of the National Electric Code® (NEC®)** permits cable tray in a wide variety of indoor and outdoor applications. The N.E.C. also permits cable tray for use as an **equipment ground conductor**.

Cable tray systems can provide **significant advantages in cable fill** over other wiring methods. This can provide savings in the size or number of raceways required thereby reducing both material and labor costs.

In many cases the N.E.C. permits **greater conductor ampacities** in cable tray than for other wiring methods. Under certain conditions, the N.E.C. allows "Free Air" rating of large, single conductor power cable (4/0 & larger) in ventilated cable tray systems. This can provide significant savings in conductor costs.

Cable tray permits much **greater spacing between support hangers** than for most other systems, providing savings in support costs and installation labor. Square D cable trays are available for support spacings ranging from 8 to 20 foot support spans.

Square D ladder, trough, solid bottom, and channel type tray is available in **steel and aluminum**, and in varying width and load depths for many applications including primary service entrance, main power feeders, branch wiring, instrument and communications cable.

Square D cable tray is built in general accordance with National Electrical Manufacturers' Association (**NEMA**) Standards Publication VE-1 (current issue 1996).



General Information

Various Types of Cable Tray

Ladder-type cable tray consists of two longitudinal side rails connected by individual cross members or rungs. Square D ladder designs are very popular due to their versatility and lower costs. They also provide: maximum ventilation for conductor cooling, smooth edges on side rails and rungs to protect cables, and slots (double rung design) for easy cable fastening when required.

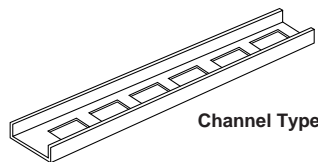
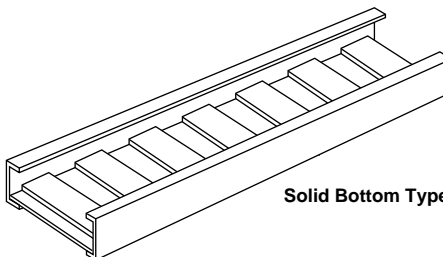
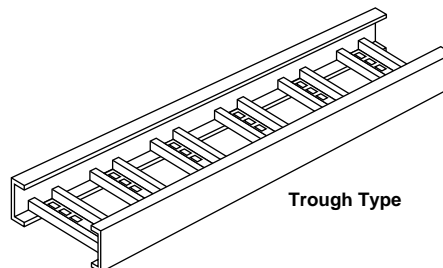
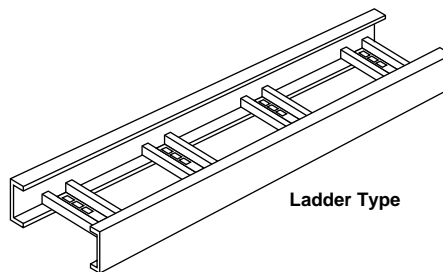
Various rung spacings are available [6 in (152mm), 9 in (229mm), 12 in (305mm) and 18 in (457mm)] to provide support for most cables, from small flexible cables to the most rigid interlocked armor power cable. Nine inch rung spacing is the most popular since it provides support for the widest range of cable sizes.

Trough-type cable tray consists of two side rails with closely spaced rungs or ventilated bottoms. It provides maximum cable support while maintaining adequate openings to permit air circulation for cable cooling. Trough trays are most often used (in lieu of ladder trays), to provide additional support and protection for smaller signal, communication, and instrumentation cables.

Square D trough designs also provide smooth surfaces and adequate openings for cable dropouts, without the need for cutting of trough bottom materials.

Solid bottom cable tray consists of two side rails connected with a corrugated or reinforced solid bottom. Solid bottom trays are most often used to provide electrical or magnetic shielding for very sensitive communications and signal circuitry. Solid bottom trays also provide maximum protection of cables, but require a reduction in cable fill from ladder or ventilated trough trays.

Channel-type tray is of one-piece construction and is available in 4.63 in (118mm) and 6 in (152mm) widths. It is most often used in place of conduit to carry one or two cables from a main cable tray run to individual equipment or termination points. Square D channel is offered in ventilated and solid designs.



Selection Chart

The selector chart below shows the full line of **Square D cable tray products**. The maximum allowable cable load (in lbs/linear foot) is given for each tray when installed on various support spans. Deflection data and other information about each tray is shown on the catalog page referred to in the chart.

The table to the right is a listing of the current NEMA Type loading classifications. The **maximum** NEMA Type class rating for each of the trays is shown in the selector chart below.

Note that the selector chart (and most other data in this catalog) is categorized by the cable tray **“loading depth”** – often the best measure of a cable tray’s suitability for a particular purpose.

NEMA Type Class	Support Span (Feet)	Working (Allowable) Load Lbs/Linear Foot
8 A	8	50
8 B	8	75
8 C	8	100
12 A	12	50
12 B	12	75
12 C	12	100
16 A	16	50
16 B	16	75
16 C	16	100
20 A	20	50
20 B	20	75
20 C	20	100

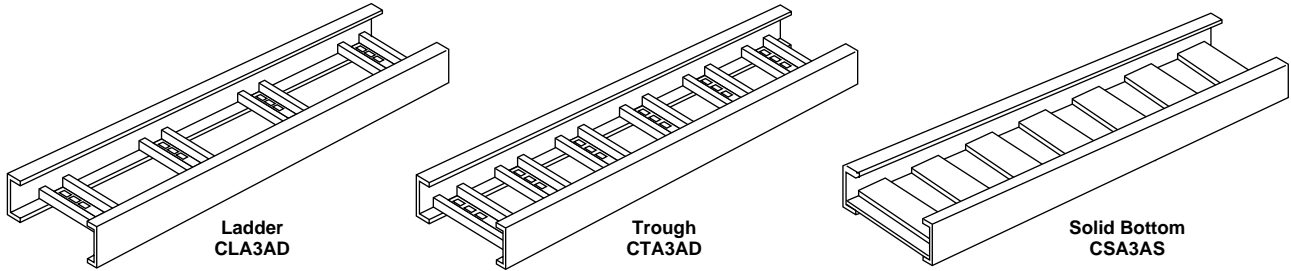
Load Chart

	Overall Height		Load Depth		Support Span – FT (mm)																NEMA Type Class	For catalog numbers, features, and details of preferred tray type, see data sheet on pages:	
					6 (1829)		8 (2438)		10 (3048)		12 (3658)		14 (4267)		16 (4877)		18 (5486)		20 (6096)				
	IN	mm	IN	mm	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg			
ALUMINUM	3.63	92	3.00	76	200	90	113	34	72	22	50	23	...	...	...	...	...	...	...	...	12A	CLA3AD – Ladder Type CTA3AD – Trough Type CSA3AS – Solid Bottom	4-5
	4.63	118	4.00	102	340	153	191	58	122	37	85	38	...	...	...	...	...	...	...	...	12B	CLA4JD – Ladder Type CTA4JD – Trough Type CSA4JS – Solid Bottom	6-7
	4.63	118	4.00	102	400	180	225	69	144	44	100	45	...	...	...	...	...	...	...	...	12C	CLA4AD – Ladder Type CTA4AD – Trough Type CSA4AS – Solid Bottom	8-9
	4.63	118	4.00	102	...	...	...	...	...	...	139	63	102	31	78	24	62	19	50	23	20A	CLA4BD – Ladder Type CTA4BD – Trough Type CSA4BS – Solid Bottom	10-11
	6.00	152	5.38	137	300	135	170	52	108	33	75	34	...	...	...	...	...	...	...	...	12B	CLA5JD – Ladder Type CTA5JD – Trough Type CSA5JS – Solid Bottom	12-13
	6.00	152	5.38	137	...	...	...	...	...	...	147	66	108	33	83	25	65	20	53	24	20A	CLA5MD – Ladder Type CTA5MD – Trough Type CSA5MS – Solid Bottom	14-15
	6.00	152	5.38	137	...	...	...	...	...	...	214	96	157	33	120	37	95	29	77	35	20B	CLA5AD – Ladder Type CTA5AD – Trough Type CSA5AS – Solid Bottom	16-17
	6.00	152	5.38	137	...	...	...	...	...	...	277	125	204	62	156	48	123	38	100	45	20C	CLA5KD – Ladder Type CTA5KD – Trough Type CSA5KD – Solid Bottom	18-19
STEEL	3.63	92	3.00	76	204	92	115	35	73	22	51	23	...	...	...	...	...	...	...	...	12A	CLG3AD – Ladder Type CTG3AD – Trough Type CSG3AS – Solid Bottom	20-21
	4.63	118	4.00	102	300	135	170	52	108	33	75	34	...	...	...	...	...	...	...	...	12B	CLG4JD – Ladder Type CTG4JD – Trough Type CSG4JS – Solid Bottom	22-23
	4.63	118	4.00	102	...	...	...	...	...	...	139	63	102	31	78	24	62	19	50	23	20A	CLG4AD – Ladder Type CTG4AD – Trough Type CSG4AS – Solid Bottom	24-25
	6.00	152	5.38	137	332	149	187	57	120	37	83	37	...	...	...	...	...	...	...	...	12B	CLG5JD – Ladder Type CTG5JD – Trough Type CSG5JS – Solid Bottom	26-27
	6.00	152	5.38	137	...	...	...	...	...	...	231	104	169	52	130	40	102	31	83	37	20B	CLG5AD – Ladder Type CTG5AD – Trough Type CSG5AS – Solid Bottom	28-29
	6.00	152	5.38	137	...	...	...	...	...	...	277	125	204	62	156	48	123	38	100	45	20C	CLG5KD – Ladder Type CTG5KD – Trough Type CSG5KD – Solid Bottom	30-31
Channel Trays	4.63 (118 mm) & 6.00 (152 mm) Wide		(See Page 38 for Channel Tray Data.)																CCA – Aluminum Type CCG – Galvanized Steel				

★ The standard finish for all steel trays is “Hot Dip Galvanized AFTER Fabrication” per ASTM A123-84 (formerly A-386). Three inch deep trays are also available in lesser grade Mill-Galvanized ASTM A525. ALL TRAYS (steel and aluminum) can be furnished with a PAINTED finish (ANSI-49 gray epoxy), or PVC coated, please consult Square D for price and availability.

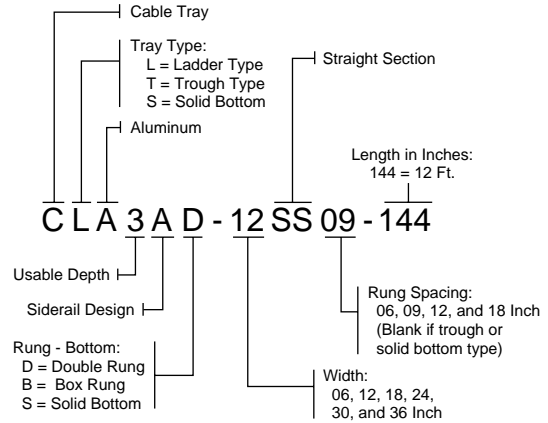


3 in (76 mm) Load Depth – Aluminum – NEMA Type Class 12A



Product Features

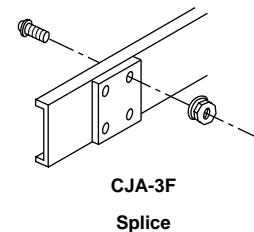
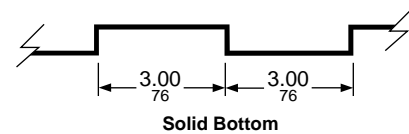
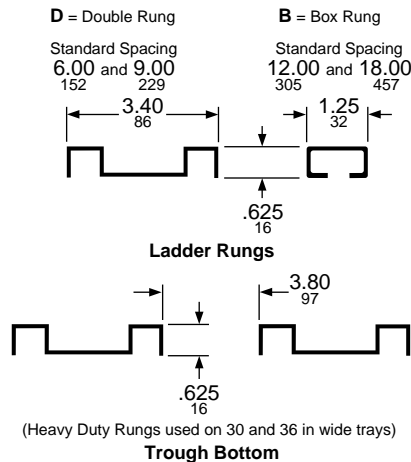
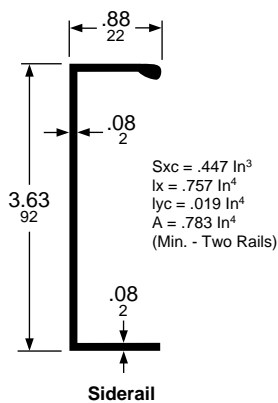
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m
	6.00	1.8	8.00	2.4	10.00	3.0	12.00	3.7
Load – Lbs/Ft	200		113		72		50	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm
	0.38	10	0.68	17	1.07	27	1.54	39

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 25 lbs/ft on a 12 ft span would yield 0.77 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA3AD-06SS09-144	CLA3AD-06SS06-144	CTA3AD-06SS-144	CSA3AS-06SS-144
CLA3AD-12SS09-144	CLA3AD-12SS06-144	CTA3AD-12SS-144	CSA3AS-12SS-144
CLA3AD-18SS09-144	CLA3AD-18SS06-144	CTA3AD-18SS-144	CSA3AS-18SS-144
CLA3AD-24SS09-144	CLA3AD-24SS06-144	CTA3AD-24SS-144	CSA3AS-24SS-144
CLA3AD-30SS09-144	CLA3AD-30SS06-144	CTA3AD-30SS-144	CSA3AS-30SS-144
CLA3AD-36SS09-144	CLA3AD-36SS06-144	CTA3AD-36SS-144	CSA3AS-36SS-144

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-3F
Expansion Splices (2)	CJA-3EX
Horizontal Adjustable (2)	CJA-3H
Vertical Adjustable (2)	CJA-3V
3 in (76 mm) Reducing Splice	CJA-3R03
6 in (152 mm) Reducing Splice	CJA-3R06
9 in (229 mm) Reducing Splice	CJA-3R09
12 in (305 mm) Reducing Splice	CJA-3R12
18 in (457 mm) Reducing Splice	CJA-3R18
Tray to Box	CJA-3TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA3-06
12 in (305 mm) Wide	CEPA3-12
18 in (457 mm) Wide	CEPA3-18
24 in (607 mm) Wide	CEPA3-24
30 in (762 mm) Wide	CEPA3-30
36 in (914 mm) Wide	CEPA3-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-08
3 in (76 mm) Z Clips (2)	CHD-3Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

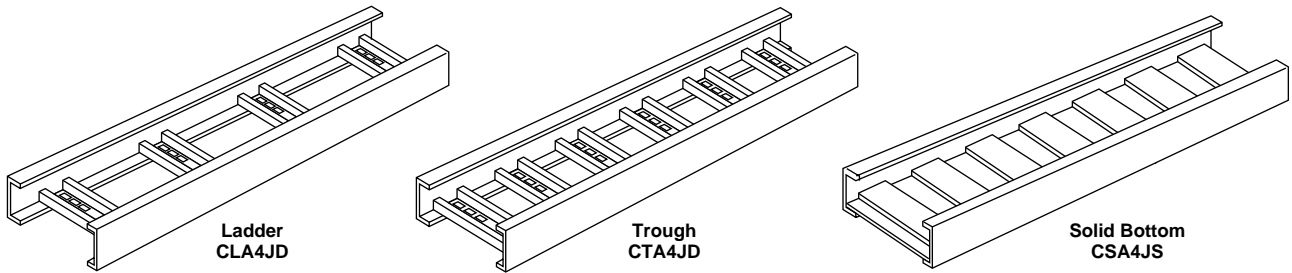
Barriers

Description	Catalog Number
12 ft. (3.7 m) Lg. Straight	CBA3-144
Horizontal Adjustment	CBA3-HB
Vertical Outside 90 Degrees	CBA3-VO-(R)
Vertical Inside 90 Degrees	CBA3-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

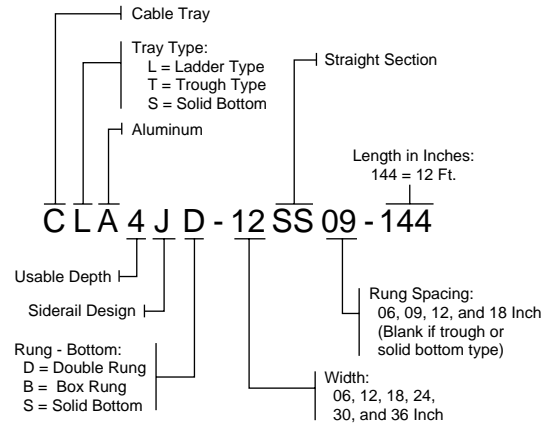


4 in (102 mm) Load Depth – Aluminum – NEMA Type Class 12B



Product Features

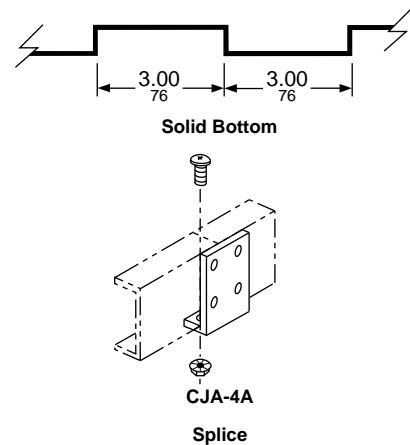
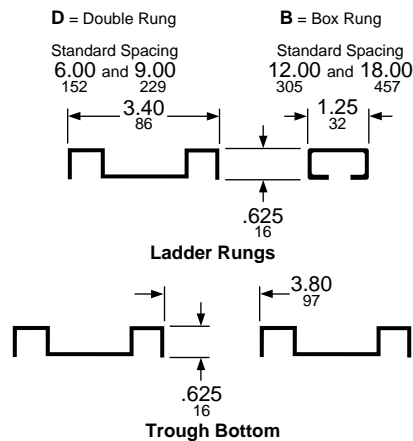
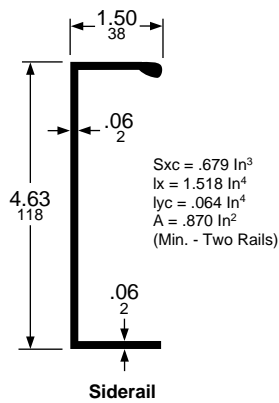
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m
	6.00	1.8	8.00	2.4	10.00	3.0	12.00	3.7
Load – Lbs/Ft	340		191		122		85	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm
	0.33	8	0.58	13	0.90	23	1.31	33

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 42 lbs/ft on a 12 ft span would yield 0.65 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA4JD-06SS09-144	CLA4JD-06SS06-144	CTA4JD-06SS-144	CSA4JS-06SS-144
CLA4JD-12SS09-144	CLA4JD-12SS06-144	CTA4JD-12SS-144	CSA4JS-12SS-144
CLA4JD-18SS09-144	CLA4JD-18SS06-144	CTA4JD-18SS-144	CSA4JS-18SS-144
CLA4JD-24SS09-144	CLA4JD-24SS06-144	CTA4JD-24SS-144	CSA4JS-24SS-144
CLA4JD-30SS09-144	CLA4JD-30SS06-144	CTA4JD-30SS-144	CSA4JS-30SS-144
CLA4JD-36SS09-144	CLA4JD-36SS06-144	CTA4JD-36SS-144	CSA4JS-36SS-144

These trays use “common” fittings.

Select: CLA4BD Ladder-style, CTA4BD Trough-style, CSA4BS Solid-style from Page 11.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-4A
Expansion Splices (2)	CJA-4EX
Horizontal Adjustable (2)	CJA-4H
Vertical Adjustable (2)	CJA-4V
3 in (76 mm) Reducing Splice	CJA-4R03
6 in (152 mm) Reducing Splice	CJA-4R06
9 in (229 mm) Reducing Splice	CJA-4R09
12 in (305 mm) Reducing Splice	CJA-4R12
18 in (457 mm) Reducing Splice	CJA-4R18
Tray to Box	CJA-4TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA4-06
12 in (305 mm) Wide	CEPA4-12
18 in (457 mm) Wide	CEPA4-18
24 in (607 mm) Wide	CEPA4-24
30 in (762 mm) Wide	CEPA4-30
36 in (914 mm) Wide	CEPA4-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-15
4 in (102 mm) Z Clips (2)	CHD-3Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

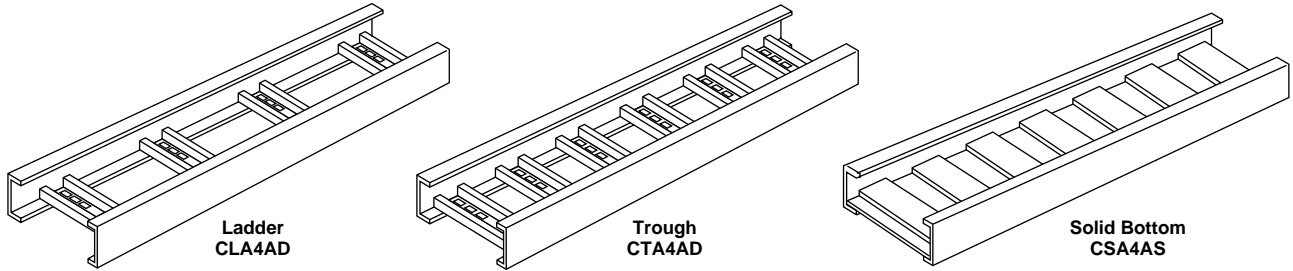
Barriers

Description	Catalog Number
12 ft. (3.7 m) Long Straight	CBA4-144
Horizontal Adjustment	CBA4-HB
Vertical Outside 90 Degrees	CBA4-VO-(R)
Vertical Inside 90 Degrees	CBA4-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

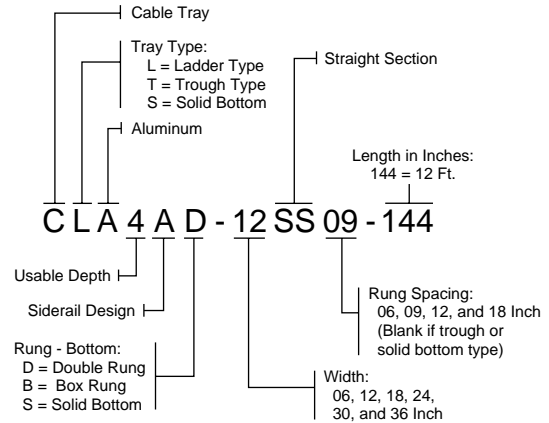


4 in (102 mm) Load Depth – Aluminum – NEMA Type Class 12C



Product Features

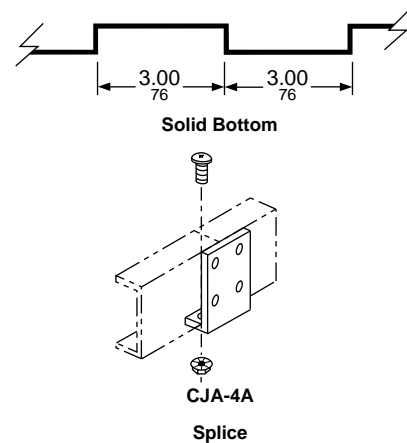
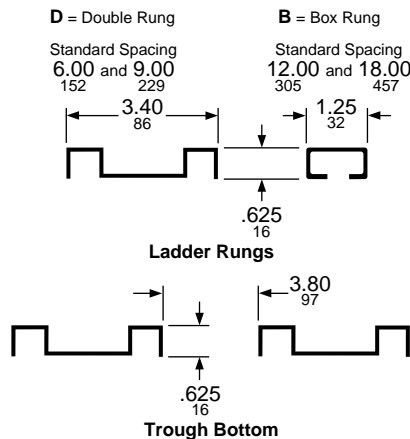
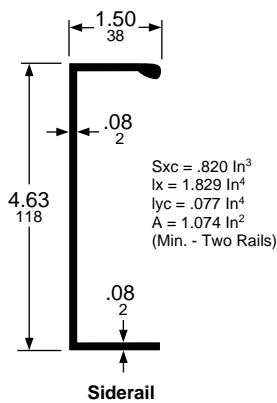
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m
	6.00	1.8	8.00	2.4	10.00	3.0	12.00	3.7
Load – Lbs/Ft	400		225		144		100	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm
	0.32	8	0.57	14	0.89	23	1.28	32

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 50 lbs/ft on a 12 ft span would yield 0.64 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA4AD-06SS09-144	CLA4AD-06SS06-144	CTA4AD-06SS-144	CSA4AS-06SS-144
CLA4AD-12SS09-144	CLA4AD-12SS06-144	CTA4AD-12SS-144	CSA4AS-12SS-144
CLA4AD-18SS09-144	CLA4AD-18SS06-144	CTA4AD-18SS-144	CSA4AS-18SS-144
CLA4AD-24SS09-144	CLA4AD-24SS06-144	CTA4AD-24SS-144	CSA4AS-24SS-144
CLA4AD-30SS09-144	CLA4AD-30SS06-144	CTA4AD-30SS-144	CSA4AS-30SS-144
CLA4AD-36SS09-144	CLA4AD-36SS06-144	CTA4AD-36SS-144	CSA4AS-36SS-144

These trays use "common" fittings.

Select: CLA4BD Ladder-style, CTA4BD Trough-style, CSA4BS Solid-style from Page 11.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-4A
Expansion Splices (2)	CJA-4EX
Horizontal Adjustable (2)	CJA-4H
Vertical Adjustable (2)	CJA-4V
3 in (76 mm) Reducing Splice	CJA-4R03
6 in (152 mm) Reducing Splice	CJA-4R06
9 in (229 mm) Reducing Splice	CJA-4R09
12 in (305 mm) Reducing Splice	CJA-4R12
18 in (457 mm) Reducing Splice	CJA-4R18
Tray to Box	CJA-4TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA4-06
12 in (305 mm) Wide	CEPA4-12
18 in (457 mm) Wide	CEPA4-18
24 in (607 mm) Wide	CEPA4-24
30 in (762 mm) Wide	CEPA4-30
36 in (914 mm) Wide	CEPA4-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-15
4 in (102 mm) Z Clips (2)	CHD-3Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

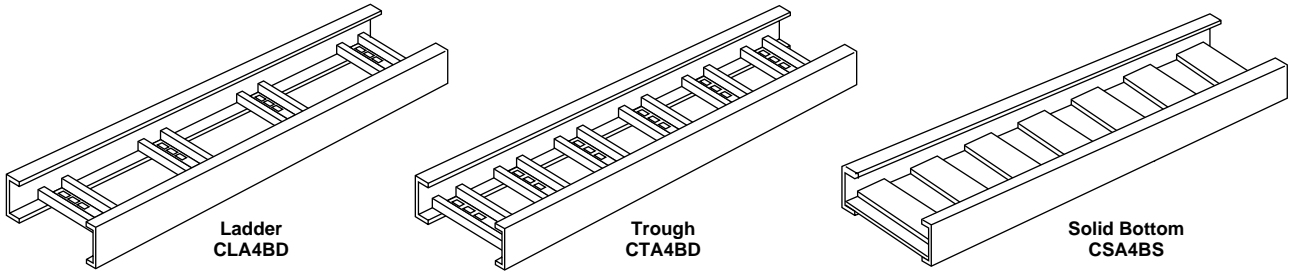
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBA4-144
Horizontal Adjustment	CBA4-HB
Vertical Outside 90 Degrees	CBA4-VO-(R)
Vertical Inside 90 Degrees	CBA4-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.



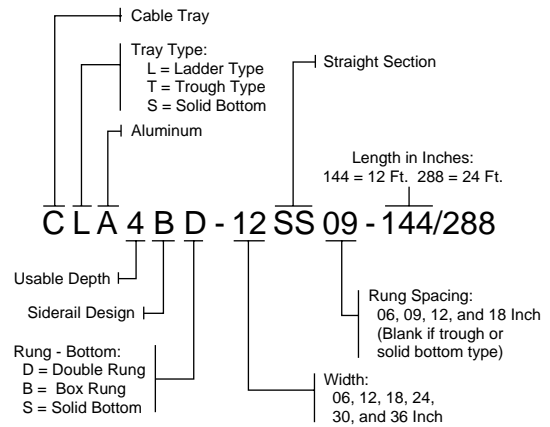
4 in (102 mm) Load Depth – Aluminum – NEMA Type Class 20A



Product Features

- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m) or 24 ft (7.3 m).

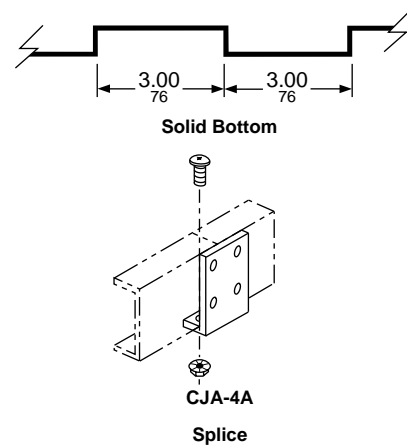
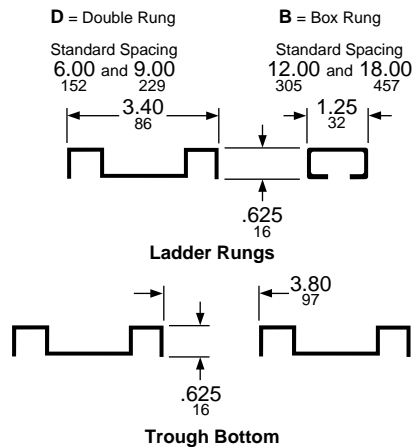
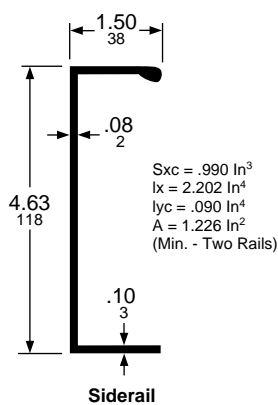
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m	FT	m
	12.00	3.7	14.00	4.3	16.00	4.9	18.00	5.5	20.00	6.1
Load – Lbs/Ft	139		102		78		62		50	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm
	1.48	38	2.01	51	2.62	67	3.33	85	4.09	104

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 25 lbs/ft on a 20 ft span would yield 2.05 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA4BD-06SS09-144	CLA4BD-06SS06-144	CTA4BD-06SS-144	CSA4BS-06SS-144
CLA4BD-12SS09-144	CLA4BD-12SS06-144	CTA4BD-12SS-144	CSA4BS-12SS-144
CLA4BD-18SS09-144	CLA4BD-18SS06-144	CTA4BD-18SS-144	CSA4BS-18SS-144
CLA4BD-24SS09-144	CLA4BD-24SS06-144	CTA4BD-24SS-144	CSA4BS-24SS-144
CLA4BD-30SS09-144	CLA4BD-30SS06-144	CTA4BD-30SS-144	CSA4BS-30SS-144
CLA4BD-36SS09-144	CLA4BD-36SS06-144	CTA4BD-36SS-144	CSA4BS-36SS-144

Ladder		Trough Type	Solid Bottom
24 ft (7.32 m) Long, 9 in (229 mm) Rung Spacing	24 ft (7.32 m) Long, 6 in (152 mm) Rung Spacing	24 ft (7.32 m) Long Straight Section	24 ft (7.32 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA4BD-06SS09-288	CLA4BD-06SS06-288	CTA4BD-06SS-288	CSA4BS-06SS-288
CLA4BD-12SS09-288	CLA4BD-12SS06-288	CTA4BD-12SS-288	CSA4BS-12SS-288
CLA4BD-18SS09-288	CLA4BD-18SS06-288	CTA4BD-18SS-288	CSA4BS-18SS-288
CLA4BD-24SS09-288	CLA4BD-24SS06-288	CTA4BD-24SS-288	CSA4BS-24SS-288
CLA4BD-30SS09-288	CLA4BD-30SS06-288	CTA4BD-30SS-288	CSA4BS-30SS-288
CLA4BD-36SS09-288	CLA4BD-36SS06-288	CTA4BD-36SS-288	CSA4BS-36SS-288

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-4A
Expansion Splices (2)	CJA-4EX
Horizontal Adjustable (2)	CJA-4H
Vertical Adjustable (2)	CJA-4V
3 in (76 mm) Reducing Splice	CJA-4R03
6 in (152 mm) Reducing Splice	CJA-4R06
9 in (229 mm) Reducing Splice	CJA-4R09
12 in (305 mm) Reducing Splice	CJA-4R12
18 in (457 mm) Reducing Splice	CJA-4R18
Tray to Box	CJA-4TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA4-06
12 in (305 mm) Wide	CEPA4-12
18 in (457 mm) Wide	CEPA4-18
24 in (607 mm) Wide	CEPA4-24
30 in (762 mm) Wide	CEPA4-30
36 in (914 mm) Wide	CEPA4-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-15
4 in (102 mm) Z Clips (2)	CHD-3Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

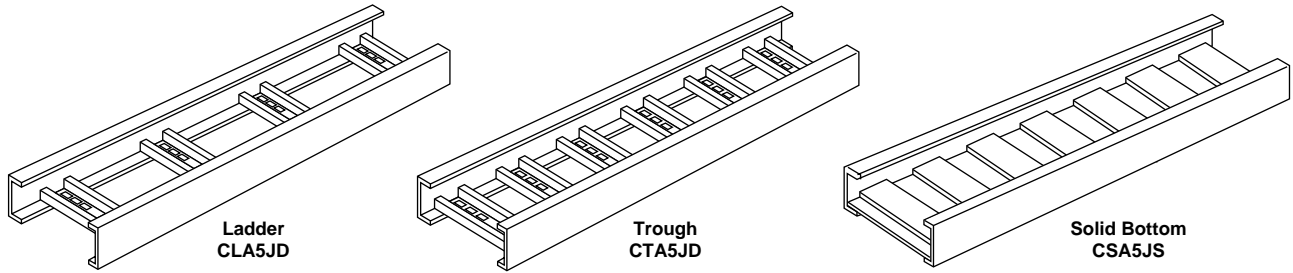
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBA4-144
Horizontal Adjustable	CBA4-HB
Vertical Outside 90 Degrees	CBA4-VO-(R)
Vertical Inside 90 Degrees	CBA4-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

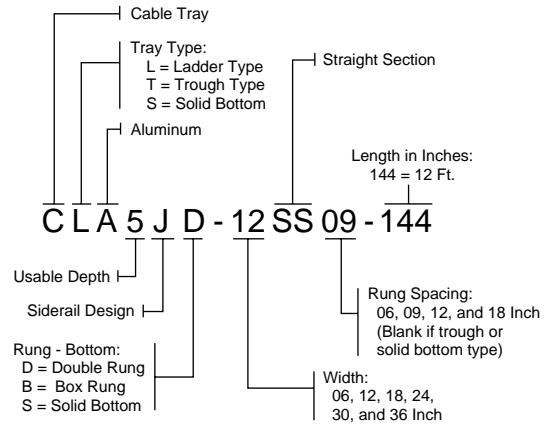


5.38 in (137 mm) Load Depth – Aluminum – NEMA Type Class 12B



Product Features

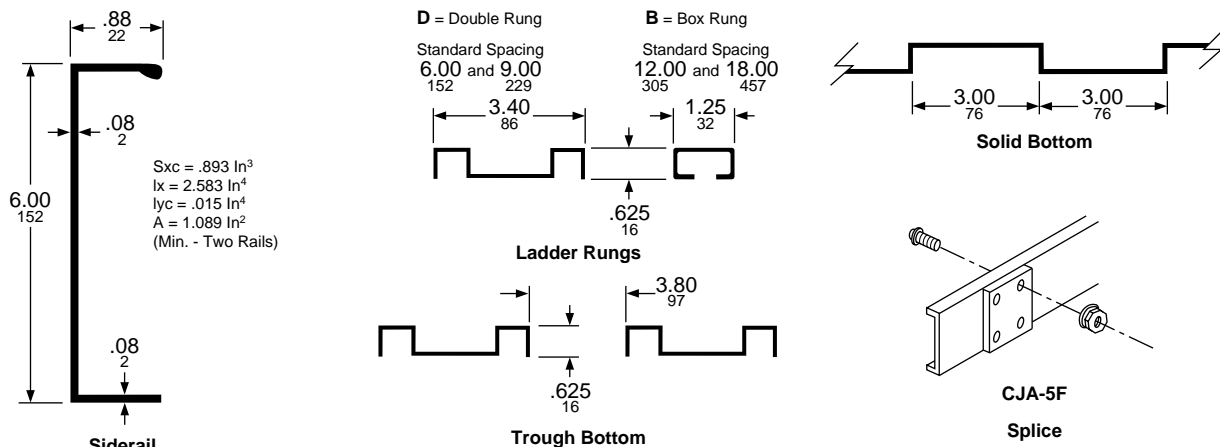
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m
	6.00	1.8	8.00	2.4	10.00	3.0	12.00	3.7
Load – Lbs/Ft	300		170		108		75	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm
	0.17	4	0.30	8	0.47	12	0.68	17

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.G., 25 lbs/ft on a 12 ft span would yield 0.23 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA5JD-06SS09-144	CLA5JD-06SS06-144	CTA5JD-06SS-144	CSA5JS-06SS-144
CLA5JD-12SS09-144	CLA5JD-12SS06-144	CTA5JD-12SS-144	CSA5JS-12SS-144
CLA5JD-18SS09-144	CLA5JD-18SS06-144	CTA5JD-18SS-144	CSA5JS-18SS-144
CLA5JD-24SS09-144	CLA5JD-24SS06-144	CTA5JD-24SS-144	CSA5JS-24SS-144
CLA5JD-30SS09-144	CLA5JD-30SS06-144	CTA5JD-30SS-144	CSA5JS-30SS-144
CLA5JD-36SS09-144	CLA5JD-36SS06-144	CTA5JD-36SS-144	CSA5JS-36SS-144

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-5F
Expansion Splices (2)	CJA-5EX
Horizontal Adjustable (2)	CJA-5H
Vertical Adjustable (2)	CJA-5V
3 in (76 mm) Reducing Splice	CJA-5R03
6 in (152 mm) Reducing Splice	CJA-5R06
9 in (229 mm) Reducing Splice	CJA-5R09
12 in (305 mm) Reducing Splice	CJA-5R12
18 in (457 mm) Reducing Splice	CJA-5R18
Tray to Box	CJA-5TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA5-06
12 in (305 mm) Wide	CEPA5-12
18 in (457 mm) Wide	CEPA5-18
24 in (607 mm) Wide	CEPA5-24
30 in (762 mm) Wide	CEPA5-30
36 in (914 mm) Wide	CEPA5-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-08
5 in (127 mm) Z Clips (2)	CHD-5Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

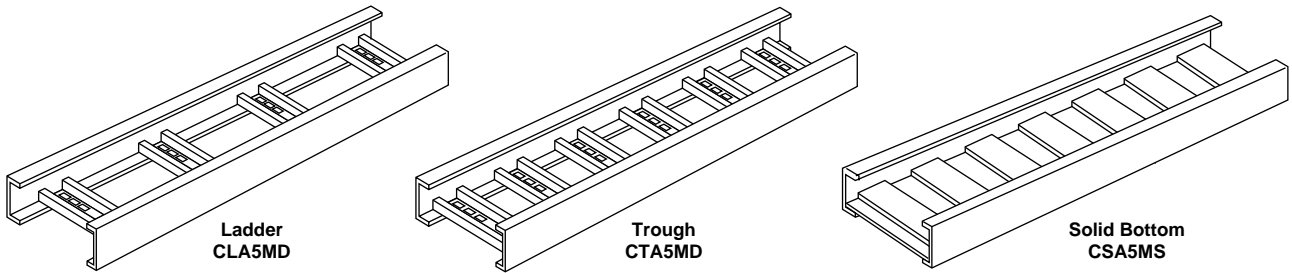
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBA5-144
Horizontal Adjustable	CBA5-HB
Vertical Outside 90 Degrees	CBA5-VO-(R)
Vertical Inside 90 Degrees	CBA5-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.



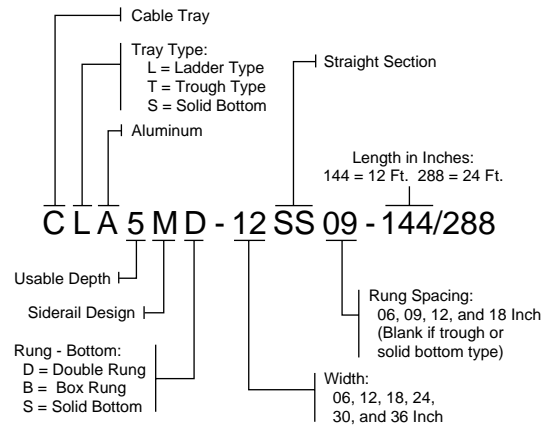
5.38 in (137 mm) Load Depth – Aluminum – NEMA Type Class 20A



Product Features

- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m) or 24 ft (7.3 m).

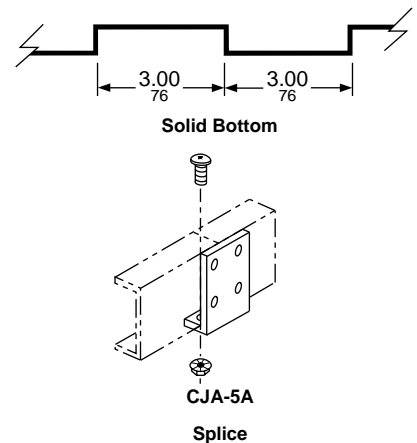
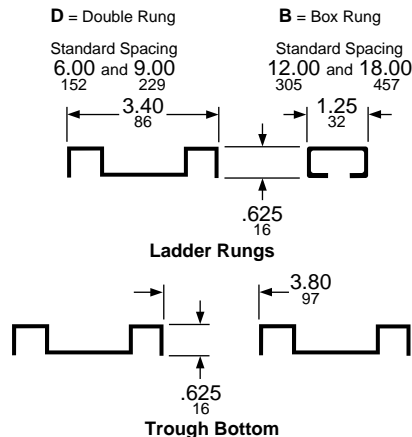
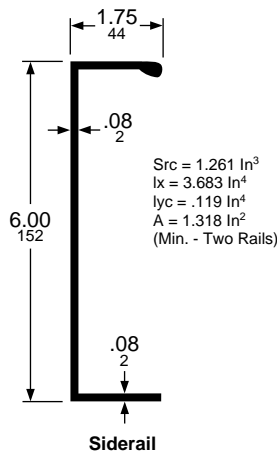
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m	FT	m
	12.00	3.7	14.00	4.3	16.00	4.9	18.00	5.5	20.00	6.1
Load – Lbs/Ft	147		108		83		65		53	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm
	0.93	24	1.27	32	1.66	42	2.08	53	2.59	66

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 25 lbs/ft on a 20 ft span would yield 1.22 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA5MD-06SS09-144	CLA5MD-06SS06-144	CTA5MD-06SS-144	CSA5MS-06SS-144
CLA5MD-12SS09-144	CLA5MD-12SS06-144	CTA5MD-12SS-144	CSA5MS-12SS-144
CLA5MD-18SS09-144	CLA5MD-18SS06-144	CTA5MD-18SS-144	CSA5MS-18SS-144
CLA5MD-24SS09-144	CLA5MD-24SS06-144	CTA5MD-24SS-144	CSA5MS-24SS-144
CLA5MD-30SS09-144	CLA5MD-30SS06-144	CTA5MD-30SS-144	CSA5MS-30SS-144
CLA5MD-36SS09-144	CLA5MD-36SS06-144	CTA5MD-36SS-144	CSA5MS-36SS-144

Ladder		Trough Type	Solid Bottom
24 ft (7.32 m) Long, 9 in (229 mm) Rung Spacing	24 ft (7.32 m) Long, 6 in (152 mm) Rung Spacing	24 ft (7.32 m) Long Straight Section	24 ft (7.32 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA5MD-06SS09-288	CLA5MD-06SS06-288	CTA5MD-06SS-288	CSA5MS-06SS-288
CLA5MD-12SS09-288	CLA5MD-12SS06-288	CTA5MD-12SS-288	CSA5MS-12SS-288
CLA5MD-18SS09-288	CLA5MD-18SS06-288	CTA5MD-18SS-288	CSA5MS-18SS-288
CLA5MD-24SS09-288	CLA5MD-24SS06-288	CTA5MD-24SS-288	CSA5MS-24SS-288
CLA5MD-30SS09-288	CLA5MD-30SS06-288	CTA5MD-30SS-288	CSA5MS-30SS-288
CLA5MD-36SS09-288	CLA5MD-36SS06-288	CTA5MD-36SS-288	CSA5MS-36SS-288

These trays use "common" fittings.

Select: CLA5AD Ladder-style, CTA5AD Trough-style, CSA5AS Solid-style from Page 17.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-5A
Expansion Splices (2)	CJA-5EX
Horizontal Adjustable (2)	CJA-5H
Vertical Adjustable (2)	CJA-5V
3 in (76 mm) Reducing Splice	CJA-5R03
6 in (152 mm) Reducing Splice	CJA-5R06
9 in (229 mm) Reducing Splice	CJA-5R09
12 in (305 mm) Reducing Splice	CJA-5R12
18 in (457 mm) Reducing Splice	CJA-5R18
Tray to Box	CJA-5TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA5-06
12 in (305 mm) Wide	CEPA5-12
18 in (457 mm) Wide	CEPA5-18
24 in (607 mm) Wide	CEPA5-24
30 in (762 mm) Wide	CEPA5-30
36 in (914 mm) Wide	CEPA5-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-17
5 in (127 mm) Z Clips (2)	CHD-5Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

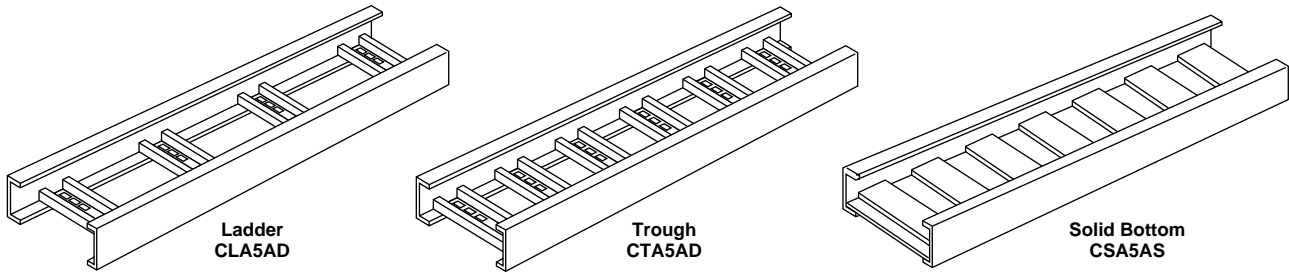
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBA5-144
Horizontal Adjustable	CBA5-HB
Vertical Outside 90 Degrees	CBA5-VO-(R)
Vertical Inside 90 Degrees	CBA5-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.



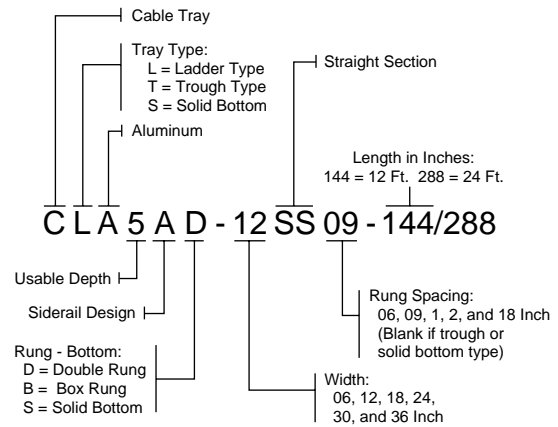
5.38 in (137 mm) Load Depth – Aluminum – NEMA Type Class 20B



Product Features

- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m) or 24 ft (7.3 m).

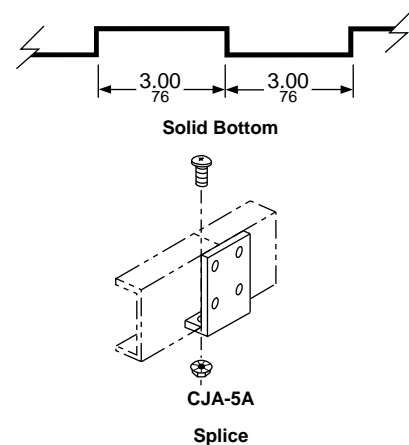
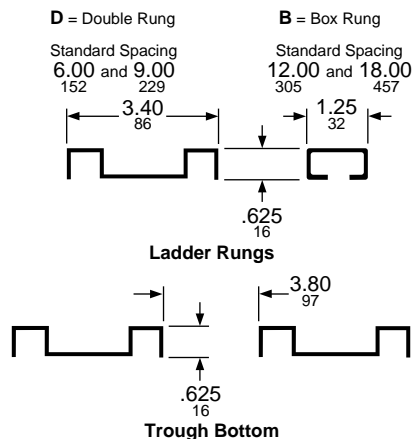
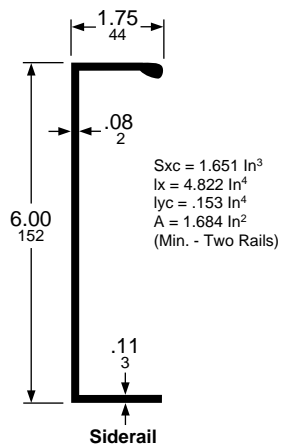
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m	FT	m
	12.00	3.7	14.00	4.3	16.00	4.9	18.00	5.5	20.00	6.1
Load – Lbs/Ft	214		157		120		95		77	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm
	1.03	26	1.40	36	1.83	46	2.32	59	2.87	73

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 60 lbs/ft on a 16 ft span would yield 0.92 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA5AD-06SS09-144	CLA5AD-06SS06-144	CTA5AD-06SS-144	CSA5AS-06SS-144
CLA5AD-12SS09-144	CLA5AD-12SS06-144	CTA5AD-12SS-144	CSA5AS-12SS-144
CLA5AD-18SS09-144	CLA5AD-18SS06-144	CTA5AD-18SS-144	CSA5AS-18SS-144
CLA5AD-24SS09-144	CLA5AD-24SS06-144	CTA5AD-24SS-144	CSA5AS-24SS-144
CLA5AD-30SS09-144	CLA5AD-30SS06-144	CTA5AD-30SS-144	CSA5AS-30SS-144
CLA5AD-36SS09-144	CLA5AD-36SS06-144	CTA5AD-36SS-144	CSA5AS-36SS-144

Ladder		Trough Type	Solid Bottom
24 ft (7.32 m) Long, 9 in (229 mm) Rung Spacing	24 ft (7.32 m) Long, 6 in (152 mm) Rung Spacing	24 ft (7.32 m) Long Straight Section	24 ft (7.32 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA5AD-06SS09-288	CLA5AD-06SS06-288	CTA5AD-06SS-288	CSA5AS-06SS-288
CLA5AD-12SS09-288	CLA5AD-12SS06-288	CTA5AD-12SS-288	CSA5AS-12SS-288
CLA5AD-18SS09-288	CLA5AD-18SS06-288	CTA5AD-18SS-288	CSA5AS-18SS-288
CLA5AD-24SS09-288	CLA5AD-24SS06-288	CTA5AD-24SS-288	CSA5AS-24SS-288
CLA5AD-30SS09-288	CLA5AD-30SS06-288	CTA5AD-30SS-288	CSA5AS-30SS-288
CLA5AD-36SS09-288	CLA5AD-36SS06-288	CTA5AD-36SS-288	CSA5AS-36SS-288

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-5A
Expansion Splices (2)	CJA-5EX
Horizontal Adjustable (2)	CJA-5H
Vertical Adjustable (2)	CJA-5V
3 in (76 mm) Reducing Splice	CJA-5R03
6 in (152 mm) Reducing Splice	CJA-5R06
9 in (229 mm) Reducing Splice	CJA-5R09
12 in (305 mm) Reducing Splice	CJA-5R12
18 in (457 mm) Reducing Splice	CJA-5R18
Tray to Box	CJA-5TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA5-06
12 in (305 mm) Wide	CEPA5-12
18 in (457 mm) Wide	CEPA5-18
24 in (607 mm) Wide	CEPA5-24
30 in (762 mm) Wide	CEPA5-30
36 in (914 mm) Wide	CEPA5-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-17
5 in (127 mm) Z Clips (2)	CHD-5Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

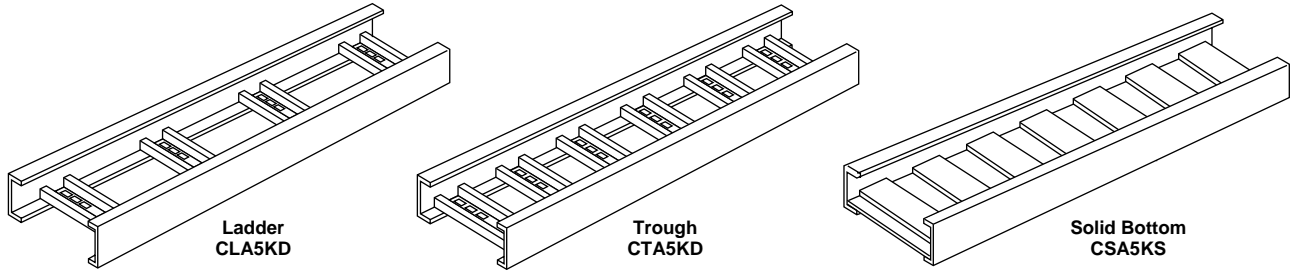
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBA5-144
Horizontal Adjustable	CBA5-HB
Vertical Outside 90 Degrees	CBA5-VO-(R)
Vertical Inside 90 Degrees	CBA5-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.



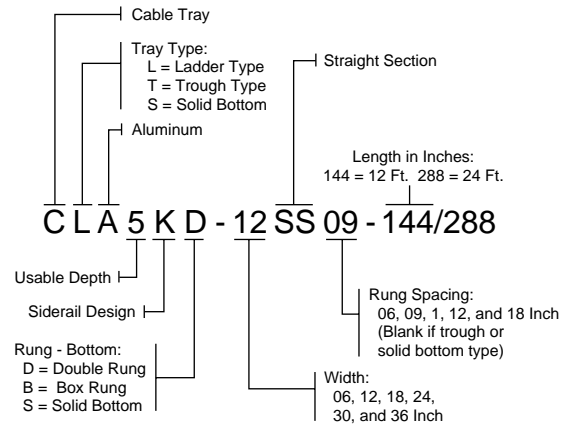
5.38 in (137 mm) Load Depth – Aluminum – NEMA Type Class 20C



Product Features

- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Aluminum is alloy 6063-T6 special 30,000 PSI minimum yield strength.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m) or 24 ft (7.3 m).

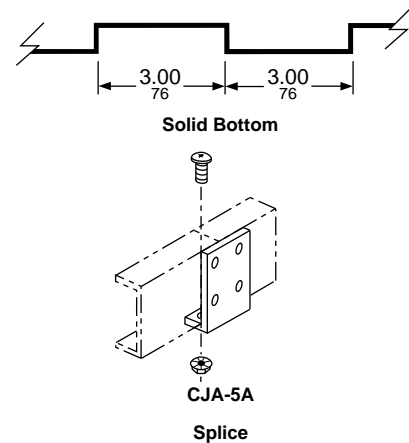
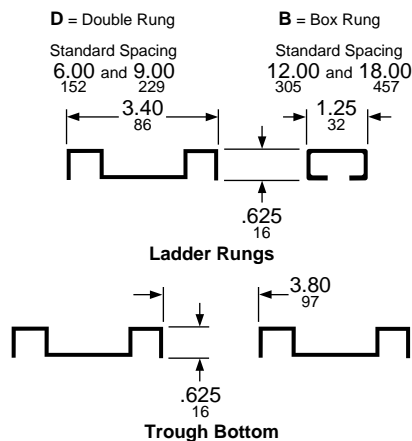
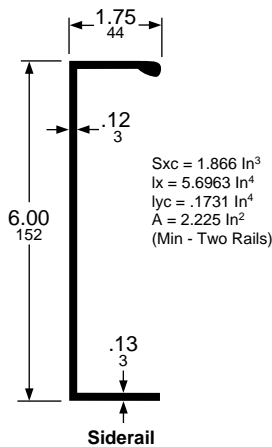
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m	FT	m
	12.00	3.7	14.00	4.3	16.00	4.9	18.00	5.5	20.00	6.1
Load – Lbs/Ft	277		204		156		123		100	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm
	1.21	31	1.69	43	2.29	58	2.78	71	3.43	87

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 50 lbs/ft on a 20 ft span would yield 1.72 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA5KD-06SS09-144	CLA5KD-06SS06-144	CTA5KD-06SS-144	CSA5KS-06SS-144
CLA5KD-12SS09-144	CLA5KD-12SS06-144	CTA5KD-12SS-144	CSA5KS-12SS-144
CLA5KD-18SS09-144	CLA5KD-18SS06-144	CTA5KD-18SS-144	CSA5KS-18SS-144
CLA5KD-24SS09-144	CLA5KD-24SS06-144	CTA5KD-24SS-144	CSA5KS-24SS-144
CLA5KD-30SS09-144	CLA5KD-30SS06-144	CTA5KD-30SS-144	CSA5KS-30SS-144
CLA5KD-36SS09-144	CLA5KD-36SS06-144	CTA5KD-36SS-144	CSA5KS-36SS-144

Ladder		Trough Type	Solid Bottom
24 ft (7.32 m) Long, 9 in (229 mm) Rung Spacing	24 ft (7.32 m) Long, 6 in (152 mm) Rung Spacing	24 ft (7.32 m) Long Straight Section	24 ft (7.32 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLA5KD-06SS09-288	CLA5KD-06SS06-288	CTA5KD-06SS-288	CSA5KS-06SS-288
CLA5KD-12SS09-288	CLA5KD-12SS06-288	CTA5KD-12SS-288	CSA5KS-12SS-288
CLA5KD-18SS09-288	CLA5KD-18SS06-288	CTA5KD-18SS-288	CSA5KS-18SS-288
CLA5KD-24SS09-288	CLA5KD-24SS06-288	CTA5KD-24SS-288	CSA5KS-24SS-288
CLA5KD-30SS09-288	CLA5KD-30SS06-288	CTA5KD-30SS-288	CSA5KS-30SS-288
CLA5KD-36SS09-288	CLA5KD-36SS06-288	CTA5KD-36SS-288	CSA5KS-36SS-288

These trays use "common" fittings.

Select: CLA5AD Ladder-style, CTA5AD Trough-style, CSA5AS Solid-style from Page 17.

Splices

Description	Catalog Number
Standard (extra pair)	CJA-5A
Expansion Splices (2)	CJA-5EX
Horizontal Adjustable (2)	CJA-5H
Vertical Adjustable (2)	CJA-5V
3 in (76 mm) Reducing Splice	CJA-5R03
6 in (152 mm) Reducing Splice	CJA-5R06
9 in (229 mm) Reducing Splice	CJA-5R09
12 in (305 mm) Reducing Splice	CJA-5R12
18 in (457 mm) Reducing Splice	CJA-5R18
Tray to Box	CJA-5TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPA5-06
12 in (305 mm) Wide	CEPA5-12
18 in (457 mm) Wide	CEPA5-18
24 in (607 mm) Wide	CEPA5-24
30 in (762 mm) Wide	CEPA5-30
36 in (914 mm) Wide	CEPA5-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-17
5 in (127 mm) Z Clips (2)	CHD-5Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

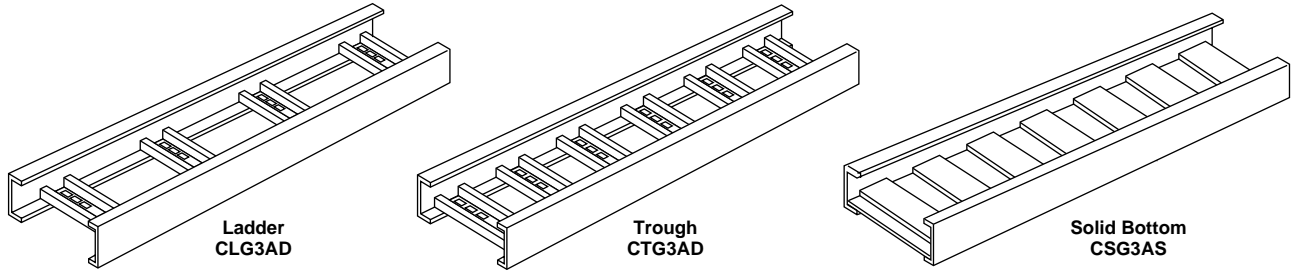
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBA5-144
Horizontal Adjustable	CBA5-HB
Vertical Outside 90 Degrees	CBA5-VO-(R)
Vertical Inside 90 Degrees	CBA5-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

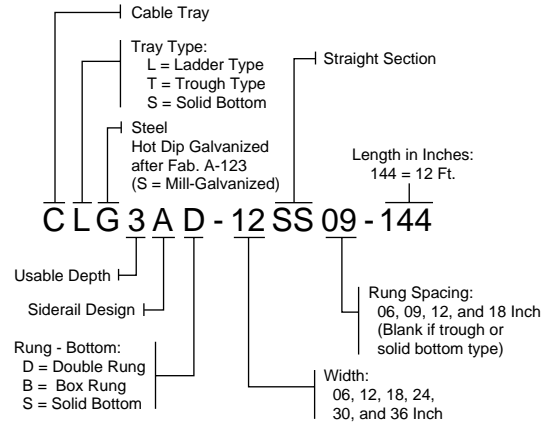


3 in (76 mm) Load Depth – Steel – NEMA Type Class 12A



Product Features

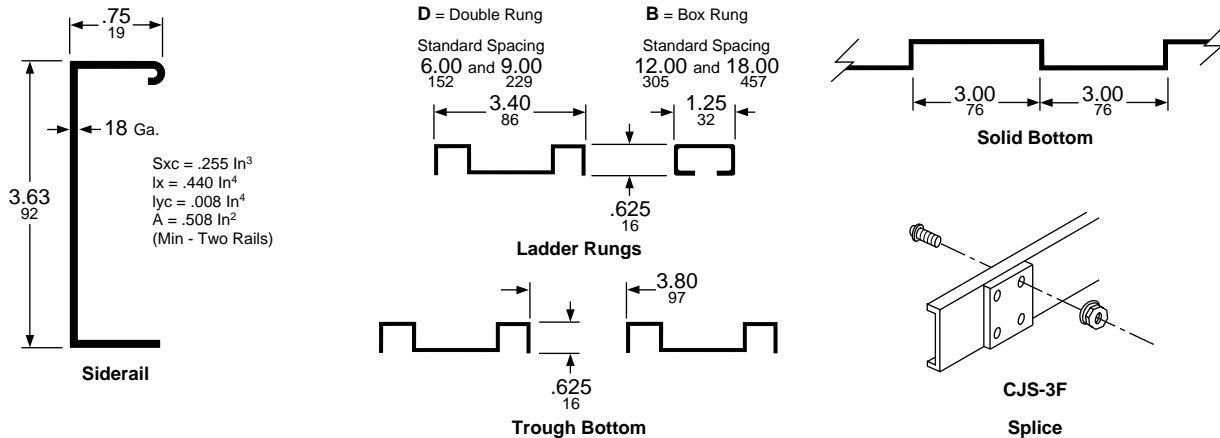
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Hot dip galvanized after fabrication per ASTM A123-84 (formerly A-386) or mill-galvanized per ASTM A525.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m
		6.00	1.8	8.00	2.4	10.00	3.0	12.00	3.7
Load – Lbs/Ft	204		115		73		51	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm
	0.23	6	0.41	10	0.64	16	0.93	24

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 25 lbs/ft on a 12 ft span would yield 0.46 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Mill-Galvanized Ladder		Mill-Galvanized Trough Type	Mill-Galvanized Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLS3AD-06SS06-144	CLS3AD-06SS09-144	CTS3AD-06SS-144	CSS3AS-06SS-144
CLS3AD-12SS06-144	CLS3AD-12SS09-144	CTS3AD-12SS-144	CSS3AS-12SS-144
CLS3AD-18SS06-144	CLS3AD-18SS09-144	CTS3AD-18SS-144	CSS3AS-18SS-144
CLS3AD-24SS06-144	CLS3AD-24SS09-144	CTS3AD-24SS-144	CSS3AS-24SS-144
CLS3AD-30SS06-144	CLS3AD-30SS09-144	CTS3AD-30SS-144	CSS3AS-30SS-144
CLS3AD-36SS06-144	CLS3AD-36SS09-144	CTS3AD-36SS-144	CSS3AS-36SS-144
Hot Dip Galvanized After Fabrication Ladder		Hot Dip Galvanized After Fabrication Trough Type	Hot Dip Galvanized After Fabrication Solid Bottom
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG3AD-06SS06-144	CLG3AD-06SS09-144	CTG3AD-06SS-144	CSG3AS-06SS-144
CLG3AD-12SS06-144	CLG3AD-12SS09-144	CTG3AD-12SS-144	CSG3AS-12SS-144
CLG3AD-18SS06-144	CLG3AD-18SS09-144	CTG3AD-18SS-144	CSG3AS-18SS-144
CLG3AD-24SS06-144	CLG3AD-24SS09-144	CTG3AD-24SS-144	CSG3AS-24SS-144
CLG3AD-30SS06-144	CLG3AD-30SS09-144	CTG3AD-30SS-144	CSG3AS-30SS-144
CLG3AD-36SS06-144	CLG3AD-36SS09-144	CTG3AD-36SS-144	CSG3AS-36SS-144

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ All fittings are hot dip galvanized after fabrication. Add the prefix from the H.D.G.A.F. straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJS-3A
Expansion Splices (2)	CJS-3EX
Horizontal Adjustable (2)	CJS-3H
Vertical Adjustable (2)	CJS-3V
3 in (76 mm) Reducing Splice	CJS-3R03
6 in (152 mm) Reducing Splice	CJS-3R06
9 in (229 mm) Reducing Splice	CJS-3R09
12 in (305 mm) Reducing Splice	CJS-3R12
18 in (457 mm) Reducing Splice	CJS-3R18
Tray to Box	CJS-3TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPS3-06
12 in (305 mm) Wide	CEPS3-12
18 in (457 mm) Wide	CEPS3-18
24 in (607 mm) Wide	CEPS3-24
30 in (762 mm) Wide	CEPS3-30
36 in (914 mm) Wide	CEPS3-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-08
3 in (76 mm) Z Clips (2)	CHD-3Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

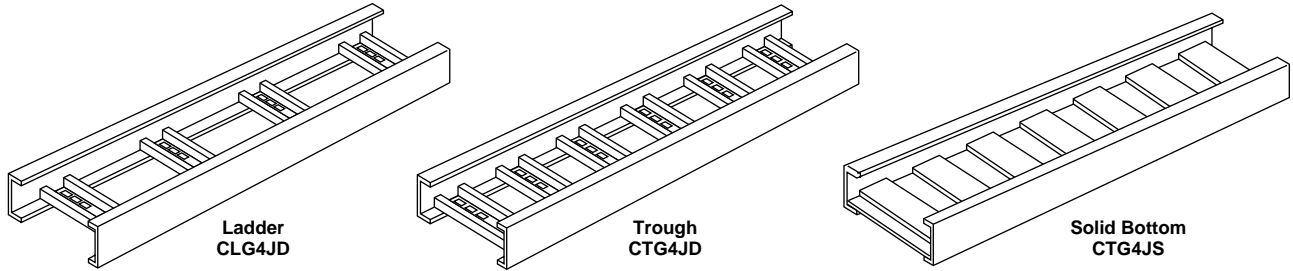
Barriers

Description	Catalog Number
12 ft (3.7 m) Lg. Straight	CBS3-144
Horizontal Adjustable	CBS3-HB
Vertical Outside 90 Degrees	CBS3-VO-(R)
Vertical Inside 90 Degrees	CBS3-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

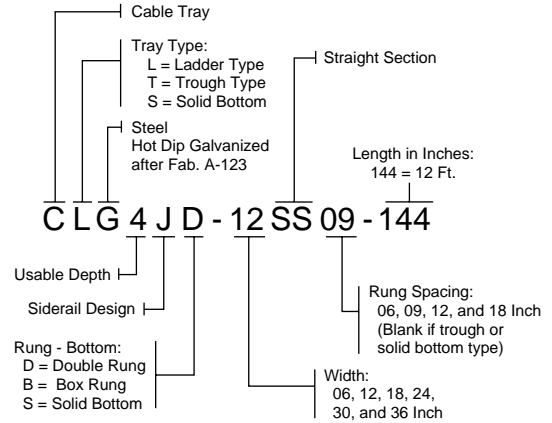


4 in (102 mm) Load Depth – Steel – NEMA Type Class 12B



Product Features

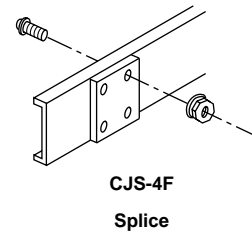
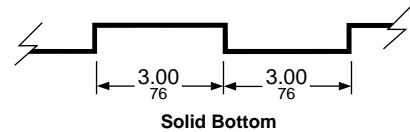
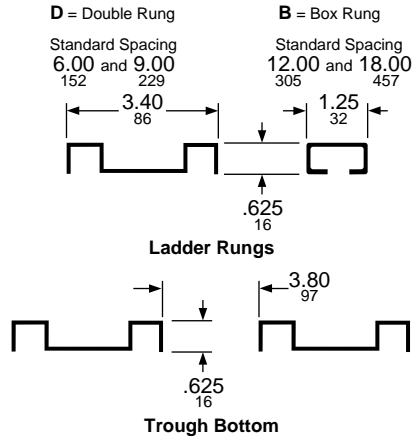
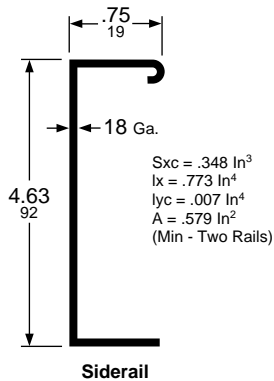
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Hot dip galvanized after fabrication per ASTM A123-84.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m
	6.00	1.8	8.00	2.4	10.00	3.0	12.00	3.7
Load – Lbs/Ft	300		170		108		75	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm
	0.20	5	0.35	9	0.54	14	0.78	20

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 25 lbs/ft on a 12 ft span would yield 0.26 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG4JD-06SS09-144	CLG4JD-06SS06-144	CTG4JD-06SS-144	CSG4JS-06SS-144
CLG4JD-12SS09-144	CLG4JD-12SS06-144	CTG4JD-12SS-144	CSG4JS-12SS-144
CLG4JD-18SS09-144	CLG4JD-18SS06-144	CTG4JD-18SS-144	CSG4JS-18SS-144
CLG4JD-24SS09-144	CLG4JD-24SS06-144	CTG4JD-24SS-144	CSG4JS-24SS-144
CLG4JD-30SS09-144	CLG4JD-30SS06-144	CTG4JD-30SS-144	CSG4JS-30SS-144
CLG4JD-36SS09-144	CLG4JD-36SS06-144	CTG4JD-36SS-144	CSG4JS-36SS-144

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJS-4A
Expansion Splices (2)	CJS-4EX
Horizontal Adjustable (2)	CJS-4H
Vertical Adjustable (2)	CJS-4V
3 in (76 mm) Reducing Splice	CJS-4R03
6 in (152 mm) Reducing Splice	CJS-4R06
9 in (229 mm) Reducing Splice	CJS-4R09
12 in (305 mm) Reducing Splice	CJS-4R12
18 in (457 mm) Reducing Splice	CJS-4R18
Tray to Box	CJS-4TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPS4-06
12 in (305 mm) Wide	CEPS4-12
18 in (457 mm) Wide	CEPS4-18
24 in (607 mm) Wide	CEPS4-24
30 in (762 mm) Wide	CEPS4-30
36 in (914 mm) Wide	CEPS4-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-08
4 in (102 mm) Z Clips (2)	CHD-4Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

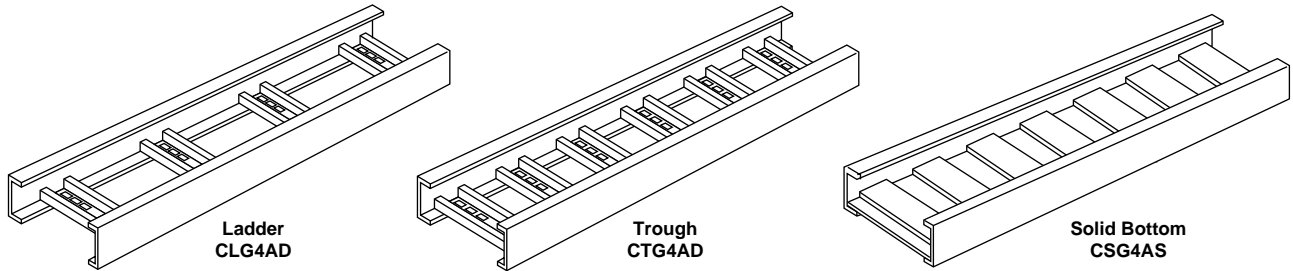
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBS4-144
Horizontal Adjustable	CBS4-HB
Vertical Outside 90 Degrees	CBS4-VO-(R)
Vertical Inside 90 Degrees	CBS4-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

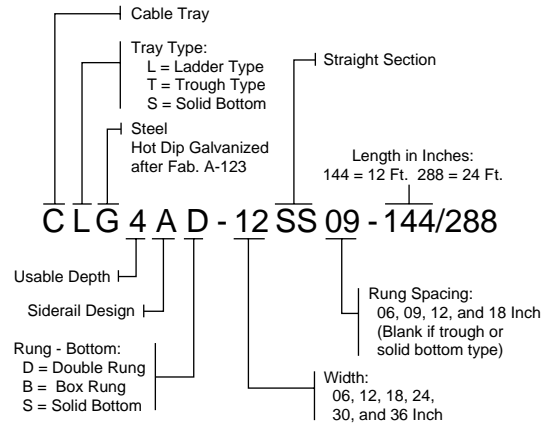


4 in (102 mm) Load Depth – Steel – NEMA Type Class 20A



Product Features

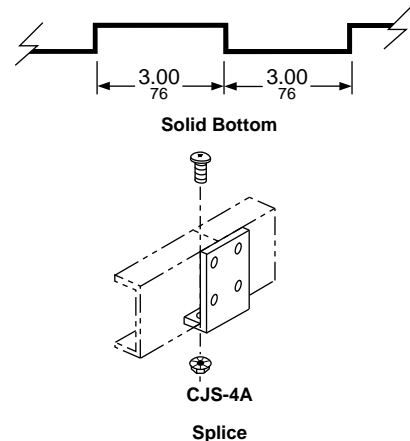
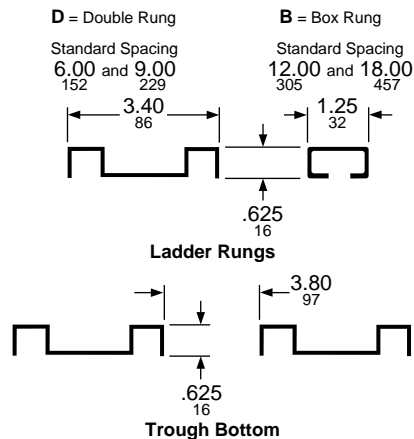
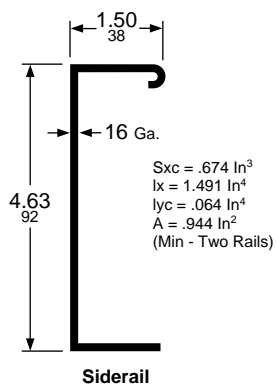
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Hot dip galvanized after fabrication per ASTM A123-84.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m) or 24 ft (7.3 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m	FT	m
	12.00	3.7	14.00	4.3	16.00	4.9	18.00	5.5	20.00	6.1
Load – Lbs/Ft	139		102		78		62		50	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm
	0.74	19	1.01	26	1.32	34	1.69	43	2.08	53

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 25 lbs/ft on a 20 ft span would yield 1.04 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG4AD-06SS09-144	CLG4AD-06SS06-144	CTG4AD-06SS-144	CSG4AS-06SS-144
CLG4AD-12SS09-144	CLG4AD-12SS06-144	CTG4AD-12SS-144	CSG4AS-12SS-144
CLG4AD-18SS09-144	CLG4AD-18SS06-144	CTG4AD-18SS-144	CSG4AS-18SS-144
CLG4AD-24SS09-144	CLG4AD-24SS06-144	CTG4AD-24SS-144	CSG4AS-24SS-144
CLG4AD-30SS09-144	CLG4AD-30SS06-144	CTG4AD-30SS-144	CSG4AS-30SS-144
CLG4AD-36SS09-144	CLG4AD-36SS06-144	CTG4AD-36SS-144	CSG4AS-36SS-144

Ladder		Trough Type	Solid Bottom
24 ft (7.32 m) Long, 9 in (229 mm) Rung Spacing	24 ft (7.32 m) Long, 6 in (152 mm) Rung Spacing	24 ft (7.32 m) Long Straight Section	24 ft (7.32 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG4AD-06SS09-288	CLG4AD-06SS06-288	CTG4AD-06SS-288	CSG4AS-06SS-288
CLG4AD-12SS09-288	CLG4AD-12SS06-288	CTG4AD-12SS-288	CSG4AS-12SS-288
CLG4AD-18SS09-288	CLG4AD-18SS06-288	CTG4AD-18SS-288	CSG4AS-18SS-288
CLG4AD-24SS09-288	CLG4AD-24SS06-288	CTG4AD-24SS-288	CSG4AS-24SS-288
CLG4AD-30SS09-288	CLG4AD-30SS06-288	CTG4AD-30SS-288	CSG4AS-30SS-288
CLG4AD-36SS09-288	CLG4AD-36SS06-288	CTG4AD-36SS-288	CSG4AS-36SS-288

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJS-4A
Expansion Splices (2)	CJS-4EX
Horizontal Adjustable (2)	CJS-4H
Vertical Adjustable (2)	CJS-4V
3 in (76 mm) Reducing Splice	CJS-4R03
6 in (152 mm) Reducing Splice	CJS-4R06
9 in (229 mm) Reducing Splice	CJS-4R09
12 in (305 mm) Reducing Splice	CJS-4R12
18 in (457 mm) Reducing Splice	CJS-4R18
Tray to Box	CJS-4TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPS4-06
12 in (305 mm) Wide	CEPS4-12
18 in (457 mm) Wide	CEPS4-18
24 in (607 mm) Wide	CEPS4-24
30 in (762 mm) Wide	CEPS4-30
36 in (914 mm) Wide	CEPS4-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-15
4 in (102 mm) Z Clips (2)	CHD-4Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

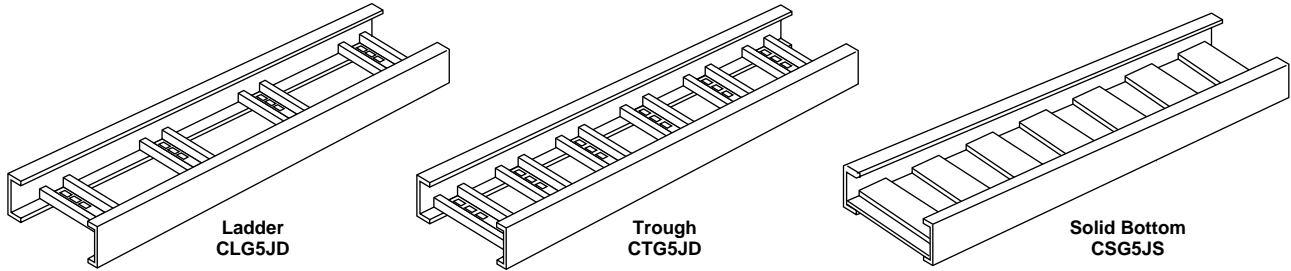
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBS4-144
Horizontal Adjustable	CBS4-HB
Vertical Outside 90 Degrees	CBS4-VO-(R)
Vertical Inside 90 Degrees	CBS4-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

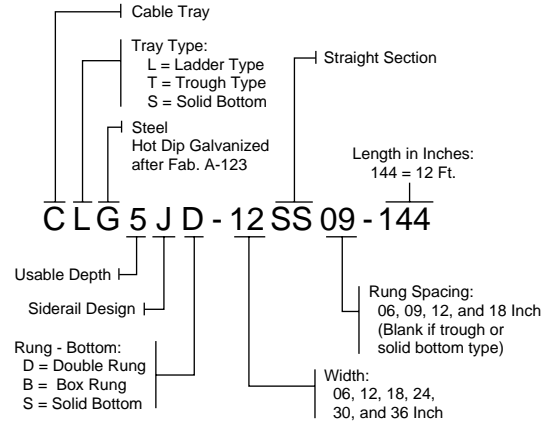


5.38 in (137 mm) Load Depth – Steel – NEMA Type Class 12B



Product Features

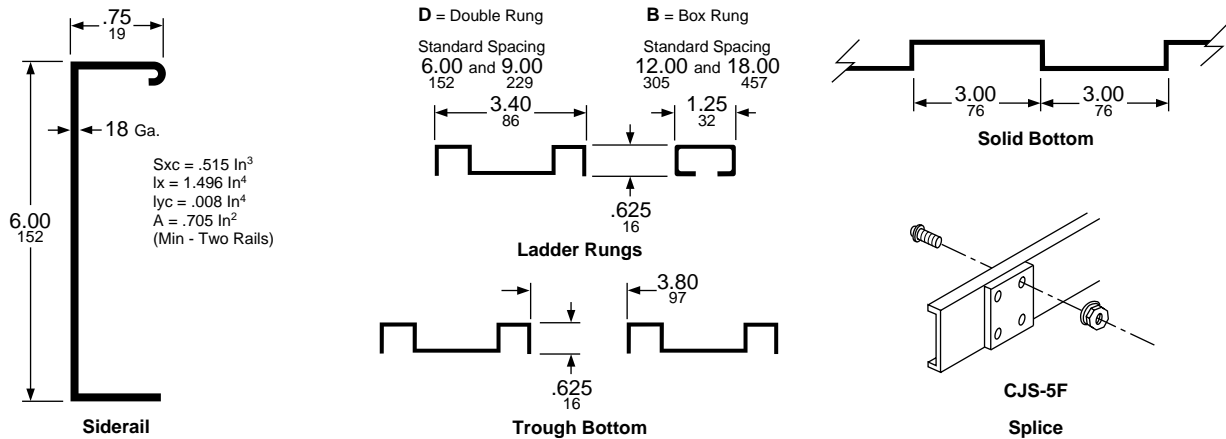
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Hot dip galvanized after fabrication per ASTM A123-84.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m
	6.00	1.8	8.00	2.4	10.00	3.0	12.00	3.7
Load – Lbs/Ft	332		187		120		83	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm
	0.11	3	0.20	5	0.31	8	0.45	11

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 25 lbs/ft on a 12 ft span would yield 0.14 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG5JD-06SS09-144	CLG5JD-06SS06-144	CTG5JD-06SS-144	CSG5JS-06SS-144
CLG5JD-12SS09-144	CLG5JD-12SS06-144	CTG5JD-12SS-144	CSG5JS-12SS-144
CLG5JD-18SS09-144	CLG5JD-18SS06-144	CTG5JD-18SS-144	CSG5JS-18SS-144
CLG5JD-24SS09-144	CLG5JD-24SS06-144	CTG5JD-24SS-144	CSG5JS-24SS-144
CLG5JD-30SS09-144	CLG5JD-30SS06-144	CTG5JD-30SS-144	CSG5JS-30SS-144
CLG5JD-36SS09-144	CLG5JD-36SS06-144	CTG5JD-36SS-144	CSG5JS-36SS-144

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJS-5A
Expansion Splices (2)	CJS-5EX
Horizontal Adjustable (2)	CJS-5H
Vertical Adjustable (2)	CJS-5V
3 in (76 mm) Reducing Splice	CJS-5R03
6 in (152 mm) Reducing Splice	CJS-5R06
9 in (229 mm) Reducing Splice	CJS-5R09
12 in (305 mm) Reducing Splice	CJS-5R12
18 in (457 mm) Reducing Splice	CJS-5R18
Tray to Box	CJS-5TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPS5-06
12 in (305 mm) Wide	CEPS5-12
18 in (457 mm) Wide	CEPS5-18
24 in (607 mm) Wide	CEPS5-24
30 in (762 mm) Wide	CEPS5-30
36 in (914 mm) Wide	CEPS5-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-17
5 in (127 mm) Z Clips (2)	CHD-5Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

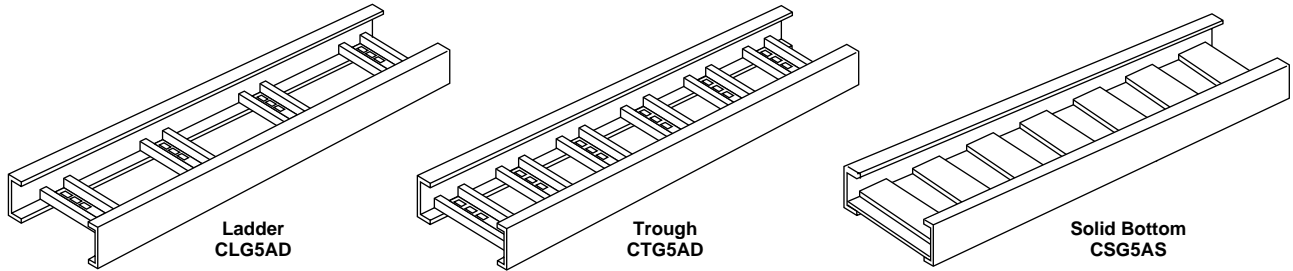
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBS5-144
Horizontal Adjustment	CBS5-HB
Vertical Outside 90 Degrees	CBS5-VO-(R)
Vertical Inside 90 Degrees	CBS5-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

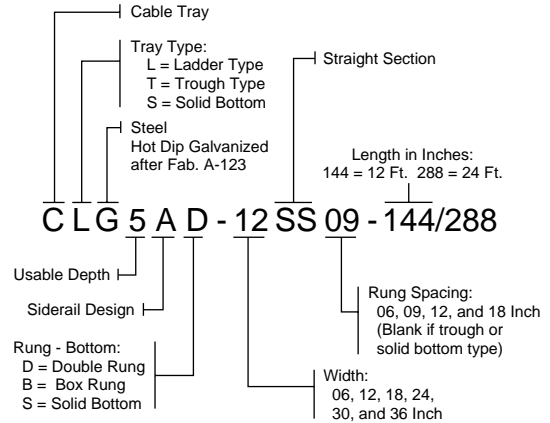


5.38 in (137 mm) Load Depth – Steel – NEMA Type Class 20B



Product Features

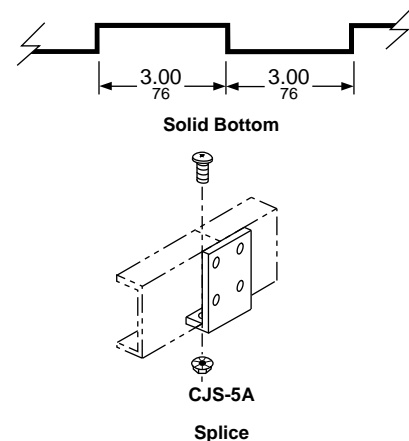
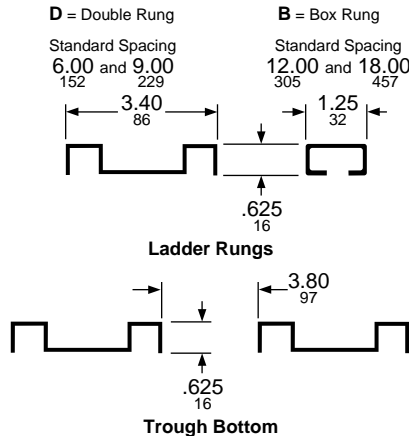
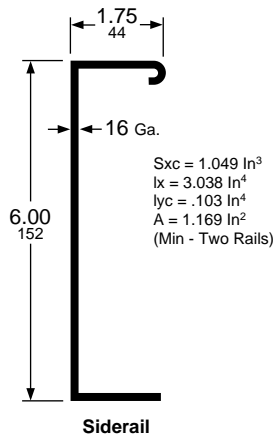
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Hot dip galvanized after fabrication per ASTM A123-84.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m) or 24 ft (7.3 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m	FT	m
	12.00	3.7	14.00	4.3	16.00	4.9	18.00	5.5	20.00	6.1
Load – Lbs/Ft	231		169		130		102		83	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm
	0.61	15	0.83	21	1.09	28	1.37	35	1.70	43

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 42 lbs/ft on a 20 ft span would yield 0.85 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG5AD-06SS09-144	CLG5AD-06SS06-144	CTG5AD-06SS-144	CSG5AS-06SS-144
CLG5AD-12SS09-144	CLG5AD-12SS06-144	CTG5AD-12SS-144	CSG5AS-12SS-144
CLG5AD-18SS09-144	CLG5AD-18SS06-144	CTG5AD-18SS-144	CSG5AS-18SS-144
CLG5AD-24SS09-144	CLG5AD-24SS06-144	CTG5AD-24SS-144	CSG5AS-24SS-144
CLG5AD-30SS09-144	CLG5AD-30SS06-144	CTG5AD-30SS-144	CSG5AS-30SS-144
CLG5AD-36SS09-144	CLG5AD-36SS06-144	CTG5AD-36SS-144	CSG5AS-36SS-144

Ladder		Trough Type	Solid Bottom
24 ft (7.32 m) Long, 9 in (229 mm) Rung Spacing	24 ft (7.32 m) Long, 6 in (152 mm) Rung Spacing	24 ft (7.32 m) Long Straight Section	24 ft (7.32 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG5AD-06SS09-288	CLG5AD-06SS06-288	CTG5AD-06SS-288	CSG5AS-06SS-288
CLG5AD-12SS09-288	CLG5AD-12SS06-288	CTG5AD-12SS-288	CSG5AS-12SS-288
CLG5AD-18SS09-288	CLG5AD-18SS06-288	CTG5AD-18SS-288	CSG5AS-18SS-288
CLG5AD-24SS09-288	CLG5AD-24SS06-288	CTG5AD-24SS-288	CSG5AS-24SS-288
CLG5AD-30SS09-288	CLG5AD-30SS06-288	CTG5AD-30SS-288	CSG5AS-30SS-288
CLG5AD-36SS09-288	CLG5AD-36SS06-288	CTG5AD-36SS-288	CSG5AS-36SS-288

12 in (305 mm) Radius	24 in (607 mm) Radius	36 in (914 mm) Radius
Catalog Number★	Catalog Number★	Catalog Number★
Horizontal Elbows		
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36
Horizontal Tees		
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36
Vertical Elbows		
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36
Horizontal Crosses		
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

★ Add the prefix from straight sections above to complete the catalog numbers for these fittings.

† Substitute degrees (30, 45, 60, 90) in catalog number.

‡ Substitute I for inside elbow and O for outside elbow.

Splices

Description	Catalog Number
Standard (extra pair)	CJS-5A
Expansion Splices (2)	CJS-5EX
Horizontal Adjustable (2)	CJS-5H
Vertical Adjustable (2)	CJS-5V
3 in (76 mm) Reducing Splice	CJS-5R03
6 in (152 mm) Reducing Splice	CJS-5R06
9 in (229 mm) Reducing Splice	CJS-5R09
12 in (305 mm) Reducing Splice	CJS-5R12
18 in (457 mm) Reducing Splice	CJS-5R18
Tray to Box	CJS-5TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPS5-06
12 in (305 mm) Wide	CEPS5-12
18 in (457 mm) Wide	CEPS5-18
24 in (607 mm) Wide	CEPS5-24
30 in (762 mm) Wide	CEPS5-30
36 in (914 mm) Wide	CEPS5-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-17
5 in (127 mm) Z Clips (2)	CHD-5Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

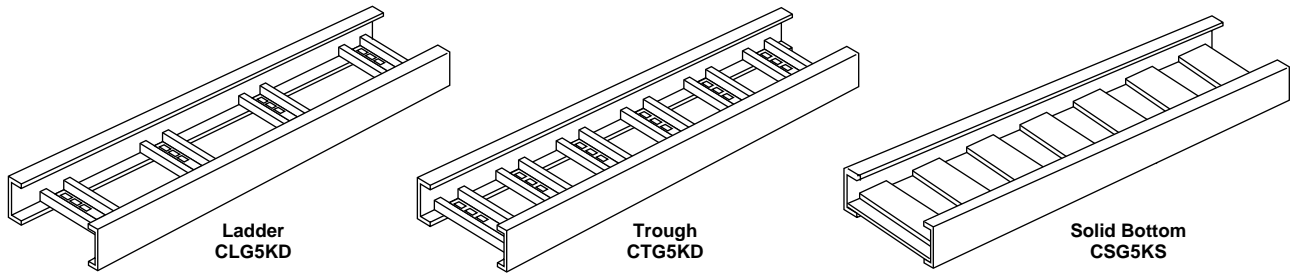
Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBS5-144
Horizontal Adjustable	CBS5-HB
Vertical Outside 90 Degrees	CBS5-VO-(R)
Vertical Inside 90 Degrees	CBS5-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.

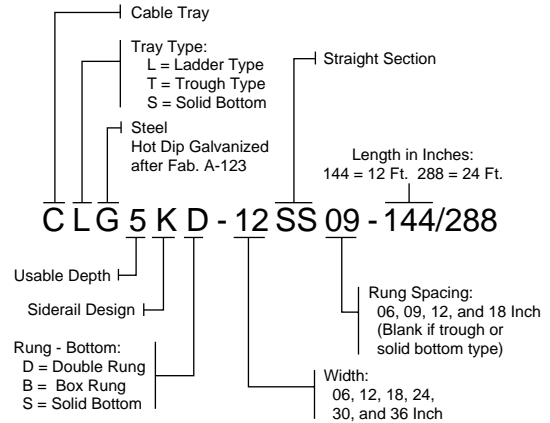


5.38 in (137 mm) Load Depth – Steel – NEMA Type Class 20C



Product Features

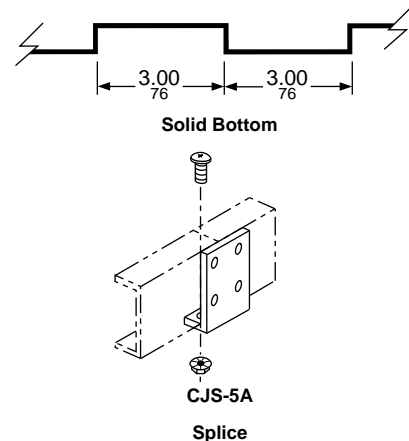
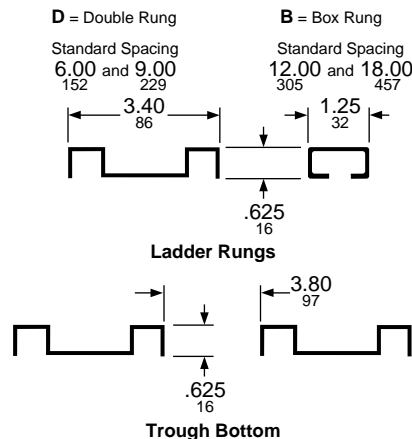
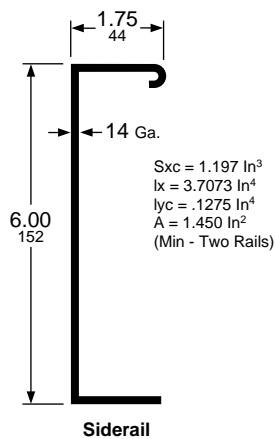
- Rugged welded construction.
- Space saving design (siderail flanges turned in).
- Rounded siderail flanges protect cables.
- All designs permit easy cable dropout with no sharp edges to damage insulation.
- Slotted rung and bottom allows simple cable fastening.
- Supports a 200 lb concentrated load (static load applied to middle six inches with no permanent deformation).
- High strength splices allow random locations between supports (full sections used on all simple beams).
- Hot dip galvanized after fabrication per PVC Coated.
- Also available – Epoxy Painted or PVC Coated.
- Pair of splices included with each tray section.
- Standard straight section length is 12 ft (3.7 m) or 24 ft (7.3 m).
- Complete line of fittings and accessories.



Load Chart

Support Span	FT	m	FT	m	FT	m	FT	m	FT	m
	12.00	3.7	14.00	4.3	16.00	4.9	18.00	5.5	20.00	6.1
Load – Lbs/Ft	277		238		156		123		100	
Deflection	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm
	0.69	18	0.87	22	1.08	27	1.32	34	1.48	38

Deflection shown is for simple beam. Under installed conditions (2 spans or greater) the deflection is between 1/4 and 1/2 of simple beam values. Lesser loads on same span yield proportionally less deflection. E.g., 50 lbs/ft on a 20 ft span would yield 0.74 in deflection.



Catalog Numbers of Common Devices

Straight Sections

Ladder		Trough Type	Solid Bottom
12 ft (3.66 m) Long, 9 in (229 mm) Rung Spacing	12 ft (3.66 m) Long, 6 in (152 mm) Rung Spacing	12 ft (3.66 m) Long Straight Section	12 ft (3.66 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG5KD-06SS09-144	CLG5KD-06SS06-144	CTG5KD-06SS-144	CSG5KS-06SS-144
CLG5KD-12SS09-144	CLG5KD-12SS06-144	CTG5KD-12SS-144	CSG5KS-12SS-144
CLG5KD-18SS09-144	CLG5KD-18SS06-144	CTG5KD-18SS-144	CSG5KS-18SS-144
CLG5KD-24SS09-144	CLG5KD-24SS06-144	CTG5KD-24SS-144	CSG5KS-24SS-144
CLG5KD-30SS09-144	CLG5KD-30SS06-144	CTG5KD-30SS-144	CSG5KS-30SS-144
CLG5KD-36SS09-144	CLG5KD-36SS06-144	CTG5KD-36SS-144	CSG5KS-36SS-144

Ladder		Trough Type	Solid Bottom
24 ft (7.32 m) Long, 9 in (229 mm) Rung Spacing	24 ft (7.32 m) Long, 6 in (152 mm) Rung Spacing	24 ft (7.32 m) Long Straight Section	24 ft (7.32 m) Long Straight Section
Catalog Number	Catalog Number	Catalog Number	Catalog Number
CLG5KD-06SS09-288	CLG5KD-06SS06-288	CTG5KD-06SS-288	CSG5KS-06SS-288
CLG5KD-12SS09-288	CLG5KD-12SS06-288	CTG5KD-12SS-288	CSG5KS-12SS-288
CLG5KD-18SS09-288	CLG5KD-18SS06-288	CTG5KD-18SS-288	CSG5KS-18SS-288
CLG5KD-24SS09-288	CLG5KD-24SS06-288	CTG5KD-24SS-288	CSG5KS-24SS-288
CLG5KD-30SS09-288	CLG5KD-30SS06-288	CTG5KD-30SS-288	CSG5KS-30SS-288
CLG5KD-36SS09-288	CLG5KD-36SS06-288	CTG5KD-36SS-288	CSG5KS-36SS-288

These trays use "common" fittings.

Select: CLG5AD Ladder-style, CTG5AD Trough-style, CSG5AS Solid-style from Page 29.

Splices

Description	Catalog Number
Standard (extra pair)	CJS-5A
Expansion Splices (2)	CJS-5EX
Horizontal Adjustable (2)	CJS-5H
Vertical Adjustable (2)	CJS-5V
3 in (76 mm) Reducing Splice	CJS-5R03
6 in (152 mm) Reducing Splice	CJS-5R06
9 in (229 mm) Reducing Splice	CJS-5R09
12 in (305 mm) Reducing Splice	CJS-5R12
18 in (457 mm) Reducing Splice	CJS-5R18
Tray to Box	CJS-5TB

End Plates

Description	Catalog Number
6 in (152 mm) Wide	CEPS5-06
12 in (305 mm) Wide	CEPS5-12
18 in (457 mm) Wide	CEPS5-18
24 in (607 mm) Wide	CEPS5-24
30 in (762 mm) Wide	CEPS5-30
36 in (914 mm) Wide	CEPS5-36

Hold Down Clips

Description	Catalog Number
Hanger Clips (2)	CHC-17
5 in (127 mm) Z Clips (2)	CHD-5Z
Square Clips (2)	CHD-SS
Expansion Guides (2)	CHD-ES

Barriers

Description	Catalog Number
12 ft (3.7 m) Long Straight	CBS5-144
Horizontal Adjustment	CBS5-HB
Vertical Outside 90 Degrees	CBS5-VO-(R)
Vertical Inside 90 Degrees	CBS5-VI-(R)

See pages 43-52 for covers, cover clips, wall brackets, single center supports, and other items not shown on this page.



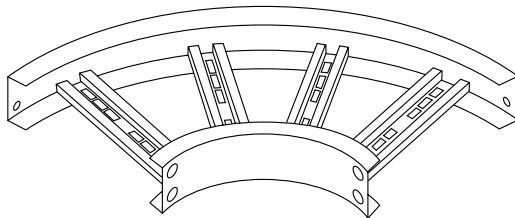
Fittings

Cable tray fittings are those components which provide for changes in direction or elevation of the cable tray system. Square D fittings are available in NEMA standard bending radii of 12 in (305mm), 24 in (610mm) and 36 in (914mm) to accommodate a wide range of cable sizes and types. The horizontal and vertical elbows are available in 30, 45, 60, and 90 degrees of arc. Consult your cable manufacturer or the National Electric Code for recommended bending radii of the cables to be installed.

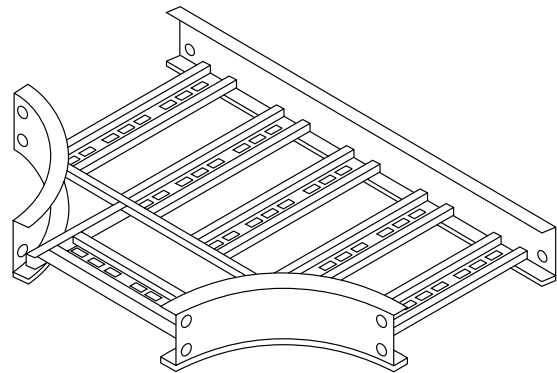
For ordering purposes, use the basic tray prefix as shown on the data sheet (Page 4-30) and insert it before the descriptive portion of the catalog number as shown on the following pages. Each

fitting comes complete with the required number of appropriate splice plates and associated hardware. (2 plates with each horizontal or vertical elbow, 4 plates with a tee, and 6 with a cross fitting).

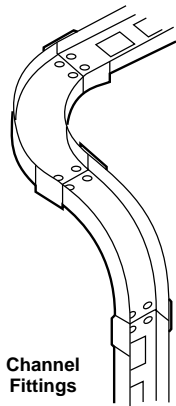
All Square D fittings are manufactured without tangents past the point of curvature. This feature allows for an offset to be made in the least possible space and also provides for simple field cutting to other degree fittings if required. The no-tangent aspect also permits the use of a common splice plate for both straight tray and fittings.



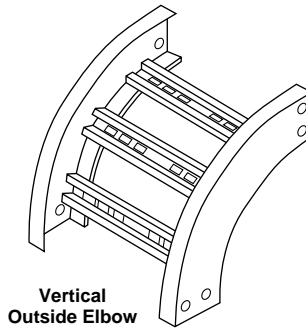
Horizontal 90° Elbow



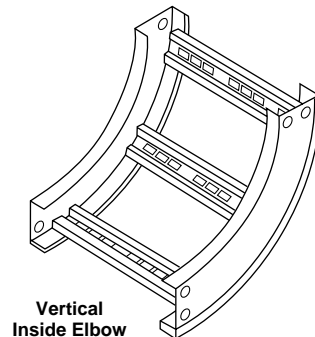
Horizontal Tee



Channel Fittings



Vertical Outside Elbow



Vertical Inside Elbow

All illustrations shown herein depict our standard ladder double rung. This is common for all ladder and trough fittings. The rung spacing of ladder fittings is generally maintained at the fitting centerline. The siderails are channel shape with straight flanges for both aluminum and steel trays. The dimensions shown are representative for all ladder, trough, and solid bottom fittings.

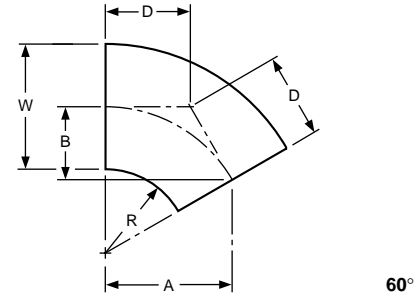
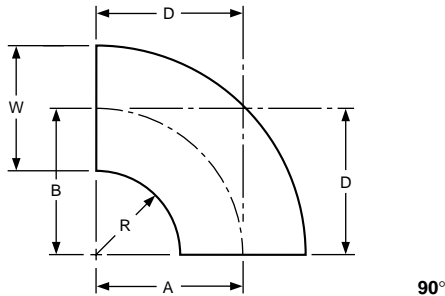
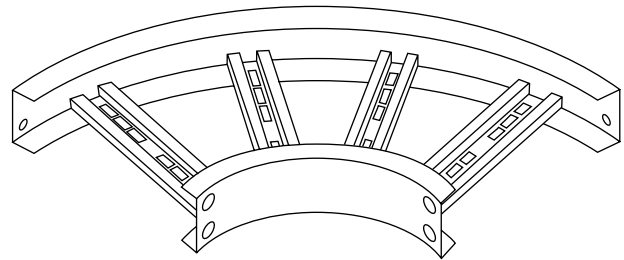
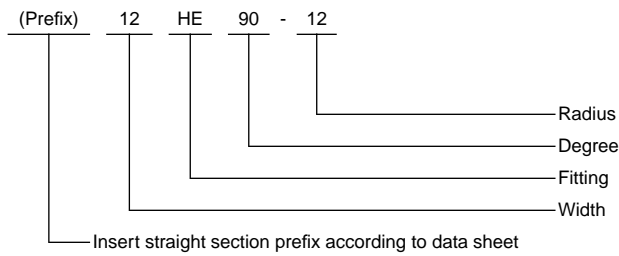
To reduce trays in width, we offer reducing splice plates as shown on Page 50. Also depicted on that page are special splices and frames which provide for vertical tees and vertical support elbows.

For alternatives to exact degree fittings, the user may select flexible or angle splice plates for use as special or odd degree fittings. See Page 47 for details and catalog numbers.

Cable tray fittings normally require more specific supporting means and locations. Refer to NEMA standard VE-1 part 6 for support locations.



Catalog Numbering System



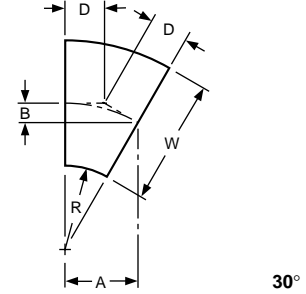
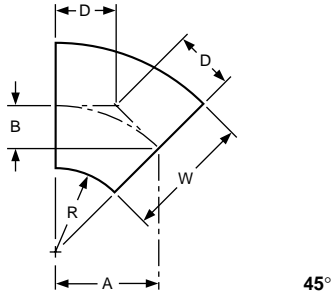
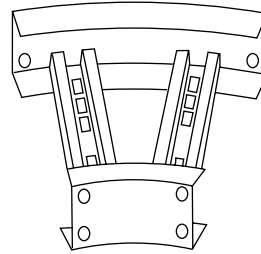
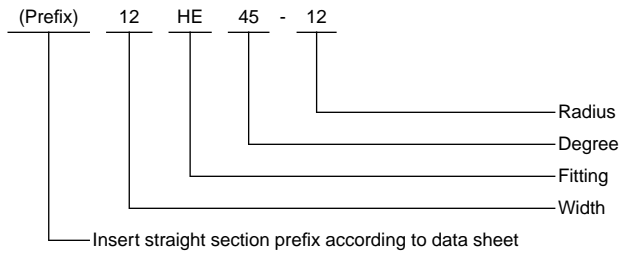
Bend Radius (R)		Width (W)		90 Degree Horizontal Bend		Outline Dimensions					
						Catalog Number		A		B		D
IN	mm	IN	mm	Prefix		IN	mm	IN	mm	IN	mm
12	305	6	152	Prefix	-06HE90-12	15.00	381	15.00	381	15.00	381
					-12HE90-12	18.00	457	18.00	457	18.00	457
					-18HE90-12	21.00	533	21.00	533	21.00	533
					-24HE90-12	24.00	610	24.00	610	24.00	610
					-30HE90-12	27.00	686	27.00	686	27.00	686
					-36HE90-12	30.00	762	30.00	762	30.00	762
24	610	6	152	Prefix	-06HE90-24	27.00	686	27.00	686	27.00	686
					-12HE90-24	30.00	762	30.00	762	30.00	762
					-18HE90-24	33.00	838	33.00	838	33.00	838
					-24HE90-24	36.00	914	36.00	914	36.00	914
					-30HE90-24	39.00	991	39.00	991	39.00	991
					-36HE90-24	42.00	1067	42.00	1067	42.00	1067
36	762	6	152	Prefix	-06HE90-36	39.00	991	39.00	991	39.00	991
					-12HE90-36	42.00	1067	42.00	1067	42.00	1067
					-18HE90-36	45.00	1143	45.00	1143	45.00	1143
					-24HE90-36	48.00	1219	48.00	1219	48.00	1219
					-30HE90-36	51.00	1295	51.00	1295	51.00	1295
					-36HE90-36	54.00	1372	54.00	1372	54.00	1372

Bend Radius (R)		Width (W)		90 Degree Horizontal Bend		Outline Dimensions					
						Catalog Number		A		B		D
IN	mm	IN	mm	Prefix		IN	mm	IN	mm	IN	mm
12	305	6	152	Prefix	-06HE60-12	13.00	330	7.50	191	8.63	219
					-12HE60-12	15.63	397	9.00	229	10.38	264
					-18HE60-12	18.13	461	10.50	267	12.13	308
					-24HE60-12	20.75	527	12.00	305	13.88	353
					-30HE60-12	23.38	594	13.50	343	15.63	397
					-36HE60-12	26.00	660	15.00	381	17.38	441
24	610	6	152	Prefix	-06HE60-24	23.38	594	13.50	343	15.63	397
					-12HE60-24	26.00	660	15.00	381	17.38	441
					-18HE60-24	28.63	727	16.50	419	19.00	483
					-24HE60-24	31.13	791	18.00	457	20.75	527
					-30HE60-24	33.75	857	19.50	495	22.50	572
					-36HE60-24	36.38	924	21.00	533	24.25	616
36	762	6	152	Prefix	-06HE60-36	33.75	857	19.50	495	22.50	572
					-12HE60-36	36.38	924	21.00	533	24.25	616
					-18HE60-36	39.00	991	22.50	572	26.00	660
					-24HE60-36	41.50	1054	24.00	610	27.75	705
					-30HE60-36	44.13	1121	25.50	648	29.50	749
					-36HE60-36	46.75	1187	27.00	686	31.13	791



Horizontal Fittings

Catalog Numbering System

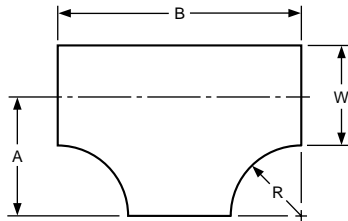
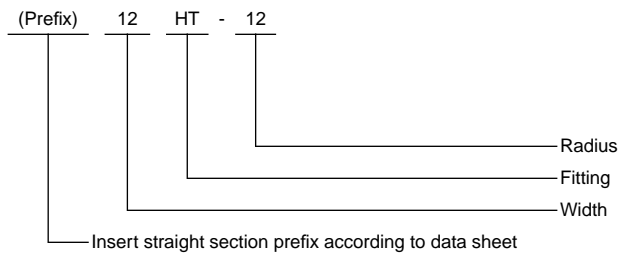


Bend Radius (R)		Width (W)		45 Degree Horizontal Bend	Outline Dimensions						
IN	mm	IN	mm		Catalog Number	A		B		D	
						IN	mm	IN	mm	IN	mm
12	305	Prefix	6	152	-06HE45-12	10.63	270	4.38	111	6.25	159
			12	305	-12HE45-12	12.75	324	5.25	133	7.50	191
			18	457	-18HE45-12	14.88	378	6.13	156	8.63	219
			24	610	-24HE45-12	17.00	432	7.00	178	10.00	254
			30	762	-30HE45-12	19.13	486	7.88	200	11.13	283
			36	914	-36HE45-12	21.25	540	8.75	222	12.38	314
24	610	Prefix	6	152	-06HE45-24	19.13	486	7.88	200	11.13	283
			12	305	-12HE45-24	21.25	540	8.75	222	12.38	314
			18	457	-18HE45-24	23.38	594	9.63	245	13.63	346
			24	610	-24HE45-24	25.50	648	10.50	267	14.88	378
			30	762	-30HE45-24	27.50	699	11.50	292	16.13	410
			36	914	-36HE45-24	29.63	753	12.38	314	17.38	441
36	762	Prefix	6	152	-06HE45-36	27.50	699	11.38	289	16.13	410
			12	305	-12HE45-36	29.63	753	12.25	311	17.38	441
			18	457	-18HE45-36	31.75	806	13.13	334	18.63	473
			24	610	-24HE45-36	34.00	864	14.00	356	19.88	505
			30	762	-30HE45-36	36.00	915	15.00	381	21.13	537
			36	914	-36HE45-36	38.13	969	15.88	403	22.38	568

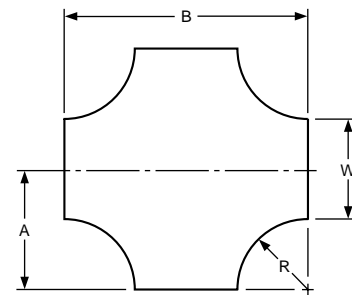
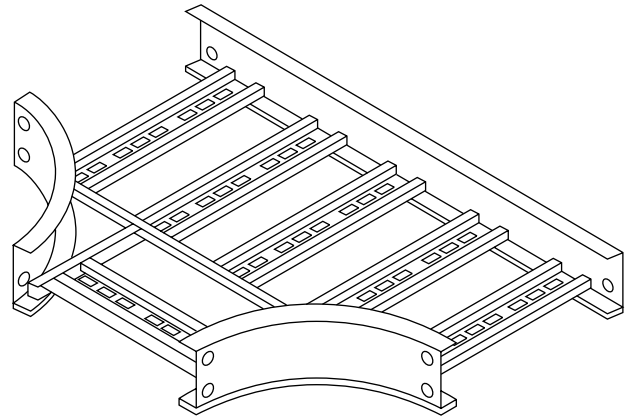
Bend Radius (R)		Width (W)		30 Degree Horizontal Bend	Outline Dimensions						
IN	mm	IN	mm		Catalog Number	A		B		D	
						IN	mm	IN	mm	IN	mm
12	305	Prefix	6	152	-06HE30-12	7.50	191	2.00	51	4.00	102
			12	305	-12HE30-12	9.00	229	2.38	60	4.88	124
			18	457	-18HE30-12	10.50	267	2.88	73	5.63	133
			24	610	-24HE30-12	12.00	305	3.25	83	6.50	165
			30	762	-30HE30-12	13.50	343	3.63	92	7.25	184
			36	914	-36HE30-12	15.00	381	4.00	102	8.00	203
24	610	Prefix	6	152	-06HE30-24	13.50	343	3.63	92	7.25	184
			12	305	-12HE30-24	15.00	381	4.00	102	8.00	203
			18	457	-18HE30-24	16.50	419	4.38	111	8.88	226
			24	610	-24HE30-24	18.00	457	4.88	124	9.63	145
			30	762	-30HE30-24	19.50	495	5.25	133	10.50	267
			36	914	-36HE30-24	21.00	533	5.63	143	11.25	286
36	762	Prefix	6	152	-06HE30-36	19.50	495	5.25	133	10.50	267
			12	305	-12HE30-36	21.00	533	5.63	143	11.25	286
			18	457	-18HE30-36	22.50	572	6.00	152	12.13	308
			24	610	-24HE30-36	24.00	610	6.38	162	12.88	327
			30	762	-30HE30-36	25.50	648	6.88	175	13.63	346
			36	914	-36HE30-36	27.00	686	7.25	184	14.50	368



Catalog Numbering System



Tee



Cross

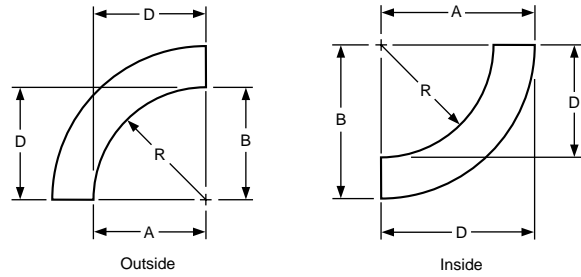
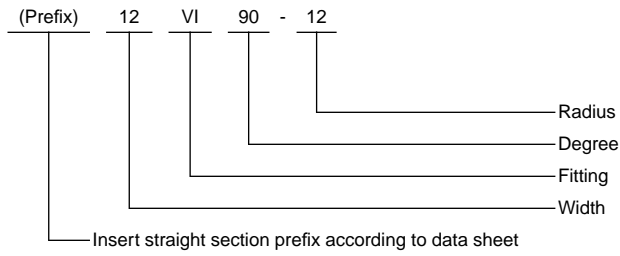
Bend Radius (R)		Width (W)		Horizontal Tee		Outline Dimensions			
						Catalog Number		A		B
IN	mm	IN	mm	Prefix	Catalog Number	IN	mm	IN	mm
12	305	6	152	Prefix	-06HT-12	15.00	381	30.00	762
					-12HT-12	18.00	457	36.00	914
					-18HT-12	21.00	533	42.00	1067
					-24HT-12	24.00	610	48.00	1219
					-30HT-12	27.00	686	54.00	1372
					-36HT-12	30.00	762	60.00	1524
24	610	6	152	Prefix	-06HT-24	27.00	686	54.00	1372
					-12HT-24	30.00	762	60.00	1524
					-18HT-24	33.00	838	66.00	1676
					-24HT-24	36.00	914	72.00	1829
					-30HT-24	39.00	991	78.00	1981
					-36HT-24	42.00	1067	84.00	2134
36	762	6	152	Prefix	-06HT-36	39.00	991	78.00	1981
					-12HT-36	42.00	1067	84.00	2134
					-18HT-36	45.00	1143	90.00	2286
					-24HT-36	48.00	1219	96.00	2438
					-30HT-36	51.00	1295	102.00	2591
					-36HT-36	54.00	1372	108.00	2743

Bend Radius (R)		Width (W)		Horizontal Cross		Outline Dimensions			
						Catalog Number		A		B
IN	mm	IN	mm	Prefix	Catalog Number	IN	mm	IN	mm
12	305	6	152	Prefix	-06HX-12	15.00	381	30.00	762
					-12HX-12	18.00	457	36.00	914
					-18HX-12	21.00	533	42.00	1067
					-24HX-12	24.00	610	48.00	1219
					-30HX-12	27.00	686	54.00	1372
					-36HX-12	30.00	762	60.00	1524
24	610	6	152	Prefix	-06HX-24	27.00	686	54.00	1372
					-12HX-24	30.00	762	60.00	1524
					-18HX-24	33.00	838	66.00	1676
					-24HX-24	36.00	914	72.00	1829
					-30HX-24	39.00	991	78.00	1981
					-36HX-24	42.00	1067	84.00	2134
36	762	6	152	Prefix	-06HX-36	39.00	991	78.00	1981
					-12HX-36	42.00	1067	84.00	2134
					-18HX-36	45.00	1143	90.00	2286
					-24HX-36	48.00	1219	96.00	2438
					-30HX-36	51.00	1295	102.00	2591
					-36HX-36	54.00	1372	108.00	2743

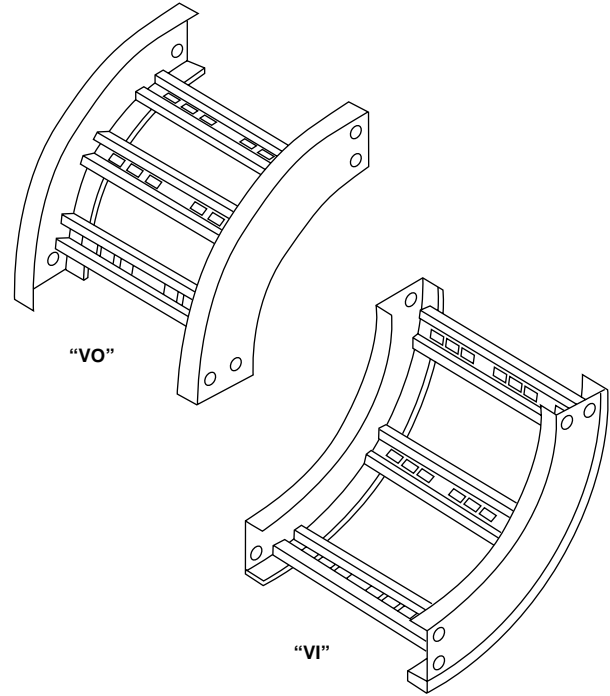


Vertical Fittings

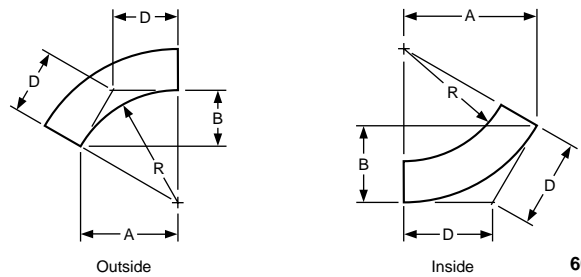
Catalog Numbering System



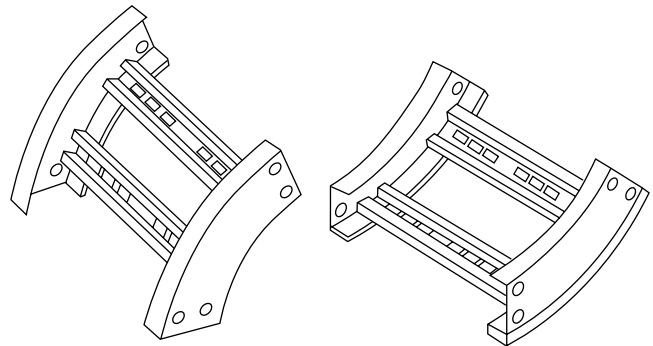
90°



Bend Radius (R)	Catalog Number Add Appropriate Width (W) and Insert O or I in (★) For Outside/Inside Bend	Vertical Outside Bend Dimensions						Vertical Inside Bend – (Side Rail Height)																			
								3.63 in (92 mm)				4.63 in (118 mm)				6.00 in (152 mm)											
		A		B		D		A		B		D		A		B		D		A		B		D			
IN	m	IN	m	IN	m	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm				
12	305	Prefix	-(W) V (★) 90-12	12.00	305	12.00	305	12.00	305	15.63	397	15.63	397	15.63	397	16.63	422	16.63	422	16.63	422	18.00	457	18.00	457	18.00	457
24	610	Prefix	-(W) V (★) 90-24	24.00	610	24.00	610	24.00	610	27.63	702	27.63	702	27.63	702	28.63	727	28.63	727	28.63	727	30.00	762	30.00	762	30.00	762
36	914	Prefix	-(W) V (★) 90-36	36.00	914	36.00	914	36.00	914	39.63	1007	39.63	1007	39.63	1007	40.63	1032	40.63	1032	40.63	1032	42.00	1067	42.00	1067	42.00	1067



60°



Bend Radius (R)	Catalog Number Add Appropriate Width (W) and Insert O or I in (★) For Outside/Inside Bend	Vertical Outside Bend Dimensions						Vertical Inside Bend – (Side Rail Height)																			
								3.63 in (92 mm)				4.63 in (118 mm)				6.00 in (152 mm)											
		A		B		D		A		B		D		A		B		D		A		B		D			
IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm	IN	mm				
12	305	Prefix	-(W) V (★) 90-12	10.38	264	6.00	152	6.88	175	13.50	343	7.75	197	9.00	229	14.38	365	8.25	210	9.50	241	15.63	397	9.00	229	10.38	264
24	610	Prefix	-(W) V (★) 90-24	20.75	527	12.00	305	13.88	353	24.00	610	13.88	353	16.00	406	24.75	629	14.25	362	16.50	419	26.00	660	15.00	381	17.38	441
36	914	Prefix	-(W) V (★) 90-36	31.13	791	18.00	527	20.75	527	34.25	870	19.75	502	22.88	581	35.13	892	20.25	514	23.50	597	36.38	924	21.00	533	24.25	616



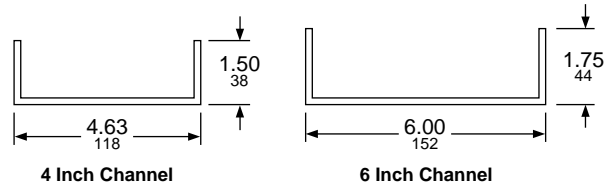
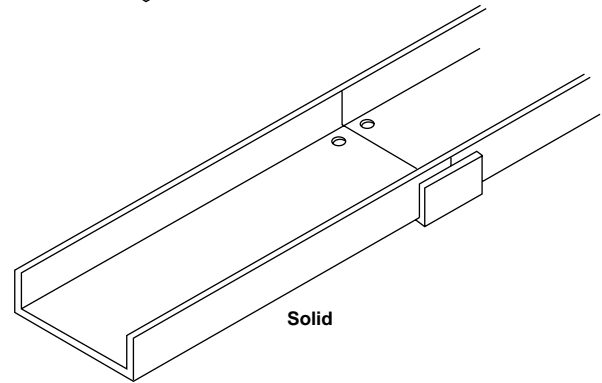
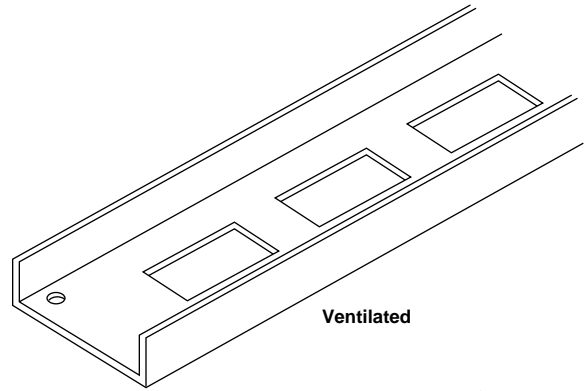
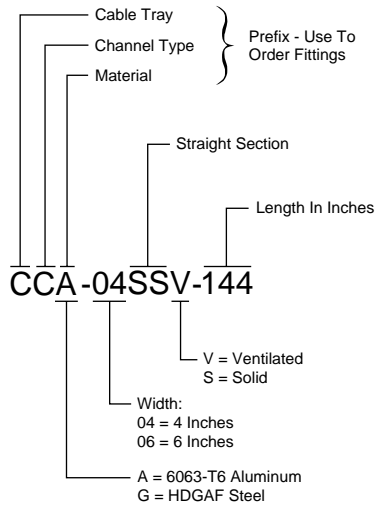
Channel Type

SQUARE D Channel trays are of one-piece construction and available in widths of 4.63 in (118mm) and 6 in (152mm). They are designed to serve as an economical alternative to conduit for carrying one cable or a small number of cables to individual equipment or termination points.

SQUARE D Channel trays are available in both ventilated and solid designs. They are furnished in either Aluminum alloy 6063-T6 or steel which is hot dip galvanized after fabrication per ASTM A123-84. The straight trays are provided in 12 ft (3.7m) long sections. All channel fittings are solid type and are available in 12 in (305mm), 24 in (610mm) or 36 in (914mm) radius. The fittings are furnished without targets to make offsets in the least possible space. This feature also allows for easy cutting and splicing in the field.

Each straight section and fitting comes complete with a channel splice plate and all required hardware. Additional plates as required for field cuts may be ordered separately. See the accessory section of this catalog for this and additional accessory items.

Catalog Numbering System



Dual Dimensions: INCHES
Millimeters

Material	Width		Support Span			
	IN	mm	6 Ft Load/Deflection	8 Ft Load/Deflection	10 Ft Load/Deflection	12 Ft Load/Deflection
Aluminum Channels	4	102	28 lb/0.72 in	16 lb/1.29 in	10 lb/1.97 in	7 lb/2.86 in
	6	152	40 lb/0.55 in	23 lb/1.00 in	14 lb/1.49 in	10 lb/2.21 in
Steel Channels	4	102	40 lb/0.32 in	23 lb/0.58 in	14 lb/0.91 in	10 lb/1.28 in
	6	152	48 lb/0.25 in	27 lb/0.43 in	17 lb/0.66 in	12 lb/0.96 in

Note: Values shown are for ventilated type channels. For solid channels, the load values will be slightly higher and deflections slightly less. Deflections expressed are for simple beam applications; installed conditions will exhibit only 1/4 to 1/2 of deflections shown.
lb = Cable load in lbs per linear foot.



Aluminum Channel

Straight Sections

Width		Ventilated	Solid
IN	mm	Catalog Number	Catalog Number
4.00	102	CCA-04SSV-144	CCA-04SSS-144
6.00	152	CCA-06SSV-144	CCA-06SSS-144

Horizontal Elbows

Width		12.00 in (305 mm) Radius	24.00 in (610 mm) Radius	36.00 in (914 mm) Radius
IN	mm	Catalog Number	Catalog Number	Catalog Number
4.00	102	CCA-04HE(†)-12	CCA-06HE(†)-24	CCA-06HE(†)-36
6.00	152	CCA-06HE(†)-12	CCA-06HE(†)-24	CCA-06HE(†)-36

Vertical Elbows

Width		12.00 in (305 mm) Radius	24.00 in (610 mm) Radius	36.00 in (914 mm) Radius
IN	mm	Catalog Number	Catalog Number	Catalog Number
4.00	102	CCA-04V(‡)(†)-12	CCA-06V(‡)(†)-24	CCA-06V(‡)(†)-36
6.00	152	CCA-06V(‡)(†)-12	CCA-06V(‡)(†)-24	CCA-06V(‡)(†)-36

† Substitute degrees (30, 45, 60, 90) in catalog number.
‡ Substitute I for inside elbow and O for outside elbow.

Accessories

Width		Standard Splices	Horizontal Adjustable Splices	Vertical Adjustable Splices
IN	mm	Catalog Number	Catalog Number	Catalog Number
4.00	102	CJA-4C	CJA-4HC	CJA-4VC
6.00	152	CJA-6C	CJA-6HC	CJA-6VC

Channel to Tray Connector

Width		Standard Splices
IN	mm	Catalog Number
4.00	102	CJA-4CTB
6.00	152	CJA-6CTB

Supports

Description	Catalog Number
Channel Hanger	CSCH
Channel Bracket	CSCB

Hold Down Clips

Catalog Number
CHD-15
CHD-17

Steel Channel

Straight Sections

Width		Ventilated	Solid
IN	mm	Catalog Number	Catalog Number
4.00	102	CCG-04SSV-144	CCG-04SSS-144
6.00	152	CCG-06SSV-144	CCG-06SSS-144

Horizontal Elbows

Width		12.00 in (305 mm) Radius	24.00 in (610 mm) Radius	36.00 in (914 mm) Radius
IN	mm	Catalog Number	Catalog Number	Catalog Number
4.00	102	CCS-04HE(†)-12	CCS-06HE(†)-24	CCS-06HE(†)-36
6.00	152	CCS-06HE(†)-12	CCS-06HE(†)-24	CCS-06HE(†)-36

Vertical Elbows

Width		12.00 in (305 mm) Radius	24.00 in (610 mm) Radius	36.00 in (914 mm) Radius
IN	mm	Catalog Number	Catalog Number	Catalog Number
4.00	102	CCS-04V(‡)(†)-12	CCS-06V(‡)(†)-24	CCS-06V(‡)(†)-36
6.00	152	CCS-06V(‡)(†)-12	CCS-06V(‡)(†)-24	CCS-06V(‡)(†)-36

† Substitute degrees (30, 45, 60, 90) in catalog number.
‡ Substitute I for inside elbow and O for outside elbow.

Accessories

Width		Standard Splices	Horizontal Adjustable Splices	Vertical Adjustable Splices
IN	mm	Catalog Number	Catalog Number	Catalog Number
4.00	102	CJS-4C	CJS-4HC	CJS-4VC
6.00	152	CJS-6C	CJS-6HC	CJS-6VC

Channel to Tray Connector

Width		Standard Splices
IN	mm	Catalog Number
4.00	102	CJS-4CTB
6.00	152	CJS-6CTB

Supports

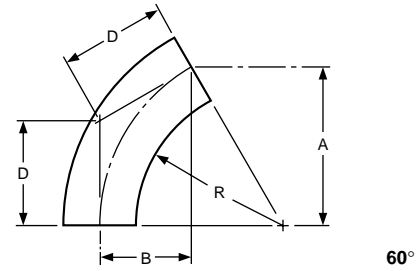
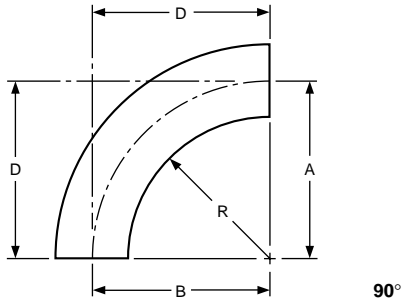
Description	Catalog Number
Channel Hanger	CSCH
Channel Bracket	CSCB

Hold Down Clips

Catalog Number
CHD-15
CHD-17



Horizontal Fittings – Channel Type

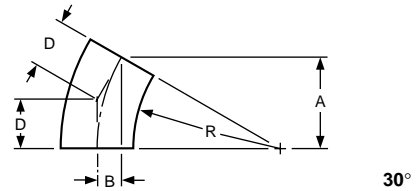
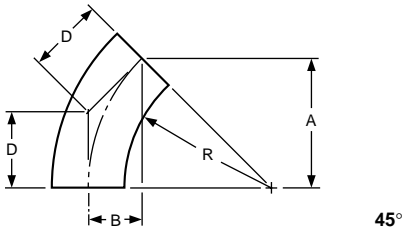


Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04HE90-12	14.31	363	14.31	363	14.31	363
		6.00	152	(★)-06HE90-12	15.00	381	15.00	381	15.00	381
24.00	610	4.00	102	(★)-04HE90-24	26.31	668	26.31	668	26.31	668
		6.00	152	(★)-06HE90-24	27.00	686	27.00	686	27.00	686
36.00	914	4.00	102	(★)-04HE90-36	38.31	973	38.31	973	38.31	973
		6.00	152	(★)-06HE90-36	39.00	991	39.00	991	39.00	991

★ Insert prefix.

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04HE60-12	12.38	314	7.13	181	8.25	210
		6.00	152	(★)-06HE60-12	13.00	330	7.50	191	8.63	219
24.00	610	4.00	102	(★)-04HE60-24	22.88	579	13.25	337	15.25	387
		6.00	152	(★)-06HE60-24	23.38	594	13.50	343	15.50	394
36.00	914	4.00	102	(★)-04HE60-36	33.13	842	19.13	486	22.13	562
		6.00	152	(★)-06HE60-36	33.75	857	19.50	495	22.50	572

★ Insert prefix.



Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04HE45-12	10.13	257	4.25	108	6.00	152
		6.00	152	(★)-06HE45-12	10.63	270	4.38	111	6.25	159
24.00	610	4.00	102	(★)-04HE45-24	18.63	473	7.75	197	10.88	276
		6.00	152	(★)-06HE45-24	19.13	486	7.88	200	11.13	283
36.00	914	4.00	102	(★)-04HE45-36	27.13	689	11.25	286	15.88	403
		6.00	152	(★)-06HE45-36	27.63	702	11.50	292	16.13	410

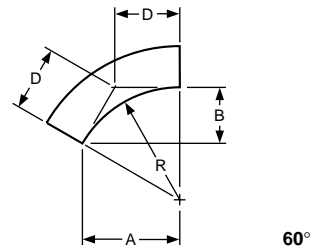
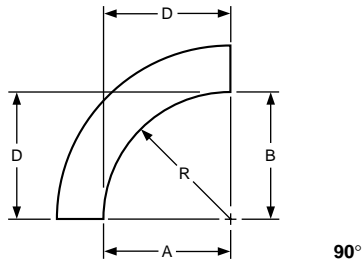
★ Insert prefix.

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04HE30-12	7.13	181	1.88	48	3.88	99
		6.00	152	(★)-06HE30-12	7.50	191	2.00	51	4.00	102
24.00	610	4.00	102	(★)-04HE30-24	13.13	334	3.50	89	7.00	178
		6.00	152	(★)-06HE30-24	13.50	343	4.25	108	7.25	184
36.00	914	4.00	102	(★)-04HE30-36	19.13	486	5.13	130	10.25	260
		6.00	152	(★)-06HE30-36	19.50	495	5.88	149	10.50	267

★ Insert prefix.



Vertical Outside Fittings – Channel Type

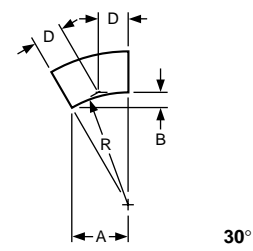
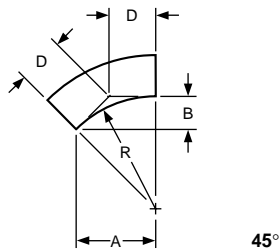


Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V090-12	12.00	305	12.00	305	12.00	305
		6.00	152	(★)-06V090-12	12.00	305	12.00	305	12.00	305
24.00	610	4.00	102	(★)-04V090-24	24.00	610	24.00	610	24.00	610
		6.00	152	(★)-06V090-24	24.00	610	24.00	610	24.00	610
36.00	914	4.00	102	(★)-04V090-36	36.00	914	36.00	914	36.00	914
		6.00	152	(★)-06V090-36	36.00	914	36.00	914	36.00	914

★ Insert prefix.

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V060-12	10.38	264	6.00	152	7.00	178
		6.00	152	(★)-06V060-12	10.38	264	6.00	152	7.00	178
24.00	610	4.00	102	(★)-04V060-24	20.75	527	12.00	305	13.88	353
		6.00	152	(★)-06V060-24	20.75	527	12.00	305	13.88	353
36.00	914	4.00	102	(★)-04V060-36	31.13	791	18.00	457	20.75	527
		6.00	152	(★)-06V060-36	31.13	791	18.00	457	20.75	527

★ Insert prefix.



Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V045-12	8.50	216	3.50	89	5.00	127
		6.00	152	(★)-06V045-12	8.50	216	3.50	89	5.00	127
24.00	610	4.00	102	(★)-04V045-24	17.00	432	7.00	179	10.00	254
		6.00	152	(★)-06V045-24	17.00	432	7.00	179	10.00	254
36.00	914	4.00	102	(★)-04V045-36	25.50	648	10.50	267	14.88	378
		6.00	152	(★)-06V045-36	25.50	648	10.50	267	14.88	378

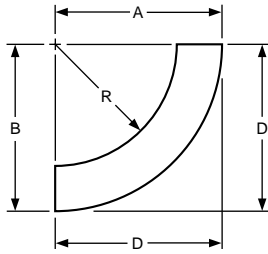
★ Insert prefix.

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V030-12	6.00	152	1.63	41	3.25	83
		6.00	152	(★)-06V030-12	6.00	152	1.63	41	3.25	83
24.00	610	4.00	102	(★)-04V030-24	12.00	305	3.25	83	6.50	165
		6.00	152	(★)-06V030-24	12.00	305	3.25	83	6.50	165
36.00	914	4.00	102	(★)-04V030-36	18.00	457	4.88	124	9.63	245
		6.00	152	(★)-06V030-36	18.00	457	4.88	124	9.63	245

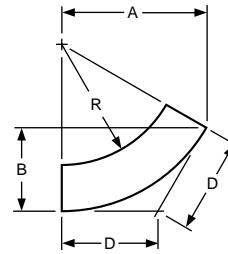
★ Insert prefix.



Vertical Inside Fittings – Channel Type



90°



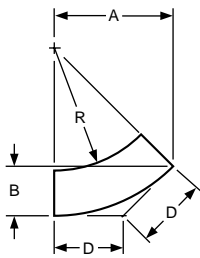
60°

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V190-12	13.50	343	13.50	343	13.50	343
		6.00	152	(★)-06V190-12	13.75	349	13.75	349	13.75	349
24.00	610	4.00	102	(★)-04V190-24	25.50	648	25.50	648	25.50	648
		6.00	152	(★)-06V190-24	25.75	654	25.75	654	25.75	654
36.00	914	4.00	102	(★)-04V190-36	37.50	953	37.50	953	37.50	953
		6.00	152	(★)-06V190-36	37.75	959	37.75	959	37.75	959

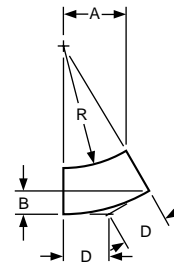
★ Insert prefix.

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V160-12	11.75	298	6.75	171	7.75	197
		6.00	152	(★)-06V160-12	11.88	302	6.88	175	8.00	203
24.00	610	4.00	102	(★)-04V160-24	22.13	562	12.75	324	14.75	375
		6.00	152	(★)-06V160-24	22.38	568	13.00	330	14.88	378
36.00	914	4.00	102	(★)-04V160-36	32.50	826	18.75	476	21.63	549
		6.00	152	(★)-06V160-36	32.75	832	18.88	480	21.75	552

★ Insert prefix.



45°



30°

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V145-12	9.50	241	4.00	102	5.63	143
		6.00	152	(★)-06V145-12	9.75	248	4.00	102	5.75	146
24.00	610	4.00	102	(★)-04V145-24	18.00	457	7.50	191	10.50	267
		6.00	152	(★)-06V145-24	18.25	464	7.50	191	10.63	270
36.00	914	4.00	102	(★)-04V145-36	26.50	637	11.00	279	15.50	394
		6.00	152	(★)-06V145-36	26.75	679	11.00	279	15.63	397

★ Insert prefix.

Bend Radius (R)		Nom. Width		Catalog Number	Dimensions					
					A		B		D	
IN	mm	IN	mm		IN	mm	IN	mm	IN	mm
12.00	305	4.00	102	(★)-04V130-12	6.75	171	1.88	48	3.63	92
		6.00	152	(★)-06V130-12	6.88	175	1.88	48	3.75	95
24.00	610	4.00	102	(★)-04V130-24	12.75	324	3.38	86	6.75	171
		6.00	152	(★)-06V130-24	12.88	327	3.50	89	6.88	175
36.00	914	4.00	102	(★)-04V130-36	18.75	476	5.00	127	10.00	254
		6.00	152	(★)-06V130-36	18.88	480	5.00	127	10.13	257

★ Insert prefix.



Square D covers are supplied in mill-galvanized steel (ASTM A525 G90) or aluminum (generally alloy 3003) and are available in solid or ventilated style with or without a .375 in (10mm) downturned flange.

Straight section covers are furnished 12 ft (3.7m) or 6 ft (1.9m) long. All fitting covers are finished in solid design only. Cover fastening devices shown on next page must be ordered separately.

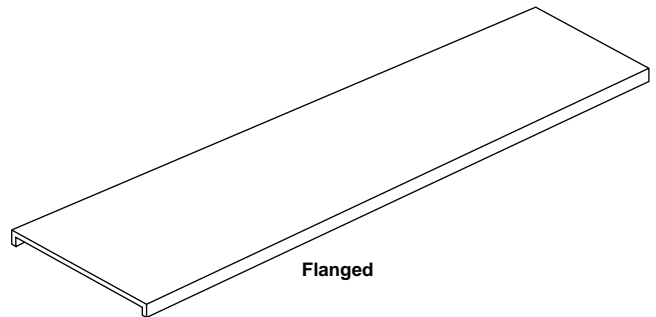
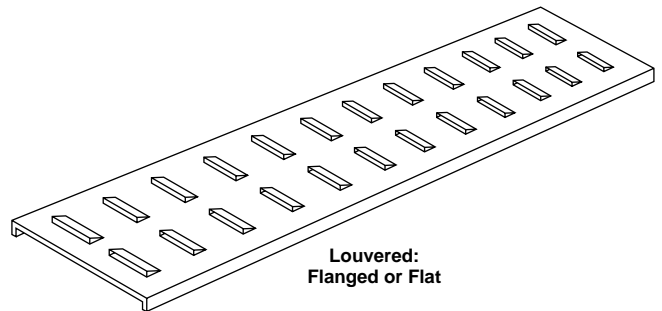
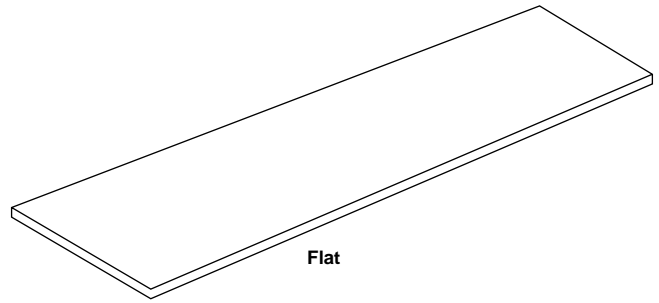
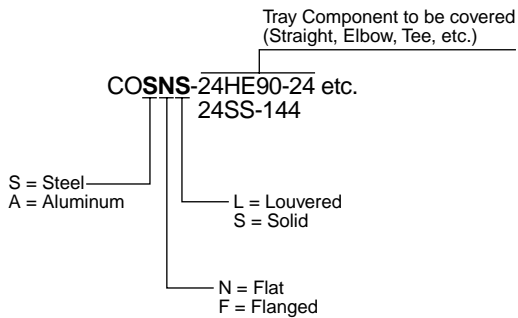
Cable tray covers should be considered for any of the following purposes:

- Protection from falling objects or debris, as may occur beneath personnel walkways.
- Shielding from ultra-violet rays of the sun and to guard against other weathering elements.
- To minimize accumulation of foreign contaminants such as ash or other industrial deposits.
- Protection of cables and personnel where a riser tray penetrates a floor or grating.
- To assist in EMI/RFI shielding of sensitive circuits installed in solid bottom trays.
- Aesthetic considerations in prominent areas of the installation or as deemed necessary by the user.

For installations subject to the National Electric Code, it should be noted that power cable ampacities must be derated by up to 40% if trays are covered with a solid unventilated cover for more than 6 feet.

Special peaked or hat-shaped covers are also available in all styles. Consult factory.

Catalog Numbering System



Catalog Numbers for Covers

	Aluminum		Steel	
	12 ft Long Straight		12 ft Long Straight	
	Catalog Number – Flat	Catalog Number – Flanged	Catalog Number – Flat	Catalog Number – Flanged
Louvred	COANL-06SS-144	COAFL-06SS-144	COSFL-06SS-144	COSNL-06SS-144
	COANL-12SS-144	COAFL-12SS-144	COSFL-12SS-144	COSNL-12SS-144
	COANL-18SS-144	COAFL-18SS-144	COSFL-18SS-144	COSNL-18SS-144
	COANL-24SS-144	COAFL-24SS-144	COSFL-24SS-144	COSNL-24SS-144
	COANL-30SS-144	COAFL-30SS-144	COSFL-30SS-144	COSNL-30SS-144
	COANL-36SS-144	COAFL-36SS-144	COSFL-36SS-144	COSNL-36SS-144
Solid	12 ft Long Straight		12 ft Long Straight	
	Catalog Number – Flat	Catalog Number – Flanged	Catalog Number – Flat	Catalog Number – Flanged
	COANS-06SS-144	COAFS-06SS-144	COSNS-06SS-144	COSFS-06SS-144
	COANS-12SS-144	COAFS-12SS-144	COSNS-12SS-144	COSFS-12SS-144
	COANS-18SS-144	COAFS-18SS-144	COSNS-18SS-144	COSFS-18SS-144
	COANS-24SS-144	COAFS-24SS-144	COSNS-24SS-144	COSFS-24SS-144
COANS-30SS-144	COAFS-30SS-144	COSNS-30SS-144	COSFS-30SS-144	
COANS-36SS-144	COAFS-36SS-144	COSNS-36SS-144	COSFS-36SS-144	

* Fitting covers below are furnished in solid style only. Add the prefix from the "solid" straight sections above to complete the catalog numbers below:

Horizontal Elbows*		
12 in Radius	24 in Radius	36 in Radius
Catalog Number	Catalog Number	Catalog Number
-06HE(†)-12	-06HE(†)-24	-06HE(†)-36
-12HE(†)-12	-12HE(†)-24	-12HE(†)-36
-18HE(†)-12	-18HE(†)-24	-18HE(†)-36
-24HE(†)-12	-24HE(†)-24	-24HE(†)-36
-30HE(†)-12	-30HE(†)-24	-30HE(†)-36
-36HE(†)-12	-36HE(†)-24	-36HE(†)-36

† Substitute degrees (30, 45, 60, 90) in catalog number.

Vertical Elbows*		
12 in Radius	24 in Radius	36 in Radius
Catalog Number	Catalog Number	Catalog Number
-06V(‡)(†)-12	-06V(‡)(†)-24	-06V(‡)(†)-36
-12V(‡)(†)-12	-12V(‡)(†)-24	-12V(‡)(†)-36
-18V(‡)(†)-12	-18V(‡)(†)-24	-18V(‡)(†)-36
-24V(‡)(†)-12	-24V(‡)(†)-24	-24V(‡)(†)-36
-30V(‡)(†)-12	-30V(‡)(†)-24	-30V(‡)(†)-36
-36V(‡)(†)-12	-36V(‡)(†)-24	-36V(‡)(†)-36

‡ Substitute I for inside elbow and O for outside elbow.

Horizontal Tees*		
12 in Radius	24 in Radius	36 in Radius
Catalog Number	Catalog Number	Catalog Number
-06HT-12	-06HT-24	-06HT-36
-12HT-12	-12HT-24	-12HT-36
-18HT-12	-18HT-24	-18HT-36
-24HT-12	-24HT-24	-24HT-36
-30HT-12	-30HT-24	-30HT-36
-36HT-12	-36HT-24	-36HT-36

Horizontal Crosses*		
12 in Radius	24 in Radius	36 in Radius
Catalog Number	Catalog Number	Catalog Number
-06HX-12	-06HX-24	-06HX-36
-12HX-12	-12HX-24	-12HX-36
-18HX-12	-18HX-24	-18HX-36
-24HX-12	-24HX-24	-24HX-36
-30HX-12	-30HX-24	-30HX-36
-36HX-12	-36HX-24	-36HX-36

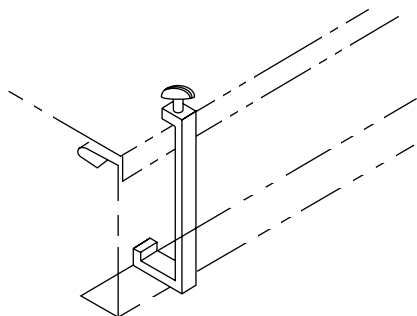
One Piece Cover Clip	
Description	Catalog Number
For 3.63 in (92mm) Tray	COV3-LD
For 4.63 in (118mm) Tray	COV4J-LD
For 4.63 (118mm) in Tray	COV4-LD
For 6 in (152mm) Tray	COV5J-LD
For 6 (152mm) in Tray	COV5-LD

Heavy Duty Clamp	
Description	Catalog Number
6 in (152mm) Wide	COV-HD-06
12 in (305mm) Wide	COV-HD-12
18 in (457mm) Wide	COV-HD-18
24 in (610mm) Wide	COV-HD-24
30 in (762mm) Wide	COV-HD-30
36 in (914mm) Wide	COV-HD-36

Raised Cover Clips	
Description	Catalog Number
.75-.88 in (19-22mm) Flange	COV08-SO-01
.75-.88 in (19-22mm) Flange	COV08-SO-02
1.5 in (38mm) Flange	COV15-SO-01
1.5 in (38mm) Flange	COV15-SO-02
1.75 in (44mm) Flange	COV17-SO-01
1.75 in (44mm) Flange	COV17-SO-02



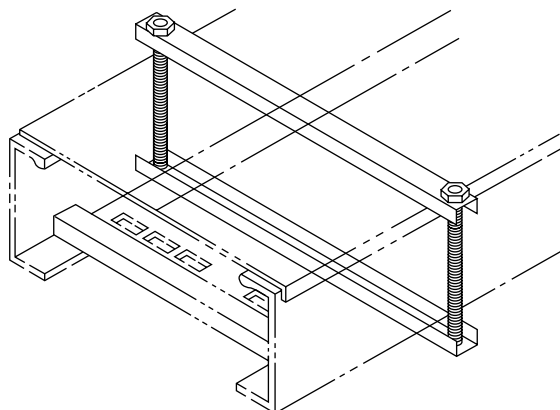
One Piece Cover Clip



Recommended for indoor installations. Material—Galvanized Steel ASTM A525.

Tray Height	Catalog Number
3.63 in (92mm)	COV3-LD
3.63 in (92mm)	COV4J-LD
4.63 in (118mm)	COV4-LD
6 in (152mm)	COV5J-LD
6 in (152mm)	COV5-LD

Heavy Duty Cover Clamp

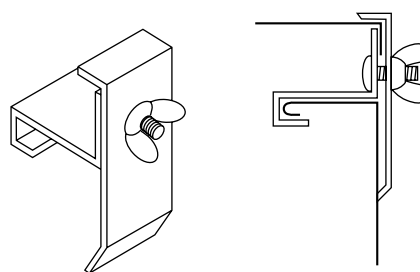


Recommended for all outdoor applications and for long vertical riser trays. Material—HDGAF Steel ASTM A386.

Tray Height	Catalog Number
All	COV-HD-(Width)

Note: Channels to be inverted on installations of 6 in (152mm) high trays.

Raised Cover Clip



For raising the cover above the height of the siderail. One and two inch available. Material—Galvanized Steel ASTM A525.

Flange Width	Catalog Number – * (insert 1 or 2)
.75 in (19mm)-.88 in (22mm)	COV08-SO-*
1.5 in (38mm)	COV15-SO-*
1.75 in (44mm)	COV17-SO-*

Quantity of Fasteners Required

Straight Cover [12 ft (3.7m)]	= 6 Pcs.
Straight Cover [6 ft (1.8m)]	= 4 Pcs.
Horizontal/Vertical Elbow	= 4 Pcs.
Tee Fitting	= 6 Pcs.
Cross Fitting	= 8 Pcs.

Note: Above quantities may be reduced by 50% when using the Heavy Duty Cover Clamp.

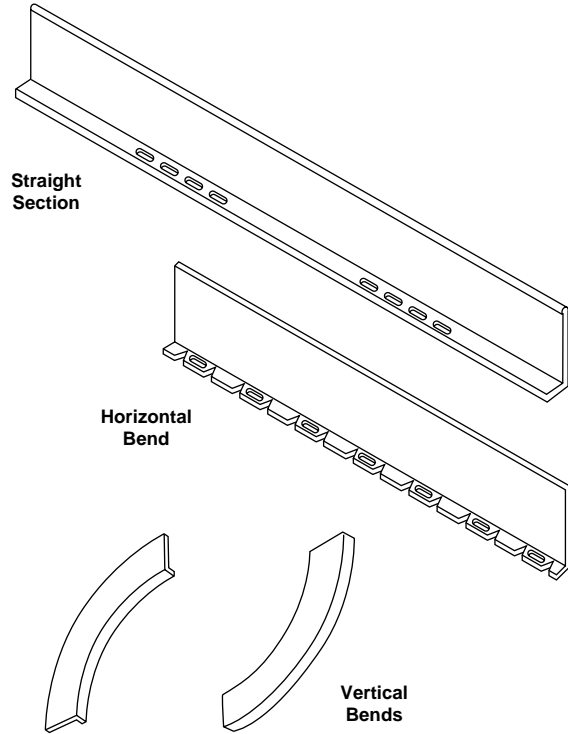
Barrier Strips

Barrier strips, also known as dividers or separators, are used to separate cables in a tray. The barrier may be used to separate cables of varying voltage classes as required by the National Electric Code Article 318-5. Barriers also divide the tray into compartments to isolate circuitry such as communications/ computer cables from cables for dedicated power etc. SQUARE D barriers are available in aluminum or mill-galvanized steel with nominal heights of 3 in (76mm), 4 in (102mm) and 5 in (127mm), and are furnished with self-tapping screws for attachment of the barrier to tray rungs or bottoms.

Straight section barriers are supplied 12 ft (3.7m) or 6 ft (1.8m) long with appropriate slots in the bottom leg to accommodate any type of rung or bottom.

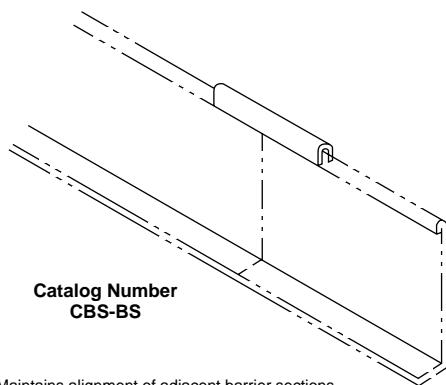
Horizontal bend barrier strips are supplied in 6 ft (1.8m) lengths with multiple notches and slots in the bottom to permit bending and fastening to any horizontal fitting radius.

Vertical bend barriers are supplied in 90 degree segments which are easily field-cut to lesser angles as required. For complete description in the chart below, add the appropriate suffix [12 in (305mm), 24 in (610mm) or 36 in (914mm) radius] to the catalog number shown.



Material	Tray Depth		Straight Section Catalog Number	Horizontal Bend Catalog Number	Vertical Outside Bend Catalog Number	Vertical Inside Bend Catalog Number
	IN	mm				
Aluminum	3	76	CBA3-144	CBA3-HB	CBA3-VO-(R)	CBA3-VI-(R)
	4	102	CBA4-144	CBA4-HB	CBA4-VO-(R)	CBA4-VI-(R)
	5	127	CBA5-144	CBA5-HB	CBA5-VO-(R)	CBA5-VI-(R)
Steel	3	76	CBS3-144	CBS3-HB	CBS3-VO-(R)	CBS3-VI-(R)
	4	102	CBS4-144	CBS4-HB	CBS4-VO-(R)	CBS4-VI-(R)
	5	127	CBS5-144	CBS5-HB	CBS5-VO-(R)	CBS5-VI-(R)

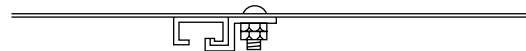
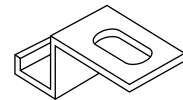
Barrier Splice



Maintains alignment of adjacent barrier sections. Must be ordered separately.

Barrier Clip

Catalog Number
CBA-CL (Aluminum)
CBS-CL (Steel)


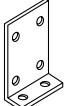
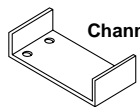


For optional attachment in lieu of screws. Must be ordered separately.

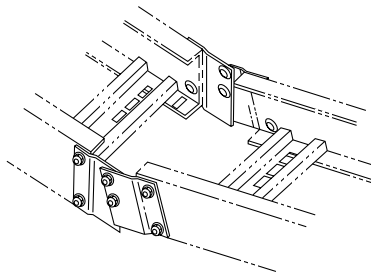


Splice Plates

Standard splices are furnished in sufficient quantity with each piece of tray. Extras may be ordered using catalog number shown. Supplied in pairs. Hardware included.

Shape	Tray Height		Material	Catalog Number
	IN	mm		
 Flat	3.63	92	Aluminum	CJA-3F
			Steel	CJS-4F
	4.63	118	Aluminum	CJA-4F
			Steel	CJS-5F
 Angle	4.63	118	Aluminum	CJA-4A
			Steel	CJS-4A
	6.00	152	Aluminum	CJA-5A
			Steel	CJS-5A
 Channel	4 channel	102 channel	Aluminum	CJA-4C
			Steel	CJS-4C
	6 channel	152 channel	Aluminum	CJA-6C
			Steel	CJS-6C

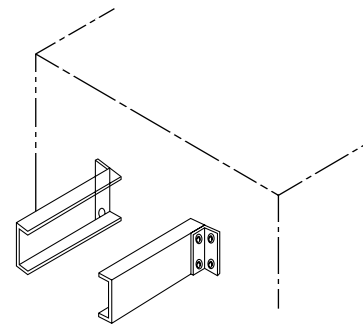
Vertical Adjustable Splices



To change tray elevation in increments other than those available with vertical elbows. Supplied as a set. Hardware included. (Supports should be located in close proximity to these splices.)

Tray Height		Material	Catalog Number
IN	mm		
3.63	92	Aluminum	CJA-3V
		Steel	CJS-3V
4.63	118	Aluminum	CJA-4V
		Steel	CJS-4V
6.00	152	Aluminum	CJA-5V
		Steel	CJS-5V
4 channel	102 channel	Aluminum	CJA-4VC
		Steel	CJA-4VC
6 channel	152 channel	Aluminum	CJA-6VC
		Steel	CJS-6VC

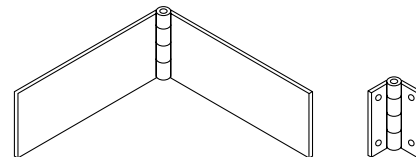
90° Angle Connectors



For box or floor attachment. Supplied as a pair. Hardware included.

Tray Height		Material	Catalog Number
IN	mm		
3.63	92	Aluminum	CJA-3TB
		Steel	CJS-3TB
4.63	118	Aluminum	CJA-4TB
		Steel	CJS-4TB
6.00	152	Aluminum	CJA-5TB
		Steel	CJS-5TB
4 channel	102 channel	Aluminum	CJA-4CTB
		Steel	CJS-4CTB
6 channel	152 channel	Aluminum	CJA-6CTB
		Steel	CJS-6CTB

Horizontal Adjustable Splices



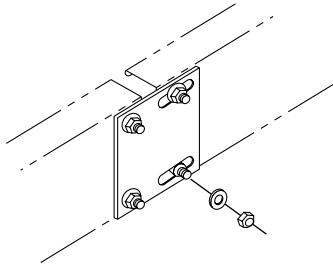
To change tray direction in increments other than the offset using horizontal elbows. Supplied as a set. Hardware included. (Supports should be located in close proximity to these splices.)

Tray Height		Material	Catalog Number
IN	mm		
3.63	92	Aluminum	CJA-3H
		Steel	CJS-3H
4.63	118	Aluminum	CJA-4H
		Steel	CJS-4H
6.00	152	Aluminum	CJA-5H
		Steel	CJS-5H
4 channel	102 channel	Aluminum	CJA-4HC
		Steel	CJS-4HC
6 channel	152 channel	Aluminum	CJA-6HC
		Steel	CJS-6HC



Accessories

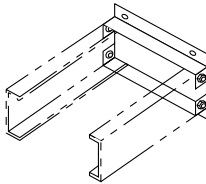
Expansion Splice Plate



Used to permit one inch expansion/contraction and across building expansion joints. Supplied in pairs. Hardware included. (Supports should be located in close proximity to these splices.)

Tray Height		Material	Catalog Number
IN	MM		
3.63	92	Aluminum	CJA-3EX
		Steel	CJS-3EX
4.63	118	Aluminum	CJA-4EX
		Steel	CJS-4EX
6.00	152	Aluminum	CJA-5EX
		Steel	CJS-5EX

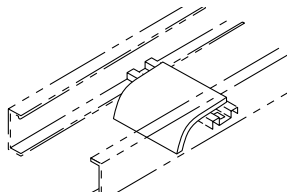
Box Connector



For connection of tray to box or panel. Fits any tray height. (Insert tray width to complete catalog number.) Supplied with hardware.

Tray Height	Material	Catalog Number
All	Aluminum	CBCA-(W)
	Steel	CBCS-(W)

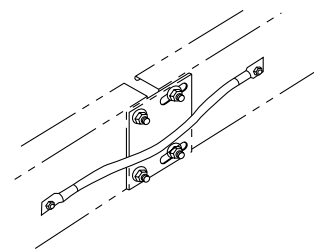
Dropout



Provides a round radiused surface for cable exit from bottom of tray. Specify width. Hardware not required.

Rung Type	Material	Catalog Number
Double	Aluminum	CDODA-(W)
	Steel	CDODS-(W)
Box	Aluminum	CDOBA-(W)
	Steel	CDOBS-(W)

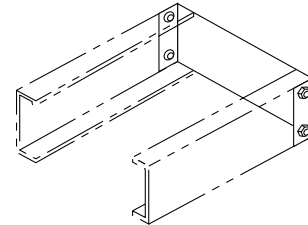
Bonding Jumper



Used to assure proper ground continuity across expansion or adjustable splice plates. Supplied in pairs. (One jumper must be used on **each side** of tray.) Hardware included.

Rating	Catalog Number (Pair)
600 A	CBJ-600
2000 A	CBJ-2000

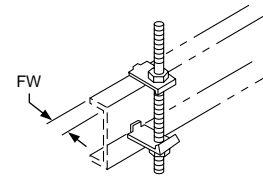
End Plate



Closure for trays that dead end (particularly solid bottom type). Specify width. Supplied with hardware.

Tray Height		Material	Catalog Number
IN	MM		
3.63	92	Aluminum	CEPA3-(W)
		Steel	CEPS3-(W)
4.63	118	Aluminum	CEPA4-(W)
		Steel	CEPS4-(W)
6.00	152	Aluminum	CEPA5-(W)
		Steel	CEPS5-(W)

Hanger Clamp

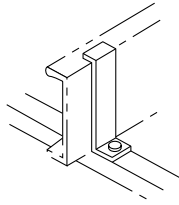


For direct suspension of tray from threaded rod. Supplied in pairs (two sets). Galvanized steel. (Rods and hardware by others. Holes sized for 1/2" dia. rods.)

(FW) Flange Width		Catalog Number
IN	mm	
.75-.88	19-22	CHC-08
1.50	38	CHC-15
1.75	44	CHC-17



Z Type Hold Down Clamp

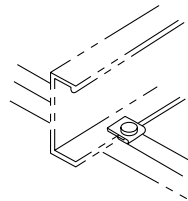


For fastening trays to support members. Mounted outside the tray. Furnished in pairs. Galvanized steel.

Tray Height		Catalog Number *
IN	mm	
3.63	92	CHD-3Z
4.63	118	CHD-4Z
6.00	152	CHD-5Z

* Hardware by others. All devices sized for .50 in (13mm) diameter hardware.

Expansion Guide

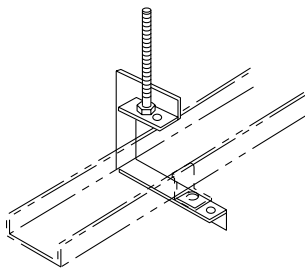


Used to restrict vertical and lateral tray movement while permitting longitudinal movement for expansion/contraction. Furnished in pairs. Galvanized steel.

Trays	Catalog Number *
All	CHD-ES

* Hardware by others. All devices sized for .50 in (13mm) diameter hardware.

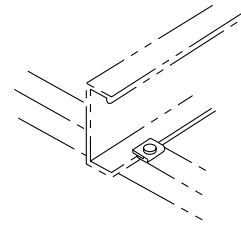
Channel Hanger



One piece hanger for suspension of channel trays. Suitable for both 4 in (102mm) and 6 in (152mm) sizes. (Threaded rod by others. Hold down clip ordered separately.)

Channel	Catalog Number
All	CSCH

Square Hold Down Clamp

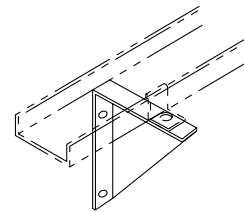


For fastening trays to support member using lower flange of side rail. Furnished in pairs. Galvanized steel/aluminum.

Material	Catalog Number *
Aluminum	CHD-SA
Steel	CHD-SS

* Hardware by others. All devices sized for .50 in (13mm) diameter hardware.

Channel Bracket

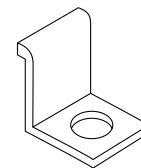


One piece bracket for support of 4 in (102mm) and 6 in (152mm) channel. (Hold down clips ordered separately.) Galvanized steel.

Material	Catalog Number *
All	CSCB

* Hardware by others. All devices sized for .50 in (13mm) diameter hardware.

Channel Hold Down Clip



For fastening channels to hangers or brackets. Galvanized steel.

Channel		Catalog Number *
IN	mm	
4.63	118	CHD-15
6.00	152	CHD-17

* Hardware by others. All devices sized for .50 in (13mm) diameter hardware.



Accessories

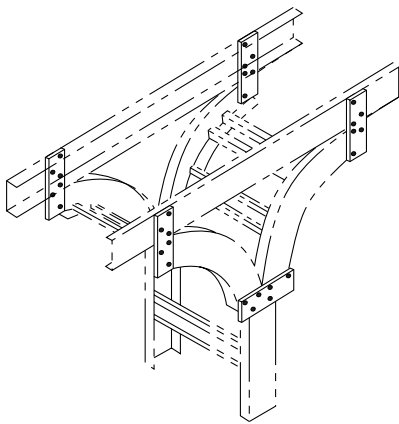
Reducing Splices

Reductions of tray width are quickly made using these reducing splice plates. All plates are available in 3 in (76mm), 6 in (152mm), 9 in (229mm), 12 in (305mm) and 18 in (457mm) lengths. (Supports should be located in close proximity to these splices.)

For straight reductions (Figure 1) order two plates, each with half the required reduction. For example: a 24 in (610mm) tray reducing straight to a 12 in (305mm) tray will require two 6 in (152mm) long plates.

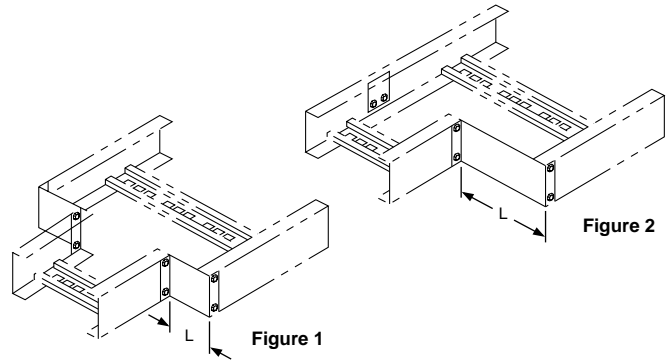
For offset reductions (Figure 2) order one plate of the desired length. For example: a 24 in (610mm) tray reducing offset to a 12 in (305mm) tray will require one 12 in (305mm) long plate.

Vertical Tee Splices



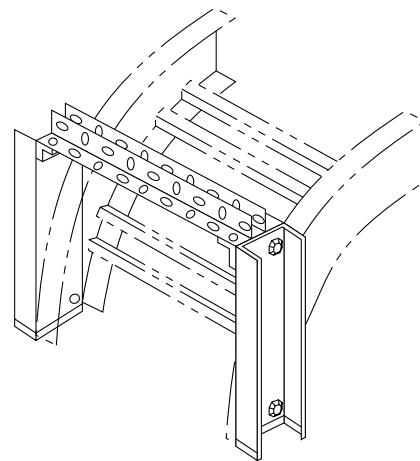
Used in conjunction with two 90° vertical elbows (ordered separately) to form the tee. These splices feature a universal hole pattern to permit random attachment to the straight-through tray and the vertical riser tray. All six plates with hardware are supplied as one unit under the catalog number shown.

Tray Height		Material	Catalog Number
IN	mm		
3.63	92	Aluminum	CJA-3VT
		Steel	CJS-3VT
4.63	118	Aluminum	CJA-4VT
		Steel	CJS-4VT
6.00	152	Aluminum	CJA-5VT
		Steel	CJS-5VT



Tray Height		Material	Catalog Number
IN	mm		
3.63	92	Aluminum	CJA-3R (L)
		Steel	CJS-3R (L)
4.63	118	Aluminum	CJA-4R (L)
		Steel	CJS-4R (L)
6.00	152	Aluminum	CJA-5R (L)
		Steel	CJS-5R (L)

Vertical Support Assembly



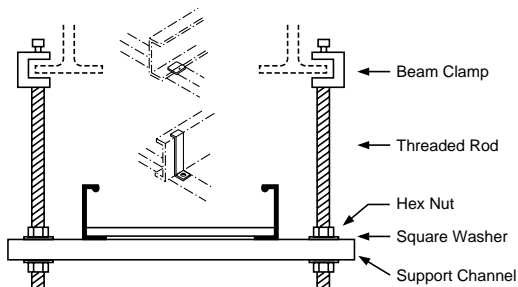
For use at the top of riser tray sections to provide an anchoring point for cable grips. This assembly easily bolts to the vertical elbow (ordered separately). Available in aluminum or steel. Insert appropriate tray width to complete the catalog number.

Tray Height		Material	Catalog Number
IN	mm		
3.63	92	Aluminum	CVS-3A-W
		Steel	CVS-3S-W
4.63	118	Aluminum	CVS-4A-W
		Steel	CVS-4S-W
6.00	152	Aluminum	CVS-5A-W
		Steel	CVS-5S-W

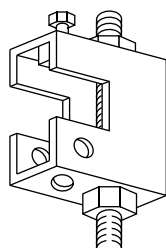


Trapeze Hangers

The most versatile supports for cable trays. All elements sized for .5 in (13mm) in hardware. Hold down clips ordered separately (see Page 31).



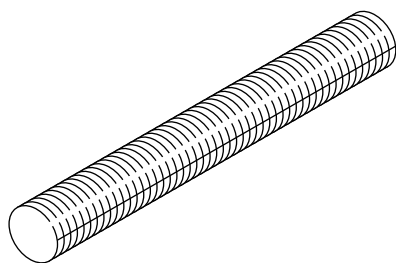
Beam Clamp



For use with .5 in (13mm) in diameter threaded rod. Set screw included.

Systems	Catalog Number
All	CBCH

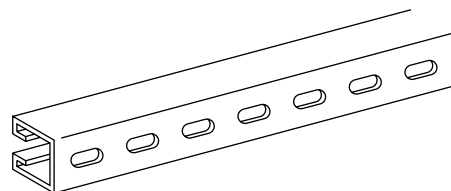
Threaded Rod



Continuous threaded .5 in (13mm) diameter hanger rod. Supplied in electro galvanized finish.

Length	Catalog Number
6 ft (1.9m) long	CTR-6
10 ft (3m) long	CTR-10

Support Channels



Mill-galvanized steel, 1.63 in (41mm) square; with .56 in (14mm) x 1.13 in (3mm) slots on 2 in (51mm) centers.

Tray Width		Catalog Number
IN	mm	
6	152	CPCC-14
12	305	CPCC-20
18	457	CPCC-26
24	610	CPCC-32
30	762	CPCC-38
36	914	CPCC-44
10 ft (3m) long for field cutting		CFLC-120

Hardware

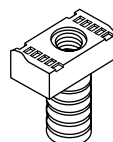
For attachment of hold down clips to support channel; or for attachment of threaded rod to support channel.



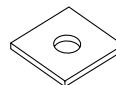
Box of 100	Catalog Number
.5 in (13mm) x 1.5 in (38mm) large bolt	CBHB



Box of 100	Catalog Number
.5 in (13mm) Hex nut	CBHN



Box of 100	Catalog Number
.5 in (13mm) Strut nut	CBSN



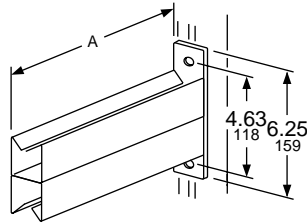
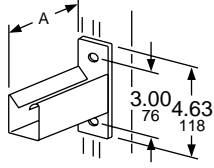
Box of 100	Catalog Number
.5 in (13mm) Square Washer	CBSW



Accessories

Cable Tray Brackets

May be installed inverted with no change in load ratings.



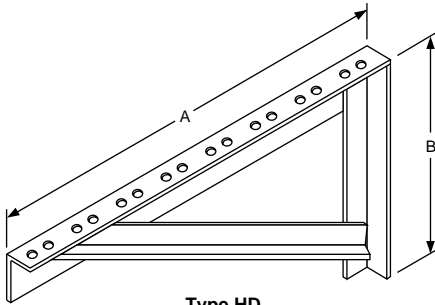
Type LD

A		Wt/C lbs
IN	mm	
6	152	150
12	305	250
18	457	350
24	610	450

Type MD

A		Wt/C lbs
IN	mm	
12	305	514
18	457	714
24	610	914
30	762	1114
36	914	1314

Consult Square D for "Uniform Loading" information.



Type HD

Type HD

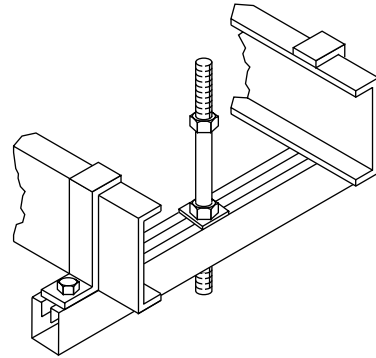
A		B		Wt./C lbs.
IN	mm	IN	mm	
28	711	15.75	425	1474
34	864	19.25	489	1839
40	1016	22.75	578	2203

Consult Square D for "Uniform Loading" information.

Cable tray brackets are used for support of runs of tray to be installed along a wall or row of building columns. Note the load rating is based on two equal concentrated loads, spaced a cable tray width apart. (Order hold down clamps separately from Page 33).

Tray Width		Bracket Catalog Number
IN	mm	
6 and 9	152 and 229	CWB-12LD
12	305	CWB-18LD
18	457	CWB-24LD
6 and 9	152 and 229	CWB-12MD
12	305	CWB-18MD
18	457	CWB-24MD
24	610	CWB-30MD
30	762	CWB-36MD
24	610	CWB-28HD
30	762	CWB-34HD
36	914	CWB-40HD

Single Center Supports



The single center support may be used for particular applications when cables are to be laid in over the side of the tray without threading between the double rods of a conventional trapeze support. The cables must be loaded evenly from both sides of the tray. Maximum support spacing is 12 feet (3.7m) on center; maximum loading is 50 lbs/ft. Catalog number includes hold down clips and hardware. Must be used with .5 in (13mm) in diameter rod (by customer).

Loading Depth		Tray Width		Support Catalog Number
IN	mm	IN	mm	
3.00	76	6	152	CSCS3-06
		9	229	CSCS3-09
		12	305	CSCS3-12
		18	457	CSCS3-18
4.00	102	6	152	CSCS4-06
		9	229	CSCS4-09
		12	305	CSCS4-12
		18	457	CSCS4-18
5.38	137	6	152	CSCS5-06
		9	229	CSCS5-09
		12	305	CSCS5-12
		18	457	CSCS5-18



The National Electric Code® places very few restrictions on the use of cable tray. As a result, cable tray is often the best, most economical choice over other wiring methods for a wide variety of applications.

The following wiring methods are permitted to be installed in cable tray systems:

1. Mineral-insulated metal-sheathed cable (MI)—Article 330.
2. Armored Cable (AC)—Article 333.
3. Metal Clad Cable (MC)—Article 334.
4. Power-limited tray cable—Article 725-24.
5. Nonmetallic-sheathed cable (NM & NMC)—Article 336.
6. Shielded nonmetallic sheathed cable (SNM)—Article 337.
7. Multiconductor service entrance cable (SE & USE)—Article 338.
8. Multiconductor underground feeder and branch circuit cable (UF)—Article 339.
9. Power and control tray cable (TC)—Article 340.
10. Other factory assembled, multiconductor control, signal, or power cables, which are specifically approved for installation in cable trays.
11. Any approved conduit or raceway with its contained conductors.

Single conductors, 250 MCM and larger, and multiconductor type MV, over 2000 volts, (Article 326) are permitted to be installed in industrial establishments only. See Art. 318-2b for exact definitions.

The only other restrictions that the National Electric Code places on cable tray are:

- Cable tray must be installed as exposed work, or accessible behind removable panels. Cable tray is permitted to extend through walls, partitions and floors.
- Cable tray must not be installed where exposed to severe physical damage (hoistways, etc.).

Engineers, designers, contractors, installers and end users all have good reasons to favor cable tray for their electrical power distribution and support requirements. The advantages of cable tray systems over most other wiring systems are given below.

Advantages of Cable Tray Systems

- Increased cable fill over other wiring methods can save material costs and installation labor.
- Increased conductor ampacities due to full ventilation can provide significant savings in conductor costs.
- Cable tray takes up less space and requires less labor than comparable conduit and wire systems.
- Increased support spans up to 20 feet (6m) save material and labor costs for supports.
- Metallic cable trays can be used as an equipment ground conductor.
- Cables can enter or exit (drop out) at any point in the cable tray system without expensive boxes or fittings.
- Cable splices are permitted within a cable tray system provided that they are accessible and do not project above the top of the tray.
- Future cables can be added to an existing cable tray system as easily as the initial cables were installed. Future cable taps and splices can also be made with ease.
- Installed cables can easily be inspected and cable faults can often be located and repaired without total replacement of the original cable run.
- Systems 600 volt and under can be installed in the same cable tray with higher voltage systems provided metallic barriers are used to separate these systems.

Additional Advantages of Square D Cable Tray

- Rugged welded construction.
- Space saving design—flanges turned inward.
- Rounded side rail flanges protect cables from damage.
- Rung designs permit easy cable drop out with no sharp edges to damage cable.
- Slotted double rung permits simple cable fastening.
- Rungs will support a 200 lb concentrated load. (Static concentrated load applied to middle six inches with no permanent deformation.)
- High strength splice plates allow random location between supports. (Unspliced sections to be used on all simple beam applications.)
- Fittings without tangents permit offsets to be made in least amount of space, and allow simple field cutting and splicing for special degree fittings as required.
- A comprehensive stocking program of selected tray styles in steel and aluminum, ready for quick shipment.



Engineering Information

Basic Definitions

Side Rails or side members (sometimes referred to as stringers) are the basic structural components of the cable tray system. The side rails provide structural support and protection to the cables to be installed. Square D side rails are an efficient channel-shape with rounded flanges to protect cables. Side rail flanges are turned inward, minimizing the overall size of the cable tray enclosure.

Rungs are the transverse members which are rigidly welded to the side rails to form a rugged cable tray assembly. The double rung provides smooth edges to permit cable dropout without sharp edges to damage cable and provides slots for easy cable fastening. An optional box rung design is also available if desired.

Rung Spacing is generally the centerline distance between rungs in ladder-type trays, measured along the direction of the side rail. On horizontal elbows, the rung spacing is generally maintained at the centerline of the fitting. Note that the rung spacing of Square D's double rung is the distance between the centerline of cable bearing surfaces measured between adjacent double rungs.

Length—Square D straight section tray is available in 12 foot (3.7m) lengths. 24 foot (7.3m) lengths are also available for heavy duty, long span designs.

Width—Square D cable tray is available in 6 in (152mm), 12 in (305mm), 18 in (457mm), 24 in (610mm), 30 in (762mm) and 36 in (914mm) widths.

Fill Depth, loading depth, or inside depth are all terms used to define the depth available for cable fill. The loading depth is measured from the top of the cable bearing surface of the rung or bottom, to the top of the side rail.

Overall Height is generally the total height of the side rail. It is sometimes referred to as nominal tray height and is often used in lieu of fill depth to specify cable tray side rail requirements.

Fittings & Radius—Cable tray fittings such as horizontal elbows, vertical outside bends, vertical inside bends, tees, and crosses, are available to facilitate changes in direction in cable tray systems. Fitting bending radii of 12 in (305mm), 24 in (610mm) and 36 in (914mm) are available. Fitting radius is generally determined by the minimum allowable bending radius of cables to be installed. Refer to the National Electric Code and cable manufacturer for minimum cable bending radius.

Materials and Finishes

Aluminum—The prime alloy used in the structural members of Square D aluminum cable tray is a special, high strength 6063-T6 alloy (special yield strength of 30,000 psi). The 6000 Series alloys contain minor proportions of other elements which allow for heat treatment while maintaining excellent strength characteristics. The 6063-T6 alloy also has excellent forming and welding properties.

A versatile metal in many applications, aluminum possesses the desirable combination of low weight and high strength. These advantages, combined with good corrosion resistance and relatively high electrical conductivity, make aluminum an excellent choice for use in cable trays.

Mill-Galvanized Steel—Mill-galvanized, pre-galvanized, and even "hot dip galvanized" are terms given to steel that is galvanized at the steel mill. The mill-galvanized process involves passing sheet or coil steel through molten zinc baths at relatively high rates of speed. The final product is a steel with a relatively smooth protective zinc coating.

During cable tray fabrication where slitting, forming, cutting, or welding is performed, the cut edges and heat-affected zone of welding are subject to superficial oxidation. These areas are protected by the zinc coating on the adjacent surfaces which corrodes sacrificially by an electro-chemical process.

Mill-galvanized steel used in Square D's cable tray is coated in conformance with ASTM Specification A-525 G-90. The G-90 coating provides 1.25 ozs of zinc per square foot of steel (both sides of the sheet). This converts to an average coating thickness of 1.06 mils per side.

Hot dip galvanized after fabrication (HDGAF) refers to a galvanizing process that is performed on finished assemblies after all forming, cutting, and welding operations have been completed.

The bare steel assembly is thoroughly cleaned and totally immersed in a bath of molten zinc. The result is a cable tray that is totally coated and protected with a zinc alloy bond. Some degree of roughness and variation in thickness can be expected due to the hot dip galvanized process.

Square D cable trays are hot dip galvanized in accordance with ASTM Specification A-123-84 (formerly A-386) which provides an average zinc coating weight of 1.50 oz per square foot each side of the sheet. This converts to an average coating thickness of 2.55 mils per side.





Engineering Information

Materials Comparison Chart

	Aluminum	Steel, HDGAF ■	Steel, Mill-Galvanized ▲
Equipment Costs★	Generally higher than HDGAF and Mill-Galvanized Steel.	Slightly lower than Aluminum, higher than Mill-Galvanized.	Least expensive.
Corrosion Resistance	Excellent in most indoor and outdoor environments. Can be better than HDGAF steel in most marine and in many industrial environments.	Very good in most indoor and outdoor environments. Galvanized thickness and resistance to corrosion is 2½ times that of Mill-Galvanized (G-90). Avg. coating thickness: 2.55 mils.	Generally used for indoor, non-corrosive applications. Avg. thickness: 1.06 mils.
Installation Costs	Lighter weight can save labor costs. Weight is generally ½ that of comparable steel tray.	May be more expensive to install than the lighter aluminum trays depending on tray class and application.	
Electrical Conductivity	Excellent for use as equipment ground conductor. Ratings up to 200 A.	Good for use as equipment ground conductor. Ratings up to 600 A. See N.E.C. Table 318-6 (B) (2).	
Deflection (under load)	Mid-span deflection is 1½ to 2 times that of steel designs.	Good deflection comparison to aluminum designs, however deflection is generally not a major concern in cable tray systems.	
Electrical Shielding	Minimal shielding properties.	Steel, solid bottom tray styles provide best electrical shielding for sensitive circuits.	
Electrical Losses	Non-ferrous material, negligible losses.	Minimal losses due to hysteresis and eddy currents. Losses are generally negligible.	
Thermal Expansion and Contraction (Change in Temp.)	Expands and contracts 2 times greater than steel with changes in temperature. C.O.E.—12.6x10 ⁻⁶ in/in/°F.	Coefficient of expansion (C.O.E.) = 6.5x10 ⁻⁶ in/in/°F.	
Strengths at Extreme Temperatures	40% loss of structural integrity at 300°F. 75% loss at 400°F. Melting temperature 1080°F.	No loss of structural integrity up to 700°F. 30% loss of structural integrity at 1000°F. Melting temperature is 2600°F.	

★ Equipment cost comparison was determined in 1984.
 ■ HDGAF—Hot Dipped Galvanized After Fabrication ASTM A-123-84.
 ▲ Mill-Galvanized ASTM A-525—G-90 Coating Class.

Structural Information

Square D cable tray has been designed to offer maximum strength and load carrying capabilities at the most economical installed costs to the user. The following information is presented to aid the designer/user in the best application of our products to suit his particular requirements.

Cable Tray Loads—Cable tray loads are generally uniform loads expressed in pounds per linear foot. Loads commonly referred to in the cable tray industry are:

- **Cable Load**—Total static weight of the cables to be supported in the tray. This may include future cable loads if applicable.
- **Live Loads**—Weather loads, such as wind, snow, and ice, should be considered in outdoor installations. Consult local building codes to determine appropriate environmental loads to apply to your cable tray system.
- **Working Load**—Combination of the cable load and live loads to be applied to your cable tray system.
- **Allowable Load**—Load carrying capacity of the cable tray system. It is the destruction load capacity of the cable tray divided a safety factor of 1.5. The allowable load capacity should equal or exceed the working load to be applied.

Support Spans—A support span is merely the centerline to centerline distance between supports. In actual practice, the support spans of an installed cable tray system will vary, but the engineer/user should specify the maximum support span. Two support spans commonly referred to are:

- **Simple Beam**—A single span with the ends free to rotate. This type span rarely occurs in normal installations, but is used as the most severe case when testing cable tray to determine load capacity.
- **Continuous Beam**—A series of spans connected together and continuous over several supports. This type span more closely approximates an actual installation.

Determine the most economical support spacing by reviewing building structure and any existing support structures. In many cases, it can be less expensive to support a stronger tray system over longer spans by reducing the number of supports.

Cable tray fittings should be supported in accordance with NEMA Standard VE 1, Part 6. In addition, supports should be located on each side, and in close proximity to, expansion splices and vertical and horizontal hinged splices. (Structural Information continued on next page.)



Structural Information

(continued from previous page)

Support Types—The most common types of cable tray supports are:

- direct rod suspension with all-thread hanger rod, supporting the tray via cable tray hanger clips;
- trapeze hangers consisting of a support angle or channel suspended by all-thread hanger rods;
- wall brackets anchored to walls or columns.

NEMA Load Classes—NEMA Standard VE 1, Part 3 outlines load/span class designations to be utilized by the designer/user to specify a tray system to meet his structural needs. The designation is of the form 8A, 12A, 20C, etc. The numerical part refers to the support span, in feet. The alpha character in the designation refers to a load category. Current NEMA load/span designations are as follows.

Class Designation	Support Span Feet	Working (Allowable) Load Lbs/Linear Foot
8A	8	50
8B	8	75
8C	8	100
12A	12	50
12B	12	75
12C	12	100
16A	16	50
16B	16	75
16C	16	100
20A	20	50
20B	20	75
20C	20	100

Load capacities for trays are determined by test standards outlined in NEMA VE 1, Part 4. Each tray is supported on a simple beam span and is loaded uniformly to destruction. The total destruction load divided by a safety factor of 1.5 represents the working load of the tray.

Since cable tray is rarely supported on simple beam spans, the actual installed safety factor of multiple spans is 20 to 60 percent higher (see beam diagrams for comparative bending moments).

Deflection—Deflection is the vertical displacement from its original position of a cable tray when loaded. In general, the maximum deflection occurs at midspan or midway between supports.

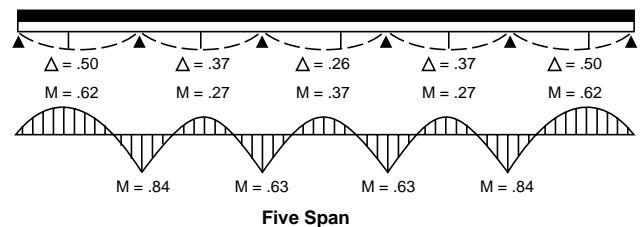
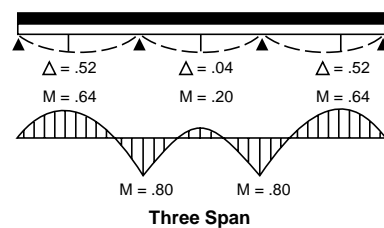
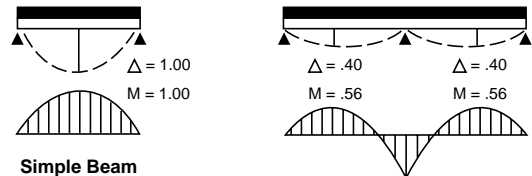
Deflection requirements normally imposed on structures by building codes are primarily a consideration to avoid damage to finish materials applied to them. The only major concerns for deflection limits on cable tray should be from an aesthetic standpoint and to avoid interference with adjacent items.

Deflections shown on the selector chart and data sheets of this catalog are for simple beam spans. Deflections for multiple installations are ¼ to ½ of those shown (see beam diagrams.)

Beam Diagrams

M=Bending Moment Δ=Deflection

Values shown for bending moments and deflections are expressed as fractions of simple beam span values (assuming equal uniform loads and span lengths).



Section Properties—Certain structural properties for each side rail section are shown on the data sheets in this catalog. The following is a short explanation of each of these properties:

Sxc=Compressive section modules taken about the major axis—a measurement of the section's strength or resistance to bending.*

Ix = Moment of inertia taken about the major axis—a measurement of the section's resistance to deflection.*

Iyc= Moment of inertia of the compressive section of the side rail taken about the minor axis—a measurement of the section's resistance to lateral buckling.*

A = Minimum area of the two side rails combined.

* These properties are expressed for one side rail only. Double the values shown in the data sheets to evaluate an assembled tray.



Engineering Information

Square D Structural Features

All Square D side rail sections are designed for maximum strength at economical costs. The top flange of each straight section is designed to resist lateral and local buckling of the cable tray, which are the most common modes of failure in cable tray.

All Square D cable trays feature rugged welded construction.

All tray designs utilize high strength splice joints which allow for random location between supports in installations consisting of two spans or more. Splices in a simple beam span and more than one splice in a span should be avoided. Splices are provided with splined shoulder bolts which bite into the side rail and splice to insure a tight fit. Heavy duty tray designs include angle splices which use bolts through the flange to provide additional strength.

All of Square D's cable tray rungs and bottoms are capable of withstanding a 200 lb static concentrated load (applied to the middle six inches) without permanent deformation.

It should be noted, however, since cable tray is designed as a support for cables and tubing, that it is **not** intended or designed as a walkway for personnel. Square D aids the user/installer in expressing this caution by the following statement on each product label:

"WARNING! Cable tray is not to be used as a walkway, ladder, or support for personnel. To be used only as a mechanical support for cables and tubing."

Thermal Contraction and Expansion

Consideration should always be given to the thermal contraction and expansion of cable tray systems. It is particularly important when relatively long straight runs of cable trays are installed and when large temperature differences are possible such as in outdoor installation and in certain industrial processes.

Table 6-1 of NEMA VE-1 provides straight run lengths at various temperature differentials and materials which result in a 1 inch expansion or contraction. This information should be used to determine if it is necessary to make provisions for expansion and contraction in straight cable tray runs. The table is given below.

NEMA Table 6-1

Maximum Spacing Between Expansion Joints that provide for a 1 in movement

Temperature Differential, Degrees F	Steel Feet	Aluminum Feet	Copper Feet
25	512	260	363
50	256	130	182
75	171	87	121
100	128	65	90
125	102	52	72
150	85	43	60
175	73	37	52

If required, provisions for expansion in straight runs should be made through the use of expansion guides and expansion splice plates. These permit the tray to expand and contract, relative to the supports, with changes in temperatures. The cable tray should be secured or fixed with standard hold down clips at one support point midway between expansion splice plates. Expansion guides should be used at all other support locations between expansion splice plates.

Square D expansion splice plates allow for 1 inch of movement.

Distance between expansion splice plates should be determined using the table above.

For proper operation of the expansion splice, the appropriate gap setting at the time of installation is very important. Refer to NEMA VE-1 for proper gap setting procedures. Note, supports should be located on each side and in close proximity to the expansion splice joint.

Equipment Ground Conductor

Article 318-6 of the National Electric Code permits the use of cable tray as an equipment ground conductor. Cable trays are classified by Underwriters Laboratory for this use. The equipment ground conductor rating of cable tray is determined by the cross sectional area of the tray. This generally amounts to the combined cross section area of both side rails.

The following N.E.C. Table provides equipment ground conductor ratings for cable tray.

N.E.C. Table 318-6 (b) (2)

Metal Area Requirements for Cable Trays Used as Equipment Grounding Conductors

Ampere Rating or Setting of Largest Automatic Overcurrent Device Protecting Any Circuit in the Cable Tray System	Minimum Cross-Sectional Area of Metal★ in Square Inches	
	Steel Cable Trays	Aluminum Cable Trays
0- 60	0.20	0.20
61- 100	0.40	0.20
101- 200	0.70	0.20
201- 400	1.00	0.40
401- 600	1.50■	0.40
601-1000	—	0.60
1001-1200	—	1.00
1201-1600	—	1.50
1601-2000	—	2.00■

For SI units: one square inch = 645 square millimeters.

★ Total cross-sectional area of both side rails for ladder or trough-type cable trays; or the minimum cross-sectional area of metal in channel-type cable trays or cable trays of one-piece construction.

■ Steel cable trays shall not be used as equipment grounding conductors for circuits protected above 600 A. Aluminum cable trays shall not be used for equipment grounding conductors for circuits protected above 2000 A.

A separate ground conductor must be used to obtain ground ratings larger than those listed in the above table.

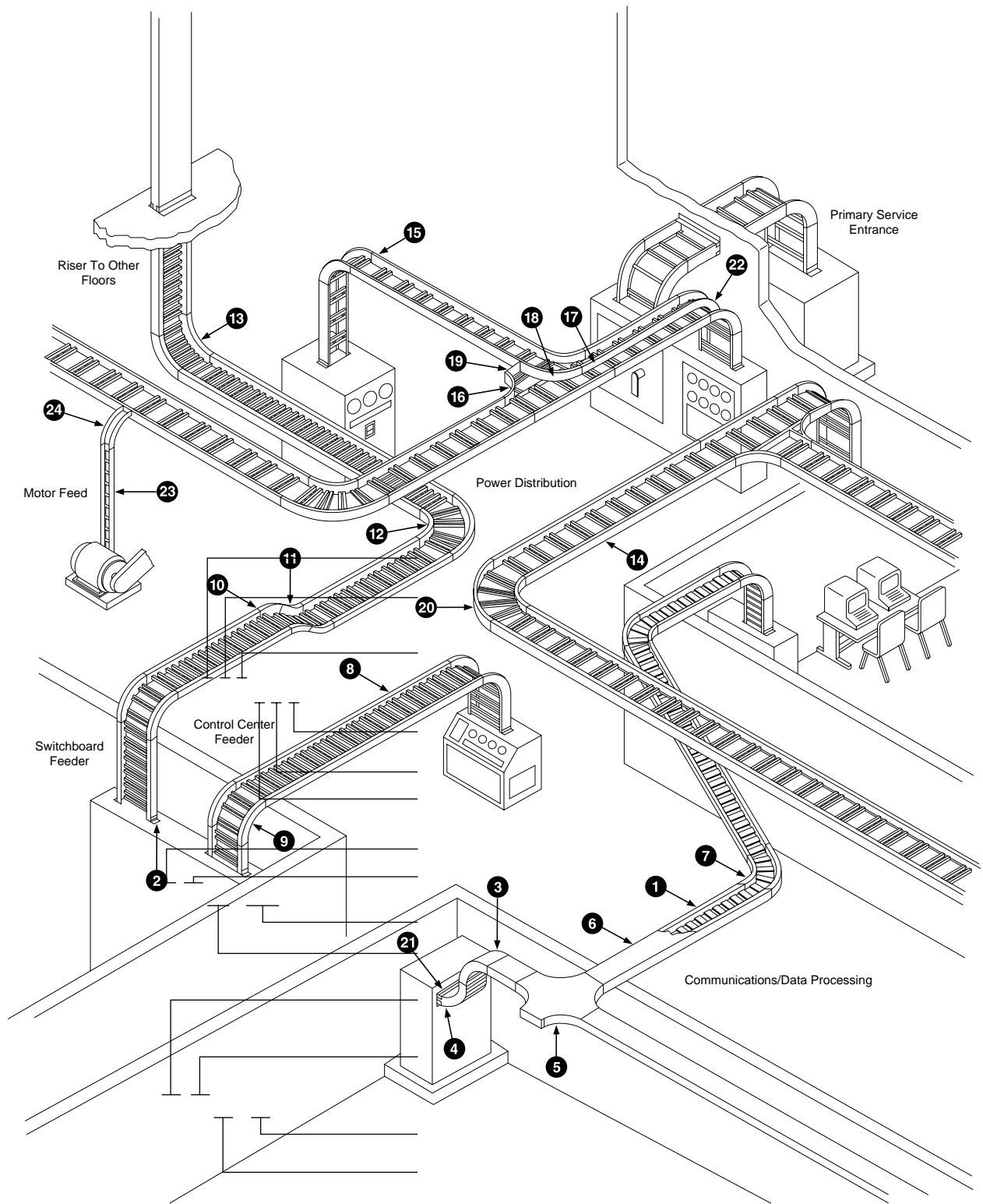
When a cable tray is used as the equipment ground, care must be taken to insure a continuous electrical path. Bonding jumpers must be used where discontinuities may exist in the tray run such as, across expansion splice plates and hinged splice plates.

Note, in all cases, cable tray must also be grounded as required for equipment enclosures in article 250 of the N.E.C.





Specifications



Key to Drawing (Page 58)



1. Solid Bottom Tray
2. Tray to Box Splice
3. 90° Vertical Outside Bend
4. 90° Vertical Outside Bend
5. Horizontal Cross
6. Solid Cover
7. 60° Horizontal Bend
8. Trough Tray
9. 90° Vertical Outside Bend
10. 45° Vertical Outside Bend
11. 45° Vertical Inside Bend
12. 90° Horizontal Bend
13. 90° Vertical Inside Bend
14. Ladder Tray
15. 90° Vertical Outside Bend
16. Horizontal Tee
17. Barrier Strip
18. Horizontal Barrier
19. Reducing Splice
20. 90° Horizontal Bend
21. Box Connector
22. 90° Vertical Barrier
23. Channel Tray
24. 90° Vertical Outside Bend

Suggested Specifications

It is important that specifications for Cable Tray systems be written to include the basic system requirements in a clear and concise fashion. This will not only aid the manufacturer, purchaser, and installer, but will certainly benefit the end user as well. We have provided below specification guidelines which should be considered when preparing a cable tray specification.

General

Furnish and install a complete cable tray system as manufactured by Square D Company or engineer/owner-approved equal. System shall include all straight trays, fittings, and related support/accessory items as required for a complete installation.

Standards

The cable tray shall conform to NEMA standard VE-1. The tray installation shall be in conformance with the National Electric Code. If used as an equipment grounding conductor, the tray shall be as classified by Underwriters Laboratories and rated in accordance with NEC table 318-10.

Tray Type

Trays shall be of the [*ladder–trough–solid bottom–channel*] type for support of [*insert wire/cable types if known*].

Ladder type tray shall have [*6 in (152mm)–9 in (229mm)–12 in (305mm)–18 in (457mm)*] rung spacing to insure adequate cable bearing surface for the installed conductors. Rungs shall be of the double rung or box type and shall be free of sharp edges or corners so as to protect conductor insulations. Rungs shall be capable of supporting a 200 lb concentrated load (applied to the middle 6 inches of width) without permanent deformation.

Trough type tray shall be of the closely-spaced rung type (less than 4 in (102mm) apart) to allow for simple entry/exit of wires and cables through the bottom of the tray without the need of special bushing or adapters. Trough bottoms shall be capable of supporting a 200 lb concentrated load without permanent deformation.

Solid Bottom type tray shall offer no openings at all in the bottom of the tray to provide for maximum protection of the cables. The solid bottoms shall be of flat sheet or corrugated construction. Solid [*flat-flanged*] covers shall be provided as required.

Channel type tray shall be of one-piece construction [*with–without*] ventilation openings in bottom of tray. Channel tray size shall be [*4.63 in (118mm) in Wide x 1.5 in (38mm) High–6 in (152mm) Wide x 1.75 in (44mm) High*].

Materials/Finish

Aluminum [*ladder–trough–solid bottom–channel*] tray shall be manufactured primarily of alloy 6063-T6 furnished in its natural finish state.

Steel trays are to be fabricated from carbon steel per ASTM A-569, A-366, or A-526. Finish to be [*Mill-Galvanized per ASTM A-525 or Hot Dip Galvanized After Fabrication per ASTM A123-84 (formerly ASTM A-836)*].

Construction

[*Ladder–trough–solid bottom*] tray shall be of all-welded construction and utilize “C” shaped channel siderails with flanges facing inward to minimize overall enclosure size, thereby saving space.

Siderails

The top flange of the tray siderail shall be [*radiused for aluminum trays–rolled downward and inward for steel trays*] to protect cables from damage during installation and when cables exit/enter the tray over the top of the siderail.

Dimensions

Cable tray shall be [*3.63 in (92mm)–4.63 in (118mm)–6 in (152mm)*] in overall height with an interior cable loading depth of [*3 in (76mm)–4 in (102mm)–5.63 in (143mm)*]. Widths shall be as shown on project drawings. The straight sections of cable tray shall be furnished in 12 ft (3.7m) lengths. Shorter lengths shall be field-cut and spliced using the standard cable tray splice plate as



a drilling jig. (24 ft (7.3m) lengths shall be used for long-span support applications.)

Splice Plates

The tray splice plates shall be of high strength to allow random locations between support members. (Unspliced sections to be used at any simple beam locations.) Splice hardware shall include a spliced shoulder bolt which fully engages both the splice plate and the siderail. Locknut shall be of the serrated flange type allowing for one-wrench installation.

Strength

The cable tray shall be capable of carrying a uniformly distributed cable load of [insert lbs] per foot when supported on [insert ft] spans and shall be rated as a NEMA class [8A,B,C–12A,B,C–16A,B,C–20A,B,C].

Supports

Cable tray supports shall be of the [trapeze–bracket–direct rod suspension] type and shall be installed on [insert ft] centers.

Cable Tray Catalog Numbering System

System Prefix

C L A 4 A D

Component Suffix

Straight Tray

(prefix) –12 SS O9 - 144

Fittings

(prefix) – 24 HE 90 - 24

Cable Tray
 Tray Type:
 L=Ladder Type
 T=Trough Type
 S=Solid Bottom
 Material:
 A=Aluminum
 S=Steel: Mill-Galvanized per ASTM A-525
 G=Steel: Hot Dip Galvanized After Fabrication A-38C

Rung–Bottom:
 D=Double Rung
 B=Box Rung
 S=Solid Bottom
 Siderail Design
 Usable Depth
 3 in (76mm), 4 in (102mm), 5 in (127mm)

Width:
 6 in (152mm), 12 in (305mm), 18 in (457mm), 24 in (610mm), 30 in (762mm) and 36 in (914mm)
 Straight Section

Length in inches:
 144=12 ft 288=24 ft
 Rung Spacing:
 6 in (152mm), 9 in (229mm), 12 in (305mm) and 81 in (2057mm) (Blank if trough or or solid bottom type)

Width:
 6 in (152mm), 12 in (305mm), 18 in (457mm), 24 in (610mm), 30 in (762mm) and 36 in (914mm)
 Element:
 HE=Horizontal Elbow
 VO=Vertical Outside Elbow
 VI=Vertical Inside Elbow
 HT=Horizontal Tee
 HX=Horizontal Cross

Radius:
 12 in (305mm), 24 in (610mm), 36 in (914mm)

Degree:
 Elbows=90°, 60°, 45°, 30°
 HT and HX=Blank

Installer shall supply all clamps, clips, and associated parts for a complete support system.

Fittings


All elbows, tees, and cross fittings shall be supplied without straight tangents beyond the point of curvature. Fittings shall be supplied in [12 in (305mm)–24 in (610mm)–36 in (914mm)] radius to accommodate the cable installed in the trays.

Accessories

Cable tray system shall include all related accessory items such as dropouts, end plates, and barrier strips to separate services in the trays. Covers shall be furnished as required for cable protection (e.g. for vertical riser trays as they penetrate floors, etc.).



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5160CT9201R11/96 Oct 97 Printed in U.S.A. © 1997 Square D All Rights Reserved
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