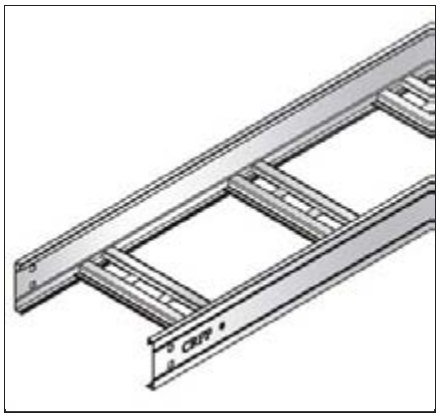
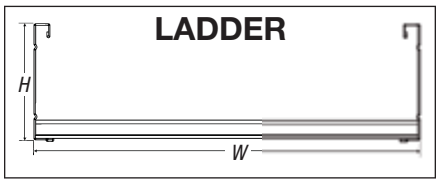
Click on line to jump to desired page

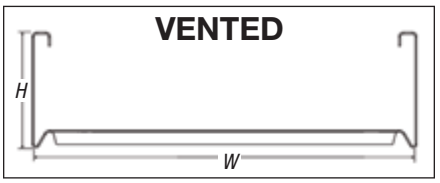
Straight Section Part Numbering

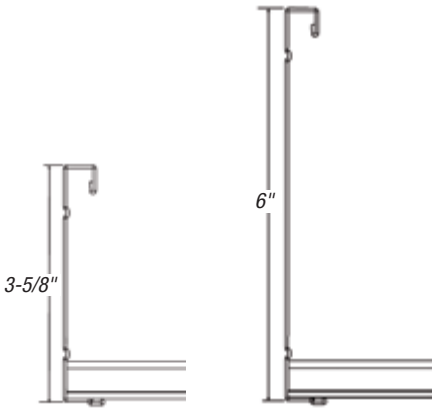
Example: C 40 L G SL3 12 24

CSA/ NEMA Class	Rail Height (H)	Type	Material	Standard Length	Rung Spacing	Inside Width (W)
"C"	40 = 3-5/8" 60 = 6"	L = Ladder V = Vented	G = Pre-Galv S = HDG X4 = 304SS X6 = 316SS	SL3 = 3 Meter	6" 9" 12" 18" (Omit for Vented)	6" 12" 18" 24" 30" 36"









CSA LOAD CLASS "C"

CSA Load Span Class Designation:
97 kg/m (65 lb./ft), 3m span

C40				C60			
	Ladder	Vented	Solid		Ladder	Vented	Solid
I_χ in^4	.885	1.053	2.361	I_χ in^4	3.173	4.024	7.928
Area in^2	.521	.735	.978	Area in^2	.749	.963	1.585

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

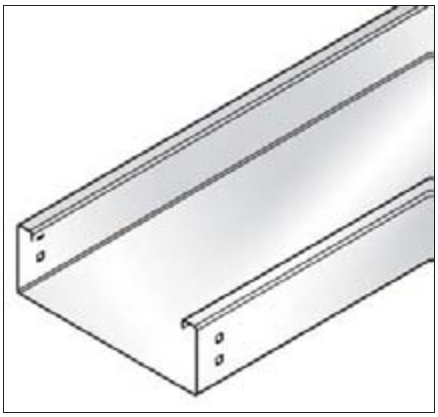
LR101624

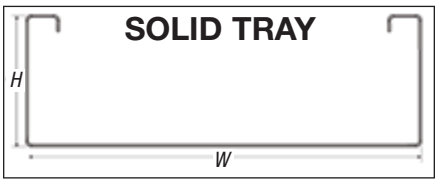
C SA® US

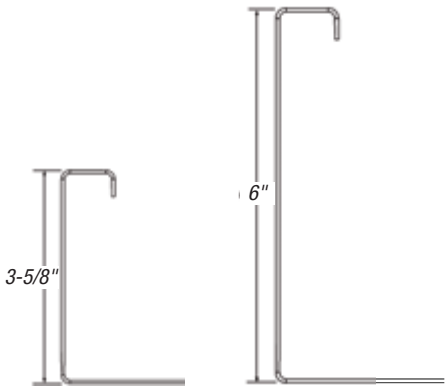
Straight Section Part Numbering

Example: C 40 S G SL3 24

CSA/ NEMA Class	Rail Height (H)	Type	Material	Standard Length	Inside Width (W)
"C"	40 = 3-5/8" 60 = 6"	S = Solid	G = Pre-Galv S = HDG X4 = 304SS X6 = 316SS	SL3 = 3 Meter	6" 12" 18" 24" 30" 36"







CSA LOAD CLASS "C"

CSA Load Span Class Designation:
97 kg/m (65 lb./ft), 3m span

C40		C60	
	Solid		Solid
I_χ in^4	2.361	I_χ in^4	7.928
Area in^2	.978	Area in^2	1.585

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

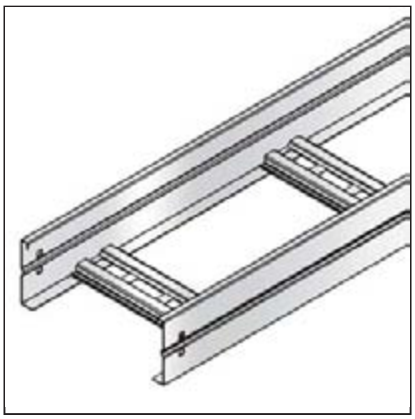
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

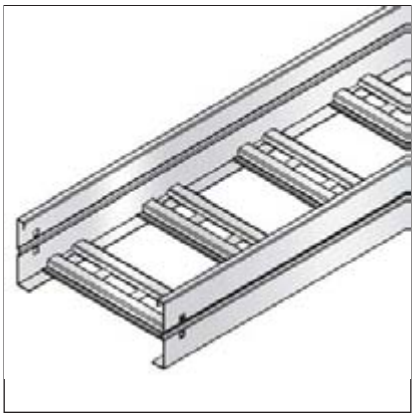
LR101624

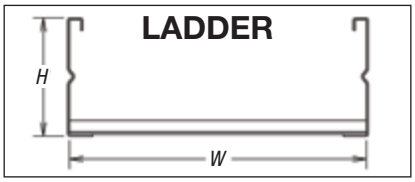
Straight Section Part Numbering

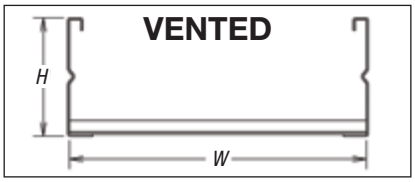
Example: D 47 L G SL3 12 24

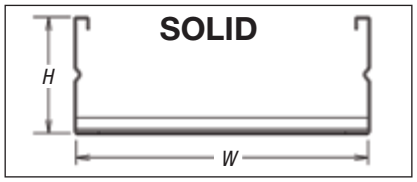
CSA/ NEMA Class	Rail Height (H)	Type	Material	Standard Length	Rung Spacing	Inside Width (W)
"D"	47 = 4-3/4" 60 = 6"	L = Ladder V = Vented S = Solid	G = Pre-Galv S = HDG X4 = 304SS X6 = 316SS	SL3 = 3 Meter SL6 = 6 Meter	6" 9" 12" 18" (Omit for Vented and Solid)	6" 12" 18" 24" 30" 36"

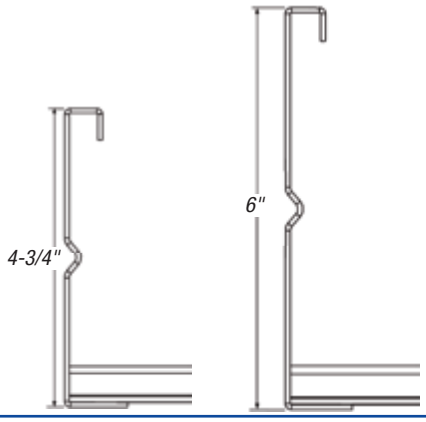












CSA LOAD CLASS "D"

CSA Load Span Class Designation:
179 kg/m (120 lb./ft), 3m span
67 kg/m (45 lb./ft), 6m span

D47				D60			
	Ladder	Vented	Solid		Ladder	Vented	Solid
I_χ in^4	2.72			I_χ in^4	4.93		
Area in^2	.989			Area in^2	1.17		

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

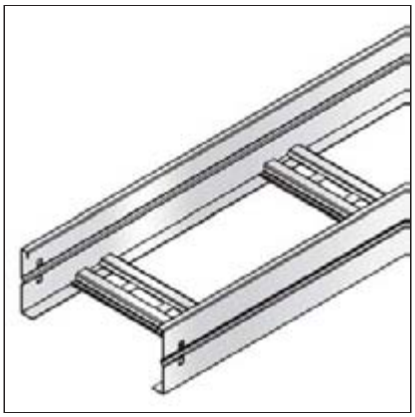
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

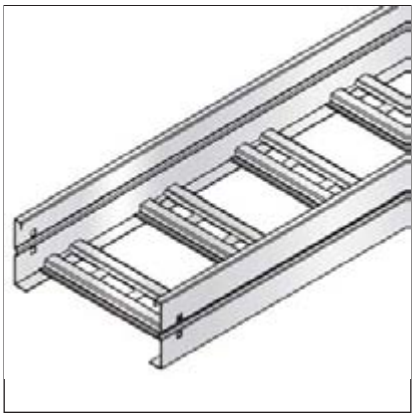
LR101624

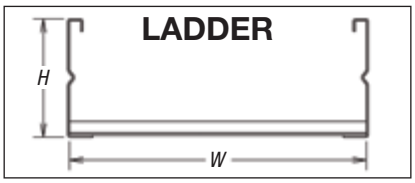
Straight Section Part Numbering

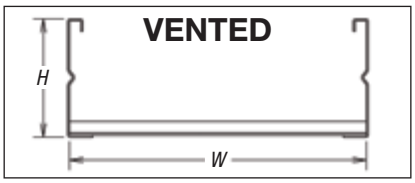
Example: E 60 L G SL3 12 24

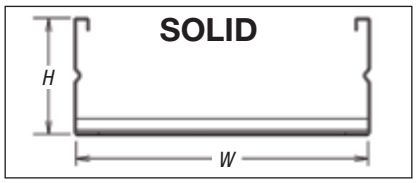
CSA/ NEMA Class	Rail Height (H)	Type	Material	Standard Length	Rung Spacing	Inside Width (W)
"E"	60 = 6"	L = Ladder V = Vented S = Solid	G = Pre-Galv S = HDG X4 = 304SS X6 = 316SS	SL3 = 3 Meter SL6 = 6 Meter	6" 9" 12" 18" (Omit for Vented and Solid)	6" 12" 18" 24" 30" 36"

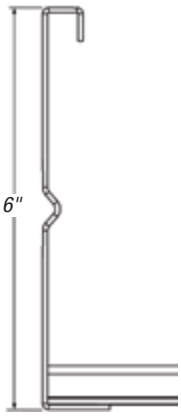












CSA LOAD CLASS "E"

CSA Load Span Class Designation:
299 kg/m (200 lb./ft), 3m span
112 kg/m (75 lb./ft) 6m span

E60			
	Ladder	Vented	Solid
I_χ in^4	7.3		
Area in^2	1.67		

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

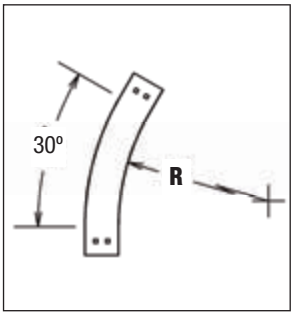
LR101624

C SA® US

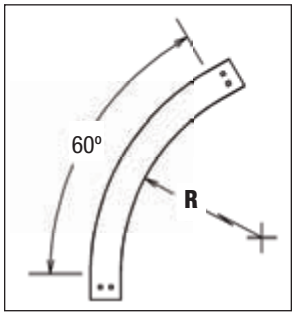
Vertical Outside Elbow Part Numbering

Example: C 40 L G VO 90 12 24

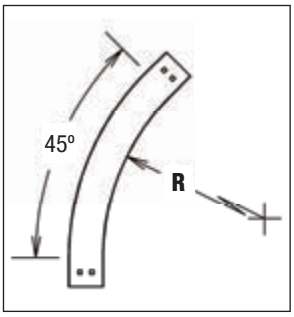
CSA/ NEMA Class	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	40 = 3-5/8"	L = Ladder	G = Pre-Galv	VO = Vertical Outside	30	12"	6"
"D"	47 = 4-3/4"	V = Vented	S = HDG		45	24"	12"
"E"	60 = 6"		X4 = 304SS		60	36"	18"
			X6 = 316SS		90		24"
							30"
							36"

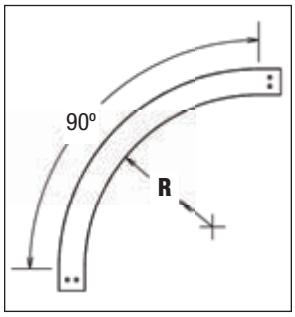
30 Degree Vertical Outside Elbow

60 Degree Vertical Outside Elbow

45 Degree Vertical Outside Elbow

90 Degree Vertical Outside Elbow

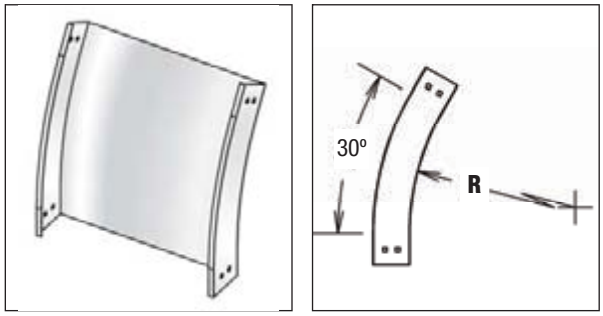
R = Radius 12" - 24" - 36"

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

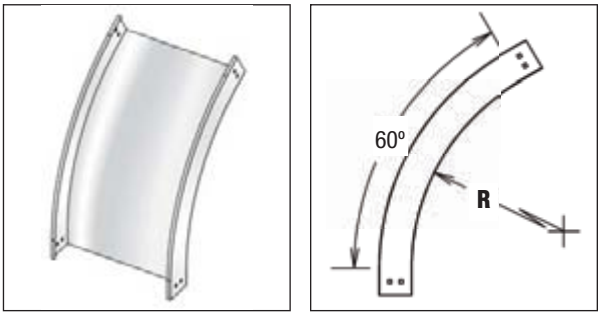
Solid Vertical Outside Elbow Part Numbering

Example: C 40 S G VO 90 12 24

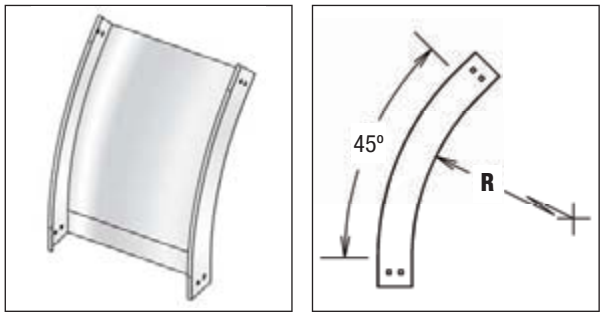
CSA/ NEMA Class	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	40 = 3-5/8"	S = Solid	G = Pre-Galv	VO = Vertical Outside	30	12"	6"
"D"	47 = 4-3/4"		S = HDG		45	24"	12"
"E"	60 = 6"		X4 = 304SS		60	36"	18"
			X6 = 316SS		90		24"
							30"
							36"



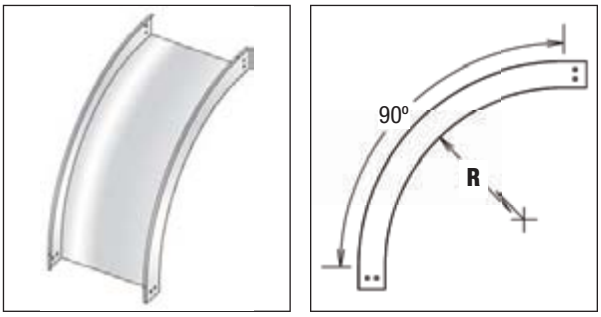
30 Degree Vertical Outside Elbow Solid



60 Degree Vertical Outside Elbow Solid



45 Degree Vertical Outside Elbow Solid



90 Degree Vertical Outside Elbow Solid

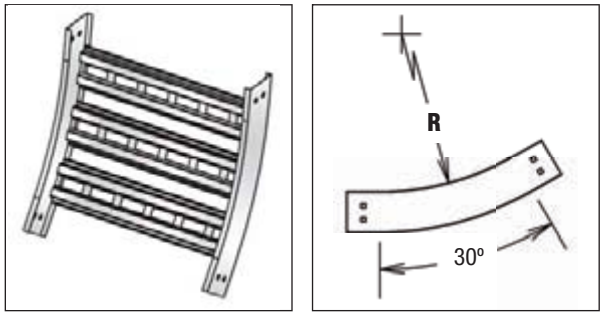
R = Radius 12" - 24" - 36"

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

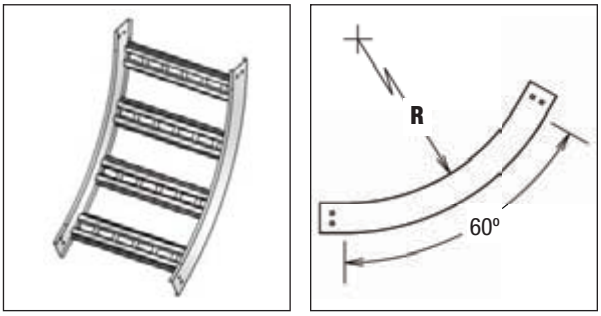
Vertical Inside Elbow Part Numbering

Example: C 40 L G VI 90 12 24

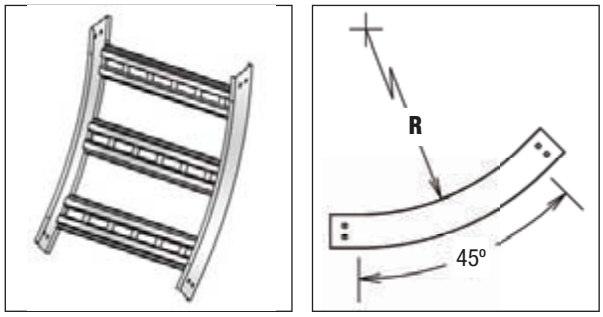
CSA/ NEMA Class	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	40 = 3-5/8"	L = Ladder	G = Pre-Galv	VI = Vertical Inside	30	12"	6"
"D"	47 = 4-3/4"	V = Vented	S = HDG		45	24"	12"
"E"	60 = 6"		X4 = 304SS		60	36"	18"
			X6 = 316SS		90		24"
							30"
							36"



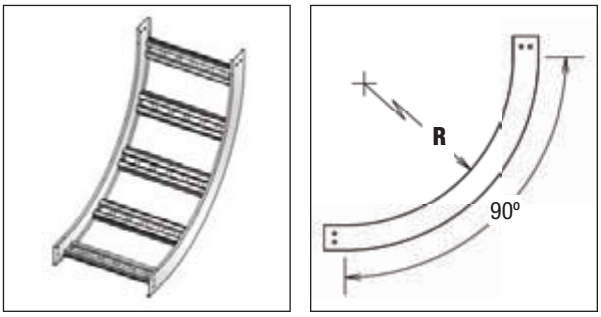
30 Degree Vertical Inside Elbow



60 Degree Vertical Inside Elbow



45 Degree Vertical Inside Elbow



90 Degree Vertical Inside Elbow

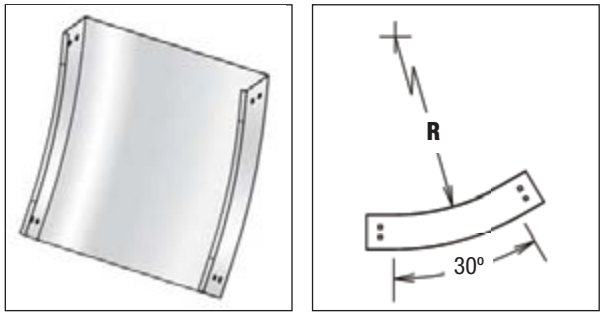
R = Radius 12" - 24" - 36"

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

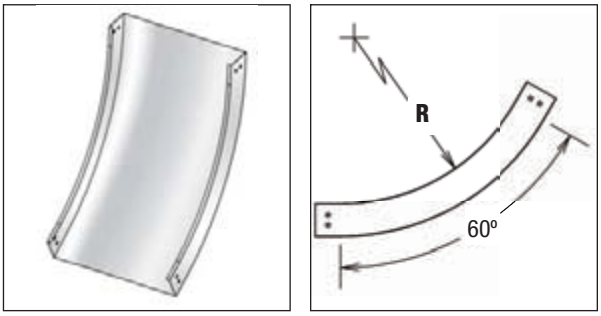
Solid Vertical Inside Elbow Part Numbering

Example: C 40 S G VI 90 12 24

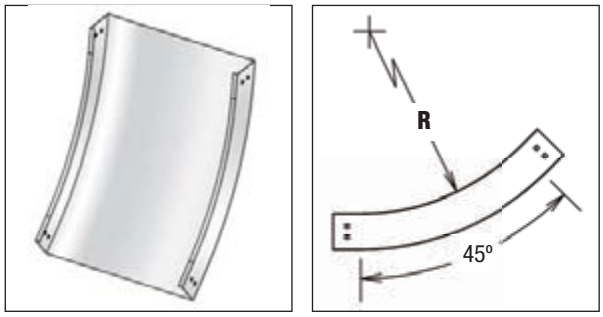
CSA/ NEMA Class	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	40 = 3-5/8"	S = Solid	G = Pre-Galv	VI = Vertical Inside	30	12"	6"
"D"	47 = 4-3/4"		S = HDG		45	24"	12"
"E"	60 = 6"		X4 = 304SS		60	36"	18"
			X6 = 316SS		90		24"
							30"
							36"



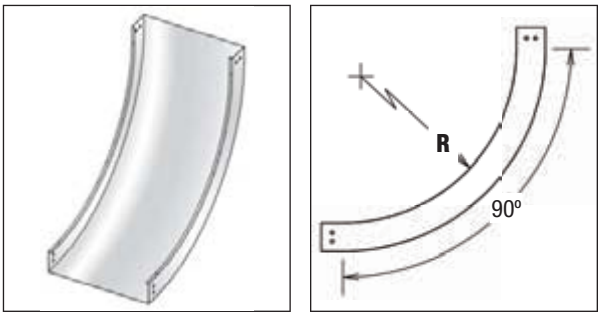
30 Degree Vertical Inside Elbow Solid



60 Degree Vertical Inside Elbow Solid



45 Degree Vertical Outside Elbow Solid



90 Degree Vertical Inside Elbow Solid

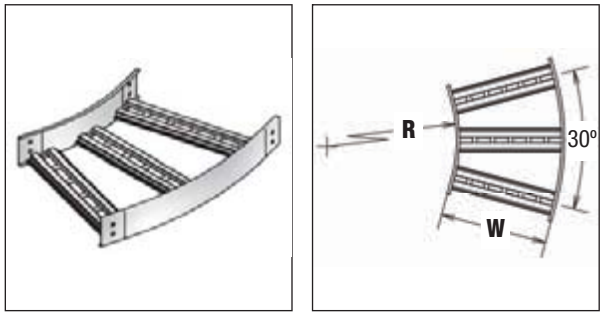
R = Radius 12" - 24" - 36"

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

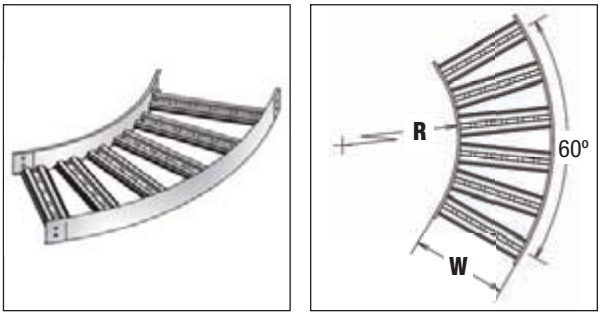
Horizontal Elbows Part Numbering

Example: C 40 L G HL 90 12 24

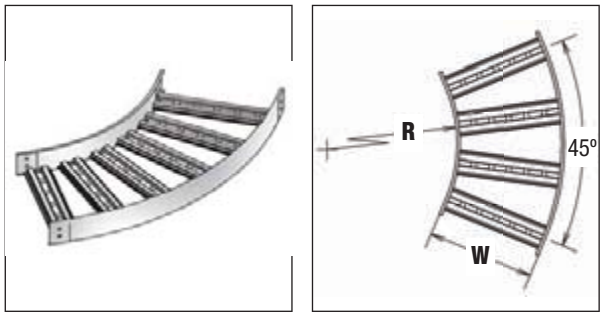
CSA/ NEMA Class	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	40 = 3-5/8"	L = Ladder	G = Pre-Galv	HL = Horizontal	30	12"	6"
"D"	47 = 4-3/4"	V = Vented	S = HDG		45	24"	12"
"E"	60 = 6"		X4 = 304SS		60	36"	18"
			X6 = 316SS		90		24"
							30"
							36"



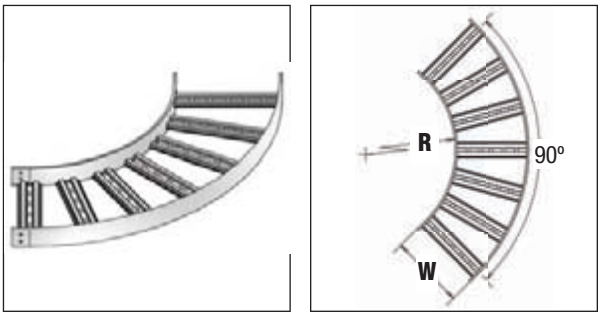
30 Degree Horizontal Elbow



60 Degree Horizontal Elbow



45 Degree Horizontal Elbow



90 Degree Horizontal Elbow

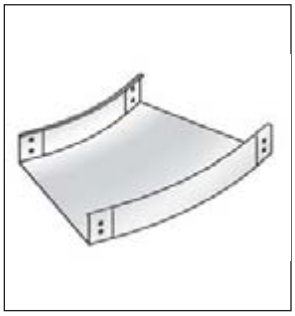
R = Radius 12" - 24" - 36"

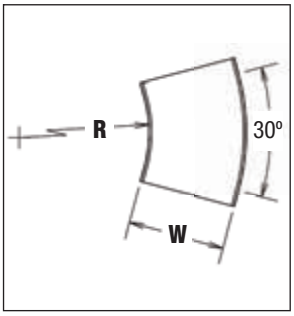
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Solid Horizontal Elbows Part Numbering

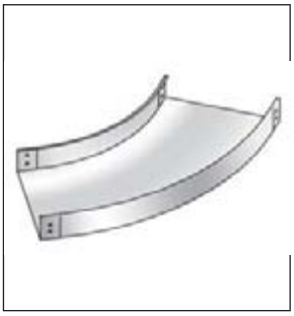
Example: C 40 S G HL 90 12 24

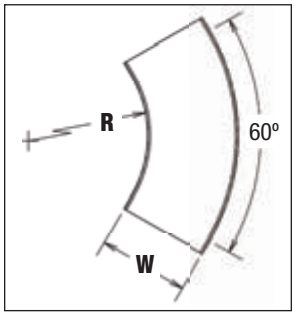
CSA/ NEMA Class	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	40 = 3-5/8"	S = Solid	G = Pre-Galv	HL = Horizontal	30	12"	6"
"D"	47 = 4-3/4"		S = HDG		45	24"	12"
"E"	60 = 6"		X4 = 304SS		60	36"	18"
			X6 = 316SS		90		24"
							30"
							36"



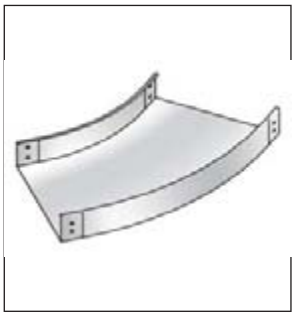


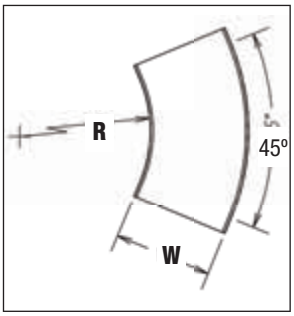
30 Degree Horizontal Elbow Solid



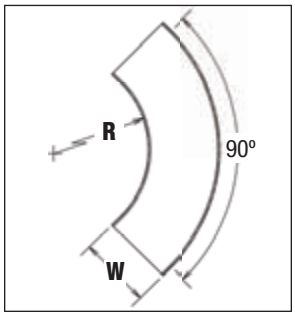


60 Degree Horizontal Elbow Solid





45 Degree Horizontal Elbow Solid



90 Degree Horizontal Elbow Solid

R = Radius 12" - 24" - 36"

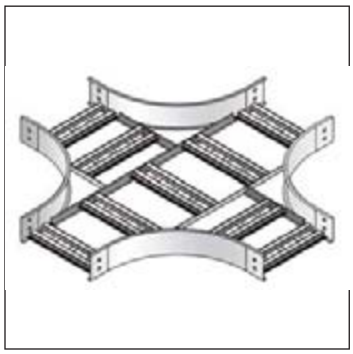
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

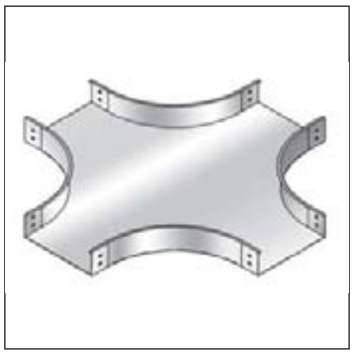
Tees, Wyes and Crosses Part Numbering

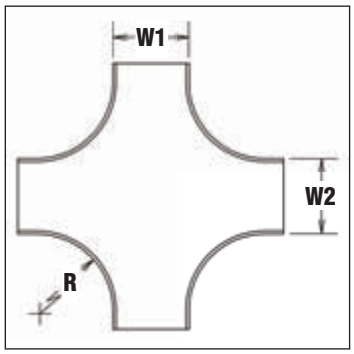
Example: C 40 L G HT 12 24

CSA/ NEMA Class	Rail Height (H)	Type	Material	Type of Fitting	Radius	Width (W)
"C"	40 = 3-5/8"	L = Ladder	G = Pre-Galv	HT = Tee	12"	6"
"D"	47 = 4-3/4"	V = Vented	S = HDG	HC = Cross	24"	12"
"E"	60 = 6"	S = Solid	X4 = 304SS	HYR = Wye right	36"	18"
			X6 = 316SS	HYL = Wye left		24"
					(Omit for Wyes)	30"
						36"

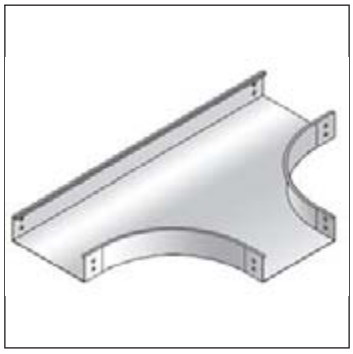
Horizontal Cross

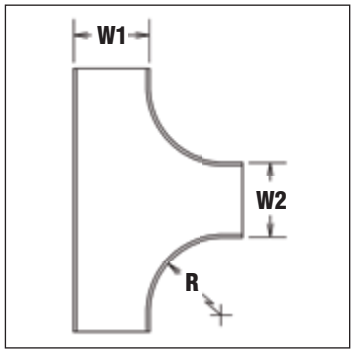




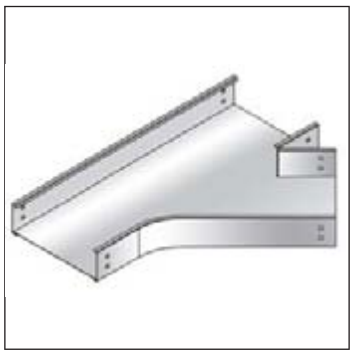


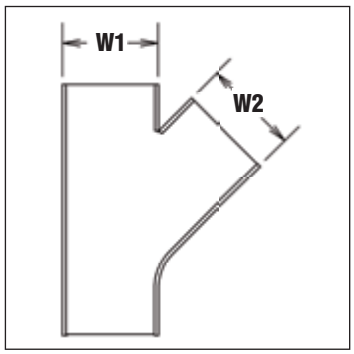
Horizontal Tee





Horizontal Wyes (left or right)



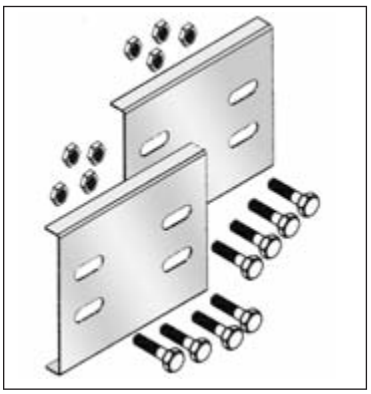


FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Splice Kit

C 40 G SSP

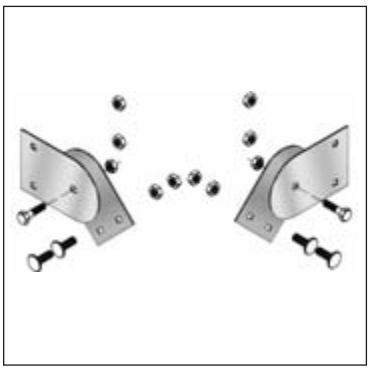
- C — Comtray
- 40 — **Rail Height**
  - 40 = 3-5/8"
  - 47 = 4-3/4"
  - 60 = 6"
- G — **Material**
  - G = PG
  - S = HDG
  - X4 = 304SS
  - X6 = 316SS
- SSP — Standard Splice Plate



Vertical Adjustable Splice Kit

C 4 G VASP

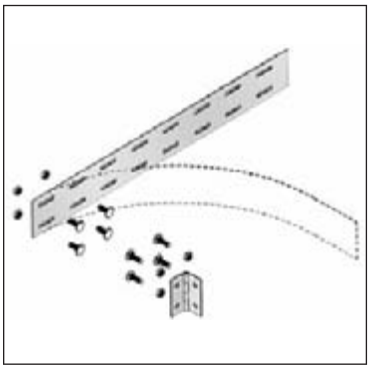
- C — Comtray
- 4 — **Rail Height**
  - 4 = 3-5/8" to 4-3/4"
  - 6 = 6“
- G — **Material**
  - G = PG
  - S = HDG
  - X4 = 304SS
  - X6 = 316SS
- VASP — Vertical Adj. Splice Kit



Horizontal Adjustable Splice Kit

C 4 G HASP

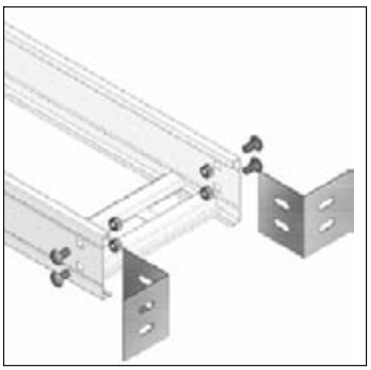
- C — Comtray
- 4 — **Rail Height**
  - 4 = 3-5/8" to 4-3/4"
  - 6 = 6“
- G — **Material**
  - G = PG
  - S = HDG
  - X4 = 304SS
  - X6 = 316SS
- HASP — Horiz. Adj. Splice Kit



Tray to Box Connector

C 4 G TBC

- C — Comtray
- 4 — **Rail Height**
  - 4 = 3-5/8" to 4-3/4"
  - 6 = 6“
- G — **Material**
  - G = PG
  - S = HDG
  - X4 = 304SS
  - X6 = 316SS
- TBC — Tray Box Connector

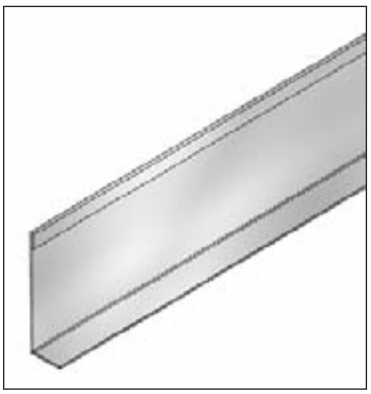


FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Barrier Strip

B 40 G SL 3

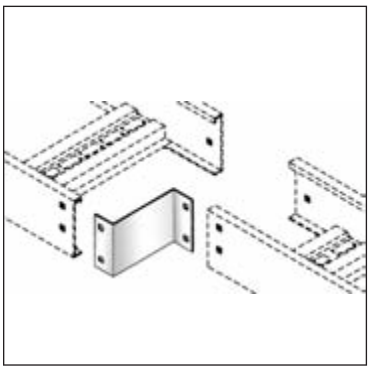
- **B** — Barrier
- **40** — **Rail Height**: 40 = 3-5/8" to 4-3/4"; 60 = 6"
- **G** — **Material**: G = PG; S = HDG; X4 = 304SS; X6 = 316SS
- **SL** — **Standard Length**
- **3** — 3m



Economy Reducer

C 4 G ER 6

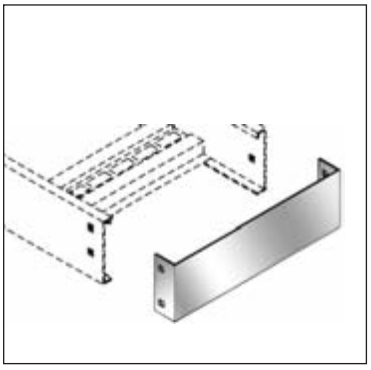
- **C** — Comtray
- **4** — **Rail Height**: 4 = 3-5/8" to 4-3/4"; 6 = 6"
- **G** — **Material**: G = PG; S = HDG; X4 = 304SS; X6 = 316SS
- **ER** — Economy Reducer
- **6** — **Amount of Reduction** (eg: 12" to 6" = 6" reduction)



Blind End

C 4 G BE 12

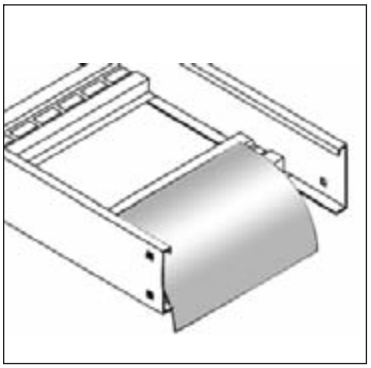
- **C** — Comtray
- **4** — **Rail Height**: 4 = 3-5/8" to 4-3/4"; 6 = 6"
- **G** — **Material**: G = PG; S = HDG; X4 = 304SS; X6 = 316SS
- **BE** — Blind End
- **12** — **Tray Width**



Tray Drop Out

C G DO 12

- **C** — Comtray
- **G** — **Material**: G = PG; S = HDG; X4 = 304SS; X6 = 316SS
- **DO** — Drop Out
- **12** — **Tray Width**

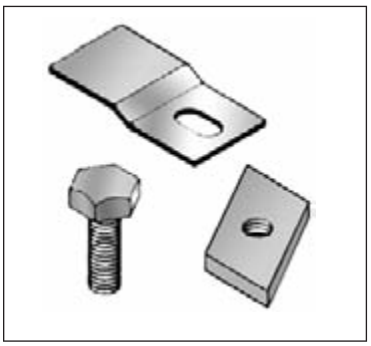


FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Tray Hold Down Clamp

C G THDC

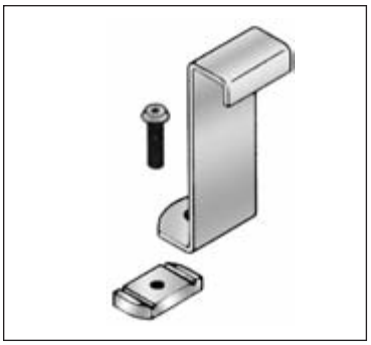
- C — Comtray
- G — **Material**
  - G = PG
  - S = HDG
  - X4 = 304SS
  - X6 = 316SS
- THDC — Tray Hold Down Clamp



Side Securing Clamp

C 40 G SSC

- C — Comtray
- 40 — **Rail Height**
  - 40 = 3-5/8"
  - 47 = 4-3/4"
  - 60 = 6"
- G — **Material**
  - G = PG
  - S = HDG
  - X4 = 304SS
  - X6 = 316SS
- SSC — Side Securing Clamp

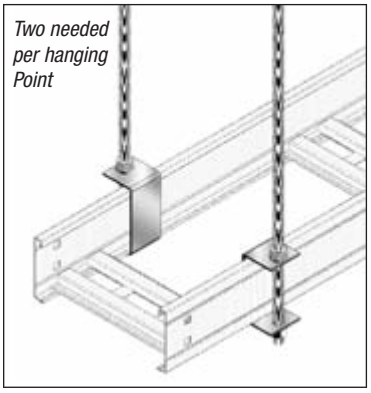


Wraparound Tray Hanger

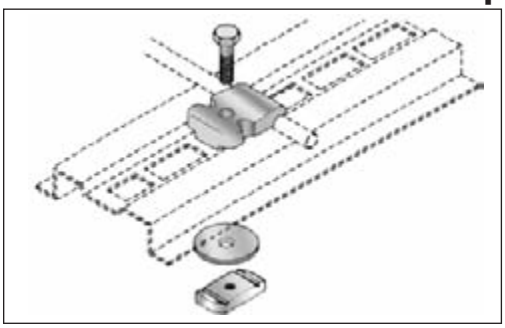
C 40 G HGR

- C — Comtray
- 40 — **Rail Height**
  - 40 = 3-5/8"
  - 47 = 4-3/4"
  - 60 = 6"
- G — **Material**
  - G = PG
  - S = HDG
  - X4 = 304SS
  - X6 = 316SS
- HGR — Hanger

Two needed per hanging Point

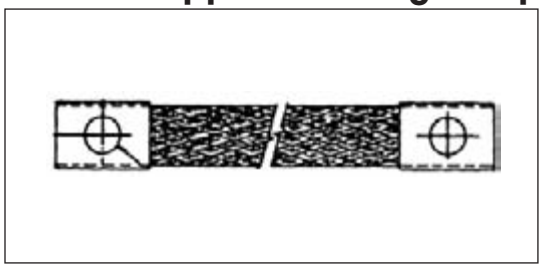


Cast Bronze Ground Clamp



Part Number: CR551

Tinned Copper Bonding Strap



Part Numbers:
C6CBS (6") - C9CBS (9")
C12CBS (12") - C18CBS (18")

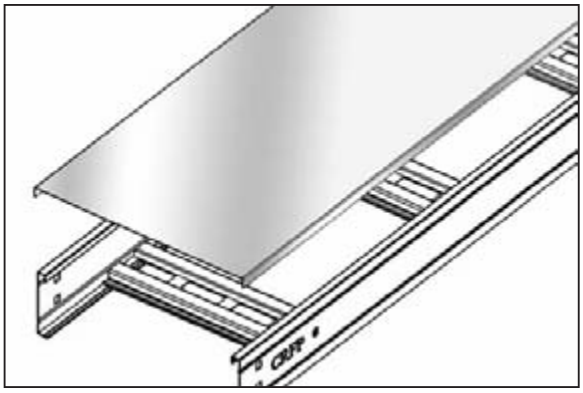
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Covers Part Numbering

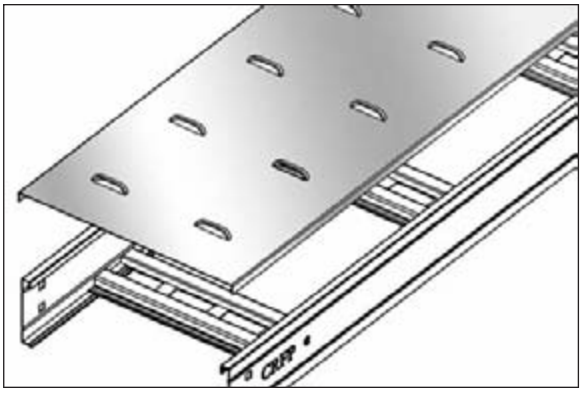
Prefix

Example: SC S SL3 24

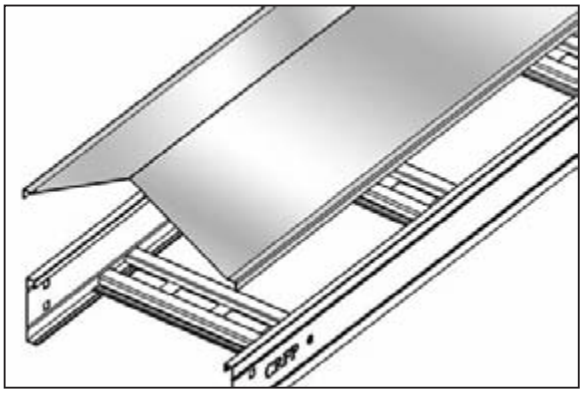
Cover Type	Material	Length of Cover	Width (W) of Tray
SC = Solid	G = Pre-Galv	SL3 = 3 Meter	6"
VC = Vented	S = HDG		12"
PC = Peaked	X4 = 304SS		18"
	X6 = 316SS		24"
			30"
			36"



Solid



Vented



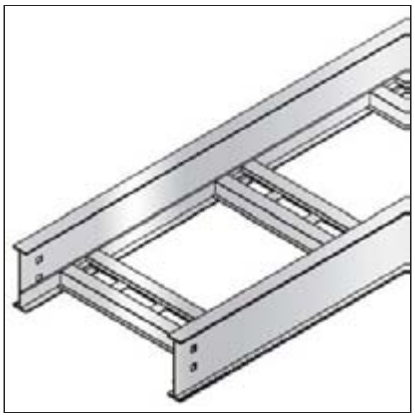
Peaked

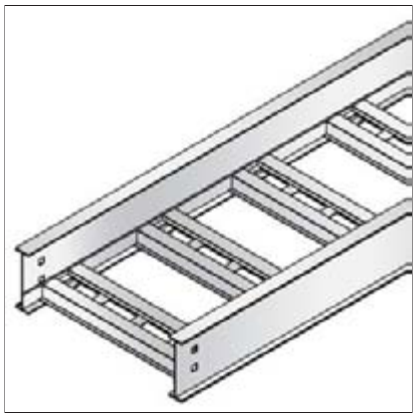
FITTING COVERS AVAILABLE UPON REQUEST
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

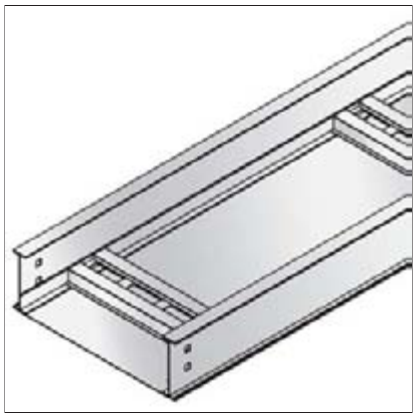
Straight Section Part Numbering

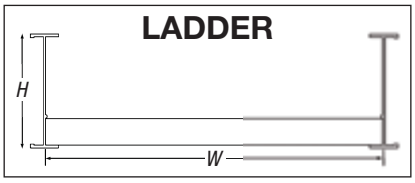
Example: C I 40 L A SL3 12 24

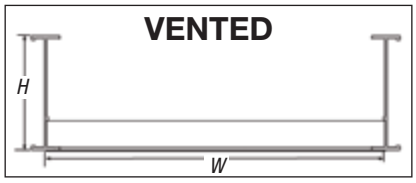
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Standard Length	Rung Spacing	Inside Width (W)
"C"	I = I-Beam	40 = 4" 60 = 6"	L = Ladder V = Vented S = Solid	A = Aluminum	SL3 = 3 Meter	6" 9" 12" 18" (Omit for Vented and Solid)	6" 12" 18" 24" 30" 36"

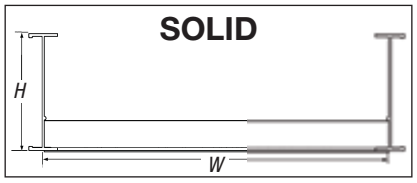


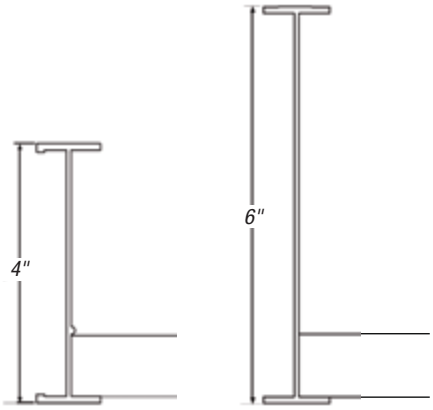












CSA LOAD CLASS "C"

CSA Load Span Class Designation:
97 kg/m (65 lb./ft), 3m span

CI40				CI60			
	Ladder	Vented	Solid		Ladder	Vented	Solid
I_χ in^4	2.300			I_χ in^4	5.758		
Area in^2	.969			Area in^2	1.212		

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

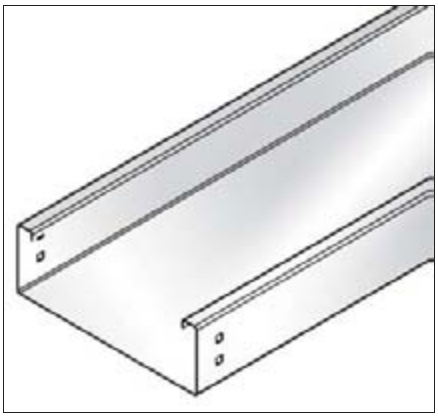
LR101624

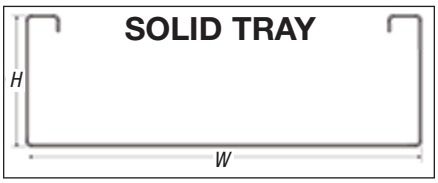
C SA® US

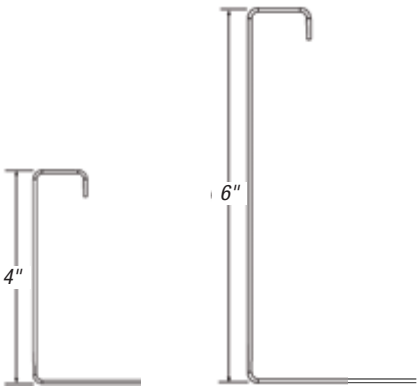
Straight Section Part Numbering

Example: C 40 S A SL3 12

CSA/ NEMA Class	Rail Height (H)	Type	Material	Standard Length	Inside Width (W)
"C"	40 = 4" 60 = 6"	S = Solid	A = Aluminum	SL3 = 3 Meter	6" 12" 18" 24" 30" 36"







CSA LOAD CLASS "C"

CSA Load Span Class Designation:
97 kg/m (65 lb./ft), 3m span

C40S		C60S	
	Solid		**Solid**
I_x in^4	2.300	I_x in^4	5.758
Area in^2	.969	Area in^2	1.212

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

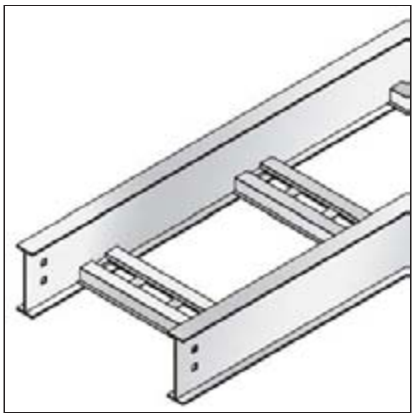
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

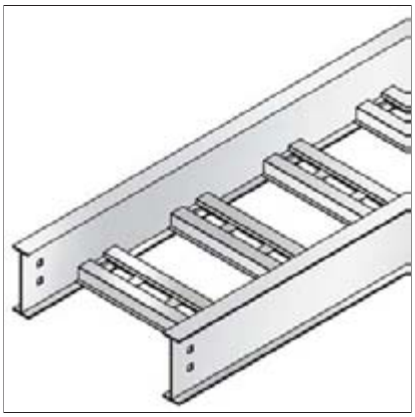
LR101624

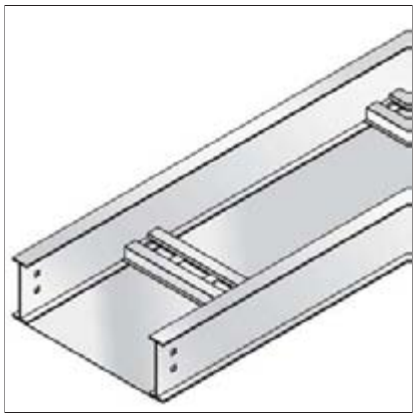
Straight Section Part Numbering

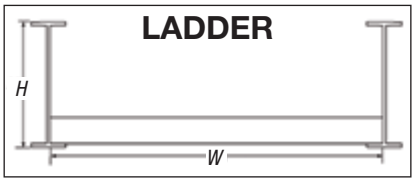
Example: D I 45 L A SL3 12 24

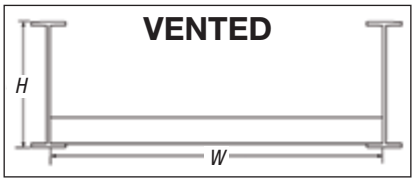
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Standard Length	Rung Spacing	Inside Width (W)
"D"	I = I-Beam	45 = 4-1/2" 60 = 6"	L = Ladder V = Vented S = Solid	A = Aluminum	SL3 = 3 Meter SL6 = 6 Meter	6" 9" 12" 18" (Omit for Vented or Solid)	6" 12" 18" 24" 30" 36"

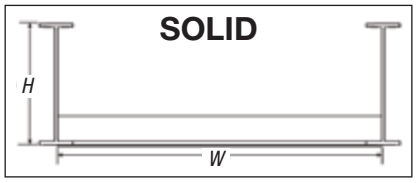


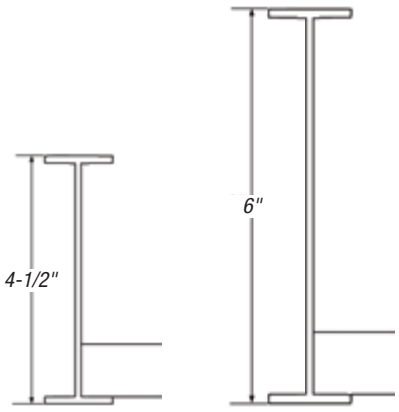












CSA LOAD CLASS "D"

CSA Load Span Class Designation:
179 kg/m (120 lb./ft), 3m span,
67 kg/m (45 lb./ft), 6m span

DI45				DI60			
	Ladder	Vented	Solid		Ladder	Vented	Solid
I_χ in^4	4.583			I_χ in^4	9.217		
Area in^2	1.601			Area in^2	1.931		

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

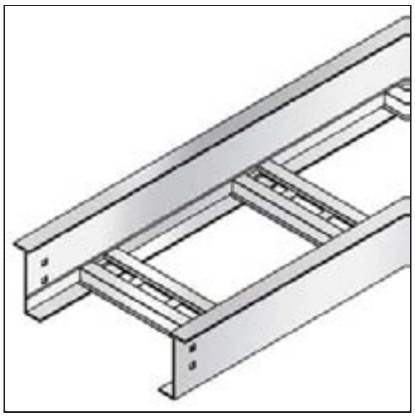
LR101624

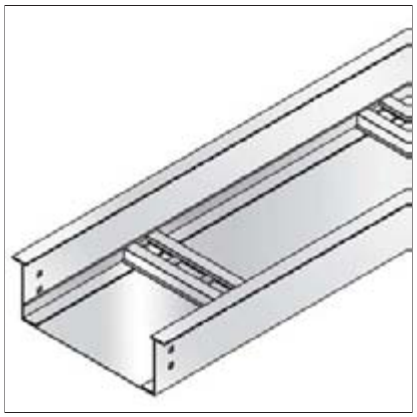
C SA® US

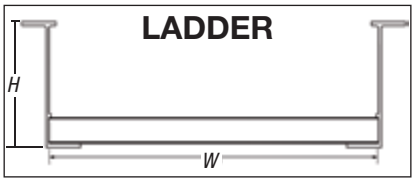
Straight Section Part Numbering

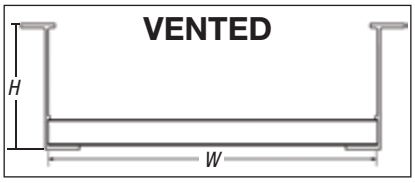
Example: D Z 45 L A SL6 12 24

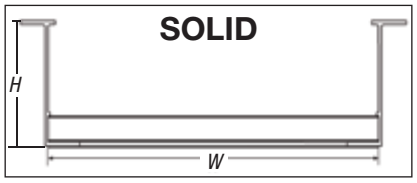
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Standard Length	Rung Spacing	Inside Width (W)
"D"	Z = Z-Rail	45 = 4-1/2"	L = Ladder V = Vented S = Solid	A = Aluminum	SL3 = 3 Meter SL6 = 6 Meter	6" 9" 12" 18" (Omit for Vented and Solid)	6" 12" 18" 24" 30" 36"

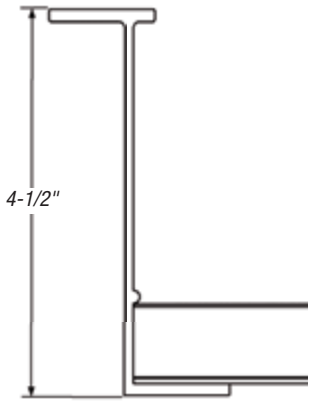












CSA LOAD CLASS "D"

CSA Load Span Class Designation:
179 kg/m (120 lb./ft), 3m span
62 kg/m (45 lb./ft), 6m span

DZ45			
	Ladder	Vented	Solid
I_χ in^4	5.032		
Area in^2	1.689		

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

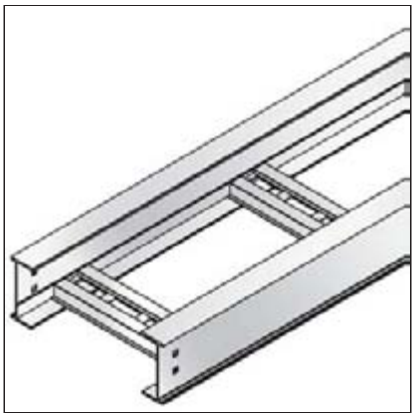
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

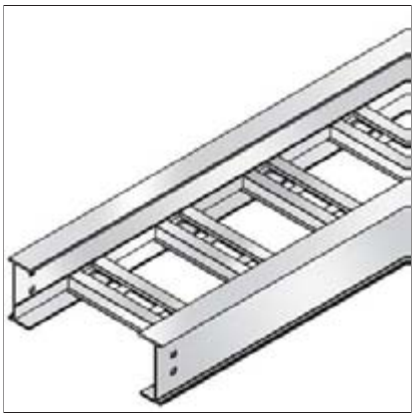
LR101624

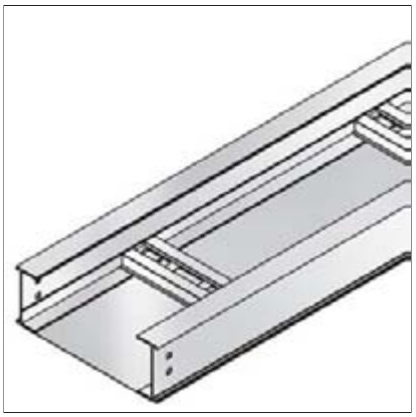
Straight Section Part Numbering

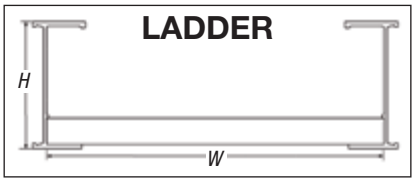
Example: E I 45 L A SL6 12 24

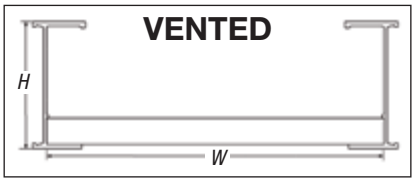
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Standard Length	Rung Spacing	Inside Width (W)
"E"	I = I-Beam	45 = 4-1/2" 60 = 6"	L = Ladder V = Vented S = Solid	A = Aluminum	SL3 = 3 Meter SL6 = 6 Meter	6" 9" 12" 18" (Omit for Vented and Solid)	6" 12" 18" 24" 30" 36"

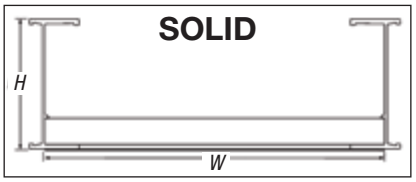


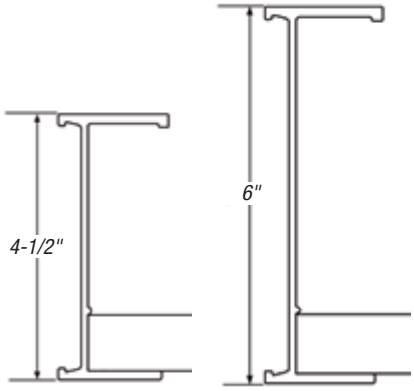












CSA LOAD CLASS "E"

CSA Load Span Class Designation:
299 kg/m (200 lb./ft), 3m span
112 kg/m (75 lb./ft), 6m span

EI45				EI60			
	Ladder	Vented	Solid		Ladder	Vented	Solid
I_χ in^4	6.926			I_χ in^4	13.5		
Area in^2	2.121			Area in^2	2.451		

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

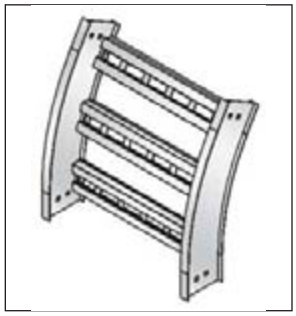
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

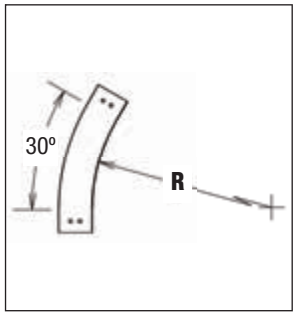
LR101624

Vertical Outside Elbow Part Numbering

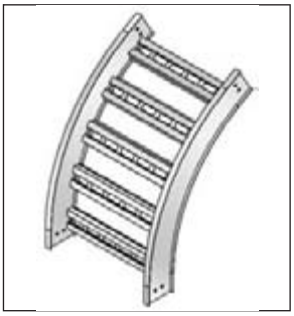
Example: C I 40 L A VO 90 12 24

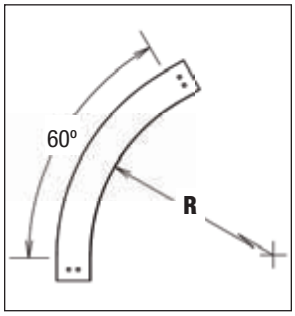
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	I = I-Beam	40 = 4"	L = Ladder	A = Aluminum	VO =	30	12"	6"
"D"	Z = Z-Rail	45 = 4-1/2"	V = Vented		Vertical Outside	45	24"	12"
"E"		60 = 6"				60	36"	18"
						90		24"
								30"
								36"



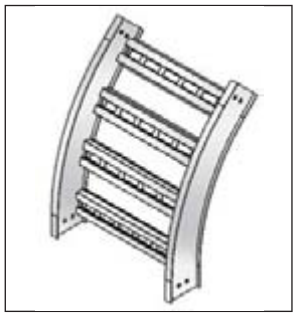


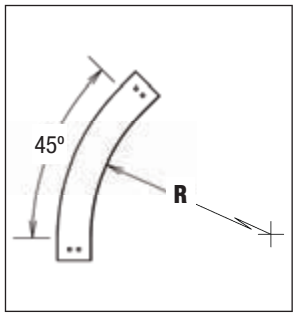
30 Degree Vertical Outside Elbow



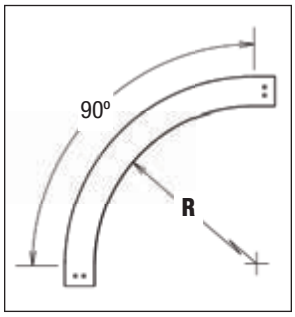


60 Degree Vertical Outside Elbow





45 Degree Vertical Outside Elbow



90 Degree Vertical Outside Elbow

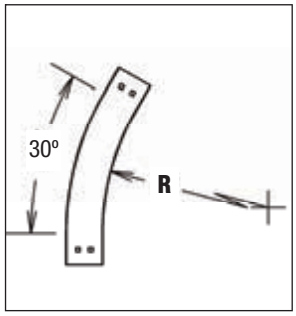
R = Radius 12" - 24" - 36"

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

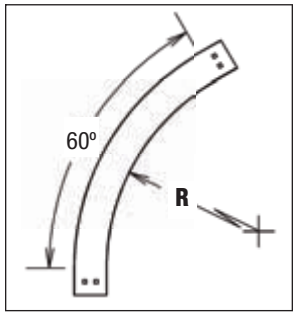
Solid Vertical Outside Elbow Part Numbering

Example: C I 40 S A VO 90 12 24

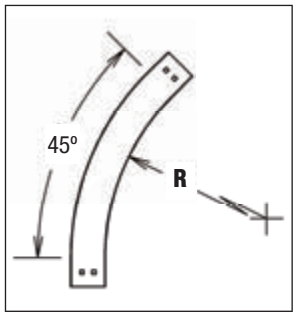
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C" "D" "E"	I = I-Beam Z = Z-Rail (Omit for C40SA Series)	40 = 4" 45 = 4-1/2" 60 = 6"	S = Solid	A = Aluminum	VO = Vertical Outside	30 45 60 90	12" 24" 36"	6" 12" 18" 24" 30" 36"



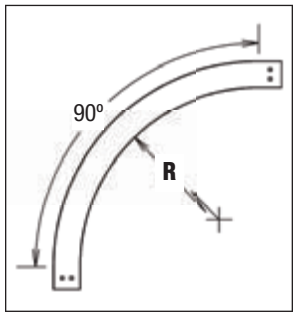
30 Degree Vertical Outside Elbow Solid



60 Degree Vertical Outside Elbow Solid



45 Degree Vertical Outside Elbow Solid



90 Degree Vertical Outside Elbow Solid

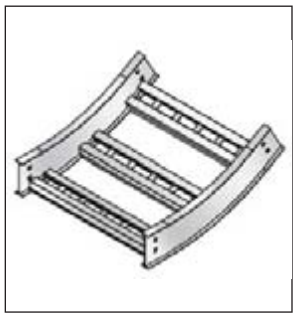
R = Radius 12" - 24" - 36"

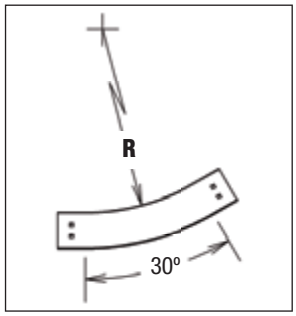
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Vertical Inside Elbow Part Numbering

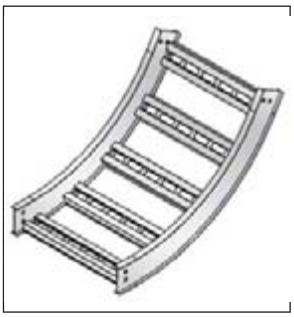
Example: C I 40 L A VI 90 12 24

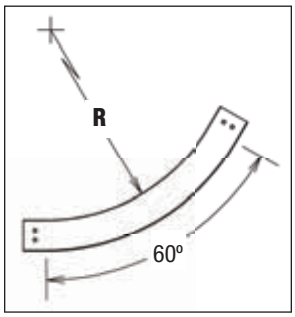
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	I = I-Beam	40 = 4"	L = Ladder	A = Aluminum	VI =	30	12"	6"
"D"	Z = Z-Rail	45 = 4-1/2"	V = Vented		Vertical Inside	45	24"	12"
"E"		60 = 6"				60	36"	18"
						90		24"
								30"
								36"



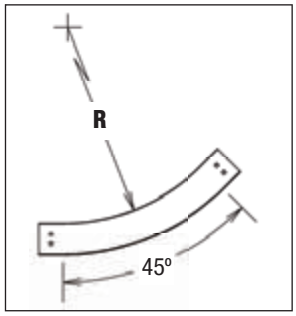


30 Degree Vertical Inside Elbow

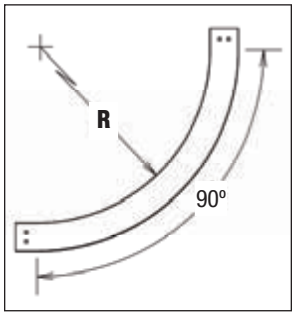




60 Degree Vertical Inside Elbow



45 Degree Vertical Inside Elbow



90 Degree Vertical Inside Elbow

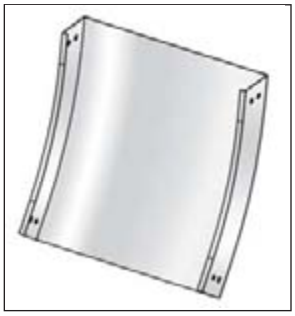
R = Radius 12" - 24" - 36"

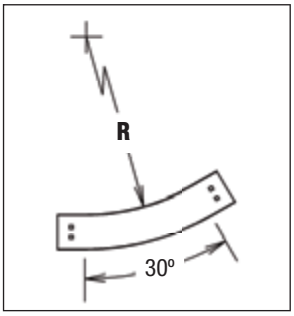
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Solid Vertical Inside Elbow Part Numbering

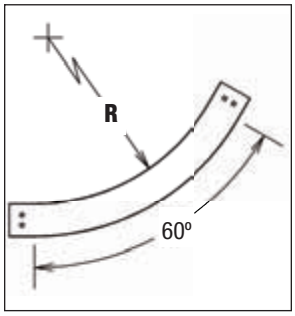
Example: C I 40 S A VI 90 12 24

CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	I = I-Beam	40 = 4"	S = Solid	A = Aluminum	VI =	30	12"	6"
"D"	Z = Z-Rail	45 = 4-1/2"			Vertical Inside	45	24"	12"
"E"	(Omit for	60 = 6"				60	36"	18"
	C40SA					90		24"
	Series)							30"
								36"

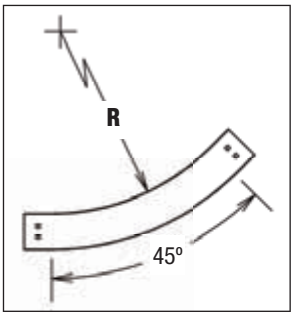




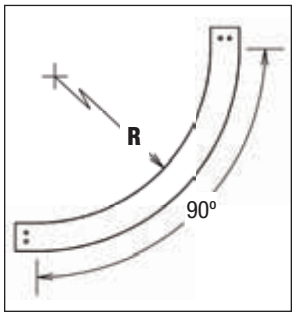
30 Degree Vertical Inside Elbow Solid



60 Degree Vertical Inside Elbow Solid



45 Degree Vertical Outside Elbow Solid



90 Degree Vertical Inside Elbow Solid

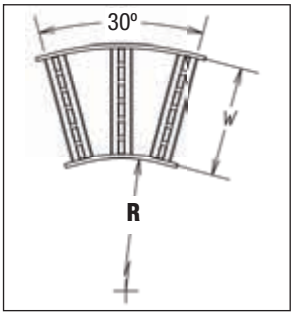
R = Radius 12" - 24" - 36"

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

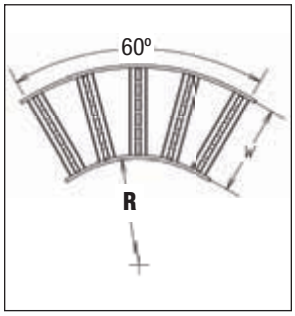
Horizontal Elbows Part Numbering

Example: C I 40 L A HL 90 12 24

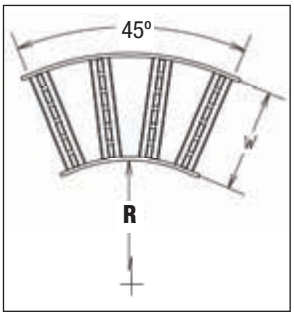
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	I = I-Beam	40 = 4"	L = Ladder	A = Aluminum	HL = Horizontal	30	12"	6"
"D"	Z = Z-Rail	45 = 4-1/2"	V = Vented			45	24"	12"
"E"		60 = 6"				60	36"	18"
						90		24"
								30"
								36"



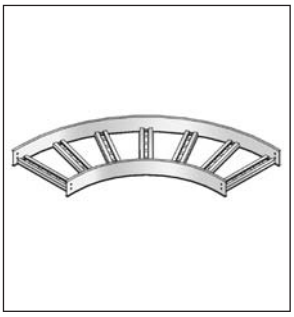
30 Degree Horizontal Elbow

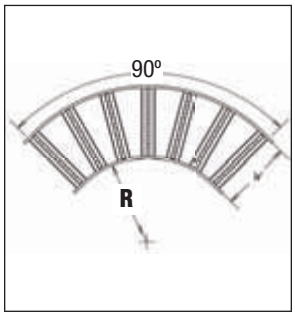


60 Degree Horizontal Elbow



45 Degree Horizontal Elbow





90 Degree Horizontal Elbow

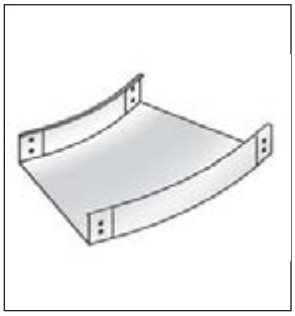
R = Radius 12" - 24" - 36"

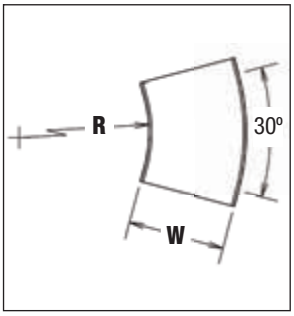
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Solid Horizontal Elbows Part Numbering

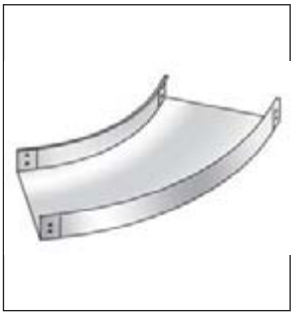
Example: C I 40 S A HL 90 12 24

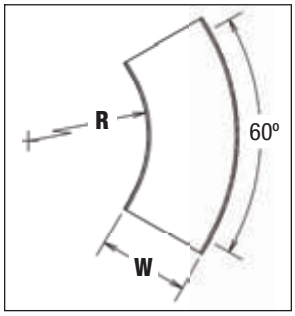
CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Type of Fitting	Degree of Bend	Radius	Width (W) of Tray
"C"	I = I-Beam	40 = 4"	S = Solid	A = Aluminum	HL = Horizontal	30	12"	6"
"D"	Z = Z-Rail	45 = 4-1/2"				45	24"	12"
"E"	(Omit for C40SA Seies)	60 = 6"				60	36"	18"
						90		24"
								30"
								36"



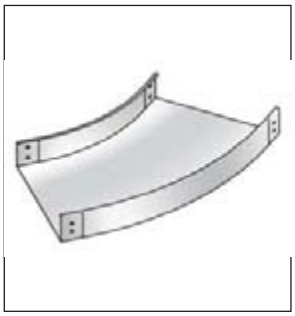


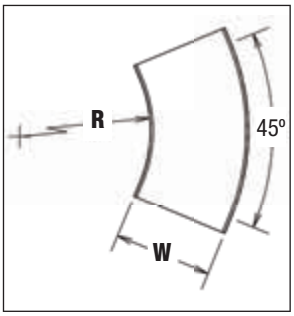
30 Degree Horizontal Elbow Solid



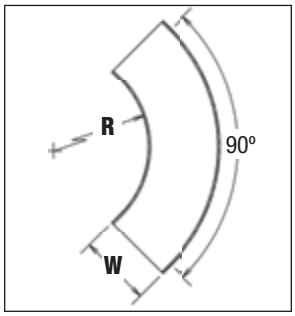


60 Degree Horizontal Elbow Solid





45 Degree Horizontal Elbow Solid



90 Degree Horizontal Elbow Solid

R = Radius 12" - 24" - 36"

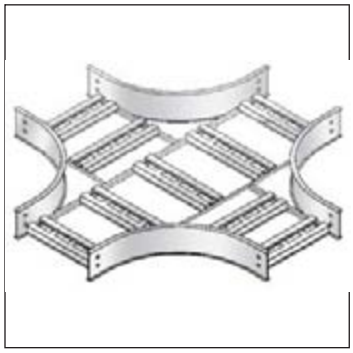
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

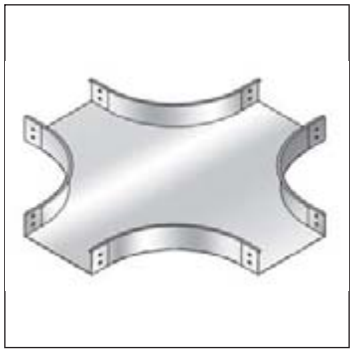
Tees, Wyes and Crosses Part Numbering

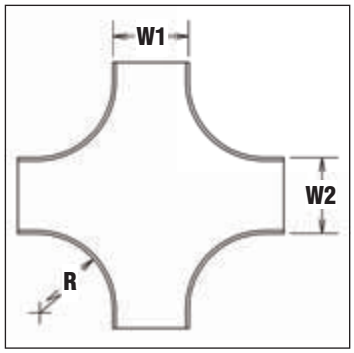
Example: C I 40 L A HT 12 24

CSA/ NEMA Class	Profile	Rail Height (H)	Type	Material	Type of Fitting	Radius	Width (W)
"C" "D" "E"	I = I-Beam Z = Z-Rail (Omit for C40SA Series)	40 = 4" 45 = 4-1/2" 60 = 6"	L = Ladder V = Vented S = Solid	A = Aluminum	HT = Tee HC = Cross HYR = Wye right HYL = Wye left	12" 24" 36" (Omit for Wyes)	6" 12" 18" 24" 30" 36"

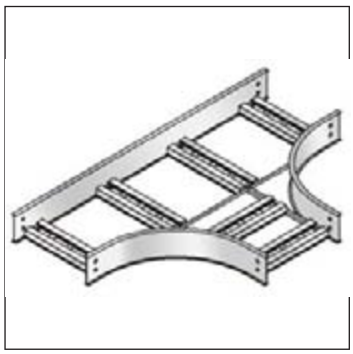
Horizontal Cross

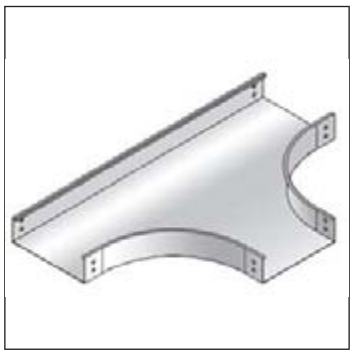


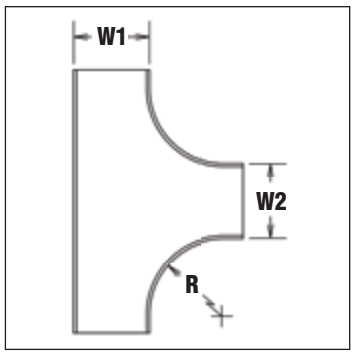




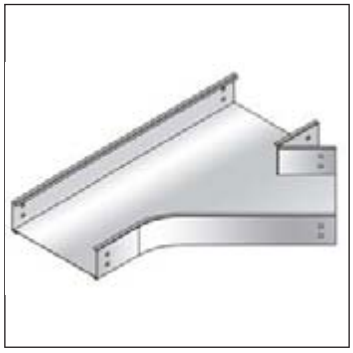
Horizontal Tee

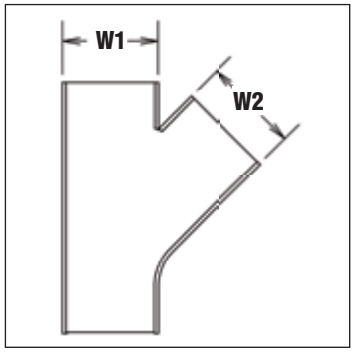






Horizontal Wyes (left or right)



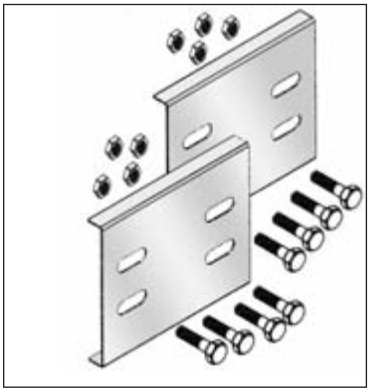


FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Splice Kit

C I 40 A SSP

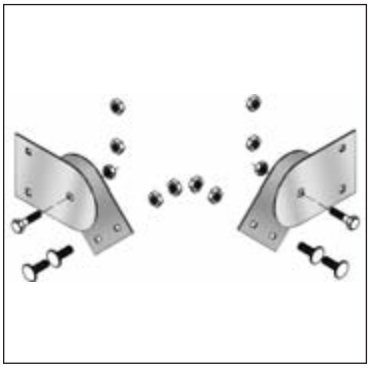
- C — Comtray
- I — **Rail Profile**: I = I Beam; Z = Z Rail (Omit for C40SA Series)
- 40 — **Rail Height**: 40 = 4"; 45 = 4-1/2"; 60 = 6"
- A — **Material**: A = Aluminum
- SSP — Standard Splice Plate



Vertical Adjustable Splice Kit

C 4 A VASP

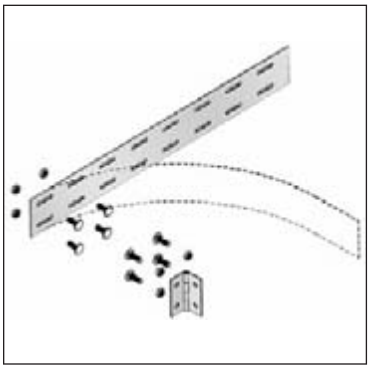
- C — Comtray
- 4 — **Rail Height**: 4 = 4" to 4-1/2"; 6 = 6"
- A — **Material**: A = Aluminum
- VASP — Vertical Adj. Splice Kit



Horizontal Adjustable Splice Kit

C 4 A HASP

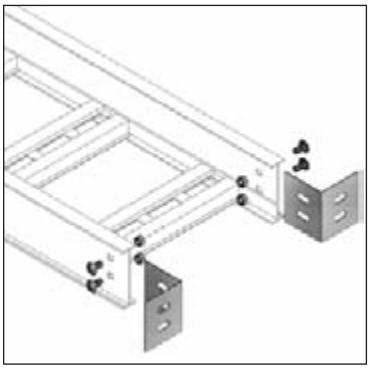
- C — Comtray
- 4 — **Rail Height**: 4 = 4" to 4-1/2"; 6 = 6"
- A — **Material**: A = Aluminum
- HASP — Horiz. Adj. Splice Kit



Tray to Box Connector

C 4 A TBC

- C — Comtray
- 4 — **Rail Height**: 4 = 4" to 4-1/2"; 6 = 6"
- A — **Material**: A = Aluminum
- TBC — Tray Box Connector

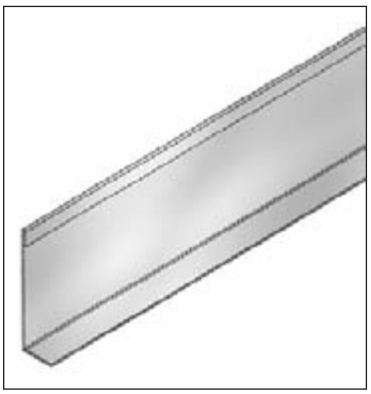


FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Barrier Strip

B 40 A SL 3

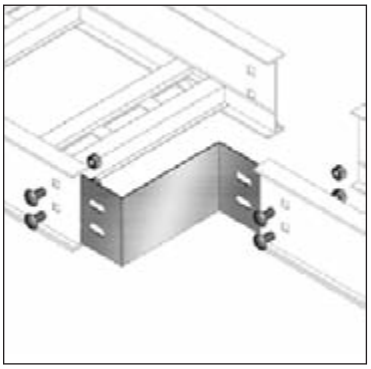
- **B** — Barrier
- **40** — **Rail Height**: 40 = 4" to 4-1/2", 60 = 6"
- **A** — **Material**: A = Aluminum
- **SL** — **Standard Length**
- **3** — 3m



Economy Reducer

C 4 A ER 6

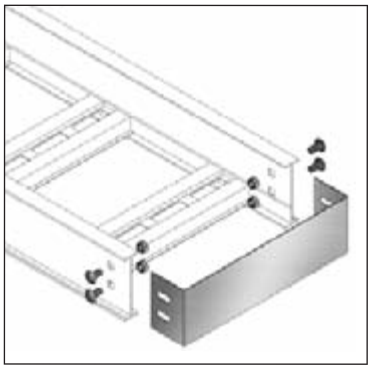
- **C** — Comtray
- **4** — **Rail Height**: 4 = 4" to 4-1/2", 6 = 6"
- **A** — **Material**: A = Aluminum
- **ER** — Economy Reducer
- **6** — **Amount of Reduction** (eg: 12" to 6" = 6" reduction)



Blind End

C 4 A BE 12

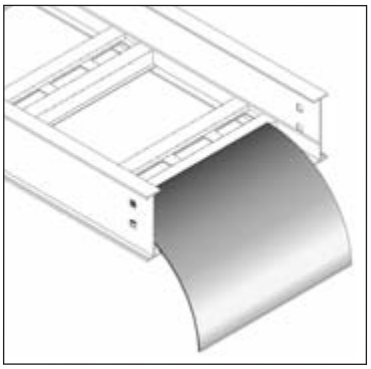
- **C** — Comtray
- **4** — **Rail Height**: 4 = 4" to 4-1/2", 6 = 6"
- **A** — **Material**: A = Aluminum
- **BE** — Blind End
- **12** — **Tray Width**



Tray Drop Out

C A DO 12

- **C** — Comtray
- **A** — **Material**: A = Aluminum
- **DO** — Drop Out
- **12** — **Tray Width**

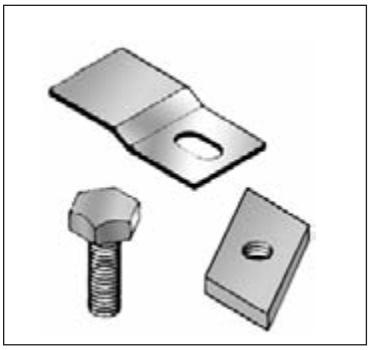


FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Tray Hold Down Clamp

C A THDC

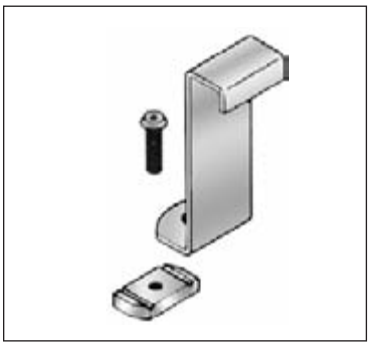
- C — Comtray
- A — **Material**: A = Aluminum
- THDC — Tray Hold Down Clamp



Side Securing Clamp

C 40 A SSC

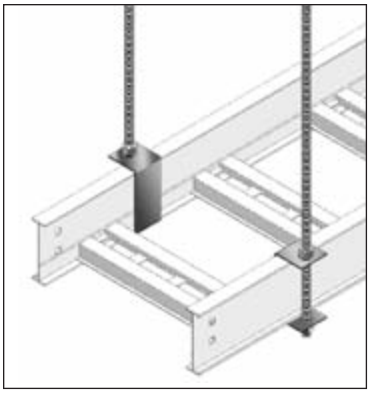
- C — Comtray
- 40 — **Rail Height**: 40 = 4", 45 = 4-1/2", 60 = 6“
- A — **Material**: A = Aluminum
- SSC — Side Securing Clamp



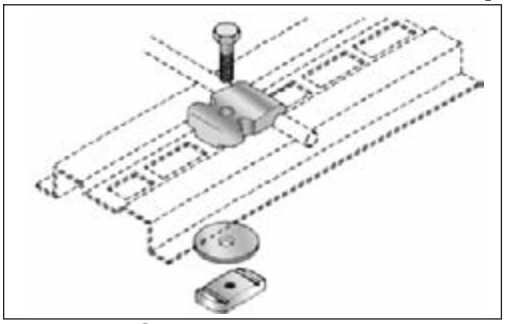
Wraparound Tray Hanger

C I 40 A HGR

- C — Comtray
- I — **Profile**: I = I-Beam, Z = Z-Beam
- 40 — **Rail Height**: 40 = 4", 45 = 4-1/2", 60 = 6“
- A — **Material**: A = Aluminum
- HGR — Hanger

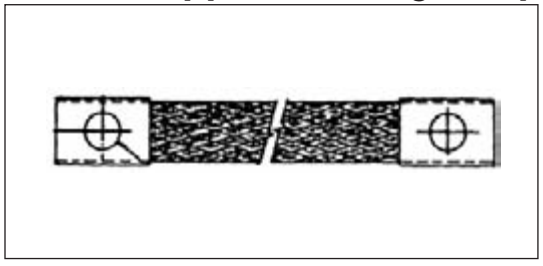


Cast Bronze Ground Clamp



Part Number: CR551

Tinned Copper Bonding Strap



Part Numbers:
C6CBS (6") - C9CBS (9") - C12CBS (12")
C18CBS (18")

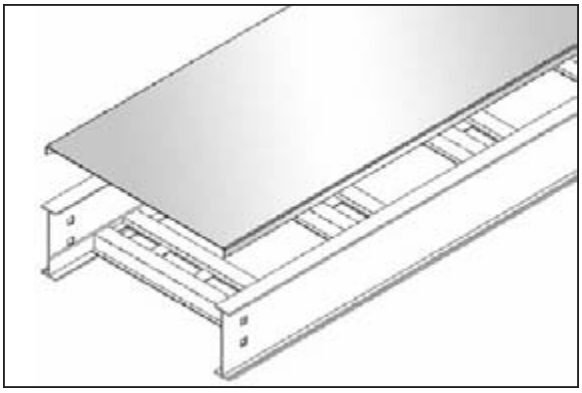
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Covers Part Numbering

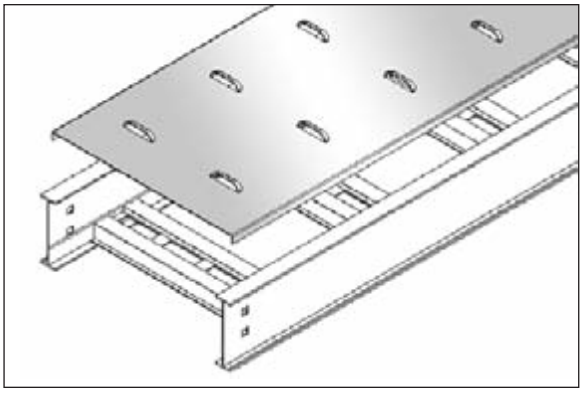
Prefix

Example: SC I A SL3 12

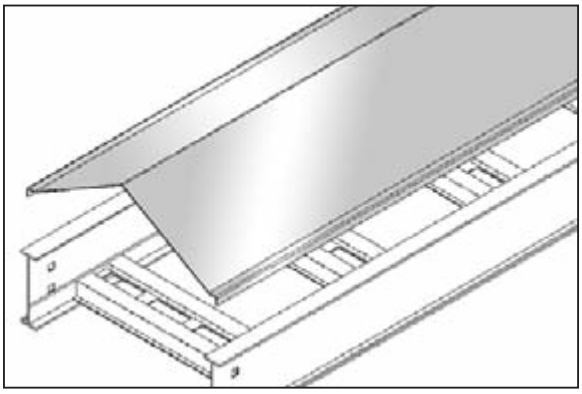
Cover Type	Profile	Material	Length of Cover	Width of Tray (W)
SC = Solid VC = Vented PC = Peaked	I = I-Beam Z = Z-Rail (Omit for C40SA Series)	A = Aluminum	SL3 = 3 Meter	6" 12" 18" 24" 30" 36"



Solid



Vented



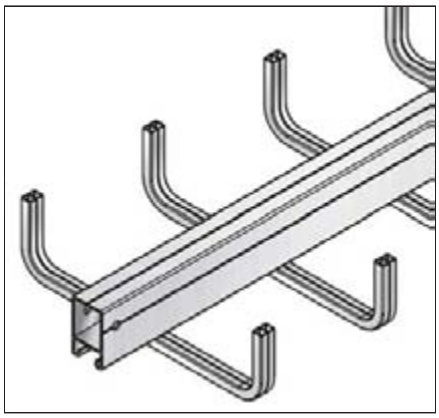
Peaked

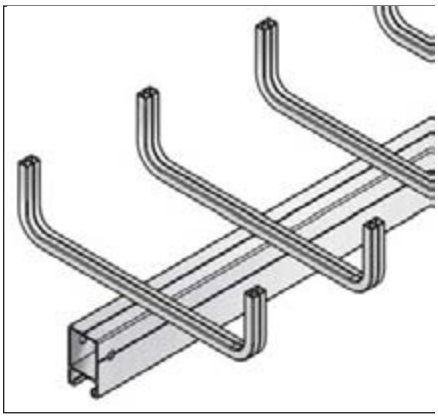
FITTING COVERS AVAILABLE UPON REQUEST
FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

Centric Tray Part Numbering

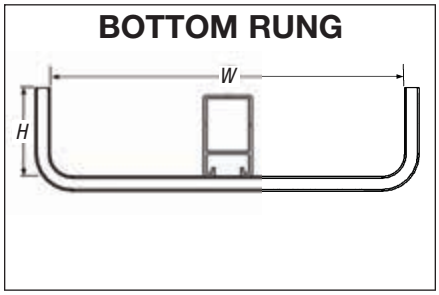
Example: C B 4 A 12 24

CSA/ NEMA Class	Type	Rail Height (H)	Material	Rung Spacing	Inside Width (W)
"C"	B= Bottom Rung T = Top Rung	3" 4" 6"	A = Aluminum	6" 9" 12" 18"	6" 12" 18" 24"

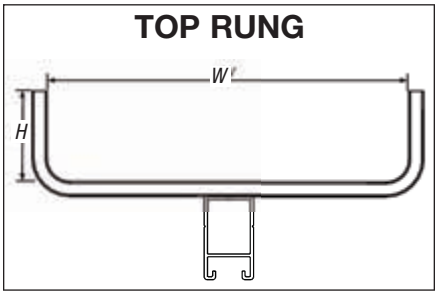




BOTTOM RUNG



TOP RUNG



CSA LOAD CLASS "C"

CSA Load Span Class Designation: 97 kg/m (65 lb./ft), 3m span

	CB	CT
I_χ in^4	.885	.885
Area in^2	.521	.521

(CSA standard C22.2 No. 126.1 / NEMA VE 1) Metal Cable Tray Systems and NFPA 70.

FOR OTHER WIDTHS OR FINISHES CONTACT FACTORY

LR101624

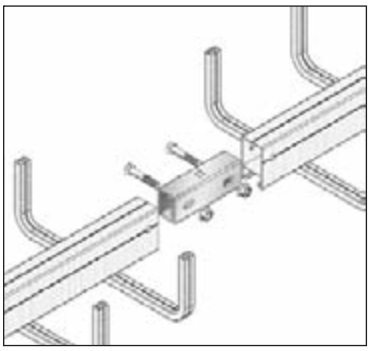
C SA® US

Series CB / CT Centric Tray Fittings

Coupling for Centric Cable Tray

C A SSP

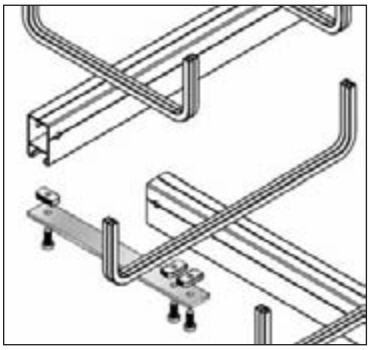
- **C** — Comtray
- **A** — **Material**: A = Aluminum
- **SSP** — Coupling for Centric Cable Tray



Horizontal Elbow for Centric Cable Tray

C A HL90 12

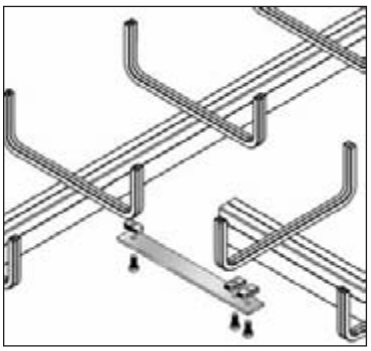
- **C** — Comtray
- **A** — **Material**: A = Aluminum
- **HL90** — Horizontal Elbow for Centric Cable Tray
- **12** — **Width**: 6, 12, 18, 24



Horizontal Tee for Centric Cable Tray

C A HT 12

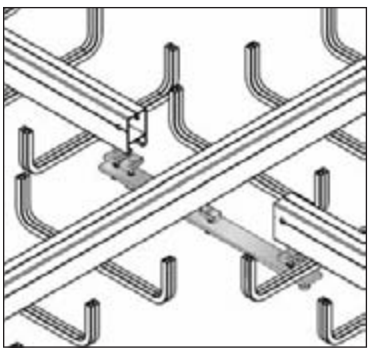
- **C** — Comtray
- **A** — **Material**: A = Aluminum
- **HT** — Horizontal Tee for Centric Cable Tray
- **12** — **Width**: 6, 12, 18, 24



Cross for Centric Cable Tray

C A HC 12

- **C** — Comtray
- **A** — **Material**: A = Aluminum
- **HC** — Horizontal Cross
- **12** — **Width**: 6, 12, 18, 24



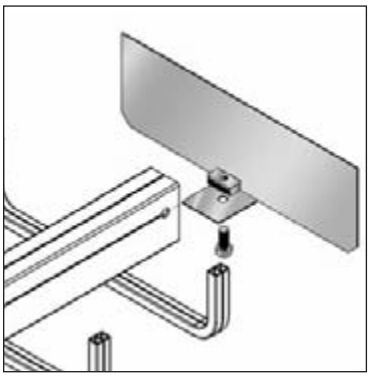
FOR RADIUSED FITTINGS CONTACT FACTORY

Series CB / CT Centric Tray Fittings

Blind End for Centric Cable Tray

C B 4 A BE 12

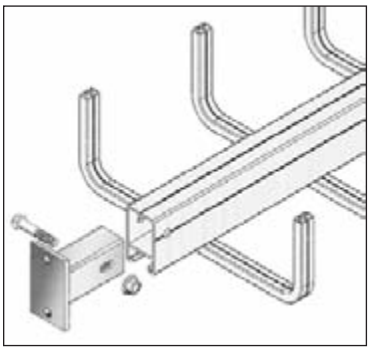
- **C** — **CSA/ NEMA Class** "C"
- **B** — **Type** B = Bottom Rung, T = Top Rung
- **4** — **Rail Height** 3 = 3", 4 = 4", 6 = 6"
- **A** — **Material** A = Aluminum
- **BE** — Blind End
- **12** — **Width** 6, 12, 18, 24



Tray to Wall Connector for Centric Cable Tray

C A TBC

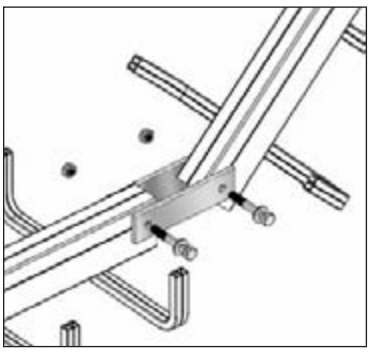
- **C** — Comtray
- **A** — **Material** A = Aluminum
- **TBC** — Tray to Wall Connector for Centric Cable Tray



Vertical Adjustable Connector for Centric Cable Tray

C A VASP

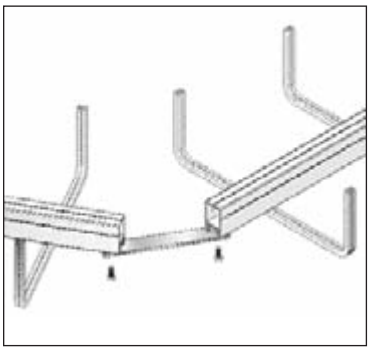
- **C** — Comtray
- **A** — **Material** A = Aluminum
- **VASP** — Vertical Adjustable Connector Centric Cable Tray



Horizontal Adjustable Splice Plate

C A HASP

- **C** — Comtray
- **A** — **Material** A = Aluminum
- **HASP** — Horizontal Adjustable Splice Plate

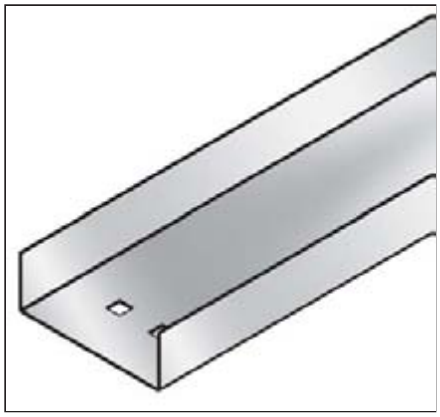


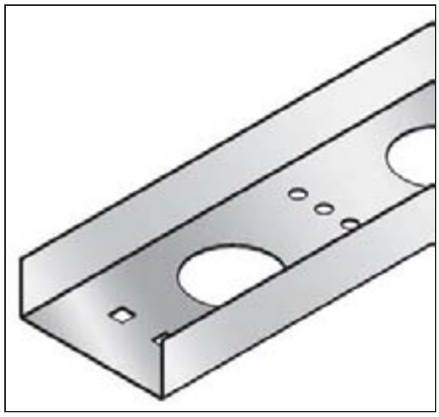
FOR RADIUSED FITTINGS CONTACT FACTORY

Channel Tray Part Numbering

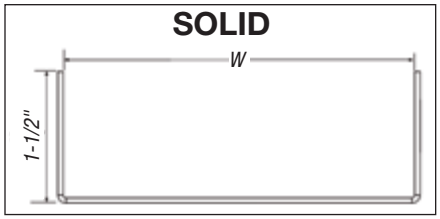
Example: A 15 V A SL3 3

A =	**Rail Height (H)**	**Type**	**Material**	**Standard Length**	**Inside Width (W)**
Light Duty Channel Tray	15 = 1-1/2"	S = Solid V = Vented	A = Aluminum G = Pre-Galv S = HDG X4 = 304SS X6 = 316SS	SL3 = 3 Meter	3" 4" 6"

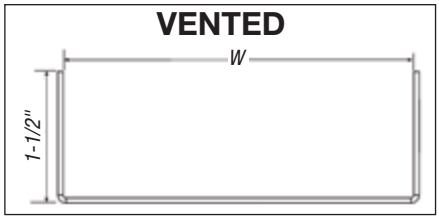




SOLID



VENTED

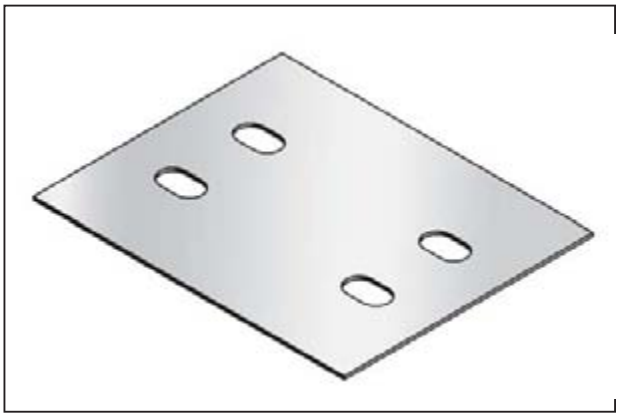


COVERS AVAILABLE UPON REQUEST

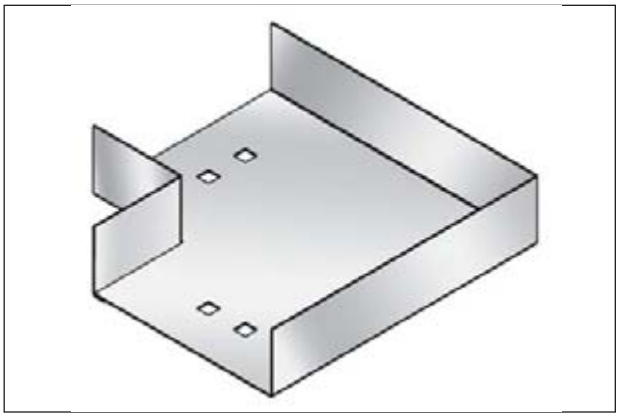
Channel Tray Fittings Part Numbering

Example: A 15 G SSP 4

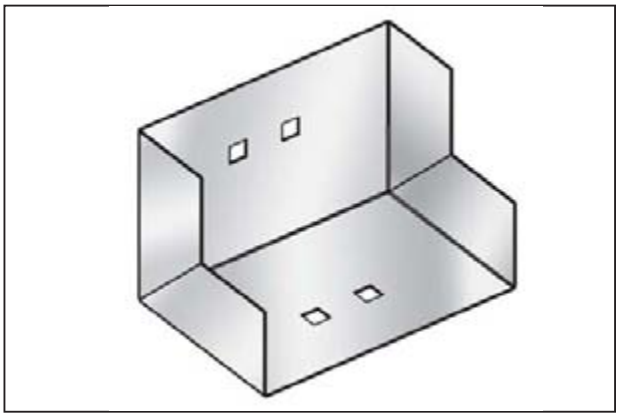
A = Light Duty Channel Tray	**Rail Height (H)** 15 = 1-1/2"	**Material** G = Pre-Galv S = HDG A = Aluminum X4 = 304SS X6 = 316SS	**Type of Fitting** HL90 VO90 VI90 HT HC SSP	**Width (W) of Tray** 3" 4" 6"



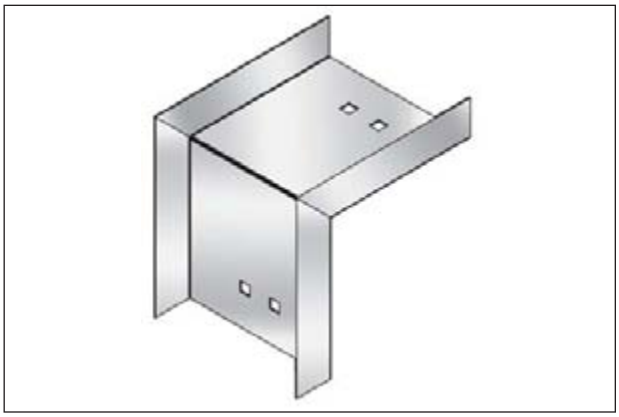
Splice Plate (SSP)



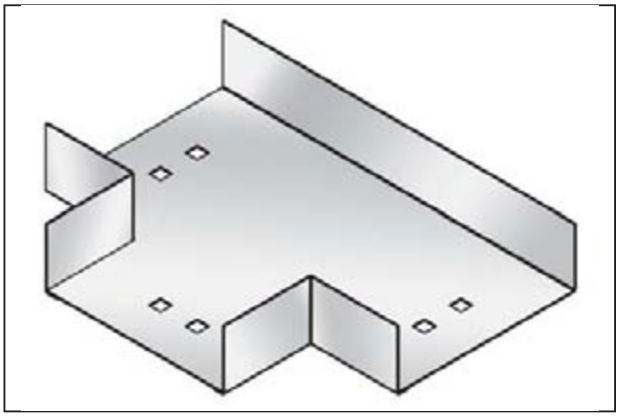
Non Radiused Horizontal Elbow (HL90)



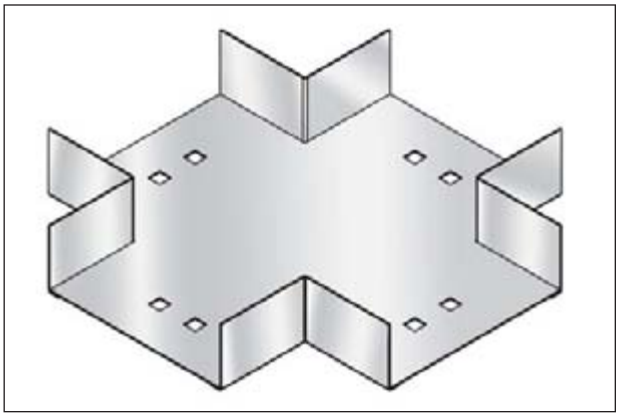
Non Radiused Inside Vertical Elbow (VI90)



Non Radiused Outside Vertical Elbow (VO90)



Non Radiused Horizontal Tee (HT)



Non Radiused Cross (HC)

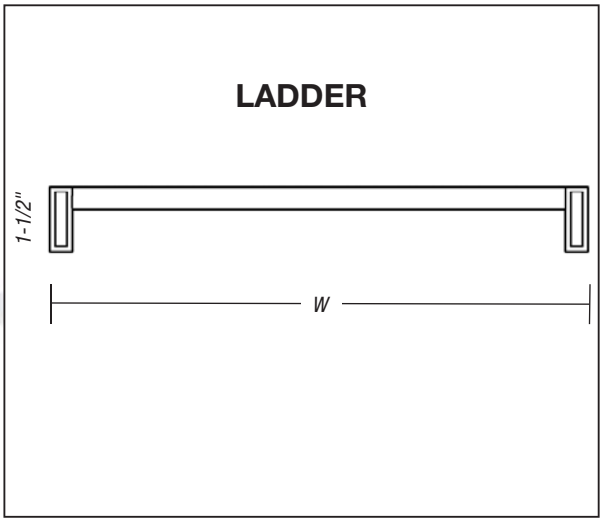
FOR RADIUSED FITTINGS CONTACT FACTORY

Tube Tray Part Numbering

Example: H 15 L S SL10 9 12

Hollow Tube Tray	Rail Height	Type	Material	Standard Length	Rung Spacing	Width (W)
	15 = 1-1/2"	L = Ladder	S = Steel	SL10 = 119.5"	6" 9" 12"	6" 12" 18" 24"

Tube Tray Ladder
Finish: Zinc Dichromate Standard
(Other finishes available upon request)



PART No. H15LSSSP

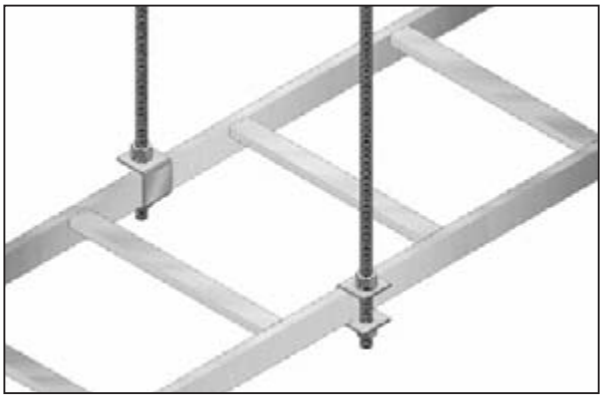
Tube Tray Splice
(2 per Tray Required)

PART No. H15LSHC

Horizontal Connector Kit
(2 Required for 90's / Tee's)
(4 Required for Crosses)

PART No. H15LSHGR

Tube Tray Hanger Bracket
(2 per Support Required)
(Rod and Hardware Extra)

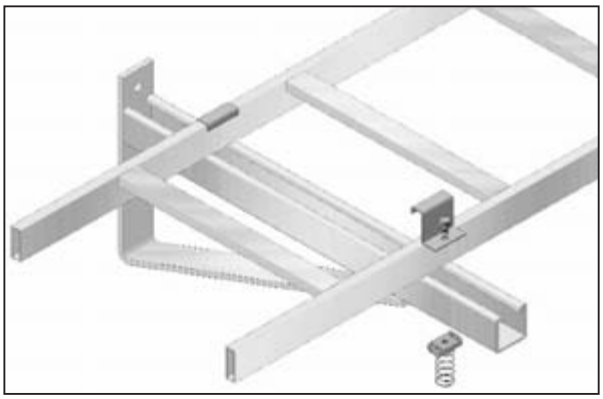


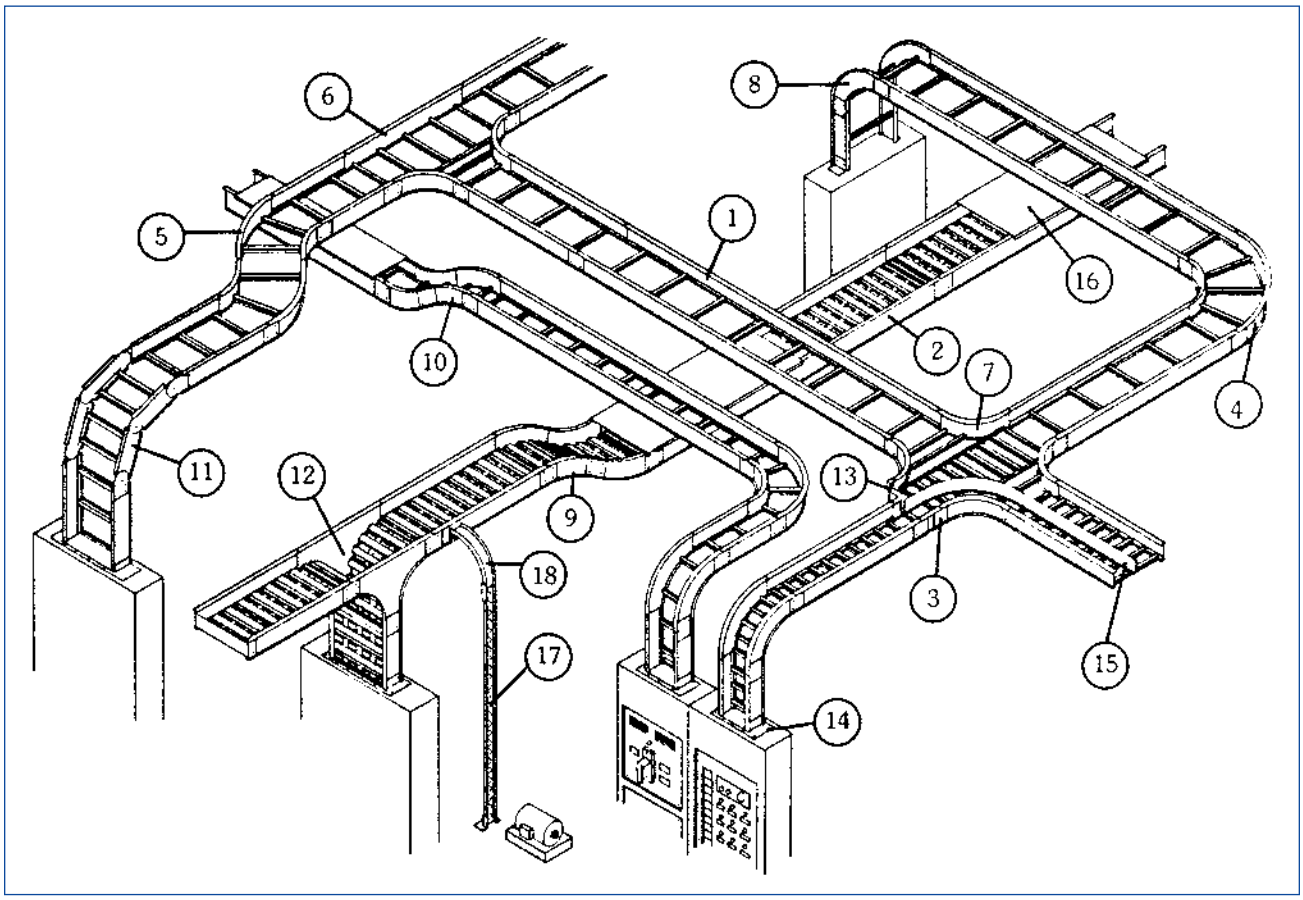
PART No. H15LSGC4

L-Bracket / Ground Clamp
(Provides a Separate Facility
for Power or Ground Cables)

PART No. H15LSHDC

Tube Tray Hold Down Clamp
(2 per Support Required)
(Strut Bracket Extra)





1. Ladder Type Cable Tray
2. Ventilated Trough Type Cable Tray
3. Splice Plate
4. 90 Degree Horizontal Bend, Ladder Type Tray
5. 45 Degree Horizontal Bend, Ladder Type Tray
6. Horizontal Tee, Ladder Type Tray
7. Horizontal Cross, Ladder Type Tray
8. 90 Degree Vertical Outside Bend, Ladder Type Tray
9. 45 Degree Vertical Outside Bend, Ventilated Type Tray
10. 30 Degree Vertical Outside Bend, Ladder Type Tray
11. Vertical Outside Adjustable Elbow
12. Vertical Tee Down, Ventilated Trough Type Tray
13. Left Hand Reducer, Ladder Type Tray
14. Tray to Box Enclosure
15. Barrier Strip Straight Section
16. Solid Flanged Tray Cover
17. Cable Channel Straight Section, Ventilated
18. Cable Channel, 90 Degree Vertical Outside Bend

Major Installations

We have supplied material for the following major installations

- Toyota, Cambridge, Ontario
- Ford of Canada, Oakville, Ontario
- Daimler Chrysler Canada, Windsor, Ontario
- Dofasco, Hamilton, Ontario
- Stelco, Hamilton, Ontario
- Newfoundland Processing, Come By Chance, Newfoundland
- Hibernia Project, Newfoundland
- Honda Canada, Alliston, Ontario
- General Motors Canada, Oshawa, Ontario
- Ultramar, Holyrod, Newfoundland
- Boeing, Downsview, Ontario
- Norkraft, Sur-Quevillon, Quebec
- Levesque Plywood, Hearst, Ontario
- Stora Port Hawkesbury Ltd., Port Hawkesbury, Nova Scotia
- Ontario Hydro, S. A. B. Generating Station, Niagara Falls, Ontario
- Canada Brick, Burlington, Ontario
- Nortel, Ottawa, Ontario
- Bell Canada
- AT&T
- Bruce Nuclear, Ontario
- SYNCRUDE, Alberta

Terms and Definitions

Accessories

Items which are used with lengths and fittings to make a complete installation, such as covers, drop outs, hold downs, hangers, etc.

Channel Tray
A channel tray is not to exceed 6" (152mm) in width.

Splice Plate
Parts used to join cable trays and/or fittings, such as regular, extensions, adjustable or reducer.

Fitting
A part that is used to change the direction or size of a tray.

Cable tray Support
A device that supports cable trays and fittings, such as cantilever brackets, trapeze-type hangers and individual hangers.

Horizontal Cross
A fitting that allows jointing cable trays in four directions, 90 degrees apart in the same plane.

Horizontal Elbow
A fitting that allows changes of direction in the same plane.

Horizontal Tee
A fitting that allows jointing cable tray in 3 directions 90 degrees apart in the same plane.

Ladder Tray
A prefabricated structure consisting of 2 longitudinal side rails connected by transverse rungs.

Reducer
A fitting that joins two trays or fittings of differing widths.

Solid Bottom Tray
A straight piece of tray with a solid bottom.

Vertical Elbow
A fitting that changes direction to a different plane.

Ventilated Tray
A tray that has transverse openings to the side rails with a spacing of 4" or less.

Electrical Codes Compliance

Safety Standards for Electrical Installations

All Comtray cable troughs and fittings are in compliance with CSA standard C22.2 No.126.1-02 and NEMA VE 1-2002

- Ladder – More than 4 in. longitudinal openings.
- Non-ventilated (Solid) – No ventilating openings.
- Ventilated – Adequately ventilated with maximum 4 in. longitudinal openings.

To be approved, Cabletroughs must:

- Be a complete system of lengths and fittings.
- Support with adequate safety factors for the loads shown in Tables below
- Have couplers with high strength and low electrical resistance
- Have adequate workmanship and corrosion protection
- Be tested by an approved certification authority.

CSA Cable Tray Load Classes

Design Load at Varying Support Spacings in kg per metre

Class	1.5m	2.0m	2.5m	3.0m	4.0m	5.0m	6.0m
A	99	62	45	37	N/A	N/A	N/A
C	259	164	119	97	N/A	N/A	N/A
D	N/A	N/A	N/A	179	113	82	67
E	N/A	N/A	N/A	299	189	137	112

i.e.: CLASS "C" will carry 97 kg/metre with a 3 metre support span

Comtray Tray Selection Process

The following steps will aid you in selecting the tray best suited for your application.

Select the Tray Type

1. What cables are being used?
2. What is the cable construction?
   The O.D. and construction of the smaller cables will usually determine the rung spacing or bottom construction as recommended. The O.D. and construction of the larger cable will determine the fitting radius due to the minimum bending requirements of cable.
3. What are the space and/or fill requirements?
   Power cables are normally placed in a single layer and spaced 1/4 to one cable diameter to allow adequate ventilation. Control and data circuit cables may be stacked in one or more layers. Take note of any "future" requirements. It is much less expensive to select a wider or deeper tray now than to install another tray later.
4. You can now specify the tray type, the tray width, depth and fitting radius.

Select the Most Economical System

1. Calculate the total cable weight per foot or metre, including any "future" requirements.
2. Determine the span length or lengths most convenient for securing the tray supports.
3. From the tables select the type and number of trays to carry the required cable load over the chosen span length. Note that all widths of any one tray type carry equal loads and it is often more economical to reduce the span length to use one wider tray than to use two trays over the longer span.
4. Look through this catalog and choose the correct brackets, hangers, etc. Bear in mind that cable installation is simplified if cantilever brackets are used but this necessitates careful location of the tray system near walls, columns, etc. Care should be taken to include any required concrete insert designations on the appropriate building drawings to ensure their correct placement.

Select the Correct Tray Material and/or Finish

1. Corrosive conditions may affect this choice. Trays are offered in hot-dip galvanized (after fabrication) steel, pre-galvanized, stainless steel and in aluminum. In addition trays can be furnished with PVC coating for extreme corrosion conditions.
2. Electrical considerations may affect choices.
   A. All ladder or vented tray has welded rung or louvered bottom construction. Splices provide a continuous path for fault currents and grounding.
   B. Aluminum (non-magnetic) or steel (magnetic) may be selected based on application.

Cable Tray Construction

Materials

A. Carbon Steel

Cold rolled and or hot rolled carbon steel are made into the designed tray and support systems to support loads as per load classes. Some of the items are roll formed given them greater strength. In a lot of cases pre galvanized steel can be used.

B. Aluminum

Side rails and rungs are extruded from 6351 and 6063 alloys. Alloys in these groups can be heat treated after manufacturing. Parts that are not extruded are made from 5052H32. This alloy is one of the higher strength non heat treatable materials. Aluminum has the advantage of light weight and because of the nonmagnetic properties, reduces electrical losses.

C. Stainless Steel

Available in type 304 or 316 stainless steel. Has excellent corrosion resistance in a wide range of applications and environments.

Finishes

A. Pre galvanized steel

Product “components” are hot-dip galvanized “before” fabrication in accordance with ASTM A 653/A 653M, coating designation G90. Rocommended for dry and non-corrosive indoor applications.

B. Hot dip galvanizing

Finished products are hot-dip galvanized “after” fabrication in accordance with CAN/CSA-G164 or ASTM A 123/A 123M. Has excellent corrosion resistance characteristics. Recommended for outdoor or wet locations.

C. Other coatings

PVC and Epoxy coatings are available. This might be required to match colours or for greater corrosion resistance. For more details contact the plant.

Corrosion

Almost all metals will corrode, caused by an electro-chemical phenomenon. The way corrosion manifests itself differs between metals. Bare steel corrodes in the atmosphere with the formation of rust very rapidly. Aluminum will form an oxide film which, when scratched or cut, will reform itself. In a clean atmosphere, aluminum will slowly develop a white to silver grey surface.

Structural Design

COMTRAY cable trays are designed to CSA specifications CSA C22.2 No. 126.1-02. There are four loading classes.

“A”, “C”, “D” and “E”: see load table on previous page.

Simple beam loading is a single length of tray supported, but not fastened, at each end. This type of loading causes the greatest stress to occur midway between the supports. The tray would deflect to the greatest extent at this point. The load carrying capacity should be based on the simple beam loading, as this is the worst case loading.

Continuous beam is the configuration commonly used in cable tray installations. This is where a number of cable trays are installed across several supports, which form a number of spans. The continuous beam combines some elements of simple and fixed beams.

When equal loads are applied simultaneously to all spans, the counter balancing effect restricts the movement on both sides of the support. The effect is similar to that of a fixed beam.

When cable trays of identical designs are compared with continuous beam installation, they will have approximately 50% of the deflection of a simple beam.

Cantilever beams have more to do with the supports used than with the cable tray itself.

A fixed beam configuration has both ends rigidly attached to the support. The rung in a cable tray provides a good example. By welding the ends of the rung to the side rails, the ends are not free to move, bend or twist. This will increase the load carrying capacity.

Cable Tray Installation

COMTRAY components should be installed as a complete support system, with straight sections and fittings.

Straight lengths should be supported 25% from the end. (Supports for fittings are shown below). Expansion joints must be considered for thermal expansion.

CSA rules do not allow cable tray to pass through walls unless they are of incombustible material. Cable tray running vertically through floors must be provided with fire barriers. Vertically running tray must have cover for 2m above the floor.

Conductors of different systems must be separated by barriers in the tray.

Dead ends on cable runs must be closed off with blind ends. Conductors that run vertically must be supported by cable clamps, independently from terminal connections.

Supports

COMTRAY shall be sized and installed as a complete cable support system appropriate for the cable types installed. Recommended cable tray support locations are as shown below. Do not exceed the maximum support spacing and design load as printed on the label. Refer to Canadian Electrical Code section 12-2202 for minimum cable tray clearances.

Splice Plates

Use factory supplied splice plates only. Splice plates located at the quarter span between supports are preferred. Avoid placing splices at midspan and directly above supports. Torque all splice plate fasteners to 19 ft. lb. Expansion splice plate fasteners should be loosened 1/2 turn after reaching full torque to allow for travel. Set the side rail gap for expansion plates according to the chart on page 1.41 and ensure that a support is located within 2 feet on each side of the splice.

Conductors

The Cable Tray system installation shall be completed prior to pulling conductors. Cable support distances for conductor size should be referenced in Canadian Electrical Code Part 1, Table 21. Single conductor cables placed one diameter or more apart in ventilated or ladder type tray are allowed to use the free air rating per the Canadian Electrical Code. Any conductor in vertical runs of cable tray and all single conductor cables must be fastened to the rungs with nylon cable ties or stainless steel clamps. Carbon steel cable clamps should not be used due to induction heating, per Canadian Electrical Code section 12-2204 (5).

Covers

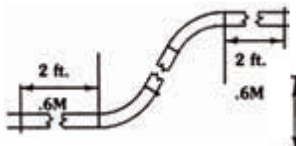
Vertical cable trays which penetrate dry floors must be covered for 2m (two metres) above the floor level.

Handling

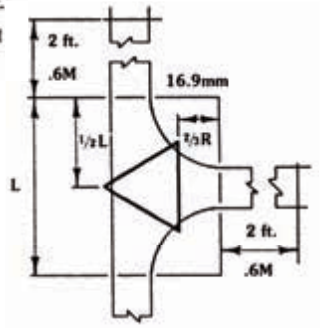
Cable tray is shipped without exterior crating, therefore careful material handling practices should be used. Cable tray straight sections should be lifted with wide slings and an overhead crane. If a crane is not available and a fork lift is to be used. Only single bundles should be lifted. Ensure that each bundle is properly centered. Cable tray fittings that are not crated should be unbanded and off-loaded by hand.

Storage

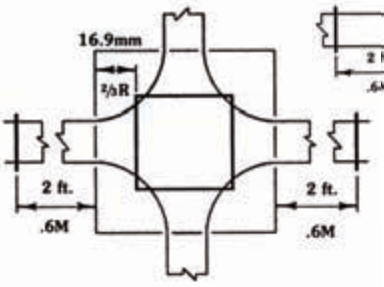
All cable tray materials are subject to storage stain (white rust) if improperly stored. If cable tray is stored as shipped, it must be stored indoors. If the cable tray material must be stored outside, it must be unbanded and loosely stacked on an angle to minimize the components contact area as well as provide for adequate drainage.



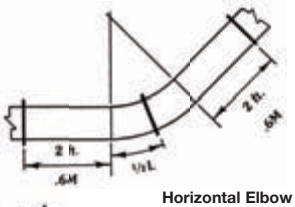
Vertical Elbows



Horizontal Tee



Horizontal Cross



Horizontal Elbow

Cable Tray Installation

Thermal Contraction and Expansion

It is important that thermal contraction and expansion be considered when installing cable tray systems. the length of the straight cable tray runs and the temperature differential govern the number of expansion splice plates required (see Table 1 below).

The cable tray should be anchored at the support nearest to its midpoint between the expansion splice plates and secured by expansion guides at all other support locations (see Figure 1). The cable tray should be permitted longitudinal movement in both directions from that fixed point.

Accurate gap settings at the time of installation is necessary for the proper operation of the expansion splice plates. The following procedure should assist the installer in determining the correct gap: (see Figure 2)

1. Plot the highest expected metal temperature on the maximum temperature line.
2. Plot the lowest expected metal temperature on the minimum temperature line.
3. Draw a line between the maximum and minimum points.
4. Plot the metal temperature at the time of installation to determine the gap setting.

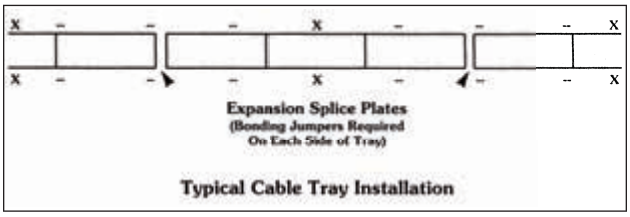


Fig. 1

X: Denotes holddown clamp (anchor) at support.
-: Denotes expansion guide clamp at support.

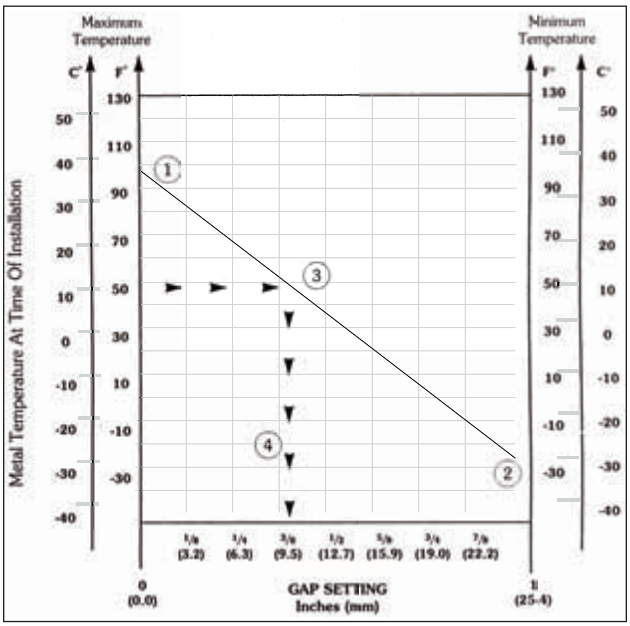


Fig. 2

Maximum Design Spacing Between Expansion Joints For 1" Movement

Temperature Differential		Steel		Aluminum	
°F	°C	Feet	Metres	Feet	Metres
25	-3.89	512	156	260	79
50	10.00	256	78	130	40
75	23.89	171	52	87	27
100	37.78	128	39	65	20
125	52.67	102	31	52	16
150	65.56	85	26	43	13
175	79.44	73	22	37	11

Note: Every pair of expansion splice plates requires two bonding jumpers for grounding continuity.

TYPICAL CABLE TRAY SPECIFICATION

STEEL

Cabletray **(Comtray)** shall be manufactured by Commercial Roll Formed Products Ltd. or an approved equal.

Side rails shall have a "C" configuration, with the top flange rolled downwards for extra rigidity. Rungs shall be hemmed to ensure smooth edges for the protection of cables, as well as personnel. Rails and rungs shall allow for the use of cable and conduit clamps.

The Cabletray shall be CSA Approved:

CHOOSE ONE:

Class "C" 3-Metre Length ☐
Class "D" 3-Metre Length ☐
Class "D" 6-Metre Length ☐
Class "E" 3-Metre Length ☐
Class "E" 6-Metre Length ☐

CHOOSE ONE:

Width: 6" (150mm) Nominal ☐
Width: 12" (300mm) Nominal ☐
Width: 18" (450mm) Nominal ☐
Width: 24" (600mm) Nominal ☐
Width: 30" (750mm) Nominal ☐
Width: 36" (900mm) Nominal ☐

CHOOSE ONE:

Rung Spacing: 6" (150mm) Nominal ☐
Rung Spacing: 9" (220mm) Nominal ☐
Rung Spacing: 12" (300mm) Nominal ☐
Rung Spacing: 18" (450mm) Nominal ☐
Ventilated Tray: 4" Spacing or Less ☐
Solid Tray: Non-Ventilated Bottom ☐

CHOOSE ONE:

Rail Height: 4" (100mm) Nominal ☐
Rail Height: 6" (150mm) Nominal ☐

CHOOSE ONE:

Material:
Hot Dip Galvanized after Fabrication ☐
Pre-Galvanized Mill Finish (G-90) ☐

Other:

Specify

_____

_____

(CSA Standard C22.2 No.126.1 / NEMA VE 1)
Metal Cable Tray Systems and NFPA 70

TYPICAL CABLE TRAY SPECIFICATION

ALUMINUM

Cabletray **(Comtray)** shall be manufactured by Commercial Roll Formed Products Ltd. or an approved equal.

Side rails shall have an "I-Beam" configuration, and be an extruded aluminum alloy of 6351-T6 or 6063-T6. Rails and rungs shall have rounded edges to ensure a smooth surface for the protection of cables, as well as personnel. They shall also allow for the use of cable and conduit clamps.

The Cabletray shall be CSA Approved:

CHOOSE ONE:

Class "C" 3-Metre Length ☐
Class "D" 3-Metre Length ☐
Class "D" 6-Metre Length ☐
Class "E" 3-Metre Length ☐
Class "E" 6-Metre Length ☐

CHOOSE ONE:

Width: 6" (150mm) Nominal ☐
Width: 12" (300mm) Nominal ☐
Width: 18" (450mm) Nominal ☐
Width: 24" (600mm) Nominal ☐
Width: 30" (750mm) Nominal ☐
Width: 36" (900mm) Nominal ☐

CHOOSE ONE:

Rung Spacing: 6" (150mm) Nominal ☐
Rung Spacing: 9" (220mm) Nominal ☐
Rung Spacing: 12" (300mm) Nominal ☐
Rung Spacing: 18" (450mm) Nominal ☐
Ventilated Tray: 4" Spacing or Less ☐
Solid Tray: Non-Ventilated Bottom ☐

CHOOSE ONE:

Rail Height: 4" (100mm) Nominal ☐
Rail Height: 6" (150mm) Nominal ☐

(CSA Standard C22.2 No.126.1 / NEMA VE 1)
Metal Cable Tray Systems and NFPA 70