



# ELSA LADDER

## NEMA STANDARD



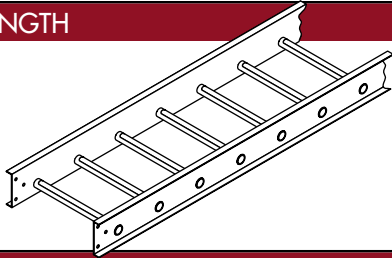
Cable Ladder System for Power, Control,  
Instrumentation Cable & Pneumatic Tubing

Electrolines Est.

# ELSA LADDER

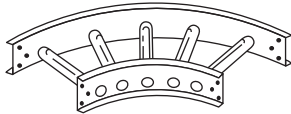
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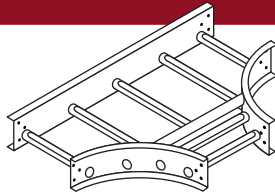
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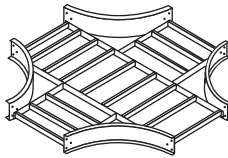
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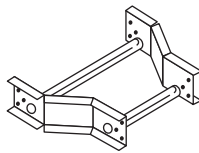
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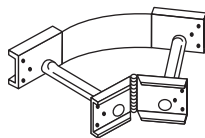
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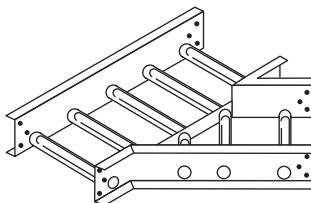
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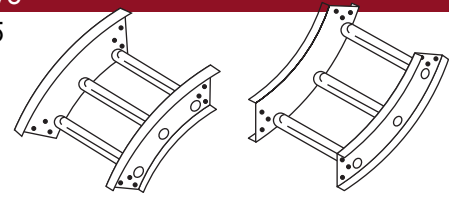
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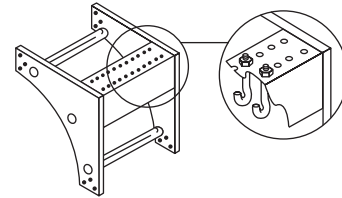
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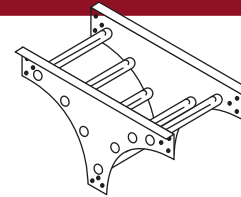
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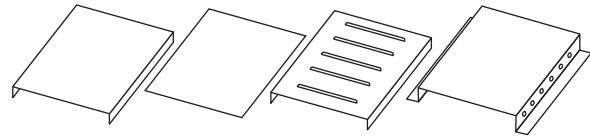
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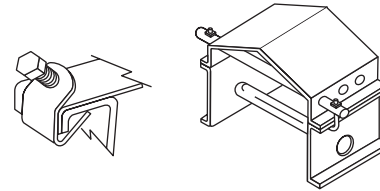
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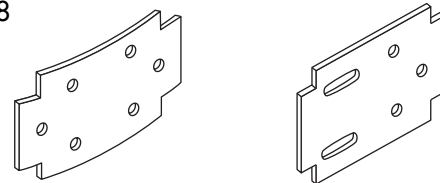
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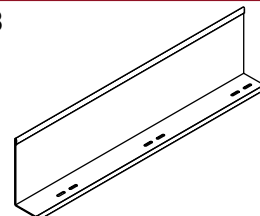
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## NEMA CLASS, PHYSICAL AND STRUCTURAL PROPERTIES

NEMA Standard VE-1 Load/Span Class	NEMA Ld/Span	Elsa System Number	Elsa Systems (See pg. 3-9)	Actual Load Depth	Side Rail Height	Flange Width (in.)	Sect. Mod. of 2 Rails S <sub>x</sub> (in. <sup>3</sup> )	Moment of Inertia I <sub>x</sub> (in. <sup>4</sup> )	Min X-Sect. Area of 2 Rails per NEC 318-7 (sq. in.)
8A-12A	50 lb./ft. 12' span	<b>1B38</b>	<b>1B38</b>	3" (76mm)	4 1/4" (108mm)	1 3/16	0.898	0.911	.60
		<b>1B48</b>	—	4" (102mm)	5 1/4" (133mm)	1 3/16	1.142	1.436	.60
		<b>3B58</b>	—	5" (127mm)	6 1/4" (159mm)	1 3/16	1.614	2.360	1.00
		<b>1B68</b>	—	6" (152mm)	7 1/4" (184mm)	1 3/16	1.874	3.284	1.00
12B	75 lb./ft. 12' span	<b>3B38</b>	—	3" (76mm)	4 1/4" (108mm)	1 3/16	1.148	0.158	.60
		<b>1B48</b>	—	4" (102mm)	5 1/4" (133mm)	1 3/16	1.142	1.436	.60
		<b>3B58</b>	—	5" (127mm)	6 1/4" (159mm)	1 3/16	1.614	2.360	1.00
		<b>1B68</b>	—	6" (152mm)	7 1/4" (184mm)	1 3/16	1.874	3.284	1.00
12C	100 lb./ft. 12' span	<b>5B38</b>	—	3" (76mm)	4 1/4" (108mm)	1 3/16	1.646	1.675	1.00
		<b>3B48</b>	—	4" (102mm)	5 1/4" (133mm)	1 3/16	1.522	1.867	1.00
		<b>5B58</b>	—	5" (127mm)	6 1/4" (159mm)	1 3/16	1.944	2.933	1.00
		<b>5B68</b>	—	6" (152mm)	7 1/4" (184mm)	1 3/16	2.576	4.516	1.00
16A	50 lb./ft. 16' span	<b>5B38</b>	—	3" (76mm)	4 1/4" (108mm)	1 3/16	1.646	1.675	1.00
		<b>7448</b>	—	4" (102mm)	5 1/4" (133mm)	1 1/4	2.396	3.146	1.50
		<b>1D58</b>	—	5" (127mm)	6 1/4" (159mm)	1 1/4	2.378	3.601	1.00
		<b>5D68</b>	—	6" (152mm)	7 1/4" (184mm)	1 1/4	4.874	8.594	2.00
16B	75 lb./ft. 16' span	<b>3D38</b>	<b>3D38</b>	3" (76mm)	4 1/4" (108mm)	1 1/4	2.242	2.203	1.50
		<b>7448</b>	—	4" (102mm)	5 1/4" (133mm)	1 1/4	2.396	3.146	1.50
		<b>1D58</b>	—	5" (127mm)	6 1/4" (159mm)	1 1/4	2.378	3.601	1.00
		<b>5D68</b>	—	6" (152mm)	7 1/4" (184mm)	1 1/4	4.874	8.594	2.00
16C	100 lb./ft. 16' span	<b>5D38</b>	—	3" (76mm)	4 1/4" (108mm)	1 1/4	2.782	2.869	1.50
		<b>3D48</b>	—	4" (102mm)	5 1/4" (133mm)	1 1/4	3.434	4.373	2.00
		<b>5D58</b>	—	5" (127mm)	6 1/4" (159mm)	1 1/4	3.542	5.374	2.00
		<b>5D68</b>	—	6" (152mm)	7 1/4" (184mm)	1 1/4	4.874	8.594	2.00
20A	50 lb./ft. 20' span	<b>3D38</b>	<b>3D38</b>	3" (76mm)	4 1/4" (108mm)	1 1/4	2.242	2.203	1.50
		<b>7448</b>	—	4" (102mm)	5 1/4" (133mm)	1 1/4	2.396	3.146	1.50
		<b>1D58</b>	—	5" (127mm)	6 1/4" (159mm)	1 1/4	2.378	3.601	1.00
		<b>5D68</b>	—	6" (152mm)	7 1/4" (184mm)	1 1/4	4.874	8.594	2.00
20B	75 lb./ft. 20' span	<b>3D48</b>	—	4" (102mm)	5 1/4" (133mm)	1 1/4	3.434	4.373	2.00
		<b>5D58</b>	—	5" (127mm)	6 1/4" (159mm)	1 1/4	3.542	5.374	2.00
		<b>5D68</b>	—	6" (152mm)	7 1/4" (184mm)	1 1/4	4.874	8.594	2.00
20C	100 lb./ft. 20' span	<b>5E38</b>	—	3" (76mm)	4 1/4" (108mm)	1 1/2	3.716	3.879	2.00
		<b>5D48</b>	—	4" (102mm)	5 1/4" (133mm)	1 1/4	3.910	5.010	2.00
		<b>7D58</b>	—	5" (127mm)	6 1/4" (159mm)	1 1/4	4.186	6.012	2.00
		<b>5D68</b>	—	6" (152mm)	7 1/4" (184mm)	1 1/4	4.874	8.594	2.00

### OTHER ECONOMICAL SYSTEMS AVAILABLE

<b>3658</b>	<b>3658</b>	5" (127mm)	6 1/4" (159mm)	1 3/4	3.490	5.453	1.50
<b>1E68</b>	—	6" (152mm)	7 1/4" (184mm)	1 1/2	3.252	5.726	1.50

### EXTRA HEAVY DUTY - VERY LONG SPAN TRAYS- 6", 9" OR 12" RUNG SPACING

<b>9D58</b>	—	5" (127mm)	6 1/4" (159mm)	1 1/4	5.130	7.850	2.00
<b>7G58</b>	—	5" (127mm)	6 1/4" (159mm)	2	5.804	8.728	2.00

Note: Special Applications Available. Please Contact Factory.

Note:   indicates most common systems.

**LOAD AND DEFLECTION DATA FOR ALUMINUM LADDER**

**Working (Allowable) Load Capacity, Evenly Distributed-Tested per NEMA Standard VE-1,  
Simple Beam - SAFETY FACTOR 1.5**

Elsa Sys. No.	6 Ft. Span			8 Ft. Span			10 Ft. Span			12 Ft. Span			16 Ft. Span			20 Ft. Span			24 Ft. Span			25 Ft. Span		
	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k
1B38	222	.35	.002	125	.63	.005	80	.99	.012	55	1.42	.026												
1B48	324	.33	.001	125	.59	.003	117	.87	.007	77	1.26	.016												
3B58	359	.22	†	191	.37	.002	115	.55	.005	75	.74	.010												
1B68	416	.18	†	221	.31	.001	133	.46	.003	87	.62	.007												
3B38	354	.45	.001	191	.76	.004	117	1.14	.010	78	1.57	.020												
1B48	324	.33	.001	182	.59	.003	117	.87	.007	77	1.26	.016												
3B58	359	.22	†	191	.37	.002	115	.55	.005	75	.74	.010												
1B68	416	.18	†	221	.31	.001	133	.46	.003	87	.62	.007												
5B38	448	.39	†	251	.69	.003	161	1.08	.007	112	1.55	.014												
3B48	394	.31	†	222	.55	.002	142	.86	.006	100	1.24	.012												
5B58	480	.24	†	257	.40	.002	156	.60	.004	102	.81	.008												
5B68	540	.17	†	286	.29	.001	172	.43	.003	111	.57	.005												
5B38				251	.69	.003	161	1.08	.007	112	1.55	.014	51	2.26	.044	25	2.75	.110						
7448				349	.51	.001	223	.80	.004	155	1.15	.007	79	1.85	.023	51	2.89	.057						
1D58				380	.49	.001	222	.69	.003	154	1.00	.006	78	1.61	.021	50	2.51	.050						
5D68										316	.86	.003	161	1.38	.009	103	2.16	.021						
3D38				342	.72	.002	219	1.12	.005	152	1.61	.011	82	2.74	.033	52	4.27	.082						
7448				349	.51	.001	223	.80	.004	155	1.15	.007	79	1.85	.023	51	2.89	.057						
1D58				380	.49	.001	222	.69	.003	154	1.00	.006	78	1.61	.021	50	2.51	.050						
5D68										316	.86	.003	161	1.38	.009	103	2.16	.021						
5D38				444	.71	.002	284	.70	.002	188	1.53	.008	106	2.73	.026	65	4.07	.063						
3D48				525	.55	.001	336	.86	.003	233	1.24	.005	119	2.01	.017	76	3.14	.041						
5D58										229	1.00	.004	116	1.60	.014	75	2.50	.033						
5D68										316	.86	.003	161	1.38	.009	103	2.16	.021						
3D38										152	1.61	.011	82	2.74	.033	52	4.27	.082						
7448										155	1.15	.007	79	1.85	.023	51	2.89	.057						
1D58										154	1.00	.006	78	1.61	.021	50	2.51	.050						
5D68										316	.86	.003	161	1.38	.009	103	2.16	.021						
3D48										233	1.24	.005	119	2.01	.017	76	3.14	.041						
5D58										229	1.00	.004	116	1.60	.014	75	2.50	.033						
5D68										316	.86	.003	161	1.38	.009	103	2.16	.021						
5E38										298	1.79	.006	161	3.07	.019	103	4.79	.047						
5D48										290	1.35	.005	156	2.30	.015	100	3.59	.036						
7D58							404	.76	.002	281	1.09	.004	158	1.94	.012	101	3.02	.030						
5D68										316	.86	.003	161	1.38	.009	103	2.16	.021						
3658										215	.92	.004	121	1.63	.013	77	2.55	.033						
1E68										221	.90	.004	119	1.53	.013	76	2.39	.032						
9D58										412	1.22	.003	214	2.00	.009	131	3.01	.023	68	3.23	.048			
7G58										451	1.20	.003	253	2.14	.008	162	3.35	.020	112	4.79	.043	104	5.24	.050

Note: To convert 1.5 safety factor to 2.0 multiply w,d,k by 0.75.

W=Pounds per linear foot  
Metric: for kg/m multiply w by 1.48  
d=Deflection (inches)  
k= Deflection (in.) for each pound of load  
†= Denotes k is less than .001 inch

## NEMA CLASS, PHYSICAL AND STRUCTURAL PROPERTIES

NEMA Standard VE-1 Class	NEMA Load/Span	Mill Galv. System Number	HDGAF System Number	Type 304 SS System Number	Elsa Systems	Actual Load	Depth	Side Rail Height	Flange Width (in.)	Section Modulus of 2 Rails S <sub>x</sub> (in. <sup>3</sup> )	Moment of Inertia I <sub>x</sub> (in. <sup>4</sup> )	Min. X-Sect. Area of 2 Rails per NEC 318-7 (sq.in.)
8A-12B	75 lb./ft. 12' span	<b>8B36</b>	<b>8B37</b>	<b>8B3T</b>	<b>8B37</b>	3"	(76mm)	4 1/4" (108mm)	1 3/16	0.678	0.685	.40
		<b>8246</b>	<b>8247</b>	<b>824T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 3/16	0.816	1.071	.40
		<b>8256</b>	<b>8257</b>	<b>825T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 3/16	1.072	1.676	.70
		<b>8B66</b>	<b>8B67</b>	<b>8B6T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 3/16	1.574	2.758	.70
12C	100 lb./ft. 12' span	<b>6B36</b>	<b>6B37</b>	<b>6B3T</b>	—	3"	(76mm)	4 1/4" (108mm)	1 3/16	0.834	0.845	.70
		<b>8B46</b>	<b>8B47</b>	<b>8B4T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 3/16	0.924	1.162	.40
		<b>6256</b>	<b>6257</b>	<b>625T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 3/16	1.330	2.079	.70
		<b>8B66</b>	<b>8B67</b>	<b>8B6T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 3/16	1.574	2.758	.70
16A	50 lb./ft. 16' span	<b>8D36</b>	<b>8D37</b>	<b>8D3T</b>	—	3"	(76mm)	4 1/4" (108mm)	1 1/4	0.852	0.868	.40
		<b>8D46</b>	<b>8D47</b>	<b>8D4T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 1/4	1.146	1.447	.70
		<b>8456</b>	<b>8457</b>	<b>845T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 1/4	1.330	2.078	.70
		<b>6466</b>	<b>6467</b>	<b>646T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 1/4	2.062	3.739	1.00
16B	75 lb./ft. 16' span	<b>6D36</b>	<b>6D37</b>	<b>6D3T</b>	—	3"	(76mm)	4 1/4" (108mm)	1 1/4	1.056	1.076	.70
		<b>8D46</b>	<b>8D47</b>	<b>8D4T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 1/4	1.146	1.447	.70
		<b>6456</b>	<b>6457</b>	<b>645T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 1/4	1.652	2.580	1.00
		<b>6466</b>	<b>6467</b>	<b>646T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 1/4	2.062	3.739	1.00
16C	100 lb./ft. 16' span	<b>4D36</b>	<b>4D37</b>	<b>4D3T</b>	—	3"	(76mm)	4 1/4" (108mm)	1 1/4	1.298	1.326	1.00
		<b>6446</b>	<b>6447</b>	<b>644T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 1/4	1.280	1.680	.70
		<b>6456</b>	<b>6457</b>	<b>645T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 1/4	1.652	2.580	1.00
		<b>8D66</b>	<b>8D67</b>	<b>8D6T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 1/4	1.814	3.185	.70
20A	50 lb./ft. 20' span	<b>6D36</b>	<b>6D37</b>	<b>6D3T</b>	—	3"	(76mm)	4 1/4" (108mm)	1 1/4	1.056	1.076	.70
		<b>6446</b>	<b>6447</b>	<b>644T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 1/4	1.280	1.680	.70
		<b>6456</b>	<b>6457</b>	<b>645T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 1/4	1.652	2.580	1.00
		<b>6466</b>	<b>6467</b>	<b>646T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 1/4	2.062	3.739	1.00
20B	75 lb./ft. 20' span	<b>2D36</b>	<b>2D37</b>	<b>2D3T</b>	—	3"	(76mm)	4 1/4" (108mm)	1 1/4	1.758	1.802	1.00
		<b>4D46</b>	<b>4D47</b>	<b>4D4T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 1/4	1.744	2.209	1.00
		<b>6D56</b>	<b>6D57</b>	<b>6D5T</b>	<b>6D57</b>	5"	(127mm)	6 1/4" (159mm)	1 1/4	1.814	2.743	1.00
		<b>6D66</b>	<b>6D67</b>	<b>6D6T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 1/4	2.246	3.951	1.00
20C	100 lb./ft. 20' span	<b>2D46</b>	<b>2D47</b>	<b>2D4T</b>	--	4"	(102mm)	5 1/4" (133mm)	1 1/4	2.370	3.013	1.50
		<b>4D56</b>	<b>4D57</b>	<b>4D5T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 1/4	2.240	3.389	1.00
		<b>4466</b>	<b>4467</b>	<b>446T</b>	—	6"	(152mm)	7 1/4" (184mm)	1 1/4	2.556	4.632	1.00

### OTHER ECONOMICAL SYSTEMS AVAILABLE

<b>4B36</b>	<b>4B37</b>	<b>4B3T</b>	—	3"	(76mm)	4 1/4" (108mm)	1 3/16	1.024	1.039	.70
<b>6B46</b>	<b>6B47</b>	<b>6B4T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 3/16	1.140	1.436	.70
<b>4B46</b>	<b>4B47</b>	<b>4B4T</b>	—	4"	(102mm)	5 1/4" (133mm)	1 3/16	1.402	1.769	1.00

### EXTRA HEAVY DUTY - VERY LONG SPAN TRAYS- 6", 9" OR 12" RUNG SPACING

<b>2D56</b>	<b>2D57</b>	<b>2D5T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 1/4	3.052	4.635	1.50
<b>11D56</b>	<b>11D57</b>	<b>11D5T</b>	—	5"	(127mm)	6 1/4" (159mm)	1 1/4	3.536	5.315	1.50

Note:   indicates most common systems.

**LOAD AND DEFLECTION DATA FOR STEEL LADDER**
**Working (Allowable) Load Capacity, Evenly Distributed-Tested per NEMA Standard VE-1,  
Simple Beam - SAFETY FACTOR 1.5**

Elsa System Numbers	6 Ft. Span			8 Ft. Span			10 Ft. Span			12 Ft. Span			16 Ft. Span			20 Ft. Span			24 Ft. Span			25 Ft. Span		
	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k
8B36/8B37/8B3T	360	.26	†	198	.46	.002	124	.70	.006	84	.98	.012												
8246/8247/824T	383	.18	†	210	.31	.001	127	.46	.004	83	.62	.007												
8256/8257/825T	357	.11	†	194	.18	†	119	.28	.002	79	.38	.005												
8B66/8B67/8B6T	680	.12	†	328	.19	†	182	.26	.001	107	.31	.003												
6B36/6B37/6B3T	453	.27	†	249	.47	.002	156	.71	.005	106	1.00	.009												
8B46/8B47/8B4T	456	.20	†	244	.33	.001	152	.51	.003	103	.71	.007												
6256/6257/625T	460	.11	†	250	.19	†	154	.29	.002	103	.40	.004												
8B66/8B67/8B6T	680	.12	†	328	.19	†	182	.26	.001	107	.31	.003												
8D36/8D37/8D3T				290	.53	.002	182	.81	.004	126	1.17	.009	65	1.91	.029									
8D46/8D47/8D4T				382	.42	.001	245	.66	.003	170	.94	.006	86	1.54	.018									
8456/8457/845T				268	.20	†	166	.31	.002	111	.43	.004	58	.71	.012									
6466/6467/643T										178	.38	.002	93	.62	.007									
6D36/6D37/6D3T				381	.56	.001	244	.88	.004	169	1.27	.008	88	2.08	.024									
8D46/8D47/8D4T				382	.42	.001	245	.66	.003	170	.94	.006	86	1.54	.018									
6456/6457/645T				574	.35	†	367	.55	.001	245	.76	.003	123	1.22	.010									
6466/6467/643T										178	.38	.002	93	.62	.007									
4D36/4D37/4D3T				487	.58	.001	312	.91	.003	216	1.31	.006	113	2.16	.019									
6446/6447/644T				444	.42	†	273	.63	.002	186	.89	.005	100	1.51	.015									
6456/6457/645T				574	.35	†	367	.55	.001	245	.76	.003	123	1.22	.010									
8D66/8D67/8D6T				504	.25	†	306	.37	.001	202	.51	.003	101	.80	.008									
6D36/6D37/6D3T										169	1.27	.008	88	2.08	.024	52	2.98	.057						
6446/6447/644T										186	.89	.005	100	1.51	.015	53	1.94	.037						
6456/6457/645T										245	.76	.003	123	1.22	.010	66	1.59	.024						
6466/6467/643T										178	.38	.002	93	.62	.007	55	.91	.017						
2D36/2D37/2D3T										304	1.36	.004	159	2.24	.014	94	3.23	.034						
4D46/4D47/4D4T										280	1.02	.004	145	1.67	.012	85	2.40	.028						
6D56/6D57/6D5T										269	.80	.003	139	1.28	.009	81	1.82	.022						
6D66/6D67/6D6T										291	.59	.002	148	.95	.006	85	1.33	.016						
2D46/2D47/2D4T										395	1.05	.003	206	1.74	.008	121	2.50	.021						
4D56/4D57/4D5T										296	.79	.003	152	1.28	.008	105	1.91	.018						
4466/4467/446T										379	.66	.002	191	1.05	.005	102	1.37	.013						
4B36/4B37/4B3T	569	.28	†	313	.48	.002	196	.73	.004	133	1.03	.008												
6B46/6B47/6B4T	591	.21	†	325	.36	.001	203	.55	.003	137	.77	.006												
4B46/4B47/4B4T	779	.22	†	428	.38	†	268	.59	.002	182	.83	.005												
2D56/2D57/2D5T										490	.85	.002	254	1.40	.006	149	2.00	.013	79	1.91	.024	73	2.38	.033
11D56/11D57/11D5T										434	.66	†	244	1.17	.005	156	1.82	.012	108	2.62	.024	100	2.85	.029

To convert 1.5 safety factor to 2.0 multiply w, d, k by 0.75.

W=Pounds per linear foot

Metric: for kg/m multiply w by 1.48

d=Deflection (inches)

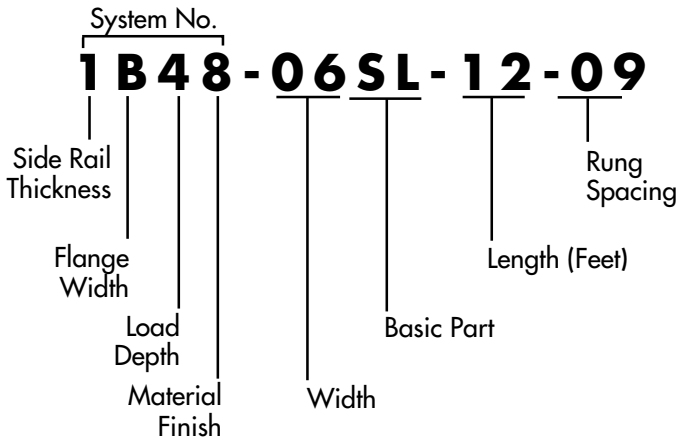
k= Deflection (in.) for each pound of load

†= Denotes k is less than .001 inch

**HOW TO ORDER:**

Order by the Elsa full catalog numbers given in this catalog. Please pay careful attention to the part numbering structure. Example: Catalog No. 1B48-06SL-12-09 is a 4" load depth aluminum ladder with a 1 3/16" flange, 6 inches wide, straight length 12 feet long, runs on 9" centers.

**STRAIGHT LENGTH**



**SYSTEM NUMBER (STRAIGHT SECTION ONLY)** – The first four digits make up the system number which identifies the structural, dimensional and material characteristics of the straight length. It is made up of the side rail digits indicating the side rail thickness and flange width, the load depth (inside, in inches) and material finish (galvanized, aluminum or coated).

**System Number**

Thickness Steel (Ga.)	Flange Width	Load Depth	Material Finish
8 - 18 ga.	2 - 13/16" (21mm)	3" (76mm)	6 - Mill-Galv.
6 - 16 ga.	4 - 1 1/4" (32mm)	4" (102mm)	7 - HDGAF
4 - 14 ga.	5 - 1 1/2" (38mm)	5" (127mm)	8 - Aluminum
2 - 12 ga.	6 - 1 3/4" (45mm)	6" (152mm)	T - 304SS
11 - 11 ga.	7 - 2" (51mm)		

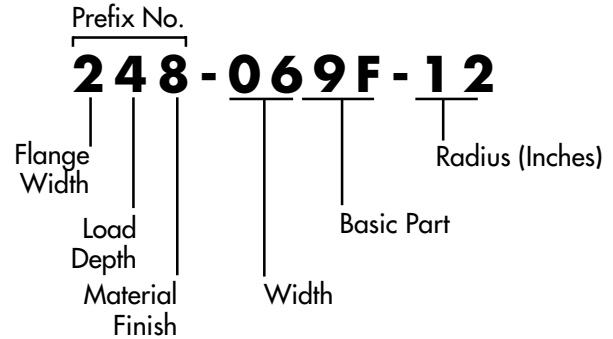
  

Thickness Alum (in.)	
1 - thinner	*B - 13/16" (21mm)
3 -	*D - 1 1/4" (32mm)
5 - **	*E - 1 1/2" (38mm)
7 -	*F - 1 3/4" (45mm)
9 - thicker	*G - 2" (51mm)

\*Stiffened Upper Flange

\*\*Alum. extruded side rails are individually engineered to loads and spans.

**FITTINGS**



**PREFIX NUMBER (FITTINGS ONLY)** – Fittings are ordered using the 3-digit prefix number given in the charts on the fitting pages. Fittings do not have stiffened upper flanges.

**WIDTH** – Identifies the inside width of the tray in inches.

**BASIC PART NUMBER** – Identifies the straight length, fitting or accessory.

**SECONDARY DIMENSION NUMBER** – Identifies the length of a straight section in feet, the radius of a fitting in inches or the second width of a reducer in inches.

**RUNG SPACING** – Identifies the center-to-center distance between rungs on straight length. Nominal 9" (229mm) rung spacing maintained through centerline of all fittings.

**Description**

Width (in.)	Basic Part Number	Length	Rung Spacing
-06=6" (152mm)	SL (Straight Len.)	- 12' (3.7m)	06=6" (152mm)
-09=9" (229mm)	9F (90° Horiz. El.)	- 24' (7.3m)	09=9" (229mm)
-12=12" (305mm)	6F (60° Horiz. El.)	- 10' (3m)	12=12" (305mm)
-18=18" (457mm)	4F (45° Horiz. El.)	- 20' (6m)	18=18" (457mm)
-24=24" (610mm)	3F (30° Horiz. El.)		
-30=30" (762mm)	90 (90° Out. Vert. El.)		
-36=36" (914mm)	60 (60° Out. Vert. El.)		
	40 (45° Out. Vert. El.)		
	30 (30° Out. Vert. El.)		
	91 (90° In. Vert. El.)		
	61 (60° In. Vert. El.)		
	41 (45° In. Vert. El.)		
	31 (30° In. Vert. El.)		
	FT (Horiz. Tee)		
	FC (Horiz. Cross)		
	VT (Vert. Tee)		
	SR (Vert. Cable Support Elbow)		
	ST (Straight Reducer)		
	RH (Right Hand Reducer)		
	LH (Left Hand Reducer)		
	AF (Adjustable Elbow)		
	RY & LY (45° "Y" Branch)		

**Radius (in.)**

-12=12" (305mm)
-24=24" (610mm)
-36=36" (914mm)

..... Performance- C22.2 Classes

Elsa Class See Elsa Std. C22.2	Elsa System	Load Depth	Side Rail Height	Flange Width	Max.Load (Kg/m <sup>2</sup> )	Maximum Support Span	Deflection	Meets Elsa Elec. Tests
<b>ALUMINUM- Safety Factor: 1.5</b>								
C1	1B38	3" (76mm)	4¼" (108mm)	1¾" (21mm)	97	3m	19.3mm	Yes
D1	3D38	3" (76mm)	4¼" (108mm)	1¼" (32mm)	67	6m	88.7mm	Yes
E	3658	5" (127mm)	6¼" (159mm)	1¾" (45mm)	112	6m	60.4mm	Yes
<b>STEEL- Class I Coating (HDGAF) Safety Factor: 1.5</b>								
C1	8B37	3" (76mm)	4¼" (108mm)	1¾" (21mm)	97	3m	8.9mm	Yes
E	6D57	5" (127mm)	6¼" (159mm)	1¼" (32mm)	112	6m	41.4mm	Yes

**RECEIVING, INSTALLING, AND MAINTENANCE**

The proper care and handling of cabletroughs by the receiver and installers is very important to insure a safe installation that will meet the intended service life. Elsa has available an installation guide to assist the installers and those who will maintain the installed system.

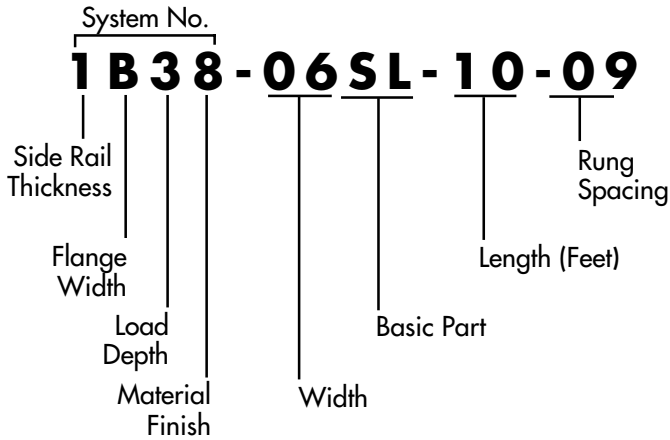
**DIMENSIONS AND STRUCTURAL PROPERTIES:  
ELSA SYSTEMS**

The performance of the Elsa cabletrough systems certified by Elsa is given above. Structural properties of straight sections, though not required to be listed, are given in the ELSA NEMA selection charts, in English units. Dimensions of straight sections and certified fittings are furnished in English and metric units for use in layout and/or entry into computerized systems.

**HOW TO ORDER:**

Explanation of Elsa's Canadian Standards cable tray catalog numbers is described below. Use the system numbers given in selection charts for straight sections, or the fitting prefix numbers given in fitting tables. Be sure to follow system number or the fitting prefix with the item "description" number.

**STRAIGHT LENGTH**



**SYSTEM NUMBER (STRAIGHT SECTION ONLY)** – The first four digits make up the system number which identifies the structural, dimensional and material characteristics of the straight length. It is made up of the side rail digits indicating the side rail thickness and flange width, the load depth (inside, in inches) and material finish (galvanized, aluminum or coated).

**System Number**

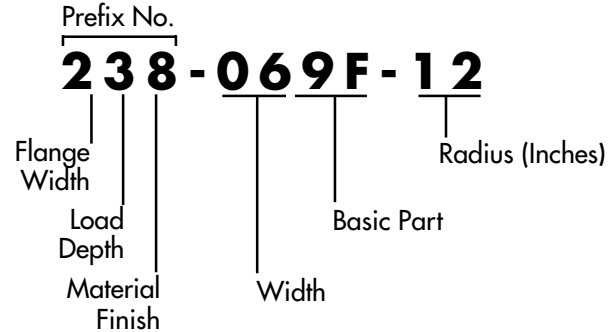
Thickness Steel (Ga.)	Flange Width	Load Depth	Material Finish
8 - 18 ga.	2 - 1 <sup>3</sup> / <sub>16</sub> " (21mm)	3" (76mm)	7 - HDGAF,
6 - 16 ga.	6 - 1 <sup>3</sup> / <sub>4</sub> " (45mm)	5" (127mm)	Elsa Class 1
	*B - 1 <sup>3</sup> / <sub>16</sub> " (21mm)		8 - Aluminum
<b>Thickness Alum (in.)**</b>	*D - 1 <sup>1</sup> / <sub>4</sub> " (32mm)		Plain Finish

1- thinner  
↓  
3- thicker

\*Stiffened Upper Flange

\*\*Alum. extruded side rails are individually engineered to loads and spans.

**FITTINGS**



**PREFIX NUMBER (FITTINGS ONLY)** – Fittings are ordered using the 3-digit prefix number given in the charts on the fitting pages. Fittings do not have stiffened upper flanges.

**WIDTH** – Identifies the inside width of the tray (in inches).

**BASIC PART NUMBER** – Identifies the straight length, fitting or accessory.

**SECONDARY DIMENSION NUMBER** – Identifies the length of a straight section (in feet), the radius of a fitting (in inches) or the second width of a reducer (in inches).

**RUNG SPACING** – Identifies the center-to-center distance between rungs on straight length. Nominal 9" (229mm) rung spacing maintained through centerline of all fittings.

**Description**

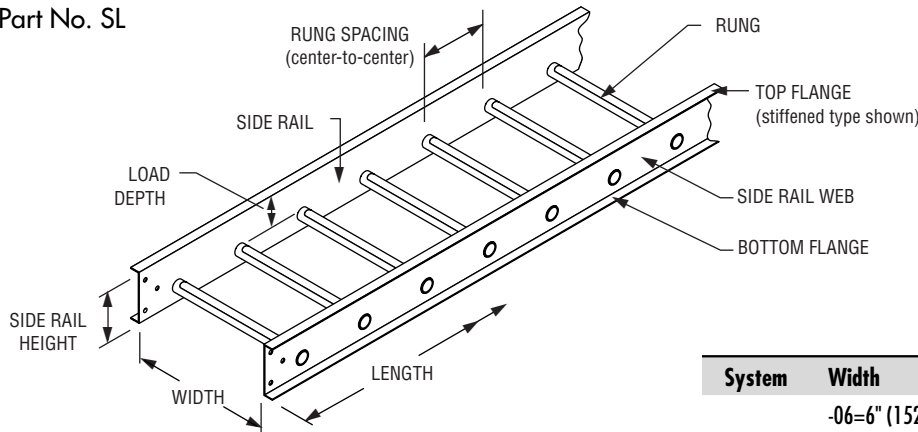
Width (in.)	Basic Part Number	Length	Rung Spacing
06=6" (152mm)	SL (Straight Len.)	10 - 10' (3m)	06=6" (152mm)
09=9" (229mm)	9F (90° Horiz. Elbow)	20 - 20' (6m)	09=9" (229mm)
12=12" (305mm)	6F (60° Horiz. Elbow)		12=12" (305mm)
18=18" (457mm)	4F (45° Horiz. Elbow)		
24=24" (610mm)	3F (30° Horiz. Elbow)		
30=30" (762mm)	90 (90° Out. Vert. Elbow)		
36=36" (914mm)	60 (60° Out. Vert. Elbow)		
	40 (45° Out. Vert. Elbow)		
	30 (30° Out. Vert. Elbow)		
	91 (90° In. Vert. Elbow)		
	61 (60° In. Vert. Elbow)		
	41 (45° In. Vert. Elbow)		
	31 (30° In. Vert. Elbow)		
	FT (Horiz. Tee)		
	FC (Horiz. Cross)		
	VT (Vert. Tee)		
	SR (Vert. Cable Support Elbow)		
	ST (Straight Reducer)		
	RH (Right Hand Reducer)		
	LH (Left Hand Reducer)		
	AF (Adjustable Elbow)		
	RY & LY (45° "Y" Branch)		

**Radius (in.)**

12=12" (305mm)
24=24" (610mm)
36=36" (914mm)

## STRAIGHT LENGTH

Part No. SL

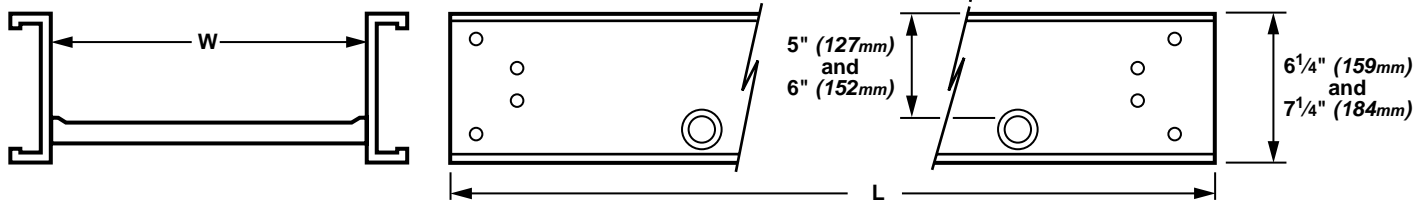


Note: Standard flange out system shown.  
Contact the factory for flange in systems.

**ELSA LADDER** is manufactured in 10', 12', 20' and 24' lengths; 6", 9", 12", 18", 24", 30" and 36" widths; and, 3", 4", 5", and 6" load depths. Rungs are 1" diameter tubes with a 7/8" flattened cable support surface. 6", 9", 12" and 18" rung spacings are available. Fittings have nominal 9" rung spacing through centerline. Dimensions given are inside. For overall widths add two flange widths of the system selected (see Selection Charts). Some systems have stiffened upper (top) flanges to obtain rigidity required (see Selection Charts).

Rungs are assembled to side rails by Elsa's exclusive cold swaging process. Outward facing flanges allow full unobstructed access to contents of tray in width and depth.

Materials: Aluminum, Hot Dip Mill-Galvanized (pregalvanized) to ASTM A-924, Hot Dip Galvanized After Fabrication (HDGAF) to ASTM A-123, Stainless Steel (Type 304 and 316). Sufficient connectors are supplied to assemble straight sections and fittings for each order. Connectors for field cuts to be ordered separately (see Connectors).



### Catalog Number

System	Width	Basic No.	Rung Length	Spacing
See Pages 3-4 - 3-7	-06=6" (152mm)	SL	<b>NEMA</b>	-06=6" (152mm)
	-09=9" (229 mm)		12' (3.7m)*	-09=9" (229mm)
	-12=12" (305mm)		24' (7.3m)*	-12=12" (305mm)
	-18=18" (457mm)		<b>ELSA</b>	-18=18" (457mm)
	-24=24" (610mm)		-10' (3m)	
	-30=30" (762mm)		-20' (6m)	
	-36=36" (914mm)			

\*12' all NEMA Classes, 24' NEMA Classes 16A, 16B, 16C, 20A, 20B, 20C.  
Example: Catalog No. 1B48-06SL-12-09 is a 4-inch load depth aluminum ladder with a 1 3/16" flange, 6 inches wide, straight length 12 feet long, rungs on 9" centers.

### Conversion Table

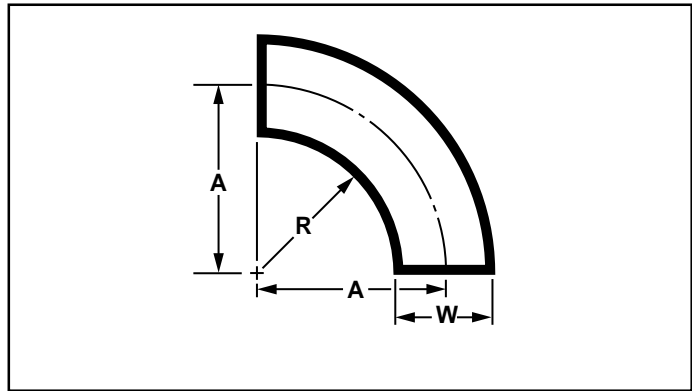
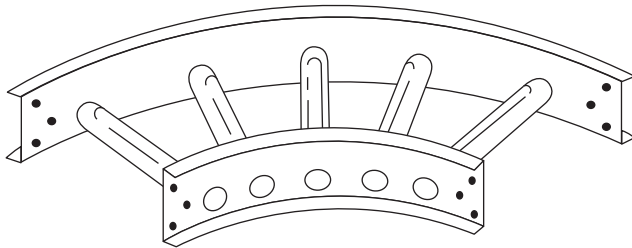
	ELSA										
English	6"	9"	12"	18"	24"	30"	36"	12'	24'	10'	20'
Metric (mm)	152	229	305	457	610	762	914	3.7m	7.3m	3m	6m

### MATERIAL & FINISH SPECIFICATIONS (Ladder Cable Tray)

	Pre-Galvanized Steel	Hot-Dip Galvanized after Fabrication ASTM A-123	Aluminum	Type 304 Stainless Steel
Siderails	ASTM A-653-G90 CQ (18 & 16 Gage) ASTM A-653-G90 CQ (14 & 12 Gage)	ASTM A-366 (18 & 16 Gage) ASTM A-569 (14 & 12 Gage)	AA-6063-T6 Extruded	ASTM A-240; Type 304
Rungs	ASTM A-653-G90 CQ	ASTM A-366	AA-6063-T6 Extruded*	ASTM A-269; Type 304
Splice Plate	ASTM A-569	ASTM A-569	AA-5052-H34	ASTM A-240; Type 304
Finish	ASTM A-591 Class C	ASTM A-123 Grade 65		2B Finish (Typical)
Connector Bolts	SAE J429 Grade 1 (ASTM A-307 Grade A)	SAE J429 Grade 1 (ASTM A-307 Grade A)	SAE J429 Grade 1 (ASTM A-307 Grade A)	AISI Type 304 Stainless Steel
Bolt Plating	ASTM B-633.0002" Zinc	ASTM B-633.0002" Zinc	ASTM B-633.0002" Zinc	
Covers	ASTM A-653-G90 CQ	ASTM A-653-G90 CQ	AA-3003 H14 or 3150 H14	ASTM A-240; Type 304

\*Special High Strength 32 ksi Minimum Yield

Part No. 9F



ELSA FITTINGS are offered in 12", 24", and 36" radius. Use Adjustable Connectors for odd angles. Nominal 9" rung spacing maintained through centerline of all fittings.

3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

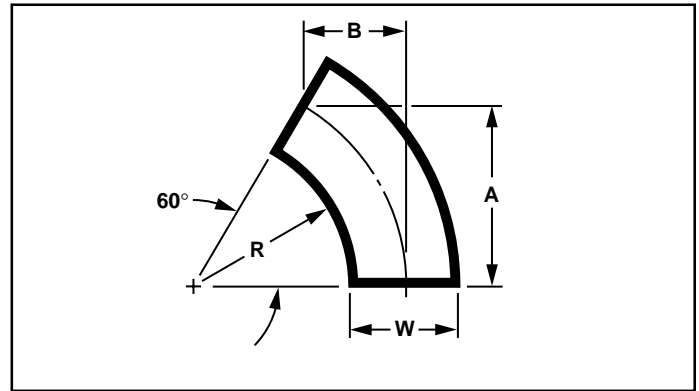
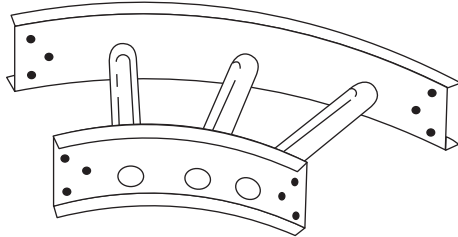
ELSA Systems

Radius - R	Width - W		Catalog Number	"A" Dimension	
<b>12"</b> (305mm)	6"	(152mm)	Prefix- 069F-12	15"	(381mm)
	9"	(229mm)	Prefix- 099F-12	16½"	(419mm)
	12"	(305mm)	Prefix- 129F-12	18"	(457mm)
	18"	(457mm)	Prefix- 189F-12	21"	(533mm)
	24"	(610mm)	Prefix- 249F-12	24"	(610mm)
	30"	(762mm)	Prefix- 309F-12	27"	(686mm)
	36"	(914mm)	Prefix- 369F-12	30"	(762mm)
<b>24"</b> (610mm)	6"	(152mm)	Prefix- 069F-24	27"	(686mm)
	9"	(229mm)	Prefix- 099F-24	28½"	(724mm)
	12"	(305mm)	Prefix- 129F-24	30"	(762mm)
	18"	(457mm)	Prefix- 189F-24	33"	(838mm)
	24"	(610mm)	Prefix- 249F-24	36"	(914mm)
	30"	(762mm)	Prefix- 309F-24	39"	(991mm)
	36"	(914mm)	Prefix- 369F-24	42"	(1067mm)
<b>36"</b> (914mm)	6"	(152mm)	Prefix- 069F-36	39"	(991mm)
	9"	(229mm)	Prefix- 099F-36	40½"	(1029mm)
	12"	(305mm)	Prefix- 129F-36	42"	(1067mm)
	18"	(457mm)	Prefix- 189F-36	45"	(1143mm)
	24"	(610mm)	Prefix- 249F-36	48"	(1219mm)
	30"	(762mm)	Prefix- 309F-36	51"	(1295mm)
	36"	(914mm)	Prefix- 369F-36	54"	(1372mm)

Example: 238-129F-12



Part No. 6F

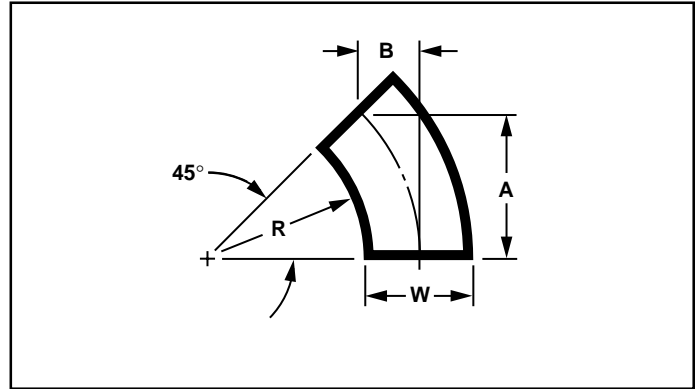
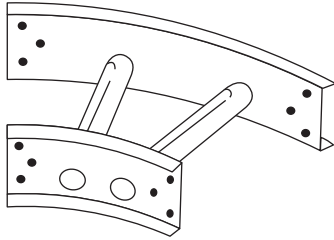


3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

### ELSA Systems

Radius - R	Width - W	Catalog Number	"A" Dimension	"B" Dimension
<b>12"</b> (305mm)	6" (152mm)	Prefix- 066F-12	13" (330mm)	7 <sup>1</sup> / <sub>2</sub> " (191mm)
	9" (229mm)	Prefix- 096F-12	14 <sup>1</sup> / <sub>4</sub> " (362mm)	8 <sup>1</sup> / <sub>4</sub> " (210mm)
	12" (305mm)	Prefix- 126F-12	15 <sup>5</sup> / <sub>8</sub> " (397mm)	9" (229mm)
	18" (457mm)	Prefix- 186F-12	18 <sup>1</sup> / <sub>4</sub> " (464mm)	10 <sup>1</sup> / <sub>2</sub> " (267mm)
	24" (610mm)	Prefix- 246F-12	20 <sup>3</sup> / <sub>4</sub> " (527mm)	12" (305mm)
	30" (762mm)	Prefix- 306F-12	23 <sup>3</sup> / <sub>8</sub> " (594mm)	13 <sup>1</sup> / <sub>2</sub> " (343mm)
	36" (914mm)	Prefix- 366F-12	26" (660mm)	15" (381mm)
<b>24"</b> (610mm)	6" (152mm)	Prefix- 066 F-24	23 <sup>3</sup> / <sub>8</sub> " (594mm)	13 <sup>1</sup> / <sub>2</sub> " (343mm)
	9" (229mm)	Prefix- 096F-24	24 <sup>3</sup> / <sub>4</sub> " (629mm)	14 <sup>1</sup> / <sub>4</sub> " (362mm)
	12" (305mm)	Prefix- 126F-24	26" (660mm)	15" (381mm)
	18" (457mm)	Prefix- 186F-24	28 <sup>5</sup> / <sub>8</sub> " (727mm)	16 <sup>1</sup> / <sub>2</sub> " (416mm)
	24" (610mm)	Prefix- 246F-24	31 <sup>1</sup> / <sub>4</sub> " (794mm)	18" (457mm)
	30" (762mm)	Prefix- 306F-24	33 <sup>3</sup> / <sub>4</sub> " (857mm)	19 <sup>1</sup> / <sub>2</sub> " (495mm)
	36" (914mm)	Prefix- 366 F-24	36 <sup>3</sup> / <sub>8</sub> " (924mm)	21" (533mm)
<b>36"</b> (914mm)	6" (152mm)	Prefix- 066F-36	33 <sup>3</sup> / <sub>4</sub> " (857mm)	19 <sup>1</sup> / <sub>2</sub> " (495mm)
	9" (229mm)	Prefix- 096F-36	35 <sup>1</sup> / <sub>8</sub> " (892mm)	20 <sup>1</sup> / <sub>4</sub> " (514mm)
	12" (305mm)	Prefix- 126F-36	36 <sup>3</sup> / <sub>8</sub> " (924mm)	21" (533mm)
	18" (457mm)	Prefix- 186F-36	39" (991mm)	22 <sup>1</sup> / <sub>2</sub> " (572mm)
	24" (610mm)	Prefix- 246F-36	41 <sup>5</sup> / <sub>8</sub> " (1057mm)	24" (610mm)
	30" (762mm)	Prefix- 306F-36	44 <sup>1</sup> / <sub>8</sub> " (1121mm)	25 <sup>1</sup> / <sub>2</sub> " (648mm)
	36" (914mm)	Prefix- 366F-36	46 <sup>3</sup> / <sub>4</sub> " (1187mm)	27" (686mm)

Example: 238-126F-12

**PART NO. 4F**


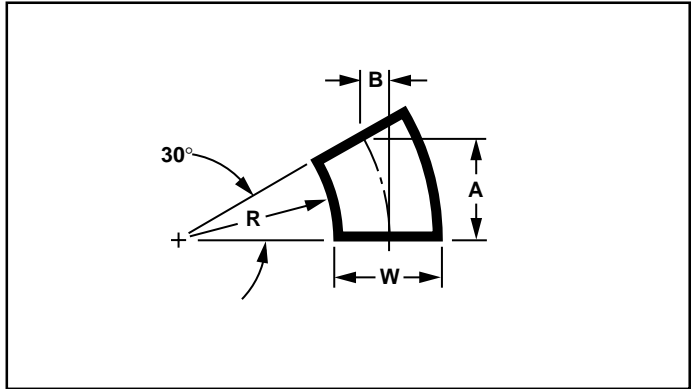
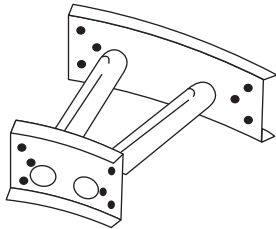
3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sept – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

**ELSA Systems**

Radius - R	Width - W	Catalog Number	"A" Dimension		"B" Dimension	
<b>12"</b> (305mm)	6" (152mm)	Prefix- 064F-12	10 <sup>5</sup> / <sub>8</sub> "	(270mm)	4 <sup>3</sup> / <sub>8</sub> "	(111mm)
	9" (229mm)	Prefix- 094F-12	11 <sup>5</sup> / <sub>8</sub> "	(295mm)	4 <sup>7</sup> / <sub>8</sub> "	(124mm)
	12" (305mm)	Prefix- 124F-12	12 <sup>3</sup> / <sub>4</sub> "	(324mm)	5 <sup>1</sup> / <sub>4</sub> "	(133mm)
	18" (457mm)	Prefix- 184F-12	14 <sup>7</sup> / <sub>8</sub> "	(378mm)	6 <sup>1</sup> / <sub>8</sub> "	(156mm)
	24" (610mm)	Prefix- 244F-12	17"	(432mm)	7"	(178mm)
	30" (762mm)	Prefix- 304F-12	19 <sup>1</sup> / <sub>8</sub> "	(486mm)	7 <sup>7</sup> / <sub>8</sub> "	(200mm)
	36" (914mm)	Prefix- 364F-12	21 <sup>1</sup> / <sub>4</sub> "	(540mm)	8 <sup>3</sup> / <sub>4</sub> "	(222mm)
<b>24"</b> (610mm)	6" (152mm)	Prefix- 064F-24	19 <sup>1</sup> / <sub>8</sub> "	(486mm)	7 <sup>7</sup> / <sub>8</sub> "	(200mm)
	9" (229mm)	Prefix- 094F-24	20 <sup>1</sup> / <sub>8</sub> "	(511mm)	8 <sup>3</sup> / <sub>8</sub> "	(213mm)
	12" (305mm)	Prefix- 124F-24	21 <sup>1</sup> / <sub>4</sub> "	(540mm)	8 <sup>3</sup> / <sub>4</sub> "	(222mm)
	18" (457mm)	Prefix- 184F-24	23 <sup>3</sup> / <sub>8</sub> "	(594mm)	9 <sup>5</sup> / <sub>8</sub> "	(244mm)
	24" (610mm)	Prefix- 244F-24	25 <sup>1</sup> / <sub>2</sub> "	(648mm)	10 <sup>1</sup> / <sub>2</sub> "	(267mm)
	30" (762mm)	Prefix- 304F-24	27 <sup>5</sup> / <sub>8</sub> "	(702mm)	11 <sup>1</sup> / <sub>2</sub> "	(292mm)
	36" (914mm)	Prefix- 364F-24	29 <sup>3</sup> / <sub>4</sub> "	(756mm)	12 <sup>3</sup> / <sub>8</sub> "	(314mm)
<b>36"</b> (914mm)	6" (152mm)	Prefix- 064F-36	27 <sup>5</sup> / <sub>8</sub> "	(702mm)	11 <sup>1</sup> / <sub>2</sub> "	(292mm)
	9" (229mm)	Prefix- 094F-36	28 <sup>5</sup> / <sub>8</sub> "	(727mm)	11 <sup>7</sup> / <sub>8</sub> "	(302mm)
	12" (305mm)	Prefix- 124F-36	29 <sup>3</sup> / <sub>4</sub> "	(756mm)	12 <sup>3</sup> / <sub>8</sub> "	(314mm)
	18" (457mm)	Prefix- 184F-36	31 <sup>7</sup> / <sub>8</sub> "	(810mm)	13 <sup>1</sup> / <sub>4</sub> "	(337mm)
	24" (610mm)	Prefix- 244F-36	34"	(864mm)	14 <sup>1</sup> / <sub>8</sub> "	(359mm)
	30" (762mm)	Prefix- 304F-36	36 <sup>1</sup> / <sub>8</sub> "	(918mm)	15"	(381mm)
	36" (914mm)	Prefix- 364F-36	38 <sup>1</sup> / <sub>4</sub> "	(972mm)	15 <sup>7</sup> / <sub>8</sub> "	(403mm)

Example: 238-124F-12

PART NO. 3F



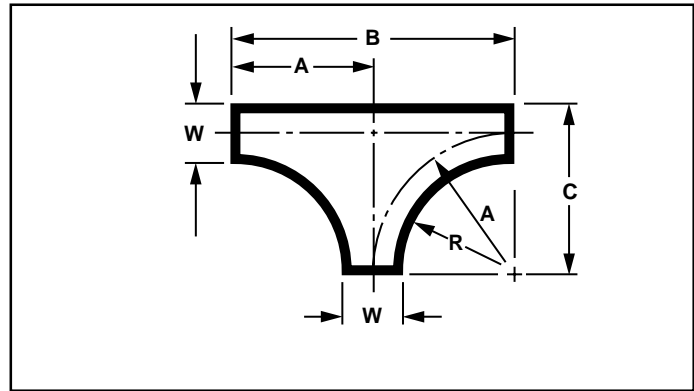
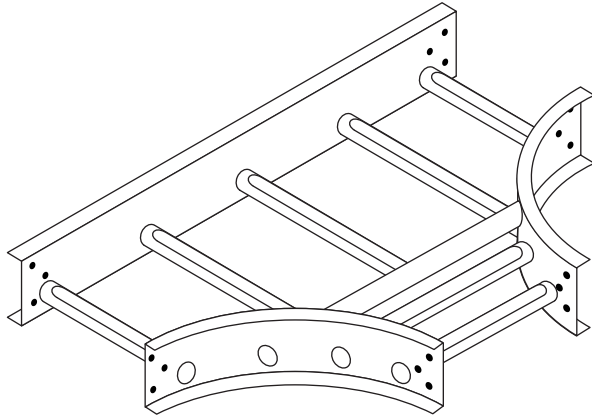
3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			13/16"	1 1/4"	13/16"	1 1/4"
2 - 1 3/16" 4 - 1 1/4"	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

ELSA Systems

Radius - R	Width - W	Catalog Number	"A" Dimension		"B" Dimension	
<b>12"</b> (305mm)	6" (152mm)	Prefix- 063F-12	7 1/2"	(191mm)	2"	(51mm)
	9" (229mm)	Prefix- 093F-12	8 1/4"	(210mm)	2 1/4"	(57mm)
	12" (305mm)	Prefix- 123F-12	9"	(229mm)	2 3/8"	(60mm)
	18" (457mm)	Prefix- 183F-12	10 1/2"	(267mm)	2 7/8"	(73mm)
	24" (610mm)	Prefix- 243F-12	12"	(305mm)	3 1/4"	(83mm)
	30" (762mm)	Prefix- 303F-12	13 1/2"	(343mm)	3 5/8"	(92mm)
	36" (914mm)	Prefix- 363F-12	15"	(381mm)	4"	(102mm)
<b>24"</b> (610mm)	6" (152mm)	Prefix- 063F-24	13 1/2"	(343mm)	3 5/8"	(92mm)
	9" (229mm)	Prefix- 093F-24	14 1/4"	(362mm)	3 7/8"	(98mm)
	12" (305mm)	Prefix- 123F-24	15"	(381mm)	4"	(102mm)
	18" (457mm)	Prefix- 183F-24	16 1/2"	(419mm)	4 3/8"	(111mm)
	24" (610mm)	Prefix- 243F-24	18"	(457mm)	4 7/8"	(124mm)
	30" (762mm)	Prefix- 303F-24	19 1/2"	(495mm)	5 1/4"	(133mm)
	36" (914mm)	Prefix- 363F-24	21"	(533mm)	5 5/8"	(143mm)
<b>36"</b> (914mm)	6" (152mm)	Prefix- 063F-36	19 1/2"	(495mm)	5 1/4"	(133mm)
	9" (229mm)	Prefix- 093F-36	20 1/4"	(514mm)	5 1/2"	(140mm)
	12" (305mm)	Prefix- 123F-36	21"	(533mm)	5 5/8"	(143mm)
	18" (457mm)	Prefix- 183F-36	22 1/2"	(572mm)	6"	(152mm)
	24" (610mm)	Prefix- 243F-36	24"	(610mm)	6 1/2"	(165mm)
	30" (762mm)	Prefix- 303F-36	25 1/2"	(648mm)	6 7/8"	(175mm)
	36" (914mm)	Prefix- 363F-36	27"	(686mm)	7 1/4"	(184mm)

Example: 238-123F-12

PART NO. FT



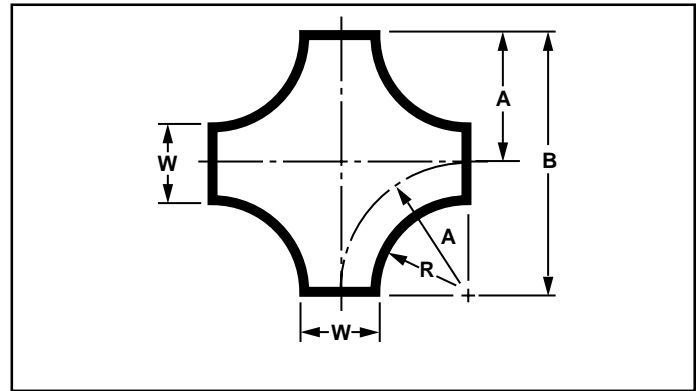
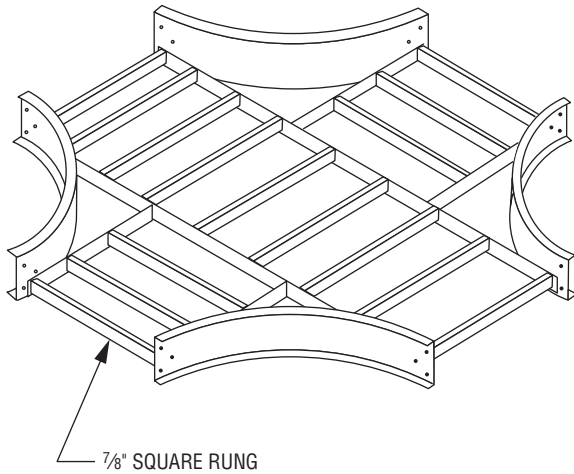
3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sept – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

ELSA Systems

Radius - R	Width - W	Catalog Number	"A" Dimension		"B" Dimension		"C" Dimension	
<b>12"</b> (305mm)	6" (152mm)	Prefix- 06FT-12	15"	(381mm)	30"	(762mm)	18"	(457mm)
	9" (229mm)	Prefix- 09FT-12	16 <sup>1</sup> / <sub>2</sub> "	(419mm)	33"	(838mm)	21"	(533mm)
	12" (305mm)	Prefix- 12FT-12	18"	(457mm)	36"	(914mm)	24"	(610mm)
	18" (457mm)	Prefix- 18FT-12	21"	(533mm)	42"	(1067mm)	30"	(762mm)
	24" (610mm)	Prefix- 24FT-12	24"	(610mm)	48"	(1219mm)	36"	(914mm)
	30" (762mm)	Prefix- 30FT-12	27"	(686mm)	54"	(1372mm)	42"	(1067mm)
	36" (914mm)	Prefix- 36FT-12	30"	(762mm)	60"	(1524mm)	48"	(1219mm)
<b>24"</b> (610mm)	6" (152mm)	Prefix- 06FT-24	27"	(686mm)	54"	(1372mm)	30"	(762mm)
	9" (229mm)	Prefix- 09FT-24	28 <sup>1</sup> / <sub>2</sub> "	(724mm)	57"	(1448mm)	33"	(838mm)
	12" (305mm)	Prefix- 12FT-24	30"	(762mm)	60"	(1524mm)	36"	(914mm)
	18" (457mm)	Prefix- 18FT-24	33"	(838mm)	66"	(1676mm)	42"	(1067mm)
	24" (610mm)	Prefix- 24FT-24	36"	(914mm)	72"	(1829mm)	48"	(1219mm)
	30" (762mm)	Prefix- 30FT-24	39"	(991mm)	78"	(1981mm)	54"	(1372mm)
	36" (914mm)	Prefix- 36FT-24	42"	(1067mm)	84"	(2134mm)	60"	(1524mm)
<b>36"</b> (914mm)	6" (152mm)	Prefix- 06FT-36	39"	(991mm)	78"	(1981mm)	42"	(1067mm)
	9" (229mm)	Prefix- 09FT-36	40 <sup>1</sup> / <sub>2</sub> "	(1029mm)	81"	(2057mm)	45"	(1143mm)
	12" (305mm)	Prefix- 12FT-36	42"	(1067mm)	84"	(2134mm)	48"	(1219mm)
	18" (457mm)	Prefix- 18FT-36	45"	(1143mm)	90"	(2286mm)	54"	(1372mm)
	24" (610mm)	Prefix- 24FT-36	48"	(1219mm)	96"	(2438mm)	60"	(1524mm)
	30" (762mm)	Prefix- 30FT-36	51"	(1295mm)	102"	(2591mm)	66"	(1676mm)
	36" (914mm)	Prefix- 36FT-36	54"	(1372mm)	108"	(2743mm)	72"	(1829mm)

Example: 238-12FT-12

PART NO. FC



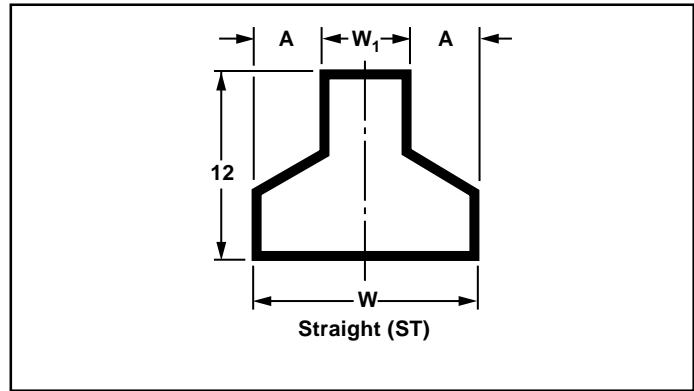
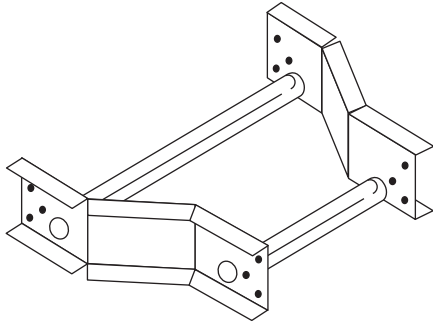
3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

ELSA Systems

Radius - R	Width - W	Catalog Number	"A" Dimension		"B" Dimension	
<b>12"</b> (305mm)	6" (152mm)	Prefix- 06 FC-12	15"	(381mm)	30"	(762mm)
	9" (229mm)	Prefix- 09 FC-12	16 <sup>1</sup> / <sub>2</sub> "	(419mm)	33"	(838mm)
	12" (305mm)	Prefix- 12 FC-12	18"	(457mm)	36"	(914mm)
	18" (457mm)	Prefix- 18 FC-12	21"	(533mm)	42"	(1067mm)
	24" (610mm)	Prefix- 24 FC-12	24"	(610mm)	48"	(1219mm)
	30" (762mm)	Prefix- 30 FC-12	27"	(686mm)	54"	(1372mm)
	36" (914mm)	Prefix- 36 FC-12	30"	(762mm)	60"	(1524mm)
<b>24"</b> (610mm)	6" (152mm)	Prefix- 06 FC-24	27"	(686mm)	54"	(1372mm)
	9" (229mm)	Prefix- 09 FC-24	28 <sup>1</sup> / <sub>2</sub> "	(724mm)	57"	(1448mm)
	12" (305mm)	Prefix- 12 FC-24	30"	(762mm)	60"	(1524mm)
	18" (457mm)	Prefix- 18 FC-24	33"	(838mm)	66"	(1676mm)
	24" (610mm)	Prefix- 24 FC-24	36"	(914mm)	72"	(1829mm)
	30" (762mm)	Prefix- 30 FC-24	39"	(991mm)	78"	(1981mm)
	36" (914mm)	Prefix- 36 FC-24	42"	(1067mm)	84"	(2134mm)
<b>36"</b> (914mm)	6" (152mm)	Prefix- 06 FC-36	39"	(991mm)	78"	(1981mm)
	9" (229mm)	Prefix- 09 FC-36	40 <sup>1</sup> / <sub>2</sub> "	(1029mm)	81"	(2057mm)
	12" (305mm)	Prefix- 12 FC-36	42"	(1067mm)	84"	(2134mm)
	18" (457mm)	Prefix- 18 FC-36	45"	(1143mm)	90"	(2286mm)
	24" (610mm)	Prefix- 24 FC-36	48"	(1219mm)	96"	(2438mm)
	30" (762mm)	Prefix- 30 FC-36	51"	(1295mm)	102"	(2591mm)
	36" (914mm)	Prefix- 36 FC-36	54"	(1372mm)	108"	(2743mm)

Example: 238-12FC-12

PART NO. ST



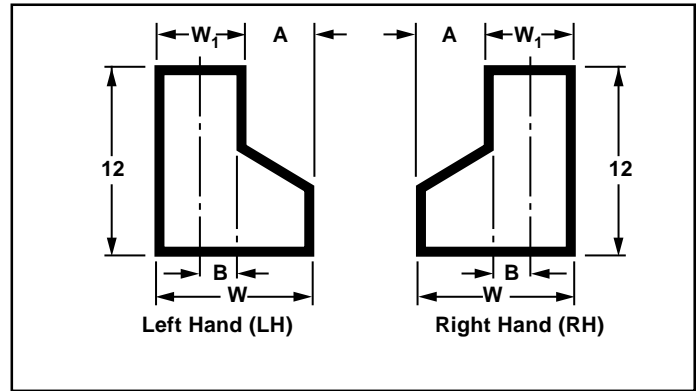
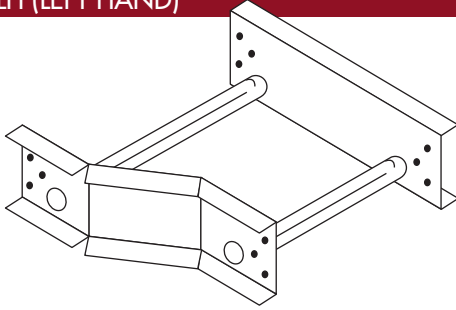
3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sept – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

ELSA Systems

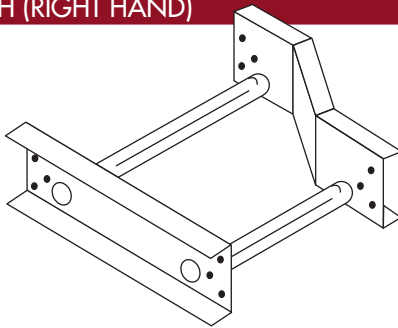
Width - W	Width - W1	Cat. No.-Straight	"A" Dimension
<b>36"</b> (914mm)	30" (762mm)	Prefix-36ST-30	3" (76mm)
	24" (610mm)	Prefix-36ST-24	6" (152mm)
	18" (457mm)	Prefix-36ST-18	9" (229mm)
	12" (305mm)	Prefix-36ST-12	12" (305mm)
	9" (229mm)	Prefix-36ST-09	13 <sup>1</sup> / <sub>2</sub> " (343mm)
	6" (152mm)	Prefix-36ST-06	15" (381mm)
<b>30"</b> (762mm)	24" (610mm)	Prefix-30ST-24	3" (76mm)
	18" (457mm)	Prefix-30ST-18	6" (152mm)
	12" (305mm)	Prefix-30ST-12	9" (229mm)
	9" (229mm)	Prefix-30ST-09	10 <sup>1</sup> / <sub>2</sub> " (267mm)
	6" (152mm)	Prefix-30ST-06	12" (304mm)
<b>24"</b> (610mm)	18" (457mm)	Prefix-24ST-18	3" (76mm)
	12" (305mm)	Prefix-24ST-12	6" (152mm)
	9" (229mm)	Prefix-24ST-09	7 <sup>1</sup> / <sub>2</sub> " (191mm)
	6" (152mm)	Prefix-24ST-06	9" (229mm)
<b>18"</b> (457mm)	12" (305mm)	Prefix-18ST-12	3" (76mm)
	9" (229mm)	Prefix-18ST-09	4 <sup>1</sup> / <sub>2</sub> " (114mm)
	6" (152mm)	Prefix-18ST-06	6" (152mm)
<b>12"</b> (305mm)	9" (229mm)	Prefix-12ST-09	1 <sup>1</sup> / <sub>2</sub> " (38mm)
	6" (152mm)	Prefix-12ST-06	3" (76mm)
<b>9"</b> (229mm)	6" (152mm)	Prefix-09ST-06	1 <sup>1</sup> / <sub>2</sub> " (38mm)

Example: 238-12ST-06

## PART NO. LH (LEFT HAND)



## PART NO. RH (RIGHT HAND)



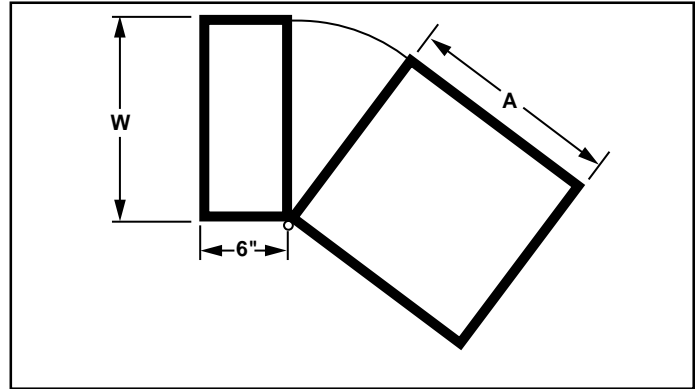
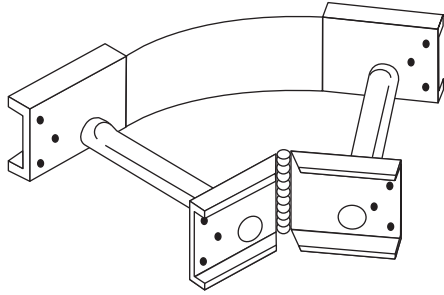
3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
4 - 1 <sup>1</sup> / <sub>4</sub> "	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

### ELSA Systems

Width - W	Cat. No.–Left Hand	Cat. No.–Right Hand	"A" Dim.	"B" Dim.	"W <sub>1</sub> " Dim.
<b>36"</b> (914mm)	Prefix-36LH-30	Prefix-36RH-30	6" (152mm)	15" (381mm)	30" (914mm)
	Prefix-36LH-24	Prefix-36RH-24	12" (305mm)	12" (305mm)	24" (610mm)
	Prefix-36LH-18	Prefix-36RH-18	18" (457mm)	9" (229mm)	18" (457mm)
	Prefix-36LH-12	Prefix-36RH-12	24" (610mm)	6" (152mm)	12" (305mm)
	Prefix-36LH-09	Prefix-36RH-09	27" (686mm)	4½" (114mm)	9" (229mm)
	Prefix-36LH-06	Prefix-36RH-06	30" (762mm)	3" (76mm)	6" (152mm)
<b>30"</b> (762mm)	Prefix-30LH-24	Prefix-30RH-24	6" (152mm)	12" (305mm)	24" (610mm)
	Prefix-30LH-18	Prefix-30RH-18	12" (305mm)	9" (229mm)	18" (457mm)
	Prefix-30LH-12	Prefix-30RH-12	18" (457mm)	6" (152mm)	12" (305mm)
	Prefix-30LH-09	Prefix-30RH-09	21" (533mm)	4½" (114mm)	9" (229mm)
	Prefix-30LH-06	Prefix-30RH-06	24" (610mm)	3" (76mm)	6" (152mm)
<b>24"</b> (610mm)	Prefix-24LH-18	Prefix-24RH-18	6" (152mm)	9" (229mm)	18" (457mm)
	Prefix-24LH-12	Prefix-24RH-12	12" (305mm)	6" (152mm)	12" (305mm)
	Prefix-24LH-09	Prefix-24RH-09	15" (381mm)	4½" (114mm)	9" (229mm)
	Prefix-24LH-06	Prefix-24RH-06	18" (457mm)	3" (76mm)	6" (152mm)
<b>18"</b> (457mm)	Prefix-18LH-12	Prefix-18RH-12	6" (152mm)	6" (152mm)	12" (305mm)
	Prefix-18LH-09	Prefix-18RH-09	9" (229mm)	4½" (114mm)	9" (229mm)
	Prefix-18LH-06	Prefix-18RH-06	12" (305mm)	3" (76mm)	6" (152mm)
<b>12"</b> (305mm)	Prefix-12LH-09	Prefix-12RH-09	3" (76mm)	4½" (114mm)	9" (229mm)
	Prefix-12LH-06	Prefix-12RH-06	6" (152mm)	3" (76mm)	6" (152mm)
<b>9"</b> (229mm)	Prefix-09LH-06	Prefix-09RH-06	3" (76mm)	3" (76mm)	6" (152mm)

Example: 238-12LH-06

PART NO. AF



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
4 - 1 <sup>1</sup> / <sub>4</sub> "	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

ELSA Systems

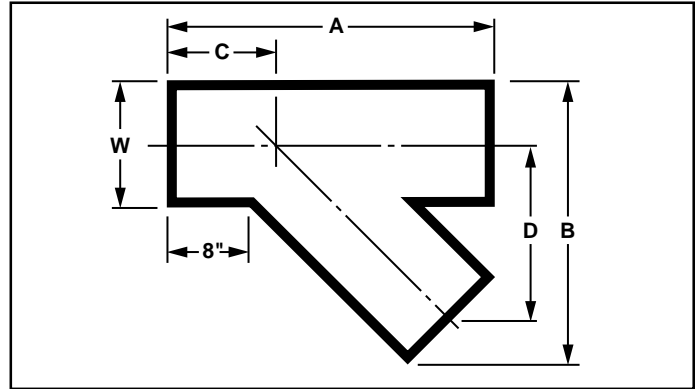
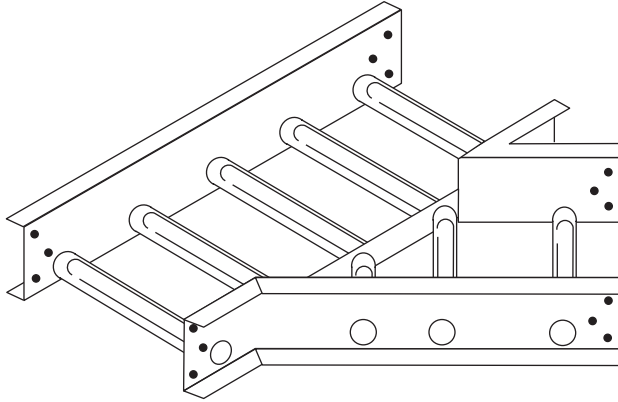
Cat. Number	Width - W		"A" Dimension	
Prefix- 06AF	6"	(152mm)	8"	(203mm)
Prefix- 09AF	9"	(229mm)	11"	(279mm)
Prefix- 12AF	12"	(305mm)	14"	(356mm)
Prefix- 18AF	18"	(457mm)	20"	(508mm)
Prefix- 24AF	24"	(610mm)	26"	(660mm)
Prefix- 30AF	30"	(762mm)	32"	(813mm)
Prefix- 36AF	36"	(914mm)	38"	(965mm)

Both rails at hinge break to be bonded if fitting is used as equipment grounding conductor.

Example: 238-12AF

PART NO. LY AND RY

(RY Shown)



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

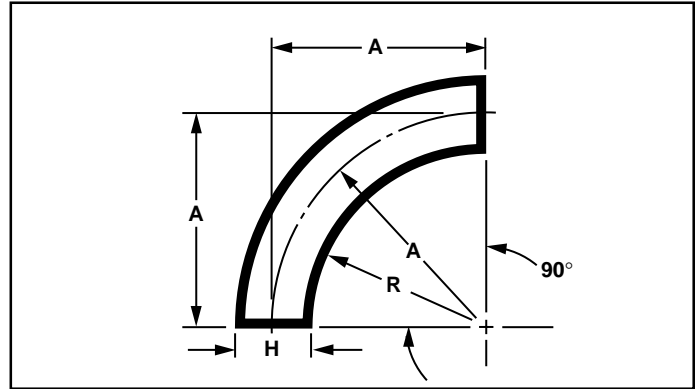
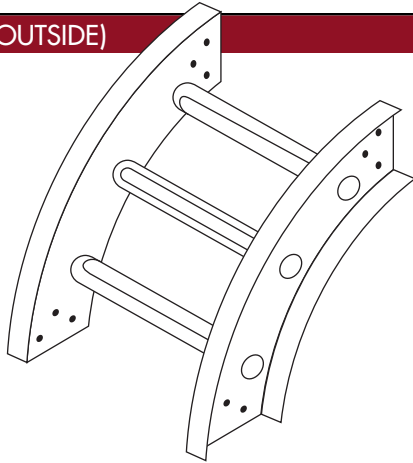
ELSA Systems

Cat. No.–Left Hand	Cat. No.–Right Hand	Width - W	"A" Dim.	"B" Dim.	"C" Dim.	"D" Dim.
Prefix- 06LY	Prefix- 06RY	6" (152mm)	22 <sup>1</sup> / <sub>2</sub> " (571mm)	16 <sup>1</sup> / <sub>4</sub> " (413mm)	9 <sup>1</sup> / <sub>4</sub> " (289mm)	11 <sup>1</sup> / <sub>8</sub> " (283mm)
Prefix- 09LY	Prefix- 09RY	9" (229mm)	26 <sup>3</sup> / <sub>4</sub> " (679mm)	21 <sup>3</sup> / <sub>8</sub> " (543mm)	9 <sup>13</sup> / <sub>16</sub> " (330mm)	13 <sup>3</sup> / <sub>4</sub> " (349mm)
Prefix- 12LY	Prefix- 12RY	12" (305mm)	31" (787mm)	26 <sup>1</sup> / <sub>2</sub> " (673mm)	10 <sup>1</sup> / <sub>2</sub> " (375mm)	16 <sup>1</sup> / <sub>4</sub> " (412mm)
Prefix- 18LY	Prefix- 18RY	18" (457mm)	39 <sup>1</sup> / <sub>2</sub> " (1003mm)	36 <sup>3</sup> / <sub>4</sub> " (933mm)	11 <sup>3</sup> / <sub>4</sub> " (460mm)	21 <sup>3</sup> / <sub>8</sub> " (543mm)
Prefix- 24LY	Prefix- 24RY	24" (610mm)	48" (1219mm)	47" (1193mm)	13" (546mm)	26 <sup>1</sup> / <sub>2</sub> " (673mm)
Prefix- 30LY	Prefix- 30RY	30" (762mm)	56 <sup>3</sup> / <sub>8</sub> " (1432mm)	57 <sup>1</sup> / <sub>4</sub> " (1454mm)	14 <sup>1</sup> / <sub>8</sub> " (629mm)	31 <sup>3</sup> / <sub>8</sub> " (803mm)
Prefix- 36LY	Prefix- 36RY	36" (914mm)	65" (1651mm)	67 <sup>1</sup> / <sub>2</sub> " (1714mm)	15 <sup>1</sup> / <sub>2</sub> " (718mm)	36 <sup>3</sup> / <sub>4</sub> " (933mm)

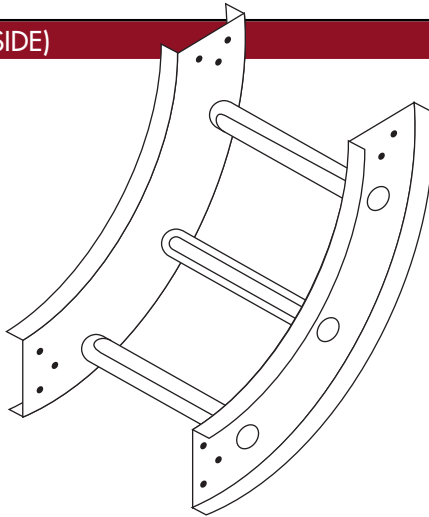
Example: 238-12RY

# ELSA LADDER

PART NO. 90 (OUTSIDE)



PART NO. 91 (INSIDE)



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sept – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

## ELSA Systems

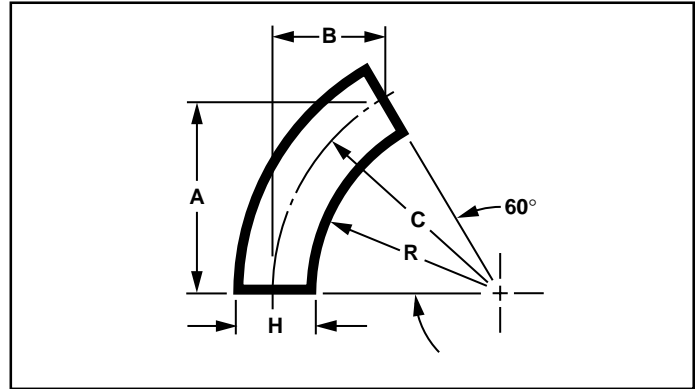
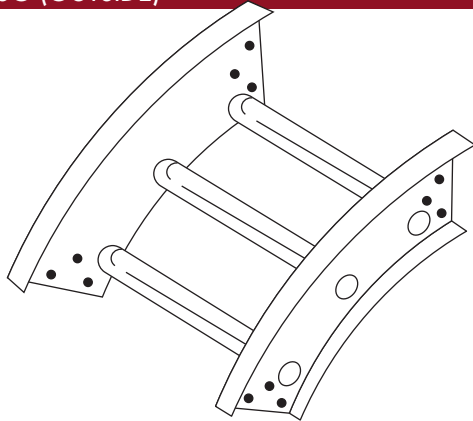
Radius - R	"H" Dim.	Cat. No. (Inside)	Cat. No. (Outside)	"A" Dim.
<b>12"</b> (305mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)91-12	Prefix- (W)90-12	14 <sup>1</sup> / <sub>8</sub> " (359mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)91-12	Prefix- (W)90-12	14 <sup>5</sup> / <sub>8</sub> " (372mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)91-12	Prefix- (W)90-12	15 <sup>1</sup> / <sub>8</sub> " (384mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)91-12	Prefix- (W)90-12	15 <sup>5</sup> / <sub>8</sub> " (397mm)
<b>24"</b> (610mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)91-24	Prefix- (W)90-24	26 <sup>1</sup> / <sub>8</sub> " (664mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)91-24	Prefix- (W)90-24	26 <sup>5</sup> / <sub>8</sub> " (676mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)91-24	Prefix- (W)90-24	27 <sup>1</sup> / <sub>8</sub> " (689mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)91-24	Prefix- (W)90-24	27 <sup>5</sup> / <sub>8</sub> " (702mm)
<b>36"</b> (914mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)91-36	Prefix- (W)90-36	38 <sup>1</sup> / <sub>8</sub> " (969mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)91-36	Prefix- (W)90-36	38 <sup>5</sup> / <sub>8</sub> " (981mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)91-36	Prefix- (W)90-36	39 <sup>1</sup> / <sub>8</sub> " (994mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)91-36	Prefix- (W)90-36	39 <sup>5</sup> / <sub>8</sub> " (1007mm)

Example: 238-1290-12

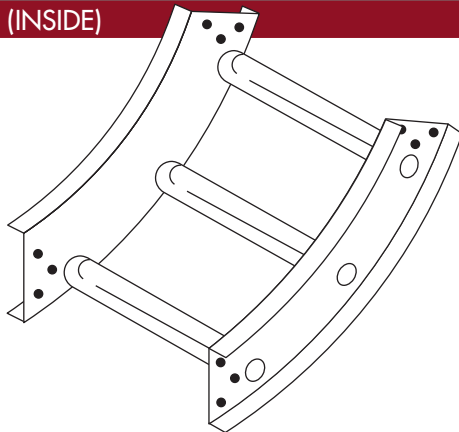
(W) = Width in inches, Use:

06 for 6" w    09 for 9" w    12 for 12" w    18 for 18" w    24 for 24" w    30 for 30" w    36 for 36" w

## PART NO. 60 (OUTSIDE)



## PART NO. 61 (INSIDE)



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

### ELSA Systems

Radius - R	"H" Dim.	Cat. No. (Inside )	Cat. No. (Outside)	"A" Dim.	"B" Dim.	"C" Dim.
<b>12"</b> (305mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)61-12	Prefix- (W)60-12	12 <sup>1</sup> / <sub>4</sub> " (311mm)	7 <sup>1</sup> / <sub>8</sub> " (181mm)	14 <sup>1</sup> / <sub>8</sub> " (359mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)61-12	Prefix- (W)60-12	12 <sup>3</sup> / <sub>8</sub> " (321mm)	7 <sup>3</sup> / <sub>8</sub> " (187mm)	14 <sup>5</sup> / <sub>8</sub> " (372mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)61-12	Prefix- (W)60-12	13 <sup>1</sup> / <sub>8</sub> " (334mm)	7 <sup>5</sup> / <sub>8</sub> " (194mm)	15 <sup>1</sup> / <sub>8</sub> " (384mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)61-12	Prefix- (W)60-12	13 <sup>1</sup> / <sub>2</sub> " (343mm)	7 <sup>7</sup> / <sub>8</sub> " (200mm)	15 <sup>3</sup> / <sub>8</sub> " (397mm)
<b>24"</b> (610mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)61-24	Prefix- (W)60-24	22 <sup>5</sup> / <sub>8</sub> " (575mm)	13 <sup>1</sup> / <sub>8</sub> " (334mm)	26 <sup>1</sup> / <sub>8</sub> " (664mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)61-24	Prefix- (W)60-24	23 <sup>1</sup> / <sub>8</sub> " (588mm)	13 <sup>3</sup> / <sub>8</sub> " (340mm)	26 <sup>5</sup> / <sub>8</sub> " (676mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)61-24	Prefix- (W)60-24	23 <sup>1</sup> / <sub>2</sub> " (597mm)	13" (330mm)	27 <sup>1</sup> / <sub>8</sub> " (689mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)61-24	Prefix- (W)60-24	24" (610mm)	1 <sup>7</sup> / <sub>8</sub> " (353mm)	27 <sup>3</sup> / <sub>8</sub> " (702mm)
<b>36"</b> (914mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)61-36	Prefix- (W)60-36	33" (838mm)	19 <sup>1</sup> / <sub>8</sub> " (486mm)	38 <sup>1</sup> / <sub>8</sub> " (969mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)61-36	Prefix- (W)60-36	33 <sup>1</sup> / <sub>2</sub> " (851mm)	19 <sup>3</sup> / <sub>8</sub> " (492mm)	38 <sup>5</sup> / <sub>8</sub> " (981mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)61-36	Prefix- (W)60-36	33 <sup>7</sup> / <sub>8</sub> " (861mm)	19 <sup>5</sup> / <sub>8</sub> " (499mm)	39 <sup>1</sup> / <sub>8</sub> " (994mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)61-38	Prefix- (W)60-36	34 <sup>3</sup> / <sub>8</sub> " (873mm)	19 <sup>7</sup> / <sub>8</sub> " (505mm)	39 <sup>3</sup> / <sub>8</sub> " (1007mm)

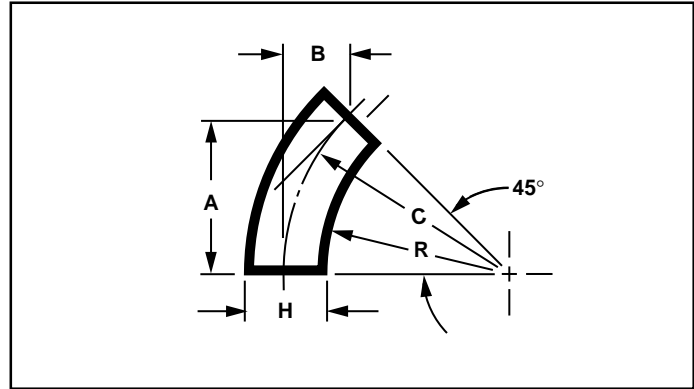
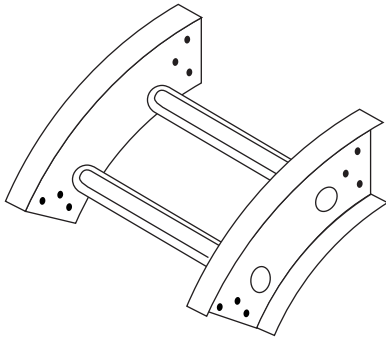
Example: 238-1260-12

(W) = Width in inches, Use:

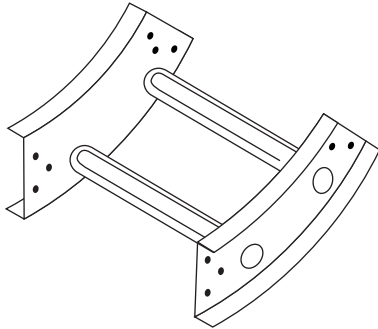
06 for 6" w    09 for 9" w    12 for 12" w    18 for 18" w    24 for 24" w    30 for 30" w    36 for 36" w

# ELSA LADDER

## PART NO. 4O (OUTSIDE)



## PART NO. 4I (INSIDE)



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sept – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

### ELSA Systems

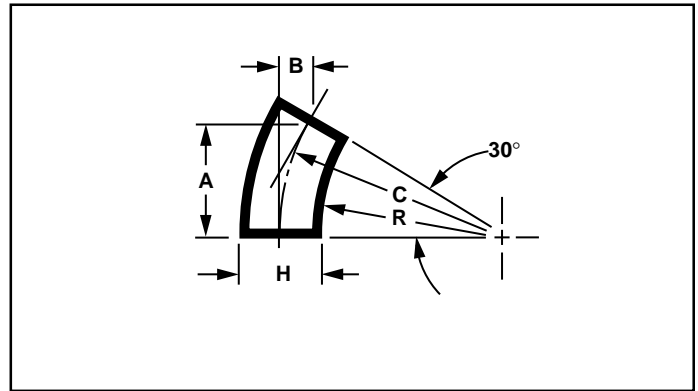
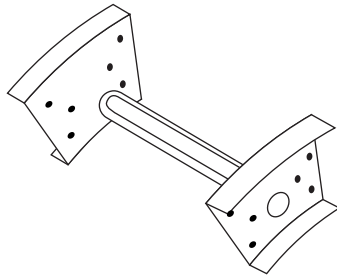
Radius - R	"H" Dim.	Cat. No. (Inside)	Cat. No. (Outside)	"A" Dim.	"B" Dim.	"C" Dim.
<b>12"</b> (305mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)4I-12	Prefix- (W)4O-12	10" (254mm)	4 <sup>1</sup> / <sub>8</sub> " (105mm)	14 <sup>1</sup> / <sub>8</sub> " (359mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)4I-12	Prefix- (W)4O-12	10 <sup>3</sup> / <sub>8</sub> " (264mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	14 <sup>5</sup> / <sub>8</sub> " (372mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)4I-12	Prefix- (W)4O-12	10 <sup>3</sup> / <sub>4</sub> " (273mm)	4 <sup>1</sup> / <sub>2</sub> " (114mm)	15 <sup>1</sup> / <sub>8</sub> " (384mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)4I-12	Prefix- (W)4O-12	11 <sup>1</sup> / <sub>8</sub> " (283mm)	4 <sup>5</sup> / <sub>8</sub> " (118mm)	15 <sup>1</sup> / <sub>8</sub> " (397mm)
<b>24"</b> (610mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)4I-24	Prefix- (W)4O-24	18 <sup>1</sup> / <sub>2</sub> " (470mm)	7 <sup>5</sup> / <sub>8</sub> " (194mm)	26 <sup>1</sup> / <sub>8</sub> " (664mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)4I-24	Prefix- (W)4O-24	18 <sup>7</sup> / <sub>8</sub> " (480mm)	7 <sup>7</sup> / <sub>8</sub> " (200mm)	26 <sup>5</sup> / <sub>8</sub> " (676mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)4I-24	Prefix- (W)4O-24	19 <sup>1</sup> / <sub>4</sub> " (489mm)	8" (203mm)	27 <sup>1</sup> / <sub>8</sub> " (689mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)4I-24	Prefix- (W)4O-24	19 <sup>1</sup> / <sub>2</sub> " (495mm)	8 <sup>7</sup> / <sub>8</sub> " (207mm)	27 <sup>5</sup> / <sub>8</sub> " (702mm)
<b>36"</b> (914mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)4I-36	Prefix- (W)4O-36	27" (686mm)	11 <sup>1</sup> / <sub>8</sub> " (283mm)	38 <sup>1</sup> / <sub>8</sub> " (969mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)4I-36	Prefix- (W)4O-36	27 <sup>3</sup> / <sub>8</sub> " (695mm)	11 <sup>3</sup> / <sub>8</sub> " (289mm)	38 <sup>5</sup> / <sub>8</sub> " (981mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)4I-36	Prefix- (W)4O-36	27 <sup>5</sup> / <sub>8</sub> " (702mm)	11 <sup>1</sup> / <sub>2</sub> " (292mm)	39 <sup>1</sup> / <sub>8</sub> " (994mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)4I-36	Prefix- (W)4O-36	8" (711mm)	11 <sup>5</sup> / <sub>8</sub> " (295mm)	39 <sup>5</sup> / <sub>8</sub> " (1007mm)

Example: 238-1240-12

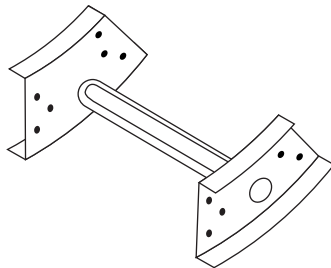
(W) = Width in inches, Use:

06 for 6" w    09 for 9" w    12 for 12" w    18 for 18" w    24 for 24" w    30 for 30" w    36 for 36" w

**PART NO. 30 (OUTSIDE)**



**PART NO. 31 (INSIDE)**



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> "	3	6 - Mill Galv.	.60	1.00	.40	.70
4 - 1 <sup>1</sup> / <sub>4</sub> "	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

**ELSA Systems**

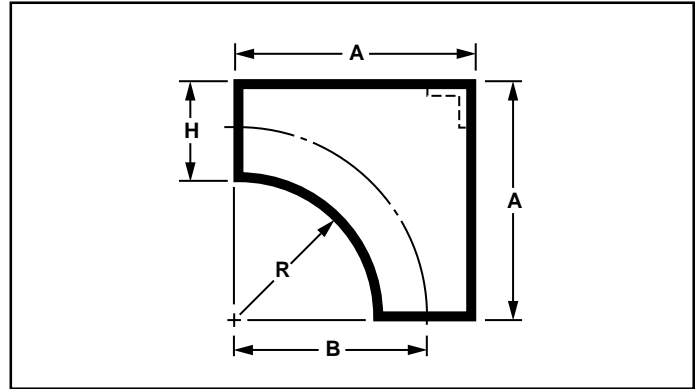
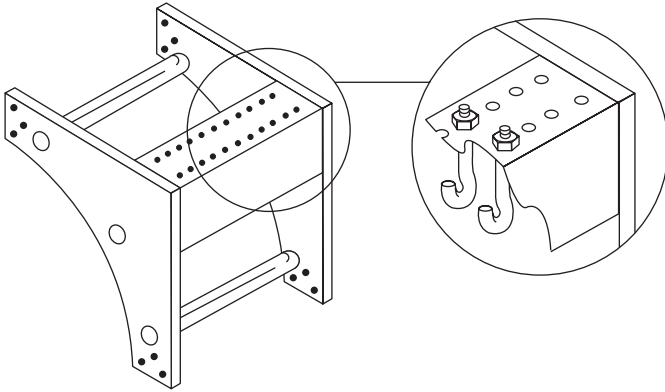
Radius - R	"H" Dim.	Cat. No. (Inside)	Cat. No. (Outside)	"A" Dim.	"B" Dim.	"C" Dim.
<b>12"</b> (305mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)31-12	Prefix- (W)30-12	7 <sup>1</sup> / <sub>8</sub> " (181mm)	1 <sup>7</sup> / <sub>8</sub> " (48mm)	14 <sup>1</sup> / <sub>8</sub> " (359mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)31-12	Prefix- (W)30-12	7 <sup>3</sup> / <sub>8</sub> " (187mm)	2" (51mm)	14 <sup>5</sup> / <sub>8</sub> " (372mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)31-12	Prefix- (W)30-12	7 <sup>5</sup> / <sub>8</sub> " (194mm)	2" (51mm)	15 <sup>1</sup> / <sub>8</sub> " (384mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)31-12	Prefix- (W)30-12	7 <sup>7</sup> / <sub>8</sub> " (200mm)	2 <sup>1</sup> / <sub>8</sub> " (54mm)	15 <sup>5</sup> / <sub>8</sub> " (397mm)
<b>24"</b> (610mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)31-24	Prefix- (W)30-24	13 <sup>1</sup> / <sub>8</sub> " (334mm)	3 <sup>1</sup> / <sub>2</sub> " (89mm)	26 <sup>1</sup> / <sub>8</sub> " (664mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)31-24	Prefix- (W)30-24	13 <sup>3</sup> / <sub>8</sub> " (340mm)	3 <sup>5</sup> / <sub>8</sub> " (92mm)	26 <sup>5</sup> / <sub>8</sub> " (676mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)31-24	Prefix- (W)30-24	13 <sup>5</sup> / <sub>8</sub> " (346mm)	3 <sup>5</sup> / <sub>8</sub> " (92mm)	27 <sup>1</sup> / <sub>8</sub> " (689mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)31-24	Prefix- (W)30-24	13 <sup>7</sup> / <sub>8</sub> " (353mm)	3 <sup>3</sup> / <sub>4</sub> " (95mm)	27 <sup>5</sup> / <sub>8</sub> " (702mm)
<b>36"</b> (914mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)31-36	Prefix- (W)30-36	19 <sup>1</sup> / <sub>8</sub> " (486mm)	5 <sup>1</sup> / <sub>8</sub> " (130mm)	38 <sup>1</sup> / <sub>8</sub> " (969mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)31-36	Prefix- (W)30-36	19 <sup>3</sup> / <sub>8</sub> " (492mm)	5 <sup>1</sup> / <sub>4</sub> " (133mm)	38 <sup>5</sup> / <sub>8</sub> " (981mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)31-36	Prefix- (W)30-36	19 <sup>5</sup> / <sub>8</sub> " (499mm)	5 <sup>1</sup> / <sub>4</sub> " (133mm)	39 <sup>1</sup> / <sub>8</sub> " (994mm)
	7 <sup>1</sup> / <sub>4</sub> " (184mm)	Prefix- (W)31-36	Prefix- (W)30-36	19 <sup>7</sup> / <sub>8</sub> " (505mm)	5 <sup>3</sup> / <sub>8</sub> " (137mm)	39 <sup>5</sup> / <sub>8</sub> " (1007mm)

Example: 238-1230-12

(W) = Width in inches, Use:

06 for 6" w    09 for 9" w    12 for 12" w    18 for 18" w    24 for 24" w    30 for 30" w    36 for 36" w

PART NO. SR



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "	1 <sup>3</sup> / <sub>16</sub> "	1 <sup>1</sup> / <sub>4</sub> "
2 - 1 <sup>3</sup> / <sub>16</sub> " 4 - 1 <sup>1</sup> / <sub>4</sub> "	3 4 5 6	6 - Mill Galv. 7 - HDGAF 8 - Alum. T - 304 SS	.60 .60 .60 .60	1.00 .60 1.00 1.00	.40 .40 .70 .70	.70 .70 .70 1.00

ELSA Systems

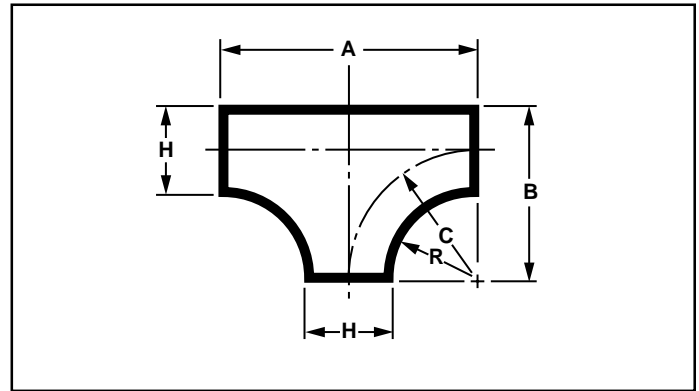
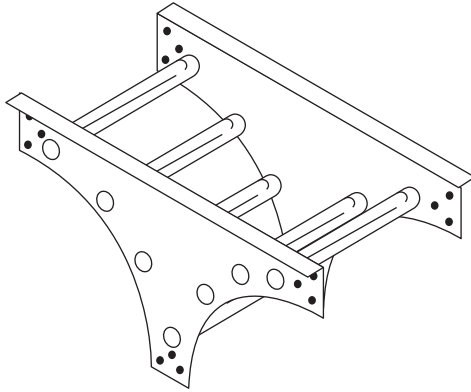
Radius - R	"H" Dim.	Catalog Number	"A" Dimension	"B" Dimension
<b>12"</b> (305mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)SR-12	16 <sup>1</sup> / <sub>4</sub> " (413mm)	14 <sup>1</sup> / <sub>8</sub> " (359mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)SR-12	17 <sup>1</sup> / <sub>4</sub> " (438mm)	14 <sup>5</sup> / <sub>8</sub> " (371mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)SR-12	18 <sup>1</sup> / <sub>4</sub> " (464mm)	15 <sup>1</sup> / <sub>8</sub> " (384mm)
	7 <sup>1</sup> / <sub>4</sub> " (814mm)	Prefix- (W)SR-12	19 <sup>1</sup> / <sub>4</sub> " (489mm)	15 <sup>5</sup> / <sub>8</sub> " (397mm)
<b>24"</b> (610mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)SR-24	28 <sup>1</sup> / <sub>4</sub> " (718mm)	26 <sup>1</sup> / <sub>8</sub> " (664mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)SR-24	29 <sup>1</sup> / <sub>4</sub> " (743mm)	26 <sup>5</sup> / <sub>8</sub> " (676mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)SR-24	30 <sup>1</sup> / <sub>4</sub> " (768mm)	27 <sup>1</sup> / <sub>8</sub> " (689mm)
	7 <sup>1</sup> / <sub>4</sub> " (814mm)	Prefix- (W)SR-24	31 <sup>1</sup> / <sub>4</sub> " (794mm)	27 <sup>5</sup> / <sub>8</sub> " (702mm)
<b>36"</b> (914mm)	4 <sup>1</sup> / <sub>4</sub> " (108mm)	Prefix- (W)SR-36	40 <sup>1</sup> / <sub>4</sub> " (1022mm)	38 <sup>1</sup> / <sub>8</sub> " (968mm)
	5 <sup>1</sup> / <sub>4</sub> " (133mm)	Prefix- (W)SR-36	41 <sup>1</sup> / <sub>4</sub> " (1048mm)	38 <sup>5</sup> / <sub>8</sub> " (981mm)
	6 <sup>1</sup> / <sub>4</sub> " (159mm)	Prefix- (W)SR-36	42 <sup>1</sup> / <sub>4</sub> " (1073mm)	39 <sup>1</sup> / <sub>8</sub> " (994mm)
	7 <sup>1</sup> / <sub>4</sub> " (814mm)	Prefix- (W)SR-36	43 <sup>1</sup> / <sub>4</sub> " (1099mm)	39 <sup>5</sup> / <sub>8</sub> " (1006mm)

Example: 238-12SR-12

(W) = Width in inches, Use:

06 for 6" w    09 for 9" w    12 for 12" w    18 for 18" w    24 for 24" w    30 for 30" w    36 for 36" w

PART NO. VT



3-Digit "Prefix" (see example below) Select one digit from each column			Min. X-Sect – 2 Rails for Load Depth NEC 318-7 (sq. in.)			
1 <sup>st</sup> Prefix Flange Width (in.)	2 <sup>nd</sup> Prefix Load Depth Depth (in.)	3 <sup>rd</sup> Prefix Material Finish	Alum		Steel	
			13/16"	1 1/4"	13/16"	1 1/4"
2 - 1 3/16" 4 - 1 1/4"	3	6 - Mill Galv.	.60	1.00	.40	.70
	4	7 - HDGAF	.60	.60	.40	.70
	5	8 - Alum.	.60	1.00	.70	.70
	6	T - 304 SS	.60	1.00	.70	1.00

ELSA Systems

Radius - R	"H" Dim.	Catalog Number	"A" Dimension	"B" Dimension	"C" Dimension
<b>12"</b> (305mm)	4 1/4" (108mm)	Prefix- (W)VT-12	28 1/4" (718mm)	16 1/4" (413mm)	14 1/8" (359mm)
	5 1/4" (133mm)	Prefix- (W)VT-12	29 1/4" (743mm)	17 1/4" (438mm)	14 5/8" (371mm)
	6 1/4" (159mm)	Prefix- (W)VT-12	30 1/4" (768mm)	18 1/4" (464mm)	15 1/8" (384mm)
	7 1/4" (184mm)	Prefix- (W)VT-12	31 1/4" (794mm)	19 1/4" (489mm)	15 5/8" (397mm)
<b>24"</b> (610mm)	4 1/4" (108mm)	Prefix- (W)VT-24	52 1/4" (1327mm)	28 1/4" (718mm)	26 1/8" (664mm)
	5 1/4" (133mm)	Prefix- (W)VT-24	53 1/4" (1353mm)	29 1/4" (743mm)	26 5/8" (676mm)
	6 1/4" (159mm)	Prefix- (W)VT-24	54 1/4" (1378mm)	30 1/4" (768mm)	27 1/8" (689mm)
	7 1/4" (184mm)	Prefix- (W)VT-24	55 1/4" (1403mm)	31 1/4" (794mm)	27 5/8" (702mm)
<b>36"</b> (914mm)	4 1/4" (108mm)	Prefix- (W)VT-36	76 1/4" (1937mm)	40 1/4" (1022mm)	38 1/8" (968mm)
	5 1/4" (133mm)	Prefix- (W)VT-36	77 1/4" (1962mm)	41 1/4" (1048mm)	38 5/8" (981mm)
	6 1/4" (159mm)	Prefix- (W)VT-36	78 1/4" (1988mm)	42 1/4" (1073mm)	39 1/8" (994mm)
	7 1/4" (184mm)	Prefix- (W)VT-36	79 1/4" (2013mm)	43 1/4" (1099mm)	39 5/8" (1006mm)

Example: 238-12VT-12

(W) = Width in inches, Use:

06 for 6" w    09 for 9" w    12 for 12" w    18 for 18" w    24 for 24" w    30 for 30" w    36 for 36" w

## TRAY CONNECTORS –

Catalog Number & Finishes

### Catalog Number

Load Depth	Finish	Basic Number
3"	6 (Mill Galv.)	-02RC
4"	7 (HDGAF)	-02CE
5"	8 (Alum.)	-02CV
6"	T (304SS)	-02CH -02CA

Example: 38 -02RC for 3" load depth, aluminum, universal curvilinear connector.

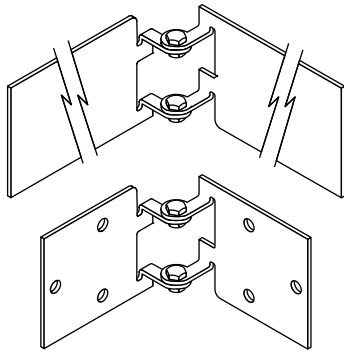
Part Nos. CE, CH, and CV to be bonded if used as equipment grounding conductor.

**NOTE:** Hole patterns match corresponding tray.  
Three-hole pattern illustrated.

Heavy duty, mid span splice plates available upon request.

## HORIZONTAL ADJUSTABLE CONNECTOR

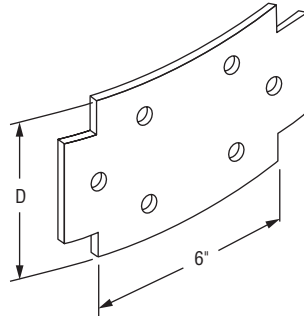
Part No. CH (Sold in pairs—inner & outer)



11 Gage Steel, 0.125" Aluminum  
3/8"-16 spline bolts & flange nuts furnished.

## UNIVERSAL CURVILINEAR CONNECTOR

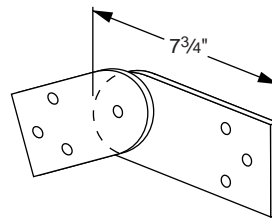
Part No. RC (Sold in pairs)



11 Gage Steel, 0.125" Aluminum  
3/8"-16 spline bolts & flange nuts furnished.

## VERTICAL ADJUSTABLE CONNECTORS

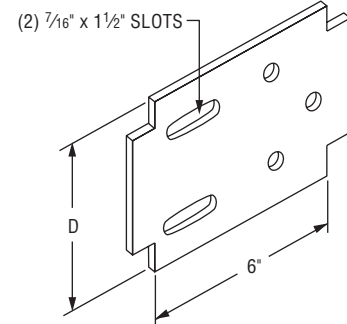
Part No. CV (Sold in pairs)



11 Gage Steel, 0.125" Aluminum  
3/8"-16 spline bolts & flange nuts furnished.

## EXPANSION CONNECTOR

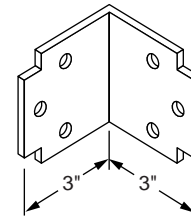
Part No. CE (Sold in pairs)



11 Gage Steel, 0.125" Aluminum  
3/8"-16 cap screws & Nylok nuts furnished and  
3/8"-16 spline bolts & flange nuts furnished.

## 90° ANGLE CONNECTOR

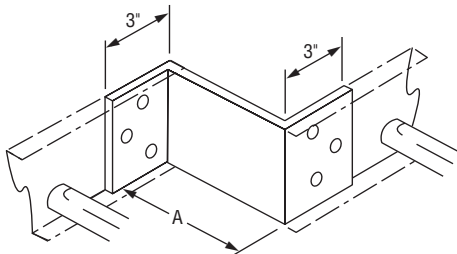
Part No. CA (Sold in pairs)



11 Gage Steel, 0.125" Aluminum  
3/8"-16 spline bolts and flange nuts furnished.

## REDUCING CONNECTOR

Part No. CO (Not sold in pairs)



12 Gage Steel, 0.125" Aluminum  
For offset reductions—use 1 of above with standard connector plate.  
For straight reductions—use 2 (of 1/2 reduction dimension).  
3/8"-16 spline bolts and flange nuts furnished.

### Catalog Number

Load Depth	Finish	Basic Number	"A" Dimension
3"	6 (Mill Galv.)	-30CO	30" (762mm)
4"	7 (HDGAF)	-27CO	27" (686mm)
5"	8 (Alum.)	-24CO	24" (610mm)
6"	T (304SS)	-21CO	21" (533mm)
		-18CO	18" (457mm)
		-15CO	15" (381mm)
		-13CO	13 1/2" (343mm)
		-12CO	12" (305mm)
		-10CO	10 1/2" (267mm)
		-09CO	9" (229mm)
		-07CO	7 1/2" (191mm)
		-06CO	6" (152mm)
		-04CO	4 1/2" (114mm)
		-03CO	3" (76mm)
		-01CO	1 1/2" (38mm)

Example: 38-03CO for 3" load depth, aluminum, 3" Reducer Connector.  
Typical Use: 9" to 6", or use 2 for 12" to 6", etc.

## MATERIAL/FINISH

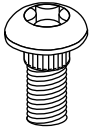
Electrogalvanized finish standard. Other finishes available; consult factory. \*Use following suffix when applicable - use only where indicated.

- No Suffix** ..... Electrogalvanized carbon steel only
- HG** ..... Hot-dip Galvanized (Except Threaded Rod)
- SS** ..... 302/304 Stainless Steel
- S1** ..... 316 Stainless Steel (check factory for availability)

Example: 5112-2-HG, 3/8" x 1 1/2" hex head bolt, hot-dip galvanized

## CONNECTOR HARDWARE

(Case-hardened steel electrogalvanized)



**Part No. 5003-1**  
3/8"-16 x 1" spline bolt

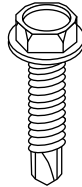


**Part No. 5009-1**  
3/8"-16 hex-flanged nut with serrated washer face.

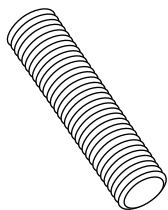
## COVER SCREW

Part No. EM-CC (electro galv. steel)  
Part No. EM-CC-SS (stainless steel)

No. 10 x 5/8" long, self drilling-self tapping  
hex head plated steel screw.  
Suggested spacing:  
Indoor: 8 per 12';  
Outdoor: 10 per 12'



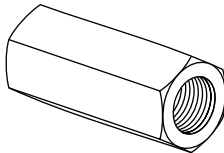
## CONTINUOUS THREADED ROD



Cat. No.	Size (Diameter x Length)
8193-0-10*	1/4" x 10'
8193-1-10*	3/8" x 10'
8193-2-10*	1/2" x 10'
8193-3-10*	5/8" x 10'
8193-4-10*	3/4" x 10'

(Hot Dip Galvanized not available)

## ROD COUPLER



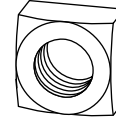
Cat. No.	Size
8195-0*	1/4"
8195-1*	3/8"
8195-2*	1/2"
8195-3*	5/8"
8195-4*	3/4"

## HEX NUTS



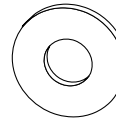
Cat. No.	Size
5001-0*	1/4"
5001-1*	3/8"
5001-2*	1/2"
5001-3*	5/8"
5001-4*	3/4"

## SQUARE NUTS



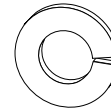
Cat. No.	Size
5002-0*	1/4"
5002-1*	3/8"
5002-2*	1/2"
5002-3*	5/8"
5002-4*	3/4"

## FLAT WASHERS



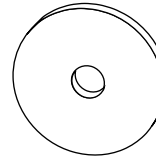
Cat. No.	Size
5006-0*	1/4"
5006-1*	3/8"
5006-2*	1/2"
5006-3*	5/8"
5006-4*	3/4"

## SPLIT-LOCK WASHERS



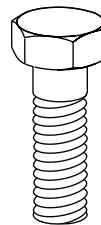
Cat. No.	Size
5007-0*	1/4"
5007-1*	3/8"
5007-2*	1/2"
5007-3*	5/8"
5007-4*	3/4"

## FENDER WASHERS

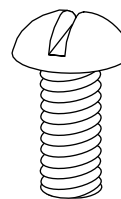


Cat. No.	Size (I.D. x O.D.)
5010-0*	1/4" x 1 1/4" O.D.
5010-1*	3/8" x 1 1/2" O.D.
5010-2*	1/2" x 2" O.D.

## HEX HEAD CAP SCREW / ROUND HEAD, SLOTTED CAP SCREW



Catalog No.  
5100-0

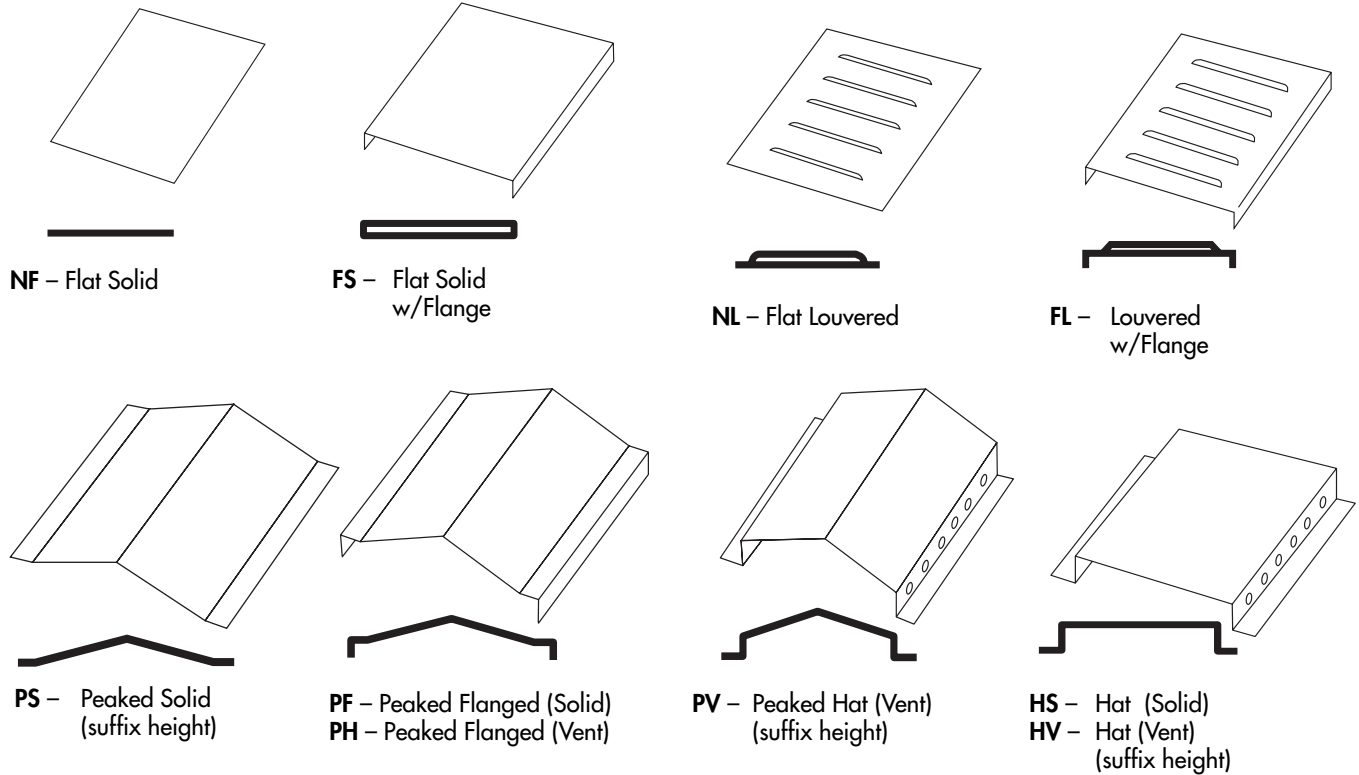


Catalog No.  
6100-0

Hex Head Cap Screw Cat. No.	Round Head Cap Screw Cat. No.	Size (Dia. x Len.)
5100-0*	6100-0*	1/4" x 1"
5112-0*	6112-0*	1/4" x 1 1/2"
5100-1*	6100-1*	3/8" x 1"
5112-1*	6112-1*	3/8" x 1 1/2"
5200-1*	6200-1*	3/8" x 3"
5100-2*	6100-2*	1/2" x 1"
5112-2*	6112-2*	1/2" x 1 1/2"
5200-2*	6200-2*	1/2" x 2"
5212-2*	6212-2*	1/2" x 2 1/2"
5300-2*	6300-2*	1/2" x 3"
5312-2*	6312-2*	1/2" x 3 1/2"
5112-3*	6112-3*	5/8" x 1 1/2"
5200-3*	6200-3*	5/8" x 2"
5300-3*	6300-3*	5/8" x 3"
5400-3*	6400-3*	5/8" x 4"
5200-4*	6200-4*	3/4" x 2"
5300-4*	6300-4*	3/4" x 3"
5400-4*	6400-4*	3/4" x 4"

**NOTE:** Standard finish is electrogalvanized. Refer to finishes above for specifications of alternate finish or material.

**COVERS** for straight sections shown. Standard fitting covers are flat solid type (NF). Aluminum covers are fabricated from 0.040" aluminum AA-3150-H14; steel covers are fabricated from 20 gage ASTM A-653-G90 CQ, mill-galvanized steel.



**Cover Catalog Number – Straight Sections**

Type	Flange	Finish	Basic No. (Width)	Length	Height*
HS, HV,	2 - 1 3/16"	6 - Mill Galv.	-06SL = 6" (152mm)	-12'	-2"
FL, FS,	4 - 1 1/4"	7 - HDGAF	-09SL = 9" (229mm)	-06'	
NF, NL,	5 - 1 1/2"	8 - Alum.	-12SL = 12" (305mm)		
PS, PF,	6 - 1 3/4"	T - 304SS	-18SL = 18" (457mm)		
PH, PV	7 - 2"		-24SL = 24" (610mm)		
			-30SL = 30" (762mm)		
			-36SL = 36" (914mm)		

\*peak and hat only, 2" height standard. Consult factory for other heights.

Example: NL46-09SL-12 is a flat louvered mill-galv. steel cover for a 9" wide mill galvanized ladder 12' long with a 1 1/4" flange.

**Cover Catalog Number – Fittings**

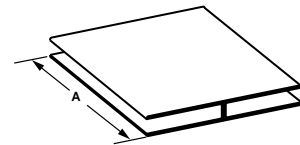
Type	Flange	Load Depth	Finish	Width/Basic No.	Radius
NF	2 - 1 3/16"	3	6 - Mill Galv.	-06 XX**	12"
FS	4 - 1 1/4"	4	7 - HDGAF	-09 XX**	24"
		5	8 - Alum.	-12 XX**	36"
		6	T - 304SS	-18 XX**	
				-24 XX**	
				-30 XX**	
				-36 XX**	

\*Load depth for outside riser or vertical tee only.

\*\*XX from fitting selection pages

EXAMPLE: NF26-369F-24 is a mill galvanized non-flanged solid cover for a 36" wide horizontal 90° elbow with a 24" radius.

**JOINT PLATE**



Joint plate is black PVC and is offered in 10' lengths to be field cut to desired length, or in precut lengths for specified covers.

JP-120 is joint plate in 10' lengths.

Joint plate for specified covers is specified as follows.

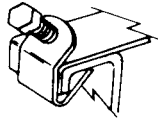
**Tray Width**

JP-06 = 6"	(152mm)
JP-09 = 9"	(229mm)
JP-12 = 12"	(305mm)
JP-18 = 18"	(457mm)
JP-24 = 24"	(610mm)
JP-30 = 30"	(762mm)
JP-36 = 36"	(914mm)

Example: JP-06 is a joint plate for 6" wide tray.

## COVER CLIP

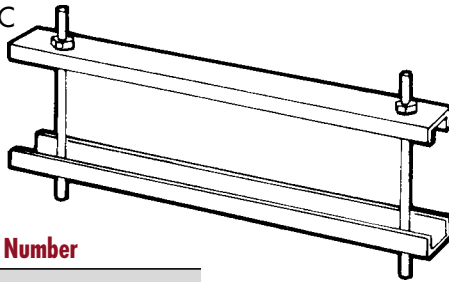
Part No. CCS-SS (Stainless Steel)



1/4" - 28 stainless steel cone point machine screw.  
Use with any width tray and cover. Not sold in pairs.  
Indoor use only. Suggest spacing 6' max.

## DOUBLE CLAMP CONNECTOR

Part No. - (W) DC



### Catalog Number

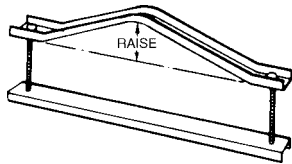
Flange	Load Depth	Finish	Width	Type
2 - 1 3/16"	3	6 - Mill Galv.	-06	DC
4 - 1 1/4"	4	7 - HDGAF	-09	
5 - 1 1/2"	5	8 - Alum.	-12	
6 - 1 3/4"	6	T - 304SS	-18	
7 - 2"			-24	
			-30	
			-36	

Example: 238-12DC for 3" load depth, 1 3/16" flange, aluminum, Double Clamp Connector

For all covers except hat & peak type. Furnished with:  
(2) 1/4"-20 all-thread rods  
(4) hex nuts, flat washers and lock washers  
Suggested spacing:  
Indoor: 2 per 12'  
Outdoor: 3 per 12'  
High Wind: 5 per 12'

## PEAK COVER CONNECTOR

Part No. PC (For PS Cover)



### Catalog Number

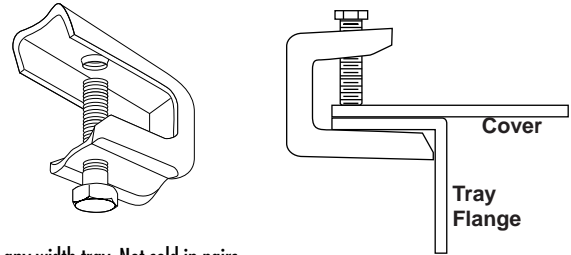
Flange	Load Depth	Finish	Width	Type	Raise (in)*
2 - 1 3/16"	3	6 - Mill Galv.	-06	PC	-2
4 - 1 1/4"	4	7 - HDGAF	-09		
5 - 1 1/2"	5	8 - Alum.	-12		
6 - 1 3/4"	6	T - 304SS	-18		
7 - 2"			-24		
			-30		
			-36		

\*2" standard raise. Consult factory for other peak heights.

Example: 238-12PC-2 for 3" load depth, 1 3/16" flange, aluminum, 12" wide, Peak Cover Connector with 2" peak.

## COVER CLIP -

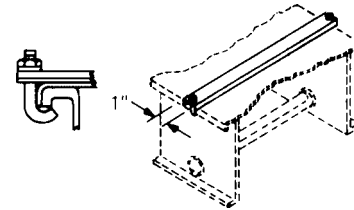
Part No. CCS (Electro-Galv. Steel)



Use with any width tray. Not sold in pairs.  
Indoor use only. Suggest spacing 6' max.

## COVER CONNECTOR

Part No. CC (For all covers except hat & peak type)



### Catalog Number

Flange	Finish	Width	Type
2 - 1 3/16"	6 - Mill Galv.	-06	CC
4 - 1 1/4"	7 - HDGAF	-09	
5 - 1 1/2"	8 - Alum.	-12	
6 - 1 3/4"	T - 304SS	-18	
7 - 2"		-24	
		-30	
		-36	

Example: 28-12CC for aluminum, 12" wide Cover Connector

## ELEVATED COVER CONNECTORS

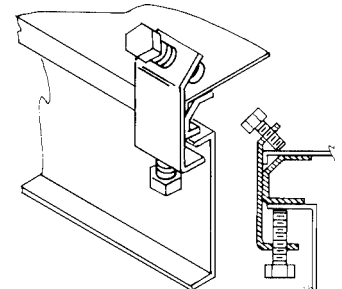
Part No. EC (For FS, NF, FL, NL covers)

HDGAF for Outdoor Use  
Includes:

(2) 1/4" - 20" x 1" hex head cap screws.

Suggested spacing

Indoor: 3/Side (6 total) per 12';  
Outdoor: 5/Side (10 total) per 12'



### Catalog Number

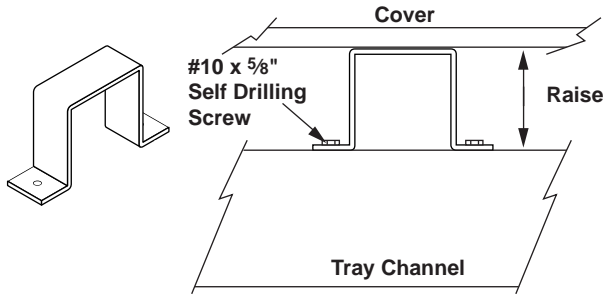
Flange	Finish	Type	Height*
2 - 1 3/16"	6 - Mill Galv.	EC	- Raise* (in.)
4 - 1 1/4"	7 - HDGAF		
5 - 1 1/2"	8 - Alum.		
6 - 1 3/4"	T - 304SS		
7 - 2"			

\*1", 2" or 3" standard.

Example: 28-EC-2 for 1 3/16" flange, aluminum, outdoor, Elevated Cover Connector with a 2" raise

## ELEVATED COVER CONNECTORS

Part No. EM-CC



HDGAF for Outdoor Use

Includes:  
(3) #10 x 5/8 Self drilling screws.

Suggested spacing:  
Indoor: 3/Side (6 tot.) per 12';  
Outdoor: 5/Side (10 tot.) per 12'

### Catalog Number

Finish	Type	Height*
6 - Mill Galv.	EM-CC	- Raise* (in.)
7 - HDGAF		
8 - Alum.		
T - 304SS		

\*1", 2" or 3" standard.

Example: 7-EM-CC-2 for hot dipped galvanized, outdoor, Elevated Cover Connector with a 2" raise

## BLIND END

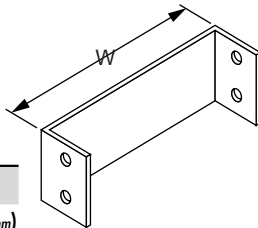
Part No. BE

22 Gage Steel, .040" Aluminum

NOTE: 3/8"-16 spline bolts and flange nuts furnished.

### Catalog Number

Load Depth	Finish	Width
3	6(Mill Galv.)	-06BE = 6" (152mm)
4	7 (HDGAF)	-09BE = 9" (229mm)
5	8 (Alum.)	-12BE = 12" (305mm)
6	T (304SS)	-18BE = 18" (457mm)
		-24BE = 24" (610mm)
		-30BE = 30" (762mm)
		-36BE = 36" (914mm)

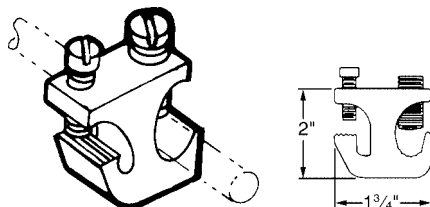


Example: 38-12BE for 3" load depth, aluminum, 12" wide Blind End.

## CABLE TRAY GROUND CLAMP

Part No. 9156

Extruded Alum. with Electrogalvanized Hex Head Screws  
Capacity: #6 AWG to 250 kcmil



## DROP OUT - PART NO. DO

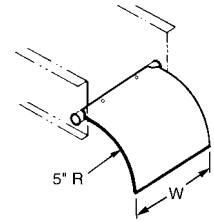
14 Gage Steel, .080" Aluminum

NOTE: (2) #10 x 5/8" self tapping screws furnished.

### Catalog Number

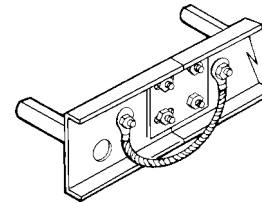
Basic Finish	Width
6 (Mill Galv.)	-06DO = 6" (152mm)
7 (HDGAF)	-09DO = 9" (229mm)
8 (Alum.)	-12DO = 12" (305mm)
T (304SS)	-18DO = 18" (457mm)
	-24DO = 24" (610mm)
	-30DO = 30" (762mm)
	-36DO = 36" (914mm)

Example: 8-12DO for aluminum, 12" wide, Drop Out.



## BONDING JUMPER

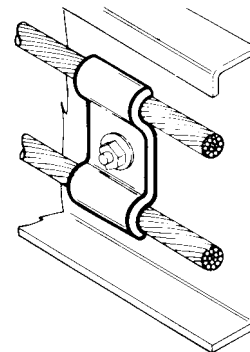
Part No. CBJ



Catalog No.	Dimensional Data	Amperes as Equipment Ground
CBJ-C	AWG 1/0 copper wire 15 1/2" long overall	800 amperes
CBJ-4C	AWG 4/0 copper wire 15 1/2" long overall	1,600 amperes

NOTE: No hardware supplied

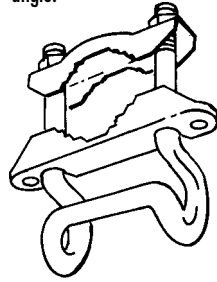
## GROUND CABLE RETAINER CLAMP



Catalog No.	Capacity	Metal & Finish	Dimensions
9056-EP	1/0 2/0 3/0	Electro-Galv. Steel	1" w x 2" long
9057-EP	4/0 250 MCM		1" w x 2 3/8" long
9056-SS	1/0 2/0 3/0	Stainless Steel	1" w x 2" long
9057-SS	4/0 250 MCM		1" w x 2 3/8" long

## CONDUIT-TO-CABLE TRAY CLAMP

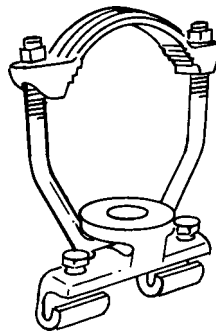
For connecting and grounding rigid conduit to tray at 90° angle.



Catalog No.	Size	Std. Pkg.
TB6210	1/2" - 3/4"	50
TB6212	1" - 1 1/4"	20

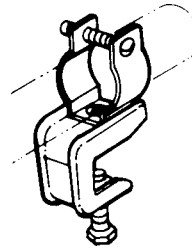
## CONDUIT-TO-CABLE TRAY CLAMP- SWIVEL TYPE

Malleable iron hub and steel "U" bolt. For connecting and grounding rigid conduit to tray at any angle within 90° arc.



Catalog No.	Size	Std. Pkg.
TB6209	1/2"-3/4"	10
TB6211	1"-1 1/4"	10
TB6214	1 1/2"-2"	5
TB6216	2 1/2"-3"	5
TB6218	3 1/2"-4"	2

## CONDUIT CLAMP BRACKET



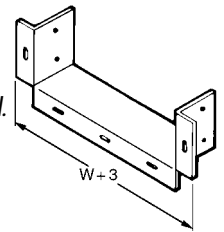
Catalog No.	Size-Rigid	Size-EMT
CCB-050	3/8" to 1/2"	1/2"
CCB-075	3/4"	3/4"
CCB-100	1"	1"
CCB-125	-	1 1/4"
CCB-150	1 1/4"	1 1/2"
CCB-175	1 1/2"	-
CCB-200	2"	2"

## BOX CONNECTOR

Part No. CB

14 Gage Steel  
.080" Aluminum

**NOTE:** 1/4"-20 carriage bolts, flat washers, hex nuts furnished.



### Catalog Number

Load Depth	Finish	Width
3	6 (Mill Galv.)	-06CB = 6" (152mm)
4	7 (HDGAF)	-09CB = 9" (229mm)
5	8 (Alum.)	-12CB = 12" (305mm)
6	T (304SS)	-18CB = 18" (457mm)
		-24CB = 24" (610mm)
		-30CB = 30" (762mm)
		-36CB = 36" (914mm)

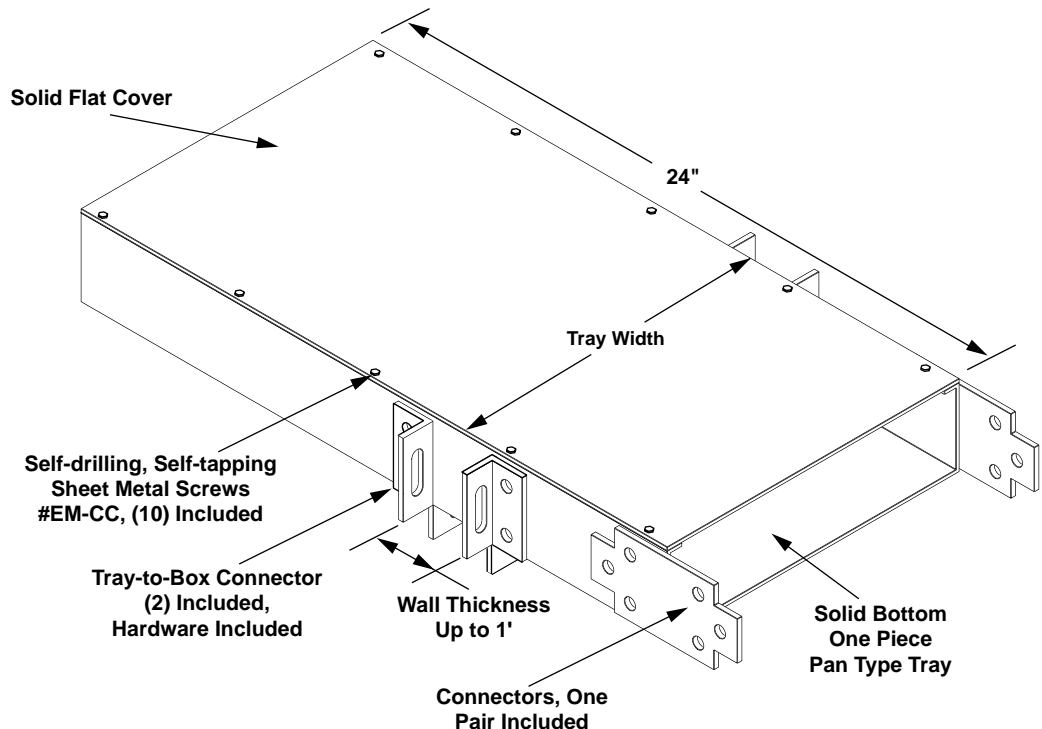
Example: 38-12CB for 3" load depth, aluminum, 12" wide, Box Connector.

## WALL PENETRATING SLEEVE ASSEMBLY

Part No. SS-890-42-(W)-\*

W = Tray Width

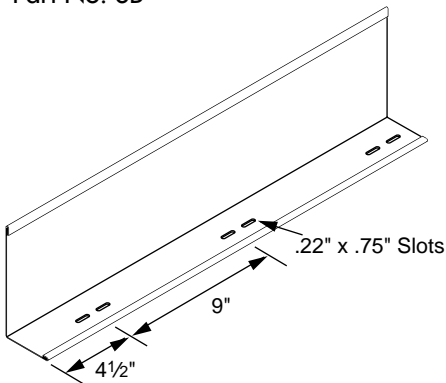
\*=Fitting 3-Digit Prefix



**NOTE:** Standard penetration sleeves are manufactured from mill galvanized steel. Aluminum sleeves are available upon request.

**BARRIER STRIP—STRAIGHT SECTION**

Part No. SB


**Catalog Number**

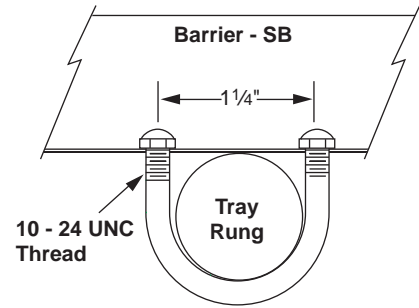
Load Depth	Finish	Basic No. 12' Length
3	6 (Mill Galv.)	-01SB-12
4	7 (HDGAF)	
5	8 (Alum.)	
6	T (304 SS)	

Example: 38-01SB-12 for 3" load depth, aluminum straight barrier, 12' long.

Furnished with 4 barrier strip clamps and necessary hardware.

**BARRIER STRIP CLAMP**

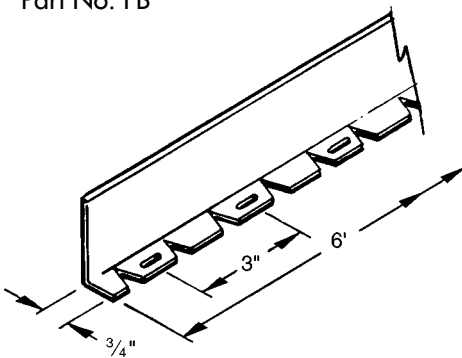
Part No. SB-HDW

 Includes: 1 U-Bolt 707981504  
 2 Acorn Nuts 707671500


10 - 24 UNC Thread

**BARRIER STRIP—HORIZONTAL FITTING**

Part No. FB


**Catalog Number**

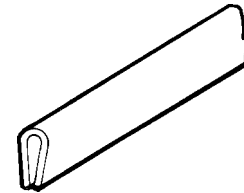
Load Depth	Finish	Basic No. 6' Length
3	6 (Mill Galv.)	-01FB-06
4	7 (HDGAF)	
5	8 (Alum.)	
6	T (304 SS)	

Example: 38-01FB-06 for 3" load depth, aluminum fitting barrier, 6' long.

Furnished with 4 barrier strip clamps and necessary hardware.

**NYLON BARRIER SPLICE & PROTECTOR**

Part No. BSP-L

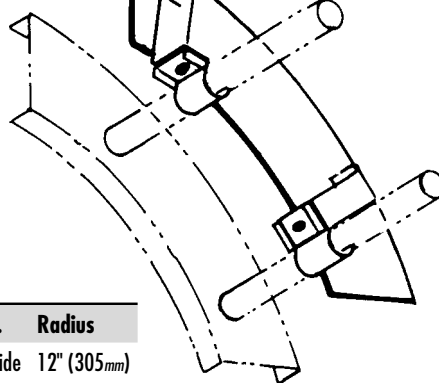
 Length: Splice -5"  
 Protector -144"

**BARRIER STRIP VERTICAL ELBOW — OUTSIDE & INSIDE**

Part No. OB, IB

(OB Vert. Elbow outside shown)

Furnished with sufficient clamp assemblies for installation. Additional clamp assemblies may be ordered separately.

Barrier Strip Clamp Ass'y (Fitting System No.)-50735 Mill-Galv. &amp; Alum. only


**Catalog Number**

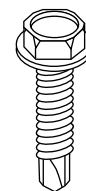
Load Depth	Finish	Bend (deg.)	Basic No.	Radius
3	6 (Mill Galv.)	90	OB = Outside	12" (305mm)
4	7 (HDGAF)	60	IB = Inside	24" (610mm)
5	8 (Alum.)	45		36" (914mm)
6	T (304 SS)	30		

Example: 38-90OB-12 for 3" load depth, aluminum 90° outside vertical barrier with 12" radius.

**COVER SCREW**

Part No. EM-CC (electro galv. steel)

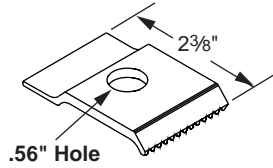
Part No. EM-CC-SS (stainless steel)



No. 10 x 5/8" long, self drilling-self tapping hex head plated steel screw.

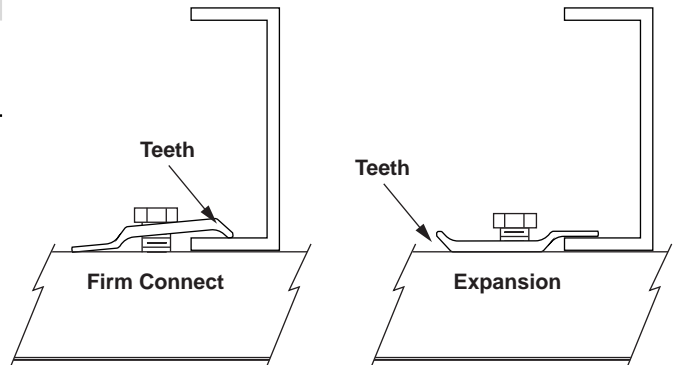
 Suggested spacing:  
 Indoor: 8 per 12';  
 Outdoor: 10 per 12'

COMBINATION HOLD-DOWN CLAMP & EXPANSION GUIDE



Catalog No.	Material
9131	Cast Zinc
9131-DC	Dichromate Plated Zinc

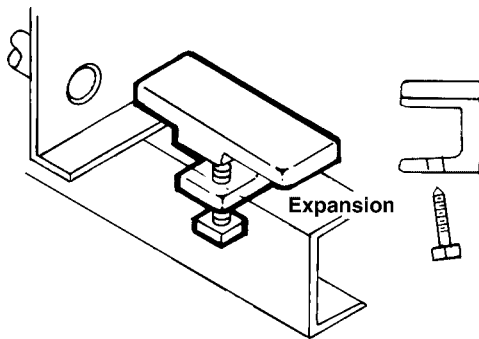
Hardware purchased separately to suit support system.



Catalog No. 9131-HDW (Complete Hardware Kit)  
Hardware list:  
(2) Combination hold-down clamp & expansion guide  
(2) 1/2" - 13 x 1 1/2" Cap Screw  
(2) 1/2" Flat Washer  
(2) Clamping Nut (Strut Nut)

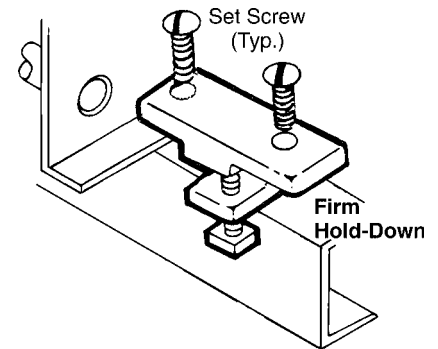
EXPANSION GUIDE

Part No. 9052



FIRM HOLD-DOWN CLAMP

Part No 9053

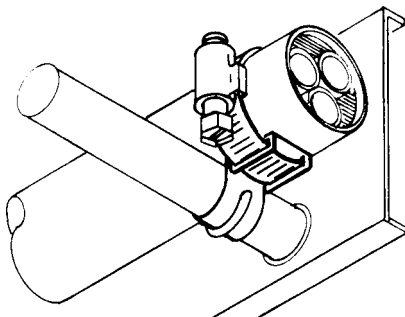


Type	Catalog No.	Finish
Expansion	6-9052	Elec. Galv.
	8-9052	Cast Alum.
Firm Hold-Down	6-9053	Elec. Galv.
	8-9053	Cast Alum.

Note: Electroplated set screws included

Universal Guide: for either side of ladder. Use when tray is mounted on I-beams or channels. No drilling required.

CABLE CLAMP



Stainless Steel – Part No. SCC

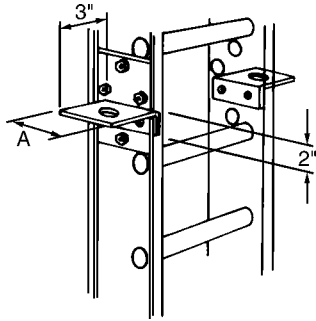
Catalog No.	Clamp Min.	Dia. (in.) Max.
SCC-150	3/4	1 1/2
SCC-250	1 5/8	2 1/2
SCC-400	2 1/2	4
SCC-450	2 5/8	4 1/2
SCC-600	4 1/4	6

Galvanized Steel – Part No. GCC

Catalog No.	Clamp Min.	Dia. (in.) Max.
GCC-300	1	3 1/2
GCC-400	1	4 1/2
GCC-450	1	5
GCC-650	1	7
GCC-850	1	9
GCC-100	1	10 1/2
GCC-115	1	12
GCC-135	1	14

# ELSA LADDER

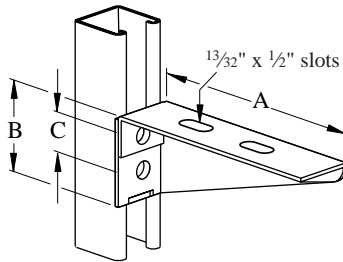
## VERTICAL SUPPORTS



Catalog No.	For Use With
9043-37	4 1/4" Overall Height Side Members
9043	5 1/4" Overall Height Side Members
9025-98	6 1/4" & 7 1/4" Overall Height Side Members

Ladder Supports can be bolted anywhere along the straight runs. They can be bolted directly onto the coupler plates at splices of straight runs and riser fittings, or they can be bolted at any place in the run by field-drilling side rails. Ladder supports are used with either 3/8" or 1/2" hanger rods. Finish is electrogalvanized.

## GUSSET-TYPE SUPPORTS

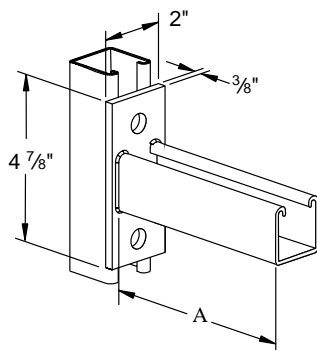


For use with all types of Elsa Ladder and Trough systems. Finish is mill-galvanized. Order hardware separately.

Catalog No.	Ladder Width	Dimension			End-Load Rating*
		A	B	C	
9702-06	-	6 1/2"	4 1/2"	3"	450 lbs.
9702-09	-	9 1/2"	4 1/2"	3"	375 lbs.
9702-12	6"	12 1/2"	4 1/2"	3"	300 lbs.
9702-15	9"	15 1/2"	4 1/2"	3"	260 lbs.
9702-18	12"	18 1/2"	6"	4 1/2"	225 lbs.
9702-24	18"	24 1/2"	6"	4 1/2"	200 lbs.
9702-30	24"	30 1/2"	6"	4 1/2"	175 lbs.

\* Uniform load rating is normally twice the end load rating.

## CHANNEL-TYPE SUPPORTS



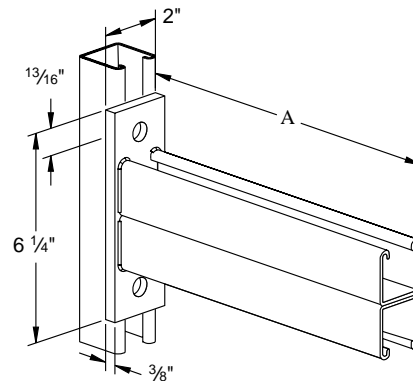
For use with all types of Elsa Ladder and Trough systems. Finish is mill-galvanized. Order hardware separately.

### Standard Duty for Lighter Loads.

Catalog No.	Ladder Width	Dimension A	End-Load Rating*
9720-12	6"	12"	350 lbs.
9720-15	9"	15"	275 lbs.
9720-18	12"	18"	230 lbs.
9720-24	18"	24"	175 lbs.

\* Uniform load rating is normally twice the end load rating.

## CHANNEL-TYPE SUPPORTS



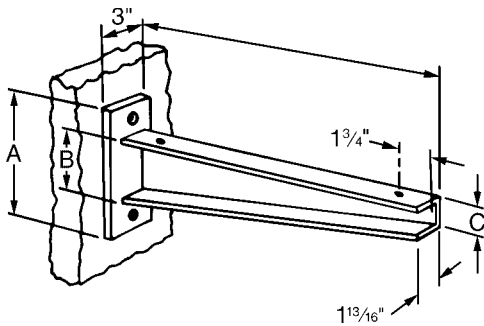
For use with all types of Elsa Ladder and Trough systems. Finish is mill-galvanized. Order hardware separately.

### Heavy Duty for Heavier Loads

Catalog No.	Ladder Width	Dimension A	End-Load Rating*
9721-24	18"	24"	480 lbs.
9721-30	24"	30"	385 lbs.
9721-36	30"	36"	320 lbs.
9721-42	36"	42"	305 lbs.

\* Uniform load rating is normally twice the end load rating.

## WALL SUPPORT BRACKETS



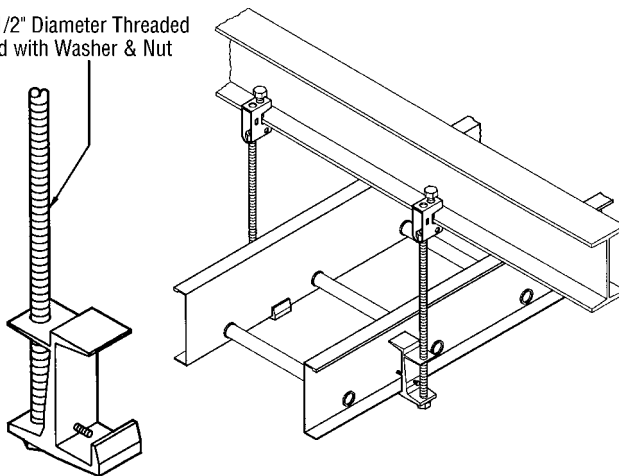
Catalog Number	Ladder Width	Length "L"	Dimensions			End-Load Rating*
			"A"	"B"	"C"	
9037-12	6"	12 1/4"	10"	6"	2"	2000 lbs.
9037-18	12"	18 1/4"	11"	7"	2 1/2"	2000 lbs.
9037-24	18"	24 1/4"	11"	7"	2 1/2"	1600 lbs.
9037-30	24"	30 1/4"	12"	8"	4"	1300 lbs.
9037-36	30"	36 1/4"	12"	8"	4"	1100 lbs.
9037-42	36"	42 1/4"	12"	8"	4"	900 lbs.

\*Uniform load rating is normally twice the end-load rating.  
Finish is hot-dip galvanized after fabrication.  
Order hardware separately.

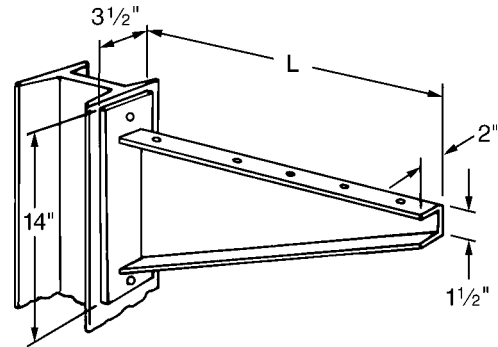
## TRAY HANGER

Part No. 7-HGR1 (Steel),  
Part No. 8-HGR1 (Aluminum)  
(Sold Individually)

Use 1/2" Diameter Threaded Rod with Washer & Nut



## STRUCTURAL SUPPORT BRACKET



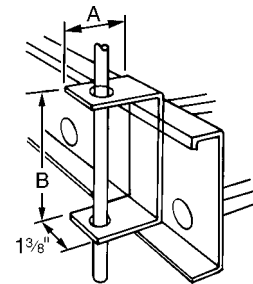
Catalog Number	Ladder Width	Length "L"	End-Load Rating*
9036-31	24"	31 1/4"	2000 lbs.
9036-37	30"	37 1/4"	1800 lbs.
9036-45	36"	45 1/4"	1500 lbs.

\*Uniform load rating is normally twice the end-load rating.  
For use with Elsa Ladder 24" or wider. May be welded or bolted to building steel.  
Finish is hot-dip galvanized after fabrication.  
Order hardware separately.

## SINGLE LADDER HANGERS

Elsa Ladder Hangers are sized according to the side rail height and flange dimensions of various Elsa ladders. The 1 7/32" holes accommodate either 3/8" or 1/2" diameter threaded rod.

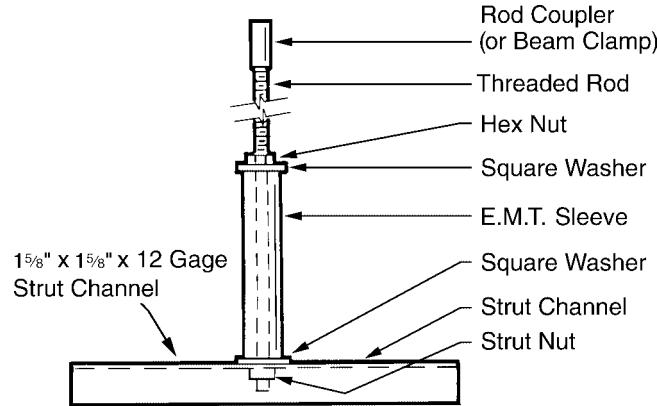
Order hardware separately.  
Finish is Mill-Galv., HDGAF, or Aluminum.



Catalog No.

Basic No.	Finish			Side Rail	"A" Dim. "B" Dim.	
	M.G.	H.D.G.	Alum.		"A" Dim.	"B" Dim.
9038-	236	237	238	4 1/4 x 1 3/16	2"	4 5/16
9038-	246	247	248	5 1/4 x 1 3/16	2"	5 5/16
9038-	256	257	258	6 1/4 x 1 3/16	2"	6 5/16
9038-	266	267	268	7 1/4 x 1 3/16	2"	7 5/16
9038-	436	437	438	4 1/4 x 1 1/4	2 1/16"	4 5/16
9038-	446	447	448	5 1/4 x 1 1/4	2 1/16"	5 5/16
9038-	456	457	458	6 1/4 x 1 1/4	2 1/16"	6 5/16
9038-	466	467	468	7 1/4 x 1 1/4	2 1/16"	7 5/16

## SINGLE ROD HANGER SUPPORT



### Catalog Number

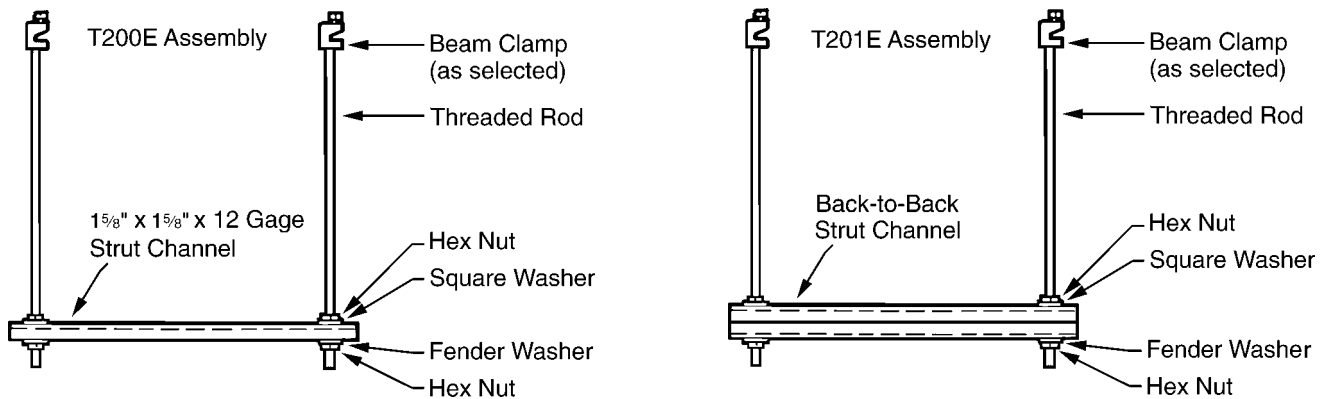
Assy. Type	Channel Length*	Channel Finish**	Rod Diameter	Rod Length	Beam Clamp
P200	14" (356mm)	GV (Pre-Galv)	38=3/8" (9.53mm)	000 - No Rod	A - Bridgeport
	17" (432mm)	HG (Hot Dipped Galv)	12=1/2" (12.7mm)	036 - 36" (914mm)	B - P2622
	20" (508mm)			072 - 72" (1828mm)	O - No Clamp
	26" (661mm)			120 - 120" (3048mm)	R - Rod Coupler
	32" (813mm)			144 - 144" (3658mm)	S - Special
	38" (966mm)				
	44" (1118mm)				

Example: P200-20-GV-12-036-B is a Single 20" pre-galvanized channel with 1/2" x 36" drop rod and P2622 clamp.

Note: \*Order channel length 8" longer than tray width. For example, 44" channel for 36" tray.

\*\* Other channel types and finishes available upon request. Contact factory.

## TRAPEZE HANGER SUPPORT



### Catalog Number

Assy. Type	Channel Length*	Channel Finish**	Rod Diameter	Rod Length	Beam Clamp
T200E	16" (407mm)	GV (Pre-Galv)	38=3/8" (9.53mm)	000 - No Rod	A - Bridgeport
T201E	19" (483mm)	HG (Hot Dipped Galv)	12=1/2" (12.7mm)	036 - 36" (914mm)	B - P2622
	22" (559mm)			072 - 72" (1828mm)	O - No Clamp
	28" (712mm)			120 - 120" (3048mm)	R - Rod Coupler
	34" (864mm)			144 - 144" (3658mm)	S - Special
	40" (1017mm)				
	46" (1169mm)				

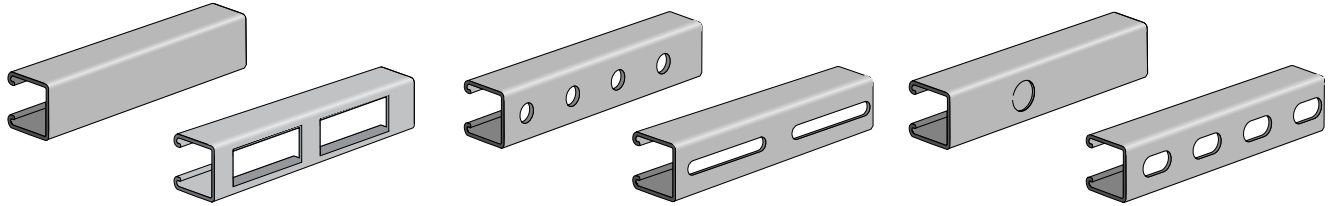
Example: T200E-22-GV-12-036-B is a Single 22" pre-galvanized channel with 1/2" x 36" drop rod and P2622 clamp.

Note: \*Order channel length 10" longer than tray width. For example, 46" channel for 36" tray.

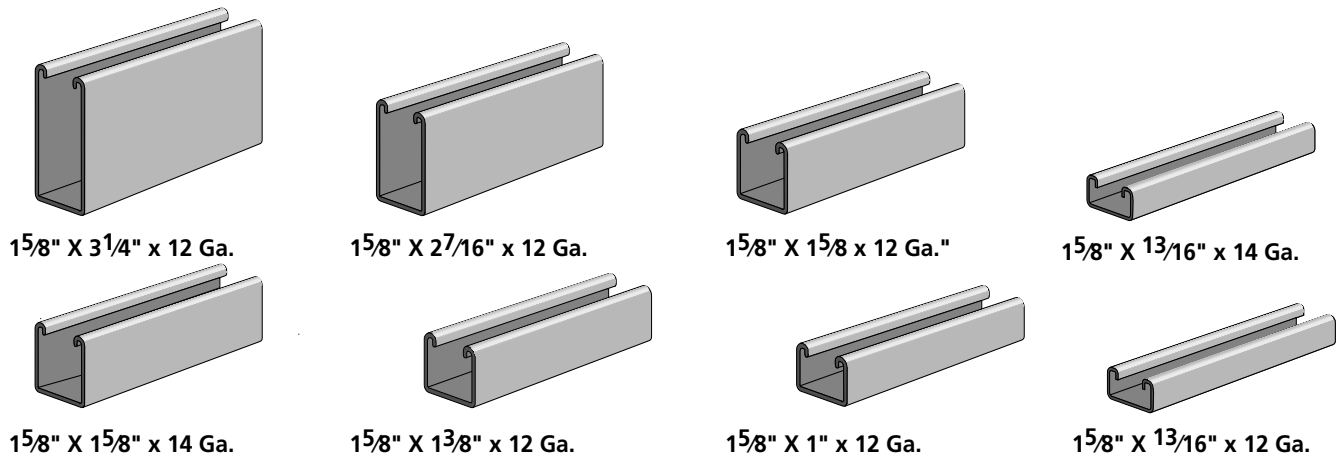
\*\* Other channel types and finishes available upon request. Contact factory.

Allied Support Systems offers a complete line of metal framing channel and components. A sample is shown below. Please contact factory for more information.

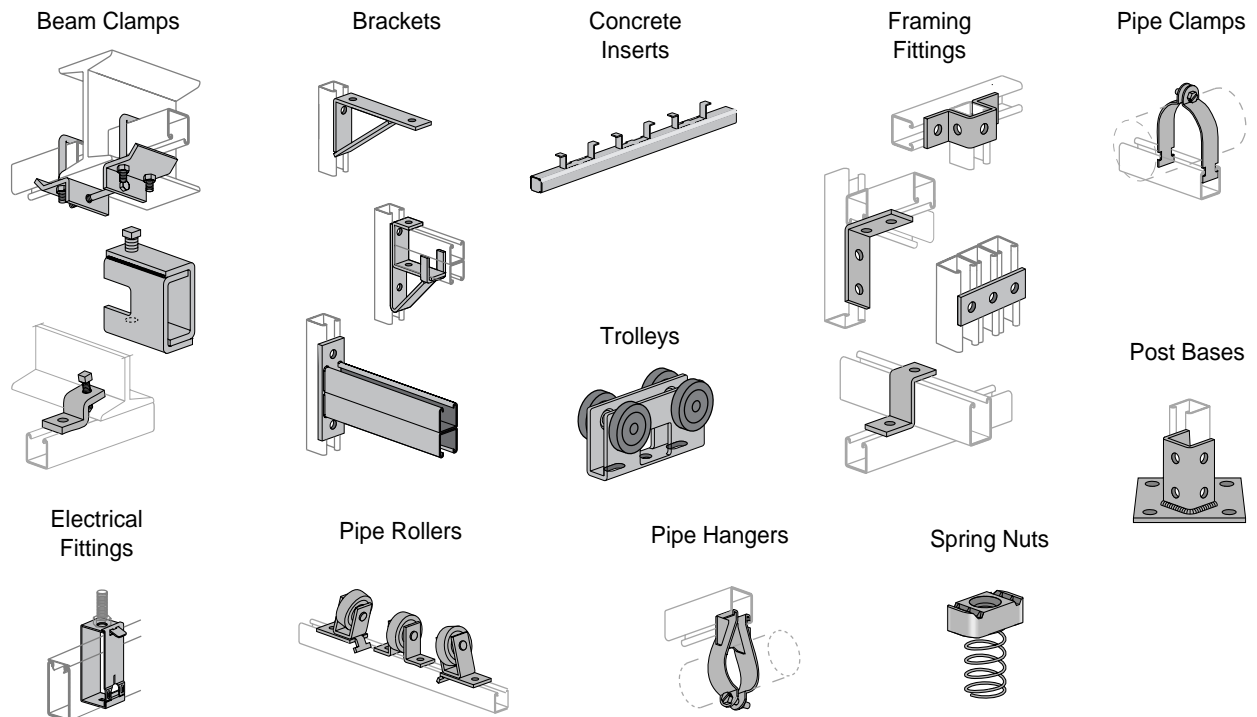
CHANNEL STYLES



CHANNEL SIZES



METAL FRAMING FITTINGS AND ACCESSORIES



# ELSA LADDER

Elsa cable rollers are easily mounted and removed and are applicable for small control cables as well as the largest armored cables. All bearing wheels turn independently with a minimum of friction. The freely running wheels are smooth surfaced and closely spaced to prevent cable damage.

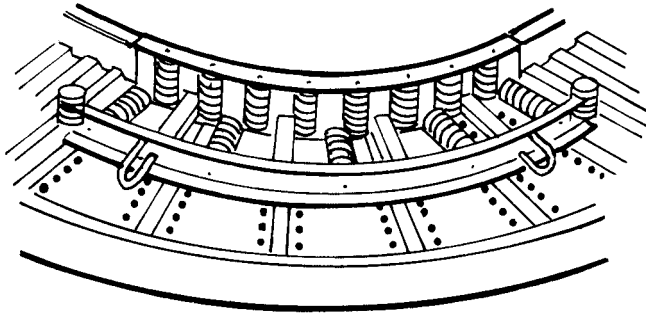
Cable roller assemblies consist of painted steel frame and zinc plated wheels. Two "J" bolts and mounting hardware are supplied with straight and radius rollers.

## 90° ROLLER, 24" RADIUS

Part No. 9R-0024

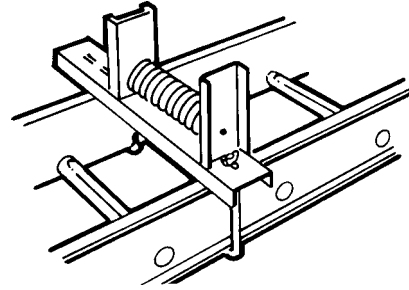
## 90° ROLLER, 36" RADIUS

Part No. 9R-0036



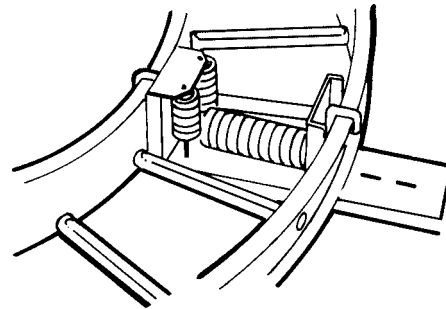
90° rollers are available in two sizes - 24" and 36" radius. Horizontal and vertical ball bearing rollers assure easy pull and control on 90° turns at all points of contact. Elsa 90° rollers can be top or inside mounted on any manufacturer's tray or ladder. Handles the heaviest cable with ease.

## STRAIGHT ROLLER (TOP MOUNTED)



Catalog Number	Tray Width
IR-1218	12 to 18" tray
IR-1824	18 to 24" tray
IR-2430	24 to 30" tray
IR-3036	30 to 36" tray

## RADIUS ROLLER (BOTTOM MOUNTED)



Catalog Number	Tray Width
RR-1218	12 to 18" tray
RR-1824	18 to 24" tray
RR-2430	24 to 30" tray
RR-3036	30 to 36" tray

Note: Width of roller segment is constant. Length of bottom mounting channel changes to fit tray width listed.

**ALUMINUM**

<b>SYSTEM NUMBER</b>	<b>FITTING PREFIX</b>
1B38	238
1B48	248
3B58	258
1B68	268
3B38	238
5B38	238
3B48	248
5B58	258
5B68	268
7448	448
1D58	458
1E68	468
3D38	438
5D38	438
3D48	448
3658	458
5E38	438
5D48	448
7D58	458
9D58	458
7G58	458
5D58	458
5D68	468

**MILL GALV.**

<b>SYSTEM NUMBER</b>	<b>FITTING PREFIX</b>
8236	236
8246	246
8256	256
8266	266
8B36	236
8B66	266
8B46	246
6256	256
8D36	436
8D46	446
8D56	456
8466	466
6D36	436
4D36	436
6446	446
6456	456
8D66	466
6466	466
4D46	446
6D56	456
6D66	466
4D56	456
4466	466
4B36	236
6B46	246
4B46	246
2D36	436
2D46	446
2D56	456
11D56	456

**HDGAF**

<b>SYSTEM NUMBER</b>	<b>FITTING PREFIX</b>
8237	237
8247	247
8257	257
8267	267
8B37	237
8B67	267
8B47	247
6257	257
8D37	437
8D47	447
8D57	457
8467	467
6D37	437
4D37	437
6447	447
6457	457
8D67	467
6467	467
4D47	447
6D57	457
6D67	467
4D57	457
4467	467
4B37	237
6B47	247
4B47	247
2D37	437
2D47	447
2D57	457
11D57	457

By specifying the NEMA class designation, you will use the simplest, clearest, and most complete method of specification available and automatically incorporate support span in feet, working (allowable) load in pounds per linear foot, a safety factor of 1.5, a concentrated load if present; and, all other design, manufacturing and test standards including electrical continuity.

All you need to do is add the desired load depth, rung spacing, radius of fittings, metal and finish. You may add accessory information pursuant to your project. Here is a typical specification for an outdoor tray system where the working (allowable) load has been determined to be approximately 75 pounds per foot on support spans of 12'.

### **SPECIFICATION ALUMINUM ELSA LADDER SYSTEM**

Cable Ladder shall be manufactured by a company regularly engaged in the manufacture of metal cable trays and shall be a member of NEMA. Trays shall conform to NEMA Metal Cable Tray Standard Publication VE-1 (latest issue).

1. Cable ladder shall be NEMA Classification 12B of the widths indicated.
2. Material shall be aluminum alloy with side rails and rungs of 6063.
3. Finish shall be natural.
4. Inside load depth to be NEMA Standard 3".
5. Fittings shall be 12" radius for control cables and 24" radius for power cables. (This must be commensurate with the cable manufacturers' recommended minimum bending radius.)
6. All top level trays in stacks, and single runs to have raised peaked, aluminum ventilated covers with heavy duty hold down clamps every 3'-0".
7. Install expansion connectors, expansion guides, and hold down clamps per NEMA Standard VE-1.
8. Where slopes or horizontal bends of trays are not at the Standard NEMA angles, use adjustable connectors. If the angle is too great for cable bending radius, use combinations of fitting and adjustable connectors.
9. Separate all cables of different volt ages in the same tray using the manufacturer's standard barriers and barrier hold down system.
10. The Cable Ladder system will be used as an equipment grounding conductor.
11. To save space fittings shall have no tangents. To facilitate field installation use one pair of universal type connector plates for rigid joints.
12. Cable Ladder shall have outward facing side rails with tubular rungs assembled into side rails by cold swaging. Cable support surface on top of rungs to be flattened. Inside of tray shall not have flanges or other projections. Full access to the contents of the Cable Ladder shall be available.
13. Trays shall be Elsa Cable Ladder System Number 3B38 as manufactured by ELSA