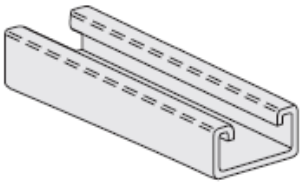
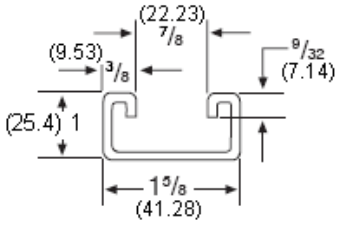
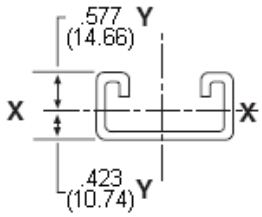
CHANNEL

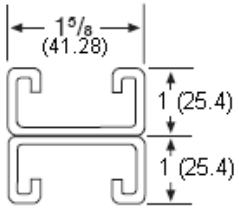
1401 - 1442

1⅝" X 1" X 12 Gauge





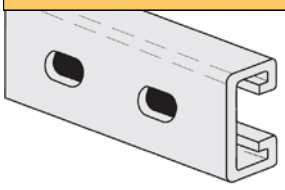


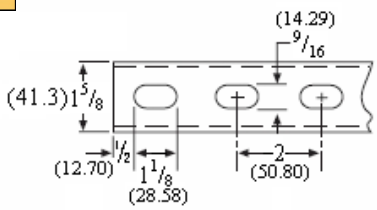


ORDERING:
Specify Figure No., finish and number of feet.

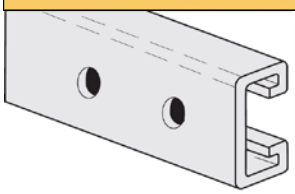
Fig. Number				Type - Description	Weight		Bundle Qty.			
10ft.	3.05m	20ft.	6.10m		lbs./ft.	kg/m	10ft.	3.05m	20ft.	6.10m
1401		1402		No Openings	1.38	(2.05)	500	(152.4)	1000	(304.8)
1401A		1402A		Welded Back to Back	2.88	(4.29)	500	(152.4)	400	(121.92)
1411		1412		With 1⅛" X 9/16" (28.58 X 14.29) slots on 2" (50.8) centers	1.34	(1.99)	500	(152.4)	1000	(304.8)
1411A		1412A		Welded Back to Back	2.72	(4.05)	500	(152.4)	400	(121.92)
1421		1422		With 9/16" (14.29) dia. holes on 1⅞" (47.63) centers	1.39	(2.07)	500	(152.4)	1000	(304.8)
1421A		1422A		Welded Back to Back	2.78	(4.14)	500	(152.4)	400	(121.92)
1431		1432		With 3" (76.20) slots	1.31	(1.95)	500	(152.4)	1000	(304.8)
1441		1442		With ⅞" (22.23) Knockouts on 6" (152.40) centers	1.38	(2.05)	500	(152.4)	1000	(304.8)

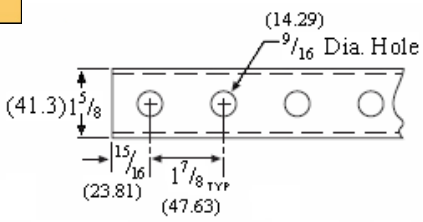
1411 - 1412



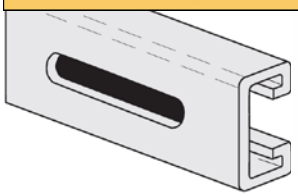


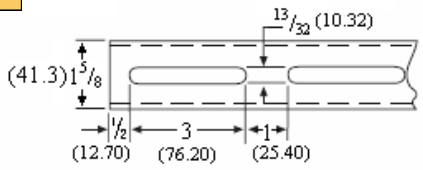
1421 - 1422



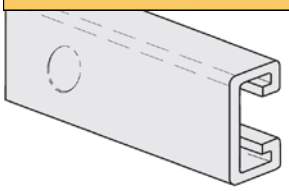


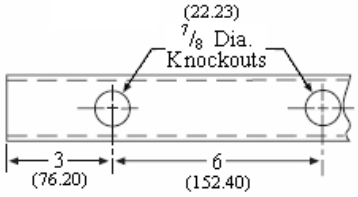
1431 - 1432





1441 - 1442





Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.

CHANNEL

1401 - 1442

Elements of Selection

Figure Number	X-X Axis								Y-Y Axis					
	Area of Section		Moment Of Inertia		Section Modulus		Radius of Gyration		Moment Of Inertia		Section Modulus		Radius of Gyration	
	$in.^2$	cm^2	$in.^4$	cm^4	$in.^3$	cm^3	in.	cm	$in.^4$	cm^4	$in.^3$	cm^3	in.	cm
1401	0.43	(2.774)	0.055	(2.290)	0.095	(1.557)	0.357	(0.907)	0.163	(6.787)	0.201	(3.294)	0.616	(1.565)
1401A	0.86	(5.548)	0.263	(10.950)	0.263	(4.310)	0.553	(1.405)	0.327	(13.615)	0.402	(6.588)	0.616	(1.565)

Modules of Elasticity: 29,500,000 PSI (203,395.3mPa)

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height		Maximum Column Load		Uniform Load		Deflection		Uniform Load @ 1/240 Span	
			Lbs.	kN	Lbs.	kN	In.	mm	Lbs.	kN
1401	12	(304.80)	9138	(40.65)	1538	(6.84)	.02	(0.51)	1538	(6.84)
1401A			21094	(93.83)	1590*	(7.07)	.01	(0.25)	1590*	(7.07)
1401	24	(609.60)	8137	(36.20)	769	(3.42)	.09	(2.29)	769	(3.42)
1401A			19757	(87.88)	1590*	(7.07)	.04	(1.02)	1590*	(7.07)
1401	36	(914.40)	7050	(31.36)	513	(2.28)	.20	(5.08)	388	(1.73)
1401A			18094	(80.49)	1428	(6.35)	.11	(2.79)	1428	(6.35)
1401	48	(1219.20)	5405	(24.04)	384	(1.71)	.35	(8.89)	218	(0.97)
1401A			16139	(71.79)	1071	(4.76)	.20	(5.08)	1053	(4.68)
1401	60	(1524.00)	3512	(15.62)	308	(1.37)	.55	(13.97)	140	(0.62)
1401A			13906	(61.86)	857	(3.81)	.32	(8.13)	674	(3.00)
1401	72	(1828.80)	2439	(10.85)	256	(1.14)	.79	(20.07)	97	(0.43)
1401A			11387	(50.65)	714	(3.18)	.46	(11.68)	468	(2.08)
1401	84	(2133.60)	1792	(7.97)	220	(0.98)	1.07	(27.18)	71	(0.32)
1401A			8645	(38.45)	612	(2.72)	.62	(15.75)	344	(1.53)
1401	96	(2438.40)	--	(0.00)	192	(0.85)	1.41	(35.81)	55	(0.24)
1401A			6619	(29.44)	535	(2.38)	.81	(20.57)	263	(1.17)
1401	108	(2743.20)	--	(0.00)	171	(0.76)	1.78	(45.21)	43	(0.19)
1401A			5230	(23.26)	476	(2.12)	1.03	(26.16)	208	(0.93)
1401	120	(3048.00)	--	(0.00)	154	(0.69)	2.20	(55.88)	35	(0.16)
1401A			4236	(18.84)	428	(1.90)	1.27	(32.26)	168	(0.75)

Beam Loads: Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI (172.37 mPa). When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads: Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1411 & 1412	15%
1421 & 1422	10%
1431 & 1432	30%
1441 & 1442	5%

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2" (50.8) to 4" (101.6) apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.

Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.