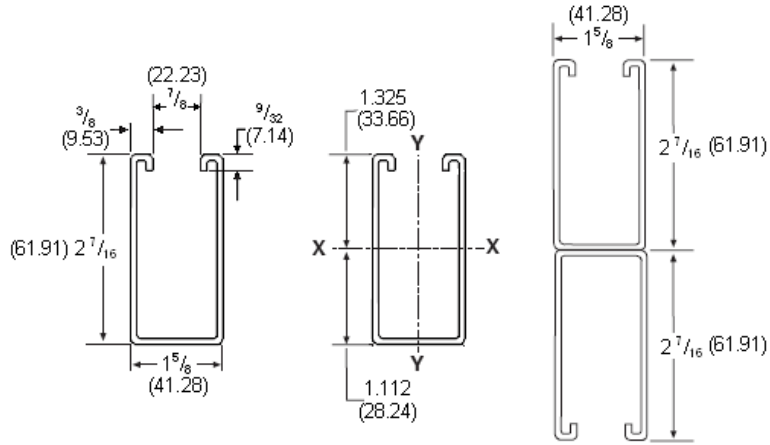
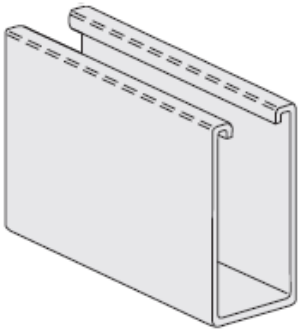




# CHANNEL

1601 - 1642

## 1<sup>5</sup>/<sub>8</sub>" X 2<sup>7</sup>/<sub>16</sub>" X 12 Gauge



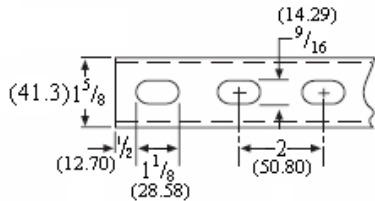
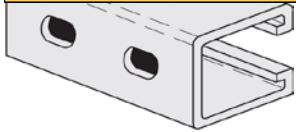
### ORDERING:

Specify Figure No., finish and number of feet.

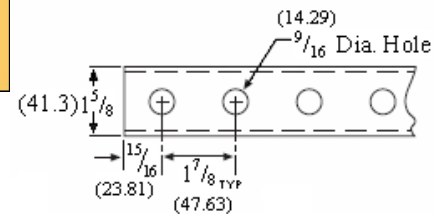
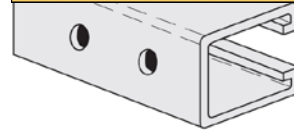
Fig. Number				Type - Description	Weight		Bundle Qty.			
10ft.	3.05m	20ft.	6.10m		lbs./ft.	kg/m	10ft.	3.05m	20ft.	6.10m
1601		1602		No Openings	2.30	(3.42)	300	(91.44)	400	(121.92)
1601A		1602A		Welded Back to Back	4.60	(6.85)	200	(60.96)	200	(60.96)
1611		1612		With 1 <sup>1</sup> / <sub>8</sub> " X 9 <sup>9</sup> / <sub>16</sub> " (28.58 X 14.29) slots on 2" (50.8) centers	2.23	(3.32)	300	(91.44)	400	(121.92)
1611A		1612A		Welded Back to Back	4.46	(6.64)	200	(60.96)	200	(60.96)
1621		1622		With 9 <sup>9</sup> / <sub>16</sub> " (14.29) dia. holes on 1 <sup>7</sup> / <sub>8</sub> " (47.63) centers	2.25	(3.35)	300	(91.44)	400	(121.92)
1621A		1622A		Welded Back to Back	4.86	(7.23)	200	(60.96)	200	(60.96)
1631		1632		With 3" (76.20) slots	2.21	(3.29)	300	(91.44)	400	(121.92)
1641		1642		With 7 <sup>7</sup> / <sub>8</sub> " (22.23) Knockouts on 6" (152.40) centers	2.30	(3.42)	300	(91.44)	400	(121.92)

Available in stainless steel. Price on request. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

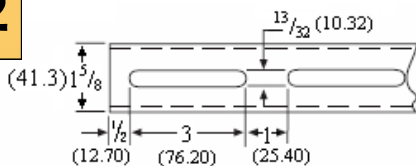
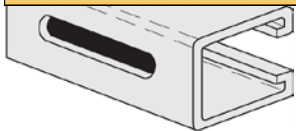
1611 - 1612



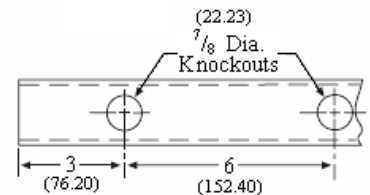
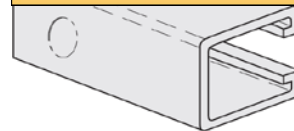
1621 - 1622



1631 - 1632



1641 - 1642



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

## Elements of Selection

### 1601 - 1642

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. <sup>2</sup>	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
1601	0.732	(4.723)	0.531	(22.108)	0.401	(6.571)	0.852	(2.164)	0.338	(14.073)	0.416	(6.817)	0.68	(1.727)
1601A	1.464	(9.445)	2.874	(119.659)	1.179	(19.320)	1.401	(3.559)	0.676	(28.145)	0.832	(13.634)	0.68	(1.727)

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
1601	12	(304.80)	10140	(45.10)	3880	(17.26)	.01	(0.25)	3880	(17.26)
1601A			20820	(92.61)	3880*	(17.26)	.01	(0.25)	3880*	(17.26)
1601	24	(609.60)	9244	(41.12)	3273	(14.56)	.04	(1.02)	3273	(14.56)
1601A			20519	(91.27)	3880*	(17.26)	.01	(0.25)	3880*	(17.26)
1601	36	(914.40)	7933	(35.29)	2182	(9.71)	.09	(2.29)	2182	(9.71)
1601A			20017	(89.04)	3880*	(17.26)	.03	(0.76)	3880*	(17.26)
1601	48	(1219.20)	6386	(28.41)	1636	(7.28)	.15	(3.81)	1636	(7.28)
1601A			19315	(85.92)	3880*	(17.26)	.07	(1.78)	3880*	(17.26)
1601	60	(1524.00)	4785	(21.28)	1309	(5.82)	.24	(6.10)	1309	(5.82)
1601A			18412	(81.90)	3847*	(17.11)	.13	(3.30)	3847*	(17.11)
1601	72	(1828.80)	3717	(16.53)	1091	(4.85)	.35	(8.89)	947	(4.21)
1601A			17309	(76.99)	3206	(14.26)	.19	(4.83)	3206	(14.26)
1601	84	(2133.60)	3052	(13.58)	935	(4.16)	.47	(11.94)	696	(3.10)
1601A			16005	(71.19)	2748	(12.22)	.26	(6.60)	2748	(12.22)
1601	96	(2438.40)	2600	(11.57)	818	(3.64)	.62	(15.75)	533	(2.37)
1601A			14500	(64.50)	2404	(10.69)	.33	(8.38)	2404	(10.69)
1601	108	(2743.20)	2271	(10.10)	727	(3.23)	.77	(19.56)	421	(1.87)
1601A			12795	(56.92)	2137	(9.51)	.42	(10.67)	2137	(9.51)
1601	120	(3048.00)	2019	(8.98)	655	(2.91)	.96	(24.38)	341	(1.52)
1601A			10889	(48.44)	1924	(8.56)	.52	(13.21)	1844	(8.20)
1601	144	(3657.60)	--	--	550	(2.45)	1.39	(35.31)	240	(1.07)
1601A			--	--	1610	(7.16)	.75	(19.05)	1280	(5.69)
1601	168	(4267.20)	--	--	470	(2.09)	1.88	(47.75)	170	(0.76)
1601A			--	--	1380	(6.14)	1.03	(26.16)	940	(4.18)
1601	192	(4876.80)	--	--	410	(1.82)	2.45	(62.23)	130	(0.58)
1601A			--	--	1210	(5.38)	1.34	(34.04)	720	(3.20)
1601	216	(5486.40)	--	--	360	(1.60)	3.06	(77.72)	110	(0.49)
1601A			--	--	1070	(4.76)	1.69	(42.93)	570	(2.54)
1601	240	(6096.00)	--	--	330	(1.47)	3.85	(97.79)	90	(0.40)
1601A			--	--	970	(4.31)	2.11	(53.59)	460	(2.05)

**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:

1611 & 1612      15%  
 1621 & 1622      10%  
 1631 & 1632      30%  
 1641 & 1642      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.