

DwellTech Industries Ltd

Product: Structural C-Stud and Track

Axial load bearing and wind bearing

Web sizes available: 3-5/8", 6", 8"

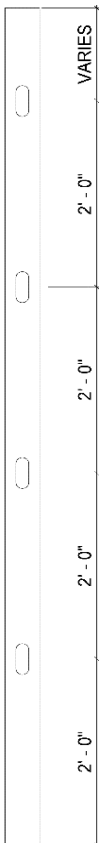
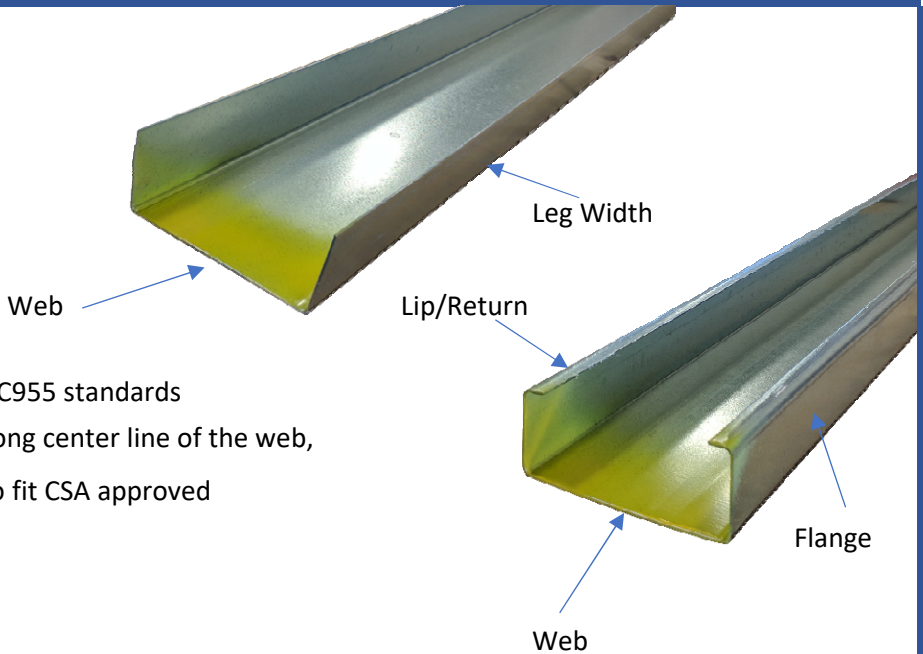
Flange Size: 1-5/8" Leg: 1 3/4"

Design Thickness: 18 GA (.043")

Yield strength: 50 Ksi

Protective Coating: G60 per AISI S200 and ASTM C955 standards

Knockouts: Oval 3.5 x 1.5" knockouts spaced along center line of the web, spaced 24" on centers. Designed to fit CSA approved plastic grommets for wiring



Product Part Number

Per standard nomenclature established by the American Iron and Steel Institute(AISI)
Member or Web depth in inches to 2 decimal places
(600 = 6.00")

600 S 162 43

600: Member or Web depth in inches to 2 decimal places (600 = 6.00")

S: Letter designating type of member
S= structural stud or joist
T= Track

162: Flange or Leg dimension in inches to 2 decimal places (162 = 1.62" or 1 5/8")

43: Minimum delivered thickness in mils

DwellTech C-studs and track are produced to meet or exceed ASTM C955 specifications. Material mill spec available for production runs upon request.

Product Specification

Mnf Part Number	Type	Length	Web	Flange	Return	Gauge	Thickness	Coating	Yield
362 S 162 - 43	C-Stud	8-24ft	3 5/8"	1-5/8"	5/8"	18GA	0.043	G60	50ksi
600 S 162 - 43	C-Stud	8-24ft	6"	1-5/8"	5/8"	18GA	0.043	G60	50ksi
800 S 162 - 43	C-Stud	8-24ft	8"	1-5/8"	5/8"	18GA	0.043	G60	50ksi
362 T 175 - 43	Track	10ft	3 5/8"	1 3/4"		18GA	0.043	G60	50ksi
600 T 175 - 43	Track	10ft	6"	1 3/4"		18GA	0.043	G60	50ksi
800 T 175 - 43	Track	10ft	8"	1 3/4"		18GA	0.043	G60	50ksi

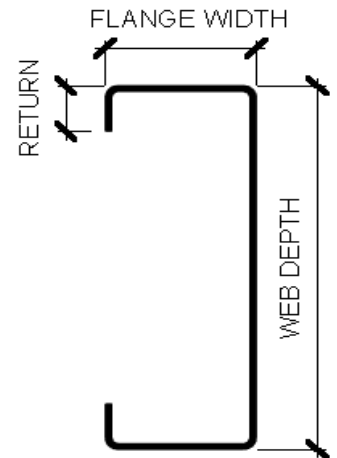
DwellTech Industries Ltd

C-Stud Sectional Properties

Used for framing applications: Load-bearing walls, curtain walls, tall interior walls, floor & ceiling joists, trusses

Product Code Descriptor

Geometric Properties	362S162-43	600S162-43	800S162-43
Web depth	3.625 in	6.0 in	8.0 in
Flange width 1.62" (1-5/8")	1.62 in	1.62 in	1.62 in
Return 0.625" (3/8")	0.625 in	0.625 in	0.625 in
Design thickness	.0451 in	.0451 in	.0451 in
Yield strength, Fy	33 ksi	33 ksi	33 ksi
Ultimate, Fu	45 ksi	45 ksi	45 ksi
Punchout width	1.5 in	1.5 in	1.5 in
Punchout length	3.5 in	3.5 in	3.5 in
Min. steel thickness	.0428 in	.0428 in	.0428 in
Fy with Cold-Work, Fya	33 ksi	33 ksi	33 ksi



Gross Section Properties of Full Section, Strong Axis

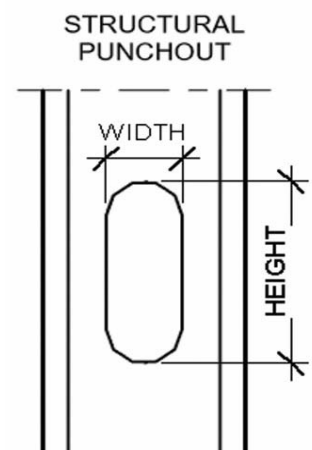
Cross sectional area (A)	0.385 in ²	0.492 in ²	0.582 in ²
Member weight per foot of length	1.31 lb/ft	1.67 lb/ft	1.98 lb/ft
Moment of inertia (Ix)	0.836 in ⁴	2.683 in ⁴	5.303 in ⁴
Section modulus (Sx)	0.461 in ³	0.894 in ³	1.326 in ³
Radius of gyration (Rx)	1.474 in	2.335 in	3.018 in
Gross moment of inertia (Iy)	0.227 in ⁴	0.268 in ⁴	0.292 in ⁴
Gross radius of gyration (Ry)	0.767 in	0.739 in	0.708 in

Effective Section Properties, Strong Axis

Effective Area (Ae)	0.283 in ²	0.292 in ²	0.294 in ²
Moment of inertia for deflection (Ix)	0.836 in ⁴	2.683 in ⁴	5.302 in ⁴
Section modulus (Sx)	0.427 in ³	0.873 in ³	1.293 in ³
Allowable bending moment (Ma)	8.43 in-k	17.24 in-k	25.54 in-k
Allowable moment based on distortion buckling (Mad)	8.70 in-k	15.39 in-k	20.99 in-k
Allowable shear force in web (solid section)	1739 lb	1416 lb	1051 lb
Allowable shear force in web (perforated section)	676 lb	1240 lb	1051 lb
Unbraced length (Lu)	53.5 in	51.4 in	50.3 in

Torsional Properties

St. Venant torsion constant (J x 1000)	0.261 in ⁴	0.334 in ⁴	0.395 in ⁴
Warping constant (Cw)	0.734 in ⁶	2.033 in ⁶	3.797 in ⁶
Distance from shear center to neutral axis (Xo)	-1.729 in	-1.446 in	-1.277 in
Distance between shear center and web centerline (m)	1.024 in	0.894 in ³	0.811 in ³
Radii of gyration (Ro)	2.398 in	2.844 in	3.353 in
Torsional flexural constant (Beta)	0.48	0.742	0.855



www.DwellTechIndustries.com

DwellTech Industries Ltd

Track Sectional Properties

Used for framing applications: Load-bearing walls, curtain walls, tall interior walls, floor & ceiling joists, trusses

Product Code Descriptor

Geometric Properties

	362T175-43	600T175-43	800T175-43
Web depth	3.786 in	6.161 in	8.161 in
Leg width	1.75 in	1.75 in	1.75 in
Design thickness	.0451 in	.0451 in	.0451 in
Yield strength, Fy	33 ksi	33 ksi	33 ksi
Ultimate, Fu	45 ksi	45 ksi	45 ksi
Min. steel thickness	.0428 in	.0428 in	.0428 in
Fy with Cold-Work, Fya	33 ksi	33 ksi	33 ksi

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.295 in ²	0.405 in ²	0.496 in ²
Member weight per foot of length	1.02 lb/ft	1.38 lb/ft	1.69 lb/ft
Moment of inertia (Ix)	0.650 in ⁴	2.073 in ⁴	4.145 in ⁴
Section modulus (Sx)	0.344 in ³	0.673 in ³	1.016 in ³
Radius of gyration (Rx)	1.476 in	2.261 in	2.892 in
Gross moment of inertia (Iy)	0.064 in ⁴	0.073 in ⁴	0.077 in ⁴
Gross radius of gyration (Ry)	0.465 in	0.424 in	0.395 in

Effective Section Properties, Strong Axis

Effective Area (Ae)	0.176 in ²	0.184 in ²	0.186 in ²
Moment of inertia for deflection (Ix)	0.575 in ⁴	1.890 in ⁴	3.690 in ⁴
Section modulus (Sx)	0.255 in ³	0.474 in ³	0.655 in ³
Allowable bending moment (Ma)	5.04 in-k	9.36 in-k	12.95 in-k
Allowable shear force in web (perforated section)	1739 lb	1377 lb	1030 lb

Torsional Properties

St. Venant torsion constant (J x 1000)	0.202 in ⁴	0.275 in ⁴	0.336 in ⁴
Warping constant (Cw)	0.160 in ⁶	0.504 in ⁶	0.972 in ⁶
Distance from shear center to neutral axis (Xo)	-0.850 in	-0.680 in	-0.584 in
Distance between shear center and web centerline (m)	0.519 in	0.437 in ³	0.386 in ³
Radii of gyration (Ro)	1.766 in	2.399 in	2.977 in
Torsional flexural constant (Beta)	0.768	0.920	0.961

