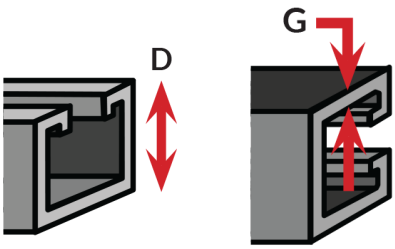
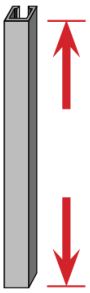
# G812 SERIES METAL FRAMING STRUT CHANNEL

## Gauge and Depth



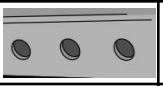
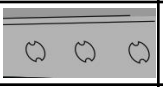
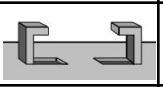

**12 GAUGE 0.102**
**1-5/8" x 3-1/4" D**

## Length

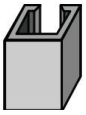


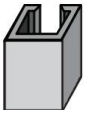
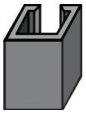
- **STANDARD 10'** (Shorter runs for easy handling)
- **STANDARD 20'** (Typical for longer runs)
- **6'8"** (Typical for commercial joists distance)
- **CUSTOM CUT-TO-LENGTH**

## Perforation

| | |
|---|---|
|  | **OVAL SLOT (Half slot)** [9/16" x 11/8" x 2" on ctr.] |
|  | **LONG SLOT (Elongated slot)** [13/32" x 3" x 4" on ctr.] |
|  | **ROUND HOLE** [9/16" DIAM x 1-7/8" on ctr.] |
|  | **KNOCK OUT** [7/8" DIAM x 6" on ctr.] |
|  | **CONTINUOUS CONCRETE INSERT** |
|  | **SOLID (No perforation)** |

# G812 SERIES METAL FRAMING STRUT CHANNEL

| Material | |
|---|---|
|  | **STEEL (Carbon steel, structural grade, 33,000 min yield)** |
|  | **STAINLESS STEEL** [304 or 316] |
|  | **ALUMINUM** |
|  | **FIBERGLASS** |

| Finish | |
|---|---|
|  | **PRE-GALVANIZED** (Continuous galvanized) - G90 zinc coating weight for cost-effective long-term galvanic and barrier corrosion protection |
|  | **HOT DIPPED** Galvanized (HDG – after fabrication, batch dip) where aqueous or exterior applications require greater corrosion protection |
|  | **GREEN** Powder or “e”-coated painted topical coating |
|  | **PVC COAT** Heavy PVC coat for extended barrier protection or cosmetic effects (May PVC coat over plain or galvanized) |
|  | **WIZCoat™ GALVANNEAL** Paintable pregalvanized material requires no pre-treatment. Easily spray painted post-installation |
|  | **PLAIN** Untreated, “plain” steel with no topical/barrier coating |
|  | **GOLD** Yellow zinc dichromate electro-galvanized |
|  | **CUSTOM COLORS** Custom powder coating available in virtually any color variations |

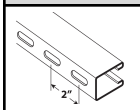
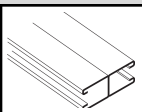
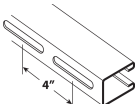
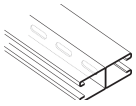
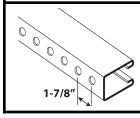
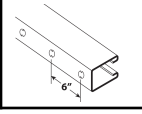
# Gregory G-STRUT Submittal Form

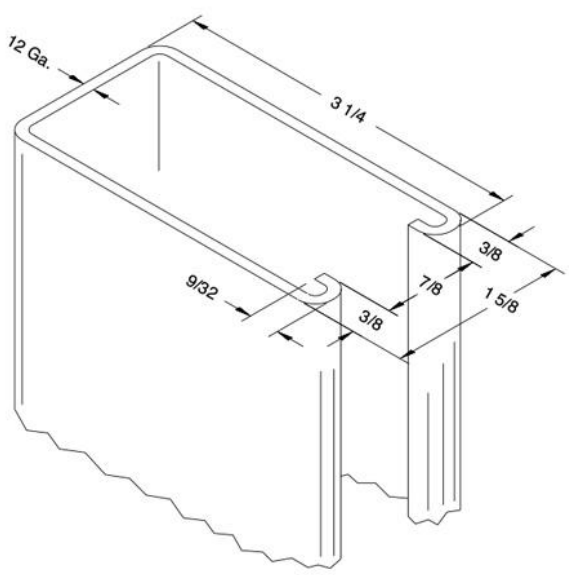
| | |
|---|---|
| Project Name | |
| Project Start Date | |
| Architect or Engineer | |
| Phone | |
| Contractor(s) | |
| Address | |
| City | |
| State | |
| Zip | |

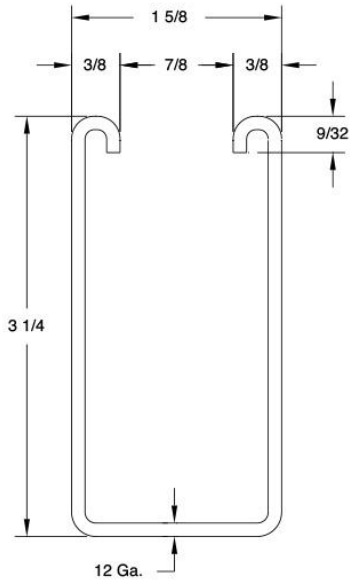
Approval

# G812 SERIES METAL FRAMING STRUT CHANNEL

## 1-5/8" x 3-1/4" (1.625" x 3.25") • 12 gauge (0.102" thick)

| | | | |
|---|---|---|---|
|  | **G812OS [Oval-Slot]**<br>9/16" x 1-1/8" - 2" ON CTR |  | **G812A [Back-to-Back]**<br>WELDED |
|  | **G812LS [Long-Slot]**<br>13/32" x 3" - 4" ON CTR |  | **G812AOS [Back-to-Back Oval-Slot]**<br>WELDED |
|  | **G812H [Holes]**<br>9/16" DIAM. - 1-7/8" ON CTR |  | **G812KO [KNOCK OUT]**<br>7/8" DIAM. - 6" ON CTR |




| ITEM | QNT'Y | DESCRIPTION | MATERIAL |
|---|---|---|---|
| | | | ROLLFORM TOLERANCES |
| SCALE | FULL | CHK'D BY | LENGTH ± 0.125"<br>ALL OTHER DIMENSIONS ± 0.020" |
| DWN BY IDI | 02-02-02 | APP'D BY | |

**G-STRUT CHANNEL, PART # G812**

| | | |
|---|---|---|
| CAD FILENAME<br>**G812**<br>LAST PLOT DATE<br>**02-02-02** | **GREGORY STRUT PRODUCTS**<br>DIvision of GRegory Industries | REF. No. |
| | 4100 13th Street SW, Canton, OH 44710<br>PH: 330-477-4800 • FX: 330-477-0626 | DRWG No.<br>**G812** |

# G812 SERIES METAL FRAMING STRUT CHANNEL

| ELEMENTS OF SECTION | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | X-X AXIS | | | Y-Y AXIS | | |
| Strut Section No. | Weight/ Foot lbs. | Area of Section $in.^2$ | Moment of Inertia $in.^4$ | Section Modulus $in.^3$ | Radius of Gyration in. | Moment of Inertia $in.^4$ | Section Modulus $in.^3$ | Radius of Gyration in. |
| G812 | 2.957 | 0.869 | 1.061 | 0.605 | 1.105 | 0.422 | 0.519 | 0.697 |
| G812A | 5.914 | 1.738 | 6.006 | 1.848 | 1.859 | 0.844 | 1.039 | 0.697 |

| BEAM & COLUMN LOADS | | | | | |
|---|---|---|---|---|---|
| Strut Section Number | Beam Span or Column Height | Maximum Column Load | Total Uniform Load @25,000 psi | Deflection @ 25,000 psi | Uniform Load @ 1/240 Span Deflection |
| | in. | lbs. | lbs. | in. | lbs. |
| **G812** | 12 | 19540 | 10080 | 0 | - |
| | 18 | 19300 | 6720 | 0.01 | - |
| | 24 | 19030 | 5040 | 0.02 | - |
| | 30 | 18740 | 4030 | 0.04 | - |
| | 36 | 18420 | 3360 | 0.06 | - |
| | 42 | 18080 | 2880 | 0.09 | - |
| | 48 | 17730 | 2520 | 0.11 | - |
| | 54 | 17200 | 2240 | 0.14 | - |
| | 60 | 16390 | 2010 | 0.18 | - |
| | 66 | 15530 | 1830 | 0.22 | - |
| | 72 | 14640 | 1680 | 0.26 | - |
| | 84 | 12710 | 1440 | 0.36 | 1390 |
| | 96 | 10590 | 1260 | 0.47 | 1060 |
| | 108 | 8440 | 1120 | 0.59 | 840 |
| | 120 | 6840 | 1000 | 0.73 | 680 |
| | 132 | 5650 | 910 | 0.88 | 560 |
| | 144 | 4750 | 840 | 1.06 | 470 |
| | 156 | 4040 | 770 | 1.23 | 400 |
| | 168 | 3490 | 720 | 1.44 | 340 |
| | 180 | - | 670 | 1.65 | 300 |
| | 192 | - | 630 | 1.88 | 260 |
| | 204 | - | 590 | 2.11 | 230 |
| | 216 | - | 560 | 2.38 | 210 |
| | 228 | - | 530 | 2.65 | 180 |
| | 240 | - | 500 | 2.92 | 170 |

# G812 SERIES METAL FRAMING STRUT CHANNEL

| BEAM & COLUMN LOADS | | | | | |
|---|---|---|---|---|---|
| Strut Section Number | Beam Span or Column Height | Maximum Column Load | Total Uniform Load @25,000 psi | Deflection @ 25,000 psi | Uniform Load @ 1/240 Span Deflection |
| | in. | lbs. | lbs. | in. | lbs. |
| **G812A** | 12 | 39500 | 30800 | 0 | - |
| | 18 | 39270 | 20530 | 0 | - |
| | 24 | 39030 | 15400 | 0.01 | - |
| | 30 | 38770 | 12320 | 0.02 | - |
| | 36 | 38500 | 10260 | 0.03 | - |
| | 42 | 37360 | 8800 | 0.04 | - |
| | 48 | 35930 | 7700 | 0.06 | - |
| | 54 | 34400 | 6840 | 0.08 | - |
| | 60 | 32780 | 6160 | 0.09 | - |
| | 66 | 31070 | 5600 | 0.12 | - |
| | 72 | 29280 | 5130 | 0.14 | - |
| | 84 | 25420 | 4400 | 0.19 | - |
| | 96 | 21190 | 3850 | 0.25 | - |
| | 108 | 16890 | 3420 | 0.32 | - |
| | 120 | 13680 | 3080 | 0.39 | - |
| | 132 | 11300 | 2800 | 0.48 | - |
| | 144 | 9500 | 2560 | 0.57 | - |
| | 156 | 8090 | 2360 | 0.66 | 2290 |
| | 168 | 6980 | 2200 | 0.77 | 1970 |
| | 180 | - | 2050 | 0.89 | 1720 |
| | 192 | - | 1920 | 1.01 | 1510 |
| | 204 | - | 1810 | 1.14 | 1330 |
| | 216 | - | 1710 | 1.28 | 1190 |
| | 228 | - | 1620 | 1.43 | 1070 |
| | 240 | - | 1540 | 1.59 | 960 |

For Perforated Channels, Reduce Total Beam Load Values as Follows:

| | | |
|---|---|---|
| G812/G812A | OS | 20% |
| G812/G812A | LS | 33% |
| G812/G812A | H | 12% |
| G812/G812A | KO | 5% |

# G812 SERIES METAL FRAMING STRUT CHANNEL

E = 29000; Fy  = 42700; K = 0.8

| | |
|---|---|
| **COLUMN LOADS:** Column loads are for allowable axial loads for the unsupported heights listed (including a K value of 0.80).  Column loads must be reduced for eccentric loading. | **BEAM LOADS:** Loads listed are distributed uniformly. For loads concentrated at center of span, multiply uniform load by 0.5 and deflection by 0.8. Where deflection is not a factor, use stress of 25,000 PSI. When deflection is a factor, use deflection of 1/240 span. |