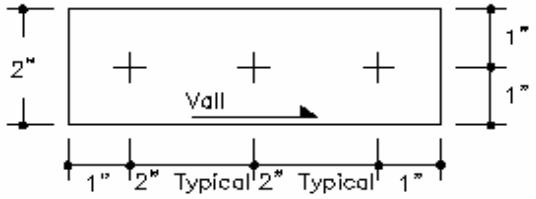
Clark Western Design LLC

20 Mansell Court East, Ste 350B, Roswell, GA 30076-4847
Phone (678) 990-3540 • Fax (678) 990-3542
Toll Free Phone (877) 832-3206 • Fax (877) 832-3208

2" x 2" Clip Angle

Vall = Cc * Pas where: Cc = Connection Coefficient
Pas = Allowable Shear Load of Connector
Vall = Allowable shear Load for Clip Angle

*Assume the minimum thickness of the two materials govern.




| Screw Failure, Sheet Bearing, and Screw Shear out of Material | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Connector Screw | Material Thickness (mills) | Yeild Strength Fy (ksi) | Pas (lbs) | 3" Long Cc = 0.89 | 4" Long Cc = 1.41 | 6" Long Cc = 2.40 | 8" Long Cc = 3.43 | 10" Long Cc = 4.47 |
| #10-18 HWH | 33 | 33 | 177 | 158 | 250 | 424 | 606 | 790 |
| | 43 | 33 | 263 | 235 | 372 | 631 | 902 | 1176 |
| | 54 | 33 | 370 | 331 | 523 | 887 | 1268 | 1654 |
| | | 50 | 467 | 417 | 660 | 1120 | 1601 | 2087 |
| | 68 | 33 | 467 | 417 | 660 | 1120 | 1601 | 2087 |
| | | 50 | 467 | 417 | 660 | 1120 | 1601 | 2087 |
| | 97 | 33 | 467 | 417 | 660 | 1120 | 1601 | 2087 |
| | | 50 | 467 | 417 | 660 | 1120 | 1601 | 2087 |

| Connector Screw | Material Thickness (mills) | Yeild Strength Fy (ksi) | Pas (lbs) | 3" Long Cc = 0.89 | 4" Long Cc = 1.41 | 6" Long Cc = 2.40 | 8" Long Cc = 3.43 | 10" Long Cc = 4.47 |
|---|---|---|---|---|---|---|---|---|
| #12-14 HWH | 33 | 33 | 186 | 166 | 263 | 446 | 637 | 831 |
| | 43 | 33 | 277 | 247 | 391 | 664 | 948 | 1237 |
| | 54 | 33 | 389 | 348 | 550 | 933 | 1333 | 1739 |
| | | 50 | 562 | 502 | 794 | 1348 | 1926 | 2511 |
| | 68 | 33 | 550 | 492 | 777 | 1319 | 1885 | 2458 |
| | | 50 | 625 | 559 | 884 | 1500 | 2144 | 2795 |
| | 97 | 33 | 625 | 559 | 884 | 1500 | 2144 | 2795 |
| | | 50 | 625 | 559 | 884 | 1500 | 2144 | 2795 |
| | 118 | 33 | 625 | 559 | 884 | 1500 | 2144 | 2795 |
| | | 50 | 625 | 559 | 884 | 1500 | 2144 | 2795 |

| Connector Screw | Material Thickness (mills) | Yeild Strength Fy (ksi) | Pas (lbs) | 3" Long Cc = 0.89 | 4" Long Cc = 1.41 | 6" Long Cc = 2.40 | 8" Long Cc = 3.43 | 10" Long Cc = 4.47 |
|---|---|---|---|---|---|---|---|---|
| #1/4-14 HWH | 33 | 33 | 199 | 178 | 281 | 477 | 681 | 888 |
| | 43 | 33 | 296 | 264 | 418 | 709 | 1014 | 1322 |
| | 54 | 33 | 416 | 372 | 588 | 997 | 1425 | 1859 |
| | | 50 | 600 | 537 | 849 | 1441 | 2059 | 2685 |
| | 68 | 33 | 588 | 526 | 831 | 1410 | 2015 | 2628 |
| | | 50 | 849 | 759 | 1200 | 2037 | 2911 | 3796 |
| | 97 | 33 | 863 | 772 | 1221 | 2072 | 2961 | 3861 |
| | | 50 | 863 | 772 | 1221 | 2072 | 2961 | 3861 |
| | 118 | 33 | 863 | 772 | 1221 | 2072 | 2961 | 3861 |
| | | 50 | 863 | 772 | 1221 | 2072 | 2961 | 3861 |