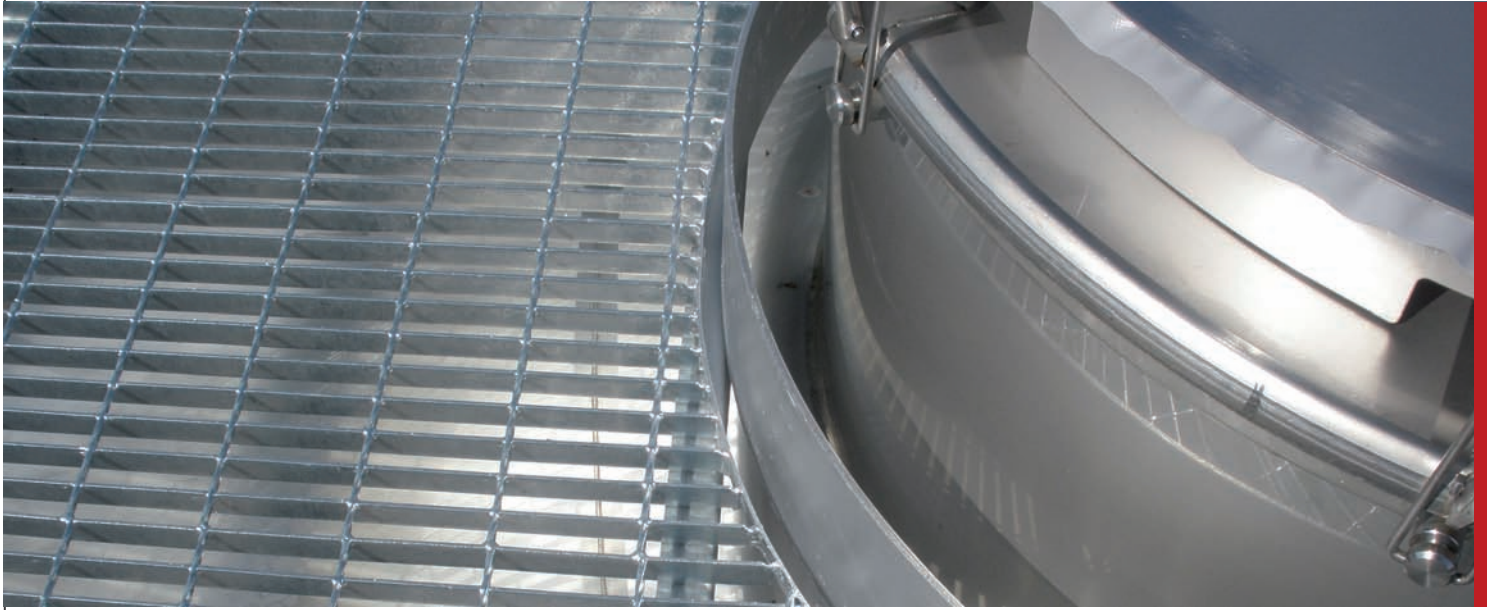


STEEL GRATING SERIES 2

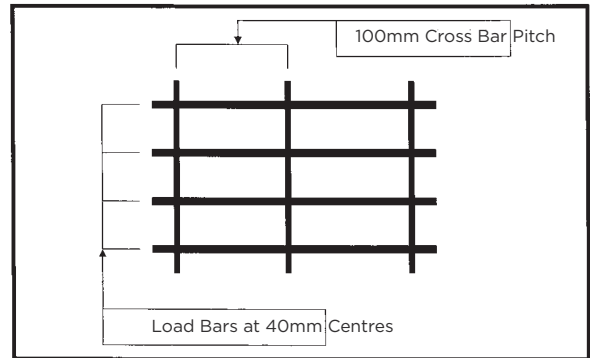


Steel Grating. 3 Mountview Place, Christchurch, New Zealand. Email: steelgrating@xtra.co.nz Web: www.steelgrating.co.nz



STEEL GRATING SERIES 2 (40MM CENTRES)

Steel Grating Limited provides Series 2 Grating in both forge bar and twistlock. The lightweight and economical design of our Series 2 Grating makes it ideal for walkways, fixed platforms, stairways and ladders.



| Forge welded (Mild Steel) | Twistlock (Mild Steel) | Twistlocks (Aluminium) |
|---------------------------|------------------------|------------------------|
| 25 x 3 | 20 x 3 | 20 x 3 |
| 25 x 5 | 20 x 5 | 20 x 5 |
| 30 x 5 | 25 x 3 | 25 x 3 |
| 40 x 5 | 25 x 5 | 25 x 5 |
| | 32 x 3 | 32 x 3 |
| | 32 x 5 | 32 x 5 |
| | 40 x 3 | 40 x 3 |
| | 40 x 5 | 40 x 5 |
| | 50 x 3 | 50 x 3 |
| | 50 x 5 | 50 x 5 |

Note: Serrated grating in Series 2 is only available in twistlock (mild steel and Aluminium)



STEEL GRATING

TWISTLOCK AND FORGE WELDED STEEL GRATING

(Same as chart on page 10)

Safe Loads and Deflections for Load Bars

| Main Bars mm | Mass Kg/sqm | Self WT kPa | (l) | 600 | 900 | 1200 | 1500 | 1800 | 2100 | 2400 | Span for 5mm defl @ 4kPa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|-------------|-------------|-----|--------|-------|---|-------|-------|-------|------|--------------------------|--|-------|--|--|------|--|--|--|--|--|-------|--|--|--|------|--|--|--|--|-------|--|--|-------|--|--|------|------|--|------|
| 20 x 3 | 15.54 | 0.152 | U | 18.91 | 8.32 | CHECK DEFLECTION FOR LOADS & SPANS THIS SIDE OF SHADOW LINE | | | | | 998 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 3.08 | 6.87 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | C | 5.67 | 3.74 | Series 2 40 mm Bar Centres | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 2.47 | 5.49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 x 5 | 23.39 | 0.229 | U | 31.55 | 13.89 | | | | | | | | | | | 1134 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 3.09 | 6.88 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | C | 9.46 | 6.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 2.47 | 5.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 x 3 | 18.49 | 0.181 | U | 29.61 | 13.06 | | | | | | | | | | | | | | | | | | | | | 1180 | | | | | | | | | | | | | | |
| | | | D | 2.47 | 5.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | C | 8.88 | 5.88 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 1.98 | 4.42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 x 5 | 28.30 | 0.278 | U | 49.38 | 29.79 | | | | | | | | | | | | | | | | | | | | | | | | | | 12.14 | | | | | | 1341 | | | |
| | | | D | 2.47 | 5.53 | | | | | | | | | | | | | | | | | | | | | | | | | | 9.73 | | | | | | | | | |
| | | | C | 14.81 | 9.81 | 7.28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 1.98 | 4.42 | 7.78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 x 3 | 22.61 | 0.222 | U | 48.59 | 21.47 | 11.98 | | | | | | | | | | | | | | | | | | | | | | | | | 1420 | | | | | | | | | |
| | | | D | 1.93 | 4.33 | 7.63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | C | 14.58 | 9.66 | 7.19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 1.55 | 3.46 | 6.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 x 5 | 35.17 | 0.345 | U | 81.01 | 35.81 | 19.99 | | | | | | | | | | | | | | | | 12.67 | | | | | | | | | 1614 | | | | | | | | | |
| | | | D | 1.93 | 4.33 | 7.64 | | | | | | | | | | | | | | | | 11.83 | | | | | | | | | | | | | | | | | | |
| | | | C | 24.30 | 16.11 | 12.00 | | | | | | | | | | | | | | | | 9.50 | | | | | | | | | | | | | | | | | | |
| | | | D | 1.55 | 3.46 | 6.11 | | | | | | | | | | | | | | | | 9.46 | | | | | | | | | | | | | | | | | | |
| 40 x 3 | 27.32 | 0.268 | U | 76.00 | 33.63 | 18.80 | | | | | | | | | | | | | | | | 11.93 | | | | | | | | | | | | | | | | 1679 | | |
| | | | D | 1.55 | 3.47 | 6.13 | | | | | | | | | | | | | | | | 9.51 | | | | | | | | | | | | | | | | | | |
| | | | C | 22.80 | 15.13 | 11.28 | 8.95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 1.24 | 2.78 | 4.91 | 7.61 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 x 5 | 43.02 | 0.422 | U | 126.69 | 56.07 | 31.36 | 19.92 | | | | | | 13.70 | | | | | | | | | 1908 | | | | | | | | | | | | | | | | | | |
| | | | D | 1.55 | 3.47 | 6.13 | 9.51 | | | | | | 13.57 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | C | 38.01 | 25.23 | 18.81 | 14.94 | | | | | | 12.33 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 1.24 | 2.78 | 4.91 | 7.61 | | | | | | 10.86 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 x 5 | 47.92 | 0.470 | U | 160.40 | 71.03 | 39.75 | 25.27 | | | | | | 17.40 | | | | | | | | | | | | | | | | | | | | | | | | | 2084 | | |
| | | | D | 1.38 | 3.09 | 5.46 | 8.48 | | | | | | 12.11 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | C | 48.12 | 31.96 | 23.85 | 18.95 | | | | | | 15.66 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 1.10 | 2.47 | 4.37 | 6.78 | | | | | | 9.69 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 x 5 | 52.83 | 0.518 | U | 198.09 | 87.75 | 49.13 | 31.26 | | | | | | 21.55 | | | | | | | | | | | | | | | | | | | | | 15.69 | | | | | | 2255 |
| | | | D | 1.24 | 2.78 | 4.92 | 7.64 | | | | | | 10.93 | | | | | | | | | | | | | | | | | | | | | 14.75 | | | | | | |
| | | | C | 59.43 | 39.49 | 29.48 | 23.44 | 19.39 | 16.48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | D | 0.99 | 2.33 | 3.94 | 6.12 | 8.74 | 11.80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

U: Safe Superimposed Uniformly Distributed Load - kPa

C: Safe Superimposed Line Load - kN/m

D: Deflection due to Superimposed Load - mm

STEEL GRATING

TWISTLOCK ALUMINIUM GRATING SERIES 2

(Same as chart on page 11)

40mm Bar Centres

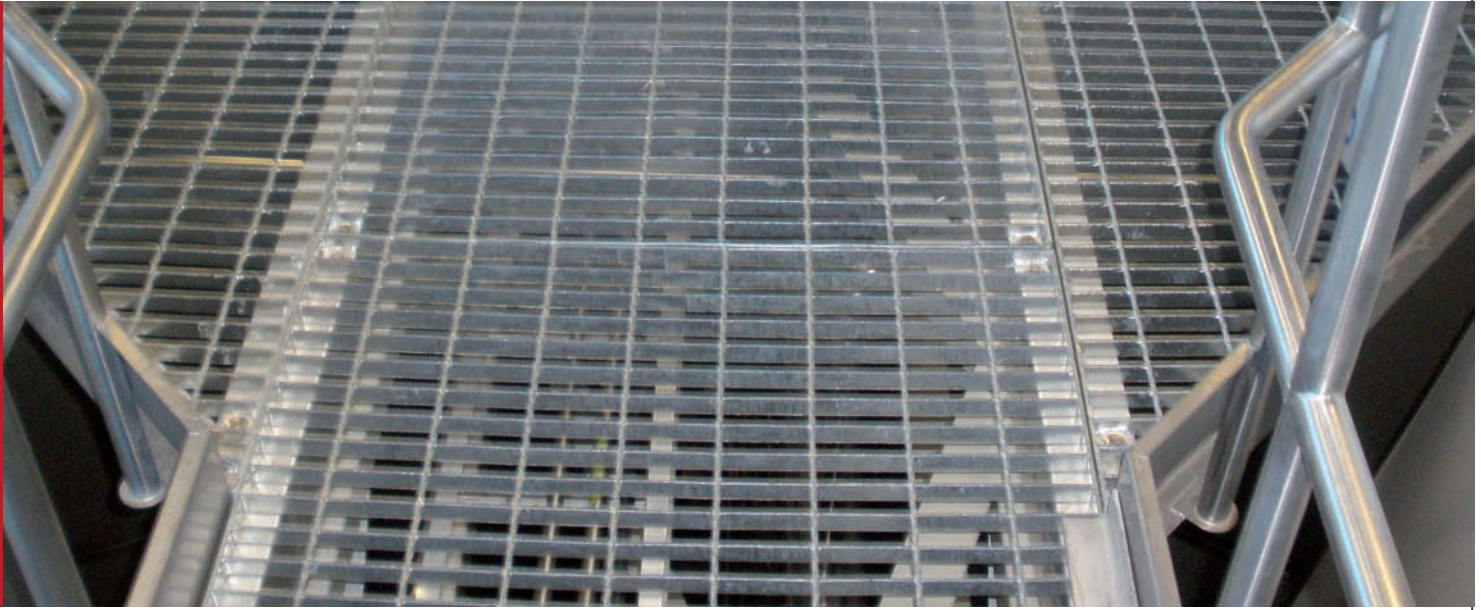
TABLE 1a – Safe Loads and Deflections for Load Bars @Based on a Yield Stress of: 172 MPa and Design Stress of: No of bars 26 per 115.24 MPa met SPAN mm

| Main Bars mm | Mass kg/sqm | Self Wt kPa | 1 | 150 | 300 | 450 | 600 | 750 | 900 | 1050 | 1200 | 1500 | 1800 | Span for 5mm defl @ 4kPa | | | | | |
|--------------|-------------|-------------|---|---------|--------|--------|--------|-------|-------|-------|-------|-------|------|--------------------------|------|--|--|------|-----|
| 20 x 3 | 5.51 | 0.054 | U | 213.01 | 53.21 | 23.62 | 13.26 | 8.47 | | | | | | 760 | | | | | |
| | | | D | 0.39 | 1.55 | 3.48 | 6.18 | 9.64 | | | | | | | | | | | |
| | | | C | 15.98 | 7.98 | 5.31 | 3.98 | 3.18 | | | | | | | | | | | |
| | | | D | 0.31 | 1.24 | 2.79 | 4.94 | 7.71 | | | | | | | | | | | |
| 20 x 5 | 8.32 | 0.082 | U | 355.03 | 88.70 | 39.38 | 22.11 | 14.12 | | | | | | | | | | | 864 |
| | | | D | 0.39 | 1.55 | 3.48 | 6.18 | 9.64 | | | | | | | | | | | |
| | | | C | 26.63 | 13.30 | 8.86 | 6.63 | 5.30 | | | | | | | | | | | |
| | | | D | 0.31 | 1.24 | 2.79 | 4.95 | 7.71 | | | | | | | | | | | |
| 25 x 3 | 6.56 | 0.064 | U | 332.85 | 83.16 | 36.93 | 20.74 | 13.25 | | | | | | 9.18 | | | | | 899 |
| | | | D | 0.31 | 1.24 | 2.79 | 4.95 | 7.72 | | | | | | 11.09 | | | | | |
| | | | C | 24.96 | 12.47 | 8.31 | 6.22 | 4.97 | | | | | | 4.13 | | | | | |
| | | | D | 0.25 | 0.99 | 2.23 | 3.96 | 6.18 | | | | | | 8.87 | | | | | |
| 25 x 5 | 10.07 | 0.099 | U | 554.76 | 138.62 | 61.55 | 34.58 | 22.10 | | | | | | 15.31 | | | | 1021 | |
| | | | D | 0.31 | 1.24 | 2.79 | 4.95 | 7.72 | | | | | | 11.10 | | | | | |
| | | | C | 41.61 | 20.79 | 13.85 | 10.37 | 8.29 | | | | | | 6.89 | | | | | |
| | | | D | 0.25 | 0.99 | 2.23 | 3.96 | 6.18 | | | | | | 8.88 | | | | | |
| 32 x 3 | 8.04 | 0.079 | U | 545.37 | 136.28 | 60.53 | 34.01 | 21.74 | 15.01 | 11.05 | | | 1082 | | | | | | |
| | | | D | 0.24 | 0.97 | 2.18 | 3.87 | 6.04 | 8.68 | 11.79 | | | | | | | | | |
| | | | C | 40.90 | 20.44 | 13.62 | 10.20 | 8.15 | 6.78 | 5.80 | | | | | | | | | |
| | | | D | 0.19 | 0.78 | 1.74 | 3.10 | 4.83 | 6.95 | 9.44 | | | | | | | | | |
| 32 x 5 | 12.53 | 0.123 | U | 908.96 | 227.15 | 100.89 | 56.69 | 36.24 | 25.13 | 18.43 | 14.08 | | | 1229 | | | | | |
| | | | D | 0.24 | 0.97 | 2.18 | 3.87 | 6.04 | 8.68 | 11.80 | 15.38 | | | | | | | | |
| | | | C | 68.17 | 34.07 | 22.70 | 17.01 | 13.59 | 11.31 | 9.68 | 8.45 | | | | | | | | |
| | | | D | 0.19 | 0.78 | 1.74 | 3.10 | 4.83 | 6.95 | 9.44 | 12.31 | | | | | | | | |
| 40 x 3 | 9.72 | 0.095 | U | 852.17 | 212.97 | 94.60 | 53.17 | 34.00 | 23.58 | 17.30 | 13.22 | | | 1279 | | | | | |
| | | | D | 0.19 | 0.78 | 1.74 | 3.10 | 4.83 | 6.95 | 9.45 | 12.32 | | | | | | | | |
| | | | C | 63.91 | 31.95 | 21.29 | 15.95 | 12.75 | 10.61 | 9.08 | 7.93 | | | | | | | | |
| | | | D | 0.16 | 0.62 | 1.39 | 2.48 | 3.87 | 5.56 | 7.56 | 9.86 | | | | | | | | |
| 40 x 5 | 15.34 | 0.150 | U | 1420.29 | 354.96 | 157.68 | 88.63 | 56.67 | 39.31 | 28.84 | 22.04 | | | 1453 | | | | | |
| | | | D | 0.19 | 0.78 | 1.74 | 3.10 | 4.84 | 6.95 | 9.45 | 12.33 | | | | | | | | |
| | | | C | 106.52 | 53.24 | 35.48 | 26.59 | 21.25 | 17.69 | 15.14 | 13.23 | | | | | | | | |
| | | | D | 0.16 | 0.62 | 1.39 | 2.48 | 3.87 | 5.56 | 7.56 | 9.86 | | | | | | | | |
| 45 x 5 | 17.09 | 0.168 | U | 1797.58 | 449.27 | 199.58 | 112.19 | 71.74 | 49.77 | 36.52 | 27.92 | 17.81 | | | 1587 | | | | |
| | | | D | 0.17 | 0.69 | 1.55 | 2.75 | 4.30 | 6.18 | 8.41 | 10.97 | 17.08 | | | | | | | |
| | | | C | 134.82 | 67.39 | 44.91 | 33.66 | 26.90 | 22.40 | 19.17 | 16.75 | 13.36 | | | | | | | |
| | | | D | 0.14 | 0.55 | 1.24 | 2.20 | 3.44 | 4.95 | 6.73 | 8.77 | 13.66 | | | | | | | |
| 50 x 5 | 18.85 | 0.185 | U | 2219.25 | 554.67 | 246.42 | 138.53 | 88.59 | 61.47 | 45.11 | 34.49 | 22.01 | | | 1718 | | | | |
| | | | D | 0.16 | 0.62 | 1.40 | 2.48 | 3.87 | 5.57 | 7.57 | 9.88 | 15.39 | | | | | | | |
| | | | C | 166.44 | 83.20 | 55.44 | 41.56 | 33.22 | 27.66 | 23.68 | 20.70 | 16.51 | | | | | | | |
| | | | D | 0.12 | 0.50 | 1.12 | 1.98 | 3.10 | 4.45 | 6.06 | 7.90 | 12.31 | | | | | | | |

U: Safe Superimposed Uniformly Distributed Load – Kpa

C: Safe Superimposed Line Load – kN/m

D: Deflection due to Superimposed Load – mm



STEEL GRATING SERIES 2 (40MM CENTRES)

| | Maximum Span (mm) for various Loads With 5.00mm Deflections | | | |
|-------|--|---------|---------|---------|
| | 2.5 KPa | 4.0 KPa | 5.0 KPa | 7.5 KPa |
| 203/2 | 1115 | 955 | 940 | 855 |
| 205/2 | 1285 | 1135 | 1160 | 970 |
| 253/2 | 1315 | 1175 | 1120 | 1010 |
| 255/2 | 1485 | 1330 | 1260 | 1145 |
| 323/2 | 1595 | 1415 | 1335 | 1195 |
| 325/2 | 1785 | 1595 | 1505 | 1370 |
| 403/2 | 1875 | 1680 | 1575 | 1430 |
| 405/2 | 2110 | 1895 | 1785 | 1615 |
| 505/2 | 2605 | 2005 | 2105 | 1915 |

STEEL GRATING TYPICAL APPLICATION LOADINGS

| | |
|--|---------|
| Conveyor Walkways Light Access Platforms | 2.5 KPa |
| Standard Australian Platform Loading | 4 KPa |
| British Standard Platform Loading | 5 KPa |
| Boiler House Platform Loading esp Power Station | 7.5 KPa |