**STEEL IMPEX INDIA**

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# Sheet metal gauge chart: MSG, SWG and BWG

Manufacturers' Standard Gauge for carbon steel sheet, and Standard and Birmingham wire gauges, with weight per square metre.

## Manufacturers' Standard Gauge (MSG) for carbon steel sheet, gauges 3 to 24, with weight per m2

| MSG gauge | Thickness (in) | Thickness (mm) | Carbon steel (kg/m2) | SS 304 (kg/m2) | SS 316 (kg/m2) |
|---|---|---|---|---|---|
| **3** | 0.2391 | 6.073 | 47.67 | 48.16 | 48.46 |
| **4** | 0.2242 | 5.695 | 44.71 | 45.16 | 45.45 |
| **5** | 0.2092 | 5.314 | 41.71 | 42.14 | 42.41 |
| **6** | 0.1943 | 4.935 | 38.74 | 39.13 | 39.38 |
| **7** | 0.1793 | 4.554 | 35.75 | 36.11 | 36.34 |
| **8** | 0.1644 | 4.176 | 32.78 | 33.12 | 33.32 |
| **9** | 0.1495 | 3.797 | 29.81 | 30.11 | 30.30 |
| **10** | 0.1345 | 3.416 | 26.82 | 27.09 | 27.26 |
| **11** | 0.1196 | 3.038 | 23.85 | 24.09 | 24.24 |
| **12** | 0.1046 | 2.657 | 20.86 | 21.07 | 21.20 |
| **13** | 0.0897 | 2.278 | 17.88 | 18.06 | 18.18 |
| **14** | 0.0747 | 1.897 | 14.89 | 15.04 | 15.14 |
| **15** | 0.0673 | 1.709 | 13.42 | 13.55 | 13.64 |
| **16** | 0.0598 | 1.519 | 11.92 | 12.05 | 12.12 |
| **17** | 0.0538 | 1.367 | 10.73 | 10.84 | 10.91 |
| **18** | 0.0478 | 1.214 | 9.53 | 9.63 | 9.69 |
| **19** | 0.0418 | 1.062 | 8.34 | 8.42 | 8.47 |
| **20** | 0.0359 | 0.912 | 7.16 | 7.23 | 7.28 |
| **21** | 0.0329 | 0.836 | 6.56 | 6.63 | 6.67 |
| **22** | 0.0299 | 0.759 | 5.96 | 6.02 | 6.06 |
| **23** | 0.0269 | 0.683 | 5.36 | 5.42 | 5.45 |
| **24** | 0.0239 | 0.607 | 4.76 | 4.81 | 4.84 |

Formula: t (in) = (oz/ft2 ÷ 16) ÷ 41.82; t (mm) = t (in) x 25.4; W (kg/m2) = t (mm) x density (g/cm3)
Density: Carbon steel 7.85, SS 304 7.93, SS 316 7.98 g/cm3 (typical values, shared density table)
Unit: inch to 4 decimals, mm to 3 decimals, kg/m2 to 2 decimals
Last verified: 21 November 2026
Source: Bureau of Standards Circular C124, Standard Thicknesses of Sheet Metal (U.S. Standard Gage table, Act of 3 March 1893) (https://nvlpubs.nist.gov/nistpubs/Legacy/LC/nbslettercircular24r1925.pdf); eFunda, Sheet metal gages (41.82 lb/ft2 per inch basis) (https://www.efunda.com/designstandards/gages/sheet_forward.cfm); Engineers Edge, Sheet metal gauge sizes (Steel column, cross-check) (https://engineersedge.com/gauge.htm)
MSG is a carbon-steel sheet gauge. Stainless steel sheet in India is ordered by thickness in mm; the SS 304 and SS 316 columns only show what a sheet of the same mm thickness weighs. Theoretical weight; mill tolerances apply.

## Standard Wire Gauge (SWG) and Birmingham Wire Gauge (BWG), gauges 1 to 30

| Gauge | SWG (in) | SWG (mm) | SWG, SS 304 (kg/m2) | BWG (in) | BWG (mm) | BWG, SS 304 (kg/m2) |
|---|---|---|---|---|---|---|
| **1** | 0.3000 | 7.620 | 60.43 | 0.3000 | 7.620 | 60.43 |
| **2** | 0.2760 | 7.010 | 55.59 | 0.2840 | 7.214 | 57.21 |
| **3** | 0.2520 | 6.401 | 50.76 | 0.2590 | 6.579 | 52.17 |
| **4** | 0.2320 | 5.893 | 46.73 | 0.2380 | 6.045 | 47.94 |

### Standard Wire Gauge (SWG) and Birmingham Wire Gauge (BWG), gauges 1 to 30 (continued)

| Gauge | SWG (in) | SWG (mm) | SWG, SS 304 (kg/m2) | BWG (in) | BWG (mm) | BWG, SS 304 (kg/m2) |
|---|---|---|---|---|---|---|
| **5** | 0.2120 | 5.385 | 42.70 | 0.2200 | 5.588 | 44.31 |
| **6** | 0.1920 | 4.877 | 38.67 | 0.2030 | 5.156 | 40.89 |
| **7** | 0.1760 | 4.470 | 35.45 | 0.1800 | 4.572 | 36.26 |
| **8** | 0.1600 | 4.064 | 32.23 | 0.1650 | 4.191 | 33.23 |
| **9** | 0.1440 | 3.658 | 29.01 | 0.1480 | 3.759 | 29.81 |
| **10** | 0.1280 | 3.251 | 25.78 | 0.1340 | 3.404 | 26.99 |
| **11** | 0.1160 | 2.946 | 23.36 | 0.1200 | 3.048 | 24.17 |
| **12** | 0.1040 | 2.642 | 20.95 | 0.1090 | 2.769 | 21.96 |
| **13** | 0.0920 | 2.337 | 18.53 | 0.0950 | 2.413 | 19.14 |
| **14** | 0.0800 | 2.032 | 16.11 | 0.0830 | 2.108 | 16.72 |
| **15** | 0.0720 | 1.829 | 14.50 | 0.0720 | 1.829 | 14.50 |
| **16** | 0.0640 | 1.626 | 12.89 | 0.0650 | 1.651 | 13.09 |
| **17** | 0.0560 | 1.422 | 11.28 | 0.0580 | 1.473 | 11.68 |
| **18** | 0.0480 | 1.219 | 9.67 | 0.0490 | 1.245 | 9.87 |
| **19** | 0.0400 | 1.016 | 8.06 | 0.0420 | 1.067 | 8.46 |
| **20** | 0.0360 | 0.914 | 7.25 | 0.0350 | 0.889 | 7.05 |
| **21** | 0.0320 | 0.813 | 6.45 | 0.0320 | 0.813 | 6.45 |
| **22** | 0.0280 | 0.711 | 5.64 | 0.0280 | 0.711 | 5.64 |
| **23** | 0.0240 | 0.610 | 4.84 | 0.0250 | 0.635 | 5.04 |
| **24** | 0.0220 | 0.559 | 4.43 | 0.0220 | 0.559 | 4.43 |
| **25** | 0.0200 | 0.508 | 4.03 | 0.0200 | 0.508 | 4.03 |
| **26** | 0.0180 | 0.457 | 3.62 | 0.0180 | 0.457 | 3.62 |
| **27** | 0.0164 | 0.417 | 3.31 | 0.0160 | 0.406 | 3.22 |
| **28** | 0.0148 | 0.376 | 2.98 | 0.0140 | 0.356 | 2.82 |
| **29** | 0.0136 | 0.345 | 2.74 | 0.0130 | 0.330 | 2.62 |
| **30** | 0.0124 | 0.315 | 2.50 | 0.0120 | 0.305 | 2.42 |

Formula: t (mm) = t (in) x 25.4; W (kg/m2) = t (mm) x density (g/cm3)
Density: SS 304 / 304L 7.93 g/cm3 (typical value)
Unit: inch to 4 decimals, mm to 3 decimals, kg/m2 to 2 decimals
Last verified: 21 November 2026
Source: William Kent, The Mechanical Engineer's Pocket-book (1907), p. 28 (https://archive.org/details/enginemechanical00kentrich); Horatio A. Foster, Electrical Engineer's Pocket-book (1918), p. 141 (https://archive.org/details/electricalengine00fost)
The historical handbooks supply the inch values. Metric thicknesses and weights are calculated. Confirm the gauge system and actual thickness with your supplier.