

# Full Pipe Dimension Chart

Nominal Pipe Size (NPS) 1/8" to 36" • Schedules 5-160, STD, XS & XXS • Millimetres & Inches • Stainless, Carbon & Alloy Steel • per ASME B36.10M / ASME B36.19M

This chart gives the outside diameter (OD) and wall thickness (WT), in millimetres, for every standard schedule at every NPS from 1/8" to 36", for both stainless steel (ASME B36.19M "S" schedules) and carbon/alloy steel (ASME B36.10M). Inside diameter (ID) = OD - (2 × WT). "-" indicates the schedule is not standardized for that NPS — refer to the full standard or consult our engineering team for wall thicknesses not shown, or for sizes above NPS 36". Amardeep Steel Centre LLP is an ISO 9001:2015-certified manufacturer, stockist and exporter of seamless & welded pipe across 15+ metallurgies.

*Dimensions are nominal; substantial manufacturing tolerances apply to both OD and WT. Stainless steel dimensions per ASTM A312M / ASME B36.19M; carbon & alloy steel dimensions per ASTM A106M / ASME B36.10M.*

## NPS, DN &amp; Outside Diameter Reference

| NPS    | DN | OD (mm) | OD (in) |
|--------|----|---------|---------|
| 1/8"   | 6  | 10.3    | 0.405   |
| 1/4"   | 8  | 13.7    | 0.540   |
| 3/8"   | 10 | 17.1    | 0.675   |
| 1/2"   | 15 | 21.3    | 0.840   |
| 3/4"   | 20 | 26.7    | 1.050   |
| 1"     | 25 | 33.4    | 1.315   |
| 1-1/4" | 32 | 42.2    | 1.660   |
| 1-1/2" | 40 | 48.3    | 1.900   |
| 2"     | 50 | 60.3    | 2.375   |
| 2-1/2" | 65 | 73.0    | 2.875   |

| NPS    | DN  | OD (mm) | OD (in) |
|--------|-----|---------|---------|
| 3"     | 80  | 88.9    | 3.500   |
| 3-1/2" | 90  | 101.6   | 4.000   |
| 4"     | 100 | 114.3   | 4.500   |
| 5"     | 125 | 141.3   | 5.563   |
| 6"     | 150 | 168.3   | 6.625   |
| 8"     | 200 | 219.1   | 8.625   |
| 10"    | 250 | 273.1   | 10.750  |
| 12"    | 300 | 323.9   | 12.750  |
| 14"    | 350 | 355.6   | 14.000  |
| 16"    | 400 | 406.4   | 16.000  |

| NPS | DN  | OD (mm) | OD (in) |
|-----|-----|---------|---------|
| 18" | 450 | 457.0   | 18.000  |
| 20" | 500 | 508.0   | 20.000  |
| 22" | 550 | 559.0   | 22.000  |
| 24" | 600 | 610.0   | 24.000  |
| 26" | 650 | 660.0   | 26.000  |
| 28" | 700 | 711.0   | 28.000  |
| 30" | 750 | 762.0   | 30.000  |
| 36" | 900 | 914.4   | 36.000  |

## Full Pipe Dimension Chart — Wall Thickness by Schedule

NPS 1/8" – 12" (Stainless "S" schedules per ASME B36.19M; Carbon/Alloy schedules per ASME B36.10M)

|        |     |       | 5S   | 10S  | 40S  | 80S   | 10   | 20   | 30   | 40    | STD  | 60    | 80    | XS    | 100   | 120   | 140   | 160   | XXS   |
|--------|-----|-------|------|------|------|-------|------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1/8"   | 6   | 10.3  | –    | –    | –    | –     | 1.24 | –    | 1.45 | 1.73  | 1.73 | –     | 2.41  | 2.41  | –     | –     | –     | –     | –     |
| 1/4"   | 8   | 13.7  | –    | 1.65 | –    | –     | 1.65 | –    | 1.85 | 2.24  | 2.24 | –     | 3.02  | 3.02  | –     | –     | –     | –     | –     |
| 3/8"   | 10  | 17.1  | –    | 1.65 | –    | –     | 1.65 | –    | 1.85 | 2.31  | 2.31 | –     | 3.20  | 3.20  | –     | –     | –     | –     | –     |
| 1/2"   | 15  | 21.3  | 1.65 | 2.11 | 2.77 | 3.73  | 2.11 | –    | 2.41 | 2.77  | 2.77 | –     | 3.73  | 3.73  | –     | –     | –     | 4.78  | 7.47  |
| 3/4"   | 20  | 26.7  | 1.65 | 2.11 | 2.87 | 3.91  | 2.11 | –    | 2.41 | 2.87  | 2.87 | –     | 3.91  | 3.91  | –     | –     | –     | 5.56  | 7.82  |
| 1"     | 25  | 33.4  | 1.65 | 2.77 | 3.38 | 4.55  | 2.77 | –    | 2.90 | 3.38  | 3.38 | –     | 4.55  | 4.55  | –     | –     | –     | 6.35  | 9.09  |
| 1-1/4" | 32  | 42.2  | 1.65 | 2.77 | 3.56 | 4.85  | 2.77 | –    | 2.97 | 3.56  | 3.56 | –     | 4.85  | 4.85  | –     | –     | –     | 6.35  | 9.70  |
| 1-1/2" | 40  | 48.3  | 1.65 | 2.77 | 3.68 | 5.08  | 2.77 | –    | 3.18 | 3.68  | 3.68 | –     | 5.08  | 5.08  | –     | –     | –     | 7.14  | 10.15 |
| 2"     | 50  | 60.3  | 1.65 | 2.77 | 3.91 | 5.54  | 2.77 | –    | 3.18 | 3.91  | 3.91 | –     | 5.54  | 5.54  | –     | –     | –     | 8.74  | 11.07 |
| 2-1/2" | 65  | 73.0  | 2.11 | 3.05 | 5.16 | 7.01  | 3.05 | –    | 4.78 | 5.16  | 5.16 | –     | 7.01  | 7.01  | –     | –     | –     | 9.53  | 14.02 |
| 3"     | 80  | 88.9  | 2.11 | 3.05 | 5.49 | 7.62  | 3.05 | –    | 4.78 | 5.49  | 5.49 | –     | 7.62  | 7.62  | –     | –     | –     | 11.13 | 15.24 |
| 3-1/2" | 90  | 101.6 | 2.11 | 3.05 | 5.74 | 8.08  | 3.05 | –    | 4.78 | 5.74  | 5.74 | –     | 8.08  | 8.08  | –     | –     | –     | –     | –     |
| 4"     | 100 | 114.3 | 2.11 | 3.05 | 6.02 | 8.56  | 3.05 | –    | 4.78 | 6.02  | 6.02 | –     | 8.56  | 8.56  | –     | 11.13 | –     | 13.49 | 17.12 |
| 5"     | 125 | 141.3 | 2.77 | 3.40 | 6.55 | 9.53  | 3.40 | –    | –    | 6.55  | 6.55 | –     | 9.53  | 9.53  | –     | 12.70 | –     | 15.88 | 19.05 |
| 6"     | 150 | 168.3 | 2.77 | 3.40 | 7.11 | 10.97 | 3.40 | –    | –    | 7.11  | 7.11 | –     | 10.97 | 10.97 | –     | 14.27 | –     | 18.26 | 21.95 |
| 8"     | 200 | 219.1 | 2.77 | 3.76 | 8.18 | 12.70 | 3.76 | 6.35 | 7.04 | 8.18  | 8.18 | 10.31 | 12.70 | 12.70 | 15.09 | 18.26 | 20.62 | 23.01 | 22.23 |
| 10"    | 250 | 273.1 | 3.40 | 4.19 | 9.27 | 12.70 | 4.19 | 6.35 | 7.80 | 9.27  | 9.27 | 12.70 | 15.09 | 12.70 | 18.26 | 21.44 | 25.40 | 28.58 | 25.40 |
| 12"    | 300 | 323.9 | 3.96 | 4.57 | 9.53 | 12.70 | 4.57 | 6.35 | 8.38 | 10.31 | 9.53 | 14.27 | 17.48 | 12.70 | 21.44 | 25.40 | 28.58 | 33.32 | 25.40 |

"–" = schedule not standardized for that NPS. XS (Extra Strong) is a fixed legacy wall that is identical to Schedule 80 through NPS 8", then becomes thinner than Schedule 80 for NPS 10" and above. ID (mm) = OD – (2 × Wall Thickness).

Full Pipe Dimension Chart — Wall Thickness by Schedule (continued)

NPS 14" – 36"

|     |     |       | 5S   | 10S  | 40S  | 80S   | 10   | 20    | 30    | 40    | STD  | 60    | 80    | XS    | 100   | 120   | 140   | 160   | XXS |
|-----|-----|-------|------|------|------|-------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-----|
| 14" | 350 | 355.6 | 3.96 | 4.78 | 9.53 | 12.70 | 6.35 | 7.92  | 9.53  | 11.13 | 9.53 | 15.09 | 19.05 | 12.70 | 23.83 | 27.79 | 31.75 | 35.71 | –   |
| 16" | 400 | 406.4 | 4.19 | 4.78 | 9.53 | 12.70 | 6.35 | 7.92  | 9.53  | 12.70 | 9.53 | 16.66 | 21.44 | 12.70 | 26.19 | 30.96 | 36.53 | 40.49 | –   |
| 18" | 450 | 457.0 | 4.19 | 4.78 | 9.53 | 12.70 | 6.35 | 7.92  | 11.13 | 14.27 | 9.53 | 19.05 | 23.83 | 12.70 | 29.36 | 34.93 | 39.67 | 45.24 | –   |
| 20" | 500 | 508.0 | 4.78 | 5.54 | 9.53 | 12.70 | 6.35 | 9.53  | 12.70 | 15.09 | 9.53 | 20.62 | 26.19 | 12.70 | 32.54 | 38.10 | 44.45 | 50.01 | –   |
| 22" | 550 | 559.0 | 4.78 | 5.54 | –    | –     | 6.35 | –     | 9.53  | 12.70 | 9.53 | 22.23 | 28.58 | 12.70 | 34.93 | 41.28 | 47.63 | 53.98 | –   |
| 24" | 600 | 610.0 | 5.54 | 6.35 | 9.53 | 12.70 | 6.35 | 9.53  | 14.27 | 17.48 | 9.53 | 24.61 | 30.96 | 12.70 | 38.89 | 46.02 | 52.37 | 59.54 | –   |
| 26" | 650 | 660.0 | –    | –    | –    | –     | 7.92 | 12.70 | –     | –     | 9.53 | –     | –     | 12.70 | –     | –     | –     | –     | –   |
| 28" | 700 | 711.0 | –    | –    | –    | –     | 7.92 | 12.70 | 15.88 | –     | 9.53 | –     | –     | 12.70 | –     | –     | –     | –     | –   |
| 30" | 750 | 762.0 | 6.35 | 7.92 | –    | –     | 7.92 | 12.70 | 15.88 | –     | 9.53 | –     | –     | 12.70 | –     | –     | –     | –     | –   |
| 36" | 900 | 914.4 | –    | –    | –    | –     | 7.92 | –     | –     | –     | 9.53 | –     | –     | 12.70 | –     | –     | –     | –     | –   |

For NPS 12" and above, Standard (STD) wall and Schedule 40 are separately standardized and often differ (e.g. NPS 14": STD = 9.53 mm vs Sch 40 = 11.13 mm) — confirm which designation your specification calls for. Schedules above 36" are project/mill-specific; consult our engineering team for exact wall thickness and availability.

## Pipe Weight Reference — STD/Sch 40 & XS/Sch 80 (kg/m)

Theoretical mass per metre for carbon steel pipe (density 7.85 g/cm<sup>3</sup>) at the two most commonly ordered schedules. For other schedules or materials, use  $W \text{ (kg/m)} = 0.02466 \times t \times (D - t)$ , where  $D = \text{OD}$  (mm) and  $t = \text{wall thickness (mm)}$ ; adjust for stainless steel density ( $\approx 7.93\text{--}8.00 \text{ g/cm}^3$ ).

| NPS    | OD (mm) | STD/Sch 40<br>WT (mm) | STD/Sch 40<br>Weight (kg/m) | XS/Sch 80<br>WT (mm) | XS/Sch 80<br>Weight (kg/m) |
|--------|---------|-----------------------|-----------------------------|----------------------|----------------------------|
| 1/8"   | 10.3    | 1.73                  | 0.36                        | 2.41                 | 0.47                       |
| 1/4"   | 13.7    | 2.24                  | 0.63                        | 3.02                 | 0.80                       |
| 3/8"   | 17.1    | 2.31                  | 0.84                        | 3.20                 | 1.10                       |
| 1/2"   | 21.3    | 2.77                  | 1.27                        | 3.73                 | 1.62                       |
| 3/4"   | 26.7    | 2.87                  | 1.68                        | 3.91                 | 2.19                       |
| 1"     | 33.4    | 3.38                  | 2.50                        | 4.55                 | 3.23                       |
| 1-1/4" | 42.2    | 3.56                  | 3.38                        | 4.85                 | 4.46                       |
| 1-1/2" | 48.3    | 3.68                  | 4.05                        | 5.08                 | 5.40                       |
| 2"     | 60.3    | 3.91                  | 5.44                        | 5.54                 | 7.47                       |
| 2-1/2" | 73.0    | 5.16                  | 8.62                        | 7.01                 | 11.40                      |
| 3"     | 88.9    | 5.49                  | 11.27                       | 7.62                 | 15.25                      |
| 3-1/2" | 101.6   | 5.74                  | 13.56                       | 8.08                 | 18.60                      |
| 4"     | 114.3   | 6.02                  | 16.06                       | 8.56                 | 22.29                      |
| 5"     | 141.3   | 6.55                  | 21.76                       | 9.53                 | 30.93                      |
| 6"     | 168.3   | 7.11                  | 28.23                       | 10.97                | 42.52                      |
| 8"     | 219.1   | 8.18                  | 42.49                       | 12.70                | 64.58                      |
| 10"    | 273.1   | 9.27                  | 60.24                       | 15.09                | 95.89                      |
| 12"    | 323.9   | 10.31                 | 79.65                       | 17.48                | 131.90                     |
| 14"    | 355.6   | 11.13                 | 94.41                       | 19.05                | 157.95                     |
| 16"    | 406.4   | 12.70                 | 123.18                      | 21.44                | 203.31                     |
| 18"    | 457.2   | 14.27                 | 155.78                      | 23.83                | 254.37                     |
| 20"    | 508.0   | 15.09                 | 183.22                      | 26.19                | 310.85                     |

| NPS | OD (mm) | STD/Sch 40<br>WT (mm) | STD/Sch 40<br>Weight (kg/m) | XS/Sch 80<br>WT (mm) | XS/Sch 80<br>Weight (kg/m) |
|-----|---------|-----------------------|-----------------------------|----------------------|----------------------------|
| 24" | 609.6   | 17.48                 | 254.92                      | 30.96                | 441.39                     |
| 30" | 762.0   | 9.53                  | 176.58                      | 12.70                | 234.44                     |
| 36" | 914.4   | 9.53                  | 212.34                      | 12.70                | 282.13                     |

## Pipe Dimensions by Material Grade

The dimensional standards above apply consistently across pipe material — but availability, minimum wall thickness and pressure ratings vary by metallurgy. We stock and supply: Stainless Steel, Carbon Steel, Alloy Steel, Duplex Steel, Super Duplex Steel, Inconel, Hastelloy, Monel, Copper Nickel, Nickel Alloy, Titanium, Zirconium, Corten/Weathering Steel and Aluminium pipe & tube.

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