



# THERMAL EXPANSION FOR CARBON STEEL PIPE

TOTAL LINEAR THERMAL EXPANSION FROM 70°F TO THE TEMPERATURE

| TEMPERATURE<br>°F | EXPANSION<br>IN./100ft | TEMPERATURE<br>°F | EXPANSION<br>IN./100ft | TEMPERATURE<br>°F | EXPANSION<br>IN./100ft |
|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|
| -325              | -2.37                  | 275               | 1.61                   | 875               | 7.53                   |
| -300              | -2.24                  | 300               | 1.82                   | 900               | 7.81                   |
| -275              | -2.11                  | 325               | 2.04                   | 925               | 8.08                   |
| -250              | -1.98                  | 350               | 2.26                   | 950               | 8.35                   |
| -225              | -1.85                  | 375               | 2.48                   | 975               | 8.62                   |
| -200              | -1.71                  | 400               | 2.70                   | 1000              | 8.89                   |
| -175              | -1.58                  | 425               | 2.93                   | 1025              | 9.17                   |
| -150              | -1.45                  | 450               | 3.16                   | 1050              | 9.46                   |
| -125              | -1.30                  | 475               | 3.39                   | 1075              | 9.75                   |
| -100              | -1.15                  | 500               | 3.62                   | 1100              | 10.04                  |
| -75               | -1.00                  | 525               | 3.86                   | 1125              | 10.31                  |
| -50               | -0.84                  | 550               | 4.11                   | 1150              | 10.57                  |
| -25               | -0.68                  | 575               | 4.35                   | 1175              | 10.83                  |
| 0                 | -0.49                  | 600               | 4.60                   | 1200              | 11.10                  |
| 25                | -0.32                  | 625               | 4.86                   | 1225              | 11.38                  |
| 50                | -0.14                  | 650               | 5.11                   | 1250              | 11.66                  |
| 70                | 0.00                   | 675               | 5.37                   | 1275              | 11.94                  |
| 100               | 0.23                   | 700               | 5.63                   | 1300              | 12.22                  |
| 125               | 0.42                   | 725               | 5.90                   | 1325              | 12.50                  |
| 150               | 0.61                   | 750               | 6.16                   | 1350              | 12.78                  |
| 175               | 0.80                   | 775               | 6.43                   | 1375              | 13.06                  |
| 200               | 0.99                   | 800               | 6.70                   | 1400              | 13.34                  |
| 225               | 1.21                   | 825               | 6.97                   | —                 | —                      |
| 250               | 1.40                   | 850               | 7.25                   | —                 | —                      |