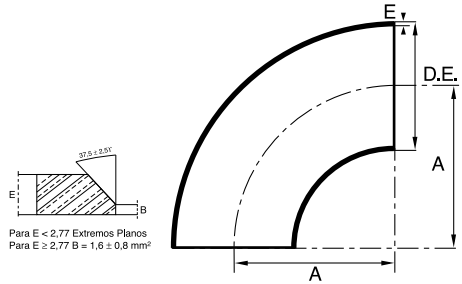


# CODOS DE ACERO INOXIDABLE ASTM A-403 (90° R.L.)



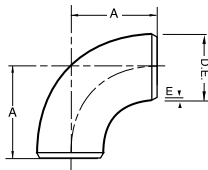
| Diámetro Nominal | D.E.  | A  | E   |      | Peso en Kg. |
|------------------|-------|----|-----|------|-------------|
|                  | mm    |    | SCH | mm   |             |
| 1/2"             | 21.34 | 38 | 5S  | 1.65 | 0.04        |
|                  |       |    | 10S | 2.11 | 0.06        |
|                  |       |    | 40S | 2.77 | 0.08        |
|                  |       |    | 80S | 3.70 | 0.10        |
| 3/4"             | 26.67 | 38 | 5S  | 1.65 | 0.04        |
|                  |       |    | 10S | 2.11 | 0.06        |
|                  |       |    | 40S | 2.87 | 0.09        |
|                  |       |    | 80S | 3.90 | 0.11        |
| 1"               | 33.40 | 38 | 5S  | 1.65 | 0.08        |
|                  |       |    | 10S | 2.77 | 0.13        |
|                  |       |    | 40S | 3.38 | 0.16        |
|                  |       |    | 80S | 4.55 | 0.22        |
| 1 1/4"           | 42.16 | 48 | 5S  | 1.65 | 0.12        |
|                  |       |    | 10S | 2.77 | 0.21        |
|                  |       |    | 40S | 3.56 | 0.25        |
|                  |       |    | 80S | 4.85 | 0.42        |
| 1 1/2"           | 48.30 | 57 | 5S  | 1.65 | 0.17        |
|                  |       |    | 10S | 2.77 | 0.29        |
|                  |       |    | 40S | 3.68 | 0.40        |
|                  |       |    | 80S | 5.08 | 0.53        |
| 2"               | 60.30 | 76 | 5S  | 1.65 | 0.28        |
|                  |       |    | 10S | 2.77 | 0.49        |
|                  |       |    | 40S | 3.91 | 0.71        |
|                  |       |    | 80S | 5.54 | 1.05        |
| 2 1/2"           | 73.00 | 95 | 5S  | 2.11 | 0.55        |
|                  |       |    | 10S | 3.05 | 0.83        |
|                  |       |    | 40S | 5.16 | 1.36        |
|                  |       |    | 80S | 7.01 | 1.76        |

| Diámetro Nominal | D.E.   | A   | E   |       | Peso en Kg. |
|------------------|--------|-----|-----|-------|-------------|
|                  | mm     |     | SCH | mm    |             |
| 3"               | 88.90  | 114 | 5S  | 2.11  | 0.78        |
|                  |        |     | 10S | 3.05  | 1.21        |
|                  |        |     | 40S | 5.49  | 2.18        |
|                  |        |     | 80S | 7.62  | 3.08        |
|                  |        |     |     |       |             |
| 3 1/2"           | 101.60 | 133 | 5S  | 2.11  | 1.19        |
|                  |        |     | 10S | 3.05  | 1.70        |
|                  |        |     | 40S | 5.74  | 2.83        |
|                  |        |     |     |       |             |
| 4"               | 114.30 | 152 | 5S  | 2.11  | 1.33        |
|                  |        |     | 10S | 3.05  | 2.10        |
|                  |        |     | 40S | 6.02  | 4.17        |
|                  |        |     | 80S | 8.56  | 5.87        |
| 5"               | 141.30 | 190 | 5S  | 2.77  | 2.95        |
|                  |        |     | 10S | 3.40  | 3.63        |
|                  |        |     | 40S | 6.55  | 6.86        |
|                  |        |     | 80S | 9.53  | 9.13        |
| 6"               | 168.30 | 229 | 5S  | 2.77  | 4.05        |
|                  |        |     | 10S | 3.40  | 5.20        |
|                  |        |     | 40S | 7.11  | 10.90       |
|                  |        |     | 80S | 10.97 | 18.02       |
| 8"               | 219.1  | 305 | 5S  | 2.77  | 7.00        |
|                  |        |     | 10S | 3.76  | 10.10       |
|                  |        |     | 40S | 8.18  | 21.50       |
|                  |        |     | 80S | 12.70 | 35.70       |
| 10"              | 273.0  | 381 | 5S  | 3.40  | 13.20       |
|                  |        |     | 10S | 4.19  | 17.50       |
|                  |        |     | 40S | 9.27  | 38.60       |
|                  |        |     | 80S | 12.70 | 54.83       |

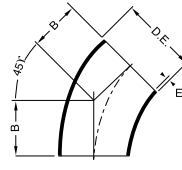
| Diámetro Nominal | D.E.   | A    | E   |       | Peso en Kg. |
|------------------|--------|------|-----|-------|-------------|
|                  | mm     |      | SCH | mm    |             |
| 12"              | 323.9  | 457  | 5S  | 3.96  | 23.50       |
|                  |        |      | 10S | 4.57  | 27.00       |
|                  |        |      | 40S | 9.53  | 59.40       |
|                  |        |      | 80S | 12.70 | 83.37       |
|                  |        |      |     |       |             |
| 14"              | 355.6  | 533  | 5S  | 3.96  | 30.00       |
|                  |        |      | 10S | 4.78  | 36.30       |
|                  |        |      | Std | 9.53  | 70.30       |
|                  |        |      |     |       |             |
| 16"              | 406.4  | 610  | 5S  | 4.19  | 40.80       |
|                  |        |      | 10S | 4.78  | 47.50       |
|                  |        |      | Std | 9.53  | 91.60       |
| 18"              | 457.2  | 686  | 5S  | 4.19  | 51.80       |
|                  |        |      | 10S | 4.78  | 58.60       |
|                  |        |      | Std | 9.53  | 122.0       |
| 20"              | 508.0  | 762  | 5S  | 4.78  | 72.00       |
|                  |        |      | 10S | 5.54  | 84.00       |
|                  |        |      | Std | 9.53  | 149.70      |
| 24"              | 609.6  | 914  | 5S  | 5.54  | 127.00      |
|                  |        |      | 10S | 6.35  | 141.00      |
|                  |        |      | Std | 9.53  | 211.00      |
| 28"              | 711.2  | 1067 | 10S | 7.92  | 234.00      |
|                  |        |      | Std | 9.53  | 280.00      |
| 30"              | 762.0  | 1143 | 10S | 7.92  | 271.00      |
|                  |        |      | Std | 9.53  | 326.00      |
|                  |        |      |     |       |             |
| 32"              | 812.8  | 1219 | 10S | 7.92  | 308.00      |
|                  |        |      | Std | 9.53  | 370.00      |
| 36"              | 914.4  | 1372 | 10S | 7.92  | 390.00      |
|                  |        |      | Std | 9.53  | 468.00      |
|                  |        |      |     |       |             |
| 40"              | 1016.0 | 1524 | min | 5.0   | 304.00      |
|                  |        |      | max | 22.0  | 1316.00     |
| 44"              | 1117.6 | 1676 | min | 6.0   | 441.00      |
|                  |        |      | max | 25.0  | 1807.00     |

SIN COSTURA HASTA 10"

# CODOS DE ACERO INOXIDABLE ASTM A-403 (90° R.C. Y 45° R.L.)



ANSI B16.28  
MSS SP-43



ANSI B16.9  
MSS SP-43



## Diámetro Nominal - 90° R. C.

| Diámetro Nominal | Diámetro Exterior en mm | A      | E   |       | Peso en Kg. |
|------------------|-------------------------|--------|-----|-------|-------------|
|                  |                         | mm.    | SCH | mm.   |             |
| 1"               | 33.40                   | 25.40  | 10S | 2.77  | 0.09        |
|                  |                         |        | 40S | 3.38  | 0.11        |
|                  |                         |        | 80S | 4.55  | 0.15        |
| 1 1/4"           | 42.16                   | 31.75  | 10S | 2.77  | 0.14        |
|                  |                         |        | 40S | 3.56  | 0.17        |
|                  |                         |        | 80S | 4.85  | 0.22        |
| 1 1/2"           | 48.30                   | 38.10  | 10S | 2.77  | 0.20        |
|                  |                         |        | 40S | 3.68  | 0.25        |
|                  |                         |        | 80S | 5.08  | 0.34        |
| 2"               | 60.30                   | 50.80  | 10S | 2.77  | 0.33        |
|                  |                         |        | 40S | 3.91  | 0.46        |
|                  |                         |        | 80S | 5.54  | 0.63        |
| 2 1/2"           | 73.00                   | 63.50  | 10S | 3.05  | 0.59        |
|                  |                         |        | 40S | 5.16  | 0.84        |
|                  |                         |        | 80S | 7.01  | 1.19        |
| 3"               | 88.90                   | 76.20  | 10S | 3.05  | 0.85        |
|                  |                         |        | 40S | 5.49  | 1.38        |
|                  |                         |        | 80S | 7.62  | 1.75        |
| 4"               | 114.30                  | 101.60 | 10S | 3.05  | 1.52        |
|                  |                         |        | 40S | 6.02  | 2.70        |
|                  |                         |        | 80S | 8.56  | 3.87        |
| 5"               | 141.30                  | 127.00 | 10S | 3.40  | 2.72        |
|                  |                         |        | 40S | 6.55  | 5.30        |
|                  |                         |        | 80S | 9.53  | 6.90        |
| 6"               | 168.30                  | 152.40 | 10S | 3.40  | 4.07        |
|                  |                         |        | 40S | 7.11  | 7.60        |
|                  |                         |        | 80S | 10.97 | 11.08       |
| 8"               | 219.10                  | 203.20 | 10S | 3.76  | 7.88        |
|                  |                         |        | 40S | 8.18  | 16.72       |
|                  |                         |        | 80S | 12.70 | 23.37       |
| 10"              | 273.00                  | 254.00 | 10S | 4.19  | 15.56       |
|                  |                         |        | 40S | 9.27  | 28.00       |
|                  |                         |        | 80S | 12.70 | 42.55       |
| 12"              | 323.85                  | 304.80 | 10S | 4.57  | 17.80       |
|                  |                         |        | 40S | 9.53  | 35.56       |
|                  |                         |        | 80S | 12.70 | 54.00       |

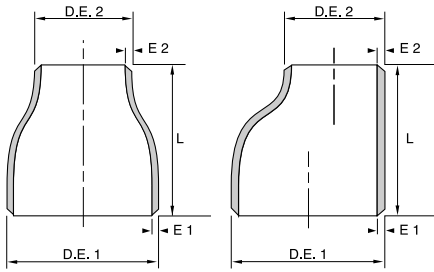
SIN COSTURA HASTA 10"

## Diámetro Nominal - 45° R. L.

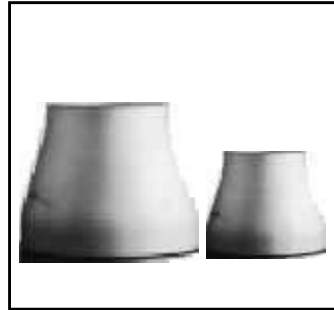
| Diámetro Nominal | Diámetro Exterior en mm | B      | E   |       | Peso en Kg. |
|------------------|-------------------------|--------|-----|-------|-------------|
|                  |                         | mm.    | SCH | mm.   |             |
| 1/2"             | 21.34                   | 15.87  | 10S | 2.11  | 0.039       |
|                  |                         |        | 40S | 2.77  | 0.052       |
|                  |                         |        | 80S | 3.70  | 0.050       |
| 3/4"             | 26.67                   | 11.43  | 10S | 2.11  | 0.064       |
|                  |                         |        | 40S | 2.87  | 0.077       |
|                  |                         |        | 80S | 3.90  | 0.060       |
| 1"               | 33.40                   | 22.2   | 10S | 2.77  | 0.103       |
|                  |                         |        | 40S | 3.38  | 0.130       |
|                  |                         |        | 80S | 4.55  | 0.140       |
| 1 1/4"           | 42.16                   | 25.4   | 10S | 2.77  | 0.142       |
|                  |                         |        | 40S | 3.56  | 0.184       |
|                  |                         |        | 80S | 4.85  | 0.240       |
| 1 1/2"           | 48.30                   | 28.6   | 10S | 2.77  | 0.239       |
|                  |                         |        | 40S | 3.68  | 0.326       |
|                  |                         |        | 80S | 5.08  | 0.370       |
| 2"               | 60.30                   | 35     | 10S | 2.77  | 0.406       |
|                  |                         |        | 40S | 3.91  | 0.683       |
|                  |                         |        | 80S | 5.54  | 0.540       |
| 2 1/2"           | 73.00                   | 44.45  | 10S | 3.05  | 0.571       |
|                  |                         |        | 40S | 5.16  | 1.020       |
|                  |                         |        | 80S | 7.01  | 1.010       |
| 3"               | 88.90                   | 51     | 10S | 3.05  | 0.764       |
|                  |                         |        | 40S | 5.49  | 1.410       |
|                  |                         |        | 80S | 7.62  | 1.540       |
| 4"               | 114.30                  | 63.5   | 10S | 3.05  | 0.985       |
|                  |                         |        | 40S | 6.02  | 1.920       |
|                  |                         |        | 80S | 8.56  | 2.960       |
| 5"               | 141.30                  | 79.4   | 10S | 3.40  | 1.710       |
|                  |                         |        | 40S | 6.55  | 3.420       |
|                  |                         |        | 80S | 9.53  | 5.420       |
| 6"               | 168.30                  | 95.25  | 10S | 3.40  | 2.430       |
|                  |                         |        | 40S | 7.11  | 5.450       |
|                  |                         |        | 80S | 10.97 | 9.300       |
| 8"               | 219.10                  | 127.00 | 10S | 3.76  | 4.650       |
|                  |                         |        | 40S | 8.18  | 10.320      |
|                  |                         |        | 80S | 12.70 | 17.880      |
| 10"              | 273.00                  | 158.70 | 10S | 4.19  | 8.050       |
|                  |                         |        | 40S | 9.27  | 18.530      |
|                  |                         |        | 80S | 12.70 | 27.410      |
| 12"              | 323.90                  | 190.15 | 10S | 4.57  | 12.420      |
|                  |                         |        | 40S | 9.53  | 28.500      |
|                  |                         |        | 80S | 12.70 | 41.690      |

SIN COSTURA HASTA 10"

# REDUCCIONES DE ACERO INOXIDABLE CONCENTRICAS Y EXCENTRICAS ASTM A-403



ANSI B16.9 - MSS SP-43

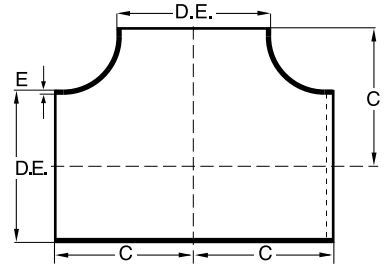


| DIAMETRO NOMINAL | DIAMETRO EXTERIOR |        | ESPESOR EN PARED EN MM. |        |        |        |        |        | L mm. |
|------------------|-------------------|--------|-------------------------|--------|--------|--------|--------|--------|-------|
|                  |                   |        | SCH 10                  |        | SCH 40 |        | SCH 80 |        |       |
|                  | D.E. 1            | D.E. 2 | D.E. 1                  | D.E. 2 | D.E. 1 | D.E. 2 | D.E. 1 | D.E. 2 |       |
| 3/4" x 3/8"      | 26.67             | 17.10  | 2.11                    | 2.11   | 2.87   | 2.31   | 3.90   | 3.20   | 38    |
| 3/4" x 1/2"      | 26.67             | 21.34  | 2.11                    | 2.11   | 2.87   | 2.77   | 3.90   | 3.70   | 38    |
| 1" x 3/8"        | 33.40             | 17.10  | 2.77                    | 2.11   | 3.38   | 2.31   | 4.55   | 3.20   | 51    |
| 1" x 1/2"        | 33.40             | 21.34  | 2.77                    | 2.11   | 3.38   | 2.77   | 4.55   | 3.70   | 51    |
| 1" x 3/4"        | 33.40             | 26.67  | 2.77                    | 2.11   | 3.38   | 3.38   | 4.55   | 3.90   | 51    |
| 1 1/4" x 1/2"    | 42.16             | 21.34  | 2.77                    | 2.11   | 3.56   | 2.77   | 4.85   | 3.70   | 51    |
| 1 1/4" x 3/4"    | 42.16             | 26.67  | 2.77                    | 2.11   | 3.56   | 2.87   | 4.85   | 3.90   | 51    |
| 1 1/4" x 1"      | 42.16             | 33.40  | 2.77                    | 2.77   | 3.56   | 3.38   | 4.85   | 4.55   | 51    |
| 1 1/2" x 1/2"    | 48.30             | 21.34  | 2.77                    | 2.11   | 3.68   | 2.77   | 5.08   | 3.70   | 64    |
| 1 1/2" x 3/4"    | 48.30             | 26.67  | 2.77                    | 2.11   | 3.68   | 2.87   | 5.08   | 3.90   | 64    |
| 1 1/2" x 1"      | 48.30             | 33.40  | 2.77                    | 2.77   | 3.68   | 2.87   | 5.08   | 4.55   | 64    |
| 1 1/2" x 1 1/4"  | 48.30             | 42.16  | 2.77                    | 2.77   | 3.68   | 3.55   | 5.08   | 4.85   | 64    |
| 2" x 3/4"        | 60.30             | 26.67  | 2.77                    | 2.11   | 3.91   | 2.87   | 5.54   | 3.90   | 76    |
| 2" x 1"          | 60.30             | 33.40  | 2.77                    | 2.77   | 3.91   | 2.87   | 5.54   | 4.55   | 76    |
| 2" x 1 1/4"      | 60.30             | 42.16  | 2.77                    | 2.77   | 3.91   | 3.56   | 5.54   | 4.85   | 76    |
| 2" x 1 1/2"      | 60.30             | 48.30  | 2.77                    | 2.77   | 3.91   | 3.68   | 5.54   | 5.08   | 76    |
| 2 1/2" x 1"      | 73.00             | 33.40  | 3.05                    | 2.77   | 5.16   | 3.38   | 7.01   | 4.55   | 89    |
| 2 1/2" x 1 1/4"  | 73.00             | 42.16  | 3.05                    | 2.77   | 5.16   | 3.56   | 7.01   | 4.85   | 89    |
| 2 1/2" x 1 1/2"  | 73.00             | 48.30  | 3.05                    | 2.77   | 5.16   | 3.68   | 7.01   | 5.08   | 89    |
| 2 1/2" x 2"      | 73.00             | 60.30  | 3.05                    | 2.77   | 5.16   | 3.91   | 7.01   | 5.54   | 89    |
| 3" x 1"          | 88.90             | 33.40  | 3.05                    | 2.77   | 5.49   | 3.38   | 7.62   | 4.55   | 89    |
| 3" x 1 1/4"      | 88.90             | 42.16  | 3.05                    | 2.77   | 5.49   | 3.56   | 7.62   | 4.85   | 89    |
| 3" x 1 1/2"      | 88.90             | 48.30  | 3.05                    | 2.77   | 5.49   | 3.68   | 7.62   | 5.08   | 89    |
| 3" x 2"          | 88.90             | 60.30  | 3.05                    | 2.77   | 5.49   | 3.91   | 7.62   | 5.54   | 89    |
| 3" x 2 1/2"      | 88.90             | 73.00  | 3.05                    | 3.05   | 5.49   | 5.16   | 7.62   | 7.01   | 89    |
| 4" x 1 1/2"      | 114.30            | 48.30  | 3.05                    | 2.77   | 6.02   | 3.68   | 8.56   | 5.08   | 102   |
| 4" x 2"          | 114.30            | 60.30  | 3.05                    | 2.77   | 6.02   | 3.91   | 8.56   | 5.54   | 102   |
| 4" x 2 1/2"      | 114.30            | 73.00  | 3.05                    | 3.05   | 6.02   | 5.16   | 8.56   | 7.01   | 102   |
| 4" x 3"          | 114.30            | 88.90  | 3.05                    | 3.05   | 6.02   | 5.49   | 8.56   | 7.62   | 102   |
| 5" x 3"          | 141.30            | 88.90  | 3.40                    | 3.05   | 6.55   | 5.49   | 9.53   | 7.62   | 127   |
| 5" x 4"          | 141.30            | 114.30 | 3.40                    | 3.05   | 6.55   | 6.02   | 9.53   | 8.56   | 127   |
| 6" x 2 1/2"      | 168.30            | 73.00  | 3.40                    | 3.05   | 7.11   | 5.16   | 10.97  | 7.01   | 140   |
| 6" x 3"          | 168.30            | 88.90  | 3.40                    | 3.05   | 7.11   | 5.49   | 10.97  | 7.62   | 140   |
| 6" x 4"          | 168.30            | 114.30 | 3.40                    | 3.05   | 7.11   | 6.02   | 10.97  | 8.56   | 140   |
| 6" x 5"          | 168.30            | 141.30 | 3.40                    | 3.40   | 7.11   | 6.55   | 10.97  | 9.53   | 140   |
| 8" x 4"          | 219.10            | 114.30 | 3.76                    | 3.05   | 8.18   | 6.02   | 12.70  | 8.56   | 152   |
| 8" x 5"          | 219.10            | 141.30 | 3.76                    | 3.40   | 8.18   | 6.55   | 12.70  | 9.53   | 152   |
| 8" x 6"          | 219.10            | 168.30 | 3.76                    | 3.40   | 8.18   | 7.11   | 12.70  | 10.97  | 152   |
| 10" x 5"         | 273.00            | 141.30 | 4.19                    | 3.40   | 9.27   | 6.55   | 12.70  | 9.53   | 178   |
| 10" x 6"         | 273.00            | 168.30 | 4.19                    | 3.40   | 9.27   | 7.11   | 12.70  | 10.97  | 178   |
| 10" x 8"         | 273.00            | 219.10 | 4.19                    | 3.76   | 9.27   | 8.18   | 12.70  | 12.70  | 178   |
| 12" x 6"         | 323.90            | 168.30 | 4.57                    | 3.40   | 9.53   | 7.11   | 12.70  | 10.97  | 203   |
| 12" x 8"         | 323.90            | 219.10 | 4.57                    | 3.76   | 9.53   | 8.18   | 12.70  | 12.70  | 203   |
| 12" x 10"        | 323.90            | 273.00 | 4.57                    | 4.19   | 9.53   | 9.27   | 12.70  | 12.70  | 203   |

| DIAMETRO NOMINAL | PESO EN KG. |        |        |
|------------------|-------------|--------|--------|
|                  | SCH 10      | SCH 40 | SCH 80 |
| 3/4" x 3/8"      | 0.090       | 0.050  | 0.100  |
| 3/4" x 1/2"      | 0.090       | 0.105  | 0.100  |
| 1" x 3/8"        | 0.110       | 0.120  | 0.140  |
| 1" x 1/2"        | 0.090       | 0.106  | 0.140  |
| 1" x 3/4"        | 0.090       | 0.110  | 0.150  |
| 1 1/4" x 1/2"    | 0.100       | 0.120  | 0.180  |
| 1 1/4" x 3/4"    | 0.120       | 0.140  | 0.190  |
| 1 1/4" x 1"      | 0.125       | 0.157  | 0.200  |
| 1 1/2" x 1/2"    | 0.154       | 0.204  | 0.260  |
| 1 1/2" x 3/4"    | 0.156       | 0.201  | 0.280  |
| 1 1/2" x 1"      | 0.170       | 0.219  | 0.290  |
| 1 1/2" x 1 1/4"  | 0.195       | 0.263  | 0.320  |
| 2" x 3/4"        | 0.214       | 0.298  | 0.450  |
| 2" x 1"          | 0.237       | 0.322  | 0.480  |
| 2" x 1 1/4"      | 0.258       | 0.352  | 0.500  |
| 2" x 1 1/2"      | 0.273       | 0.372  | 0.510  |
| 2 1/2" x 1"      | 0.349       | 0.793  | 0.660  |
| 2 1/2" x 1 1/4"  | 0.394       | 0.670  | 0.680  |
| 2 1/2" x 1 1/2"  | 0.396       | 0.661  | 0.740  |
| 2 1/2" x 2"      | 0.432       | 0.724  | 0.850  |
| 3" x 1"          | 0.408       | 0.716  | 0.840  |
| 3" x 1 1/4"      | 0.430       | 0.775  | 0.910  |
| 3" x 1 1/2"      | 0.444       | 0.783  | 0.990  |
| 3" x 2"          | 0.478       | 0.846  | 1.050  |
| 3" x 2 1/2"      | 0.548       | 0.983  | 1.300  |
| 4" x 1 1/2"      | 0.630       | 1.241  | 1.610  |
| 4" x 2"          | 0.656       | 1.270  | 1.710  |
| 4" x 2 1/2"      | 0.706       | 1.370  | 1.860  |
| 4" x 3"          | 0.748       | 1.450  | 1.970  |
| 5" x 3"          | 1.200       | 2.270  | 3.010  |
| 5" x 4"          | 1.320       | 2.500  | 3.350  |
| 6" x 2 1/2"      | 1.350       | 2.740  | 4.000  |
| 6" x 3"          | 1.500       | 3.040  | 4.160  |
| 6" x 4"          | 1.620       | 3.300  | 4.520  |
| 6" x 5"          | 1.750       | 3.570  | 5.000  |
| 8" x 4"          | 2.560       | 5.100  | 7.400  |
| 8" x 5"          | 2.700       | 5.400  | 7.750  |
| 8" x 6"          | 2.850       | 5.710  | 8.150  |
| 10" x 5"         | 3.300       | 8.210  | 14.240 |
| 10" x 6"         | 3.870       | 8.780  | 14.800 |
| 10" x 8"         | 4.210       | 9.580  | 15.580 |
| 12" x 6"         | 5.730       | 12.400 | 20.150 |
| 12" x 8"         | 6.110       | 13.700 | 20.900 |
| 12" x 10"        | 8.150       | 16.780 | 21.650 |

SIN COSTURA HASTA 10"

# TES DE ACERO INOXIDABLE ASTM A-403



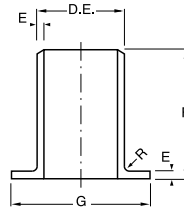
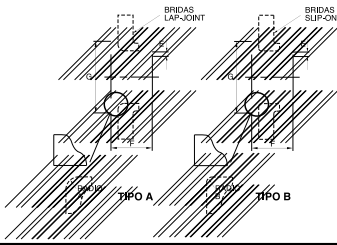
ANSI B16.9 - MSS SP-43

| Diámetro Nominal | D. Exterior<br>mm. | C<br>mm. | E   |      | Peso en kg. |
|------------------|--------------------|----------|-----|------|-------------|
|                  |                    |          | SCH | mm.  |             |
| 1/2"             | 21.34              | 25       | 10S | 2.11 | 0.100       |
|                  |                    |          | 40S | 2.77 | 0.100       |
|                  |                    |          | 80S | 3.70 | 0.140       |
| 3/4"             | 26.67              | 29       | 10S | 2.11 | 0.100       |
|                  |                    |          | 40S | 2.87 | 0.200       |
|                  |                    |          | 80S | 3.90 | 0.200       |
| 1"               | 33.40              | 38       | 10S | 2.77 | 0.300       |
|                  |                    |          | 40S | 3.38 | 0.300       |
|                  |                    |          | 80S | 4.55 | 0.500       |
| 1 1/4"           | 42.16              | 48       | 10S | 2.77 | 0.500       |
|                  |                    |          | 40S | 3.56 | 0.600       |
|                  |                    |          | 80S | 4.85 | 0.680       |
| 1 1/2"           | 48.3               | 57       | 10S | 2.77 | 0.700       |
|                  |                    |          | 40S | 3.68 | 0.900       |
|                  |                    |          | 80S | 5.08 | 1.200       |
| 2"               | 60.3               | 64       | 10S | 2.77 | 0.800       |
|                  |                    |          | 40S | 3.91 | 1.200       |
|                  |                    |          | 80S | 5.54 | 1.600       |
| 2 1/2"           | 73.0               | 76       | 10S | 3.05 | 1.400       |
|                  |                    |          | 40S | 5.16 | 2.300       |
|                  |                    |          | 80S | 7.01 | 3.400       |
| 3"               | 88.9               | 86       | 10S | 3.05 | 1.800       |
|                  |                    |          | 40S | 5.49 | 3.200       |
|                  |                    |          | 80S | 7.62 | 4.200       |

| Diámetro Nominal | D. Exterior<br>mm. | C<br>mm. | E   |       | Peso en kg. |
|------------------|--------------------|----------|-----|-------|-------------|
|                  |                    |          | SCH | mm.   |             |
| 4"               | 114.3              | 105      | 10S | 3.05  | 2.600       |
|                  |                    |          | 40S | 6.02  | 5.100       |
|                  |                    |          | 80S | 8.56  | 5.800       |
| 5"               | 141.3              | 124      | 10S | 3.40  | 4.600       |
|                  |                    |          | 40S | 6.55  | 9.400       |
|                  |                    |          | 80S | 9.53  | 11.200      |
| 6"               | 168.3              | 143      | 10S | 3.40  | 6.300       |
|                  |                    |          | 40S | 7.11  | 16.100      |
|                  |                    |          | 80S | 10.97 | 15.500      |
| 8"               | 219.1              | 178      | 10S | 3.76  | 11.400      |
|                  |                    |          | 40S | 8.18  | 31.000      |
|                  |                    |          | 80S | 12.70 | 26.500      |
| 10"              | 273.0              | 216      | 10S | 4.19  | 27.100      |
|                  |                    |          | 40S | 9.27  | 53.100      |
|                  |                    |          | 80S | 12.70 | 45.500      |
| 12"              | 323.9              | 254      | 10S | 4.57  | 38.000      |
|                  |                    |          | 40S | 9.53  | 77.000      |
|                  |                    |          | 80S | 12.70 | 77.000      |
| 14"              | 355.6              | 279      | 10S | 4.78  | 46.000      |
|                  |                    |          | 40S | 9.53  | 93.000      |
| 16"              | 406.4              | 305      | 10S | 4.78  | 57.000      |
|                  |                    |          | 40S | 9.53  | 116.000     |
| 18"              | 457.2              | 343      | 10S | 4.78  | 73.000      |
|                  |                    |          | 40S | 9.53  | 147.000     |
| 20"              | 508.0              | 381      | 10S | 5.54  | 111.000     |
|                  |                    |          | std | 9.53  | 182.000     |
| 24"              | 609.6              | 432      | 10S | 6.35  | 149.000     |
|                  |                    |          | std | 9.53  | 245.000     |

SIN COSTURA HASTA 10"

# STUB ENDS DE ACERO INOXIDABLE ASTM A-403 - M.S.S. SP-43



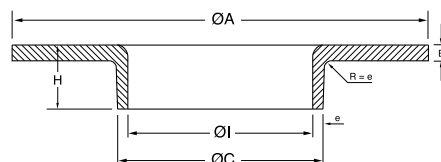
ANSI B16.9/93

| DIAMETRO NOMINAL EN PULGADAS | DIAMETRO EXTERIOR EN MILIMETROS | RADIO |      | SCHEDULE |      |      | PESO KG. |       |         |         |         |
|------------------------------|---------------------------------|-------|------|----------|------|------|----------|-------|---------|---------|---------|
|                              |                                 | F     | G    | A        | B    | 10S  | 40S      | 80S   | SCH 10S | SCH 40S | SCH 80S |
| 1/2"                         | 21.34                           | 51    | 35   | 3        | 0.76 | 2.11 | 2.77     | 3.70  | 0.070   | 0.800   | 0.118   |
| 3/4"                         | 26.67                           | 51    | 43   | 3        | 0.76 | 2.11 | 2.87     | 3.90  | 0.086   | 0.110   | 0.154   |
| 1"                           | 33.40                           | 51    | 51   | 3        | 0.76 | 2.77 | 3.38     | 4.55  | 0.140   | 0.186   | 0.220   |
| 1 1/4"                       | 42.16                           | 51    | 63.5 | 4.83     | 0.76 | 2.77 | 3.56     | 4.85  | 0.208   | 0.263   | 0.360   |
| 1 1/2"                       | 48.26                           | 51    | 73   | 6.35     | 0.76 | 2.77 | 3.68     | 5.08  | 0.249   | 0.300   | 0.380   |
| 2"                           | 60.30                           | 63.5  | 92   | 7.87     | 0.76 | 2.77 | 3.91     | 5.54  | 0.376   | 0.539   | 0.690   |
| 2 1/2"                       | 73.03                           | 63.5  | 105  | 7.87     | 0.76 | 3.05 | 5.16     | 7.01  | 0.471   | 0.797   | 1.030   |
| 3"                           | 88.90                           | 63.5  | 127  | 9.65     | 0.76 | 3.05 | 5.49     | 7.62  | 0.638   | 1.133   | 1.420   |
| 3 1/2"                       | 101.60                          | 76.2  | 140  | 9.65     | 0.76 | 3.05 | 5.74     | -     | 0.850   | 1.320   | 2.160   |
| 4"                           | 114.30                          | 76.2  | 157  | 11.18    | 0.76 | 3.05 | 6.02     | 8.56  | 0.978   | 1.812   | 1.570   |
| 5"                           | 141.30                          | 76.2  | 186  | 11.18    | 1.52 | 3.40 | 6.55     | 9.53  | 1.237   | 2.537   | 3.130   |
| 6"                           | 168.28                          | 88.9  | 216  | 12.7     | 1.52 | 3.40 | 7.11     | 10.97 | 1.950   | 3.72    | 6.350   |
| 8"                           | 219.08                          | 101.6 | 270  | 12.7     | 1.52 | 3.76 | 8.18     | -     | 3.100   | 5.89    | -       |
| 10"                          | 273.05                          | 127   | 324  | 12.7     | 1.52 | 4.19 | 9.27     | -     | 4.860   | 10.42   | -       |
| 12"                          | 323.85                          | 152.4 | 381  | 12.7     | 1.52 | 4.57 | 9.53     | -     | 7.110   | 14.05   | -       |
| 14"                          | 355.60                          | 152.4 | 413  | 12.7     | 1.52 | 4.78 | 9.53     | -     | 8.140   | 16.00   | -       |
| 16"                          | 406.40                          | 152.4 | 470  | 12.7     | 1.52 | 4.78 | 9.53     | -     | 9.320   | 18.34   | -       |
| 18"                          | 457.20                          | 152.4 | 533  | 12.7     | 1.52 | 4.78 | 9.53     | -     | 10.490  | 20.68   | -       |
| 20"                          | 508.00                          | 152.4 | 584  | 12.7     | 1.52 | 5.54 | 9.53     | -     | 13.510  | 23.00   | -       |
| 24"                          | 608.60                          | 152.4 | 692  | 12.7     | 1.52 | 5.54 | 9.53     | -     | 18.580  | 27.72   | -       |

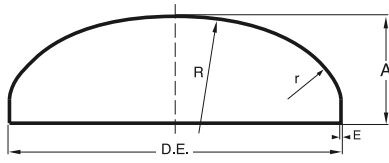
# COLLARES DE ACERO INOXIDABLE ESTAMPADOS EN UNA SOLA PIEZA

| DIAMETRO EN PULGADAS | D. DEL CUELLO<br>DIAMETRO NOMINAL | MEDIDAS EN mm. |    |          |   |          |   |
|----------------------|-----------------------------------|----------------|----|----------|---|----------|---|
|                      |                                   | ALA            |    | LIVIANOS |   | NORMALES |   |
|                      |                                   | ØA             | H  | e        | E | e        | E |
| 1/2"                 | 21.34                             | 40             | 8  | 1.6      | 2 | 2.5      | 3 |
| 3/4"                 | 26.67                             | 50             | 8  | 1.6      | 2 | 2.5      | 3 |
| 1"                   | 33.40                             | 58             | 10 | 1.6      | 2 | 2.5      | 3 |
| 1 1/4"               | 42.16                             | 70             | 11 | 1.6      | 2 | 2.5      | 3 |
| 1 1/2"               | 48.26                             | 80             | 12 | 1.6      | 2 | 2.5      | 3 |
| 2"                   | 60.33                             | 98             | 15 | 1.6      | 2 | 2.5      | 3 |
| 2 1/2"               | 73.03                             | 117            | 17 | 1.6      | 2 | 2.5      | 3 |
| 3"                   | 88.90                             | 130            | 18 | 1.6      | 2 | 2.5      | 3 |
| 3 1/2"               | 101.60                            | 150            | 20 | 1.6      | 2 | 2.5      | 3 |
| 4"                   | 114.30                            | 165            | 20 | 1.6      | 2 | 2.5      | 3 |
| 5"                   | 141.30                            | 190            | 20 | 1.6      | 2 | 2.5      | 3 |
| 6"                   | 168.28                            | 216            | 20 | 1.6      | 2 | 2.5      | 3 |
| 8"                   | 219.08                            | 272            | 22 | 1.6      | 2 | 2.5      | 3 |

| DIAMETRO EN PULGADAS | D. DEL CUELLO<br>DIAMETRO NOMINAL | MEDIDAS EN mm. |    |          |   |          |   |
|----------------------|-----------------------------------|----------------|----|----------|---|----------|---|
|                      |                                   | ALA            |    | LIVIANOS |   | NORMALES |   |
|                      |                                   | ØA             | H  | e        | E | e        | E |
| 10"                  | 273.05                            | 330            | 22 | 2.5      | 3 | 3.5      | 4 |
| 12"                  | 323.85                            | 400            | 25 | 2.5      | 3 | 3.5      | 4 |
| 14"                  | 355.60                            | 439            | 25 | 2.5      | 3 | 3.5      | 4 |
| 16"                  | 406.40                            | 500            | 25 | 2.5      | 3 | 3.5      | 4 |
| 18"                  | 457.20                            | 536            | 25 | 2.5      | 3 | 3.5      | 4 |
| 20"                  | 508.00                            | 593            | 25 | 2.5      | 3 | 3.5      | 4 |
| 24"                  | 609.60                            | 704            | 25 | 2.5      | 3 | 3.5      | 4 |



# CASQUETES PENSADOS DE ACERO INOXIDABLE ASTM A-403



Radio R = 0.8 x D.E., Radio r = 0.16 x D.E.

ANSI B16.9  
MSS SP-43

| Diámetro Nominal | D. E.  | A   | E   |       | Peso en kg. |
|------------------|--------|-----|-----|-------|-------------|
|                  | mm.    |     | SCH | mm.   |             |
| 1/2"             | 21.34  | 25  | 10S | 2.11  | 0.030       |
|                  |        |     | 40S | 2.77  | 0.040       |
|                  |        |     | 80S | 3.70  | 0.050       |
| 3/4"             | 26.67  | 25  | 10S | 2.11  | 0.050       |
|                  |        |     | 40S | 2.87  | 0.070       |
|                  |        |     | 80S | 3.90  | 0.080       |
| 1"               | 33.40  | 38  | 10S | 2.77  | 0.080       |
|                  |        |     | 40S | 3.38  | 0.100       |
|                  |        |     | 80S | 4.55  | 0.180       |
| 1 1/4"           | 42.16  | 38  | 10S | 2.77  | 0.110       |
|                  |        |     | 40S | 3.56  | 0.180       |
|                  |        |     | 80S | 4.85  | 0.220       |
| 1 1/2"           | 48.30  | 38  | 10S | 2.77  | 0.140       |
|                  |        |     | 40S | 3.68  | 0.230       |
|                  |        |     | 80S | 5.08  | 0.250       |
| 2"               | 60.30  | 38  | 10S | 2.77  | 0.170       |
|                  |        |     | 40S | 3.91  | 0.270       |
|                  |        |     | 80S | 5.54  | 0.330       |
| 2 1/2"           | 73.00  | 38  | 10S | 3.05  | 0.250       |
|                  |        |     | 40S | 5.16  | 0.450       |
|                  |        |     | 80S | 7.01  | 0.650       |
| 3"               | 88.90  | 51  | 10S | 3.05  | 0.400       |
|                  |        |     | 40S | 5.49  | 0.710       |
|                  |        |     | 80S | 7.62  | 0.940       |
| 4"               | 114.30 | 64  | 10S | 3.05  | 0.650       |
|                  |        |     | 40S | 6.02  | 1.220       |
|                  |        |     | 80S | 8.56  | 1.950       |
| 5"               | 141.30 | 76  | 10S | 3.40  | 1.020       |
|                  |        |     | 40S | 6.55  | 1.840       |
|                  |        |     | 80S | 9.53  | 2.600       |
| 6"               | 168.30 | 89  | 10S | 3.40  | 1.360       |
|                  |        |     | 40S | 7.11  | 3.230       |
|                  |        |     | 80S | 10.97 | 5.000       |
| 8"               | 219.10 | 102 | 10S | 3.76  | 2.490       |
|                  |        |     | 40S | 8.18  | 5.670       |
|                  |        |     | 80S | 12.70 | 7.800       |
| 10"              | 273.00 | 127 | 10S | 4.19  | 4.900       |
|                  |        |     | 40S | 9.27  | 9.210       |
|                  |        |     | 80S | 12.70 | 17.000      |
| 12"              | 323.90 | 152 | 10S | 4.57  | 6.530       |
|                  |        |     | 40S | 9.53  | 13.100      |
|                  |        |     | 80S | 12.70 | 28.000      |
| 14"              | 355.60 | 165 | 10S | 4.78  | 8.160       |
|                  |        |     | std | 9.53  | 16.200      |
| 16"              | 406.40 | 178 | 10S | 4.78  | 14.500      |
|                  |        |     | std | 9.53  | 22.000      |
| 18"              | 457.20 | 203 | 10S | 4.78  | 18.000      |
|                  |        |     | std | 9.53  | 27.000      |
| 20"              | 508.00 | 229 | 10S | 5.54  | 27.200      |
|                  |        |     | std | 9.53  | 34.000      |
| 24"              | 609.60 | 267 | 10S | 6.35  | 34.500      |
|                  |        |     | std | 9.53  | 44.500      |