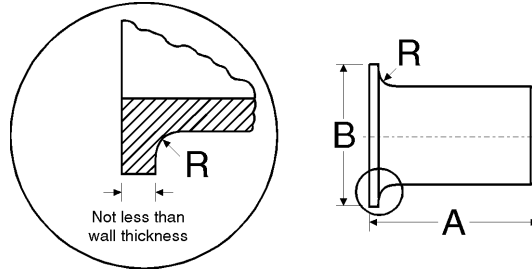


## Lap Joint Stub Ends - ANSI B16.9



Dimensions (based on ASME/ANSI B16.9) and example weights

| Nominal Pipe Size | Common      |     | Long Pattern |     | Short Pattern |     | Diameter of Lap |     | Radius of Fillet |    | OD of Barrel |     |       |     | Weight               |
|-------------------|-------------|-----|--------------|-----|---------------|-----|-----------------|-----|------------------|----|--------------|-----|-------|-----|----------------------|
|                   | OD at Bevel |     | Dimension A  |     | Dimension A   |     | Dimension B     |     | Dimension R      |    | OD           |     |       |     | 40S/STD <sup>1</sup> |
|                   | in          | mm  | in           | mm  | in            | mm  | in              | mm  | in               | mm | max          |     | min   |     | kg/piece             |
| 1/2               | 0.84        | 21  | 3.00         | 76  | 2.00          | 51  | 1.38            | 35  | 0.12             | 3  | 0.90         | 23  | 0.81  | 21  | 0.14                 |
| 3/4               | 1.05        | 27  | 3.00         | 76  | 2.00          | 51  | 1.69            | 43  | 0.12             | 3  | 1.11         | 28  | 1.02  | 26  | 0.18                 |
| 1                 | 1.32        | 33  | 4.00         | 102 | 2.00          | 51  | 2.00            | 51  | 0.12             | 3  | 1.38         | 35  | 1.28  | 33  | 0.30                 |
| 1 1/4             | 1.66        | 42  | 4.00         | 102 | 2.00          | 51  | 2.50            | 64  | 0.19             | 5  | 1.72         | 44  | 1.63  | 41  | 0.41                 |
| 1 1/2             | 1.90        | 48  | 4.00         | 102 | 2.00          | 51  | 2.88            | 73  | 0.25             | 6  | 1.97         | 50  | 1.87  | 47  | 0.55                 |
| 2                 | 2.38        | 60  | 6.00         | 152 | 2.50          | 64  | 3.62            | 92  | 0.31             | 8  | 2.46         | 62  | 2.34  | 60  | 1.00                 |
| 2 1/2             | 2.88        | 73  | 6.00         | 152 | 2.50          | 64  | 4.12            | 105 | 0.31             | 8  | 2.97         | 75  | 2.84  | 72  | 1.56                 |
| 3                 | 3.50        | 89  | 6.00         | 152 | 2.50          | 64  | 5.00            | 127 | 0.38             | 10 | 3.60         | 91  | 3.47  | 88  | 2.15                 |
| 3 1/2             | 4.00        | 102 | 6.00         | 152 | 3.00          | 76  | 5.50            | 140 | 0.38             | 10 | 4.10         | 104 | 3.97  | 101 | -                    |
| 4                 | 4.50        | 114 | 6.00         | 152 | 3.00          | 76  | 6.19            | 157 | 0.44             | 11 | 4.59         | 117 | 4.47  | 114 | 3.05                 |
| 5                 | 5.56        | 141 | 8.00         | 203 | 3.00          | 76  | 7.31            | 186 | 0.44             | 11 | 5.68         | 144 | 5.53  | 141 | 5.30                 |
| 6                 | 6.62        | 168 | 8.00         | 203 | 3.50          | 89  | 8.50            | 216 | 0.50             | 13 | 6.74         | 171 | 6.59  | 168 | 6.90                 |
| 8                 | 8.62        | 219 | 8.00         | 203 | 4.00          | 102 | 10.62           | 270 | 0.50             | 13 | 8.74         | 222 | 8.59  | 218 | 10.45                |
| 10                | 10.75       | 273 | 10.00        | 254 | 5.00          | 127 | 12.75           | 324 | 0.50             | 13 | 10.91        | 277 | 10.72 | 272 | 18.15                |
| 12                | 12.75       | 324 | 10.00        | 254 | 6.00          | 152 | 15.00           | 381 | 0.50             | 13 | 12.91        | 328 | 12.72 | 323 | 22.25                |
| 14                | 14.00       | 356 | 12.00        | 305 | 6.00          | 152 | 16.25           | 413 | 0.50             | 13 | 14.17        | 360 | 13.97 | 355 | 29.05                |
| 16                | 16.00       | 406 | 12.00        | 305 | 6.00          | 152 | 18.50           | 470 | 0.50             | 13 | 16.18        | 411 | 15.97 | 406 | 32.69                |
| 18                | 18.00       | 457 | 12.00        | 305 | 6.00          | 152 | 21.00           | 533 | 0.50             | 13 | 18.19        | 462 | 17.97 | 456 | 38.60                |
| 20                | 20.00       | 508 | 12.00        | 305 | 6.00          | 152 | 23.00           | 584 | 0.50             | 13 | 20.24        | 514 | 19.97 | 507 | 42.68                |
| 22                | 22.00       | 559 | 12.00        | 305 | 6.00          | 152 | 25.25           | 641 | 0.50             | 13 | 22.24        | 565 | 21.97 | 558 | -                    |
| 24                | 24.00       | 610 | 12.00        | 305 | 6.00          | 152 | 27.25           | 692 | 0.50             | 13 | 24.24        | 616 | 23.97 | 609 | 51.30                |

## Notes

- Dimensions quoted in mm are 'Nominal' values from B16.9 (rounded equivalents of the inch dimensions). Refer to B16.9 for additional 'Max' and 'Min' metric dimensions.
- OD of barrel max and min dimensions (in and mm) are rounded. Refer to B16.9 for the exact values.
- Long pattern stub ends are standard. Purchaser should specify if short pattern is required. Long pattern stub ends are also known as ASA Stub Ends. Short pattern stub ends are used with larger flanges in Classes 300 and 600, and with most sizes in Class 900 and higher. When long pattern stub ends are used with flanges in Classes 1500 and 2500, it may be necessary to increase the length A.
- Additional lap thickness must be provided for special facings (e.g. tongue and groove); this is within length A.
- Dimension B conforms to ASME/ANSI B16.5, Pipe Flanges and Forged Fittings.
- Gasket face finish shall be accordance with ASME/ANSI B16.5 for raised face flanges.
- For tolerances see page 6-2.
- 1 Long pattern weights are listed (short pattern weights are similar to MSS SP-43 lap joint stub ends, page 6-20). Weights are approximate and based on manufacturers' data (where available) for Schedule 40S/Standard fittings. See page 6-6 for further information.