

MSS SP-83 Forged Unions

The Manufacturers Standardization Society Standard Practice 83 covers the requirements for forged pipe unions, socket-welding and threaded ends. The 2014 edition added the requirements and dimensions for Class 6000 unions, which were not previously included. Class 3000 threaded and socket-welding and Class 6000 threaded unions are covered in NPS 1/8 through 3 while Class 6000 socket-welding unions are covered in NPS 1/8 through 2-1/2.

MSS SP-83 advises that union parts from different manufacturers are not functionally interchangeable and does not recommend the combining of parts from different manufacturers.

Tolerances

In addition to the tolerances shown in the tables, the following applies:

Concentricity of Bores: the socket shall be concentric with the waterway bore within a tolerance of +/- 0.03" for all sizes.

Coincidence of Axes: the maximum allowable variation in the alignment of one threaded pipe end of the assembled union to the axis of the opposite threaded pipe end shall not exceed 0.19" in 1 ft.

**Recommended Nut
Tightening Torque**

NPS	Foot Pounds (min)
1/8	85
1/4	85
3/8	100
1/2	100
3/4	120
1	120
1 1/4	130
1 1/2	130
2	130
2 1/2	150
3	150