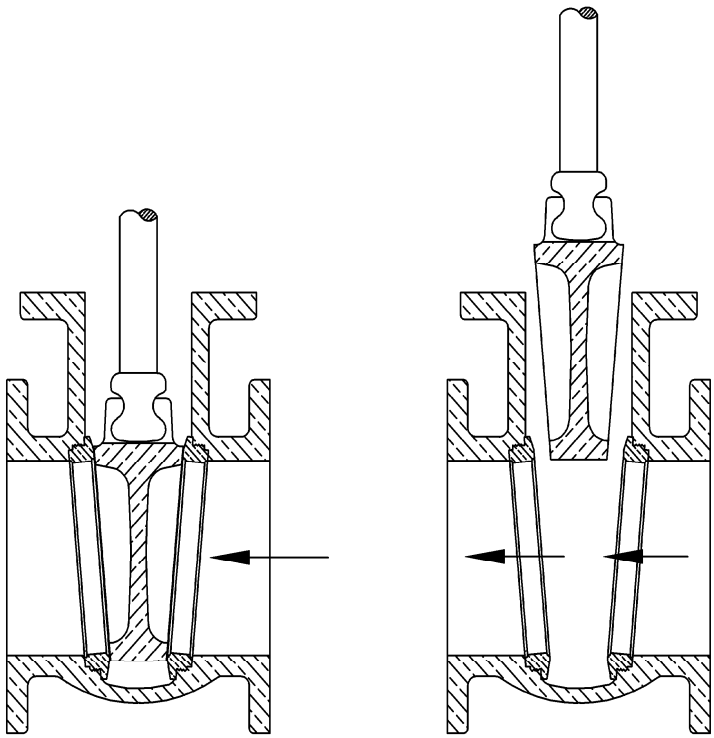
BRONZE GATE VALVES (150/300 LB)

DESCRIPTION

These rugged 150/300 pound bronze gate valves are recommended for steam, water, oil or gas service and can be tailored to the specified service for maximum efficiency. The valves are streamlined throughout. The body is designed to withstand high internal pressures and line strains. The gate valve stops and starts the flow by sliding the wedge (disc) across the stream. It is designed for use in either the full open or full closed positions but is not recommended for throttling. In the full open position, it is the only valve which permits an unrestricted full flow as seen below.



- The true guiding system in the body prevents contact between the seating surfaces until the valve is almost closed.
- Bonnets are designed with a large, deep stuffing box equipped with a gland so that, when wide open, the valve can be repacked while under pressure.
- Sizes up to and including 4" feature integral yoke and bonnet construction, while sizes 4-1/2" and above have bolted yoke.

Gate valve body markings are as follows:

SIZE
PRESSURE
PIMA

TESTING (For Flanged End Valves)

Each gate valve that leaves Pima is tested in accordance with BUSHIPS Instruction 9480.40B in conjunction with Manufacturers Standardization Society's Standard Practice (SP-61), as follows:

1. Shell and seat tightness tests shall be hydrostatic, using clean water as the testing medium.

2. Hydrostatic Shell Test - The 150 lb. valve shall be subjected to 350 PSI (750 PSI for 300 lb. valve) for a sufficient duration of time to determine the integrity of the pressure boundary area after test pressure has been applied.

3. The maximum allowable tangential force used to seat the valve under full differential pressure shall not exceed:

Handwheel Diameter	Total Tangential Force on Rim of Handwheel
2" & below	90
3"	98
4"	106
5"	112
6"	118
8"	124
9"	127
10"	130
11"	133
12"	135
14"	138
16"	141
18"	144
21"	147
24"	150

4. Hydrostatic Seat Test - The 150 Lb. valve shall be tested at 225 PSI (300 Lb. tested at 500 PSI) for tightness of seat with the gate closed by hand and without the use of a wrench or equivalent. The pressure to be applied alternately on both sides of the gate with the opposite end open for inspection in each case. Duration of test shall be a sufficient length of time to determine that the seat seal satisfies the acceptance criteria. Should any visible leakage be detected, the test will be continued for a sufficient length of time to accurately determine the rate of leakage. Leakage rate shall not exceed 10cc per hour/per nominal inch of pipe size.

TESTING (For Threaded End Valves)

Each gate valve that leaves Pima is tested in accordance with BUSHIPS Instruction 9480.40B in conjunction with Manufacturers Standardization Society's Standard Practice (SP-80), as follows:

1. Shell and seat tightness tests shall be hydrostatic, using clean water as the testing medium.

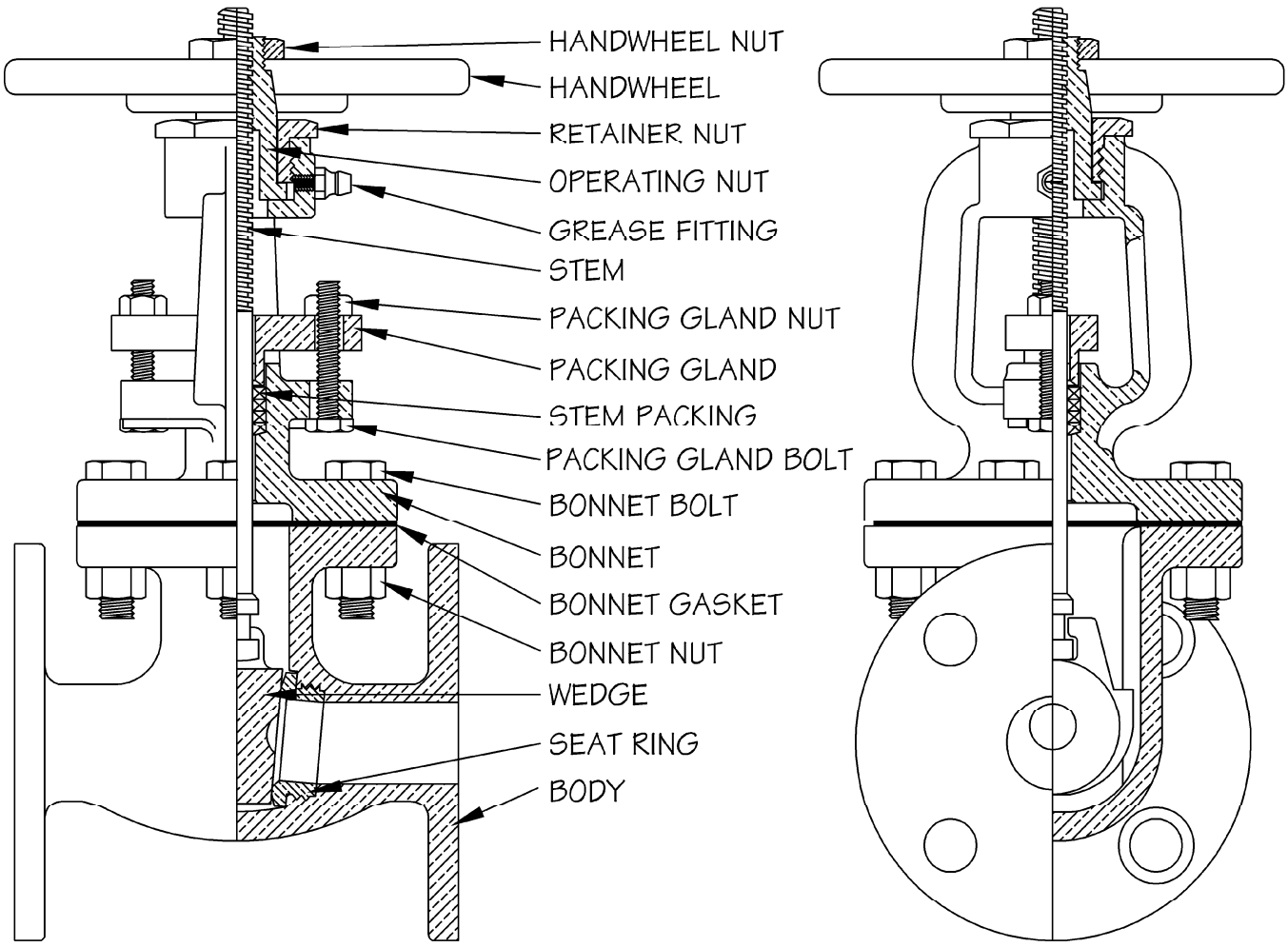
2. Hydrostatic Shell Test - The 150 lb. valve shall be subjected to 450 PSI (1500 PSI for 300 lb. valve) for a sufficient duration of time to determine the integrity of the pressure boundary area after test pressure has been applied.

3. The maximum allowable tangential force used to seat the valve under full differential pressure shall not exceed:

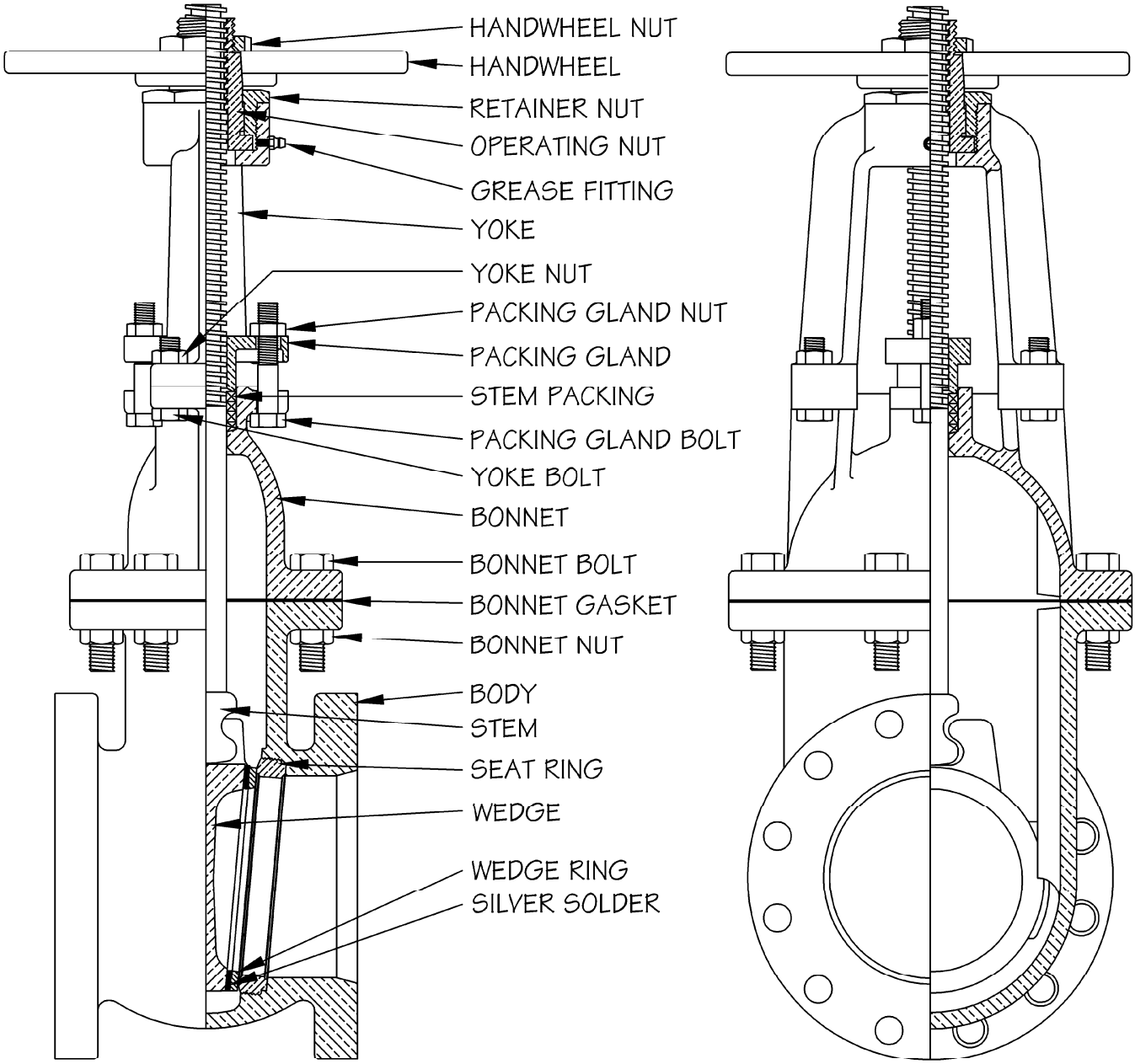
Handwheel Diameter	Total Tangential Force on Rim of Handwheel
2" & below	90
3"	98
4"	106
5"	112
6"	118
8"	124
9"	127
10"	130

4. Hydrostatic Seat Test - The 150 Lb. valve shall be tested at 300 PSI (300 Lb. tested at 1000 PSI) for tightness of seat with the gate closed by hand and without the use of a wrench or equivalent. The pressure to be applied alternately on both sides of the gate with the opposite end open for inspection in each case. Duration of test shall be a sufficient length of time to determine that the seat seal satisfies the acceptance criteria. Should any visible leakage be detected, the test will be continued for a sufficient length of time to accurately determine the rate of leakage. Leakage rate shall not exceed 10cc per hour/per nominal inch of pipe size.

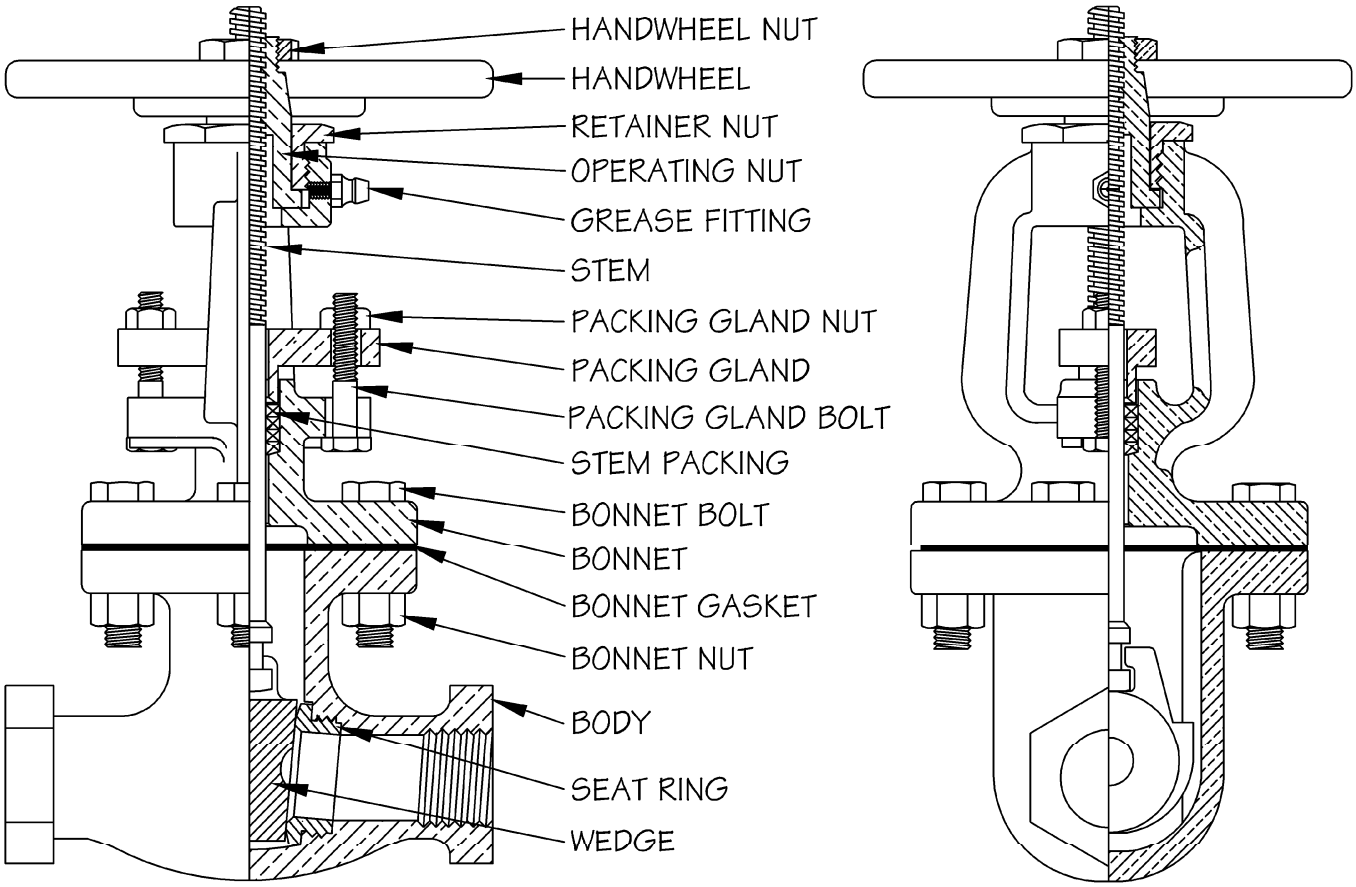
BRONZE, FLANGED GATE
(3/4" to 4")



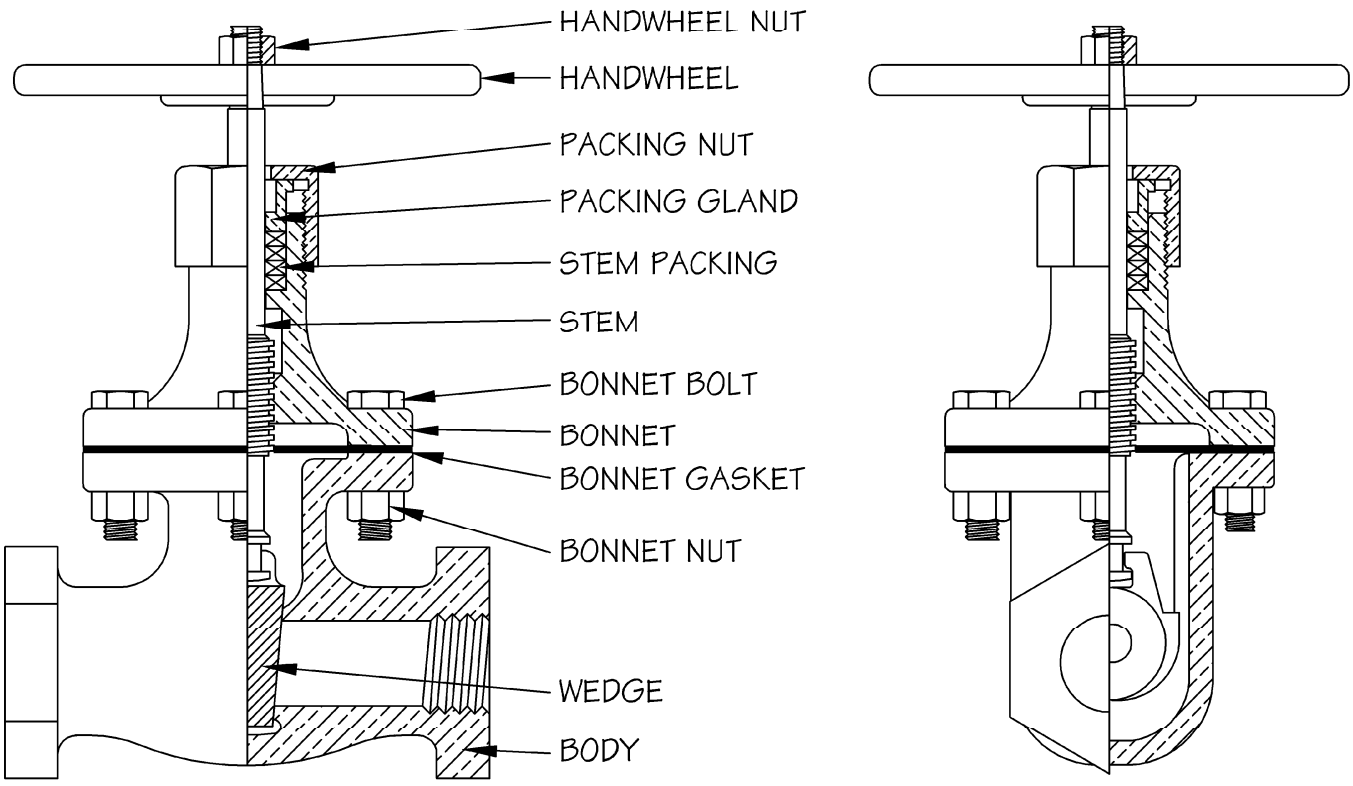
BRONZE, FLANGED GATE
(5" to 24")



THREADED END GATE
BOLTED BONNET, OS&Y



THREADED END GATE
INSIDE SCREW, BOLTED BONNET



THREADED END GATE
INSIDE SCREW, UNION BONNET