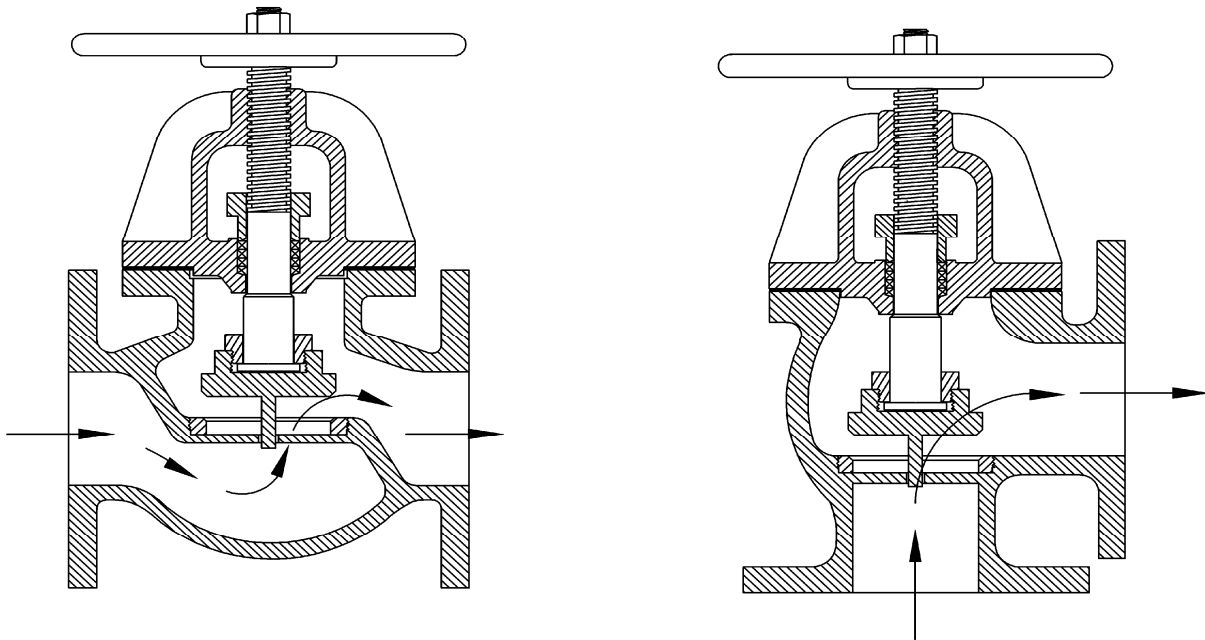


# BRONZE GLOBE and ANGLE VALVES (150/300 LB)

## DESCRIPTION

These high quality 150/300 pound bronze valves are especially intended for steam, water, oil or gas service and, unlike the gate valve, are recommended for throttling usage. In the figure below, the flow characteristics are displayed for globe and angle valves, while also depicting the throttling mechanism. The guiding system insures proper seating at all times, thus saving the seat areas from wear. 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.



Globe and angle valve body markings are as follows:

**SIZE**  
**PRESSURE**  
**PIMA**

The bridge markings or flow direction arrow is cast on the valve body.



Pima globes and angles feature rugged, durable construction. Their bolted bonnet design assures a tight body-bonnet joint which can be easily dismantled and reassembled without danger of damaging the valve. Stop check valves act as an automatic, non-return valve by preventing back flows. The valves are equipped with a handwheel which permits closing the valves while under pressure or, if already closed automatically, permits holding the disc in the closed position. There is no mechanical connection between the stem and disc, and when the stem is raised by the handwheel, only pressure from the flow can lift the disc. All globe and angle valves can be furnished as stop check when specified.

## **TRIM**

Standard bronze trim globes and angles feature integral seat ring (up to and including the 4" size) while monel trim valves make use of the renewable screwed-in-body type.

Monel trim valves in sizes up to, and including, 4" shall have full NI-CU Alloy disc trim or NI-CU Alloy inserted bronze, at the manufacturer's option. Sizes 5" and above shall be NI-CU Alloy inserted bronze disc as approved by NAVSEA (MIL-STD-777D). When specified on the order, a solid NI-CU Alloy disc or a composition disc can be furnished.

## **TESTING (For Flanged End Valves)**

Each and every globe or angle 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. The maximum allowable tangential force used to seat the valve under full differential pressure shall not exceed those values taken from BUSHIPS Instruction 9480.40B.
3. Hydrostatic Shell Test - The 150 Lb. valve shall be subjected to 350 PSI (300 Lb. tested at 750 PSI) for a sufficient duration of time to determine integrity of the pressure boundary area after test pressure has been applied.
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 disc closed by hand and without the use of a wrench or equivalent. Pressure shall be applied in the direction tending to open the valve. The test shall be continued for a sufficient time, as to permit determination 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.



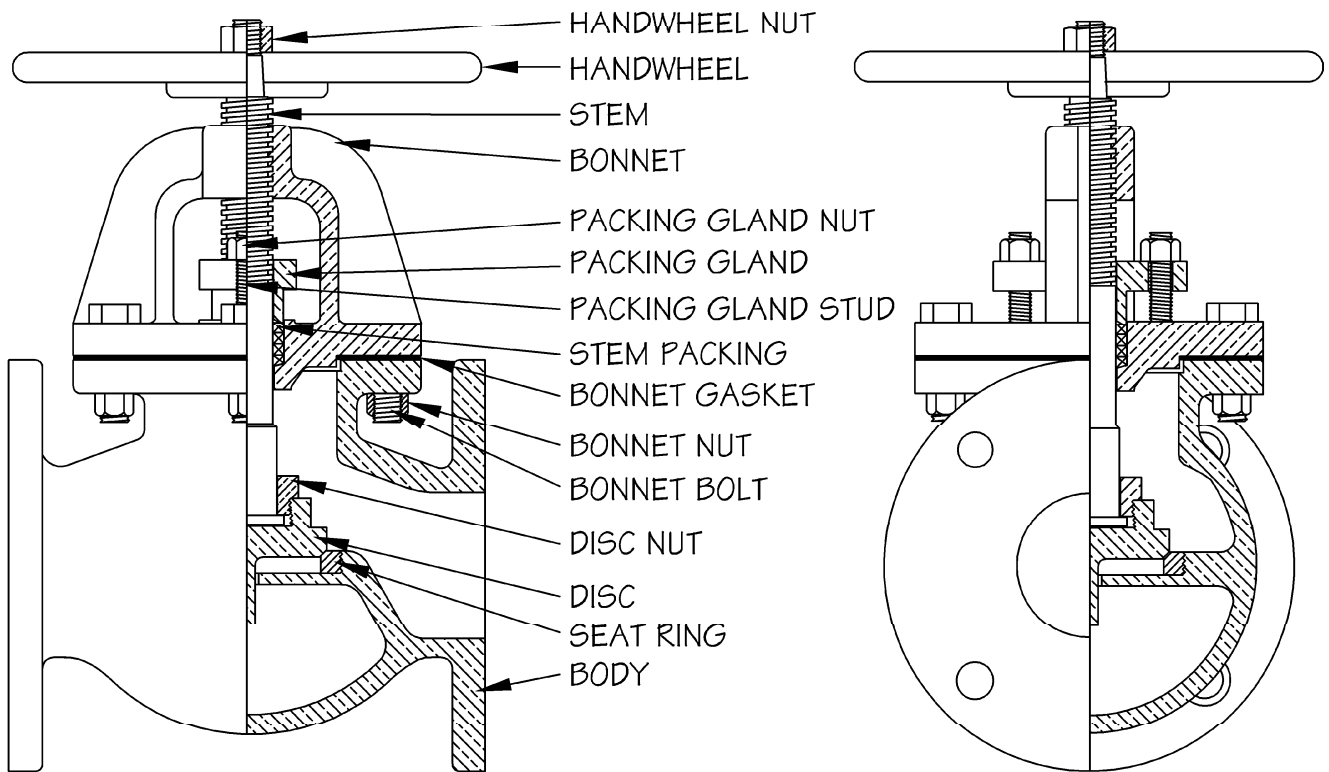
## TESTING (For Threaded End Valves)

Each and every globe or angle 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:

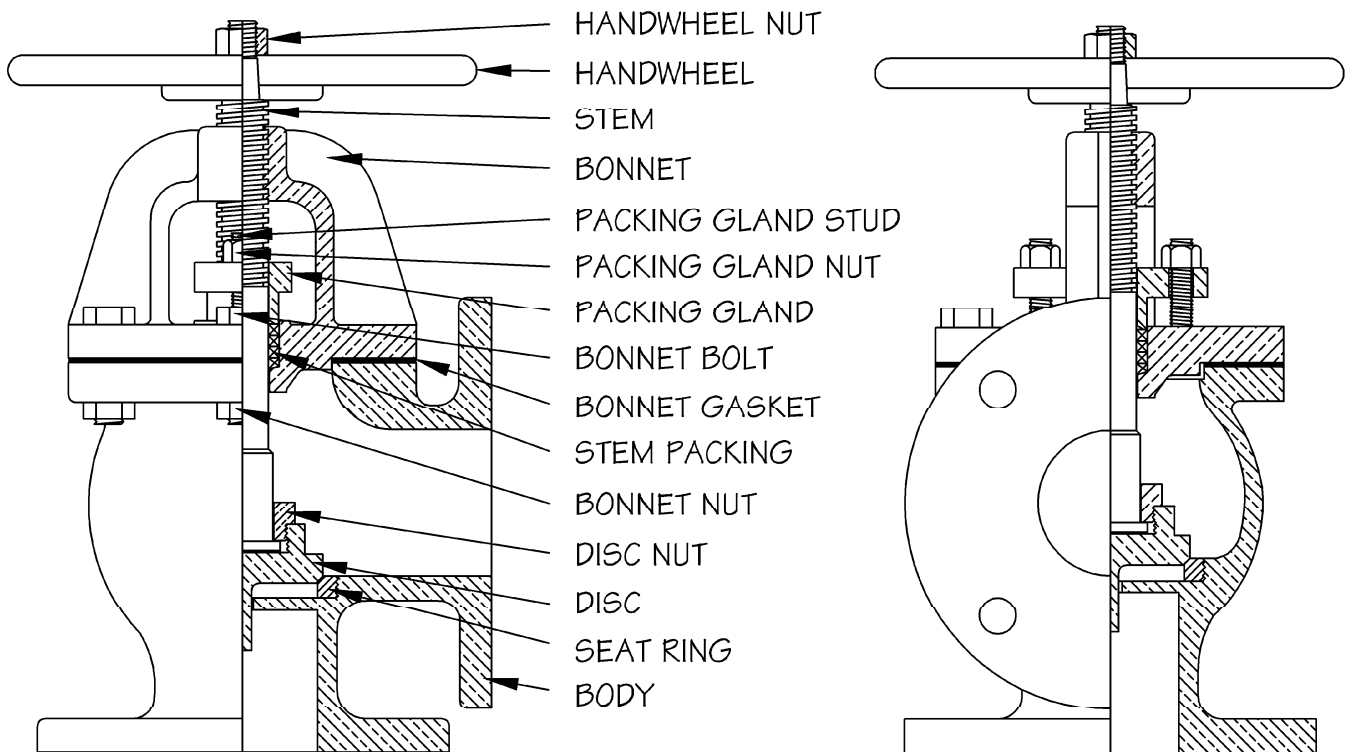
1. Shell and seat tightness tests shall be hydrostatic, using clean water as the testing medium.
2. The maximum allowable tangential force used to seat the valve under full differential pressure shall not exceed those values taken from BUSHIPS Instruction 9480.40B.
3. Hydrostatic Shell Test - The 150 Lb. valve shall be subjected to 450 PSI (300 Lb. tested at 1500 PSI) for a sufficient duration of time to determine integrity of the pressure boundary area after test pressure has been applied.
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 disc closed by hand and without the use of a wrench or equivalent. Pressure shall be applied in the direction tending to open the valve. The test shall be continued for a sufficient time, as to permit determination 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.



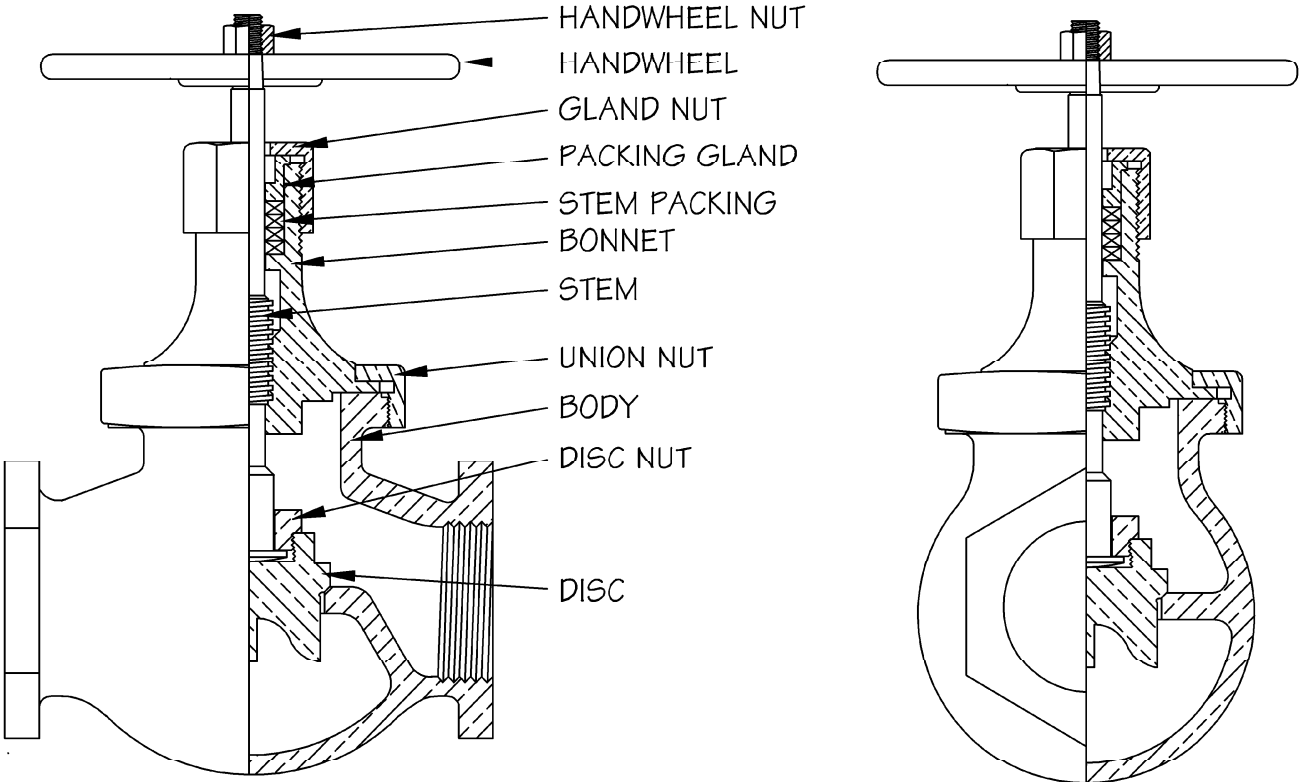
# BRONZE, FLANGED GLOBE



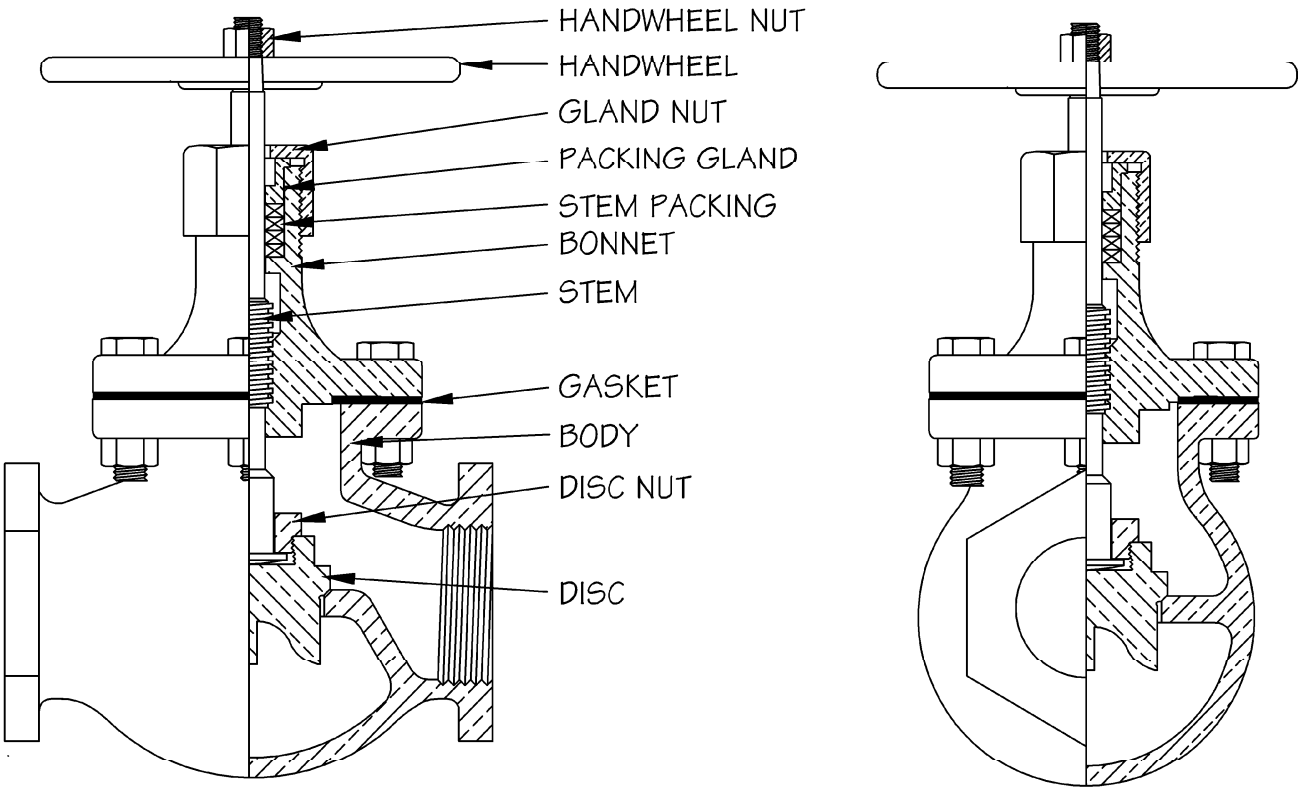
# BRONZE, FLANGED ANGLE



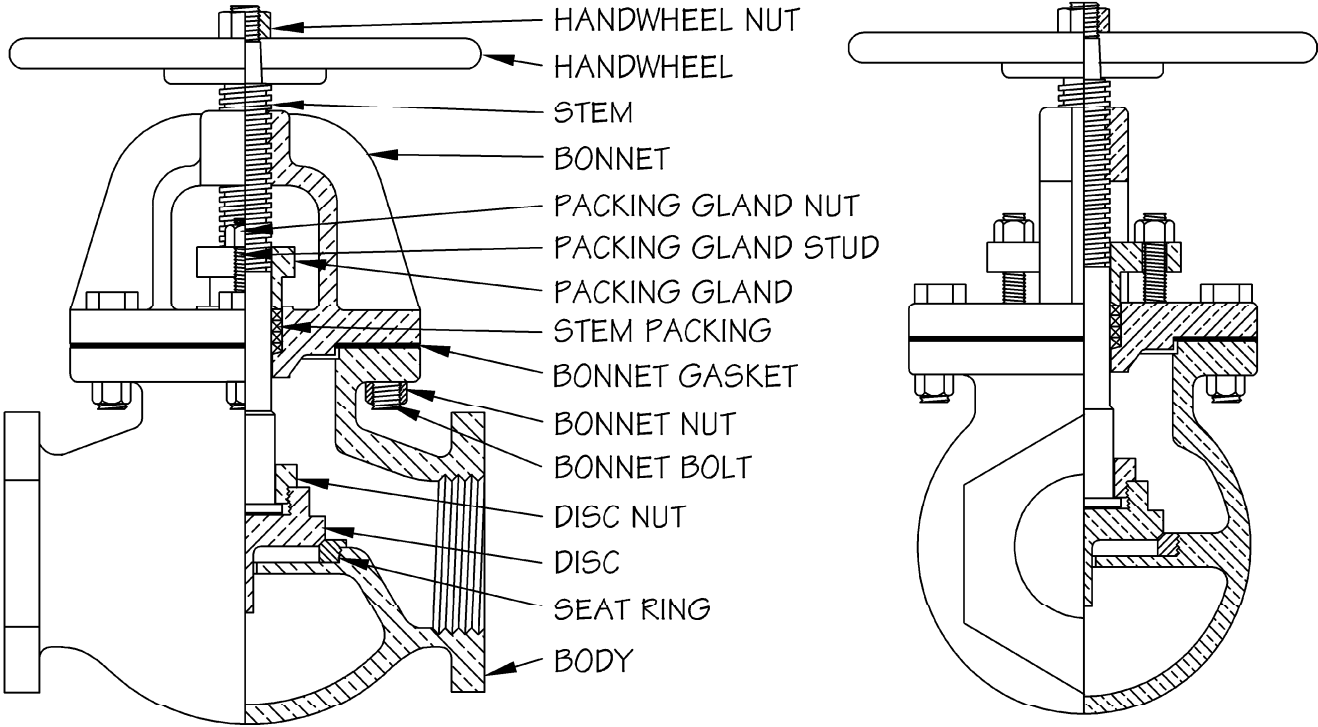
# THREADED END GLOBE INSIDE SCREW, UNION BONNET



# THREADED END GLOBE INSIDE SCREW, BOLTED BONNET



# THREADED END GLOBE BOLTED BONNET





# THREADED END ANGLE INSIDE SCREW, UNION BONNET

