



# BANJO STAINLESS STEEL DRY MATE 2" Series

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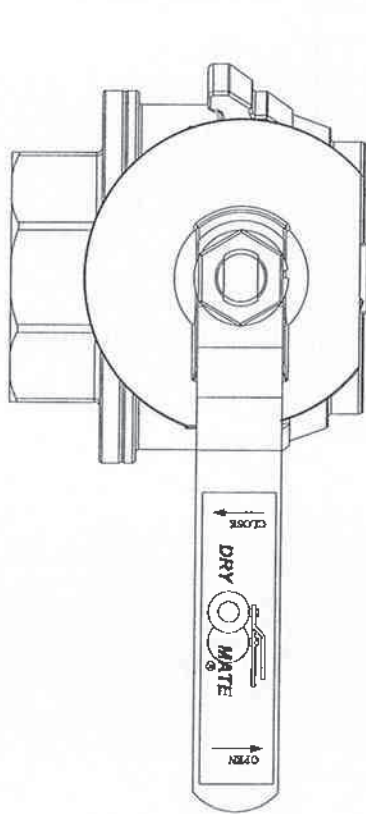
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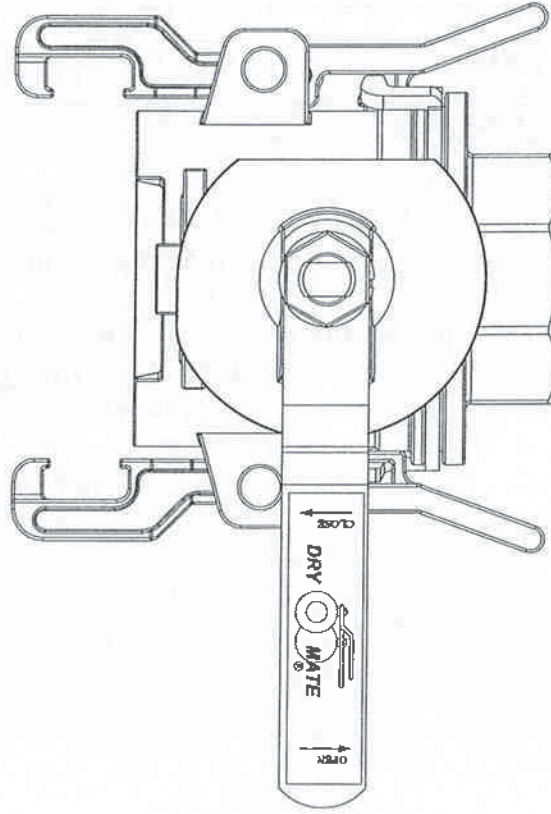
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## BANJO 2" SS DRY-MATE

The Banjo 2" Stainless Steel Dry-Mate series of dry quick disconnect fittings is designed to handle many of the industrial chemicals in use today with minimal fluid spillage. The ball valve design of the Dry-Mate allows an unrestricted full port path for fluid flow, in an easy to use style.



2" SS Dry-Mate  
Male "A" Series



2" SS Dry-Mate  
Female "D" Series

### Part Numbers:

#### Male "A" Series Part Numbers:

| Seals:           | Teflon    |
|------------------|-----------|
| Thread Size/Type |           |
| 2" NPTF          | DM200ASS  |
| 2" BSPF          | DM200ABSS |

#### Female "D" Series Part Numbers:

| Seal:            | Teflon / Viton | Teflon / EDPM | Teflon w/ Spring | Teflon O-ring |
|------------------|----------------|---------------|------------------|---------------|
| Thread Size/Type |                |               |                  |               |
| 2" NPTF          | DM200DSS       | DM200DSSE     | DM200DSSTS       | DM200DSST     |
| 2" BSPF          | DM200DBSS      | DM200DBSSE    | DM200DBSSTS      | DM200DBSST    |

### Specifications:

| Part No.             | DM220ASS      | DM220DSS                |
|----------------------|---------------|-------------------------|
| Description          | 2" SS Male    | 2" SS Female            |
| Length, Less handles | 4"            | 6"                      |
| Width, Less Handles  | 4 3/4"        | 6"                      |
| Port Size            | 2"            | 2"                      |
| Weight               | 7 3/4 lbs     | 10 lbs                  |
| Material             | 316SS, Teflon | 316SS, Teflon,<br>Viton |
| Couple Length        | 8"            | 8"                      |

Max. Pressure: 00 psi

Max. Temp: 300 °F

Contact the Banjo Corporation Sales office for help with specific application questions:

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Fax: (800) 458-0232

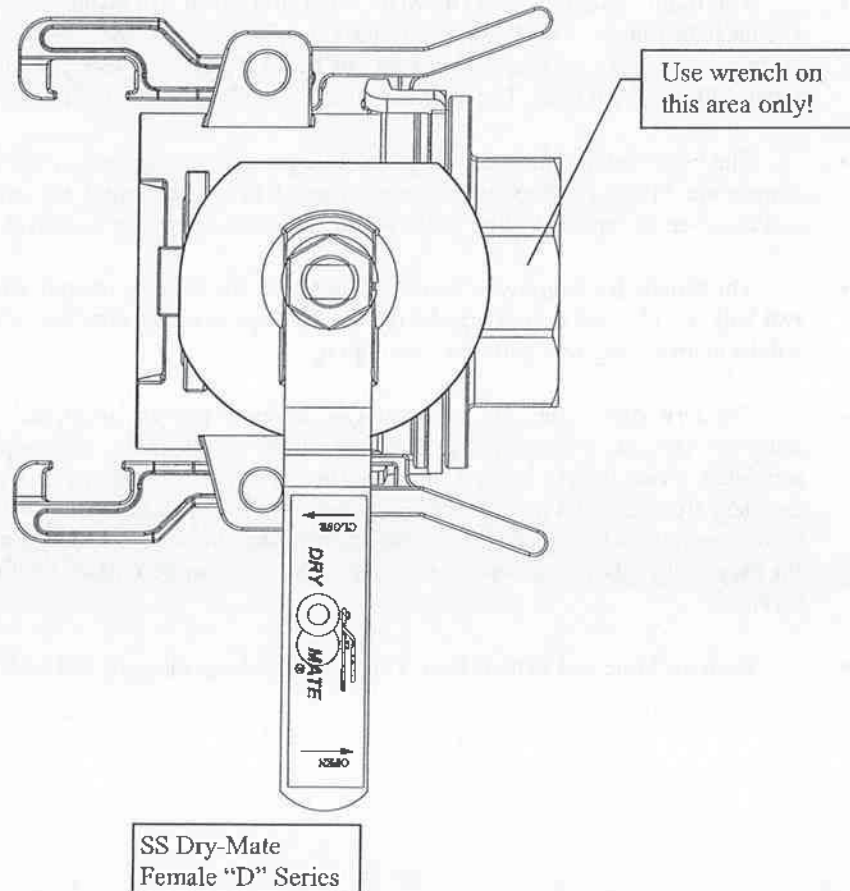
## Features:

- Ball valve design combines unrestricted flow with simple operation. The handles interlock making it easy to identify which handle opens or closes first. No guessing involved!
- The Banjo Stainless Steel Dry-Mate is constructed of 316 stainless steel for strength and excellent chemical resistance. The teflon seats and viton face seal on the female give the Dry-Mate the same chemical resistance as our standard line of ball valves. The face seal on the female is available in viton, EPDM, and teflon. The male has all teflon sealing components.
- The over center clamps are easy, quick & positive engagement of the Dry-Mate components. The clamps are 316SS for maximum corrosion resistance. The clamps are easily replaceable if damaged, and can even be replaced while the Dry-Mate is in service, but not clamped together.
- The female has a groove that mate to a rib on the male to provide correct alignment between the two halves. The two halves may be rotated 20 degrees either direction with respect to each other and still be clamped together and function properly.
- The Dry-Mate series has many safety features to prevent accidental spillage. Both handles have interlock buttons, which prevent the balls from accidentally being opened when the halves are separated. The female has a locking yoke that keeps the clamps in the locked position when the couplers are connected and the handle is rotated in the open position. This prevents the assembly from being separated when opened. The seal between the couplers is held in place by a spiral-retaining ring for easy seal replacement when necessary. The seal can be replaced without removing the unit from service.
- Both the Male and Female have a dust cover to keep the balls and seals protected when not in use.

## Installation:

When installing the couplers, use a good quality thread sealant compatible with the liquid being used in the system. Screw the coupler onto the thread hand tight, and then using a wrench, tighten the coupler onto the thread another 1/4 to 1/2 turn.

**Note:** When tightening the threads, use the wrench on the hex flat portion only. Do not apply pressure to the body of the Dry-Mate.



The Male should always be installed on the high-pressure side of the system. Failure to install the Male on the high-pressure side can trap pressurized fluid between the balls, causing fluid to spray when disconnected!

Never open Male or Female couplings when disconnected. High-pressure fluid can be retained inside valve causing injury if opened while not connected to a mating coupler.

Inspect All Safety Interlocks Daily. If any of the safety features are not functioning or are damaged, Unit **MUST** be repaired before using in service.

Inspect Clamps and mating ribs for damage and wear. Bent or Damaged parts as well as excessive wear can adversely affect product performance.

Inspect seals and sealing area on faces of couplers for any signs of damage. All surfaces should be clean and damage free prior to connection.

## Operation:

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### Step 1:

To attach the two halves together, make sure the faces of the Male and Female are free from dirt or other foreign material. Align the two halves together as shown in Figure 1. The two halves can be rotated 20 degrees either direction with respect to each other as shown in figure 2.

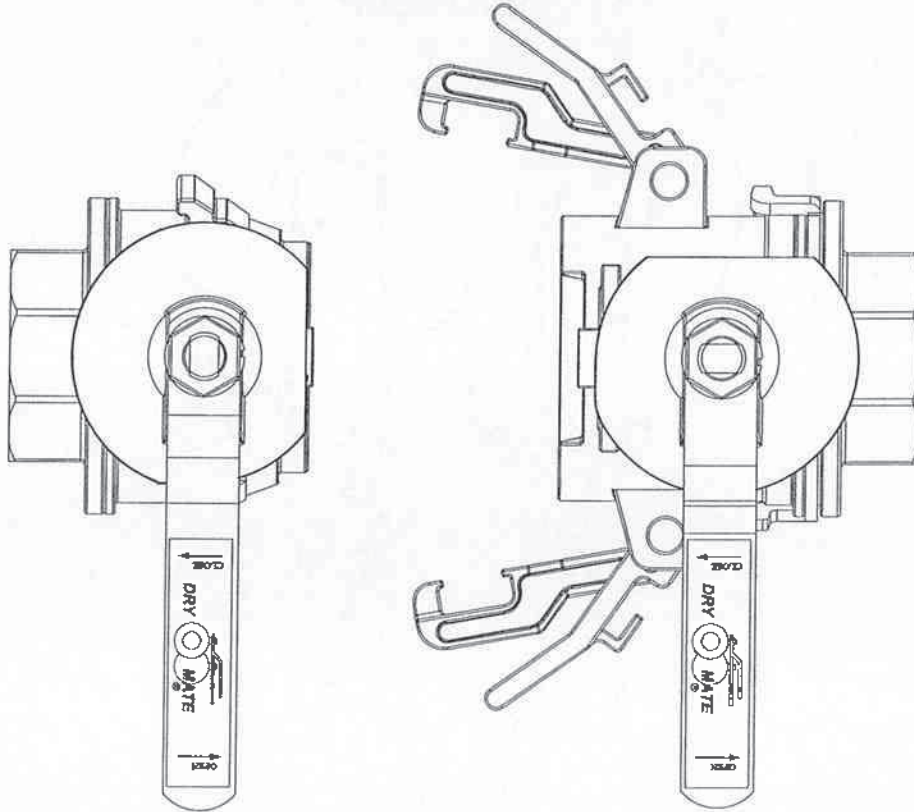


Figure 1

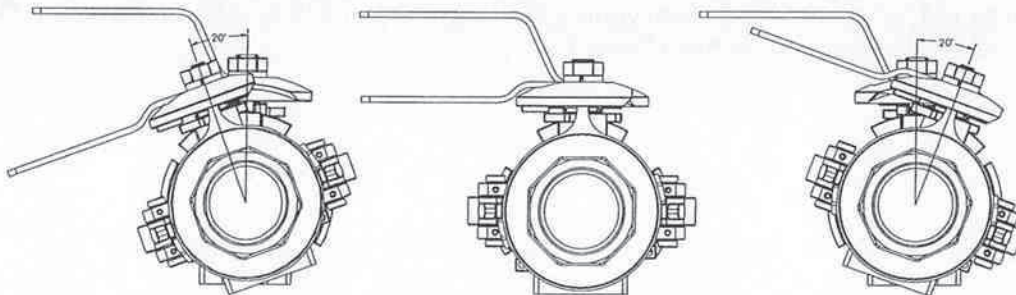


Figure 2

### Step 2:



Slide the Female onto the Male. The alignment groove on the Female will guide the male half into the female half. After the assembly is together, latch the clamp arms onto the mating rib on the male and rotate the clamp lever toward the female body. This will couple the halves together and depress the anti-rotation buttons under the handles, which will allow the handles to rotate. After the two halves are clamped together, the assembly should look like Figure 3.

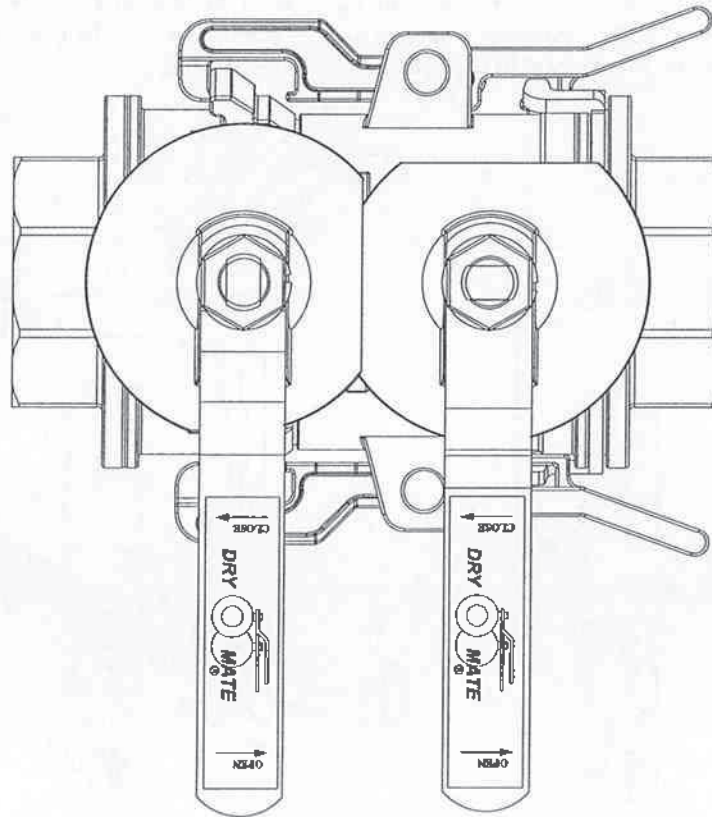


Figure 3

Step 3:

Rotate the handle of the Female to the open position. The female handle must be rotated before the handle of the Male can rotate. When the female handle is opened, the locking yoke will engage the clamps and prevent the clamps from opening while the female handle is in the open position. The handles should now be oriented as shown in Figure 4.

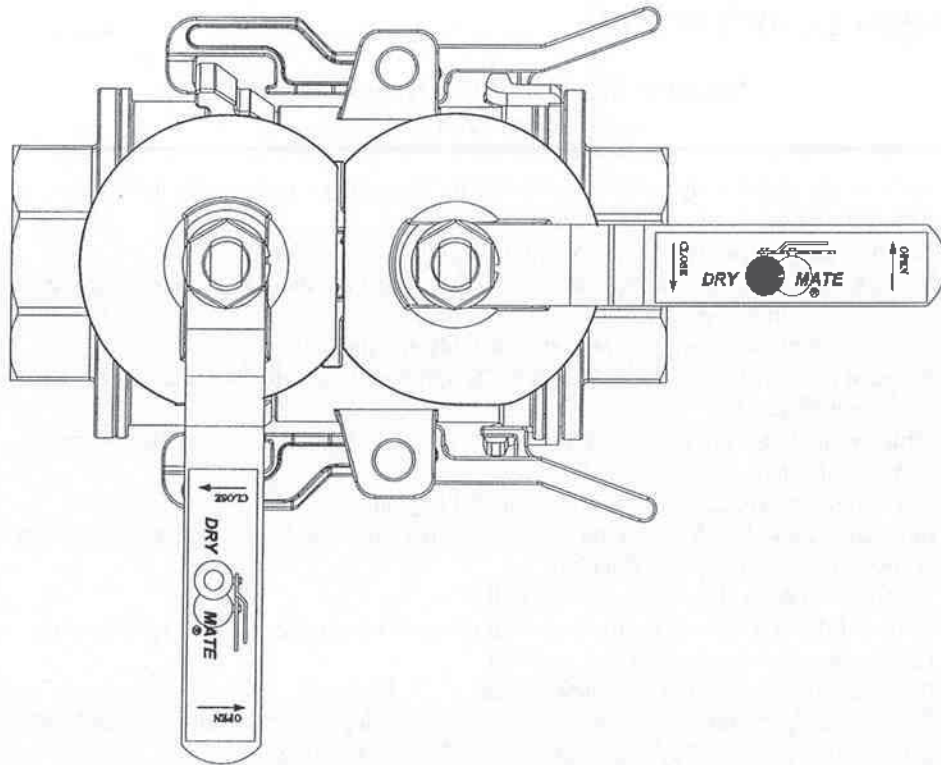


Figure 4

Step 4:

After the handle of the Female has been opened, the handle of the Male can be rotated open. Rotate the handle of the Male to the open position. Flow will start as the male handle is being opened. When both valves are opened the handles should be oriented as shown in Figure 5.

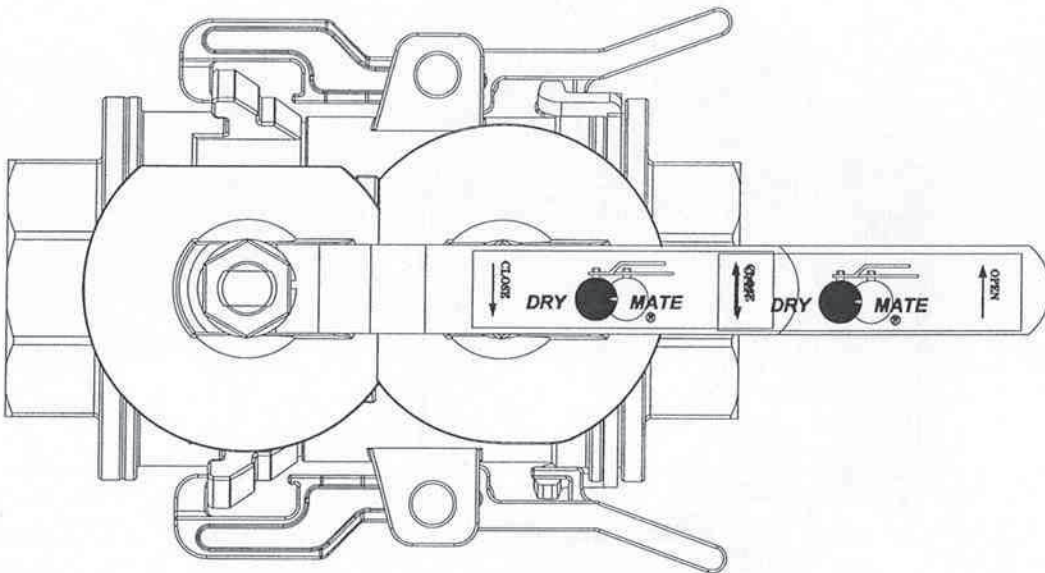


Figure 5

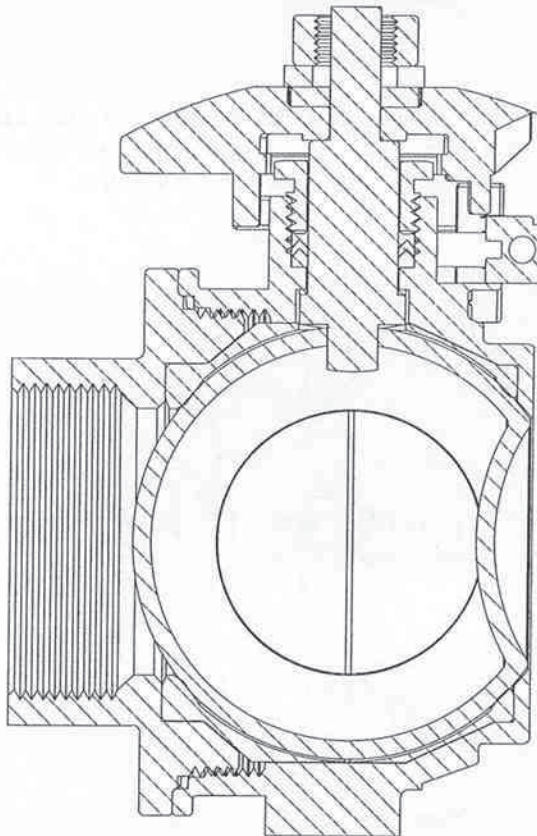
To close the valves and disconnect the couplers, reverse steps 1 through 4.



## Disassembly Instructions

### Stainless Steel Dry Mate Rebuild Instructions (Applies to Male (A) half only!)

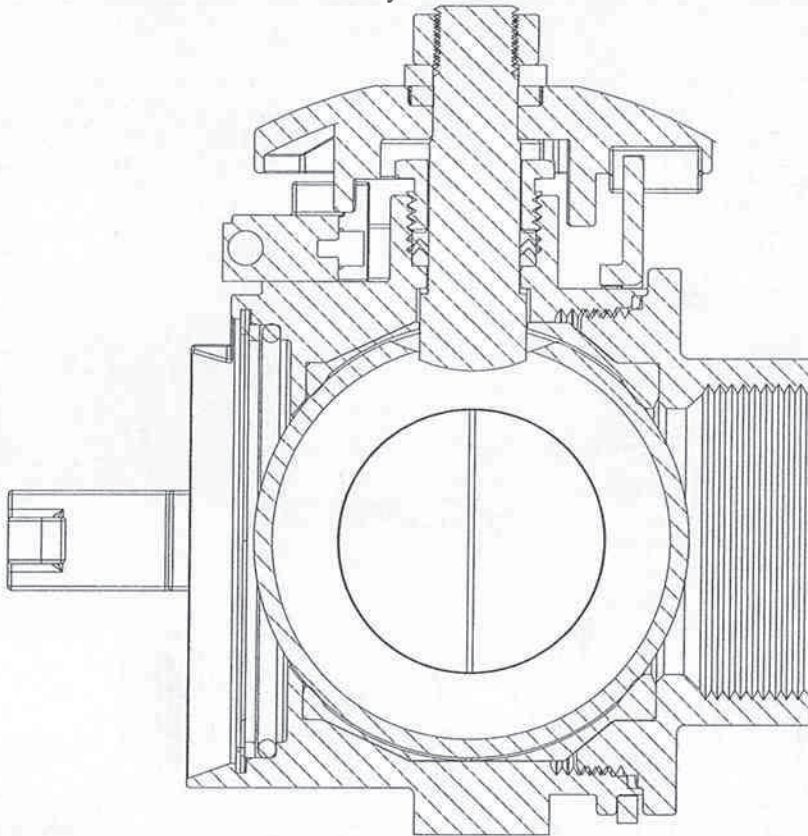
1. Remove the endplate by holding the body with a bench vise and turning the endplate by the wrench flats. The endplate has right hand threads.
2. Remove the old seat that goes between the endplate and the ball.
3. Remove the ball. The handle should be in the open position when removing the ball. The ball should slide out easily.
4. Remove the old seat that goes between the body and the ball.
5. Remove handle nut, handle washer, handle, and handle interlock. Note orientation of handle and handle interlock.
6. Remove stem-packing nut and stem. Inspect stem for damage. Replace if necessary.
7. Remove old stem packing.
8. Install new stem packing, stem, and stem packing nut.
9. Reinstall handle interlock, handle, handle washer, and handle nut. Make sure safety button is in proper location with spring installed.
10. Install the new seat between body and ball.
11. Reinstall the ball. Check for pits, scrapes, or any other damage. If damaged or worn, replace ball.
12. Install new seat between endplate and ball.
13. Replace old body gasket with a new gasket.
14. Reinstall endplate on valve. Before tightening the endplate, make sure that the handle and ball are in the closed position. Tighten endplate to 325 Ft-lb of torque.
15. Check to make sure the dry mate half is functional and all the safety features are working properly.



Stainless Steel Dry Mate Face Seal Replacement Instructions

(Applies to Female (D) half only!)

1. Remove the endplate by holding the body with a bench vise and turning the endplate by the wrench flats. The endplate has right hand threads. Pay attention to the orientation of the locking yoke as you remove the endplate.
2. Remove the old seat that goes between the endplate and the ball.
3. Remove the ball. The handle should be in the closed position when removing the ball. The ball should slide out easily.
4. Remove the seat that goes between the body and the ball.
5. Remove handle nut, handle washer, handle, and handle interlock. Note orientation of handle and handle interlock.
6. Remove stem-packing nut and stem. Inspect stem for damage. Replace if necessary.
7. Remove old stem packing.
8. Install new stem packing, stem, and stem packing nut.
9. Reinstall handle interlock, handle, handle washer, and handle nut. Make sure safety button is in proper location with spring installed.
10. Install the new seat between body and ball.
11. Reinstall the ball. Check for pits, scrapes, or any other damage. If damaged or worn, replace ball.
12. Install new seat between endplate and ball.
13. Replace old body gasket with a new gasket.
14. Inspect and install locking yoke onto the body. Reinstall endplate on valve, checking to see that the orientation of the locking yoke matches the original orientation. Before tightening the endplate, make sure that the handle and ball are in the closed position. Tighten endplate to 325 ft-lb.
15. Replace face seal. Remove spiral ring and metal backup ring. Remove old seal. Reverse to install new seal.
16. Check to make sure the dry mate half is functional and all the safety features are working properly.





A Unit of IDEX Corporation

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## **Stainless Steel Dry Mate Rebuild Instructions**

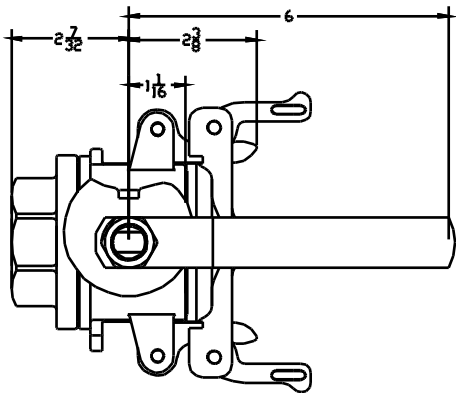
*(Applies to Male (A) half only!)*

1. Remove the endplate by holding the body with a bench vise and turning the endplate by the wrench flats. The endplate has right hand threads.
2. Remove the ball. The handle should be in the closed position when removing the ball. The ball should slide out easily.
3. Remove the old seat that goes between the Face Seal and the ball.
4. Install the new seat.
5. Reinstall the ball. Check for pits, scrapes, or any other damage. If damaged or worn, replace ball.
6. Replace old seat in endplate with new seat.
7. Replace old body gasket with a new gasket.
8. Reinstall endplate on valve. Before tightening the endplate, make sure that the handle and ball are in the closed position. Tighten endplate to 325 Ft-lb of torque for 1½" and 2" Dry Mate. Tighten endplate to 150 Ft-lb of torque for the 1" Dry Mate.
9. Check to make sure the dry mate half is functional and all the safety features are working properly.

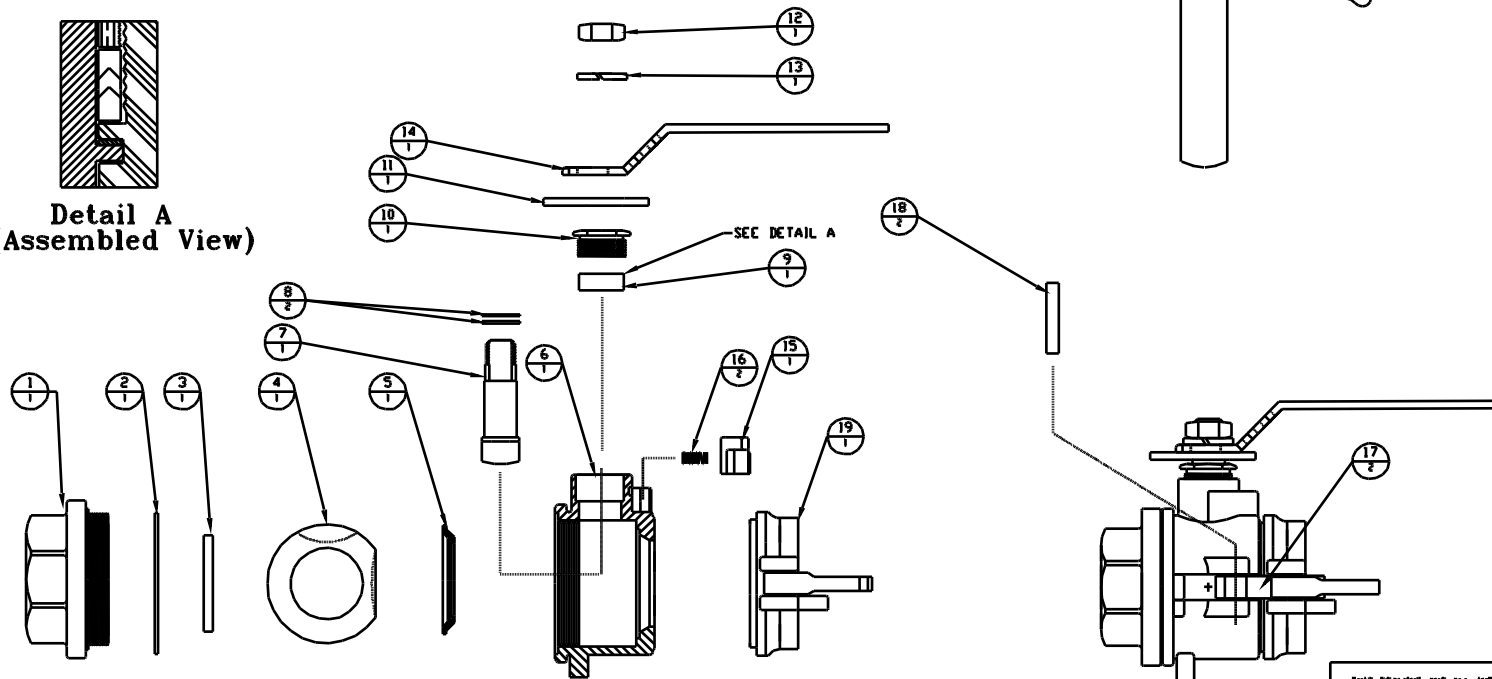
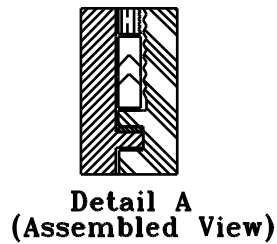
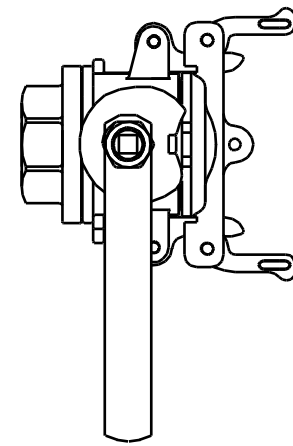
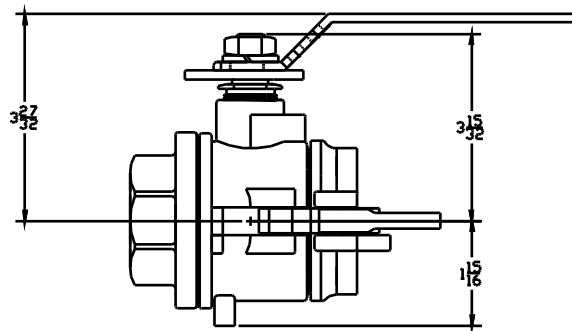
## **Stainless Steel Dry Mate Face Seal Replacement Instructions**

*(Applies to Female (D) half only!)*

1. Remove the endplate by holding the body with a bench vise and turning the endplate by the wrench flats. The endplate has right hand threads. Pay attention to the orientation of the locking yoke as you remove the endplate.
2. Remove the ball. The handle should be in the closed position when removing the ball. The ball should slide out easily.
3. Remove the seat that goes between the Face Seal and the ball.
4. Remove the old Face Seal from the Dry Mate body, paying attention to how it sets in the valve body.
5. Install the new Face Seal.
6. Install the seat. Inspect the old seat for damage or wear. If damaged or worn, replace with new seat.
7. Reinstall the ball. Check for pits, scrapes, or any other damage. If damaged or worn, replace ball.
8. Check seat in endplate for wear or damage. If worn or damaged, replace with new seat.
9. Check Body Gasket for wear or damage. If worn or damaged, replace with a new gasket.
10. Make sure locking yoke is still on the endplate. Reinstall endplate on valve, checking to see that the orientation of the locking yoke matches the original orientation. Before tightening the endplate, make sure that the handle and ball are in the closed position. Tighten endplate to 325 Ft-lb of torque for 1½" and 2" Dry Mate. Tighten endplate to 150 Ft-lb of torque for the 1" Dry Mate.
11. Check to make sure the dry mate half is functional and all the safety features are working properly.



VIEW SHOWN WITH HANDLE IN OPEN POSITION



| Item Qty. | Part Number | Description                  |
|-----------|-------------|------------------------------|
| 1         | 1           | DM15256MSS 2" NPTF END PLATE |
| 2         | 1           | DM15204SS BODY GASKET        |
| 3         | 1           | V20258 SEAT                  |
| 4         | 1           | DM15255MSS BALL              |
| 5         | 1           | DB20258 SEAT                 |
| 6         | 1           | DM15154MSS VALVE BODY        |
| 7         | 1           | DM15151SS STEM               |
| 8         | 2           | VSS15060 THRUST BEARING      |
| 9         | 1           | VSS15160 STEM PACKING        |
| 10        | 1           | VSS15159 PACKING NUT         |
| 11        | 1           | DM15155SS INTERLOCK CAM      |
| 12        | 1           | VSS15020 5/8"-18 JAM NUT     |
| 13        | 1           | VSS15021 LOCKWASHER          |
| 14        | 1           | DM15153SS HANDLE             |
| 15        | 1           | DM15288MSS BUTTON            |
| 16        | 2           | DB20281 SPRING               |
| 17        | 2           | DM20300 PROFILE INSERT       |
| 18        | 2           | DB200PSS PIN                 |
| 19        | 1           | DM200ACAP CAP                |
| N/S       | 1           | V20207 LANYARD               |

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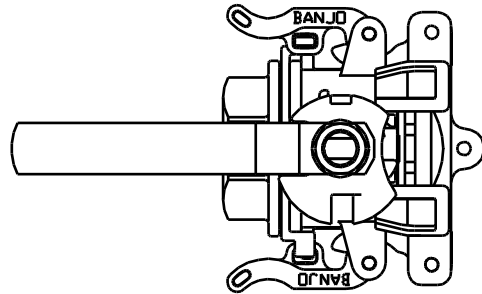
BANJO CORPORATION  
150 BANJO DR. • CRAWFORDSVILLE, IN 47933

PART NO: **DM200ASS**

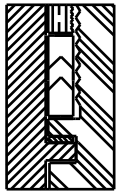
TITLE: **2" DRY MATE SS**

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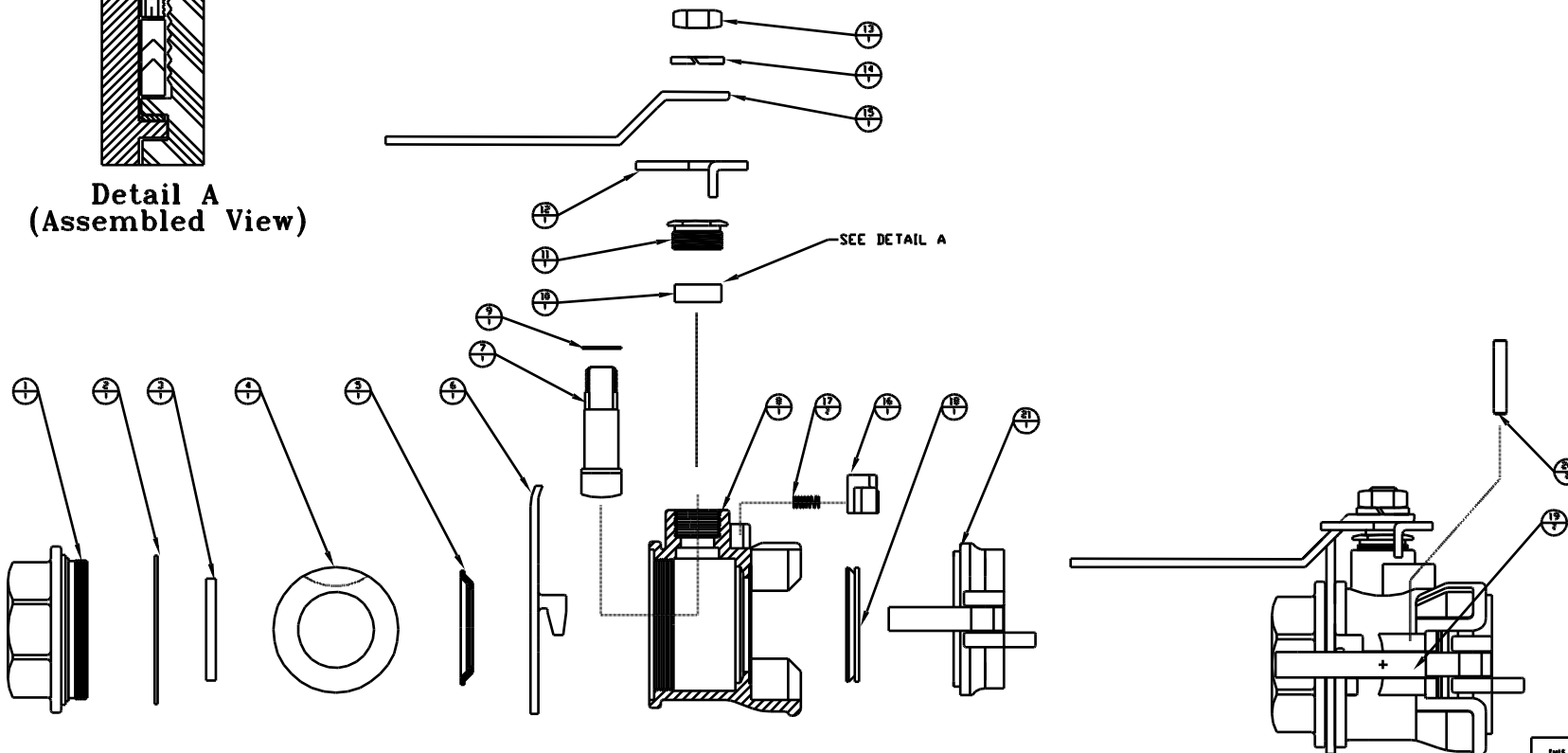
VIEW SHOWN WITH HANDLE IN OPEN POSITION



OCT 27, 1998




Detail A  
(Assembled View)



| Item Qty. | Part Number | Description       |
|-----------|-------------|-------------------|
| 1 1       | DM15256FSS  | 2" NPTF END PLATE |
| 2 1       | DM15204SS   | BODY GASKET       |
| 3 1       | V20258      | SEAT              |
| 4 1       | DM15255FSS  | BALL              |
| 5 1       | DB20258     | SEAT              |
| 6 1       | DM15289SS   | LOCKING YOKE      |
| 7 1       | DM15151SS   | STEM              |
| 8 1       | DM15154FSS  | VALVE BODY        |
| 9 2       | VSS15060    | THRUST BEARING    |
| 10 1      | VSS15160    | STEM PACKING      |
| 11 1      | VSS15159    | PACKING NUT       |
| 12 1      | DM15154SS   | INTERLOCK CAM     |
| 13 1      | VSS15020    | 5/8"-18 JAM NUT   |
| 14 1      | VSS15021    | LOCKWASHER        |
| 15 1      | DM15153SS   | HANDLE            |
| 16 1      | DM15288FSS  | BUTTON            |
| 17 2      | DB20281     | SPRING            |
| 18 1      | DM20294A    | FKM SEAL          |
| 19 2      | DM200K      | CAM ARM           |
| 20 2      | DB200PSS    | PIN               |
| 21 1      | DM200APL    | PLUG              |
| N/S 1     | V20207      | LANYARD           |

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PART NO. **DM200DSS**

TITLE **2" DRY MATE SS**