

1. FLOW MAY BE IN EITHER DIRECTION
2. VALVE SHAFT WILL MEET OR EXCEED AWWA C504 REQUIREMENTS
3. REFERENCE AWWA C504 FOR FLANGES AND DRILLING (ANSI 125)
4. 29 NUMBER OF TURNS TO CLOSE
5. 8 BOLTS ON FLANGE, 6 BOLTS ON MJ
6. 3/4" DIAMETER OF BOLTS
7. OPERATED BY 2" AWWA OPERATING NUT/WRENCH NUT
8. RATED AND TESTED FOR 150psi WORKING PRESSURE

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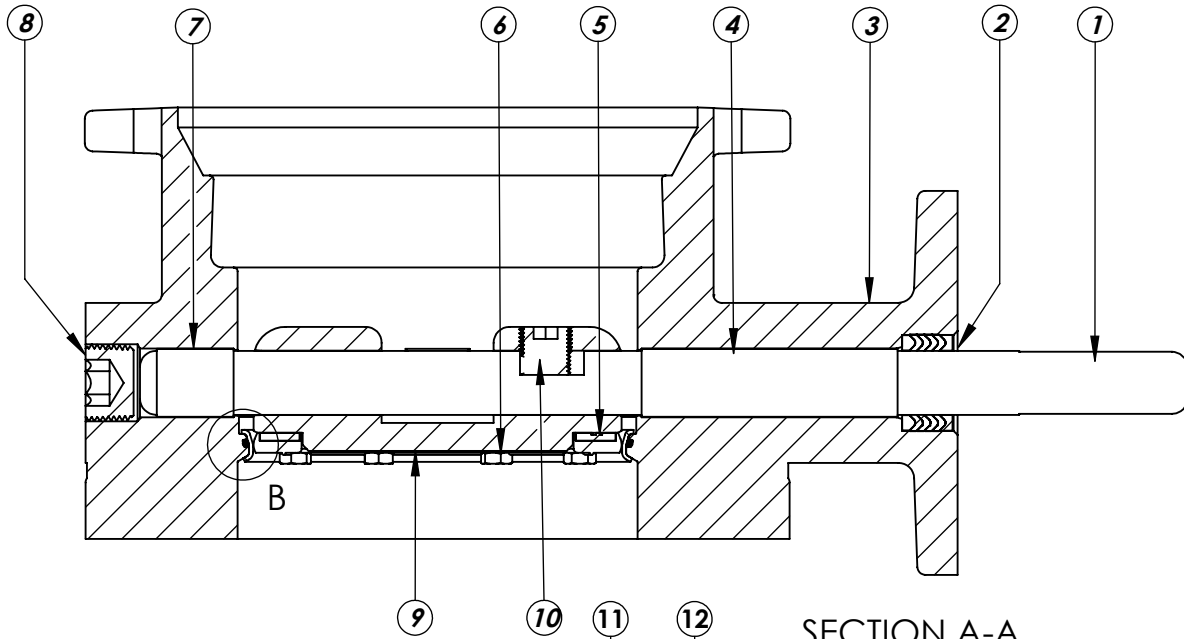
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VALVE CO.

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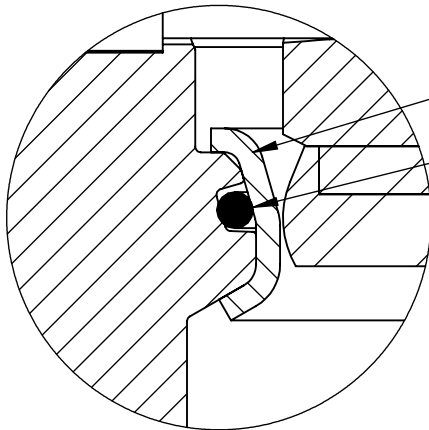
A DIVISION OF McWANE INC.  
902 SOUTH 2ND ST  
OSKALOOSA, IOWA 52577

**DRAWN:** CTJ  
**DATE:** 11/26/2018  
**DWG. NO.** B06XAM11

**6" - Style 4500 - CL150**  
**BFV with F/A 12 MSS/ISO Connection-**  
**FMJ ENDS - Buried Operator**



SECTION A-A  
SCALE 1 : 3



DETAIL B  
SCALE 2 : 1

| ITEM NO. | DESCRIPTION            | MATERIAL                              |
|----------|------------------------|---------------------------------------|
| 1        | VANE SHAFT             | 304 STAINLESS STEEL, ASTM A-276       |
| 2        | V-RING PACKING SET     | EPDM, BUNA-N                          |
| 3        | BFV BODY               | DUCTILE IRON ASTM A-536               |
| 4        | UPPER JOURNAL BEARING  | NYLATRON                              |
| 5        | VANE SEAT RING         | EPT with SS INSERT                    |
| 6        | HEX HEAD CAPSCREW      | 18-8 STAINLESS STEEL with NYLOC PATCH |
| 7        | LOWER JOURNAL BEARING  | NYLATRON                              |
| 8        | BFV BODY END PLUG      | STEEL                                 |
| 9        | BFV VANE               | DUCTILE IRON ASTM A-536               |
| 10       | VANE SHAFT TORQUE PLUG | 18-8 STAINLESS STEEL                  |
| 11       | BODY SEAT RING         | 316 STAINLESS STEEL                   |
| 12       | BODY SEAT O-RING       | BUNA-N                                |

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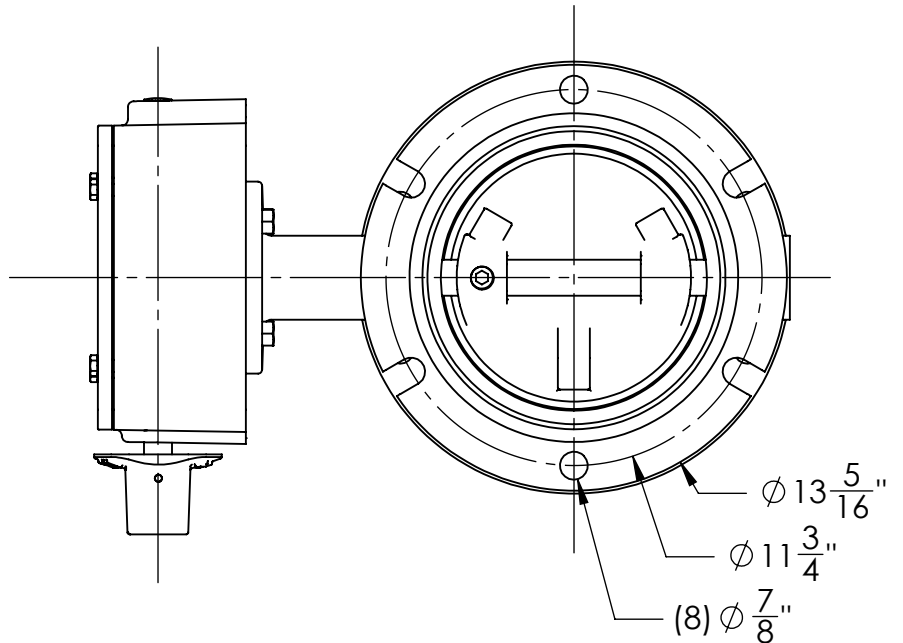
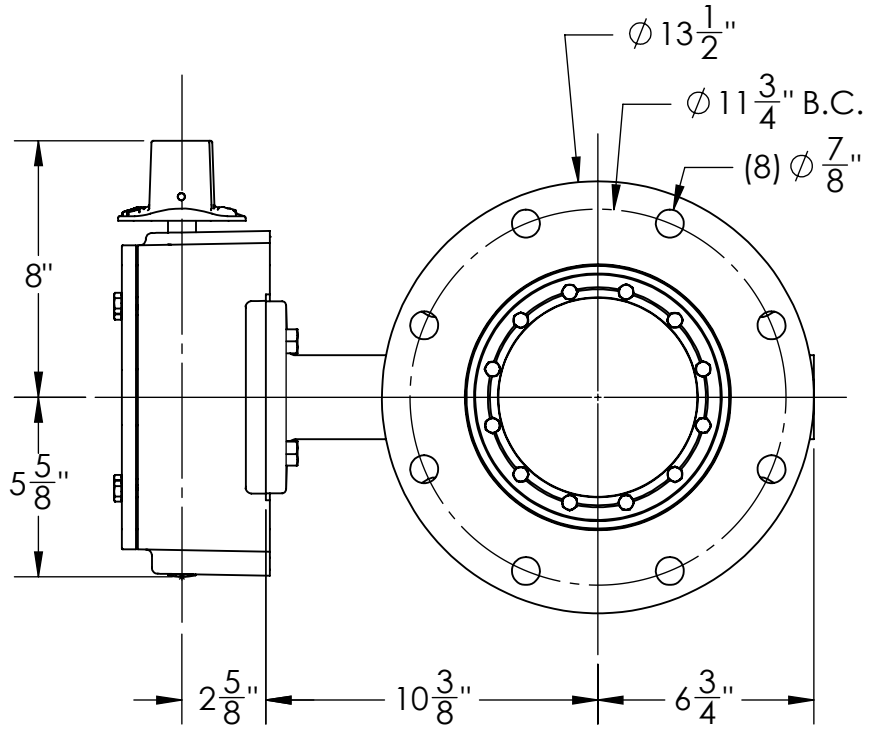
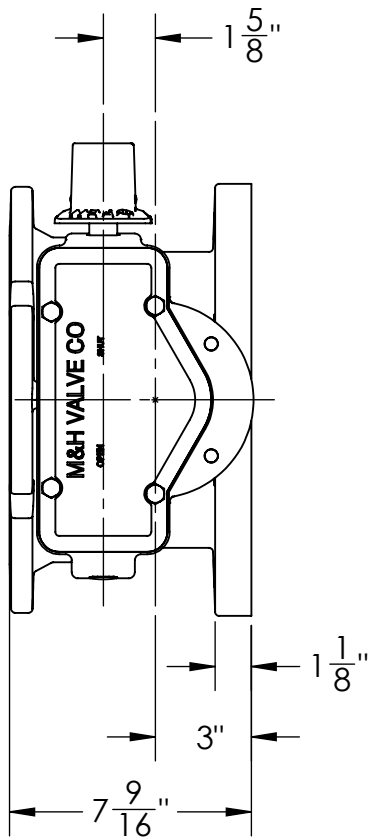
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902 SOUTH 2ND ST  
OSKALOOSA, IOWA 52577

DRAWN: ZF  
DATE: 1/6/17  
DWG.  
NO. B06XBB11

**6" AWWA C504 - Style 4500 - CL150  
BFV with F/A 12 MSS/ISO Connection  
Sub-Assembly - Material List  
FMJ ENDS**



1. FLOW MAY BE IN EITHER DIRECTION
2. VALVE SHAFT WILL MEET OR EXCEED AWWA C504 REQUIREMENTS
3. REFERENCE AWWA C504 FOR FLANGES AND DRILLING (ANSI 125)
4. 29 TURNS TO CLOSE
5. 8 BOLTS ON FLANGE SIDE, 6 ON MJ SIDE
6. 3/4" DIAMETER OF BOLTS
7. OPERATED BY 2" AWWA OPERATING NUT/WRENCH NUT
8. RATED AND TESTED FOR 150psi WORKING PRESSURE

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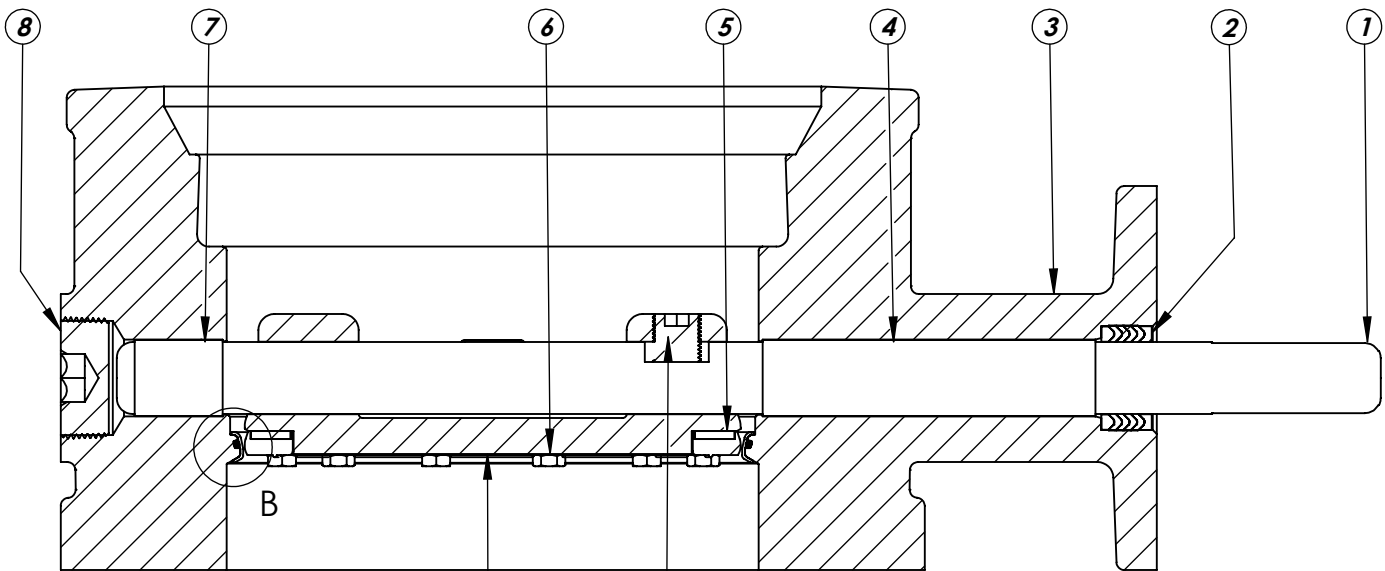
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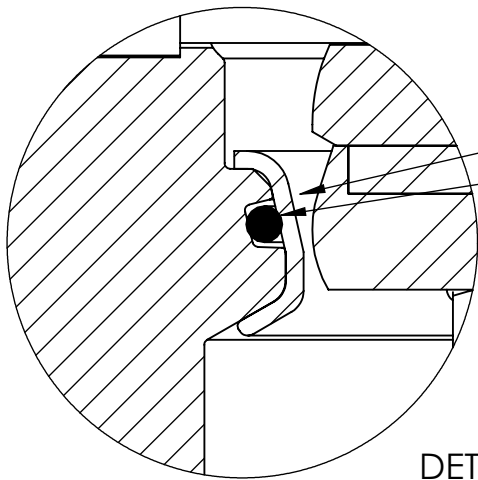
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902 SOUTH 2ND ST  
OSKALOOSA, IOWA 52577

**DRAWN:** CTJ  
**DATE:** 11/26/2018  
**DWG. NO.:** B08XAM11

**8" - Style 4500 - CL150**  
**BFV with F/A 12 MSS/ISO Connection-**  
**FMJ ENDS - Buried Operator**



SECTION A-A  
SCALE 1 : 3



DETAIL B  
SCALE 2 : 1

| ITEM NO. | DESCRIPTION            | MATERIAL                              |
|----------|------------------------|---------------------------------------|
| 1        | VANE SHAFT             | 304 STAINLESS STEEL, ASTM A-276       |
| 2        | V-RING PACKING SET     | EPDM, BUNA-N                          |
| 3        | BFV BODY               | DUCTILE IRON ASTM A-536               |
| 4        | UPPER JOURNAL BEARING  | NYLATRON                              |
| 5        | VANE SEAT RING         | EPT with SS INSERT                    |
| 6        | HEX HEAD CAPSCREW      | 18-8 STAINLESS STEEL with NYLOC PATCH |
| 7        | LOWER JOURNAL BEARING  | NYLATRON                              |
| 8        | BFV BODY END PLUG      | STEEL                                 |
| 9        | BFV VANE               | DUCTILE IRON ASTM A-536               |
| 10       | VANE SHAFT TORQUE PLUG | 18-8 STAINLESS STEEL                  |
| 11       | BODY SEAT RING         | 316 STAINLESS STEEL                   |
| 12       | BODY SEAT O-RING       | BUNA-N                                |

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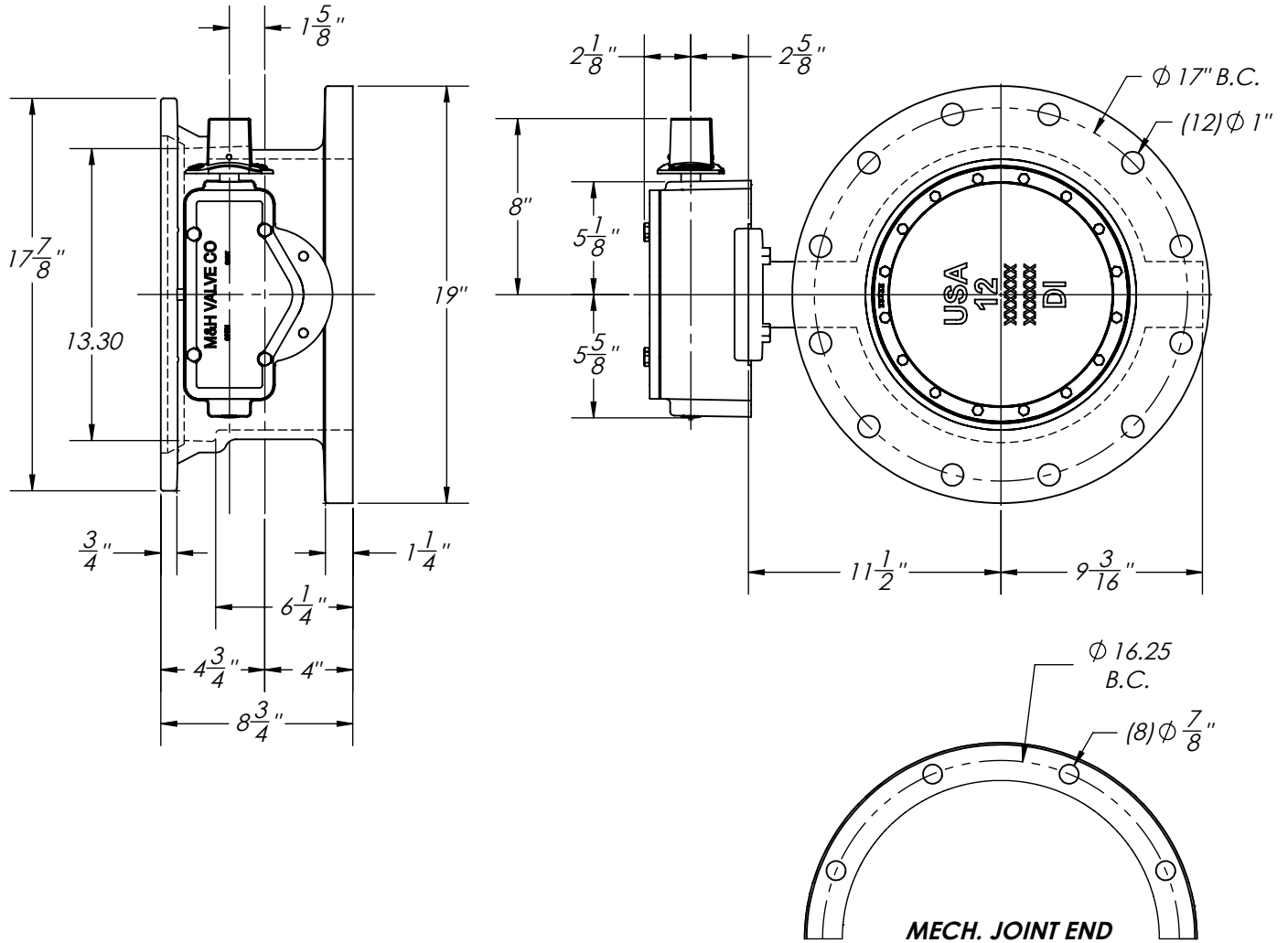
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902 SOUTH 2ND ST  
OSKALOOSA, IOWA 52577

DRAWN: ZF  
DATE: 1/9/17  
DWG.  
NO. B08XBB11

**8" AWWA C504 - Style 4500 - CL150  
BFV with F/A 12 MSS/ISO Connection  
Sub-Assembly - Material List  
FMJ ENDS**



1. FLOW MAY BE IN EITHER DIRECTION
2. VALVE SHAFT WILL MEET OR EXCEED AWWA C504 REQUIREMENTS
3. REFERENCE AWWA C504 FOR FLANGES AND DRILLING (ANSI 125)
4. 29 TURNS TO CLOSE
5. OPERATED BY 2" AWWA OPERATING NUT/WRENCH NUT
6. RATED AND TESTED FOR 150psi WORKING PRESSURE
7.  $\frac{7}{8}$ " DIA. BOLTS FOR FLANGED SIDE,  $\frac{3}{4}$ " DIA. BOLTS FOR MJ SIDE
8. GASKET, GLANDS, AND BOLTS FOR MECHANICAL JOINT FURNISHED WITH VALVE WHEN SPECIFIED ON ORDER

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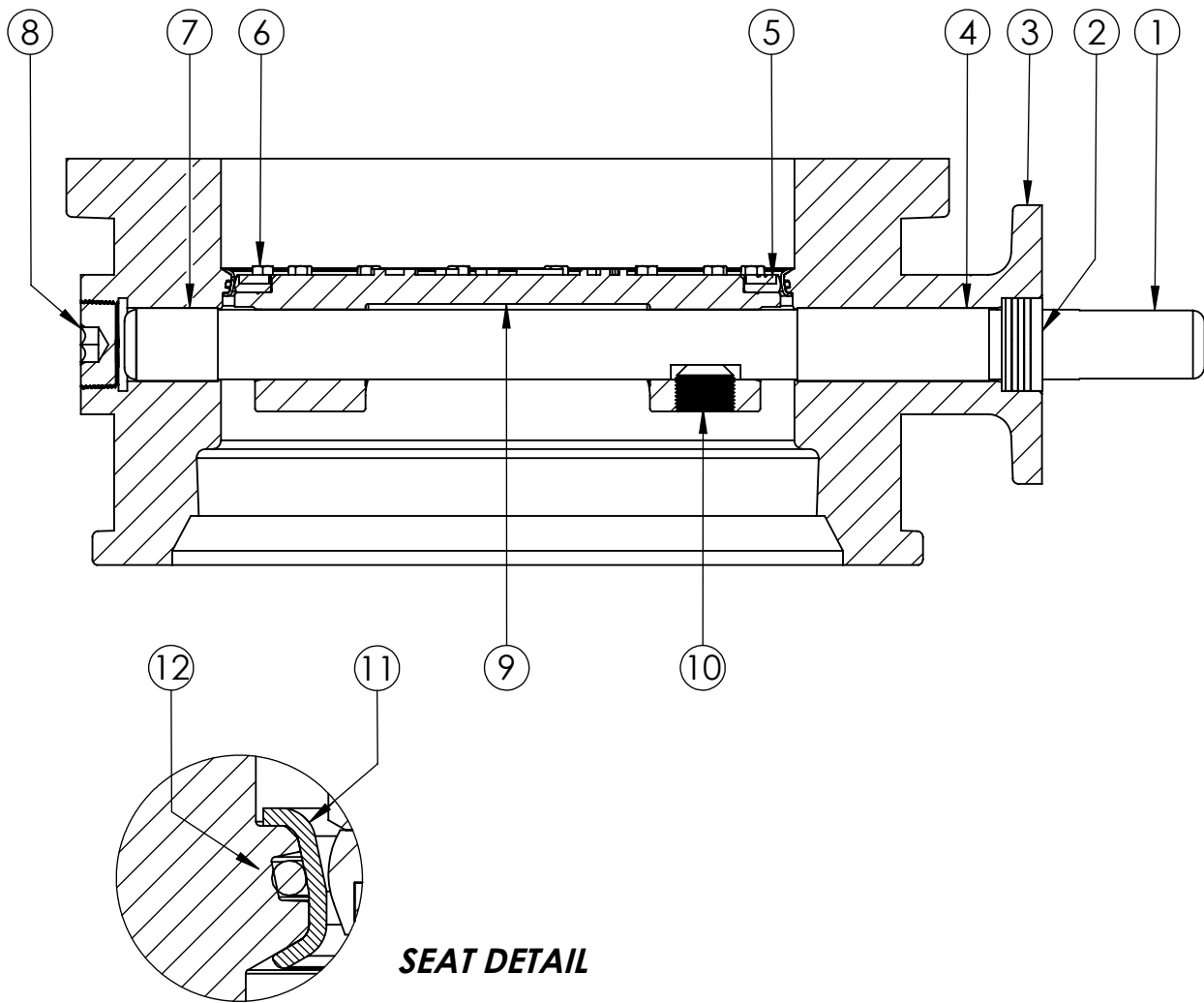
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**DRAWN:** CTJ

**DATE:** 11/26/2018

**DWG. NO.**  
B12XAM11

**12" - Style 4500 - CL150**  
**BFV with F/A 12 MSS/ISO Connection-**  
**FLANGED x MECH. JOINT - Buried Operator**



**SEAT DETAIL**

| <b>ITEM NO.</b> | <b>DESCRIPTION</b>     | <b>MATERIAL</b>                       |
|-----------------|------------------------|---------------------------------------|
| 1               | VANE SHAFT             | 304 STAINLESS STEEL, ASTM A-276       |
| 2               | V-RING PACKING SET     | EPDM, BUNA-N                          |
| 3               | BFV BODY               | DUCTILE IRON ASTM A-536               |
| 4               | UPPER JOURNAL BEARING  | NYLATRON                              |
| 5               | VANE SEAT RING         | EPT with SS INSERT                    |
| 6               | HEX HEAD CAPSCREW      | 18-8 STAINLESS STEEL with NYLOC PATCH |
| 7               | LOWER JOURNAL BEARING  | NYLATRON                              |
| 8               | BFV BODY END PLUG      | STEEL                                 |
| 9               | BFV VANE               | DUCTILE IRON ASTM A-536               |
| 10              | VANE SHAFT TORQUE PLUG | 18-8 STAINLESS STEEL                  |
| 11              | BODY SEAT RING         | 316 STAINLESS STEEL                   |
| 12              | BODY SEAT O-RING       | BUNA-N                                |

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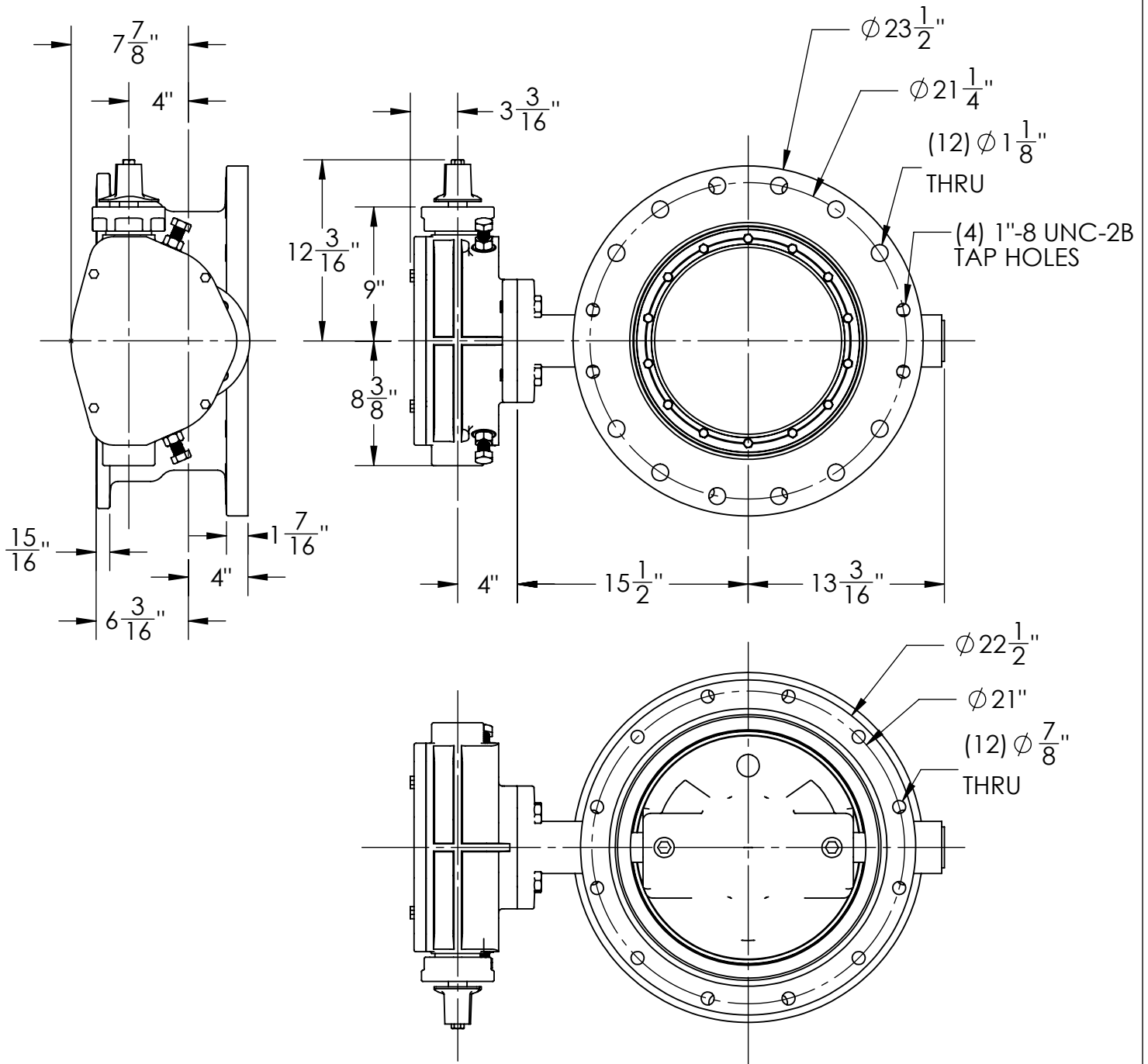
**DRAWN:** CTJ

**DATE:** 8/10/2018

**DWG. NO.**

B12XBB11

**12" AWWA C504 - Style 4500 - CL150  
BFV with F/A 12 MSS/ISO Connection  
Sub-Assembly - Material List  
FLANGED by MECHANICAL JOINT**



1. FLOW MAY BE IN EITHER DIRECTION
2. VALVE SHAFT WILL MEET OR EXCEED AWWA C504 STANDARDS
3. 48 TURNS TO CLOSE
4. 16 BOLTS ON FLANGE SIDE, 12 ON MJ SIDE
5. 1" DIA. BOLTS FOR FLANGED SIDE, 3/4" DIA. BOLTS FOR MJ SIDE
6. OPERATED BY 2" AWWA OPERATING NUT/WRENCH NUT
7. RATED AND TESTED FOR 150psi WORKING PRESSURE
8. GASKETS, GLANDS, AND BOLTS FOR MECHANICAL JOINT FURNISHED WITH VALVE WHEN SPECIFIED ON ORDER
9. WEIGHT OF VALVE IS 450 LBS.

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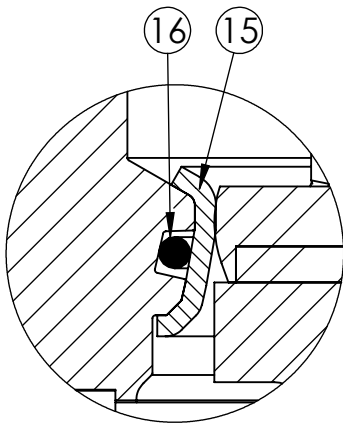
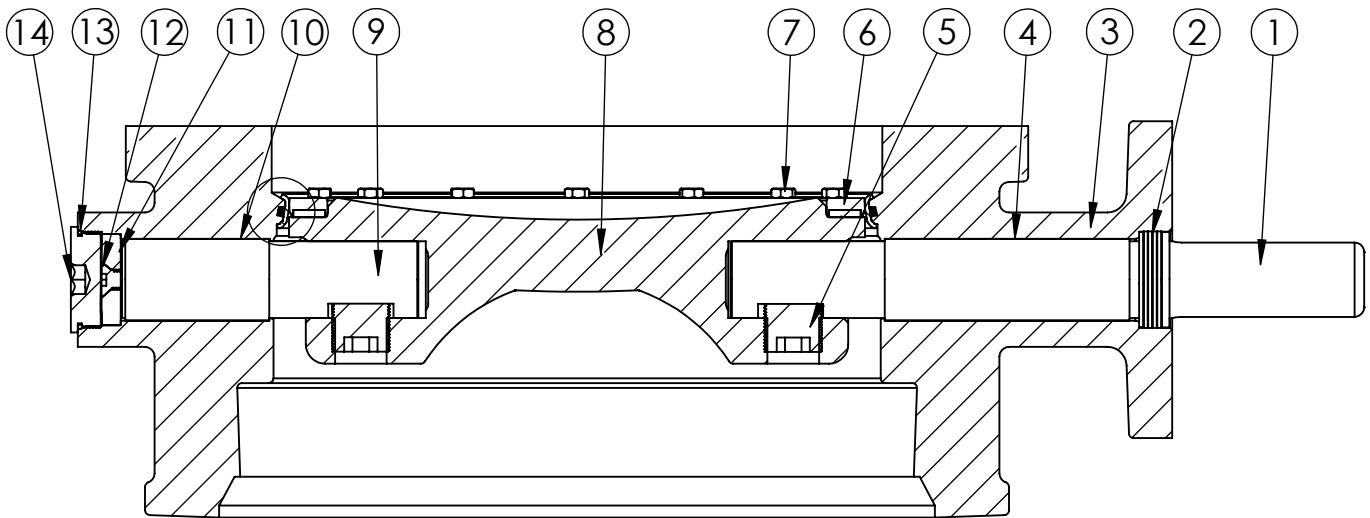
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**DRAWN:** CTJ  
**DATE:** 11/26/2018  
**DWG. NO.:** B16XAM11

16" - Style 4500 - CL150  
BFV with F/A16 MSS/ISO Connection-  
FE x FE ENDS - Buried Operator



**SEAT DETAIL**

| <b>ITEM NO.</b> | <b>DESCRIPTION</b>       | <b>MATERIAL</b>                     |
|-----------------|--------------------------|-------------------------------------|
| 1               | OPERATOR SHAFT           | 304 STAINLESS STEEL, ASTM A-276     |
| 2               | V-RING PACKING SET       | EPDM, BUNA-N                        |
| 3               | BFV BODY                 | DUCTILE IRON ASTM A-536             |
| 4               | UPPER JOURNAL BEARING    | FIBER & REINFORCED TEFLON           |
| 5               | TORQUE PLUG              | 304 STAINLESS STEEL, ASTM A-276     |
| 6               | VANE SEAT RING           | EPT W/ STAINLESS STEEL INSERT       |
| 7               | HEX HEAD CAP SCREW       | 18-8 STAINLESS STEEL W/ NYLOC PATCH |
| 8               | BFV VANE                 | DUCTILE IRON ASTM A-276             |
| 9               | THRUST SHAFT             | 304 STAINLESS STEEL, ASTM A-276     |
| 10              | LOWER JOURNAL BEARING    | FIBER & REINFORCED TEFLON           |
| 11              | THRUST BEARING           | BRONZE ALLOY                        |
| 12              | THRUST BEARING CAP SCREW | 18-8 STAINLESS STEEL                |
| 13              | BODY END PLUG O-RING     | BUNA-N                              |
| 14              | BODY END PLUG            | STEEL                               |
| 15              | BODY SEAT RING           | 316 STAINLESS STEEL                 |
| 16              | BODY SEAT O-RING         | BUNA-N                              |

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**DRAWN:** ZF  
**DATE:** 8/31/2018  
**DWG. NO.**  
B16XBB11

16" AWWA C504 - STYLE 4500 - CL150  
BFV w/ F/A16 MSS/ISO CONNECTION  
SUB-ASSEMBLY - MATERIAL LIST  
FMJ ENDS