

**Fig No: MD-67-2500 Reduced Bore**

**3"x2"~12"x10"**



**Feature:**

Design: API6D, ASME B16.34, API607/ API6FA fire safe design  
Side entry ball  
Anti-static design, Anti blow-out-stem  
Carbon steel or special alloy upon request  
Cast steel are also supplied in full compliance with NACE MR0175

**Service:**

General, Low Temperature, Cryogenic, Sub sea, Oil & Gas application, High temperature, Underground

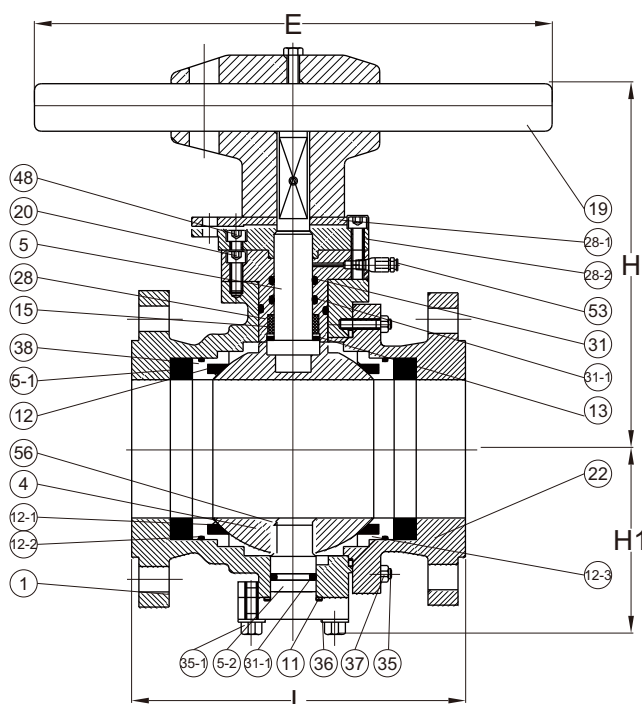
**Design:**

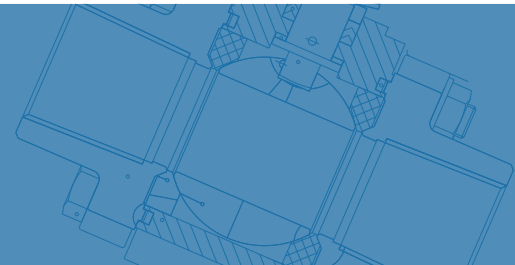
2-pc Design, by casting  
Reduce Bore  
Face to face: ASME B16.10  
Flange connection: ASME B16.5 Class 2500 RF ( Above size 26", which would compliance with ASME B16.47 )  
Pressure-Temperature Rating: ASME/ANSI B16.34  
Testing and inspection: API6D, API598  
•Automatically Drain Plug (NPT) on Body( 2"~4" - option, Upward 6" - Basic function )  
•Double bleed and Block( 2"~4" - option, Upward 6" - Basic function )  
•Sealant Emergently Injection Fittings( 2"~4" - option, Upward 6" - Basic function )

**Options:**

- With Locking Device
- Extended Stem ( Cryogenic application )
- Actuator installation
- Gear Box

Size: 3" x 2" ~8" x 4"





**Fig No: MD-67-2500 Reduced Bore**

## MATERIALS LIST

| NO.  | DESCRIPTION      | MATERIAL                                                                     |
|------|------------------|------------------------------------------------------------------------------|
| 1    | BODY             | A216-WCB,WCC,A352-LCB,A351-CF8,CF8M,CF3,CF3M,CN7M,CF8C,CDMCu,CN-3MN          |
| 4    | BALL             | A105+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20                 |
| 5    | STEM             | 1045+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20,4140+ENP,17-4PH |
| 5-1  | SPRING           | SS304,INCONEL,1566+ENP                                                       |
| 5-2  | TRUNNION         | 1045+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20,4140+ENP,17-4PH |
| 9    | CAP              | A216-WCB,WCC,A352-LCB,A351-CF8,CF8M,CF3,CF3M,CN7M,CF8C,CD4MCu,CN-3MN         |
| 11   | GASKET           | SS304,SS316+FLEXIBLE GRAPHITE                                                |
| 12   | SEAT             | PTFE,RPTFE,NYLON,PEEK,PPL,POM, KARBATE,MOLON,DEVLON                          |
| 12-1 | SEALING RING     | FLEXIBLE GRAPHITE                                                            |
| 12-2 | SEALING RING     | SS304,SS316+FLEXIBLE GRAPHITE SPIRAL WOUND                                   |
| 12-3 | O-RING           | VITON                                                                        |
| 13   | THRUST WASHER    | PTFE,RPTFE,STAINLESS STEEL+N                                                 |
| 15   | PACKING          | FLEXIBLE GRAPHITE                                                            |
| 19   | LEVER            | A216-WCB+1020                                                                |
| 20   | SCREW            | 1035,STAINLESS STEEL                                                         |
| 28   | STUFFING BOX     | A105+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20                 |
| 28-1 | LIMITED PLATE    | 1035,STAINLESS STEEL                                                         |
| 28-2 | CONNECTING PLATE | 1025,A216-WCB,A351-CF8                                                       |
| 31   | O-RING           | VITON                                                                        |
| 31-1 | O-RING           | NBR,VITON                                                                    |
| 31-2 | O-RING           | NBR,VITON                                                                    |
| 35   | BOLT             | A193-B7,B7M,B8,B8M                                                           |
| 35-1 | SCREW            | PL1035,STAINLESS STEEL                                                       |
| 36   | ADJUST WASHER    | PTFE,1045+RPTFE,STAINLESS STEEL+RPTFE                                        |
| 37   | NUT              | A194-2H,2HM,8,8M                                                             |
| 38   | SEAT RING        | A105+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20                 |
| 48   | PIN              | ANSI 1566                                                                    |
| 53   | OIL CUP          | 1025,SS304                                                                   |
| 56   | BEARING          | 1045+RPTFE,SS304+RPTFE,SS316+RPTFE                                           |

## ANSI CLASS 2500 DIMENSIONS

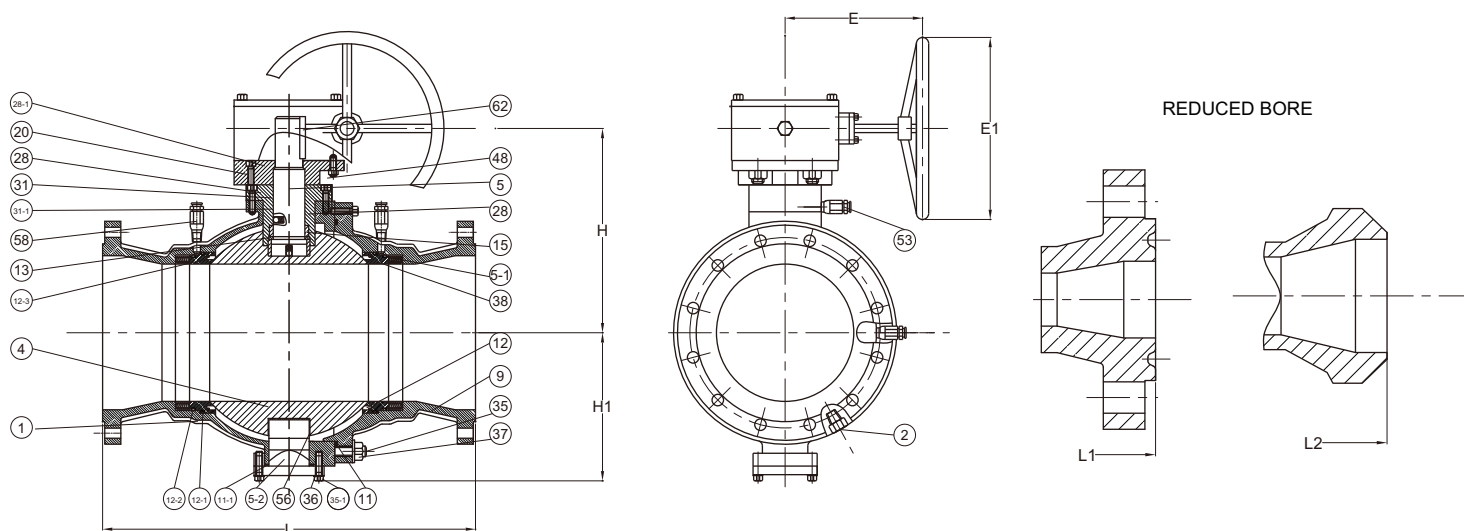
unit:mm

| SIZE       | L      | L1     | L2    | E      | H     | H1    | Wt (kg) |
|------------|--------|--------|-------|--------|-------|-------|---------|
| 3x2" Ⓒ     | 578.0  | 584.0  | 470.0 | 1000.0 | 240.0 | 129.0 | 102.0   |
| 3x2-1/2" Ⓒ | 578.0  | 584.0  | 470.0 | 1000.0 | 270.0 | 135.0 | 173.0   |
| 4x2-1/2" Ⓓ | 673.0  | 683.0  | 546.0 | 1000.0 | 270.0 | 135.0 | 180.0   |
| 4x3" Ⓒ     | 673.0  | 683.0  | 546.0 | 1000.0 | 300.0 | 159.0 | 230.0   |
| 6x3" Ⓓ     | 914.0  | 927.0  | 705.0 | 1000.0 | 300.0 | 159.0 | 340.0   |
| 6x4" Ⓒ     | 914.0  | 927.0  | 705.0 | ---    | 350.0 | 204.0 | 413.0   |
| 8x4" Ⓓ     | 1022.0 | 1038.0 | 832.0 | ---    | 350.0 | 204.0 | 524.0   |

\* Ⓓ Reduce Bore Ⓒ Regular Bore

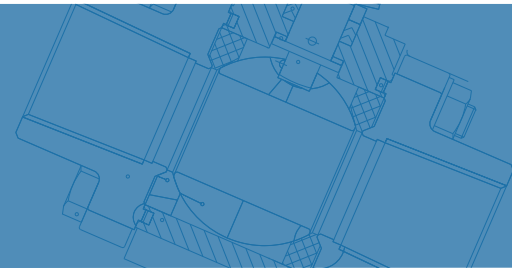
**Fig No: MD-67-2500 Reduced Bore**

Size: 8" x 6" ~ 12" x 10"



## MATERIALS LIST

| NO.  | PART NAME            | MATERIAL                                                                     |
|------|----------------------|------------------------------------------------------------------------------|
| 1    | BODY                 | A216-WCB,WCC,A352-LCB,A351-CF8,CF8M,CF3,CF3M,CN7M,CF8C,CDMCu,CN-3MN          |
| 2    | DRAIN VALVE AND PLUG | 1025,SS304,SS316,SS304L,SS316L,SS321,F51,F53                                 |
| 4    | BALL                 | A105+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20                 |
| 5    | STEM                 | 1045+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20,4140+ENP,17-4PH |
| 5-1  | SPRING               | SS304,INCONEL,1566+ENP                                                       |
| 5-2  | TRUNNION             | 1045+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20,4140+ENP,17-4PH |
| 9    | CAP                  | A216-WCB,WCC,A352-LCB,A351-CF8,CF8M,CF3,CF3M,CN7M,CF8C,CD4MCu,CN-3MN         |
| 11   | GASKET               | SS304,SS316+FLEXIBLE GRAPHITE                                                |
| 11-1 | O-RING               | NBR,VITON                                                                    |
| 12   | SEAT                 | PTFE,RPTFE,NYLON,PEEK,PPL,POM, KARBATE,MOLON,DEVLON                          |
| 12-1 | SEALING RING         | FLEXIBLE GRAPHITE                                                            |
| 12-2 | SEALING RING         | SS304,SS316+FLEXIBLE GRAPHITE SPIRAL WOUND                                   |
| 12-3 | O-RING               | VITON                                                                        |
| 13   | THRUST WASHER        | PTFE,RPTFE,STAINLESS STEEL+N                                                 |
| 15   | PACKING              | FLEXIBLE GRAPHITE                                                            |
| 20   | SCREW                | 1035,STAINLESS STEEL                                                         |
| 28   | STUFFING BOX         | A105+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20                 |
| 28-1 | CONNECTING PLATE     | 1025,A216-WCB,A351-CF8                                                       |
| 31   | O-RING               | VITON                                                                        |
| 31-1 | O-RING               | NBR,VITON                                                                    |
| 35   | BOLT                 | A193-B7,B7M,B8,B8M                                                           |
| 35-1 | SCREW                | PL1035,STAINLESS STEEL                                                       |
| 36   | ADJUST WASHER        | PTFE,1045+RPTFE,STAINLESS STEEL+RPTFE                                        |
| 37   | NUT                  | A194-2H,2HM,8,8M                                                             |
| 38   | SEAT RING            | A105+ENP,A182-F6,F304,F316,F304L,F316L,F321,F51,F53,ALLOY-20                 |
| 48   | PIN                  | ANSI 1566                                                                    |
| 53   | OIL CUP              | 1025,SS304                                                                   |
| 56   | BEARING              | 1045+RPTFE,SS304+RPTFE,SS316+RPTFE                                           |
| 58   | GREASE FITTING       | 1025,SS304,SS316,SS304L,SS316L,SS321,ALLOY-20,F51,F53                        |
| 62   | KEY                  | 1045                                                                         |



**Fig No: MD-67-2500 Reduced Bore**

## ANSI CLASS 2500 DIMENSIONS

unit:mm

| SIZE     | L      | L1     | L2     | E     | E1    | H     | H1    | Wt(kg) |
|----------|--------|--------|--------|-------|-------|-------|-------|--------|
| 8x6" Ⓒ   | 1022.0 | 1038.0 | 1022.0 | 430.0 | 450.0 | 385.0 | 250.0 | 935.0  |
| 10X6" Ⓓ  | 1270.0 | 1292.0 | 1270.0 | 430.0 | 450.0 | 385.0 | 250.0 | 1080.0 |
| 10X8" Ⓒ  | 1270.0 | 1292.0 | 1270.0 | 510.0 | 500.0 | 502.0 | 340.0 | 1450.0 |
| 12X8" Ⓓ  | 1422.0 | 1445.0 | 1422.0 | 510.0 | 500.0 | 502.0 | 340.0 | 1869.0 |
| 12X10" Ⓒ | 1422.0 | 1445.0 | 1422.0 | 510.0 | 500.0 | 600.0 | 411.0 | 2287.0 |

\* Ⓓ Reduce Bore Ⓒ Regular Bore

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