

| Client : HMEL                    |                     |                                                                          | Dept./Sect. : 16/43 |                  |
|----------------------------------|---------------------|--------------------------------------------------------------------------|---------------------|------------------|
| Project : GGSRP                  |                     |                                                                          |                     |                  |
| Location : BATHINDA              |                     |                                                                          | Tag No: 56401       | Sheet No. 1 of 2 |
| BUTTERFLY VALVE SPECIFICATION    |                     |                                                                          | MANUF'S OFFER       |                  |
| TAG NO. : 56401                  |                     |                                                                          | STANDARD:           |                  |
| RATING : 300                     |                     |                                                                          | MFGRS CAT/FIG:      |                  |
| SIZE RANGE : 3.0" TO 24.0"       |                     |                                                                          | RATING:             | ENDS:            |
| PIPING CLASS : B1A               |                     |                                                                          |                     |                  |
| STANDARD :                       |                     |                                                                          |                     |                  |
| ENDS : WAFL TO B-16.5 WAF/125AAR |                     |                                                                          |                     |                  |
| DESCRIPTION                      | CONSTRUCTION        | MATERIAL                                                                 | CONSTRUCTION        | MATERIAL         |
| BODY                             | CAST                | ASTM A 216 GR.WCB                                                        |                     |                  |
| DISC                             | CAST, TRIPLE OFFSET | ASTM A 216 GR.WCB/ASTM A 105/ASTM A 351 GR.CF8M/A351 GR.CF8/13% CR.STEEL |                     |                  |
| SHAFT                            | ANTI STATIC.        | 17-4PH/A 479 XM19/13% CR.STEEL/SS316/SS304(NO CASTING)                   |                     |                  |
| DISK SEAL                        |                     | RPTFE/UNS S31803(DUPLEX)+GRAPHITE/SS316+GRAPHITE                         |                     |                  |
| SHAFT BUSHING                    |                     | PTFE/SS316                                                               |                     |                  |
| BODY SCREWS/PIN                  |                     | SS304/SS316                                                              |                     |                  |
| BODY SEATS                       |                     | 13% CR.STEEL/SS304/SS316/STELLITED                                       |                     |                  |
| SHAFT SEAL                       |                     | PTFE+GRAFOIL/GRAFOIL                                                     |                     |                  |
| CLAMPING RINGS(IF REQD.)         |                     | ASTM A 515 GR.70/SS316/SS304/13% CR.STEEL                                |                     |                  |
| GASKET                           |                     | SP.WND SS316+GRAFOIL FILLER                                              |                     |                  |
| REQUIREMENT OF GEAR OPERATOR     |                     | REFER TECHNICAL NOTES FOR PURCHASE OF VALVES.                            |                     |                  |
| REQUIREMENT OF RADIOGRAPHY       |                     | REFER TECHNICAL NOTES FOR PURCHASE OF VALVES.                            |                     |                  |
| SPECIAL SERVICE CONDITIONS       |                     | MAX TEMP 204 DEG.C.                                                      |                     |                  |
| THRUST BEARING                   |                     | SS316                                                                    |                     |                  |
|                                  |                     |                                                                          |                     |                  |
|                                  |                     |                                                                          |                     |                  |
| HYDROSTATIC TEST PRESSURE        | BODY : 1125 PSIG    | SEAT : 825 PSIG                                                          |                     |                  |
| TEST PRESSURE WITH AIR           | 80 PSIG             |                                                                          |                     |                  |

## NOTES

- THIS VALVE SPEC SHEET SHALL BE READ IN CONJUNCTION WITH TECHNICAL NOTES FOR VALVES.
- BIDDER SHALL CLEARLY WRITE ALL/ ANY DEVIATION AGAINST EACH PART/ MATERIAL OF VALVE IN THE SPACE PROVIDED FOR. WHEREVER BIDDER AGREES WITH EIL'S SPEC BIDDER SHALL INDICATE "AGREED".
- NO CUTTING/ OVERWRITING BY BIDDER ON EIL'S SPEC IS ALLOWED.
- VALVE CAN ALSO BE SUPPLIED IN ACCORDANCE WITH API 609, CATEGORY-B.
- VALVE TESTING SHALL BE AS PER BS 5155/BS 6755(PART-I)/API 598.
- VALVES SHALL BE HIGH PERFORMANCE TYPE, TIGHT SHUT-OFF AND BI-DIRECTIONAL.
- VALVE SHALL BE LUGGED WAFER TYPE(WAFL) AND VALVE ENDS TO SUIT B16.5 RF/125AARH.
- FACE-TO-FACE DIMENSIONS SHALL BE AS PER DESIGN CODE.
- VALVES SHALL BE SUITABLE FOR BOTH 'ON-OFF' AS WELL AS 'THROTTLING SERVICE' UNDER MAXIMUM DIFFERENTIAL PRESSURE FOR THE RATING.
- DISC STRENGTH TEST SHALL BE CONDUCTED AS PER CODE.
- 10% VALVE CASTINGS UPTO 16" AND 100% VALVE CASTINGS 18" AND ABOVE SHALL UNDERGO RADIOGRAPHIC EXAMINATION.

SIGNATURE  
&  
SEAL  
OF MANUFACTURER

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| SHEET REV. NO. |  |
| DATE           |  |

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| <b>Project</b> : GGSRP     |                            |
| <b>Location</b> : BATHINDA | <b>Sheet No.</b> 2 of 2    |

## NOTES

- 12 BOLTINGS FOR TAPPED HOLES IN BODY, IF ANY, SHALL BE SUPPLIED BY VENDOR IN MATERIAL ASTM A 193 GR.B7/A 194 GR.2H
- 13 VALVES SHALL BE PROVIDED WITH POSITION INDICATOR AND LOCKING DEVICE AT ANY POSITION.
- 14 CROSS-SECTIONAL DETAIL OF BODY SEAT/SEAL ARRANGEMENT SHALL BE SUBMITTED ALONG WITH THE OFFER.
- 15 VENDOR SHALL SUBMIT VALVE DRAWING FOR APPROVAL.
- 16 VALVE SHALL BE CERTIFIED SUITABLE FOR THE SERVICE AND SERVICE CONDITIONS SPECIFIED IN THE DATA SHEET FOR BUTTERFLY VALVES.
- 17 BUTTERFLY VALVES WITH SEAL RINGS BUILT INSIDE THE BODY ARE ALSO ACCEPTABLE. IN SUCH CASE THE SEAL RING MATERIAL SHALL BE SS316+GRAPHITE AND THE DISC EDGE COMING IN CONTACT WITH THE SEAL RING SHALL BE STELLITED.
- 18 ALL VALVES SHALL BE FIRE SAFE DESIGN.FIRE SAFE TEST SHALL BE AS PER API 607/BS 6755(PART II) /API RP 6FA
- 19 BIDDER TO FURNISH DISK SEAL/SOFT BODY SEAT DETAILS AND TYPE, GRADE & CLASS SELECTED FOR RPTFE FROM ASTM D4745 WITH MANUFACTURER'S RECOMMENDATIONS LIKE PRESSURE-TEMPERATURE RATING CURVE/TABLE.
- 20 SHAFT SEAL MATERIAL(GRAFOIL) SHALL BE PROVIDED WITH CORROSION INHIBITOR.
- 21 DISK SEAL/BODY SEAL MATERIAL SHALL BE SOFTER THAN THE MATING SEAT/DISC MATERIAL RESPECTIVELY.

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