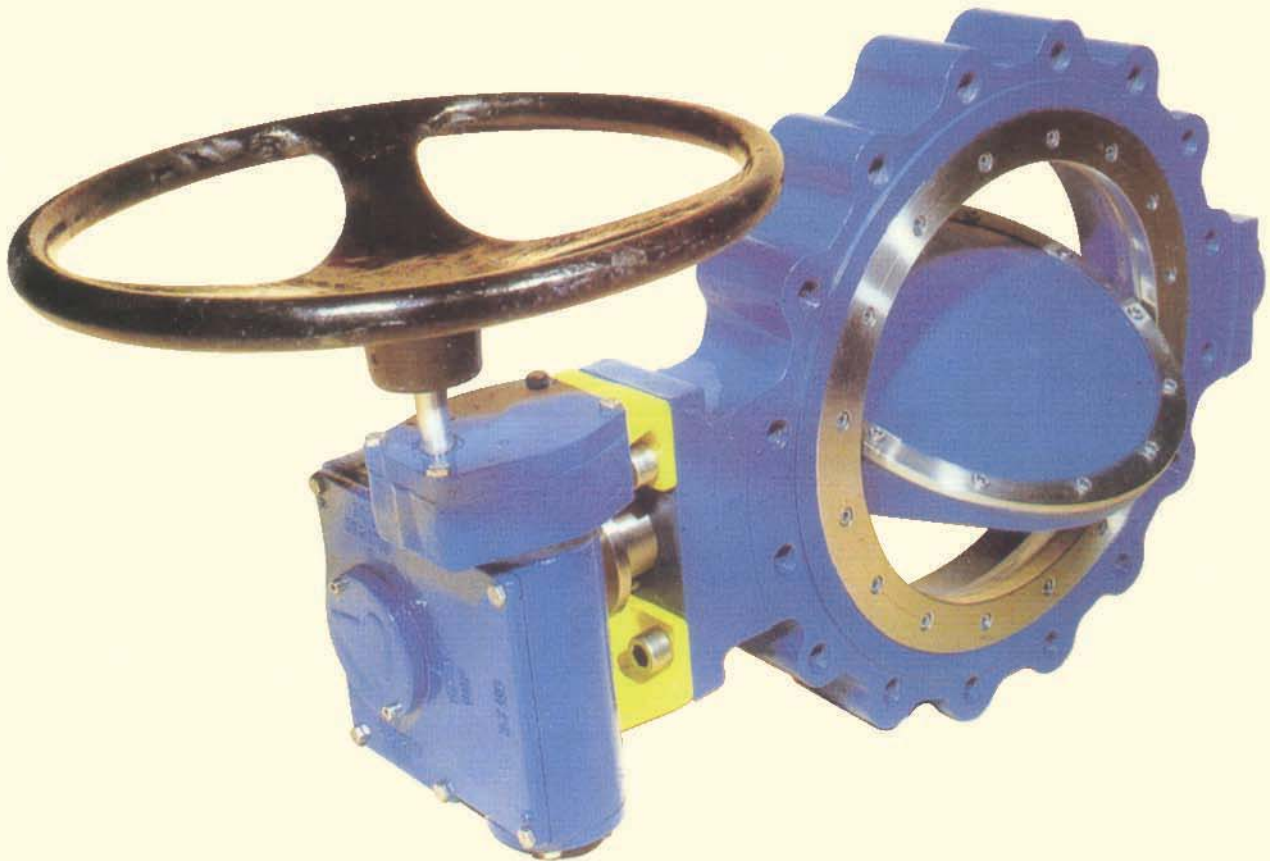




12 100 9120 TMS

Advance Valves Triple Eccentric High Performance Butterfly Valves

Series BT - BP



CE
0062

ADVANCE VALVES

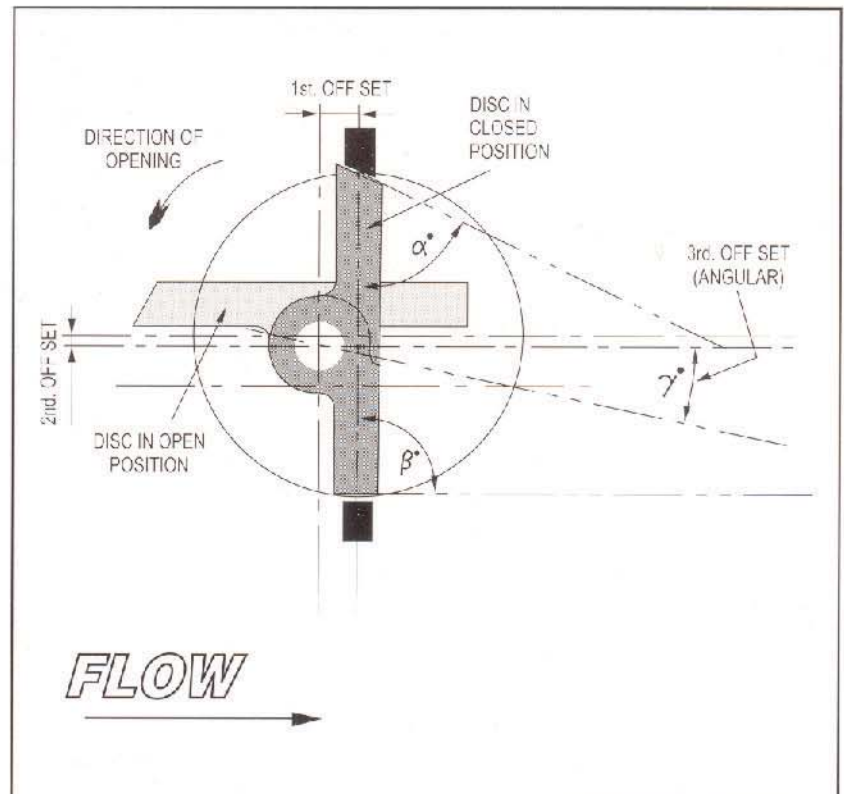
PRIVATE LIMITED

THE TRIPLE OFF-SET DESIGN PRINCIPLE

Advance Gunric Metal Seating High Pressure butterfly valves provide a bi-directional bubble tight shut off. This is achieved by introducing state-of-the-art triple eccentric disc geometry.

The valve shaft is off-set against the seal, (1st off-set), and against the centre line of the valve (2nd off-set). The seating edges are machined with a continuously changing slope from an angle α on top of the oval seat ring to an angle β at the opposite side (3rd off-set angular).

This geometry ensures that the seat ring stays clear of the seat except at the final shut-off position, resulting in long seat life and operating cycles in excess of 500 000.

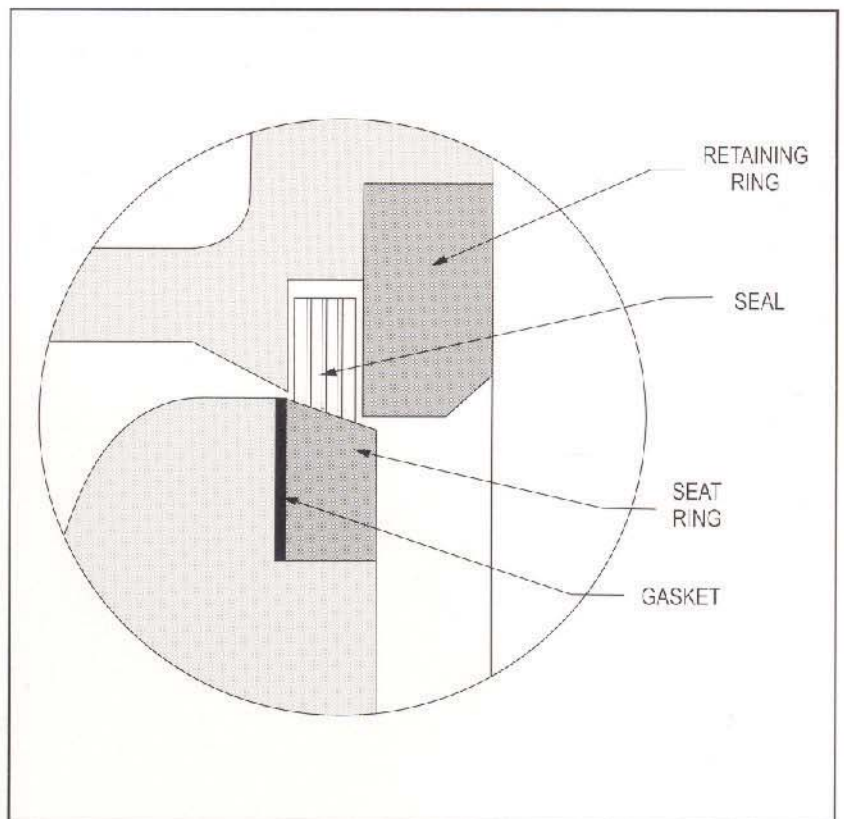


THE VALVE SEAL AND SEAT COMBINATION

The valve seal is manufactured from laminated stainless steel with PTFE or grapoil laminate depending on the applications. The seal is held in position by a bolt-on retaining ring and, together with the stainless seat ring, is easily replaceable.

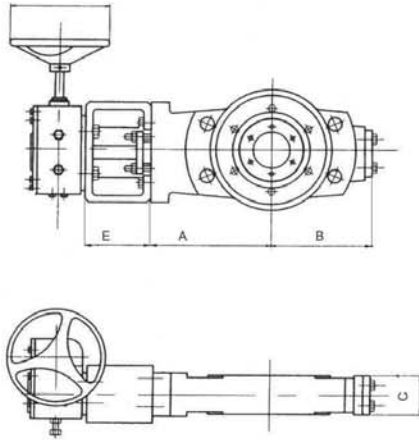
A gasket prevents leakage around the seal ring. The metal seating valve can operate within a temperature of -249° to $+600^{\circ}\text{C}$. Valve designs for cryogenic applications are available on request.

For low temperature applications, the metal seal can be substituted by a PTFE seat. Advance Gunric High Pressure butterfly valves are manufactured in a wide range of materials to suit most applications.



Advance Gunric metal seating valves are certified fire safe in accordance with BS6755 : Part 2 : 1987, and AP1607, AP16FA. The range has been tested and certified in accordance with API Standards 598.

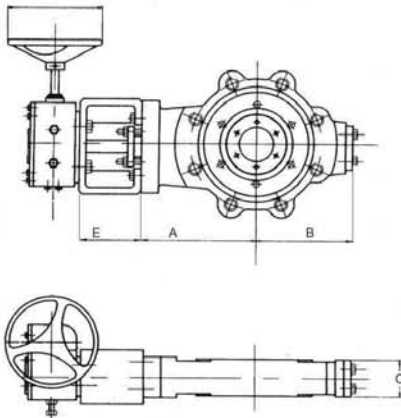
WAFER - FLANGLESS TYPE



| SIZE 3" - 24" CLASS 150 Lb. | | | | | | |
|-----------------------------|---------------|-----------------|-----|-----|-----|-------------|
| SIZE (mm) | SIZE (inches) | DIMENSIONS (mm) | | | | Weight (kg) |
| | | A | B | C | E | |
| 80 | 3 | 135 | 118 | 48 | 70 | 22 |
| 100 | 4 | 165 | 143 | 54 | 90 | 27 |
| 150 | 6 | 235 | 205 | 57 | 100 | 35 |
| 200 | 8 | 245 | 218 | 64 | 120 | 46 |
| 250 | 10 | 305 | 273 | 71 | 120 | 74 |
| 300 | 12 | 310 | 280 | 81 | 120 | 101 |
| 350 | 14 | 335 | 313 | 92 | 120 | 139 |
| 400 | 16 | 370 | 349 | 102 | 120 | 159 |
| 450 | 18 | 400 | 368 | 114 | 120 | 221 |
| 500 | 20 | 440 | 403 | 127 | 150 | 274 |
| 600 | 24 | 500 | 480 | 267 | 150 | 400 |

| SIZE 3" - 24" CLASS 300 Lb. | | | | | | |
|-----------------------------|---------------|-----------------|-----|-----|-----|-------------|
| SIZE (mm) | SIZE (inches) | DIMENSIONS (mm) | | | | Weight (kg) |
| | | A | B | C | E | |
| 80 | 3 | 145 | 128 | 48 | 70 | 25 |
| 100 | 4 | 175 | 158 | 54 | 90 | 29 |
| 150 | 6 | 235 | 205 | 59 | 100 | 45 |
| 200 | 8 | 275 | 238 | 64 | 120 | 71 |
| 250 | 10 | 305 | 273 | 83 | 120 | 116 |
| 300 | 12 | 345 | 310 | 92 | 120 | 114 |
| 350 | 14 | 395 | 348 | 117 | 120 | 199 |
| 400 | 16 | 425 | 383 | 133 | 120 | 254 |
| 450 | 18 | 460 | 408 | 160 | 130 | 317 |
| 500 | 20 | 500 | 443 | 159 | 150 | 391 |
| 600 | 24 | 550 | 523 | 181 | 150 | 640 |

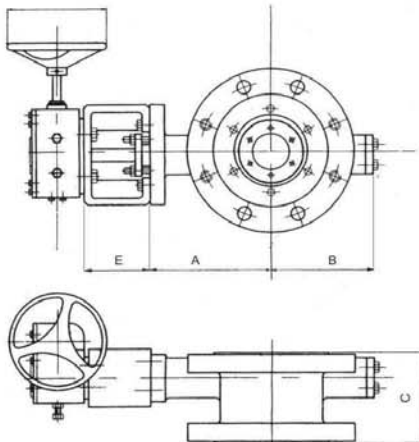
LUG TYPE



| SIZE 3" - 24" CLASS 150 Lb. | | | | | | |
|-----------------------------|---------------|-----------------|-----|-----|-----|-------------|
| SIZE (mm) | SIZE (inches) | DIMENSIONS (mm) | | | | Weight (kg) |
| | | A | B | C | E | |
| 80 | 3 | 135 | 118 | 48 | 70 | 26 |
| 100 | 4 | 165 | 143 | 54 | 90 | 29 |
| 150 | 6 | 215 | 185 | 57 | 100 | 39 |
| 200 | 8 | 245 | 218 | 64 | 120 | 49 |
| 250 | 10 | 270 | 245 | 71 | 120 | 81 |
| 300 | 12 | 310 | 280 | 81 | 120 | 111 |
| 350 | 14 | 335 | 313 | 92 | 120 | 154 |
| 400 | 16 | 370 | 349 | 102 | 120 | 187 |
| 450 | 18 | 400 | 368 | 114 | 120 | 247 |
| 500 | 20 | 440 | 403 | 127 | 150 | 317 |
| 600 | 24 | 500 | 483 | 154 | 150 | 470 |

| SIZE 3" - 24" CLASS 300 Lb. | | | | | | |
|-----------------------------|---------------|-----------------|-----|-----|-----|-------------|
| SIZE (mm) | SIZE (inches) | DIMENSIONS (mm) | | | | Weight (kg) |
| | | A | B | C | E | |
| 80 | 3 | 145 | 128 | 48 | 70 | 28 |
| 100 | 4 | 175 | 158 | 54 | 90 | 32 |
| 150 | 6 | 235 | 205 | 59 | 100 | 53 |
| 200 | 8 | 275 | 238 | 64 | 120 | 83 |
| 250 | 10 | 305 | 273 | 83 | 120 | 134 |
| 300 | 12 | 345 | 310 | 92 | 120 | 179 |
| 350 | 14 | 395 | 348 | 117 | 120 | 273 |
| 400 | 16 | 425 | 383 | 133 | 120 | 332 |
| 450 | 18 | 460 | 408 | 149 | 130 | 461 |
| 500 | 20 | 500 | 443 | 159 | 150 | 577 |
| 600 | 24 | 550 | 523 | 181 | 150 | 623 |

FLANGED TYPE



| SIZE 3" - 60" CLASS 150 Lb. | | | | | | |
|-----------------------------|---------------|-----------------|------|-----|-----|-------------|
| SIZE (mm) | SIZE (inches) | DIMENSIONS (mm) | | | | Weight (kg) |
| | | A | B | C | E | |
| 80 | 3 | 135 | 120 | 114 | 70 | 28 |
| 100 | 4 | 165 | 145 | 127 | 100 | 31 |
| 150 | 6 | 215 | 190 | 140 | 100 | 42 |
| 200 | 8 | 245 | 218 | 152 | 120 | 53 |
| 250 | 10 | 270 | 250 | 178 | 120 | 99 |
| 300 | 12 | 310 | 285 | 178 | 120 | 114 |
| 350 | 14 | 335 | 315 | 190 | 120 | 165 |
| 400 | 16 | 370 | 350 | 216 | 120 | 198 |
| 450 | 18 | 400 | 370 | 222 | 120 | 249 |
| 500 | 20 | 440 | 405 | 229 | 150 | 311 |
| 600 | 24 | 500 | 480 | 267 | 200 | 469 |
| 650 | 26 | 585 | 515 | 292 | 150 | 730 |
| 700 | 28 | 615 | 545 | 292 | 150 | 1000 |
| 750 | 30 | 645 | 575 | 318 | 200 | 1210 |
| 800 | 32 | 680 | 615 | 318 | 200 | 1450 |
| 850 | 34 | 705 | 635 | 330 | 200 | 1600 |
| 900 | 36 | 735 | 665 | 330 | 200 | 2000 |
| 950 | 38 | 770 | 700 | 410 | 200 | 2250 |
| 1000 | 40 | 795 | 725 | 410 | 200 | 2500 |
| 1050 | 42 | 825 | 755 | 410 | 200 | 2650 |
| 1100 | 44 | 850 | 780 | 470 | 200 | 2830 |
| 1150 | 46 | 880 | 810 | 470 | 200 | 2940 |
| 1200 | 48 | 950 | 880 | 470 | 200 | 3100 |
| 1400 | 56 | 1025 | 955 | 530 | 200 | 3500 |
| 1500 | 60 | 1080 | 1010 | 600 | 200 | 4500 |

| SIZE 3" - 60" CLASS 300 Lb. | | | | | | |
|-----------------------------|---------------|-----------------|------|-----|-----|-------------|
| SIZE (mm) | SIZE (inches) | DIMENSIONS (mm) | | | | Weight (kg) |
| | | A | B | C | E | |
| 80 | 3 | 145 | 125 | 114 | 70 | 30 |
| 100 | 4 | 175 | 155 | 127 | 100 | 34 |
| 150 | 6 | 235 | 205 | 140 | 100 | 62 |
| 200 | 8 | 275 | 240 | 152 | 120 | 105 |
| 250 | 10 | 305 | 275 | 165 | 120 | 149 |
| 300 | 12 | 345 | 310 | 178 | 120 | 204 |
| 350 | 14 | 395 | 345 | 190 | 120 | 284 |
| 400 | 16 | 425 | 373 | 216 | 120 | 359 |
| 450 | 18 | 460 | 405 | 222 | 130 | 481 |
| 500 | 20 | 500 | 437 | 229 | 150 | 670 |
| 600 | 24 | 560 | 530 | 267 | 150 | 899 |
| 650 | 26 | 640 | 570 | 292 | 150 | |
| 700 | 28 | 670 | 600 | 292 | 150 | |
| 750 | 30 | 695 | 625 | 318 | 200 | |
| 800 | 32 | 725 | 655 | 318 | 200 | |
| 850 | 34 | 755 | 685 | 330 | 200 | |
| 900 | 36 | 785 | 715 | 330 | 200 | |
| 950 | 38 | 835 | 755 | 410 | 200 | |
| 1000 | 40 | 870 | 790 | 410 | 200 | |
| 1050 | 42 | 895 | 815 | 410 | 200 | |
| 1100 | 44 | 940 | 860 | 470 | 200 | |
| 1150 | 46 | 980 | 900 | 470 | 200 | |
| 1200 | 48 | 1030 | 950 | 470 | 200 | |
| 1400 | 56 | 1105 | 1035 | 530 | 200 | |
| 1500 | 60 | 1165 | 1105 | 600 | 200 | |

Size of valves up to 80" and pressure up to class 900 on application

ADVANCE VALVES

PRIVATE LIMITED

GUNRIC has, over a period of years, established a reputation for manufacturing high technology valves. Their range of triple and double offset butterfly valves are manufactured in sizes from 80 mm to 2500 mm and pressure from 10 Bar (class 125) to 160 Bar (Class 900).

Advance Gunric Valves is a joint venture company between Advance Valves Group, India and Gunric Valves, S.A. The company is based in India and acting as global sourcing centre for butterfly valves.

The Gunric range of valves are in use at many of the Water Boards, Water Authorities, Municipalities, Mines, Petroleum and Process plants, and Steel refineries in South Africa, as well as Europe and the Far East.

The Valves are available in wafer, lugged and double flanged configurations. A wide variety of drilling can be accommodated as well as most European, American and Asian Specifications.

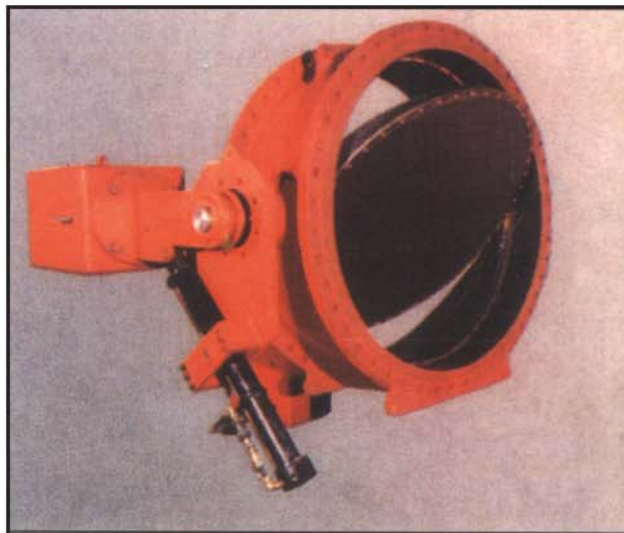
Our Commitment to Quality

At Advance Gunric we recognise that constant high quality is essential to meet today's arduous service requirements in the valve industry.

Gunric operates a quality system according to ISO 9001 & according to European Pressure Equipment directive 97/23/EC, Module H to use CE 0035 monogram accredited by TUV Rheinland.

We believe that on going research and development is important and constantly strive to improve the technology and quality of valves.

As part of our design procedure finite element stress analysis is carried out to ensure material suitability and strength. All valves are tested to the appropriate specification prior to despatch.



200 mm Autoclosing Valve



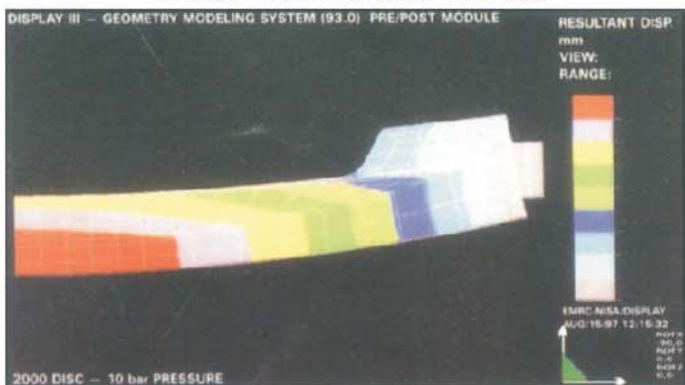
Hydrostatic Valve Test



Gunric Valve being Installed in Thailand

TYPICAL FINITE ELEMENT STRESS ANALYSIS

Deflection of a DN 2000 PN10 Disc



Manufactured & Marketed by :

ADVANCE GUNRIC

INDIA • USA • UK • UAE • SINGAPORE • SOUTH AFRICA • QATAR

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Represented by :