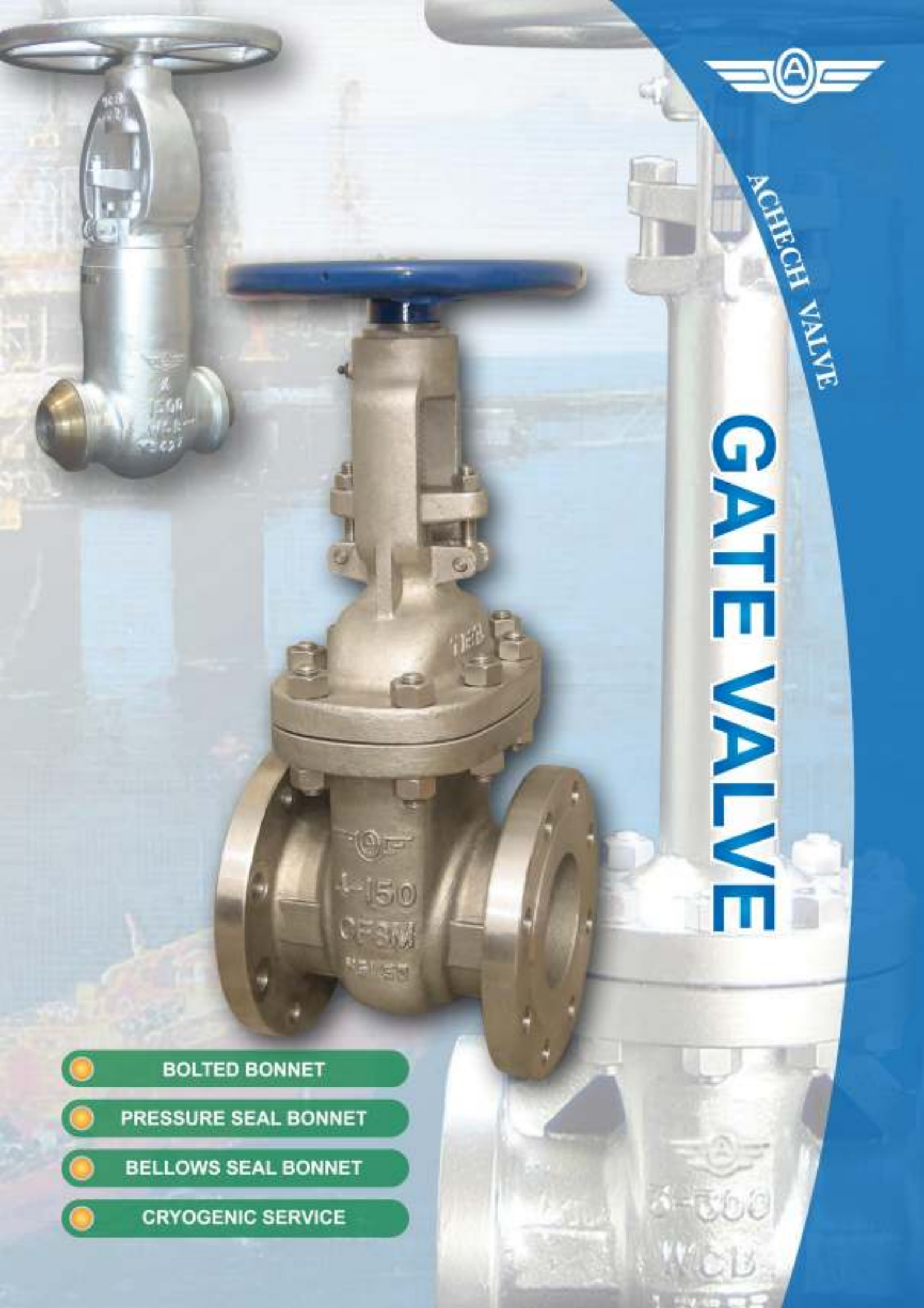




ACHECH VALVE

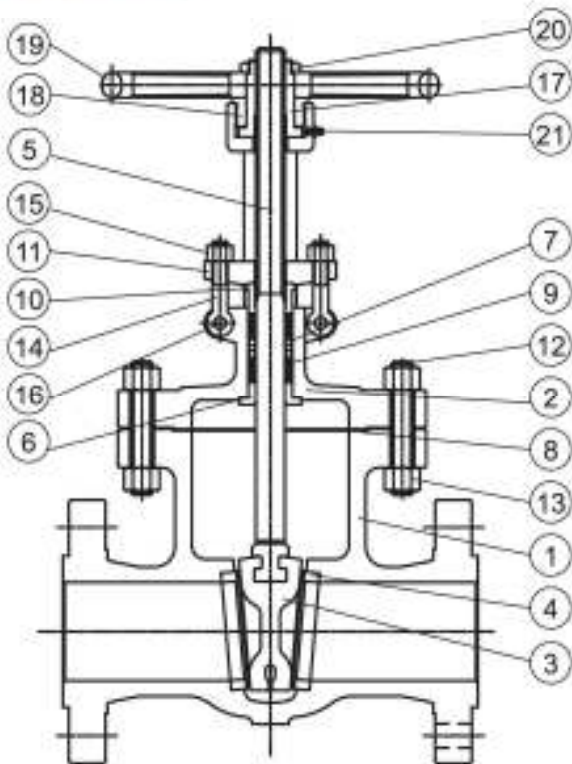
GATE VALVE

- BOLTED BONNET
- PRESSURE SEAL BONNET
- BELLOWS SEAL BONNET
- CRYOGENIC SERVICE



GATE VALVE

GATE VALVE - BOLTED BONNET - ANSI CL. 150.300.600.900.1500



FEATURES & STANDARDS

- ◆ OUTSIDE SCREW & YOKE-OS&Y
- ◆ BOLTED BONNET-B.B
- ◆ NON-RISING HANDWHEEL-RISING STEM
- ◆ HORIZONTAL OR VERTICAL INSTALLATION
- ◆ FULL BORE OPENING
- ◆ DESIGN STANDARDS: API600
- ◆ FACE TO FACE: ANSI B16.10
- ◆ FLANGE FACE: ANSI B16.5 & ANSI B16.47-A&B
- ◆ BUTT WELD ENDS: ANSI B16.25
- ◆ P-T RATING: ANSI B16.34
- ◆ PRESSURE TEST: API598 & ANSI B16.34

TRIM NO. TABLE

| NO | STEM/ BACK SEAT | WEDGE / DISC | SEAT |
|----|-----------------|---------------|----------------|
| 1 | 13Cr | 13Cr | 13Cr |
| 2 | 304 | 304 | 304 |
| 5 | 13Cr | Stellite No.6 | Stellite No. 6 |
| 8 | 13Cr | 13Cr | Stellite No. 6 |
| 9 | Monel | Monel | Monel |
| 10 | 316 | 316 | 316 |
| 12 | 316 | 316 | Stellite No. 6 |
| 16 | 316 | Stellite No.6 | Stellite No. 6 |
| 20 | 304 | 304 | Stellite No. 6 |
| 15 | 304 | Stellite No.6 | Stellite No. 6 |

MATERIAL LIST

| NO | PART NAME | WCB | LCB | WC6 | WC9 | C5 | C12 | CF8 | CF8M |
|----|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1 | Body | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 2 | Bonnet | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 3 | Wedge | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 4 | Seat | A105 | A350-LF2 | A182-F11 | A182-F22 | A182-F5 | A182-F9 | A182-F304 | A182-F316 |
| 7 | Lantern ring | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP316 |
| 10 | Gland | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP304 | A276TP316 |
| 11 | Gland Flange | A216-WCB | A216-WCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 12 | Bonnet Stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 13 | Bonnet Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |
| 14 | Gland Stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 15 | Gland Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |
| 16 | Pin | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276-410 | A276TP304 | A276TP304 |
| 17 | Yoke Sleeve | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C |
| 18 | Yoke Cap | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | A351-CF8 | A351-CF8 |
| 19 | Handwheel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 20 | Wheel Nut | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | A351-CF8 | A351-CF8 |
| 21 | Grease Nipple | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |

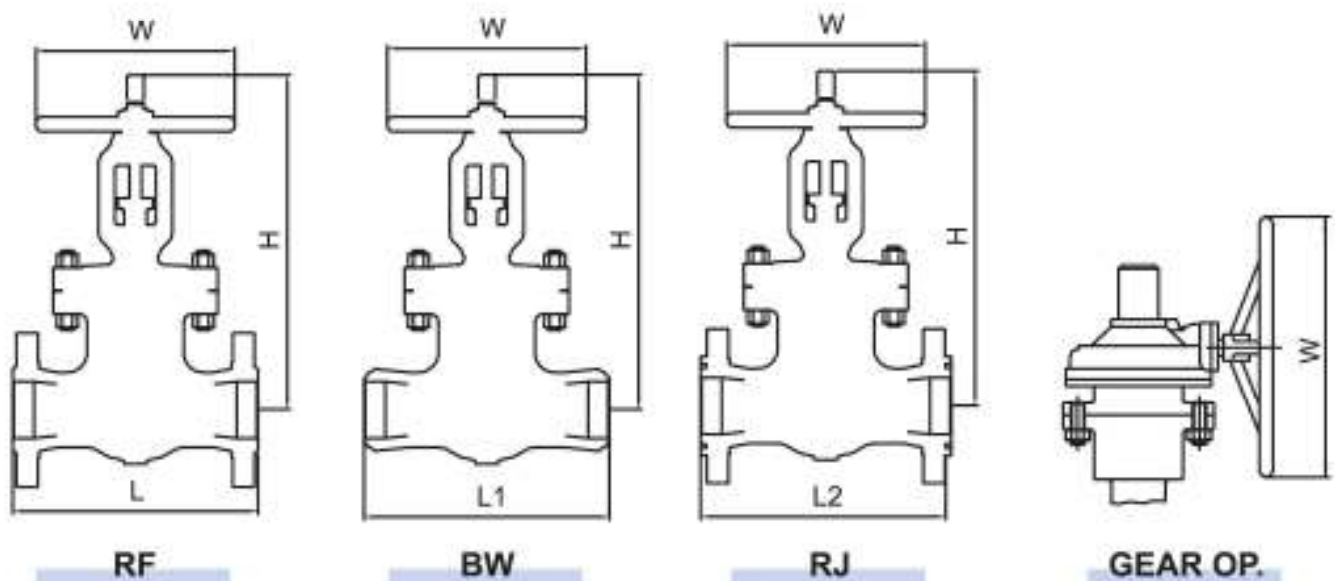
GLAND PACKING & GASKET MATERIAL LIST

- 8 GASKET : F304+GRAPHOIL F316+GRAPHOIL F304+TEFLON F316+TEFLON
 SOFT IRON (RJ) F304 (RJ) F316 (RJ) ALLOY STEEL (RJ) _____
- 9 GLAND PACKING : GRAPHOIL / GRAPHOIL + 304/316 WIRE TEFLON _____

● SOUR OIL AND GAS SERVICE - NACE MR-01-75 : A193-B7M STUDS & A194-2HM NUTS ARE AS STANDARD.



GATE VALVE DIMENSIONS - BOLTED BONNET



CLASS 150 - FIG NO :1GA

| SIZE | in | 1-1/2" | 2" | 2-1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 22" | 24" | 26" | 28" | 30" | 32" | 36" | 40" | 42" |
|--------|----|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 38 | 51 | 64 | 76 | 102 | 127 | 152 | 203 | 254 | 305 | 337 | 387 | 438 | 488 | 540 | 591 | 641 | 692 | 743 | 793 | 865 | 997 | 1048 |
| L | in | 6.50 | 7.00 | 7.50 | 8.00 | 9.00 | 10.00 | 10.50 | 11.50 | 13.00 | 14.00 | 15.00 | 16.00 | 17.00 | 18.00 | 19.00 | 20.00 | 22.00 | 24.00 | 24.00 | 25.98 | 28.00 | 30.00 | 32.00 |
| (RF) | mm | 165 | 178 | 190 | 203 | 229 | 254 | 267 | 292 | 330 | 356 | 381 | 406 | 432 | 457 | 483 | 508 | 558 | 609 | 609 | 660 | 711 | 762 | 813 |
| L1 | in | 6.50 | 8.50 | 9.50 | 11.13 | 12.00 | 15.00 | 15.88 | 16.50 | 18.00 | 19.75 | 22.50 | 24.00 | 26.00 | 28.00 | 30.00 | 32.00 | 34.00 | 36.00 | 36.00 | 38.00 | 40.00 | 42.00 | 44.02 |
| (BW) | mm | 165 | 216 | 241 | 283 | 305 | 381 | 403 | 419 | 457 | 502 | 572 | 610 | 660 | 711 | 762 | 813 | 864 | 915 | 915 | 965 | 1016 | 1067 | 1118 |
| L2 | in | 7.00 | 7.50 | 8.00 | 8.50 | 9.50 | 10.50 | 11.00 | 12.00 | 13.50 | 14.50 | 15.50 | 16.50 | 17.50 | 18.50 | - | 20.50 | - | - | - | - | - | - | - |
| (RJ) | mm | 178 | 191 | 203 | 216 | 241 | 267 | 279 | 305 | 343 | 368 | 394 | 419 | 445 | 470 | - | 521 | - | - | - | - | - | - | - |
| H | in | 14.57 | 15.20 | 17.13 | 19.02 | 23.11 | 26.50 | 30.20 | 37.60 | 45.12 | 52.28 | 59.80 | 67.76 | 74.80 | 83.31 | 91.34 | 97.64 | 99.61 | 102.36 | 106.89 | 110.83 | 136.22 | 156.69 | 165.35 |
| (OPEN) | mm | 370 | 386 | 435 | 483 | 587 | 673 | 767 | 955 | 1146 | 1328 | 1519 | 1721 | 1900 | 2116 | 2320 | 2480 | 2530 | 2600 | 2715 | 2815 | 3480 | 3980 | 4200 |
| W | in | 6.30 | 7.87 | 9.84 | 9.84 | 9.84 | 11.81 | 11.81 | 13.78 | 15.74 | 17.72 | 18.11" | 18.11" | 24.02" | 24.02" | 24.02" | 24.02" | 27.95" | 27.95" | 27.95" | 27.95" | 27.95" | 31.49" | 31.49" |
| | mm | 160 | 200 | 250 | 250 | 250 | 300 | 300 | 350 | 400 | 450 | 460* | 460* | 610* | 610* | 610* | 610* | 710* | 710* | 710* | 710* | 710* | 800* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 300 - FIG NO : 3GA

| SIZE | in | 1-1/2" | 2" | 2-1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 26" | 28" | 30" |
|---------|----|--------|-------|--------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 38 | 51 | 64 | 76 | 102 | 127 | 152 | 203 | 254 | 305 | 337 | 387 | 432 | 483 | 585 | 635 | 686 | 737 |
| L-L1 | in | 7.50 | 8.50 | 9.50 | 11.13 | 12.00 | 15.00 | 15.88 | 16.50 | 18.00 | 19.75 | 30.00 | 33.00 | 36.00 | 39.00 | 45.00 | 49.00 | 53.00 | 55.00 |
| (RF-BW) | mm | 191 | 216 | 241 | 283 | 305 | 381 | 403 | 419 | 457 | 502 | 762 | 838 | 914 | 991 | 1143 | 1244 | 1346 | 1397 |
| L2 | in | 7.99 | 9.12 | 10.12 | 11.74 | 12.62 | 15.62 | 16.50 | 17.12 | 18.62 | 20.37 | 30.62 | 33.62 | 36.62 | 39.75 | 45.88 | 50.00 | 54.00 | 56.00 |
| (RJ) | mm | 203 | 232 | 257 | 298 | 321 | 397 | 419 | 435 | 473 | 518 | 778 | 854 | 930 | 1010 | 1165 | 1270 | 1372 | 1422 |
| H | in | 15.94 | 16.42 | 18.11 | 20.71 | 25.59 | 27.32 | 32.44 | 38.66 | 46.93 | 56.34 | 61.38 | 69.21 | 76.46 | 84.45 | 88.86 | 105.91 | 112.28 | 117.32 |
| (OPEN) | mm | 405 | 417 | 460 | 526 | 650 | 694 | 824 | 987 | 1192 | 1431 | 1559 | 1758 | 1942 | 2145 | 2257 | 2690 | 2852 | 2980 |
| W | in | 7.87 | 7.87 | 9.84 | 9.84 | 9.84 | 11.81 | 13.78 | 15.75 | 18.11" | 18.11" | 18.11" | 18.11" | 24.02" | 24.02" | 27.95" | 31.49" | 31.49" | 31.49" |
| | mm | 200 | 200 | 250 | 250 | 250 | 300 | 350 | 400 | 460* | 460* | 460* | 460* | 610* | 610* | 710* | 800* | 800* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

GATE VALVE

GATE VALVE DIMENSIONS - BOLTED BONNET

CLASS 600 - FIG NO : 6GA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|---------|----|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 51 | 64 | 76 | 102 | 152 | 200 | 248 | 298 | 327 | 375 | 419 | 464 | 559 |
| L-L1 | in | 11.50 | 13.00 | 14.00 | 17.00 | 22.00 | 26.00 | 31.00 | 33.00 | 35.00 | 39.00 | 43.00 | 47.00 | 55.00 |
| (RF-BW) | mm | 292 | 330 | 356 | 432 | 559 | 660 | 787 | 838 | 889 | 991 | 1092 | 1194 | 1397 |
| L2 | in | 11.62 | 13.12 | 14.12 | 17.12 | 22.12 | 26.12 | 31.12 | 33.12 | 35.12 | 39.12 | 43.12 | 47.25 | 55.35 |
| (RJ) | mm | 295 | 333 | 359 | 435 | 562 | 664 | 791 | 841 | 892 | 994 | 1095 | 1200 | 1406 |
| H | in | 16.81 | 18.62 | 21.18 | 25.87 | 34.33 | 43.35 | 50.35 | 58.50 | 64.69 | 70.79 | 82.72 | 88.94 | 109.45 |
| (OPEN) | mm | 427 | 473 | 538 | 657 | 872 | 1101 | 1279 | 1486 | 1643 | 1798 | 2101 | 2259 | 2780 |
| W | in | 9.84 | 9.84 | 11.81 | 13.78 | 17.72 | 18.11* | 24.02* | 24.02* | 27.95* | 27.95* | 27.95* | 27.95* | 31.49* |
| | mm | 250 | 250 | 300 | 350 | 450 | 460* | 610* | 610* | 710* | 710* | 710* | 710* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 900 - FIG NO : 9GA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" |
|---------|----|-------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 47 | 57 | 73 | 98 | 146 | 190 | 238 | 282 | 311 | 356 | 400 | 445 |
| L-L1 | in | 14.50 | 16.50 | 15.00 | 18.00 | 24.00 | 29.00 | 33.00 | 38.00 | 40.50 | 44.50 | 48.00 | 52.00 |
| (RF-BW) | mm | 368 | 419 | 381 | 457 | 610 | 737 | 838 | 965 | 1029 | 1130 | 1219 | 1321 |
| L2 | in | 14.62 | 16.62 | 15.12 | 18.12 | 24.12 | 29.12 | 33.12 | 38.12 | 40.88 | 44.88 | 48.50 | 52.52 |
| (RJ) | mm | 371 | 422 | 384 | 460 | 613 | 740 | 841 | 968 | 1038 | 1140 | 1232 | 1334 |
| H | in | 21.54 | 27.56 | 25.51 | 28.70 | 40.98 | 49.61 | 62.60 | 70.67 | 79.72 | 85.43 | 100.24 | 113.98 |
| (OPEN) | mm | 547 | 700 | 648 | 729 | 1041 | 1260 | 1590 | 1795 | 2025 | 2170 | 2546 | 2895 |
| W | in | 11.81 | 13.78 | 15.75 | 17.72 | 24.02* | 24.02* | 27.95* | 27.95* | 31.49* | 31.49* | 31.49* | 31.49* |
| | mm | 300 | 350 | 400 | 450 | 610* | 610* | 710* | 710* | 800* | 800* | 800* | 800* |

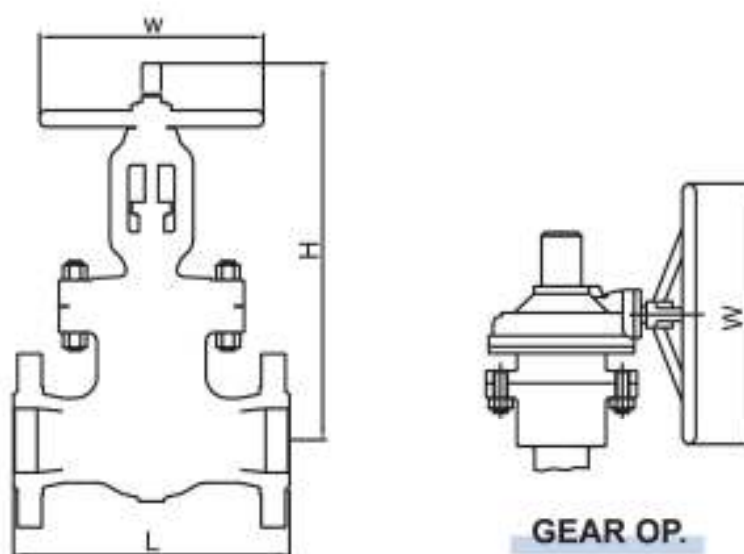
*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 1500 - FIG NO : 15GA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" |
|---------|----|-------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 47 | 57 | 70 | 92 | 136 | 178 | 222 | 263 | 289 | 330 | 372 |
| L-L1 | in | 14.50 | 16.50 | 18.50 | 21.50 | 27.75 | 32.75 | 39.00 | 44.50 | 49.50 | 54.50 | 60.50 |
| (RF-BW) | mm | 368 | 419 | 470 | 546 | 705 | 832 | 991 | 1130 | 1257 | 1384 | 1537 |
| L2 | in | 14.62 | 16.62 | 18.62 | 21.62 | 28.00 | 33.13 | 39.38 | 45.12 | 50.25 | 55.38 | 61.38 |
| (RJ) | mm | 371 | 422 | 473 | 549 | 711 | 841 | 1000 | 1146 | 1276 | 1407 | 1559 |
| H | in | 22.60 | 27.58 | 31.73 | 34.92 | 42.48 | 53.94 | 59.84 | 65.00 | 76.57 | 88.58 | 99.80 |
| (OPEN) | mm | 574 | 700 | 806 | 887 | 1079 | 1370 | 1520 | 1651 | 1945 | 2250 | 2535 |
| W | in | 13.78 | 15.75 | 17.72 | 22.05 | 18.11* | 27.95* | 27.95* | 31.49* | 31.49* | 31.49* | 31.49* |
| | mm | 350 | 400 | 450 | 560 | 460* | 710* | 710* | 800* | 800* | 800* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

DIN - GATE VALVE DIMENSIONS - BOLTED BONNET



GEAR OP.

PN 16 - FIG NO : P1GA

UNIT:mm

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 |
|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| L | 250 | 270 | 280 | 300 | 325 | 350 | 400 | 450 | 500 | 550 | 600 | 700 | 800 |
| H | 438 | 452 | 530 | 620 | 756 | 845 | 1041 | 1244 | 1474 | 1663 | 1886 | 2181 | 2430 |
| W | 200 | 200 | 250 | 250 | 300 | 300 | 350 | 400 | 450 | 500 | 560 | 640 | 720 |

PN 25 - FIG NO : P2GA

UNIT:mm

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 |
|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| L | 250 | 270 | 280 | 300 | 325 | 350 | 400 | 450 | 500 | 550 | 600 | 700 | 800 |
| H | 438 | 452 | 530 | 620 | 756 | 845 | 1041 | 1244 | 1474 | 1663 | 1886 | 2181 | 2430 |
| W | 200 | 200 | 250 | 250 | 300 | 300 | 350 | 400 | 450 | 500 | 560 | 640 | 720 |

PN 40 - FIG NO : P3GA

UNIT:mm

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 |
|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| L | 250 | 290 | 310 | 350 | 400 | 450 | 550 | 650 | 750 | 850 | 950 | 1150 | 1350 |
| H | 438 | 473 | 550 | 669 | 776 | 883 | 1086 | 1298 | 1531 | 1663 | 1900 | 2100 | 2650 |
| W | 200 | 200 | 250 | 250 | 300 | 350 | 400 | 450 | 500 | 560 | 640 | 720 | 720 |

PN 64 - FIG NO : P4GA

UNIT:mm

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
|----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| L | 250 | 290 | 310 | 350 | 400 | 450 | 550 | 650 | 750 | 850 |
| H | 468 | 503 | 580 | 699 | 806 | 923 | 1130 | 1332 | 1610 | 2066 |
| W | 200 | 200 | 250 | 250 | 300 | 350 | 400 | 450 | 500 | 560 |

PN 100 - FIG NO : P5GA

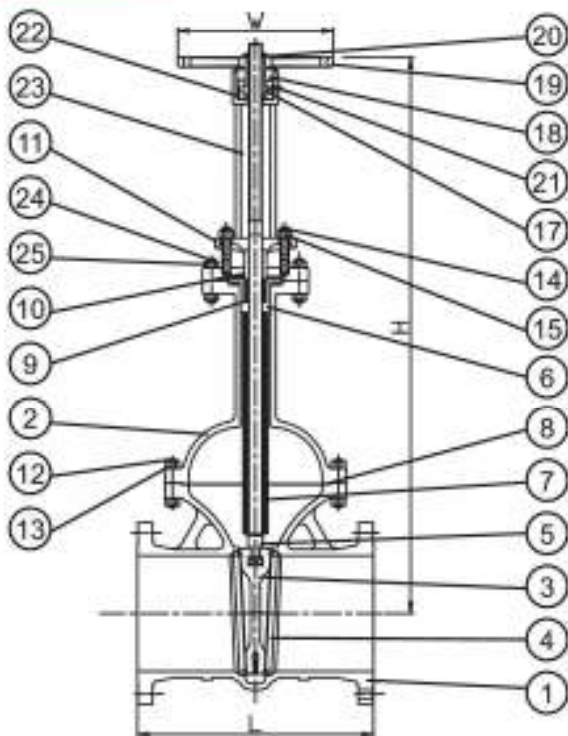
UNIT:mm

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
|----|-----|-----|-----|-----|-----|-----|------|------|------|-----|
| L | 250 | 290 | 310 | 350 | 400 | 450 | 550 | 650 | 750 | |
| H | 500 | 560 | 620 | 770 | 845 | 980 | 1170 | 1410 | 1670 | |
| W | 250 | 250 | 300 | 350 | 350 | 450 | 500 | 640 | 640 | |

GATE VALVE

ZERO LEAK!!

BELLOWS SEAL GATE VALVE - BOLTED BONNET - ANSI CL. 150.300.600



FEATURES & STANDARDS

- ◆ OUTSIDE SCREW & YOKE-OS&Y
- ◆ BOLTED BONNET-B.B
- ◆ NON-RISING HANDWHEEL-RISING STEM
- ◆ BELLOWS SEAL LIFE: OVER 20000 TIMES
- ◆ HORIZONTAL OR VERTICAL INSTALLATION
- ◆ FULL BORE OPENING
- ◆ DESIGN STANDARDS: API600 & MSS-SP-117
- ◆ FACE TO FACE: ANSI B16.10
- ◆ FLANGE FACE: ANSI B16.5 & ANSI B16.47-A & B
- ◆ BUTT WELD ENDS: ANSI B16.25
- ◆ P-T RATING: ANSI B16.34
- ◆ PRESSURE TEST: API598 & ANSI B16.34



TRIM NO. TABLE

| NO | STEM/ BACK SEAT | WEDGE / DISC | SEAT |
|----|-----------------|---------------|----------------|
| 5 | 13Cr | Stellite No.6 | Stellite No. 6 |
| 9 | Monel | Monel | Monel |
| H1 | Hastelloy-C | Hastelloy-C | Hastelloy-C |
| 16 | 316 | Stellite No.6 | Stellite No. 6 |
| 15 | 304 | Stellite No.6 | Stellite No. 6 |

MATERIAL LIST

| NO | PART NAME | WCB | LCB | WC6 | WC9 | C5 | C12 | CF8 | CF8M |
|----|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1 | Body | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 2 | Bonnet | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 3 | Wedge | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 4 | Seat | A105 | A350-LF2 | A182-F11 | A182-F22 | A182-F5 | A182-F9 | A182-F304 | A182-F316 |
| 7 | Bellows | A182-F316L | A182-F316L | A182-F316L | A182-F316L | A182-F316L | A182-F316L | A182-F316L | A182-F316L |
| 10 | Gland | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP304 | A276TP316 |
| 11 | Gland Flange | A216-WCB | A216-WCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 12 | Bonnet Stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 13 | Bonnet Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |
| 14 | Gland Stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 15 | Gland Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |
| 17 | Yoke Sleeve | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C |
| 18 | Yoke Cap | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | A351-CF8 | A351-CF8 |
| 19 | Handwheel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 20 | Wheel Nut | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | A351-CF8 | A351-CF8 |
| 21 | Grease Nipple | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 22 | Bearing | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 23 | Yoke | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | C5 | C12 | CF8 | CF8M |
| 24 | Yoke stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 25 | Yoke Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |

GLAND PACKING & GASKET MATERIAL LIST

- 8 GASKET : F304+GRAPHOIL F316+GRAPHOIL F304+TEFLON F316+TEFLON
 SOFT IRON (RJ) F304 (RJ) F316 (RJ) ALLOY STEEL (RJ) _____
- 9 GLAND PACKING : GRAPHOIL / GRAPHOIL + 304/316 WIRE TEFLON _____



GATE VALVE DIMENSIONS - BELLOWS SEAL TYPE

CLASS 150 - FIG NO : 1BGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 22" | 24" | 26" | 28" | 30" |
|--------|----|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 51 | 64 | 76 | 102 | 127 | 152 | 203 | 254 | 305 | 337 | 387 | 438 | 489 | 540 | 591 | 641 | 692 | 743 |
| L | in | 7.00 | 7.50 | 8.00 | 9.00 | 10.00 | 10.50 | 11.50 | 13.00 | 14.00 | 15.00 | 16.00 | 17.00 | 18.00 | 19.00 | 20.00 | 22.00 | 24.00 | 24.00 |
| (RF) | mm | 178 | 190 | 203 | 229 | 254 | 267 | 292 | 330 | 356 | 381 | 406 | 432 | 457 | 483 | 508 | 559 | 609 | 609 |
| L1 | in | 8.50 | 9.50 | 11.13 | 12.00 | 15.00 | 15.88 | 16.50 | 18.00 | 19.75 | 22.50 | 24.00 | 26.00 | 28.00 | 30.00 | 32.00 | 34.00 | 36.00 | 36.00 |
| (BW) | mm | 216 | 241 | 283 | 305 | 381 | 403 | 419 | 457 | 502 | 572 | 610 | 660 | 711 | 782 | 813 | 864 | 915 | 915 |
| L2 | in | 7.50 | 8.00 | 8.50 | 9.50 | 10.50 | 11.00 | 12.00 | 13.50 | 14.50 | 15.50 | 16.50 | 17.50 | 18.50 | - | 20.50 | - | - | - |
| (RJ) | mm | 191 | 203 | 216 | 241 | 267 | 279 | 305 | 343 | 368 | 394 | 419 | 445 | 470 | - | 521 | - | - | - |
| H | in | 25.04 | 28.97 | 30.43 | 36.97 | 42.24 | 48.31 | 60.16 | 72.17 | 83.66 | 95.87 | 108.27 | 119.68 | 133.31 | 150.39 | 156.22 | 162.60 | 173.23 | 185.63 |
| (OPEN) | mm | 636 | 685 | 773 | 939 | 1073 | 1227 | 1528 | 1833 | 2125 | 2430 | 2750 | 3040 | 3386 | 3820 | 3968 | 4130 | 4400 | 4715 |
| W | in | 7.87 | 9.84 | 9.84 | 9.84 | 11.81 | 11.81 | 13.78 | 15.74 | 17.72 | 18.11* | 18.11* | 24.02* | 24.02* | 24.02* | 24.02* | 27.95* | 27.95* | 27.95* |
| | mm | 200 | 250 | 250 | 250 | 300 | 300 | 350 | 400 | 450 | 460* | 460* | 610* | 610* | 610* | 610* | 710* | 710* | 710* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 300 - FIG NO : 3BGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 26" | 28" | 30" |
|---------|----|-------|--------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 51 | 64 | 76 | 102 | 127 | 152 | 203 | 254 | 305 | 337 | 387 | 432 | 483 | 586 | 635 | 686 | 737 |
| L-L1 | in | 8.50 | 9.50 | 11.13 | 12.00 | 15.00 | 15.88 | 16.50 | 18.00 | 19.75 | 30.00 | 33.00 | 36.00 | 39.00 | 45.00 | 49.00 | 53.00 | 55.00 |
| (RF-BW) | mm | 216 | 241 | 283 | 305 | 381 | 403 | 419 | 457 | 502 | 762 | 838 | 914 | 991 | 1143 | 1244 | 1346 | 1397 |
| L2 | in | 9.12 | 10.12 | 11.74 | 12.82 | 15.82 | 16.50 | 17.12 | 18.62 | 20.37 | 30.62 | 33.62 | 36.62 | 39.75 | 45.88 | 50.00 | 54.00 | 58.00 |
| (RJ) | mm | 232 | 257 | 296 | 321 | 397 | 419 | 435 | 473 | 518 | 778 | 854 | 930 | 1010 | 1165 | 1270 | 1372 | 1422 |
| H | in | 24.29 | 28.98 | 33.15 | 40.94 | 43.70 | 51.89 | 62.20 | 75.12 | 90.16 | 98.23 | 110.75 | 122.32 | 135.12 | 142.17 | 172.83 | 183.15 | 196.06 |
| (OPEN) | mm | 617 | 736 | 842 | 1040 | 1110 | 1318 | 1580 | 1908 | 2290 | 2486 | 2813 | 3107 | 3432 | 3611 | 4390 | 4652 | 4980 |
| W | in | 7.87 | 9.84 | 9.84 | 9.84 | 11.81 | 13.78 | 15.75 | 18.11* | 18.11* | 18.11* | 18.11* | 24.02* | 24.02* | 27.95* | 31.49* | 31.49* | 31.49* |
| | mm | 200 | 250 | 250 | 250 | 300 | 350 | 400 | 460* | 460* | 460* | 460* | 610* | 610* | 710* | 800* | 800* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 600 - FIG NO : 6BGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|---------|----|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 51 | 64 | 76 | 102 | 152 | 200 | 248 | 298 | 327 | 376 | 419 | 464 | 559 |
| L-L1 | in | 11.50 | 13.00 | 14.00 | 17.00 | 22.00 | 26.00 | 31.00 | 33.00 | 35.00 | 39.00 | 43.00 | 47.00 | 55.00 |
| (RF-BW) | mm | 292 | 330 | 356 | 432 | 559 | 660 | 787 | 838 | 889 | 991 | 1092 | 1194 | 1397 |
| L2 | in | 11.62 | 13.12 | 14.12 | 17.12 | 22.12 | 26.12 | 31.12 | 33.12 | 35.12 | 39.12 | 43.12 | 47.25 | 55.35 |
| (RJ) | mm | 295 | 333 | 359 | 435 | 562 | 664 | 791 | 841 | 892 | 994 | 1095 | 1200 | 1406 |
| H | in | 26.89 | 29.76 | 33.86 | 41.38 | 54.92 | 69.29 | 80.55 | 93.58 | 103.50 | 113.27 | 132.36 | 142.32 | 172.44 |
| (OPEN) | mm | 683 | 756 | 860 | 1051 | 1395 | 1760 | 2048 | 2377 | 2629 | 2877 | 3362 | 3615 | 4380 |
| W | in | 9.84 | 9.84 | 11.81 | 13.78 | 17.72 | 18.11* | 24.02* | 24.02* | 27.95* | 27.95* | 27.95* | 27.95* | 31.49* |
| | mm | 250 | 250 | 300 | 350 | 450 | 460* | 610* | 610* | 710* | 710* | 710* | 710* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

OTHER PRESSURE CLASS ARE AVAILABLE ON REQUEST.

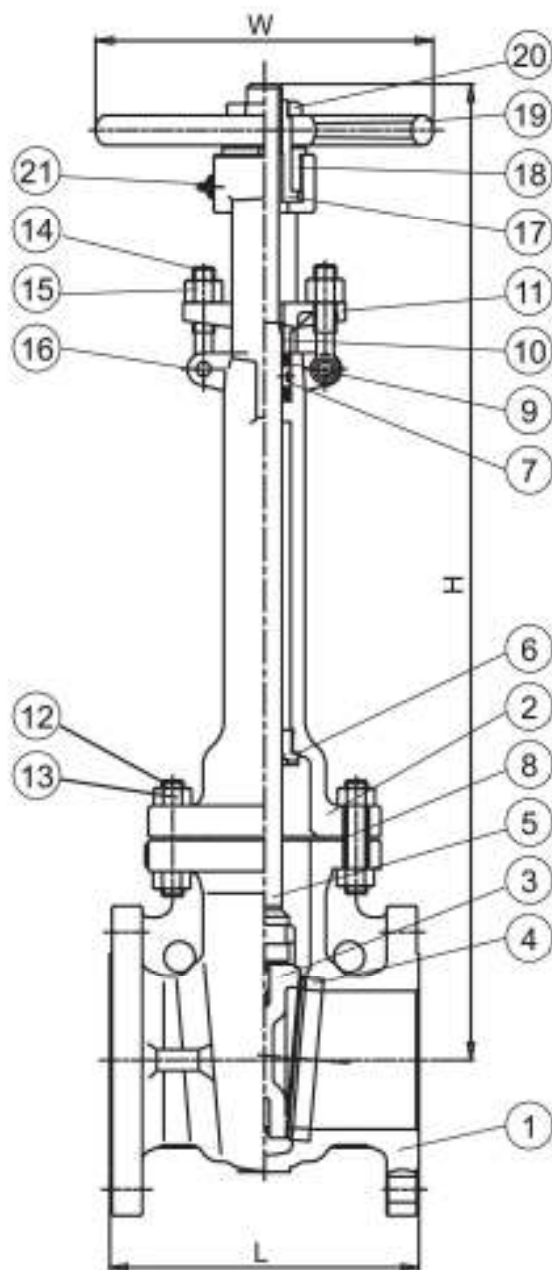
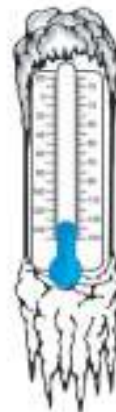
GATE VALVE

LOW TEMP!!

CRYOGENIC GATE VALVE - BOLTED BONNET - ANSI CL. 150.300.600

FEATURES & STANDARDS

- ◆ OUTSIDE SCREW & YOKE-OS&Y
- ◆ BOLTED BONNET-B.B
- ◆ NON-RISING HANDWHEEL & RISING STEM
- ◆ HORIZONTAL OR VERTICAL INSTALLATION
- ◆ FULL BORE OPENING
- ◆ DESIGN STANDARDS: API600 & BS6364
- ◆ FACE TO FACE: ANSI B16.10
- ◆ FLANGE FACE: ANSI B16.5 & ANSI B16.47-A & B
- ◆ BUTT WELD ENDS: ANSI B16.25
- ◆ P-T RATING: ANSI B16.34
- ◆ PRESSURE TEST: API598 & ANSI B16.34



TRIM NO. TABLE

| NO | STEM / BACK SEAT | WEDGE / DISC | SEAT |
|----|------------------|---------------|----------------|
| 1 | 13Cr | 13Cr | 13Cr |
| 2 | 304 | 304 | 304 |
| 5 | 13Cr | Stellite No.6 | Stellite No. 6 |
| 8 | 13Cr | 13Cr | Stellite No. 6 |
| 9 | Monel | Monel | Monel |
| 10 | 316 | 316 | 316 |
| 12 | 316 | 316 | Stellite No. 6 |
| 16 | 316 | Stellite No.6 | Stellite No. 6 |
| 20 | 304 | 304 | Stellite No. 6 |
| 15 | 304 | Stellite No.6 | Stellite No. 6 |

MATERIAL LIST

| NO | PART NAME | LCB | CF8 | CF8M |
|----|---------------|--------------|--------------|--------------|
| 1 | Body | A352-LCB | A351-CF8 | A351-CF8M |
| 2 | Bonnet | A352-LCB | A351-CF8 | A351-CF8M |
| 3 | Wedge | A352-LCB | A351-CF8 | A351-CF8M |
| 4 | Seat | A350-LF2 | A182-F304 | A182-F316 |
| 7 | Lantern ring | A276TP304 | A276TP304 | A276TP316 |
| 10 | Gland | A276TP410 | A276TP304 | A276TP316 |
| 11 | Gland Flange | A216-WCB | A351-CF8 | A351-CF8M |
| 12 | Bonnet Stud | A320-L7 | A193-B8 | A193-B8 |
| 13 | Bonnet Nut | A194-4 | A194-8 | A194-8 |
| 14 | Gland Stud | A320-L7 | A193-B8 | A193-B8 |
| 15 | Gland Nut | A194-4 | A194-8 | A194-8 |
| 16 | Pin | A276TP410 | A276TP304 | A276TP304 |
| 17 | Yoke Sleeve | A493-D2C | A493-D2C | A493-D2C |
| 18 | Yoke Cap | Carbon Steel | A351-CF8 | A351-CF8 |
| 19 | Handwheel | Carbon Steel | Carbon Steel | Carbon Steel |
| 20 | Wheel Nut | Carbon Steel | A351-CF8 | A351-CF8 |
| 21 | Grease Nipple | Carbon Steel | Carbon Steel | Carbon Steel |

GLAND PACKING & GASKET MATERIAL LIST

- 8 GASKET : F304+GRAPHOIL F316+GRAPHOIL F304+TEFLON F316+TEFLON
 SOFT IRON (RJ) F304 (RJ) F316 (RJ) ALLOY STEEL (RJ) _____
- 9 GLAND PACKING : GRAPHOIL / GRAPHOIL + 304/316 WIRE TEFLON _____



GATE VALVE DIMENSIONS - CRYOGENIC SERVICE

CLASS 150 - FIG NO :1CGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 22" | 24" | 26" | 28" | 30" | 32" | 36" | 40" |
|--------|----|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 51 | 64 | 76 | 102 | 127 | 152 | 203 | 254 | 305 | 337 | 387 | 438 | 489 | 540 | 591 | 641 | 682 | 743 | 793 | 914 | 1016 |
| L | in | 7.00 | 7.50 | 8.00 | 9.00 | 10.00 | 10.50 | 11.50 | 13.00 | 14.00 | 15.00 | 16.00 | 17.00 | 18.00 | 19.00 | 20.00 | 22.00 | 24.00 | 24.00 | 25.98 | 28.00 | 30.00 |
| (RF) | mm | 178 | 190 | 203 | 229 | 254 | 267 | 292 | 330 | 356 | 381 | 406 | 432 | 457 | 483 | 508 | 559 | 609 | 609 | 660 | 711 | 762 |
| L1 | in | 8.50 | 9.50 | 11.13 | 12.00 | 15.00 | 15.88 | 16.50 | 18.00 | 19.75 | 22.50 | 24.00 | 26.00 | 28.00 | 30.00 | 32.00 | 34.00 | 36.00 | 36.00 | 38.00 | 40.00 | 42.00 |
| (BW) | mm | 216 | 241 | 283 | 305 | 381 | 403 | 419 | 457 | 502 | 572 | 610 | 660 | 711 | 788 | 813 | 864 | 915 | 915 | 965 | 1016 | 1067 |
| L2 | in | 7.50 | 8.00 | 8.50 | 9.50 | 10.50 | 11.00 | 12.00 | 13.50 | 14.50 | 15.50 | 16.50 | 17.50 | 18.50 | - | 20.50 | - | - | - | - | - | - |
| (RJ) | mm | 191 | 203 | 216 | 241 | 267 | 279 | 305 | 343 | 368 | 394 | 419 | 445 | 470 | - | 521 | - | - | - | - | - | - |
| H | in | 32.91 | 34.84 | 36.73 | 40.83 | 44.21 | 47.91 | 55.31 | 62.83 | 70.00 | 77.52 | 85.47 | 92.52 | 101.02 | 108.27 | 115.35 | 120.47 | 124.02 | 130.51 | 134.45 | 181.50 | 184.25 |
| (OPEN) | mm | 836 | 885 | 933 | 1037 | 1123 | 1217 | 1405 | 1596 | 1778 | 1989 | 2171 | 2350 | 2566 | 2750 | 2930 | 3060 | 3150 | 3315 | 3415 | 4610 | 4680 |
| W | in | 7.87 | 9.84 | 9.84 | 9.84 | 11.81 | 11.81 | 13.78 | 15.74 | 17.72 | 18.11* | 18.11* | 24.02* | 24.02* | 24.02* | 24.02* | 27.95* | 27.95* | 27.95* | 27.95* | 27.95* | 31.49* |
| | mm | 200 | 250 | 250 | 250 | 300 | 300 | 350 | 400 | 450 | 460* | 460* | 610* | 610* | 610* | 610* | 710* | 710* | 710* | 710* | 710* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 300 - FIG NO : 3CGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 26" | 28" | 30" |
|---------|----|-------|--------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 51 | 64 | 76 | 102 | 127 | 152 | 203 | 254 | 305 | 337 | 387 | 432 | 483 | 585 | 635 | 686 | 737 |
| L-L1 | in | 8.50 | 9.50 | 11.13 | 12.00 | 15.00 | 15.88 | 16.50 | 18.00 | 19.75 | 30.00 | 33.00 | 35.00 | 39.00 | 45.00 | 49.00 | 53.00 | 55.00 |
| (RF-BW) | mm | 216 | 241 | 283 | 305 | 381 | 403 | 419 | 457 | 502 | 782 | 838 | 914 | 991 | 1143 | 1244 | 1346 | 1387 |
| L2 | in | 9.12 | 10.12 | 11.74 | 12.62 | 15.62 | 16.50 | 17.12 | 18.62 | 20.37 | 30.62 | 33.62 | 36.62 | 39.75 | 45.88 | 50.00 | 54.00 | 56.00 |
| (RJ) | mm | 232 | 257 | 298 | 321 | 397 | 419 | 435 | 473 | 518 | 778 | 854 | 930 | 1010 | 1165 | 1270 | 1372 | 1422 |
| H | in | 34.13 | 35.83 | 38.43 | 43.31 | 45.04 | 50.16 | 56.57 | 64.65 | 73.35 | 79.09 | 86.93 | 94.17 | 102.17 | 108.54 | 121.65 | 128.03 | 137.01 |
| (OPEN) | mm | 867 | 910 | 976 | 1100 | 1144 | 1274 | 1437 | 1642 | 1863 | 2009 | 2208 | 2392 | 2595 | 2757 | 3090 | 3252 | 3480 |
| W | in | 7.87 | 9.84 | 9.84 | 9.84 | 11.81 | 13.78 | 15.75 | 18.11* | 18.11* | 18.11* | 18.11* | 24.02* | 24.02* | 27.95* | 31.49* | 31.49* | 31.49* |
| | mm | 200 | 250 | 250 | 250 | 300 | 350 | 400 | 460* | 460* | 460* | 460* | 610* | 610* | 710* | 800* | 800* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 600 - FIG NO : 6CGA

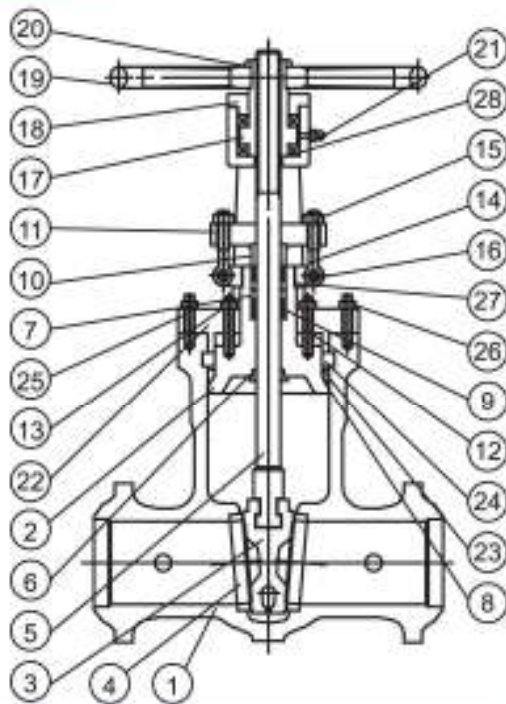
| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|---------|----|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| d | mm | 51 | 64 | 76 | 102 | 152 | 200 | 248 | 298 | 327 | 375 | 419 | 464 | 559 |
| L-L1 | in | 11.50 | 13.00 | 14.00 | 17.00 | 22.00 | 26.00 | 31.00 | 33.00 | 35.00 | 39.00 | 43.00 | 47.00 | 55.00 |
| (RF-BW) | mm | 292 | 330 | 356 | 432 | 559 | 660 | 787 | 838 | 889 | 991 | 1092 | 1194 | 1397 |
| L2 | in | 11.62 | 13.12 | 14.12 | 17.12 | 22.12 | 26.12 | 31.12 | 33.12 | 35.12 | 39.12 | 43.12 | 47.25 | 55.35 |
| (RJ) | mm | 295 | 333 | 359 | 435 | 562 | 664 | 791 | 841 | 892 | 994 | 1095 | 1200 | 1406 |
| H | in | 34.53 | 36.34 | 38.80 | 43.58 | 52.05 | 61.06 | 68.07 | 78.22 | 82.40 | 88.50 | 100.43 | 106.65 | 127.17 |
| (OPEN) | mm | 877 | 923 | 988 | 1107 | 1322 | 1551 | 1729 | 1936 | 2093 | 2248 | 2551 | 2709 | 3230 |
| W | in | 9.84 | 9.84 | 11.81 | 13.78 | 17.72 | 18.11* | 24.02* | 24.02* | 27.95* | 27.95* | 27.95* | 27.95* | 31.49* |
| | mm | 250 | 250 | 300 | 350 | 450 | 460* | 610* | 610* | 710* | 710* | 710* | 710* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

OTHER PRESSURE CLASS ARE AVAILABLE ON REQUEST.

GATE VALVE

GATE VALVE - PRESSURE SEAL BONNET - ANSI CL600. 900.1500.2500.4500



FEATURES & STANDARDS

- ◆ OUTSIDE SCREW & YOKE - OS&Y
- ◆ PRESSURE SEAL BONNET-PSB
- ◆ HORIZONTAL OR VERTICAL INSTALLATION
- ◆ FULL BORE OPENING
- ◆ DESIGN STANDARDS: ANSI B16.34
- ◆ FACE TO FACE: ANSI B 16.10
- ◆ FLANGE FACE: ANSI B 16.5
- ◆ BUTT WELD ENDS: ANSI B16.25
- ◆ P-T RATING: ANSI B16.34
- ◆ PRESSURE TEST: API 598 & ANSI B16.34
- ◆ 100% X-RAY TEST AS PER ANSI B16.34

TRIM NO. TABLE

| NO | STEM/ BACK SEAT | WEDGE / DISC | SEAT |
|----|-----------------|---------------|----------------|
| 1 | 13Cr | 13Cr | 13Cr |
| 2 | 304 | 304 | 304 |
| 5 | 13Cr | Stellite No.6 | Stellite No. 6 |
| 8 | 13Cr | 13Cr | Stellite No. 6 |
| 9 | Monel | Monel | Monel |
| 10 | 316 | 316 | 316 |
| 12 | 316 | 316 | Stellite No. 6 |
| 16 | 316 | Stellite No.6 | Stellite No. 6 |
| 20 | 304 | 304 | Stellite No. 6 |
| 15 | 304 | Stellite No.6 | Stellite No. 6 |

MATERIAL LIST

| NO | PART NAME | WCB | LCB | WC6 | WC9 | C5 | C12 | CF8 | CF8M |
|----|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1 | Body | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 2 | Bonnet | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 3 | Wedge | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 4 | Seal | A105 | A350-LF2 | A182-F11 | A182-F22 | A182-F5 | A182-F9 | A182-F304 | A182-F316 |
| 7 | Lantern ring | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP304 | A276TP316 |
| 10 | Gland | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP304 | A276TP316 |
| 11 | Gland Flange | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 12 | Bonnet Stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 13 | Bonnet Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |
| 14 | Gland Stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 15 | Gland Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |
| 16 | Pin | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP410 | A276TP304 | A276TP304 |
| 17 | Yoke Sleeve | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C | A493-D2C |
| 18 | Yoke Cap | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | A351-CF8 | A351-CF8 |
| 19 | Handwheel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 20 | Wheel Nut | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | AISI 304 | AISI 304 |
| 21 | Grease Nipple | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 22 | Yoke | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 23 | Thrust Ring | A182-F304 | A182-F304 | A182-F304 | A182-F304 | A182-F304 | A182-F304 | A182-F304 | A182-F316 |
| 24 | Back Up Ring | A217-CA15 | A351-CF8 | A217-CA15 | A217-CA15 | A217-CA15 | A217-CA15 | A351-CF8 | A351-CF8M |
| 25 | Yoke Stud | A193-B7 | A320-L7 | A193-B16 | A193-B16 | A193-B16 | A193-B16 | A193-B8 | A193-B8 |
| 26 | Yoke Nut | A194-2H | A194-4 | A194-4 | A194-4 | A194-4 | A194-4 | A194-8 | A194-8 |
| 27 | Clamp | A216-WCB | A352-LCB | A217-WC6 | A217-WC9 | A217-C5 | A217-C12 | A351-CF8 | A351-CF8M |
| 28 | Bearing | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |

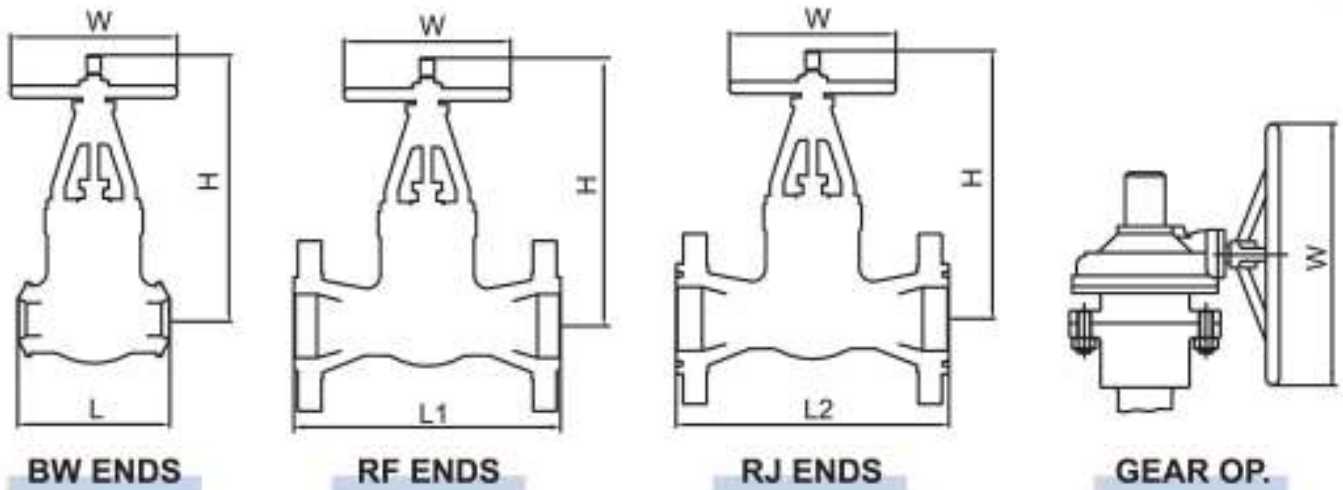
GLAND PACKING & GASKET MATERIAL LIST

- 8 GASKET : GRAPHOIL F304 F316 ALLOY STEEL _____
- 9 GLAND PACKING : GRAPHOIL / GRAPHOIL + 304/316 WIRE TEFLON _____

SOUR OIL AND GAS SERVICE - NACE MR-01-75 : A193-B7M STUDS & A194-2HM NUTS ARE AS STANDARD.



GATE VALVE DIMENSIONS - PRESSURE SEAL



CLASS 600-FIG NO: 6PGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|------|----|-----|--------|-----|-----|-----|------|------|------|------|------|------|------|------|
| L | mm | 178 | 216 | 254 | 305 | 457 | 584 | 711 | 813 | 889 | 991 | 1092 | 1194 | 1397 |
| L1 | mm | 292 | 330 | 356 | 432 | 559 | 660 | 787 | 838 | 889 | 991 | 1092 | 1194 | 1397 |
| L2 | mm | 295 | 333 | 359 | 435 | 562 | 664 | 791 | 841 | 892 | 994 | 1095 | 1200 | 1406 |
| H | mm | 407 | 533 | 598 | 717 | 972 | 1201 | 1379 | 1586 | 1743 | 1898 | 2201 | 2359 | 2980 |
| W | mm | 250 | 250 | 300 | 350 | 450 | 460* | 610* | 610* | 710* | 710* | 710* | 710* | 710* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 900-FIG NO: 9PGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|------|----|-----|--------|-----|-----|------|------|------|------|------|------|------|------|------|
| L | mm | 216 | 254 | 305 | 356 | 508 | 660 | 787 | 914 | 991 | 1092 | 1181 | 1283 | 1511 |
| L1 | mm | 368 | 419 | 381 | 457 | 610 | 737 | 838 | 965 | 1029 | 1130 | 1219 | 1321 | 1549 |
| L2 | mm | 371 | 422 | 384 | 460 | 612 | 740 | 841 | 968 | 1038 | 1140 | 1232 | 1333 | 1568 |
| H | mm | 594 | 753 | 698 | 779 | 1091 | 1360 | 1690 | 1895 | 2125 | 2261 | 2470 | 2750 | 3242 |
| W | mm | 250 | 350 | 400 | 450 | 610* | 610* | 710* | 710* | 800* | 800* | 800* | 800* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 1500-FIG NO: 15PGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|------|----|-----|--------|-----|-----|------|------|------|------|------|------|------|------|------|
| L | mm | 216 | 254 | 305 | 406 | 559 | 711 | 864 | 991 | 1067 | 1194 | 1346 | 1473 | 1628 |
| L1 | mm | 368 | 419 | 470 | 546 | 705 | 832 | 991 | 1130 | 1257 | 1384 | 1536 | 1664 | 1943 |
| L2 | mm | 371 | 422 | 473 | 549 | 711 | 841 | 1000 | 1146 | 1276 | 1406 | 1559 | 1686 | 1972 |
| H | mm | 624 | 753 | 853 | 964 | 1219 | 1411 | 1645 | 1875 | 2216 | 2331 | 2823 | 3102 | 3788 |
| W | mm | 300 | 400 | 450 | 560 | 460* | 710* | 710* | 800* | 800* | 800* | 800* | 800* | 800* |

*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 2500-FIG NO: 25PGA

| SIZE | in | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" |
|------|----|-----|--------|-----|------|------|------|------|------|------|------|------|
| L | mm | 279 | 330 | 368 | 457 | 610 | 762 | 914 | 1041 | 1118 | 1245 | 1397 |
| L1 | mm | 451 | 508 | 578 | 673 | 914 | 1022 | 1270 | 1422 | - | - | - |
| L2 | mm | 454 | 514 | 584 | 683 | 927 | 1038 | 1292 | 1445 | - | - | - |
| H | mm | 753 | 853 | 930 | 1119 | 1350 | 1601 | 1805 | 2096 | 2391 | 2570 | 3050 |
| W | mm | 400 | 450 | 560 | 560 | 710* | 710* | 710* | 800* | 800* | 800* | 800* |

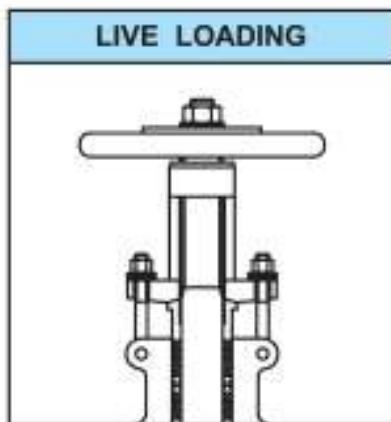
*BEVEL GEAR OPERATOR IS RECOMMENDED.

CLASS 4500 - FIG NO : 45PGA-OFFER DIMENSIONS ON REQUEST

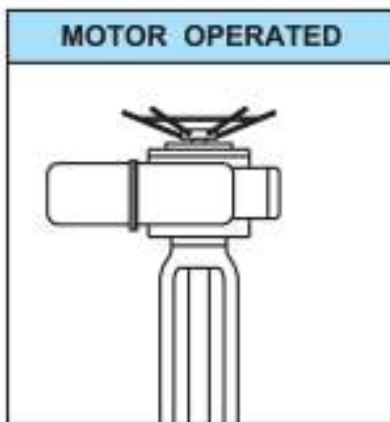
GATE VALVE

OPTIONAL DEVICES FOR GATE VALVE

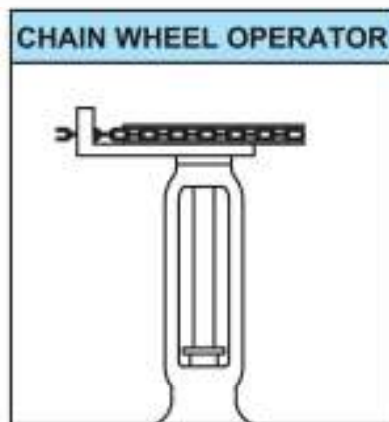
LIVE LOADING



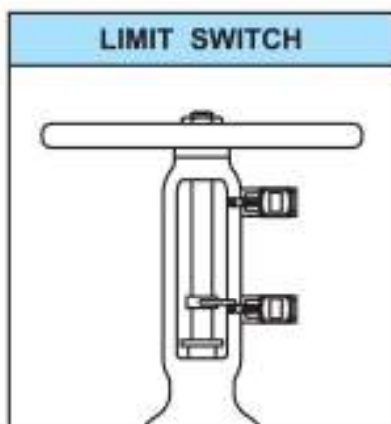
MOTOR OPERATED



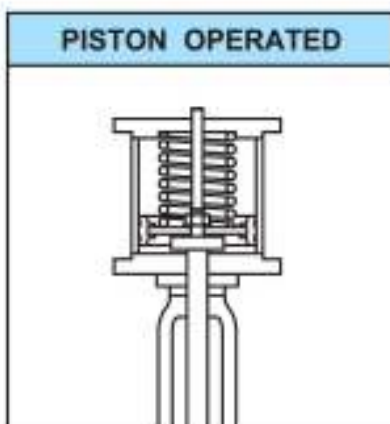
CHAIN WHEEL OPERATOR



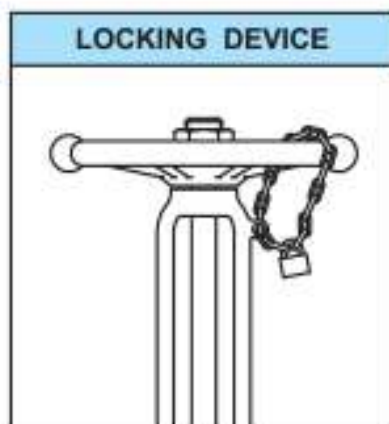
LIMIT SWITCH



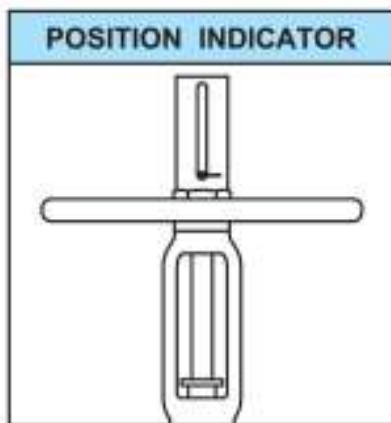
PISTON OPERATED



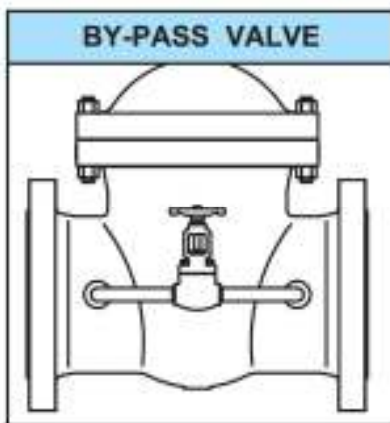
LOCKING DEVICE



POSITION INDICATOR



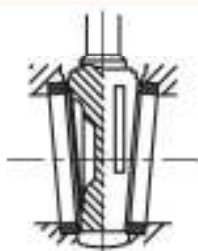
BY-PASS VALVE



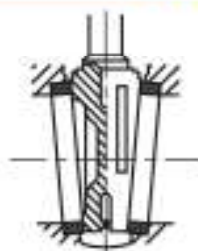
INTERLOCK DEVICE



WEDGE TYPE



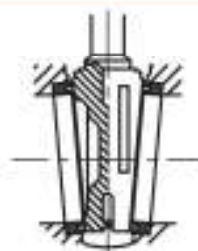
SOLID WEDGE



FLEXIBLE WEDGE



PARALLEL WEDGE



TEFLON INSERT SEAT