



BLISS ANAND

Gauge Valve



Gauge Valve

Index: Gauge Valve

| | |
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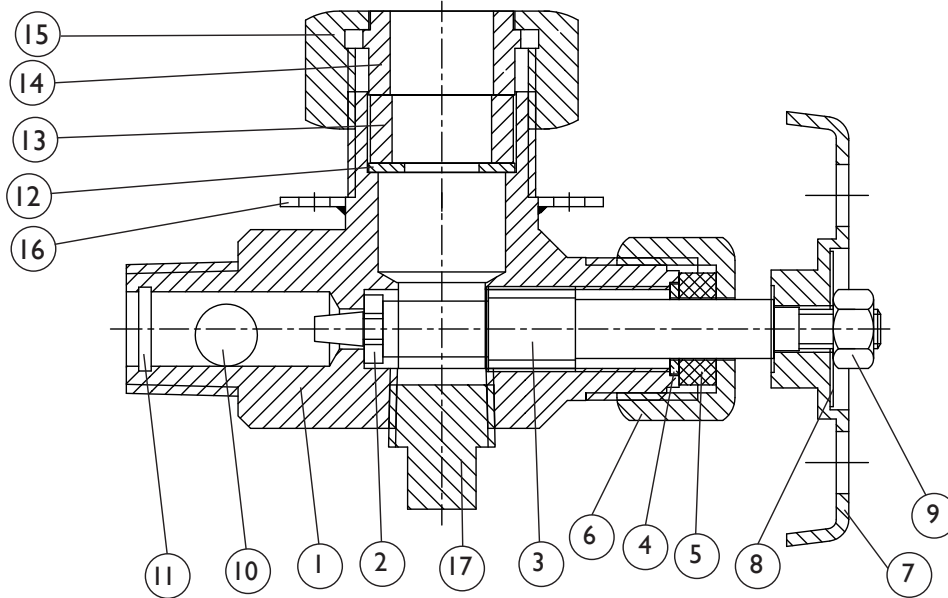


GAUGE VALVE



VALVE OPTIONS

| | |
|--|--|
| | <p style="text-align: center;">100LBS@100 DEG F</p> <p>SERIES - '10'</p> <p>BLISS ANAND 10-TU valves feature straight type body with integrated seat and Elastomer (EPDM) Glass tube packing bush, with integral seat and PTFE valve cone. These are primarily used for tubular type level gages for low pressure & temperature applications. They are equipped with mounting clamps to fit glass protection rods. They also features a ball check arrangement.</p> |
| | <p style="text-align: center;">2400 LBS @ 100°F, 1400 LBS @ 750°F</p> <p>SERIES - '20'</p> <p>BLISS ANAND SERIES 20 valves features integrated of bonnet drop forged offset steel bodies, stainless steel trim with wide choice of connections. Their design incorporate ball check arrangements and union gauge connections. They are equipped with union gauge connections which permits simple installation and easy access to the ball check.</p> |
| | <p style="text-align: center;">4000 LBS @ 100°F, 1500 LBS @ 750°F</p> <p>SERIES - '40'</p> <p>BLISS ANAND SERIES 40 valves are designed and built to the highest standard quality features such as regrindable and renewable seat and complete rust proofed carbon steel parts assuring long trouble free services union gauge connection enables gauges to be turned to any desired angle and removed of gauge without disturbing the valve which saves time in maintenance. Also the valve features union bonnet, and stem back seating.</p> |
| | <p style="text-align: center;">4000 LBS @ 100°F, 1500 LBS @ 750°F</p> <p>SERIES - '80'</p> <p>BLISS ANAND SERIES 80 valves are designed with bolted bonnet construction. Valves are equipped with stainless steel ball checks, stem back seating and offset construction. Union gauges connections is optional.</p> |



| PART NO. | PART NAME | STD MATERIAL | PART NO. | PART NAME | STD MATERIAL |
|----------|---------------------|--------------|----------|-------------------|--------------|
| 1 | VALVE BODY | A-105 | 10 | BALL CHECK | SS-316 |
| 2 | VALVE WASHER | TEFLON | 11 | BALL CHECK STOP | SS-304 |
| 3 | STEM | SS-304 | 12 | WASHER | SS-304 |
| 4 | STEM PACKING WASHER | SS-316 | 13 | GLASS PACKING | EPDM |
| 5 | STEM PACKING | GRAFOIL | 14 | PACKING GLAND | STEEL |
| 6 | PACKING NUT | STEEL | 15 | GLASS PACKING NUT | STEEL |
| 7 | HANDWHEEL | ZINC | 16 | MOUNTING CLAMP | STEEL |
| 8 | TAG NAME PLATE | SS-304 | 17 | PLUG | STEEL |
| 9 | STEM NUT | STEEL | | | |

STANDARD FEATURES

SOFT SEAT VALVE CONE:

The valve features a soft seating valve cone in PTFE capped at the stem tip. This ensures zero leak when closed

STRAIGHT BODY PATTERN:

The valve features a straight body pattern

Standard Connections:

- Vessel : 3/4" NPT male
- Drain : 3/4" NPT female
- Gauge : 3/8" NPT female

Optional Connections:

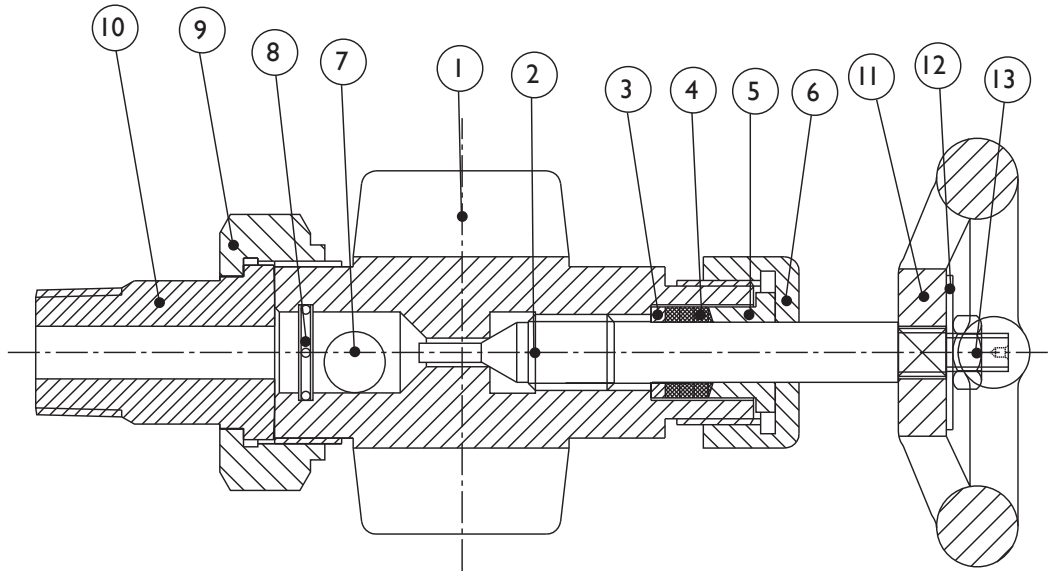
- Vessel : 1/2" NPT male
- Vent & Drain : 1/4" NPT plugged

Safety Shut OFF:

Valves are provided with stainless steel ball check which instantaneously shuts off flow of the medium being gauged in the event of glass breakage



SERIES 20



| PART NO. | PART NAME | STD MATERIAL |
|----------|----------------|----------------|
| 1 | VALVE BODY | A-105 / F-316L |
| 2 | SPINDLE | SS-316L |
| 3 | GLAND STOPPER | SS-316 |
| 4 | PACKING RING | GRAPHITE |
| 5 | GLAND FOLLOWER | SS-316 |
| 6 | GLAND NUT | STEEL |
| 7 | BALL | SS-316 |

| PART NO. | PART NAME | STD MATERIAL |
|----------|----------------|--------------|
| 8 | BALL STOPPER | SS-304 |
| 9 | TAIL PIECE | STEEL |
| 10 | UNION NUT | STEEL |
| 11 | HAND WHEEL | WCB |
| 12 | NAME PLATE | SS-304 |
| 13 | HAND WHEEL NUT | STEEL |

STANDARD FEATURES

BACKSEATING STEM:

When the valve is opened to its limit, the stem seats against the bonnet allowing the valve to be repacked while under pressure.

STRAIGHT BODY PATTERN:

The straight body is of a straight forward angle pattern, with the gauge, drain and vessel connections on intersecting centrelines.

OFFSET BODY PATTERN:

The Offset body is an angle pattern valve, with the centreline of the gauge and drain connections offset 22mm from the centreline of the vessel connections, Hence by removing the vent/Drain plugs, the interior of a top and bottom connected gauge glass may be cleaned without removing the gauge.

UNION GAUGE CONNECTION:

Both the straight and the offset can be furnished with a union gauge connection which allows a top and bottom connected gauge to be turned to any desired angle for convenient visibility. It also makes possible the removal of the gauge without removing the valves, a feature which saves time when the gauges must be cleaned or serviced.

Optional Connections:

Vessel : 1/2" NPT male or 3/4" NPT male for socket weld or flanged to suit requirements. Series 20 valves can be supplied with ANSI 150, 300 or 600 integral flanges.

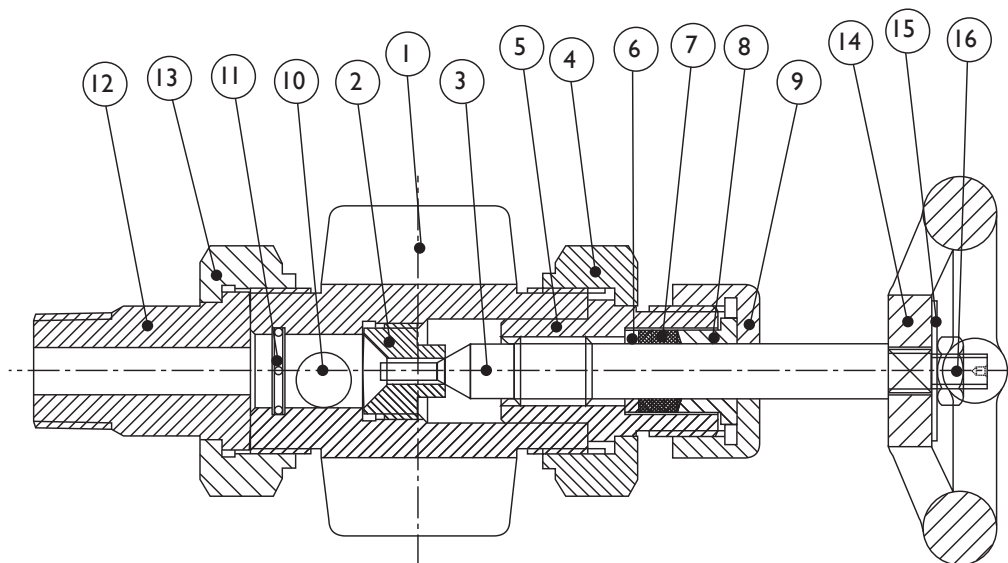
Gauges : On union connected valves 1/2" NPTmale or 3/4" NPT male. On all valves 3/4" NPT female screwed and 1/2" or 3/4" female socket weld recess.

Vent/Drain : 3/4" NPT female screwed and 1/2" or 3/4" female socket weld recess. vent & drain valves on request.

Connections are also available screwed.

Safety Shut Off:

Valves may be provided with stainless steel ballcheck which instantaneously shuts off flow of the medium being gauged in the event of glass breakage. The ball operates upstream from the seat and can be furnished for vacuum seating if required.



| PART NO. | PART NAME | STD MATERIAL |
|----------|----------------|----------------|
| 1 | VALVE BODY | A-105 / F-316L |
| 2 | RENEWABLE SEAT | SS-316 |
| 3 | SPINDLE | SS-316L |
| 4 | BONNET NUT | STEEL |
| 5 | BONNET | STEEL |
| 6 | GLAND STOPPER | SS-316 |
| 7 | PACKING RING | GRAPHITE |
| 8 | GLAND FOLLOWER | SS-316 |

| PART NO. | PART NAME | STD MATERIAL |
|----------|----------------|--------------|
| 9 | GLAND NUT | STEEL |
| 10 | BALL | SS-316 |
| 11 | BALL STOPPER | SS-304 |
| 12 | TAIL PIECE | STEEL |
| 13 | UNION NUT | STEEL |
| 14 | HAND WHEEL | WCB |
| 15 | NAME PLATE | SS-304 |
| 16 | HAND WHEEL NUT | STEEL |

STANDARD FEATURES

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Standard Connections:

- Vessel** : ¾" NPT male
- Drain** : ½" NPT female
- Gauge** : ½" NPT female

Optional Connections:

- Vessel** : ½" NPT male or ¾" NPT male for socket weld or flanged to suit requirements. Series 40 valves can be supplied with ANSI 150, 300 or 600 integral flanges.
- Gauges** : On union connected valves ½" NPT male or ¾" NPT male. On all valves ¾" NPT female screwed and ½" or ¾" female socket weld recess.
- Vent/Drain:** ¾" NPT female screwed and ½" or ¾" female socket weld recess. vent & drain valves on request.

Connections are also available screwed.

Safety Shut Off:

Valves may be provided with stainless steel ballcheck which instantaneously shuts off flow of the medium being gauged in the event of glass breakage. The ball operates upstream from the seat and can be furnished for vacuum seating if required.



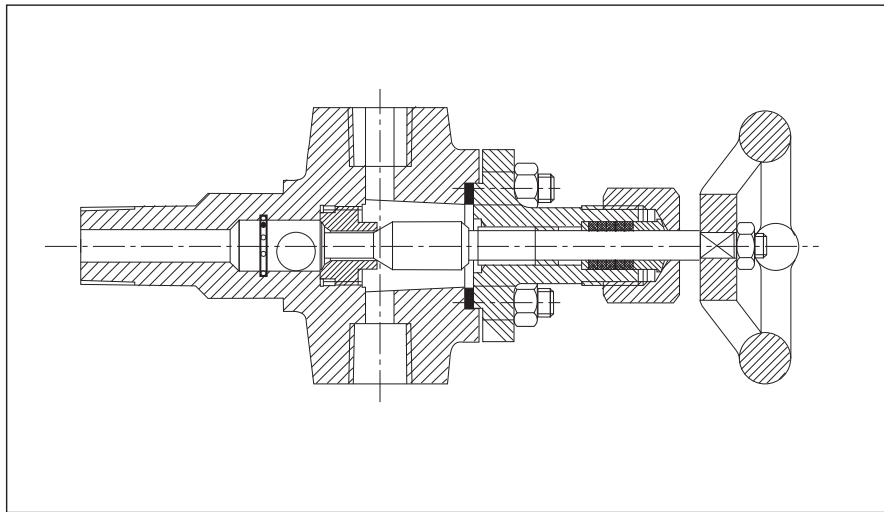
SERIES 80

GAUGE VALVES

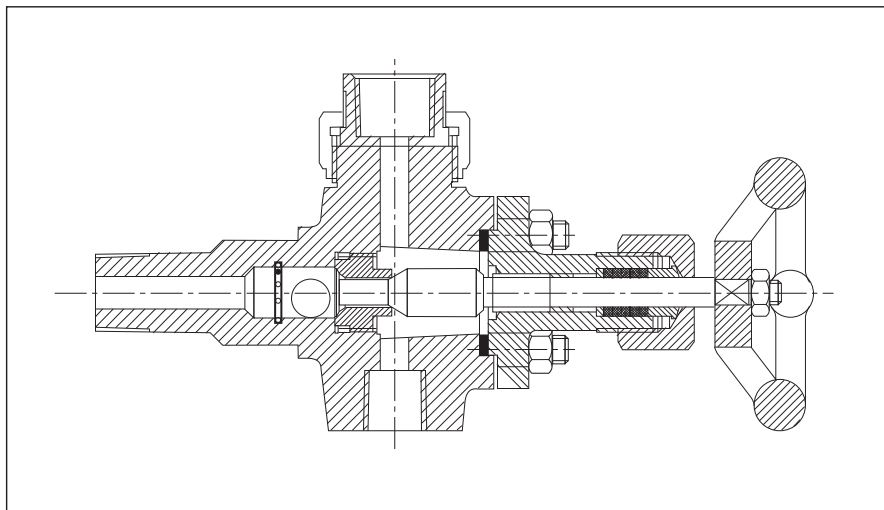
Gauge Valves With Bolted and Bonnet & Inside Screw, Designed to Reduce Threaded Connections.

These rugged valves are designed and manufactured for use with flat glass gauges, instruments piping and other applications.

Pressure Rating per intermediate rating ANSI 1250



83 STRAIGHT PATTERN WITH FEMALE NPT GAUGE CONNECTION, MALE VESSEL CONNECTION ON SOLID SHANK



84 STRAIGHT PATTERN WITH FEMALE NPT UNION GAUGE CONNECTION, MALE VESSEL CONNECTION ON SOLID SHANK

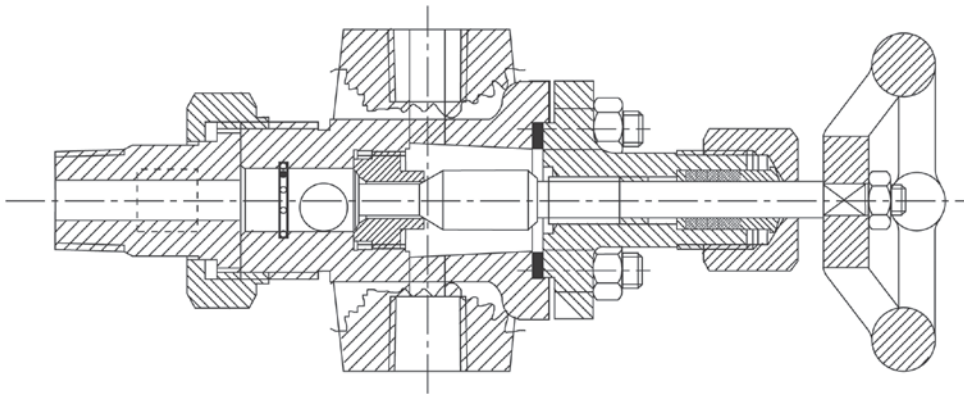


GAUGE VALVES

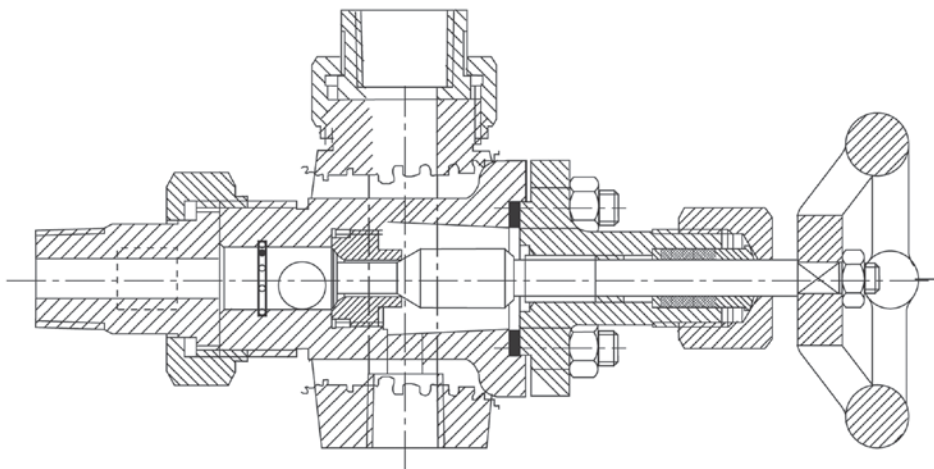
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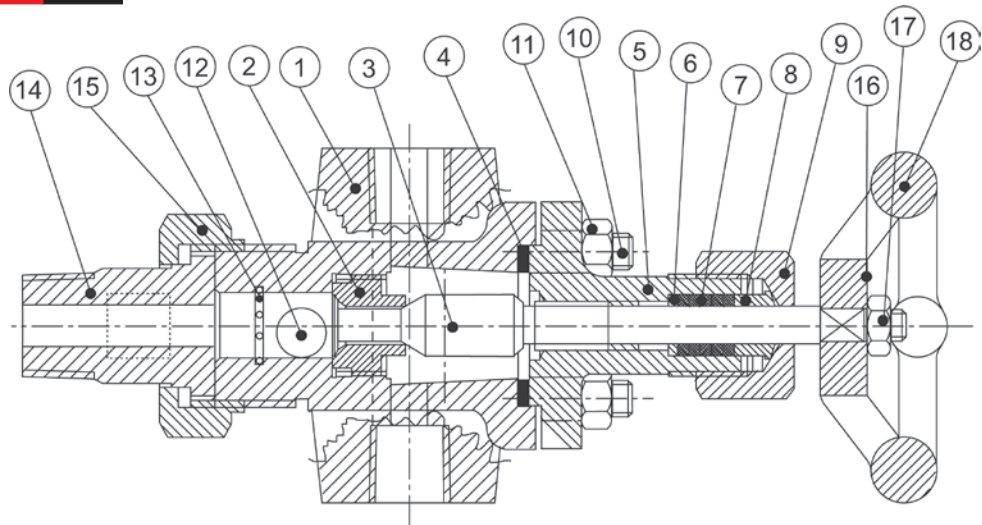
86 OFFSET PATTERN WITH FEMALE NPT GAUGE CONNECTION, MALE UNION VESSEL CONNECTION



87 OFFSET PATTERN WITH FEMALE NPT UNION GAUGE CONNECTION, MALE UNION VESSEL CONNECTION



SERIES 80



| PART NO. | PART NAME | STD MATERIAL |
|----------|----------------|-----------------------------|
| 1 | VALVE BODY | A-105 / F-316L |
| 2 | RENEWABLE SEAT | SS-316 |
| 3 | SPINDLE | SS-316L |
| 4 | BONNET GASKET | SP WOUND SS 316+ GRAFOIL |
| 5 | BONNET | A-105/ F-316L |
| 6 | GLAND STOPPER | SS-316 |
| 7 | PACKING RING | GRAPHITE |
| 8 | GLAND FOLLOWER | SS-316 |
| 9 | GLAND NUT | STEEL |

| PART NO. | PART NAME | STD MATERIAL |
|----------|----------------|--------------|
| 10 | BONNET STUD | A-193 GR. B7 |
| 11 | BONNET NUT | A-194 GR. 2H |
| 12 | BALL | SS 316 |
| 13 | BALL STOPPER | SS 304 |
| 14 | TAIL PIECE | STEEL |
| 15 | UNION NUT | STEEL |
| 16 | HAND WHEEL | WCB |
| 17 | NAME PLATE | SS 304 |
| 18 | HAND WHEEL NUT | STEEL |

STANDARD FEATURES

BACKSEATING STEM:

When the valve is opened to its limit, the stem seats against the bonnet allowing the valve to be repacked while under pressure.

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Standard Connections:

Vessel : 3/4" NPT male
Drain : 1/2" NPT female
Gauge : 1/2" NPT female

Optional Connections:

Vessel : 1/2" NPT male or 3/4" NPT male for socket weld or flanged to suit requirements.
 Series 80 valves can be supplied with ANSI 150, 300 or 600 integral flanges.

Gauges : On union connected valves 1/2" NPT male or 3/4" NPT male. On all valves 3/4" NPT female screwed and 1/2" or 3/4" female socket weld recess.

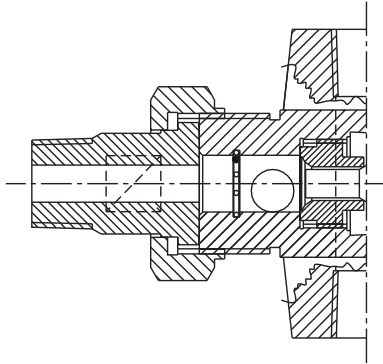
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Connections are also available screwed.

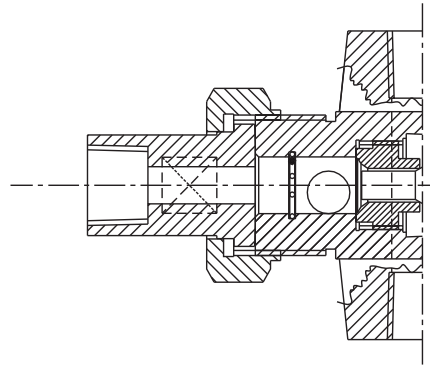
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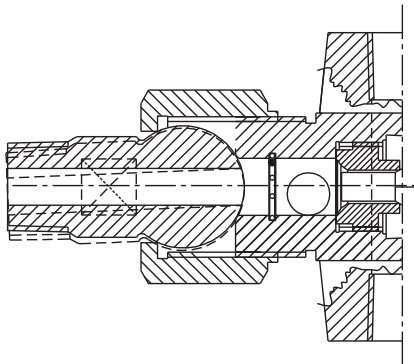
TANK CONNECTION OPTIONS



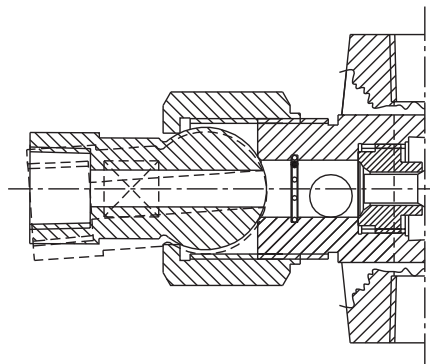
PLAIN UNION (M)



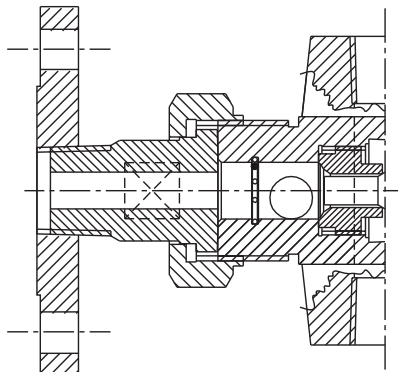
PLAIN UNION (F)



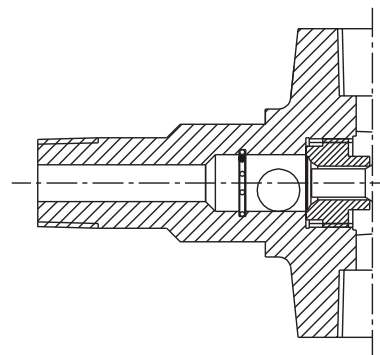
SPHERICAL UNION (M)



SPHERICAL UNION (F)



FLANGE PLAIN UNION (M)



SOLID SHANK (M)

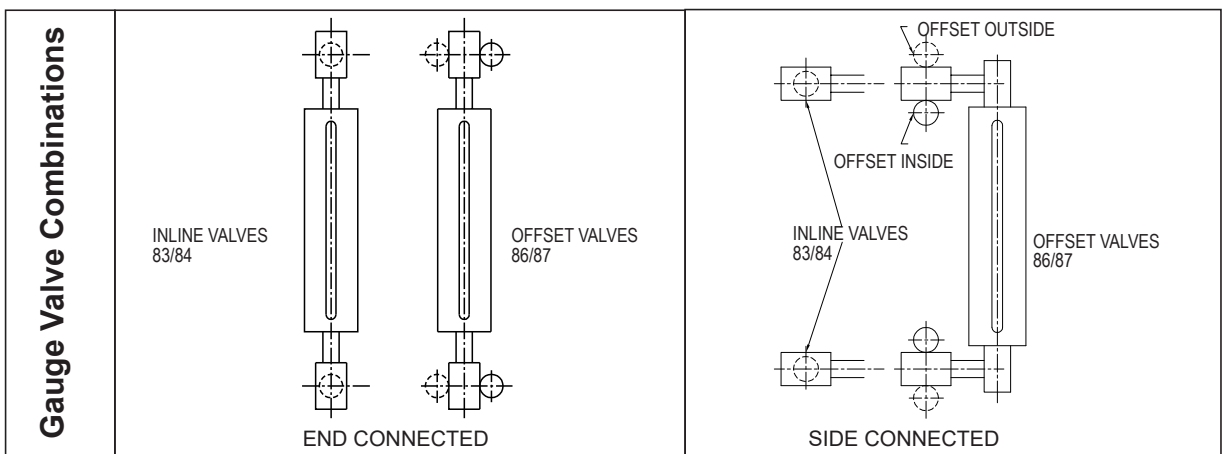


GAUGE VALVE

Liquid Level Gauges and Valves Minimum Vessel Centres (All dimensions in mm) and Gauge-Valve Combinations

Note: Standard connections are NPT female screwed on gauges and valves with assembling made using SCH 160 Male threaded adaptors. Other connection options are available including male and female unions, socket welds, flanges etc, however centres dimensions are subject to confirmation by Bliss Anand.

| Connection | | End /Top & Bottom | | | | | | | | | | Side/Side | | | | | |
|-----------------|----------------|-------------------|------|---------|------|------|------|------|------|------|------|-----------------------|----------------|-----------------|---------|----------------|-----------------|
| Series | | TL& RL | | TM & RM | | | | TH | | RH | | TL, RL, TM, RM, TH/RH | | | | | |
| Gauge Conn Size | | 1/2" & 3/4" | | 1/2" | | 3/4" | | 1/2" | | 3/4" | | 1/2" | | | 3/4" | | |
| Size No | Visible Length | 86 | 87 | 86 | 87 | 86 | 87 | 86 | 87 | 86 | 87 | In Line | Offset In Side | Offset Out Side | In Line | Offset In Side | Offset Out Side |
| | | | | | | | | | | | | 83 | 86 | 86 | 83 | 86 | 86 |
| 11 | 95 | 248 | 308 | 222 | 283 | 235 | 295 | 254 | 314 | 235 | 295 | 133 | 89 | 178 | 143 | 98 | 187 |
| 12 | 121 | 273 | 333 | 248 | 308 | 260 | 321 | 279 | 340 | 260 | 321 | 159 | 114 | 203 | 168 | 124 | 213 |
| 13 | 146 | 298 | 359 | 273 | 333 | 286 | 346 | 305 | 365 | 286 | 346 | 184 | 140 | 229 | 194 | 149 | 238 |
| 14 | 171 | 324 | 384 | 298 | 359 | 311 | 372 | 330 | 391 | 311 | 372 | 210 | 165 | 254 | 219 | 175 | 254 |
| 15 | 200 | 352 | 413 | 327 | 387 | 340 | 400 | 359 | 419 | 340 | 400 | 238 | 194 | 283 | 248 | 203 | 292 |
| 16 | 232 | 384 | 445 | 359 | 419 | 371 | 432 | 391 | 451 | 371 | 432 | 270 | 225 | 314 | 279 | 235 | 324 |
| 17 | 260 | 413 | 467 | 387 | 448 | 400 | 460 | 419 | 479 | 400 | 460 | 298 | 254 | 343 | 308 | 264 | 352 |
| 18 | 302 | 454 | 514 | 429 | 489 | 441 | 502 | 460 | 521 | 441 | 502 | 340 | 295 | 384 | 349 | 305 | 394 |
| 19 | 321 | 473 | 533 | 448 | 508 | 460 | 521 | 479 | 540 | 460 | 521 | 359 | 314 | 403 | 368 | 324 | 413 |
| 23 | 330 | 483 | 543 | 457 | 518 | 470 | 530 | 489 | 549 | 470 | 530 | 368 | 324 | 413 | 378 | 333 | 422 |
| 24 | 381 | 533 | 594 | 508 | 568 | 521 | 581 | 540 | 600 | 521 | 581 | 419 | 375 | 464 | 429 | 384 | 473 |
| 25 | 438 | 591 | 651 | 565 | 625 | 578 | 638 | 597 | 657 | 578 | 638 | 476 | 432 | 521 | 486 | 441 | 530 |
| 26 | 502 | 654 | 714 | 629 | 689 | 641 | 702 | 660 | 721 | 641 | 702 | 540 | 495 | 584 | 549 | 505 | 594 |
| 27 | 559 | 711 | 772 | 686 | 746 | 699 | 759 | 718 | 778 | 699 | 759 | 597 | 552 | 641 | 606 | 562 | 651 |
| 28 | 641 | 794 | 848 | 768 | 829 | 781 | 840 | 800 | 860 | 781 | 840 | 679 | 635 | 724 | 689 | 645 | 733 |
| 29 | 679 | 832 | 892 | 806 | 867 | 819 | 879 | 838 | 899 | 819 | 879 | 718 | 673 | 762 | 727 | 683 | 772 |
| 36 | 772 | 924 | 984 | 899 | 959 | 911 | 972 | 930 | 991 | 911 | 972 | 810 | 765 | 854 | 819 | 775 | 864 |
| 37 | 857 | 1010 | 1070 | 984 | 1045 | 997 | 1057 | 1016 | 1076 | 997 | 1057 | 895 | 851 | 940 | 905 | 860 | 949 |
| 38 | 981 | 1133 | 1194 | 1108 | 1168 | 1121 | 1181 | 1140 | 1200 | 1121 | 1181 | 1019 | 975 | 1064 | 1029 | 984 | 1073 |
| 39 | 1038 | 1191 | 1251 | 1165 | 1226 | 1178 | 1238 | 1197 | 1257 | 1178 | 1238 | 1076 | 1032 | 1121 | 1086 | 1041 | 1130 |
| 47 | 1156 | 1308 | 1368 | 1283 | 1343 | 1295 | 1356 | 1314 | 1375 | 1295 | 1356 | 1194 | 1149 | 1238 | 1203 | 1159 | 1248 |
| 48 | 1321 | 1473 | 1534 | 1448 | 1508 | 1461 | 1521 | 1480 | 1540 | 1461 | 1521 | 1359 | 1314 | 1403 | 1368 | 1324 | 1413 |
| 49 | 1397 | 1549 | 1610 | 1524 | 1584 | 1537 | 1597 | 1556 | 1616 | 1537 | 1597 | 1435 | 1391 | 1480 | 1445 | 1400 | 1489 |
| 57 | 1454 | 1607 | 1667 | 1581 | 1641 | 1594 | 1654 | 1613 | 1673 | 1594 | 1654 | 1492 | 1448 | 1538 | 1502 | 1457 | 1546 |
| 58 | 1661 | 1813 | 1873 | 1788 | 1848 | 1800 | 1861 | 1819 | 1880 | 1800 | 1861 | 1699 | 1654 | 1743 | 1708 | 1664 | 1753 |
| 59 | 1756 | 1908 | 1969 | 1883 | 1943 | 1895 | 1956 | 1915 | 1975 | 1895 | 1956 | 1794 | 1749 | 1838 | 1803 | 1759 | 1848 |
| 68 | 2000 | 2153 | 2213 | 2127 | 2188 | 2140 | 2200 | 2159 | 2219 | 2140 | 2200 | 2038 | 1994 | 2083 | 2048 | 2003 | 2092 |
| 69 | 2115 | 2267 | 2327 | 2242 | 2302 | 2254 | 2315 | 2273 | 2334 | 2254 | 2315 | 2153 | 2108 | 2197 | 2162 | 2118 | 2207 |
| 78 | 2340 | 2492 | 2553 | 2467 | 2527 | 2480 | 2540 | 2499 | 2559 | 2480 | 2540 | 2378 | 2334 | 2423 | 2388 | 2343 | 2432 |
| 79 | 2473 | 2626 | 2686 | 2600 | 2661 | 2613 | 2673 | 2632 | 2692 | 2613 | 2673 | 2511 | 2467 | 2556 | 2521 | 2477 | 2565 |
| 88 | 2680 | 2832 | 2892 | 2807 | 2867 | 2819 | 2880 | 2838 | 2899 | 2819 | 2880 | 2718 | 2673 | 2762 | 2727 | 2683 | 2772 |
| 89 | 2832 | 2985 | 3045 | 2959 | 3019 | 2972 | 3032 | 2991 | 3051 | 2972 | 3032 | 2870 | 2826 | 2915 | 2880 | 2835 | 2924 |
| 98 | 3019 | 3172 | 3232 | 3146 | 3207 | 3159 | 3219 | 3178 | 3239 | 3159 | 3219 | 3058 | 3013 | 3102 | 3067 | 3023 | 3112 |
| 99 | 3191 | 3343 | 3404 | 3318 | 3378 | 3331 | 3391 | 3350 | 3410 | 3331 | 3391 | 3229 | 3185 | 3273 | 3239 | 3194 | 3283 |





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