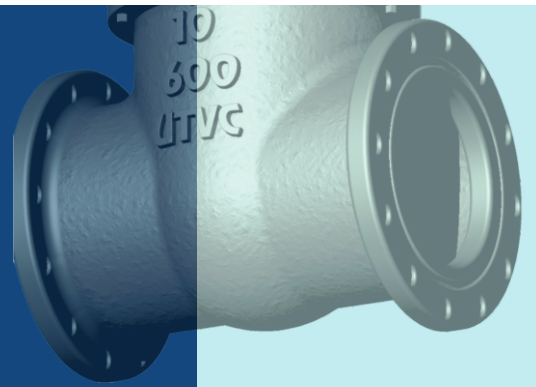




# USMANI

TUBES & VALVES CO. PVT. LTD



**Forged Steel  
Gate Globe and Check Valves**

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ASME Class150#300#600#800#2500#4500  
API 602 - BS 532 - BS 6364 - ASME B16.34  
(15mm. to 50mm.)



SSI  
NSIC



CE  
Certified

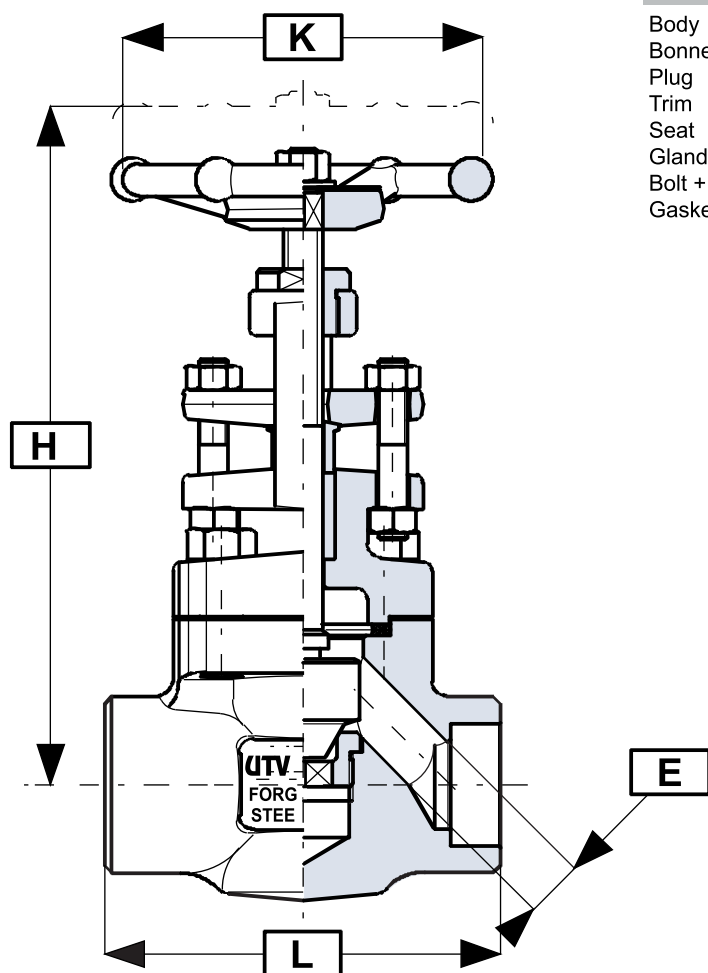


**Max Certifications  
ISO 9001:2015**

**Manufacturers of Industrial Valves**

**True Definition of Safety & Reliability**

## GLOBE VALVES-800-Bolted Bonnet-Socket Weld/ NPT-BW



### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

800 p.s.i. @ 850°F  
1975 p.s.i. @ 100°F

### Test pressure (ASTM A105)

#### Hydraulic:(minimum)

Body - 3000 p.s.i.  
Seat - 2175 p.s.i.

#### Air under water:

Seat - 85 p.s.i.

### Standards

|              |                |
|--------------|----------------|
| Construction | BS 5352        |
| Socket weld  | ASME B16.11    |
| Threaded     | ASME B1.20.1   |
| Butt weld    | ASME B16.25    |
| Test         | BS 6755 (Pt.1) |

### Connections

|           |              |           |              |
|-----------|--------------|-----------|--------------|
| <b>SW</b> | Socket weld  | <b>B8</b> | Butt weld 80 |
| <b>TS</b> | SW/NPT       |           |              |
| <b>TH</b> | Threaded NPT |           |              |
| <b>SE</b> | SW (in)/NPT  |           |              |
| <b>SU</b> | SW (out)/NPT |           |              |
| <b>B4</b> | Butt weld 40 |           |              |

### REDUCED BORE

|             |  |  | 1/2"     | 3/4"      | 1"        | 1.1/4"    | 1.1/2"                 | 2"                     |
|-------------|--|--|----------|-----------|-----------|-----------|------------------------|------------------------|
| L (mm/in)   |  |  | 80 3,15  | 90 3,54   | 110 4,33  | 127 5,00  | 155 6,10               | 170 6,69               |
| H (mm/in)   |  |  | 152 5,98 | 159 6,26  | 182 7,17  | 214 8,43  | 283 11,14              | 306 12,05              |
| K (mm/in)   |  |  | 90 3,54  | 90 3,54   | 100 3,94  | 120 4,72  | 140 5,51               | 140 5,51               |
| E (mm/in)   |  |  | 9 0,35   | 12,5 0,49 | 17,5 0,69 | 22,5 0,89 | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| Wt. (kg/lb) |  |  | 1,7 3,7  | 2 4,4     | 3,2 7,0   | 5,3 11,7  | 7,8 17,2               | 10,6 23,3              |
| Catal. no.  |  |  |          |           |           |           |                        |                        |

### FULL BORE

|             | 1/4"     | 3/8"     | 1/2"      | 3/4"      | 1"        | 1.1/4"                 | 1.1/2"                 | 2"                     |
|-------------|----------|----------|-----------|-----------|-----------|------------------------|------------------------|------------------------|
| L (mm/in)   | 80 3,15  | 80 3,15  | 90 3,54   | 110 4,33  | 127 5,00  | 155 6,10               | 170 6,69               | 210 8,27               |
| H (mm/in)   | 150 5,91 | 152 5,98 | 159 6,26  | 182 7,17  | 214 8,43  | 283 11,14              | 306 12,05              | 327 12,87              |
| K (mm/in)   | 90 3,54  | 90 3,54  | 90 3,54   | 100 3,94  | 120 4,72  | 140 5,51               | 140 5,51               | 200 7,87               |
| E (mm/in)   | 6 0,24   | 9 0,35   | 12,5 0,49 | 17,5 0,69 | 22,5 0,89 | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 | 40 <sup>(6)</sup> 1,57 |
| Wt. (kg/lb) | 1,8 4,0  | 1,8 4,0  | 2,1 4,6   | 3,3 7,3   | 5,4 11,9  | 7,9 17,4               | 10,7 23,5              | 16 35,2                |
| Catal. no.  |          |          |           |           |           |                        |                        |                        |

*True Definition Of Safety And Reliability*

## GATE VALVES-800-Bolted Bonnet-Socket Weld/ NPT-BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

800 p.s.i. @ 850°F  
1975 p.s.i. @ 100°F

### Test pressure (ASTM A105)

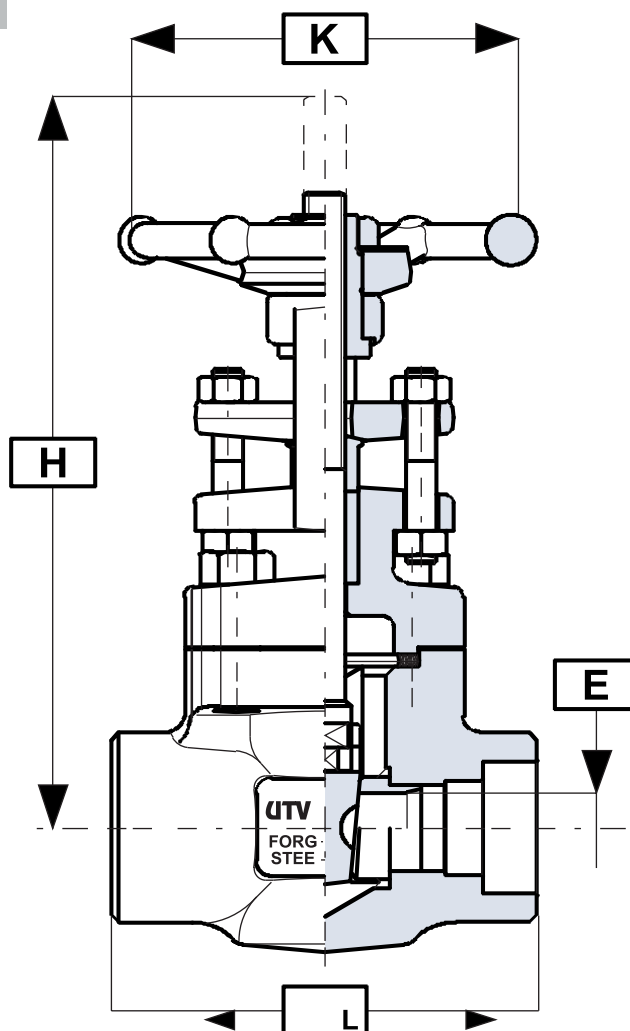
**Hydraulic:(minimum)**  
Body - 3000 p.s.i.  
Seat - 2175 p.s.i.  
**Air under water:**  
Seat - 85 p.s.i.

### Standards

|                     |                        |
|---------------------|------------------------|
| <b>Construction</b> | API 602, BS 5352       |
| <b>Socket weld</b>  | ASME B16.11            |
| <b>Threaded</b>     | ASME B1.20.1           |
| <b>Butt weld</b>    | ASME B16.25            |
| <b>Test</b>         | API 598-BS 6755 (Pt.1) |

### Connections

|                        |                        |
|------------------------|------------------------|
| <b>SW</b> Socket weld  | <b>B8</b> Butt weld 80 |
| <b>TH</b> Threaded NPT |                        |
| <b>TS</b> Sw/NPT       |                        |
| <b>SE</b> Sw(e)/NPT    |                        |
| <b>SU</b> Sw(u)/NPT    |                        |
| <b>B4</b> Butt weld 40 |                        |



### CONVENTIONAL BORE

|                    |  |  | 1/2"     | 3/4"     | 1"       | 1.1/4"   | 1.1/2"    | 2"        |
|--------------------|--|--|----------|----------|----------|----------|-----------|-----------|
| <b>L</b> (mm/in)   |  |  | 80 3,15  | 90 3,54  | 110 4,33 | 127 5,00 | 127 5,00  | 130 5,12  |
| <b>H</b> (mm/in)   |  |  | 145 5,70 | 156 6,14 | 186 7,32 | 216 8,50 | 255 10,04 | 273 10,75 |
| <b>K</b> (mm/in)   |  |  | 90 3,54  | 90 3,54  | 100 3,94 | 120 4,72 | 140 5,51  | 140 5,51  |
| <b>E</b> (mm/in)   |  |  | 10 0,39  | 14 0,55  | 18 0,71  | 24 0,95  | 31 1,22   | 36,5 1,44 |
| <b>Wt.</b> (kg/lb) |  |  | 1,7 3,74 | 2,1 4,62 | 3,3 7,3  | 5,2 11,4 | 7,0 15,4  | 9,1 20,0  |
| <b>Catal. no.</b>  |  |  |          |          |          |          |           |           |

### FULL BORE

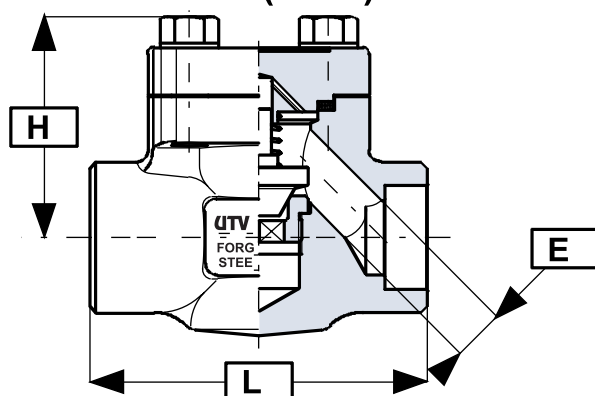
|                    | 1/4"     | 3/8"     | 1/2"     | 3/4"     | 1"       | 1.1/4"    | 1.1/2"    | 2"        |
|--------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| <b>L</b> (mm/in)   | 80 3,15  | 80 3,15  | 90 3,54  | 110 4,33 | 127 5,00 | 127 5,00  | 130 5,12  | 150 5,91  |
| <b>H</b> (mm/in)   | 143 5,63 | 145 5,71 | 156 6,14 | 186 7,32 | 216 8,50 | 255 10,04 | 273 10,75 | 334 13,15 |
| <b>K</b> (mm/in)   | 90 3,54  | 90 3,54  | 90 3,54  | 100 3,94 | 120 4,72 | 140 5,51  | 140 5,51  | 200 7,87  |
| <b>E</b> (mm/in)   | 8,5 0,33 | 10 0,39  | 14 0,55  | 18 0,71  | 24 0,94  | 31 1,22   | 36,5 1,44 | 48 1,89   |
| <b>Wt.</b> (kg/lb) | 1,8 4,0  | 1,8 4,0  | 2,2 4,8  | 3,4 7,5  | 5,3 11,7 | 7,1 15,6  | 9,2 20,2  | 14,2 31,2 |
| <b>Catal. no.</b>  |          |          |          |          |          |           |           |           |

## CHECK VALVES-800-Bolted Cover-Socket Weld/ NPT-BW

### Material of Construction

|            |                                                        |
|------------|--------------------------------------------------------|
| Body       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Cover      | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Seat       | : HF Stellite SS/304/316/Cr. 13%                       |
| Bolt + Nut | : B7/2H - B8/8 or B7/2H                                |
| Gasket     | : SPW SS304/316 with CAF/Grafoil                       |

### Piston (.P4../)



### Ratings (ASTM A105)

800 p.s.i. @ 850°F  
1975 p.s.i. @ 100°F

### Test pressure (ASTM A105)

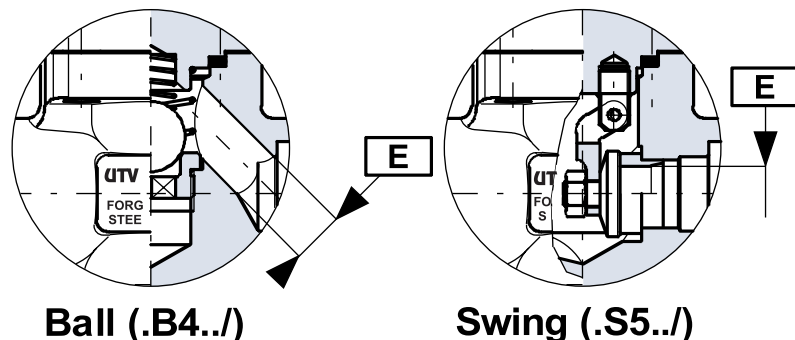
**Hydraulic:** (minimum)  
Body - 3000 p.s.i.  
Seat - 2175 p.s.i.  
**Air under water:**  
not applicable

### Standards

|                     |                |
|---------------------|----------------|
| <b>Construction</b> | BS 5352        |
| <b>Socket weld</b>  | ASME B16.11    |
| <b>Threaded</b>     | ASME B1.20.1   |
| <b>Butt weld</b>    | ASME B16.25    |
| <b>Test</b>         | BS 6755 (Pt.1) |

### Connections

|                        |                        |
|------------------------|------------------------|
| <b>SW</b> Socket weld  | <b>B8</b> Butt weld 80 |
| <b>TH</b> Threaded NPT |                        |
| <b>TS</b> Sw/NPT       |                        |
| <b>SE</b> Sw (in)/NPT  |                        |
| <b>SU</b> Sw (out)/NPT |                        |
| <b>B4</b> Butt weld 40 |                        |



### REDUCED BORE

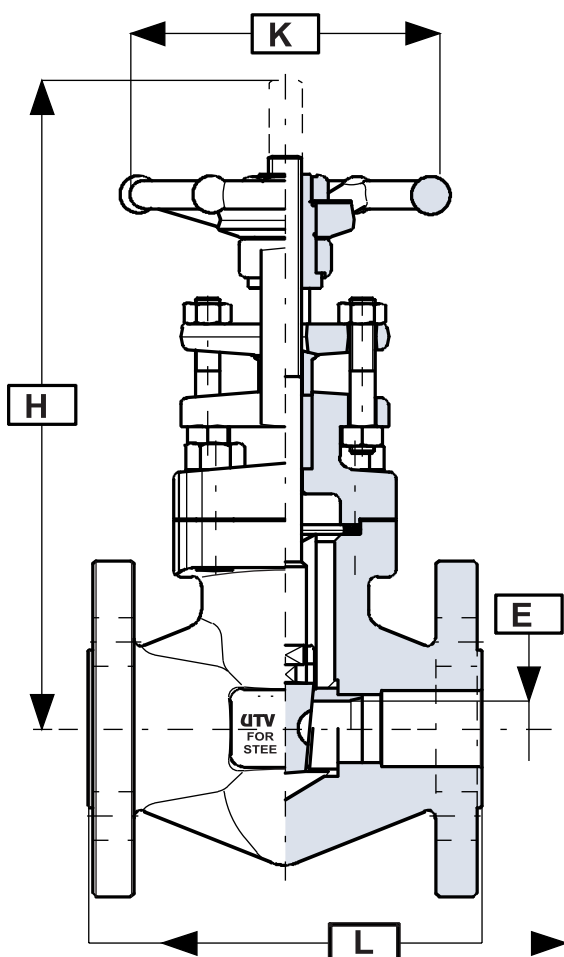
|                     |  |  | 1/2"    | 3/4"      | 1"        | 1.1/4"    | 1.1/2"                 | 2"                     |
|---------------------|--|--|---------|-----------|-----------|-----------|------------------------|------------------------|
| <b>L (mm/in)</b>    |  |  | 80 3,15 | 90 3,54   | 110 4,33  | 127 5,00  | 155 6,10               | 170 6,69               |
| <b>H (mm/in)</b>    |  |  | 50 1,97 | 56 2,20   | 74 2,91   | 79 3,11   | 100 3,94               | 109 4,29               |
| <b>E (7)(mm/in)</b> |  |  | 9 0,35  | 12,5 0,49 | 17,5 0,69 | 22,5 0,89 | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| <b>Wt.(kg/lb)</b>   |  |  | 1,1 2,4 | 1,8 4,0   | 2,6 5,7   | 3,6 7,9   | 5,5 12,1               | 8,4 18,5               |
| <b>Catal. no.</b>   |  |  |         |           |           |           |                        |                        |

### FULL BORE

|                     | 1/4"     | 3/8"    | 1/2"      | 3/4"      | 1"        | 1.1/4"                 | 1.1/2"                 | 2"                     |
|---------------------|----------|---------|-----------|-----------|-----------|------------------------|------------------------|------------------------|
| <b>L (mm/in)</b>    | 80 3,15  | 80 3,15 | 90 3,54   | 110 4,33  | 127 5,00  | 155 6,10               | 170 6,69               | 210 8,27               |
| <b>H (mm/in)</b>    | 50 1,97  | 50 1,97 | 56 2,20   | 74 2,91   | 79 3,11   | 100 3,94               | 109 4,29               | 135 5,31               |
| <b>E (7)(mm/in)</b> | 6,5 0,26 | 9 0,35  | 12,5 0,49 | 17,5 0,69 | 22,5 0,89 | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 | 38 <sup>(6)</sup> 1,50 |
| <b>Wt.(kg/lb)</b>   | 1,1 2,4  | 1,1 2,4 | 1,8 4,0   | 2,6 5,7   | 3,6 7,9   | 5,5 12,1               | 8,4 18,5               | 11,8 26,0              |
| <b>Catal. no.</b>   |          |         |           |           |           |                        |                        |                        |



## GATE VALVES-150-Bolted Bonnet-Flanged End



### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

|                    |
|--------------------|
| 150 p.s.i. @ 550°F |
| 285 p.s.i. @ 100°F |

### Test pressure (ASTM A105)

|                             |
|-----------------------------|
| <b>Hydraulic: (minimum)</b> |
| Body - 450 p.s.i.           |
| Seat - 325 p.s.i.           |
| <b>Air under water:</b>     |
| Seat - 85 p.s.i.            |

### Standards

|                     |                         |
|---------------------|-------------------------|
| <b>Construction</b> | API 602, BS 5352        |
| <b>Flanged</b>      | ASME B16.5, ASME B16.10 |
| <b>Test</b>         | API 598-BS 6755 (Pt.1)  |

### Connections

|           |                    |
|-----------|--------------------|
| <b>RF</b> | Raised face (std.) |
| <b>FF</b> | Flat finish        |

### CONVENTIONAL BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"         |
|-------------|--|--|------------|------------|------------|--|------------|------------|
| L (mm/in)   |  |  | 107,9 4,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50 | 177,8 7,00 |
| H (mm/in)   |  |  | 179 7,05   | 186 7,32   | 208 8,19   |  | 255 10,04  | 273 10,75  |
| K (mm/in)   |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51   | 140 5,51   |
| E (mm/in)   |  |  | 10 0,39    | 14 0,55    | 18 0,71    |  | 31 1,22    | 36,5 1,44  |
| Wt. (kg/lb) |  |  | 3,2 7,0    | 4,1 9,0    | 5,8 12,8   |  | 10 22,0    | 13,1 28,8  |
| Catal. no.  |  |  |            |            |            |  |            |            |

### FULL BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"         |
|-------------|--|--|------------|------------|------------|--|------------|------------|
| L (mm/in)   |  |  | 107,9 4,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50 | 177,8 7,00 |
| H (mm/in)   |  |  | 183 7,20   | 191 7,52   | 216 8,50   |  | 273 10,75  | 314 12,36  |
| K (mm/in)   |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51   | 200 7,87   |
| E (mm/in)   |  |  | 14 0,55    | 18 0,71    | 24 0,94    |  | 36,5 1,44  | 48 1,89    |
| Wt. (kg/lb) |  |  | 3,1 6,8    | 4 8,8      | 5,7 12,5   |  | 12,6 27,7  | 15,8 34,8  |
| Catal. no.  |  |  |            |            |            |  |            |            |

## GATE VALVES-300-Bolted Bonnet-Flanged End

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTMA105)

|                    |
|--------------------|
| 300 p.s.i. @ 850°F |
| 740 p.s.i. @ 100°F |

### Test pressure (ASTMA105)

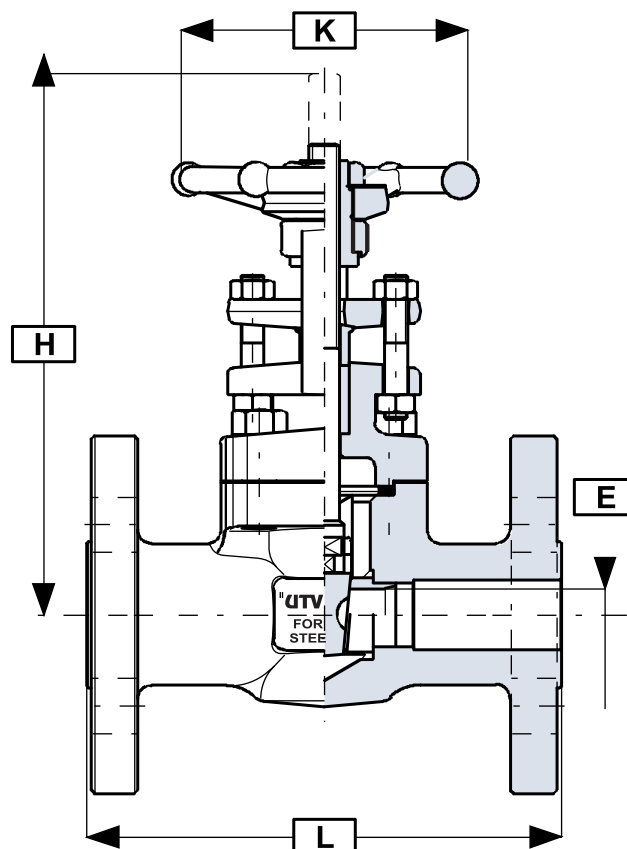
|                            |
|----------------------------|
| <b>Hydraulic:(minimum)</b> |
| Body - 1125 p.s.i.         |
| Seat - 825 p.s.i.          |
| <b>Air under water:</b>    |
| Seat - 85 p.s.i.           |

### Standards

|                     |                         |
|---------------------|-------------------------|
| <b>Construction</b> | API 602, BS 5352        |
| <b>Flanged</b>      | ASME B16.5, ASME B16.10 |
| <b>Test</b>         | API 598-BS 6755 (Pt.1)  |

### Connections

|                              |                        |
|------------------------------|------------------------|
| <b>RF</b> Raised face (std.) | <b>LF</b> Large female |
| <b>RJ</b> Ring joint         | <b>LG</b> Large groove |
| <b>SF</b> Small female       | <b>LM</b> Large male   |
| <b>SG</b> Small groove       | <b>LT</b> Large tongue |
| <b>SM</b> Small male         |                        |
| <b>ST</b> Small tongue       |                        |



### CONVENTIONAL BORE

|                    |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"         |
|--------------------|--|--|------------|------------|------------|--|------------|------------|
| <b>L (mm/in)</b>   |  |  | 139,7 5,50 | 152,4 6,00 | 165,1 6,50 |  | 190,5 7,50 | 215,9 8,50 |
| <b>H (mm/in)</b>   |  |  | 145 5,71   | 156 6,14   | 186 7,32   |  | 255 10,04  | 273 10,75  |
| <b>K (mm/in)</b>   |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51   | 140 5,51   |
| <b>E (mm/in)</b>   |  |  | 10 0,39    | 14 0,55    | 18 0,71    |  | 31 1,22    | 36,5 1,44  |
| <b>Wt. (kg/lb)</b> |  |  | 3,8 8,4    | 5,4 11,9   | 6,5 14,3   |  | 13,1 28,8  | 17,3 38,1  |
| <b>Catal. no.</b>  |  |  |            |            |            |  |            |            |

### FULL BORE

|                    |  |  | 1/2"       | 3/4"       | 1"        |  | 1.1/2"     | 2"         |
|--------------------|--|--|------------|------------|-----------|--|------------|------------|
| <b>L (mm/in)</b>   |  |  | 139,7 5,50 | 152,4 6,00 | 165,1 6,5 |  | 190,5 7,50 | 215,9 8,50 |
| <b>H (mm/in)</b>   |  |  | 193 7,60   | 190 7,48   | 216 8,50  |  | 273 10,75  | 314 12,36  |
| <b>K (mm/in)</b>   |  |  | 90 3,54    | 100 3,94   | 120 4,72  |  | 140 5,51   | 200 7,87   |
| <b>E (mm/in)</b>   |  |  | 14 0,55    | 18 0,71    | 24 0,94   |  | 36,5 1,44  | 48 1,89    |
| <b>Wt. (kg/lb)</b> |  |  | 4,5 9,9    | 6,0 13,2   | 7,6 16,7  |  | 14,0 32,6  | 18,8 41,4  |
| <b>Catal. no.</b>  |  |  |            |            |           |  |            |            |

## GATE VALVES-600-Bolted Bonnet-Flanged End RF/RJ

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22,     |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTMA105)

|                     |
|---------------------|
| 600 p.s.i. @ 850°F  |
| 1480 p.s.i. @ 100°F |

### Test pressure (ASTMA105)

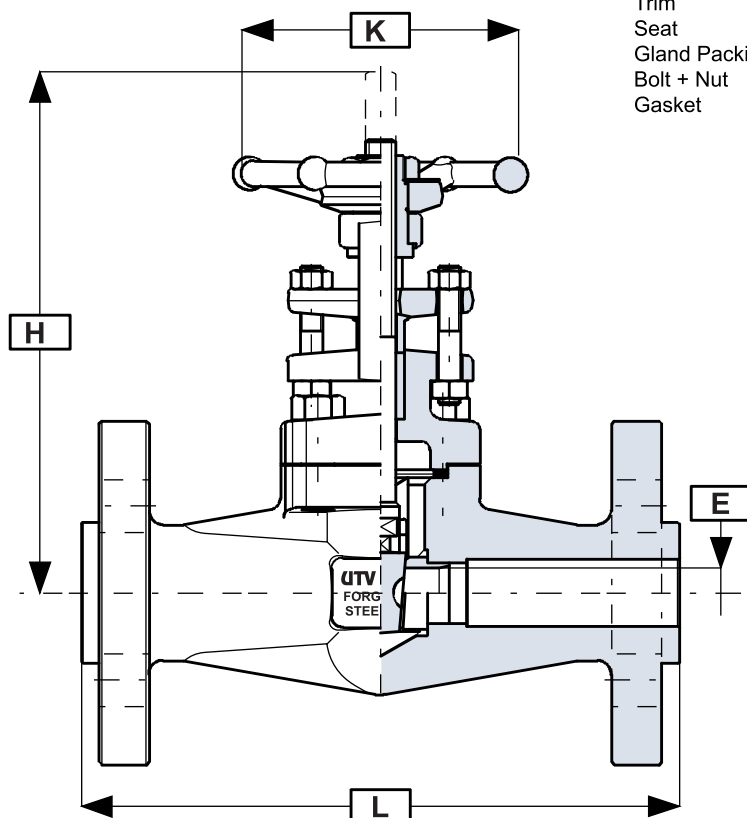
|                             |
|-----------------------------|
| <b>Hydraulic:</b> (minimum) |
| Body - 2225 p.s.i.          |
| Seat - 1650 p.s.i.          |
| <b>Air under water:</b>     |
| Seat - 85 p.s.i.            |

### Standards

|                     |                         |
|---------------------|-------------------------|
| <b>Construction</b> | API 602, BS 5352        |
| <b>Flanged</b>      | ASME B16.5, ASME B16.10 |
| <b>Test</b>         | API 598-BS 6755 (Pt.1)  |

### Connections

|           |                    |           |              |
|-----------|--------------------|-----------|--------------|
| <b>RF</b> | Raised face (std.) | <b>LF</b> | Large female |
| <b>RJ</b> | Ring joint         | <b>LG</b> | Large groove |
| <b>SF</b> | Small female       | <b>LM</b> | Large male   |
| <b>SG</b> | Small grove        | <b>LT</b> | Large tongue |
| <b>SM</b> | Small male         |           |              |
| <b>ST</b> | Small tongue       |           |              |



### CONVENTIONAL BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"          |
|-------------|--|--|------------|------------|------------|--|------------|-------------|
| L (mm/in)   |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50 | 292,1 11,50 |
| H (mm/in)   |  |  | 145 5,71   | 156 6,14   | 186 7,32   |  | 255 10,04  | 273 10,75   |
| K (mm/in)   |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51   | 140 5,51    |
| E (mm/in)   |  |  | 10 0,39    | 14 0,55    | 18 0,71    |  | 31 1,22    | 36,5 1,44   |
| Wt. (kg/lb) |  |  | 3,5 7,7    | 5,8 12,8   | 7,4 16,3   |  | 14,3 31,5  | 18,8 41,4   |
| Catal. no.  |  |  |            |            |            |  |            |             |

### FULL BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"          |
|-------------|--|--|------------|------------|------------|--|------------|-------------|
| L (mm/in)   |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50 | 292,1 11,50 |
| H (mm/in)   |  |  | 176 6,93   | 206 8,11   | 216 8,50   |  | 255 10,04  | 334 13,15   |
| K (mm/in)   |  |  | 90 3,54    | 100 3,94   | 120 4,72   |  | 140 5,51   | 200 7,87    |
| E (mm/in)   |  |  | 14 0,55    | 18 0,71    | 24 0,94    |  | 34 1,34    | 48 1,89     |
| Wt. (kg/lb) |  |  | 3,9 8,6    | 7,0 15,4   | 10,3 22,7  |  | 16,5 36,3  | 25,0 55,0   |
| Catal. no.  |  |  |            |            |            |  |            |             |

## GATE VALVES-1500/2500-Bolted Bonnet-Flanged End RF/RJ

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |

### Ratings (ASTMA105)

|                     |
|---------------------|
| 1500 p.s.i. @ 850°F |
| 3705 p.s.i. @ 100°F |

### Test pressure (ASTMA105) 1500#-2500#

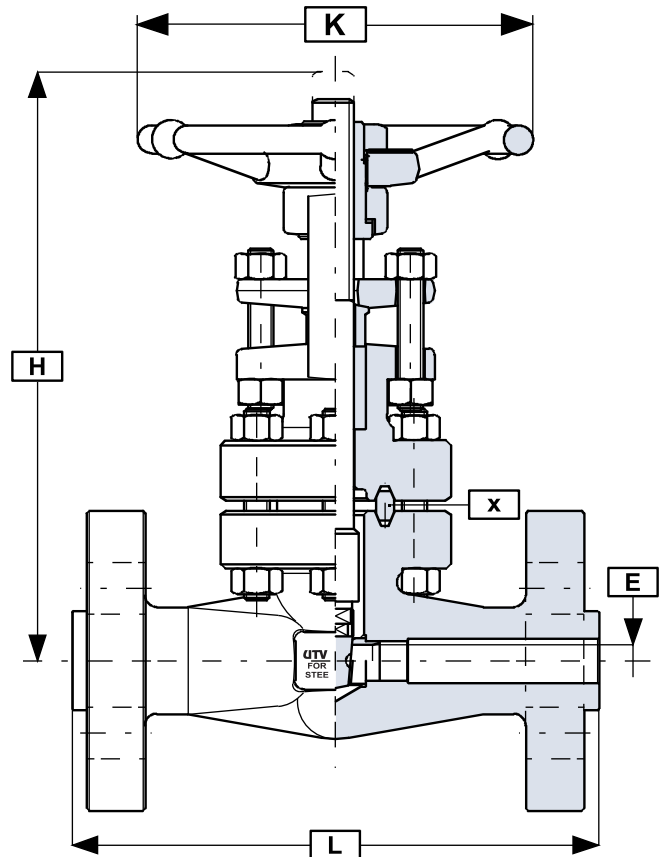
|                             |                             |
|-----------------------------|-----------------------------|
| <b>Hydraulic: (minimum)</b> | <b>Hydraulic: (minimum)</b> |
| Body - 5575 p.s.i.          | Body - 9275 p.s.i.          |
| Seat - 4100 p.s.i.          | Seat - 6800 p.s.i.          |
| <b>Air under water:</b>     | <b>Air under water:</b>     |
| Seat - 85 p.s.i.            | Seat - 85 p.s.i.            |

### Standards

|                     |                         |
|---------------------|-------------------------|
| <b>Construction</b> | BS 5352                 |
| <b>Flanged</b>      | ASME B16.5, ASME B16.10 |
| <b>Test</b>         | API 598-ASME B16.34     |

### Connections

|                              |                        |
|------------------------------|------------------------|
| <b>RF</b> Raised face (std.) | <b>LF</b> Large female |
| <b>RJ</b> Ring joint         | <b>LG</b> Large groove |
| <b>SF</b> Small female       | <b>LM</b> Large male   |
| <b>SG</b> Small groove       | <b>LT</b> Large tongue |
| <b>SM</b> Small male         |                        |
| <b>ST</b> Small tongue       |                        |



### STANDARD BORE 1500#

|                   |  |  | 1/2"       | 3/4"       | 1"          |  | 1.1/2"      | 2"          |
|-------------------|--|--|------------|------------|-------------|--|-------------|-------------|
| <b>L (mm/in)</b>  |  |  | 215,9 8,50 | 228,6 9,00 | 254,0 10,00 |  | 304,8 12,00 | 368,3 14,50 |
| <b>H (mm/in)</b>  |  |  | 212 8,35   | 256 10,08  | 272 10,71   |  | 411 16,18   | 422 16,61   |
| <b>K (mm/in)</b>  |  |  | 120 4,72   | 175 6,89   | 175 6,89    |  | 260 10,24   | 260 10,24   |
| <b>E (mm/in)</b>  |  |  | 11,5 0,45  | 15 0,59    | 19,5 0,77   |  | 32 1,26     | 40 1,57     |
| <b>Wt.(kg/lb)</b> |  |  | 9,7 21,3   | 15,5 34,1  | 17,5 38,5   |  | 38,5 84,7   | 56,0 123,2  |
| <b>Catal.no.</b>  |  |  |            |            |             |  |             |             |

### STANDARD BORE 2500#

|                   |  |  | 1/2"        | 3/4"        | 1"          |  | 1.1/2"      | 2"          |
|-------------------|--|--|-------------|-------------|-------------|--|-------------|-------------|
| <b>L (mm/in)</b>  |  |  | 263,5 10,37 | 273,0 10,75 | 308,0 12,13 |  | 384,2 15,13 | 450,8 17,75 |
| <b>H (mm/in)</b>  |  |  | 212 8,35    | 256 10,08   | 272 10,71   |  | 411 16,18   | 422 16,61   |
| <b>K (mm/in)</b>  |  |  | 140 5,51    | 200 7,87    | 200 7,87    |  | 260 10,24   | 350 13,77   |
| <b>E (mm/in)</b>  |  |  | 10 0,39     | 14 0,55     | 18 0,71     |  | 31 12,21    | 36,5 1,44   |
| <b>Wt.(kg/lb)</b> |  |  | 9,9 21,8    | 15,8 34,8   | 17,9 39,4   |  | 39,1 86,3   | 56,8 125,0  |
| <b>Catal.no.</b>  |  |  |             |             |             |  |             |             |

## GATE VALVES-1500#-Welded Bonnet-Socket Weld, Butt Welded

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

1500 p.s.i. @ 850°F  
 3705 p.s.i. @ 100°F

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 5575 p.s.i.  
 Seat - 4100 p.s.i.

#### Air under water:

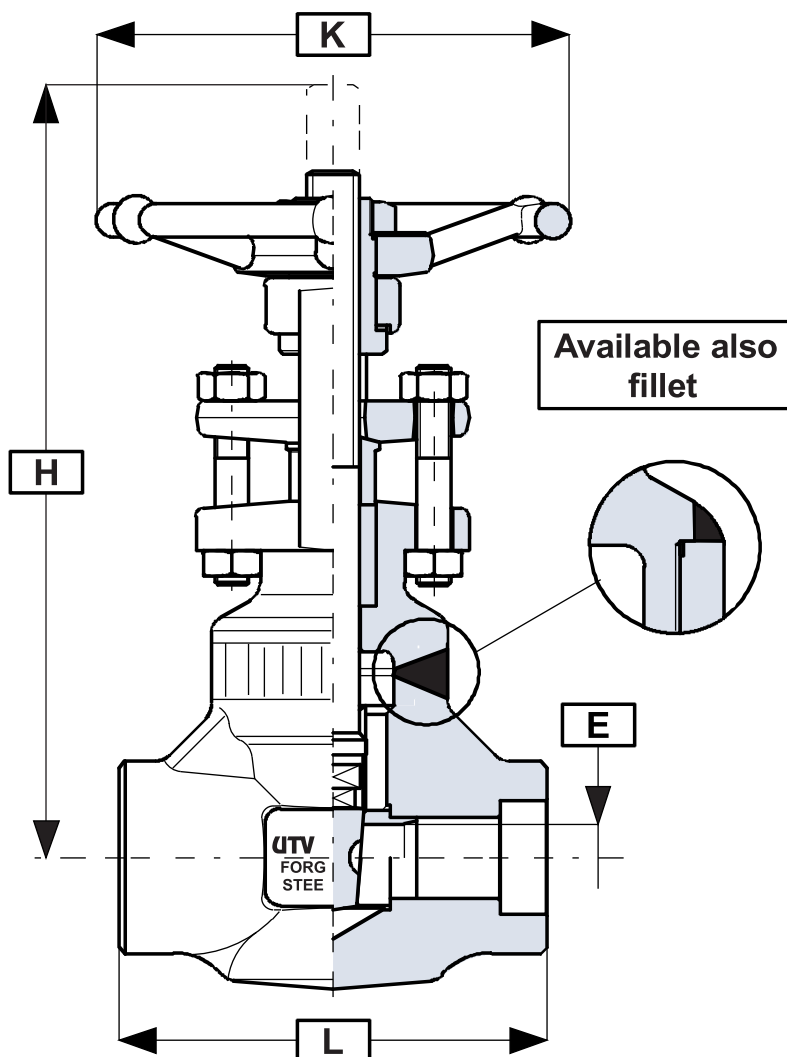
Seat - 85 p.s.i.

### Standards

|              |                |
|--------------|----------------|
| Construction | BS 5352        |
| Socket weld  | ASME B16.11    |
| Threaded     | ASME B1.20.1   |
| Butt weld    | ASME B16.25    |
| Test         | BS 6755 (Pt.1) |

### Connections

|                         |                        |
|-------------------------|------------------------|
| <b>SW</b> Socket weld   | <b>B8</b> Butt weld 80 |
| <b>TH</b> threaded NPT  |                        |
| <b>TS</b> Sw/NPT        |                        |
| <b>SE</b> Sw(e)/NPT     |                        |
| <b>SU</b> Sw(u)/NPT     |                        |
| <b>B6</b> Butt weld 160 |                        |



### STANDARD BORE

|                   |  |  | 1/2"             | 3/4"            | 1"               |  | 1.1/2"           | 2"               |
|-------------------|--|--|------------------|-----------------|------------------|--|------------------|------------------|
| <b>L (mm/in)</b>  |  |  | <b>90</b> 3,54   | <b>110</b> 4,33 | <b>127</b> 5,00  |  | <b>130</b> 5,12  | <b>150</b> 5,90  |
| <b>H (mm/in)</b>  |  |  | <b>175</b> 6,88  | <b>217</b> 8,54 | <b>234</b> 9,54  |  | <b>295</b> 11,61 | <b>375</b> 14,76 |
| <b>K (mm/in)</b>  |  |  | <b>120</b> 4,72  | <b>175</b> 6,89 | <b>175</b> 6,89  |  | <b>200</b> 7,87  | <b>260</b> 10,24 |
| <b>E (mm/in)</b>  |  |  | <b>11,5</b> 0,45 | <b>15</b> 0,59  | <b>19,5</b> 0,77 |  | <b>32</b> 1,26   | <b>40</b> 1,57   |
| <b>Wt.(kg/lb)</b> |  |  | <b>2,0</b> 4,4   | <b>3,2</b> 7,0  | <b>4,9</b> 10,8  |  | <b>8,5</b> 18,7  | <b>15</b> 33     |
| <b>Catal.no.</b>  |  |  |                  |                 |                  |  |                  |                  |

## GATE VALVES-1500/2500-Bolted Bonnet-Socket Weld, Butt Weld

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22,     |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

2500 p.s.i. @ 850°F  
6170 p.s.i. @ 100°F

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 9275 p.s.i.  
Seat - 6800 p.s.i.

#### Air under water:

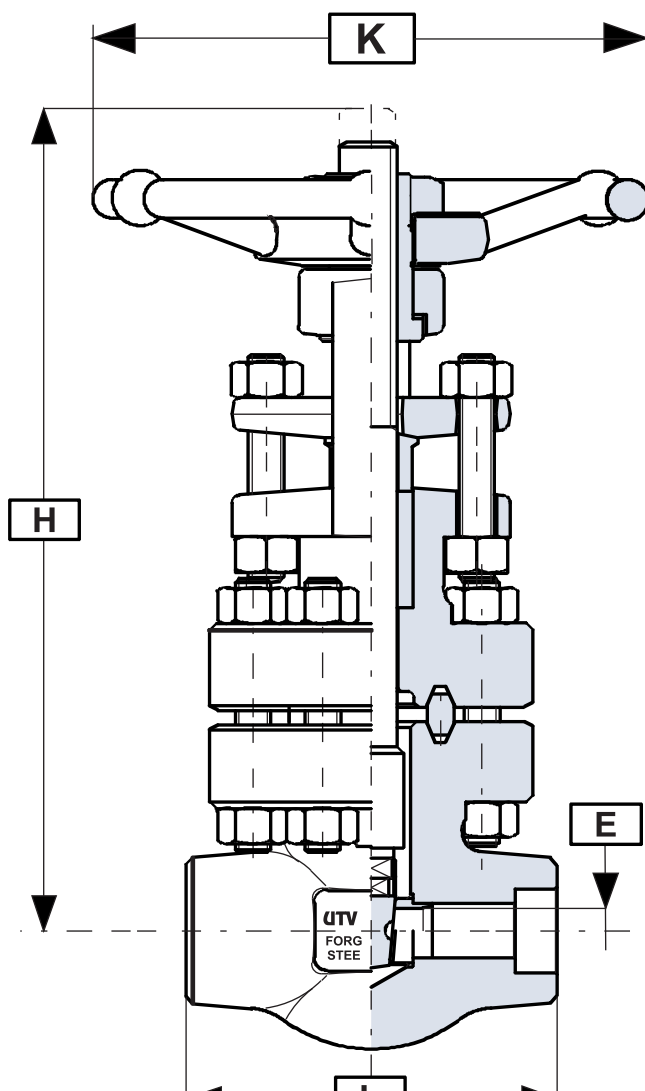
Seat - 85 p.s.i.

### Standards

|                     |                               |
|---------------------|-------------------------------|
| <b>Construction</b> | <i>founded on</i> ASME B16.34 |
| <b>Socket weld</b>  | ASME B16.11                   |
| <b>Threaded</b>     | ASME B1.20.1                  |
| <b>Butt weld</b>    | ASME B16.25                   |
| <b>Test</b>         | API 598-ASME B16.34           |

### Connections

|           |               |
|-----------|---------------|
| <b>SW</b> | Socket weld   |
| <b>TH</b> | Threaded NPT  |
| <b>TS</b> | Sw/NPT        |
| <b>SE</b> | Sw(e)/NPT     |
| <b>SU</b> | Sw8u)/NPT     |
| <b>B6</b> | Butt weld 160 |



### STANDARD BORE

|                   |  |  | 1/2"            | 3/4"             | 1"               |  | 1.1/2"           | 2"               |
|-------------------|--|--|-----------------|------------------|------------------|--|------------------|------------------|
| <b>L (mm/in)</b>  |  |  | <b>110</b> 4,33 | <b>115</b> 4,53  | <b>130</b> 5,12  |  | <b>210</b> 8,27  | <b>240</b> 9,45  |
| <b>H (mm/in)</b>  |  |  | <b>212</b> 8,35 | <b>256</b> 10,08 | <b>272</b> 10,71 |  | <b>411</b> 16,18 | <b>422</b> 16,61 |
| <b>K (mm/in)</b>  |  |  | <b>140</b> 5,51 | <b>200</b> 7,87  | <b>200</b> 7,87  |  | <b>260</b> 10,24 | <b>350</b> 13,77 |
| <b>E (mm/in)</b>  |  |  | <b>10</b> 0,48  | <b>14</b> 0,55   | <b>18</b> 0,71   |  | <b>31</b> 1,22   | <b>36,5</b> 1,44 |
| <b>Wt.(kg/lb)</b> |  |  | <b>6,1</b> 13,4 | <b>8,7</b> 19,1  | <b>10,2</b> 22,4 |  | <b>27,4</b> 60,3 | <b>36,2</b> 79,6 |
| <b>Catal.no.</b>  |  |  |                 |                  |                  |  |                  |                  |



## GATE VALVES-800-Extended Bolted Bonnet-Socket Weld/ NPT-BW

### MATERIAL SPECIFICATIONS

| NO. | Part Name                  | Material                                      |                 |       |
|-----|----------------------------|-----------------------------------------------|-----------------|-------|
| 1.  | Body                       | A 105                                         | F 304           | F 316 |
| 2.  | Bonnet                     | A 105                                         | F 304           | F 316 |
| 3.  | Wedge                      | 13%Cr                                         | T304            | T316  |
| 4.  | Seat                       | 13%Cr                                         | T304            | T316  |
| 5.  | Spindle                    | T410                                          | T304            | T316  |
| 6.  | Gland Bush                 | T410                                          | T304            | T316  |
| 7.  | Gland Flange               | A 105                                         | F 304           |       |
| 8.  | Yoke Nut                   | ASTM A 439 Gr.D2/ AL- BRONZE                  |                 |       |
| 9.  | Hand Wheel                 | CAST STEEL                                    |                 |       |
| 10. | Hand Wheel Nut             | Gr. 2H                                        |                 |       |
| 11. | Collar Bolt/<br>Stud & Nut | B7/ 2H                                        | B8/ 8 OR B7/ 2H |       |
| 12. | Eye Bolt & Nut             | B7/ 2H                                        | B8 / 8          |       |
| 13. | Gasket                     | SPW S.S 304/316 WITH CAF/GRAFOIL              |                 |       |
| 14. | Gland Packing              | GRAPHITE ASBESTOS INHIB. & INCONEL WIRE REIN. |                 |       |
| 15. | Screw / Rivet & Washer     | STEEL                                         |                 |       |
| 16. | Bearing Washer             | HARDENED STEEL                                | T304            | T316  |
| 17. | Name Plate                 | ALUMINUM /SS                                  |                 |       |

### DIMENSION TABLE - 800 CLASS - REDUCED BORE

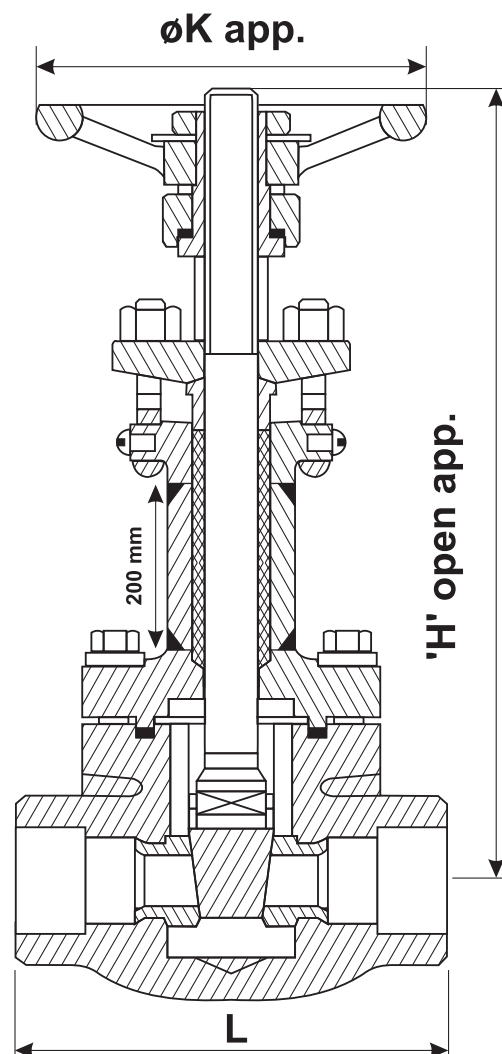
| Valve Size<br>in mm | 0.25<br>08 | 0.37<br>10 | 0.5<br>15 | 0.75<br>20 | 1<br>25  | 1.5<br>40 | 2<br>50    |
|---------------------|------------|------------|-----------|------------|----------|-----------|------------|
| L                   | 3.3<br>85  | 3.3<br>85  | 3.3<br>85 | 3.5<br>90  | 4<br>103 | 5<br>128  | 5.6<br>142 |
| 'H' app             | 165        | 165        | 165       | 175        | 215      | 270       | 285        |
| ØK app              | 95         | 95         | 95        | 95         | 105      | 150       | 150        |
| ØP                  | 6.4        | 6.4        | 9.5       | 12.7       | 17.5     | 28.6      | 36.5       |
| Wt. kg app          | 2.0        | 2.0        | 2.0       | 2.5        | 3.5      | 7.5       | 9.0        |

### REF STANDARDS

MFG. AND DESIGN :BS 5352/API 602

FACE TO FACE : MG STD. / ASME B16.34

INSPECTION AND TESTING:AP1 598/BS 6755



### Ratings (ASTM A105)

800 p.s.i. @ 850°F  
1975 p.s.i. @ 100°F

### Test pressure (ASTM A105)

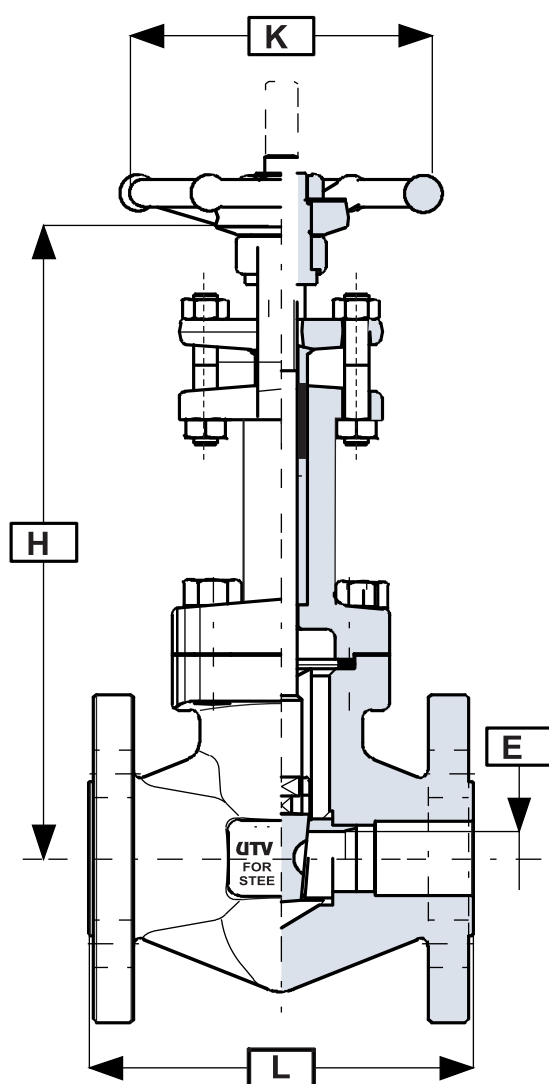
**Hydraulic:** (minimum)

Body - 3000 p.s.i.

Seat - 2175 p.s.i.

**Air under water:**  
not applicable

## GLOBE VALVES-150-Extended Bonnet-Flanged End / BW



### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

150 p.s.i. @ 550°F  
285 p.s.i. @ 100°F

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 450 p.s.i.

Seat - 325 p.s.i.

#### Air under water:

Seat - 85 p.s.i.

### Standards

|                     |                         |
|---------------------|-------------------------|
| <b>Construction</b> | API 602, BS 5352        |
| <b>Flanged</b>      | ASME B16.5, ASME B16.10 |
| <b>Test</b>         | API 598-BS 6755 (Pt.1)  |

### Connections

|           |                    |
|-----------|--------------------|
| <b>RF</b> | Raised face (std.) |
| <b>FF</b> | Flat finish        |

### CONVENTIONAL BORE

|           |  |  | 1/2"       | 3/4"       | 1"         |  | 1 1/2"     | 2"         |
|-----------|--|--|------------|------------|------------|--|------------|------------|
| L (mm/in) |  |  | 107,9 4,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50 | 177,8 7,00 |
| H (mm/in) |  |  | 279 11,05  | 286 11,32  | 308 12,19  |  | 355 14,04  | 373 14,75  |
| K (mm/in) |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51   | 140 5,51   |
| E (mm/in) |  |  | 10 0,39    | 14 0,55    | 18 0,71    |  | 31 1,22    | 36,5 1,44  |

### FULL BORE

|           |  |  | 1/2"       | 3/4"       | 1"         |  | 1 1/2"     | 2"         |
|-----------|--|--|------------|------------|------------|--|------------|------------|
| L (mm/in) |  |  | 107,9 4,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50 | 177,8 7,00 |
| H (mm/in) |  |  | 283 11,20  | 291 11,52  | 316 12,50  |  | 373 14,75  | 414 16,36  |
| K (mm/in) |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51   | 200 7,87   |
| E (mm/in) |  |  | 14 0,55    | 18 0,71    | 24 0,94    |  | 36,5 1,44  | 48 1,89    |

## GLOBE VALVES-150 - Bolted Bonnet - Flanged End/BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

150 p.s.i. @ 550°F  
285 p.s.i. @ 100°F

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 450 p.s.i.  
Seat - 325 p.s.i.

#### Air under water:

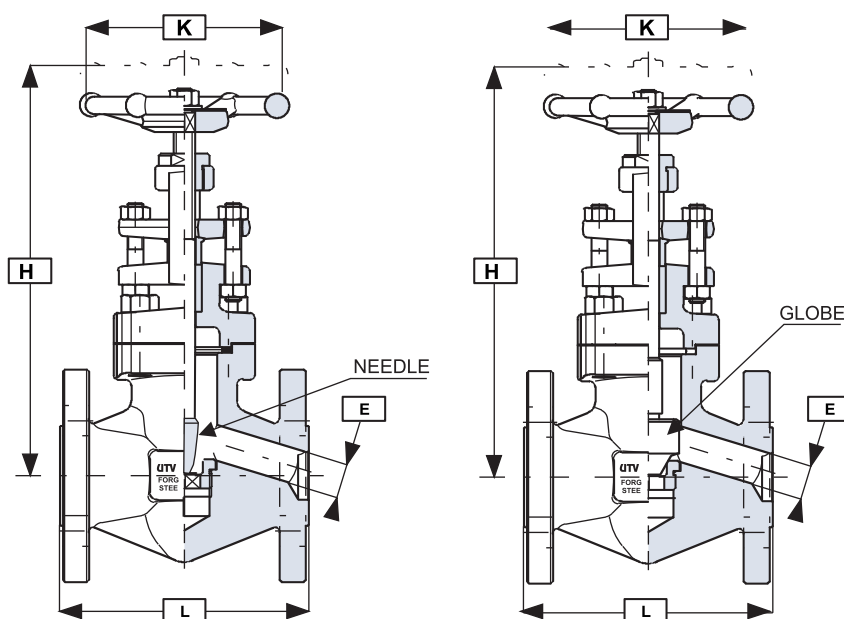
Seat - 85 p.s.i.

### Standards

|              |                         |
|--------------|-------------------------|
| Construction | BS 5352                 |
| Flanged      | ASME B16.5, ASME B16.10 |
| Test         | BS 6755 (Pt.1)          |

### Connections

|    |                    |
|----|--------------------|
| RF | Raised face (std.) |
| FF | Flat finish        |



### REDUCED BORE

|            |  | 1/4"       | 1/2"       | 3/4"       | 1"         |  | 1.1/2"                 | 2"                     |
|------------|--|------------|------------|------------|------------|--|------------------------|------------------------|
| L (mm/in)  |  | 107,9 4,25 | 107,9 4,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50             | 203,2 8,00             |
| H (mm/in)  |  | 186 7,32   | 186 7,32   | 189 7,44   | 203 7,99   |  | 283 11,14              | 314 12,36              |
| K (mm/in)  |  | 90 3,54    | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51               | 140 5,51               |
| E (mm/in)  |  | 9 0,35     | 9 0,35     | 12,5 0,49  | 17,5 0,69  |  | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| Wt.(kg/lb) |  | 3,1 6,8    | 3,1 6,8    | 4 8,8      | 5,7 12,5   |  | 10,6 23,3              | 15,4 33,9              |
| Catal. no. |  |            |            |            |            |  |                        |                        |

### FULL BORE

|            |  | 1/4"      | 1/2"      | 3/4"       | 1"         |  | 1.1/2"     | 2"         |
|------------|--|-----------|-----------|------------|------------|--|------------|------------|
| L (mm/in)  |  | 107,94,25 | 107,94,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50 | 203,2 8,00 |
| H (mm/in)  |  | 1887,40   | 1887,40   | 192 7,56   | 207 8,15   |  | 283 11,14  | 314 12,36  |
| K (mm/in)  |  | 90 3,54   | 90 3,54   | 100 3,94   | 120 4,72   |  | 140 5,51   | 200 7,87   |
| E (mm/in)  |  | 12,50,49  | 12,50,49  | 17,5 0,69  | 22,5 0,89  |  | 32 1,26    | 38 1,57    |
| Wt.(kg/lb) |  | 3 6,6     | 3 6,6     | 3,9 8,6    | 5,6 12,3   |  | 10,6 23,3  | 15,8 34,8  |
| Catal. no. |  |           |           |            |            |  |            |            |

## GLOBE VALVES-300- Bolted Bonnet-Flanged End / BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |

### Ratings (ASTM A105)

|                    |
|--------------------|
| 300 p.s.i. @ 850°F |
| 740 p.s.i. @ 100°F |

### Test pressure (ASTM A105)

#### Hydraulic (minimum)

|                    |
|--------------------|
| Body - 1125 p.s.i. |
| Seat - 825 p.s.i.  |

#### Air under water:

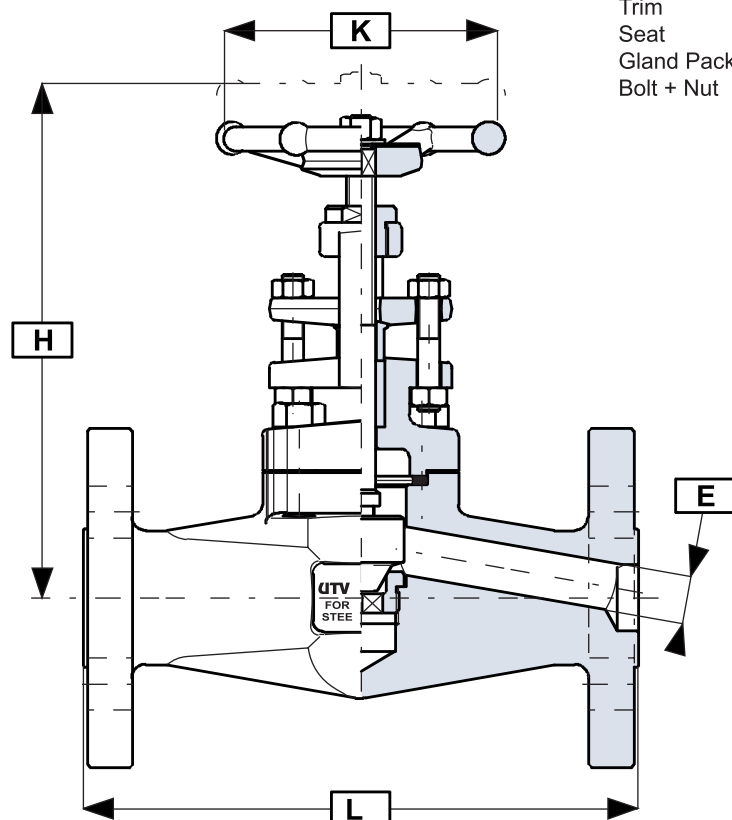
|                  |
|------------------|
| Seat - 85 p.s.i. |
|------------------|

### Standards

|              |                         |
|--------------|-------------------------|
| Construction | BS 5352                 |
| Flanged      | ASME B16.5, ASME B16.10 |
| Test         | BS 6755 (Pt.1)          |

### Connections

|    |                    |    |              |
|----|--------------------|----|--------------|
| RF | Raised face (std.) | LF | Large female |
| RJ | Ring joint         | LG | Large groove |
| SF | Small female       | LM | Large male   |
| SG | Small groove       | LT | Large tongue |
| SM | Small male         |    |              |
| ST | Small tongue       |    |              |



### REDUCED BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"                 | 2"                     |
|-------------|--|--|------------|------------|------------|--|------------------------|------------------------|
| L (mm/in)   |  |  | 152,4 5,98 | 177,8 7,00 | 203,2 8,00 |  | 228,6 9,00             | 266,7 10,50            |
| H (mm/in)   |  |  | 152 5,98   | 159 6,26   | 182 7,17   |  | 283 11,14              | 306 12,05              |
| K (mm/in)   |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51               | 140 5,51               |
| E (mm/in)   |  |  | 9 0,35     | 12,5 0,49  | 17,5 0,69  |  | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| Wt. (kg/lb) |  |  | 3,4 7,5    | 4,8 10,6   | 7,0 15,4   |  | 14,2 31,2              | 17,4 38,3              |
| Catal. no.  |  |  |            |            |            |  |                        |                        |

### FULL BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"          |
|-------------|--|--|------------|------------|------------|--|------------|-------------|
| L (mm/in)   |  |  | 152,4 5,98 | 177,8 7,00 | 203,2 8,00 |  | 228,6 9,00 | 266,7 10,50 |
| H (mm/in)   |  |  | 152 5,98   | 159 6,26   | 182 7,17   |  | 283 11,14  | 306 12,05   |
| K (mm/in)   |  |  | 90 3,54    | 100 3,94   | 120 4,72   |  | 140 5,51   | 200 7,87    |
| E (mm/in)   |  |  | 13 0,51    | 17,5 0,69  | 22,5 0,89  |  | 34 1,34    | 45 1,77     |
| Wt. (kg/lb) |  |  | 3,4 7,5    | 4,8 10,6   | 7,0 15,4   |  | 14,2 31,2  | 17,4 38,3   |
| Catal.      |  |  |            |            |            |  |            |             |



## GLOBE VALVES-1500/2500-Welded Bonnet T-type - Socket Weld/ NPT-BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

1500 p.s.i. @ 850°F  
3705 p.s.i. @ 100°F

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 5575 p.s.i.

Seat - 4100 p.s.i.

#### Air under water:

Seat - 85 p.s.i.

### Standards

|                     |                |
|---------------------|----------------|
| <b>Construction</b> | BS 5352        |
| <b>Socket weld</b>  | ASME B16.11    |
| <b>Threaded</b>     | ASME B1.20.1   |
| <b>Butt weld</b>    | ASME B16.25    |
| <b>Test</b>         | BS 6755 (Pt.1) |

### Connections

|           |               |           |              |
|-----------|---------------|-----------|--------------|
| <b>SW</b> | Socket weld   | <b>B8</b> | Butt weld 80 |
| <b>TH</b> | threaded NPT  |           |              |
| <b>TS</b> | Sw/NPT        |           |              |
| <b>SE</b> | Sw(e)/NPT     |           |              |
| <b>SU</b> | Sw(u)/NPT     |           |              |
| <b>B6</b> | Butt weld 160 |           |              |



## GLOBE VALVES-300- Bolted Bonnet-Flanged End / BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |

### Ratings (ASTM A105)

300 p.s.i. @ 850°F  
740 p.s.i. @ 100°F

### Test pressure (ASTM A105)

#### Hydraulic (minimum)

Body - 1125 p.s.i.

Seat - 825 p.s.i.

#### Air under water:

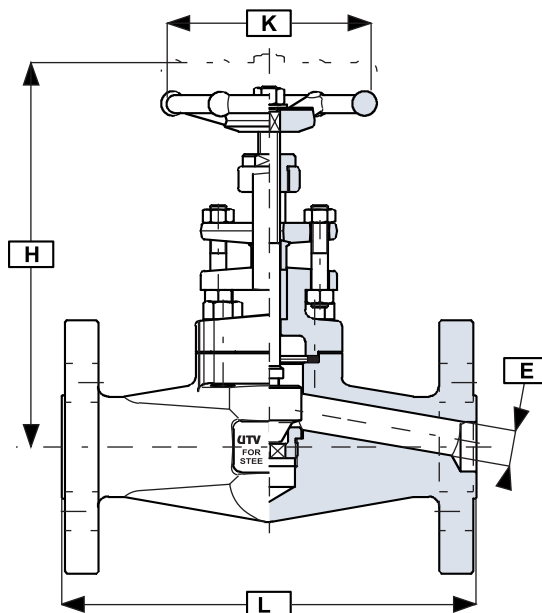
Seat - 85 p.s.i.

### Standards

|              |                         |
|--------------|-------------------------|
| Construction | BS 5352                 |
| Flanged      | ASME B16.5, ASME B16.10 |
| Test         | BS 6755 (Pt.1)          |

### Connections

|    |                    |    |              |
|----|--------------------|----|--------------|
| RF | Raised face (std.) | LF | Large female |
| RJ | Ring joint         | LG | Large groove |
| SF | Small female       | LM | Large male   |
| SG | Small groove       | LT | Large tongue |
| SM | Small male         |    |              |
| ST | Small tongue       |    |              |



### REDUCED BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1 1/2"                 | 2"                     |
|-------------|--|--|------------|------------|------------|--|------------------------|------------------------|
| L (mm/in)   |  |  | 152,4 5,98 | 177,8 7,00 | 203,2 8,00 |  | 228,6 9,00             | 266,7 10,50            |
| H (mm/in)   |  |  | 152 5,98   | 159 6,26   | 182 7,17   |  | 283 11,14              | 306 12,05              |
| K (mm/in)   |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51               | 140 5,51               |
| E (mm/in)   |  |  | 9 0,35     | 12,5 0,49  | 17,5 0,69  |  | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| Wt. (kg/lb) |  |  | 3,4 7,5    | 4,8 10,6   | 7,0 15,4   |  | 14,2 31,2              | 17,4 38,3              |
| Catal. no.  |  |  |            |            |            |  |                        |                        |

### FULL BORE

|             |  |  | 1/2"       | 3/4"       | 1"         |  | 1 1/2"     | 2"          |
|-------------|--|--|------------|------------|------------|--|------------|-------------|
| L (mm/in)   |  |  | 152,4 5,98 | 177,8 7,00 | 203,2 8,00 |  | 228,6 9,00 | 266,7 10,50 |
| H (mm/in)   |  |  | 152 5,98   | 159 6,26   | 182 7,17   |  | 283 11,14  | 306 12,05   |
| K (mm/in)   |  |  | 90 3,54    | 100 3,94   | 120 4,72   |  | 140 5,51   | 200 7,87    |
| E (mm/in)   |  |  | 13 0,51    | 17,5 0,69  | 22,5 0,89  |  | 34 1,34    | 45 1,77     |
| Wt. (kg/lb) |  |  | 3,4 7,5    | 4,8 10,6   | 7,0 15,4   |  | 14,2 31,2  | 17,4 38,3   |
| Catal. no.  |  |  |            |            |            |  |            |             |

*True Definition Of Safety And Reliability*

## GLOBE VALVES-600-Bolted Bonnet Flanged End / BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |

### Ratings (ASTM A105)

|                     |
|---------------------|
| 600 p.s.i. @ 850°F  |
| 1480 p.s.i. @ 100°F |

### Test pressure (ASTM A105)

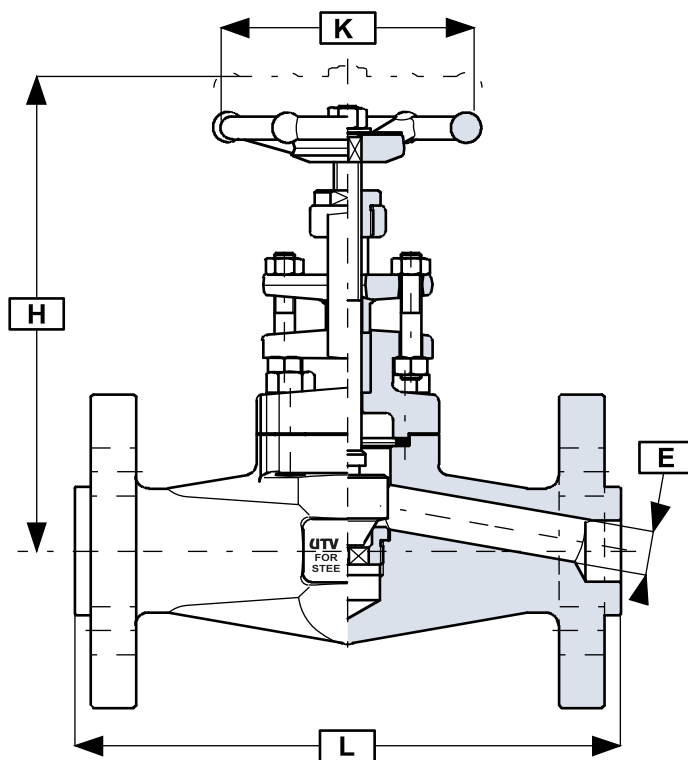
|                             |
|-----------------------------|
| <b>Hydraulic:</b> (minimum) |
| Body - 2225 p.s.i.          |
| Seat - 1650 p.s.i.          |
| <b>Air under water:</b>     |
| Seat - 85 p.s.i.            |

### Standards

|                     |                         |
|---------------------|-------------------------|
| <b>Construction</b> | BS 5352                 |
| <b>Flanged</b>      | ASME B16.5, ASME B16.10 |
| <b>Test</b>         | BS 6755 (Pt.1)          |

### Connections

|                              |                        |
|------------------------------|------------------------|
| <b>RF</b> Raised face (std.) | <b>LF</b> Large female |
| <b>RJ</b> Ring joint         | <b>LG</b> Large groove |
| <b>SF</b> Small female       | <b>LM</b> Large male   |
| <b>SG</b> Small groove       | <b>LT</b> Large tongue |
| <b>SM</b> Small male         |                        |
| <b>ST</b> Small tongue       |                        |



### REDUCED BORE

|                   |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"                 | 2"                     |
|-------------------|--|--|------------|------------|------------|--|------------------------|------------------------|
| <b>L (mm/in)</b>  |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50             | 292,1 11,50            |
| <b>H (mm/in)</b>  |  |  | 152 5,98   | 159 6,26   | 182 7,17   |  | 283 11,14              | 306 12,05              |
| <b>K (mm/in)</b>  |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51               | 140 5,51               |
| <b>E (mm/in)</b>  |  |  | 9 0,35     | 12,5 0,49  | 17,5 0,69  |  | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| <b>Wt.(kg/lb)</b> |  |  | 3,6 7,9    | 5,1 11,2   | 7,8 17,2   |  | 14,2 31,2              | 19,4 42,7              |
| <b>Catal.no.</b>  |  |  |            |            |            |  |                        |                        |

### FULL BORE

|                   |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"          |
|-------------------|--|--|------------|------------|------------|--|------------|-------------|
| <b>Ff (mm/in)</b> |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50 | 292,1 11,50 |
| <b>Ha (mm/in)</b> |  |  | 159 6,26   | 182 7,17   | 214 8,43   |  | 306 12,05  | 327 12,87   |
| <b>VI (mm/in)</b> |  |  | 90 3,54    | 100 3,94   | 120 4,72   |  | 140 5,51   | 200 7,87    |
| <b>Pf (mm/in)</b> |  |  | 12 0,47    | 17,5 0,69  | 22,5 0,89  |  | 34 1,34    | 45 1,77     |
| <b>Wt.(kg/lb)</b> |  |  | 3,8 8,4    | 6,8 15,0   | 10,3 22,7  |  | 17,8 39,2  | 26,8 59,0   |
| <b>Catal.no.</b>  |  |  |            |            |            |  |            |             |



## GLOBE VALVES-1500/2500-Bolted Bonnet Flanged End / BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, Inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |

### Ratings (ASTM A105)

|                     |
|---------------------|
| 600 p.s.i. @ 850°F  |
| 1480 p.s.i. @ 100°F |

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 2225 p.s.i.

Seat - 1650 p.s.i.

#### Air under water:

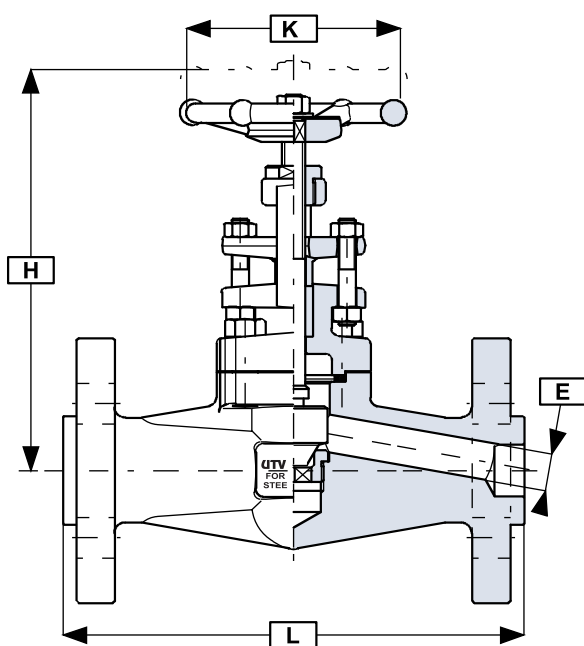
Seat - 85 p.s.i.

### Standards

|              |                         |
|--------------|-------------------------|
| Construction | BS 5352                 |
| Flanged      | ASME B16.5, ASME B16.10 |
| Test         | BS 6755 (Pt.1)          |

### Connections

|           |                    |           |              |
|-----------|--------------------|-----------|--------------|
| <b>RF</b> | Raised face (std.) | <b>LF</b> | Large female |
| <b>RJ</b> | Ring joint         | <b>LG</b> | Large groove |
| <b>SF</b> | Small female       | <b>LM</b> | Large male   |
| <b>SG</b> | Small groove       | <b>LT</b> | Large tongue |
| <b>SM</b> | Small male         |           |              |
| <b>ST</b> | Small tongue       |           |              |



### REDUCED BORE

|                   |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"                 | 2"                     |
|-------------------|--|--|------------|------------|------------|--|------------------------|------------------------|
| <b>L (mm/in)</b>  |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50             | 292,1 11,50            |
| <b>H (mm/in)</b>  |  |  | 152 5,98   | 159 6,26   | 182 7,17   |  | 283 11,14              | 306 12,05              |
| <b>K (mm/in)</b>  |  |  | 90 3,54    | 90 3,54    | 100 3,94   |  | 140 5,51               | 140 5,51               |
| <b>E (mm/in)</b>  |  |  | 9 0,35     | 12,5 0,49  | 17,5 0,69  |  | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| <b>Wt.(kg/lb)</b> |  |  | 3,6 7,9    | 5,1 11,2   | 7,8 17,2   |  | 14,2 31,2              | 19,4 42,7              |
| <b>Catal.no.</b>  |  |  |            |            |            |  |                        |                        |

### FULL BORE

|                   |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"          |
|-------------------|--|--|------------|------------|------------|--|------------|-------------|
| <b>Ff (mm/in)</b> |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50 | 292,1 11,50 |
| <b>Ha (mm/in)</b> |  |  | 159 6,26   | 182 7,17   | 214 8,43   |  | 306 12,05  | 327 12,87   |
| <b>VI (mm/in)</b> |  |  | 90 3,54    | 100 3,94   | 120 4,72   |  | 140 5,51   | 200 7,87    |
| <b>Pf (mm/in)</b> |  |  | 12 0,47    | 17,5 0,69  | 22,5 0,89  |  | 34 1,34    | 45 1,77     |
| <b>Wt.(kg/lb)</b> |  |  | 3,8 8,4    | 6,8 15,0   | 10,3 22,7  |  | 17,8 39,2  | 26,8 59,0   |
| <b>Catal.no.</b>  |  |  |            |            |            |  |            |             |

## GLOBE VALVES-1500-Bolted Bonnet T-type - Socket Weld/ NPT-BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |

### Ratings (ASTM A105) CL.1500/2500

|                     |                     |
|---------------------|---------------------|
| 1500 p.s.i. @ 850°F | 2500 p.s.i. @ 850°F |
| 3705 p.s.i. @ 100°F | 6170 p.s.i. @ 100°F |

### Test pressure (ASTM A105) CL.1500/2500

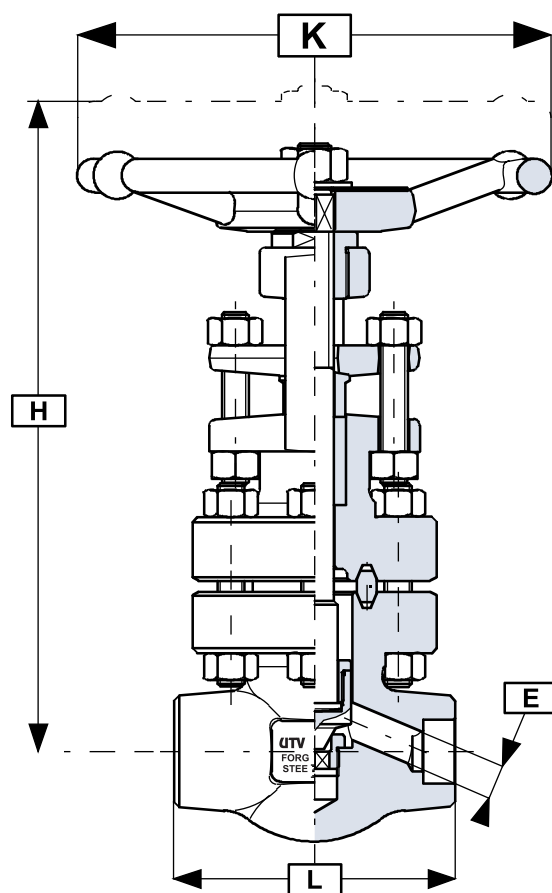
|                             |                             |
|-----------------------------|-----------------------------|
| <b>Hydraulic: (minimum)</b> | <b>Hydraulic: (minimum)</b> |
| Body - 5575 p.s.i.          | Body - 9275 p.s.i.          |
| Seat - 4100 p.s.i.          | Seat - 6800 p.s.i.          |
| <b>Air under water:</b>     | <b>Air under water:</b>     |
| Seat - 85 p.s.i.            | Seat - 85 p.s.i.            |

### Standards

|                     |                |
|---------------------|----------------|
| <b>Construction</b> | BS 5352        |
| <b>Socket weld</b>  | ASME B16.11    |
| <b>Threaded</b>     | ASME B1.20.1   |
| <b>Butt weld</b>    | ASME B16.25    |
| <b>Test</b>         | BS 6755 (Pt.1) |

### Connections

|                         |                        |
|-------------------------|------------------------|
| <b>SW</b> Socket weld   | <b>B8</b> Butt weld 80 |
| <b>TH</b> Threaded NPT  |                        |
| <b>TS</b> Sw/NPT        |                        |
| <b>SE</b> Sw (in)/NPT   |                        |
| <b>SU</b> Sw (out)/NPT  |                        |
| <b>B6</b> Butt weld 160 |                        |



### REDUCE BORE 1500

|            |  |  | 1/2"     | 3/4"      | 1"        |  | 1.1/2"    | 2"        |
|------------|--|--|----------|-----------|-----------|--|-----------|-----------|
| L (mm/in)  |  |  | 110 4,33 | 115 4,53  | 130 5,12  |  | 210 8,27  | 240 9,45  |
| H (mm/in)  |  |  | 218 8,58 | 274 10,79 | 286 11,26 |  | 427 16,8  | 433 17,05 |
| K (mm/in)  |  |  | 120 4,72 | 175 6,89  | 175 6,89  |  | 260 10,24 | 260 10,24 |
| E (mm/in)  |  |  | 11 0,43  | 14,5 0,57 | 19 0,75   |  | 31 1,22   | 37,5 1,48 |
| Wt.(kg/lb) |  |  | 5,6 12,3 | 8,0 17,6  | 9,3 20,5  |  | 26,2 57,6 | 34,5 75,9 |

### REDUCE BORE 2500

|            |  |  | 1/2"     | 3/4"      | 1"        |  | 1.1/2"    | 2"        |
|------------|--|--|----------|-----------|-----------|--|-----------|-----------|
| L (mm/in)  |  |  | 110 4,33 | 115 4,52  | 130 5,12  |  | 210 8,27  | 240 9,45  |
| H (mm/in)  |  |  | 218 8,58 | 260 10,24 | 268 10,55 |  | 427 16,81 | 433 17,05 |
| K (mm/in)  |  |  | 140 5,51 | 200 7,87  | 200 7,87  |  | 260 10,24 | 350 13,77 |
| E (mm/in)  |  |  | 10 0,39  | 13 0,51   | 18 0,71   |  | 25 0,98   | 34 1,33   |
| Wt.(kg/lb) |  |  | 5,8 13,0 | 8,3 18,3  | 9,7 21,3  |  | 26,8 59,0 | 35,3 77,7 |

## GLOBE VALVES-1500/2500-Welded Bonnet T-type - Socket Weld/ NPT-BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTMA105)

2500 p.s.i. @ 850°F  
6170 p.s.i. @ 100°F

### Test pressure (ASTMA105)

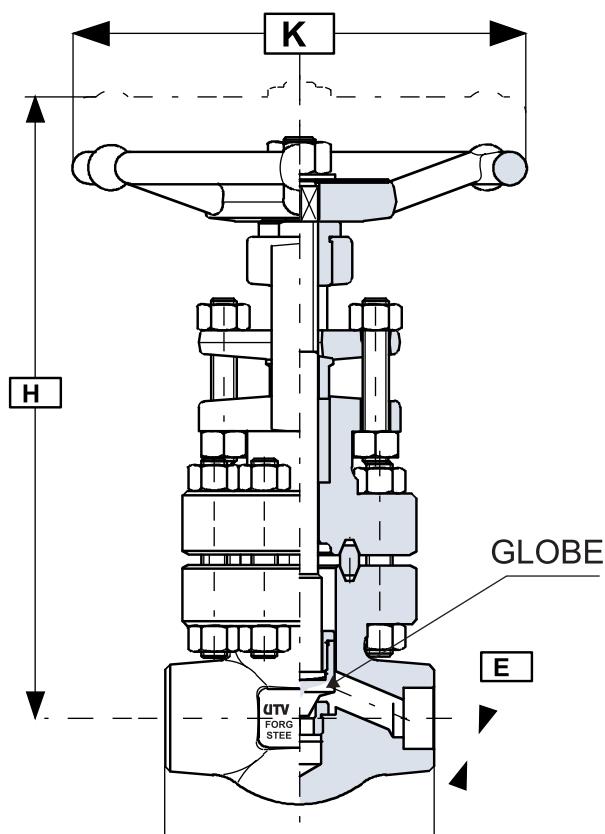
**Hydraulic:** (minimum)  
Body -9275 p.s.i.  
Seat - 6800 p.s.i.  
**Air under water:**  
Seat - 85 p.s.i.

### Standards

|                     |                        |
|---------------------|------------------------|
| <b>Construction</b> | founded on ASME B16.34 |
| <b>Socket weld</b>  | ASME B16.11            |
| <b>Threaded</b>     | ASME B1.20.1           |
| <b>Butt weld</b>    | ASME B16.25            |
| <b>Test</b>         | API 598-ASME B16.34    |

### Connections

|           |               |
|-----------|---------------|
| <b>SW</b> | Socket weld   |
| <b>TH</b> | Threaded NPT  |
| <b>TS</b> | Sw/NPT        |
| <b>SE</b> | Sw(in)/NPT    |
| <b>SU</b> | Sw(out)/NPT   |
| <b>B4</b> | Butt weld 160 |



### STANDARD BORE

|                   |  |  | 1/2"     | 3/4"      | 1"        |  | 1.1/2"    | 2"        |
|-------------------|--|--|----------|-----------|-----------|--|-----------|-----------|
| <b>L (mm/in)</b>  |  |  | 110 4,33 | 115 4,52  | 130 5,12  |  | 210 8,27  | 240 9,45  |
| <b>H (mm/in)</b>  |  |  | 218 8,58 | 260 10,24 | 268 10,55 |  | 427 16,81 | 433 17,05 |
| <b>K (mm/in)</b>  |  |  | 140 5,51 | 200 7,87  | 200 7,87  |  | 260 10,24 | 350 13,77 |
| <b>E (mm/in)</b>  |  |  | 10 0,39  | 13 0,51   | 18 0,71   |  | 25 0,98   | 34 1,33   |
| <b>Wt.(kg/lb)</b> |  |  | 5,8 13,0 | 8,3 18,3  | 9,7 21,3  |  | 26,8 59,0 | 35,3 77,7 |
| <b>Catal. no.</b> |  |  |          |           |           |  |           |           |

## GLOBE VALVES-2500-Bolted Bonnet T-type - Socket Weld/ NPT-BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Wedge         | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |
| Gasket        | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

2500 p.s.i. @ 850°F  
6170 p.s.i. @ 100°F

### Test pressure (ASTM A105)

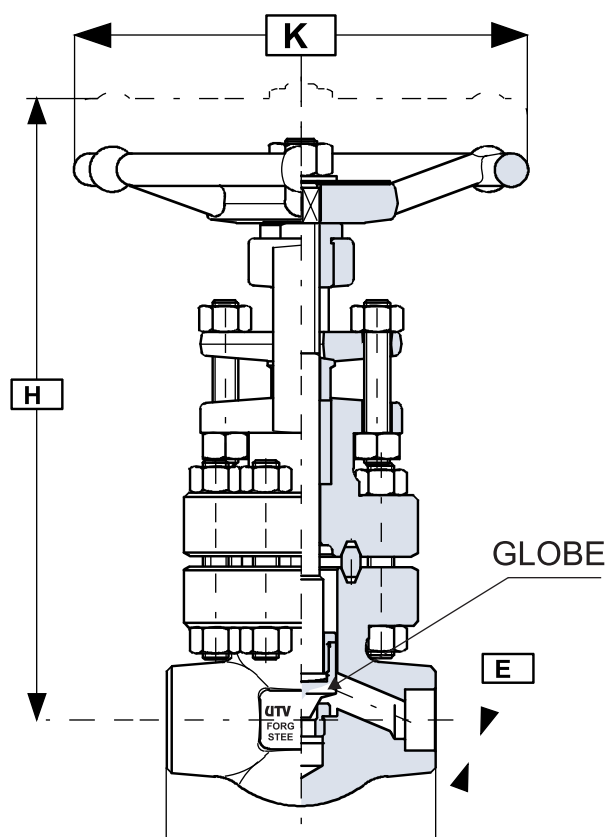
**Hydraulic:** (minimum)  
Body - 9275 p.s.i.  
Seat - 6800 p.s.i.  
**Air under water:**  
Seat - 85 p.s.i.

### Standards

|                     |                        |
|---------------------|------------------------|
| <b>Construction</b> | founded on ASME B16.34 |
| <b>Socket weld</b>  | ASME B16.11            |
| <b>Threaded</b>     | ASME B1.20.1           |
| <b>Butt weld</b>    | ASME B16.25            |
| <b>Test</b>         | API 598-ASME B16.34    |

### Connections

|           |               |
|-----------|---------------|
| <b>SW</b> | Socket weld   |
| <b>TH</b> | Threaded NPT  |
| <b>TS</b> | Sw/NPT        |
| <b>SE</b> | Sw(in)/NPT    |
| <b>SU</b> | Sw(out)/NPT   |
| <b>B4</b> | Butt weld 160 |



### STANDARD BORE

|                    |  |  | 1/2"     | 3/4"      | 1"        |  | 1.1/2"    | 2"        |
|--------------------|--|--|----------|-----------|-----------|--|-----------|-----------|
| <b>L</b> (mm/in)   |  |  | 110 4,33 | 115 4,52  | 130 5,12  |  | 210 8,27  | 240 9,45  |
| <b>H</b> (mm/in)   |  |  | 218 8,58 | 260 10,24 | 268 10,55 |  | 427 16,81 | 433 17,05 |
| <b>K</b> (mm/in)   |  |  | 140 5,51 | 200 7,87  | 200 7,87  |  | 260 10,24 | 350 13,77 |
| <b>E</b> (mm/in)   |  |  | 10 0,39  | 13 0,51   | 18 0,71   |  | 25 0,98   | 34 1,33   |
| <b>Wt.</b> (kg/lb) |  |  | 5,8 13,0 | 8,3 18,3  | 9,7 21,3  |  | 26,8 59,0 | 35,3 77,7 |
| <b>Catal. no.</b>  |  |  |          |           |           |  |           |           |

## GLOBE VALVES-2500/3000-Bolted Bonnet T-type - Socket Weld/ NPT-BW

### Material of Construction

|               |                                                        |
|---------------|--------------------------------------------------------|
| Body          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Bonnet        | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug          | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Trim          | : ASTM A82 Gr. F6, 11, 12, 8, 5                        |
| Seat          | : HF Stellite                                          |
| Gland Packing | : Graphite Asbestos, INHIB, inconel wire rein          |
| Bolt + Nut    | : B7/2H - B8/8 or B7/2H                                |

### Ratings (ASTM A105)

|                     |
|---------------------|
| 2500 p.s.i. @ 850°F |
| 6170 p.s.i. @ 100°F |

### Test pressure (ASTM A105)

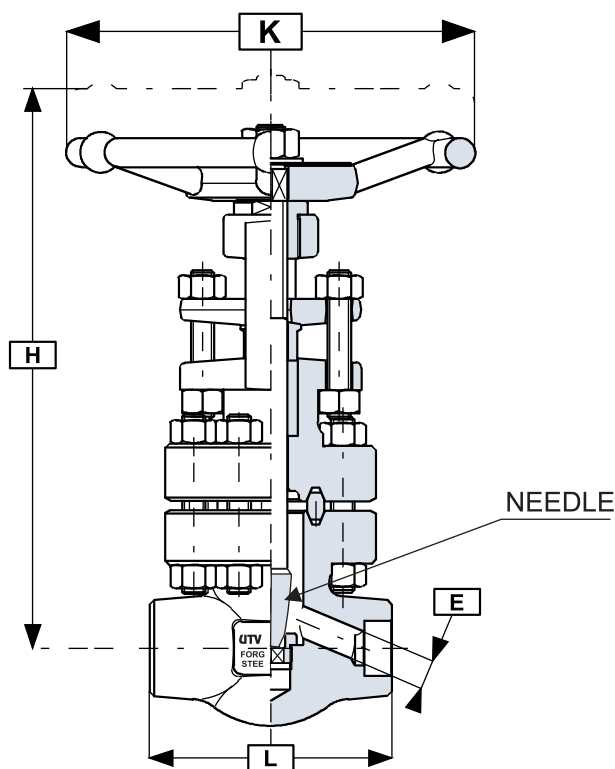
|                             |
|-----------------------------|
| <b>Hydraulic:</b> (minimum) |
| Body - 9275 p.s.i.          |
| Seat - 6800 p.s.i.          |
| <b>Air under water:</b>     |
| Seat - 85 p.s.i.            |

### Standards

|                     |                        |
|---------------------|------------------------|
| <b>Construction</b> | founded on ASME B16.34 |
| <b>Socket weld</b>  | ASME B16.11            |
| <b>Threaded</b>     | ASME B1.20.1           |
| <b>Butt weld</b>    | ASME B16.25            |
| <b>Test</b>         | API 598-ASME B16.34    |

### Connections

|           |               |
|-----------|---------------|
| <b>SW</b> | Socket weld   |
| <b>TH</b> | Threaded NPT  |
| <b>TS</b> | Sw/NPT        |
| <b>SE</b> | Sw(in)/NPT    |
| <b>SU</b> | Sw(out)/NPT   |
| <b>B4</b> | Butt weld 160 |



### STANDARD BORE

|                   |  |  | 1/2"     | 3/4"      | 1"        |  | 1.1/2"    | 2"        |
|-------------------|--|--|----------|-----------|-----------|--|-----------|-----------|
| <b>L (mm/in)</b>  |  |  | 110 4,33 | 115 4,52  | 130 5,12  |  | 210 8,27  | 240 9,45  |
| <b>H (mm/in)</b>  |  |  | 218 8,58 | 260 10,24 | 268 10,55 |  | 427 16,81 | 433 17,05 |
| <b>K (mm/in)</b>  |  |  | 140 5,51 | 200 7,87  | 200 7,87  |  | 260 10,24 | 350 13,77 |
| <b>E (mm/in)</b>  |  |  | 10 0,39  | 13 0,51   | 18 0,71   |  | 25 0,98   | 34 1,33   |
| <b>Wt.(kg/lb)</b> |  |  | 5,8 13,0 | 8,3 18,3  | 9,7 21,3  |  | 26,8 59,0 | 35,3 77,7 |
| <b>Catal. no.</b> |  |  |          |           |           |  |           |           |

## CHECK VALVES-150-Bolted Cover-Flanged End / BW

### Material of Construction

|            |                                                        |
|------------|--------------------------------------------------------|
| Body       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Cover      | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Seat       | : HF Stellite SS/304/316/Cr. 13%                       |
| Bolt + Nut | : B7/2H - B8/8 or B7/2H                                |
| Gasket     | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

|                    |
|--------------------|
| 150 p.s.i. @ 550°F |
| 285 p.s.i. @ 100°F |

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 450 p.s.i.

Seat - 325 p.s.i.

#### Air under water:

not applicable

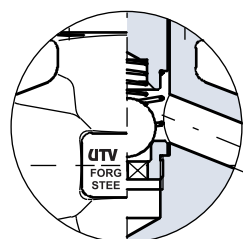
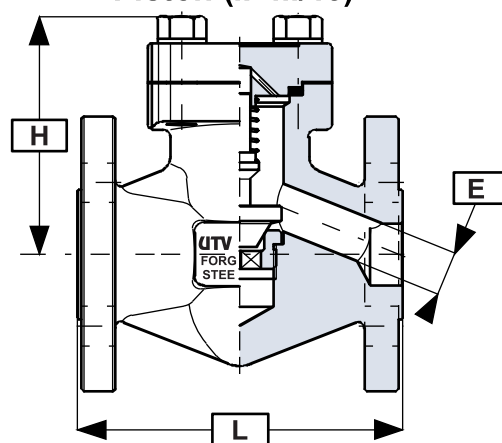
### Standards

|              |                         |
|--------------|-------------------------|
| Construction | BS 5352                 |
| Flanged      | ASME B16.5, ASME B16.10 |
| Test         | BS 6755 (Pt.1)          |

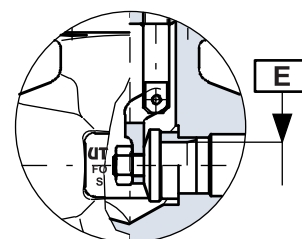
### Connections

|    |                    |
|----|--------------------|
| RF | Raised face (std.) |
| FF | Flat finish        |

**Piston (.P4../15)**



**Ball (.B4../15)**



**Swing (.S5../15)**

### REDUCED BORE

|              |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"      | 2"          |
|--------------|--|--|------------|------------|------------|--|-------------|-------------|
| L (mm/in)    |  |  | 107,9 4,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50  | 203,2 8,00  |
| H (mm/in)    |  |  | 84 3,31    | 87 3,43    | 92 3,62    |  | 97 3,82     | 124 4,88    |
| E (6)(mm/in) |  |  | 9 0,35     | 12,5 0,49  | 17,5 0,69  |  | 28 (4) 1,10 | 32 (5) 1,26 |
| Wt.(kg/lb)   |  |  | 2,6 5,7    | 3,8 8,4    | 5,1 11,2   |  | 8,4 18,5    | 14,2 31,2   |
| Catal. no.   |  |  |            |            |            |  |             |             |

### FULL BORE

|              |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"         |
|--------------|--|--|------------|------------|------------|--|------------|------------|
| L (mm/in)    |  |  | 107,9 4,25 | 117,5 4,63 | 127,0 5,00 |  | 165,1 6,50 | 203,2 6,50 |
| H (mm/in)    |  |  | 84 3,31    | 87 3,43    | 92 3,62    |  | 110 4,33   | 124 4,88   |
| E (6)(mm/in) |  |  | 12,5 0,49  | 17,5 0,69  | 22,5 0,89  |  | 32 1,38    | 38 1,50    |
| Wt.(kg/lb)   |  |  | 2,6 5,7    | 3,8 8,4    | 5,1 11,2   |  | 8,4 18,5   | 14,7 31,2  |
| Catal. no.   |  |  |            |            |            |  |            |            |

## CHECK VALVES-300-Bolted Cover - Socket Weld/ NPT-BW

### Material of Construction

|            |                                                        |
|------------|--------------------------------------------------------|
| Body       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Cover      | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Seat       | : HF Stellite SS/304/316/Cr. 13%                       |
| Bolt + Nut | : B7/2H - B8/8 or B7/2H                                |
| Gasket     | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105)

|                    |
|--------------------|
| 300 p.s.i. @ 850°F |
| 740 p.s.i. @ 100°F |

### Test pressure (ASTM A105)

#### Hydraulic: (minimum)

Body - 1125 p.s.i.

Seat - 825 p.s.i.

#### Air under water:

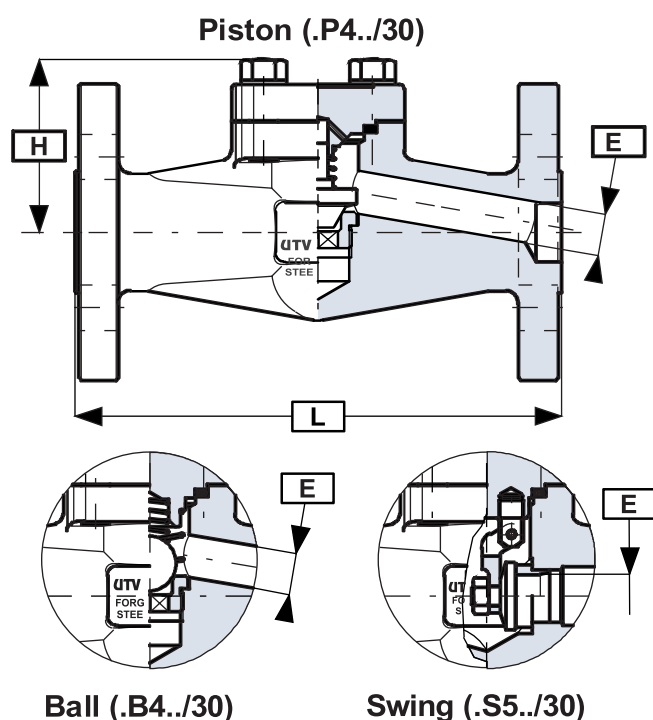
not applicable

### Standards

|              |                         |
|--------------|-------------------------|
| Construction | BS 5352                 |
| Flanged      | ASME B16.5, ASME B16.10 |
| Test         | BS 6755 (Pt.1)          |

### Connections

|    |                    |    |              |
|----|--------------------|----|--------------|
| RF | Raised face (std.) | LF | Large female |
| RJ | Ring joint         | LG | Large groove |
| SF | Small female       | LM | Large male   |
| SG | Small groove       | LT | Large tongue |
| SM | Small male         |    |              |
| ST | Small tongue       |    |              |



| REDUCED BORE             |  |  |       |      |       |      |                      |      |  |
|--------------------------|--|--|-------|------|-------|------|----------------------|------|--|
|                          |  |  | 1/2"  |      | 3/4"  |      | 1"                   |      |  |
| L (mm/in)                |  |  | 152,4 | 6,00 | 177,8 | 7,00 | 203,2 <sup>(6)</sup> | 8,00 |  |
| H (mm/in)                |  |  | 50    | 1,97 | 56    | 2,20 | 74                   | 2,91 |  |
| E <sup>(7)</sup> (mm/in) |  |  | 9     | 0,35 | 12,5  | 0,49 | 17,5                 | 0,69 |  |
| Wt. (kg/lb)              |  |  | 2,5   | 5,5  | 4,2   | 9,2  | 5,7                  | 12,5 |  |
| Catal. no.               |  |  |       |      |       |      |                      |      |  |

| FULL BORE                |  |  |       |      |       |      |                      |      |  |
|--------------------------|--|--|-------|------|-------|------|----------------------|------|--|
|                          |  |  | 1/2"  |      | 3/4"  |      | 1"                   |      |  |
| L (mm/in)                |  |  | 152,4 | 6,00 | 177,8 | 7,00 | 203,2 <sup>(6)</sup> | 8,00 |  |
| H (mm/in)                |  |  | 50    | 1,97 | 56    | 2,20 | 92                   | 3,62 |  |
| E <sup>(7)</sup> (mm/in) |  |  | 12,5  | 0,49 | 17,5  | 0,69 | 22,5                 | 0,89 |  |
| Wt. (kg/lb)              |  |  | 2,5   | 5,5  | 4,2   | 9,2  | 5,7                  | 12,5 |  |
| Catal. no.               |  |  |       |      |       |      |                      |      |  |

*True Definition Of Safety And Reliability*



## CHECK VALVES-600-Bolted Cover-Flanged End / BW

### Material of Construction

|            |                                                        |
|------------|--------------------------------------------------------|
| Body       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Cover      | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Seat       | : HF Stellite SS/304/316/Cr. 13%                       |
| Bolt + Nut | : B7/2H - B8/8 or B7/2H                                |
| Gasket     | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTMA105)

600 p.s.i. @ 850°F  
1480 p.s.i. @ 100°F

### Test pressure (ASTMA105)

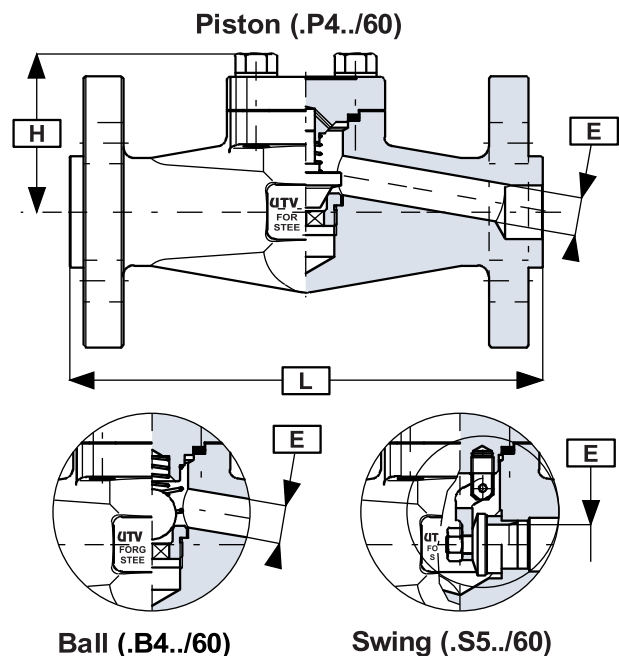
**Hydraulic:** (minimum)  
Body - 2225 p.s.i.  
Seat - 1650 p.s.i.  
**Air under water:**  
not applicable

### Standards

**Construction** BS 5352  
**Flanged** ASME B16.5, ASME B16.10  
**Test** BS 6755 (Pt.1)

### Connections

|           |                    |           |              |
|-----------|--------------------|-----------|--------------|
| <b>RF</b> | Raised face (std.) | <b>LF</b> | Large female |
| <b>RJ</b> | Ring joint         | <b>LG</b> | Large groove |
| <b>SF</b> | Small female       | <b>LM</b> | Large male   |
| <b>SG</b> | Small groove       | <b>LT</b> | Large tongue |
| <b>SM</b> | Small male         |           |              |
| <b>ST</b> | Small tongue       |           |              |



### REDUCED BORE

|                                |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"                 | 2"                     |
|--------------------------------|--|--|------------|------------|------------|--|------------------------|------------------------|
| <b>L (mm/in)</b>               |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50             | 292,1 11,50            |
| <b>H (mm/in)</b>               |  |  | 50 1,97    | 56 2,20    | 74 2,91    |  | 100 3,94               | 109 4,29               |
| <b>E<sup>(6)</sup> (mm/in)</b> |  |  | 9 0,35     | 12,5 0,49  | 17,5 0,69  |  | 28 <sup>(4)</sup> 1,10 | 32 <sup>(5)</sup> 1,26 |
| <b>Wt.(kg/lb)</b>              |  |  | 3,1 6,8    | 5 11,0     | 7,3 16,1   |  | 12 26,4                | 16,6 36,5              |
| <b>Catal.no.</b>               |  |  |            |            |            |  |                        |                        |

### FULL BORE

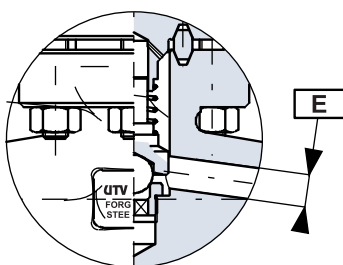
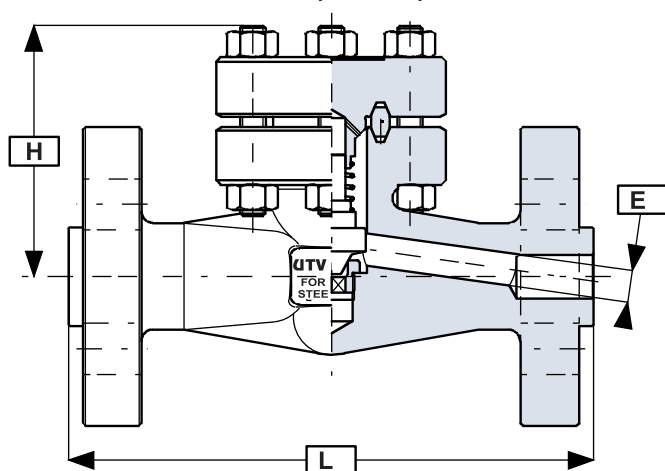
|                                |  |  | 1/2"       | 3/4"       | 1"         |  | 1.1/2"     | 2"          |
|--------------------------------|--|--|------------|------------|------------|--|------------|-------------|
| <b>L (mm/in)</b>               |  |  | 165,1 6,50 | 190,5 7,50 | 215,9 8,50 |  | 241,3 9,50 | 292,1 11,50 |
| <b>H (mm/in)</b>               |  |  | 50 1,97    | 56 2,20    | 92 3,62    |  | 110 4,33   | 140 5,51    |
| <b>E<sup>(6)</sup> (mm/in)</b> |  |  | 12,5 0,49  | 17,5 0,69  | 22,5 0,89  |  | 35 1,38    | 45 1,77     |
| <b>Wt.(kg/lb)</b>              |  |  | 3,1 6,8    | 5 11,0     | 7,3 16,1   |  | 12 26,4    | 16,6 36,5   |
| <b>Catal.no.</b>               |  |  |            |            |            |  |            |             |

## CHECK VALVES-1500/2500-Bolted Cover - Flanged End / BW / RJ

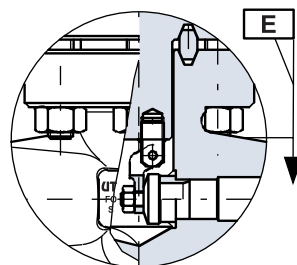
### Material of Construction

|            |                                                        |
|------------|--------------------------------------------------------|
| Body       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Cover      | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Seat       | : HF Stellite SS/304/316/Cr. 13%                       |
| Bolt + Nut | : B7/2H - B8/8 or B7/2H                                |
| Gasket     | : SPW SS304/316 with CAF/Grafoil                       |

**Piston (P.../150)**



**Ball (B.../150/250)**



**Swing (S.../150/250)**

### Ratings (ASTM A105) CL.1500/2500

|                     |                     |
|---------------------|---------------------|
| 1500 p.s.i. @ 850°F | 2500 p.s.i. @ 850°F |
| 3705 p.s.i. @ 100°F | 6170 p.s.i. @ 100°F |

### Test pressure (ASTM A105) CL.1500/2500

|                                                                         |                                                                         |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Hydraulic: (minimum)</b><br>Body - 5575 p.s.i.<br>Seat - 4100 p.s.i. | <b>Hydraulic: (minimum)</b><br>Body - 9275 p.s.i.<br>Seat - 6800 p.s.i. |
| <b>Air under water:</b><br>not applicable                               | <b>Air under water:</b><br>not applicable                               |

### Standards

|                     |                         |
|---------------------|-------------------------|
| <b>Construction</b> | BS 5352                 |
| <b>Flanged</b>      | ASME B16.5, ASME B16.10 |
| <b>Test</b>         | BS 6755 (Pt.1)          |

### Connections

|           |                    |           |              |
|-----------|--------------------|-----------|--------------|
| <b>RF</b> | Raised face (std.) | <b>LF</b> | Large female |
| <b>RJ</b> | Ring joint         | <b>LG</b> | Large groove |
| <b>SF</b> | Small female       | <b>LM</b> | Large male   |
| <b>SG</b> | Small groove       | <b>LT</b> | Large tongue |
| <b>SM</b> | Small male         |           |              |
| <b>ST</b> | Small tongue       |           |              |

### REDUCE BORE 1500

|                               |  |  | 1/2"       | 3/4"       | 1"          |  | 1.1/2"      | 2"          |
|-------------------------------|--|--|------------|------------|-------------|--|-------------|-------------|
| <b>L (mm/in)</b>              |  |  | 215,9 8,50 | 228,6 9,00 | 254,0 10,00 |  | 304,8 12,00 | 368,3 14,50 |
| <b>H (mm/in)</b>              |  |  | 93 3,66    | 109 4,29   | 122 4,80    |  | 158 6,22    | 171 6,73    |
| <b>E<sup>(4)</sup>(mm/in)</b> |  |  | 11 0,43    | 14,5 0,57  | 19 0,75     |  | 31 1,22     | 37,5 1,48   |
| <b>Wt. (kg/lb)</b>            |  |  | 7,5 16,5   | 10,9 24,0  | 14,4 31,7   |  | 30,3 67,0   | 44,0 96,8   |

### REDUCE BORE 2500

|                               |  |  | 1/2"        | 3/4"        | 1"          |  | 1.1/2"      | 2"          |
|-------------------------------|--|--|-------------|-------------|-------------|--|-------------|-------------|
| <b>L (mm/in)</b>              |  |  | 263,5 10,37 | 273,0 10,75 | 308,0 12,13 |  | 384,2 15,13 | 450,8 17,75 |
| <b>H (mm/in)</b>              |  |  | 93 3,66     | 109 4,29    | 122 4,80    |  | 158 6,22    | 171 6,73    |
| <b>E<sup>(4)</sup>(mm/in)</b> |  |  | 10 0,39     | 13 0,51     | 18 0,71     |  | 25 0,98     | 34 1,33     |
| <b>Wt. (kg/lb)</b>            |  |  | 8,5 18,7    | 12,5 27,5   | 19,2 42,2   |  | 40,8 89,8   | 59,0 129,8  |

*True Definition Of Safety And Reliability*

## Check VALVES-1500 / 2500-Bolted Cover - Socket Weld/ NPT-BW

### Material of Construction

|            |                                                        |
|------------|--------------------------------------------------------|
| Body       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Cover      | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Plug       | : ASTM A105 N, CF8, CF8M, 316/316L NACE, F11, F22, LF2 |
| Seat       | : HF Stellite SS/304/316/Cr. 13%                       |
| Bolt + Nut | : B7/2H - B8/8 or B7/2H                                |
| Gasket     | : SPW SS304/316 with CAF/Grafoil                       |

### Ratings (ASTM A105) CL.1500/2500

|                     |                     |
|---------------------|---------------------|
| 1500 p.s.i. @ 850°F | 2500 p.s.i. @ 850°F |
| 3705 p.s.i. @ 100°F | 6170 p.s.i. @ 100°F |

### Test pressure (ASTM A105) CL.1500/2500

|                             |                             |
|-----------------------------|-----------------------------|
| <b>Hydraulic: (minimum)</b> | <b>Hydraulic: (minimum)</b> |
| Body - 5575 p.s.i.          | Body - 9275 p.s.i.          |
| Seat - 4100 p.s.i.          | Seat - 6800 p.s.i.          |
| <b>Air under water:</b>     | <b>Air under water:</b>     |
| not applicable              | not applicable              |

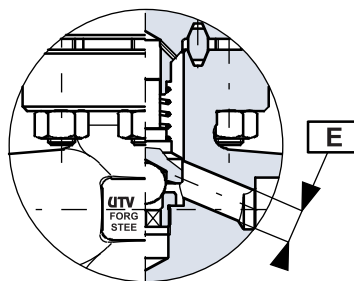
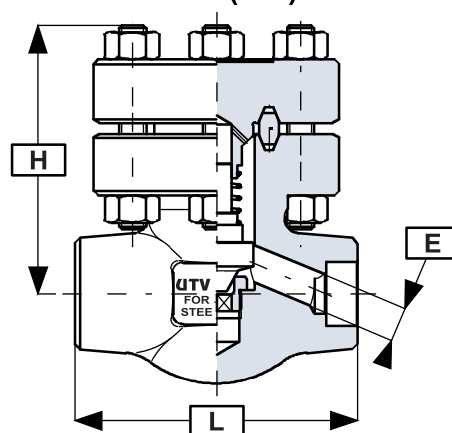
### Standards

|                     |                |
|---------------------|----------------|
| <b>Construction</b> | BS 5352        |
| <b>Socket weld</b>  | ASME B16.11    |
| <b>Threaded</b>     | ASME B1.20.1   |
| <b>Butt weld</b>    | ASME B16.25    |
| <b>Test</b>         | BS 6755 (Pt.1) |

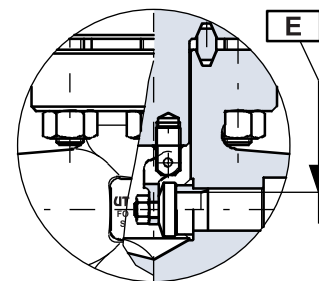
### Connections

|                         |                        |
|-------------------------|------------------------|
| <b>SW</b> Socket weld   | <b>B8</b> Butt weld 80 |
| <b>TH</b> Threaded NPT  |                        |
| <b>TS</b> Sw/NPT        |                        |
| <b>SE</b> Sw (in)/NPT   |                        |
| <b>SU</b> Sw (out)/NPT  |                        |
| <b>B6</b> Butt weld 160 |                        |

**Piston (P.../)**



**Ball (B.../)**



**Swing (S.../)**

### REDUCE BORE 1500

|                               |  | 1/2"     | 3/4"      | 1"       |  | 1.1/2"    | 2"        |
|-------------------------------|--|----------|-----------|----------|--|-----------|-----------|
| <b>L (mm/in)</b>              |  | 110 4,33 | 115 4,53  | 130 5,12 |  | 210 8,27  | 240 9,45  |
| <b>H (mm/in)</b>              |  | 93 3,66  | 109 4,29  | 122 4,80 |  | 158 6,22  | 171 6,73  |
| <b>E<sup>(4)</sup>(mm/in)</b> |  | 11 0,43  | 14,5 0,57 | 19 0,75  |  | 31 1,22   | 37,5 1,48 |
| <b>Wt. (kg/lb)</b>            |  | 3,8 8,4  | 5,9 13,0  | 6,8 15,0 |  | 18,8 41,4 | 23,7 52,1 |

### REDUCE BORE 2500

|                               |  | 1/2"        | 3/4"        | 1"          |  | 1.1/2"      | 2"          |
|-------------------------------|--|-------------|-------------|-------------|--|-------------|-------------|
| <b>L (mm/in)</b>              |  | 263,5 10,37 | 273,0 10,75 | 308,0 12,13 |  | 384,2 15,13 | 450,8 17,75 |
| <b>H (mm/in)</b>              |  | 93 3,66     | 109 4,29    | 122 4,80    |  | 158 6,22    | 171 6,73    |
| <b>E<sup>(4)</sup>(mm/in)</b> |  | 10 0,39     | 13 0,51     | 18 0,71     |  | 25 0,98     | 34 1,33     |
| <b>Wt. (kg/lb)</b>            |  | 8,5 18,7    | 12,5 27,5   | 19,2 42,2   |  | 40,8 89,8   | 59,0 129,8  |