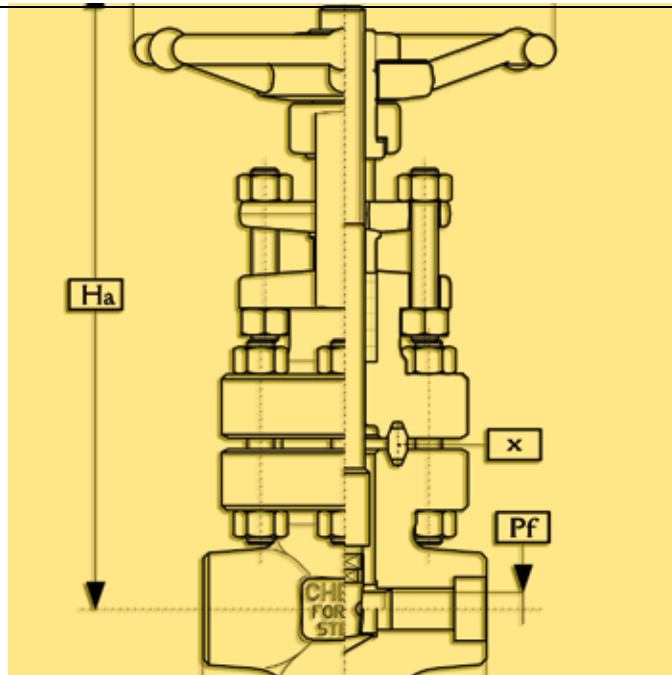


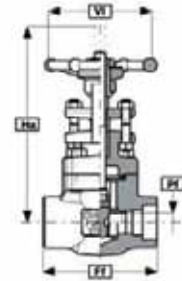
Forged Valves



Gate Valves

Forged Valves

| | |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | Type : Class 800 |
| Bolted Bonnet - 800LBS - SW/NPT/BW | |
| Specifications | |
| Type | : Class 800 |
| Material | : ASTM A105 (*) |
| Ratings | : 800 p.s.i. at 850° F 1975 p.s.i. at 100° F |
| Test pressure | : Hydraulic: (minimum) Body 3000 p.s.i. Seat 2175 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : Construction API 602, BS 5352 Socket weld ASME B16.11 Threaded ASME B1.20.1 Butt weld ASME B16.25 Test API 598-BS 6755 (Part 1) |
| Connections | : SW Socket weld TH Threaded NPT TS SW x NPT SE SW(in) x NPT SU SW(out) x NPT B4 Butt weld Sch40 B8 Butt weld Sch80 |
| (*) Refer to the 'Materials of construction' list | |



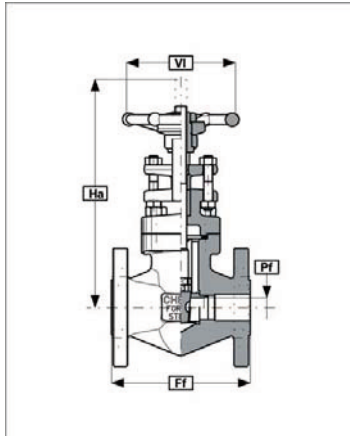
Conventional Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | | | | | |
| 3/8" | | | | | |
| 1/2" | 80 | 145 | 90 | 10 | 1,7 |
| 3/4" | 90 | 156 | 90 | 14 | 2,1 |
| 1" | 110 | 186 | 100 | 18 | 3,3 |
| 1.1/4" | 127 | 216 | 120 | 24 | 5,2 |
| 1.1/2" | 127 | 255 | 140 | 31 | 7,0 |
| 2" | 130 | 273 | 140 | 36,5 | 9,1 |

Full Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | 80 | 143 | 90 | 8,5 | 1,8 |
| 3/8" | 80 | 145 | 90 | 10 | 1,8 |
| 1/2" | 90 | 156 | 90 | 14 | 2,2 |
| 3/4" | 110 | 186 | 100 | 18 | 3,4 |
| 1" | 127 | 216 | 120 | 24 | 5,3 |
| 1.1/4" | 127 | 255 | 140 | 31 | 7,1 |
| 1.1/2" | 130 | 273 | 140 | 36,5 | 7,1 |
| 2" | 150 | 334 | 200 | 48 | 14,2 |

Forged Valves



| | |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Gate | Type : Class 150 |
| Bolted Bonnet - 150LBS - Flanged RF/RTJ | |
| Specifications | |
| Type | : Class 150 |
| Material | : ASTM A105 (*) |
| Ratings | : 150 p.s.i. at 550° F 285 p.s.i. at 100° F |
| Test pressure | : Hydraulic: (minimum) Body 450 p.s.i. Seat 325 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : Construction API 602, BS 5352 Flanged ASME B16.5, ASME B16.10 Test API 598-BS 6755 (Part 1) |
| Connections | : RF Raised face (std.) FF Flat finish |
| (*) Refer to the 'Materials of construction' list | |

Conventional Bore

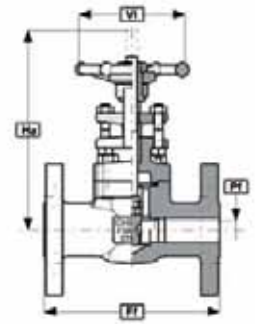
| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 107,9 | 179 | 90 | 10 | 3,2 |
| 3/4" | 117,5 | 186 | 90 | 14 | 4,1 |
| 1" | 127,0 | 208 | 100 | 18 | 5,8 |
| 1.1/2" | 165,1 | 255 | 140 | 31 | 10 |
| 2" | 177,8 | 273 | 140 | 36,5 | 13,1 |

Full Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 107,9 | 183 | 90 | 14 | 3,1 |
| 3/4" | 117,5 | 191 | 90 | 18 | 4,0 |
| 1" | 127,0 | 216 | 100 | 24 | 5,7 |
| 1.1/2" | 165,1 | 273 | 140 | 36,5 | 12,6 |
| 2" | 177,8 | 314 | 200 | 48 | 15,8 |

Forged Valves

| | | |
|---------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 300 |
| Bolted Bonnet - 300LBS - Flanged RF | | |
| Specifications | | |
| Type | : | Class 300 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 300 p.s.i. at 850° F 740 p.s.i. at 100° F |
| Test pressure | : | Hydraulic: (minimum) Body 1125 p.s.i. Seat 825 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : | Construction API 602, BS 5352 Flanged ASME B16.5, ASME B16.10 Test API 598-BS 6755 (Part 1) |
| Connections | : | RF Raised face (std.) RJ Ring joint SF Small female SG Small groove SM Small male ST Small tonge LF Large female LG Large groove LM Large male LT Large tongue |
| (*) Refer to the 'Materials of construction' list | | |



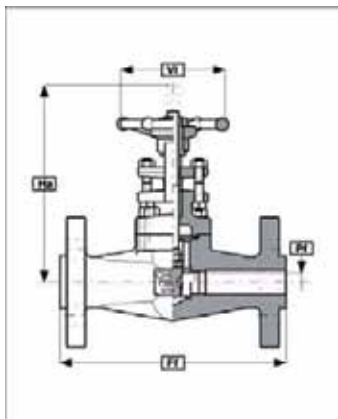
Conventional Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 139,7 | 145 | 90 | 10 | 3,8 |
| 3/4" | 152,4 | 156 | 90 | 14 | 5,4 |
| 1" | 165,1 | 186 | 100 | 18 | 6,5 |
| 1.1/2" | 190,5 | 255 | 140 | 31 | 13,1 |
| 2" | 215,9 | 273 | 140 | 36,5 | 17,3 |

Full Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 139,7 | 193 | 90 | 14 | 4,5 |
| 3/4" | 152,4 | 190 | 100 | 18 | 6,0 |
| 1" | 165,1 | 216 | 120 | 24 | 7,6 |
| 1.1/2" | 190,5 | 273 | 140 | 36,5 | 14,0 |
| 2" | 215,9 | 314 | 200 | 48 | 18,8 |

Forged Valves



| Gate | | Type : Class 600 |
|---------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bolted Bonnet - 600LBS - Flanged RF/RTJ | | |
| Specifications | | |
| Type | : | Class 600 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 600 p.s.i. at 850° F 14800 p.s.i. at 100° F |
| Test pressure | : | Hydraulic: (minimum) Body 2225 p.s.i. Seat 1650 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : | Construction API 602, BS 5352 Flanged ASME B16.5, ASME B16.10 Test API 598-BS 6755 (Part 1) |
| Connections | : | RF Raised face (std.) RJ Ring joint SF Small female SG Small groove SM Small male ST Small tongue LF Large female LG Large groove LM Large male LT Large tongue |
| (*) Refer to the 'Materials of construction' list | | |

Conventional Bore

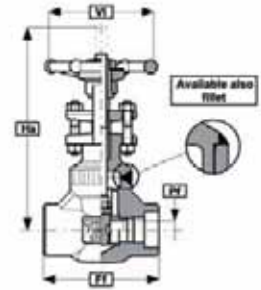
| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 165,1 | 145 | 90 | 10 | 3,5 |
| 3/4" | 190,5 | 156 | 90 | 14 | 5,8 |
| 1" | 215,9 | 186 | 100 | 18 | 7,4 |
| 1.1/2" | 241,3 | 255 | 140 | 31 | 14,3 |
| 2" | 292,1 | 273 | 140 | 36,5 | 18,8 |

Full Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 165,1 | 176 | 90 | 14 | 3,9 |
| 3/4" | 190,5 | 206 | 100 | 18 | 7,0 |
| 1" | 215,9 | 216 | 120 | 24 | 10,3 |
| 1.1/2" | 241,3 | 255 | 140 | 34 | 16,5 |
| 2" | 292,1 | 334 | 200 | 48 | 25,0 |

Forged Valves

| | | |
|---------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 800 |
| Welded Bonnet - 800LBS - SW/NPT/BW | | |
| Specifications | | |
| Type | : | Class 800 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 800 p.s.i. at 850° F 1975 p.s.i. at 100° F |
| Test pressure | : | Hydraulic: (minimum) Body 3000 p.s.i. Seat 2175 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : | Construction API 602, BS 5352 Socket weld ASME B16.11 Threaded ASME B1.20.1 Butt weld ASME B16.25 Test API 598-BS 6755 (Part 1) |
| Connections | : | SW Socket weld TH Threaded NPT TS SW x NPT SE SW(e) x NPT SU SW(u) x NPT B4 Butt weld Sch40 B8 Butt weld Sch80 |
| (*) Refer to the 'Materials of construction' list | | |



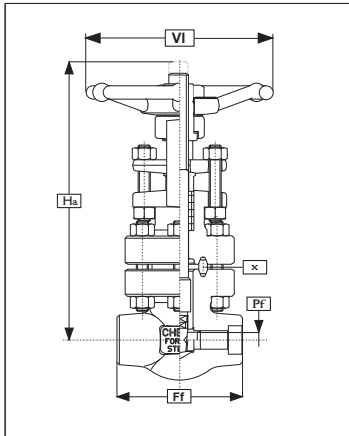
Conventional Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | | | | | |
| 3/8" | | | | | |
| 1/2" | 80 | 150 | 90 | 10 | 1,4 |
| 3/4" | 90 | 157 | 90 | 14 | 1,7 |
| 1" | 110 | 188 | 100 | 18 | 2,8 |
| 1.1/4" | 127 | 220 | 120 | 24 | 4,4 |
| 1.1/2" | 127 | 248 | 140 | 31 | 5,6 |
| 2" | 130 | 274 | 140 | 36,5 | 7,6 |

Full Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | 80 | 150 | 90 | 8,5 | 1,5 |
| 3/8" | 80 | 150 | 90 | 10 | 1,5 |
| 1/2" | 90 | 157 | 90 | 14 | 1,8 |
| 3/4" | 110 | 188 | 100 | 18 | 2,9 |
| 1" | 127 | 220 | 120 | 24 | 4,5 |
| 1.1/4" | 127 | 248 | 140 | 31 | 5,7 |
| 1.1/2" | 130 | 274 | 140 | 36,5 | 7,7 |
| 2" | 150 | 334 | 200 | 48 | 12,2 |

Forged Valves



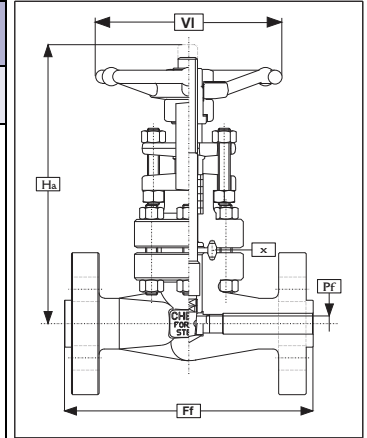
| | | |
|---------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 1500 |
| Bolted Bonnet - 1500LBS - SW/NPT/BW | | |
| Specifications | | |
| Type | : | Class 1500 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 1500 p.s.i. at 850° F 3705 p.s.i. at 100° F |
| Test pressure | : | 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 (Part 1) |
| Connections | : | SW Socket weld TH Threaded NPT TS SW x NPT SE SW(e) x NPT SU SW(u) x NPT B6 Butt weld Sch160 B8 Butt weld Sch80 |
| (*) Refer to the 'Materials of construction' list | | |

Standard Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | | | | | |
| 3/8" | | | | | |
| 1/2" | 110 | 212 | 120 | 11,5 | 5,9 |
| 3/4" | 115 | 256 | 175 | 15 | 8,4 |
| 1" | 130 | 272 | 175 | 19,5 | 9,8 |
| 1.1/2" | 210 | 411 | 260 | 32 | 26,8 |
| 2" | 240 | 422 | 260 | 40 | 35,4 |

Forged Valves

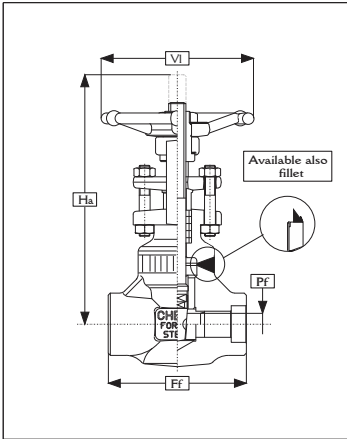
| | | |
|---------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 1500 |
| Bolted Bonnet - 1500LBS - Flanged RF/RTJ | | |
| Specifications | | |
| Type | : | Class 1500 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 1500 p.s.i. at 850° F 3705 p.s.i. at 100° F |
| Test pressure | : | Hydraulic: (minimum) Body 5575 p.s.i. Seat 4100 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 (Part 1) |
| Connections | : | RF Raised face (std.) RJ Ring joint SF Small female SG Small groove SM Small male ST Small tongue LF Large female LG Large groove LM Large male LT Large tongue |
| (*) Refer to the 'Materials of construction' list | | |



Standard Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 215,9 | 212 | 120 | 11,5 | 9,7 |
| 3/4" | 228,6 | 256 | 175 | 15 | 15,5 |
| 1" | 254,0 | 272 | 175 | 19,5 | 17,5 |
| 1.1/2" | 304,8 | 411 | 260 | 32 | 38,5 |
| 2" | 368,3 | 422 | 260 | 40 | 56,0 |

Forged Valves



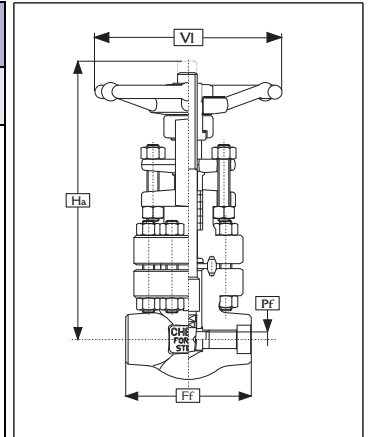
| | | |
|---------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 1500 |
| Welded Bonnet - 1500LBS - SW/NPT/BW | | |
| Specifications | | |
| Type | : | Class 1500 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 1500 p.s.i. at 850° F 3705 p.s.i. at 100° F |
| Test pressure | : | 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 (Part 1) |
| Connections | : | SW Socket weld TH Threaded NPT TS SW x NPT SE SW(e) x NPT SU SW(u) x NPT B6 Butt weld Sch160 B8 Butt weld Sch80 |
| (*) Refer to the 'Materials of construction' list | | |

Standard Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | | | | | |
| 3/8" | | | | | |
| 1/2" | 90 | 175 | 120 | 11,5 | 2,0 |
| 3/4" | 110 | 217 | 175 | 15 | 3,2 |
| 1" | 127 | 234 | 175 | 19,5 | 4,9 |
| 1.1/2" | 130 | 295 | 200 | 32 | 8,5 |
| 2" | 150 | 375 | 260 | 40 | 15 |

Forged Valves

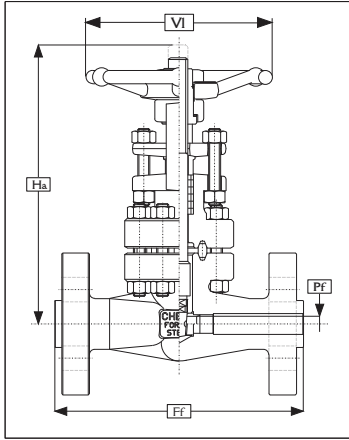
| | | |
|---------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 2500 |
| Bolted Bonnet - 2500LBS - SW/NPT/BW | | |
| Specifications | | |
| Type | : | Class 2500 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 2500 p.s.i. at 850° F 6170 p.s.i. at 100° F |
| Test pressure | : | Hydraulic: (minimum) Body 9275 p.s.i. Seat 6800 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : | Construction Founded on ASME B16.34 Socket weld ASME B16.11 Threaded ASME B1.20.1 Butt weld ASME B16.25 Test API 598-ASME B16.34 |
| Connections | : | SW Socket weld TH Threaded NPT TS SW x NPT SE SW(e) x NPT SU SW(u) x NPT B6 Butt weld Sch160 BX Butt weld SchXXS |
| (*) Refer to the 'Materials of construction' list | | |



Standard Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | | | | | |
| 3/8" | | | | | |
| 1/2" | 110 | 212 | 140 | 10 | 6,1 |
| 3/4" | 115 | 256 | 200 | 14 | 8,7 |
| 1" | 130 | 272 | 200 | 18 | 10,2 |
| 1.1/2" | 210 | 411 | 260 | 31 | 27,4 |
| 2" | 240 | 422 | 350 | 36,5 | 36,2 |

Forged Valves



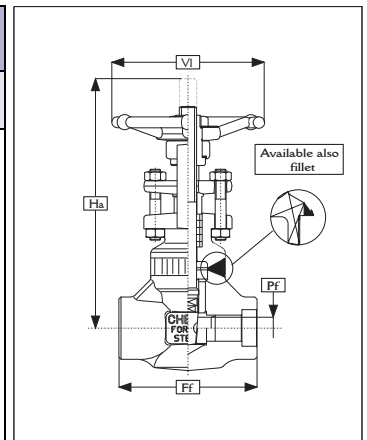
| | | |
|---------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 2500 |
| Bolted Bonnet - 2500LBS - Flanged RF/RTJ | | |
| Specifications | | |
| Type | : | Class 2500 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 2500 p.s.i. at 850° F 6170 p.s.i. at 100° F |
| Test pressure | : | Hydraulic: (minimum) Body 9275 p.s.i. Seat 6800 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : | Construction Founded on ASME B16.34 Flanged ASME B16.5, ASME B16.10 Test API 598-ASME B16.34 |
| Connections | : | RF Raised face (std.) RJ Ring joint SF Small female SG Small groove SM Small male ST Small tongue LF Large female LG Large groove LM Large male LT Large tongue |
| (*) Refer to the 'Materials of construction' list | | |

Standard Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/2" | 263,5 | 212 | 140 | 10 | 9,9 |
| 3/4" | 273,0 | 256 | 200 | 14 | 15,8 |
| 1" | 308,0 | 272 | 200 | 18 | 17,9 |
| 1.1/2" | 384,2 | 411 | 260 | 31 | 39,1 |
| 2" | 450,8 | 422 | 350 | 36,5 | 56,8 |

Forged Valves

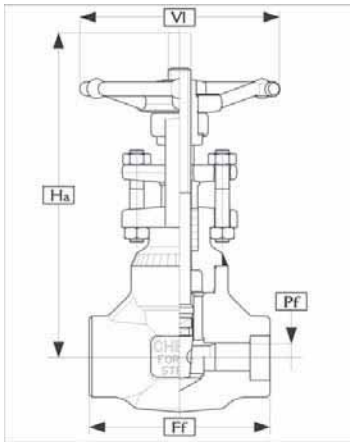
| | | |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Gate | Type : Class 2500 | |
| Welded Bonnet - 2500LBS - SW/NPT/BW | | |
| Specifications | | |
| Type | : Class 2500 | |
| Material | : ASTM A105 (*) | |
| Ratings | : 2500 p.s.i. at 850° F 6170 p.s.i. at 100° F | |
| Test pressure | : Hydraulic: (minimum) Body 9275 p.s.i. Seat 6800 p.s.i. Air under water: Seat 85 p.s.i. | |
| Standards | : Construction Founded on ASME B16.34 Socket weld ASME B16.11 Threaded ASME B1.20.1 Butt weld ASME B16.25 Test API 598-ASME B16.34 | |
| Connections | : SW Socket weld TH Threaded NPT TS SW x NPT SE SW(e) x NPT SU SW(u) x NPT B6 Butt weld Sch160 BX Butt weld SchXXS | |
| (*) Refer to the 'Materials of construction' list | | |



Standard Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | | | | | |
| 3/8" | | | | | |
| 1/2" | 110 | 198 | 140 | 10 | 2,6 |
| 3/4" | 127 | 225 | 200 | 14 | 4,0 |
| 1" | 127 | 243 | 200 | 18 | 5,9 |
| 1.1/2" | 150 | 387 | 260 | 31 | 10,0 |
| 2" | 240 | 403 | 350 | 36,5 | 29 |

Forged Valves



| | | |
|---------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Gate | | Type : Class 4500 |
| Welded Bonnet - 4500LBS - SW/NPT/BW | | |
| Specifications | | |
| Type | : | Class 4500 |
| Material | : | ASTM A105 (*) |
| Ratings | : | 4.010 p.s.i. at 850° F 11.110 p.s.i. at 100° F |
| Test pressure | : | Hydraulic: (minimum) Body 16.650 p.s.i. Seat 12.210 p.s.i. Air under water: Seat 85 p.s.i. |
| Standards | : | Construction ASME B16.34 Socket weld ASME B16.11 Threaded ASME B1.20.1 Butt weld ASME B16.25 Test API 598-ASME B16.34 |
| Connections | : | SW Socket weld TH Threaded NPT TS SW x NPT SE SW(e) x NPT SU SW(u) x NPT B6 Butt weld Sch160 BX Butt weld SchXXS |
| (*) Refer to the 'Materials of construction' list | | |

Standard Bore

| Nominal Size | Ff (mm) | Ha (mm) | VI (mm) | Pf (mm) | Wt. (kg) |
|--------------|---------|---------|---------|---------|----------|
| 1/4" | | | | | |
| 3/8" | | | | | |
| 1/2" | 127 | 234 | 175 | 8 | 4,1 |
| 3/4" | 127 | 259 | 200 | 11 | 6,2 |
| 1" | 130 | 323 | 260 | 15 | 11,8 |
| 1.1/2" | 240 | 431 | 350 | 25 | 28,0 |
| 2" | 240 | 486 | 350 | 30 | 42,0 |