

## Forged Steel Gate Valve

### Basic Standards:

Design Standard: API 602, BS 5352, ANSI B16.34

Threaded end standard: ANSI/ASME B1.20.1

Socket Weld end standard: ANSI B16.11

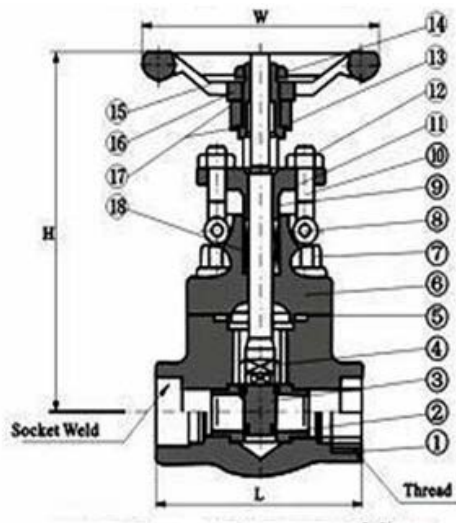
Butt-weld end standard: ANSI B16.25

Test standard: API 598

### ● Female Threaded & Weld Type

Model no: Z11H/Y & Z61H/Y

Structure types: Bolted Bonnet, Welded Bonnet, and Self Seal Bonnet.



### Materials List of main parts:

| No.                     | Parts Name         | CS (ASTM)             | AS (ASTM) | SS (ASTM)  |               |
|-------------------------|--------------------|-----------------------|-----------|--|---------------|
|                         |                    | A 105                 | F22       | F304 (L)   | F316 (L)      |
| 1                       | 阀体 Body            | A105                  | A182 F22  | A182 F304 (L)                                      | A182 F316 (L) |
| 2                       | 阀座 Seat            | A276 420              | A276 304  | A276 F304 (L)                                      | A276 F316 (L) |
| 3                       | 楔面 Wedge           | A276 430&410          | A182 F304 | A182 F304 (L)                                      | A182 F316 (L) |
| 4                       | 阀杆 Stem            | A182 F6               | A182 F304 | A182 F304 (L)                                      | A182 F316 (L) |
| 5                       | 垫片 Gasket          | 316+flexible graphite |           | 316+PTFE   |               |
| 6                       | 阀盖 Bonnet          | A105                  | A182 F22  | A182 F304 (L)                                      | A182 F316 (L) |
| 7                       | Bonnet Bolt        | A193 B7               | A193 B16  | A193 B8  | A193 B8M      |
| 8                       | 插销 Pin             | A276 420              |           | A276 F304  |               |
| 9                       | Packing sleeve     | A276 410              |           | A182 F304 (L)                                      | A182 F316 (L) |
| 10                      | Adjustable screw   | A193 B7               | A193 B16  | A193 B8  | A193 B8M      |
| 11                      | 压盖 Gland           | A105                  | A182 F11  | A182 F304 (L)                                      | A182 F316 (L) |
| 12                      | Gland Nut          | A194 2H               | A 194 4   | A194 8   | A194 8M       |
| 13                      | Stem Nut           | A276 420/Cu-Alloyed   |           |  |               |
| 14                      | Hand wheel locknut | A 194 2H              | A194 4    | A 194 8  | A194 8M       |
| 15                      | Nameplate          | SS                    |           |  |               |
| 16                      | Hand wheel         | A197                  |           |  |               |
| 17                      | Bearing Gasket     | A473 431              |           |  |               |
| 18                      | Stem Packing       | Flexible Graphite     |           | PTFE   |               |
| Applicable Medium 介质    |                    | W.O.G. etc            |           | (Acids) HNO <sub>3</sub> , CH <sub>3</sub> OOH etc |               |
| Suitable Temperature 温度 |                    | -29°C ~ 425°C         |           | -29°C ~ 180°C                                      |               |

## 连接尺寸及参考重量 Connection dimensions and Reference Weights

| NPS          |        | (mm)        |      |      | (Kg) |      |        |        |        |      |
|--------------|--------|-------------|------|------|------|------|--------|--------|--------|------|
|              |        | Reduce Bore | 3/8" | 1/2" | 3/4" | 1"   | 1-1/4" | 1-1/2" | 2"     |      |
|              |        | Full Bore   |      | 3/8" | 1/2" | 3/4" | 1"     | 1-1/4" | 1-1/2" | 2"   |
| L            |        | 150~800Lb   | 76   | 76   | 76   | 92   | 104    | 115    | 140    | 146  |
|              |        | 900Lb       |      |      | 110  | 127  | 155    | 210    | 210    | 229  |
|              |        | 1500Lb      |      |      | 127  | 155  | 210    | 229    | 229    | 235  |
| H (OPEN)     |        | 150~800Lb   | 138  | 138  | 138  | 147  | 174    | 217    | 225    | 254  |
|              |        | 900Lb       |      |      | 224  | 253  | 317    | 377    | 377    | 458  |
|              |        | 1500Lb      |      |      | 253  | 317  | 377    | 458    | 458    | 470  |
| W            |        | 150~800Lb   | 100  | 100  | 100  | 100  | 125    | 125    | 140    | 180  |
|              |        | 900Lb       |      |      | 140  | 180  | 225    | 225    | 250    | 250  |
|              |        | 1500Lb      |      |      | 160  | 200  | 225    | 250    | 250    | 300  |
| Weight<br>kg | Bolted | 150~800Lb   | 2.1  | 2.0  | 2.3  | 4.3  | 5.9    | 6.9    | 11.1   | 15.2 |
|              |        | 900~1500Lb  | 2.5  | 4.3  | 4.2  | 6.6  | 8.8    | 12.5   | 17.2   | 23.5 |
|              | Welded | 150~800Lb   | 1.8  | 1.7  | 2.0  | 3.8  | 5.1    | 6.1    | 10.2   | 14.2 |
|              |        | 900~1500Lb  | 2.4  | 4.2  | 4.0  | 6.3  | 8.7    | 12.1   | 17.2   | 22   |

### ● 法兰闸阀 Flanged Gate Valve

Model no: Z11H/Y & Z61H/Y

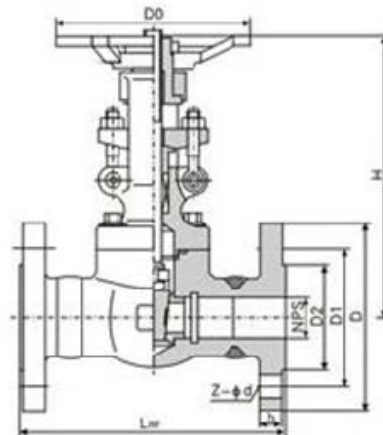
结构类型 Structure types: Bolted Bonnet, Welded Bonnet, and Self Seal Bonnet.

#### 产品特点 Design Features:

1. Full open or full close;
2. Pressure self seal design;
3. Plate and the seal face are welded by satellite, high hardness; wear resistance, anti high temperature, anti corrosion, high efficiency of friction, long work life.
4. Valve stem has good performance and anti corrosion after treated of tempering and surface nitriding.

#### 结构特征 Structure features:

1. full bore or reducing bore;
2. OS & Y;
3. Threaded bonnet, welded bonnet, and self seal bonnet structure;
4. Valve body is sealed upside down;



## 主要部件材质 Materials of main parts:

| No.               | Parts name         | CS (ASTM)             | AS (ASTM)       | SS (ASTM)                        |              |
|-------------------|--------------------|-----------------------|-----------------|----------------------------------|--------------|
|                   |                    | A105N                 | F22             | F304(L)                          | A105 N       |
| 1                 | Body               | A105N                 | A182 F22        | A182 F304(L)                     | A182 F316(L) |
| 2                 | Seat               | A276 420              | A276 304        | A276 304(L)                      | A276 316(L)  |
| 3                 | Plate              | A182 F430/F410        | A182 F304       | A182 F304(L)                     | A182 F316(L) |
| 4                 | Stem               | A182 F6a              | A182 F22        | A182 F304(L)                     | A182 F316(L) |
| 5                 | Gasket             | 316+flexible graphite |                 | 316+PTFE                         |              |
| 6                 | Bonnet             | A105N                 | A182 F22        | A182 F304(L)                     | A182 F316(L) |
| 7                 | Bonnet stud        | A193 B7               | A193 B16        | A193 B8                          | A193 B8M     |
| 8                 | Straight Pin       | A276 420              |                 | A182 F304                        |              |
| 9                 | Packing sleeve     | A276 410              |                 | A182 F304(L)                     | A182 F316(L) |
| 10                | Eyelet bolt        | A276 410              | A182 F304(L)    | A182 F316(L)                     | A193 B8M     |
| 11                | Packing pressplate | A105                  | A182 F11        | A182 F304(L)                     | A182 F316(L) |
| 12                | Nut                | A194 2H               | A194 4          | A194 8                           | A194 8M      |
| 13                | Stem Nut           | A276 420              |                 |                                  |              |
| 14                | Locknut            | A194 2H               | A194 4          | A194 8                           | A194 8M      |
| 15                | Nameplate          | SS                    |                 |                                  |              |
| 16                | Hand wheel         | A197                  |                 |                                  |              |
| 17                | Lubricated Gasket  | A473 431              |                 |                                  |              |
| 18                | Packing            | Flexible graphite     |                 | PTFE                             |              |
| Applicable medium |                    | Water,oil,steam       | Water,oil,steam | (Acids) nitric acid, acetic acid |              |
| Work temperature  |                    | -29°C~425°C           | -29°C~550°C     | -29°C~200°C                      |              |

**Note:** Other materials are also available on requested, seal face materials depend on the customized trim materials. 其他材料也可提供, 密封面材料取决于内件定制材料。CS=carbon steel; AS=steel alloyed; SS=stainless steel.

## 主要链接尺寸及参考重量 Connection dimensions and reference weights: (mm)

|  |          | NPS (LB) | 1/2" | 3/4" | 1"   | 1-1/4" | 1-1/2" | 2"   |
|--|----------|----------|------|------|------|--------|--------|------|
| L(RF)<br>L1(BW)  | 150      |          | 108  | 117  | 127  | 140    | 165    | 178  |
|  | 300      |          | 140  | 152  | 165  | 178    | 190    | 216  |
|  | 600      |          | 165  | 190  | 216  | 229    | 241    | 292  |
|  | 900/1500 |          | 216  | 229  | 254  | 279    | 305    | 368  |
| H(OPEN)  | 150      |          | 138  | 147  | 174  | 217    | 217    | 256  |
|  | 300      |          | 138  | 147  | 174  | 217    | 217    | 256  |
|  | 600      |          | 138  | 147  | 174  | 217    | 217    | 256  |
|  | 900/1500 |          | 147  | 156  | 207  | 246    | 246    | 303  |
| W  |          |          | 100  | 100  | 100  | 140    | 140    | 160  |
| Weights<br>kg<br>(To our final<br>confirmation)<br>以确认为准 | 150      | RF       | 4.5  | 5.2  | 8.2  | 11.5   | 12.5   | 20.3 |
|  |          | BW       | 2.8  | 3.3  | 5.4  | 7.1    | 8.2    | 12.5 |
|  | 300      | RF       | 4.8  | 6.2  | 9.3  | 14     | 15.5   | 23.4 |
|  |          | BW       | 3.5  | 4.4  | 6.8  | 8.1    | 9.2    | 15.4 |
|  | 600      | RF       | 5.9  | 7.4  | 10.4 | 16.2   | 17.5   | 28.3 |
|  |          | BW       | 4.5  | 5.1  | 8.2  | 10.5   | 12.4   | 20.1 |
|  | L (RTJ)  | 900/1500 | 216  | 229  | 254  | 279    | 305    | 368  |
|  | L1 (BW)  | 900/1500 | 216  | 229  | 254  | 279    | 305    | 368  |
|  | H(OPEN)  |          | 197  | 197  | 236  | 246    | 283    | 330  |
|  | W        |          | 125  | 125  | 160  | 160    | 180    | 200  |
|  | Weights  | RTJ      | 7.2  | 11.5 | 15.6 | 16.2   | 22.6   | 32.8 |
|  |          | BW       | 5.2  | 9.3  | 12.4 | 13.8   | 18.9   | 27.5 |

(Unit: mm)

| DN (mm) | NPS (Inch) | PN (LB)          | D   | D1    | D2 | b    | Z-Φd  |
|---------|------------|------------------|-----|-------|----|------|-------|
| 15      | 1/2        | 150LB            | 89  | 60.5  | 35 | 11.2 | 4-Φ16 |
| 20      | 3/4        |                  | 98  | 70    | 43 | 11.2 | 4-Φ16 |
| 25      | 1          |                  | 108 | 79.5  | 51 | 11.2 | 4-Φ16 |
| 32      | 1-1/4      |                  | 117 | 89    | 64 | 12.7 | 4-Φ16 |
| 40      | 1-1/2      |                  | 127 | 98.5  | 73 | 14.3 | 4-Φ16 |
| 50      | 2          |                  | 152 | 120.5 | 92 | 15.9 | 4-Φ19 |
| 15      | 1/2        | 300LB            | 95  | 66.5  | 35 | 14.3 | 4-Φ16 |
| 20      | 3/4        |                  | 117 | 82.5  | 43 | 15.9 | 4-Φ19 |
| 25      | 1          |                  | 124 | 89    | 51 | 17.5 | 4-Φ19 |
| 32      | 1-1/4      |                  | 133 | 98.5  | 64 | 20.7 | 4-Φ19 |
| 40      | 1-1/2      |                  | 156 | 114.5 | 73 | 22.3 | 4-Φ22 |
| 50      | 2          |                  | 165 | 127   | 92 | 25.4 | 8-Φ19 |
| 15      | 1/2        | 600LB            | 95  | 66.5  | 35 | 14.3 | 4-Φ16 |
| 20      | 3/4        |                  | 117 | 82.5  | 43 | 15.9 | 4-Φ19 |
| 25      | 1          |                  | 124 | 89    | 51 | 17.5 | 4-Φ19 |
| 32      | 1-1/4      |                  | 133 | 98.5  | 64 | 20.7 | 4-Φ19 |
| 40      | 1-1/2      |                  | 156 | 114.5 | 73 | 22.3 | 4-Φ22 |
| 50      | 2          |                  | 165 | 127   | 92 | 25.4 | 8-Φ19 |
| 15      | 1/2        | 900LB/<br>1500LB | 121 | 82.5  | 35 | 22.4 | 4-Φ22 |
| 20      | 3/4        |                  | 130 | 89    | 43 | 25.4 | 4-Φ22 |
| 25      | 1          |                  | 149 | 101.5 | 51 | 28.5 | 4-Φ25 |
| 32      | 1-1/4      |                  | 159 | 111   | 64 | 28.5 | 4-Φ25 |
| 40      | 1-1/2      |                  | 178 | 124   | 73 | 31.8 | 4-Φ29 |
| 50      | 2          |                  | 216 | 165   | 92 | 38.1 | 8-Φ25 |

## ● 自密封型锻钢闸阀 Self seal Type Gate Valve

Model No: Z61Y

Basic standards:

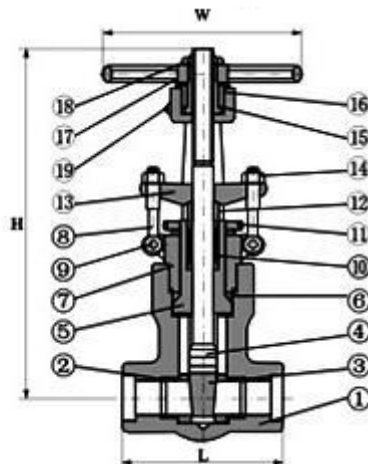
Design standard: JB/T 7746, API602

Face to face: JB/T 7746, API 602;

Thread / Weld standard: JB/T 1751 / GB 7306; ANSI B16.11 / B 2.1

Test standard: JB/T 9092, API 598

Pressure & temperature standard: GB/T 9131, MSS SP 25



## 主要部件材质 Materials List of main parts:

| No.               | Parts name             | CS to ASTM        | AS to ASTM        | SS to ASTM                     |              |
|-------------------|------------------------|-------------------|-------------------|--------------------------------|--------------|
|                   |                        | Type A105N        | Type F22          | Type F304(L)                   | Type F316(L) |
| 1                 | body                   | A105N             | A182 F22          | A182 F304(L)                   | A182 F316(L) |
| 2                 | Seal ring              | A276 410          | A276 304          | A276 304(L)                    | A276 316(L)  |
| 3                 | plate                  | A182 F430         | A182 F304         | A182 F304(L)                   | A182 F316(L) |
| 4                 | stem                   | A182 F6a          | A182 F304         | A182 F304(L)                   | A182 F316(L) |
| 5                 | Seal seat              | A105N             | A182 F304         | A182 F304(L)                   | F316(L)      |
| 6                 | Seal ring              | A276 304L         |                   |                                | A276 316(L)  |
| 7                 | bonnet                 | A105N             | A182 F22          | A182 F304(L)                   | A182 F316(L) |
| 8                 | Eyelet nut             | A193 B7           | A193 B16          | A193 B8(M)                     |              |
| 9                 | Straight pin           | A276 F420         |                   | A182 F304                      |              |
| 10                | packing                | Flexible graphite |                   | PTFE                           |              |
| 11                | Lift nut               | A194 2H           | A194 4            | A194 8                         | A194 8M      |
| 12                | Bearing cover          | A276 F420         |                   | A182 F304                      |              |
| 13                | Hand wheel             | Flexible graphite |                   | PTFE                           |              |
| 14                | Lock nut               | A194 2H           | A194 4            | A194 8                         | A194 8M      |
| 15                | Stem nut               | A276-420          |                   |                                |              |
| 16                | Bearing cover          | A194 4            | A194 8            | A194 8M                        |              |
| 17                | Hand wheel             | A197              |                   |                                |              |
| 18                | Locknut                | A194 4            | A194 8            | A194 8M                        |              |
| 19                | Lubricating oil vessel | Brass             |                   |                                |              |
| Applicable medium |                        | Water, oil, steam | Water, oil, steam | Nitric acid, acetic acid, etc. |              |
| Suitable temp.    |                        | -29°C~425°C       | -29°C~550°C       | -29°C~200°C                    |              |

**Note:** Other materials are also available on requested, seal face materials depend on the customized trim materials.其他材料也可以按要求提供, 密封面材料取决于定制的内件材料。 CS=carbon steel; AS=steel alloyed; SS=stainless steel

## 外形尺寸及参考重量 Outlet dimensions and reference weight:

|          |              | (mm) |      |      | (kg)   |        |      |
|----------|--------------|------|------|------|--------|--------|------|
| NPS      |              | 1/2" | 3/4" | 1"   | 1 1/4" | 1 1/2" | 2"   |
| L        | 900Lb-1500Lb | 140  | 140  | 140  | 178    | 178    | 216  |
|          | 2500Lb       | 186  | 186  | 186  | 232    | 232    | 279  |
| H (open) |              | 321  | 321  | 321  | 380    | 414    | 502  |
| W        |              | 160  | 160  | 180  | 200    | 250    | 280  |
| Weight   | 900LB-1500LB | 11.5 | 10.8 | 10.5 | 19.6   | 21.0   | 55.4 |
|          | 2500LB       | 12.3 | 11.6 | 10.8 | 26.0   | 28.4   | 60.0 |

● **阀体延长型 Body Extended Gate Valve**

Class 800 LB – 1500 LB

Structure types: Bolted Bonnet, Welded Bonnet, and Self Seal Bonnet.



|                  |                    |             |                 |
|------------------|--------------------|-------------|-----------------|
| Connection code: | K                  | K1          | K3              |
|                  | Thread or weld end | Oblique end | Socket weld end |

**主要部件材质 Materials List of main parts:**

| No.                  | Parts name     | CS                      | AS        | SS                             |             |
|----------------------|----------------|-------------------------|-----------|--------------------------------|-------------|
|                      |                | A105                    | F22       | F304(L)                        | F316(L)     |
| 1                    | body           | A105                    | A182F22   | A182F304(L)                    | A182F316(L) |
| 2                    | seat           | A276420                 | A276304   | A276304(L)                     | A276316(L)  |
| 3                    | plate          | A182410&F430            | A182F304  | A182F304(L)                    | A182F316(L) |
| 4                    | gasket         | 316+Flexible Graphite   |           | 316+ PTFE                      |             |
| 5                    | stem           | A182F6                  | A276F304  | A182F304(L)                    | A182F316(L) |
| 6                    | bolt           | A193B7                  | A193B16   | A193B8                         | A193B8M     |
| 7                    | pin            | A276420                 |           | A276 304                       |             |
| 8                    | Eyelet bolt    | A193B7                  | A193B16   | A193B8                         | A193B8M     |
| 9                    | nut            | A1942H                  | A1944     | A1948                          | A1948M      |
| 10                   | Lock nut       | A1942H                  | A1944     | A1948                          | A1948M      |
| 11                   | Hand wheel     | A197                    |           |                                |             |
| 12                   | Nameplate      | SS                      |           |                                |             |
| 13                   | Stem nut       | A276420                 |           |                                |             |
| 14                   | Packing gland  | A105                    | A182F11   | A182F316(L)                    |             |
| 15                   | Packing sleeve | A276410                 |           | A182F304(L)                    | A182F316(L) |
| 16                   | packing        | Flexible Graphite       |           | PTFE                           |             |
| 17                   | bonnet         | A105                    | A182F22   | A182F304(L)                    | A182F316(L) |
| Applicable medium    |                | Water, oil, steam, etc. |           | Nitric acid, acetic acid, etc. |             |
| Suitable temperature |                | -29℃~425℃               | -29℃~550℃ | -29℃~200℃                      |             |

**Note:** Other materials are also available on requested, seal face materials depend on the customized trim materials. CS=carbon steel; AS=steel alloyed; SS=stainless steel

**外形尺寸及参考重量 Outlet Dimensions and Weight:**

| NPS    |           | (mm)          |       |       |       | (kg) |        |        |
|--------|-----------|---------------|-------|-------|-------|------|--------|--------|
|        |           | Reducing bore | 3/8"  | 1/2"  | 3/4"  | 1"   | 1-1/4" | 1-1/2" |
|        | Full bore |               | 3/8"  | 1/2"  | 3/4"  | 1"   | 1-1/4" | 1-1/2" |
|        | L1        | 10.75         | 10.75 | 10.75 | 120   | 127  | 127    | 152    |
|        | L         | 147           | 147   | 153.5 | 175.5 | 187  | 187    | 222    |
|        | H (open)  | 158           | 158   | 169   | 197   | 236  | 246    | 283    |
|        | W         | 100           | 100   | 100   | 125   | 160  | 160    | 180    |
| Weight |           | 3.1           | 2.9   | 3.4   | 5.5   | 7.8  | 8.3    | 13.4   |
|        |           | 2.8           | 2.6   | 3.1   | 5.1   | 7.4  | 7.6    | 12.1   |