



## API594 Oil Gas Valve Metal To Metal Wafer Check Valve With Lug Drilled Holes CVS-0150-8L

Our Product Introduction

### Basic Information

- Place of Origin: CHINA
- Brand Name: DEYE
- Certification: ISO9001:2015 PED
- Model Number: DY-V-04
- Minimum Order Quantity: 10PCS
- Price: USD2-USD20000 each
- Packaging Details: carton box+ ply wooden cases or carton+ Pallets
- Delivery Time: 20 days for usual order, 7 days for stocked items
- Payment Terms: T/T, L/C, D/P
- Supply Ability: 1000pcs one month



### Product Specification

- Highlight: API594 Oil Gas Valve, Oil Gas Valve API594, Metal To Metal Wafer Check Valve

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## Product Description

check valve is a protection device that prevents the fluid from flowing in an unwanted direction within the piping system or the pipeline (as backflows may damage upstream equipment). The check valve lets the fluid flow in the desired direction only (if there is enough pressure), and blocks any flow in the opposite direction. Also, the valve closes automatically when the pressure drops. It is therefore critical that the valve is installed with a proper orientation.

### Product Information / Product Description / Basis Information / Specification

|                |                                                                                                                                                                                                                                                                                                                               |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard       | BS1868 check valve<br>BS1873/ /BS 5352 cast and forged Globe valve<br>API600 Bolted Bonnet Steel Gate Valves for Petroleum and Natural Gas Industries<br>API602 Forged Steel valves<br>API603 Stainless steel valve<br>API6D Gate valve, Plug valve and Ball valve<br>API609 Butterfly valve<br>API594 Wafer, Lug check valve |
| Types          | Butterfly Valves, Ball valves, gate valves, check valves, globe valves, Plug valves, strainers                                                                                                                                                                                                                                |
| Size           | 1/2"-48 DN15-DN1200" globe valve is 1/2" to 16"                                                                                                                                                                                                                                                                               |
| End Connection | Flange Ends, RF, FF, RTJ, LM, BW ends, threaded ends NPT, BSPT, BSPP, Socket Welded Ends                                                                                                                                                                                                                                      |
| Pressure Range | CL150LBS, 300LBS, 600LBS, 800LBS 900LBS, 1500LBS, 2500LBS<br>PN6 PN10 PN16 PN25 PN40. PN64 PN110, PN160, PN250, PN420                                                                                                                                                                                                         |
| Surface        | Acid pickling, Polished, Galvanized, Painting, epoxy Power Coated                                                                                                                                                                                                                                                             |

### Material List Grade

| Main Ingredients                        | Standards       |              |         |         |                 |              |         |          |
|-----------------------------------------|-----------------|--------------|---------|---------|-----------------|--------------|---------|----------|
|                                         | Castings        |              |         |         | Bar or Forgings |              |         |          |
|                                         | ASTM            | DIN (W.-Nr.) | UNS-No. | JIS     | ASTM            | DIN (W.-Nr.) | UNS-No. | JIS      |
| <b>Martensitic Stainless Steel</b>      |                 |              |         |         |                 |              |         |          |
| 13Cr-4Ni-0.8Mo                          | A743 CA6NM      | 1.4313       | J91540  | SCS6    | A276 S41500     | 1.4313       | S41500  |          |
| <b>Austenitic Stainless Steel</b>       |                 |              |         |         |                 |              |         |          |
| 18Cr-8Ni                                | A351 CF8        | 1.4308       | J92600  | SCS1 3A | A276 304        | 1.4301       | S30400  | SUS 304  |
| 18Cr-8Ni-LS <sup>(1)</sup>              |                 |              |         |         |                 |              |         |          |
| 18Cr-8Ni-LC <sup>(2)</sup>              | A351 CF3        | 1.4306       | J92500  | SCS1 9A | A276 304L       | 1.4306       | S30403  | SUS 304L |
| 18Cr-9Ni-2Mo                            | A351 CF8M       | 1.4408       | J92900  | SCS1 4A | A276 316        | 1.4401       | S31600  | SUS 316  |
| 18Cr-9Ni-2Mo-LS <sup>(1)</sup>          |                 |              |         |         |                 |              |         |          |
| 18Cr-9Ni-2Mo-LC <sup>(2)</sup>          | A351 CF3M       | 1.4404       | J92800  | SCS1 6A | A276 316L       | 1.4404       | S31603  | SUS 316L |
| 18Cr-10Ni-Nb                            | A351 CF8C       | 1.4552       | J92710  | SCS2 1  | A276 347        | 1.455        | S34700  | SUS 347  |
| 18Cr-12Ni-3.5Mo                         | A351 CG8M       |              | J93000  |         | A276 317        | 1.4449       | S31700  | SUS 317  |
| 18Cr-12Ni-3.5Mo-LC <sup>(2)</sup>       | A351 CG3M       |              | J92999  |         | A276 317L       | 1.4438       | S31703  | SUS 317L |
| 18Cr-13Ni-4.5Si                         |                 |              |         |         |                 |              |         |          |
| 21Cr-29Ni-2.5Mo-3.5Cu                   | A351 CN7M       | 1.4536       | J95150  | SCS2 3  | A473 N08020     | 2.466        | N08020  |          |
| 21Cr-29Ni-2.7Mo-3.2Cu-LC <sup>(2)</sup> | A990 CN3MCu     |              |         |         |                 |              |         |          |
| 25Cr-20N                                | A351 CK20       |              | J94202  | SCS1 8  | A276 310S       | 1.4845       | S31008  | SUS 310S |
| 33Ni-20Cr-45Fe-Nb                       | A351 CT15C      | 1.4859       | N28820  |         | B408 N08800     | 1.4876       | N08800  | NCF800   |
| <b>Super Austenitic Stainless Steel</b> |                 |              |         |         |                 |              |         |          |
| 21Cr-24Ni-6.5Mo-N                       | A351 CN3MN      |              |         |         | B691 N08367     |              | N08367  | SUS 836L |
| 25Cr-24Ni-6.5Mo-N                       | A351 CN3MN mod. |              |         |         |                 |              |         |          |

|                                     |                     |        |        |            |               |        |        |            |
|-------------------------------------|---------------------|--------|--------|------------|---------------|--------|--------|------------|
| 20Cr-18Ni-6.5Mo-N-Cu                | A351 CK3MCuN        |        | J93254 |            | A276 S31254   |        | S31254 |            |
| <b>Duplex Stainless Steel</b>       |                     |        |        |            |               |        |        |            |
| 22Cr-5Ni-3Mo-N                      | A995 Gr.4A CD3MN    |        | J92205 |            | A276 UNS32205 | 1.4462 | S32205 | SUS 329J3L |
| 25Cr-5Ni-Mo-Cu                      | A890 Gr.1A CD4MCu   |        | J93370 |            | A790 UNS31260 |        | S31260 |            |
| <b>Super Duplex Stainless Steel</b> |                     |        |        |            |               |        |        |            |
| 25Cr-7Ni-3Mo-N                      |                     |        |        | SCS10      | A479 S32750   | 1.446  | S32750 | SUS 329J4L |
| 28Cr-7Ni-4Mo-N                      |                     |        |        | SCS10 mod. |               |        |        |            |
| 25Cr-7Ni-3Mo-Cu-N-W                 | A890 Gr.6A CD3MWCuN | 1.4468 | J93380 |            | A479 S32750   | 1.446  | S32750 |            |
| 25Cr-7Ni-4Mo-N                      | A890 Gr.5A CE3MN    |        | J93404 |            | A479 S32750   | 1.446  | S32750 |            |

High Temperature Material CF8, 304, 304H CF8M, 316, 316H CK-20, 310, 310H WC4, WC5, F2, WC6, F11C1.2, F12C1.2, WC9, F22C1.3, C5, F5, WC4, WC5, F2, WC6, F11C1.2, F12C1.2, WC9, F22C1.3, C5, F5

Low Temperature Material A352 LCB, LCC, LC1 LC2, LC3, LC4, CF8M, CF8, CF3M  
Alloy Material: Bronze, IN Conoy, DUPLEX SS, Alloy 20, Hastelloy C 276, Hastelloy B

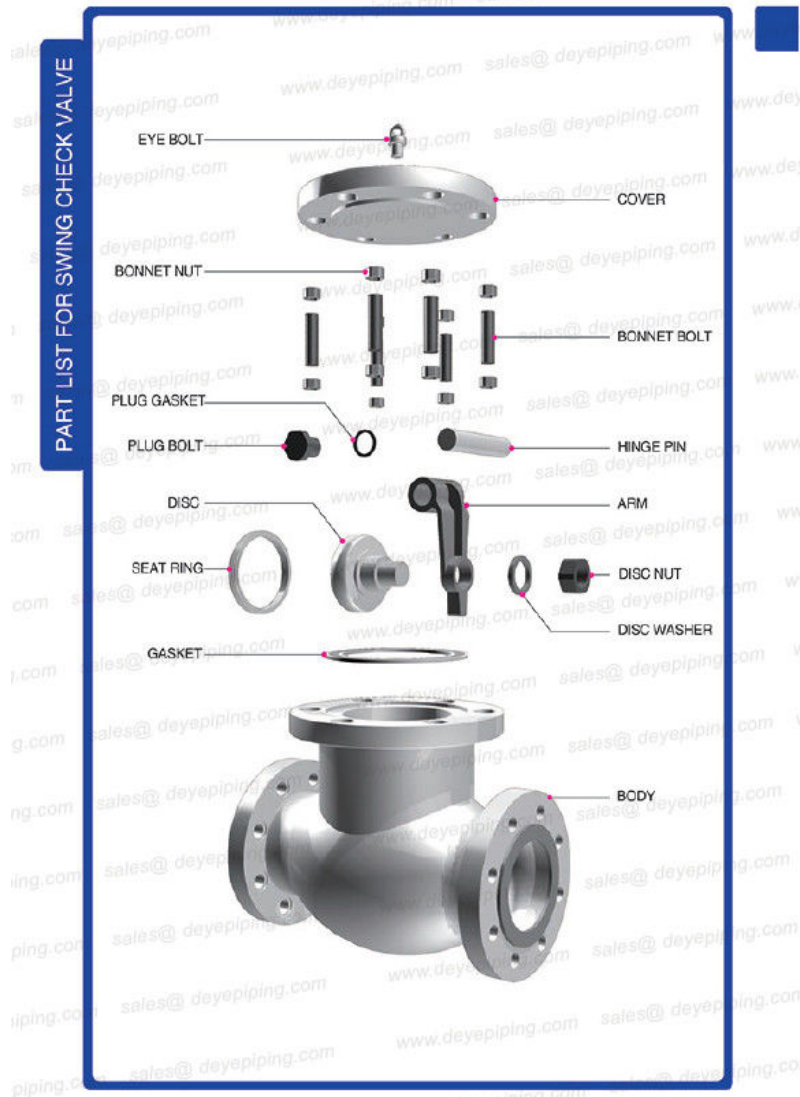
#### Technical Pressure Test

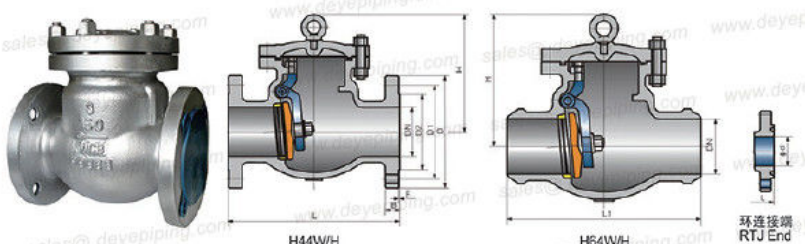
|                                                                                                            |                                 |           |                                              |                                |                      |
|------------------------------------------------------------------------------------------------------------|---------------------------------|-----------|----------------------------------------------|--------------------------------|----------------------|
| Shell Test                                                                                                 | 1.5xworking pressure            |           |                                              |                                |                      |
| Seal Test                                                                                                  | 1.1x Working Pressure           |           |                                              |                                |                      |
| air test for seal                                                                                          | 0.6Mpa by air                   |           |                                              |                                |                      |
| Valve Size                                                                                                 | Minimum Test Duration (Seconds) |           |                                              |                                |                      |
| DN                                                                                                         | NPS                             | Shell , 夕 | Backseat (for Valves with Backseat Featu_re) | Closure Check Valves (API 594) | Closure Other Valves |
| ≤50                                                                                                        | ≤ 2"                            | 15        | 15                                           | 60                             | 15                   |
| 65 to 150                                                                                                  | 2 1/2" to 6"                    | 60        | 60                                           | 60                             | 60                   |
| 200 to 300                                                                                                 | 8"-12"                          | 120       | 60                                           | 120                            | 120                  |
| ≥350                                                                                                       | ≥14"                            | 300       | 60                                           | 120                            | 120                  |
| a The test duration is the period of inspection aft the valve is fully prepared and is unde full pressure. |                                 |           |                                              |                                |                      |

| Maximum allowable Leakage Rates for Closure Test |       |                             |                                  |                            |                           |                 |                  |
|--------------------------------------------------|-------|-----------------------------|----------------------------------|----------------------------|---------------------------|-----------------|------------------|
| Valve Size                                       |       | All Resilient Seated Valves | Metal Seated Valves Except Check |                            | Metal Seated Check Valves |                 |                  |
| DN (mm)                                          | NPS   |                             | Liquid Test (drops/minute)       | Gas. Test (bubbles/minute) | Liquid Test (cc/min)      | Gas Test (m3/h) | Gas Test (ft3/h) |
| ≤50                                              | ≤2    | 0                           | 0                                | 0                          | 6                         | 0.08            | 3                |
| 65                                               | 2 1/2 | 0                           | 5                                | 10                         | 7.5                       | 0.11            | 3.75             |
| 80                                               | 3     | 0                           | 6                                | 12                         | 9                         | 0.13            | 4.5              |
| 100                                              | 4     | 0                           | 8                                | 16                         | 12                        | 0.17            | 6                |
| 125                                              | 5     | 0                           | 10                               | 20                         | 15                        | 0.21            | 7.5              |
| 150                                              | 6     | 0                           | 12                               | 24                         | 18                        | 0.25            | 9                |
| 200                                              | 8     | 0                           | 16                               | 32                         | 24                        | 0.34            | 12               |
| 250                                              | 10    | 0                           | 20                               | 40                         | 30                        | 0.42            | 15               |
| 300                                              | 12    | 0                           | 24                               | 48                         | 36                        | 0.5             | 18               |
| 350                                              | 14    | 0                           | 28                               | 56                         | 42                        | 0.59            | 21               |
| 400                                              | 16    | 0                           | 32                               | 64                         | 48                        | 0.67            | 24               |
| 450                                              | 18    | 0                           | 36                               | 72                         | 54                        | 0.76            | 27               |
| 500                                              | 20    | 0                           | 40                               | 80                         | 60                        | 0.84            | 30               |
| 600                                              | 24    | 0                           | 48                               | 96                         | 72                        | 1.01            | 36               |
| 650                                              | 26    | 0                           | 52                               | 104                        | 78                        | 1.09            | 39               |
| 700                                              | 28    | 0                           | 56                               | 112                        | 84                        | 1.18            | 42               |
| 750                                              | 30    | 0                           | 60                               | 120                        | 90                        | 1.26            | 45               |
| 800                                              | 32    | 0                           | 64                               | 128                        | 96                        | 1.34            | 48               |
| 900                                              | 36    | 0                           | 72                               | 144                        | 108                       | 1.51            | 54               |
| 1000                                             | 40    | 0                           | 80                               | 160                        | 120                       | 1.68            | 60               |
| 1050                                             | 42    | 0                           | 84                               | 168                        | 126                       | 1.76            | 63               |
| 1200                                             | 48    | 0                           | 96                               | 192                        | 144                       | 2.02            | 72               |

a For the liquid test, 1 ml is considered equivalent to 16 drops.  
b There shall be no leakage for the minimum specified test duration . For liquid test, 0 drops means no visible leakage per minimum specified test duration. For gas test, 0 bubbles means less than 1 bubble per minimum specified test duration.

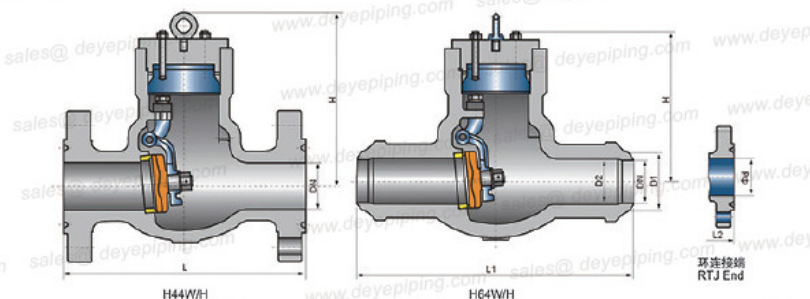
#### Check Valves catalogue pages/Dimension List




**美标150Lb ~ 300Lb旋启式止回阀 Class 150 & Class 300 Cast Steel Swing Check Valve**

| 规格Size |     | Class 150        |      |      |     |                      |                  | Class 300 |      |      |                      |      |      |
|--------|-----|------------------|------|------|-----|----------------------|------------------|-----------|------|------|----------------------|------|------|
| NPS    | DN  | 尺寸Dimensions(mm) |      |      |     | 重量<br>Weight<br>(kg) | 尺寸Dimensions(mm) |           |      |      | 重量<br>Weight<br>(kg) |      |      |
|        |     | L                |      |      | d   |                      | H                | L         |      |      |                      | d    | H    |
|        |     | RF               | RTJ  | BW   |     |                      |                  | RF        | RTJ  | BW   |                      |      |      |
| 2      | 50  | 203              | 216  | 203  | 51  | 132                  | 15               | 267       | 283  | 267  | 51                   | 144  | 16   |
| 2 1/2  | 65  | 216              | 229  | 216  | 64  | 147                  | 20               | 292       | 308  | 292  | 64                   | 169  | 30   |
| 3      | 80  | 241              | 254  | 241  | 76  | 176                  | 27               | 318       | 333  | 318  | 76                   | 210  | 35   |
| 4      | 100 | 282              | 305  | 282  | 102 | 198                  | 45               | 356       | 371  | 356  | 102                  | 260  | 41   |
| 5      | 125 | 330              | 343  | 330  | 127 | 255                  | 58               | 400       | 416  | 400  | 127                  | 295  | 60   |
| 6      | 150 | 366              | 368  | 366  | 152 | 320                  | 69               | 445       | 460  | 445  | 152                  | 326  | 71   |
| 8      | 200 | 485              | 506  | 485  | 203 | 380                  | 131              | 533       | 549  | 533  | 203                  | 380  | 150  |
| 10     | 250 | 622              | 635  | 622  | 254 | 440                  | 219              | 622       | 638  | 622  | 254                  | 440  | 265  |
| 12     | 300 | 699              | 711  | 699  | 305 | 480                  | 321              | 711       | 727  | 711  | 305                  | 520  | 450  |
| 14     | 350 | 787              | 800  | 787  | 337 | 530                  | 380              | 838       | 854  | 838  | 337                  | 540  | 640  |
| 16     | 400 | 864              | 876  | 864  | 387 | 580                  | 560              | 864       | 879  | 864  | 387                  | 588  | 850  |
| 18     | 450 | 978              | 991  | 978  | 438 | 618                  | 630              | 978       | 994  | 978  | 438                  | 670  | 1030 |
| 20     | 500 | 978              | 991  | 978  | 489 | 657                  | 770              | 1016      | 1035 | 1016 | 489                  | 720  | 1330 |
| 24     | 600 | 1295             | 1308 | 1295 | 591 | 760                  | 960              | 1346      | 1368 | 1346 | 591                  | 850  | 1960 |
| 26     | 650 | 1295             | -    | 1295 | 633 | 840                  | 1250             | 1346      | 1372 | 1346 | 633                  | 920  | 2300 |
| 28     | 700 | 1448             | -    | 1448 | 684 | 920                  | 1580             | 1488      | 1524 | 1488 | 684                  | 1150 | 2600 |
| 30     | 750 | 1524             | -    | 1524 | 735 | 980                  | 1650             | 1584      | 1619 | 1584 | 735                  | 1260 | 3200 |





美标600Lb~2500Lb旋启式止回阀 Class600~Class2500 Cast Steel Swing Check Valve

| 规格Size |     | Class 600        |      |      |     |      |                      | Class 900        |      |      |     |      |                      |
|--------|-----|------------------|------|------|-----|------|----------------------|------------------|------|------|-----|------|----------------------|
| NPS    | DN  | 尺寸Dimensions(mm) |      |      |     |      |                      | 尺寸Dimensions(mm) |      |      |     |      |                      |
|        |     | RF               | RTJ  | BW   | d   | H    | 重量<br>Weight<br>(kg) | RF               | RTJ  | BW   | d   | H    | 重量<br>Weight<br>(kg) |
| 2      | 50  | 292              | 295  | 292  | 51  | 170  | 26                   | 368              | 371  | 366  | 51  | 200  | 48                   |
| 2 1/2  | 65  | 330              | 333  | 330  | 64  | 178  | 40                   | 419              | 422  | 419  | 64  | 220  | 75                   |
| 3      | 80  | 356              | 359  | 356  | 76  | 246  | 68                   | 381              | 384  | 381  | 76  | 280  | 95                   |
| 4      | 100 | 432              | 435  | 432  | 102 | 290  | 117                  | 457              | 460  | 457  | 102 | 320  | 135                  |
| 5      | 125 | 508              | 511  | 508  | 127 | 320  | 155                  | 559              | 562  | 559  | 127 | 360  | 200                  |
| 6      | 150 | 559              | 562  | 559  | 152 | 360  | 192                  | 610              | 613  | 610  | 152 | 400  | 264                  |
| 8      | 200 | 650              | 654  | 650  | 203 | 430  | 340                  | 737              | 740  | 737  | 203 | 480  | 424                  |
| 10     | 250 | 787              | 791  | 787  | 254 | 502  | 515                  | 838              | 841  | 838  | 254 | 560  | 730                  |
| 12     | 300 | 838              | 841  | 838  | 305 | 554  | 750                  | 965              | 968  | 965  | 305 | 632  | 1070                 |
| 14     | 350 | 889              | 892  | 889  | 337 | 595  | 890                  | 1029             | 1038 | 1029 | 322 | 680  | 1180                 |
| 16     | 400 | 991              | 994  | 991  | 387 | 680  | 1303                 | 1130             | 1140 | 1130 | 373 | 780  | 1790                 |
| 18     | 450 | 1092             | 1095 | 1092 | 438 | 778  | 1600                 | 1219             | 1232 | 1219 | 423 | 880  | 2500                 |
| 20     | 500 | 1194             | 1200 | 1194 | 489 | 970  | 2150                 | 1321             | 1334 | 1321 | 471 | 1050 | 3080                 |
| 24     | 600 | 1397             | 1407 | 1397 | 591 | 1100 | 3200                 | 1549             | 1568 | 1549 | 622 | 1200 | 4600                 |

| 规格Size |     | Class 1500       |      |      |     |     |                      | Class 2500       |      |      |     |     |                      |
|--------|-----|------------------|------|------|-----|-----|----------------------|------------------|------|------|-----|-----|----------------------|
| NPS    | DN  | 尺寸Dimensions(mm) |      |      |     |     |                      | 尺寸Dimensions(mm) |      |      |     |     |                      |
|        |     | RF               | RTJ  | BW   | d   | H   | 重量<br>Weight<br>(kg) | RF               | RTJ  | BW   | d   | H   | 重量<br>Weight<br>(kg) |
| 2      | 50  | 358              | 371  | 358  | 51  | 210 | 48                   | 451              | 454  | 451  | 42  | 230 | 68                   |
| 2 1/2  | 65  | 419              | 422  | 419  | 64  | 240 | 75                   | 508              | 514  | 508  | 52  | 260 | 100                  |
| 3      | 80  | 470              | 473  | 470  | 76  | 303 | 120                  | 578              | 584  | 578  | 62  | 330 | 165                  |
| 4      | 100 | 545              | 548  | 545  | 102 | 340 | 180                  | 673              | 683  | 673  | 87  | 370 | 260                  |
| 5      | 125 | 673              | 676  | 673  | 127 | 380 | 294                  | 794              | 807  | 794  | 95  | 410 | 440                  |
| 6      | 150 | 705              | 711  | 705  | 144 | 430 | 385                  | 914              | 927  | 914  | 131 | 460 | 580                  |
| 8      | 200 | 832              | 841  | 832  | 192 | 500 | 634                  | 1022             | 1038 | 1022 | 179 | 530 | 970                  |
| 10     | 250 | 991              | 1000 | 991  | 239 | 590 | 1140                 | 1270             | 1292 | 1270 | 223 | 620 | 1700                 |
| 12     | 300 | 1130             | 1146 | 1130 | 287 | 660 | 1650                 | 1422             | 1445 | 1422 | 265 | 690 | 2600                 |
| 14     | 350 | 1257             | 1276 | 1257 | 315 | 710 | 2000                 | -                | -    | -    | -   | -   | -                    |
| 16     | 400 | 1384             | 1407 | 1384 | 350 | 820 | 2700                 | -                | -    | -    | -   | -   | -                    |

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## Application:

Valve is a universal component industrial product that is widely used in many industries, such as petroleum, petrochemical, chemical, metallurgy, power, water conservancy, urban construction, machinery, coal, food, Sea water, Oil Refining, environment, energy.  
Steam, LPG.

## Reference Standard:

API 600: cast carbon and alloy valves  
API 603: stainless steel valves  
API 602/BS 5352: forged valves  
API 6D: slab and through conduit valves for pipelines  
API 598 and BS EN 12266-1: valves testing  
ASME B16.10: face to face dimensions for valves  
ASME B16.5 and ASME B16.47: flanged connections  
ASME B16.25: butt weld connections design  
ASME B16.34: Pressure ratings pressure and temperature ratings by material grade  
ISO 7-1:1994, Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation.  
ISO 4200:1991, Plain end steel tubes, welded and seamless — Dimensions.  
ISO 5208:1993, Industrial valves — Pressure testing of valves.  
ISO 5209:1977, General purpose industrial valves — Marking.  
ISO 5210:1991, Industrial valves — multi-turn valve actuator attachments.  
ISO 5752: — 1), Metal valves for use in flanged pipe systems — Face-to-face and center-to-face dimensions.  
ISO 6708:1995, Pipework components — Definition and selection of DN (nominal size) .  
ISO 7005-1:1992, Metallic flanges — Part 1: Steel flanges.  
ISO 7268:1983, Pipe components — Definition of nominal pressure.  
ASME B1.1:1989, Unified inch screw threads (UN and UNR thread form) .  
ASME B1.5:1988 (R1994), Acme screw threads.  
ASME B1.8:1988 (R1994), Stub Acme screw threads.  
ASME B1.12:1987 (R1992), Screw threads — Class 5 interference — Fit thread.  
ASME B1.20.1:1983 (R1992), Pipe threads, general purpose (inch) .  
ASME B16.5:1996, Pipe flanges and flanged fittings.

ASME B16.34:1996, Valves — Flanged, threaded and welding end.  
ASME B18.2.2:1987 (R1993), Square and hex nuts (inch series) .  
ASTM A193:1996, Specification for alloy steel and stainless-steel bolting materials for high-temperature service.  
ASTM A194:1996, Specification for carbon and alloy steel nuts for bolts for high-pressure and high-temperature service.  
ASTM A307:1994, Specification for carbon steel bolts and studs, 60 000 psi tensile strength.  
MSS SP-55:1985 (R1990), Quality standard for steel castings, visual surface examination.  
1) To be published. (Revision of ISO 5752:1982)



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