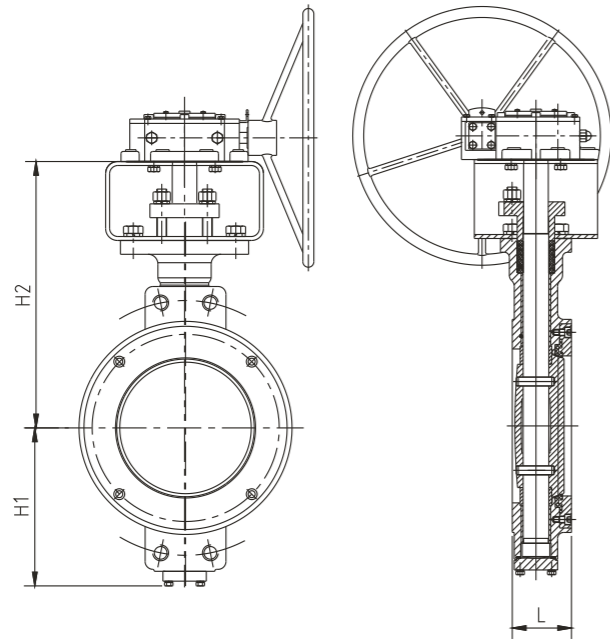


# Cast Steel Bolted Bonnet Valves

CCPV

Materials of Construction: Wafer Type High Performance Butterfly Valves



## Products Specification

|                             |                                  |
|-----------------------------|----------------------------------|
| Valve Name                  | High performance Butterfly Valve |
| Pressure Class              | 150Lb-600Lb                      |
| Valve Nominal Size          | 2"-60"                           |
| Design Standard             | API609                           |
| Test Standard               | API 598                          |
| Connection Standard         | ASME B16.5                       |
| Valve Actuator              | Worm Gear                        |
| Valve Connection            | Wafer                            |
| Valve Structure             | High performance                 |
| Water Air Oil Gas Steam etc |                                  |

## Products Main Parts List

| Item | Part Name    | Part Material |           |            |      |      |
|------|--------------|---------------|-----------|------------|------|------|
|      |              | CS            | CS<br>CF8 | CS<br>CF8M | CF8  | CF8M |
| 1    | Body         | WCB           | WCB       | WCB        | CF8  | CF8M |
| 2    | Disc         | WCB           | CF8       | CF8M       | CF8  | CF8M |
| 3    | Stem         | 420           | F304      | F316       | F304 | F316 |
| 4    | Seat         | PTFE/RPTFE    |           |            |      |      |
| 5    | Stem Packing | PTFE          |           |            |      |      |
| 6    | Operator     | Worm gear     |           |            |      |      |

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# Cast Steel Bolted Bonnet Valves

Wafer Type High Performance Butterfly Valves • ANSI Class 150

## Dimension

| Nominal Diameter (mm) | Face to Face Length | Height from Pipe Center (mm) | Height from Pipe Center to Bottom(mm) | Hand wheel Diameter (mm) | Torque (N.M) | Cv     | Top Flange ISO-No. |
|-----------------------|---------------------|------------------------------|---------------------------------------|--------------------------|--------------|--------|--------------------|
| 2"(DN50)              | 43                  | 195                          | 64                                    | 203                      | 24           | 65     | F07                |
| 2 1/2"(DN65)          | 46                  | 200                          | 80                                    | 203                      | 35           | 113    | F07                |
| 3"(DN80)              | 48                  | 215                          | 85                                    | 203                      | 47           | 172    | F07                |
| 4"(DN100)             | 54                  | 242                          | 92                                    | 203                      | 75           | 385    | F07                |
| 5"(DN125)             | 57                  | 255                          | 120                                   | 203                      | 112          | 658    | F07                |
| 6"(DN150)             | 57                  | 305                          | 147                                   | 203                      | 169          | 1050   | F10                |
| 8"(DN200)             | 64                  | 350                          | 185                                   | 305                      | 325          | 2180   | F10                |
| 10"(DN250)            | 71                  | 370                          | 200                                   | 305                      | 558          | 3280   | F12                |
| 12"(DN300)            | 81                  | 425                          | 222                                   | 406                      | 1200         | 5100   | F14                |
| 14"(DN350)            | 92                  | 460                          | 247                                   | 508                      | 1620         | 5800   | F14                |
| 16"(DN400)            | 102                 | 510                          | 316                                   | 508                      | 2130         | 9287   | F16                |
| 18"(DN450)            | 114                 | 545                          | 342                                   | 610                      | 3100         | 11400  | F16                |
| 20"(DN500)            | 127                 | 565                          | 372                                   | 610                      | 4000         | 13800  | F16                |
| 24"(DN600)            | 154                 | 675                          | 440                                   | 610                      | 5800         | 21600  | F25                |
| 28"(DN700)            | 165                 | 770                          | 505                                   | 711                      | 6850         | 28080  | F25                |
| 30"(DN750)            | 190                 | 795                          | 528                                   | 711                      | 7960         | 38740  | F25                |
| 32"(DN800)            | 190                 | 845                          | 600                                   | 711                      | 9580         | 44070  | F25                |
| 36"(DN900)            | 203                 | 875                          | 645                                   | 711                      | 10210        | 55800  | F25                |
| 40"(DN1000)           | 216                 | 975                          | 700                                   | 762                      | 14620        | 68860  | F30                |
| 48"(DN1200)           | 254                 | 1170                         | 830                                   | 812                      | 24800        | 99200  | F30                |
| 56"(DN1400)           | 318                 | 1290                         | 980                                   | 914                      | 39400        | 138000 | F35                |
| 60"(DN1500)           | 318                 | 1375                         | 1030                                  | 914                      | 40800        | 164300 | F35                |

## Products Description(DN50~1500)

1. High performance type, can be Fire-safe or Non fire-safe type.
2. Valve operation torque is a little lighter than Metal to Metal seal.
3. Valve Seat material can be PTFE, RPTFE etc.
4. Disc and Stem connection, there are two kinds: Without pin, Pin connection.

# Cast Steel Bolted Bonnet Valves



## Wafer Type High Performance Butterfly Valves • ANSI Class 300

### Dimension

| Nominal Diameter (mm) | Face to Face Length | Height from Pipe Center (mm) | Height from Pipe Center to Bottom(mm) | Hand wheel Diameter (mm) | Torque (N.M) | Cv     | Top Flange ISO-No. |
|-----------------------|---------------------|------------------------------|---------------------------------------|--------------------------|--------------|--------|--------------------|
| 2"(DN50)              | 43                  | 195                          | 64                                    | 203                      | 70           | 65     | F07                |
| 2 1/2"(DN65)          | 48                  | 200                          | 80                                    | 203                      | 95           | 113    | F07                |
| 3"(DN80)              | 48                  | 215                          | 85                                    | 203                      | 112          | 172    | F07                |
| 4"(DN100)             | 54                  | 242                          | 92                                    | 203                      | 146          | 385    | F07                |
| 5"(DN125)             | 59                  | 255                          | 120                                   | 203                      | 248          | 658    | F07                |
| 6"(DN150)             | 59                  | 320                          | 178                                   | 305                      | 378          | 1050   | F10                |
| 8"(DN200)             | 73                  | 365                          | 210                                   | 406                      | 852          | 1895   | F12                |
| 10"(DN250)            | 83                  | 430                          | 235                                   | 508                      | 1390         | 3050   | F14                |
| 12"(DN300)            | 92                  | 470                          | 282                                   | 610                      | 2200         | 4800   | F16                |
| 14"(DN350)            | 117                 | 545                          | 312                                   | 610                      | 3450         | 5395   | F16                |
| 16"(DN400)            | 133                 | 580                          | 349                                   | 610                      | 4080         | 7900   | F25                |
| 18"(DN450)            | 149                 | 620                          | 386                                   | 711                      | 5920         | 10086  | F25                |
| 20"(DN500)            | 159                 | 670                          | 410                                   | 711                      | 7900         | 11300  | F25                |
| 24"(DN600)            | 181                 | 715                          | 480                                   | 711                      | 11800        | 16980  | F25                |
| 28"(DN700)            | 229                 | 890                          | 510                                   | 812                      | 18000        | 23000  | F30                |
| 30"(DN750)            | 229                 | 930                          | 600                                   | 812                      | 24245        | 26520  | F35                |
| 32"(DN800)            | 241                 | 990                          | 630                                   | 812                      | 26750        | 31200  | F35                |
| 36"(DN900)            | 241                 | 1050                         | 680                                   | 914                      | 29380        | 39450  | F35                |
| 40"(DN1000)           | 300                 | 1120                         | 735                                   | 914                      | 38900        | 50160  | F40                |
| 48"(DN1200)           | 350                 | 1180                         | 880                                   | 914                      | 50690        | 74500  | F40                |
| 56"(DN1400)           | 390                 | 1360                         | 980                                   | 914                      | 82120        | 107450 | F40                |
| 60"(DN1500)           | 440                 | 1410                         | 1030                                  | 1016                     | 98200        | 124300 | F48                |

### Products Description(DN50~1500)

1. High performance type, can be Fire-safe or Non fire-safe type.
2. Valve operation torque is a little lighter than Metal to Metal seal.
3. Valve Seat material can be PTFE, RPTFE etc.
4. Disc and Stem connection, there are two kinds: Without pin, Pin connection.



# Cast Steel Bolted Bonnet Valves

## Wafer Type High Performance Butterfly Valves • ANSI Class 600

### Dimension

| Nominal Diameter (mm) | Face to Face Length | Height from Pipe Center (mm) | Height from Pipe Center to Bottom(mm) | Hand wheel Diameter (mm) | Torque (N.M) | Cv    | Top Flange ISO-No. |
|-----------------------|---------------------|------------------------------|---------------------------------------|--------------------------|--------------|-------|--------------------|
| 2"(DN50)              | 54                  | 225                          | 82.5                                  | 203                      | 125          | 48    | F07                |
| 2 1/2"(DN65)          | 54                  | 245                          | 95                                    | 203                      | 130          | 86    | F07                |
| 3"(DN80)              | 54                  | 275                          | 105                                   | 203                      | 145          | 132   | F07                |
| 4"(DN100)             | 64                  | 275                          | 137.5                                 | 203                      | 189          | 270   | F07                |
| 5"(DN125)             | 78                  | 325                          | 165                                   | 406                      | 630          | 580   | F10                |
| 6"(DN150)             | 78                  | 385                          | 200                                   | 406                      | 720          | 850   | F12                |
| 8"(DN200)             | 102                 | 435                          | 232                                   | 508                      | 1250         | 1400  | F14                |
| 10"(DN250)            | 117                 | 510                          | 277                                   | 610                      | 2720         | 2010  | F16                |
| 12"(DN300)            | 140                 | 535                          | 302                                   | 610                      | 4688         | 2980  | F25                |
| 14"(DN350)            | 155                 | 617                          | 329                                   | 610                      | 5237         | 3900  | F25                |
| 16"(DN400)            | 178                 | 665                          | 432                                   | 711                      | 8980         | 5000  | F25                |
| 18"(DN450)            | 200                 | 715                          | 463                                   | 762                      | 12090        | 6000  | F25                |
| 20"(DN500)            | 216                 | 730                          | 492                                   | 812                      | 16200        | 8000  | F30                |
| 24"(DN600)            | 232                 | 895                          | 525                                   | 812                      | 24100        | 11000 | F30                |
| 28"(DN700)            | 292                 | 925                          | 545                                   | 914                      | 33800        | 13000 | F35                |
| 30"(DN750)            | 318                 | 965                          | 565                                   | 914                      | 41300        | 15400 | F35                |
| 32"(DN800)            | 318                 | 1020                         | 670                                   | 914                      | 56000        | 17500 | F40                |
| 36"(DN900)            | 330                 | 1190                         | 730                                   | 1016                     | 86000        | 22360 | F48                |
| 40"(DN1000)           | 410                 | 1220                         | 735                                   | 1016                     | 108000       | 27600 | F48                |
| 48"(DN1200)           | 470                 | 1280                         | 860                                   | 1016                     | 145000       | 39750 | F60                |
| 56"(DN1400)           | 530                 | 1415                         | 980                                   | 1016                     | 187000       | 57261 | F60                |
| 60"(DN1500)           | 600                 | 1450                         | 1030                                  | 1016                     | 228000       | 65800 | F60                |

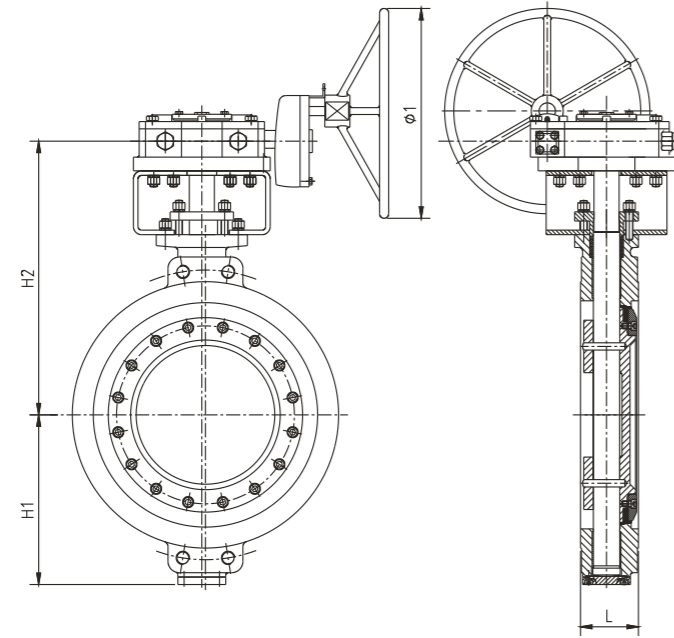
### Products Description(DN50~1500)

1. High performance type, can be Fire-safe or Non fire-safe type.
2. Valve operation torque is a little lighter than Metal to Metal seal.
3. Valve Seat material can be PTFE, RPTFE etc.
4. Disc and Stem connection, there are two kinds: Without pin, Pin connection.

# Cast Steel Bolted Bonnet Valves

CCPV

Materials of Construction: Wafer Type Triple Offsets Butterfly Valves



## Products Specification

|                                  |                                |
|----------------------------------|--------------------------------|
| Valve Name                       | Triple Offsets Butterfly Valve |
| Pressure Class                   | 150Lb-900Lb                    |
| Valve Nominal Size               | 2"-60"                         |
| Design Standard                  | API609                         |
| Test Standard                    | API 598                        |
| Connection Standard              | ASME B16.5                     |
| Valve Actuator                   | Lever, Worm Gear               |
| Valve Connection                 | Wafer                          |
| Valve Structure                  | Triple Offsets                 |
| Water, Air, Oil, Gas, Steam, etc |                                |

## Products Main Parts List

| Item | Part Name    | Part Material  |           |                |                |      |
|------|--------------|----------------|-----------|----------------|----------------|------|
|      |              | CS             | CS<br>CF8 | CS<br>CF8M     | CF8            | CF8M |
| 1    | Body         | WCB            | WCB       | WCB            | CF8            | CF8M |
| 2    | Disc         | WCB            | CF8       | CF8M           | CF8            | CF8M |
| 3    | Stem         | 420            | F304      | F316           | F304           | F316 |
| 4    | Seat         | 13Cr/HF        | 13Cr/HF   | 13Cr/HF        | Body           | Body |
| 5    | Seal Ring    | SS304+Graphite |           | SS316+Graphite | SS304+Graphite |      |
| 6    | Pin          | 420            | F304      | F316           | F304           | F316 |
| 7    | Stem Packing | PTFE/Graphite  |           |                |                |      |
| 8    | Operator     | Worm Gear      |           |                |                |      |

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# Cast Steel Bolted Bonnet Valves

Wafer Type Triple Offsets Butterfly Valves • ANSI Class 150

## Dimension

| Nominal Diameter (mm) | Face to Face Length | Height from Pipe Center (mm) | Height from Pipe Center to Bottom(mm) | Hand wheel Diameter (mm) | Torque (N.M) | Cv     | Top Flange ISO-No. |
|-----------------------|---------------------|------------------------------|---------------------------------------|--------------------------|--------------|--------|--------------------|
| 2"(DN50)              | 43                  | 210                          | 75                                    | 203                      | 26           | 58     | F07                |
| 2 1/2"(DN65)          | 46                  | 220                          | 90                                    | 203                      | 32           | 109    | F07                |
| 3"(DN80)              | 48                  | 230                          | 95                                    | 203                      | 80           | 165    | F07                |
| 4"(DN100)             | 54                  | 240                          | 115                                   | 203                      | 142          | 318    | F07                |
| 5"(DN125)             | 56                  | 296                          | 138                                   | 305                      | 264          | 648    | F10                |
| 6"(DN150)             | 57                  | 310                          | 147                                   | 305                      | 362          | 932    | F10                |
| 8"(DN200)             | 64                  | 350                          | 185                                   | 406                      | 785          | 1970   | F12                |
| 10"(DN250)            | 71                  | 402                          | 215                                   | 406                      | 1080         | 2689   | F14                |
| 12"(DN300)            | 81                  | 455                          | 252                                   | 508                      | 1510         | 3930   | F14                |
| 14"(DN350)            | 92                  | 505                          | 287                                   | 508                      | 2458         | 5290   | F16                |
| 16"(DN400)            | 102                 | 560                          | 317                                   | 610                      | 2850         | 7726   | F25                |
| 18"(DN450)            | 114                 | 565                          | 342                                   | 610                      | 4536         | 9856   | F25                |
| 20"(DN500)            | 127                 | 605                          | 372                                   | 610                      | 5474         | 12180  | F25                |
| 24"(DN600)            | 154                 | 675                          | 440                                   | 711                      | 8240         | 19800  | F25                |
| 28"(DN700)            | 165                 | 770                          | 505                                   | 711                      | 11682        | 27600  | F30                |
| 30"(DN750)            | 190                 | 795                          | 528                                   | 762                      | 14340        | 33700  | F30                |
| 32"(DN800)            | 190                 | 845                          | 600                                   | 762                      | 17856        | 35800  | F30                |
| 36"(DN900)            | 203                 | 875                          | 645                                   | 812                      | 23345        | 45600  | F30                |
| 40"(DN1000)           | 216                 | 975                          | 700                                   | 812                      | 28200        | 65320  | F35                |
| 48"(DN1200)           | 254                 | 1170                         | 830                                   | 914                      | 44400        | 96000  | F40                |
| 56"(DN1400)           | 318                 | 1290                         | 980                                   | 914                      | 64240        | 139700 | F40                |
| 60"(DN1500)           | 318                 | 1375                         | 1030                                  | 914                      | 73520        | 160380 | F40                |

## Products Description(DN50~1500)

1. Triple Offsets, Laminate Seal Ring with 13Cr/HF Seat, Single Direction Seal effort.
2. Disc and Stem connection, there are two kinds: Pin connection, Key & Pin Connection.
3. Leakage class for positive direction: Class VI.

# Cast Steel Bolted Bonnet Valves



## Wafer Type Triple Offsets Butterfly Valves • ANSI Class 300

### Dimension

| Nominal Diameter (mm) | Face to Face Length | Height from Pipe Center (mm) | Height from Pipe Center to Bottom(mm) | Hand wheel Diameter (mm) | Torque (N.M) | Cv     | Top Flange ISO-No. |
|-----------------------|---------------------|------------------------------|---------------------------------------|--------------------------|--------------|--------|--------------------|
| 2"(DN50)              | 43                  | 210                          | 82.5                                  | 203                      | 78           | 58     | F07                |
| 2 1/2"(DN65)          | 46                  | 225                          | 95                                    | 203                      | 88           | 109    | F07                |
| 3"(DN80)              | 48                  | 240                          | 105                                   | 203                      | 144          | 165    | F07                |
| 4"(DN100)             | 54                  | 255                          | 127.5                                 | 203                      | 258          | 318    | F07                |
| 5"(DN125)             | 56                  | 315                          | 153                                   | 305                      | 412          | 648    | F10                |
| 6"(DN150)             | 59                  | 345                          | 178                                   | 305                      | 798          | 682    | F12                |
| 8"(DN200)             | 73                  | 400                          | 216                                   | 508                      | 1960         | 1230   | F14                |
| 10"(DN250)            | 83                  | 455                          | 247                                   | 508                      | 2270         | 2370   | F16                |
| 12"(DN300)            | 92                  | 495                          | 282                                   | 610                      | 2780         | 3520   | F16                |
| 14"(DN350)            | 117                 | 555                          | 312                                   | 610                      | 5680         | 4782   | F25                |
| 16"(DN400)            | 133                 | 580                          | 349                                   | 711                      | 6835         | 6280   | F25                |
| 18"(DN450)            | 149                 | 620                          | 386                                   | 762                      | 7356         | 7980   | F30                |
| 20"(DN500)            | 159                 | 670                          | 410                                   | 762                      | 10518        | 10800  | F30                |
| 24"(DN600)            | 181                 | 760                          | 491                                   | 762                      | 18393        | 16180  | F30                |
| 28"(DN700)            | 229                 | 890                          | 510                                   | 812                      | 27478        | 22410  | F35                |
| 30"(DN750)            | 229                 | 930                          | 600                                   | 812                      | 32971        | 27090  | F35                |
| 32"(DN800)            | 241                 | 990                          | 630                                   | 914                      | 41150        | 33050  | F40                |
| 36"(DN900)            | 241                 | 1050                         | 670                                   | 914                      | 53700        | 42090  | F40                |
| 40"(DN1000)           | 300                 | 1120                         | 735                                   | 914                      | 68370        | 48964  | F40                |
| 48"(DN1200)           | 350                 | 1180                         | 880                                   | 1016                     | 92970        | 69350  | F48                |
| 56"(DN1400)           | 390                 | 1360                         | 940                                   | 1016                     | 141600       | 94390  | F48                |
| 60"(DN1500)           | 440                 | 1410                         | 1030                                  | 1016                     | 128000       | 108400 | F48                |

### Products Description(DN50~1500)

1. Triple Offsets, Laminate Seal Ring with 13Cr/HF Seat, Single Direction Seal effort.
2. Disc and Stem connection, there are two kinds: Pin connection, Key & Pin Connection.
3. Leakage class for positive direction: Class VI.



# Cast Steel Bolted Bonnet Valves

## Wafer Type Triple Offsets Butterfly Valves • ANSI Class 600

### Dimension

| Nominal Diameter (mm) | Face to Face Length | Height from Pipe Center (mm) | Height from Pipe Center to Bottom(mm) | Hand wheel Diameter (mm) | Torque (N.M) | Cv    | Top Flange ISO-No. |
|-----------------------|---------------------|------------------------------|---------------------------------------|--------------------------|--------------|-------|--------------------|
| 2"(DN50)              | 54                  | 225                          | 82.5                                  | 203                      | 162          | 42    | F07                |
| 2 1/2"(DN65)          | 54                  | 245                          | 95                                    | 203                      | 208          | 72    | F07                |
| 3"(DN80)              | 54                  | 275                          | 105                                   | 305                      | 340          | 107   | F10                |
| 4"(DN100)             | 64                  | 275                          | 137.5                                 | 406                      | 633          | 250   | F12                |
| 5"(DN125)             | 78                  | 325                          | 165                                   | 508                      | 960          | 416   | F12                |
| 6"(DN150)             | 78                  | 385                          | 200                                   | 508                      | 1630         | 600   | F16                |
| 8"(DN200)             | 102                 | 435                          | 232                                   | 610                      | 3540         | 1079  | F16                |
| 10"(DN250)            | 114                 | 510                          | 277                                   | 610                      | 5462         | 1708  | F25                |
| 12"(DN300)            | 140                 | 535                          | 302                                   | 610                      | 6018         | 2620  | F25                |
| 14"(DN350)            | 155                 | 617                          | 329                                   | 711                      | 10913        | 4062  | F25                |
| 16"(DN400)            | 178                 | 665                          | 432                                   | 762                      | 15757        | 5292  | F30                |
| 18"(DN450)            | 200                 | 715                          | 463                                   | 812                      | 19805        | 7395  | F35                |
| 20"(DN500)            | 216                 | 730                          | 492                                   | 812                      | 25808        | 9320  | F35                |
| 24"(DN600)            | 232                 | 895                          | 525                                   | 914                      | 44799        | 13578 | F40                |
| 28"(DN700)            | 292                 | 925                          | 545                                   | 914                      | 66593        | 20326 | F40                |
| 30"(DN750)            | 318                 | 965                          | 565                                   | 1016                     | 79506        | 23400 | F48                |
| 32"(DN800)            | 318                 | 1020                         | 670                                   | 1016                     | 90160        | 26370 | F48                |
| 36"(DN900)            | 330                 | 1190                         | 730                                   | 1016                     | 117500       | 32816 | F48                |
| 40"(DN1000)           | 410                 | 1220                         | 735                                   | 1016                     | 155240       | 40518 | F60                |
| 48"(DN1200)           | 470                 | 1280                         | 860                                   | 1016                     | 227000       | 57460 | F60                |
| 56"(DN1400)           | 530                 | 1415                         | 980                                   | 1016                     | 278000       | 78210 | F60                |
| 60"(DN1500)           | 600                 | 1450                         | 1030                                  | 1016                     | 314000       | 89786 | F60                |

### Products Description(DN50~1500)

1. Triple Offsets, Laminate Seal Ring with 13Cr/HF Seat, Single Direction Seal effort.
2. Disc and Stem connection, there are two kinds: Pin connection, Key & Pin Connection.
3. Leakage class for positive direction: Class VI.