

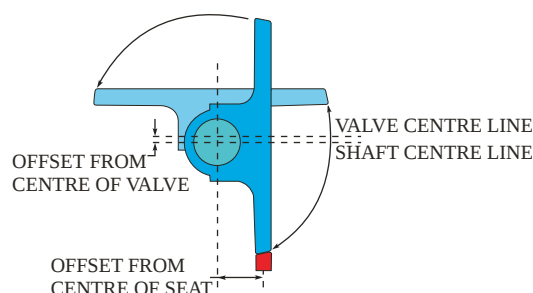


**HIGH PERFORMANCE  
DOUBLE OFFSET  
BUTTERFLY VALVE**

**SERIES - 7400**



## Design Construction



### Double Offset

Dembla High Performance Butterfly Valves are available in Wafer and Lug type designs conforming to API 609 standard. The Disc construction is Double Offset providing excellent controllability, bubble tight shut off, greater seat life and smooth operation. Valves are specially designed for applications in Chemical, Petroleum, Hydro Carbons Processing, Pulp & Paper and HVAC industries.

Well supported shaft with heavy duty bearings ensure perfect alignment of seat and disc for smooth and trouble free operations. Valves have been rigorously tested to ensure industry performance requirements.

## Features

- ▶ Valve body is solid, heavy duty. Seat Retainer construction allows Gasket conforming to API 609.
- ▶ Optimal disc geometry and cavity free flow passage offers minimum flow resistance and high Cv values.
- ▶ Heavy duty pins connecting valve shaft to disc avoids lost motion under high torque conditions.
- ▶ Long life, easy field replaceable seat placed in body, away from flow stream, provides bubble tight shut off. Valves are equally suitable for control and tight shut off applications.
- ▶ Low friction bearings provide maximum radial support for higher shaft loads. The PTFE lined bearings having low co-efficient of friction minimizes operating torque and reduces actuator size. They are slip in-place type, easy for assembly and disassembly.
- ▶ Seat option includes PTFE, EPDM, Viton Soft Seats and Flexible Metal Seats to suit variety of fluids and applications.
- ▶ Recommended for critical applications including high temperature services, throttling steam control, liquor services, gas applications, vacuum applications, corrosive fluids, refinery services, chemical services, hydrocarbon services, etc.

## Specifications

|                     |   |                                                                                 |
|---------------------|---|---------------------------------------------------------------------------------|
| Valve Sizes         | : | 2" (50mm) to 80" (2032mm)                                                       |
| Ratings             | : | Class 150 , Class 300 ,Equivalent to DIN                                        |
| Body Style          | : | Wafer , Lug, Flanged                                                            |
| Design Standard     | : | API 609 , ANSI B 16.34 , ANSI B 16.5                                            |
| Testing Standard    | : | API 598 , FCI 70-2                                                              |
| Seat Leakage Option | : | Class VI for PTFE, EPDM, Viton Soft Seats,<br>Class IV for Flexible Metal Seats |
| Flow Direction      | : | Bi Directional                                                                  |

## Conformity To Codes

|                                    |   |                                                                   |
|------------------------------------|---|-------------------------------------------------------------------|
| <b>Design &amp; Manufacturing</b>  | : | API 609 Category B<br>BS 5155<br>API 607 (Fire Safe)              |
| <b>Face to Face Dimensions</b>     | : | API 609<br>BS 5155<br>BS EN 558-1<br>ISO 5752                     |
| <b>Flange Dimensions</b>           | : | ANSI B 16.5 (DN 50 to DN 600)<br>ANSI B 16.47 (DN 650 to DN 1500) |
| <b>Pressure Temperature Rating</b> | : | ANSI B 16.34                                                      |
| <b>Valve Inspection</b>            | : | API 598<br>FCI 70-2                                               |

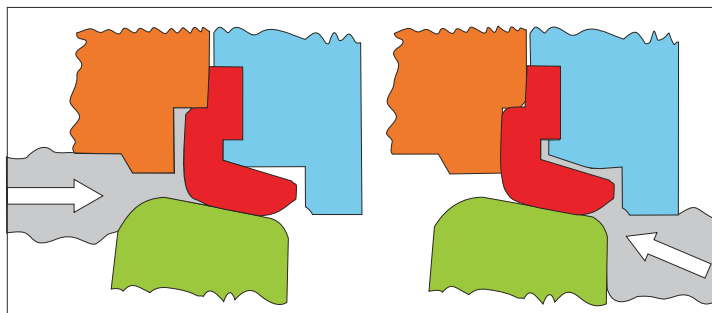
## Testing and Inspection

| Test                     | Test Pressures          | Test Stds | Test Medium | Acceptance Criteria |
|--------------------------|-------------------------|-----------|-------------|---------------------|
| <b>Hydro Test</b>        | 30 Bar (ANSI 150#)      | API 598   | Water       | No Leakage          |
|                          | 80 Bar (ANSI 300#)      | API 598   | Water       | No Leakage          |
| <b>Seat Leakage Test</b> | Max $\Delta P$ Shut Off | FCI 70-2  | Water       | Class VI            |
|                          | 20 Bar (ANSI 150#)      | API 598   | Water       | No Leakage          |
|                          | 54 Bar (ANSI 300#)      | API 598   | Water       | No leakage          |

## Seat Design Options

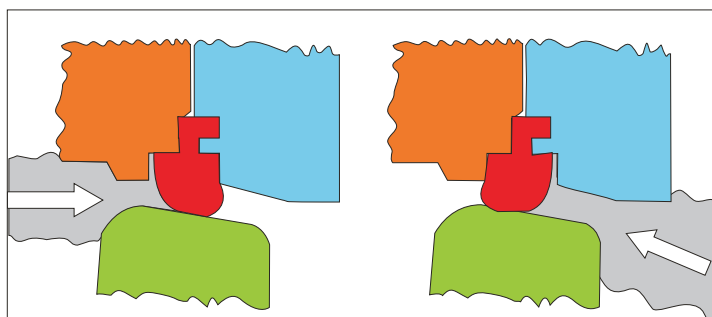
Dembla offers a wide variety of seat design options which are cost-effective and provide solutions to your service requirements. The Double Offset disc construction minimizes the interference between seat & disc edges allowing longer seat life even under frequent valve operations. Seats are available in both rigid & flexible construction to suit specific requirements. The seats are held rigidly by the seat retainer which is inserted within the body per API 609 design requirements. This construction allows use of Gasket conforming to API 601 (ANSI 16.5) Standard and eliminate the possibility of JOINT LEAKAGE from body to the atmosphere.

V -Ring PTFE seat having a flexi lip provides bubble tight shut off in both the directions. Suits to wide range of applications. Maximum working Temperature 200°C.



Flexible PTFE Seat

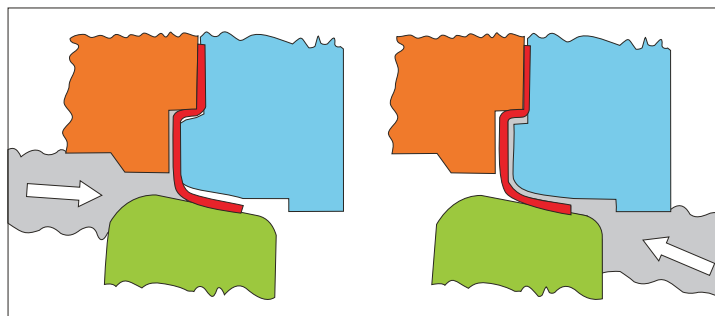
Rubber seats are available in EPDM, NBR and Viton materials. Rigid seats allow a clean flow passage & prevents fluid deposition within the seat. These seats are ideal for many applications in Sugar Industry. Rigid seats allow unidirectional flow (i.e. shaft side inlet) providing tight shut off under positive & vacuum applications. With this configuration the shaft side is upstream side.



Flexible Rubber (EPDM / NBR / Viton) Seat

Most suitable for high consistency fluids having suspended hard particles, for erosive services, for high temperature services  $>200^{\circ}\text{C}$  to  $550^{\circ}\text{C}$ .

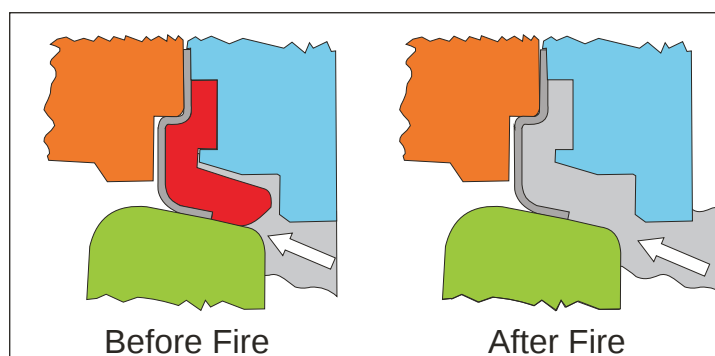
Die pressed stainless steel seats with inbuilt flexible property gives Class IV leakage with minimal torque requirements



**Flexible Metal**

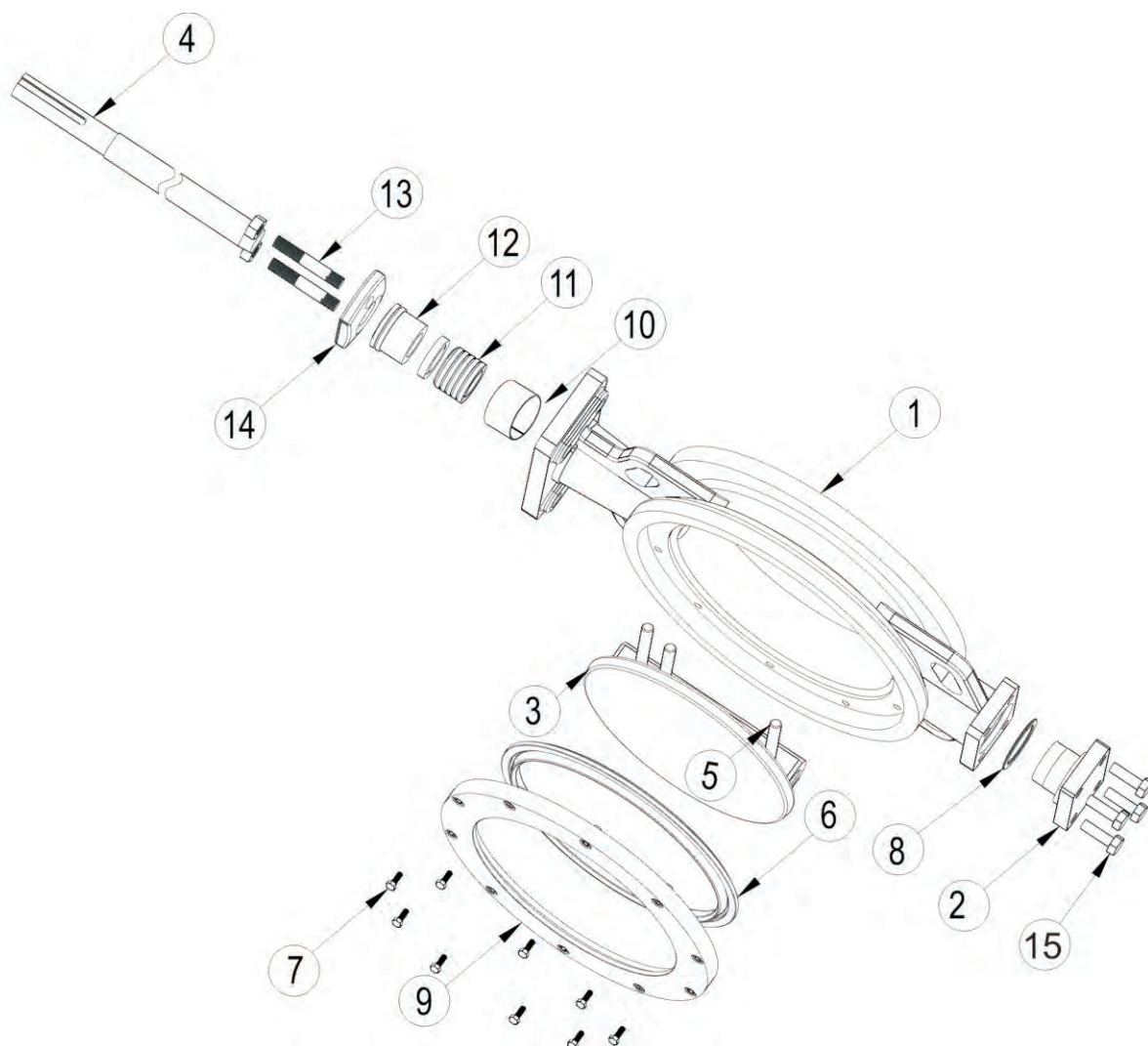
**Flow from Seat Retainer Side** The lip shaped PTFE Seat moves axially in the direction of flow with the assistance of line pressure. The tightness between seat and disc increases with increases in line pressure.

**Flow from Shaft Side** With the line pressure acting on the disc, it tries to move towards the seat which is supported by Seat Retainer. Seat does not move giving simple leak tight seal.



**Fire Safe Design**

## Material Of Construction

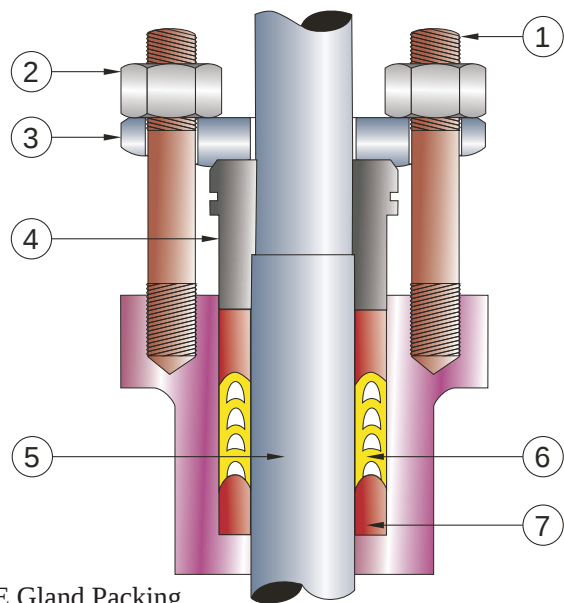


| Sr. No. | Part Name           |
|---------|---------------------|
| 1       | Valve Body          |
| 2       | End Cover           |
| 3       | Disc                |
| 4       | Valve Shaft         |
| 5       | Disc Pin            |
| 6       | Seat Ring           |
| 7       | Seat Retainer Screw |

| Sr. No. | Part Name       |
|---------|-----------------|
| 8       | Body Gasket     |
| 9       | Seat Retainer   |
| 10      | Guide Bush      |
| 11      | Gland Packing   |
| 12      | Gland Bush      |
| 13      | Gland Studs     |
| 14      | Gland Flange    |
| 15      | End cover bolts |

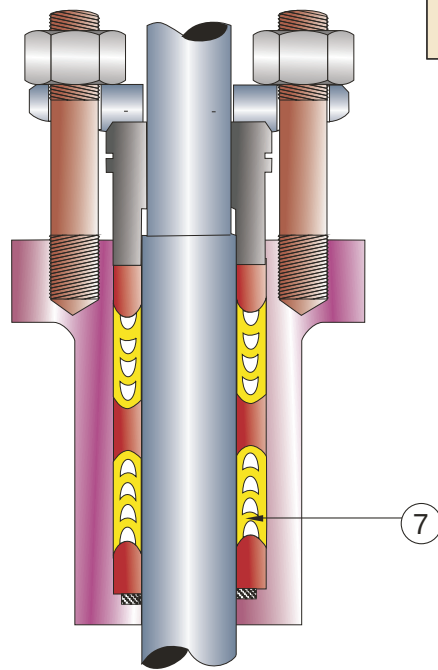
## Gland Packing Options

Dembla offers Single and Double set of V-PTFE rings (up to 200°C) and Graphite Moulded rings (>200°C up to 600°C) as standard. Inverted V- fered for vacuum application with upper set of V-Rings positioned PTFE packings are of reverse direction. Low fugitive Emission packings are provided on The LFE packing arrangement request. comprises of live loaded packings. The packing gland is loaded with spring washers to maintain a continuous compressive lead to gland packings as shown in figure below



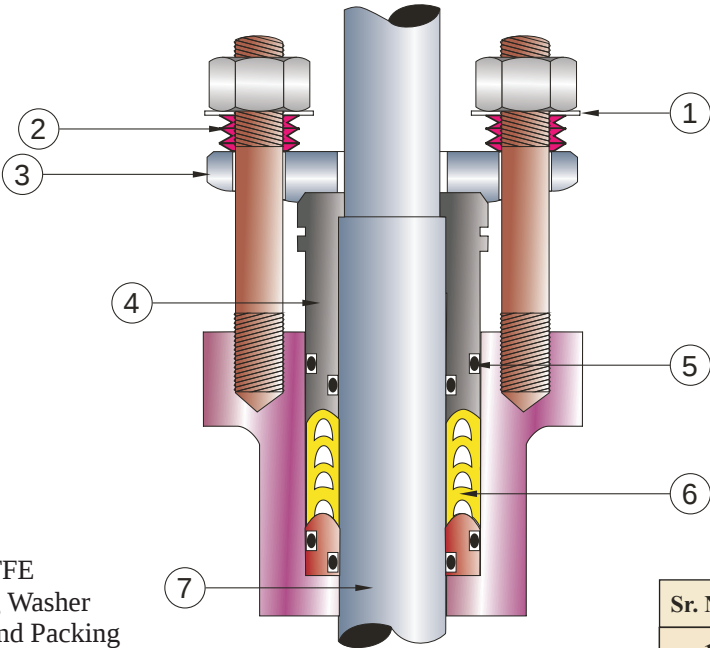
Single V-PTFE Gland Packing

| Sr. No. | Part Name                 |
|---------|---------------------------|
| 1       | GLAND STUD                |
| 2       | NUT                       |
| 3       | GLAND FLANGE              |
| 4       | GLAND BUSH                |
| 5       | VALVE SHAFT               |
| 6       | V-RING PTFE GLAND PACKING |
| 7       | PACKING SPREADER (REAR)   |



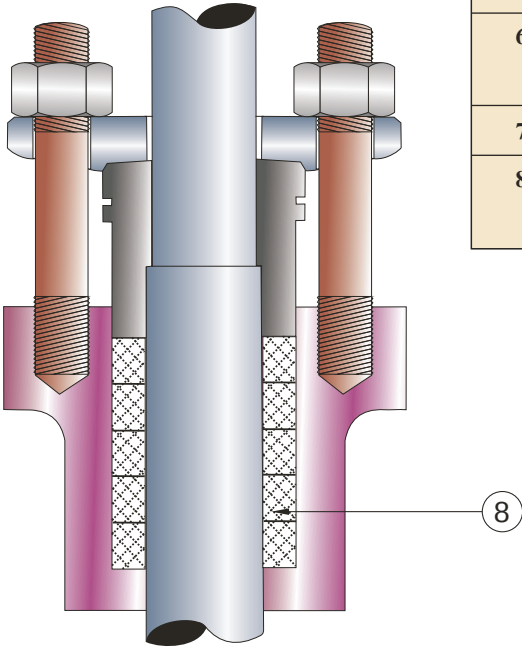
Inverted V-PTFE Gland Packing  
For Vacuum Application

# Gland Packing Options



Single V-PTFE  
With Spring Washer  
Loaded Gland Packing

| Sr. No. | Part Name                    |
|---------|------------------------------|
| 1       | WASHER                       |
| 2       | SPRING WASHER                |
| 3       | GLAND FLANGE                 |
| 4       | GLAND BUSH                   |
| 5       | 'O' RING                     |
| 6       | V-RING PTFE<br>GLAND PACKING |
| 7       | VALVE SHAFT                  |
| 8       | PTFE GLAND<br>PACKING        |



Single PTFE Packing

## Valve Torques (N m)

ANSI Class 150

▲ P, Bar

| VALVE SIZE |      | SOFT SEATED VALVE |          |          |          | FIRE SAFE DESIGNED VALVE |          |          |          | METAL SEATED VALVE |          |          |          |
|------------|------|-------------------|----------|----------|----------|--------------------------|----------|----------|----------|--------------------|----------|----------|----------|
| INCH       | MM   | △ P = 5           | △ P = 10 | △ P = 15 | △ P = 20 | △ P = 5                  | △ P = 10 | △ P = 15 | △ P = 20 | △ P = 5            | △ P = 10 | △ P = 15 | △ P = 20 |
| 2"         | 50   | 32                | 40       | 46       | 49       | 51                       | 55       | 59       | 65       | 53                 | 65       | 69       | 72       |
| 2.5"       | 65   | 36                | 39       | 48       | 53       | 52                       | 54       | 62       | 72       | 60                 | 72       | 78       | 89       |
| 3"         | 80   | 38                | 40       | 49       | 55       | 58                       | 65       | 72       | 79       | 72                 | 81       | 89       | 97       |
| 4"         | 100  | 42                | 46       | 54       | 65       | 72                       | 82       | 90       | 98       | 82                 | 92       | 112      | 127      |
| 5"         | 125  | 52                | 62       | 68       | 89       | 78                       | 95       | 109      | 168      | 98                 | 112      | 129      | 190      |
| 6"         | 150  | 64                | 94       | 148      | 164      | 112                      | 145      | 178      | 190      | 124                | 160      | 197      | 230      |
| 8"         | 200  | 105               | 149      | 168      | 199      | 285                      | 320      | 360      | 390      | 308                | 325      | 402      | 422      |
| 10"        | 250  | 190               | 230      | 270      | 350      | 290                      | 328      | 392      | 410      | 318                | 336      | 408      | 428      |
| 12"        | 300  | 240               | 290      | 380      | 440      | 298                      | 375      | 460      | 582      | 336                | 433      | 531      | 635      |
| 14"        | 350  | 420               | 490      | 620      | 732      | 558                      | 740      | 950      | 1040     | 598                | 784      | 971      | 1158     |
| 16"        | 400  | 510               | 790      | 890      | 1400     | 942                      | 1062     | 1340     | 1730     | 948                | 1089     | 1386     | 1780     |
| 18"        | 450  | 780               | 975      | 1680     | 1920     | 980                      | 1318     | 1862     | 2100     | 1046               | 1345     | 1944     | 2180     |
| 20"        | 500  | 970               | 1480     | 1980     | 2300     | 1240                     | 1724     | 2100     | 2640     | 1366               | 1793     | 2305     | 2818     |
| 22"        | 550  | 1312              | 1970     | 2550     | 3400     | 1620                     | 2240     | 2700     | 3890     | 1628               | 2320     | 2896     | 3990     |
| 24"        | 600  | 1840              | 2400     | 2950     | 3940     | 2350                     | 2850     | 3450     | 4300     | 2500               | 2930     | 3780     | 4400     |
| 26"        | 650  | 2290              | 2978     | 3818     | 4334     | 2817                     | 3663     | 4695     | 5634     | 3467               | 4506     | 5778     | 6934     |
| 28"        | 700  | 2901              | 3741     | 4656     | 5084     | 3568                     | 4601     | 5728     | 7043     | 4392               | 5663     | 7050     | 8668     |
| 30"        | 750  | 3208              | 4200     | 5268     | 5778     | 3945                     | 5165     | 6479     | 7700     | 4853               | 6356     | 7974     | 9477     |
| 32"        | 800  | 3741              | 4886     | 6107     | 7164     | 4601                     | 6009     | 7511     | 8919     | 5663               | 7397     | 9246     | 10980    |
| 34"        | 850  | 4581              | 5955     | 7252     | 8320     | 5634                     | 7324     | 8919     | 11268    | 6934               | 9014     | 10890    | 13867    |
| 36"        | 900  | 5343              | 6870     | 8697     | 9592     | 6573                     | 8451     | 10329    | 13146    | 8091               | 10402    | 12712    | 16180    |
| 38"        | 950  | 6107              | 7634     | 9925     | 10862    | 7511                     | 9391     | 12208    | 15023    | 9246               | 11556    | 15023    | 18491    |
| 40"        | 1000 | 6870              | 9161     | 11451    | 12712    | 8451                     | 11268    | 14085    | 16902    | 10402              | 13867    | 17335    | 20802    |
| 42"        | 1050 | 7634              | 10688    | 12979    | 13867    |                          |          |          |          |                    |          |          |          |
| 44"        | 1100 | 9161              | 12213    | 14124    | 15023    |                          |          |          |          |                    |          |          |          |
| 46"        | 1150 | 10688             | 12979    | 15269    | 17334    |                          |          |          |          |                    |          |          |          |
| 48"        | 1200 | 12213             | 14504    | 17176    | 19067    |                          |          |          |          |                    |          |          |          |
| 50"        | 1250 | 13507             | 15973    | 18791    | 21234    |                          |          |          |          |                    |          |          |          |
| 52"        | 1300 | 15034             | 17852    | 21024    | 23834    |                          |          |          |          |                    |          |          |          |
| 54"        | 1350 | 16559             | 19730    | 23254    | 26290    |                          |          |          |          |                    |          |          |          |
| 56"        | 1400 | 19379             | 22784    | 26895    | 30046    |                          |          |          |          |                    |          |          |          |
| 58"        | 1450 | 22432             | 25016    | 29244    | 34967    |                          |          |          |          |                    |          |          |          |
| 60"        | 1500 | 25955             | 30301    | 35351    | 43768    |                          |          |          |          |                    |          |          |          |
| 64"        | 1600 | 32063             | 37113    | 42984    | 50558    |                          |          |          |          |                    |          |          |          |
| 66"        | 1650 | 35467             | 41106    | 47682    | 55902    |                          |          |          |          |                    |          |          |          |
| 72"        | 1800 | 41927             | 48622    | 55904    | 70347    |                          |          |          |          |                    |          |          |          |
| 76"        | 1900 | 46714             | 54174    | 62288    | 78381    |                          |          |          |          |                    |          |          |          |
| 80"        | 2000 | 51762             | 60026    | 69017    | 86848    |                          |          |          |          |                    |          |          |          |
| 84"        | 2100 | 57067             | 66180    | 76091    | 95750    |                          |          |          |          |                    |          |          |          |
| 88"        | 2200 | 62631             | 72633    | 83511    | 105087   |                          |          |          |          |                    |          |          |          |
| 92"        | 2300 | 68454             | 79385    | 91275    | 114857   |                          |          |          |          |                    |          |          |          |
| 96"        | 2400 | 74536             | 86439    | 99384    | 125061   |                          |          |          |          |                    |          |          |          |
| 100"       | 2500 | 80879             | 93793    | 107838   | 135701   |                          |          |          |          |                    |          |          |          |
| 104"       | 2600 | 87610             | 101446   | 116639   | 146883   |                          |          |          |          |                    |          |          |          |
| 108"       | 2700 | 94478             | 109399   | 125782   | 158281   |                          |          |          |          |                    |          |          |          |
| 110"       | 2750 | 98010             | 113489   | 130484   | 164198   |                          |          |          |          |                    |          |          |          |
| 112"       | 2800 | 101606            | 117653   | 125273   | 170222   |                          |          |          |          |                    |          |          |          |
| 116"       | 2900 | 108994            | 126206   | 145107   | 182598   |                          |          |          |          |                    |          |          |          |
| 120"       | 3000 | 116640            | 135061   | 155288   | 195408   |                          |          |          |          |                    |          |          |          |

## ANSI Class 300

## ▲P, Bar

| VALVE SIZE |      | SOFT SEATED VALVE |       |       |       |       |       | FIRE SAFE DESIGNED VALVE |       |       |       |       |       | METAL SEATED VALVE |       |       |       |       |       |
|------------|------|-------------------|-------|-------|-------|-------|-------|--------------------------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|
| INCH       | MM   | ΔP=0-10           | ΔP=20 | ΔP=25 | ΔP=35 | ΔP=40 | ΔP=51 | ΔP=0-10                  | P=20  | ΔP=25 | ΔP=35 | ΔP=40 | ΔP=51 | ΔP=0-10            | P=20  | ΔP=25 | ΔP=35 | ΔP=40 | ΔP=51 |
| 2"         | 50   | 45                | 53    | 61    | 68    | 73    | 82    | 52                       | 58    | 64    | 72    | 79    | 89    | 78                 | 83    | 85    | 89    | 91    | 93    |
| 2.5"       | 65   | 48                | 55    | 64    | 75    | 81    | 90    | 65                       | 71    | 78    | 86    | 90    | 99    | 81                 | 88    | 92    | 96    | 99    | 107   |
| 3"         | 80   | 57                | 60    | 71    | 82    | 92    | 98    | 76                       | 81    | 88    | 95    | 101   | 109   | 95                 | 101   | 104   | 107   | 109   | 120   |
| 4"         | 100  | 62                | 68    | 79    | 88    | 99    | 104   | 96                       | 107   | 117   | 127   | 140   | 148   | 129                | 145   | 154   | 165   | 180   | 192   |
| 5"         | 125  | 78                | 93    | 115   | 124   | 134   | 148   | 123                      | 138   | 156   | 166   | 179   | 194   | 167                | 182   | 196   | 208   | 223   | 240   |
| 6"         | 150  | 96                | 166   | 178   | 185   | 198   | 220   | 142                      | 192   | 212   | 225   | 240   | 262   | 188                | 218   | 246   | 264   | 282   | 304   |
| 8"         | 200  | 172               | 202   | 235   | 260   | 295   | 335   | 240                      | 302   | 340   | 370   | 406   | 438   | 308                | 402   | 445   | 480   | 517   | 541   |
| 10"        | 250  | 218               | 325   | 380   | 398   | 422   | 468   | 362                      | 496   | 574   | 614   | 650   | 702   | 505                | 666   | 768   | 829   | 878   | 936   |
| 12"        | 300  | 322               | 466   | 525   | 585   | 638   | 712   | 506                      | 728   | 953   | 1073  | 1189  | 1377  | 690                | 990   | 1380  | 1560  | 1740  | 2041  |
| 14"        | 350  | 498               | 762   | 985   | 1205  | 1285  | 1405  | 883                      | 1316  | 1573  | 1803  | 2023  | 2203  | 1267               | 1876  | 2161  | 2401  | 2761  | 3001  |
| 16"        | 400  | 836               | 1485  | 1612  | 1790  | 1940  | 2110  | 1261                     | 1919  | 2307  | 2636  | 2952  | 3157  | 1686               | 2352  | 3001  | 3481  | 3963  | 4203  |
| 18"        | 450  | 990               | 1980  | 2165  | 2390  | 2550  | 2990  | 1579                     | 2615  | 3124  | 3567  | 3977  | 4467  | 2167               | 3250  | 4083  | 4744  | 5403  | 5944  |
| 20"        | 500  | 1520              | 2450  | 2775  | 2980  | 3236  | 3650  | 2193                     | 3476  | 4245  | 4892  | 5496  | 6044  | 2865               | 4501  | 5715  | 6804  | 7756  | 8437  |
| 22"        | 550  | 2040              | 3520  | 3890  | 4118  | 4288  | 4702  | 2828                     | 4522  | 5347  | 6278  | 6907  | 7795  | 2615               | 5524  | 6804  | 8437  | 9526  | 10887 |
| 24"        | 600  | 2515              | 4074  | 4488  | 4915  | 5315  | 5780  | 3440                     | 5312  | 6326  | 7357  | 8169  | 9014  | 4365               | 6549  | 8164  | 9798  | 11023 | 12247 |
| 28"        | 700  | 3820              | 5154  | 5689  | 6716  | 7315  | 8160  | 5253                     | 7693  | 9052  | 11544 | 11843 | 13293 | 6686               | 10231 | 12414 | 16371 | 16371 | 18426 |
| 30"        | 750  | 4315              | 5886  | 6645  | 7758  | 8357  | 9212  | 5909                     | 8537  | 10485 | 12747 | 14073 | 15183 | 7503               | 11187 | 14325 | 17736 | 19789 | 21154 |
| 32"        | 800  | 4946              | 7288  | 7459  | 9278  | 10160 | 12225 | 6839                     | 10124 | 11574 | 14524 | 15994 | 18054 | 8731               | 12960 | 15688 | 19770 | 21828 | 23883 |
| 36"        | 900  | 6986              | 9721  | 10818 | 13814 | 15365 | 17166 | 9633                     | 14385 | 16323 | 19664 | 21325 | 23774 | 12279              | 19049 | 21828 | 25513 | 27285 | 30382 |
| 40"        | 1000 | 9315              | 12896 | 14715 | 17678 | 19262 | 20612 | 12843                    | 18726 | 21345 | 25491 | 27615 | 30826 | 16371              | 24556 | 27975 | 33304 | 35968 | 41040 |
| 42"        | 1050 | 10776             | 14056 | 16330 | 19128 | 20901 | 22728 | 14938                    | 19989 | 23485 | 28214 | 30433 | 34010 | 19099              | 25921 | 30639 | 37300 | 39964 | 45292 |
| 48"        | 1200 | 14688             | 19248 | 21297 | 26005 | 28049 | 29148 | 20305                    | 27608 | 30631 | 37648 | 40668 | 43881 | 25921              | 35968 | 39964 | 49290 | 53286 | 58614 |

## ANSI Class 600

## ▲P, Bar

| VALVE SIZE |     | SOFT SEATED VALVE |       |       |       |       |        | FIRE SAFE DESIGNED VALVE |       |       |       |       |        | METAL SEATED VALVE |       |       |       |       |        |
|------------|-----|-------------------|-------|-------|-------|-------|--------|--------------------------|-------|-------|-------|-------|--------|--------------------|-------|-------|-------|-------|--------|
| INCH       | MM  | ΔP=0-10           | ΔP=35 | ΔP=55 | ΔP=70 | ΔP=80 | ΔP=102 | ΔP=0-10                  | ΔP=35 | ΔP=55 | ΔP=70 | ΔP=80 | ΔP=102 | ΔP=0-10            | ΔP=35 | ΔP=55 | ΔP=70 | ΔP=80 | ΔP=102 |
| 3"         | 80  | 58                | 85    | 103   | 121   | 133   | 141    | 85                       | 113   | 155   | 181   | 193   | 204    | 102                | 112   | 168   | 192   | 203   | 218    |
| 4"         | 100 | 64                | 98    | 148   | 169   | 189   | 212    | 125                      | 208   | 265   | 323   | 359   | 390    | 151                | 268   | 342   | 428   | 469   | 508    |
| 5"         | 125 | 82                | 128   | 186   | 222   | 249   | 278    | 160                      | 272   | 392   | 477   | 563   | 613    | 189                | 356   | 518   | 663   | 798   | 848    |
| 6"         | 150 | 102               | 191   | 242   | 306   | 348   | 379    | 205                      | 383   | 512   | 613   | 743   | 933    | 258                | 516   | 712   | 840   | 1048  | 1388   |
| 8"         | 200 | 176               | 265   | 382   | 488   | 556   | 695    | 312                      | 536   | 890   | 1015  | 1087  | 1297   | 389                | 728   | 1288  | 1422  | 1508  | 1780   |
| 10"        | 250 | 248               | 398   | 665   | 832   | 1128  | 1386   | 458                      | 879   | 1289  | 1522  | 1781  | 2044   | 598                | 1280  | 1804  | 2092  | 2304  | 2582   |
| 12"        | 300 | 369               | 722   | 1178  | 1392  | 1486  | 1676   | 855                      | 1362  | 2008  | 2396  | 2660  | 3010   | 1242               | 1922  | 2708  | 3280  | 3704  | 4204   |
| 14"        | 350 | 608               | 1232  | 1686  | 2247  | 2488  | 2692   | 1090                     | 2148  | 2716  | 3549  | 4023  | 4283   | 1442               | 2934  | 3610  | 4711  | 5409  | 5716   |
| 16"        | 400 | 892               | 1812  | 2242  | 2821  | 3476  | 3832   | 1532                     | 2891  | 3737  | 4546  | 5347  | 6030   | 2042               | 3840  | 5102  | 6122  | 7099  | 8088   |
| 18"        | 450 | 1078              | 2422  | 3118  | 3582  | 3980  | 4432   | 1746                     | 3330  | 4680  | 5836  | 6555  | 7234   | 2285               | 4108  | 6102  | 7940  | 8980  | 9876   |
| 20"        | 500 | 1680              | 3152  | 3728  | 4540  | 5108  | 5498   | 2734                     | 4726  | 3686  | 8011  | 10048 | 10905  | 3688               | 6140  | 8884  | 11312 | 14828 | 16142  |
| 22"        | 550 | 2132              | 4186  | 4760  | 5986  | 6435  | 6986   | 3545                     | 6399  | 8735  | 11323 | 12629 | 13700  | 4778               | 8442  | 12540 | 16481 | 18623 | 20224  |
| 24"        | 600 | 2215              | 5230  | 5886  | 6880  | 10093 | 10192  | 4798                     | 7784  | 11385 | 13490 | 15990 | 16854  | 7082               | 11182 | 16585 | 19801 | 21587 | 23316  |

## Cv Values (usgpm)

### ANSI 150#, PN16

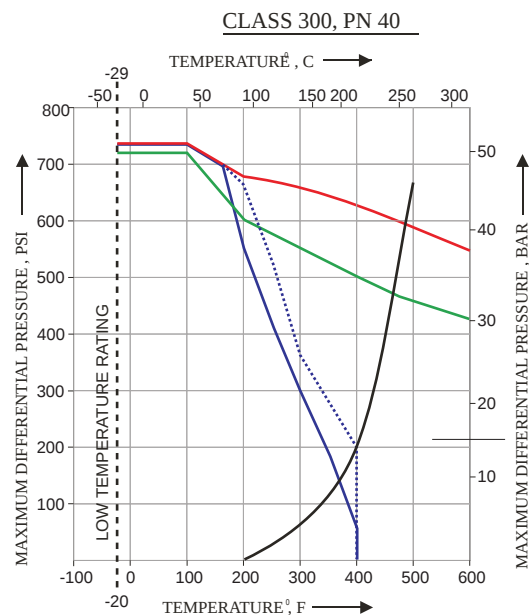
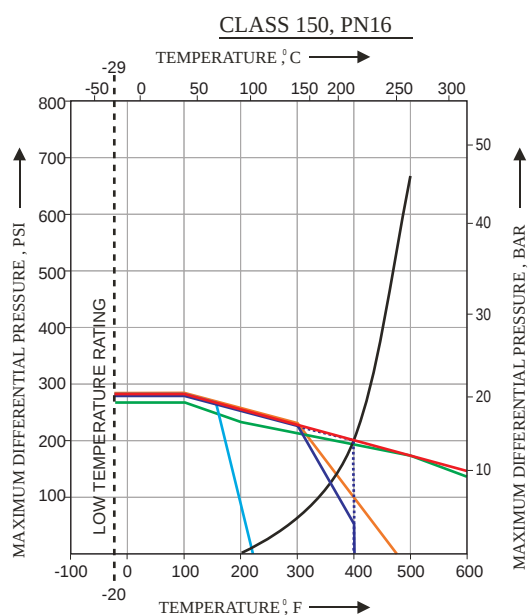
| VALVE SIZE |      | 150#, PN 16 |        |
|------------|------|-------------|--------|
| INCH       | MM   | 60°         | 90°    |
| 2          | 50   | 25          | 50     |
| 2½         | 65   | 39          | 78     |
| 3          | 80   | 82.5        | 165    |
| 4          | 100  | 200         | 400    |
| 5          | 125  | 325         | 650    |
| 6          | 150  | 525         | 1050   |
| 8          | 200  | 1100        | 2200   |
| 10         | 250  | 1650        | 3300   |
| 12         | 300  | 2550        | 5100   |
| 14         | 350  | 2900        | 5800   |
| 16         | 400  | 4000        | 8000   |
| 18         | 450  | 5250        | 10500  |
| 20         | 500  | 7000        | 14000  |
| 24         | 600  | 10800       | 21600  |
| 28         | 700  | 14935       | 29870  |
| 30         | 750  | 17000       | 34000  |
| 32         | 800  | 20585       | 41170  |
| 36         | 900  | 27750       | 55500  |
| 40         | 1000 | 36800       | 73600  |
| 42         | 1050 | 41325       | 82650  |
| 44         | 1100 | 45600       | 91200  |
| 48         | 1200 | 54150       | 108300 |
| 52         | 1300 | 60840       | 121680 |
| 54         | 1350 | 66750       | 133500 |
| 56         | 1400 | 71000       | 142000 |
| 60         | 1500 | 79500       | 159000 |
| 64         | 1600 | 92160       | 184320 |
| 66         | 1650 | 98010       | 196020 |
| 72         | 1800 | 116640      | 233280 |

### ANSI 300#, PN 40

| VALVE SIZE |     | 300#, PN 40 |       |
|------------|-----|-------------|-------|
| INCH       | MM  | 60°         | 90°   |
| 2          | 50  | 25          | 50    |
| 2½         | 65  | 39          | 78    |
| 3          | 80  | 82.5        | 165   |
| 4          | 100 | 200         | 400   |
| 5          | 125 | 325         | 650   |
| 6          | 150 | 525         | 1050  |
| 8          | 200 | 900         | 1800  |
| 10         | 250 | 1575        | 3150  |
| 12         | 300 | 2375        | 4750  |
| 14         | 350 | 2600        | 5200  |
| 16         | 400 | 3450        | 6900  |
| 18         | 450 | 4650        | 9300  |
| 20         | 500 | 5650        | 11300 |
| 24         | 600 | 9250        | 18500 |
| 28         | 700 | 12785       | 25570 |
| 30         | 750 | 14550       | 29100 |
| 32         | 800 | 17620       | 35235 |
| 36         | 900 | 23750       | 47500 |

## Pressure-Temperature Ratings

|             |   |                                           |
|-------------|---|-------------------------------------------|
| Body & Disc | — | A 351 Gr. CF8M, CAST STAINLESS STEEL      |
|             | — | A 216 Gr. WCB, CAST CARBON STEEL          |
| Seals       | — | PTFE                                      |
|             | — | RPTFE                                     |
|             | — | EPDM                                      |
|             | — | VITON                                     |
|             | — | METAL SEAT (use graph of stainless steel) |
|             | — | SATURATED STEAM                           |



Flow Characteristic Curves

