

## NVUB Union Bonnet Needle Valve, Inline Pattern

### Features

1. Square bar stock body
2. Body material in Stainless Steel 316
3. Max. working pressure to 6000 psig (413 bar) at 37°C (100°F).
4. TFM1600 packing as standard; Graphite packing for option.
5. 100% factory tested.

### Options

1. Packing material: TFM1600  
Packing material: Graphite
2. Connection End: Tube OD, BSPT, NPT female & male thread  
Butt Weld, Socket Weld



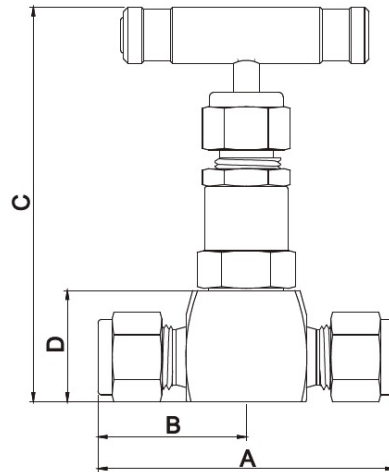
### Pressure & Temperature ratings

| Body Material                | SS316                      |             |
|------------------------------|----------------------------|-------------|
| Packing Material             | TFM1600                    | Graphite    |
| Temperature °C (°F)          | Working Pressure psig(bar) |             |
| -53°C (-65°F)~ +37°C (100°F) | 6000 ( 413)                | 6000 ( 413) |
| 93 (200)                     | 5160 (355)                 | 5160 (355)  |
| 121 (250)                    | 4910 (338)                 | 4910 (338)  |
| 148 (300)                    | 4660 (321)                 | 4660 (321)  |
| 176 (350)                    | 4470 (307)                 | 4470 (307)  |
| 204 (400)                    | 4280 (294)                 | 4280 (294)  |
| 232 (450)                    | -                          | 4130 (284)  |
| 260 (500)                    | -                          | 3980 (274)  |
| 315 (600)                    | -                          | 3760 (259)  |
| 371(700)                     | -                          | 3600 (248)  |
| 426 (800)                    | -                          | 3460 (238)  |
| 482 (900)                    | -                          | 3280 (225)  |
| 537 (1000)                   | -                          | 3030 (208)  |

### Material List

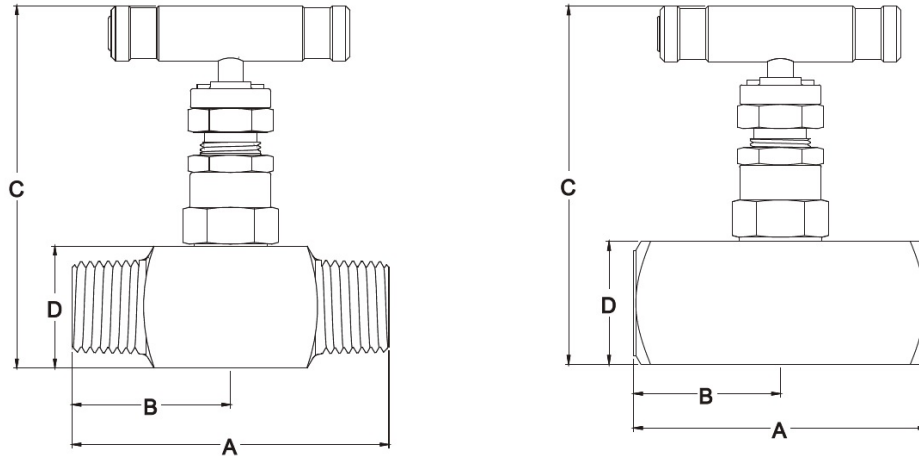
| Item | Part Name        | Material |
|------|------------------|----------|
| 1    | Handle           | Aluminum |
| 2    | Handle Set Screw | SS304    |
| 3    | Stem             | SS316    |
| 4    | Dust Cap         | PVC      |
| 5    | Packing Bolt     | SS316    |
| 6    | Locking Nut      | SS304    |
| 7    | Bonnet           | SS316    |
| 8    | Gland            | SS316    |
| 9    | Upper Packing    | TFM1600  |
| 10   | Lower Packing    | TFM1600  |
| 11   | Stem Tip         | SS630    |
| 12   | Body             | SS316    |

## NVUB Union Bonnet Needle Valve, Inline Pattern, Tube Ends



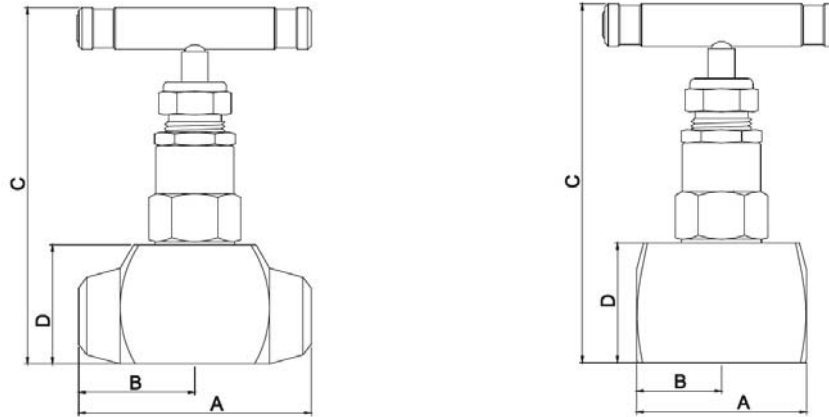
| Type      | Item No.     | Conn./Size   | Orifice |       | Dimensions (mm) |       |       |    |
|-----------|--------------|--------------|---------|-------|-----------------|-------|-------|----|
|           |              | Inlet/Outlet | mm      | in.   | A               | B     | C     | D  |
| Tube end  | NVUB-4OD     | 4mm          | 4       | 0.16  | 59.2            | 29.6  | 80.4  | 25 |
|           | NVUB-6OD     | 6mm          | 4       | 0.16  | 63.1            | 31.6  | 80.4  | 25 |
|           | NVUB-8OD     | 8mm          | 4       | 0.16  | 66.7            | 33.4  | 80.4  | 25 |
|           | NVUB-10OD    | 10mm         | 4       | 0.16  | 66.8            | 33.4  | 80.4  | 25 |
|           | NVUB-12OD-4  | 12mm         | 4       | 0.16  | 70.4            | 35.2  | 80.4  | 25 |
|           | NVUB-12OD-6  | 12mm         | 6       | 0.24  | 74.4            | 37.2  | 81.8  | 28 |
|           | NVUB-14OD-6  | 14mm         | 6       | 0.24  | 75.8            | 37.9  | 81.8  | 28 |
|           | NVUB-14OD-8  | 14mm         | 8       | 0.32  | 90.8            | 45.4  | 107.8 | 36 |
|           | NVUB-15OD-6  | 15mm         | 6       | 0.24  | 76.1            | 38.1  | 81.8  | 28 |
|           | NVUB-15OD-8  | 15mm         | 8       | 0.32  | 91.1            | 45.6  | 107.8 | 36 |
|           | NVUB-16OD-6  | 16mm         | 6       | 0.24  | 76.4            | 38.2  | 81.8  | 28 |
|           | NVUB-16OD-8  | 16mm         | 8       | 0.32  | 91.4            | 45.7  | 107.8 | 36 |
|           | NVUB-18OD-8  | 18mm         | 8       | 0.32  | 90.8            | 45.4  | 107.8 | 36 |
|           | NVUB-10OD-10 | 20mm         | 10      | 0.39  | 93.1            | 46.6  | 112.8 | 41 |
|           | NVUB-22OD-10 | 22mm         | 10      | 0.39  | 93.7            | 46.9  | 112.8 | 41 |
|           | NVUB-25OD-12 | 25mm         | 12      | 0.47  | 119.8           | 59.9  | 136.7 | 48 |
|           | NVUB-01OD    | 1/8"         | 4       | 0.16  | 58.8            | 29.4  | 80.4  | 25 |
|           | NVUB-02OD    | 1/4"         | 4       | 0.16  | 63.7            | 31.9  | 80.4  | 25 |
|           | NVUB-03OD    | 3/8"         | 4       | 0.16  | 66.5            | 33.2  | 80.4  | 25 |
|           | NVUB-04OD    | 1/2"         | 6       | 0.24  | 74.8            | 37.4  | 81.8  | 28 |
| NVUB-06OD | 3/4"         | 8            | 0.32    | 91.9  | 46.0            | 107.8 | 36    |    |
| NVUB-08OD | 1"           | 12           | 0.47    | 119.8 | 59.9            | 136.7 | 48    |    |

## NVUB Union Bonnet Needle Valve, Inline Pattern, Thread Ends



| Type          | Item No.    | Conn./Size   | Orifice |      | Dimensions (mm) |      |       |    |
|---------------|-------------|--------------|---------|------|-----------------|------|-------|----|
|               |             | Inlet/Outlet | mm      | in.  | A               | B    | C     | D  |
| Male thread   | NVUB-01M    | 1/8"         | 4       | 0.16 | 48              | 24.0 | 80.4  | 25 |
|               | NVUB-02M    | 1/4"         | 4       | 0.16 | 51              | 25.5 | 80.4  | 25 |
|               | NVUB-03M-4  | 3/8"         | 4       | 0.16 | 54              | 27.0 | 80.4  | 25 |
|               | NVUB-03M-6  | 3/8"         | 6       | 0.24 | 55              | 27.5 | 81.8  | 28 |
|               | NVUB-04M-6  | 1/2"         | 6       | 0.24 | 61              | 30.5 | 81.8  | 28 |
|               | NVUB-04M-8  | 1/2"         | 8       | 0.32 | 76              | 38.0 | 107.8 | 36 |
|               | NVUB-06M-6  | 3/4"         | 6       | 0.24 | 64              | 32.0 | 81.8  | 28 |
|               | NVUB-06M-8  | 3/4"         | 8       | 0.32 | 79              | 39.5 | 107.8 | 36 |
|               | NVUB-08M    | 1"           | 12      | 0.47 | 95              | 47.5 | 136.7 | 48 |
| Female thread | NVUB-01F    | 1/8"         | 4       | 0.16 | 51              | 25.5 | 80.4  | 25 |
|               | NVUB-02F    | 1/4"         | 4       | 0.16 | 57              | 28.5 | 80.4  | 25 |
|               | NVUB-03F-6  | 3/8"         | 6       | 0.24 | 61              | 30.5 | 81.8  | 28 |
|               | NVUB-03F-8  | 3/8"         | 8       | 0.32 | 70              | 35.0 | 107.8 | 36 |
|               | NVUB-04F-6  | 1/2"         | 6       | 0.24 | 67              | 33.5 | 81.8  | 28 |
|               | NVUB-04F-8  | 1/2"         | 8       | 0.32 | 70              | 35.0 | 107.8 | 36 |
|               | NVUB-06F-6  | 3/4"         | 6       | 0.24 | 70              | 35.0 | 80.8  | 32 |
|               | NVUB-06F-10 | 3/4"         | 10      | 0.39 | 69              | 34.5 | 112.8 | 41 |
|               | NVUB-08F-10 | 1"           | 10      | 0.39 | 87              | 43.5 | 112.8 | 41 |
|               | NVUB-08F-12 | 1"           | 12      | 0.47 | 83              | 41.5 | 136.7 | 48 |

## NVUB Union Bonnet Needle Valve, Inline Pattern, Weld Ends



| Type        | Item No.    | Conn./Size   | Orifice |      |     | Dimensions (mm) |       |    |
|-------------|-------------|--------------|---------|------|-----|-----------------|-------|----|
|             |             | Inlet/Outlet | mm      | in.  | A   | B               | C     | D  |
| Butt weld   | NVUB-12.7BW | 12.7mm       | 4       | 0.16 | 51  | 25.5            | 80.4  | 25 |
|             | NVUB-14BW   | 14mm         | 8       | 0.32 | 76  | 38.0            | 107.8 | 36 |
|             | NVUB-15BW   | 15mm         | 8       | 0.32 | 76  | 38.0            | 107.8 | 36 |
|             | NVUB-16BW   | 16mm         | 8       | 0.32 | 76  | 38.0            | 107.8 | 36 |
|             | NVUB-18BW   | 18mm         | 8       | 0.32 | 76  | 38.0            | 107.8 | 36 |
|             | NVUB-19BW   | 19mm         | 8       | 0.32 | 76  | 38.0            | 107.8 | 36 |
|             | NVUB-20BW   | 20mm         | 12      | 0.47 | 80  | 40.0            | 136.7 | 48 |
|             | NVUB-22BW   | 22mm         | 12      | 0.47 | 80  | 40.0            | 136.7 | 48 |
|             | NVUB-25BW   | 25mm         | 12      | 0.47 | 92  | 46.0            | 136.7 | 48 |
|             | NVUB-28BW   | 28mm         | 15      | 0.59 | 105 | 52.5            | 157.6 | 60 |
| Socket weld | NVUB-14SW   | 14mm         | 6       | 0.24 | 52  | 26.0            | 81.8  | 28 |
|             | NVUB-16SW   | 16mm         | 6       | 0.24 | 52  | 26.0            | 81.8  | 28 |
|             | NVUB-18SW   | 18mm         | 8       | 0.32 | 51  | 25.5            | 107.8 | 36 |
|             | NVUB-20SW   | 20mm         | 8       | 0.32 | 60  | 30.0            | 107.8 | 36 |
|             | NVUB-22SW   | 22mm         | 12      | 0.47 | 77  | 38.5            | 136.7 | 48 |
|             | NVUB-25SW   | 25mm         | 12      | 0.47 | 77  | 38.5            | 136.7 | 48 |
|             | NVUB-28SW   | 28mm         | 15      | 0.59 | 90  | 45.0            | 157.6 | 60 |
|             | NVUB-32SW   | 32mm         | 15      | 0.59 | 90  | 45.0            | 157.6 | 60 |
|             | NVUB-34SW   | 34mm         | 15      | 0.59 | 90  | 45.0            | 157.6 | 60 |