



# DK-Lok High Pressure Series Fittings & Valves

Rev. 01-01  
Aug. 2023



## High Pressure Needle Valve

 Straight  
**DK-NV**


04

 Angle  
**DK-NV-A**


04

 3 Way One Pressure  
**DK-NV-O**


05

 Straight  
**DK-NV-T**


05

## High Pressure Check Valve

 O-Ring Type  
 / Ball Type  
**DK-CV**


07

 Cup Type  
**DK-FL**


07

## High Pressure Ball Valve

 2 Way  
**DK-BV**


08

 3 Way  
**DK-BV**


09

## High Pressure Fitting

 Elbow  
**DK-L**


10

 Tee  
**DK-T**


10

 Cross  
**DK-X**


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## High Pressure Fitting Accessory

 Gland  
**DK-G**


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 Collar  
**DK-C**


11

 Sleeve  
**DK-S**


11

 Tube  
**DK-TL**


12

 Nipple  
**DK-N**


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## High Pressure Union & Adapter

 Female Union  
**DK-FAU**


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 Male Union  
**DK-MAU**


16

 Female Union  
 Reducer  
**DK-FARU**


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 Male Union Reducer  
**DK-MAUR**


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 Male Adapter  
 \* Female Adapter  
**DK-MAFA**


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 Female Adapter  
 \* Female Thread  
**DK-FAF**


20

 Male Adapter  
 \* Female Thread  
**DK-MAF**


21

 Female Adapter  
 \* Male Thread  
**DK-FAM**


22

 Male Adapter  
 \* Male Thread  
**DK-MAM**


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## High Pressure Air Operated Valve

 Air Operated Valves  
**DK-NV**


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## High Pressure Equipment

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## High Pressure Relief Valve

 Factory Set  
**DK-RVS**


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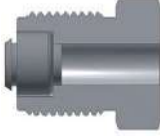
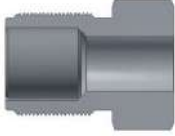
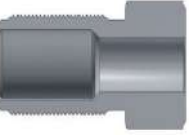
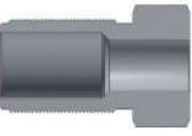
 Field Adjustable  
**DK-RVS**


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## DK-Lok High Pressure Fittings

### General

- DK-Lok Corporation is specialized in the manufacturing of Instrument Fitting and Valve. The DK HP Series has been developed to satisfy customer requests for high pressure application.
- DK MP & HP Fittings and Valves are manufactured from 316 cold-worked stainless steel meeting NACE MR 0175.
- DK HP Valves are designed to operate safely and reliably against Medium Pressure for 20,000 psig service and High Pressure for 30,000 through 60,000 psig service and Ultra High Pressure for 100,000 through 150,000 psig service.
- Cone & thread design

|                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |
| Low Pressure Sleeve<br>5,500psig~11,500psig                                       | Medium Pressure Collar<br>20,000psig                                              | High Pressure Collar<br>30,000psig                                                | High Pressure Collar<br>60,000psig                                                 | Ultra High Pressure Collar<br>100,000psig~150,000psig                               |

### Working Pressure and size table

| Type                       | Pressure | Tube Size |      |      |      |       |      |    |
|----------------------------|----------|-----------|------|------|------|-------|------|----|
|                            |          | 1/8"      | 1/4" | 3/8" | 1/2" | 9/16" | 3/4" | 1" |
| NPT & PT thread            | 15,000   | O         | O    | O    | O    |       |      |    |
|                            | 10,000   |           |      |      |      |       | O    | O  |
| Low Pressure <sup>1)</sup> | 11,000   | O         |      |      |      |       |      |    |
|                            | 11,500   |           | O    |      |      |       |      |    |
|                            | 7,500    |           |      | O    |      |       |      |    |
|                            | 5,500    |           |      |      | O    |       |      |    |
| Medium Pressure            | 20,000   |           | O    | O    |      | O     | O    | O  |
| High Pressure              | 30,000   | O         | O    | O    |      | O     |      |    |
|                            | 60,000   |           | O    |      |      | O     |      |    |
| Ultra-high Pressure        | 100,000  |           | O    |      |      |       |      |    |
|                            | 150,000  |           |      | O    |      |       |      |    |

Note: 1) Low pressure is according to tube thickness. See page 12.

### Application

- DBB
- High Pressure Test Equipment
- Subsea
- Chemical Injection System

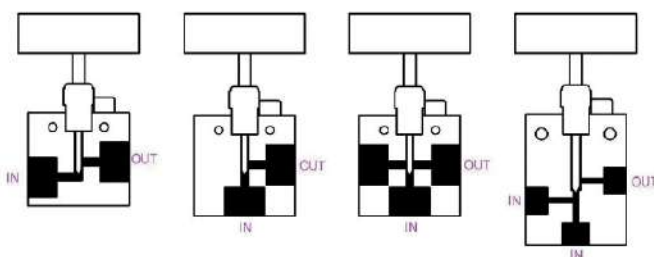


## High Pressure Needle Valve



### Features

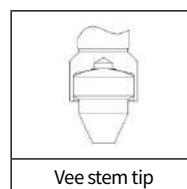
- Flow patterns are straight, angle, 3 way-1 inlet port, and 3 way-2 inlet ports.



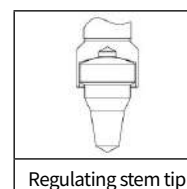
- Non-rotating stem tip is prevent thread galling and assure long life cycle.

- Temperature range is from -100°F to 600°F (-73°C to 315°C) with standard PTFE packing and -100°F to 600°F (-73°C to 315°C) with optional Graphite packing.

- Stem tip are standard "Vee" and optional "Regulating" available.

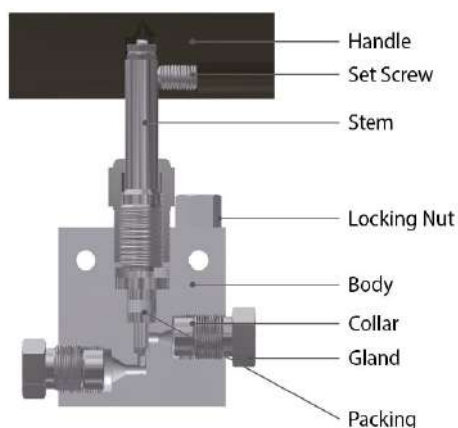


Vee stem tip



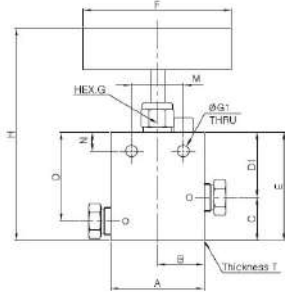
Regulating stem tip

### Material of Construction



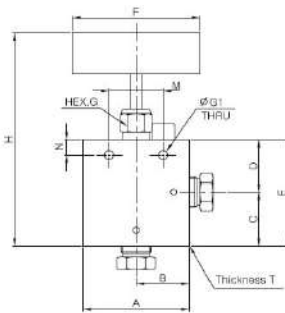
| Parts       | Materials              |
|-------------|------------------------|
| Handle      | Aluminum               |
| Set Screw   | Stainless Steel        |
| Stem        | ASTM A564 TYPE630      |
| Locking Nut | ASTM A276 TYPE304      |
| Body        | ASTM A276 TYPE316L     |
| Collar      | ASTM A276 TYPE304      |
| Gland       | ASTM A276 TYPE304      |
| Packing     | PTFE optional Graphite |

## Straight DK-NV



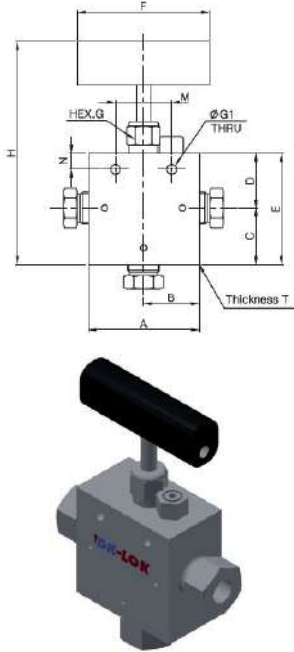
| Part No.   | Pressure Rating | Tube Size | Cv   | Orifice Size | Dimensions |      |      |      |      |      |     |    |    |       |      |      |    |  |
|------------|-----------------|-----------|------|--------------|------------|------|------|------|------|------|-----|----|----|-------|------|------|----|--|
|            |                 |           |      |              | A          | B    | C    | D    | D1   | E    | F   | G  | G1 | H     | M    | N    | T  |  |
| DK11NV-02  | 11,000 psig     | 1/8"      | 0.12 | 2.39         | 38         | 19   | 22   | 30   | 23   | 45   | 50  | 13 | 5  | 82    | 12.8 | 8    | 20 |  |
| DK11NV-04  | 11,500 psig     | 1/4"      | 0.2  | 3.18         | 50         | 25   | 20   | 40.3 | 30   | 50   | 80  | 17 | 6  | 118.2 | 15.6 | 9.7  | 20 |  |
| DK07NV-06  | 7,500 psig      | 3/8"      | 0.2  | 3.18         | 50         | 25   | 20.5 | 40.3 | 29.5 | 50   | 80  | 17 | 6  | 116.9 | 15.7 | 9.7  | 20 |  |
| DK05NV-08  | 5,500 psig      | 1/2"      | 1.62 | 7.54         | 63         | 31.5 | 30.5 | 60.5 | 44.5 | 75   | 100 | 24 | 9  | 151.8 | 17.5 | 12.7 | 25 |  |
| DK20NV-04  | 20,000 psig     | 1/4"      | 0.31 | 3.18         | 50         | 25   | 20   | 40.3 | 30   | 50   | 80  | 17 | 6  | 118.2 | 15.7 | 9.7  | 20 |  |
| DK20NV-06  |                 | 3/8"      | 0.75 | 5.56         | 50         | 25   | 20   | 40.3 | 30   | 50   | 80  | 17 | 6  | 116.9 | 15.7 | 9.7  | 20 |  |
| DK20NV-09  |                 | 9/16"     | 1.3  | 7.94         | 63         | 31.5 | 29   | 60   | 44   | 73   | 80  | 22 | 8  | 143.1 | 15.7 | 12.7 | 25 |  |
| DK20NV-12  |                 | 3/4"      | 2.29 | 11.1         | 76         | 38   | 38   | 76   | 57   | 95   | 260 | 30 | 10 | 177.8 | 46   | 15.8 | 35 |  |
| DK20NV-16  |                 | 1"        | 4.78 | 14.3         | 105        | 52.5 | 46   | 96   | 72   | 118  | 260 | 41 | 14 | 214.8 | 63.5 | 28.5 | 45 |  |
| DK30NV-02  | 30,000 psig     | 1/8"      | 0.03 | 1.59         | 38         | 19   | 22   | 30   | 23   | 45   | 50  | 13 | 5  | 82.2  | 12.8 | 8    | 20 |  |
| DK30NV-04  |                 | 1/4"      | 0.12 | 2.4          | 50         | 25   | 21   | 43   | 33   | 54   | 80  | 20 | 6  | 114.9 | 17   | 9.7  | 25 |  |
| DK30NV-06  |                 | 3/8"      | 0.2  | 3.2          | 50         | 25   | 24   | 43   | 33   | 57   | 80  | 20 | 6  | 115.6 | 17   | 9.7  | 25 |  |
| DK30NV-09  |                 | 9/16"     | 0.33 | 3.2          | 67         | 33.5 | 29   | 43   | 33   | 62   | 80  | 20 | 6  | 130.3 | 17   | 9.7  | 38 |  |
| DK60NV-04  | 60,000 psig     | 1/4"      | 0.08 | 1.8          | 50         | 25   | 21   | 43   | 33   | 54   | 80  | 20 | 6  | 121.4 | 17   | 9.7  | 25 |  |
| DK60NV-06  |                 | 3/8"      | 0.09 | 1.8          | 50         | 25   | 24   | 43   | 33   | 57   | 80  | 20 | 6  | 124.9 | 17   | 9.7  | 25 |  |
| DK60NV-09  |                 | 9/16"     | 0.14 | 2            | 67         | 33.5 | 29   | 43   | 33   | 62   | 80  | 20 | 6  | 127.4 | 17   | 9.7  | 38 |  |
| DK100NV-04 | 100,000 psig    | 1/4"      | 0.09 | 1.59         | 67         | 33.5 | 30.5 | 44   | 33   | 63.5 | 100 | 24 | 6  | 132.4 | 20   | 9.7  | 38 |  |
| DK150NV-06 | 150,000 psig    | 3/8"      | 0.06 | 1.59         | 90         | 45   | 30   | 42   | 34   | 64   | 100 | 24 | 7  | 135   | 19   | 12.7 | 38 |  |

## Angle DK-NV-A



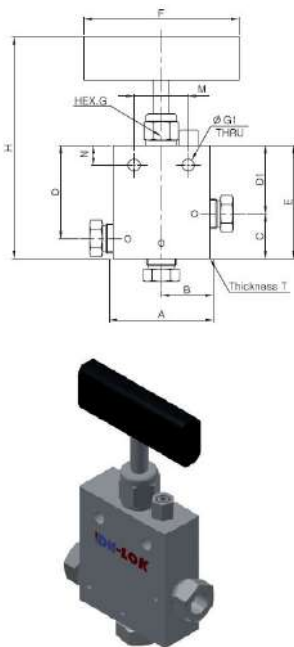
| Part No.     | Pressure Rating | Tube Size | Cv   | Orifice Size | Dimensions |      |      |      |      |     |    |    |       |      |      |    |
|--------------|-----------------|-----------|------|--------------|------------|------|------|------|------|-----|----|----|-------|------|------|----|
|              |                 |           |      |              | A          | B    | C    | D    | E    | F   | G  | G1 | H     | M    | N    | T  |
| DK11NV-02-A  | 11,000 psig     | 1/8"      | 0.12 | 2.39         | 38         | 19   | 22   | 23   | 45   | 50  | 13 | 5  | 82    | 12.8 | 8    | 20 |
| DK11NV-04-A  | 11,500 psig     | 1/4"      | 0.2  | 3.18         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 130.2 | 15.6 | 9.7  | 20 |
| DK07NV-06-A  | 7,500 psig      | 3/8"      | 0.2  | 3.18         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 128.9 | 15.7 | 9.7  | 20 |
| DK05NV-08-A  | 5,500 psig      | 1/2"      | 1.62 | 7.54         | 63         | 31.5 | 41.5 | 44.5 | 86   | 100 | 24 | 9  | 162.8 | 17.6 | 12.7 | 25 |
| DK20NV-04-A  | 20,000 psig     | 1/4"      | 0.31 | 3.18         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 130.2 | 15.7 | 9.7  | 20 |
| DK20NV-06-A  |                 | 3/8"      | 0.75 | 5.56         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 128.9 | 15.7 | 9.7  | 20 |
| DK20NV-09-A  |                 | 9/16"     | 1.3  | 7.94         | 63         | 31.5 | 25.5 | 44.5 | 70   | 80  | 22 | 8  | 155.6 | 15.7 | 12.7 | 25 |
| DK20NV-12-A  |                 | 3/4"      | 2.29 | 11.1         | 76         | 38   | 50.8 | 57.2 | 108  | 260 | 30 | 10 | 191   | 46   | 15.8 | 35 |
| DK20NV-16-A  |                 | 1"        | 4.78 | 14.3         | 105        | 52.5 | 65   | 73   | 138  | 260 | 41 | 14 | 238.1 | 63.5 | 28.5 | 45 |
| DK30NV-02-A  | 30,000 psig     | 1/8"      | 0.03 | 1.59         | 38         | 19   | 22   | 23   | 45   | 50  | 13 | 5  | 82.2  | 12.8 | 8    | 20 |
| DK30NV-04-A  |                 | 1/4"      | 0.12 | 2.4          | 50         | 25   | 33.5 | 28.5 | 62   | 80  | 20 | 6  | 126.4 | 17.2 | 9.7  | 25 |
| DK30NV-06-A  |                 | 3/8"      | 0.2  | 3.2          | 50         | 25   | 33.5 | 28.5 | 62   | 80  | 20 | 6  | 126.5 | 17.2 | 9.7  | 25 |
| DK30NV-09-A  |                 | 9/16"     | 0.33 | 3.2          | 67         | 33.5 | 33.5 | 28.5 | 62   | 80  | 20 | 6  | 130.3 | 17.2 | 9.7  | 38 |
| DK60NV-04-A  | 60,000 psig     | 1/4"      | 0.08 | 1.8          | 50         | 25   | 27.5 | 33   | 60.5 | 80  | 20 | 6  | 127.9 | 17   | 9.7  | 25 |
| DK60NV-06-A  |                 | 3/8"      | 0.09 | 1.8          | 50         | 25   | 33.5 | 33   | 66.5 | 80  | 20 | 6  | 134.4 | 17   | 9.7  | 25 |
| DK60NV-09-A  |                 | 9/16"     | 0.14 | 2            | 67         | 33.5 | 35.5 | 31.5 | 67   | 80  | 20 | 6  | 134.4 | 17   | 9.7  | 38 |
| DK100NV-04-A | 100,000 psig    | 1/4"      | 0.09 | 1.59         | 67         | 33.5 | 32   | 30   | 62   | 100 | 24 | 6  | 130.2 | 20   | 9.7  | 38 |
| DK150NV-06-A | 150,000 psig    | 3/8"      | 0.06 | 1.59         | 90         | 45   | 32   | 30   | 62   | 100 | 24 | 7  | 130.2 | 19   | 12.7 | 38 |

## 3Way One Pressure DK-NV-O



| Part No.     | Pressure Rating | Tube Size | Cv   | Orifice Size | Dimensions |      |      |      |      |     |    |    |       |      |      |    |  |
|--------------|-----------------|-----------|------|--------------|------------|------|------|------|------|-----|----|----|-------|------|------|----|--|
|              |                 |           |      |              | A          | B    | C    | D    | E    | F   | G  | G1 | H     | M    | N    | T  |  |
| DK11NV-02-O  | 11,000 psig     | 1/8"      | 0.12 | 2.39         | 38         | 19   | 22   | 23   | 45   | 50  | 13 | 5  | 82    | 12.8 | 8    | 20 |  |
| DK11NV-04-O  | 11,500 psig     | 1/4"      | 0.2  | 3.18         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 130.2 | 15.6 | 9.7  | 20 |  |
| DK07NV-06-O  | 7,500 psig      | 3/8"      | 0.2  | 3.18         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 128.9 | 15.7 | 9.7  | 20 |  |
| DK05NV-08-O  | 5,500 psig      | 1/2"      | 1.62 | 7.54         | 63         | 31.5 | 41.5 | 44.5 | 86   | 100 | 24 | 9  | 162.8 | 17.5 | 12.7 | 25 |  |
| DK20NV-04-O  | 20,000 psig     | 1/4"      | 0.31 | 3.18         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 130.2 | 15.7 | 9.7  | 20 |  |
| DK20NV-06-O  |                 | 3/8"      | 0.75 | 5.56         | 50         | 25   | 32   | 30   | 62   | 80  | 17 | 6  | 128.9 | 15.7 | 9.7  | 20 |  |
| DK20NV-09-O  |                 | 9/16"     | 1.3  | 7.94         | 63         | 31.5 | 41   | 45   | 86   | 80  | 22 | 8  | 155.1 | 15.7 | 12.7 | 25 |  |
| DK20NV-12-O  |                 | 3/4"      | 2.29 | 11.1         | 76         | 38   | 50.8 | 57.2 | 108  | 260 | 30 | 10 | 191   | 46   | 15.8 | 35 |  |
| DK20NV-16-O  | 30,000 psig     | 1"        | 4.78 | 14.3         | 105        | 52.5 | 65   | 73   | 138  | 260 | 41 | 14 | 238.1 | 63.5 | 28.5 | 45 |  |
| DK30NV-02-O  |                 | 1/8"      | 0.03 | 1.59         | 38         | 19   | 22   | 23   | 45   | 50  | 13 | 5  | 82.2  | 12.8 | 8    | 20 |  |
| DK30NV-04-O  |                 | 1/4"      | 0.12 | 2.4          | 50         | 25   | 33.5 | 28.5 | 62   | 80  | 20 | 6  | 126.4 | 17.2 | 9.7  | 25 |  |
| DK30NV-06-O  |                 | 3/8"      | 0.2  | 3.2          | 50         | 25   | 33.5 | 28.5 | 62   | 80  | 20 | 6  | 126.4 | 17.2 | 9.7  | 25 |  |
| DK30NV-09-O  | 60,000 psig     | 9/16"     | 0.33 | 3.2          | 67         | 33.5 | 33.5 | 28.5 | 62   | 80  | 20 | 6  | 130.3 | 17.2 | 9.7  | 38 |  |
| DK60NV-04-O  |                 | 1/4"      | 0.08 | 1.8          | 50         | 25   | 27.5 | 33   | 60.5 | 80  | 20 | 6  | 127.9 | 17   | 9.7  | 25 |  |
| DK60NV-06-O  |                 | 3/8"      | 0.09 | 1.8          | 50         | 25   | 37   | 33   | 70   | 80  | 20 | 6  | 137.4 | 17   | 9.7  | 25 |  |
| DK60NV-09-O  |                 | 9/16"     | 0.14 | 2            | 67         | 33.5 | 35.5 | 32   | 67   | 80  | 20 | 6  | 134.4 | 17   | 9.7  | 38 |  |
| DK100NV-04-O | 100,000 psig    | 1/4"      | 0.09 | 1.59         | 67         | 33.5 | 32   | 30   | 62   | 100 | 24 | 6  | 130.2 | 20   | 9.7  | 38 |  |
| DK150NV-06-O | 150,000 psig    | 3/8"      | 0.06 | 1.59         | 90         | 45   | 32   | 30   | 62   | 100 | 24 | 7  | 130.2 | 19   | 12.7 | 38 |  |

## 3Way Two Pressure DK-NV-T



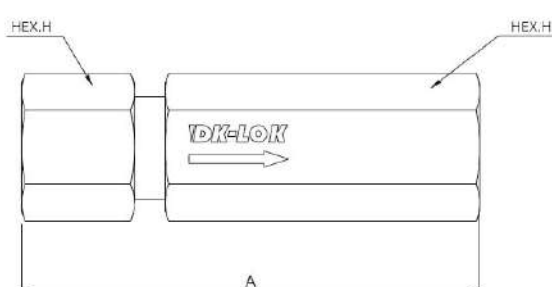
| Part No.     | Pressure Rating | Tube Size | Cv   | Orifice Size | Dimensions |      |      |      |      |       |     |    |    |       |      |      |    |
|--------------|-----------------|-----------|------|--------------|------------|------|------|------|------|-------|-----|----|----|-------|------|------|----|
|              |                 |           |      |              | A          | B    | C    | D    | D1   | E     | F   | G  | G1 | H     | M    | N    | T  |
| DK11NV-02-T  | 11,000 psig     | 1/8"      | 0.12 | 2.39         | 38         | 19   | 22   | 30   | 23   | 45    | 50  | 13 | 5  | 82    | 12.8 | 8    | 20 |
| DK11NV-04-T  | 11,500 psig     | 1/4"      | 0.2  | 3.18         | 50         | 25   | 36.5 | 41   | 30   | 66.5  | 80  | 17 | 6  | 134.8 | 15.6 | 9.7  | 20 |
| DK07NV-06-T  | 7,500 psig      | 3/8"      | 0.2  | 3.18         | 50         | 25   | 36.5 | 41   | 30   | 66.5  | 80  | 17 | 6  | 133.3 | 15.7 | 9.7  | 20 |
| DK05NV-08-T  | 5,500 psig      | 1/2"      | 1.62 | 7.54         | 63         | 31.5 | 47.5 | 60.5 | 44.5 | 92    | 100 | 24 | 9  | 168.8 | 17.5 | 12.7 | 25 |
| DK20NV-04-T  | 20,000 psig     | 1/4"      | 0.31 | 3.18         | 50         | 25   | 36.5 | 41   | 30   | 66.5  | 80  | 17 | 6  | 134.7 | 15.7 | 9.7  | 20 |
| DK20NV-06-T  |                 | 3/8"      | 0.75 | 5.56         | 50         | 25   | 36.5 | 41   | 30   | 66.5  | 80  | 17 | 6  | 133.3 | 15.7 | 9.7  | 20 |
| DK20NV-09-T  |                 | 9/16"     | 1.3  | 7.94         | 63         | 31.5 | 47.5 | 60   | 44.5 | 92    | 80  | 22 | 8  | 159.9 | 15.7 | 12.7 | 25 |
| DK20NV-12-T  |                 | 3/4"      | 2.29 | 11.1         | 76         | 38   | 60.3 | 50.8 | 57.2 | 117.5 | 260 | 30 | 10 | 200   | 46   | 15.8 | 35 |
| DK20NV-16-T  | 30,000 psig     | 1"        | 4.78 | 14.3         | 105        | 52.5 | 77.8 | 95   | 71.2 | 149   | 260 | 41 | 14 | 247.6 | 63.5 | 28.5 | 45 |
| DK30NV-02-T  |                 | 1/8"      | 0.03 | 1.59         | 38         | 19   | 22   | 30   | 23   | 45    | 50  | 13 | 5  | 87.2  | 12.8 | 8    | 20 |
| DK30NV-04-T  |                 | 1/4"      | 0.12 | 2.4          | 50         | 25   | 33.5 | 38   | 28.5 | 62    | 80  | 20 | 6  | 126.4 | 17.2 | 9.7  | 25 |
| DK30NV-06-T  |                 | 3/8"      | 0.2  | 3.2          | 50         | 25   | 35   | 38   | 28.5 | 63.5  | 80  | 20 | 6  | 127.9 | 17.2 | 9.7  | 25 |
| DK30NV-09-T  | 60,000 psig     | 9/16"     | 0.33 | 3.2          | 67         | 33.5 | 50.5 | 39.5 | 28.5 | 79    | 80  | 20 | 6  | 141.3 | 17.2 | 9.7  | 38 |
| DK60NV-04-T  |                 | 1/4"      | 0.08 | 1.8          | 50         | 25   | 27.2 | 43   | 33   | 60.5  | 80  | 20 | 6  | 127.9 | 17   | 9.7  | 25 |
| DK60NV-06-T  |                 | 3/8"      | 0.09 | 1.8          | 50         | 25   | 38.5 | 43   | 33   | 71.5  | 80  | 20 | 6  | 138.9 | 17   | 9.7  | 25 |
| DK60NV-09-T  |                 | 9/16"     | 0.14 | 2            | 67         | 33.5 | 45.5 | 41   | 31.5 | 77    | 80  | 20 | 6  | 144.4 | 17   | 9.7  | 38 |
| DK100NV-04-T | 100,000 psig    | 1/4"      | 0.09 | 1.59         | 67         | 33.5 | 36.5 | 41   | 30   | 66.5  | 100 | 24 | 6  | 134.7 | 20   | 9.7  | 38 |
| DK150NV-06-T | 150,000 psig    | 3/8"      | 0.06 | 1.59         | 90         | 45   | 36.5 | 41   | 30   | 66.5  | 100 | 24 | 7  | 134.7 | 19   | 12.7 | 38 |

## High Pressure Check Valve

### Features

- Reverse flow prevention which fully leak-tight performance.
- Two sealing Type : Standard FKM O-ring seat is excellent fast shut-off. Other material is available.  
Optional tungsten carbide Ball seat is metal to metal and continuous cycling.
- Spring material is stainless steel.
- Check valve that facilitates one-directional movement by blocking the reverse flow of gas or liquid

### Dimensions

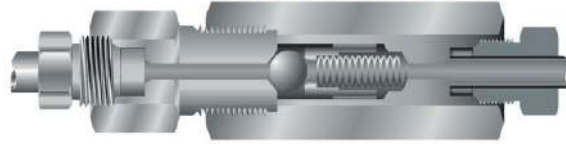


| Part No.   | Pressure Rating | Tube Size | Orifice Size | Dimensions |       |
|------------|-----------------|-----------|--------------|------------|-------|
|            |                 |           |              | A          | HEX.H |
| DK11CV-02  | 11,000 psig     | 1/8"      | 1.4          | 68         | 22    |
| DK11CV-04  | 11,500 psig     | 1/4"      | 3.2          | 81         | 25.4  |
| DK07CV-06  | 7,500 psig      | 3/8"      | 5            | 93         | 35    |
| DK05CV-08  | 5,500 psig      | 1/2"      | 8.35         | 108        | 41    |
| DK20CV-04  | 20,000 psig     | 1/4"      | 2.8          | 77         | 25    |
| DK20CV-06  |                 | 3/8"      | 5.2          | 91         | 25    |
| DK20CV-09  |                 | 9/16"     | 5            | 107        | 35    |
| DK20CV-12  |                 | 3/4"      | 5            | 131        | 41    |
| DK20CV-16  |                 | 1"        | 6            | 165        | 55    |
| DK30CV-02  | 30,000 psig     | 1/8"      | 1.2          | 66         | 20    |
| DK60CV-04  | 60,000 psig     | 1/4"      | 2.4          | 85         | 32    |
| DK60CV-06  |                 | 3/8"      | 3.2          | 100        | 36    |
| DK60CV-09  |                 | 9/16"     | 4.8          | 118        | 38    |
| DK100CV-04 | 100,000 psig    | 1/4"      | 2.4          | 129        | ø50   |

## Check Valves DK-CV



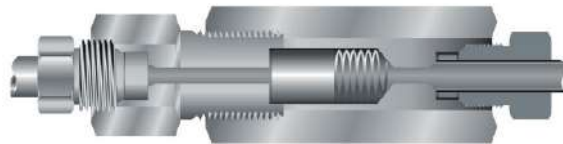
O-Ring Type Check Valve



Ball Type Check Valve

| Pressure Rating | Tube Size | Union        |              | Male to Male   |                | Male to Female |                |
|-----------------|-----------|--------------|--------------|----------------|----------------|----------------|----------------|
|                 |           | O-Ring Type  | Ball Type    | O-Ring Type    | Ball Type      | O-Ring Type    | Ball Type      |
| 11,000psig      | 1/8"      | DK11CV-02-OR | DK11CV-02-BS | DK11CV-MM02-OR | DK11CV-MM02-BS | DK11CV-MF02-OR | DK11CV-MF02-BS |
| 11,500psig      | 1/4"      | DK11CV-04-OR | DK11CV-04-BS | DK11CV-MM04-OR | DK11CV-MM04-BS | DK11CV-MF04-OR | DK11CV-MF04-BS |
| 7,500psig       | 3/8"      | DK11CV-06-OR | DK11CV-06-BS | DK11CV-MM06-OR | DK11CV-MM06-BS | DK11CV-MF06-OR | DK11CV-MF06-BS |
| 5,500psig       | 1/2"      | DK11CV-08-OR | DK11CV-08-BS | DK11CV-MM08-OR | DK11CV-MM08-BS | DK11CV-MF08-OR | DK11CV-MF08-BS |
| 20,000psig      | 1/4"      | DK20CV-04-OR | DK20CV-04-BS | DK20CV-MM04-OR | DK20CV-MM04-BS | DK20CV-MF04-OR | DK20CV-MF04-BS |
|                 | 3/8"      | DK20CV-06-OR | DK20CV-06-BS | DK20CV-MM06-OR | DK20CV-MM06-BS | DK20CV-MF06-OR | DK20CV-MF06-BS |
|                 | 9/16"     | DK20CV-09-OR | DK20CV-09-BS | DK20CV-MM09-OR | DK20CV-MM09-BS | DK20CV-MF09-OR | DK20CV-MF09-BS |
|                 | 3/4"      | DK20CV-12-OR | DK20CV-12-BS | DK20CV-MM12-OR | DK20CV-MM12-BS | DK20CV-MF12-OR | DK20CV-MF12-BS |
|                 | 1"        | DK20CV-16-OR | DK20CV-16-BS | DK20CV-MM16-OR | DK20CV-MM16-BS | DK20CV-MF16-OR | DK20CV-MF16-BS |
| 30,000psig      | 1/8"      | DK30CV-02-OR | DK30CV-02-BS | DK30CV-MM02-OR | DK30CV-MM02-BS | DK30CV-MF02-OR | DK30CV-MF02-BS |
|                 | 1"        | DK30CV-16-OR | DK30CV-16-BS | DK30CV-MM16-OR | DK30CV-MM16-BS | DK30CV-MF16-OR | DK30CV-MF16-BS |
| 60,000psig      | 1/4"      | DK60CV-04-OR | DK60CV-04-BS | DK60CV-MM04-OR | DK60CV-MM04-BS | DK60CV-MF04-OR | DK60CV-MF04-BS |
|                 | 3/8"      | DK60CV-06-OR | DK60CV-06-BS | DK60CV-MM06-OR | DK60CV-MM06-BS | DK60CV-MF06-OR | DK60CV-MF06-BS |
|                 | 9/16"     | DK60CV-09-OR | DK60CV-09-BS | DK60CV-MM09-OR | DK60CV-MM09-BS | DK60CV-MF09-OR | DK60CV-MF09-BS |

## Filter DK-FL



Cup Type Filter

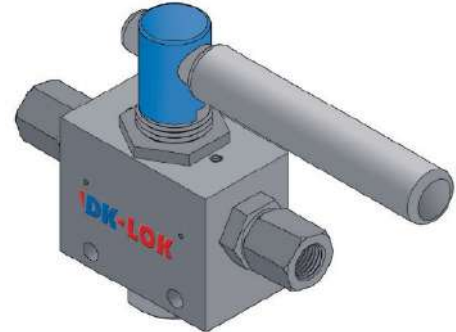
| Pressure Rating | Tube Size | Union        |              | Male to Male   |                | Male to Female |                |
|-----------------|-----------|--------------|--------------|----------------|----------------|----------------|----------------|
|                 |           | Cup Type     | Plate Type   | Cup Type       | Plate Type     | Cup Type       | Plate Type     |
| 11,000psig      | 1/8"      | DK11FL-02-CS | DK11FL-02-PL | DK11FL-MM02-CS | DK11FL-MM02-PL | DK11FL-MF02-CS | DK11FL-MF02-PL |
| 11,500psig      | 1/4"      | DK11FL-04-CS | DK11FL-04-PL | DK11FL-MM04-CS | DK11FL-MM04-PL | DK11FL-MF04-CS | DK11FL-MF04-PL |
| 7,500psig       | 3/8"      | DK11FL-06-CS | DK11FL-06-PL | DK11FL-MM06-CS | DK11FL-MM06-PL | DK11FL-MF06-CS | DK11FL-MF06-PL |
| 5,500psig       | 1/2"      | DK11FL-08-CS | DK11FL-08-PL | DK11FL-MM08-CS | DK11FL-MM08-PL | DK11FL-MF08-CS | DK11FL-MF08-PL |
| 20,000psig      | 1/4"      | DK20FL-04-CS | DK20FL-04-PL | DK20FL-MM04-CS | DK20FL-MM04-PL | DK20FL-MF04-CS | DK20FL-MF04-PL |
|                 | 3/8"      | DK20FL-06-CS | DK20FL-06-PL | DK20FL-MM06-CS | DK20FL-MM06-PL | DK20FL-MF06-CS | DK20FL-MF06-PL |
|                 | 9/16"     | DK20FL-09-CS | DK20FL-09-PL | DK20FL-MM09-CS | DK20FL-MM09-PL | DK20FL-MF09-CS | DK20FL-MF09-PL |
|                 | 3/4"      | DK20FL-12-CS | DK20FL-12-PL | DK20FL-MM12-CS | DK20FL-MM12-PL | DK20FL-MF12-CS | DK20FL-MF12-PL |
|                 | 1"        | DK20FL-16-CS | DK20FL-16-PL | DK20FL-MM16-CS | DK20FL-MM16-PL | DK20FL-MF16-CS | DK20FL-MF16-PL |
| 30,000psig      | 1/8"      | DK30FL-02-CS | DK30FL-02-PL | DK30FL-MM02-CS | DK30FL-MM02-PL | DK30FL-MF02-CS | DK30FL-MF02-PL |
|                 | 1"        | DK30FL-16-CS | DK30FL-16-PL | DK30FL-MM16-CS | DK30FL-MM16-PL | DK30FL-MF16-CS | DK30FL-MF16-PL |
| 60,000psig      | 1/4"      | DK60FL-04-CS | DK60FL-04-PL | DK60FL-MM04-CS | DK60FL-MM04-PL | DK60FL-MF04-CS | DK60FL-MF04-PL |
|                 | 3/8"      | DK60FL-06-CS | DK60FL-06-PL | DK60FL-MM06-CS | DK60FL-MM06-PL | DK60FL-MF06-CS | DK60FL-MF06-PL |
|                 | 9/16"     | DK60FL-09-CS | DK60FL-09-PL | DK60FL-MM09-CS | DK60FL-MM09-PL | DK60FL-MF09-CS | DK60FL-MF09-PL |

## High Pressure Ball Valve

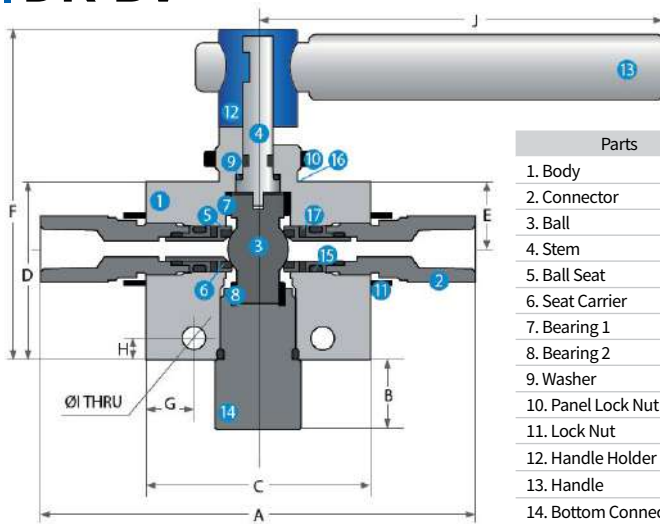
### Features

High pressure ball valves are designed with trunnion style ball so that it is possible to open and close the flow path only by 1/4 turn.

- 2-way ball valve; bi-directional, 3-way ball valve; inlet-bottom, outlet-left or right port.
- 2-way ball valve; 1/4 (90°) turn, 3-way ball valve; 1/2 (180°) turn.
- Applicable tubing size; 1/8", 1/4", 3/8", 9/16"
- Maximum working pressure; 20,000 psig
- Seat material uses PEEK, and is excellent in abrasion resistance, friction resistance and chemical resistance.
- O-ring material; standard-Viton



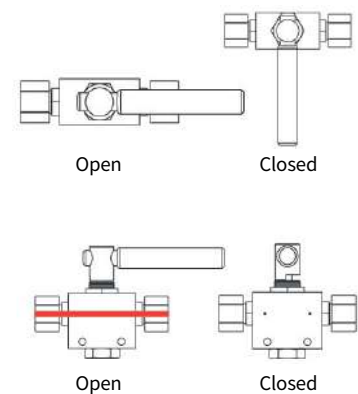
### 2-Way Ball Valve DK-BV



\* 1.BODY  
이런 표는 중앙정렬 안했습니다.

| Parts                  | Material           |
|------------------------|--------------------|
| 1. Body                | ASTM A276 TYPE316L |
| 2. Connector           | ASTM A276 TYPE316L |
| 3. Ball                | ASTM A276 TYPE316L |
| 4. Stem                | ASTM A276 TYPE316L |
| 5. Ball Seat           | PEEK               |
| 6. Seat Carrier        | ASTM A276 TYPE316L |
| 7. Bearing 1           | PEEK               |
| 8. Bearing 2           | PEEK               |
| 9. Washer              | ASTM A276 TYPE316L |
| 10. Panel Lock Nut     | ASTM A276 TYPE316L |
| 11. Lock Nut           | ASTM A276 TYPE316L |
| 12. Handle Holder      | Stainless Steel    |
| 13. Handle             | Stainless Steel    |
| 14. Bottom Connector   | ASTM A276 TYPE316L |
| 15. Seat Carrier Guide | ASTM A276 TYPE316L |
| 16. Panel              | Stainless Steel    |
| 17. Belleville Washers | ASTM A276 TYPE316L |

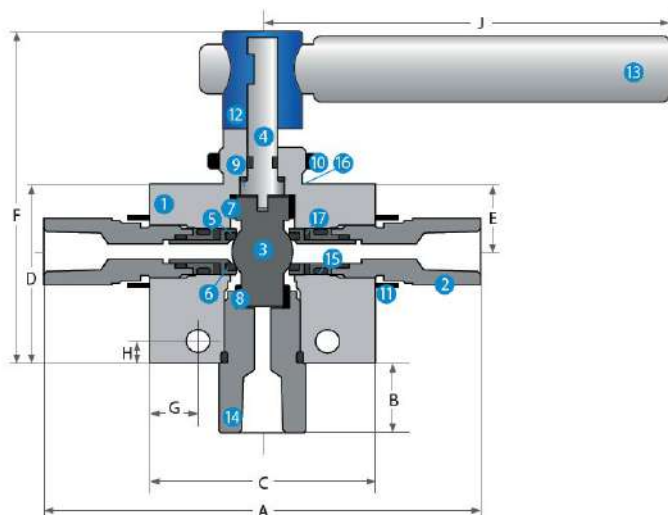
2-Way open & close position



| Part No.  | Pressure Rating | Tube / Port Type | Orifice Size | Min. Orifice | Cv   | Dimensions |    |      |    |      |     |      |     |   |     |                 |          |                | Panel |  |
|-----------|-----------------|------------------|--------------|--------------|------|------------|----|------|----|------|-----|------|-----|---|-----|-----------------|----------|----------------|-------|--|
|           |                 |                  |              |              |      | A          | B  | C    | D  | E    | F   | G    | H   | I | J   | Block Thickness | Diameter | Max. Thickness |       |  |
| DK11BV-02 | 11,000 psig     | 1/8"             | 4.8          | 1.4          | 0.09 | 118        | 10 | 66.5 | 54 | 20.5 | 100 | 14.2 | 6.5 | 7 | 120 | 38              | 25.4     | 6.4            |       |  |
| DK11BV-04 | 11,500 psig     | 1/4"             |              | 3.2          | 0.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK11BV-06 | 7,500 psig      | 3/8"             |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK20BV-04 | 20,000 psig     | 1/4"             |              | 2.8          | 0.31 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK20BV-06 | 20,000 psig     | 3/8"             |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK20BV-09 | 20,000 psig     | 9/16"            |              | 4.8          | 1.45 | 138        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK60BV-04 | 20,000 psig     | 1/4"             |              | 2.4          | 0.2  | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK60BV-06 | 20,000 psig     | 3/8"             |              | 3.2          | 0.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK60BV-09 | 20,000 psig     | 9/16"            |              | 4.8          | 1.45 | 138        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK15BV-2N | 15,000 psig     | NPT 1/8"         |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK15BV-4N | 15,000 psig     | NPT 1/4"         |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK15BV-6N | 15,000 psig     | NPT 3/8"         |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK15BV-2R | 15,000 psig     | PT 1/8"          |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK15BV-4R | 15,000 psig     | PT 1/4"          |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |
| DK15BV-6R | 15,000 psig     | PT 3/8"          |              | 4.8          | 1.45 | 128        |    |      |    |      |     |      |     |   |     |                 |          |                |       |  |

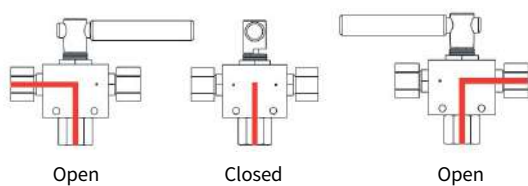
### 3-Way Ball Valve

## DK-BV

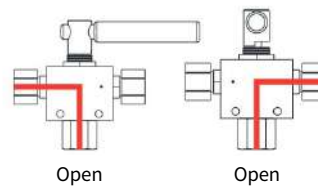


| Parts                  | Material           |
|------------------------|--------------------|
| 1. Body                | ASTM A276 TYPE316L |
| 2. Connector           | ASTM A276 TYPE316L |
| 3. Ball                | ASTM A276 TYPE316L |
| 4. Stem                | ASTM A276 TYPE316L |
| 5. Ball Seat           | PEEK               |
| 6. Seat Carrier        | ASTM A276 TYPE316L |
| 7. Bearing 1           | PEEK               |
| 8. Bearing 2           | PEEK               |
| 9. Washer              | ASTM A276 TYPE316L |
| 10. Panel Lock Nut     | ASTM A276 TYPE316L |
| 11. Lock Nut           | ASTM A276 TYPE316L |
| 12. Handle Holder      | Stainless Steel    |
| 13. Handle             | Stainless Steel    |
| 14. Bottom Connector   | ASTM A276 TYPE316L |
| 15. Seat Carrier Guide | ASTM A276 TYPE316L |
| 16. Panel              | Stainless Steel    |
| 17. Belleville Washers | ASTM A276 TYPE316L |

3-Way open &amp; close position – 180° Switching



3-Way open &amp; close position – 90° Diverter



| Part No.       |                | Pressure Rating | Tube / Port Type | Orifice Size | Min. Orifice | Cv   | Dimensions |    |      |    |      |     |      |     |   |     |                 |          | Panel          |  |
|----------------|----------------|-----------------|------------------|--------------|--------------|------|------------|----|------|----|------|-----|------|-----|---|-----|-----------------|----------|----------------|--|
| Switching Type | Diverting Type |                 |                  |              |              |      | A          | B  | C    | D  | E    | F   | G    | H   | I | J   | Block Thickness | Diameter | Max. Thickness |  |
| DK11BV-02-SW   | DK11BV-02-DV   | 11,000 psig     | 1/8"             | 4.8          | 1.4          | 0.04 | 118        | 13 | 66.5 | 54 | 20.5 | 100 | 14.2 | 6.5 | 7 | 120 | 38              | 25.4     | 6.4            |  |
| DK11BV-04-SW   | DK11BV-04-DV   | 11,500 psig     | 1/4"             |              | 3.2          | 0.22 | 128        | 17 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK11BV-06-SW   | DK11BV-06-DV   | 7,500 psig      | 3/8"             |              | 4.8          | 0.71 | 128        | 21 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK20BV-04-SW   | DK20BV-04-DV   | 20,000 psig     | 1/4"             |              | 2.8          | 0.15 | 128        | 17 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK20BV-06-SW   | DK20BV-06-DV   | 20,000 psig     | 3/8"             |              | 4.8          | 0.71 | 128        | 21 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK20BV-09-SW   | DK20BV-09-DV   | 20,000 psig     | 9/16"            |              | 4.8          | 0.71 | 138        | 25 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK60BV-04-SW   | DK60BV-04-DV   | 20,000 psig     | 1/4"             |              | 2.4          | 0.1  | 128        | 17 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK60BV-06-SW   | DK60BV-06-DV   | 20,000 psig     | 3/8"             |              | 3.2          | 0.22 | 128        | 21 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK60BV-09-SW   | DK60BV-09-DV   | 20,000 psig     | 9/16"            |              | 4.8          | 0.71 | 138        | 25 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK15BV-2N-SW   | DK15BV-2N-DV   | 15,000 psig     | NPT 1/8"         |              | 4.8          | 0.71 | 128        | 13 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK15BV-4N-SW   | DK15BV-4N-DV   | 15,000 psig     | NPT 1/4"         |              | 4.8          | 0.71 | 128        | 21 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK15BV-6N-SW   | DK15BV-6N-DV   | 15,000 psig     | NPT 3/8"         |              | 4.8          | 0.71 | 128        | 21 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK15BV-2R-SW   | DK15BV-2R-DV   | 15,000 psig     | PT 1/8"          |              | 4.8          | 0.71 | 128        | 13 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK15BV-4R-SW   | DK15BV-4R-DV   | 15,000 psig     | PT 1/4"          |              | 4.8          | 0.71 | 128        | 21 |      |    |      |     |      |     |   |     |                 |          |                |  |
| DK15BV-6R-SW   | DK15BV-6R-DV   | 15,000 psig     | PT 3/8"          |              | 4.8          | 0.71 | 128        | 21 |      |    |      |     |      |     |   |     |                 |          |                |  |

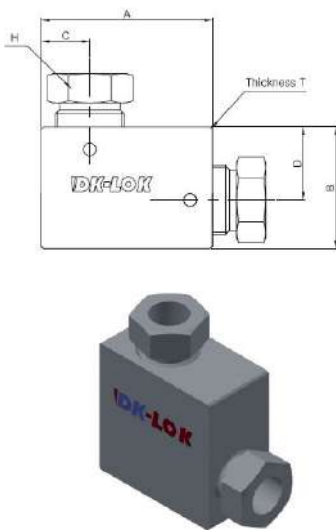
## High Pressure Fittings

### Features

- Flow patterns are elbow, tee, and cross.
- Temperature range is from -423°F to 1,200°F (-252°C to 649°C).
- Unless otherwise noted, it is supplied with standard gland and collar is assembled.

### Elbow

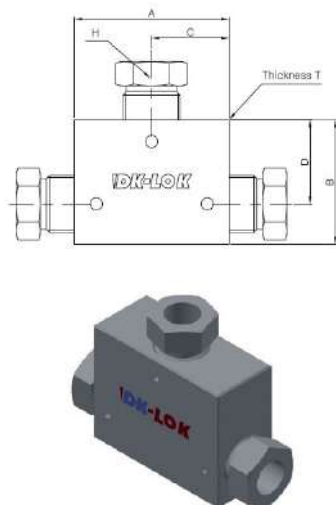
## DK-L



| Part No.  | Pressure Rating | Tube Size | Orifice Size | Dimensions |      |      |      |      |      |
|-----------|-----------------|-----------|--------------|------------|------|------|------|------|------|
|           |                 |           |              | A          | B    | C    | D    | H    | T    |
| DK11L-02  | 11,000 psig     | 1/8"      | 1.4          | 25         | 25   | 7    | 19   | 12   | 15.5 |
| DK11L-04  | 11,500 psig     | 1/4"      | 4            | 35         | 35   | 10   | 25   | 16   | 20   |
| DK07L-06  | 7,500 psig      | 3/8"      | 5.5          | 35         | 35   | 10   | 25   | 17   | 20   |
| DK05L-08  | 5,500 psig      | 1/2"      | 8.5          | 45         | 45   | 13.5 | 31.5 | 25.4 | 25   |
| DK20L-04  | 20,000 psig     | 1/4"      | 2.8          | 30         | 25   | 8    | 17.5 | 12   | 16   |
| DK20L-06  |                 | 3/8"      | 5.2          | 35         | 35   | 10   | 25   | 16   | 20   |
| DK20L-09  |                 | 9/16"     | 9.1          | 45         | 45   | 13.5 | 31.5 | 22   | 25   |
| DK20L-12  |                 | 3/4"      | 1.3          | 57         | 57   | 19   | 38   | 27   | 35   |
| DK20L-16  |                 | 1"        | 17.5         | 76         | 76   | 23.5 | 52.5 | 36   | 45   |
| DK30L-02  | 30,000 psig     | 1/8"      | 1.16         | 28         | 28   | 9    | 19   | 13   | 20   |
| DK30L-16  |                 | 1"        | 11.1         | 76         | 76   | 23.5 | 52.5 | 36   | 45   |
| DK60L-04  | 60,000 psig     | 1/4"      | 2.4          | 35         | 35   | 12.5 | 22.5 | 16   | 25   |
| DK60L-06  |                 | 3/8"      | 3.2          | 45         | 38   | 13.5 | 25   | 20   | 25   |
| DK60L-09  |                 | 9/16"     | 4.8          | 67         | 47.5 | 19   | 28.5 | 30   | 38   |
| DK100L-04 | 100,000 psig    | 1/4"      | 2.4          | 44.5       | 44.5 | 13   | 31.5 | 16   | 25   |
| DK150L-06 | 150,000 psig    | 3/8"      | 2.4          | 67         | 67   | 22   | 45   | 20   | 38   |

### Tee

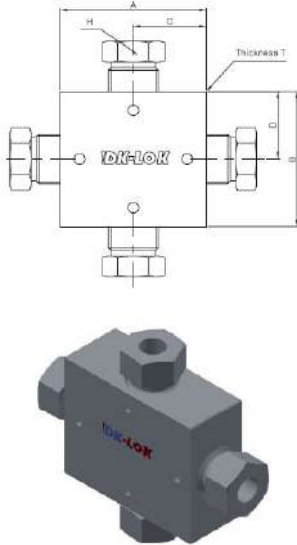
## DK-T



| Part No.  | Pressure Rating | Tube Size | Orifice Size | Dimensions |    |       |      |      |      |
|-----------|-----------------|-----------|--------------|------------|----|-------|------|------|------|
|           |                 |           |              | A          | B  | C     | D    | H    | T    |
| DK11T-02  | 11,000 psig     | 1/8"      | 1.4          | 38         | 25 | 19    | 19   | 12   | 15.5 |
| DK11T-04  | 11,500 psig     | 1/4"      | 4            | 50         | 35 | 25    | 25   | 16   | 20   |
| DK07T-06  | 7,500 psig      | 3/8"      | 5.5          | 50         | 35 | 25    | 25   | 17   | 20   |
| DK05T-08  | 5,500 psig      | 1/2"      | 8.5          | 63         | 45 | 31.5  | 31.5 | 25.4 | 25   |
| DK20T-04  | 20,000 psig     | 1/4"      | 2.8          | 44         | 25 | 22    | 17.5 | 12   | 16   |
| DK20T-06  |                 | 3/8"      | 5.2          | 50         | 35 | 25    | 25   | 16   | 20   |
| DK20T-09  |                 | 9/16"     | 9.1          | 63         | 45 | 31.5  | 31.5 | 22   | 25   |
| DK20T-12  |                 | 3/4"      | 1.3          | 76         | 57 | 38    | 38   | 27   | 35   |
| DK20T-16  |                 | 1"        | 17.5         | 105        | 76 | 52.5  | 52.5 | 36   | 45   |
| DK30T-02  | 30,000 psig     | 1/8"      | 1.16         | 28         | 38 | 19    | 19   | 13   | 20   |
| DK30T-16  |                 | 1"        | 11.1         | 105        | 76 | 52.5  | 52.5 | 36   | 45   |
| DK60T-04  | 60,000 psig     | 1/4"      | 2.4          | 50         | 35 | 25    | 22.5 | 16   | 25   |
| DK60T-06  |                 | 3/8"      | 3.2          | 50         | 40 | 25    | 27   | 20   | 25   |
| DK60T-09  |                 | 9/16"     | 4.8          | 67         | 54 | 33.25 | 35   | 30   | 38   |
| DK100T-04 | 100,000 psig    | 1/4"      | 2.4          | 44.5       | 63 | 31.5  | 31.5 | 16   | 25   |
| DK150T-06 | 150,000 psig    | 3/8"      | 2.4          | 67         | 90 | 45    | 45   | 20   | 38   |

Cross

## DK-X

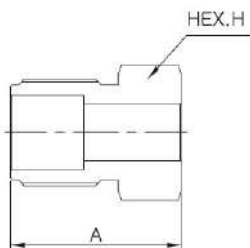


| Part No.  | Pressure Rating | Tube Size | Orifice Size | Dimensions |     |      |       |      |      |
|-----------|-----------------|-----------|--------------|------------|-----|------|-------|------|------|
|           |                 |           |              | A          | B   | C    | D     | H    | T    |
| DK11X-02  | 11,000 psig     | 1/8"      | 1.4          | 38         | 38  | 19   | 19    | 12   | 15.5 |
| DK11X-04  | 11,500 psig     | 1/4"      | 4            | 50         | 50  | 25   | 25    | 16   | 20   |
| DK07X-06  | 7,500 psig      | 3/8"      | 5.5          | 50         | 50  | 25   | 25    | 17   | 20   |
| DK05X-08  | 5,500 psig      | 1/2"      | 8.5          | 63         | 63  | 31.5 | 31.5  | 25.4 | 25   |
| DK20X-04  | 20,000 psig     | 1/4"      | 2.8          | 44         | 35  | 22   | 17.5  | 12   | 16   |
| DK20X-06  |                 | 3/8"      | 5.2          | 50         | 50  | 25   | 25    | 16   | 20   |
| DK20X-09  |                 | 9/16"     | 9.1          | 63         | 63  | 31.5 | 31.5  | 22   | 25   |
| DK20X-12  |                 | 3/4"      | 1.3          | 76         | 76  | 38   | 38    | 27   | 35   |
| DK20X-16  | 30,000 psig     | 1"        | 17.5         | 105        | 105 | 52.5 | 52.5  | 36   | 45   |
| DK30X-02  |                 | 1/8"      | 1.16         | 38         | 38  | 19   | 19    | 13   | 20   |
| DK30X-16  |                 | 1"        | 11.1         | 105        | 105 | 52.5 | 52.5  | 36   | 45   |
| DK60X-04  |                 | 1/4"      | 2.4          | 50         | 38  | 25   | 19    | 16   | 25   |
| DK60X-06  | 60,000 psig     | 3/8"      | 3.2          | 54         | 50  | 27   | 25    | 20   | 25   |
| DK60X-09  |                 | 9/16"     | 4.8          | 70         | 67  | 35   | 33.25 | 30   | 38   |
| DK100X-04 | 100,000 psig    | 1/4"      | 2.4          | 63         | 63  | 31.5 | 31.5  | 16   | 25   |
| DK150X-06 | 150,000 psig    | 3/8"      | 2.4          | 90         | 90  | 45   | 45    | 20   | 38   |

## High Pressure Fitting Accessory

Gland

## DK-G



| Part No. |           |           |           | Pressure Rating | Tube Size | Dimensions |      |
|----------|-----------|-----------|-----------|-----------------|-----------|------------|------|
| Sleeve   | Collar    | Plug      | Gland     |                 |           | HEX.H      | T    |
| DK11S-02 | -         | -         | DK11G-02  | 11,000 psig     | 1/8"      | 12         | 14.5 |
| DK11S-04 | -         | -         | DK11G-04  | 11,500 psig     | 1/4"      | 16         | 16   |
| DK07S-06 | -         | -         | DK07S-06  | 7,500 psig      | 3/8"      | 17         | 19   |
| DK05S-02 | -         | -         | DK05G-02  | 5,500 psig      | 1/2"      | 25.4       | 24   |
| -        | DK20C-04  | DK20P-04  | DK20G-04  | 20,000 psig     | 1/4"      | 12         | 16   |
| -        | DK20C-06  | DK20P-06  | DK20G-06  |                 | 3/8"      | 16         | 16   |
| -        | DK20C-09  | DK20P-09  | DK20G-09  |                 | 9/16"     | 22         | 20   |
| -        | DK30C-02  | DK30P-02  | DK30G-02  |                 | 1/8"      | 27         | 28   |
| -        | DK30C-04  | DK30P-04  | DK30G-04  | 30,000 psig     | 1/4"      | 36         | 38   |
| -        | DK30C-06  | DK30P-06  | DK30G-06  |                 | 3/8"      | 13         | 18   |
| -        | DK30C-09  | DK30P-09  | DK30G-09  |                 | 9/16"     | 36         | 38   |
| -        | DK60C-04  | DK60P-04  | DK60G-04  | 60,000 psig     | 1/4"      | 16         | 20   |
| -        | DK60C-06  | DK60P-06  | DK60G-06  |                 | 3/8"      | 20         | 30   |
| -        | DK60C-09  | DK60P-09  | DK60G-09  |                 | 9/16"     | 30         | 38   |
| -        | DK100C-04 | DK100P-04 | DK100G-04 | 100,000 psig    | 1/4"      | 16         | 30   |
| -        | DK150C-06 | DK150P-06 | DK150G-06 | 150,000 psig    | 3/8"      | 20         | 30   |

Collar

## DK-C



Sleeve

## DK-S



## Tube DK-TL



| Part No.   | Pressure Rating | Tube Size | Cv               |                 | Thickness | Flow Area(mm <sup>2</sup> ) | Working Pressure (bar)    |               |                |                |                |
|------------|-----------------|-----------|------------------|-----------------|-----------|-----------------------------|---------------------------|---------------|----------------|----------------|----------------|
|            |                 |           | Outside Diameter | Inside Diameter |           |                             | -17.8~37.8°C<br>0~100°F   | 93°C<br>200°F | 204°C<br>400°F | 316°C<br>600°F | 343°C<br>650°F |
| DK11TL-02  | 11,000 psig     | 1/8"      | 3.18             | 1.57            | 0.81      | 1.94                        | 803.23                    | 803.23        | 775.65         | 730.83         | 679.12         |
| DK11TL-04  | 11,500 psig     | 1/4"      | 6.35             | 3.18            | 1.57      | 7.74                        | 803.23                    | 761.86        | 775.65         | 730.83         | 679.12         |
| DK07TL-06  | 7,500 psig      | 3/8"      | 9.53             | 6.35            | 1.57      | 31.61                       | 517.1                     | 517.1         | 496.41         | 468.84         | 434.36         |
| DK05TL-08  | 5,500 psig      | 1/2"      | 12.7             | 9.53            | 1.57      | 70.97                       | 379.21                    | 379.21        | 361.97         | 341.29         | 317.15         |
|            |                 |           |                  |                 |           |                             | -198~37.8°C<br>-325~100°F | 93°C<br>200°F | 204°C<br>400°F | 316°C<br>600°F | 427°C<br>800°F |
| DK20TL-04  | 20,000 psig     | 1/4"      | 6.35             | 2.77            | 1.78      | 5.81                        | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20TL-06  |                 | 3/8"      | 9.53             | 5.16            | 2.18      | 20.65                       | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20TL-09  |                 | 9/16"     | 14.29            | 7.92            | 3.18      | 49.03                       | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20TL-12  |                 | 3/4"      | 19.05            | 11.13           | 3.96      | 97.42                       | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20TL-16  |                 | 1"        | 25.4             | 14.27           | 5.56      | 160                         | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK30TL-02  | 30,000 psig     | 1/8"      | 3.18             | 1.02            | 1.08      |                             |                           |               |                |                |                |
| DK30TL-16  |                 | 1"        | 25.4             | 11.1            | 7.15      |                             |                           |               |                |                |                |
| DK60TL-04  | 60,000 psig     | 1/4"      | 6.35             | 2.11            | 2.11      | 3.23                        | 4136.79                   | 4136.79       | 3981.66        | 3740.35        | 3495.59        |
| DK60TL-06  |                 | 3/8"      | 9.53             | 3.18            | 3.18      | 7.74                        | 4136.79                   | 4136.79       | 3981.66        | 3740.35        | 3495.59        |
| DK60TL-09  |                 | 9/16"     | 14.29            | 4.78            | 4.75      | 18.06                       | 4136.79                   | 4136.79       | 3981.66        | 3740.35        | 3495.59        |
| DK100TL-04 | 100,000 psig    | 1/4"      | 6.35             | 1.59            | 2.38      | 3.23                        | 6894.64                   | 6894.64       | 6633.24        | 6230.55        | 5820.46        |
| DK150TL-06 | 150,000 psig    | 3/8"      | 9.53             | 1.59            | 3.97      | 7.74                        | 10341.97                  | 10341.97      | 9955.87        | 9400.85        | 8738.97        |

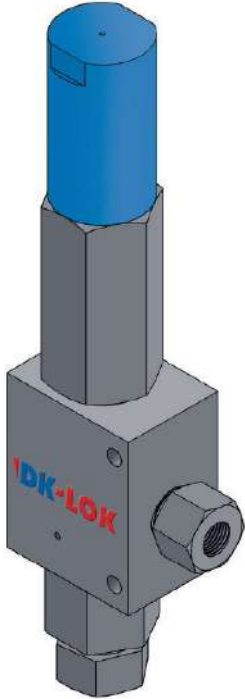
## Nipple DK-N



| Part No.  | Pressure Rating | Tube Size | Cv               |                 | Thickness | Flow Area(mm <sup>2</sup> ) | Working Pressure (bar)    |               |                |                |                |
|-----------|-----------------|-----------|------------------|-----------------|-----------|-----------------------------|---------------------------|---------------|----------------|----------------|----------------|
|           |                 |           | Outside Diameter | Inside Diameter |           |                             | -198~37.8°C<br>-325~100°F | 93°C<br>200°F | 204°C<br>400°F | 316°C<br>600°F | 427°C<br>800°F |
| DK20N-04  | 20,000 psig     | 1/4"      | 6.35             | 2.77            | 1.78      | 5.81                        | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20N-06  |                 | 3/8"      | 9.53             | 5.16            | 2.18      | 20.65                       | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20N-09  |                 | 9/16"     | 14.29            | 7.92            | 3.18      | 49.03                       | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20N-12  |                 | 3/4"      | 19.05            | 11.13           | 3.96      | 97.42                       | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK20N-16  |                 | 1"        | 25.4             | 14.27           | 5.56      | 160                         | 1378.93                   | 1378.93       | 1378.93        | 1244.48        | 1158.3         |
| DK30N-02  | 30,000 psig     | 1/8"      | 3.18             | 1.02            | 1.08      |                             |                           |               |                |                |                |
| DK30N-16  |                 | 1"        | 25.4             | 11.1            | 7.15      |                             |                           |               |                |                |                |
| DK60N-04  | 60,000 psig     | 1/4"      | 6.35             | 2.11            | 2.11      | 3.23                        | 4136.79                   | 4136.79       | 3981.66        | 3740.35        | 3495.59        |
| DK60N-06  |                 | 3/8"      | 9.53             | 3.18            | 3.18      | 7.74                        | 4136.79                   | 4136.79       | 3981.66        | 3740.35        | 3495.59        |
| DK60N-09  |                 | 9/16"     | 14.29            | 4.78            | 4.75      | 18.06                       | 4136.79                   | 4136.79       | 3981.66        | 3740.35        | 3495.59        |
| DK100N-04 | 100,000 psig    | 1/4"      | 6.35             | 1.59            | 2.38      | 3.23                        | 6894.64                   | 6894.64       | 6633.24        | 6230.55        | 5820.46        |
| DK150N-06 | 150,000 psig    | 3/8"      | 9.53             | 1.59            | 3.97      | 7.74                        | 10341.97                  | 10341.97      | 9955.87        | 9400.85        | 8738.97        |

## High Pressure Relief Valve – Factory Set

### Features



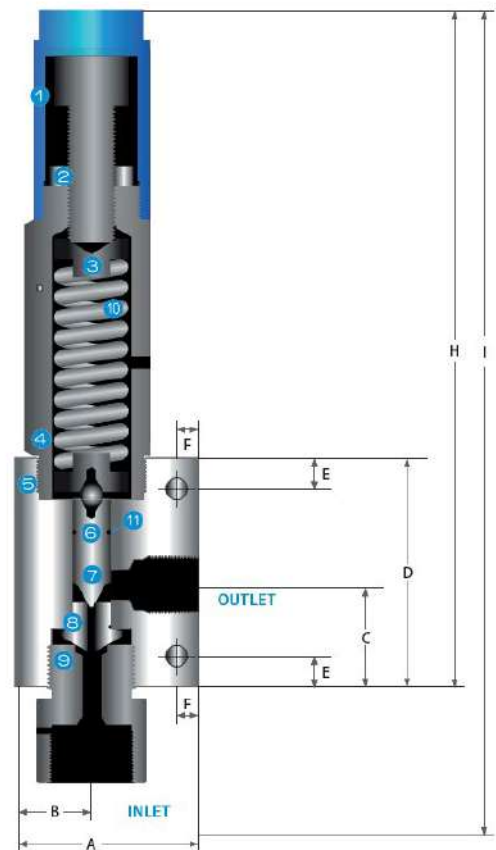
If system internal pressure rises above a set pressure due to system malfunction, etc., it will discharge pressure to protect system and other devices.

- Pressure range; 3,000 ~ 60,000 psig
- Setting pressure accuracy;  $\pm 8\%$
- Inlet port; 9/16", Outlet port; NPT 1/2"
- Operating temperature; up to 170°C
- Adapters allow connection of various pressure specifications and sizes.
- Apply a metal to metal contact method to extend the life of the seat.
- The set pressure is set before shipment and sealed with the pressure tag.

### Relief Valve – Factory Set

## DK-RV

| Parts              | Material                             |
|--------------------|--------------------------------------|
| 1. Cap             | Aluminum 6061                        |
| 2. Lock Nut        | Stainless Steel 304                  |
| 3. Spring Cap      | Stainless Steel 304                  |
| 4. Housing         | Aluminum 6061<br>Stainless Steel 304 |
| 5. Body            | Stainless Steel 304                  |
| 6. Spindle         | Stainless Steel 630                  |
| 7. Plug            | Stainless Steel 630                  |
| 8. Seat            | Stainless Steel 304                  |
| 9. Adapter         | Stainless Steel 304                  |
| 10. Molding Spring | Stainless Steel 304                  |
| 11. O-Ring         | Viton                                |



| Part No.      | Port Type |          | Orifice Size | Pressure Range |             | Dimensions |    |      |    |    |   |   |       |       |    | Block Thickness |
|---------------|-----------|----------|--------------|----------------|-------------|------------|----|------|----|----|---|---|-------|-------|----|-----------------|
|               | Inlet     | Outlet   |              | Min.           | Max.        | A          | B  | C    | D  | E  | F | G | H     | I     |    |                 |
| DK10RVS-09-8N | 9/16"     | NPT 1/2" | 6.4          | 3,000 psig     | 10,000 psig | 60         | 25 | 33.5 | 75 | 10 | 7 | 7 | 222.5 | 253.8 | 44 |                 |
| DK15RVS-09-8N | 9/16"     | NPT 1/2" | 4.8          | 10,000 psig    | 15,000 psig | 60         | 25 | 33.5 | 75 | 10 | 7 | 7 | 222.5 | 253.8 | 44 |                 |
| DK30RVS-09-8N | 9/16"     | NPT 1/2" | 3.2          | 15,000 psig    | 30,000 psig | 60         | 25 | 33.5 | 75 | 10 | 7 | 7 | 222.5 | 253.8 | 44 |                 |
| DK60RVS-09-8N | 9/16"     | NPT 1/2" | 2.4          | 30,000 psig    | 60,000 psig | 60         | 25 | 33.5 | 75 | 10 | 7 | 7 | 222.5 | 253.8 | 44 |                 |

## High Pressure Relief Valve – Field Adjustable

### Features

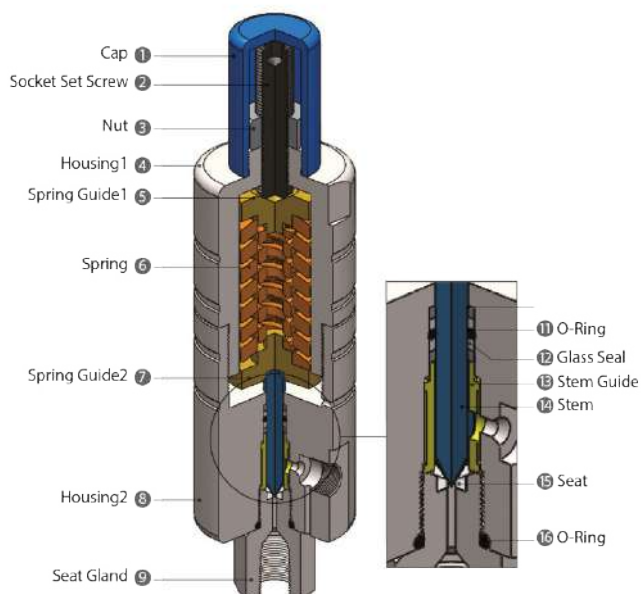
When the pressure inside the system rises above the set pressure, the pressure is released to protect the system from overpressure.

- Pressure range; 1,000 ~ 10,000 psig, 10,000 ~ 20,000 psig
- Setting pressure accuracy;  $\pm 8\%$
- Inlet port; NPT 1/4" or 1/4", Outlet port; NPT 1/4"
- Operating temperature; -20 ~ 65°C (Nylon), -20 ~ 204°C (PTFE)
- Adapters allow connection of various pressure specifications and sizes.
- Long Life due to mold springs and soft seat.
- The pressure setting is easily adjustable by the customer by directly adjusting the mood wrench bolt at the top of the valve.

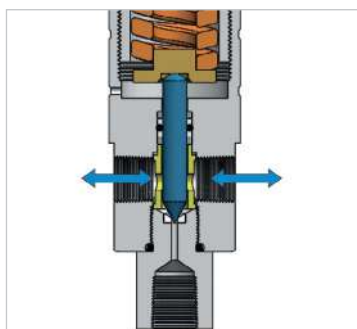
### Relief Valve – Field Adjustable

## DK-RVS

| Parts               | Material                             |
|---------------------|--------------------------------------|
| 1. Cap              | Aluminum 6061                        |
| 2. Socket Set Screw | SCM435                               |
| 3. Nut              | Stainless Steel 304                  |
| 4. Housing1         | Aluminum 6061<br>Stainless Steel 304 |
| 5. Spring Guide1    | Stainless Steel 304                  |
| 6. Spring           | Carbon Steel                         |
| 7. Spring Guide2    | Stainless Steel 304                  |
| 8. Housing2         | Stainless Steel 316                  |
| 9. Seat Gland       | Stainless Steel 316                  |
| 10. Seal            | Stainless Steel 316                  |
| 11. O-Ring          | Viton                                |
| 12. Glass Seal      | Glass Teflon                         |
| 13. Stem Guide      | Stainless Steel 316                  |
| 14. Stem            | Stainless Steel 630                  |
| 15. Seat            | Nylon/PTFE                           |
| 16. O-Ring          | Viton                                |

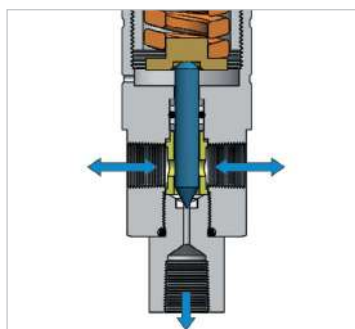


### Application



#### Close

Spring-proof pressure, Force >> Pressure applied to the stem, force

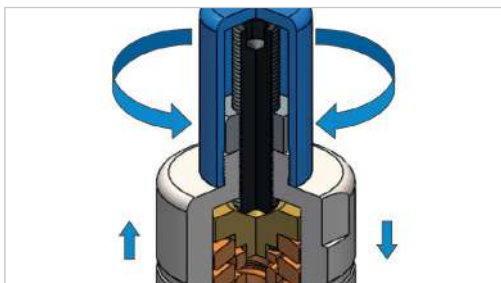


#### Open

Spring-proof pressure, Force << Pressure applied to the stem, force

The relief valve opens when the pressure applied to the stem exceeds the set pressure, and closes when the pressure falls below the set pressure.

## How to Use

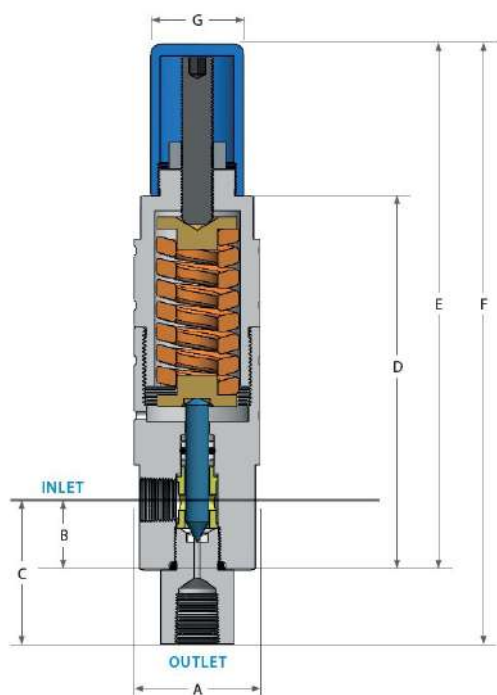


- The inlet pressure determines the set pressure.
- Turning to the right increases the set pressure.
- Turning to the left decreases the set pressure.
- Accuracy range is  $\pm 8\%$ .

## Set Pressure

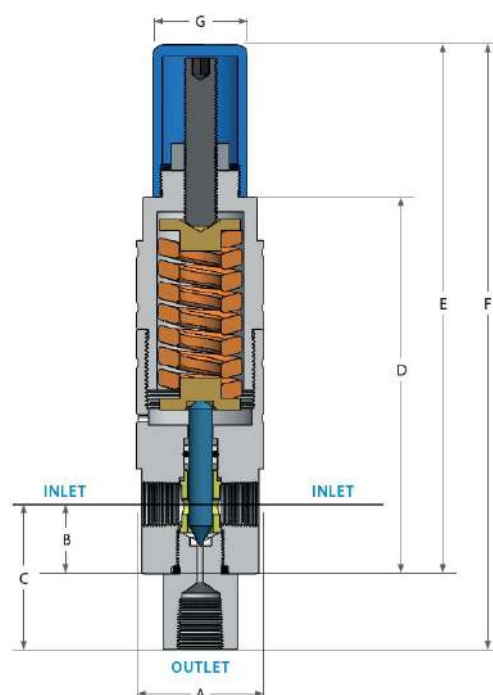
| Part No.                               | Set Pressure [psig] | Spring Compression Length [mm] |
|----------------------------------------|---------------------|--------------------------------|
| DK10RV-F-4N<br>1,000 ~ 10,000 psig     | 2,500               | 2.58                           |
|                                        | 5,500               | 5.15                           |
|                                        | 7,500               | 7.73                           |
|                                        | 10,000              | 10.31                          |
| DK20RV-2H04-4N<br>10,000 ~ 20,000 psig | 12,500              | 6.96                           |
|                                        | 15,000              | 8.35                           |
|                                        | 17,500              | 9.74                           |
|                                        | 20,000              | 11.13                          |

## Application



### [1 Inlet Type]

Pressure : 1,000 psig ~ 10,000 psig



### [2 Inlet Type]

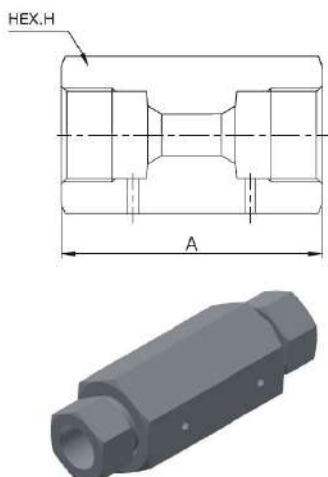
Pressure : 1,000 psig ~ 10,000 psig

| Part No.       | Port Type |          |          | Orifice Size | Pressure Range |             | Dimensions |    |      |       |       |       |    |
|----------------|-----------|----------|----------|--------------|----------------|-------------|------------|----|------|-------|-------|-------|----|
|                | Inlet1    | Inlet2   | Outlet   |              | Min.           | Max.        | A          | B  | C    | D     | E     | F     | G  |
| DK10RV-F-4N-1  | NPT 1/4"  |          | 1/4" NPT | 1.8          | 1,000 psig     | 10,000 psig | 38         | 21 | 43.1 | 112.5 | 158   | 180.1 | 28 |
| DK10RV-F-4N-2  |           | NPT 1/4" |          |              |                |             |            |    |      |       |       |       |    |
| DK20RV-04-4N-1 | 1/4"      |          | 1/4" NPT | 1.8          | 10,000 psig    | 20,000 psig | 49.5       | 21 | 43.1 | 120   | 165.5 | 187.6 | 28 |
| DK20RV-04-4N-2 |           | 1/4"     |          |              |                |             |            |    |      |       |       |       |    |

## High Pressure Union & Adapter

### Female Union

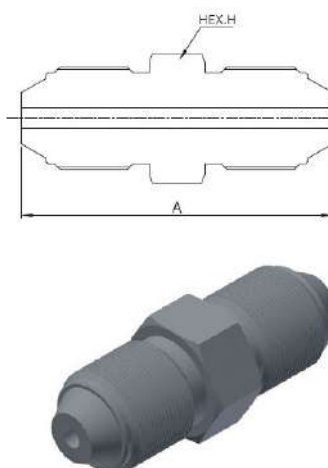
## DK-FAU



| Part No.   | Pressure Rating | Tube Size | Dimensions |      |
|------------|-----------------|-----------|------------|------|
|            |                 |           | HEX.H      | A    |
| DK11FAU-02 | 11,000 psig     | 1/8"      | 12.7       | 31   |
| DK11FAU-04 | 11,500 psig     | 1/4"      | 16         | 41.5 |
| DK07FAU-06 | 7,500 psig      | 3/8"      | 19         | 44.5 |
| DK05FAU-08 | 5,500 psig      | 1/2"      | 25.4       | 50.5 |
| DK20FAU-04 | 20,000 psig     | 1/4"      | 16         | 41.5 |
| DK20FAU-06 |                 | 3/8"      | 19         | 44.5 |
| DK20FAU-09 |                 | 9/16"     | 25.4       | 54   |
| DK20FAU-12 |                 | 3/4"      | 36         | 63.5 |
| DK20FAU-16 |                 | 1"        | 46         | 89   |
| DK30FAU-02 | 30,000 psig     | 1/8"      | 20         | 31   |
| DK30FAU-16 |                 | 1"        | 46         | 91   |
| DK60FAU-04 | 60,000 psig     | 1/4"      | 20         | 35   |
| DK60FAU-06 |                 | 3/8"      | 25.4       | 44.5 |
| DK60FAU-09 |                 | 9/16"     | 36         | 57   |

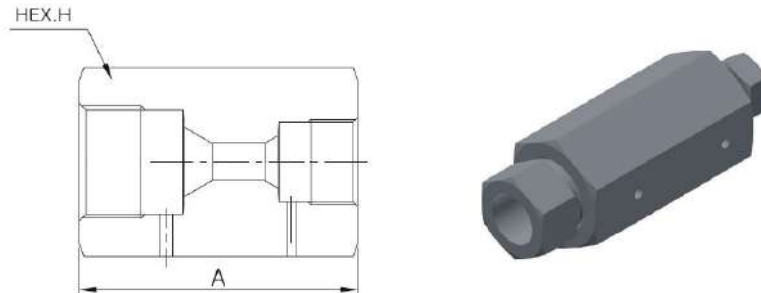
### Male Union

## DK-MAU



| Part No.   | Pressure Rating | Tube Size | Dimensions |      |
|------------|-----------------|-----------|------------|------|
|            |                 |           | HEX.H      | A    |
| DK11MAU-02 | 11,000 psig     | 1/8"      | 12.7       | 35   |
| DK11MAU-04 | 11,500 psig     | 1/4"      | 16         | 47   |
| DK07MAU-06 | 7,500 psig      | 3/8"      | 19         | 54   |
| DK05MAU-08 | 5,500 psig      | 1/2"      | 25.4       | 57.5 |
| DK20MAU-04 | 20,000 psig     | 1/4"      | 12.7       | 44   |
| DK20MAU-06 |                 | 3/8"      | 16         | 54   |
| DK20MAU-09 |                 | 9/16"     | 25.4       | 64   |
| DK20MAU-12 |                 | 3/4"      | 30         | 82   |
| DK20MAU-16 |                 | 1"        | 36         | 107  |
| DK30MAU-02 | 30,000 psig     | 1/8"      | 14         | 38   |
| DK30MAU-16 |                 | 1"        | 36         | 109  |
| DK60MAU-04 | 60,000 psig     | 1/4"      | 16         | 43   |
| DK60MAU-06 |                 | 3/8"      | 20         | 58   |
| DK60MAU-09 |                 | 9/16"     | 30         | 68   |

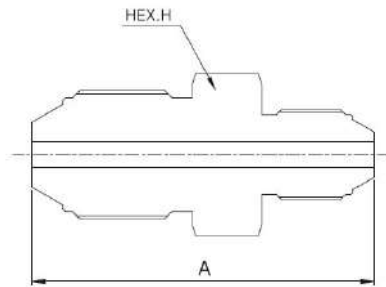
## Female Union Reducer

**DK-FARU**


| Part No.   |             |       | Female End      |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  |                  |                  |
|------------|-------------|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
|            |             |       | 11,500 psig     | 7,500 psig      | 5,500 psig      | 20,000 psig     |                 |                 |                 |                 | 30,000 psig      |                  | 60,000 psig      |                  |                  |                  |
|            |             |       | 1/4"            | 3/8"            | 1/2"            | 1/4"            | 3/8"            | 9/16"           | 3/4"            | 1"              | 1/8"             | 1"               | 1/4"             | 3/8"             | 9/16"            |                  |
| Female End | 11,500 psig | 1/8"  | DK11FARU 02-L04 | DK11FARU 02-L06 | DK11FARU 02-L08 | DK11FARU 02-M04 | DK11FARU 02-M06 | DK11FARU 02-M09 |                 |                 | DK11FARU 02-3H02 |                  | DK11FARU 02-6H04 | DK11FARU 02-6H06 | DK11FARU 02-6H09 |                  |
|            | 11500 psig  | 1/4"  |                 | DK11FARU 04-L06 | DK11FARU 04-L08 | DK11FARU 04-M04 | DK11FARU 04-M06 | DK11FARU 04-M09 | DK11FARU 04-M12 |                 | DK11FARU 04-3H02 |                  | DK11FARU 04-6H04 | DK11FARU 04-6H06 | DK11FARU 04-6H09 |                  |
|            | 7,500 psig  | 3/8"  |                 |                 | DK07FARU 06-L08 | DK07FARU 06-M04 | DK07FARU 06-M06 | DK07FARU 06-M09 | DK07FARU 06-M12 | DK07FARU 06-M16 | DK07FARU 06-3H02 | DK07FARU 06-3H16 | DK07FARU 06-6H04 | DK07FARU 06-6H06 | DK07FARU 06-6H09 |                  |
|            | 5,500 psig  | 1/2"  |                 |                 |                 | DK07FARU 08-M04 | DK07FARU 08-M06 | DK07FARU 08-M09 | DK07FARU 08-M12 | DK07FARU 08-M16 | DK07FARU 08-3H02 | DK07FARU 08-3H16 | DK07FARU 08-6H04 | DK07FARU 08-6H06 | DK07FARU 08-6H09 |                  |
|            | 20,000 psig | 1/4"  |                 |                 |                 |                 | DK20FARU 04-M06 | DK20FARU 04-M09 | DK20FARU 04-M12 | DK20FARU 04-M16 | DK20FARU 04-3H02 |                  | DK20FARU 04-6H04 | DK20FARU 04-6H06 | DK20FARU 04-6H09 |                  |
|            |             | 3/8"  |                 |                 |                 |                 |                 | DK20FARU 06-M09 | DK20FARU 06-M12 | DK20FARU 06-M16 | DK20FARU 06-3H02 | DK20FARU 06-3H16 | DK20FARU 06-6H04 | DK20FARU 06-6H06 | DK20FARU 06-6H09 |                  |
|            |             | 9/16" |                 |                 |                 |                 |                 |                 | DK20FARU 09-M12 | DK20FARU 09-M16 | DK20FARU 09-3H02 | DK20FARU 09-3H16 | DK20FARU 09-6H04 | DK20FARU 09-6H06 | DK20FARU 09-6H09 |                  |
|            |             | 3/4"  |                 |                 |                 |                 |                 |                 |                 | DK20FARU 12-M16 | DK20FARU 12-3H02 | DK20FARU 12-3H16 | DK20FARU 12-6H04 | DK20FARU 12-6H06 | DK20FARU 12-6H09 |                  |
|            |             | 1"    |                 |                 |                 |                 |                 |                 |                 |                 |                  | DK20FARU 16-3H16 | DK20FARU 16-6H04 | DK20FARU 16-6H06 | DK20FARU 16-6H09 |                  |
|            | 30,000 psig | 1/8"  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  | DK60FARU 02-6H04 | DK60FARU 02-6H06 | DK60FARU 02-6H09 |                  |
|            |             | 1"    |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  | DK60FARU 16-6H04 | DK60FARU 16-6H06 | DK60FARU 16-6H09 |                  |
|            | 60,000 psig | 1/4"  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  | DK60FARU 04-6H06 | DK60FARU 04-6H09 |                  |
|            |             | 3/8"  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  |                  | DK60FARU 06-6H09 |

| Dimensions |             |       | Female End  |      |            |    |            |      |             |      |       |      |       |      |       |      |             |    |       |      |             |    |       |      |       |      |       |      |      |
|------------|-------------|-------|-------------|------|------------|----|------------|------|-------------|------|-------|------|-------|------|-------|------|-------------|----|-------|------|-------------|----|-------|------|-------|------|-------|------|------|
|            |             |       | 11,500 psig |      | 7,500 psig |    | 5,500 psig |      | 20,000 psig |      |       |      |       |      |       |      | 30,000 psig |    |       |      | 60,000 psig |    |       |      |       |      |       |      |      |
|            |             |       | 1/4"        |      | 3/8"       |    | 1/2"       |      | 1/4"        |      | 3/8"  |      | 9/16" |      | 3/4"  |      | 1"          |    | 1/8"  |      | 1"          |    | 1/4"  |      | 3/8"  |      | 9/16" |      |      |
|            |             |       | HEX.H       | A    | HEX.H      | A  | HEX.H      | A    | HEX.H       | A    | HEX.H | A    | HEX.H | A    | HEX.H | A    | HEX.H       | A  | HEX.H | A    | HEX.H       | A  | HEX.H | A    | HEX.H | A    | HEX.H | A    |      |
| Female End | 11,500 psig | 1/8"  | 16          | 36.5 | 19         | 38 | 25.4       | 41.5 | 16          | 35   | 19    | 38   | 25.4  | 44.5 |       |      |             |    | 20    | 31   |             |    | 19    | 31.5 | 25.4  | 38   | 36    | 44.5 |      |
|            | 11,500 psig | 1/4"  |             |      | 19         | 43 | 25.4       | 47.5 | 16          | 41.5 | 19    | 44.5 | 25.4  | 50.5 | 36    | 57   |             |    | 20    | 38   |             |    | 19    | 38   | 25.4  | 43   | 36    | 52   |      |
|            | 7,500 psig  | 3/8"  |             |      |            |    | 25.4       | 47.5 | 19          | 41.5 | 19    | 44.5 | 25.4  | 50.5 | 36    | 57   | 46          | 76 | 20    | 38   | 46          | 76 | 19    | 41.5 | 25.4  | 46   | 36    | 51   |      |
|            | 5,500 psig  | 1/2"  |             |      |            |    |            |      | 25.4        | 41.5 | 25.4  | 47.5 | 25.4  | 50.5 | 36    | 57   | 46          | 76 | 25.4  | 43   | 46          | 76 | 25.4  | 43   | 25.4  | 47.5 | 36    | 52   |      |
|            | 20,000 psig | 1/4"  |             |      |            |    |            |      |             |      | 19    | 44.5 | 25.4  | 50.5 | 36    | 57   | 46          | 70 | 20    | 38   |             |    | 19    | 35   | 25.4  | 41.5 | 36    | 47.5 |      |
|            |             | 3/8"  |             |      |            |    |            |      |             |      |       |      | 25.4  | 50.5 | 36    | 57   | 46          | 73 | 20    | 40   | 46          | 76 | 19    | 41.5 | 25.4  | 50.5 | 36    | 50.5 |      |
|            |             | 9/16" |             |      |            |    |            |      |             |      |       |      |       |      | 36    | 63.5 | 46          | 76 | 25.4  | 48   | 46          | 76 | 25.4  | 50.5 | 25.4  | 50.5 | 36    | 57   |      |
|            |             | 3/4"  |             |      |            |    |            |      |             |      |       |      |       |      |       |      | 46          | 76 | 36    | 53.5 | 46          | 76 | 36    | 53.5 | 36    | 60   | 36    | 70   |      |
|            |             | 1"    |             |      |            |    |            |      |             |      |       |      |       |      |       |      |             |    |       |      | 46          | 91 | 46    | 70   | 46    | 73   | 46    | 82.5 |      |
|            | 30,000 psig | 1/8"  |             |      |            |    |            |      |             |      |       |      |       |      |       |      |             |    |       |      |             |    |       | 20   | 31    | 25.4 | 38    | 36   | 44.5 |
|            |             | 1"    |             |      |            |    |            |      |             |      |       |      |       |      |       |      |             |    |       |      |             |    |       | 46   | 68    | 46   | 73    | 46   | 78   |
|            | 60,000 psig | 1/4"  |             |      |            |    |            |      |             |      |       |      |       |      |       |      |             |    |       |      |             |    |       |      |       | 25.4 | 44.5  | 36   | 57   |
|            |             | 3/8"  |             |      |            |    |            |      |             |      |       |      |       |      |       |      |             |    |       |      |             |    |       |      |       |      |       | 36   | 57   |

## Male Union Reducer DK-MAUR

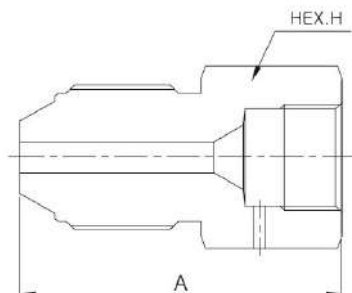


| Part No. |             |       | Male End        |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  |                  |  |
|----------|-------------|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|--|
|          |             |       | 11,500 psig     | 7,500 psig      | 5,500 psig      | 20,000 psig     |                 |                 |                 |                 |                  | 30,000 psig      |                  | 60,000 psig      |                  |  |
|          |             |       | 1/4"            | 3/8"            | 1/2"            | 1/4"            | 3/8"            | 9/16"           | 3/4"            | 1"              | 1/8"             | 1"               | 1/4"             | 3/8"             | 9/16"            |  |
| Male End | 11,500 psig | 1/8"  | DK11MAUR 02-L04 | DK11MAUR 02-L06 | DK11MAUR 02-L08 | DK11MAUR 02-M04 | DK11MAUR 02-M06 | DK11MAUR 02-M09 |                 |                 | DK11MAUR 02-3H02 |                  | DK11MAUR 02-6H04 | DK11MAUR 02-6H06 | DK11MAUR 02-6H09 |  |
|          | 11,500 psig | 1/4"  |                 | DK11MAUR 04-L06 | DK11MAUR 04-L08 | DK11MAUR 04-M04 | DK11MAUR 04-M06 | DK11MAUR 04-M09 | DK11MAUR 04-M12 |                 | DK11MAUR 04-3H02 |                  | DK11MAUR 04-6H04 | DK11MAUR 04-6H06 | DK11MAUR 04-6H09 |  |
|          | 7,500 psig  | 3/8"  |                 |                 | DK07MAUR 06-L08 | DK07MAUR 06-M04 | DK07MAUR 06-M06 | DK07MAUR 06-M09 | DK07MAUR 06-M12 | DK07MAUR 06-M16 | DK07MAUR 06-3H02 | DK07MAUR 06-3H16 | DK07MAUR 06-6H04 | DK07MAUR 06-6H06 | DK07MAUR 06-6H09 |  |
|          | 5,500 psig  | 1/2"  |                 |                 |                 | DK05MAUR 08-M04 | DK07MAUR 08-M06 | DK07MAUR 08-M09 | DK07MAUR 08-M12 | DK07MAUR 08-M16 | DK07MAUR 08-3H02 | DK07MAUR 08-3H16 | DK07MAUR 08-6H04 | DK07MAUR 08-6H06 | DK07MAUR 08-6H09 |  |
|          | 20,000 psig | 1/4"  |                 |                 |                 |                 | DK20MAUR 04-M06 | DK20MAUR 04-M09 | DK20MAUR 04-M12 | DK20MAUR 04-M16 | DK20MAUR 04-3H02 |                  | DK20MAUR 04-6H04 | DK20MAUR 04-6H06 | DK20MAUR 04-6H09 |  |
|          |             | 3/8"  |                 |                 |                 |                 |                 | DK20MAUR 06-M09 | DK20MAUR 06-M12 | DK20MAUR 06-M16 | DK20MAUR 06-3H02 | DK20MAUR 06-3H16 | DK20MAUR 06-6H04 | DK20MAUR 06-6H06 | DK20MAUR 06-6H09 |  |
|          |             | 9/16" |                 |                 |                 |                 |                 |                 | DK20MAUR 09-M12 | DK20MAUR 09-M16 | DK20MAUR 09-3H02 | DK20MAUR 09-3H16 | DK20MAUR 09-6H04 | DK20MAUR 09-6H06 | DK20MAUR 09-6H09 |  |
|          |             | 3/4"  |                 |                 |                 |                 |                 |                 |                 | DK20MAUR 12-M16 | DK20MAUR 12-3H02 | DK20MAUR 12-3H16 | DK20MAUR 12-6H04 | DK20MAUR 12-6H06 | DK20MAUR 12-6H09 |  |
|          |             | 1"    |                 |                 |                 |                 |                 |                 |                 |                 |                  | DK20MAUR 16-3H16 | DK20MAUR 16-6H04 | DK20MAUR 16-6H06 | DK20MAUR 16-6H09 |  |
|          | 30,000 psig | 1/8"  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  | DK60MAUR 02-6H04 | DK60MAUR 02-6H06 | DK30MAUR 02-6H09 |  |
|          |             | 1"    |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  | DK60MAUR 16-6H04 | DK60MAUR 16-6H06 | DK30MAUR 16-6H09 |  |
|          | 60,000 psig | 1/4"  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  | DK60MAUR 04-6H06 | DK60MAUR 04-6H09 |  |
| 3/8"     |             |       |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  | DK60MAUR 06-6H09 |  |

| Dimensions  |       | Male End    |    |            |      |            |      |             |      |       |      |       |      |       |      |             |      |       |      |             |      |       |      |       |      |       |      |      |  |
|-------------|-------|-------------|----|------------|------|------------|------|-------------|------|-------|------|-------|------|-------|------|-------------|------|-------|------|-------------|------|-------|------|-------|------|-------|------|------|--|
|             |       | 11,500 psig |    | 7,500 psig |      | 5,500 psig |      | 20,000 psig |      |       |      |       |      |       |      | 30,000 psig |      |       |      | 60,000 psig |      |       |      |       |      |       |      |      |  |
|             |       | 1/4"        |    | 3/8"       |      | 1/2"       |      | 1/4"        |      | 3/8"  |      | 9/16" |      | 3/4"  |      | 1"          |      | 1/8"  |      | 1"          |      | 1/4"  |      | 3/8"  |      | 9/16" |      |      |  |
|             |       | HEX.H       | A  | HEX.H      | A    | HEX.H      | A    | HEX.H       | A    | HEX.H | A    | HEX.H | A    | HEX.H | A    | HEX.H       | A    | HEX.H | A    | HEX.H       | A    | HEX.H | A    | HEX.H | A    | HEX.H | A    |      |  |
| 11,500 psig | 1/8"  | 16          | 41 | 19         | 46.5 | 25.4       | 49.5 | 14          | 39.5 | 16    | 43.5 | 25.4  | 49.5 |       |      |             |      | 14    | 36.5 |             |      | 16    | 41   | 25.4  | 50   | 30    | 54.5 |      |  |
| 11,500 psig | 1/4"  |             |    | 19         | 51.5 | 25.4       | 54.5 | 16          | 44.5 | 16    | 48.5 | 25.4  | 56.5 | 30    | 65   |             |      | 14    | 41.5 |             |      | 16    | 46   | 25.4  | 55   | 30    | 59.5 |      |  |
| 7,500 psig  | 3/8"  |             |    |            |      | 25.4       | 57   | 19          | 47   | 19    | 51   | 25.4  | 59   | 30    | 67.5 | 36          | 77.5 | 19    | 44   | 36          | 78.5 | 19    | 48.5 | 25.4  | 57.5 | 30    | 62   |      |  |
| 5,500 psig  | 1/2"  |             |    |            |      |            |      | 25.4        | 54   | 25.4  | 58   | 25.4  | 62   | 30    | 70   | 36          | 80   | 25.4  | 51   | 36          | 81   | 25.4  | 51.5 | 25.4  | 60   | 30    | 64.5 |      |  |
| Male End    | 1/4"  |             |    |            |      |            |      |             |      | 16    | 48   | 25.4  | 56   | 30    | 64.5 | 36          | 78.5 | 14    | 41   |             |      | 16    | 45.5 | 20    | 54.5 | 30    | 61   |      |  |
|             | 3/8"  |             |    |            |      |            |      |             |      |       |      | 25.4  | 60   | 30    | 70   | 36          | 84.5 | 16    | 45   | 36          | 85.5 | 16    | 49.5 | 20    | 58.5 | 30    | 65   |      |  |
|             | 9/16" |             |    |            |      |            |      |             |      |       |      |       |      | 30    | 70   | 36          | 91   | 25.4  | 53   | 36          | 92   | 22    | 56   | 22    | 62.5 | 30    | 69   |      |  |
|             | 3/4"  |             |    |            |      |            |      |             |      |       |      |       |      |       |      | 36          | 97   | 30    | 65   | 36          | 98   | 30    | 62   | 30    | 70.5 | 30    | 75   |      |  |
|             | 1"    |             |    |            |      |            |      |             |      |       |      |       |      |       |      |             |      |       |      | 36          | 108  | 36    | 76.5 | 36    | 82.5 | 36    | 88   |      |  |
| 30,000 psig | 1/8"  |             |    |            |      |            |      |             |      |       |      |       |      |       |      |             |      |       |      |             |      |       | 16   | 42.5  | 20   | 51.5  | 30   | 58   |  |
|             | 1"    |             |    |            |      |            |      |             |      |       |      |       |      |       |      |             |      |       |      |             |      | 36    | 81.5 | 36    | 87.5 | 36    | 91   |      |  |
| 60,000 psig | 1/4"  |             |    |            |      |            |      |             |      |       |      |       |      |       |      |             |      |       |      |             |      |       |      |       | 20   | 52    | 30   | 58.5 |  |
|             | 3/8"  |             |    |            |      |            |      |             |      |       |      |       |      |       |      |             |      |       |      |             |      |       |      |       |      | 30    | 64.5 |      |  |

Male Adapter \* Female Adapter

# DK-MAFA

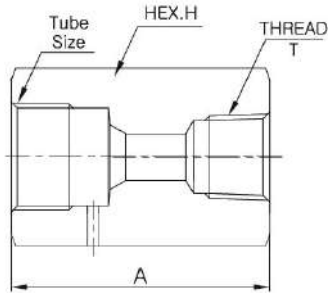


| Part No. |             |       | Female End         |                    |                    |                    |                    |                    |                    |                    |                    |                     |                     |                     |                     |                     |                     |  |  |  |
|----------|-------------|-------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|--|--|
|          |             |       | 11,000 psig        | 11,500 psig        | 7,500 psig         | 5,500 psig         | 20,000 psig        |                    |                    |                    |                    |                     | 30,000 psig         |                     | 60,000 psig         |                     |                     |  |  |  |
|          |             |       | 1/8"               | 1/4"               | 3/8"               | 1/2"               | 1/4"               | 3/8"               | 9/16"              | 3/4"               | 1"                 | 1/8"                | 1"                  | 1/4"                | 3/8"                | 9/16"               |                     |  |  |  |
| Male End | 11,000 psig | 1/8"  |                    | DK11MAFA<br>02-L04 | DK11MAFA<br>02-L06 | DK11MAFA<br>02-L08 | DK11MAFA<br>02-M04 | DK11MAFA<br>02-M06 | DK11MAFA<br>02-M09 |                    |                    | DK11MAFA<br>02-3H02 |                     | DK11MAFA<br>02-6H04 | DK11MAFA<br>02-6H06 | DK11MAFA<br>02-6H09 |                     |  |  |  |
|          | 11,500 psig | 1/4"  | DK11MAFA<br>04-L02 |                    | DK11MAFA<br>04-L06 | DK11MAFA<br>04-L08 | DK11MAFA<br>04-M04 | DK11MAFA<br>04-M06 | DK11MAFA<br>04-M09 | DK11MAFA<br>04-M12 |                    | DK11MAFA<br>04-3H02 |                     | DK11MAFA<br>04-6H04 | DK11MAFA<br>04-6H06 | DK11MAFA<br>04-6H09 |                     |  |  |  |
|          | 7,500 psig  | 3/8"  | DK07MAFA<br>06-L02 | DK07MAFA<br>06-L04 |                    | DK07MAFA<br>06-L08 | DK07MAFA<br>06-M04 | DK07MAFA<br>06-M06 | DK07MAFA<br>06-M09 | DK07MAFA<br>06-M12 | DK07MAFA<br>06-M16 | DK07MAFA<br>06-3H02 | DK07MAFA<br>06-3H16 | DK07MAFA<br>06-6H04 | DK07MAFA<br>06-6H06 | DK07MAFA<br>06-6H09 |                     |  |  |  |
|          | 5,500 psig  | 1/2"  | DK07MAFA<br>08-L02 | DK07MAFA<br>08-L04 | DK07MAFA<br>08-L06 |                    | DK07MAFA<br>08-M04 | DK07MAFA<br>08-M06 | DK07MAFA<br>08-M09 | DK07MAFA<br>08-M12 | DK07MAFA<br>08-M16 | DK07MAFA<br>08-H02  | DK07MAFA<br>08-3H16 | DK07MAFA<br>08-6H04 | DK07MAFA<br>08-6H06 | DK07MAFA<br>08-6H09 |                     |  |  |  |
|          | 20,000 psig | 1/4"  | DK20MAFA<br>04-L02 | DK20MAFA<br>04-L04 | DK20MAFA<br>04-L06 | DK20MAFA<br>04-L08 |                    |                    | DK20MAFA<br>04-M06 | DK20MAFA<br>04-M09 | DK20MAFA<br>04-M12 | DK20MAFA<br>04-M16  | DK20MAFA<br>04-3H02 | DK20MAFA<br>04-3H16 | DK20MAFA<br>04-6H04 | DK20MAFA<br>04-6H06 | DK20MAFA<br>04-6H09 |  |  |  |
|          |             | 3/8"  | DK20MAFA<br>06-L02 | DK20MAFA<br>06-L04 | DK20MAFA<br>06-L06 | DK20MAFA<br>06-L08 | DK20MAFA<br>06-M04 |                    |                    | DK20MAFA<br>06-M09 | DK20MAFA<br>06-M12 | DK20MAFA<br>06-M16  | DK20MAFA<br>06-3H02 | DK20MAFA<br>06-3H16 | DK20MAFA<br>06-6H04 | DK20MAFA<br>06-6H06 | DK20MAFA<br>06-6H09 |  |  |  |
|          |             | 9/16" | DK20MAFA<br>09-L02 | DK20MAFA<br>09-L04 | DK20MAFA<br>09-L06 | DK20MAFA<br>09-L08 | DK20MAFA<br>09-M04 | DK20MAFA<br>09-M06 |                    | DK20MAFA<br>09-M12 | DK20MAFA<br>09-M16 | DK20MAFA<br>09-3H02 | DK20MAFA<br>09-3H16 | DK20MAFA<br>09-6H04 | DK20MAFA<br>09-6H06 | DK20MAFA<br>09-6H09 |                     |  |  |  |
|          |             | 3/4"  |                    | DK20MAFA<br>12-L04 | DK20MAFA<br>12-L06 | DK20MAFA<br>12-L08 | DK20MAFA<br>12-M04 | DK20MAFA<br>12-M06 | DK20MAFA<br>12-M09 |                    | DK20MAFA<br>12-M16 |                     | DK20MAFA<br>12-3H16 | DK20MAFA<br>12-6H04 | DK20MAFA<br>12-6H06 | DK20MAFA<br>12-6H09 |                     |  |  |  |
|          |             | 1"    |                    | DK20MAFA<br>16-L04 | DK20MAFA<br>16-L06 | DK20MAFA<br>16-L08 | DK20MAFA<br>16-M04 | DK20MAFA<br>16-M06 | DK20MAFA<br>16-M09 | DK20MAFA<br>16-M12 |                    |                     | DK20MAFA<br>16-3H16 | DK20MAFA<br>16-6H04 | DK20MAFA<br>16-6H06 | DK20MAFA<br>16-6H09 |                     |  |  |  |
|          | 30,000 psig | 1/8"  | DK60MAFA<br>02-L02 | DK60MAFA<br>02-L04 | DK60MAFA<br>02-L06 | DK60MAFA<br>02-L08 | DK60MAFA<br>02-M04 | DK60MAFA<br>02-M06 | DK60MAFA<br>02-M09 |                    |                    |                     |                     |                     | DK60MAFA<br>02-6H04 | DK60MAFA<br>02-6H06 | DK60MAFA<br>02-6H09 |  |  |  |
|          |             | 1"    |                    | DK60MAFA<br>16-L04 | DK60MAFA<br>16-L06 | DK60MAFA<br>16-L08 | DK60MAFA<br>16-M04 | DK60MAFA<br>16-M06 | DK60MAFA<br>16-M09 | DK60MAFA<br>16-M12 | DK60MAFA<br>16-M16 | DK60MAFA<br>16-3H02 |                     |                     | DK60MAFA<br>16-6H04 | DK60MAFA<br>16-6H06 | DK60MAFA<br>16-6H09 |  |  |  |
|          | 60,000 psig | 1/4"  | DK60MAFA<br>04-L02 | DK60MAFA<br>04-L04 | DK60MAFA<br>04-L06 | DK60MAFA<br>04-L08 | DK60MAFA<br>04-M04 | DK60MAFA<br>04-M06 | DK60MAFA<br>04-M09 | DK60MAFA<br>04-M12 | DK60MAFA<br>04-M16 | DK60MAFA<br>04-3H02 | DK60MAFA<br>04-3H16 |                     | DK60MAFA<br>04-6H06 | DK60MAFA<br>04-6H09 |                     |  |  |  |
|          |             | 3/8"  | DK60MAFA<br>06-L06 | DK60MAFA<br>06-L04 | DK60MAFA<br>06-L06 | DK60MAFA<br>06-L08 | DK60MAFA<br>06-M04 | DK60MAFA<br>06-M06 | DK60MAFA<br>06-M09 | DK60MAFA<br>06-M12 | DK60MAFA<br>06-M16 | DK60MAFA<br>06-3H02 | DK60MAFA<br>06-3H16 | DK60MAFA<br>06-6H04 |                     |                     | DK60MAFA<br>06-6H09 |  |  |  |
|          |             | 9/16" | DK60MAFA<br>09-L09 | DK60MAFA<br>09-L04 | DK60MAFA<br>09-L06 | DK60MAFA<br>09-L08 | DK60MAFA<br>09-M04 | DK60MAFA<br>09-M06 | DK60MAFA<br>09-M09 | DK60MAFA<br>09-M12 | DK60MAFA<br>09-M16 | DK60MAFA<br>09-3H02 | DK60MAFA<br>09-3H16 | DK60MAFA<br>09-6H04 | DK60MAFA<br>09-6H06 |                     |                     |  |  |  |

| Dimensions |             |       | Female End  |      |             |      |            |      |            |      |             |      |       |      |       |      |       |      |       |      |             |      |       |      |             |      |       |      |       |      |
|------------|-------------|-------|-------------|------|-------------|------|------------|------|------------|------|-------------|------|-------|------|-------|------|-------|------|-------|------|-------------|------|-------|------|-------------|------|-------|------|-------|------|
|            |             |       | 11,500 psig |      | 11,500 psig |      | 7,500 psig |      | 5,500 psig |      | 20,000 psig |      |       |      |       |      |       |      |       |      | 30,000 psig |      |       |      | 60,000 psig |      |       |      |       |      |
|            |             |       | 1/8"        |      | 1/4"        |      | 3/8"       |      | 1/2"       |      | 1/4"        |      | 3/8"  |      | 9/16" |      | 3/4"  |      | 1"    |      | 1/8"        |      | 1"    |      | 1/4"        |      | 3/8"  |      | 9/16" |      |
|            |             |       | HEX.H       | A    | HEX.H       | A    | HEX.H      | A    | HEX.H      | A    | HEX.H       | A    | HEX.H | A    | HEX.H | A    | HEX.H | A    | HEX.H | A    | HEX.H       | A    | HEX.H | A    | HEX.H       | A    | HEX.H | A    | HEX.H | A    |
| Male End   | 11,500 psig | 1/8"  |             |      | 16          | 32   | 19         | 35   | 25.4       | 38   | 16          | 32   | 19    | 35   | 25.4  | 42   |       |      |       |      | 20          | 27   |       |      | 19          | 29   | 25.4  | 34   | 36    | 40   |
|            | 11500 psig  | 1/4"  | 16          | 27.5 |             |      | 19         | 41.5 | 25.4       | 44.5 | 16          | 35   | 19    | 42.5 | 25.4  | 48   | 36    | 57.5 |       |      | 20          | 35   |       |      | 19          | 32.5 | 25.4  | 39.5 | 36    | 45.5 |
|            | 7,500 psig  | 3/8"  | 19          | 30   | 19          | 35   |            |      | 25.4       | 45   | 19          | 35   | 19    | 40   | 25.4  | 48   | 36    | 57.5 | 46    | 70   | 20          | 35   | 46    | 70   | 19          | 35   | 25.4  | 42   | 36    | 45.5 |
|            | 5,500 psig  | 1/2"  | 25.4        | 33   | 25.4        | 33   | 25.4       | 37   |            |      | 25.4        | 37   | 25.4  | 40   | 25.4  | 48   | 36    | 57.5 | 46    | 70   | 25.4        | 37   | 46    | 70   | 25.4        | 35   | 25.4  | 42   | 36    | 45.5 |
|            | 20,000 psig | 1/4"  | 16          | 34   | 16          | 40   | 19         | 40   | 25.4       | 43   |             |      | 19    | 40   | 25.4  | 50   | 36    | 57.5 | 46    | 70   | 20          | 37   | 46    | 70   | 19          | 32   | 25.4  | 42   | 36    | 45.5 |
|            |             | 3/8"  | 16          | 34   | 16          | 40   | 19         | 44   | 25.4       | 48   | 16          | 36   |       |      | 25.4  | 52   | 36    | 57.5 | 46    | 72   | 20          | 37   | 46    | 72   | 19          | 36.5 | 25.4  | 42   | 36    | 47   |
|            |             | 9/16" | 22          | 40   | 22          | 44   | 22         | 45   | 25.4       | 49   | 24          | 40   | 24    | 46   |       |      | 36    | 62.5 | 46    | 75   | 22          | 40   | 46    | 75   | 22          | 40   | 25.4  | 47   | 36    | 52   |
|            |             | 3/4"  |             |      | 30          | 46   | 30         | 50   | 30         | 56   | 30          | 48   | 30    | 52   | 30    | 57   |       |      | 46    | 80   |             |      | 46    | 80   | 30          | 48   | 30    | 52   | 36    | 58   |
|            |             | 1"    |             |      | 36          | 54   | 36         | 54   | 36         | 54   | 36          | 56   | 36    | 59   | 36    | 63   | 36    | 70   |       |      |             |      | 46    | 81   | 36          | 54   | 36    | 60   | 36    | 64   |
|            | 30,000 psig | 1/8"  | 16          | 29   | 16          | 34   | 19         | 37   | 25.4       | 40   | 16          | 31   | 19    | 37   | 25.4  | 44   |       |      |       |      |             |      |       |      | 19          | 30   | 25.4  | 36   | 36    | 46   |
|            |             | 1"    |             |      | 36          | 55   | 36         | 55   | 36         | 55   | 36          | 57   | 36    | 60   | 36    | 64   | 36    | 70   | 46    | 82   |             |      |       |      | 36          | 55   | 36    | 61   | 36    | 65   |
|            | 60,000 psig | 1/4"  | 16          | 30   | 16          | 35   | 19         | 38   | 25.4       | 42   | 16          | 32   | 19    | 40   | 25.4  | 46   | 36    | 55   |       |      | 20          | 32   |       |      |             |      | 25.4  | 44.5 | 36    | 49.5 |
|            |             | 3/8"  | 20          | 35.5 | 20          | 41.5 | 20         | 42.5 | 25.4       | 44.5 | 20          | 42.5 | 20    | 43.5 | 25.4  | 50.5 | 36    | 57.5 | 46    | 74.5 | 20          | 35.5 | 46    | 74.5 | 20          | 38.5 |       |      | 36    | 44.5 |
|            |             | 9/16" | 30          | 38   | 30          | 42.5 | 30         | 42.5 | 30         | 44.5 | 30          | 42.5 | 30    | 46   | 30    | 51   | 36    | 61   | 46    | 78   | 30          | 38   | 46    | 78   | 30          | 36.5 | 30    | 39   |       |      |

Female Adapter \* Female Thread

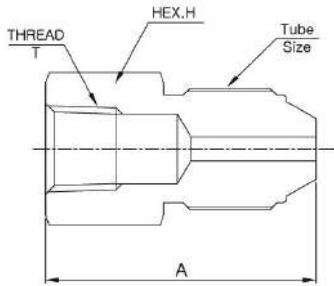
# DK-FAF



| Connection Type             |                                | Part No.      | Pressure Rating | Tube Size   | Thread T F.NPT | Dimensions |      |      |
|-----------------------------|--------------------------------|---------------|-----------------|-------------|----------------|------------|------|------|
|                             |                                |               |                 |             |                | HEX.H      | A    |      |
| Low Pressure<br>11,500 psig |                                | DK11FAF02-2N  | 11,000 psig     | 1/8"        | 1/8"           | 16         | 35   |      |
|                             |                                | DK11FAF02-4N  |                 |             | 1/4"           | 19         | 38   |      |
|                             |                                | DK11FAF02-6N  |                 |             | 3/8"           | 25.4       | 41   |      |
|                             |                                | DK11FAF02-8N  |                 |             | 1/2"           | 30         | 50.5 |      |
|                             |                                | DK11FAF04-2N  | 11,500 psig     | 1/4"        | 1/8"           | 16         | 38   |      |
|                             |                                | DK11FAF04-4N  |                 |             | 1/4"           | 19         | 41.5 |      |
|                             |                                | DK11FAF04-6N  |                 |             | 3/8"           | 25.4       | 44.5 |      |
|                             |                                | DK11FAF04-8N  |                 |             | 1/2"           | 30         | 54   |      |
|                             |                                | DK11FAF04-12N | 7,500 psig      | 3/8"        | 3/4"           | 36         | 55.5 |      |
|                             |                                | DK07FAF06-2N  |                 |             | 1/8"           | 19         | 41.5 |      |
|                             |                                | DK07FAF06-4N  |                 |             | 1/4"           | 19         | 44.5 |      |
|                             |                                | DK07FAF06-6N  |                 |             | 3/8"           | 25.4       | 48   |      |
|                             |                                | DK07FAF06-7N  |                 |             | 1/2"           | 30         | 54   |      |
|                             |                                | DK07FAF06-12N | 5,500 psig      | 1/2"        | 3/4"           | 36         | 58.5 |      |
|                             |                                | DK07FAF06-16N |                 |             | 1"             | 46         | 68   |      |
|                             |                                | DK05FAF08-2N  |                 |             | 1/8"           | 25.4       | 38   |      |
|                             |                                | DK05FAF08-4N  |                 |             | 1/4"           | 25.4       | 50.5 |      |
|                             |                                | DK05FAF08-6N  |                 |             | 3/8"           | 25.4       | 50.5 |      |
|                             |                                | DK05FAF08-8N  | 15,000 psig     | 1/4"        | 1/2"           | 30         | 57   |      |
|                             |                                | DK05FAF08-12N |                 |             | 3/4"           | 36         | 63.5 |      |
|                             |                                | DK05FAF08-16N |                 |             | 1"             | 46         | 72   |      |
|                             |                                | DK20FAF04-2N  |                 |             | 1/8"           | 16         | 35   |      |
|                             | Medium Pressure<br>20,000 psig |               | DK20FAF04-4N    | 15,000 psig | 1/4"           | 1/4"       | 19   | 41.5 |
|                             |                                |               | DK20FAF04-6N    |             |                | 3/8"       | 25.4 | 41.5 |
|                             |                                |               | DK20FAF04-8N    |             |                | 1/2"       | 30   | 50.5 |
|                             |                                | DK20FAF04-12N | 3/4"            |             |                | 36         | 57   |      |
|                             |                                | DK20FAF06-2N  | 10,000 psig     | 3/8"        | 1/8"           | 19         | 38   |      |
|                             |                                | DK20FAF06-4N  |                 |             | 1/4"           | 19         | 44.5 |      |
|                             |                                | DK20FAF06-6N  |                 |             | 3/8"           | 25.4       | 46   |      |
|                             |                                | DK20FAF06-8N  |                 |             | 1/2"           | 30         | 54   |      |
|                             |                                | DK20FAF06-12N | 15,000 psig     | 9/16"       | 3/4"           | 36         | 57   |      |
|                             |                                | DK20FAF06-16N |                 |             | 1"             | 46         | 66.5 |      |
|                             |                                | DK20FAF09-2N  |                 |             | 1/8"           | 25.4       | 41.5 |      |
|                             |                                | DK20FAF09-4N  |                 |             | 1/4"           | 25.4       | 50.5 |      |
|                             |                                | DK20FAF09-6N  | 10,000 psig     | 3/4"        | 3/8"           | 25.4       | 50.5 |      |
|                             |                                | DK20FAF09-8N  |                 |             | 1/2"           | 30         | 57   |      |
|                             |                                | DK20FAF09-12N |                 |             | 3/4"           | 36         | 57   |      |
|                             |                                | DK20FAF09-16N |                 |             | 1"             | 46         | 66.5 |      |
|                             |                                | DK20FAF12-4N  | 15,000 psig     | 1"          | 1/4"           | 36         | 54.5 |      |
|                             |                                | DK20FAF12-6N  |                 |             | 3/8"           | 36         | 60   |      |
|                             |                                | DK20FAF12-8N  |                 |             | 1/2"           | 36         | 66.5 |      |
|                             |                                | DK20FAF12-12N |                 |             | 3/4"           | 36         | 66.5 |      |
|                             |                                | DK20FAF12-16N | 10,000 psig     | 3/8"        | 1"             | 46         | 73   |      |
|                             |                                | DK20FAF16-4N  |                 |             | 1/4"           | 46         | 67   |      |
|                             |                                | DK20FAF16-6N  |                 |             | 3/8"           | 46         | 67   |      |
|                             |                                | DK20FAF16-8N  |                 |             | 1/2"           | 46         | 73   |      |
|                             |                                | DK20FAF16-12N | 15,000 psig     | 1"          | 3/4"           | 46         | 76   |      |
|                             | DK20FAF16-16N                  | 1"            |                 |             | 46             | 83         |      |      |
| High Pressure               | 30,000 psig                    | DK30FAF02-2N  | 15,000 psig     | 1/8"        | 1/8"           | 20         | 31   |      |
|                             |                                | DK30FAF02-4N  |                 |             | 1/4"           | 20         | 36   |      |
|                             |                                | DK30FAF02-6N  |                 |             | 3/8"           | 25.4       | 41   |      |
|                             |                                | DK30FAF02-8N  |                 |             | 1/2"           | 30         | 45.5 |      |
|                             |                                | DK30FAF16-4N  | 15,000 psig     | 1"          | 1/4"           | 46         | 71   |      |
|                             |                                | DK30FAF16-6N  |                 |             | 3/8"           | 46         | 71   |      |
|                             |                                | DK30FAF16-8N  |                 |             | 1/2"           | 46         | 76   |      |
|                             |                                | DK30FAF16-12N |                 |             | 3/4"           | 46         | 80   |      |
|                             | DK30FAF16-16N                  | 10,000 psig   | 1"              | 46          | 87             |            |      |      |
|                             | 60,000 psig                    | DK60FAF04-2N  | 15,000 psig     | 1/4"        | 1/8"           | 19         | 35   |      |
|                             |                                | DK60FAF04-4N  |                 |             | 1/4"           | 19         | 41.5 |      |
|                             |                                | DK60FAF04-6N  |                 |             | 3/8"           | 25.4       | 41.5 |      |
|                             |                                | DK60FAF04-8N  |                 |             | 1/2"           | 30         | 50.5 |      |
|                             |                                | DK60FAF04-12N | 10,000 psig     | 3/8"        | 3/4"           | 36         | 55.5 |      |
|                             |                                | DK60FAF06-2N  | 1/8"            |             | 25.4           | 41.5       |      |      |
|                             |                                | DK60FAF06-4N  | 1/4"            |             | 25.4           | 47.5       |      |      |
|                             |                                | DK60FAF06-6N  | 3/8"            |             | 25.4           | 47.5       |      |      |
|                             |                                | DK60FAF06-8N  | 15,000 psig     | 9/16"       | 1/2"           | 30         | 54   |      |
|                             |                                | DK60FAF06-12N |                 |             | 3/4"           | 36         | 58.5 |      |
|                             |                                | DK60FAF06-16N |                 |             | 1"             | 46         | 65.5 |      |
|                             |                                | DK60FAF09-2N  |                 |             | 1/8"           | 36         | 46   |      |
|                             |                                | DK60FAF09-4N  | 15,000 psig     | 9/16"       | 1/4"           | 36         | 50.5 |      |
|                             |                                | DK60FAF09-6N  |                 |             | 3/8"           | 36         | 50.5 |      |
|                             |                                | DK60FAF09-8N  |                 |             | 1/2"           | 36         | 56.5 |      |
|                             |                                | DK60FAF09-12N |                 |             | 3/4"           | 36         | 60   |      |
| DK60FAF09-16N               |                                | 10,000 psig   | 1"              | 46          | 68             |            |      |      |

Male Adapter \* Female Thread

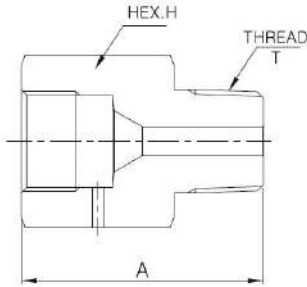
# DK-MAF



| Connection Type                |               | Part No.     | Pressure Rating | Tube Size   | Thread T F.NPT | Dimensions |    |
|--------------------------------|---------------|--------------|-----------------|-------------|----------------|------------|----|
|                                |               |              |                 |             |                | HEX.H      | A  |
| Low Pressure<br>11,500 psig    | DK11MAF02-2N  | 11,000 psig  | 1/8"            | 1/8"        | 16             | 28         |    |
|                                | DK11MAF02-4N  |              |                 | 1/4"        | 19             | 34         |    |
|                                | DK11MAF02-6N  |              |                 | 3/8"        | 25.4           | 38         |    |
|                                | DK11MAF02-8N  |              |                 | 1/2"        | 30             | 43         |    |
|                                | DK11MAF04-2N  | 11,500 psig  | 1/4"            | 1/8"        | 16             | 33         |    |
|                                | DK11MAF04-4N  |              |                 | 1/4"        | 19             | 37         |    |
|                                | DK11MAF04-6N  |              |                 | 3/8"        | 25.4           | 43         |    |
|                                | DK11MAF04-8N  |              |                 | 1/2"        | 30             | 47.5       |    |
|                                | DK11MAF04-12N | 7,500 psig   | 3/8"            | 3/4"        | 36             | 55.5       |    |
|                                | DK07MAF06-2N  |              |                 | 1/8"        | 19             | 35         |    |
|                                | DK07MAF06-4N  |              |                 | 1/4"        | 19             | 37         |    |
|                                | DK07MAF06-6N  |              |                 | 3/8"        | 25.4           | 43         |    |
|                                | DK07MAF06-7N  |              |                 | 1/2"        | 30             | 50         |    |
|                                | DK07MAF06-12N |              |                 | 3/4"        | 36             | 57.5       |    |
|                                | DK07MAF06-16N |              |                 | 1"          | 46             | 70         |    |
|                                | DK05MAF08-2N  | 5,500 psig   | 1/2"            | 1/8"        | 19             | 35         |    |
|                                | DK05MAF08-4N  |              |                 | 1/4"        | 19             | 37         |    |
|                                | DK05MAF08-6N  |              |                 | 3/8"        | 25.4           | 43         |    |
|                                | DK05MAF08-8N  |              |                 | 1/2"        | 30             | 50         |    |
| DK05MAF08-12N                  | 15,000 psig   | 1/4"         | 3/4"            | 36          | 57.5           |            |    |
| DK05MAF08-16N                  |               |              | 1"              | 46          | 70             |            |    |
| DK20MAF04-2N                   |               |              | 1/8"            | 16          | 33             |            |    |
| DK20MAF04-4N                   |               |              | 1/4"            | 19          | 37             |            |    |
| Medium Pressure<br>20,000 psig | DK20MAF04-6N  | 10,000 psig  | 3/8"            | 3/8"        | 25.4           | 43         |    |
|                                | DK20MAF04-8N  |              |                 | 1/2"        | 30             | 50         |    |
|                                | DK20MAF04-12N |              |                 | 3/4"        | 36             | 57.5       |    |
|                                | DK20MAF06-2N  | 15,000 psig  | 3/8"            | 1/8"        | 16             | 34         |    |
|                                | DK20MAF06-4N  |              |                 | 1/4"        | 19             | 39.5       |    |
|                                | DK20MAF06-6N  |              |                 | 3/8"        | 25.4           | 45         |    |
|                                | DK20MAF06-8N  |              |                 | 1/2"        | 30             | 50         |    |
|                                | DK20MAF06-12N | 10,000 psig  | 9/16"           | 3/4"        | 36             | 57.5       |    |
|                                | DK20MAF06-16N |              |                 | 1"          | 46             | 70         |    |
|                                | DK20MAF09-2N  |              |                 | 1/8"        | 22             | 40         |    |
|                                | DK20MAF09-4N  | 15,000 psig  | 3/8"            | 1/4"        | 22             | 43         |    |
|                                | DK20MAF09-6N  |              |                 | 3/8"        | 25.4           | 47         |    |
|                                | DK20MAF09-8N  |              |                 | 1/2"        | 30             | 54         |    |
|                                | DK20MAF09-12N | 10,000 psig  | 3/4"            | 3/4"        | 36             | 62         |    |
|                                | DK20MAF09-16N |              |                 | 1"          | 46             | 73         |    |
|                                | DK20MAF12-4N  |              |                 | 1/4"        | 30             | 48         |    |
|                                | DK20MAF12-6N  | 15,000 psig  | 3/4"            | 3/8"        | 30             | 52         |    |
|                                | DK20MAF12-8N  |              |                 | 1/2"        | 30             | 56         |    |
|                                | DK20MAF12-12N |              |                 | 3/4"        | 36             | 68         |    |
|                                | DK20MAF12-16N | 10,000 psig  | 1"              | 1"          | 46             | 78         |    |
|                                | DK20MAF16-4N  |              |                 | 1/4"        | 36             | 60         |    |
|                                | DK20MAF16-6N  |              |                 | 3/8"        | 36             | 60         |    |
|                                | DK20MAF16-8N  | 15,000 psig  | 1"              | 1/2"        | 36             | 60         |    |
|                                | DK20MAF16-12N |              |                 | 3/4"        | 36             | 68         |    |
|                                | DK20MAF16-16N |              |                 | 1"          | 46             | 78         |    |
|                                | High Pressure | DK30MAF02-2N | 15,000 psig     | 1/8"        | 1/8"           | 16         | 29 |
|                                |               | DK30MAF02-4N |                 |             | 1/4"           | 19         | 36 |
|                                |               | DK30MAF02-6N |                 |             | 3/8"           | 25.4       | 39 |
|                                |               | DK30MAF02-8N |                 |             | 1/2"           | 30         | 43 |
| DK30MAF16-4N                   |               | 15,000 psig  | 1"              | 1/4"        | 36             | 61         |    |
| DK30MAF16-6N                   |               |              |                 | 3/8"        | 36             | 61         |    |
| DK30MAF16-8N                   |               |              |                 | 1/2"        | 36             | 61         |    |
| DK30MAF16-12N                  |               | 10,000 psig  | 3/4"            | 3/4"        | 36             | 69         |    |
| DK30MAF16-16N                  |               |              |                 | 1"          | 46             | 79         |    |
| DK60MAF04-2N                   |               |              |                 | 15,000 psig | 1/4"           | 1/8"       | 16 |
| DK60MAF04-4N                   |               | 1/4"         | 19              |             |                | 36         |    |
| DK60MAF04-6N                   |               | 3/8"         | 25.4            |             |                | 42         |    |
| DK60MAF04-8N                   |               | 1/2"         | 30              |             |                | 46         |    |
| DK60MAF04-12N                  |               | 10,000 psig  | 3/8"            | 3/4"        | 36             | 53         |    |
| DK60MAF06-2N                   |               |              |                 | 1/8"        | 20             | 35.5       |    |
| DK60MAF06-4N                   |               |              |                 | 1/4"        | 20             | 40.5       |    |
| DK60MAF06-6N                   |               | 15,000 psig  | 3/8"            | 3/8"        | 25.4           | 45.5       |    |
| DK60MAF06-8N                   |               |              |                 | 1/2"        | 30             | 52.5       |    |
| DK60MAF06-12N                  |               |              |                 | 3/4"        | 36             | 58.5       |    |
| DK60MAF06-16N                  |               |              |                 | 1"          | 46             | 65.5       |    |
| DK60MAF09-2N                   |               | 15,000 psig  | 9/16"           | 1/8"        | 30             | 38         |    |
| DK60MAF09-4N                   |               |              |                 | 1/4"        | 30             | 41         |    |
| DK60MAF09-6N                   |               |              |                 | 3/8"        | 30             | 49         |    |
| DK60MAF09-8N                   |               |              |                 | 1/2"        | 30             | 54         |    |
| DK60MAF09-12N                  |               | 10,000 psig  | 3/4"            | 3/4"        | 36             | 59         |    |
| DK60MAF09-16N                  |               |              |                 | 1"          | 46             | 70         |    |

Female Adapter \* Male Thread

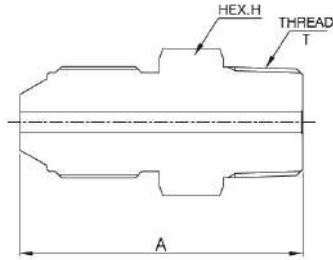
# DK-FAM



| Connection Type                |               | Part No.      | Pressure Rating | Tube Size   | Thread T F.NPT | Dimensions |      |    |
|--------------------------------|---------------|---------------|-----------------|-------------|----------------|------------|------|----|
|                                |               |               |                 |             |                | HEX.H      | A    |    |
| Low Pressure<br>11,500 psig    |               | DK11FAM02-2N  | 11,000 psig     | 1/8"        | 1/8"           | 12.7       | 25   |    |
|                                |               | DK11FAM02-4N  |                 |             | 1/4"           | 16         | 28   |    |
|                                |               | DK11FAM02-6N  |                 |             | 3/8"           | 19         | 30   |    |
|                                |               | DK11FAM02-8N  |                 |             | 1/2"           | 25.4       | 37   |    |
|                                |               | DK11FAM04-2N  | 11,500 psig     | 1/4"        | 1/8"           | 16         | 31   |    |
|                                |               | DK11FAM04-4N  |                 |             | 1/4"           | 16         | 35   |    |
|                                |               | DK11FAM04-6N  |                 |             | 3/8"           | 19         | 35   |    |
|                                |               | DK11FAM04-8N  |                 |             | 1/2"           | 25.4       | 41   |    |
|                                |               | DK11FAM04-12N | 7,500 psig      | 3/8"        | 3/4"           | 30         | 44.5 |    |
|                                |               | DK07FAM06-2N  |                 |             | 1/8"           | 19         | 36   |    |
|                                |               | DK07FAM06-4N  |                 |             | 1/4"           | 19         | 38   |    |
|                                |               | DK07FAM06-6N  |                 |             | 3/8"           | 19         | 38   |    |
|                                |               | DK07FAM06-7N  | 5,500 psig      | 1/2"        | 1/2"           | 25.4       | 43   |    |
|                                |               | DK07FAM06-12N |                 |             | 3/4"           | 30         | 44.5 |    |
|                                |               | DK07FAM06-16N |                 |             | 1"             | 36         | 45   |    |
|                                |               | DK05FAM08-2N  |                 |             | 1/8"           | 25.4       | 38   |    |
|                                |               | DK05FAM08-4N  | 5,500 psig      | 1/2"        | 1/4"           | 25.4       | 41   |    |
|                                |               | DK05FAM08-6N  |                 |             | 3/8"           | 25.4       | 42   |    |
|                                |               | DK05FAM08-8N  |                 |             | 1/2"           | 25.4       | 47   |    |
|                                |               | DK05FAM08-12N |                 |             | 3/4"           | 30         | 46.5 |    |
|                                | DK05FAM08-16N |               |                 | 1"          | 36             | 45         |      |    |
| Medium Pressure<br>20,000 psig |               | DK20FAM04-2N  | 15,000 psig     | 1/4"        | 1/8"           | 16         | 28   |    |
|                                |               | DK20FAM04-4N  |                 |             | 1/4"           | 16         | 33   |    |
|                                |               | DK20FAM04-6N  |                 |             | 3/8"           | 19         | 35   |    |
|                                |               | DK20FAM04-8N  |                 |             | 1/2"           | 25.4       | 37   |    |
|                                |               | DK20FAM04-12N | 10,000 psig     | 3/8"        | 3/4"           | 30         | 44.5 |    |
|                                |               | DK20FAM06-2N  | 15,000 psig     |             | 1/8"           | 19         | 36   |    |
|                                |               | DK20FAM06-4N  |                 |             | 1/4"           | 19         | 36   |    |
|                                |               | DK20FAM06-6N  |                 |             | 3/8"           | 19         | 38   |    |
|                                |               | DK20FAM06-8N  |                 | 1/2"        | 25.4           | 43         |      |    |
|                                |               | DK20FAM06-12N | 10,000 psig     | 9/16"       | 3/4"           | 30         | 44.5 |    |
|                                |               | DK20FAM06-16N |                 |             | 1"             | 36         | 50   |    |
|                                |               | DK20FAM09-2N  |                 |             | 1/8"           | 25.4       | 42   |    |
|                                |               | DK20FAM09-4N  |                 |             | 1/4"           | 25.4       | 44   |    |
|                                |               | DK20FAM09-6N  | 15,000 psig     | 3/4"        | 3/8"           | 25.4       | 42   |    |
|                                |               | DK20FAM09-8N  |                 |             | 1/2"           | 25.4       | 47   |    |
|                                |               | DK20FAM09-12N |                 |             | 3/4"           | 30         | 50.5 |    |
|                                |               | DK20FAM09-16N |                 |             | 1"             | 36         | 55   |    |
|                                |               | DK20FAM12-4N  | 15,000 psig     | 3/4"        | 1/4"           | 36         | 52   |    |
|                                |               | DK20FAM12-6N  |                 |             | 3/8"           | 36         | 52   |    |
|                                |               | DK20FAM12-8N  |                 |             | 1/2"           | 36         | 52   |    |
|                                |               | DK20FAM12-12N |                 |             | 3/4"           | 36         | 57   |    |
|                                |               | DK20FAM12-16N | 10,000 psig     | 1"          | 1"             | 36         | 57   |    |
|                                |               | DK20FAM16-4N  | 15,000 psig     |             | 1/4"           | 46         | 68   |    |
|                                |               | DK20FAM16-6N  |                 |             | 3/8"           | 46         | 68   |    |
|                                |               | DK20FAM16-8N  |                 |             | 1/2"           | 46         | 68   |    |
|                                |               | DK20FAM16-12N |                 | 10,000 psig | 3/4"           | 46         | 68   |    |
|                                |               | DK20FAM16-16N | 1"              |             | 46             | 70         |      |    |
|                                | High Pressure | 30,000 psig   | DK30FAM02-2N    |             | 15,000 psig    | 1/8"       | 1/8" | 20 |
| DK30FAM02-4N                   |               |               | 1/4"            |             |                |            | 20   | 30 |
| DK30FAM02-6N                   |               |               | 3/8"            | 20          |                |            | 30   |    |
| DK30FAM02-8N                   |               |               | 1/2"            | 25.4        |                |            | 37   |    |
| DK30FAM02-12N                  |               |               | 3/4"            | 30          |                |            | 44.5 |    |
| DK30FAM16-4N                   |               |               | 15,000 psig     | 1"          |                |            | 1/4" | 46 |
| DK30FAM16-6N                   |               | 3/8"          |                 |             | 46             | 68         |      |    |
| DK30FAM16-8N                   |               | 1/2"          |                 |             | 46             | 68         |      |    |
| DK30FAM16-12N                  |               | 3/4"          |                 |             | 46             | 68         |      |    |
| 60,000 psig                    |               | DK30FAM16-16N | 10,000 psig     | 1/4"        | 1"             | 46         | 70   |    |
|                                |               | DK60FAM04-2N  | 15,000 psig     |             | 1/8"           | 19         | 28   |    |
|                                |               | DK60FAM04-4N  |                 |             | 1/4"           | 19         | 33   |    |
|                                |               | DK60FAM04-6N  |                 |             | 3/8"           | 19         | 33   |    |
|                                |               | DK60FAM04-8N  |                 | 10,000 psig | 3/8"           | 1/2"       | 25.4 | 37 |
|                                |               | DK60FAM04-12N | 3/4"            |             |                | 30         | 44.5 |    |
|                                |               | DK60FAM06-2N  | 1/8"            |             |                | 25.4       | 36   |    |
|                                |               | DK60FAM06-4N  | 1/4"            |             |                | 25.4       | 38   |    |
|                                |               | DK60FAM06-6N  | 15,000 psig     | 3/8"        | 3/8"           | 25.4       | 38   |    |
|                                |               | DK60FAM06-8N  |                 |             | 1/2"           | 25.4       | 43   |    |
|                                |               | DK60FAM06-12N |                 |             | 3/4"           | 30         | 50.5 |    |
|                                | DK60FAM06-16N | 1"            |                 |             | 36             | 50         |      |    |
|                                | 15,000 psig   | DK60FAM09-2N  | 9/16"           | 1/8"        | 36             | 41         |      |    |
|                                |               | DK60FAM09-4N  |                 | 1/4"        | 36             | 43         |      |    |
| DK60FAM09-6N                   |               | 3/8"          |                 | 36          | 44             |            |      |    |
| DK60FAM09-8N                   |               | 1/2"          |                 | 36          | 47             |            |      |    |
| DK60FAM09-12N                  |               | 3/4"          |                 | 36          | 54             |            |      |    |
| DK60FAM09-16N                  |               | 1"            |                 | 36          | 57             |            |      |    |

## Male Adapter \* Male Thread

# DK-MAM



| Connection Type                |               | Part No.    | Pressure Rating | Tube Size | Thread T F.NPT | Dimensions |   |
|--------------------------------|---------------|-------------|-----------------|-----------|----------------|------------|---|
|                                |               |             |                 |           |                | HEX.H      | A |
| Low Pressure<br>11,500 psig    | DK11MAM02-2N  | 11,000 psig | 1/8"            | 1/8"      | 12.7           | 34.5       |   |
|                                | DK11MAM02-4N  |             |                 | 1/4"      | 16             | 41.5       |   |
|                                | DK11MAM02-6N  |             |                 | 3/8"      | 19             | 44.5       |   |
|                                | DK11MAM02-8N  |             |                 | 1/2"      | 25.4           | 49.5       |   |
|                                | DK11MAM04-2N  | 11,500 psig | 1/4"            | 1/8"      | 16             | 39.5       |   |
|                                | DK11MAM04-4N  |             |                 | 1/4"      | 16             | 44.5       |   |
|                                | DK11MAM04-6N  |             |                 | 3/8"      | 19             | 47.5       |   |
|                                | DK11MAM04-8N  |             |                 | 1/2"      | 25.4           | 54.5       |   |
|                                | DK11MAM04-12N | 7,500 psig  | 3/8"            | 3/4"      | 30             | 57.5       |   |
|                                | DK07MAM06-2N  |             |                 | 1/8"      | 19             | 42         |   |
|                                | DK07MAM06-4N  |             |                 | 1/4"      | 19             | 47         |   |
|                                | DK07MAM06-6N  |             |                 | 3/8"      | 19             | 50         |   |
|                                | DK07MAM06-7N  |             |                 | 1/2"      | 25.4           | 57         |   |
|                                | DK07MAM06-12N |             |                 | 3/4"      | 30             | 60         |   |
|                                | DK07MAM06-16N |             |                 | 1"        | 36             | 60         |   |
|                                | DK05MAM08-2N  | 5,500 psig  | 1/2"            | 1/8"      | 25.4           | 44.5       |   |
|                                | DK05MAM08-4N  |             |                 | 1/4"      | 25.4           | 47.5       |   |
|                                | DK05MAM08-6N  |             |                 | 3/8"      | 25.4           | 50.5       |   |
|                                | DK05MAM08-8N  |             |                 | 1/2"      | 25.4           | 57.5       |   |
|                                | DK05MAM08-12N |             |                 | 3/4"      | 30             | 60.5       |   |
|                                | DK05MAM08-16N |             |                 | 1"        | 36             | 66.5       |   |
| Medium Pressure<br>20,000 psig | DK20MAM04-2N  | 15,000 psig | 1/4"            | 1/8"      | 12.7           | 41         |   |
|                                | DK20MAM04-4N  |             |                 | 1/4"      | 16             | 44         |   |
|                                | DK20MAM04-6N  |             |                 | 3/8"      | 19             | 46         |   |
|                                | DK20MAM04-8N  |             |                 | 1/2"      | 25.4           | 54         |   |
|                                | DK20MAM04-12N | 10,000 psig | 3/8"            | 3/4"      | 30             | 59         |   |
|                                | DK20MAM06-2N  | 1/8"        |                 | 16        | 45             |            |   |
|                                | DK20MAM06-4N  | 1/4"        |                 | 16        | 49             |            |   |
|                                | DK20MAM06-6N  | 3/8"        |                 | 19        | 50             |            |   |
|                                | DK20MAM06-8N  | 1/2"        |                 | 25.4      | 58             |            |   |
|                                | DK20MAM06-12N | 10,000 psig |                 | 3/4"      | 30             | 63         |   |
|                                | DK20MAM06-16N | 1"          |                 | 36        | 69             |            |   |
|                                | DK20MAM09-2N  | 15,000 psig | 9/16"           | 1/8"      | 22             | 50.5       |   |
|                                | DK20MAM09-4N  |             |                 | 1/4"      | 22             | 55         |   |
|                                | DK20MAM09-6N  |             |                 | 3/8"      | 22             | 54         |   |
|                                | DK20MAM09-8N  |             |                 | 1/2"      | 25.4           | 62         |   |
|                                | DK20MAM09-12N | 10,000 psig |                 | 3/4"      | 30             | 67         |   |
|                                | DK20MAM09-16N | 1"          |                 | 36        | 73             |            |   |
|                                | DK20MAM12-4N  | 15,000 psig | 3/4"            | 1/4"      | 30             | 63         |   |
|                                | DK20MAM12-6N  |             |                 | 3/8"      | 30             | 64         |   |
|                                | DK20MAM12-8N  |             |                 | 1/2"      | 30             | 68         |   |
|                                | DK20MAM12-12N | 10,000 psig |                 | 3/4"      | 30             | 73         |   |
|                                | DK20MAM12-16N | 1"          |                 | 36        | 79             |            |   |
|                                | DK20MAM16-4N  | 15,000 psig | 1"              | 1/4"      | 36             | 80         |   |
|                                | DK20MAM16-6N  |             |                 | 3/8"      | 36             | 81         |   |
|                                | DK20MAM16-8N  |             |                 | 1/2"      | 36             | 84         |   |
|                                | DK20MAM16-12N | 10,000 psig |                 | 3/4"      | 36             | 85         |   |
|                                | DK20MAM16-16N | 1"          |                 | 36        | 89             |            |   |
| High Pressure                  | DK30MAM02-2N  | 15,000 psig | 1/8"            | 1/8"      | 14             | 36         |   |
|                                | DK30MAM02-4N  |             |                 | 1/4"      | 14             | 41         |   |
|                                | DK30MAM02-6N  |             |                 | 3/8"      | 19             | 46         |   |
|                                | DK30MAM02-8N  |             |                 | 1/2"      | 25.4           | 51         |   |
|                                | DK30MAM16-4N  | 15,000 psig | 1"              | 1/4"      | 36             | 79         |   |
|                                | DK30MAM16-6N  |             |                 | 3/8"      | 36             | 80         |   |
|                                | DK30MAM16-8N  |             |                 | 1/2"      | 36             | 83         |   |
|                                | DK30MAM16-12N | 10,000 psig |                 | 3/4"      | 36             | 84         |   |
|                                | DK30MAM16-16N | 1"          |                 | 36        | 88             |            |   |
|                                | DK60MAM04-2N  | 15,000 psig | 1/4"            | 1/8"      | 16             | 41.5       |   |
|                                | DK60MAM04-4N  |             |                 | 1/4"      | 16             | 44.5       |   |
|                                | DK60MAM04-6N  |             |                 | 3/8"      | 19             | 46.5       |   |
|                                | DK60MAM04-8N  |             |                 | 1/2"      | 25.4           | 51.5       |   |
|                                | DK60MAM04-12N | 10,000 psig | 3/8"            | 3/4"      | 30             | 56.5       |   |
|                                | DK60MAM06-2N  | 1/8"        |                 | 20        | 47.5           |            |   |
|                                | DK60MAM06-4N  | 1/4"        |                 | 20        | 50.5           |            |   |
|                                | DK60MAM06-6N  | 3/8"        |                 | 20        | 52.5           |            |   |
|                                | DK60MAM06-8N  | 1/2"        |                 | 25.4      | 57.5           |            |   |
|                                | DK60MAM06-12N | 3/4"        |                 | 30        | 62.5           |            |   |
|                                | DK60MAM06-16N | 1"          |                 | 36        | 68.5           |            |   |
|                                | DK60MAM09-2N  | 15,000 psig | 9/16"           | 1/8"      | 30             | 53         |   |
|                                | DK60MAM09-4N  |             |                 | 1/4"      | 30             | 56         |   |
|                                | DK60MAM09-6N  |             |                 | 3/8"      | 30             | 57         |   |
|                                | DK60MAM09-8N  |             |                 | 1/2"      | 30             | 61         |   |
|                                | DK60MAM09-12N | 3/4"        |                 | 30        | 66             |            |   |
|                                | DK60MAM09-16N | 1"          |                 | 36        | 72             |            |   |

## High Pressure Air Operated Valves

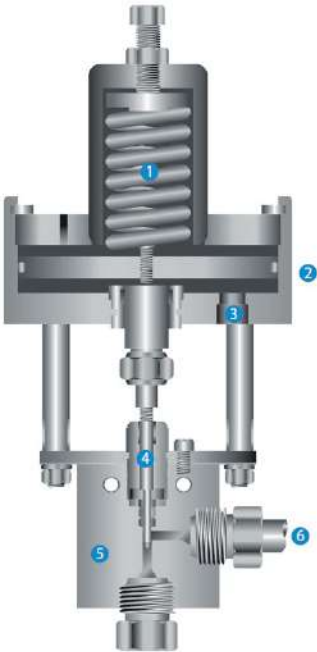
### Features

It is an air pressure valve that automatically opens and closes the valve at the bottom by using air pressure.

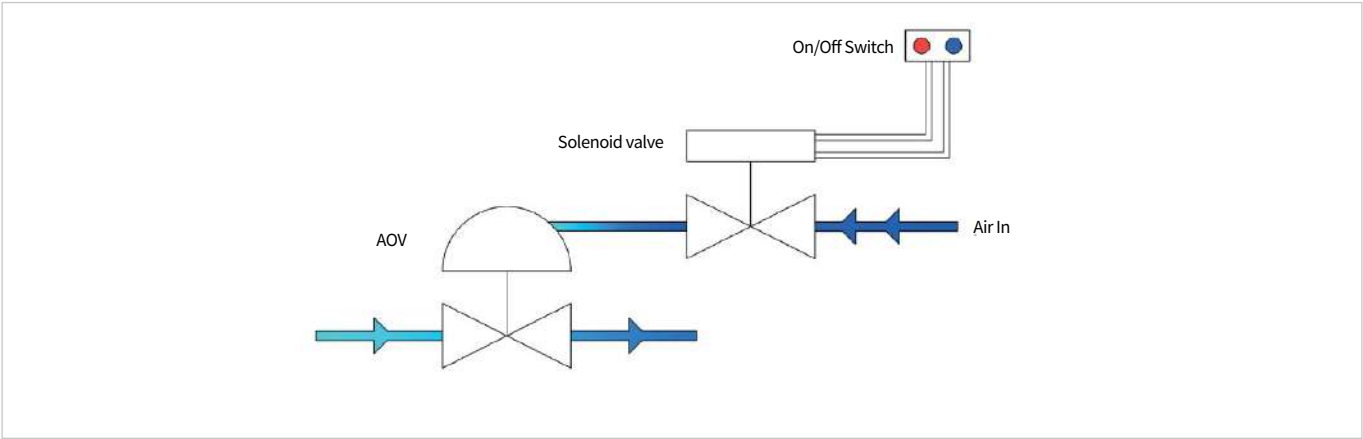
- Normal open or normal close type are available.
- Normal open type; Normally, when the valve is open, air is supplied and the valve is closed.
- Normal close type; Normally, when the valve is close, air is supplied and the valve is open.
- Minimum air pressure for operation; 5 kgf/cm<sup>2</sup>
- The lower body through which the fluid or gas flows is of the same type as the high pressure needle valve.
- It is possible to adjust the tension of the spring by adjusting the upper bolt.
- When control of the system is required, the valve can be operated remotely via AOV.
- Because it uses air as the driving pressure, it is safer than electrical control which is dangerous for explosion.

### Air Operated Valves DK-NV

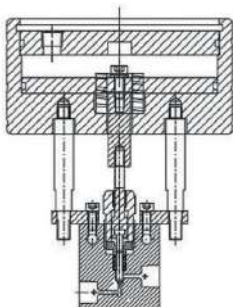
| Parts             | Material            |
|-------------------|---------------------|
| 1. Spring         | Carbon Steel        |
| 2. Housing        | Aluminum 6061       |
| 3. Air Inlet Port | -                   |
| 4. Stem           | Stainless Steel 316 |
| 5. Body           | Stainless Steel 316 |
| 6. Connection     | Stainless Steel 316 |



### Performance Property

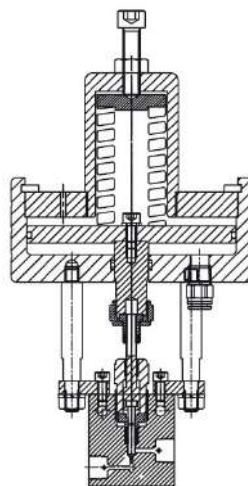


## Description of Operation



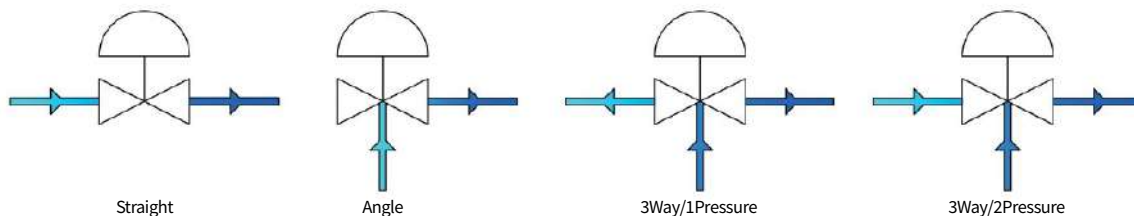
### Normal-Open Type

1. In normal operation, the stem connected to the circular plate is lifted up and the valve remains open.
2. At this time, when the air pressure is applied from above, the circular plate moves downward due to the air pressure.
3. The stem connected to the circular plate is also moved downwards to block the open orifice, thus blocking the fluid flow.
4. To reopen the valve, shut off the incoming air pressure and exhaust the air already in the product.
5. The restoring force of the spring at the bottom causes the circular plate and the stem to move up again, and the valve opens and the fluid flows again.



### Normal-Close Type

1. In normal operation, the stem connected to the circular plate is lifted down and the valve remains close.
2. At this time, if the air pressure is applied from the lower side, the circular plate moves upward due to the inflating air pressure.
3. The closed orifice is opened and fluid flows.
4. To close the valve again, shut off the incoming air pressure and exhaust the air already in the product.
5. The restoring force of the spring at the upper part causes the circular plate and the stem to come down again, closing the valve to block the flow of the fluid.



| Pressure Rating | Tube Size | Normal-Close |                |                 |                 | Normal-Open  |                |                |                |
|-----------------|-----------|--------------|----------------|-----------------|-----------------|--------------|----------------|----------------|----------------|
|                 |           | Straight     | Angle          | 3Way/1 Pressure | 3Way/2 Pressure | Straight     | Angle          | 3Way/1on       | 3Way/2on       |
| 11,000 psig     | 1/8"      | DK11NV-02-AC | DK11NV-02-A-AC | DK11NV-02-O-AC  | DK11NV-02-T-AC  | DK11NV-02-AO | DK11NV-02-A-AO | DK11NV-02-O-AO | DK11NV-02-T-AO |
| 11,500 psig     | 1/4"      | DK11NV-04-AC | DK11NV-04-A-AC | DK11NV-04-O-AC  | DK11NV-04-T-AC  | DK11NV-04-AO | DK11NV-04-A-AO | DK11NV-04-O-AO | DK11NV-04-T-AO |
| 7,500 psig      | 3/8"      | DK11NV-06-AC | DK11NV-06-A-AC | DK11NV-06-O-AC  | DK11NV-06-T-AC  | DK11NV-06-AO | DK11NV-06-A-AO | DK11NV-06-O-AO | DK11NV-06-T-AO |
| 5,500 psig      | 1/2"      | DK11NB-08-AC | DK11NB-08-A-AC | DK11NB-08-O-AC  | DK11NB-08-T-AC  | DK11NB-08-AO | DK11NB-08-A-AO | DK11NB-08-O-AO | DK11NB-08-T-AO |
| 20,000 psig     | 1/4"      | DK20NV-04-AC | DK20NV-04-A-AC | DK20NV-04-O-AC  | DK20NV-04-T-AC  | DK20NV-04-AO | DK20NV-04-A-AO | DK20NV-04-O-AO | DK20NV-04-T-AO |
|                 | 3/8"      | DK20NV-06-AC | DK20NV-06-A-AC | DK20NV-06-O-AC  | DK20NV-06-T-AC  | DK20NV-06-AO | DK20NV-06-A-AO | DK20NV-06-O-AO | DK20NV-06-T-AO |
|                 | 9/16"     | DK20NV-09-AC | DK20NV-09-A-AC | DK20NV-09-O-AC  | DK20NV-09-T-AC  | DK20NV-09-AO | DK20NV-09-A-AO | DK20NV-09-O-AO | DK20NV-09-T-AO |
|                 | 3/4"      | DK20NV-12-AC | DK20NV-12-A-AC | DK20NV-12-O-AC  | DK20NV-12-T-AC  | DK20NV-12-AO | DK20NV-12-A-AO | DK20NV-12-O-AO | DK20NV-12-T-AO |
|                 | 1"        | DK20NV-16-AC | DK20NV-16-A-AC | DK20NV-16-O-AC  | DK20NV-16-T-AC  | DK20NV-16-AO | DK20NV-16-A-AO | DK20NV-16-O-AO | DK20NV-16-T-AO |
| 60,000 psig     | 1/4"      | DK60NV-04-AC | DK60NV-04-A-AC | DK60NV-04-O-AC  | DK60NV-04-T-AC  | DK60NV-04-AO | DK60NV-04-A-AO | DK60NV-04-O-AO | DK60NV-04-T-AO |
|                 | 3/8"      | DK60NV-06-AC | DK60NV-06-A-AC | DK60NV-06-O-AC  | DK60NV-06-T-AC  | DK60NV-06-AO | DK60NV-06-A-AO | DK60NV-06-O-AO | DK60NV-06-T-AO |
|                 | 9/16"     | DK60NV-09-AC | DK60NV-09-A-AC | DK60NV-09-O-AC  | DK60NV-09-T-AC  | DK60NV-09-AO | DK60NV-09-A-AO | DK60NV-09-O-AO | DK60NV-09-T-AO |

## High Pressure Tooling



The Coning and Threading tools are designed for simple accurate preparation of tubing ends for the 20,000psig, 60,000psig and ultra high pressure connection. The spare parts are interchangeable and easy to install and work for the coned tubing ends. (They are not required to reseating job)

### Coning Tool

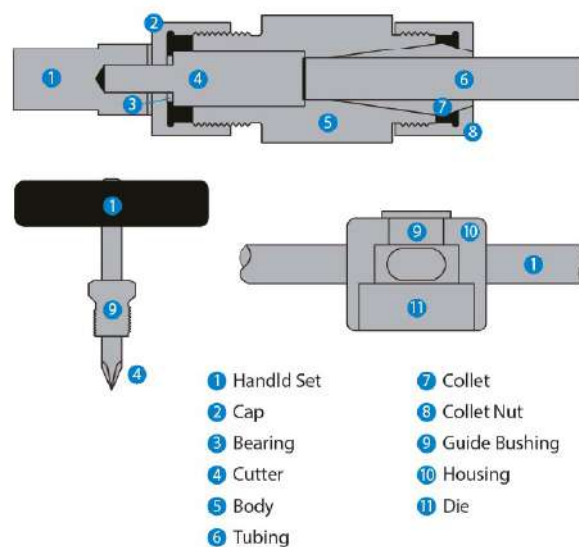
The Coning tool is designed for preparing to cone on the tubing ends for the 20,000psig, 60,000psig and ultra high pressure connections. The cone degrees are approximately 57 to 59°. The cutter and collets are interchangeable each other. (except 9/16" sizes)

### Threading Tool

The Threading tool is designed for preparing a thread which is left hand type for the 20,000psig, 60,000psig and ultra high pressure connections. The threaded die and guide bushings are interchangeable for all. (except 1/8" sizes)

### Reseating Tool

The reseating tool is designed for repairing old or damaged tubing connection seats for valves and fittings. This does not require to have coning and threading tools.



| Pressure Rating | Tube Size | Part No.    |              |              |                |            |               |                |
|-----------------|-----------|-------------|--------------|--------------|----------------|------------|---------------|----------------|
|                 |           | Coning Tool |              |              | Threading Tool |            |               | Reseating Tool |
|                 |           | Set         | Spare Cutter | Spare Collet | Set            | Die        | Guide Bushing |                |
| 20,000 psig     | 1/4"      | DK20-CT-4   | DK20-CT-4U   | DK60-CT-40   | DK20-TT-4      | DK20-TT-4D | DK20-TT-4B    | DK20-RT-4      |
|                 | 3/8"      | DK20-CT-6   | DK20-CT-6U   | DK60-CT-60   | DK20-TT-6      | DK20-TT-6D | DK20-TT-6B    | DK20-RT-6      |
|                 | 9/16"     | DK20-CT-9   | DK20-CT-9U   | DK60-CT-90   | DK20-TT-9      | DK20-TT-9D | DK20-TT-9B    | DK20-RT-9      |
| 60,000 psig     | 1/4"      | DK60-CT-4   | DK60-CT-4U   | DK60-CT-40   | DK60-TT-4      | DK60-TT-4D | DK60-TT-4B    | DK60-RT-4      |
|                 | 3/8"      | DK60-CT-6   | DK60-CT-6U   | DK60-CT-60   | DK60-TT-6      | DK60-TT-6D | DK60-TT-6B    | DK60-RT-6      |
|                 | 9/16"     | DK60-CT-9   | DK60-CT-9U   | DK60-CT-90   | DK60-TT-9      | DK60-TT-9D | DK60-TT-9B    | DK60-RT-9      |

