

NV11, NV12, NV13, NV14 SERIES

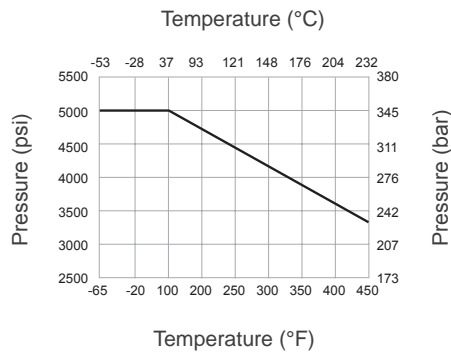
Needle Valves

GENTEC® Valves



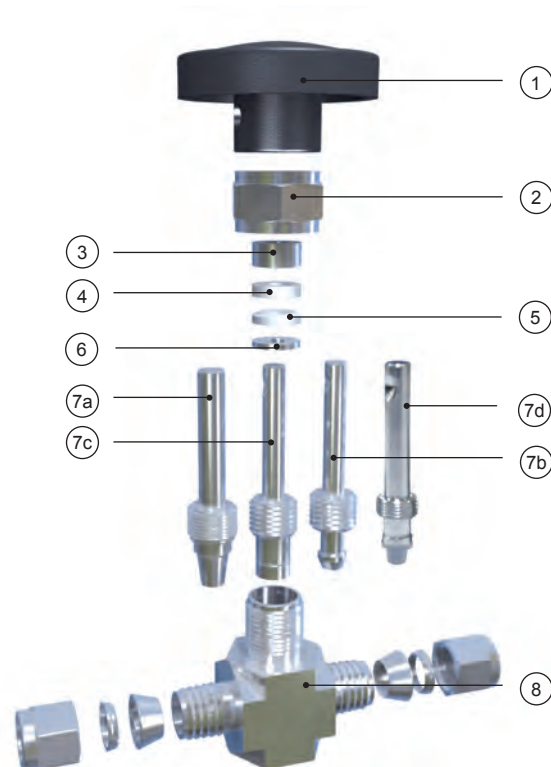
Product Features

- Maximum operating pressure: 5000 psi (345 bar)
(For pressure limitations under high temperature conditions, refer to pressure-temperature table)
- V type stem is standard; R, K, and N type stem are also available
- End connections: GENLOK and NPT
(please refer to the specification tables for available dimensions)
- Straight pattern is standard, angle pattern is optional
- Panel mounting available
- Cleaned and degreased for oxygen service according to CGA G-4.1 and ASTM G93 Class C, respectively
- Every valve is factory tested for leakage at 1000 psi (69 bar)
Adjust packing nut when working pressure is higher than 1000 psi to prevent leakage.



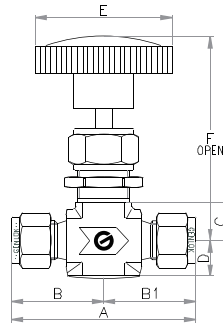
Materials of Construction

| Components | Material |
|-----------------------------|----------------------------------|
| 1 Round Handle / Bar Handle | ABS with brass inset / Aluminium |
| 2 Packing Nut | 316 SS |
| 3 Gland | 316 SS |
| 4 Upper Packing | PTFE |
| 5 Lower Packing | PTFE |
| 6 Lower Gland | 316 SS |
| 7a R-TYPE Valve Stem | 316 SS |
| 7b V-TYPE Valve Stem | 316 SS |
| 7c K-TYPE Valve Stem | PCTFE |
| 7d N-TYPE Valve Stem | PTFE |
| 8 Body | 316 SS |

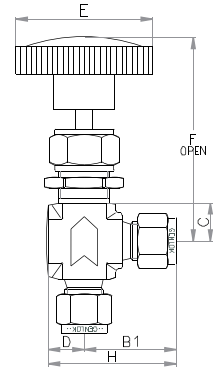


Dimensions

Straight Pattern



Angle Pattern



Fractional and Metric Tube Fittings

| Model | Orifice (in.) | CV | Connection Type | | Dimension (in.) | | | | | | | Panel Mounting Hole Diameter (in.) | |
|---------------|---------------|------|-----------------|--------|-----------------|------|------|------|------|------|------|------------------------------------|--------|
| | | | Inlet | Outlet | A | B | B1 | H | C | D | E | | F Open |
| SS-NV11-TF2 | 0.080 | 0.09 | 1/8" GENLOK | | 2.00 | 1.00 | 1.00 | 1.31 | 0.44 | 0.31 | 1.00 | 2.29 | 0.47 |
| SS-NV12-TF4 | 0.172 | 0.37 | 1/4" GENLOK | | 2.31 | 1.16 | 1.16 | 1.51 | 0.44 | 0.38 | 1.38 | 2.34 | 0.61 |
| SS-NV13-TF6 | 0.250 | 0.73 | 3/8" GENLOK | | 2.60 | 1.30 | 1.30 | 1.79 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV13-TF8 | 0.250 | 0.73 | 1/2" GENLOK | | 2.82 | 1.41 | 1.41 | 1.90 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV14-TF2 | 0.375 | 1.80 | 3/4" GENLOK | | 3.82 | 1.91 | 1.91 | 2.66 | 0.75 | 0.75 | 3.00 | 3.91 | 1.04 |
| SS-NV11-TF3M | 0.079 | 0.09 | 3 mm GENLOK | | 1.94 | 0.97 | 0.97 | 1.23 | 0.44 | 0.31 | 1.00 | 2.29 | 0.47 |
| SS-NV12-TF6M | 0.172 | 0.37 | 6 mm GENLOK | | 2.31 | 1.16 | 1.16 | 1.51 | 0.44 | 0.38 | 1.38 | 2.34 | 0.61 |
| SS-NV12-TF8M | 0.172 | 0.37 | 8 mm GENLOK | | 2.31 | 1.16 | 1.16 | 1.51 | 0.44 | 0.38 | 1.38 | 2.34 | 0.61 |
| SS-NV13-TF10M | 0.250 | 0.73 | 10 mm GENLOK | | 2.60 | 1.30 | 1.30 | 1.79 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV13-TF12M | 0.250 | 0.73 | 12 mm GENLOK | | 2.82 | 1.41 | 1.41 | 1.90 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |

NPT Fittings

| Model | Orifice (in.) | CV | Connection Type | | Dimension (in.) | | | | | | | Panel Mounting Hole Diameter (in.) | |
|------------------|---------------|------|-----------------|-----------------|-----------------|------|------|------|------|-------|------|------------------------------------|--------|
| | | | Inlet | Outlet | A | B | B1 | H | C | D | E | | F Open |
| SS-NV12-FNT2 | 0.172 | 0.37 | 1/8" Female NPT | | 1.62 | 0.81 | 0.81 | 1.19 | 0.44 | 0.38 | 1.38 | 2.34 | 0.61 |
| SS-NV12-NT2 | 0.172 | 0.37 | 1/8" Male NPT | | 2.00 | 1.00 | 1.00 | 1.19 | 0.44 | 0.38 | 1.38 | 2.34 | 0.61 |
| SS-NV12-NT4 | 0.172 | 0.37 | 1/4" Male NPT | | 2.00 | 1.00 | 1.00 | 1.36 | 0.44 | 0.38 | 1.38 | 2.34 | 0.61 |
| SS-NV13-FNT4 | 0.250 | 0.73 | 1/4" Female NPT | | 2.12 | 1.06 | 1.06 | 1.56 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV13-NT6 | 0.250 | 0.73 | 3/8" Male NPT | | 2.24 | 1.12 | 1.12 | 1.62 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV14-FNT6 | 0.375 | 1.80 | 3/8" Female NPT | | 3.00 | 1.50 | 1.50 | 2.25 | 0.75 | 0.75 | 3.00 | 3.91 | 1.04 |
| SS-NV14-FNT8 | 0.375 | 1.80 | 1/2" Female NPT | | 3.00 | 1.50 | 1.50 | 2.25 | 0.75 | 0.75 | 3.00 | 3.91 | 1.04 |
| SS-NV14-NT8 | 0.375 | 1.80 | 1/2" Male NPT | | 3.00 | 1.50 | 1.50 | 2.25 | 0.75 | 0.75 | 3.00 | 3.91 | 1.04 |
| SS-NV11-NT2-TF2 | 0.080 | 0.09 | 1/8" Male NPT | 1/8" GENLOK | 1.75 | 0.75 | 1.00 | 1.31 | 0.44 | 0.31 | 1.00 | 2.29 | 0.47 |
| SS-NV12-NT4-TF4 | 0.172 | 0.37 | 1/4" Male NPT | 1/4" GENLOK | 2.16 | 1.00 | 1.16 | 1.51 | 0.44 | 0.38 | 1.38 | 2.34 | 0.61 |
| SS-NV12-NT4-TF6M | 0.172 | 0.37 | 1/4" Male NPT | 6 mm GENLOK | 2.16 | 1.00 | 1.16 | 1.51 | 0.44 | 0.38" | 1.38 | 2.34 | 0.61 |
| SS-NV13-NT4-TF6 | 0.250 | 0.73 | 1/4" Male NPT | 3/8" GENLOK | 2.42 | 1.12 | 1.30 | 1.79 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV13-NT4-FNT4 | 0.250 | 0.73 | 1/4" Male NPT | 1/4" Female NPT | 2.18 | 1.12 | 1.06 | 1.56 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV13-NT6-TF6 | 0.250 | 0.73 | 3/8" Male NPT | 3/8" GENLOK | 2.42 | 1.12 | 1.30 | 1.79 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV13-NT6-FNT6 | 0.250 | 0.73 | 3/8" Male NPT | 3/8" Female NPT | 2.22 | 1.12 | 1.10 | 1.60 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV13-NT6-TF8 | 0.250 | 0.73 | 1/2" Male NPT | 1/2" GENLOK | 2.53 | 1.12 | 1.41 | 1.90 | 0.56 | 0.50 | 1.96 | 2.81 | 0.79 |
| SS-NV14-NT8-FNT8 | 0.375 | 1.80 | 1/2" Male NPT | 1/2" Female NPT | 3.00 | 1.50 | 1.50 | 2.25 | 0.75 | 0.75 | 3.00 | 3.91 | 1.04 |

Ordering Information

| EX: SS - | NV12 - | NT4 - | TF4 - | V - | A - | B |
|---------------|------------------------------|-----------------------------|---------------------------|--|---|------------------------------------|
| Body Material | Series | Inlet Connection* | Outlet Connection* | Valve Stem Type | Options | Handle Options** |
| SS: 316 SS | NV11 NV12 NV13 NV14 | NT4: 1/4" Male NPT | TF4: 1/4" GENLOK | V: V Type R: R Type K: K Type N: N Type | A: Angle Pattern Blank: Straight Pattern | Blank: Standard B: Other option |

* Specifications listed in table above change to. Please refer to the chart above for the available specifications for the desired connection type.

** Round Handle is standard for NV11, NV12 and NV13 series. Select -B for alternative Bar handle. For NV14, Bar Handle is the standard, please select -B for alternative Round Handle.