DAWSONS-TECH

OVER 35 YEARS OF EXPERIENCE

AN ISO 9001 COMPANY

INSTRUMENTATION VALVES FOR PROCESS AND GAS INDUSTRIES

- **NEEDLE VALVES**
- **BLEEDER SCREW GUAGE VALVES**
- **GUAGE/ROOT VALVES**
- **BLOCK & BLEED GAUGE VALVES**
- **BLEED VAVLES**

Most Cost Effective, World Class Quality Flow Control Solutions for Wide Range of Industries and Applications

www.dawsonstech.com

THE COMPANY

DAWSONS-TECH is an ISO 9001:2015 certified manufacturing company offers wide range of ***Consistent and Reliable World Class Quality Flow Control Components*** used in Fluid / Gas Control systems in a wide range of Industries.

MANUFACTURING :

DAWSONS-TECH established its comprehensive state of art manufacturing and testing facility installing various CNC Turning Centre and CNC Turnmill Centre, Vertical Machining Centre, etc. with the highly motivated and dedicated team of employees in place. This facilitate us to design and manufacture our product range under stringent quality checks and measurements that ensures ***"A TOTAL CUSTOMER SATISFACTIONS WITH ZERO DEFECT PRODUCTS"***.

QUALITY:

DAWSONS-TECH persues not only performance of its products but also ensures ***"TOTAL QUALITY CONTROL MANAGEMENT SYSTEMS IN ACCORDANCE TO ISO 9001:2015"*** which is achieved by alerting and educating each and every employee, the importance of quality and by implementing the quality control procedures at every stage of production to final inspection from incoming raw material to finish products.

CERTIFICATIONS :

DAWSONS-TECH believes in total quality management systems which has earned us following certifications:

- ISO 9001-2015
- PED 2014/68/EU
- Helium Leak Detection Test
- MSS SP-99-2016a
- Hydrostatic Proof Test
- Pneumatic Proof Test

RESEARCH & DEVELOPMENT :

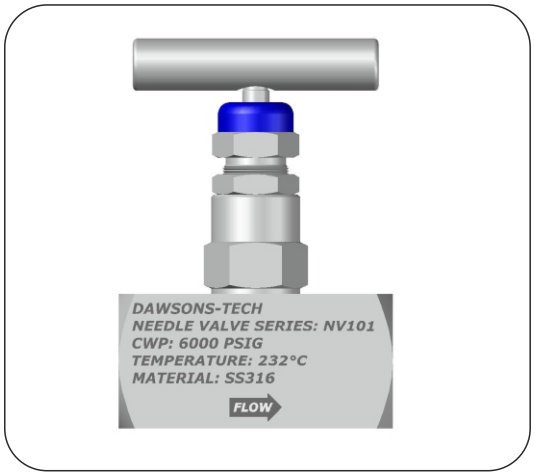
With our long experience, expertise and continues Research & Development with incorporation of advanced technology and high-tech cutting-edge machineries, ***DAWSONS-TECH*** is committed to constant upgradation and expand its product range to meet the requirements of its customer to their entire satisfaction at every time.

CUSTOMER SATISFACTION:

We strive to achieve total customer satisfaction and continuously work to set higher goals to provide the reliable quality, timely delivery of our products and prompt services in the best interest of our customers with very competitive price.

INSTRUMENTATION VALVES FOR PROCESS & GAS INDUSTRIES

Needle Valves Series : NV101



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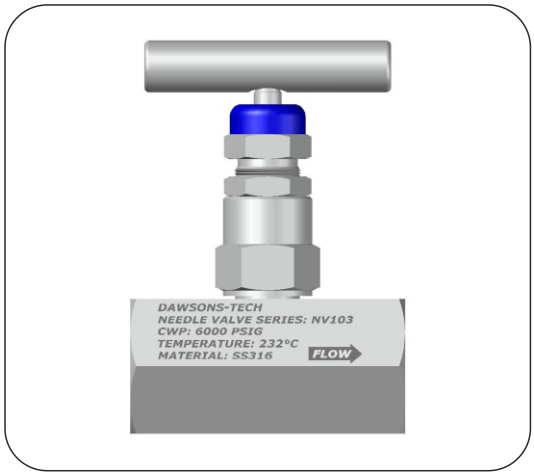
Needle Valves Series : NV103



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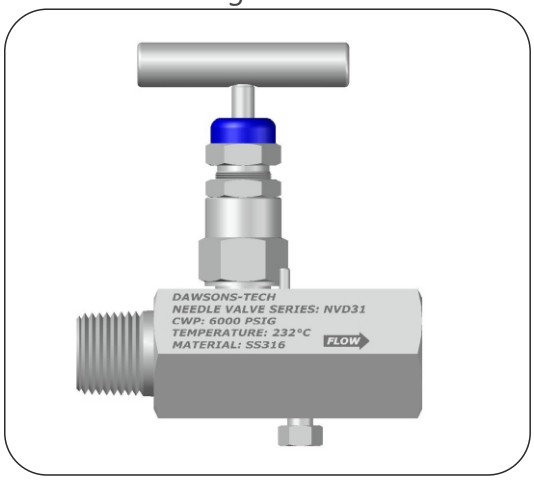
Bleeder Screw Guage Valves Series : NVD31



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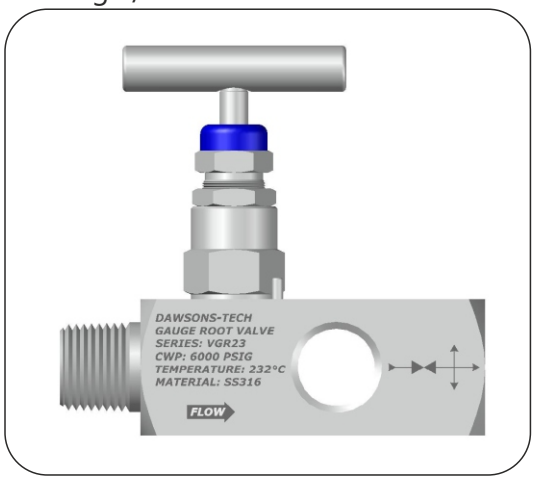
Guage / Root Valves Series : VGR23



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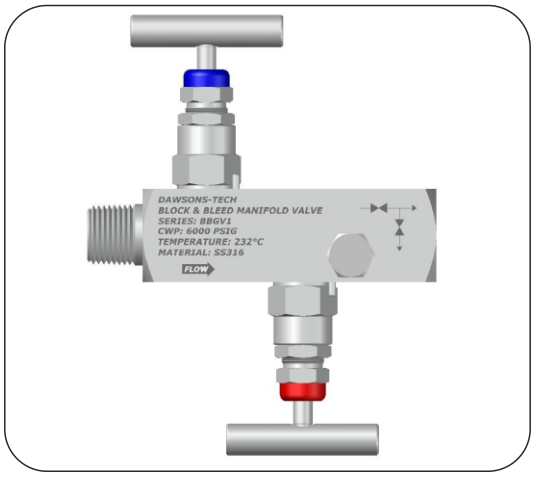
Block & Bleed Gauge Valves Series : BBGV1



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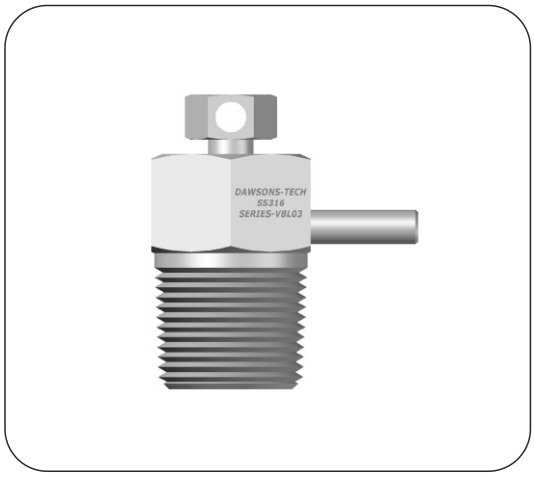
Bleed Valves Series : VBL03



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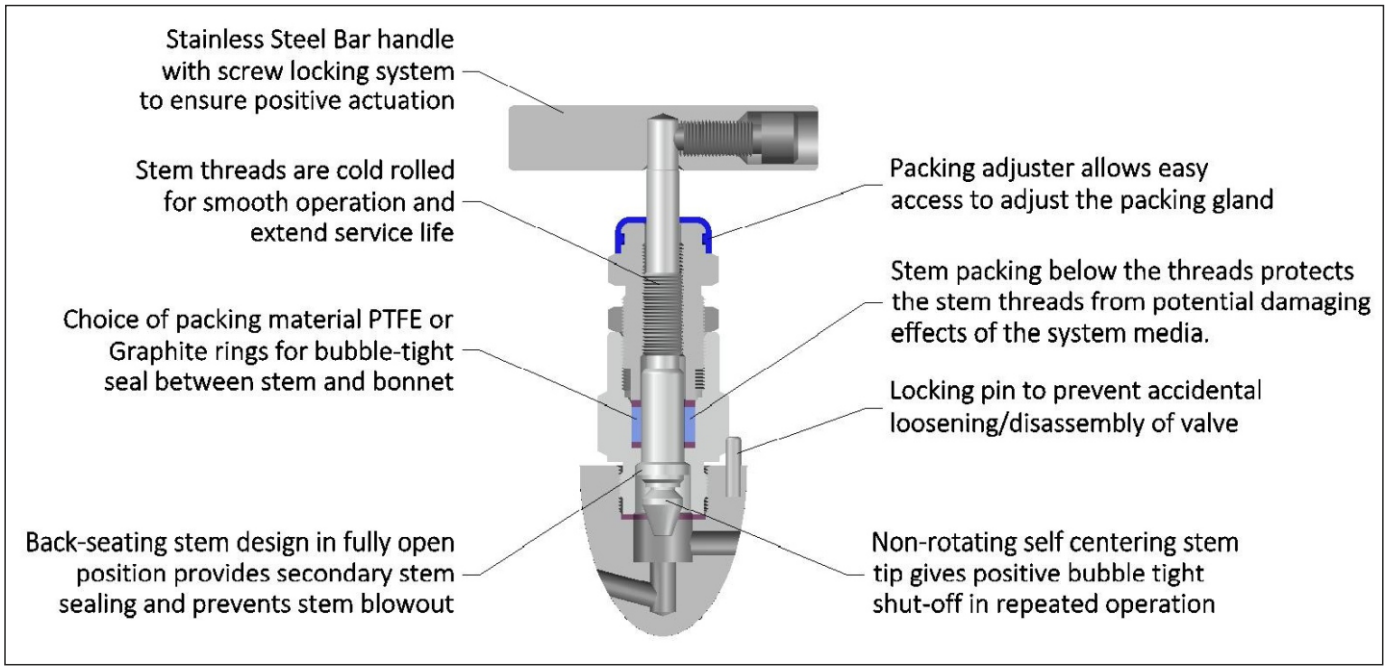
General Information :

DAWSONS-TECH offers most Cost-Effective Needle Valves, Gauge Valves, Block and Bleed Gauge Valves and Bleed Valves which have been designed very carefully and manufactured to close tolerances to provide leak free performance for mounting to Pressure Gauges, Pressure Transmitters, Pressure Switches, etc.

Features / Benefits :

- Compact and Rugged Design.
- Bar stock body in straight patterns.
- Low operating torque.
- Anti blow-out stem.
- Flow Coefficient (Cv) from 0.25 to 1.8.
- Orifice size : 4.3mm, 6.3mm and 9.5mm.
- Available in Material SS316, all wetted parts in accordance with NACE MR01-75.
- Available with Male, Female NPT, BSP, BSPT Pipe Thread, Socket Weld and Tube O.D. end connections.
- Every Valve is pressure tested.



Product Range & Operating Parameters :

- Pressure Rating : UPTO 6000 PSIG (413 Bar at CWP). Pressure UPTO 10,000 PSIG (690 Bar) are available on request.
- Temperature Rating : -54° C to 232° C with PTFE Packing. -96° C to 426° C with Graphite Packing.

Applications :

- General Plant Services
- Hydraulic & Pneumatic
- Instrumentation Isolations
- Pressure Measurement Devices
- Venting

Stem Type : ***DAWSONS-TECH*** Valves are available with choice of optional stem to provide greater flexibility.

Non-Rotating (NR) : It is standard self-centering non-rotating stem tip typically used in high cycle application to extend the Valves life.

'V' Stem (VS) : It is used for general purpose liquid and gases.

Soft Seat (SF) : A soft seat stem requires a lower sealing torque. It is replaceable and suitable for temperature UPTO 120°C.

Regulating Stem (RS) : It is used where some degree of flow control required.

General Information :

Technical Data :

The temperature and pressure rating for a standard Valve with PTFE packing.

Temperature	Pressure	
	PSIG	Bar
-54°C to 38°C	6000	408
-54°C to 93°C	5160	351
-54°C to 148°C	4660	317
-54°C to 204°C	4280	291
-54°C to 232°C	4130	289

Type Test Approvals :

The design of ***DAWSONS-TECH*** Valves Series : NV101, NV103, NVD31, VGR23, BBGV1 & VBL03 have been tested for Hydrostatic Proof and Burst Test in accordance with MSS SP-99-2016a Clause 5.5 & 5.6.

Testing :

- Standard Test : Each Valve is pressure tested with Nitrogen at 1000 PSIG (69 Bar) for leakage at the seat and packing.
- Optional Hydrostatic Test : This test is performed with De-ionized water at 1.5 times the working pressure.

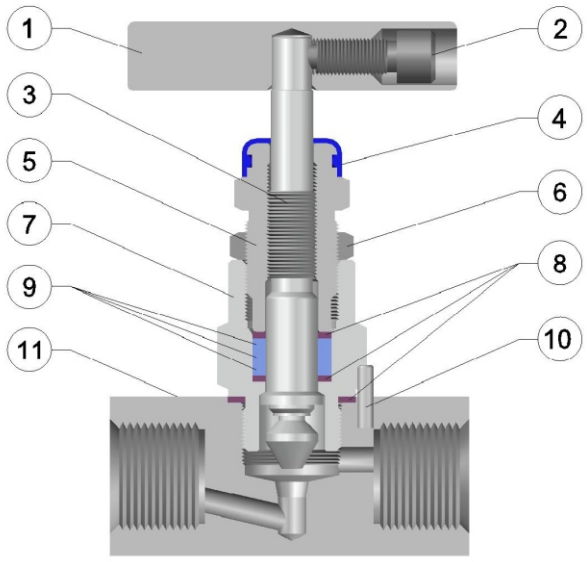
Certification :

The certificate to 3.1 acc. to EN10204 for Valves Body Material and pressure test will be provided on request.

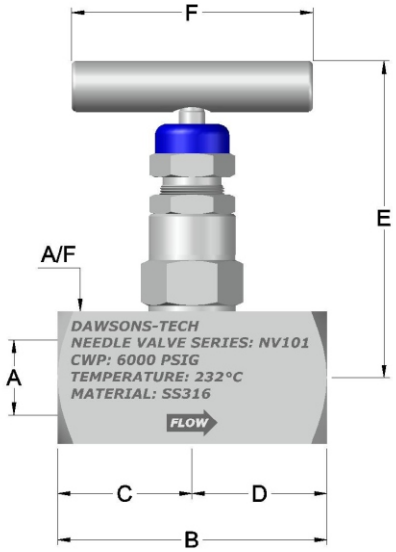
NEEDLE VALVES SERIES : NV101

DAWSONS-TECH most cost effective Needle Valves Series : NV101 is having compact and rugged Bar Stock Square Body designed and manufactured for a variety of applications including Instrumentation, Hydraulic and Pneumatic systems.

Material of Construction:



Sr. No.	Part Description	Material
1	Handle	SS316
2	Screw	SS316
3	Valve Stem	SS316
4	Dust Cap	PVC
5	Packing Adjustment Bonnet	SS316
6	Lock Nut	SS316
7	Bonnet	SS316
8	Washer	SS316
9	Packing	PTFE
10	Safety Pin	SS316
11	Valve Body	SS316



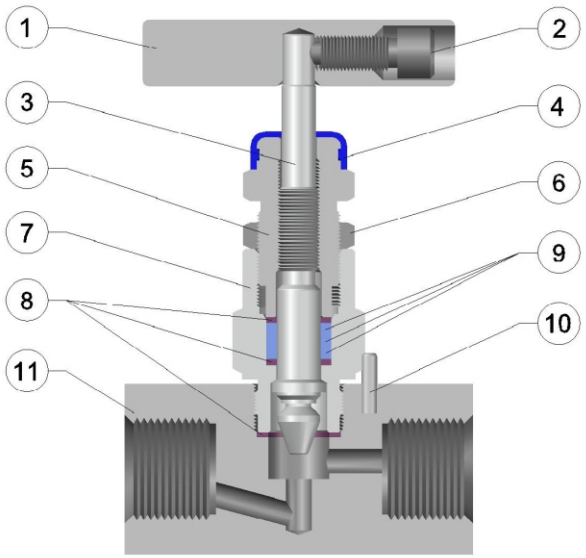
STANDARD CONFIGURATION DIMENSIONS

End Connection		Orifice	Cv	Dimensions in mm						Dawsons-Tech Part No.
Type	Size - A			B	C	D	E	F	A/F	
Tube OD to Tube OD (Fractional)	1/4"	4.3	0.37	62.0	31.0	31.0	80.0	54.0	28.57	NV101-TT4
	3/8″	4.3	0.37	73.0	36.5	36.5	80.0	54.0	28.57	NV101-TT6
	1/2"	6.3	0.73	77.8	38.9	38.9	84.0	58.0	31.75	NV101-TT8
	3/4"	9.5	1.80	100.0	50.0	50.0	87.0	63.0	31.75	NV101-TT12
Tube OD to Tube OD (Metric)	6mm	4.3	0.37	62.0	31.0	31.0	80.0	54.0	28.57	NV101-TT4M
	8mm	4.3	0.37	62.0	31.0	31.0	80.0	54.0	28.57	NV101-TT6M
	10mm	6.3	0.73	73.0	36.5	36.5	80.0	54.0	31.75	NV101-TT8M
	12mm	6.3	0.73	77.8	38.9	38.9	84.0	54.0	31.75	NV101-TT12M
Female to Female NPT	1/4"	4.3	0.37	57.2	28.6	28.6	80.0	54.0	28.57	NV101-FF4N
	3/8″	4.3	0.37	60.4	30.2	30.2	80.0	54.0	28.57	NV101-FF6N
	1/2"	6.3	0.73	79.4	39.7	39.7	84.0	58.0	31.75	NV101-FF8N
	3/4"	9.5	1.80	79.4	39.7	39.7	87.0	63.0	34.92	NV101-FF12N
	1″	9.5	1.80	92.0	46.0	46.0	98.0	68.0	44.40	NV101-FF16N
Male to Female NPT	1/4"	4.3	0.37	57.2	28.6	28.6	80.0	54.0	28.57	NV101-MF4N
	3/8″	4.3	0.37	60.4	30.2	30.2	80.0	54.0	28.57	NV101-MF6N
	1/2"	6.3	0.73	79.4	39.7	39.7	84.0	58.0	31.75	NV101-MF8N
	3/4"	9.5	1.80	79.4	39.7	39.7	89.0	63.0	34.40	NV101-MF12N
	1″	9.5	1.80	92.0	46.0	46.0	98.0	68.0	44.40	NV101-MF16N
Female to Female BSP	1/4"	4.3	0.37	57.2	28.6	28.6	80.0	54.0	28.57	NV101-FF4RG
	3/8″	4.3	0.37	60.4	30.2	30.2	80.0	54.0	28.57	NV101-FF6RG
	1/2"	6.3	0.73	79.4	39.7	39.7	84.0	58.0	31.75	NV101-FF8RG
	3/4"	9.5	1.80	79.4	39.7	39.7	89.0	63.0	34.40	NV101-FF12RG
	1″	9.5	1.80	92.0	46.0	46.0	98.0	68.0	44.40	NV101-FF16RG
Socket Weld to Socket Weld	1/4"	4.3	0.37	46.0	23.0	23.0	80.0	54.0	28.57	NV101-SW4
	3/8″	4.3	0.37	57.2	28.6	28.6	80.0	54.0	28.57	NV101-SW6
	1/2"	6.3	0.73	57.2	28.6	28.6	80.0	54.0	28.57	NV101-SW8
	3/4"	6.3	0.73	79.4	39.7	39.7	84.0	58.0	31.75	NV101-SW12

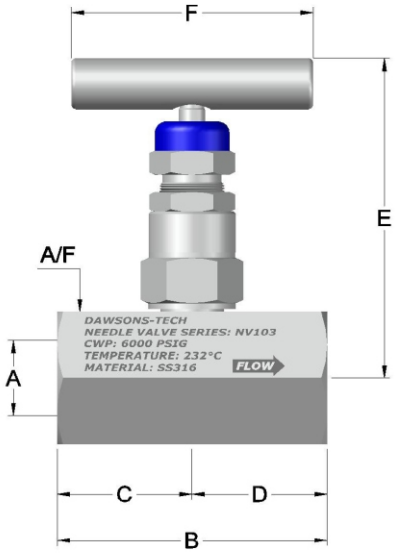
Dimensions are for reference only and subject to change.

DAWSONS-TECH most cost effective Needle Valves Series : NV103 is having compact and rugged Bar Stock Hex Body designed and manufactured for a variety of applications including Instrumentation, Hydraulic and Pneumatic systems.

Material of Construction:



Sr. No.	Part Description	Material
1	Handle	SS316
2	Screw	SS316
3	Valve Stem	SS316
4	Dust Cap	PVC
5	Packing Adjustment Bonnet	SS316
6	Lock Nut	SS316
7	Bonnet	SS316
8	Washer	SS316
9	Packing	PTFE
10	Safety Pin	SS316
11	Valve Body	SS316



STANDARD CONFIGURATION DIMENSIONS

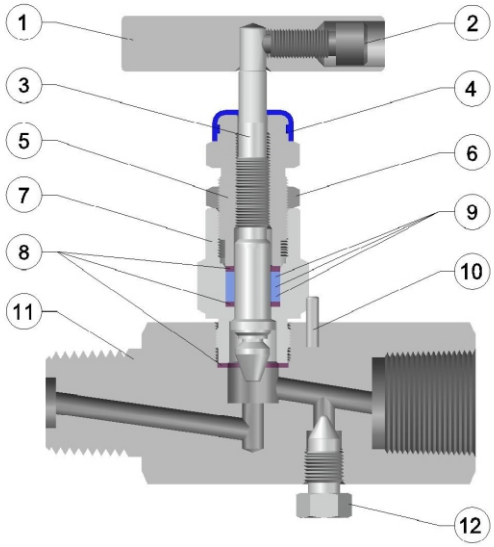
End Connection		Orifice	Cv	Dimensions in mm						Dawsons-Tech Part No.
Type	Size - A			B	C	D	E	F	A/F	
Tube OD to Tube OD (Fractional)	1/4"	4.3	0.37	62.0	31.0	31.0	80.0	54.0	28.57	NV103-TT4
	3/8″	4.3	0.37	73.0	36.5	36.5	80.0	54.0	28.57	NV103-TT6
	1/2"	6.3	0.73	77.8	38.9	38.9	84.0	58.0	31.75	NV103-TT8
	3/4"	6.3	0.73	100.0	50.0	50.0	87.0	63.0	31.75	NV103-TT12
Tube OD to Tube OD (Metric)	6mm	4.3	0.37	62.0	31.0	31.0	80.0	54.0	28.57	NV103-TT4M
	8mm	4.3	0.37	62.0	31.0	31.0	80.0	54.0	28.57	NV103-TT6M
	10mm	6.3	0.73	73.0	36.5	36.5	80.0	54.0	31.75	NV103-TT8M
	12mm	6.3	0.73	77.8	38.9	38.9	84.0	54.0	31.75	NV103-TT12M
Female to Female NPT	1/4"	4.3	0.37	58.0	29.0	29.0	80.0	54.0	28.57	NV103-FF4N
	3/8″	4.3	0.37	58.0	29.0	29.0	80.0	54.0	28.57	NV103-FF6N
	1/2"	6.3	0.73	65.0	32.5	32.5	84.0	58.0	31.75	NV103-FF8N
	3/4"	6.3	0.73	70.0	35.0	35.0	87.0	63.0	34.92	NV103-FF12N
Male to Female NPT	1/4"	4.3	0.37	60.0	31.0	29.0	80.0	54.0	28.57	NV103-MF4N
	3/8″	4.3	0.37	60.0	31.0	29.0	80.0	54.0	28.57	NV103-MF6N
	1/2"	6.3	0.73	70.0	37.5	32.5	84.0	58.0	31.75	NV103-MF8N
	3/4"	6.3	0.73	75.0	40.0	35.0	89.0	63.0	34.40	NV103-MF12N
Female to Female BSP	1/4"	4.3	0.37	58.0	29.0	29.0	80.0	54.0	28.57	NV103-FF4RG
	3/8″	4.3	0.37	58.0	29.0	29.0	80.0	54.0	28.57	NV103-FF6RG
	1/2"	6.3	0.73	65.0	32.5	32.5	84.0	58.0	31.75	NV103-FF8RG
	3/4"	6.3	0.73	70.0	35.0	35.0	89.0	63.0	34.40	NV103-FF12RG
Socket Weld to Socket Weld	1/4"	4.3	0.37	58.0	29.0	29.0	80.0	54.0	28.57	NV103-SW4
	3/8″	4.3	0.37	58.0	29.0	29.5	80.0	54.0	28.57	NV103-SW6
	1/2"	6.3	0.73	58.0	29.0	29.0	80.0	54.0	28.57	NV103-SW8
	3/4"	6.3	0.73	65.0	32.5	32.5	84.0	58.0	31.75	NV103-SW12

Dimensions are for reference only and subject to change.

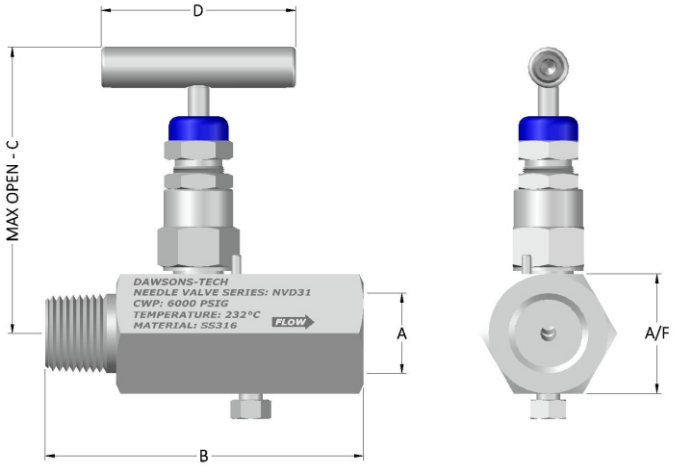
BLEEDER SCREW GUAGE VALVES SERIES : NVD31

DAWSONS-TECH most cost effective Bleeder Screw Guage Valves Series : NVD31 is having compact and rugged Bar Stock Hex Body equipped with a Bleed Screw designed and manufactured for a variety of applications including Instrumentation, Hydraulic and Pneumatic systems.

Material of Construction:



Sr. No.	Part Description	Material
1	Handle	SS316
2	Screw	SS316
3	Valve Stem	SS316
4	Dust Cap	PVC
5	Packing Adjustment Bonnet	SS316
6	Lock Nut	SS316
7	Bonnet	SS316
8	Washer	SS316
9	Packing	PTFE
10	Safety Pin	SS316
11	Valve Body	SS316
12	Drain Plug	SS316



STANDARD CONFIGURATION DIMENSIONS

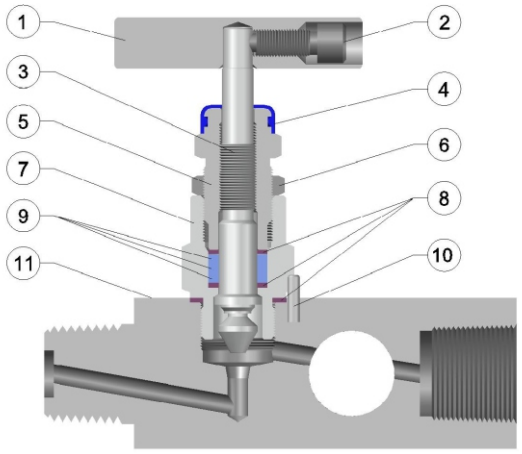
End Connection		Orifice	Cv	Dimensions in mm				Dawsons-Tech Part No.
Type	Size - A			B	C	D	A/F	
Female to Female NPT	1/4"	4.3	0.37	66.0	80.0	54.0	28.57	NVD31-FF4N
	3/8"	4.3	0.37	66.0	80.0	54.0	28.57	NVD31-FF6N
	1/2"	4.3	0.37	69.0	84.0	58.0	31.75	NVD31-FF8N
Male to Female NPT	1/4"	4.3	0.37	73.0	80.0	54.0	28.57	NVD31-MF4N
	3/8"	4.3	0.37	73.0	80.0	54.0	28.57	NVD31-MF6N
	1/2"	4.3	0.37	85.0	84.0	58.0	31.75	NVD31-MF8N
Female to Female BSP	1/4"	4.3	0.37	69.0	80.0	54.0	28.57	NVD31-FF4RG
	3/8"	4.3	0.37	69.0	80.0	54.0	28.57	NVD31-FF6RG
	1/2"	4.3	0.37	88.0	84.0	58.0	31.75	NVD31-FF8RG
Male to Female BSP	1/4"	4.3	0.37	69.0	80.0	54.0	28.57	NVD31-MF4G
	3/8"	4.3	0.37	69.0	80.0	54.0	28.57	NVD31-MF6G
	1/2"	4.3	0.37	88.0	84.0	58.0	31.75	NVD31-MF8G

Dimensions are for reference only and subject to change.

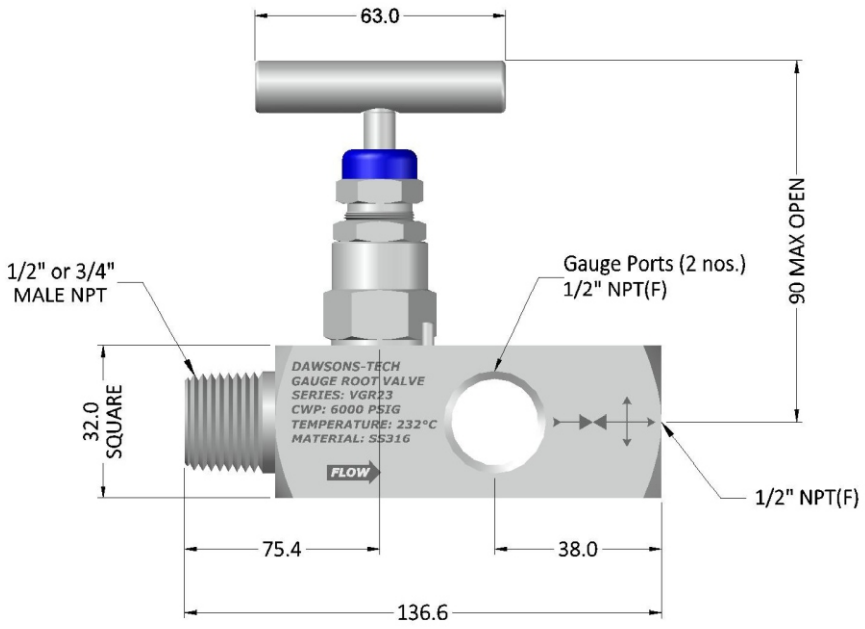
GUAGE / ROOT VALVES SERIES : VGR23

DAWSONS-TECH most cost effective Gauge / Root Valves Series : VGR23 is having compact and rugged Bar Stock Square Body designed and manufactured for a safe and economical method for mounting to Pressure Gauges. Pressure Transmitters, Pressure Switches, etc. These Valves can accommodate a variety of Gauge positions and handle orientations. They are suitable for Block & Bleed assemblies when a Purge Valve, Sampling line or test pressure source is required.

Material of Construction:



Sr. No.	Part Description	Material
1	Handle	SS316
2	Screw	SS316
3	Valve Stem	SS316
4	Dust Cap	PVC
5	Packing Adjustment Bonnet	SS316
6	Lock Nut	SS316
7	Bonnet	SS316
8	Washer	SS316
9	Packing	PTFE
10	Safety Pin	SS316
11	Valve Body	SS316



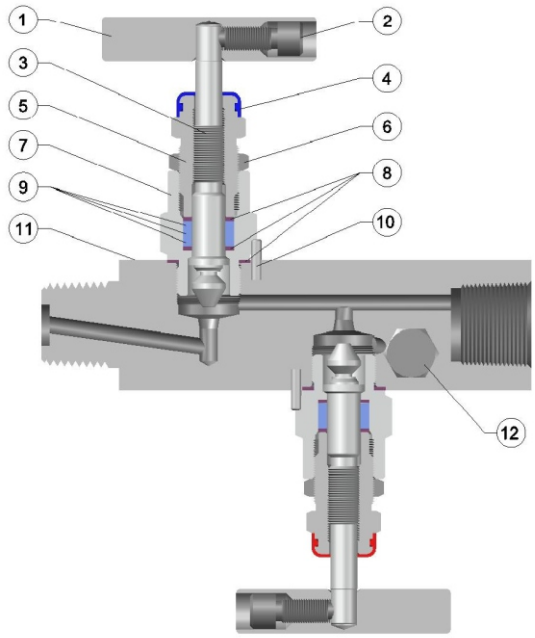
STANDARD CONFIGURATION DIMENSIONS

End Connection		Dawsons-Tech Part No.
Inlet	Outlet	
1/2" NPT (Male)	1/2" NPT (Female)	VGR23-MF8N/SSTNR
3/4" NPT (Male)	1/2" NPT (Female)	VGR23-M12N-F8N/SSTNR

Dimensions are for reference only and subject to change.

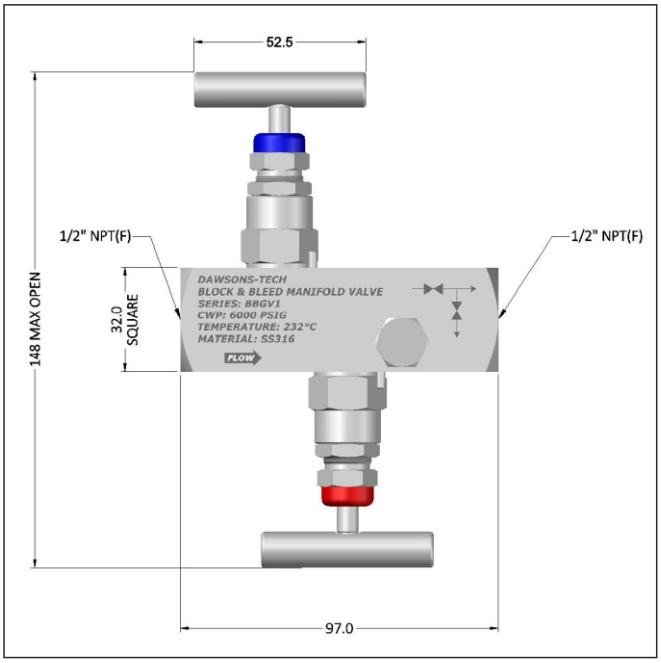
DAWSONS-TECH most cost effective Block & Bleed Gauge Valves Series : BBGV1 is having Bar Stock Square Body designed and manufactured with two Valves for a safe and economical method for mounting Pressure Gauges, Pressure Transmitters, Pressure Switches, etc. These two Valves Manifold combines an Isolation Valve with a vent Valve in one compact unit.

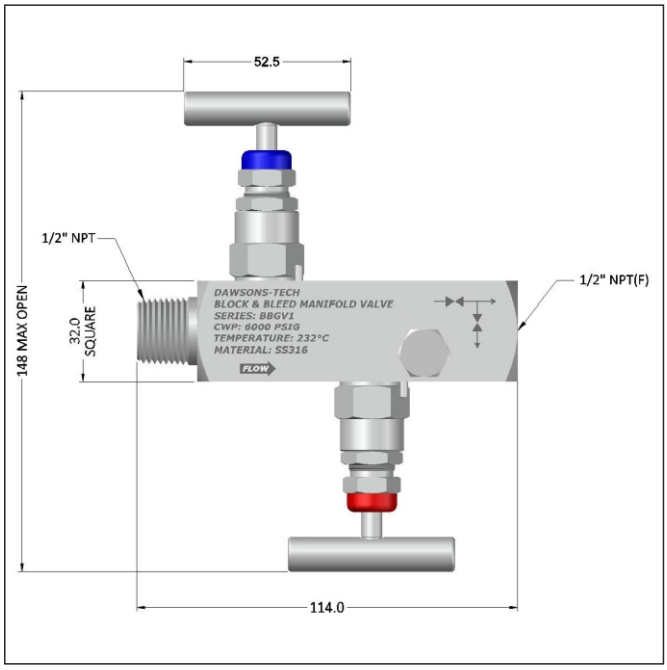
Material of Construction:



Sr. No.	Part Description	Material
1	Handle	SS316
2	Screw	SS316
3	Valve Stem	SS316
4	Dust Cap	PVC
5	Packing Adjustment Bonnet	SS316
6	Lock Nut	SS316
7	Bonnet	SS316
8	Washer	SS316
9	Packing	PTFE
10	Safety Pin	SS316
11	Valve Body	SS316
12	Drain Plug	SS316

Block & Bleed Gauge Valve
Series : BBGV1 (Female to Female)





Block & Bleed Gauge Valve
Series : BBGV1 (Male to Female)

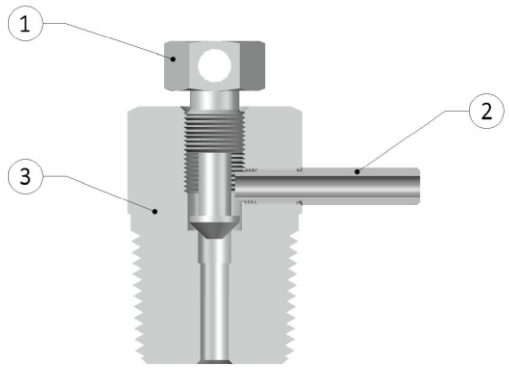
BLEED VALVES SERIES : VBL03

DAWSONS-TECH most cost effective Bleed Valves Series : VBL03 is having compact and rugged Bar Stock Hex Body designed and manufactured for a variety of applications including Instrumentation, Hydraulic and Pneumatic systems.

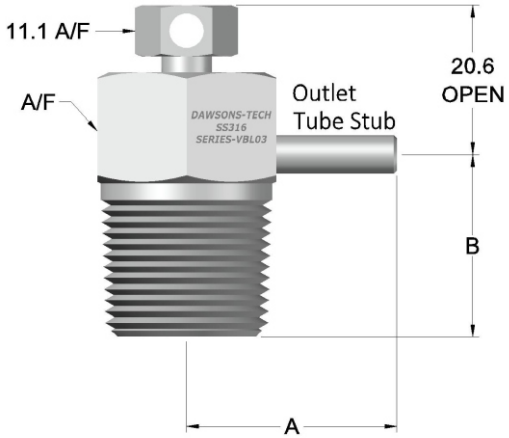
Features / Benefits :

- Compact and Convenient installation.
- Vent Tube prevents accidental removal of Stem.
- Vent Tube directs excess liquid / Gas from system line.
- Flow Coefficient (Cv) 0.25.
- Available with Male / Female NPT, BSPT Pipe Thread and Tube Fittings end connections.
- Available in material SS316.
- Every Valve is pressure tested.

Material of Construction:



Sr. No.	Part Description	Material
1	Stem	SS316
2	Vent Tube	SS316
3	Body	SS316



End Connection			Orifice	Cv	Dimensions In mm			Dawsons-Tech Part No.
Type	Inlet	Outlet			A	B	A/F	
Male (NPT)	1/8"	3/16" OD Tube Stub	3.20	0.25	23.9	19.1	15.87	VBL03-M2N
	1/4"	3/16" OD Tube Stub	3.20	0.25	23.9	19.1	15.87	VBL03-M4N
	3/8"	3/16" OD Tube Stub	3.20	0.25	26.3	22.3	22.22	VBL03-M6N
	1/2"	3/16" OD Tube Stub	3.20	0.25	26.3	22.3	22.22	VBL03-M8N
Male (BSPT)	1/8"	3/16" OD Tube Stub	3.20	0.25	23.9	19.1	15.87	VBL03-M2RT
	1/4"	3/16" OD Tube Stub	3.20	0.25	23.9	19.1	15.87	VBL03-M4RT
	3/8"	3/16" OD Tube Stub	3.20	0.25	26.3	22.3	22.22	VBL03-M6RT
	1/2"	3/16" OD Tube Stub	3.20	0.25	26.3	22.3	22.22	VBL03-M8RT

Dimensions are for reference only and subject to change.

ORDERING INFORMATION :

For Example : PART NO. NV101-FF8N-SSTNR (NEEDLE VALVES SQUARE BAR STOCK BODY)

Valve Series	End Connection Type	End Connection Size	Pipe Thread Type	Material of Construction	Packing Material	Stem Type
NV101	FF	8	N	SS	T	NR
1	2	3	4	5	6	7

For Example : PART NO. NV103-FF8N-SSTNR (NEEDLE VALVES HEX BAR STOCK BODY)

Valve Series	End Connection Type	End Connection Size	Pipe Thread Type	Material of Construction	Packing Material	Stem Type
NV103	FF	8	N	SS	T	NR
1	2	3	4	5	6	7

For Example : PART NO. NVD31-FF8N-SSTNR (BLEEDER SCREW GAUGE VALVES)

Valve Series	End Connection Type	End Connection Size	Pipe Thread Type	Material of Construction	Packing Material	Stem Type
NVD31	FF	8	N	SS	T	NR
1	2	3	4	5	6	7

For Example : PART NO. VGR23-FF8N-SSTNR (GAUGE / ROOT VALVES)

Valve Series	End Connection Type	End Connection Size	Pipe Thread Type	Material of Construction	Packing Material	Stem Type
VGR23	FF	8	N	SS	T	NR
1	2	3	4	5	6	7

For Example : PART NO. BBGV1-FF8N-SSTNR (BLOCK & BLEED GAUGE VALVES)

Valve Series	End Connection Type	End Connection Size	Pipe Thread Type	Material of Construction	Packing Material	Stem Type
BBGV1	FF	8	N	SS	T	NR
1	2	3	4	5	6	7

For Example : PART NO. VBL03-M8N-SS (BLEED VALVES)

Valve Series	End Connection Type	End Connection Size	Pipe Thread Type	Material of Construction
VBL03	M	8	N	SS
1	2	3	4	5

ORDERING INFORMATION :

	Valves Type	Series
1)	Needle Valves	NV101
		NV103
	Needle Valves with a Bleed Screw	NVD31
	Gauge / Root Valves	VGR23
	Block & Bleed Gauge Valves	BBGV1
	Bleed Valves	VBL03

2)	**End Connection Type**	TT - Tube OD x Tube OD
		FF - Female x Female
		MM - Male x Male
		MF- Male x Female
		FM- Female x Male
		SW - Socket Weld

	End Connection Size Tube Fittings			
	Fractional Tube		**Metric Tube**	
3)	4	1/4"	6m	6mm
	6	3/8″	8m	8mm
	8	1/2"	10m	10mm
	12	3/4"	12m	12mm
	16	1″	22m	22mm
			25m	25mm
			Fractional	
	Pipe End Connection Size		4	1/4"
			6	3/8″
			8	1/2"
			12	3/4"
			16	1″

4)	**End Connection Thread Type**	**N** : NPT (Male / Female)
		RT : BSPT (Male / Female)
		G : BSP (Male)
		RG : BSP (Female)

5)	**Material**	**SS** : SS316
		SSL : SS316L
		CS : Carbon Steel

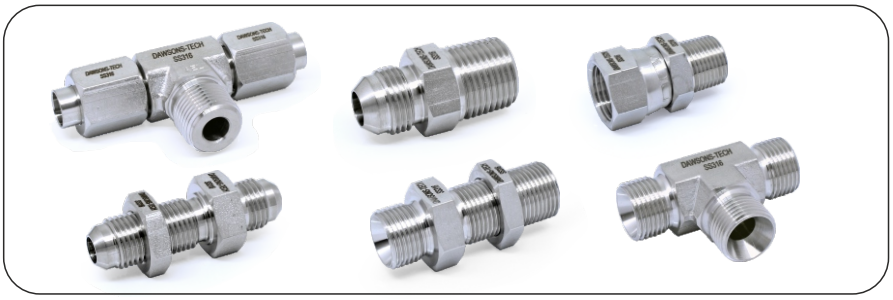
6)	**Packing Material**	**T** : PTFE
		G : Graphite

7)	**Stem Type**	**NR** : Non-Rotating
		VS : 'V' Stem
		SF : Soft Seat Stem
		RS : Regulating Stem

OUR PLEDGE

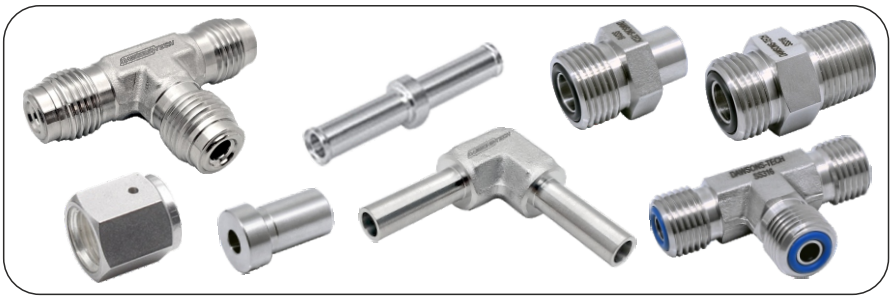
DAWSONS-TECH is self-committed for continuous development and upgradation of its products to meet the growing demands for Industries requirements of Flow Control Components by advanced technology induction and cutting-edge solution which is in-line with focused objective mission

"TO PROVIDE OUR CUSTOMERS WITH CONSISTENT RELIABLE QUALITY PRODUCTS AT RIGHT TIME & COMPETITIVE PRICE"

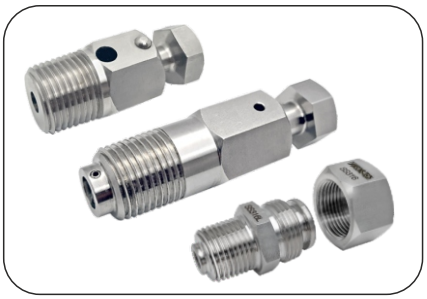


37° Flare Fittings / BSP 60° Cone Fittings

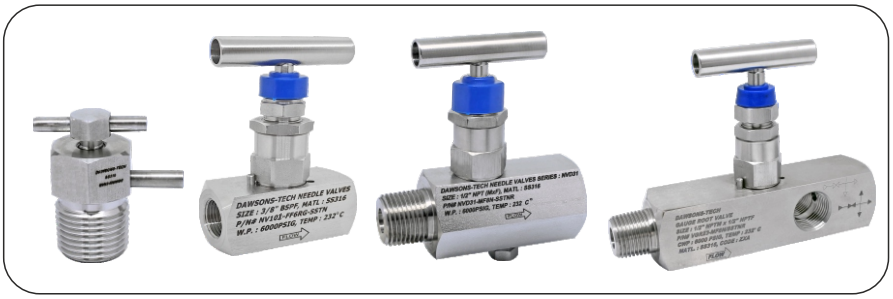
Precision Threaded / Socket / Butt Weld Pipe Fittings & Adapters



High Purity Fittings



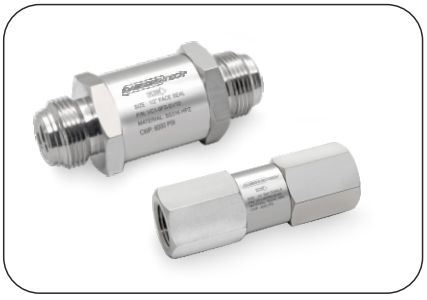
High Pressure Wellhead Components



Instrumentation Valves

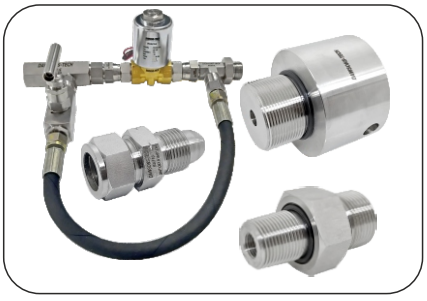
Gauge Cock with Live Load System

High Pressure Ball Valves



Check Valves

Quick Connect Couplings to ISO 16028 & ISO 7241-1 Series B



Customized Fittings and Valves

DAWSONS-TECH

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