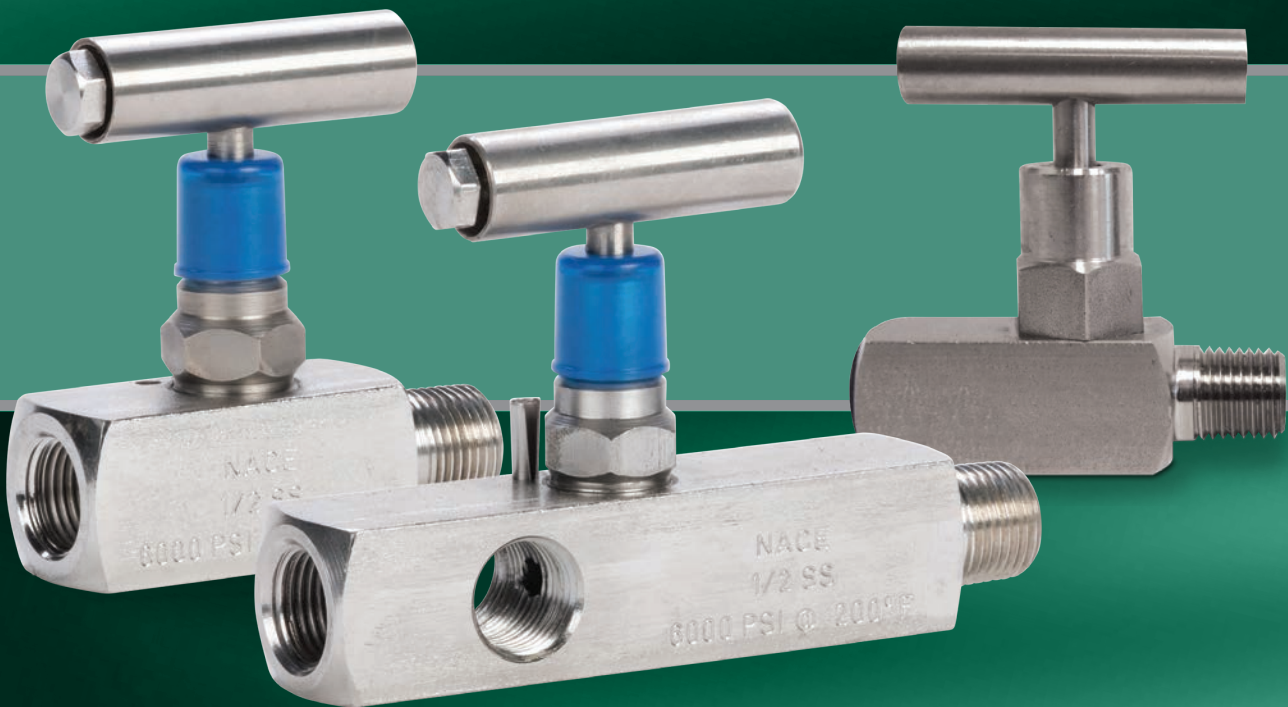




NEEDLE & GAUGE VALVES



FIELD PROVEN VALVES PROVIDING YEARS OF COST EFFECTIVE, EFFICIENT, SAFE AND RELIABLE SERVICE.



NEEDLE & GAUGE VALVES

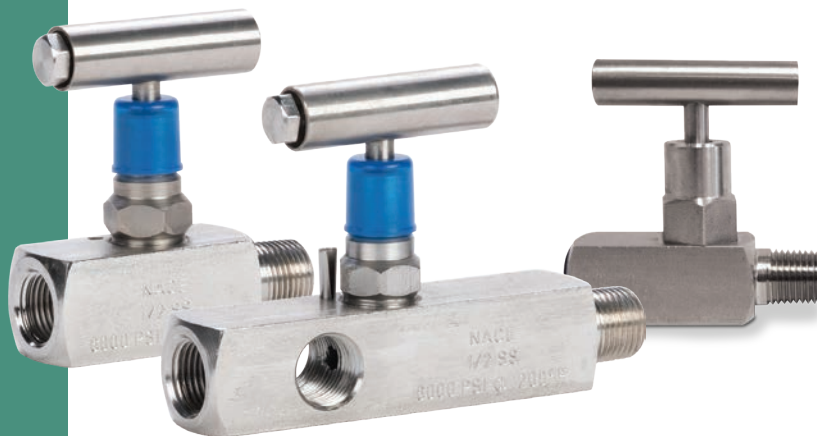
DESCRIPTION

Needle & Gauge valves from Tulsa Valve are the result of comprehensive engineering, precision manufacturing and exhaustive inspection and testing

BENEFITS

Designed to alleviate problems with:

- Internal contamination
- Bonnet and stem blow-out
- Seat failure and leakage
- Steam wear and shortened service life



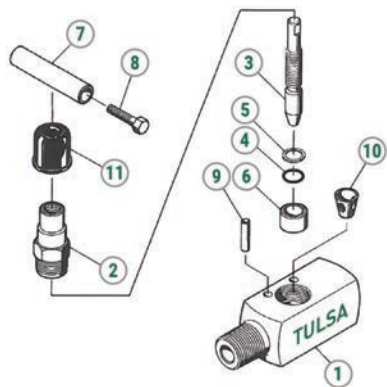
FEATURES

- 1/4", 1/2", 3/4", 1" and 1 1/4" Mini
- Pressure ratings 6,000 and 10,000 psi.
- Carbon Steel and 316 Stainless Steel
- NACE MR0175
- ASME B1.20.1 End Threads

ISO 9001:2000 Certified
Certificate No. C2007-01814



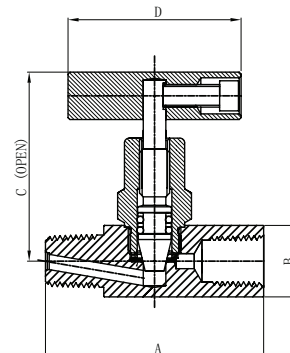
PARTS AND MATERIALS



Index	Description	Materials	
		Carbon Steel	Stainless Steel NACE*
1	Body	AISI 1215 or 12L14	316 Stainless (or CF8M)
2	Bonnet	AISI 1215 or 12L14	316 Stainless
3	Stem	316 Stainless (or CF8M)	
4	Stem Seal	Viton	
5	Stem Seal Back-Up Ring	Viton	
6	Sleeve	AISI 1215 or 12L14	316 Stainless
7	Handle	AISI 1215 or 12L14	303 Stainless
8	Handle Screw	Carbon Steel	18-8 Stainless
9	Bonnet Locking Pin	Spring Steel	18-8 Stainless
10	Seat (soft seat only)	Nylon	
11	Cap	Polyethylene	

SERIES 105 AND 105N
SOFT SEAT
RATING: 6,000 WOG AT 200° F

CONSTRUCTION: Heavy duty barstock body, precision threaded bonnet with bonnet locking pin, back seat stem design, O-ring stem seal, Nylon replaceable soft seat.
END TO END: Standard Male x Female



DIMENSIONS / SPECIFICATIONS

Mini (design) Valve Size	Carbon Steel 105 Series Part #	Stainless Steel 105N Series Part #	WT	A	B	C	D
1/4"	164330	164331	0.4	2.28	0.75	2.13	1.89

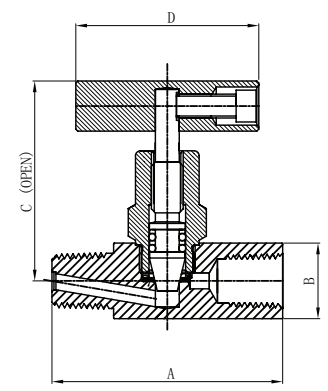


PART NUMBERS & ENGINEERING DATA

SERIES 102 AND 102N SOFT SEAT RATING: 6,000 WOG AT 200°F

CONSTRUCTION: Heavy duty barstock body, precision threaded bonnet with bonnet locking pin, back seat stem design, O-ring stem seal, Nylon replaceable soft seat.
END TO END: Standard Male x Female

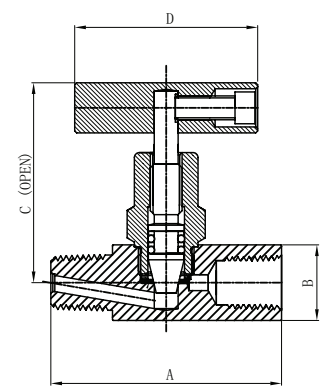
DIMENSIONS / SPECIFICATIONS							
Valve Size	Carbon Steel 102 Series Part #	Stainless Steel 102N Series Part #	WT	A	B	C	D
1/4"	161120	161320	1.53	3.25	1.26	3.35	2.24
1/2"	161140	161340	1.53	3.25	1.26	3.35	2.24
3/4"	161160	161360	6.4	3.25	1.26	3.35	2.24
1"	161180	161380	6.4	3.74	1.69	3.54	2.24



SERIES 101 AND 101N HARD SEAT RATING: 10,000 WOG AT 200°F

CONSTRUCTION: Heavy duty barstock body, precision threaded bonnet with bonnet locking pin, back seat stem design, O-ring stem seal, metal-to-metal stem seating.
END TO END: Standard Male x Female

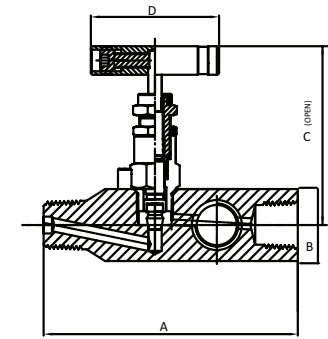
DIMENSIONS / SPECIFICATIONS							
Valve Size	Carbon Steel 101 Series Part #	Stainless Steel 101N Series Part #	WT	A	B	C	D
1/4"	161220	161420	1.53	3.25	1.26	3.35	2.24
1/2"	161240	161440	1.53	3.25	1.26	3.35	2.24



SERIES 104 AND 104N SOFT SEAT RATING: 6,000 WOG AT 200°F

CONSTRUCTION: Heavy duty barstock body, precision threaded bonnet with bonnet locking pin, back seat stem design, O-ring stem seal, Nylon replaceable soft seat.
END TO END: Standard Male x 3 Female

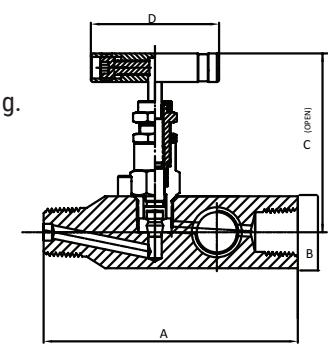
DIMENSIONS / SPECIFICATIONS							
Valve Size	Carbon Steel 104 Series Part #	Stainless Steel 104N Series Part #	WT	A	B	C	D
1/2"	163140	163340	2.29	4.45	1.26	3.23	2.24



SERIES 103 AND 103N HARD SEAT RATING: 10,000 WOG AT 200°F

CONSTRUCTION: Heavy duty barstock body, precision threaded bonnet with bonnet locking pin, back seat stem design, O-ring stem seal, O-ring metal-to-metal stem seating.
END TO END: Standard Male x 3 Female

DIMENSIONS / SPECIFICATIONS							
Valve Size	Carbon Steel 103 Series Part #	Stainless Steel 103N Series Part #	WT	A	B	C	D
1/2"	163240	163440	2.29	4.45	1.26	3.23	2.24





LEADERS IN THE VALVE INDUSTRY

Tulsa Valve is a USA based OEM for a wide range of commonly used valves. The increasing demands to design valves that are more efficient, along with ease of operation, have put Tulsa Valve into a leading position in the industry.



GUARANTEED AGAINST DEFECTS



Tulsa Valve products are guaranteed against defects of material workmanship for One (1) Year from date of invoice provided such products are used normally and within the service and pressure range for which they were manufactured. This guarantee is limited to the repair, replacement or repayment of purchase price. Under no conditions will Tulsa Valve be liable for claim of labor for removal, repair or replacement of Tulsa Valve products, or any other consequential damage.

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