

# CERTIFICATE

Of Conformity according to MSS SP-99-2016a, Clause No. 5.5 & 5.6  
 FOR INSTRUMENTATION NEEDLE VALVES

ORDER NO. : 166225433  
 CERTIFICATE NO. : 166225433-003

No. of Page : 1 of 3

NAME OF MANUFACTURER : **M/s. DAWSONS-TECH COMPONENTS LLP**  
 Unit No. DD - 6 & 7, Khan Real Industrial Estate,  
 N. H. 08, Pelhar, Vasai Phata, Vasai (East),  
 Dist. Palghar - 401208, Maharashtra, INDIA.

### Testing Parameters :

1. Temperature during testing : 20° C to 40° C
2. Pressure Rating : CWP 413 Bar (6000 PSIG)
3. Test Pressure variations : ± 5 % PSIG
4. Test medium : Water
5. Material of Construction : SS316
6. Verification of material properties : Material test certificate reviewed according to MSS SP-99 2016a, Clause No. 3
7. Pressure Gauge : Calibration Certificate reviewed
8. Verification of Dimensions : Verified inspection report with relevant drawing of each components
9. Time for monitoring leakage : 3 minutes
10. Quantity of each size of Valves : 3 Nos

### Valves Description : Needle Valves Series : NV101 & NV103

End Connection Size		Dawsons-Tech Part No.	Pressure Rating	Qty.
Inlet	Outlet			
1/4" NPT (F)	1/4" NPT (F)	NV101-FF4N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
3/8" NPT (F)	3/8" NPT (F)	NV101-FF6N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
1/2" NPT (F)	1/2" NPT (F)	NV101-FF8N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
3/4" NPT (F)	3/4" NPT (F)	NV101-FF12N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
1" NPT (F)	1" NPT (F)	NV101-FF16N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
1/4" NPT (M)	1/4" NPT (F)	NV103-FF4N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
3/8" NPT (M)	3/8" NPT (F)	NV103-FF6N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
1/2" NPT (M)	1/2" NPT (F)	NV103-FF8N-SSTNR	413 Bar (6000 PSIG)	3 Nos.
3/4" NPT (F)	3/4" NPT (F)	NV103-FF12N-SSTNR	413 Bar (6000 PSIG)	3 Nos.





**CERTIFICATE NO. : 166225433-003**
**No. of Page : 2 of 3**
**Procedure of Hydrostatic Proof Test and Burst Test :**

Carry out the Hydrostatic Proof and Burst Test in accordance with MSS SP-99-2016a, Clause No. 5.5 &amp; 5.6.

**Test Result :**

The test result shown below for the Hydrostatic Proof Test and Burst Test in accordance with MSS SP-99-2016a, Clause No. 5.5 &amp; 5.6.

- Each Valve tested Hydrostatic Proof Test to 2 x CWP i.e. 2 x 413 Bar (6000 PSIG) = 826 Bar (12,000 PSIG)
- After successfully completion of Hydrostatic Proof Test carried out the Hydrostatic Burst Test

The Burst Test CWP rating calculated using following formula

$$\text{i.e. } P \leq 0.25 \text{ BTm} / \text{Ta}$$

**Where :** P = CWP Rating

B = The lowest burst test pressure recorded for three Valves tested

Ta = Actual tensile strength of the Valves tested

Tm = Specified minimum tensile strength of the material

Tested Valve No.	Hydrostatic Proof Test Result	Hydrostatic Burst Test Result
NV101-FF4N-SSTNR/1	PASS*	PASS**
NV101-FF4N-SSTNR/2	PASS*	PASS**
NV101-FF4N-SSTNR/3	PASS*	PASS**
NV101-FF6N-SSTNR/1	PASS*	PASS**
NV101-FF6N-SSTNR/2	PASS*	PASS**
NV101-FF6N-SSTNR/3	PASS*	PASS**
NV101-FF8N-SSTNR/1	PASS*	PASS**
NV101-FF8N-SSTNR/2	PASS*	PASS**
NV101-FF8N-SSTNR/3	PASS*	PASS**
NV101-FF12N-SSTNR/1	PASS*	PASS**
NV101-FF12N-SSTNR/2	PASS*	PASS**
NV101-FF12N-SSTNR/3	PASS*	PASS**
NV101-FF16N-SSTNR/1	PASS*	PASS**
NV101-FF16N-SSTNR/2	PASS*	PASS**
NV101-FF16N-SSTNR/3	PASS*	PASS**
NV103-FF4N-SSTNR/1	PASS*	PASS**
NV103-FF4N-SSTNR/2	PASS*	PASS**
NV103-FF4N-SSTNR/3	PASS*	PASS**
NV103-FF6N-SSTNR/1	PASS*	PASS**
NV103-FF6N-SSTNR/2	PASS*	PASS**
NV103-FF6N-SSTNR/3	PASS*	PASS**
NV103-FF8N-SSTNR/1	PASS*	PASS**
NV103-FF8N-SSTNR/2	PASS*	PASS**
NV103-FF8N-SSTNR/3	PASS*	PASS**
NV103-FF12N-SSTNR/1	PASS*	PASS**
NV103-FF12N-SSTNR/2	PASS*	PASS**
NV103-FF12N-SSTNR/3	PASS*	PASS**



**CERTIFICATE NO. : 166225433-003**

**No. of Page : 3 of 3**

**PASS\*** : No leakage detected during the test.

**PASS\*\*** : No rupture or damage noted on the Valves body during the test.

The calculation test of CWP rating are based on the Burst Pressure recorded in accordance with MSS SP-99-2016a, Clause No. 5.6 are as per attached following test report :

- |                    |                    |
|--------------------|--------------------|
| 1. DTMSS-NV101-4N  | 6. DTMSS-NV103-4N  |
| 2. DTMSS-NV101-6N  | 7. DTMSS-NV103-6N  |
| 3. DTMSS-NV101-8N  | 8. DTMSS-NV103-8N  |
| 4. DTMSS-NV101-12N | 9. DTMSS-NV103-12N |
| 5. DTMSS-NV101-16N |                    |

**Comments :**

DAWSONS-TECH Instrumentation Needle Valves Series : NV101 & NV103 meets the requirements of Hydrostatic Proof Test and Hydrostatic Burst Test in accordance with MSS SP-99-2016a, Clause No. 5.5 & 5.6.

For, **TUV Rheinland (India) Pvt. Ltd.**



Malcolm Dadina  
(General Manager - Industrial Services)

Date : 29/01/2020