

CERTIFICATE

Of Conformity according to MSS SP-99-2016a, Clause No. 5.5 & 5.6
 FOR HIGH PRESSURE BALL VALVES

ORDER NO. : 166225433

CERTIFICATE NO. : 166225433-002

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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 : Ball Valves Series : VB71, VB81 & VB91

| End Connection Size | | Dawsons-Tech Part No. | Pressure Rating | Qty. |
|---------------------|--------------|-----------------------|---------------------|--------|
| Inlet | Outlet | | | |
| 1/4" NPT (F) | 1/4" NPT (F) | VB71-FF4N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 3/8" NPT (F) | 3/8" NPT (F) | VB71-FF6N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 1/2" NPT (F) | 1/2" NPT (F) | VB71-FF8N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 3/4" NPT (F) | 3/4" NPT (F) | VB71-FF12N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 1" NPT (F) | 1" NPT (F) | VB71-FF16N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 1/4" NPT (M) | 1/4" NPT (F) | VB81-FF4N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 3/8" NPT (M) | 3/8" NPT (F) | VB81-FF6N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 1/2" NPT (M) | 1/2" NPT (F) | VB81-FF8N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 3/4" NPT (F) | 3/4" NPT (F) | VB81-FF12N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 1/4" NPT (M) | 1/4" NPT (F) | VB91-FFF4N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 3/8" NPT (M) | 3/8" NPT (F) | VB91-FFF6N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 1/2" NPT (M) | 1/2" NPT (F) | VB91-FFF8N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |
| 3/4" NPT (F) | 3/4" NPT (F) | VB91-FFF12N/SSKV | 413 Bar (6000 PSIG) | 3 Nos. |



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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 & 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 & 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 |
|-------------------|-------------------------------|-------------------------------|
| VB71-FF4N/SSKV/1 | PASS* | PASS** |
| VB71-FF4N/SSKV/2 | PASS* | PASS** |
| VB71-FF4N/SSKV/3 | PASS* | PASS** |
| VB71-FF6N/SSKV/1 | PASS* | PASS** |
| VB71-FF6N/SSKV/2 | PASS* | PASS** |
| VB71-FF6N/SSKV/3 | PASS* | PASS** |
| VB71-FF8N/SSKV/1 | PASS* | PASS** |
| VB71-FF8N/SSKV/2 | PASS* | PASS** |
| VB71-FF8N/SSKV/3 | PASS* | PASS** |
| VB71-FF12N/SSKV/1 | PASS* | PASS** |
| VB71-FF12N/SSKV/2 | PASS* | PASS** |
| VB71-FF12N/SSKV/3 | PASS* | PASS** |
| VB71-FF16N/SSKV/1 | PASS* | PASS** |
| VB71-FF16N/SSKV/2 | PASS* | PASS** |
| VB71-FF16N/SSKV/3 | PASS* | PASS** |
| VB81-FF4N/SSKV/1 | PASS* | PASS** |
| VB81-FF4N/SSKV/2 | PASS* | PASS** |
| VB81-FF4N/SSKV/3 | PASS* | PASS** |
| VB81-FF6N/SSKV/1 | PASS* | PASS** |
| VB81-FF6N/SSKV/2 | PASS* | PASS** |
| VB81-FF6N/SSKV/3 | PASS* | PASS** |
| VB81-FF8N/SSKV/1 | PASS* | PASS** |
| VB81-FF8N/SSKV/2 | PASS* | PASS** |
| VB81-FF8N/SSKV/3 | PASS* | PASS** |
| VB81-FF12N/SSKV/1 | PASS* | PASS** |
| VB81-FF12N/SSKV/2 | PASS* | PASS** |
| VB81-FF12N/SSKV/3 | PASS* | PASS** |



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| Tested Valve No. | Hydrostatic Proof Test Result | Hydrostatic Burst Test Result |
|--------------------|-------------------------------|-------------------------------|
| VB91-FFF4N/SSKV/1 | PASS* | PASS** |
| VB91-FFF4N/SSKV/2 | PASS* | PASS** |
| VB91-FFF4N/SSKV/3 | PASS* | PASS** |
| VB91-FFF6N/SSKV/1 | PASS* | PASS** |
| VB91-FFF6N/SSKV/2 | PASS* | PASS** |
| VB91-FFF6N/SSKV/3 | PASS* | PASS** |
| VB91-FFF8N/SSKV/1 | PASS* | PASS** |
| VB91-FFF8N/SSKV/2 | PASS* | PASS** |
| VB91-FFF8N/SSKV/3 | PASS* | PASS** |
| VB91-FFF12N/SSKV/1 | PASS* | PASS** |
| VB91-FFF12N/SSKV/2 | PASS* | PASS** |
| VB91-FFF12N/SSKV/3 | PASS* | PASS** |

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-VB71-4N | 8. DTMSS-VB81-8N |
| 2. DTMSS-VB71-6N | 9. DTMSS-VB81-12N |
| 3. DTMSS-VB71-8N | 10. DTMSS-VB91-4N |
| 4. DTMSS-VB71-12N | 11. DTMSS-VB91-6N |
| 5. DTMSS-VB71-16N | 12. DTMSS-VB91-8N |
| 6. DTMSS-VB81-4N | 13. DTMSS-VB91-12N |
| 7. DTMSS-VB81-6N | |

Comments :

DAWSONS-TECH High Pressure Ball Valves Series : VB71, VB81 & VB91 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 : 28/01/2020