



INSPECTION REPORT N° JEL/BVINDB/POD/IR/03	
<input type="checkbox"/> Initial <input type="checkbox"/> Interim <input checked="" type="checkbox"/> Final <input type="checkbox"/> Resident	
Inspection requested by: M/s Jash Engineering Ltd. (SEZ).	
BV Job Nr: IND.V.4.19.0600 (I),	ZIG NO- 6108590

Project: Performance test of stainless steel wall mounted slide gate for 100000 operation cycle.	IPO Ref (If applicable): (BV internal P/o)
BV Client: M/s Jash Engineering Ltd. (SEZ).	P/o nr: Acceptance of Proposal. (client to BV)
Manufacturer/Vendor: M/s Jash Engineering Ltd. (SEZ).	P/o nr: Not Applicable. (client to Manufacturer)
Sub-Vendor (If applicable): Not Applicable.	
Inspection Location: M/s Jash Engineering Ltd. (SEZ).Pithampur MP.	Previous Inspection : 05 &13.05.2021
Inspection performed on: 05,13 & 20.05.2021	Next Inspection (If applicable): Not Applicable.

MATERIAL / SUBJECT OF INSPECTION <input type="checkbox"/> Refer to attachment section J instead (Indicate if separate material list is provided in attachment)	ITEM / TAG Nr	QTY As per P/O	QTY Offered for inspection
PERFORMANCE TEST FOR 100000 OPERATION CYCLE STAINLESS STEEL FABRICATED SLIDE GATE, SIZE- 24" X 24 " , SERIES A 112 MATERIAL OF CONSTRUCTION-ASTM A 240 TP 304, SEALING MATERIAL-EPDM RUBBER	Gate Serial No 201912208	--	01 No.

A – INSPECTION RESULT			
<input checked="" type="checkbox"/> Satisfactory (Without comments)	<input type="checkbox"/> Satisfactory with comments (Any oftrailing Punch or Non Conformity items still open)	<input type="checkbox"/> Not Satisfactory (NCR raised duringthe inspection)	<input type="checkbox"/> Not Satisfactory
Inspection Summary: (for details refer to section E) ➤ Product performance of Slide gate size 24" x 24 " , was verified – by witnessing the leakage rate before the start of the test, at intermediate stage (At 50000 Cycles) & after completion of 100000 cycles – The results of the leak rate across the sealing face was found confirming to the requirement of AWWA C561-14 clause 5.2.			
Open Non Conformities:	<input type="checkbox"/> Yes, details in section G	<input checked="" type="checkbox"/> No	
Open Punch List Items:	<input type="checkbox"/> Yes, details in section H	<input checked="" type="checkbox"/> No	
Release Note Issued:	<input type="checkbox"/> Yes, number: Not applicable	<input checked="" type="checkbox"/> No	
BV Traceability Stamping	<input type="checkbox"/>	<input type="checkbox"/>	

BV Inspector: Narendra karma Cont. No.+91 9111003977 		BV Coordinator: Mr. Rahul Tiwari Cont. No.+91 9826042677
BV Office:Indore		Inspection Report Date: 20.05.2021
Distribution: <input checked="" type="checkbox"/> CLIENT <input checked="" type="checkbox"/> BV <input type="checkbox"/> OTHER :		Attachments Report: <input checked="" type="checkbox"/> Yes, details in section J <input type="checkbox"/> No



B - REFERENCE DOCUMENTATION:

Refer to attachment section J instead
(Indicate if separate document list is provided in attachment)

Title	Reference n°	Rev.	Approval status	Approved by	Date
Specification	AWWA C561-14	----	----	----	----

C - ATTENDEES

Name	Position	Representing	E-Mail ID	Phone No.
Mr. Rohit Rathi	Sr. Manager QA	M/s Jash Engineering Ltd. (SEZ).	rohitrathi@jashindia.com	+91 97555 99658
Narendra Karma	Field Inspector	M/s BVIL-Indore	Narendra.karma@bureauveritas.com	+91 9111003977

D - MEASURING & TESTING EQUIPMENT USED

Refer to attachment section J instead
(Indicate if separate equipment list is provided in attachment)

Equipment Type	Equipment Identity n°	Calibration traceable to NABL/ISO 17025 accredited lab(Yes/No)	Last Calibration Date	Expiry Date
Pressure Gauge (0-1.06 kg/cm ²)	MPC-195888Y	Yes (CC 2304)	20/06/2020	19/06/2021

Whether above equipment(s) checked for suitability and condition (Yes/No)

E - INSPECTION DETAILS

Sr.no.	QAP stages	Evidences attached (Yes/No)
		Not Applicable

E1 – Details of Witness (W) & Hold (H) Inspection Points

➤ **Details of inspection activities carried out with respect to scope of work:**

BV Scope of work- To witness leakage rate in slide gate under simulated site conditions after 100000 operation cycle.

- 1) Stainless steel fabricated slide gate (size-24" x 24 ") bearing serial no-201912208 with pneumatic actuator mounted on test bench was visually verified for simulation of site condition & cycle control.
- 2) Before initiation of the cyclic test of 100000 Nos , the gate was subjected to hydro test at gauge pressure of 0.6 Kg/cm² (equivalent 20 feet water head), and leakage rate of 600 ml/min (0.0158 gpm^{**}) was noted during this test.– which was found within stipulated permissible leakage as per AWWA C561-14.
- 3) Operation test started on 05.05.2020 with initial counter meter reading 00000 and counter meter sealed.
- 4) At intermediate stage after completion of 50000 operation cycles (at 50000 cycle) , the slide gate was subjected to hydro test at 0.6 Kg/cm² (equivalent 20 feet of water head) as per drawing, and leakage rate of 180 ml/min (0.0475 gpm^{**}) was noted during this test – which was found within stipulated permissible leakage as per AWWA C561-14.
- 5) Operation test continued to complete further 50000 cycles.





6) On completion of 100000 operation cycles with counter meter reading 100000, hydrostatic test at 0.6 Kg/cm² (equivalent 20 feet of water head) as per drawing, and leakage rate of 220 ml/min (0.0581 gpm^{**}) was noted during the test. – within stipulated permissible leakage as per AWWA C561-14.

7) After completion of 100000 operation cycle gate removed from test assembly and sealing material visually verified for any significant wear – Noted no damage to guides and seals of the job.

**** gpm- US Gallons per Minute**

➤ **Suitability of Instruments used-**
– Pressure Gauge with range 0-1.06 Kg/Cm² and least count of 0.5 kg per cm² found suitable and in good working condition at the time of inspection.

➤ **Results of Inspection:** - Results of leakage test after completion of operation cycle were found within stipulated permissible leakage as per AWWA C561-14 clause 5.2.

E2 – Details of Monitoring and Surveillance Patrols Tick if conducted during the visit

Monitoring/Surveillance Not Carried out during visit.

E3 – Details of Certificates Review Tick if conducted during the visit

- Calibration certificate of measuring instrument were verified -found in order.

BVIL has only verified the technical content during the certificate review of bought out item(s) and is not accountable for any compliance with lab traceability to ISO/IEC 17025 or NABL Accredited laboratory.

E4 – Problem Pending / Area Of Concern : Nil.

E5 – Manufacturing Process Status : Not applicable.

F –HEALTH, SAFETY& ENVIRONMENT COMMENTS

(Comment on Observations and Actions Taken During the Inspection)

1. Whether the safety requirement is assessed by using two minutes of safety booklet for my safety. (Yes/No)
Yes.

G- NON CONFORMITIES Refer to attachment section J instead
(Indicate if separate punch list is provided in attachment)

Item	Description	Status	Raised on	Report #	Closed on	Report #	Comments
Nil.							

H – PUNCH LIST Refer to attachment section J instead
(Indicate if separate punch list is provided in attachment)

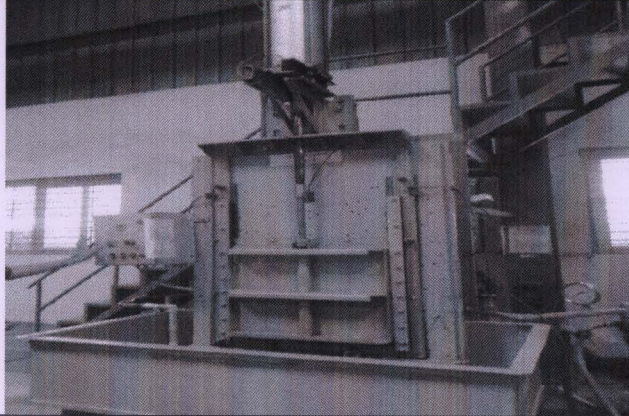
Item	Description	Status	Raised on	Report #	Closed on	Report #	Comments
Nil.							



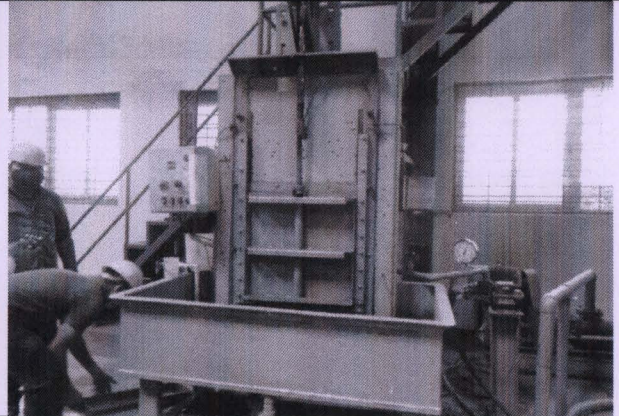


BUREAU
VERITAS

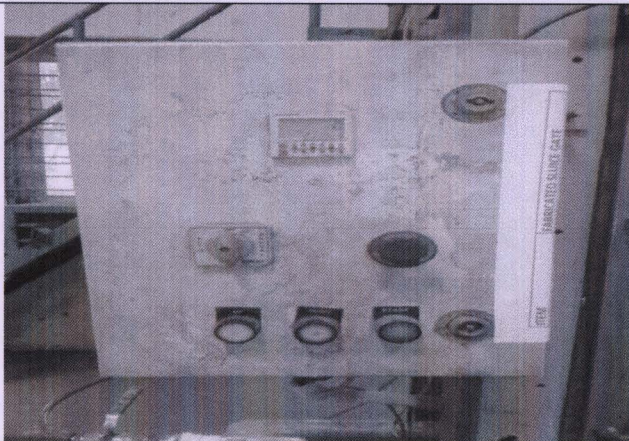
I - DIGITAL PICTURES



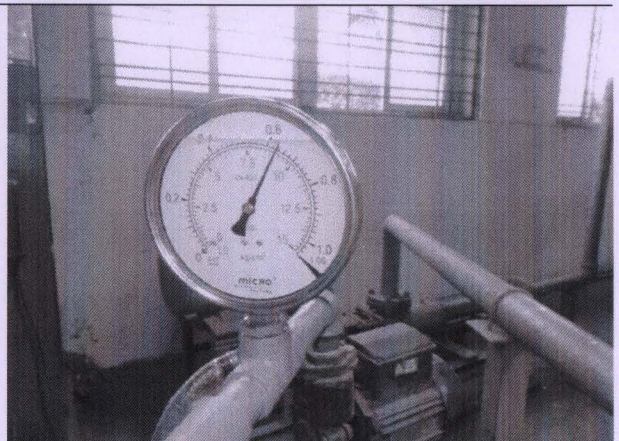
Description: Slide gate valve.



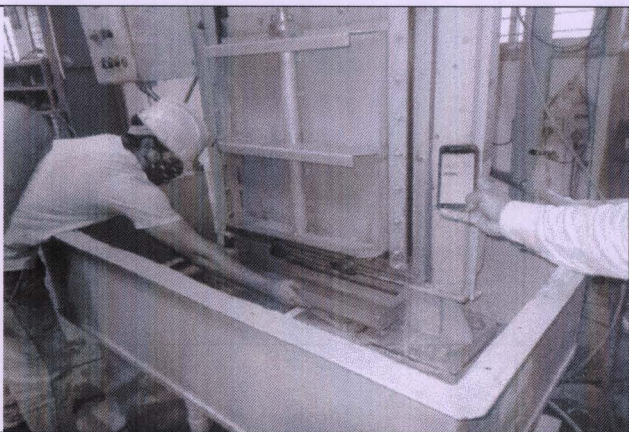
Description: Slide gate valve.



Description: Counter meter from 0 cycles



Description: Hydrostatic test pressure before start operation cycle (0.6kg/cm²)

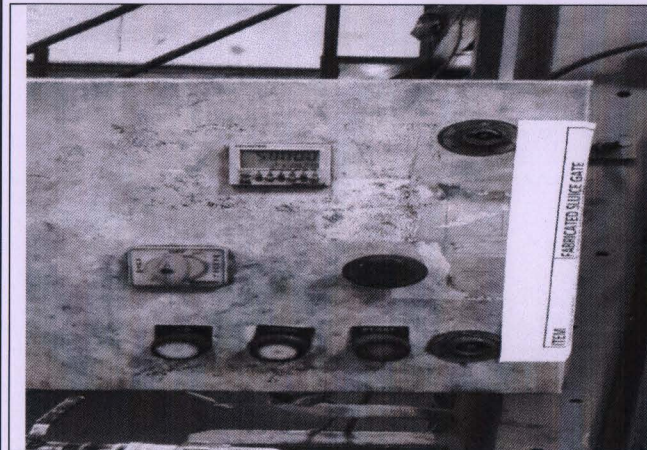


Description: leakage rate before start operation cycle (Found 600ml).

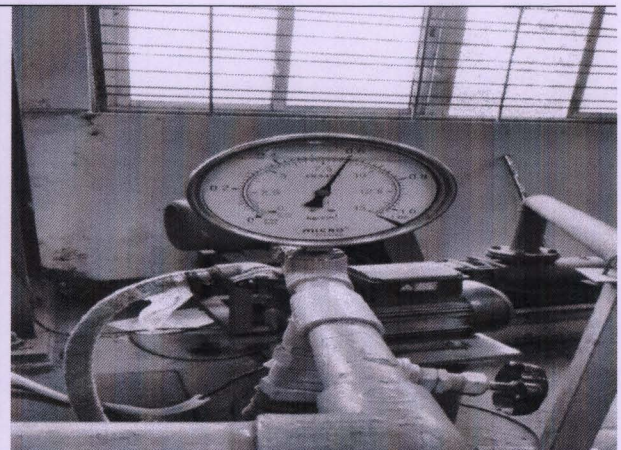


Description: Observed leakage rate before start operation cycle (Found 600ml).

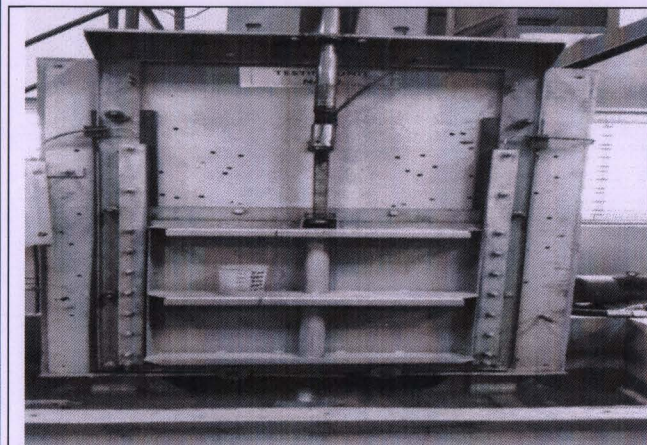




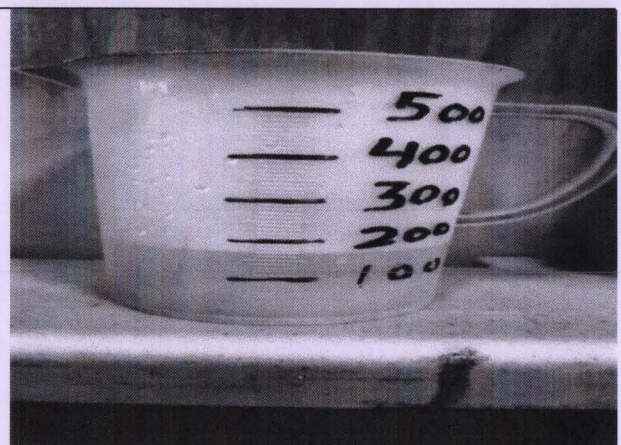
Description: Counter meter at 50000 cycles.



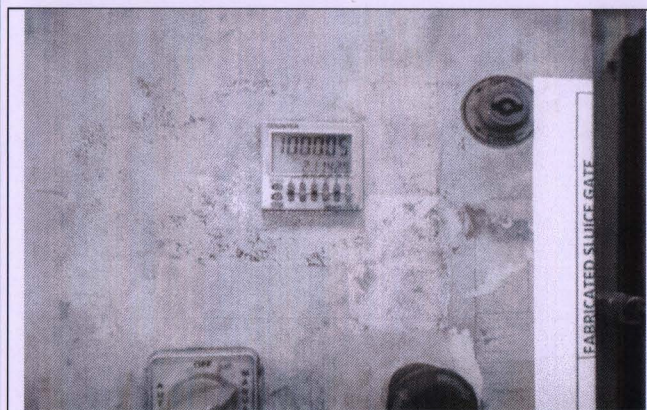
Description: Hydrostatic test pressure at 50000 cycle (0.6kg/cm²).



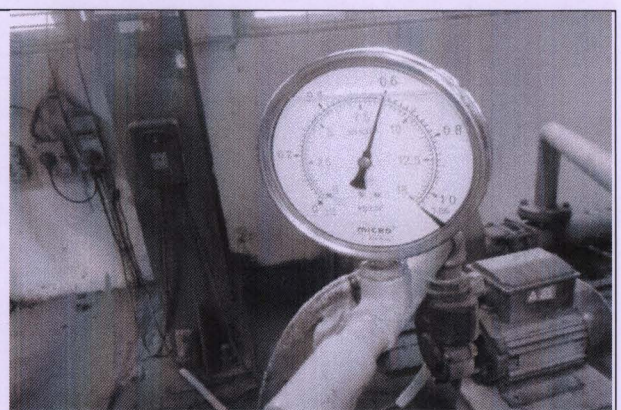
Description: Observed leakage rate after operation test of 50000 cycle (Found 180ml).



Description: Observed leakage rate after operation test of 50000 cycle (Found 180ml).



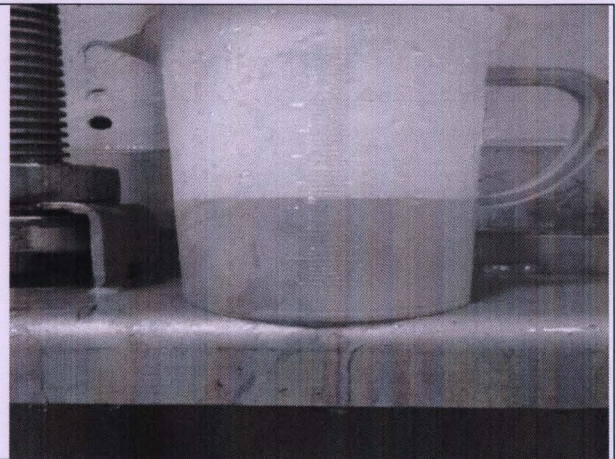
Description: Counter meter after complete 100000 cycles.



Description: Hydrostatic test pressure after complete 100000 cycles (0.6kg/cm²).



Description: Observed leakage rate after complete 100000 cycles (Found 220ml).



Description: Observed leakage rate after complete 100000 cycles (Found 220ml).

J – ATTACHMENTS

Item	Attachment Name	Total Pages	Description
1	Annexure-1	1	Slide gate performance validation reports.
2	Annexure-2	1	Calibration certificates.

END OF REPORT



SLIDE GATE PERFORMANCE VALIDATION

Product Details	Sluice Gate / Slide Gate
Applicable Standard	AWWA C 561-14
Location of Test Facility	RODNEY HUNT (A Division of Jash Engineering Ltd.), M-19, SEZ Phase -II, Misc. Zone Pithampur-454775, Dist. Dhar, Madhya Pradesh, India
Material of the Slide	Stainless Steel ASTM A 240
Material of Seals / Guides	UHMWPE ASTM D 4020
No of Operation Cycle	100000 cycles
Test Media	Water with Abrasive Silica Sand
Size of slide Gate	24 inch X 24 inch
Leakage rate across sealing surface (Unseating) - 20 feet water head	Allowable leakage rate as per AWWA 561 : 14 0.800 gpm / 3.02 lpm
(A) Before start of cycle test (Observed)	0.158 gpm / 0.60 lpm
(B) After completion of 50000 cycles (Observed)	0.048 gpm / 0.18 lpm
(C) After completion of 100000 cycles (Observed)	0.058 gpm / 0.22 lpm
Rodney Hunt and Jash gate series cover the above Sealing system	Series A 112, A113,A 211,A 212,A 213, A311
Sealing Nomenclature	HARSA™ (High Abrasion Resistant and Self Adjusting) sealing system comprises of low friction seals of Ultra- high-molecular-weight polyethylene fitted on frame with compression resilient cord seal.

Conclusion :

The product tested has shown excellent wear resistance and leakage control characteristics, based on the final leakage rate noted after completion of the test.

Leak rate after completion of Cycle test was well within 7.3% of the permissible value.

Organization: RODNEY HUNT



Inspection Agency: Bureau Veritas India Pvt. Ltd.



Quality Head : Rohit Rathi

Surveyor Name : Narendra Karma

Signature : *Rohit Rathi*

Signature :



Date: 20/05/2021

Date : 20/05/2021

20/05/21