WATER ASSESSMENT REPORT

Jalsenx
Intelligent Water Technologies



Royal Vrindavan Dehradun

HOTEL ROYAL VRINDAVAN

FAUCET FLOW ASSESSMENT

Jalsenx conducted an on-site faucet flow assessment to evaluate water-saving potential using different aerator solutions without compromising user experience.

Savings projection
100 UNITS
BASEMENT WASHROOM

MEASURED FLOW REDUCTION
66% – 83%
Depending on Solution

ESTIMATED ANNUAL SAVINGS
₹1,23,516 – ₹1,55,052
Depending on Solution

ESTIMATED PAYBACK
1 MONTH
Depending on Solution

1. MEASURED RESULTS – FAUCET FLOW

EXISTING FLOW (BEFORE)
14.2
LPM
Existing Flow Rate

→

WITH 4 LPM FOAM AERATOR
4.8
LPM
Flow Rate After Installation (66% Reduction)

→

WITH 2 LPM SPRAY AERATOR
2.4
LPM
Flow Rate After Installation (83% Reduction)

WATER REDUCTION COMPARISON



2. ANNUAL SAVINGS POTENTIAL (BASED ON 100 AERATORS)

OPTION 1 — **4 LPM FOAM AERATOR**



Water Reduction	Water Saved	Annual Cost Savings	Estimated Payback
66%	6,862 KL / YEAR	₹1,23,516	1 MONTH

Ideal for maintaining a comfortable flow while achieving significant water savings.

OPTION 2 — **2 LPM SPRAY AERATOR**



Water Reduction	Water Saved	Annual Cost Savings	Estimated Payback
83%	8,614 KL / YEAR	₹1,55,052	1 MONTH

Ideal for areas where maximum water conservation is the priority.

3. COMPARISON AT A GLANCE

PARAMETER	EXISTING (WITHOUT AERATOR)	4 LPM FOAM AERATOR	2 LPM SPRAY AERATOR
Flow Rate (LPM)	14.2	4.8	2.4
Water Reduction	-	66%	83%
Water Saved (KL / Year)	-	6,862	8,614
Annual Cost Savings (₹)	-	₹1,23,516	₹1,55,052
Estimated Payback Period	-	1 MONTH	1 MONTH

** Calculations based on: 100 aerators, 20 minutes/day usage per fixture, 365 days/year, water cost @ ₹18 per KL.*

4. DEMONSTRATION DETAILS

PRODUCTS DEMONSTRATED
4 LPM Foam Faucet Aerator, 2LPM Spray Faucet Aerator

UNITS DEMONSTRATED
100 Pieces

FLOW RATE BEFORE DEMONSTRATION
14.2 LPM

FLOW RATE AFTER DEMONSTRATION (4 LPM)
4.8 LPM

FLOW RATE AFTER DEMONSTRATION (2LPM)
2.4 LPM

OBSERVED FLOW REDUCTION
66% (4 LPM) | 83% (2 LPM)

5. SAVINGS CALCULATION (100 AERATORS)

4 LPM Foam Aerator

- Flow Reduction per Aerator: 14.2 − 4.8 = 9.4 LPM
- Daily Water Saved per Aerator: 9.4 × 20 = 188 L/day
- Daily Water Saved (100 Aerators): 188 × 100 = 18,800 L/day
- Annual Water Saved: 18,800 × 365 / 1000 = 6,862 KL/year
- Annual Cost Savings: 6,862 × ₹18 = ₹1,23,516

2 LPM Spray Aerator

- Flow Reduction per Aerator: 14.2 − 2.4 = 11.8 LPM
- Daily Water Saved per Aerator: 11.8 × 20 = 236 L/day
- Daily Water Saved (100 Aerators): 236 × 100 = 23,600 L/day
- Annual Water Saved: 23,600 × 365 / 1000 = 8,614 KL/year
- Annual Cost Savings: 8,614 × ₹18 = ₹1,55,052

6. RECOMMENDATION

✓ RECOMMENDED SOLUTION FOR GENERAL APPLICATIONS
4 LPM FOAM AERATOR

- Significant water savings with comfortable flow
- Ideal for washrooms, basements & general use areas
- Faster adoption with excellent user satisfaction

✓ MAXIMUM SAVINGS OPTION
2 LPM SPRAY AERATOR

- Higher water and cost savings
- Suitable for areas where lower flow is operationally acceptable
- Recommended for selective installation

For optimal results, use 4 LPM in guest-facing areas and 2 LPM in back-of-house / low-flow applications.

ABOUT JALSENX

Jalsenx provides high-performance, retrofit water-saving aerators and flow regulators for hotels, hospitals, commercial buildings and institutions across India.

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Disclaimer: Measured results are based on the assessed fixtures and operating conditions. Actual water savings may vary depending on usage patterns and operating conditions.