

## Case Study

# Enhancing Hair Care Performance Using NICO Nanobubble Technology



## Overview

Water quality plays a critical role in salon hair care outcomes, directly influencing cleansing efficiency, scalp health, and hair texture. Conventional water systems often require higher chemical usage and multiple wash cycles to achieve desired results, leading to increased operational cost and inconsistent customer experience.

This case study evaluates the implementation of NICO Nanobubble Technology at The Square Salon, New Delhi, demonstrating how oxygen-enriched nanobubble water transforms hair wash processes into a more efficient, gentle, and high-performance experience.

## Project Details

- **Application:** Salon Hair Wash & Scalp Treatment
- **Location:** The Square Salon, New Delhi, India
- **Technology:** NICO AURA 360 Nanobubble System
- **Gas Used:** Oxygen (O<sub>2</sub>)
- **Integration Point:** Hair wash water supply line



## Objective

It improves hair softness while enhancing natural conditioning, leaving hair smoother and more manageable. At the same time, it promotes better scalp cleanliness and hygiene, supporting overall hair health. With these benefits, it helps reduce dependency on shampoos and conditioners, simplifying hair care routines. Altogether, it delivers a premium and differentiated customer experience.

## Pre-Implementation Challenges

Prior to nanobubble integration, the salon faced common limitations associated with conventional water usage:

- Inefficient removal of oil, dirt, and product residues
- Higher consumption of shampoo and conditioners
- Multiple wash cycles required for effective cleaning
- Hair dryness and rough texture post-wash
- Residual scalp buildup affecting long-term hair health
- Increased service time and operational cost

## NICO Nanobubble Solution

NICO implemented a nanobubble-based system that generates ultra-fine oxygen bubbles (<200 nm), transforming water into a highly active medium with enhanced cleaning and conditioning capabilities.

Key Functional Benefits:

- **Deep Cleansing:** Removes oil, dirt, and chemical residues more effectively
- **Enhanced Shampoo Efficiency:** Improves lathering and cleaning action
- **Natural Conditioning Effect:** Leaves hair softer, smoother, and manageable
- **Scalp Detoxification:** Improves scalp hygiene and reduces buildup
- **Improved Hydration:** Enhances moisture retention in hair fibers
- **Chemical Reduction:** Minimizes dependence on conditioners and additives



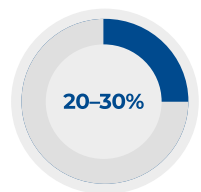
Before

After

## Performance Outcomes

Parameter	Unit	Conventional Water	NICO Nanobubble Water
Shampoo Consumption	%	100% (baseline)	70-80%
Conditioner Usage	%	100% (baseline)	60-75%
Wash Cycles Required	cycles	2-3 cycles	1-2 cycles
Time per Hair Wash	%	100% (baseline)	80-85%
Cleaning Efficiency	-	Moderate	High
Hair Softness	%	Baseline	+25-35% improvement
Scalp Cleanliness	-	Moderate	High
Customer Experience	-	Standard	Premium

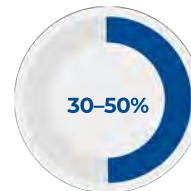
### Improvement



Reduced Shampoo & Conditioner Consumption



Reduced Blowing Time



Reduced Wash Cycles

### Impact Analysis

The adoption of nanobubble technology resulted in measurable improvements in both operational efficiency and customer satisfaction:

- **Reduced Chemical Consumption:** Lower usage of shampoo and conditioners
- **Improved Hair Quality:** Softer, shinier, and more manageable hair
- **Enhanced Scalp Health:** Cleaner scalp with reduced residue and irritation
- **Faster Service Delivery:** Reduced wash cycles improved turnaround time
- **Operational Cost Savings:** Lower product usage and water consumption
- **Premium Customer Experience:** Noticeable improvement in hair feel and finish
- **Brand Differentiation:** Positioned as a technology-driven premium salon
- **Sustainable Practice:** Reduced chemical discharge and environmental impact

### Conclusion

The implementation of NICO nanobubble technology at The Square Salon demonstrates a clear transformation in salon hair care performance. By converting conventional water into an oxygen-enriched, highly active medium, the system enables superior cleansing, natural conditioning, and improved scalp health while significantly reducing chemical dependency.

This case study establishes nanobubble technology as a next-generation solution for premium salon and personal care applications, delivering both operational efficiency and enhanced customer experience.