NanoSoft™

THE WATER SOFTENER REPLACEMENT

POWERED BY NANOBUBBLE TECHNOLOGY

COMMERCIAL FIELD CASE STUDY

Pit Stop | Milwaukee, Wisconsin

Water softener replacement at Pit Stop Touch Free Car Wash

2021 W Silver Spring Dr, Milwaukee, Wisconsin

Pit Stop switched off its salt-based softener when CRS installed NanoSoft™ and a separate CRS538 on October 17, 2025. RO permeate TDS improved from 4 to 3 ppm in approximately two weeks. When a storm shut down the NanoSoft pump, the CRS538 remained in service, but TDS rose to 25 ppm. Restarting NanoSoft restored 3 ppm within three days; that reading held through September 1, 2026.

3 ppm
Latest recorded permeate TDS

8.3×
TDS rise during pump shutdown

3 days
Return from 25 to 3 ppm

RO performance through the interruption

Observation date	Operating condition	Permeate TDS
Oct. 17, 2025	Baseline / softener switched off	4 ppm
Oct. 31, 2025	Approximately two weeks after installation	3 ppm
Mar. 1, 2026	Normal NanoSoft operation	3 ppm
Mar. 15, 2026	**NanoSoft pump off; CRS538 still in service**	**25 ppm**
Mar. 18, 2026	NanoSoft pump restarted	3 ppm
May 26, 2026	Follow-up check	3 ppm
Sept. 1, 2026	Latest follow-up check	3 ppm

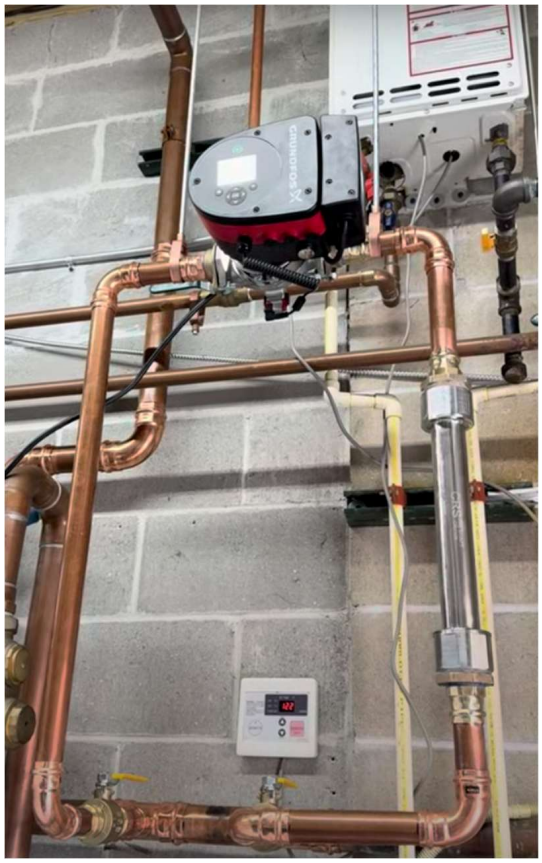
TDS = total dissolved solids. Permeate TDS was measured in the RO holding tank. The 8.3× comparison is 25 ppm during the interruption divided by the normal 3 ppm operating level.

What this meant for Pit Stop

The operator reported markedly improved wash quality, drying and rinsing after switching to NanoSoft. With the salt-based softener off, low permeate TDS was maintained during normal treatment operation in water measuring approximately 11-12 grains per gallon hardness.

The installed configuration

NanoSoft™ was installed on the main domestic water line serving the wash, with a CRS538 nanobubble generator on the dedicated RO feed. The wash uses a two-membrane Washworld Water Wise Reverse Osmosis Spot Free System for its final rinse.



Mainline NanoSoft installation
Treatment assembly on the incoming water line serving Pit Stop Touch Free Car Wash.



Dedicated RO feed treatment
CRS538 installed upstream of the Washworld RO system.

The pump-driven NanoSoft made the difference

The CRS538 feedline unit remained in service while the pump-driven NanoSoft was off. **The feedline unit alone did not maintain the 3 ppm operating level:** permeate TDS rose to 25 ppm. Restarting NanoSoft restored 3 ppm permeate within three days, with that reading holding through September 1, 2026.

This on/off response distinguishes the **pump-driven NanoSoft contribution** from the feedline unit alone and supports its role in scale-control pretreatment. Scale accumulation was not measured directly, so the TDS response is supporting evidence rather than direct proof of scale prevention.

Measurement context. Permeate/reject flow and pressures were not tracked; seasonal flow changes were observed. This was an unplanned field interruption, not a controlled scale-deposition test.