

Perfect water for carwashes

with

HERCO

RO SYSTEMS



POLLET WATER GROUP

1. Rollover (portal) carwash systems



Picture : UO 250 combi

In Rollover car wash systems, typically up to 10 cars / hour can be cleaned. Stains-free cleaning of the car is only achieved by the use of fully deionized water (DI water) during the last rinse step and prior to (optional) drying.

REQUIREMENTS

- Car wash system needs to be ready for 2 or 3 water qualities (raw, demineralized, softened water)

EXAMPLE

- 10 cars / hour (Peak load)
- 15 - 30 l of demineralized water / car

RECOMMENDED PACKAGE

- UO 250 combi (Softener + RO unit); 250l/h permeate
- Permeate storage tank, e.g. 2000 l with level control (allows to use RO system than peak load)
- Optional: booster system for supply of carwash system

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2. Conveyor belt carwash systems



Picture : UO 1500 ND



Picture : WA-ED 400

Conveyor belt systems are able to clean 50 - 100 cars / hour. Generally, washing quality is higher compared to rollover systems. Typically, 3 water qualities are desirable / required:

- (Filtered) raw water: Main washing steps
- Softened water: Warm water steps and for chemical blending
- DI water: Final rinse, prior to drying

EXAMPLE

- 100 cars / hour (peak load)
- 10 - 20l DI water / car
+ 10 - 20 l soft water / car
- 4000 l permeate tank available onsite

→ RO: 100 x 20 l/h = 2.000 l/h

→ With 8h shift of full load → 16.000 l permeate required

RO dimensioning: 16000 l - 4000 l (Tank vol.) = 12000 l (in 8h)

→ 1500l/h required

RECOMMENDED PACKAGE

- **Softening:** WA-ED 400 (up to 4 m³/h softening capacity)
- **RO:** UO 1500 ND
- **Optional:** energy saving with frequency converter



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3. Self Service carwash



Picture : UO 300 to 500 W/S



Picture : WA-ED 300 or 400

In Self service carwash, there is typically no drying step. The car therefore absolutely needs final rinse with fully demineralized water to avoid drying stains of the remaining water. Again, raw, softened and DI water are required during the washing steps.

- (Filtered) raw water: Main washing steps
- Softened water: Warm water steps and for chemical blending
- DI water: Final rinse, prior to drying

A central water supply supplies water to all washing bays.

EXAMPLE

5 carwash bays; water usage 7 - 12 l/min (Ex.: 10l/min)

Typical timing and water requirements (for 5 bays):

| | | | |
|------------------------------|---|------------|------------|
| 20 - 25 % car entry and exit | → | 15 min/h | |
| 15 - 20% raw water steps | → | ~ 10 min/h | → 500 l/h |
| 15 - 25% DI water steps | → | ~ 12 min/h | → 600 l/h |
| 30 - 40% soft water steps | → | ~ 23 min/h | → 1150 l/h |

RECOMMENDED PACKAGE

Softening: 1150 l/h [soft] + 800 l/h [Inlet RO] WA-ED 300 or 400

RO: UO 300 to 500 W/S (depends on permeate tank size).

The W/S unit requires minimum space (space is often an issue).