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CarWash

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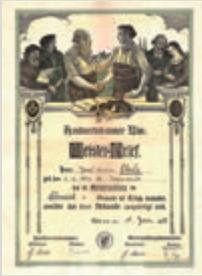
CARWASH-SYSTEMS

INNOVATIVE TECHNOLOGY
SOLUTIONS

WASHING AND
CARE ADDITIVES



EHRLE 3 Generations



Anton J. Ehrle

Anton Ehrle was born in 1894 in Voggenreute.

He learned the blacksmith's craft and passed the master craftsman's examination in 1927.

With this he laid the foundation for the interest of the EHRLE-sons in metalworking, which is still continuing today.



Oskar R. Ehrle

Oskar Ehrle was born in Bad Schussenried in 1922.

After attending elementary school, he completed an apprenticeship as a hand molder from 1936 to 1939.

In World War II, he was drafted by the German Army in 1941 as a pilot of rescue planes and was taken prisoner of war by the Russians in 1945 to Werche-Tura in Siberia.

Marked by hunger and illness, he returned to his home town at the end of 1947.

After recovering from captivity, Oskar Ehrle attended the engineering school in Constance from 1950 to 1953. There he graduated as a mechanical engineer.

As early as 1959, he developed and constructed a first steam jet, the DR600, for the WAP company.

In 1961 he founded the company EHRLE in Illertissen.



Reiner M. Ehrle

Reiner Ehrle was born in Illertissen in 1959. After attending elementary school, he graduated from secondary school in 1975. In 1977, he completed his vocational baccalaureate at the technical secondary school in Neu-Ulm.

In 1978, Reiner Ehrle began a one-year internship in the USA.

From 1979 to 1983, he then attended the University of Applied Sciences in Ulm, where he graduated with a mechanical engineering diploma.

A subsequent study of business administration in Pforzheim deepened his economic knowledge.

In 1984 he joined his parents' company in Illertissen. Due to his comprehensive knowledge in mechanical and industrial engineering he gradually expanded his parents' business from a small company to a medium sized enterprise with its own subsidiaries in other European countries.

Meanwhile, the entire EHRLE group has more than 300 employees.

EHRLE - The company



Today, EHRLE is one of the world's leading suppliers of innovative solutions for high-pressure cleaning technology and vehicle washing. Since its foundation the company EHRLE has been focusing on advanced technology, innovative ideas, best possible quality and perfect service.

EHRLE products are characterized by above-average product quality and technology and impress by modern design, high-quality materials, extremely long service life and exemplary economy. Through continuous product development and new and further product development a very high manufacturing standard has been achieved, which has created the prerequisite for the worldwide success of EHRLE products.



The basic prerequisite for this was a modern assembly line production as well as careful, constant material tests and final inspections by means of test computers. All products and systems are created by the most modern, precise and future-oriented manufacturing processes and undergo extremely strict internal and external tests after completion in order to meet the high demands of our customers at home and abroad.



>>Made by EHRLE<< stands worldwide for German top quality. Many years of experience and reliable, highly motivated, qualified employees enable production in all areas of the company at the highest level of quality. EHRLE permanently and intensively deals with the habits, attitudes, opinions and suggestions for improvement of the users and can therefore react promptly to changes in the market. EHRLE always focuses on optimal customer benefits and requirements.

EHRLE works with industry standard 4.0 and has one of the most modern WMS and ERP systems. The company has subsidiaries in Europe and independent sales partners in about 60 countries worldwide.



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Rim cleaning with EHRLE RimCleaner



Rim cleaning with EHRLE RimCleaner, made easy

More and more car wash customers attach great importance to perfect and thorough rim cleaning. In the past, washing customers brought their own rim cleaners in spray bottles and used them at the self-service washing bay. Sometimes also illegal, acid-containing products, which can cause considerable long-term damage through acid attack on the wash plates, rims and brake systems. This is now the end of the matter. EHRLE has developed a new technology which guarantees excellent cleaning results with minimal chemical consumption (approx. 20ml / rim). The RimCleaner is acid-free and biodegradable. With the additional program rim cleaning, the washing turnover is increased by up to 30%.

Technology

An additional pre-spray device is installed at the washing station itself, which is supplied with RimCleaner concentrate via a separate low-pressure system in the technical container. An additional rim cleaner program selection button is located on the customer service column, which activates the program for a freely adjustable period.

The rim cleaner concentrate is simply sprayed onto the rim with the pre-spray device. After a short reaction time, the rims are cleaned with the washing program „Clean“ and shine again with a new shine. The further sequence of programs also gives the rims paint protection and preserves them. The rim cleaner is based on an alkaline formulation and does not damage the rim or the washing area.



1. Dirty vehicle rim

Vehicle rims, especially aluminium rims, are particularly susceptible to soiling from brake dust abrasion and the usual road soiling from abrasion of vehicle tires. In particular, high temperatures create an almost insoluble film of dirt, which cannot be removed even by mechanical cleaning. The longer a rim has not been cleaned the more difficult it is to remove the dirt.

2. Apply RimCleaner

In the first step the EHRLE RimCleaner is applied to the rim by a pre-spray device with an even spray mist. On the rim the RimCleaner produces a neon-yellow-green foam development and unfolds there the intensive cleaning power. This should act for 1-2 minutes until the foam has dissipated and signals the end of the dirt removal process.

3. Wash off RimCleaner

After the reaction time the product with the detached rim dirt is cleaned with the washing program Clean. The wash customer can combine this process directly with the washing of the vehicle.

4. Clean result!

The result is a shining, clean vehicle rim from which even the most stubborn dirt deposits have been removed, making it an extraordinary customer magnet for any system.



Pre-cleaning with SoftFoam

with SoftFoam lance or with SoftFoam brush



Pre-cleaning with SoftFoam

To achieve an optimal cleaning result, the vehicle surface is pre-sprayed with a highly effective active foam concentrate. EHRLE offers various high performance products, which differ in cleaning power and fragrance. The right active foam for every application.

Technology

When an active foam program is selected, the water output at the washing lance is reduced by 70% and a precisely preset foam concentrate in a mixing ratio of 1.0 - 2.5% infinitely variable is added to the high-pressure jet.

This application is extremely economical and prevents too large foam quantities on the vehicles. The car wash customer can spray his vehicle all around with SoftFoam without stress, without excessive demands and targeted at the areas with stubborn dirt.

The EHRLE Soft Active Foam gives dirt no chance and creates a previously unknown cleaning result and a perfect foam look with the smallest dosage and little water consumption.

By using the soft-active foam, the customer extends his washing times by an average of 30%, receives impeccable cleanliness and the self-service car wash operator gets a higher washing turnover.



SoftFoam lance with SoftFoam

The active foam medium with a precisely pre-dosed amount of SoftFoam is fed to the SoftFoam lance via a separate high-pressure pipe system. According to Bernoulli's law, a dynamic pressure drop is created via the high-pressure switching pistol and an air injector. This pressure drop is below atmospheric pressure and therefore sucks in air completely free of charge and mixes it with the active foam medium. The larger the amount of air, the better the foam formation. The EHRLE SoftFoam-System is the most efficient and wear-resistant system. In addition, a downstream turbulence chamber achieves a perfect foam pattern. This system has a very simple design and has no moving parts, making this technology particularly robust, low-maintenance and versatile.



SoftFoam brush with SoftFoam

No matter how you or your washing customers want to use the active foam program, you can choose between the SoftFoam lance and the SoftFoam brush. Depending on the philosophy touch-free or with a washing brush, the EHRLE SoftFoam system creates a sensational foam look never seen before and spreads a pleasant scented atmosphere in the wash box while reducing product and water consumption at the same time. A certain additional turnover is generated by longer washing and care times. You win new customers by increasing the attractiveness of your location with guaranteed cost-effective installation compared to other foam systems available on the market.

So make your own choice!



Brushless Cleaning

with ActivePower Pearl MicroPowder



The challenge

The big challenge in car washing is that high-pressure washing alone can only remove the visible and coarse dirt on car surface. After removing the dirt, a film of dirt or grey haze always remains on the paintwork, which can only be removed by contact with brushes, textile or foam strips, cloths or similar. It is inevitable that fine particles of dirt remaining in the brushes, sponges or wiping cloths will scratch the paint and thus damage it.

ActivePower Pearl MicroPowder

The EHRLE ActivePower Pearl MicroPowder removes the dirt film by direct mechanical contact of specially developed fine MicroPowder pellets, which are applied to the surface to be cleaned by means of a high-pressure gun with a special ceramic nozzle. The product is extremely gentle on the material, leaves no residues and also has an additional corrosion protection component. The EHRLE ActivePower Pearl MicroPowder was developed by the experts of the EHRLE chemical department especially for the use at self-service car washes and has been consistently improved, developed further and constantly adapted to the changing environmental protection conditions over the years.



MicroPowder dosing with globoidal screw and stainless steel agitator



Chemical dosing level with MicroPowder dosing and liquid chemical dosing

SW

SW+

SmartWash/SmartWash PLUS

Self-service car washes 1 bay, cabinet version outdoor electrically heated



Suitable for petrol stations and commercial car wash facilities

The SmartWash and SmartWash PLUS 1-place self-service car washes are ideal for areas with limited space, as a supplement to smaller filling stations, for vehicle care at company fleets or car repair shops. It is a perfect addition to normal everyday business, e.g. at petrol stations or car repair shops. The device housing is completely made of stainless steel and offers maximum corrosion resistance against external weather influences. The housing is equipped with a highly efficient insulation and can be installed at outside temperatures down to -25°C. Clear and customer-friendly operating elements offer all customers easy handling. The SmartWash is an economical and easy to use, compact EHRLE 1-place self-service washing machine. The system guarantees a safe and modern vehicle wash. Thanks to the brushless technology of the ActivePower Pearl MicroPowder®, mixed in the high-pressure jet, dirt can be removed quickly and effectively.

Two device series with different system variants

The SmartWash and SmartWash PLUS appliance series is available up to system variant 6. (For more details, see pages 39 to 43) The standard version of the plant is equipped with a water softening system and is also available as SmartWash PLUS version with reverse osmosis system, which enables a spotless drying result. The washing water is heated by an insulated large-volume electric boiler with 12kW heat output. The SmartWash systems are equipped with 4 standard washing and maintenance programs as standard. Optionally, there is the possibility to combine the self-service system with additional programs. The SmartWash appliance series are available up to system variant 5 and the SmartWash PLUS appliance series up to system variant 8. (For further details, please refer to pages 39 to 43)

Interesting extension options

The units can be supplied with various wash place equipment such as attached wash boom with 4x1.5W LED unit lighting and separate pole for floor installation. With the option wash gallows a light intensive wash place lighting with 2x30W LED (2400 lumen) is included in the scope of delivery. Attachment possibility for ceiling or double ceiling gyroscopes and 2 different wash place equipments, provide for an orderly washing operation without annoying hose crossings.

SW SmartWash



SW+ SmartWash PLUS





SmartWash/SmartWash PLUS

Self-service car washes 1 bay, cabinet version outdoor electrically heated



Technical data	SmartWash Electro	SmartWash PLUS Electro
Voltage	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V
Working pressure	120bar/12Mpa	120bar/12Mpa
Max. Print	140bar/14Mpa	140bar/14Mpa
Flow rate	660l/h	660l/h
nozzle size	60056	60056
Hot water capacity	60°C	60°C
Heat output	12kW - Electro boiler	12kW - Electro boiler
Pump speed	900U/min	900U/min
Water softening capacity	32m ³	32m ³
Permeate power reverse osmosis	-	2.400l/d
Capacity osmosis tank	-	100l
Content MicroPowder dosing tank	15l	15l
Content UltraProtection-Tank	10l	10l
SuperFinish tank capacity	10l	10l
Connected load	16,5kW / 26A	17,2kW / 28A
Electr. fuse protection	3x32A	3x32A
Weight	650kg	770kg
Dimensions	1260x775x1755mm	1380x1080x1755mm



SmartWash/SmartWash PLUS with standard delivery

SmartWash/SmartWash PLUS in standard version. No wash station equipment is included in the scope of delivery. The wash place equipment can be adapted variably.



SmartWash/SmartWash PLUS with system bracket

SmartWash/SmartWash PLUS with attached stainless steel wash booms with 4x1.5W LED lights. In this accessory program the HD-hose as well as the HD-washing place equipment is integrated. Only possible for system variants 1.

Total amount	3253mm
Clearance height	–
Boom length	–
Boom length with ceiling boom	–



Floor booms for SmartWash or other systems

SmartWash/SmartWash PLUS with separate mast and washing gallows for floor installation. Integrated wash place lighting LED 2x30W. Possibility for mounting ceiling or double ceiling gyroscopes and 2 different wash place equipment.

Total amount	5630mm/6430mm
Clearance height	4200mm/5000mm
Boom length	3260mm
Boom length with ceiling boom	5010mm

JW**JW+**

JetWash/JetWash PLUS

Self-service washing systems for 1-3 washing bays, cabinet version outdoor, oil-, gas-, with district heating or electrically heated

Standard equipment JetWash/ JetWash PLUS

The JetWash systems are equipped with 4 standard washing and care programs as standard. As an option, it is possible to combine the SB-JetWash system with additional programs. The JetWash appliance series are available up to system variant 5 and the JetWash PLUS appliance series up to system variant 8.

The JetWash/JetWash PLUS devices can be combined with all EHRLE payment systems, CentralPay technology is also optionally available.

The entire washing technology is housed in a stainless steel frame with powder-coated equipment cover. JetWash as well as JetWash PLUS units can be heated either with oil, gas, district heating or electrically.

Like every SB-CarWash plant from EHRLE, the JetWash washing plants are equipped with a water softening system (ion exchanger). Additionally, the JetWash PLUS version has a reverse osmosis plant with an 800-litre osmosis water tank. The reverse osmosis prevents water stains after washing and drying. The washing plant is controlled by a modern SIEMENS computer. The 7" TFT touch-screen monitor installed in the control system allows the investor to access all information about the important parameters of the self-service carwash and provides detailed financial information about income and turnover.



JW *JetWash 1-3 Wash bay*



JW+ *JetWash PLUS 1-3 Wash bay*





JetWash

Self-service washing systems for 1-3 washing bays, cabinet version outdoor, oil-, gas-, with district heating or electrically heated



Technical data	1-3 Wash bays oil			1-3 Wash bays gas			1-3 Wash bays district heating			1-3 Was bays electro		
	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP
Washing places	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP
Voltage	3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V		
Working pressure per wash station	120bar/12Mpa			120bar/12Mpa			120bar/12Mpa			120bar/12Mpa		
Max. pressure per wash place	140bar/14Mpa			140bar/14Mpa			140bar/14Mpa			140bar/14Mpa		
Flow rate per washing bay	660l/h			660l/h			660l/h			660l/h		
nozzle size	60056			60056			60056			60056		
Hot water capacity	60°C			60°C			60°C			60°C		
Heat output	50kW	50kW	55kW	55kW	55kW	74kW	50kW	55kW	74kW	18kW	24kW	36kW
Pump speed	900U/min			900U/min			900U/min			900U/min		
Water softening capacity	120m ³			120m ³			120m ³			120m ³		
Permeate power reverse osmosis	-			-			-			-		
Capacity osmosis tank	-			-			-			-		
Content MicroPowder dosing tank	35l			35l			35l			35l		
Content UltraProtection-Tank	10l			10l			10l			10l		
SuperFinish tank capacity	10l			10l			10l			10l		
Connected load	5kW	8kW	11kW	5kW	8kW	11kW	5kW	8kW	11kW	23kW	32kW	41kW
Electr. fuse protection	3x10A	3x16A	3x25A	3x16A	3x16A	3x25A	3x16A	3x16A	3x25A	3x50A	3x63A	3x63A
Weight	910kg	950kg	990kg	910kg	950kg	990kg	910kg	950kg	990kg	910kg	950kg	990kg
Dimensions	1 WP: 2245x970x2100mm 2+3 WP: 2270x970x2100mm			1 WP: 2245x970x2100mm 2+3 WP: 2270x970x2100mm			1 WP: 2245x970x2100mm 2+3 WP: 2270x970x2100mm			1 WP: 2245x970x2100mm 2+3 WP: 2270x970x2100mm		



JetWash PLUS

Self-service washing systems for 1-3 washing bays, cabinet version outdoor, oil-, gas-, with district heating or electrically heated



Technical data	1-3 Wash bays oil			1-3 Wash bays gas			1-3 Wash bays district heating			1-3 Wash bays electro		
	1 WP	2WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP
Washing places	1 WP	2WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP	1 WP	2 WP	3 WP
Voltage	3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V		
Working pressure per wash station	120bar/12Mpa			120bar/12Mpa			120bar/12Mpa			120bar/12Mpa		
Max. pressure per wash place	140bar/14Mpa			140bar/14Mpa			140bar/14Mpa			140bar/14Mpa		
Flow rate per washing bay	660l/h			660l/h			660l/h			660l/h		
nozzle size	60056			60056			60056			60056		
Hot water capacity	60°C			60°C			60°C			60°C		
Heat output	50kW	50kW	55kW	55kW	55kW	74kW	50kW	55kW	74kW	18kW	24kW	36kW
Pump speed	900U/min			900U/min			900U/min			900U/min		
Water softening capacity	120m ³			120m ³			120m ³			120m ³		
Permeate power reverse osmosis	7.200l/da at 12°C water temp.			7.200l/da at 12°C water temp.			7.200l/da at 12°C water temp.			7.200l/da at 12°C water temp.		
Capacity osmosis tank	800l			800l			800l			800l		
Content MicroPowder dosing tank	35l			35l			35l			35l		
Content UltraProtection-Tank	10l			10l			10l			10l		
SuperFinish tank capacity	10l			10l			10l			10l		
Connected load	6kW	9kW	12kW	6kW	9kW	12kW	6kW	9kW	12kW	24kW	33kW	42kW
Electr. fuse protection	3x16A	3x20A	3x25A	3x16A	3x20A	3x25A	3x16A	3x20A	3x25A	3x50A	3x63A	3x80A
Weight	1200kg	1300kg	1360kg	1200kg	1300kg	1360kg	1200kg	1300kg	1360kg	1200kg	1300kg	1360kg
Dimensions	1WP: 3250x970x2100mm 2+3WP: 3275x970x2100mm			1WP: 3250x970x2100mm 2+3WP: 3275x970x2100mm			1WP: 3250x970x2100mm 2+3WP: 3275x970x2100mm			1WP: 3250x970x2100mm 2+3WP: 3275x970x2100mm		



CarWash PLUS

Self-service washing systems for 2-4 washing bays, cabinet version outdoor oil-, gas-, with district heating or electrically heated

Standard equipment CarWash PLUS

The CarWash PLUS systems are equipped with 4 standard washing and care programs as standard. The CarWash PLUS appliance series are available up to system variant 8.

The CarWash PLUS devices can be combined with all EHRLE payment systems and can also be equipped with CentralPay technology. The entire washing technology is housed in a stainless steel frame with powder-coated equipment cover. CarWash PLUS units can be heated either with oil, gas, district heating or electrically.

Just like the JetWash, the CarWash PLUS contains a water softener (ion exchanger) which is designed as a duo-softener to provide soft water during the regeneration phases. In addition, the CarWash PLUS device series has a reverse osmosis system with an 800-liter osmosis water tank. Reverse osmosis not only prevents water stains after washing and drying, but also ensures a consistently high quality of the washing result. Due to a special antifreeze system and an optional underfloor heating of the washing areas, minus temperatures are no problem.

The washing plant is controlled by a modern SIEMENS computer. The 7" TFT touch-screen monitor installed in the control system allows the investor to access all information about the important parameters of the self-service carwash and provides detailed financial information about income and turnover.



CW+ CarWash PLUS 2-4 Wash bay





CarWash PLUS

Self-service washing systems for 2-4 washing bays, cabinet version outdoor oil-, gas-, with district heating or electrically heated



Technical data	1-3 Wash bays oil			1-3 Wash bays gas			1-3 Wash bays district heating			1-3 Wash bays electro		
	2 WP	3 WP	4WP	2 WP	3 WP	4WP	2 WP	3 WP	4WP	2 WP	3 WP	4WP
Washing places	2 WP	3 WP	4WP	2 WP	3 WP	4WP	2 WP	3 WP	4WP	2 WP	3 WP	4WP
Voltage	3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V			3/PE/AC/50Hz/400V		
Working pressure per wash station	120bar/12Mpa			120bar/12Mpa			120bar/12Mpa			120bar/12Mpa		
Max. pressure per wash place	140bar/14Mpa			140bar/14Mpa			140bar/14Mpa			140bar/14Mpa		
Flow rate per washing bay	660l/h			660l/h			660l/h			660l/h		
nozzle size	60056			60056			60056			60056		
Hot water capacity	60°C			60°C			60°C			60°C		
Heat output	50kW	55kW	55kW	55kW	74kW	85kW	55kW	74kW	85kW	24kW	36kW	42kW
Pump speed	900U/min			900U/min			900U/min			900U/min		
Water softening capacity	2x120m ³			2x120m ³			2x120m ³			2x120m ³		
Permeate power reverse osmosis	7.200l/da at 12°C water temp.			7.200l/da at 12°C water temp.			7.200l/da at 12°C water temp.			7.200l/da at 12°C water temp.		
Capacity osmosis tank	800l			800l			800l			800l		
Content MicroPowder dosing tank	35l			35l			35l			35l		
Content UltraProtection-Tank	10l			10l			10l			10l		
SuperFinish tank capacity	10l			10l			10l			10l		
Connected load	9kW	11kW	14kW	8kW	10,4kW	13kW	9kW	11kW	14kW	32kW	46,4kW	54,6kW
Electr. fuse protection	3x16A	3x20A	3x32A	3x16A	3x20A	3x32A	3x16A	3x20A	3x32A	3x63A	3x80A	3x100A
Weight	1610kg	1640kg	1670kg	1610kg	1640kg	1670kg	1610kg	1640kg	1670kg	1610kg	1640kg	1670kg
Dimensions	4770x970x2100mm			4770x970x2100mm			4770x970x2100mm			4770x970x2100mm		



CL

CarWash CompactLine

Self-service washing systems for 2-8 washing bays, modular version for technical room, or rooms provided by customer



The CompactLine modular system

The CompactLine series is based on a modular construction system. The basic module can supply 2 to a maximum of 4 self-service wash stations and the optional extension modules of 2 to 4 wash stations can be easily installed additionally. Thus self-service washing systems with up to 8 washing places can be set up.

Technical equipment

The CompactLine basic module includes a double water softening unit as standard, as well as an integrated R/O osmosis unit with a separate 1000 liter osmosis water storage tank. A MicroPowder dosing station with a 35-liter storage tank and 2x10-liter liquid dosing are standard features, as is an electric control terminal. The integrated 7-inch TFT touch screen monitor gives the investor access to all information about the important parameters of the SB-CarWash unit and provides detailed financial information about the income and turnover. The CompactLine extension module also includes a further MicroPowder dosing station with 35-liter storage container and 2x10-liter liquid dosing unit. The CompactLine systems are equipped with 4 standard wash and care programs as standard and are available up to system variant 10. (For further details, please refer to pages 39 to 43). The CompactLine series can be combined with any EHRLE hot water heating system. Optionally, it can be connected to an oil-gas, electric heating system or an existing district heating energy source.

CarWash CompactLine

- 1 Water softening with brine tank
- 2 Micro powder dosing tank
- 3 UltraProtection Tank
- 4 SuperFinish Tank
- 5 Reverse Osmosis Plant
- 6 Main control cabinet
- 7 heating module gas heated
- 8 Osmosis tank 1000l
- 9 Magnetic valve
- 10 high pressure pump motor
- 11 Osmosis pump
- 12 Floor heating system
- 13 Hot water booster pump motor



Water softening

Extension module

Basic module

* optional, mandatory
Oil, Gas, District heating
or electric

**heating
module***

R/O-Tank



CarWash CompactLine

Basic and extension modules Plant overview 2-5 wash stations



Technical data	2 wash bays basic modul	3 wash bays basic modul	4 wash bays basic modul	5 wash bays basic modul
Voltage	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V
Working pressure	2x130bar/13Mpa	3x130bar/13Mpa	4x130bar/13Mpa	5x130bar/13Mpa
Max. Print	2x150bar/15Mpa	3x150bar/15Mpa	4x150bar/15Mpa	5x150bar/15Mpa
Flow rate	2x720l/h	3x720l/h	4x720l/h	5x720l/h
nozzle size	60056	60056	60056	60056
Max. Inlet temperature	60°C	60°C	60°C	60°C
Added heating power	55kW	74kW	85kW	105kW
Pump speed	1400U/min	1400U/min	1400U/min	1400U/min
Water softening capacity	2x120m ³	2x120m ³	2x120m ³	2x200m ³
Permeate power reverse osmosis	7.200l/da at 12°C water temp.	7.200l/da at 12°C water temp.	7.200l/da at 12°C water temp.	7.200l/da at 12°C water temp.
Content MicroPowder dosing tank	1x35l	1x35l	2x35l	2x35l
Content UltraProtection-Tank	1x10l	1x10l	2x10l	2x10l
SuperFinish tank capacity	1x10l	1x10l	2x10l	2x10l
Connected load	11,6kW	15,6kW	19,6kW	23,6KW
Electr. fuse protection	3x25A	3x32A	3x50A	3x50A
Weight	390kg	420kg	450kg/ 390kg + 350 kg (2+2)	420kg +350kg
Dimensions	1775x740x1900mm	1775x740x1900mm	Basic modul: 1775x740x1900mm Extension: 1275x740x1900mm	Basic modul: 1775x740x1900mm Extension: 1275x740x1900mm

* Heating module, as well as other module components may differ from the figure



Basic and extension modules Plant overview 6-8 wash stations



Technical data	6 wash bays basic modul + extension	7 wash bays basic modul + extension	8 wash bays basic modul + extension
Voltage	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V
Working pressure	6x130bar/13Mpa	7x130bar/13Mpa	8x130bar/13Mpa
Max. Print	6x150bar/15Mpa	7x150bar/15Mpa	8x150bar/15Mpa
Flow rate	6x720l/h	7x720l/h	8x720l/h
nozzle size	60056	60056	60056
Max. Inlet temperature	60°C	60°C	60°C
Added heating power	105kW	140kW	140kW
Pump speed	1400U/min	1400U/min	1400U/min
Water softening capacity	2x300m ³	2x300m ³	2x400m ³
Permeate power reverse osmosis	7.200l/da at 12°C water temp.	7.200l/da at 12°C water temp.	7.200l/da at 12°C water temp.
Content MicroPowder dosing tank	2x35l	2x35l	2x35l
Content UltraProtection-Tank	2x10l	2x10l	2x10l
SuperFinish tank capacity	2x10l	2x10l	2x10l
Connected load	27,6kW	31,6kW	35,6kW
Electr. fuse protection	3x63A	3x80A	3x80A
Weight	450kg + 350kg (2+4)/ 420kg + 350 (3+3)	450kg + 380kg	450kg + 420kg
Dimensions	Basic modul: 1775x740x1900mm Extension: 1275x740x1900mm	Basic modul: 1775x740x1900mm Extension: 1275x740x1900mm	Basic modul: 1775x740x1900mm Extension: 1775x740x1900mm

* Heating module, as well as other module components may differ from the figure

ML

CarWash ModulLine

Self-service washing systems for 1-12 washing bays Module version for technical room, or on-site rooms - a product with high-end technology



The modular system ModulLine

The ModulLine series is based on a modular arrangement of the individual technology units. All ModulLine modules are supplied centrally via separate media lines, such as fresh water, soft hot water, osmosis water or antifreeze water. Each ModulLine unit is controlled by an independent PLC. The SIEMENS PLC control system is housed in a separate control cabinet. The integrated 7-inch or 12-inch (at extra charge) TFT touch screen monitor gives the investor access to all information on the important parameters of the self-service CarWash system and provides detailed financial information on income and turnover.

With the ModulLine equipment series, self-service carwashes with up to 12 wash stations can be set up very easily and economically.

Technical Equipment

The ModulLine technology modules are installed on a stainless steel frame in a clear and service-friendly manner. A MicroPowder dosing station with 25 liter storage container and 2x10 liter liquid dosing are an integral part of the system, as is an electrical control terminal. The ModulLine systems are equipped with 4 standard washing and care programs as standard and are available up to system variant 10. (For further details, please refer to pages 39 to 43)

The equipment modules can be combined with all EHRLE hot water heating systems and can be connected to all EHRLE payment systems as well as Central-Pay technology.

NEW



Technical data	System SV1-SV2-SV3SE	System SV4-SV5-SV6-SV7-8SE	System SV9-SV10
Voltage	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V
Working pressure	120bar/12Mpa	120bar/12Mpa	120bar/12Mpa
Max. Print	140bar/14Mpa	140bar/14Mpa	140bar/14Mpa
Flow rate	660l/h	660l/h	660l/h
nozzle size	60056	60056	60056
Max. Inlet temperature	60°C	60°C	60°C
Added heating power	50kW	50kW	50kW
Pump speed	900U/min	900U/min	900U/min
Content MicroPowder dosing tank	1x25l	1x25l	1x25l
Content UltraProtection-Tank	1x10l	1x10l	1x10l
SuperFinish tank capacity	1x10l	1x10l	1x10l
Connected load	3,2kW	3,4kW	3,6kW
Electr. fuse protection	3x16A	3x16A	3x16A
Weight	190kg	200kg	200kg
Dimensions	600x740x2160mm	600x740x2160mm	600x740x2160mm



Hot water heating systems

Environmentally friendly and extremely economical - GreenPower



LCE Gas 30 - 85kW heating power

The basic hot water heating module from EHRLE with stainless steel boiler can supply up to 5 self-service washing bays with hot washing water and is installed on a stainless steel frame ready for operation. The modulating gas burner in combination with the latest condensing technology offers highest efficiency and energy saving. The built-in booster pump supplies the washing bays with hot washing water as required. A second domestic hot water inline pump is used to supply the heat exchanger of the underfloor heating system. DVGW certified according to DIN ISO 9001:2015.

Demand-based control

Hot washing water is permanently stored in the stainless steel boiler. By means of an intelligent control mechanism, the control system recognizes the capacity utilization of the self-service washing system depending on the outside temperature and regulates the continuously modulating gas burner as required. During longer breaks in operation, the water temperature is lowered by 20°C, and during washing operation it is raised back to normal level within 30 seconds. A combustion efficiency of up to 106% can be achieved at any time, depending on the outside temperature.



Technical data	LCE Gas 55kW	LCE Gas 74kW	LCE Gas 85kW
Fuel - gas type	Gas/LPG	Gas/LPG	Gas/LPG
Hot water temperature	30-60°C	30-60°C	30-60°C
Efficiency	up to 106%	up to 106%	up to 106%
Contents hot water storage boiler	60l	60l	60l
Voltage	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V
Connected load	1,0kW	1,0kW	1,0kW
Electr. fuse protection	3x16A	3x16A	3x16A
Weight	160kg	160kg	160kg
Dimensions	1110x740x2280mm	1110x740x2280mm	1110x740x2280mm



Hot water heating systems

Environmentally friendly and extremely economical - GreenPower

LCE Gas 105 - 160kW Heating Power

The power hot water heating module from EHRLE with stainless steel boiler can supply up to 7 self-service washing bays with hot washing water and is installed on a stainless steel frame ready for operation. The modulating gas burner in combination with the latest condensing technology offers highest efficiency and energy saving. The built-in booster pump supplies the washing bays with hot washing water as required. A second domestic hot water inline pump is used to supply the heat exchanger of the underfloor heating system. DVGW certified according to DIN ISO 9001:2015

Demand-based control

Hot washing water is permanently stored in the stainless steel boiler. By means of an intelligent control mechanism, the control system recognizes the capacity utilization of the self-service washing system depending on the outside temperature and regulates the continuously modulating gas burner as required. During longer breaks in operation, the water temperature is lowered by 20°C, and during washing operation it is raised back to normal level within 30 seconds. A combustion efficiency of up to 106% can be achieved at any time, depending on the outside temperature.



Technical data	LCE Gas 105kW	LCE Gas 140-160kW
Fuel - gas type	Gas/LPG	Gas/LPG
Hot water temperature	30-60°C	30-60°C
Efficiency	bis 106%	bis 106%
Contents hot water storage boiler	120l	120l
Voltage	3/PE/AC/50Hz/400V	3/PE/AC/50Hz/400V
Connected load	1,0kW	1,0kW
Electr. fuse protection	3x16A	3x16A
Weight	240kg	240kg
Dimensions	1680x650x1500mm	1680x650x1500mm



Hot water heating systems

Economic and traditional, where no alternative energy is available



LCE oil 55kW heating power

The hot water heating module with oil firing is equipped with the proven horizontal EHRLE heating coil made of stainless steel with highly efficient 3-pass combustion chamber. The basic hot water heating module from EHRLE with stainless steel supply boiler can supply up to 3 self-service washing bays with hot washing water and is installed on a stainless steel frame ready for operation. The pressure atomizing oil burner in combination with the latest blue burner technology offers highest efficiency and energy saving. The built-in booster pump supplies the washing bays with hot washing water as needed. A second service water inline pump is used to supply the heat exchanger of the underfloor heating system. The wash water temperature is regulated via the PLC control system and can be infinitely adjusted on the operating display.

Demand-based control

Hot washing water is permanently stored in the stainless steel boiler. By means of an intelligent control mechanism, the control system recognizes the utilization of the self-service washing system depending on the outside temperature and regulates the oil burner as required.

During longer breaks in operation, the water temperature is lowered by 20°C and during washing operation it is raised back to normal level within 30 seconds.

A firing efficiency of up to 93% can be achieved at any time, depending on the outside temperature.

Technical data	LCE Oil 55kW
Fuel - gas type	Fuel oil/ diesel
Hot water temperature	30-60°C
Efficiency	up to 106%
Contents hot water storage boiler	100l
Voltage	3/PE/AC/50Hz/400V
Connected load	1,7kW
Electr. fuse protection	3x16A
Weight	255kg
Dimensions	1000x740x2280mm



Hot water heating systems

Economic and traditional, where no alternative energy is available



LCE Oil 110 kW heating power

The hot water heating module with oil firing is equipped with a stainless steel Duo EHRLE heating coil with highly efficient 3-pass combustion chambers. The basic hot water heating module of EHRLE with stainless steel supply boiler can supply up to 6 self-service washing bays with hot washing water and is installed on a stainless steel frame ready for operation. The pressure atomizing oil burner in combination with the latest blue burner technology offers highest efficiency and energy saving. The built-in booster pump supplies the washing bays with hot washing water as needed. A second service water inline pump is used to supply the heat exchanger of the underfloor heating system. The wash water temperature is regulated via the PLC control system and can be infinitely adjusted on the operating display.

Demand-based control

Hot washing water is permanently stored in the stainless steel boiler. By means of an intelligent control mechanism, the control system recognizes the utilization of the self-service washing system depending on the outside temperature and regulates the continuously modulating oil burner as required.

During longer breaks in operation, the water temperature is lowered by 20°C and during washing operation it is raised back to normal level within 30 seconds. A firing efficiency of up to 93% can be achieved at any time, depending on the outside temperature.

The 2 combustion chambers are controlled by a PLC control system according to the principle „First On - First Off“. Thus both combustion chambers equalize themselves in the operating hours.

Technical data	LCE oil 110kW
Fuel	Fuel oil EL/diesel
Hot water temperature	30-60°C
Efficiency	93%
Contents hot water storage boiler	150l
Voltage	3/PE/AC/50Hz/400V
Connected load	1,8kW
Electr. fuse protection	3x16A
Weight	330kg
Dimensions	1000x960x2280mm



Hot water heating systems

Heating systems with direct electric heating, comfortable warm washing water with electricity



LCE-Electric hot water heating system

Hot washing water is permanently stored in the stainless steel boiler. By means of an intelligent control mechanism, the control system recognizes the utilization of the self-service washing system depending on the outside temperature and regulates according to demand.

An optimal insulation of the stainless steel boiler prevents energy loss through convection and heat conduction.

During longer breaks in operation, the water temperature is lowered by 20°C and during washing operation it is raised back to normal level within 30 seconds.

The built-in booster pump supplies the wash stations with hot wash water as needed. A second service water inline pump is used to supply the heat exchanger of the underfloor heating system. The wash water temperature is regulated by the PLC control system and can be continuously adjusted on the operating display.

Technical data	LCE Electro 37kW	LCE Electro 49kW
Hot water temperature	30-60°C	30-60°C
Voltage	3/400V/50Hz	3/400V/50Hz
Connected load	37kW	49kW
Electr. fuse protection	3x63A	3x80A
Dimensions	740x1000x2160mm	740x1000x2160mm
Weight	245 kg	255 kg



Hot water heating systems

Heating systems Electric heating with closed heating circuit

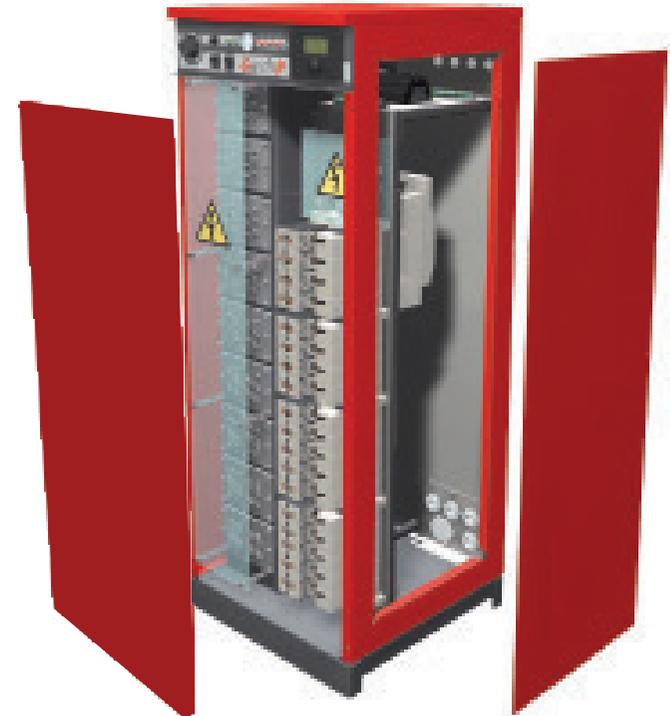


HM electric boiler with cascade control

The electric boiler from EHRLE, in connection with an SLM storage module, can supply up to 12 self-service washing bays with hot washing water.

The electric boiler has a cascade control and switches individual heating elements on or off depending on the energy requirement.

An energy consumption in line with demand, which is reflected in the CO2 balance. An optimal insulation of the stainless steel boiler prevents energy loss through convection and heat conduction.



Technical data	HM-Electro 57kW	HM-Electro 115kW	HM-Electro 144kW	HM-Electro 201kW
Temperature pre-aluf/return flow	90/70°C	90/70°C	90/70°C	90/70°C
Voltage	3/400V/50Hz	3/400V/50Hz	3/400V/50Hz	3/400V/50Hz
Connected load	57kW	115kW	145kW	200kW
Electr. fuse protection	3x100A	3x200A	3x224A	3x315A
Dimensions	567x542x1495mm	567x542x1495mm	567x542x1495mm	567x542x1495mm
Weight	110kg	123kg	131kg	187kg



Hot water heating systems

For connecting conventional heating systems and district heating with supply and return flow - with integrated heat exchanger for floor heating



SLM-Storage tank 50-160 kW

The SLM storage modules can be connected to external heat generators such as oil or gas boilers, district heating transfer stations, solar thermal systems and existing heat recovery systems.

The storage tanks are designed in the tried-and-tested double-jacket system and, in frost protection mode, simultaneously transfer the thermal energy of the wash water to the glycol mixture for the under-floor heating of the wash panels. This eliminates the need for an additional heat exchanger for the under-floor heating.

The double-jacket storage tanks are enamelled and with 100mm foam insulation extremely low loss. A service water safety group absorbs pressure surges from the system and relieves all connected, water-carrying components.

The regulation of the washing water temperature is taken over by the PLC control in the main switch cabinet via a built-in PT1000 thermal sensor and can be infinitely changed via the touch panel.

The structure of the SLM is an integrable subassembly unit, mounted in a stainless steel frame and can be easily attached to the washing modules.

Technical data	SLM I	SLM II	SLM III	SLM IV
Heat exchanger capacity	75kW	105kW	160kW	200kW
Area of flat plate heat exchanger	1,76m ²	3,36m ²	5,68m ²	5,68m ²
Heating circuit $\Delta T = 30$ K	2,2m ³ /h	3 m ³ /h	4,7m ³ /h	5,7m ³ /h
Nominal diameter heating circuit	25DN	25DN	32DN	32DN
Wash water circuit $\Delta T = 20$ K	3,3m ³ /h	4,6m ³ /h	6,9m ³ /h	8,6m ³ /h
Wash water content	400l	400l	400l	200l
Content glycol mixture for FBH	200l	200l	200l	140l
Insulation	100mm	100mm	100mm	100mm
Voltage	3/400V/ 50Hz	3/400V/ 50Hz	3/400V/50Hz	3/400V/50Hz
Connected load	1,0kW	1,0kW	1,5kW	1,5kW
Electr. fuse protection	3x16A	3x16A	3x16A	3x16A
Dimensions (LxWxH)	800x780x2440mm	800x780x2440mm	800x780x2440mm	800x780x2440mm
Weight	360kg	370kg	380kg	380kg



Hot water heating systems

Conventional heating systems Cast iron boiler with oil or gas burner with flow and return - with integrated heat exchanger for floor heating



Oil/gas cast iron boilers robust and durable

Ecostream low-temperature heating boiler according to DIN EN 303 for oil or gas firing with sliding boiler water temperature control without minimum return temperature.

Water-cooled combustion chamber with small combustion chamber volume load and heating gas guidance according to the 3-pass principle.

Boiler is suitable for heating oil EL according to DIN 51 603, natural gas, liquid gas, rape oil or biogas as well as for oil and gas forced draught burners according to DIN EN 267 or DIN EN 676 or with CE mark.

Technical data	G215-70 kW	G215-85 kW	G315-105 kW	G315-170 kW	G315-200kW
Fuel	Oil/Gas	Oil/Gas	Oil/Gas	Oil/Gas	Oil/Gas
Hot water temperature	50-90°C	50-90°C	50-90°C	50-90°C	50-90°C
Efficiency	up to 95%	up to 95%	up to 95%	up to 95%	up to 95%
Voltage	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
Connected load	1kW/4A	1kW/4A	1kW/4A	1kW/4A	1kW/4A
Electr. fuse protection	16A	16A	16A	16A	16A
Dimensions (LxWxH)	1450x600x1400mm	1600x600x1400mm	2070x880x1500mm	2430x800x1500mm	1605x712x1500mm
Weight	335kg	390kg	680kg	765kg	807kg



Water softening and reverse osmosis units

State-of-the-art EHRLE water treatment for the operation of up to 12 wash stations



Water softening units

Depending on the location, tap water always contains varying amounts of dissolved lime and minerals, which reduces the washing effect of detergents by forming lime soap and can lead to disturbing scale deposits in pipes and systems. Therefore a water treatment in SB-CarWash-System is essential.

For this purpose EHRLE offers water softening systems in different performance classes. Only ion-exchanger softening plants are used. There the calcium ion in the washing water is replaced by a sodium ion and all the lime that is harmful to the laundry is rendered harmless. Depending on the size of the softening plant and the local hardness of the washing water, a regeneration of the bottles is automatically initiated.

Reverse Osmosis Units

To prevent water stains after self-service washing, EHRLE offers reverse osmosis systems which demineralise the rinsing water and leave no other components (molecules) in the water. This guarantees a stain-free drying result.

The water softening and reverse osmosis units are pre-assembled as system components on a wall shelf at the factory and installed as a complete assembly in the technology container and connected to the Car-Wash systems. A large osmosis storage tank is loaded with R/O water as a buffer storage and can be used for system safety and reserve in case of large wash volumes.

The system components of softening and osmosis plants



Stainless steel water inlet filter 150µ, hard water distributor made of brass valves and composite material, pre-installed on wall shelf.



Soft water distributor made of brass valves and composite material and stainless steel pipes, water softening system with control head, pre-installed on wall shelf.



Stainless steel reverse osmosis unit, pre-installed on wall shelf.

Water softening units

Technical data	SmartWash	JetWash	CarWash Plus/CompactLine	CompactLine/ModulLine			ModulLine
	1 Wash bay	2 - 3 Wash bay	2 - 4 Wash bay	4 - 5 Wash bay	5 - 7 Wash bay	7 - 8 Wash bay	8 - 12 Wash bay
Type	EF 32	EF 120	DF 120	DF 200	DF 300	DF 400	DF 600
Capacity	32m ³	120m ³	2 x 120 m ³	2 x 200 m ³	2 x 300 m ³	2 x 400 m ³	2 x 600 m ³
Pressure tanks	1 x 8" x 18"	1 x 10" x 35"	2 x 10" x 35"	2 x 12" x 48"	2 x 13" x 54"	2 x 14" x 52"	2 x 16" x 65"
Filling quantity resin	8 ltr.	30 ltr.	2 x 30 ltr.	2 x 50 ltr.	2 x 75 ltr.	2 x 100ltr.	2x 125 ltr.
Brine container	integrated	integrated	100 ltr.	200 ltr.	200 ltr.	340 ltr.	340 ltr.
Dimension	cabinet	cabinet	467 x 630mm	530 x 1000 mm	530 x 1000mm	735 x 1180 mm	735 x 1180 mm
Size	1"	1"	1"	1"	1"	1 1/4"	1 1/2"
maximum flow rate at Δp 1bar	6,1 m ³	6,1 m ³	6,1 m ³	6,1 m ³	6,1 m ³	7,3 m ³	13,6 m ³
Nominal flow	1 m ³ /h	2,0 m ³ /h	3,6 m ³ /h	4,0 m ³ /h	5,4 m ³ /h	6,8 m ³ /h	9,0 m ³ /h

Reverse Osmosis Units

Technical data	1-6 Wash bay	5-12 Wash bay
Type	Osmosis 300	Osmosis 400
Performance	7.200l/d	10.800l/h
Membrane	1xESPA1 4040	2xESPA1 4040
Pressure pipe/s	1x Stainless steel 1.4304	2x Stainless steel 1.4304



Component shelves & mounting kits

for perfect and easy installation in technical rooms, also suitable for renovations

Wall panel electric Connection ModulLine*



Art. No. 608099

Piping set ModulLine SV1/ SV2/ SV3 SE*



Verteiler-Leitungen Medienanschluss	Art. No.
1 wash bays	608008
2 wash bays	608005
3 wash bays	608006
4 wash bays	608007
5 wash bays	608004
6 wash bays	608009
7 wash bays	608010
8 wash bays	608011

* Included in the price for technical containers

Piping set ModulLine SV4/ SV5/ SV6/ SV7/ SV8SE/ SV9/ SV10*



Verteiler-Leitungen Medienanschluss	Art. No.
1 wash bays	608019
2 wash bays	608020
3 wash bays	608021
4 wash bays	608022
5 wash bays	608023
6 wash bays	608024
7 wash bays	608025
8 wash bays	608026

* Article does not contain any system components

**Wall panel water distributor
ModulLine***



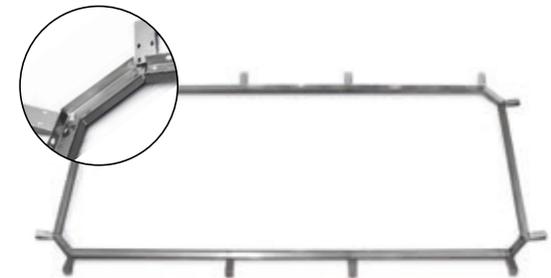
Art. No. 608095

**Wall panel water distributor
CompactLine***



Art. No. 601095

**Cable tray system for
technology sandwich and
concrete containers***



Art. No. 610035

**Wall panel underfloor heating
made of stainless steel***



Art. No. 608096

**Stainless steel stand table for
water softening unit***



- Complete stand system for softener bottles and salt brine containers for floor mounting
- incl. stainless steel tank hoses for system connection

	Art. No.
DF120	608094
DF200	618094
DF300	628094
DF400	638094
DF600	648094

* Included in the price for technical containers

* Article does not contain any system components



Stainless steel operator terminals

Robust operator terminals made of stainless steel - 4-digit display with program selection button



LCE operator terminal



LCE operator terminal - stainless steel

- suitable for wall mounting
- large illuminated program buttons, impact-resistant IP 65
- 2 internal stainless steel hinges
- Number of program buttons: 4 to 8
- Emergency stop or STOP button
- 4-digit display
- Display of the selected wash amount
- Display of remaining washing time
- Indication of the washing bay equipment to be used
- CC-Talk coin checker for hard cash €0,50 / €1,00 / €2,00 and tokens
- MDB key system for RFID CarWash Key (option)
- CC-Talk banknote reader for 4 banknotes (option)
- Stainless steel-Plexi Weather protection
- 3 point locking with PZ half cylinder
- Piezo case heater 250W
- Modern carbon design

Operator terminals Man to machine

Perfect operator terminals are not only a flawless cleaning result but also a decisive reason for wash customers to visit a self-service cleaning system. Simple and clearly arranged operating elements make self-service laundry a real washing experience for the customer.

All payment and control elements are housed in a sturdy stainless steel housing. The washing and care programmes are called up via waterproof, impact-resistant and illuminated programme buttons. In addition to the programme buttons, the customer is informed about the respective washing or care programme. LED lighting ensures that the washing information is easy to read in the dark.

The large 4-digit display shows the amount of washing purchased and, once the programme has started, the remaining washing time. A waterproof switch box inside the SafeSäule provides optimum protection for the payment and operating devices. A built-in heater prevents the operating technology from freezing in temperatures below zero. The operating terminals are optimally protected against vandalism with a five-point locking system and concealed hinges. In addition to a PZ half-cylinder lock, a large padlock can also be fitted on site.

The operator terminals are connected to the main control cabinet via a serial bus connection RS458 and communicate the entire operating procedures.

Safe panel



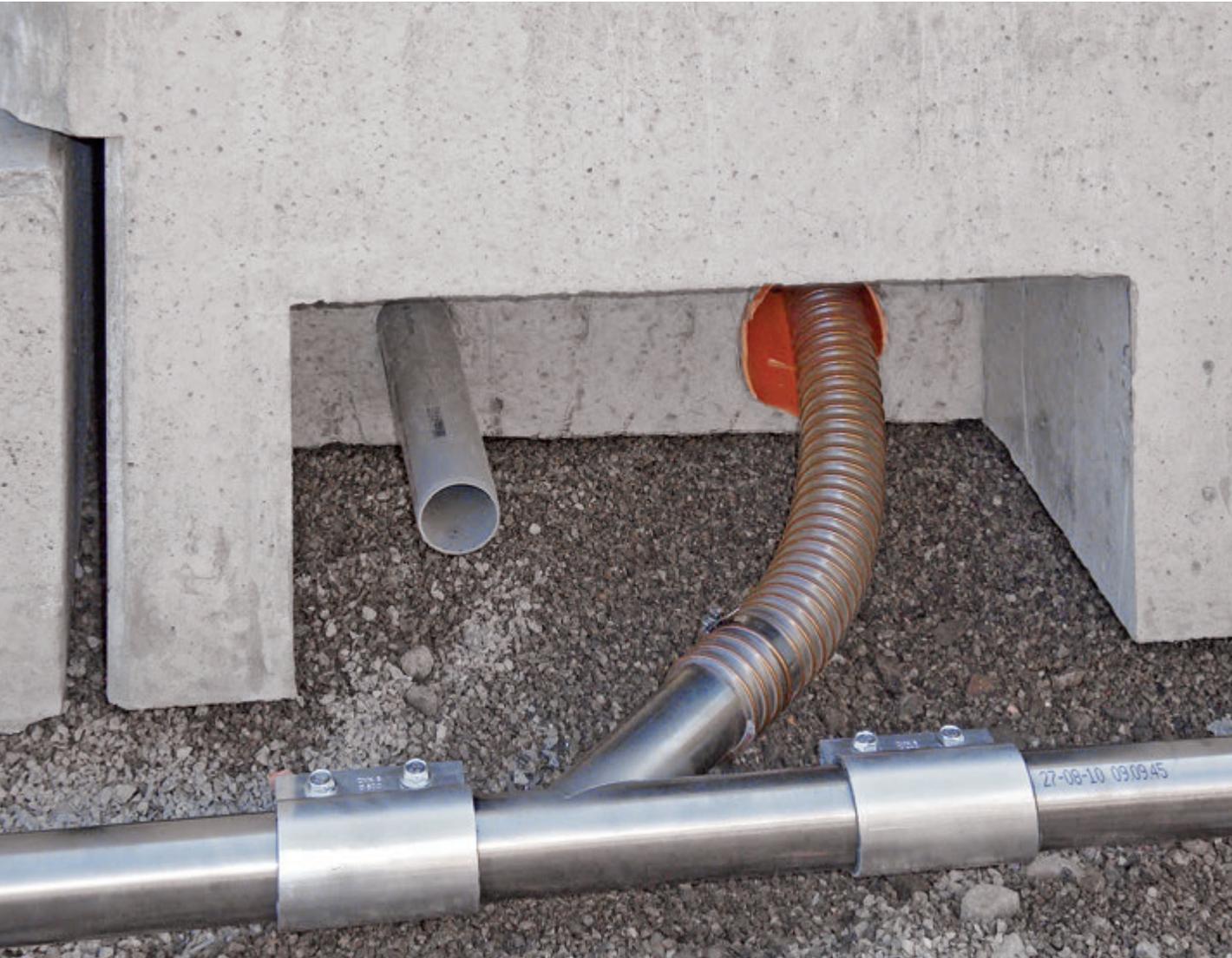
Safe panel operator terminal - a reference product - stainless steel

- suitable for wall mounting and floor installation with concrete installation frame made of stainless steel
- LED-illuminated operating panel
- Internal switch box, waterproof to protect all control and operating devices IP65
- Integrated coin extraction system (option)
- large illuminated program buttons, impact-resistant IP 65
- 4 internal stainless steel hinges
- Number of program buttons: 4 to 8
- Emergency stop or STOP button
- 4-digit display
- Display of the selected wash amount
- Display of remaining washing time
- Indication of the washing bay equipment to be used
- CC-Talk coin checker for hard cash €0,50 / €1,00 / €2,00 and tokens
- MDB key system for RFID CarWash Key (option)
- CC-Talk banknote reader for 4 banknotes (option)
- Stainless steel-Plexi Weather protection
- 5 point locking with PZ half cylinder
- Housing heater 1000W
- Modern carbon design



Coin vacuum

The safe alternative against vandalism and secure storage The daily emptying of the hard cash receipts of the operating terminals is a thing of the past.



Safe panel with coin vacuum



The daily emptying of the cash receipts of the operator terminals is a thing of the past.



EHRLE does not give thieves and vandalism a chance. In order to avoid hard cash stocks, an optional coin extraction system can be installed.

In an underground stainless steel piping system, all coins are transported to a safe inside the technical building immediately after being deposited.

Immediately after the coins are inserted, the PLC control system activates a vacuum side channel compressor inside the technical building and creates a laminar air flow into the suction pipes via the safe.

After a safety time of 5 seconds, the coin is safely dropped from the collection funnel and coin flap with lifting magnet into the built up air flow of the suction lines. The coin is sucked directly into the safe within 10 seconds.

Inside the safe there is an exchangeable stainless steel coin collection container, which can hold up to a weekly intake of coins.

The safe can be insured against burglary and theft. The CarWash operator can program the time intervals for coin extraction himself according to experience values and keep the payment amounts safe.

Removal of the washing turnover and filling in money seals can thus be carried out in the secure technology container to the exclusion of any observation by third parties.

The cash seals can be removed by the operator himself or by cash-in-transit companies at irregular intervals.

Your security is our top priority and we consider it „GREAT“.



EHRLE washing and care programme

perfectly adapted to customer requirements





Cleaning with ActivePower Pearl MicroPowder high pressure

The main course of a vehicle cleaning is high pressure cleaning with ActivePower Pearl MicroPowder. This is the basis for the subsequent care steps and guarantees satisfied car wash customers. Self-service high-pressure washing with ActivePower Pearl MicroPowder ensures the best washing results.



Rinse with clear water

The rinse cycle rinses the detergent residues of the ActivePower Pearl MicroPowder and the dissolved dirt with cold water.

This serves as the basis for the further care steps. Optionally, the rinse aid programme can be operated with decalcified or demineralised osmosis water.



Paint protection with UltraProtection[®]

UltraProtection[®] is sprayed onto the surface of the vehicle with the wash jet using hot and decalcified water. The vehicle surface is optimally protected and the water runs off the sealed paint surfaces.

The synthetic structure of UltraProtection[®] also prevents the windscreen wipers from smearing when it rains.



High gloss with SuperFinish[®]

As a final care programme, EHRLE recommends rinsing with decalcified, demineralised osmosis water mixed with SuperFinish[®].

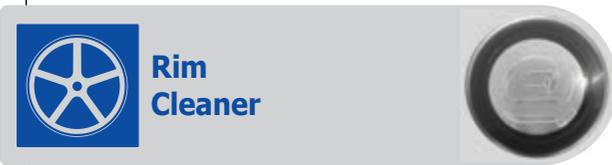
This wash cycle removes all remaining mineral deposits by chemical means. A perfectly shiny vehicle is the result of this care cycle after drying. It is not necessary to drain the vehicle.



EHRLE supplementary programmes

The EHRLE additional programmes for washing professionals and customer turnover increase

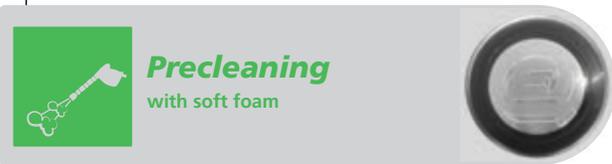




Cleaning with RimCleaner

In the first step the EHRLE RimCleaner is applied to the rim by a pre-spray device with an even spray mist. The RimCleaner produces a neon-yellow-green foam development on the rim where it unfolds its intensive cleaning power. This should act for 1-2 minutes until the foam has dissipated and signals the end of the dirt removal process.

After the soaking time, the product with the detached rim dirt is cleaned with the washing programme Clean.



Pre-cleaning with SoftFoam lance and SoftFoam

In order to achieve a perfect cleaning result, EHRLE recommends pre-cleaning with SoftFoam, this ensures a powerful dissolving of dirt, traffic film and insect remains. During this washing process, the SoftFoam is transported to the washing bay via a separate pipe system. The SoftFoam concentrate is always mixed in precisely by a dosing pump between 1 and 1.5%. In addition, the water quantity is reduced by 70% to ensure economical consumption compared to other commercially available foam systems. The solid foam is applied to the surface to be cleaned via the SoftFoam lance.



Pre-clean with SoftFoam brush and SoftFoam

In order to achieve a perfect cleaning result, EHRLE recommends pre-cleaning with SoftFoam, this ensures a powerful dissolving of dirt, traffic film and insect remains. During this washing process, the SoftFoam is transported to the washing bay via a separate pipe system. The SoftFoam concentrate is always mixed in precisely by a dosing pump between 1 and 1.5%. In addition, the water quantity is reduced by 70% to ensure economical consumption compared to other commercially available foam systems. The solid foam is applied to the surface to be cleaned with the SoftFoam brush.



EHRLE Additional Programs

The EHRLE additional programs for washing professionals and customer turnover increase





Pre-cleaning with ActivePower Pearl MicroPulver low pressure

Pre-cleaning with ActivePower Pearl MicroPowder in a low-pressure process offers intensive pre-washing at an economical price-performance ratio. The amount of water is also reduced by half and the MicroPowder is applied in a fine spray jet of 25bar in a higher concentration. The same HD washing lance is used as for cleaning with ActivePower Pearl MicroPowder under high pressure.



Cleaning with Foam-Brush and ActivePower Pearl MicroPowder

In system variants 6, 7 and 9, the Foam Brush can optionally be used in combination with the ActivePower Pearl MicroPowder. This program is a useful addition to system variant 4, where an additional foam brush can be offered in addition to the SoftFoam lance. This leaves nothing to be desired by the washing customer and ensures additional turnover at the washing bay. When using the Foam Brush, a slightly liquid cleaning foam is generated by using high pressure and ActivePower Pearl MicroPowder and transported to the wash stations via a separate pipe system. This system is an autonomous and inexpensive alternative to system variant 5. The separate pipe system prevents freezing at low temperatures and simultaneous washing at the other lances.



Cleaning with Foam-Brush and ActivePower Pearl MicroPowder

In the 3SE and 8SE system variants, the Foam Brush can optionally be used in conjunction with the ActivePower Pearl MicroPowder. This program is a useful addition to system variant 4. An additional foam brush can be offered in addition to the SoftFoam lance. This leaves nothing to be desired by the washing customer and ensures additional turnover at the wash stations. When using the Foam Brush, a slightly liquid cleaning foam is generated by using high pressure and ActivePower Pearl MicroPowder and transported to the wash bay via the existing HD line. This system is an autonomous and inexpensive alternative to system variant 5. The system variants 3SE and 8SE are suitable for outdoor temperatures down to a maximum of -3°C, especially for southern Europe and frost-free areas.



EHRLE washing and care programs

EHRLE offers 10 combinations of washing and care programs:

System 1

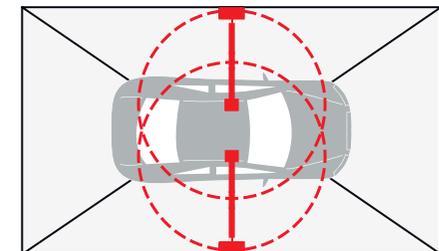
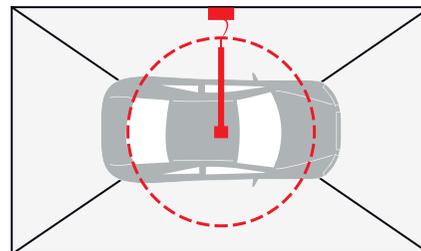
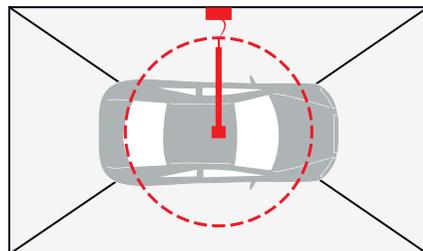
- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with lance and high pressure
- High gloss with SuperFinish with lance and high pressure
- 1 ceiling gyroscope and a 1-wire system

System 2

- Pre-cleaning with ActivePower Pearl MicroPowder with lance and low pressure
- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with lance and high pressure
- High gloss with SuperFinish with lance and high pressure

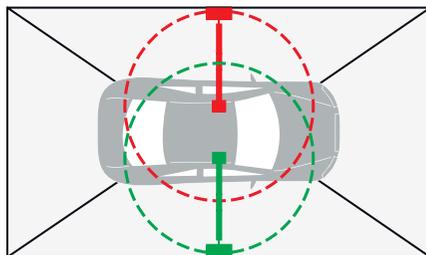
System 3SE (south europe)

- Cleaning with ActivePower Pearl MicroPowder with lance or foam brush and high pressure
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with lance and high pressure
- High gloss with SuperFinish with lance and high pressure
- 2 ceiling booms and a 1-pipe system



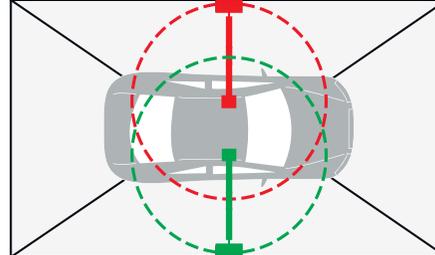
System 4

- Pre-cleaning with SoftFoam lance and Soft-Foam
- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with lance and high pressure
- High gloss with SuperFinish with lance and high pressure
- 2 ceiling booms and a 2-pipe system



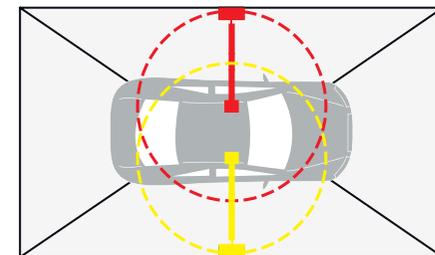
System 5

- Pre-cleaning with SoftFoam brush and SoftFoam
- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with lance and high pressure
- High gloss with SuperFinish with lance and high pressure
- 2 ceiling booms and a 2-pipe system



System 6

- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Cleaning with ActivePower Pearl MicroPowder and Foam Brush
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with lance and high pressure
- High gloss with SuperFinish with lance and high pressure
- 2 ceiling booms and a 2-pipe system



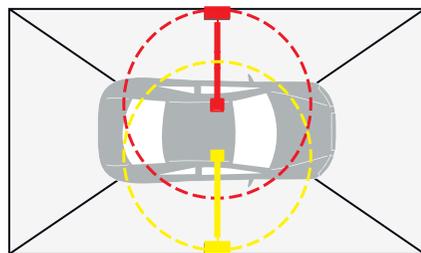


EHRLE Wasch- und Pflegeprogramme

EHRLE bietet 10 Kombinationen der Wasch und Pflegeprogramme an:

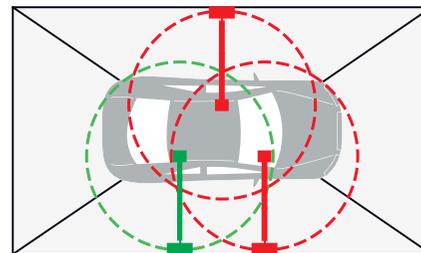
System 7

- Pre-cleaning with ActivePower Pearl MicroPowder with lance and low pressure
- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Cleaning with ActivePower Pearl MicroPowder and Foam Brush
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection, lance and high pressure
- High gloss with SuperFinish with lance and high pressure
- 2 ceiling booms and a 2-pipe system



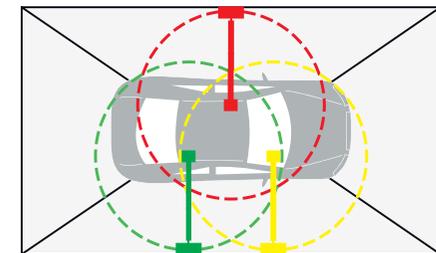
System 8 SE (South europe)

- Pre-cleaning with SoftFoam lance and SoftFoam
- Cleaning with ActivePower Pearl MicroPowder with lance or foam brush and high pressure
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with jet pipe and high pressure
- High gloss with SuperFinish with lance and high pressure
- 3 ceiling booms and a 2-wire system



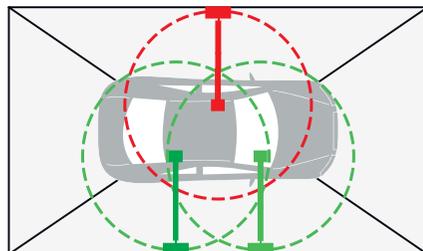
System 9

- Pre-cleaning with SoftFoam lance and SoftFoam
- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Cleaning with ActivePower Pearl MicroPowder and Foam Brush
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with jet pipe and high pressure
- High gloss with SuperFinish with lance and high pressure
- 3 ceiling booms and a 3-wire system



System 10

- Pre-cleaning with SoftFoam lance and SoftFoam
- Pre-cleaning with SoftFoam brush and SoftFoam
- Cleaning with ActivePower Pearl MicroPowder with lance and high pressure
- Clear rinsing with lance and high pressure
- Paint protection with UltraProtection with lance and high pressure
- High gloss with SuperFinish with lance and high pressure
- 3 ceiling booms and a 3-wire system



System	Smart-Wash	Smart-Wash PLUS	JetWash	JetWash PLUS	CarWash PLUS	CarWash Compact-Line	CarWash ModulLine	
1	✓	✓	✓	✓	✓	✓	✓	4 + 1 Buttons
2	x	x	✓	✓*	✓	✓	✓	5 + 1 Buttons
3SE	✓	✓	✓	✓	✓	✓	✓	4 + 1 Buttons
4	✓	✓	x	✓	✓	✓	✓	5 + 1 Buttons
5	✓	✓	x	✓	✓	✓	✓	5 + 1 Buttons
6	✓	✓	x	✓	✓	✓	✓	5 + 1 Buttons
7	x	x	x	✓*	✓	✓	✓	6 + 1 Buttons
8SE	✓**	✓**	x	✓	✓	✓	✓	5 + 1 Buttons
9	x	x	x	✓	✓	✓	✓	6 + 1 Buttons
10	x	x	x	✓	✓	✓	✓	6 + 1 Buttons
Rim Cleaner	x	x	x	x	x	✓	✓	7 + 1 Buttons

* only 1-2 Wash bays ** with loss water



Condition-Monitoring and EHRLE-App

Monitoring and control of the self-service installation as well as business management evaluations with the EHRLE app

ConditionMonitoring 1 basic version

In the basic version of the Condition Monitoring 1 (CM 1) all plant-relevant data can be read out on site. Via a 7" TFT touch-screen monitor the settings can also be changed very easily. The following selection areas are accessible:

- Systems
- Settings
- Finances
- Parameters
- Software
- Service

The data can be accessed via EHRLE Remote-App and a GSM or WAN/LAN modem (option), from any location and viewed on your SmartPhone, Tablet or PC.



ConditionMonitoring 2 (Option)

In the configuration level Condition Monitoring 2 (CM 2), all relevant system data are additionally displayed on a high-resolution 12" TFT touch screen monitor. Via a GSM or WAN/LAN modem and a VPN connection via EHRLE App, these can be called up at any location and clearly displayed on your SmartPhone, tablet or PC.

With this expansion stage, the following data are also monitored:

- Fresh water pressure
- Washing media printing
- Osmotic water pressure
- Frost protection circuit pressure

The media pressure monitors constantly monitor the system pressures of fresh water inlet, osmosis, antifreeze and washing water. Sensors immediately report a defect or fault in the system with date and time. This is stored in the error memory and is a valuable aid for service.

The entire system processes and the function of all system components can be seen on a graphically animated user interface in the online view and immediately indicate system faults graphically and with text notes.

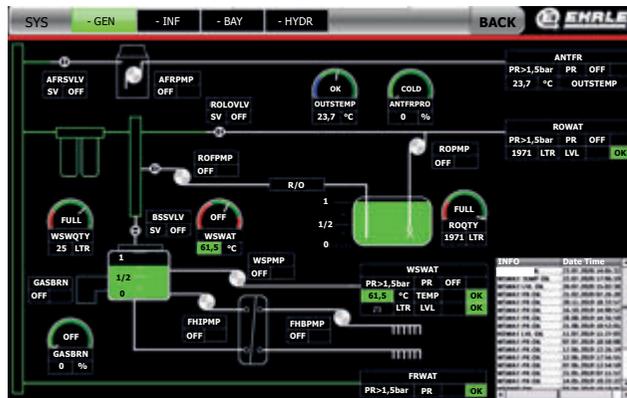
ConditionMonitoring 3 (Option)

In addition to the advantages of the CM 2, the Condition-Monitoring 3 (CM 3) version additionally monitors the pressure of all high-pressure pumps independently of each other and displays them on an analogue display. All storage tanks for chemical additives and the ActivePower Pearl MicroPowder are level-monitored and clearly displayed.

The system operator can get an impression of the washing and care product quantities at any time.



Systems General



The presentation **SYSTEMS GENERAL** provides an overview of all relevant main systems of the EHRLE SB-Car-Wash system. Antifreeze, floor heating, water softening system, reverse osmosis system, filling quantities of all tanks and containers, temperatures and heating capacity of the hot water boiler. The fill quantities are displayed both in digital and analogue form. All system components are displayed in real-time and animated on the TFT screen. A simple display logic, derived from the avionics of modern cockpit systems, allows all operating conditions to be easily recognised and analysed even by personnel who are less interested in technology. 3-colour rule:

- White: System is out of operation and on stand-by
- Green: Currently in operation and OK
- Red: There is a technical problem in this line

At the same time, all operating states or faults are stored on a separate page with date and time in analogue form. This allows easy troubleshooting and avoids unnecessary service costs.

Washing bay systems



The Systems **WASHING FACILITIES** overview shows the entire self-service car wash in the respective operating states, separated according to wash bays. After customer payment has been made at the selected wash bay, the WASHBAY ON field is activated. When the customer selects a programme, the selected washing programme becomes active and the field e.g. WPRG 2 is displayed.

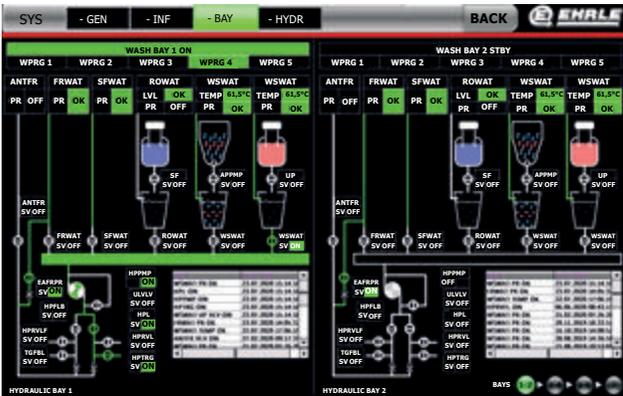
This display enables the investor to recognise and react to the washing behaviour of his customers anonymously and without violating the DSGVO. This is especially useful for time intervals for the happy hour washing times or when changing washing and care products. Furthermore, idle times or the blocking of a washing bay can be detected simultaneously. It is a good feeling to know what is currently happening at the washing bay. This data can also be called up via a GSM or WAN/LAN modem and a VPN connection via the EHRLE App, at any place and time and can be clearly displayed on your SmartPhone, tablet or PC.



Condition-Monitoring and EHRLE-App

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System hydraulics per wash bay



The page **SYSTEMS HYDRAULICS PER WASH BAY** provides information about the technical sequences and operating functions at the selected wash bay. The currently selected wash programme is displayed in the upper area and the hydraulic diagram below shows the system components. In this view, the media flow and the switching positions of all solenoid valves and pumps can be followed. Here again the already mentioned 3-colour rule applies. Even the opening and closing of the washing lance at the washing bay is displayed online.

Manipulation or incorrect operation by the washing customer is quickly detected. This overview is

indispensable for the analysis of technical faults and the service technicians can trace component faults online and provide targeted remedial action. The EHRLE remote maintenance department can also view these system displays in the event of a malfunction and provide rapid assistance via remote maintenance. On a separate page in the lower right-hand area, all operating states or malfunctions are stored again in analogue form with date and time.

Password protected



The washing turnover of the self-service car wash can be read out via a **PASSWORD-PROTECTED** access. Similar to a SmartPhone, a 4-digit access code is used to unlock the ECONOMICS pages and grant detailed access. Every wrong entry is stored and with the 3rd wrong entry the ECONOMICS system is automatically blocked for any further access. Access can be restored via a factory unlock code and a new password can be assigned. Only the operator knows the password, even service technicians cannot open the system.

Total turnover washing plant



	ACTUAL	ACTUAL AVERAGE PER DAY
24 H	86,00 €	
WEEK	528,50 €	132,07 €
MONTH	3998,50 €	175,77 €
YEAR	13334,00 €	65,27 €
TOTAL	48789,00 €	124,02 €

DATE OF RESET: 2019.07.11 7:22:21 | DAYS AFTER RESET: 393

The **ECONOMIC TOTAL** overview shows the total washing turnover of the sb-washing system. The recorded washing transactions are added and displayed separately. A distinction is made between the respective cash transactions in different currencies, by cash (CASH), CarWash key (KEY), tokens (JETONS) and credit card payment (CARD).

When the transactions are disclosed for tax, the cash receipts, separate from virtual payments to other POS, shall be indicated therein where they have been made.

A continuous average calculation (ACTUAL AVARAGE PER DAY) over the entire life of the sb washing system shows current trends and developments on which an investor can immediately rule.

Sales per wash bay



	ACTUAL	ACTUAL AVERAGE PER DAY
24 H	18,50 €	
WEEK	139,00 €	34,75 €
MONTH	1190,52 €	66,14 €
YEAR	1246,92 €	69,25 €
TOTAL	1438,02 €	79,89 €

The **ECONOMIC BAY** page is an information page for the system operator and provides information, separate from the total turnover, about the washing turnover at the individual washing bays. Thus, trends of the washing customers are quickly recognised and can be reacted to in a targeted manner. The turnover at the self-service hoover stations can also be viewed and evaluated.

These turnovers are displayed at different time intervals:

- current day
- current week
- current month
- current year
- total total

In connection with the continuous average calculation (ACTUAL AVARAGE PER DAY) over the respective time intervals shown above, short-term, medium-term and long-term developments can be analysed and valuable sales-increasing measures and customer programmes can be developed, e.g. washing in the rain at a special price, or when paying with credit cards and key-loading with advertising discounts with washing time addition, or similar.



Condition-Monitoring and EHRLE-App

Monitoring and control of the self-service installation as well as business management evaluations with the EHRLE app

Opening hours

	FROM hh:mm:ss	TO hh:mm:ss	FROM hh:mm:ss	TO hh:mm:ss
MONDAY	06:55:00	22:15:00	00:00:00	00:00:00
TUESDAY	06:55:00	22:15:00	00:00:00	00:00:00
WEDNESDAY	06:55:00	22:15:00	00:00:00	00:00:00
THURSDAY	06:55:00	22:15:00	00:00:00	00:00:00
FRIDAY	06:55:00	22:15:00	00:00:00	00:00:00
SATURDAY	06:55:00	22:15:00	00:00:00	00:00:00
SUNDAY	06:55:00	22:15:00	00:00:00	00:00:00

The **SETTINGS OPENING TIMES** page provides information on the operating times of the self-service car wash. Different opening times can be entered for each day of the week, which are stored in the permanent memory of the control unit. In the event of an unforeseen power failure, all data is retained.

In addition, the permanently stored opening time intervals can be changed for 24 hours at a time using quick-dial keys without affecting the opening times as a whole. This function is an important aid, especially on public holidays, to put the system out of operation for 24 hours or to release the system unplanned during events without overwriting the basic programming.

Also during opening hours, a time interval with happy hour can be set, in which the washing times can be extended in percentage terms for the amount paid, according to the operator's specifications. This function can be selected on normal low-turnover days to

increase the washing turnover on those days in particular. This data can also be called up and changed via a GSM or WAN/LAN modem and a VPN connection via the EHRLE App, at any place and time.

Chemical dosing - Temperatures

ACTIVPOWER PEARL MICROPOWDER QTY:	0,35 SEC.
ULTRAPROTECTION POLYWAX QTY:	0,35 SEC.
SUPERFINISH DRYINGLIQUID QTY:	0,07 SEC.
START ANTI FROST PROTECTION:	3,0 °C
WASH WATER TEMPERATURE:	58,0 °C
WATER BASIN OPEN TIM	5,00 SEC.
MULTIPLICATOR HAPPY HOUR:	1,00
ACTUAL DATE / TIME:	2020.07.23 15:16:52

The overview **SETTINGS - DETERGENT - TEMPERATURE - TIME** shows the set values for

- Chemical dosing MicroPowder dosing
- Paint protection UltraProtection liquid dosage
- Glossy dry SuperFinish liquid dosing

and the start temperature for the antifreeze circuit and the underfloor heating. The washing water temperature can also be infinitely adjusted. All values are entered in digital form and are made available and stored in the main control system for all washing bays simultaneously.

A multiplier can be entered for the happy hour, which increases the washing time per amount of money.

Via EHRLE App, all data can be called up and also changed.

Washing prices according to business aspects

SET	- OPH	- DTGT-TEMP-TIME	- CREDIT	- CM	BACK	
WASHPROGRAMM 1 SOFTFOAM	1,00 EURO	60	SEC.			
WASHPROGRAMM 1 BRUSH	1,00 EURO	80	SEC.			
WASHPROGRAMM 1	1,00 EURO	80	SEC.			
WASHPROGRAMM 2	1,00 EURO	120	SEC.			
WASHPROGRAMM 3	1,00 EURO	80	SEC.			
WASHPROGRAMM 4	1,00 EURO	90	SEC.			
WASHPROGRAMM RIM CLEANER	1,00 EURO	30	SEC.			
TIME VACUUM	1,00 EURO	240	SEC.			

With the CarWash SB-CarWash systems from EHRLE, you can determine the washing prices individually depending on the program. The EHRLE washing price calculator provides information about the yields and the associated cost price. Depending on the selected washing program, a different base price can be set depend-

ding on the time of the time determined from this.

Thus, different prices of cleaning and care products, as well as energy costs can be optimally adjusted economically. The cheaper the operating price, the longer the intended washing time. This results in an average longer dwell time at the washing station.

EHRLE Washing Price Calculator

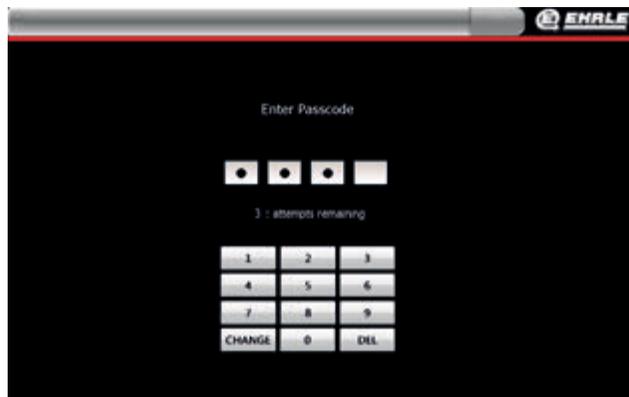
EHRLE CarWash - Profit calculation based on one wash			
Cost for one wash			
The yellow fields are variable and can be changed according customer			
The grey fields are only for information and can be changed. Those have no			
		V.A.T	19,00%
Costs for infrastructure:	Pre-Dilution	Price netto <u>without</u> V.A.T	
RimCleaner (Concentrate)		1,58 €	@ ltr
SoftFoam (Concentrate)		3,42 €	@ ltr
ActivePowerPearl MicroPowder		6,31 €	@ kg
UltraProtection (Concentrate)		10,91 €	@ ltr
UltraProtection (Dilution)	200%	5,46 €	@ ltr
SuperFinish (Concentrate)		9,21 €	@ ltr
SuperFinish (Dilution)	400%	2,30 €	@ ltr
Salt for water softener		7,00 €	@ 20kg
Water including waste		5,50 €	@ m ³
Natural Gas		0,50 €	@ m ³
Electricity		0,31 €	@ kWh
Average T/O for one wash - estimated		Usage (sec)	Time
Waschprogramm 1	RimCleaner	1,68 €	60 0:01:00
Waschprogramm 2	SoftFoam	0,57 €	60 0:01:00
Waschprogramm 3	APPMP FoamBrush	0,65 €	70 0:01:10
Waschprogramm 4	APPMP H.P.	0,65 €	70 0:01:10
Waschprogramm 5	Rinsing	0,44 €	50 0:00:50
Waschprogramm 6	PaintProtection	0,38 €	40 0:00:40
Waschprogramm 7	SuperFinish	0,76 €	80 0:01:20
Vacuum Cleaner	Vacuum	0,84 €	240 0:04:00
	Total	5,98 €	670 0:11:10



Condition-Monitoring 2+

Personalisation and extended password protection with the possibility of evaluating the individual payment methods and payment system with turnover history

1. Password protection



All control panels that contain fiscal data, settings, parameters or service areas are protected with different passwords. Thus, each area can only be accessed by authorized employees. Even service personnel cannot unlock the self-service car wash uncontrolled. The passwords can be changed at will. Every attempt of an incorrect entry is registered and in case of a third incorrect entry the field is locked and can be reactivated with a reset password. Thus your data is safe from unauthorized access.

2. Evaluations in detail

SUM HISTORY		AVERAGE PER DAY	
TOTAL SUM	€	€	€
2020	341310,50	€	456,30
2019	1322822,00	€	577,37
2018	165358,50	€	453,03
2017	43130,00	€	118,16
2016	0,00	€	0,00
2015	0,00	€	0,00
2014	0,00	€	0,00
2013	0,00	€	0,00
2012	0,00	€	0,00
2011	0,00	€	0,00
2010	0,00	€	0,00

Each area of a self-service car wash can be evaluated separately. Background is the fiscal consideration and evaluation in accordance with the fiscal guidelines.

The total turnover evaluation is decisive for the assessment of the success development of a self-service car wash, regardless of whether the turnover is generated by cash, purchase and revaluation of customer CarWash Keys, tokens or payment via credit card and SmartPhone.

By separating these individual payment processes, you will be informed in detail about the customer payment method and can observe the trend development and, if necessary, influence it to increase turnover.

You also avoid an unintentional double addition of car wash sales, which have already been taxed in advance by recharging CarWash Keys, or by purchasing chips or redeeming voucher codes.

The sales generated can be read out either in total or separately by car wash location. Also the achieved sales in the CentralPay can be read in total, or separately by cash or credit card. An average calculation based on 24h, week, month and year shows trend

3. Personalized display



Especially for investors who operate several EHRLE CarWash self-service car washes, we recommend the use of the personalized display. On the touch screen, when the condition monitoring is opened, the system becomes visible through a specially embedded image.

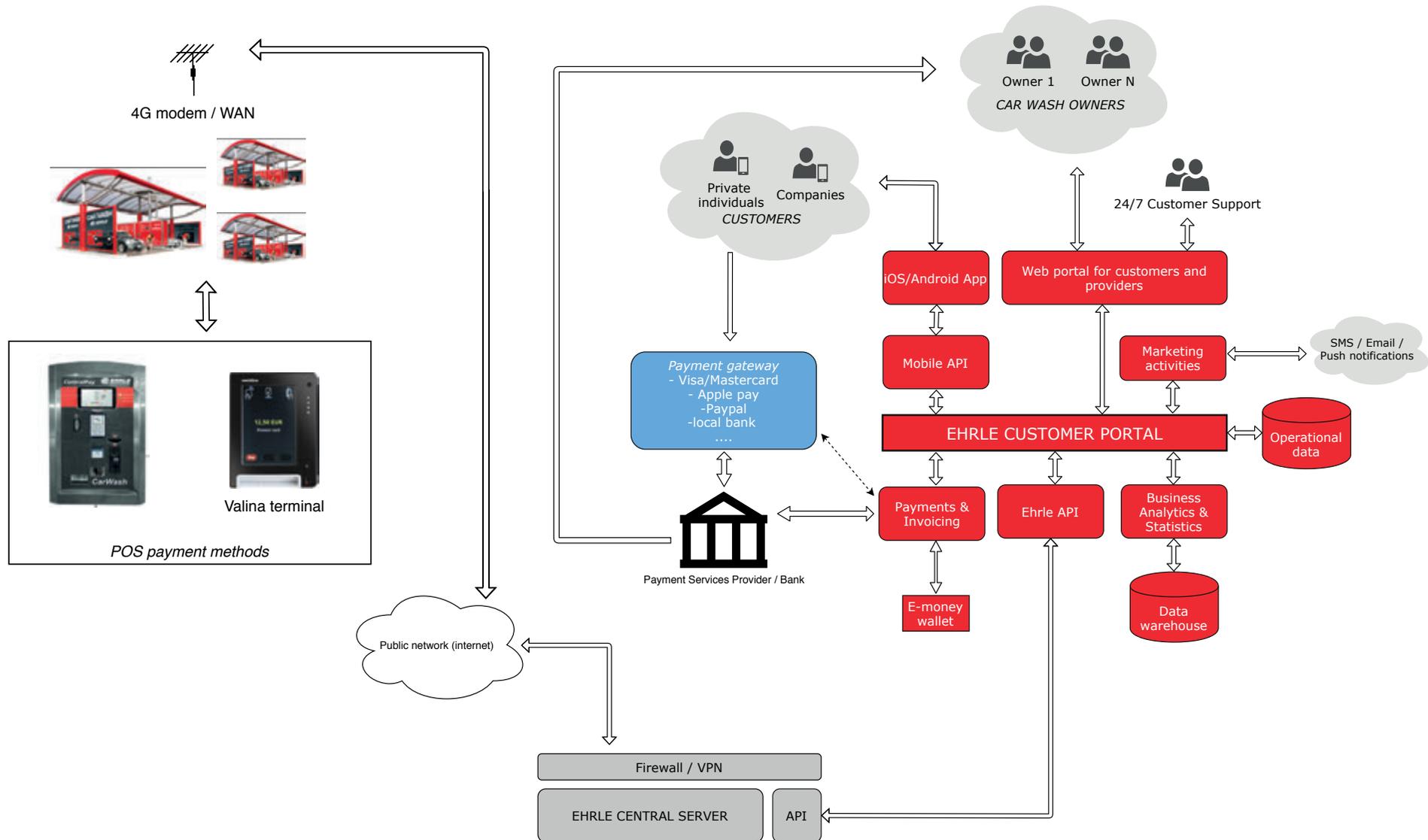
This avoids an unintentional risk of confusion when controlling, monitoring and evaluating the self-service car wash.

Furthermore, the visual impression of a personalized display is professional and lasting when explaining to third parties.



The EHRLE Cloud

Monitoring and control of the self-service system via cloud and customer app

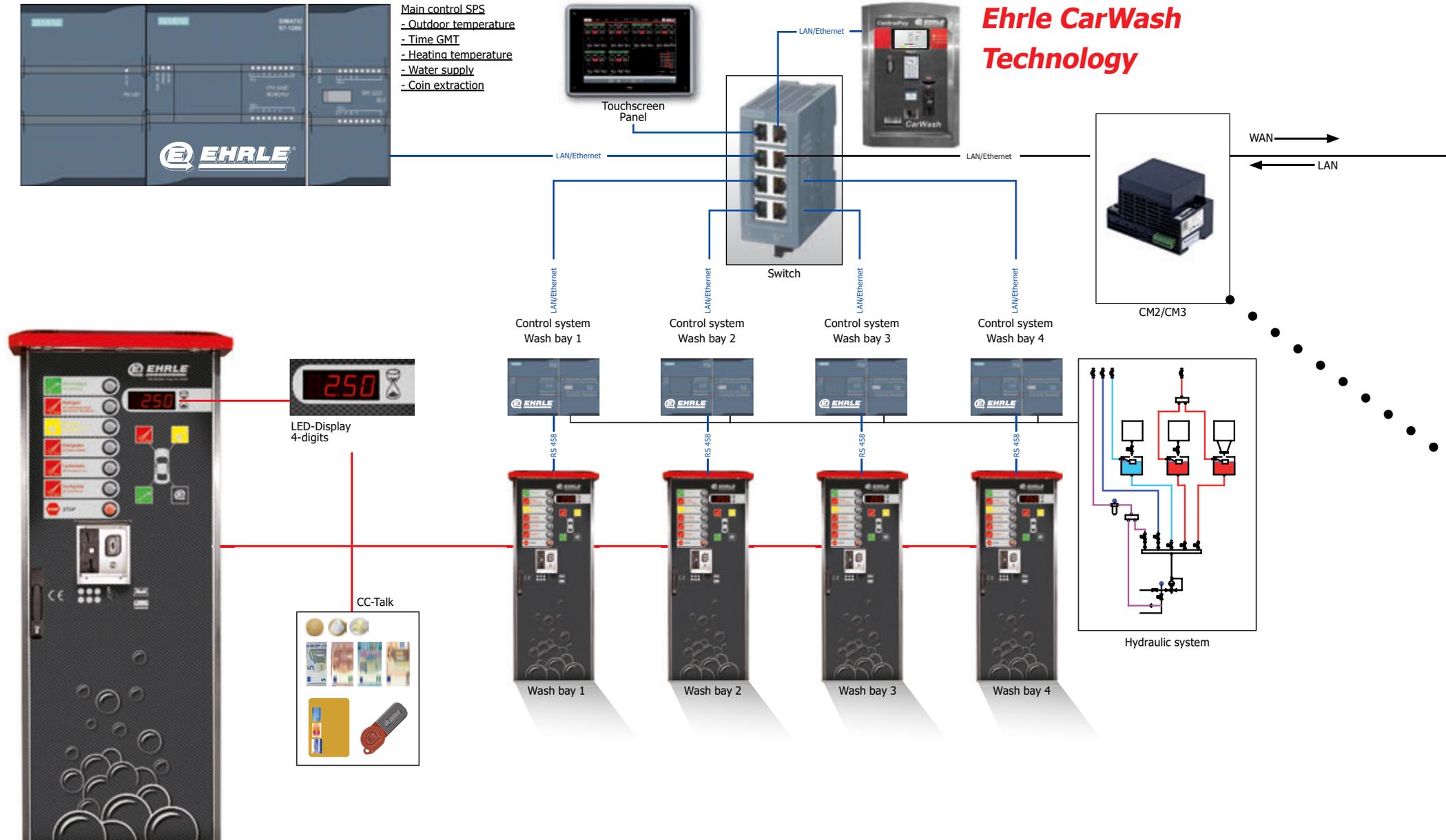




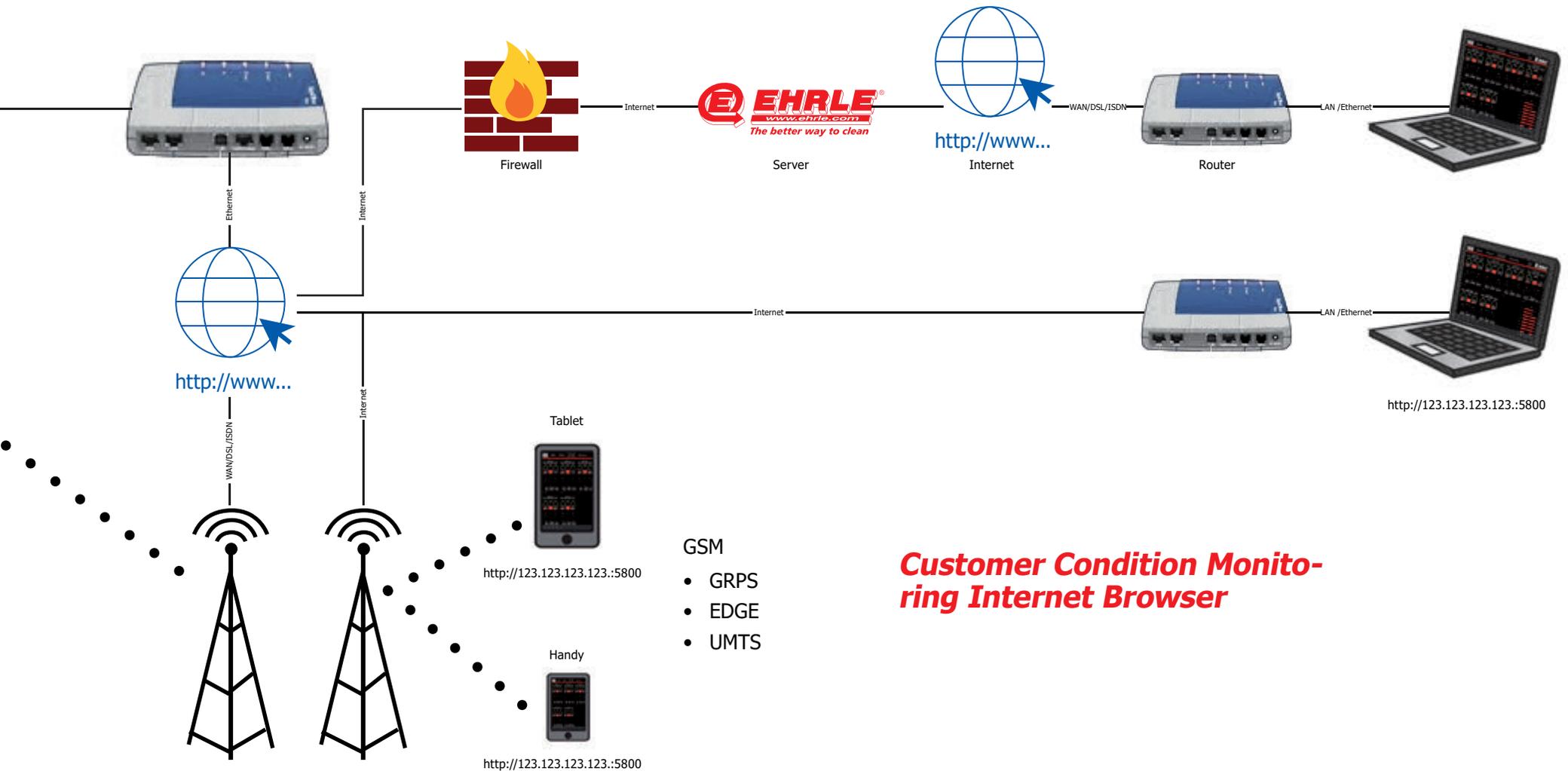
Networking and data transmission

For fast access for the plant operator and service - informed and „Up-To Date

Ehrle CarWash Technology



Service Software Update Error



Customer Condition Monitoring Internet Browser



Customer animated washing and care instructions

Customer animated washing instructions



User-friendly clean

EHRLE offers a state-of-the-art, visual, light-animat- ed washing and care instruction to offer the most user-friendly customers.

At the same time, the customer is encouraged to use the programs in the order that provide him with the best possible washing and maintenance result. The washing customer thus stays in the washing box with up to 20% longer and simultaneously increases the turnover of the washing plant operator.

 **Programme ON**

 **Programme OFF**

 **Next possible programme FLASH**

Stand-By Betrieb



1. Pre-cleaning SoftFoam



2. Cleaning with lance



3. Cleaning with brush



4. Rinsing



5. Paint Protection UltraProtection



6. High Gloss SuperFinish





EHRLE WatchDog

The perfect fiscal control system. WatchDog monitors and documents the all payment transactions



The EHRLE WatchDog WHL 100 is a stand-alone device. It monitors the information traffic between the machine host controller (VMC) and payment devices for payment transactions in order to record it in an internal permanent memory.

The recorded data can be downloaded from the WatchDog WHL 100 to a USB stick. The file output is in CSV format. The CSV files are displayed in Excel lists.

For tax-relevant recordings, the device is protected against data alteration by anti-tampering seals. The recorded payment data is permanently stored on the device in a non-removable permanent memory. This memory cannot be accessed from outside the device for writing. The data is read out with the help of a USB stick.

If devices are disconnected, the corresponding log entry is visible and thus the operator, as well as the tax office, knows whether all payment devices are and were connected at all times when the device was operated. These events are recorded: Reset / power on; disconnect devices, connect devices etc.

The serial numbers of all connected devices are also recorded to document any manipulation by unauthorized hardware replacement.



EHRLE WatchDog

The perfect fiscal control system. WatchDog monitors and documents the all payment transactions

Coin selector cc-talk



Credit Card System



Note reader cc-talk



Control board



Key reader MDB



PC



USB-Stick





EHRFisk the fiscal, evaluation software

Protocol on the system status of payment systems



WHL 100.E ^{MEM}

- Home
- Sales
- Report
- System
- Devices
- Configuration

Home

Firmware version	0.1.2.19
GUI	0.1.1.13 - us
Serial #	23B12378952
State	Running
IP address	192.168.99.222
MAC address	00:60:37:12:34:DE

Via a WEB-browser and a password protected access code the system can be connected to the cash register system. The individual topics can be selected via a clearly arranged menu:

Homepage

- Sales
- System
- Devices
- Configuration

The readout of the turnover can also be done via USB stick. This USB access can also be used for your own controlling as well as an electronic, tamper-proof recording requirement for the tax authorities.

The principles for the proper keeping and storage of books, records and documents in electronic form as well as for data access (GoBD) are merely an administrative regulation of the Ministry of Finance. They therefore do not have the enforceable effect of a regulation or a law. Nevertheless, every trader is legally obliged to comply with the principles of orderly accounting (GoBD) according to the German Fiscal Code.

It is therefore not recommended to violate generally accepted principles of the GoBD. The generally recognized principles of GoBD include the immutability of the cash vouchers as well as an obligation to keep individual records. Only the storage of cumulative sales (Z report) is not sufficient. Furthermore, the sales data must be exportable in a certain format.

The totals report

					
CSV-Import					
SUM Report					
Customer:	VAT-No.:	Device:	Evaluation Period		Evaluation Date
EHRLE Consulting GmbH	DE 306221949	WHL 100	Start	End	13.01.2020
Hauptstraße 11		02B06739373118	13.08.2019	13.01.2020	
D-89257 Illertissen					
Germany					
+49 7303 9671095					
Source	SUM since last reset		Total SUM	Tax	NO Tax
Coins	107,50 €		58.416,50 €	yes	no
Bills	53,50 €		29.208,00 €	yes	no
Cashless (Key)	107,50 €		58.416,50 €	no	yes
Cashless (Creditcard)	46,00 €		25.313,50 €	yes	no
Chashless (Jetons)	35,70 €		19.472,00 €	no	yes
No Nomination	0,50 €		120,00 €	-	-

The EHRFisk is a fiscal evaluation software for all customer proceeds at the self-service car wash systems. All important parameters such as date, designation and serial number, the paying agent (POS) and the name of the fiscal officer are listed and documented in the header of the revenue statement. The evaluation period can be determined as desired via an input mask.

Here, the taxable and the ad hoc non-taxable income are presented in separate categories. Taxable proceeds are cash receipts in coins, banknotes and cashless credit card payments.

Ad hoc non-taxable proceeds are redemptions of CarWash-Keys or tokens, which have previously been upgraded or purchased at a separate dispensing machine. Systems for fiscal control must also be installed for the separate dispensers mentioned here, so that „non- or double assessments“ of fiscal taxable revenues at different POS can be avoided. The sum of all POS is relevant for the fiscal overall view of a self-service car wash system and avoids fiscal manipulations.



EHRFisk the fiscal, evaluation software

Protocol on the system status of payment systems

SUM Report								
Customer:	VAT-No.:	Device:	Evaluation Period		Evaluation Date			
EHRLE Consulting GmbH	DE 306221949	WHL 100	Start	End	13.01.2020			
Hauptstraße 11		02806739373118	13.08.2019	13.01.2020				
D-89257 Illertissen								
Germany								
+49 7303 9671095								
Date	Time	ID	Type	Status	Manufacturer	Name	S/N	Firmware
13.08.2019	11:28:51		WHL100	Power On (Voltage: 24338mV)	whBerlin	WHL 100	02806739373118	0.1.2.23
13.08.2019	11:28:52	2	ccTalk Bill ValidatoNV9	connected	ITL	NV9	6701568	NV9037005
13.08.2019	11:28:54	5	MDB Cashless 1	connected	RFT	2905D24235EK	31550	0.1.3.4
13.08.2019	11:28:55	6	MDB Cashless 2	connected	CCV	OPP-C60C	18136210	5.6.4.1
13.08.2019	11:36:27	1	ccTalk Coin AcceptorEMP	connected	WHM	EMP	682212	EMP V0780.27
13.08.2019	11:37:16	1	ccTalk Coin AcceptorEMP	disconnected	WHM	EMP	682212	EMP V0780.27
13.08.2019	11:37:39		WHL100	Power On (Voltage: 24326mV)	whBerlin	WHL 100	02806739373118	0.1.2.23
13.08.2019	11:37:40	2	ccTalk Bill ValidatoNV9	connected	ITL	NV9	6701568	NV9037005
13.08.2019	11:37:42	5	MDB Cashless 1	connected	RFT	2905D24235EK	31550	0.1.3.4
13.08.2019	11:37:43	6	MDB Cashless 2	connected	CCV	OPP-C60C	18136210	5.6.4.1
13.08.2019	14:02:49		WHL100	Configuration modified	whBerlin	WHL 100	02806739373118	0.1.2.23
13.08.2019	14:03:08	2	ccTalk Bill ValidatoNV9	disconnected	ITL	NV9	6701568	NV9037005
14.08.2019	14:18:45		WHL100	Power On (Voltage: 12135mV)	whBerlin	WHL 100	02806739373118	0.1.2.23
14.08.2019	14:18:46	2	ccTalk Bill ValidatoNV9	connected	ITL	NV9	11160064	NV9037805
14.08.2019	14:22:06	1	ccTalk Coin AcceptorEMP	connected	WHM	EMP	798815	EMP V0643
14.08.2019	14:57:45	1	ccTalk Coin AcceptorEMP	disconnected	WHM	EMP	798815	EMP V0643
14.08.2019	14:57:45	2	ccTalk Bill ValidatoNV9	disconnected	ITL	NV9	11160064	NV9037805
14.08.2019	14:57:46	1	ccTalk Coin AcceptorEMP	connected	WHM	EMP	798815	EMP V0643

Not only the execution of the fiscal recording obligation is the basis for perfect accounting, but also the manipulation security of all installed payment systems.

The aim is to be able to detect subsequent manipulations of sales data. The check for changes and gaps is carried out in an exportable journal with a checking software.

Each cash entry is provided with an electronic signature. The signature works according to the block chain principle. When generating the signature, not only components of the current sales document are used, but also the signature of the previous document.

Furthermore, the external security device, which cannot be manipulated by the POS software, is integrated into the signature generation. The signature is stored encrypted in the journal. If transactions are manipulated in the journal, the chain of signatures no longer exists. With a verification software it is possible to find out at the push of a button where the manipulation took place.

All systems are recorded and fully documented by EHRLE WatchDog.

Seamless recording of all payment transactions

The single report as fiscal proof

<div style="float: left; border: 1px solid black; padding: 2px;">CSV-Import</div> <div style="float: right; text-align: right;">  </div>						
PAYMENT Report						
Customer:	VAT-No.:	Device:	Evaluation Period		Evaluation Date	
EHRLE Consulting GmbH	DE 306221949	WHL 100	Start	End	13.01.2020	
Hauptstraße 11		02806739373118	13.08.2019	16.08.2019		
D-89257 Illertissen						
Germany						
+49 7303 9671095						
Position	Date	Time	Value	Currency	Tax	NO Tax
3784	13.08.2019	10:36:59	0,5	EU	no	yes
3785	13.08.2019	10:38:11	2,5	EU	yes	no
3786	13.08.2019	10:38:50	20	EU	yes	no
3787	13.08.2019	11:34:54	1	EU	yes	no
3788	13.08.2019	11:35:58	3	EU	yes	no
3789	13.08.2019	11:36:48	0,5	EU	no	yes
3790	13.08.2019	11:36:52	0,5	EU	no	yes
3791	14.08.2019	16:59:59	5	EU	yes	no
3792	14.08.2019	18:08:41	5	EU	yes	no
3793	14.08.2019	19:34:10	20	EU	yes	no
3794	14.08.2019	19:35:12	5	EU	yes	no
3795	15.08.2019	09:30:51	9	EU	yes	no
3796	15.08.2019	09:43:03	1	EU	yes	no
3797	15.08.2019	11:04:52	2	EU	yes	no
3798	16.08.2019	10:19:44	2	EU	yes	no
3799	16.08.2019	12:30:44	5	EU	yes	no

In addition to the summary report and the log on the system status of the payment systems, EHRLE-Fisk also offers the proof of all fiscal transactions as a single report.

This single report can be used for a detailed and complete control of the money service companies and also as a proof for fiscal authorities. Cash accounting by hand is no longer necessary with this system. In case of discrepancies, all 3 reports are used as a basis for the preservation of evidence.

In addition to the sequential transaction numbers, provided with date and time of the transactions, the payment amount and the associated currency is documented. In border areas, multi-currency systems can also be recorded.

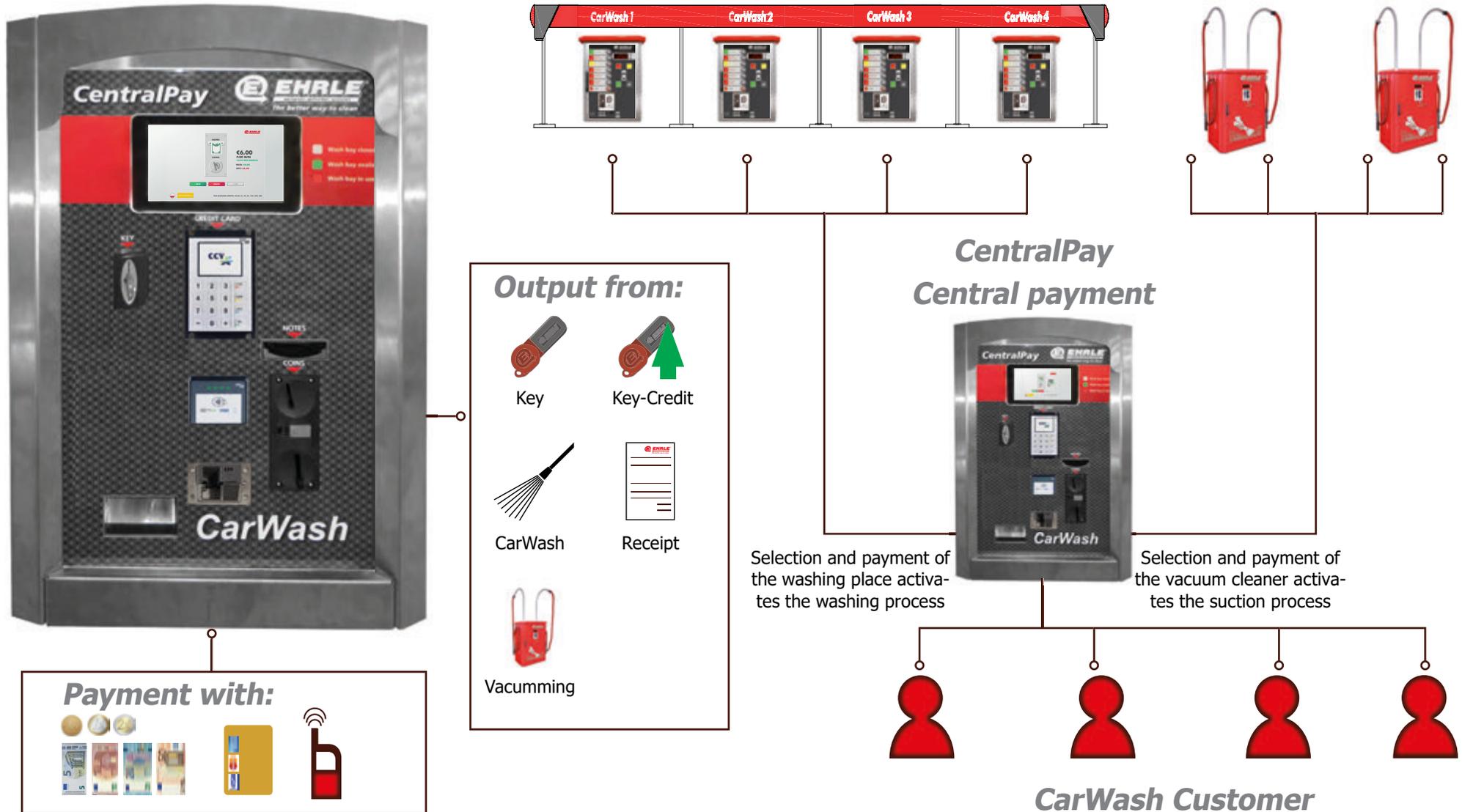
A fiscal differentiation possibility between real cash payments, by means of coins or notes, which are fiscally relevant and token, CarWash-Key receipts, which were transacted at another POS, can be evaluated thus easily.

Also payments by credit cards or payments by smart phone are documented separately.

Individual periods can be selected and analyzed using evaluation software.

EHRLE CentralPay 8 in 1

Centrally networked POS with credit card terminal and everything in one place



One central POS system for the entire self-service laundry area

The new EHRLE cash register system combines variety with ingenuity, the future can begin. At a central and safe place, clearly visible for all car wash customers, the CentralPay is installed at the wash place.

One POS is enough for your entire self-service car wash, self-service vacuum cleaner stations and all other vending or service machines.

Forget interference-prone coin and bill validators at the wash stations. The EHRLE CentralPay offers your customers 2 options to pay at the self-service car wash.

Option 1

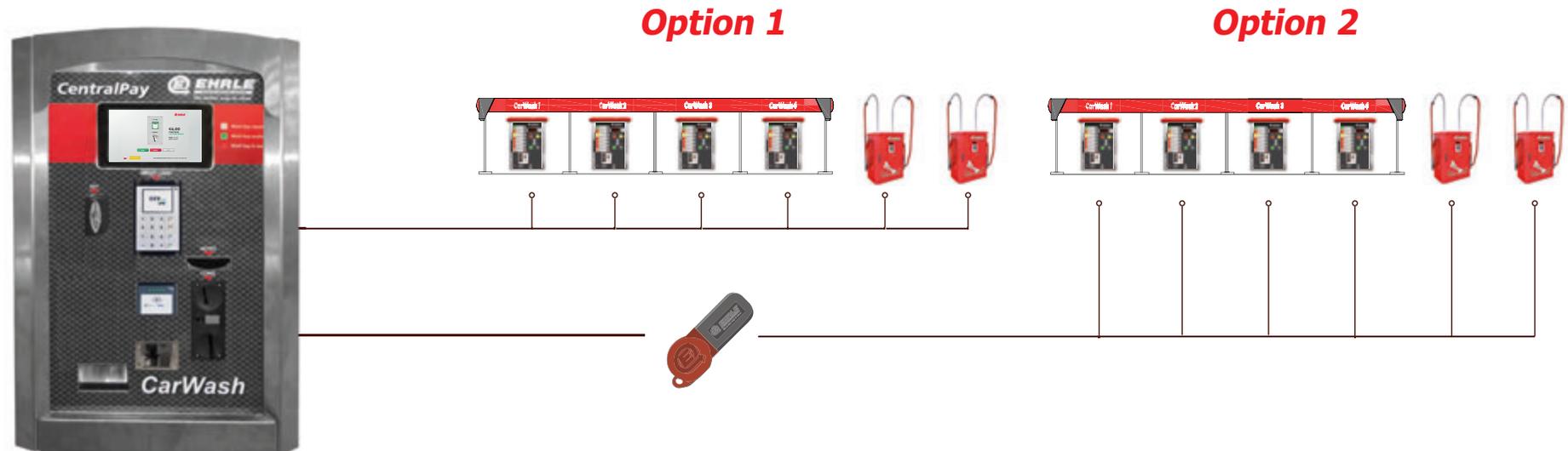
The CentralPay is networked with all peripheral devices at the self-service wash station via an Ethernet connection. The customer simply enters his stand number and pays for laundry or other selected services at the CentralPay.

After completion of the payment process, the pre-selected laundry amount awaits the customer at his selected stand and he can start the cleaning and maintenance work at the push of a button. The process can even be interrupted for some time via a STOP button on the operating terminal without losing time.

Option 2

The car wash customer releases a CarWash key at the CentralPay, which is already loaded with a basic amount and uses this RFID key to access all facilities at the self-service car wash with a virtual payment amount. This option is for the car wash customer and the operator of double benefit.

Through a variable customer discount system defined by the operator, the car wash customer has the option to receive more washing time for a prepaid payment amount of any amount. The CentralPay cash register system is freely programmable and equipped with 5 quick-select buttons.



EHRLE CentralPay 8 in 1

POS with credit card terminal centrally networked and everything in one place

... with cash, coins or notes

The EHRLE CentralPay accepts all coins and banknotes. In case of overpayment, no cash will be returned, but a credit voucher for the difference will be issued.



... with credit cards or payment app

All common credit card systems are accepted by EHRLE CentralPay.

Besides MasterCard, GiroCard Maestro, ApplePay, VISA, currently the following payment service providers are supported:

Wirecard, Sparkasse, PayOne, NAYAX, Six-Payment and Card complete



... with fleet cards

Fleet cards can also be used. Please discuss this with your EHRLE specialist consultant.



... with credit voucher

Value credits can be redeemed by entering the six-digit credit note number printed on the credit note voucher. The old credit note loses its value and a new credit note voucher is created in case of partial redemption. This can be done until the credit note is completely redeemed.



...Transferring the amount of money

Cash amounts can also be transferred directly after selecting the care place at the self-service car wash. At CentralPay „Pay“ at the care place „Work“. After transfer of the cash amount, the washing time is only activated when a program button is pressed.



... Buy RFID CarWash-Key

The EHRLE CentralPay also offers the possibility to buy a CarWash-Key (RFID value key). A built-in key dispenser can provide up to 20 CarWash-Keys for dispensing.



... RFID CarWash-Key loading

CarWash keys can be reloaded with quick selection buttons on the EHRLE CentralPay. The CarWash operator can set interesting discount offers for payments and thus considerably increase sales and wash turnover.



... Fiscal receipt

The EHRLE CentralPay is fiscal-compliant and can also print receipts or sales slips on customer request. All necessary data is noted on the receipt printout and can be used by the laundry customer for accounting purposes.



... Table loading stations

EHRLE offers 2 different back-office systems

1. USB charger

With the help of a PC, or NoteBook can be upgraded to CarWash Keys washing and care credits.

2. POS-Terminal

With the POS terminal, CarWash Keys can also be upgraded with wash and maintenance revenues and fiscal receipts can be issued. This system works autonomously and does not require any further infrastructure.





Multi-cyclone vacuum cleaner

The overall concept of a self-service car wash also includes powerful vacuum cleaners



Multi-cyclone vacuum cleaner

The incoming air stream is first rotated as in the single cyclone vacuum cleaner to separate the larger dirt particles. Then the air is accelerated again and a second „cleaning stage“ is carried out with another cyclone. Due to the smaller diameter of the second cyclone, the air is set into a much higher rotational speed, which also allows the separation of finer dirt particles.

With the EHRLE multi-cyclone vacuum cleaner the size of the separated dust particles is reduced, so that with many cyclones the central filter can be omitted. This also eliminates the need to clean the central filter and prevents loss of suction power, even during heavy use.

Overhead hose system

A simple handling of the suction hose and thus no contact with the ground is guaranteed, which results in less wear and tear and less contamination of the suction hose and the suction nozzle. A large, lateral suction hose holder is used for storage.

Option: INOX

- complete device housing made of stainless steel, surface ground
- Stainless steel suction pipes 180° rotatable
- Stainless steel dirt tank



Technical data	Mono-Standard	Mono-INOX	Duo-Standard	Duo-INOX
Suction power	3700l/min	3700l/min	2x3700l/min	2x3700l/min
Vacuum	160mbar	160mbar	2x160mbar	2x160mbar
Dirty tank capacity	70l	70l	2x70l	2x70l
Suction hose length	5000mm	5000mm	5000mm	5000mm
Sound level	66dB(A)/57,5dB(A)*	66dB(A)/57,5dB(A)*	69dB(A)/60,5dB(A)*	69dB(A)/60,5dB(A)*
Electr. fuse protection	3/400V/50Hz - 3x10A	3/400V/50Hz - 3x10A	3/400V/50Hz - 3x16A	3/400V/50Hz - 3x16A
Connection capacity	2,8kW/5,1A	2,8kW/5,1A	5,6kW/10,2A	5,6kW/10,2A
Dimensions	1204x999x3395mm	1200x800x3000mm	1200x800x3000mm	1200x800x3000mm
Weight	400kg	400kg	450kg	450kg

*with sound insulation

CarWash Technic Container

If no suitable technical room is available, the entire CarWash technology is delivered in an EHRLE Technik container ready installed



At a central or suitable location of the EHRLE SB CarWash system the EHRLE Technik container is positioned and connected to the power and water supply. The entire CarWash technology such as water treatment, heating, pump units and money exchange systems are already installed according to the customer's requirements.

- 1) Stainless steel sandwich technic container with thermal insulation
- Stainless steel frame
- 60 mm thermal insulation
- Weight 1.800 kg
- K-value 0.37 W/m²K
- Security door ALU WK2
- Wall thickness 60 mm Sandwich Panel, hot-dip galvanized + plastic coated
- Dimensions (LxWxH) 670x244x280 cm

- 2) Stainless steel sandwich technic containers with thermal insulation in special sizes
- Stainless steel frame
- 60 mm thermal insulation
- Weight 2.600kg
- K-value 0.37 W/m²K
- Security door ALU WK2
- Wall thickness 60 mm Sandwich Panel, hot-dip galvanized + plastic coated
- Dimensions in all special sizes suitable for the replacement and renovation of existing systems.

- 3) Concrete Precast Technology Container
- monolytic manufactured in
- Weight 27.130 kg
- K-value 5.7 W/m²K
- Security door ALU WK2
- Wall thickness 100 mm
- Dimensions (LxWxH) 650x300x311 cm



The security door is made of high quality aluminium system profiles and is lever-proof. The locking is done by a 3-bolt system with PZ cylinder. Thus, the EHRLE CarWash Technik container is insurable against burglary/theft and provides safe protection.

Steel construction Standard

With hot-dip galvanized special steel profiles, trapezoidal sheet metal, partition wall tarpaulins and LED lighting



Expamples steel construction

Installation examples Standard



CarWash PLUS 2 x 2 wash bays



CarWash Modulline 4 wash bays with extern technic room



JetWash PLUS 2 wash bays



CarWash PLUS 2 wash bays in customer design



CarWash PLUS 1 x 2 und 1 x 3 wash bays



CarWash PLUS 2 wash bays

Steel construction SmartLine

With hot-dip galvanized special steel profiles, glass partitions, transparent polycarbonate roof, illuminated advertising and LED lighting



Expamples steel construction

Steel construction SmartLine



CarWash ModulLine 4 wash places with external concrete technology Container



CarWash ModulLine 3 wash stations and mono self-service vacuum cleaner



CarWash ModulLine 6 wash places with concrete technology container and thermal solar system for water heating



CarWash ModulLine 3 wash places with free washing place and sandwich-technique container



CarWash ModulLine 3 wash places with external concrete technology container



CarWash ModulLine 3 wash places with external concrete technology Container

Steel construction DesignPro

With hot-dip galvanized special steel profiles, glass partitions, transparent polycarbonate roof, illuminated advertising and LED lighting



Expamples steel construction

Steel construction DesignPro



CarWash ModulLine 5 wash bays integrated technology container and 3 Duo self-service vacuum cleaners



CarWash ModulLine 4 wash places with integrated technical concrete container and 1 Duo SB vacuum cleaner



CarWash ModulLine 3 wash places with external concrete technology container



CarWash PLUS 2 washing places



CarWash ModulLine 5 wash places with integrated concrete technology container



CarWash ModulLine 4 wash places with integrated concrete technology container

Steel construction Waschheld

With hot-dip galvanized special steel profiles, glass partitions, trapezoidal sheet metal, integrated operator terminals and LED lighting



Expamples steel construction

Steel construction Waschheld



CarWash ModulLine 5 wash places with integrated concrete technology container and 3 Duo SB vacuum cleaners



CarWash ModulLine with integrated operating terminal



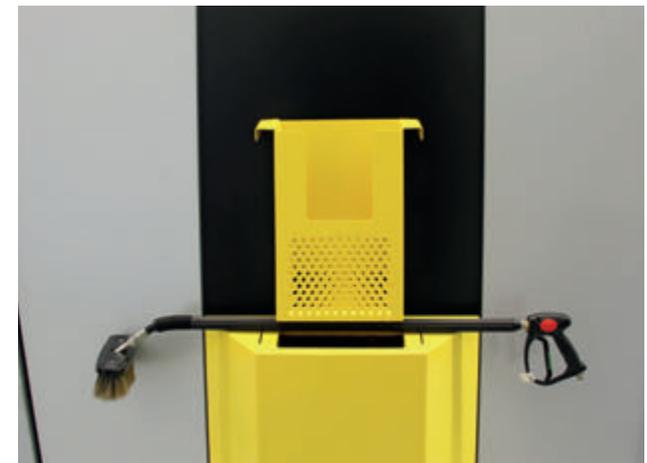
Integrated operator terminal with customer animated washing instructions



Integrated lance holder for HD lance



Integrated lance holder for soft foam lance



Integrated lance holder for soft foam brush with removable dirt sieve

Concrete washing plates

*One wash plate per wash station no joints, no leaks and cracks
in in-situ concrete construction, precisely manufactured directly on the construction site.*



The production, step by step

All necessary components are integrated on site



Floor insulation, prevents heat dissipation into the ground. Heat where it is needed.



Underfloor heating system with PEX pipes and stainless steel drain shafts as a pre-sludge catch.



All connections and interfaces are integrated precisely.



The concrete, with special additives, is introduced and processed directly at the construction site.



The surface is produced with a suitable slope to the inlet shafts and corresponds to slip resistance class R12.



At the end of this construction phase, the CarWash plant is ready for further construction.

Washing equipment

Accessories for professional cleaning and care

RimCleaner Lance (option)



		RimCleaner	
		4,5 m	5,5 m
All Systems		396707	396708

Foam Brush „FIX“



		ActivePower Pearl MicroPowder		SoftFoam	
		4,5 m	5,5 m	4,5 m	5,5 m
SV3SE/8SE		396703	396723		
SV5/10				396700	396720
SV6/7/9		396704	396705		

High pressure lance



		ActivePower Pearl MicroPowder	
		4,5 m	5,5 m
All Systems		396702	396722

SoftFoam Lance geen



		SoftFoam	
		4,5 m	5,5 m
SV4/8SE/9/10		396701	396721

Foam Brush „FLEX“



		ActivePower Pearl MicroPowder		SoftFoam	
		4,5 m	5,5 m	4,5 m	5,5 m
SV 3SE/ 8SE		394515	394517		
SV 5/ 10				394519	394520
SV 6/ 7/ 9		394516	394518		

Z-ceiling boom for various systems



		Z-ceiling boom	
		1450 mm	1550 mm
		544401	5444

Lance Quiver Universal Floor Stand



Art. No. 592801

Art. No. 397000

Brush Quiver Floor Stand



Art. No. 397100

Lance quiver cultivation



<i>SmartWash/ SmartWash Plus</i>	<i>CarWash Plus</i>
620408	351010

**Y-Lance quiver cultivation
JetWash Plus**



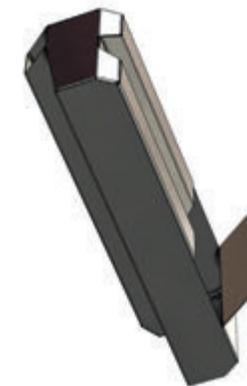
Art. No. 592814

Double quiver cultivation



<i>SmartWash/ SmartWash Plus</i>	<i>JetWash Plus</i>
3973	39731

Combi quiver cultivation



<i>SmartWash/ SmartWash Plus</i>	<i>JetWash/ JetWash Plus</i>
396901	3969

EHRLE CarWash systems examples

Customer satisfaction in elegance and perfection, every EHRLE SB-CarWash system speaks for itself!



CarWash system with DUO vacuum cleaner



Use of the SoftFoam lance



CarWash SmartLine with customer design



CarWash system with solar thermal energy and illuminated advertising with LED band



CarWash system with standard parapets and trimmed parapet corners



CarWash system in customer design and illuminated advertising



Safe column with large LED display and program buttons with washing instructions



SB-CarWash system in customer design with lateral SB-suction place



CarWash system with DesignPro steel construction with increased snow load



Lance holder for program rim cleaner



SoftFoam Lance washing



CarWash system with DesignPro customer design

EHRLE CarWash systems

Customer satisfaction in elegance and perfection, every EHRLE SB-CarWash system speaks for itself!



Self-service car wash system JetWash PLUS with a roofed and open washing area



Cleaning of special vehicles with roof structure



CarWash with outdoor bay for higher cars for example caravan and vans



Self-service car wash system JetWash PLUS with standard parapets and trimmed parapet corners



Safe panel with big LED display and programme buttons and washing manual



CarWash with steel construction DesignPro customer design



CarWash system with DesignPro steel construction with partition wall panel and customer advertising



Use of the SoftFoam lance



CarWash system with 4 washing bays JetWash PLUS with standard parapets and trimmed parapet corners



Motor bike and E-bicycle washing



Self-service car wash system JetWash PLUS with standard parapets and trimmed parapet corners



CarWash system with outside washing area for higher vehicles e.g. campers and panel vans

EHRLE CarWash systems

Customer satisfaction in elegance and perfection, every EHRLE SB-CarWash system speaks for itself!



CarWash system with solar thermal energy and illuminated advertising with LED band



Use of the SoftFoam lance



CarWash system in winter operation at minus temperatures and snow



Use of the SoftFoam lance



Self-service CarWash system in customer design with SmartLine attic and illuminated advertising



Use of the SoftFoam lance



Use of the SoftFoam lance with the 2-wheel



Self-service vacuum cleaner with mat beater and waste garbage can



Using the HD lance Program Cleaning



Payment process on the vacuum cleaner



Use of the rim cleaner with pre-spray device



Use of the SoftFoam lance

Washing and care additives

Optimally adapted to the EHRLE technology

ActivePower Pearl MicroPowder

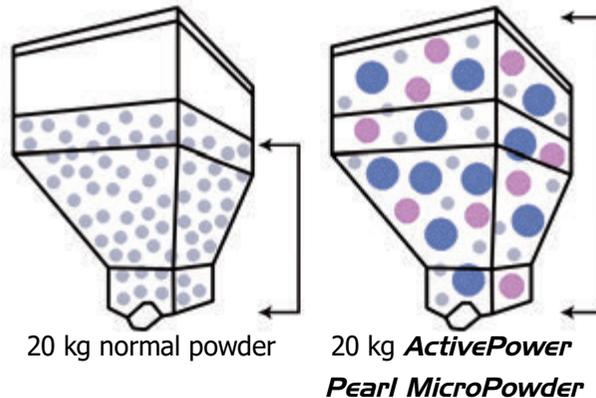
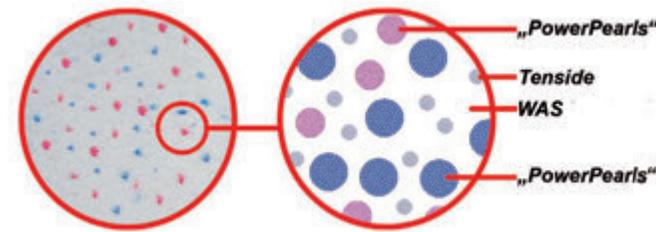
The high proportion of surfactants and washing-active substances in combination with the red and blue ActivePower Pearls offer a perfect cleaning result while protecting the environment. The ActivePower Pearls not only remove coarse soiling, but can also effortlessly remove the so-called TrafficFilm (gray haze) on the vehicle surface.

In combination with the warm and decalcified wash water, the surfactants and complexing agents of the EHRLE ActivePower Pearl MicroPowder act like a thousand little sponges and guarantee a pore-deep and thorough cleaning of the vehicle surface without damaging or scratching it.

The perfect foam pattern and high dispersion capacity in combination with an intensive fresh scent make cleaning child's play and provide your car wash customer with an optimal cleaning result.

The low density of the EHRLE ActivePower Pearl MicroPowder and the constant flowability ensure precise dosing in the high-pressure spray jet.

The product is extremely gentle on the material and also has an additional corrosion protection component. In addition, ActivePower Pearl MicroPowder is silica-free and does not leave any residues on vehicle paints, glass and plastics.



NTA FREE





ActivePower MicroPowder INEX

With its refined scent of exotic fruits, the powder is a recognition value for every EHRLE CarWash customer. Airy with an active microgranulate, it can be used for all contactless carwashes.

Due to the special mixture, this powder is especially gentle to the environment.



ActivePower Pearl MicroPowder PLUS

ActivePower Pearl MicroPowders® offer maximum dirt dissolution through ActivePower Pearls and a high surfactant content.

Constant flowability and rapid solubility create a perfect foam and leave a fresh, pleasant fragrance in the wash box. The powder is very gentle on materials and leaves no residues on vehicle paints, glass and plastics.



ActivePower Pearl MicroPowder XP

This particularly strong formula fights even the most stubborn dirt on paint, glass and plastics.

Here too, the constant flowability and rapid solubility create a perfect foam and leave a fresh, pleasant fragrance in the wash box.

Washing and care additives

For a perfect and shiny wash result, biologically harmless

RimCleaner

Removes stubborn grease, oil, rubber and brake dust residues. Acid and alkali-free, for gentle cleaning. Creates a dense, comprehensive neon-green-yellow gel layer on the dirty car rim. Apply RimCleaner on dry rim before the actual car wash. Effective time of 3-5 min for a perfect dirt dissolving process. pH value 1% solution 12.0.

Paint protection UltraProtection®

Best preservation and care effect on paint, rubber and plastic surfaces for

Self-service car washes. High value retention and long-lasting protection against weathering influences such as insects, traffic film and UV radiation. Impregnation effect for water and dirt repellence. Can be used as foam wax in the self-service sector. High fragrance intensity. Especially good roll-off effect and fragrance when used with warm softened water.

High gloss SuperFinish®

High-gloss dryer for self-service car washes based on polymer.

Improves the drying result when using osmosis water in the last care program. Also suitable for convertible tops.

Allows the water to run off the vehicle surface like a film and leaves a spotless drying result.

High fragrance intensity and leaves no streaks even when the windscreen wipers are in operation.



SoftFoam INEX

Extremely productive and economical soft foam cleaner with maximum foaming effect. Suitable for foam pre-wash in self-service car washes. Powerful and odorless. pH-value 1% solution 11.5. application concentration 1.5% - approx. 20ml / car

SoftFoam PLUS

HighTec soft foam precleaner with a particularly intensive fragrance. The car wash becomes a fragrance experience that accompanies the customer for days after the wash. Perfect foam formation and best cleaning and care result of paint-gentle components. Ideally suited for foam pre-wash in self-service car washes. pH-value 1% solution 11.0. Application concentration 1.5% - approx. 20ml / car

SoftFoam XP

Intensive soft foam precleaner for extreme soiling. Dissolves even heavily soiled deposits of dried insects and traffic film effortlessly. Gentle on rubber and paint surfaces. Very good foam result and especially productive. Slight fragrance intensity. pH-value 1% solution 12.0. Application concentration 1.5% - approx. 20ml / car



Washing and care additives

For a shiny wash result.

IntensiveShampoo IS

Extremely productive and economical soft foam cleaner with maximum foaming effect. Suitable for foam pre-wash in self-service car washes. Powerful and odorless. pH-value 1% solution 11.5. application concentration 1.5% - approx. 20ml / car

HighPerformance PaintSealer

HighTec soft foam precleaner with a particularly intensive fragrance. The car wash becomes a fragrance experience that accompanies the customer for days after the wash. Perfect foam formation and best cleaning and care result of paint-gentle components. Ideally suited for foam pre-wash in self-service car washes. pH-value 1% solution 11.0. Application concentration 1.5% - approx. 20ml / car

HighPerformanceDryer

Intensive soft foam precleaner for extreme soiling. Dissolves even heavily soiled deposits of dried insects and traffic film effortlessly. Gentle on rubber and paint surfaces. Very good foam result and especially productive. Slight fragrance intensity. pH-value 1% solution 12.0. Application concentration 1.5% - approx. 20ml / car



Article directory

CarWash		Heating type	SV 1, SV 3SE	SV 2	SV 4, SV 5, SV 8SE	SV 6	SV 7	SV 9, SV 10
SmartWash (P. 14)	1 Wash bay	Oil						
		Gas						
		District heating						
		Electro	536001		536002	536007		
SmartWash PLUS (P. 14)	1 Wash bay	Oil						
		Gas						
		District heating						
		Electro	536104		536005	536008		

SmartWash Accesories Boom (S. 15)		
3253 mm	5630 mm	6430 mm
3961	396120	396180

CarWash	Heating type	SV 1; SV 3SE						SV 9, SV 10
		SV 2	SV 4, SV 5, SV 8SE	SV 6	SV 7	SV 8		
CarWash PLUS (P. 22)	1 Wash bay	Oil	502000	502004	502002	502003	502005	502006
		Gas	500000	500004	500002	500003	500005	500006
		District heating	510000	510004	510002	510003	510005	510006
		Electro	505000	505004	505002	505003	505005	505006
	2 Wash bay	Oil	503000	503004	503002	503003	503005	503006
		Gas	501001	501004	501002	501003	501005	501006
		District heating	511000	511004	511002	511003	511005	511006
		Electro	504000	504004	504002	504003	504005	504006
	3 Wash bay	Oil	508000	508004	508002	508003	508005	508006
		Gas	506000	506004	506002	506003	506005	506006
		District heating	512000	512004	512002	512003	512005	512106
		Electro	514000	514004	514002	514003	514005	514106
	4 Wash bay	Oil	529005	529002	509002	509003	509005	509006
		Gas	506040	506044	506042	506043	506045	506046
		District heating	512006	512007	513002	513003	513005	513006
		Electro	514006	514007	515002	515003	515005	515006

CarWash		SV 1; SV 3SE						SV 9, SV 10
		SV 2	SV 4, SV 5, SV 8SE	SV 6	SV 7	SV 8		
CompactLine (P. 26-27)	2-bay	312011	312014	312012	312013	312015	312016	
	3-bay	312021	312024	312022	312023	312025	312026	
	4-bay	312031	312034	312032	312033	312035	312036	
	2+2-bay	312041	312044	312042	312043	312045	312046	
	5-bay	312051	312054	312052	312053	312055	312056	
	6-bay	312061	312064	312062	312063	312065	312066	
	4+2-bay	312071	312074	312072	312073	312075	312076	
	7-bay	312081	312084	312082	312083	312085	312086	
ModulLine (P. 29)	8-bay	312091	312094	312092	312093	312095	312096	
	1 Module per wash bay	516000	519000	517000	518000	515000	521000	

Coin vacuum (P. 45)	
600443	

Article directory

Warm water heating systems (S. 30-37)																						
LCE Gas					LCE Oil		LCE Electro		G 215/ G 315						SLM				HM Electro			
55kW	74kW	85kW	105kW	160kW	55kW	110kW	37kW	49kW	70kW	85kW	105kW	140kW	170kW	200kW	75kW	105kW	160kW	200kW	57kW	115kW	144kW	201kW
600002	633002	622002	600450	610451	600003	610004	600462	601462	600018	600019	600020	600021	600022	600023	620001	620002	620003	620004	620463	620464	620465	620462

Water softening units (P. 39)							Reverse Osmosis (S. 39)	
32m³	120m³	2x120m³	2x200m³	2x300m³	2x400m³	2x600m³	1-6 Wash bays 7.200 l/d	5-10 Wash bays 10.800 l/d
423405	423404	423406	423407	423408	423409	423410	600013	600014

Component shelves & mounting kits (P. 40-41)								
Underfloor heating Tray	Water distributor CompactLine	Water distributor Modulline	Cable trays System	Standing tables Water softening				
608096	618095	608095	610035	608094	618094	628094	638094	648094

Condition Monitoring P. 56-62)							Animated Wash instructions (P. 66)		
CM1	CM2	CM3	LAN-EWON	GSM-EWON	C2 +	C2 +	C2 +		
516501	516502	516503	516504	516504	621019	621020	621021	621018	

WatchDog (P. 68)	EhrFisk (P. 70-73)	CentralPay (P. 74)	Key (P. 76)
561000		611300	601188

Technic Container (S. 81)									
Concrete		Concrete insulated		Sandwich Stainless Steel					
6,55x3x2,98m	7,25x3x2,98m	6,64x3,14x3,13m	7,39x3,14x3,13m	6,66x2,44x2,80m	6,66x2,98x2,80m	7,15x2,44x2,80m	8,00x2,44x2,80m	8,00x2,98x2,80m	6,14x4,60x2,80m
600035	620035	630035	640035	631618	631161	631619	631620	631622	631624

<i>Multi cyclone vacuum cleaner (P. 79)</i>			
<i>Self Service-MONO</i>	<i>Self Service-DUO</i>	<i>Self Service-MONO INOX</i>	<i>Self Service-DUO INOX</i>
198010	198020	197010	198010

<i>Steel construction Standard (P. 82)</i>							
<i>1 Wash bay</i>	<i>2 Wash bay</i>	<i>3 Wash bay</i>	<i>4 Wash bay</i>	<i>5 Wash bay</i>	<i>6 Wash bay</i>	<i>7 Wash bay</i>	<i>8 Wash bay</i>
	600113	600115	600117	600119	600121	600123	600125

<i>Steel construction SmartLine (P. 84)</i>							
<i>1 Wash bay</i>	<i>2 Wash bay</i>	<i>3 Wash bay</i>	<i>4 Wash bay</i>	<i>5 Wash bay</i>	<i>6 Wash bay</i>	<i>7 Wash bay</i>	<i>8 Wash bay</i>
	600296	600298	600300	600302	600304	600306	600308

<i>Steel construction DesignPro (P. 86)</i>							
<i>1 Wash bay</i>	<i>2 Wash bay</i>	<i>3 Wash bay</i>	<i>4 Wash bay</i>	<i>5 Wash bay</i>	<i>6 Wash bay</i>	<i>7 Wash bay</i>	<i>8 Wash bay</i>
	600326	600328	600330	300332	600334	600336	600338

<i>Steel construction Waschheld (P. 88)</i>							
<i>1 Wash bay</i>	<i>2 Wash bay</i>	<i>3 Wash bay</i>	<i>4 Wash bay</i>	<i>5 Wash bay</i>	<i>6 Wash bay</i>	<i>7 Wash bay</i>	<i>8 Wash bay</i>
	on request	on request	on request	on request	on request	on request	on request

Article directory

Concrete washing plates with installation plate for technical containers (S. 91)							
1 Wash bay	2 Wash bays	3 Wash bays	4 Wash bays	5 Wash bays	6 Wash bays	7 Wash bays	8 Wash bays
600177	600178	600179	600180	600181	600182	600183	600184

concrete washing plates with equipment base for outdoor technology (S. 91)							
1 Wash bay	2 Wash bays	3 Wash bays	4 Wash bays	5 Wash bays	6 Wash bays	7 Wash bays	8 Wash bays
610165	600165	600166	600167	600168	600169	600170	600171

ActivePower Pearl MicroPowder INEX (P. 101)
1 bag á 20 kg
200EHD-A

ActivePower Pearl MicroPowder PLUS (P. 101)
1 bag á 20 kg
100EHD-A

ActivePower Pearl MicroPowder XP (P. 101)
1 bag á 20 kg
105EHD-A

RimCleaner RC (P. 102)				
1 Sales display á 15x 0,5l-bottles	1 box á 20x 0,5l-bottles	1 Canister á 10l	1 Canister á 25l	1 Canister á 60l
806EHD-A	820EHD-A	850EHD-A	875EHD-A	890EHD-A

SoftFoam INEX (P. 103)		
1 Canister á 10l	1 Canister á 25l	1 Canister á 60l
900EHD-A	925EHD-A	960EHD-A

SoftFoam PLUS (P. 103)		
1 Canister á 10l	1 Canister á 25l	1 Canister á 60l
600EHD-A	625EHD-A	660EHD-A

SoftFoam XP (P. 103)		
1 Canister á 10l	1 Canister á 25l	1 Canister á 60l
800EHD-A	825EHD-A	860EHD-A

UltraProtection (P. 102)	
1 Box á 6 bottles	1 canister á 10l
301EHD-A	310EHD-A

SuperFinish (P. 102)	
1 Box á 6 bottles	1 canister á 10l
401EHD-A	410EHD-A

IntensiveShampoo (P. 104)
1 canister á 10l
110EHD-A

HighPerformance PaintSealer (P. 104)
1 canister á 10l
510EHD-A

HighPerformance Dryer (P. 104)
1 canister á 10l
610EHD-A

Authorized dealer:

EHRLE GmbH

Industriestraße 3
D-89165 Dietenheim

Telefon: +49 (0) 7303-1600-0
Fax: +49 (0)7303-1600-600

Email: info@ehrle.com
Internet: www.ehrle.com

