CENTRAL
CLEANING SYSTEM

CENTRAL CLEANING SYSTEM
CATALOGUE

RADEX®

ISO 9001:2015

RADEX

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CLEANING SYSTEM

What distinguishes Radex among suppliers of hygiene products and services for the food industry is its focus on problem solving. Our offer is created together with our customers - many preparations and devices were created on the order of specific food processing plants.

Our low-pressure cleaning system fulfills all the demands of potential users. The product range covers various systems configuration from the simplest with centralize water pressurization, to the most advanced automatic cleaning system with centralize chemistry solutions supplying, data registration, transmission, and analysis.

Our professional team is always at your disposal, to help you solve any kind of problem and to suggest optimal solutions for the industry you represent.

Please note, that for larger orders or low-budget projects we are open to extend our offer, redesign the products or negotiate prices for selected items. Our engineers are capable of developing high-quality systems at a reasonable price, so we can always find a win-win solution.

Yes, you can negotiate prices for large projects!

30 years of experience in the industry!

With RADEX you have direct contact with your sales manager and our engineers!

I invite you to check our offer.

Daniele Rinaldi

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The Central Cleaning System is a modern solution for the cleaning of open surfaces, machines and equipment, as well as production halls. With a CCS, you can do the following:

- *preliminary rinsing with high-pressure water*
- *foam application*
- *intermediate rinsing*
- *disinfectant application*
- *final rinsing*

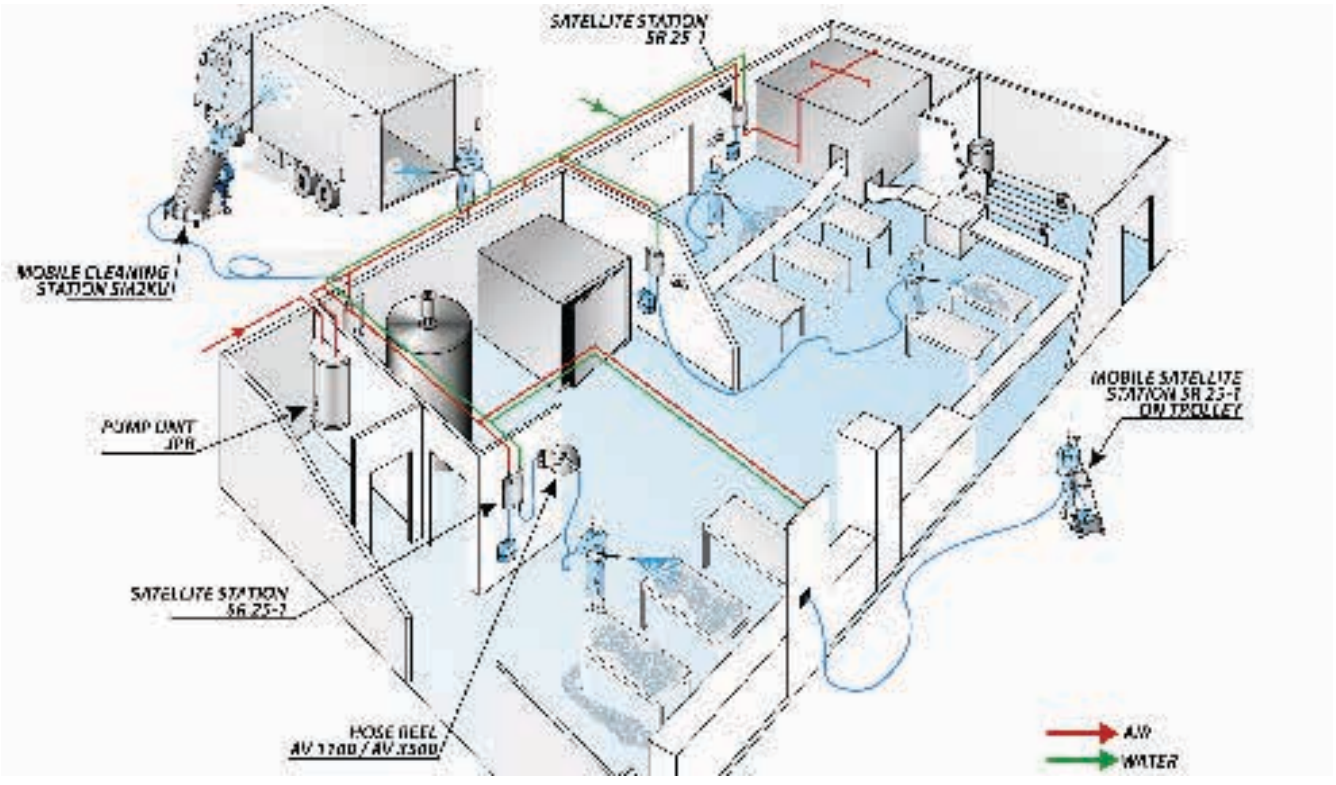
The solutions used in our systems ensure high durability and reliability of operation, as well as convenience of use. They also optimize cleaning and disinfection costs by reducing the use of chemicals, water and labour.

The configuration proposed by us is adjusted to the size of the facility and the actual needs possible to evaluate after the analysis of the plant design and the functions of individual rooms.

At the customer's request, our specialists create the system design together with the necessary piping and adjust it to the investment plan. We also cooperate with companies that we can recommend as reliable contractors for performing our Cleaning Systems' connection.

Both the projects we create and the cooperation with proven partners allow us to avoid complications at the stage of investment implementation.

The detailed terms and conditions and the choice of the variant depend on the decision of the buyer. On our part, as a supplier of a modern cleaning system, we guarantee the highest quality of equipment, warranty and post-warranty service, as well as competent advice in all matters concerning hygiene.



1. CCS EXAMPLE

1. Water supply piping
2. Compressed air supply piping
3. Compressed air supply piping from factory network to the Satellite Station (cleaning point)
4. Water supply piping from main network to the Satellite Station (cleaning point)
5. Pump Unit – Booster or Main Station (with built-in satellite module)
6. Cleaning point (Satellite Station – SR 25)
7. Lance holder
8. Suction hose for detergents (with filter)
9. Set of lances
10. Hose hanger
11. Water hose
12. Butterfly valve with protection and quick coupling (for coupling lances), or as alternative Water Gun (foto p. 32)
13. Can holder (for single 25 l can or for 2 x 25 l/cans)
14. Outlet piping to the cleaning points (Satellite SR 25)
15. Hose Reel (different models according length of hose) – supplied with swivel bracket
16. Connection hose between Hose Reel and Satellite Station SR 25

2. MAIN ELEMENTS OF CCS - CLEANING SYSTEM

2.1 PUMP UNIT JPR

JPR EB (floor frame mounted)

JPR E (wall mounted)

BASIC INFORMATION

A pump unit – a Main element of the Central Cleaning System.

This unit has been designed to increase the water pressure of the onsite connected to satellite stations. Connecting the pump unit to sanitary stations enables efficient use of water in the cleaning processes (foaming, rinsing, disinfecting). Pumps work both with satellite stations with locally provided chemical agents and with centrally provided chemical agents.

Our advisors select JPR pump units together with complete systems according to the individual requirements of our clients. Each pomp unit has different working parameters, and when combined with satellite stations, it helps maintain the required level of hygiene at a facility.

JPR pump units are typically equipped with a line of sensors that safeguard against overheating or hard work. Standard equipment also includes a leak sensor that stops the pump from working. This solution saves both water and electrical energy. A different type of the used safeguard is turning off the pump when water pressure drops significantly, below 10 bars on output. The cause may be, for instance, a damaged pipeline.

A JPR pump unit plugged into a cleaning installation starts automatically after a flow of water is detected.

Parameter:	JPR 3 E/EB	JPR 5 E/EB	JPR 10 E/EB	JPR 15 EB
Max water output*	2 m^3/h	6 m^3/h	11 m^3/h	22 m^3/h
Max number of stations working simultaneously	2	4	7	12
Min inlet water pressure	2 bar			
Max output water pressure	20 bar	22 bar	25 bar	25 bar
Max inlet water temp.	60°C			
Power	2,5 kW	4 kW	7,5 kW	15 kW
Power supply	3X400 V AC, 50 Hz			
Pipe diameter (supply and discharge side)	DN 25	DN 32	DN 40	DN 50

*for pressure : output - 18 bar / inlet - 3 bar

PROPERTIES AND ADVANTAGES

Each unit is always equipped with:

- control panel equipped with indicator lights and control buttons,
- an electronic control system,
- pump motor contactor with thermal protection,
- flow sensor,
- the sensor of too low water pressure supplying the pump,
- engine PTC sensor,
- water temperature sensor,
- too little water pressure sensor at the pump outlet.

Optional equipment:

- Soft starter - responsible for smooth starting and braking of the pump, which positively affects its service life and prevents unnecessary hydraulic shocks.
- Inverter in combination with a pressure transducer - maintaining the set operating pressure by adjusting the pump motor speed.
- Touch screen in connection with the PLC controller - enabling pleasant cooperation with the device for the user. They give the ability to monitor all operating parameters, including water consumption and electricity. By using the touch screen, the user can manually set the desired operating parameters, e.g. output pressure or pump shutdown time after closing the flow.
- Remote access to the device using a PLC controller.

2.2 CENTRAL CLEANING STATION CSR

CSR

BASIC INFORMATION

The CSR central station is used to increase water pressure and to perform all hygiene tasks: foam application, rinsing and disinfection. The central station is connected by a pipe system to the cooperating peripheral washing stations or rinsing stations.

The pressure pump is made of corrosion-resistant material, water-lubricated and does not require regular servicing. It also has a thermal switch that cuts off the power supply in the event of the pump overheating, e.g. because of water temperature that is too high.

Selection of a specific type of pumping unit is related to the needs of the areas serviced by the system and the number of peripheral stations cooperating with it at the same time. The pump unit can be supplied with cold or hot water. The pump's electric motor requires connection to a three-phase AC power supply.

Parameter:	CSR 1/100	CSR 3/250 E	CSR 5/250 E	CSR 10/250 E
Max water output*	0,7 m^3/h	2 m^3/h	6 m^3/h	11 m^3/h
Max number of stations working simultaneously	1	2	4	7-8
Min inlet water pressure	2 bar			
Max output water pressure	13 bar	20 bar	22 bar	25 bar
Max inlet water temp.	60° C			
Power	1 kW	2,5 kW	4 kW	7,5 kW
Power supply	230 V AC, 50 Hz	3 X 400 V AC, 50 Hz		
Pipe diameter (supply and discharge side)	DN 25	DN 32	DN 32	DN 40

*for pressure : output - 18 bar(13 bar for CSR 1/100) / inlet - 3 bar

PROPERTIES AND ADVANTAGES

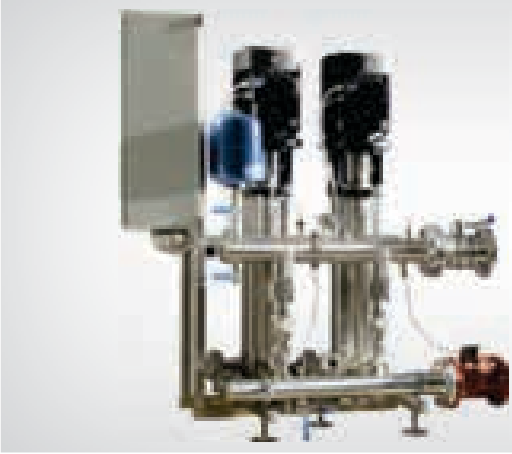
Each unit is always equipped with:

- control panel equipped with indicator lights and control buttons,
- an electronic control system,
- pump motor contactor with thermal protection,
- flow sensor,
- the sensor of too low water pressure supplying the pump,
- engine PTC sensor,
- water temperature sensor,
- too little water pressure sensor at the pump outlet.

Optional equipment:

- Soft starter - responsible for smooth starting and braking of the pump, which positively affects its service life and prevents unnecessary hydraulic shocks.
- Inverter in combination with a pressure transducer - maintaining the set operating pressure by adjusting the pump motor speed.
- Touch screen in connection with the PLC controller - enabling pleasant cooperation with the device for the user. They give the ability to monitor all operating parameters, including water consumption and electricity. By using the touch screen, the user can manually set the desired operating parameters, e.g. output pressure or pump shutdown time after closing the flow.
- Remote access to the device using a PLC controller.

2.3 PUMP SET ZPR



ZPR 20

ZPR 60

BASIC INFORMATION

ZPR Pump Set consists of several pump units fixed to a frame.

This solution, in comparison to JPT units, allows more satellite stations to work simultaneously in the rinse cycle. Individual pumps are switched on depending on the current water output. When one of the pumps breaks down, the remaining pumps take over its function.

Depending on the requirement, the set includes a different number of a pump. A module construction lets you completely adjust it to your needs. Apart from pumps fixed to a frame, the ZPR pump set also consists of an electric control box.

Parameter:	ZPR20	ZPR30	ZPR40	ZPR45	ZPR60
Max water output*	22 m^3/h	33 m^3/h	44 m^3/h	57 m^3/h	76 m^3/h
Max number of stations working simultaneously	14	21	28	38	50
Min inlet water pressure	2 bar				
Max outlet water pressure	25 bar				
Max inlet water temp.	60°C				
Power	16 kW	23 kW	31 kW	46 kW	61 kW
Power supply	3 X 400 V AC, 50 Hz				
Pipe diameter (supply and discharge side)	DN 80	DN 80	DN 80	DN 80	DN 100

*for pressure : output - 18 bar / inlet - 3 bar

PROPERTIES AND ADVANTAGES

Each unit is always equipped with:

- SoftStart system provides gradual start-up of the pump as well as a mild stop that increases the lifetime of the pump and its engine,
- panel for the electric control system,
- moreover, the ZPR set has all features of JPR pumps,

Optional equipment:

- optionally, the set can be equipped with inverters and control electronics together with an LCD screen allowing to record the working time and parameters of the unit (pressure, temperature, current, operating time, amount of consumed water; recording the parameters of daily operation),
- the set can also be equipped with a GSM communication module enabling remote (on-line) access and supervision over the pumps' operation.

2.4 HIGH PRESSURE ZPR

ZPR SF 32 LCD

BASIC INFORMATION

The pump set consisting of two pump units connected in series, mounted on a common frame. Specially selected pumps ensure high pressure on the discharge side of the system.

Higher pressure also means higher energy consumption of rinsing water, which remains at the same level as standard ZPR pump sets (25 l/min). The pump set is equipped with inverters which reduce energy consumption and optimize costs.

It is possible to adjust the operation of the set with the maximum efficiency only in the preset hours. The set comes with a PLC with two inverters and a 10" display.

The PLC monitors the temperature on both pumps, the temperature in the electrical cabinet, the output pressure, the current consumed by the pumps and the water consumption. An inlet pressure sensor for preventing dry running of the pumps is also standard.

Parameter:	Value:									
Max water output (l/min)	175	235	280	325	360	395	430	455	485	505
Outlet water pressure	39	38	37	36	35	34	33	32	31	30
Max number of stations working simultaneously	7	9/10	11/12	13	14/15	16	17/18	18	19/20	20/21
Power supply (V)	3x400 V AC 50Hz									
Power	45 kW									
Pipe diameter (supply and discharge side)	DN 80									

PROPERTIES AND ADVANTAGES

The PLC is equipped with a USB port for data collection in excel (.csv) format, which can be used to control the washing process. It is easy to check if the water temperature was right and if the right amount of water was used. The controller also has an Ethernet port for connection to the internal plant network. This makes it possible to view the machine operating status and to monitor and change the parameters. All emergency events occurring during operation are also recorded.

As an alternative, the set can be equipped with a GSM module which enables remote viewing and machine parameters management. This allows us to diagnose the device remotely, manage its operation, set up the device or even reprogram it by our service team.

2.5 CHEMICAL PUMP CPR

CPR

BASIC INFORMATION

The device is used to prepare the chemical solution. It operates with satellite stations of SR 25 CC series. The CPR chemical pump is used to feed water at the right pressure to prepare a solution of chemical agents.

The CPR chemical pump ensures a constant water pressure of approx. 6 bar and feeds it to the proportional dosing unit, where chemical solutions are used in cleaning processes are prepared.

The CPR pump is equipped with an inverter and a pressure transducer. It operates at constant output pressure. The device is equipped with a system that reduces its speed at low consumption, thus decreasing the consumption of electricity. This protection also automatically stops the pump when no flow is detected.

PROPERTIES AND ADVANTAGES

Equipment:

- inverter integrated in the motor,
- Bluetooth communication for configuring and reading parameters in Grundfos GO,
- possibility of locking the buttons on the pump,

Parameter:	CPR 3	CPR 5	CPR 10
Max outlet water pressure	5 m^3/h	10 m^3/h	16 m^3/h
Number of SR 25 CC station working simultaneous	7	16	24
Power supply		3 x 400 V AC, 50 Hz	
Power	1,1 kW	3 kW	5,5 kW
Pipe diameter (supply and discharge side)	DN 32	DN 32	DN 40

*for pressure : output - 6 bar / inlet - 3 bar

2.6 SATELLITE STATIONS SR 25

SR 25-1 SR 25-2

BASIC INFORMATION

CCS peripheral element (satellite) that enables all sanitary processes to be carried out. The SR 25 Station, when combined with a pump unit that provides water, enables all sanitary actions to be carried out easily:

- rinsing,
- foaming,
- disinfecting.

Dosing of chemical agents is performed by sucking them from the container placed under the station in a stream of flowing water. The SR 25 station is equipped with a dispenser which enables precise, step-by-step setting of the required chemical concentration.

The casing is made of stainless steel (AISI 304) and in addition the elements that are directly in contact with aggressive chemicals are made of stainless steel with even higher corrosion resistance (AISI 316).

The SR 25 has the following advantages:

- modern and functional design,
- top quality materials and components,
- convenient handling,
- long-lasting, trouble-free operation,
- reliable dosing system to ensure constant parameters,
- a precise chemical dispenser,
- it is available in two varieties: one- and two-ejector - without the need to change the suction pipe.

Parameter:	Value:
Inlet water pressure	12-40 bar
Air pressure	4-10 bar
Max hose length	25 m
Water consumption during rinsing	25 l/min
Water consumption in the foam mode	6 l/min
Air consumption	150 l/min
Range of concentrations obtained	od 0,5% do 10%
Water temperature	15-60° C
Dimensions (W x H x D)	29 x 32 x 18 cm

PROPERTIES AND ADVANTAGES

The stations are available in 3 versions, differing in terms of functionality:

- SR 25-1: one-ejector station (1 dispenser, 1 chemical suction hose).
- SR 25-2: two-ejector station (2 dispensers, 2 chemical suction hoses, 1 foam system - this means that one chemical agent can only be applied by spraying).
- SR 25-2P: two-ejector station (2 dispensers, 2 chemical suction hoses, 2 foam systems)

2.7 SATELLITE STATIONS SR 25 CC

SR 25 CC

BASIC INFORMATION

CCS peripheral element (satellite) with central inlet of chemicals, enables all sanitary processes to be carried out.

SR CC 25, when combined with a pump unit and chemical pump that provide water and a working solution of proper concentration, enables all sanitary actions to be carried out easily:

- rinsing,
- foaming,
- disinfecting.

Increases operational safety by eliminating contact between the operator and a chemical agent concentrate. It also makes sure that operators cannot do anything to change the concentration. SR CC 25 is connected to the onsite installation of concentrated water and air of max. 25 bar pressure provided by a pump unit.

Parameter:	Value:
Inlet water pressure	12-40 bar
Pressure of chemical solution	4-6 bar
Water temp.	15-60° C
Air pressure	4-10 bar
Air consumption	150 l/min
Use of chemical solution during foaming	6 l/min
Water consumption during the rinsing cycle	25 l/min
Max hose length	25 m
Range of concentrations obtained	0,2-10% with one local chemical agent
Dimensions (W x H x D)	29 x 32 x 18 cm

PROPERTIES AND ADVANTAGES

The device is available in many different versions:

- SR 25 CC 1 / 1 P – One system with precise dosing - Centrally provided, 1 central chemical agent.
- SR 25 CC 1 / 2 P – One system with precise dosing - Centrally provided, 2 central chemical agents.
- SR 25 CC 1 / 3 P – One system with precise dosing - Centrally provided, 3 central chemical agents.
- SR 25 CC 1 / 4 P – One system with precise dosing - Centrally provided, 4 central chemical agents.
- SR 25 CC 1 / 5 P – One system with precise dosing - Centrally provided, 5 central chemical agents.

- SR 25 CC 2 / 1 P – Two system with precise dosing - Centrally and locally provided, 1 central chemical agent + 1 local.
- SR 25 CC 2 / 2 P – Two system with precise dosing - Centrally and locally provided, 2 central chemical agents + 1 local.
- SR 25 CC 2 / 3 P – Two system with precise dosing - Centrally and locally provided, 3 central chemical agents + 1 local.
- SR 25 CC 2 / 4 P – Two system with precise dosing - Centrally and locally provided, 4 central chemical agents + 1 local.
- SR 25 CC 2 / 5 P – Two system with precise dosing - Centrally and locally provided, 5 central chemical agents + 1 local.

2.8 SR STATION ON TROLLEY

SR 25 + WM 2

SR 25 + WM 3

BASIC INFORMATION

Mobile version of SR 25 series satellite stations with additional equipment.

Mobile stations are an alternative solution to the stationary SR 25 satellites. This solution enables several stationary cleaning points to be replaced by a single mobile station, and that is often useful in the case of rooms that don't require everyday cleaning. Mobile cleaning stations, apart from obvious differences resulting from a type of the installed satellite station (SR 25-1, SR 25-2 or SR 25-2P), can also differ in equipment.

A mobile cleaning point is connected to the water and air main by the so-called connector point that consists of:

- ½" ball valve with "D" type push-in fitting,
- ½" ball valve with air micro-connector.

Parameter:	SR25+WM2	SR25+WM3
Water consumption during foaming	25 l/min	
Water consumption during rinsing	6 l/min	
Inlet water pressure	12-40 bar	
Air consumption	150 l/min	
Air pressure	4-10 bar	
Max hose length	25 m	20/25 m
Range of concentrations obtained	0,2 - 10%	0,2 - 10%

PROPERTIES AND ADVANTAGES

Most popular stations of our offer include:

- Mobile cleaning station without auto-retracting drum, on WM2 trolley. Equipped with a basket for two chemical agents and a hanger for the hose. SR-25 station is equipped with one or two strings of a chemical suction injector.
- Mobile cleaning station with auto-retracting drum, on WM3 trolley. Equipped with a drum for auto-retraction of the hose. Depending on the used drum, the maximum length of the hose can come to 20 - 25 metres.

SR-25 station is equipped with one or two strings of a chemical suction injector.

2.9 DDA, DDC, DDE PUMPS

PUMP DDA

PUMP DDC

PUMP DDE

BASIC INFORMATION

Digital Dosing solutions (SMART Digital, DME, DDI) set new standards for liquid chemicals dosage and accuracy. The operator can easily install and set the pump to pump exactly the amount of liquid required by the process thanks to a unique drive and flow control concept. The pump setting is displayed in ml/h, l/h or gph and the operating mode is easily identified by icons.

The DMH range of mechanical hydraulic dosing pumps is the preferred choice for industrial and complex tasks. The DMH series is a series of extremely powerful and robust pumps for applications requiring a large dosing range and high pressure capacity.

The presented dosing pumps are designed for dosing chemicals in the following applications, among others:

- drinking water treatment,
- wastewater treatment,
- preparation of cooling water,
- washing facilities,
- treatment of service water,
- chemical industry.

Parameter:	DDA	DDC	DDE
Max dosing volume [l/h]	7,50 - 30,00	6,00 - 15,00	6,00 - 15,00
Min dosage volume [l/h]	0,0300 - 0,0025	0,0150-0,0060	0,0150 - 0,0060
Max performance in SlowMode 50 % mode [l/h]	3,75 - 15,00	3,00 - 7,50	-
Max operating pressure [bar]	4-16	4-10	4-10
Max stroke frequency [stroke/min]	155-205	140-200	140-180
Max suction height during operation [m]	6	6	6
Max inlet pressure, suction side [bar]	2	2	2
Min/Max liquid temperature [°C]	-10 do 45	-10 do 45	-10 do 45
Min/Max ambient temperature [°C]	0 do 45	0 do 45	0 do 45
Voltage [V]	100-240 V, 50/60 Hz	100-240 V, 50/60 Hz	100-240 V, 50/60 Hz
Max starting current for 2 ms at 100 V [A]	8	8	8
Max starting current for 2 ms at 230 V [A]	25	25	25
Max power consumption P1 [W]	24	22	19
Protection class	IP 65, Nema 4X	IP 65, Nema 4X	IP 65, Nema 4X

The table shows the parameters for the most common pump models. In our offer we have devices of higher efficiency. If you are interested, please contact the Hygiene Advisor.

PROPERTIES AND ADVANTAGES

- accurate and easy adjustment,
- unique technology,
- a small number of options will cover all needs,
- full impulse control,
- impulse rate control,
- dose control with internal timer,
- analogue control 0/4-20 mA,
- level control,
- an industrial network communication module.

Three ranges of a type size:

DDA: A range of high-end pumps for a wide range of pressures and capacities with FlowControl and measuring functions for demanding industrial applications, e.g. for the construction industry:

- service water systems,
- food and drink production,
- ultrafiltration and reverse osmosis,
- pulp and paper industry,
- boiler feed water,
- CIP (Cleaning-In-Place).

DDC: User-friendly pump series with standard ins and outs for various applications, e.g.:

- drinking water,
- wastewater and dirty water,
- pool water,
- cooling tower,
- chemical industry.

DDE: Low-budget pump series with basic functions such as manual operation or PLC control for OEM applications such as:

- car washers,
- irrigation.

3. MOBILE CLEANING STATION

3.1 MOBILE CLEANING STATION SM2KU

SM2KU

BASIC INFORMATION

Pump unit with built-in SR 25-1 satellite station module and a compressor.

It simultaneously carries out functions of a pump unit and a satellite station. Mobile construction enables easy relocation. SM2KU is recommended for places where it is not profitable or impossible to install a complete central cleaning system. Thanks to the used components of the highest quality, the station guarantees many years of failure-free operation.

It is especially useful in places where there's no onsite concentrated air installation.

Parameter:	Value:
Min inlet water pressure	2 bar
Max inlet water pressure	16 bar
Water temp.	15-60° C
Water consumption during foaming	6 l/min
Water consumption during rinsing	25 l/min
Max hose length	25 m
Weight without accessories	112 kg
Power	380 V AC, 50 Hz
Dimensions (H x W x L)	110 x 68 x 117 cm

PROPERTIES AND ADVANTAGES

- 3 in 1 - mobile set: pump, washing station and compressor,
- built-in compressor making the user independent from a compressed air system in the plant,
- a place where the necessary chemical preparations can be performed,
- modern and functional design,
- top quality materials and components,
- convenient handling,
- long-lasting, trouble-free operation.

3.2 MOBILE CLEANING STATION SM1

SM1 + AV | SM1 + AV + COMPRESSOR | SM1 + COMPRESSOR | SM1

BASIC INFORMATION

Pump unit with built-in SR 25-1 satellite station module. Optionally with auto-retracting drum and a compressor.

It simultaneously carries out functions of a pump unit and a satellite station. Mobile construction enables easy relocation. SM1 is recommended for places where it is not profitable or impossible to install a complete central cleaning system. Thanks to the used components of the highest quality, the station guarantees many years of failure-free operation.

It is especially useful in places where there's no onsite concentrated air installation.

Available versions:

- SM1 with retractable hose (SM1AV)
- SM1 with compressor (SM1 K)
- SM1 with auto-retracting drum and compressor (SM1 KAV)
- same station on trolley

Parameter:	Value:
Min input water pressure	2 bar
Air pressure*	4-10 bar
Air consumption	150 l/min
Water consumption during foaming	6 l/min
Max hose length	25 m
Water consumption during rinsing	25 l/min
Weight (version with hose reel and compressor)	125 kg
Power	0,9 kW
Power supply	230 V AC, 50 Hz

*version without compressor

PROPERTIES AND ADVANTAGES

- 2 in 1 - mobile set: pump and washing station in mobile version,
- built-in compressor independent from the need to have a compressed air system in the plant,
- modern and functional design,
- top quality materials and components,
- convenient handling,
- as an alternative- equipped with a mobile version of the reel,
- long-lasting, trouble-free operation,
- full mobility due to 230 V power supply.

It is also possible to buy the station without a trolley.

4. ADDITIONAL OFFER

4.1 FOAM GENERATOR AP

AP 20 AP 40 AP 80

BASIC INFORMATION

The foam apparatus is used to spray chemical agents as foam.

It is especially useful for cleaning large surfaces (smoking chambers, floors, walls of production halls, etc.) and large installations (transport lines, machines and devices). AP casings are made of acid resistant steel – resistant to the effects of acids and alkalis. Ergonomic construction facilitates relocation. The use of the apparatus significantly reduces the use of cleaning liquids and increases safety and convenience of use at the same time.

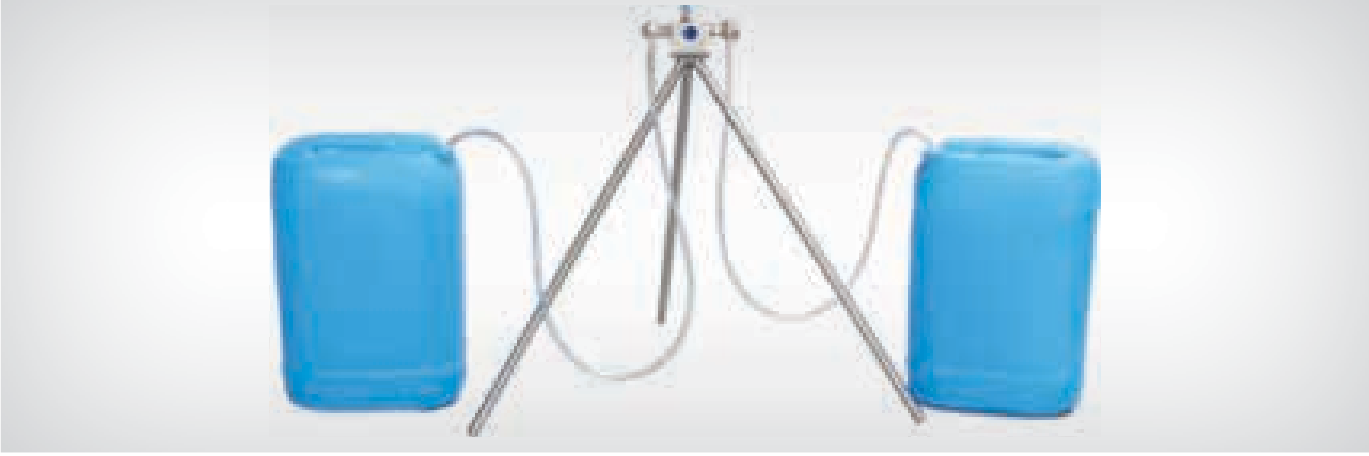
PROPERTIES AND ADVANTAGES

Each Foam Mixer is equipped with:

- 6 m working hose,
- 12.5 m supply hose,
- lances,
- safety valve activated at a pressure greater than 6 bar.

Parameter:	AP 20	AP 40	AP 80
Capacity	20 l	40 l	80 l
Air hose	12,5 m with connectors	12,5 m with connectors	12,5 m with connectors
Hose for lance	½" 6m	½" 6m	½" 6m
Type of lances	foam for AP	foam for AP	foam for AP

4.2 FOGGER RADEX



FOGGER RADEX

BASIC INFORMATION

A device used to perform fogging operations in closed rooms.

The fog in the unit is produced by breaking the liquid off with a strong stream of air. The fogging system consists of a set of nozzles connected by a body to which compressed air is supplied. The source of compressed air can be a unit or a factory system.

The device is equipped with 2 lines for chemical agent suction and a fog carrier.

A single unit consists of two opposing nozzles, which are sufficient to fog a room of 300 m2.

The unit can be permanently installed in the plant and connected to the plant's compressed air system to initiate the process from a room not covered by fogging, thus avoiding contact with the chemical environment.

Parameter:	Value:
Capacity	15 dm^3/h
Ambient temperature	1-60°C
Liquid temperature	1-70°C
Weight	0,95 kg
Dimensions (length x width x height)	11,5 x 14,8 x 39 cm
Pressure line connection	Ø12 mm
Min Power capacity	200 dm^3/min
Working pressure	0,4 MPa
Range	300 m^2
Range	1000 m^3

PROPERTIES AND ADVANTAGES

- Operating reliability (it is made of non-ferrous metals: brass, aluminium and stainless steel),
- small size and weight of approx. 1.5 kg - which is important in the case of foil sleeves in the cultivation of mushrooms,
- maintenance-free operation (no human being involved in the process of spraying cold fog from chemical agents),
- effective access of the sprayed preparation to every mixing place, e.g. green house or foil tunnel (the mist produced by the device is so fine that it reaches not only the stem and underneath the plant leaf, but also "sticks" to the construction of the production room, which is important especially in the case of combating fungal diseases, in mush room spawn rooms it has proved to be an excellent tool in combating various species of flies),
- efficient operation when distributing all types of protective agents, both pow der and emulsion, etc,
- efficient operation of one device being able to service up to 300 m^2, cubature up to 1000 m^3.

4.3 CLEANING MODULE MMKW

MMKW

BASIC INFORMATION

An innovative module that enables interior spaces of smoking chambers to be cleaned.

MKW module for cleaning smoking chambers introduces the cleaning solution in the form of foam (foam preparations) into interior spaces of smoking chambers that have to be cleaned according to the cleaning schedule of a specific chamber.

Depending on the clients needs we offer cleaning modules:

- with pressure-sensitive valve switching,
- with automatic valve switching (requires installation of a PLC with appropriate washing software).

Parameter:	Value:
Min inlet solution pressure	5 bar
Max inlet pressure	7 bar
Max washing solution consumption	8 l/m
Total weight	1,5 kg
Height	30,3 cm
Width	28,5 cm
Depth	12 cm
Max hose length	5 m
Min air pressure	4 bar
Max air pressure	8 bar
Air demand	150 l/min

PROPERTIES AND ADVANTAGES

Elementary parts of the system:

- MKW chamber cleaning module,
- CPR chemical pump, enabling precise preparation of washing solutions,
- a system of pipes supplying the washing solution,
- for the automatic version additionally the control system (controller, cables, etc.).

4.4 PUMP CPR MQ

CPR MQ

BASIC INFORMATION

Professional set for preparation of chemical agents at appropriate pressure of maximum 5 bar.

The set includes:

Pressure booster pump (pump can draw water from the tank), pressure reducer, adjustable dosing device, suction lance, by-pass. The concentration is set on the dosing unit which is adjustable (adjustment depends on the dosing unit model),

The MiniDOS dosing unit uses liquid flow as its power source. Under its influence, it sucks in the chemical and doses the previously programmed dose. The agent dose adapts to the water flow, so that the set solution concentration is always kept. The product is dosed into the internal mixing chamber where the solution is prepared. The internal, separate chamber protects the piston against contact with chemical agents, which significantly extends the life of the device and guarantees obtaining a homogeneous solution, without contact of personnel with irritating chemical agents.

The MiniDOS has a patented composite body with better duration for mixing aggressive chemicals than the PVDF. It is equipped with an on/off switch that allows you to stop the dosing without having to stop the circulation (the device is also sold separately).

CPR MQ is a device compatible with the MMKW Smokehouse Washing Module and is perfect as an element supplying a washing solution to the system equipped with it.

Parameter:	Value:
Network pressure	max 5 bar
Liquid temperature	max 38ºC
Max suction height of the chemical	3,6 m
Concentration range	0,4 - 20%
Capacity	2,7 – 1,5 m^3/h
Power supply	230 V AC, 50 Hz
Power	600 W

PROPERTIES AND ADVANTAGES

The MQ is a complete unit consisting of a pump, motor and diaphragm tank. It also includes a pressure and flow sensor, a control unit and a non-return valve. The controller automatically starts the pump at the start and switches it off when the water dissipation is complete. In addition, the controller protects the pump in case of disturbances.

Additionally:

- a pressure regulator that limits the pressure to 5 bar to protect the dispenser,
- MiniDOS dosing unit.

4.5 DOSING PUMP CR 25

CR 25

BASIC INFORMATION

A device used in container washers for precise dosing of chemicals.

A peristaltic pump with integrated micromodule for setting and maintaining the setpoint concentration. It is used to dose precise volumes of conductive liquids (e.g. detergent concentrates) to a solution of these agents, e.g. in various types of washing machines.

The dosage close to the set conductivity value (75-100% of the target value) is proportional. Thanks to such characteristics of the control and measurement micromodule, exceeding of the preset solution concentration is avoided.

WARNING:
The pump must be in 50/50 operation/stop mode.

Parameter:	Value:
Power supply	230 V / 50 Hz
Electrical protection	0,5 A
Power	75 W
Fluid delivery rate	416 ml/min (25 l/h)
Max suction height	1,7 m
Counterpressure	0,5 bar
Ambient temperature	10-55°C
Safety class	IP 65
Weight	1,4 kg
Dimensions (W x H x D)	26,5 x 15 x 9 cm

PROPERTIES AND ADVANTAGES

Basic functions of the device:

- conductivity measurement, reading scale dependent on sensor used,
- keeping the conductivity set point in a quasi-proportional manner,
- dosing close to the set conductivity value,
- dosing in the preparation cycle within a given time interval (from 1 to 10 or 1.5 to 20 min - the so-called long filling time),
- dosage time control (setting between 1 and 10 min),
- automatic solution preparation and temperature determination function,
- detection of damage to the measuring probe and protection of the pump switch,
- depletion detection of the container contents of the dosed product concentrate,
- simple displaying of states: filling, dosing, setpoint determination, no liquid in the container.

4.6 DOSING UNIT PROMAX

PROMAX 1 CHEMICAL AGENT

PROMAX 4 CHEMICAL AGENTS

BASIC INFORMATION

Promax is a flow dosing and mixing system used to prepare solutions. It reduces the cost of chemicals and water. It is designed for dilution of one to four chemicals. The concentration of the solution is determined by means of specific (exchangeable) nozzles, which are supplied with the device. The simple design of the device ensures trouble-free operation and easy handling. The unit is equipped with a backward flow block, which protects the water against chemical contamination.

Parameter:	Value:
Capacity	14 l/min
Max temp.	70ºC
Pressure	1-9 bar
Water connection	left or right site
Coupling type	3/4" female

PROPERTIES AND ADVANTAGES

Device advantages:

- modular assembly of components,
- takes up very little space,
- quick and easy installation,
- possibility of preparing solutions in concentrations from 0.2 to 15%.

4.7 PERISTALTIC PUMP KRONOS

KRONOS

BASIC INFORMATION

KRONOS 20 - Fixed displacement digital pump is a peristaltic measuring pump. This pump is used to dose detergent until the displacement in the tank reaches a programmed setting. For this reason, the pump is equipped with a built-in temperature probe for the combination of readings. The speed of the pump is controlled to reach the set point as quickly as possible, while avoiding excessive dosing. A proportional rate can be programmed for this purpose in the pump menu (e.g. 80%-20% or 50%-50%): the pump will perform the dosing at the maximum flow rate until the first programmed percentage value of the set point is reached, and then it will decrease the speed linearly to 0% when the set point is reached.

Parameter*:	Value:
Power supply	100-240 V AC 50/60 Hz
Conductivity	200 mS - 15 mS
Counterpressure	0,01 ÷ 3 bar
Flow	10 l/h
Production	150 ml/min
Dosing time	set by user
Pipe joints	4 x 6 with nuts
Degree of protection of the enclosure	IP 65
Weight	ok. 1 kg
Overall dimensions	7,7 x 16 (18,7 wits screws) (19,7 with screws and pg7) x 12,4 cm
Operating temperature	10 ~ 40°C
Storage temperature	-10 ~ 50°C
Operating environment	inside

*The parameters refer to the most frequently sold models. In our offer we have a full range of Kronos devices.

PROPERTIES AND ADVANTAGES

The unit is placed in a durable plastic housing. The housing consists of a top and a bottom part, which are twisted together. The lower part contains power and connection printed circuit boards. The top of the chassis houses the CPU, motor and printed circuit board with display and buttons.
The end in contact with the liquid is mounted at the front and closed by means of a screw-on, clean cover to protect against injuries. The pump hose can be easily replaced by removing the transparent cover. The rotary movement of the rotors alternately compresses and loosens the hose using three rollers. As a result, the liquid is drawn in and transported through the pressure hose. The pump is operated by the operating unit. It is used to configure the desired measurement level and mode. The measurement operation is controlled by the operating unit or the external contact of the level input signal.

4.8 PERISTALTIC PUMP CONCEPT

CONCEPT

BASIC INFORMATION

CONCEPT - The dosing peristaltic pump with displacement probe. Suitable for the transport of aggressive chemicals in tunnel washers at a certain concentration. The device has a displacement control system by gradually decreasing the dose close to the set point (between 75 and 100%). Because of such a control system the preparation of the solution with higher than the set point concentration is avoided almost completely. A safety system is also used in the unit that detects damage to the suction hoses and automatically switches off the pump.

PROPERTIES AND ADVANTAGES

Due to the device two-part structure, it is easy to install and replace. Simply turn off the system, loosen the screws of the casing, remove the lower part of the pump from the casing, and then replace the worn parts.

Parameter*:	Value:
Power supply	180-264 V AC 50/60 Hz
Conductivity	depends of used sensor
Counterpressure	max 2 bar
Flow	9 l/h
Production	150 ml/min
Dosing time	set by user
Pipe joints	6 x 2 / 6 x 3
Degree of protection of the enclosure	IP 65
Weight	1,3 kg
Overall dimensions	9,2 x 17 x 13 cm
Operating temperature	10 ~ 50°C
Storage temperature	10 ~ 50°C
Operating environment	inside

*The parameters refer to the most frequently sold models. In our offer we have a full range of Concept devices.

4.9 FOAM GENERATOR SWPR

SWPR

BASIC INFORMATION

SWPR – is a device designed to cover with foam including disinfectant the surface on which forklifts, stackers and other vehicles and personnel of the production area move. The device is most often installed in areas connecting the production zone with areas which are not protected against microbiological hazards. The machine applies foam to the selected area at pre-set intervals. SWPR is equipped with a motion detector which prevents the application when the vehicle passes through the designated area.

Parameter:	Value:
Power	100 W
Power supply	230 V AC, 50 Hz
Concentration	set by user
Dosing time	
Length of dosing intervals	

PROPERTIES AND ADVANTAGES

As a standard, the SWPR is equipped with:

- a hose ended with a foam nozzle (on request the hose can be ended with more nozzles),
- a motion sensor that blocks the foam application when a vehicle passes.

4.10 ASR 04 STATION

ASR 04

BASIC INFORMATION

Electronically controlled peripheral CCS element that enables all sanitary processes to be carried out.

ASR Stations are automated products. They have been designed mainly to wash automatic dispensers (fillers) used in the beverage industry. The Station has been equipped with three strings of a chemical suction injector and a rinsing system. Switching between individual types of chemicals is performed by pneumatic valves of a valve island mounted inside the station. The system has been designed in a way that provides a proper amount and density of foam used for cleaning. The complete set includes an ASR-04 station, PLC controller, section valves, foam and rinse dispensers, and a pump set used to increase pressure. The carried out program guarantees maintaining the pre-set and programmed washing parameters during individual stages of washing. The operator can choose from several factory-installed programs. Our Specialists at Radex create programs according to the client's guidelines.

PROPERTIES AND ADVANTAGES

- PLC steering
- control cabinet equipped with a 7" touch screen, from which the operating parameters of the pump can be read, and its operation can be programmed,
- pneumatic cylinders.

Parameter*:	Value:
Output pressure	10-25 bar
Concentration	1-10%
Air volume	200 - 600 l/min
Foam performance	150 - 400 l/min**
Air pressure	4 - 8 bar
Min inlet water pressure	3 bar
Quantity of chemical solution	10 - 45 l/min
Power supply	230 V AC, 50 Hz

*The parameters may change depending on the selected device configuration.
**Depending on used injector.

4.11 CHLORINE DIOXIDE GENERATOR

CHLORINE DIOXIDE GENERATOR

BASIC INFORMATION

The perfect way to ensure clean water is to use chlorine dioxide as a disinfectant. Chlorine dioxide is highly effective in the control of microorganisms and has a long residence time in the system, which means that it disinfects water even without it being taken up. The great advantage of chlorine dioxide over other disinfectants is its effectiveness in fighting biological membranes.
The chlorine dioxide production system is the perfect solution for fighting Legionella bacteria and other pathogens in drinking water.
It produces chlorine dioxide using dilute solutions of sodium chlorite (NaClO2, 7.5%) and hydrochloric acid (HCl, 9%). These systems are available in four versions with different levels of performance, producing 5, 10, 30 or 60 g/h of chlorine dioxide. The largest of these capacities is sufficient to treat up to 150 m^3 of drinking water per hour at a maximum allowable concentration of ClO2 of 0.4 mg/l.

Use:

- control of Legionella bacteria in water systems in hospitals, nursing homes, hotels, sports facilities and schools,
- water treatment in municipal water supply plants
- treatment of irrigation water, e.g. in plant nurseries,
- process water treatment in the food and beverage industry,
- preparation of cooling water.

PROPERTIES AND ADVANTAGES

- Compact design, the device can also be used in confined spaces,
- easy installation,
- low operating costs,
- high operational reliability thanks to the integrated control system,
- adaptable to different disinfection tasks,
- robust design.

Parameter:	5	10	30	60
Power	50 W	50 W	180 W	320 W
Power supply	230 V			
Concentration of the chlorine dioxide solution	about 2 g/l (2000 ppm)			
Total reactor vessel capacity	1,00 l	1,80 l	6,10 l	13,90 l
Total resource vessel capacity	1,00 l	1,80 l	7,00 l	13,40 l
Permissible process water pressure	3 to 6 bar			
Temperature of chemical components	10 to 35°C			
Process water temperature	10 to 30°C			
Ambient temperature	5 to 35°C			
Protection class	IP 65			
Setting the volume to be prepared	Manual - to be entered by the operator Automatic - input signal			

5. EHRLE HIGH PRESSURE WASHERS

5.1 KD940-F

STANDARD PREMIUM

BASIC INFORMATION

High pressure cold water cleaner for use in the food industry. Equipped with an abrasion-resistant blue high-pressure hose. The device has a self-supporting, corrosion-resistant, robust construction made of ABS plastic. The washer consists of a three-piston pump with a chrome-nickel head (resistant to hot water), a high-performance ceramic piston, stainless steel valves and a bypass pressure regulator. The washer is equipped with the Start-Stop system which automatically switches off the washer after 20 minutes of inactivity. The unit is also equipped with a safety relief valve and an infinitely variable pressure control.

The washer is easy to use thanks to its rotatable chassis equipped with 2 large rubber wheels, which allow it to move even on difficult terrain. There is a rubber support at the front of the unit. The washer also has space for all accessories, a robust rotary switch, a connecting cable (5 m) and a removable ergonomic handle made of stainless steel for transport.

Parameter:	Value:	
Power supply	3/400 - 415 V / 50 Hz	
Working pressure	30-130 bar / 3-13 MPa	
Max pressure	150 bar / 15 Mpa	
Water consumption	300 - 840 l / h	
Nozzle size	055	
Water temperature	80°C	
Speed of rotation engine	1400 rotations / min	
Connection power	3,5 kW /8,1 A	
Electrical fuse	3x16 A slow-blow	
Weight without / with packaging	standard 54 kg / 74 kg	premium 58 kg / 78 kg
Dimensions	standard	premium
without packaging with packaging	80,5 x 48,5 x 95 cm 79 x 59,5 x 81 cm	83 x 48,5 x 95 cm 79 x 59,5 x 81 cm

PROPERTIES AND ADVANTAGES

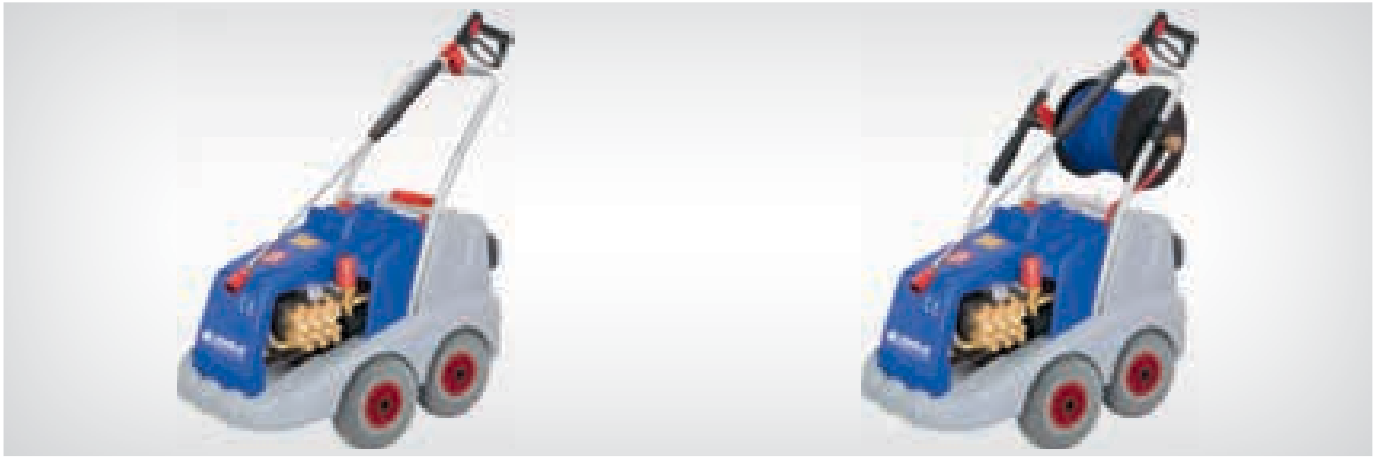
Standard equipment:

- high pressure blue hose 10 m DN6 - 315 bar,
- gun with a ball bearing,
- double cleaning lance 900 mm with exchangeable nozzle,
- 25° jet made of stainless steel,
- 25° high and low pressure nozzle,
- 15 l chemical tank,
- chemical dosing on the low pressure side with injector and dosing valve.

Premium equipment:

- hose reel,
- high pressure blue hose 15 m DN08 - 315 bar,
- gun with a ball bearing,
- double cleaning lance 900 mm, with nozzle cover,
- 25° high and low pressure nozzle,
- 25° stainless steel jet,
- softening foam set with 2 l tank,
- 17 l water tank,
- buffer tank with water level control,
- chemical dosing on the low pressure side with injector and dosing valve.

5.2 KD1140F



STANDARD PREMIUM

BASIC INFORMATION

The high pressure cold water washer for use in the food industry. The washer is equipped with an abrasion-resistant blue high-pressure hose. The device has a self-supporting, corrosion-resistant, robust construction made of ABS plastic and consists of a three-piston pump with a chrome-nickel head (resistant to hot water), a high-performance ceramic piston, stainless steel valves and a bypass pressure regulator. The washer has Start-Stop system, which automatically switches off the washer after 20 minutes of inactivity. The unit is also equipped with a safety relief valve and an infinitely variable pressure control.

The washer is easy to use thanks to its rotatable base with 4 large rubber wheels, which allow it to move even on difficult terrain. These wheels are equipped with a patented locking device which protects the washer against uncontrolled rolling, e.g. from a sloping floor. There is a support with a rubber base at the front of the unit. The washer also has space for all accessories, a robust rotary switch, a connection cable (7.5 m) and a transportable ergonomic handle made of stainless steel.

Parameter:	Value:	
Power supply	3/400 - 415 V / 50 Hz	
Working pressure	30-180 bar / 3-13 MPa	
Max pressure	200 bar / 20 Mpa	
Water consumption	300 - 1000 l / h	
Nozzle size	050	
Water temperature	80°C	
Speed of rotation engine	1400 rotations / min	
Connection power	6,9 kW / 12,5 A	
Electrical fuse	3x16 A slow-blow	
Weight without / with packaging	standard	premium
	89 kg / 113 kg	97 kg / 121 kg
Dimensions	standard	premium
without packaging with packaging	98 x 62 x 100 cm 105 x 76 x 118 cm	102 x 62 x 100 cm 105 x 76 x 118 cm

PROPERTIES AND ADVANTAGES

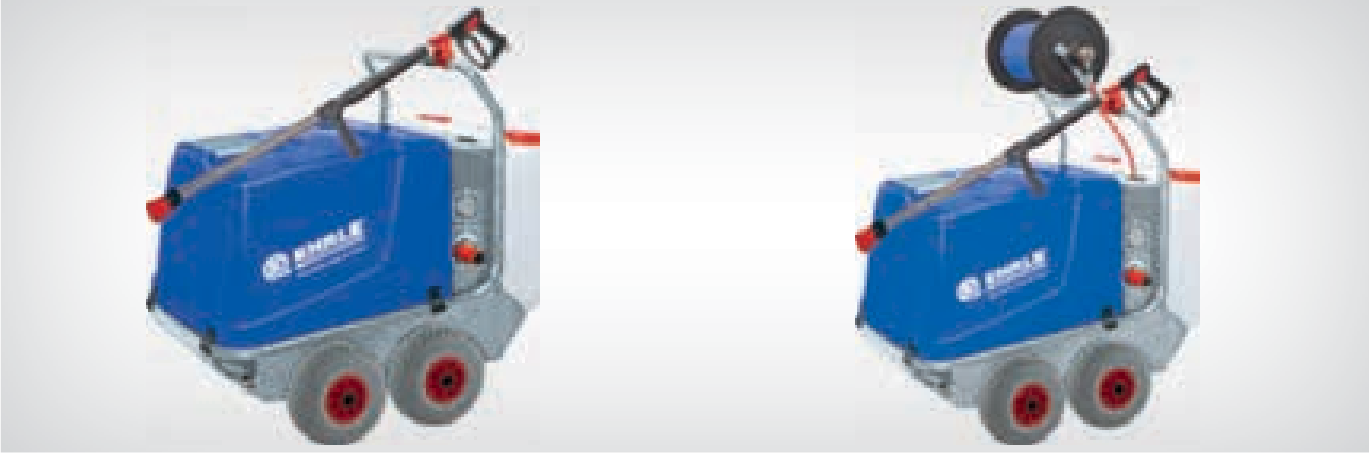
Standard equipment:

- high pressure blue hose 10 m DN6 - 315 bar,
- gun with a ball bearing,
- double cleaning lance 900 mm with exchangeable nozzle,
- 25° jet made of stainless steel,
- 25° high and low pressure nozzle,
- 25 l chemical tank,
- chemical dosing on the low pressure side with injector and dosing valve.

Premium equipment:

- hose reel,
- high pressure blue hose 15 m DN08 - 315 bar,
- gun with a ball bearing,
- double cleaning lance 900 mm, with nozzle cover,
- cleaning lance 900 mm,
- rotating nozzle,
- 25° stainless steel jet,
- buffer tank with water level control,
- 35 l water tank,
- chemical dosing on the low pressure side with injector and dosing valve.

5.3 HDE840-F 24kW



STANDARD

PREMIUM

BASIC INFORMATION

The high-pressure hot-water cleaner for use in the food industry. It is equipped with an abrasion-resistant blue high-pressure hose. The device has a self-supporting, corrosion-resistant, robust construction made of ABS plastic. The washer consists of a 35 l stainless steel hot water boiler with preheating function and a buffer tank for immediate use of hot water and STAND-BY (ready to use) water. The washer also includes a three-piston pump with a chrome-nickel head (resistant to hot water), a high-performance ceramic piston, stainless steel valves and a bypass pressure regulator. The unit is equipped with Etronic II control system consisting of Start-Stop system with shutdown delay, STAND-BY system for heating and water level sensor. The unit is also equipped with a safety relief valve and an infinitely variable pressure control.

The washer is easy to use thanks to the rotatable chassis equipped with 4 large rubber wheels, which allow it to move even on difficult terrain. These wheels are equipped with a patented locking device, which protects the washer against uncontrolled rolling, e.g. from a sloping floor. The washer also has two integrated chemical tanks with a capacity of 20 litres each, space for all accessories, a robust two-stage rotary switch (with STAND-BY function), a connection cable (7.5 m) and a replaceable ergonomic handle made of stainless steel for transportation.

Parameter:	Value:	
Power supply	3/400 - 415 V / 50 Hz	
Working pressure	30-130 bar / 3-13 MPa	
Max pressure	150 bar / 15 Mpa	
Water consumption	300 - 720 l / h	
Nozzle size	045	
Water temperature	30 - 80°C	
Speed of rotation engine	1400 rotations / min	
Connection power	28,8 kW / 44 A	
Electrical fuse	3x50 A slow-blow	
Weight without / with packaging	standard	premium
	124 kg / 145 kg	133 kg / 154 kg
Dimensions	standard	premium
without packaging	107 x 73,5 x 78,5 cm	107 x 73,5 x 131 cm
with packaging	116 x 77 x 96 cm	116 x 77 x 135 cm

PROPERTIES AND ADVANTAGES

Standard equipment:

- control unit - Etronic II,
- high pressure blue hose 10 m DN6 - 315 bar,
- gun with a ball bearing,
- double cleaning lance 900 mm with exchangeable nozzle,
- 25° jet made of stainless steel,
- buffer tank with water level control,
- chemical dosing on the high pressure side and dosing valve.

Premium equipment:

- control unit - Etronic II,
- hose reel,
- high pressure blue hose 15 m DN08 - 315 bar,
- gun with a ball bearing,
- double cleaning lance 900 mm, with nozzle cover,
- cleaning lance 900 mm,
- rotating nozzle,
- buffer tank with water level control,
- chemical dosing on the high pressure side and dosing valve.

6. ACCESSORIES

The basic line of the offer of Central Cleaning System produced by our company is supplemented by numbers of elements constituting the equipment of the system. They are made of the best acid resistant steels, which provide the user with comfortable handling and long-term operation. They can also be successfully used in plants that have a hygiene program in place or where the central cleaning system equipment used needs to be completed or replaced.

6.1 HOSE REELS

BASIC INFORMATION

Drums are used to retract the hose. The auto-retracting mechanism facilitates its use and reduces the risk of damage at the same time.

They are made of acid resistant steel.

Reels leading the hose.

A tilting support for turning 178' in the vertical plane.

Free way of fixing (wall, ceiling, floor).

Drums with auto-retracting mechanisms prolong the lifetime of hoses significantly and increase health and safety at work. They are used to pull out and auto-retract the hose after the flap is released.

Parameter:	AV 1100	AV 3500
Max hose length	20 m	30 m
Hose diameter	½"	½"
Max pressure	200 bar	200 bar
Max ambient temperature	90°C	90°C
Connection (external thread)	½"	½"
Weight without hose	17 kg	28 kg
Made of	stainless steel	stainless steel

6.2 HOSES

BASIC INFORMATION

In our offer we have a wide range of hoses in steel and synthetic braid. The hoses are available in different colour variants and their length is adjusted to the customer's requirements. The hoses are approved for use in food production. They are characterized by high resistance to aggressive chemicals and high pressure. The hoses are already forged on both sides as standard.

Parameter:	Ultra Hygienic	Steel braided hose
Service temperature	-10°C do 70°C	-10°C do 150°C
Inner diameter [mm]	12 mm	13 mm
Outer diameter [mm]	22 mm	20 mm
Burst pressure	240 (20°C) 120 (70°C)	640
Max operating pressure	80 bar (20°C) 50 bar (70°C)	220
Bending radius (mm)	84 mm	180 mm
Weight	335 g/m	360 g/m

6.3 WATER GUNS

BASIC INFORMATION

Professional guns certified for use in the food industry. In our offer we have high and low pressure guns. They are made of impact-resistant plastic, which significantly increases their service life. Selected models use LTF technology, which reduces the force required to press the trigger by 40% and the force required to maintain pressure by up to 90%. All connectors used in the guns are made of stainless steel, and the gaskets are made of materials resistant to abrasion and chemicals.

Parameter:	ST 3100	ST 2725	ST 3225	AKBO
Max water pressure	60 bar	80 bar	24,5 bar	24 bar
Max low	100 l/min	80 l/min	120 l/min	65 l/min
Temperature range	5 - 150°C	5 - 150°C	5 - 100°C	5 - 95°C
Inlet	1/2"	1/2"	1/2"	1/2"
Outlet	Swivel connector	Swivel connector	Swivel connector	Swivel connector

6.4 LANCES

BASIC INFORMATION

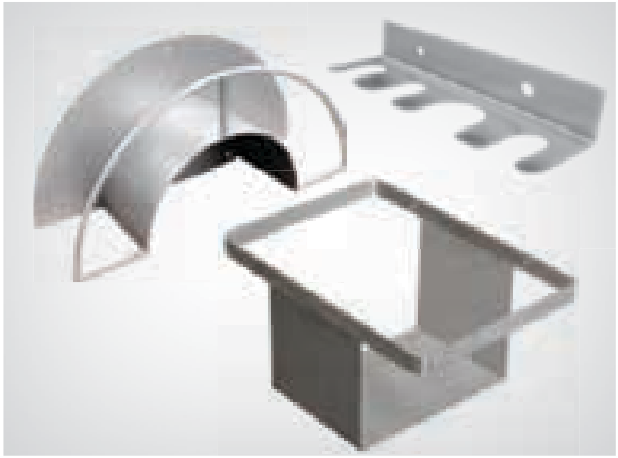
In our offer we have lance kits which enable us to carry out a complete cleaning and disinfection process. The lances are available in three variants - short and long - and with adjustable length.

On request, we can also prepare rinsing and foaming lance of any length to be used e.g. for washing ceilings.

The rinsing lance is used for preliminary and final rinsing of the cleaned surface. The foam lance is used to apply the foam to the cleaned surface, and the disinfectant lance is used to spray the disinfectant onto the previously washed surface. All nozzles are equipped with a plastic casing which protects against scalding with water and a special cover which ensures that the parameters of the nozzle do not change. For easy identification, the lances are marked in different colours. The optimally selected pair of meters of each lance ensures comfortable and trouble-free operation, and the reduced length provides storage comfort and easier application in narrow spaces. The booms are equipped with quick couplings for quick change without the need for additional tools.

Parameter:	Foaming	Rinsing	Disinfecting
Jet angle	60º	15º	25º
Flow	200-250 l/min (foam)	25 l/min	15 l/min

6.5 BASKETS AND HOLDERS



BASIC INFORMATION

In our offer we have baskets and holders made entirely of stainless and acid resistant steel.

The basket for containers has a three-point attachment system for a load capacity of up to 120 kg. This basket can also be made in a lockable version and in individual dimensions on request.

The holder for hoses allows the three-lance set to be hung anywhere.

The stainless steel hose holder is a robust holder that can be mounted anywhere in the production area. Dimensions of the holder are adapted to the hose of 25 lm, however, on request of the customer we can produce the element in any dimensions.

6.6 COUPLINGS AND VALVES

BASIC INFORMATION

Rotary couplings are ideal for the food industry. They are used for hose connections with lances, guns, etc., wherever there is a rotary movement. Continuous rotational movement, which occurs during the cleaning process, causes destructive stress, which eliminates the use of the rotary coupling, which also affects the comfort of staff, who do not have to pay attention to the twisting hose. All connectors are made of stainless steel resistant to aggressive chemicals.

In our offer we also have a wide range of ball and butterfly valves used to cut off the supply of liquid or air. The valves are fitted as standard as the end of hoses to connect them to lances. All valves offered by RADEX are made of elements resistant to aggressive chemicals.

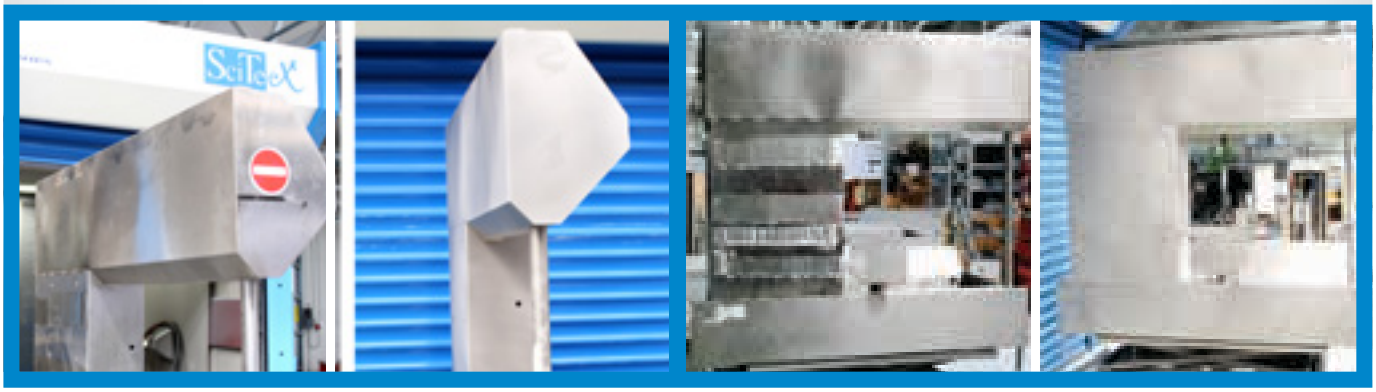
7. NOVELTY

WASHER OF PRODUCTION ELEMENTS

The washing, dosing and rinsing process is automatic. The machine performs alkaline and acid cleaning. The device is equipped with a tank in which water and detergent are collected and used for re-cleaning. Such a solution allows to save water and take care of the natural environment, significantly reducing the consumption of chemicals. The cleaning process is carried out in several stages. Initially, the water tank is flooded. Then, if necessary, the water is heated to the correct temperature. At the same time, an alkaline chemical is dosed. After reaching the preset temperature and concentration, the cleaning process begins. The rotating platform is activated and the detergent flows through the nozzles. During the entire cleaning process, the controller controls the temperature of the detergent and starts heating up if necessary to maintain the set operating parameters. The washing process is followed by the rinsing of the facings to remove the chemical. The device provides visual and acoustic information about the completed process. The user can set his own cleaning process parameters and save them. Modifications are subject to min. Parameters such as temperature, concentration, speed of rotation or cleaning times.

EQUIPMENT REFURBISHMENT

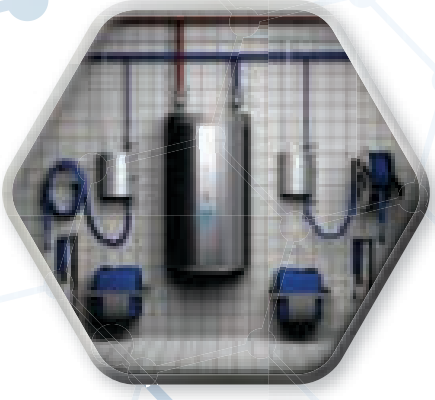
If your plant's technical equipment is already in its infancy and your budget does not plan to invest in replacing it in the near future. Contact us! We offer refurbishment of stainless steel equipment. We renovate both our own equipment and that of other manufacturers. This process makes it possible to extend the life of the device and postpone the need to purchase new components of the Washing System or Sanitary Lock. Our technical team will fully renovate the surface, which will be satin-finished to remove all rust, abrasion and permanent dirt, making it look like new. All mechanical parts of the machine will also be inspected and worn out components will be replaced. Using our offer allows you to allocate the saved funds to other investments aimed at the development of the plant. Ask your Hygiene Advisor about the details of the offer and the financial terms and conditions.



8. WE OFFER ALSO

When RADEX was established in 1989, it had only a few chemical preparations in its offer. Today, after 30 years of presence on the market and constant development, we have expanded our activity on many branches related to maintaining hygiene in food industry plants. We can provide a comprehensive service from a paper towel to central cleaning systems. **We cordially invite you to cooperate with us!**

Chemical Agents



Central Cleaning Systems

Sanitary Locks

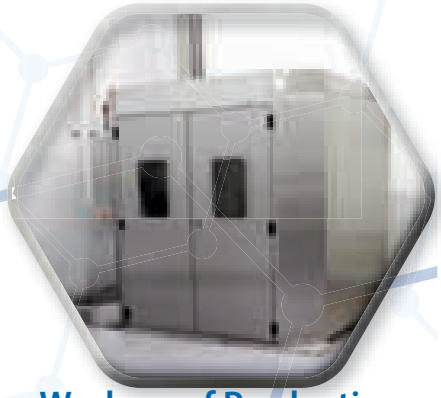
Cleaning Service

Oils and Greases

Paper Towels

Scrubbers

Hygienic Equipment



Washers of Production Elements

RADEX®

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