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LAGAFORS® PRODUCT CATALOGUE - 2013/2014

New and expanded facilities to meet growing demand

With a constant focus on product development as well as growth on new and existing markets, one of our main objectives for 2013 is the construction of new production facilities. Just like our present factory, this new one will be located in the southern Swedish city of Laholm. We plan on beginning construction in September and everyone, not least our very talented staff, is looking forward to this. Our new facilities will more accurately reflect our products and services.

Food-processing industry exhibition

Another important milestone during 2013 will be our participation at the IFFA exhibition in Frankfurt. Among other things, we will be unveiling a new product line that we have developed with small and medium-sized food-processing industries primarily in mind. Even companies of this size need high-quality cleaning equipment.

OEM product range

Last year saw the successful launch of our custom OEM product range and we will continue to develop this area in the future. We were able to meet our OEM customers' very high quality standards, which is an affirmation that we are doing things right. You will find the basic model in this product line on page 50.

I sincerely hope we will have the opportunity to meet soon, so that I may show you our comprehensive product range and how we can help increase your company's profitability.

Magnus Elmblad MD Lagafors



We are continuously developing our product range, which means that the information about and specifications for the products described in this catalog can change without prior notice, and we reserve the right to carry out design modifications without prior notice. In 2013, this catalog will be published in three languages: Swedish, English and German. We do not take responsibility for any clerical errors herein. Lagafors Fabriks AB, Laholm 2013.

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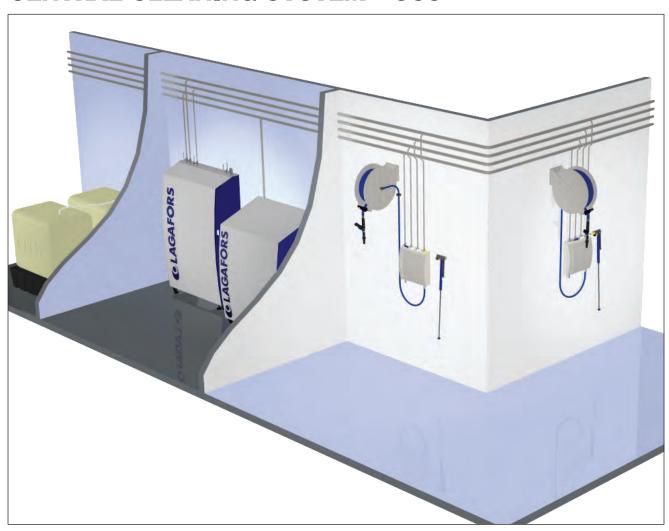
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CENTRAL CLEANING SYSTEM - CCS



Lagafors® Central Cleaning System, CCS, enables the food industry to obtain ultimate hygiene at reduced cost and environmental impact, in a good working setting. The CCS is made up of five main components that together meet high demands for capacity, performance and quality.

By combining the components in the CCS, which comprises our newly developed VCC (Variable Chemical Centre) chemical centre and various types of water pump centres, customers can reduce their costs by up to 35% compared to most existing cleaning systems and cleaning methods. These savings, and a decreased environmental impact, are achieved thanks to reduced use of warm water and chemicals and less wastewater generated.

The central components provide the correct pressure, flow and chemical concentration, where needed, for up to 20 simultaneous users. An enormous ergonomic advantage is provided when using them together with the Triggless® II spray gun.

The water pump centre and the VCC chemical centre are normally placed in a centrally located area. Pipes and hoses then run throughout the factory feeding all the satellite stations. Each satellite station consists of a hose reel with hose for water, chemicals and disinfectant. Attached are the Triggless® II spray guns and pre-cleaning nozzles. The central dosing and storage of chemicals enables safe handling with no concentrated chemicals in the production areas. Service, maintenance and settings for the VPP and VCC are made in one central place.

| Features | Benefits | Facts |
|-------------------------------|--|---|
| Water pump centre | Flexible pressure and flow | Desired pressure and flow for up to 20 simultaneous users |
| Variable Chemical Centre, VCC | High dosage accuracy of chemicals/disinfectant | Optimized cost and environmental impact |
| Variable Media Satellite, VMS | User friendly and hygienically designed | Efficiency and hygiene in production area |
| Triggless® II | Spray gun that offers ergonomics, flexibility and efficiency | No trigger, 0-150 bar, reduced muscle strain |
| Pre-Cleaning Nozzle, PCN | User adjustable pressure and flow | Efficient cleaning 0.3-7 m at optimized water consumption |



THE FIVE MAIN COMPONENTS



Water pump units

The water pump centre is an essential component of the cleaning system. Lagafors offers a wide variety of pumps and customers can choose between different pressures (20-80 bar) as well as flow capacities for various numbers (1-20) of simultaneous users. Furthermore, many of our units are already prepared for expanding flow capacity.

Pages 4-13



Variable Chemical Centre (VCC)

Lagafors'® unique, centralized chemical dosing system VCC, Variable Chemical Center, now has a newly developed successor — the VCC II. In our development efforts, we have focused on increased capacity and flexibility, improved materials and components, as well as enhanced personal safety. Other features are much more efficient maintenance and technical service. This unit is comprised of a pressure pump, 1-4 chemical dosing modules and a controller.

Page 14-19



Variable Media Satellite (VMS)

Our newly developed Variable Media Satellite (VMS) is a hygienically designed satellite station that you can connect to any water pump or VCC unit. Up to three different media (normally chemicals, disinfectant and water) can be distributed through the VMS. The VMS is user-friendly, easy to maintain and appreciated within demanding industry for its robustness.

Pages 20-25



Spray Gun (Triggless® II)

The patented Triggless® II spray gun is ergonomically designed to reduce muscle strain on the operator. The gun uses the reaction-force of the water to keep the valve open instead of a traditional trigger. It is light weight, safe whilst used with one hand and suitable for all pressure levels up to 150 bars. During operation the Triggless® II can be held in different ways to improve flexibility and efficiency. It also features a "dead man's" grip, i.e. the water flow is shut off if the gun is accidentally dropped.

Page 58



Pre-Cleaning Nozzle (PCN)

The patent pending Pre-Cleaning Nozzle (PCN) enables the user to control the water pressure for long or short distance cleaning, i.e. 0.3–7 metres. The purpose is to use the PCN instead of a high flow water-hose in the pre-cleaning stage. Correctly used, this method can significantly reduce the water consumption. The weight of the Pre-Cleaning Nozzle is only 125 grams.

Page 57

LOW WATER PRESSURE PUMP - LWP 8



Lagafors® LWP 8 (Low Water Pressure, Stationary Booster), is designed for cleaning with pressurized water and it is to be connected to a number of Lagafors® Variable Media Satellites (VMS). The LWP is especially appropriate for cleaning applications in food processing, e.g. in dairies, breweries, fish industries, prepared food industries, industrial kitchens and other places where a high level of hygiene is required.

- · Working pressure 8 bar.
- · Floor-standing unit.
- · Unit is intended for central placement (non-production areas).
- · Inlet pressure 0-4 bar. Feeding from break tank is possible.

| Features | Benefits | Facts |
|--|------------------------------------|-----------------------------------|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | From 0-4 bar up to 8 bar |
| Flexibility in flow | Multiple options | 0-300 lit/min |
| Constant pressure on outgoing media | Ergonomical and safe for the user | Insignificant pressure variations |
| Vertical multistage centrifugal pump | Reliable and robust pump model | Low maintenance costs |
| Frequency-controlled pump | Optimal energy consumption | Low operating costs |



| Model | LWP 8100 | LWP 8200 | LWP 8300 | | |
|-------------------------------|---------------|--|---------------|--|--|
| Outgoing water pressure | | 8 bar | | | |
| Water consumption | 0-100 lit/min | 0-200 lit/min | 0-300 lit/min | | |
| Flow capacity, max | 150 lit/min | 250 lit/min | 350 lit/min | | |
| Capacity (20lit/user) | 5 users | 10 users | 50 users | | |
| Surrounding temperature | | 5-35 °C | | | |
| Connections (internal thread) | | | | | |
| Water incoming | ISO-G 1 1/4" | ISO-G 2" | ISO-G 2" | | |
| Water supply, flow | 170 lit/min | 270 lit/min | 370 lit/min | | |
| Water supply, pressure | | 0-4 bar | | | |
| Water temperature, max | | 70 °C | | | |
| Water outgoing | ISO-G 1 1/4" | ISO-G 2" | ISO-G 2" | | |
| Electricity | | | | | |
| Voltage | 3 x 40 | 0 V+PE / 50/60 Hz (other specifications on r | equest) | | |
| Current | 4,5 A | 9,0 A | 12,2 A | | |
| Power | 2,2 kW | 4,0 kW | 5,5 kW | | |
| Dimensions | | | | | |
| Measurements WxDxH | | 1150 x 450 x 1130 mm | | | |
| Weight, approx. | 125 kg | 150 kg | 175 kg | | |





⁻ Alarm feature for low supply water is possible.

LOW WATER PRESSURE PUMP - LWP 20



Lagafors® LWP 20 (Low Water Pressure, Stationary Booster), is designed for cleaning with pressurized water and it is to be connected to a number of Lagafors® Variable Media Satellites (VMS). The LWP is especially appropriate for cleaning applications in food processing, e.g. in dairies, breweries, fish industries, prepared food industries, industrial kitchens and other places where a high level of hygiene is required.

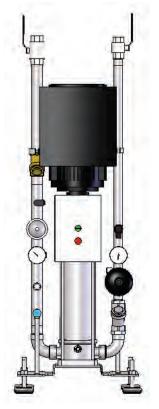
- · Working pressure 20-25 bar.
- · Floor-standing unit.
- · Unit is intended for central placement (non-production areas).

| Features | Benefits | Facts |
|--|------------------------------------|-----------------------------------|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | From 3-8 bar up to 25 bar |
| Flexibility in pressure and flow | Multiple options | 20-25 bar and up to 600 lit/min |
| Constant pressure on outgoing media | Ergonomical and safe for the user | Insignificant pressure variations |
| Vertical multistage centrifugal pump | Reliable and robust pump model | Low maintenance costs |
| Frequency-controlled pump | Optimal energy consumption | Low operating costs |



| Technical inforn | nation Lagafors | ® Low Water Pr | essure Pump LW | /P 20 | | | |
|-------------------------|-----------------|---------------------|----------------|--|-------------------|-------------------|-------------------|
| Model | LWP 2030 SB | LWP 2090 SB | LWP 20150** SB | LWP 20150 Multi** | LWP 20300 Multi** | LWP 20450 Multi** | LWP 20600 Multi** |
| Outgoing water pressure | | | | 20-25 bar | | | |
| Water consumption | 0-30 lit/min | 0-90 lit/min | 0-150 lit/min | 0-150 lit/min | 0-300 lit/min | 0-450 lit/min | 0-600 lit/min |
| Flow capacity, max | 50 lit/min | 120 lit/min | 165 lit/min | 165 lit/min | 330 lit/min | 495 lit/min | 660 lit/min |
| Capacity (30lit/user) | 1-2 users | 3-4 users | 5 users | 5 users | 10 users | 15 users | 20 users |
| Surrounding temperature | | | | 5-30 °C | | | |
| Connections (interna | al thread) | | | | | | |
| Water incoming | | ISO-G 1 1/4" | | | ISO-G | 2 1/2" | |
| Water supply, flow | 70 lit/min | 150 lit/min | 180* lit/min | 180* lit/min | 360* lit/min | 540* lit/min | 720* lit/min |
| Water supply, pressure | | | | 3-8 bar | | | |
| Water temperature, max | | | | 70 °C | | | |
| Water outgoing | | ISO-G 1" | | | ISO-G | 2 1/2" | |
| Electricity | | | | | | | |
| Voltage | | | | x 400 V+N+PE / 50 er specifications on rec | | | |
| Current | 4,5 A | 9,0 A | 14,6 A | 14,6* A | 30* A | 45* A | 60 A |
| Power | 2,2 kW | 4,0 kW | 7,5 kW | 7,5* kW | 15* kW | 22,5* kW | 30 kW |
| Dimensions | | | | | | | |
| Measurements WxDxH | | 500 x 500 x 1400 mr | n | | 1140 x 760 | x 1130 mm | |
| Weight, approx. | 100 kg | 125 kg | 125 kg | 175 kg | 250 kg | 325 kg | 400 kg |

- Alarm feature for low supply water pressure and exceeded max flow is standard on all units.
- * A fully built-out unit has the following capacity: 720 lit/min 60 A 30 kW.



Lagafors® LWP 20150 SB



^{**} Frequency-regulated pumps.

LOW WATER PRESSURE PUMP - LWP 40



Lagafors® LWP 40 (Low Water Pressure, Stationary Booster), is designed for cleaning with pressurized water and it is to be connected to a number of Lagafors® Variable Media Satellites (VMS). Lagafors® LWP is especially suitable for cleaning applications in the food processing industry, for example slaughterhouses, meat processing, dairies, breweries, fishing industry, prepared food, large-scale kitchens and other places where a high level of hygiene is required.

- · Working pressure 35-40 bar.
- · Floor-standing unit.
- · Unit is intended for central placement (non-production areas).

| Features | Benefits | Facts |
|--|------------------------------------|-----------------------------------|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | From 3-8 bar up to 40 bar |
| Flexibility in pressure and flow | Multiple options | 35-40 bar and up to 420 lit/min |
| Constant pressure on outgoing media | Ergonomical and safe for the user | Insignificant pressure variations |
| Vertical multistage centrifugal pump | Reliable and robust pump model | Low maintenance costs |
| Frequency-controlled pump | Optimal energy consumption | Low operating costs |

| Model | LWP 4025 SB | LWP 4070 SB | LWP 4070 Multi | LWP 40140 Multi | LWP 40210 Multi | LWP 40280 Multi | LWP 40350 Multi XL | LWP 40420 Multi XL |
|-------------------------|--------------|---|----------------|-----------------|-----------------------------------|-----------------|--------------------|--------------------|
| Outgoing water pressure | | | | 35-4 | 0 bar | | | |
| Water consumption | 0-25 lit/min | 0-70 lit/min | 0-70 lit/min | 0-140 lit/min | 0-210 lit/min | 0-280 lit/min | 0-350 lit/min | 0-420 lit/min |
| Flow capacity, max | 50 lit/min | 90 lit/min | 90 lit/min | 180 lit/min | 270 lit/min | 360 lit/min | 450 lit/min | 540 lit/min |
| Capacity (23 lit/user) | 1-2 users | 3-4 users | 3-4 users | 6-7 users | 9-10 users | 12-13 users | 15-16 users | 19-20 users |
| Surrounding temperature | | | | 5-3 | 0 °C | | | |
| Connections (intern | al thread) | | | | | | | |
| Water incoming | ISO-G 1 1/4" | ISO-G 1 1/4" | ISO-G 2 1/2" | | | | | |
| Water supply, flow | 70 lit/min | 120 lit/min | 120* lit/min | 240* lit/min | 330* lit/min | 440 lit/min | 660 lit/min | 660 lit/min |
| Water supply, pressure | | | | 3-8 | bar | | | |
| Water temperature, max | | | | 70 | °C | | | |
| Water outgoing | ISO-G 1 1/4" | ISO-G 1 1/4" | | | ISO-G | 2 1/2" | | |
| Electricity | | | | | | | | |
| Voltage | | | | | I+PE / 50 Hz tions on request) | | | |
| Current | 9,4 A | 14,6 A | 14,6* A | 30* A | 45* A | 60 A | 90 A | 90 A |
| Power | 4,6 kW | 7,5 kW | 7,5* kW | 15* kW | 22,5* kW | 30 kW | 45 kW | 45 kW |
| Dimensions | | | | | | | | |
| Measurements WxDxH | 500 x 500 | 500 x 500 x 1400 mm 1140 x 760 x 1200 mm 1830 x 760 x 1200 mm | | | | | | |
| Weight, approx. | 80 kg | 90 kg | 175 kg | 250 kg | 325 kg | 400 kg | 500 kg | 575 kg |

- All pumps are frequency-controlled.
- Alarm feature for low supply water pressure and exceeded max flow is standard on all units.
- * A fully built-out unit has the following capacity: 440 lit/min 60 A 30 kW. (40350 must always be connected according to 40420 specifications)



Lagafors® LWP 4070 SB



MEDIUM PRESSURE PUMP - MPP-F



The Lagafors® Medium Pressure Pump - Frequency 8090, MPP-F, features reduced water consumption, improved ergonomics and proven reliability with low maintenance costs. The Lagafors® MPP-F uses a frequency-controlled pump to supply five simultaneous users with consistent water pressure. This feature eliminates the pressure surges that nomally arise when other satellite stations are activated. The pump pressure can be set in the range 60–80 bar, with a capacity of 90 lit/min. Up to four pumps can be interconnected to achieve a capacity of 360 lit/min.

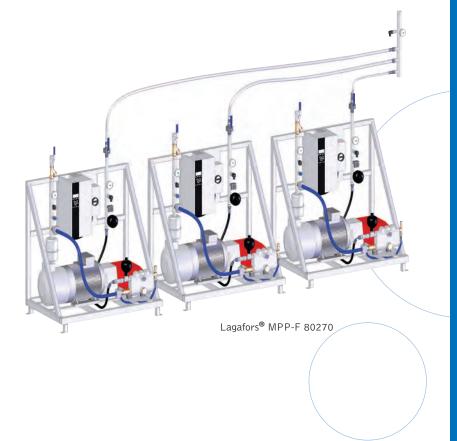
- · Can be connected to Lagafors's VMS satellite stations with up to 5 simultaneous users/unit.
- · Operating pressure of 60-80 bars and maximum flow of 360 lit/min and 20 users simultaneously.
- · The unit can with advantage also be connected to automatic cleaning equipment and dishwashers.

| Features | Benefits | Facts |
|---|---|---------------------------------|
| Pressure-raising water pump | Enhanced surface-cleaning energy | From 3-6 bar up to 80 bar |
| Flexible in terms of pressure and flow | Choose between several different alternatives | 60-80 bar and up to 360 lit/min |
| Consistent pressure for pressurized water | Ergonomic and user-safe | No pressure fluctuation |
| Low revolutions (rpm) | Long service intervals | Low maintenance costs |

| Technical information Lagar | fors® Medium Pressure I | Pump MPP-F | | |
|-------------------------------------|-------------------------|----------------------------|---------------------------------|----------------------------|
| Model | 8090 | 80180 | 80270 | 80360 |
| Exit water pressure | | 60-8 | 0 bar | |
| Water consumption | 0-90 lit/min | 0-180 lit/min | 0-270 lit/min | 0-360 lit/min |
| Capacity (18 l/user) | 1-5 users | 1-10 users | 1-15 users | 1-20 users |
| Surrounding temperature | | 10-3 | 0 °C | |
| Water connections (internal thread) |) | | | |
| Water connection, supply | ISO-G 1" | 2 x ISO-G 1" | 3 x ISO-G 1" | 4 x ISO-G 1" |
| Supply water flow | 120 lit/min | 240 lit/min | 360 lit/min | 450 lit/min |
| Supply water pressure | | 3-6 | bar | |
| Water temperature, max | | 60 | °C | |
| Outgoing water connection | ISO-G 3/4" | | ISO-G 1 1/4" | |
| Electric supply | | | | |
| Voltage | | 3 x 400 V+N+PE / 50 Hz (or | ther specifications on request) | |
| Electric current | 50 A | 2 x 50 A | 3 x 50 A | 4 x 50 A |
| Power consumption | 15 kW | 2 x 15 kW | 3 x 15 kW | 4 x 15 kW |
| Dimensions | | | | |
| Measurements WxDxH (without hood) | 1190 x 740 x 1360 mm | 2 x (1190 x 740 x 1360) mm | 3 x (1190 x 740 x 1360) mm | 4 x (1190 x 740 x 1360) mm |
| Weight, approx. | 310 kg | 2 x 310 kg | 3 x 310 kg | 4 x 310 kg |

- Alarm feature for low supply water pressure and exceeded max flow is standard. Recommendations:
- Avoid placing near noise-sensitive areas.
- Unit must be bolted to the floor (concrete floor recommended).







MEDIUM WATER PRESSURE - MWP



Lagafors® pump MWP, (Medium Water Pressure) is designed for cleaning with pressurized water. It is to be connected to a number of Lagafors® Variable Media Satellites, VMS. The MWP is especially appropriate for cleaning applications in food processing, e.g. in slaughter houses, dairies, breweries, fish industries, prepared food industries, industrial kitchens and other places where a high level of hygiene is required.

- · Working pressure 70 bar, can also be run on 90 bar.
- · Turnkey unit, placed on floor.
- · The pumps are mounted on a frame in stainless steel.
- · The unit can with advantage also be connected to automatic cleaning equipment and dishwashers.

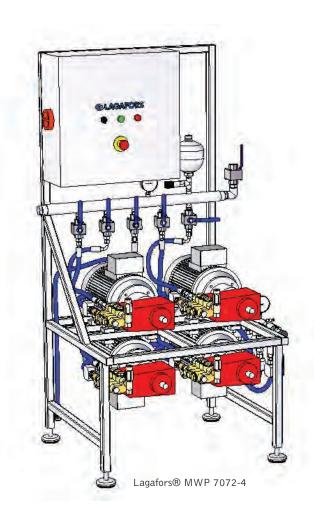
| Features | Benefits | Facts |
|--|------------------------------------|--------------------------------|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | From 3-8 bar up to 90 bar |
| Flexibility in flow | Multiple options | 70-90 bar and up to 72 lit/min |
| Well-known pump model | Reliable and robust | Low maintenance costs |
| Extendable to max 4 pumps | Flexible | Low investment costs |



| Model | MWP 7036-2 | MWP 7054-3 | MWP 7072-4 | | |
|-------------------------------------|--------------|---|--------------|--|--|
| Outgoing water pressure | | 70 bar | | | |
| Water consumption | 0-36 lit/min | 0-54 lit/min | 0-72 lit/min | | |
| Capacity (18 lit/user) | 2 users | 3 users | 4 users | | |
| Surrounding temperature | | 5-30 °C | | | |
| Water connections (Internal thread) | | | | | |
| Water incoming | ISO-G 1" | | | | |
| Water supply, flow | 50 lit/min | 70 lit/min | 90 lit/min | | |
| Water supply, pressure | 3-8 bar | | | | |
| Water temperature, max | | 70 °C | | | |
| Water outgoing | | ISO-G 1/2" | | | |
| Electric supply | | | | | |
| Voltage | 3 x 4 | 400 V+N+PE / 50 Hz (other specifications on | request) | | |
| Current | 18 A | 27 A | 36 A | | |
| Power | 8 kW | 12 kW | 16 kW | | |
| Dimensions | | | | | |
| Measurements WxDxH | | 780 x 690 x 1600 mm | | | |
| Weight. approx. | 100 kg | 140 kg | 180 kg | | |

 $The \ data \ is \ subject \ to \ variation \ and \ the \ producer \ reserves \ the \ right \ to \ change \ design \ specifications \ without \ notice.$

- Alarm feature for low supply water pressure is standard.
- * Our recommendation is to connect the unit according to MWP 7072-4 for further expansions.
- ** Cabinet is optinal.







VARIABLE CHEMICAL CENTRE - VCC II / 70



Lagafors'® unique, centralized chemical dosing system VCC, Variable Chemical Center, now has a newly developed successor — the VCC II. In our development efforts, we have focused on increased capacity and flexibility, improved materials and components, as well as enhanced personal safety. Other features are much more efficient maintenance and technical service. This unit is comprised of a pressure pump, 1-4 chemical dosing modules and a controller. A dosing precision of +/-0.1% of the chemical solutions provides optimal chemical concentration with maximal results. The unit can dose up to 4 simultaneous chemical solutions. Through the years, the VCC has been shown to be especially suitable for environments with high demands on hygiene and resource consumption, such as slaughterhouses, dairies, breweries, the fish and meat processing industries and large-scale kitchens.

- · Main Components: pressure pump, 1-4 chemical dosing modules and a controller.
- · High dosing precision (+/- 0.1%), which guarantees low chemical consumption.
- · Capacity of 1-12 simultaneous users (6-70 lit/min (1.5-18. US gallons/min)).
- · Flexible, can handle various combinations of up to four chemical solutions.
- · Level indicator with alarm is standard

| Features | Benefits | Facts |
|---------------------------------|--|--|
| High dosage accuracy (+/- 0,1%) | Reduced environmental impact | Lower chemical cost |
| Constant chemical concentration | No concentration fluctuation | Reduced chemical consumption |
| Central storage of chemicals | No concentrated chemicals in production area, less handling of chemicals | Reduced risk of accidents with chemicals, no waste problems in chem tanks |
| Central dosage | Purchase of chemicals in containers | Reduced cost per liter of detergent, saving time when changing |
| Separate water systems | Possibility to set desired temperature of diluted chemical solution | Optimal chemical efficiency, improved working environment, reduced amount of aerosol |

| Technical information Lagafors® Variable Chemical Centre VCC II | | | | | | | |
|---|------------------|--|--------------|----------------|--------------------------------|----------------|--------------------------------|
| Model | 70 S | 70 D/SS | 70 D/D | 70 T/SSS | 70 T/DS | 70 Q/SSSS | 70 Q/DSS |
| Dosing pumps | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| Outgoing water pressure | 8 bar | | | | | | |
| Water consumption | 0-35 lit/min | | | | | | |
| Capacity (6 lit/user) | 1-6 users | | | 1-12* | users | | |
| Surrounding temperature | | | | 5-30 °C | | | |
| Connections incoming media (| Internal thread) | | | | | | |
| Water incoming | | | | ISO-G 1" | | | |
| Water supply, flow | | | | 90 lit/min | | | |
| Water supply, pressure | | | | 3-6 bar | | | |
| Water temperature, max | | | | 30 °C | | | |
| Air (6-8 bar) | | | | ISO-G 3/8" | | | |
| Connections outgoing media (I | (nternal thread) | | | | | | |
| Chemical solution to satellite | ISO-G 1/2" | 2 x ISO-G 1/2" | 1 x ISO-G 1" | 3 x ISO-G 1/2" | 1 x ISO-G 1" 1 x ISO-G 1/2" | 4 x ISO-G 1/2" | 1 x ISO-G 1" 2 x ISO-G 1/2" |
| Air to satellite | | | | ISO-G 3/8" | | | |
| Electricity | | | | | | | |
| Voltage | | 3 x 400 V+N+PE / 50 Hz (other specifications on request) | | | | | |
| Current | 3,3-2,7 A | | | | | | |
| Power | 1,5 kW | | | | | | |
| Dimensions | | | | | | | |
| Measurements WxDxH (excl. cabinet) | | 1150 x 450 x 1910 mm | | | | | |
| Weight, approx. | 135 kg | 145 kg | 145 kg | 155 kg | 155 kg | 165 kg | 165 kg |

- Suction lance requires min. 52 mm hole in the chemical drum / container.
- Protective cover not included and available separately.

 * Maximum capacity due to the achieved maximum flow of water.





VARIABLE CHEMICAL CENTRE - VCC II / 140



Lagafors'® unique, centralized chemical dosing system VCC, Variable Chemical Center, now has a newly developed successor — the VCC II. In our development efforts, we have focused on increased capacity and flexibility, improved materials and components, as well as enhanced personal safety. Other features are much more efficient maintenance and technical service. This unit is comprised of a pressure pump, 1-4 chemical dosing modules and a controller. A dosing precision of +/-0.1% of the chemical solutions provides optimal chemical concentration with maximal results. The unit can dose up to 4 simultaneous chemical solutions. Through the years, the VCC has been shown to be especially suitable for environments with high demands on hygiene and resource consumption, such as slaughterhouses, dairies, breweries, the fish and meat processing industries and large-scale kitchens.

- · Main Components: pressure pump, 1-4 chemical dosing modules and a controller.
- · High dosing precision (+/- 0.1%), which guarantees low chemical consumption.
- · Capacity of 1-24 simultaneous users (6-140 lit/min (1.5-18. US gallons/min)).
- · Flexible, can handle various combinations of up to four chemical solutions.
- · Level indicator with alarm is standard

| Features | Benefits | Facts |
|---------------------------------|--|--|
| High dosage accuracy (+/- 0,1%) | Less environmental impact | Lower chemical cost |
| Constant chemical concentration | No concentration fluctuation | Reduced chemical consumption |
| Central storage of chemicals | No concentrated chemicals in production area, less handling of chemicals | Reduced risk of accidents with chemicals, no waste problems in chem tanks |
| Central dosage | Purchase of chemicals in containers | Reduced cost per liter of detergent, saving time when changing |
| Separate water systems | Possibility to set desired temperature of diluted chemical solution | Optimal chemical efficiency, improved working environment, reduced amount of aerosol |

| Technical informa | tion Lagafors | ® Variable Che | emical Centre | VCC II | | | | |
|---------------------------------|--------------------|--|---------------|----------------|--------------------------------|---------------|--------------------------------|------------------|
| Model | 140 T/SSS | 140 T/DS | 140 T | 140 Q/SSSS | 140 Q/DSS | 140 Q/DD | 140 Q/TS | 140 Q/Q |
| Dosing pumps | | 3 | | | | 4 | | |
| Outgoing water pressure | | | | 8 | bar | | | |
| Water consumption | | 0-105 lit/min | | | | 0-140 lit/min | | |
| Capacity (6 lit/user) | | 1-18 user | | | | 1-24 user | | |
| Surrounding temp. | | | | 5-3 | 0 °C | | | |
| Connections incoming | media (Internal tl | hread) | | | | | | |
| Water incoming | | | | ISO-G | 1 1/4" | | | |
| Water supply, flow | | | | 170 | lit/min | | | |
| Water supply, pressure | | | | 3-6 | bar | | | |
| Water temperature, max | | | | 30 |) °C | | | |
| Air (6-8 bar) | | | | ISO- | G 3/8" | | | |
| Connections outgoing I | nedia (Internal th | ıread) | | | | | | |
| Chemical solution to satellite | 3 x ISO-G 1/2" | 1 x ISO-G 1" 1 x ISO-G 1/2" | 1 x ISO-G 1" | 4 x ISO-G 1/2" | 1 x ISO-G 1" 2 x ISO-G 1/2" | 2 x ISO-G 1" | 1 x ISO-G 1" 1 x ISO-G 1/2" | 1 x ISO-G 1 1/4" |
| Air to satellite | | • | | ISO- | G 3/8" | | | • |
| Electricity | | | | | | | | |
| Voltage | | 3 x 400 V+N+PE / 50 Hz (other specifications on request) | | | | | | |
| Current | 4,6-3,8 A | | | | | | | |
| Power | 2,2 kW | | | | | | | |
| Dimensions | | | | | | | | |
| Measurem. WxDxH (excl. cabinet) | | | | 1150 x 450 |) x 1910 mm | | | |
| Weight, approx. | | 160 kg 170 kg | | | | | | |

- Suction lance requires min. 52 mm hole in the chemical drum / container.
- Protective cover included and available separately.







CENTRAL COMBI UNIT - CCU



The Lagafors® CCU is a centralized cleaning system for washing with water, foam application and disinfection for use in applications with lower capacity requirements. Chemical and disinfectant solutions can be dosed in concentrations between 1% and 5%. The Lagafors® CCU is especially suitable for cleaning applications in small-scale food processing industries, for example slaughterhouses, meat processing, dairies, breweries, fishing industry, prepared food, large-scale kitchens and other places where a high level of hygiene is required.

- · Turnkey unit.
- · Automatic start/stop feature for water as well as chemical and disinfectant solutions.
- · Built-in pressure indicator that warns when the supply water pressure is too low.
- · Two different pressure alternatives, 20 or 40 bar.

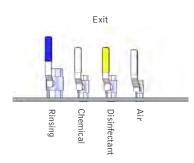
| Features | Benefits | Facts |
|--|--|---------------------------|
| Increases the pressure on outgoing water | Better cleaning energy on surfaces | Good hygienic result |
| Flexible in flow | Easy to work with | Reduced water consumption |
| High dosing accuracy | Optimized chemical consumption | Low chemical costs |
| Dependable in service | Few break-downs | Low maintenance costs |
| All-in-One system | Centralized water, chemicals, disinfectant | Low investment |

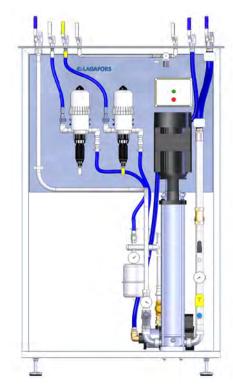


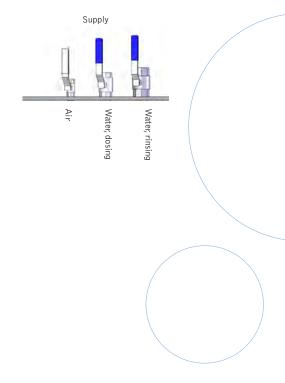
| Technical informatio | n Lagafors® Cent | ral Combi Unit CC | U | | | |
|--------------------------------------|------------------|----------------------|---------------------|----------------------------|----------------|----------------|
| Model | 2090 S | 2090 D | 20150 S * | 20150 D * | 4070 S * | 4070 D * |
| Exit pressure, water | 20-25 bar | | | 35-40 bar | 35-40 bar | |
| Water consumption | 0-90 lit/min | 0-90 lit/min | 0-150 lit/min | 0-150 lit/min | 0-70 lit/min | 0-70 lit/min |
| Flow capacity, 30/lit/anv (8 US gal) | 120 lit/min | 120 lit/min | 165 lit/min | 165 lit/min | 90 lit/min | 90 lit/min |
| Capacity, rinsing (30 lit/user) | 1-3 users | 1-3 users | 1-5 users | 1-5 users | - | - |
| Capacity, rinsing (23 lit/user) | - | - | - | - | 1-3 users | 1-3 users |
| Exit pressure, chemical solution | | | 6 k | oar | | |
| Capacity, chemical solution | | | 1-3 | users | | |
| Capacity, disinfectant solution | - | 1-3 users | - | 1-3 users | - | 1-3 users |
| Surrounding temperature | | | 5-3 | O °C | | |
| Supply connections (Inter | nal thread) | | | | | |
| Supply water, rinsing | | | ISO- | G 1" | | |
| Supply water flow | 150 lit/min | 150 lit/min | 180 lit/min | 180 lit/min | 120 lit/min | 120 lit/min |
| Supply water pressure | | | 3-8 | bar | | |
| Water temperature, max | | | 70 | °C | | |
| Supply water, dosing | | ISO-G 3/4" | | | | |
| Supply water flow | | 50 lit/min | | | | |
| Supply water pressure | | | 3-5 | bar | | |
| Water temperature, max | | | 30 | °C | | |
| Air pressure (6-8 bar / 87-116 psi) | | ISO-G 3/8" | | | | |
| Exit connections (Internal | thread) | | | | | |
| Water to satellite | | | ISO- | G 1" | | |
| Chemical solution to satellite | 1 x ISO-G 1/2" | 2 x ISO-G 1/2" | 1 x ISO-G 1/2" | 2 x ISO-G 1/2" | 1 x ISO-G 1/2" | 2 x ISO-G 1/2" |
| Air to satellite | | | ISO-0 | 3/8" | | |
| Electric supply | | | | | | |
| Voltage | | 3 x 4 | 00 V+N+PE / 50 Hz (| other specifications on re | quest) | |
| Current | 13,3 A | 13,3 A 13,3 A 18,9 A | | | | |
| Power | 4,55 kW | 5 kW 4,55 kW 8,05 kW | | | | |
| Dimensions | | | | | | |
| Dimensions WxDxH | | | 1200 x 480 | x 1920 mm | | |
| Weight, appr. | 155 kg | 160 kg | 160 kg | 165 kg | 165 kg | 170 kg |

The data is subject to variation and the producer reserves the right to change design specifications without notice. Protective cover is optional.

^{*} Frequency-regulated pump.







SATELLITE STATION - VMS



Lagafors's Variable Media Satellite, VMS, is a hygienically designed satellite station. It can be used together with any of Lagafors's water pump centres and VCC chemical systems for chemical dosage. The VMS is made entirely of stainless steel. It is easy to operate with an integrated colour coding for ball valves and nozzles. All media settings are fixed, no operator adjustments are needed. Up to three different media, normally chemicals, disinfectant and water, can be distributed through the VMS. The VMS is user-friendly, easy to maintain and to clean both externally and internally, thanks to the open underside.

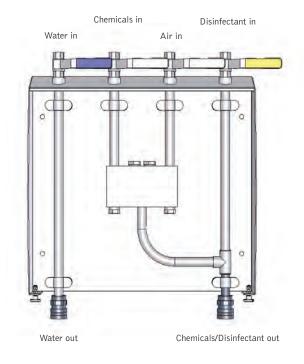
The VMS consists of:

- · Colour coded ball valves for each media.
- · Cabinet in stainless steel with slanting top for improved hygiene.
- · Unique mixer unit for foam and disinfectant.
- · Quick couplings for change of media.

| Features | Benefits | Facts |
|---|--|---|
| Easy to fix and connect | Time effective | Lower installation costs |
| Well thought-out design | Easy to clean | Good from a hygienic perspective |
| "All-in-one"-principle | Only one hose to operate | Saves time during cleaning |
| Distributes chemical solutions, no concentrates | No handling of concentrate by the user | Reduced risk in the working environment |



| Technical information Lagafors® Media Satellite VMS | | | |
|---|--|--|--|
| Connections incoming media (internal thread) | | | |
| Water 5-160 bar | ISO-G 3/8" | | |
| Waterflow, Max | 35 lit/min | | |
| Alkaline chemicals 6-8 bar (from VCC/CCU) | ISO-G 3/8" | | |
| Disinfectant 6-8 bar (from VCC/CCU) | ISO-G 3/8" | | |
| Air 4 bar (from VCC/CCU) | ISO-G 3/8" | | |
| Connections outgoing media | | | |
| Quick couplings | Easy change between water and chemicals/disinfectant | | |
| Dimensions | | | |
| Measurements WxDxH | 440 x 112 x 435 mm | | |

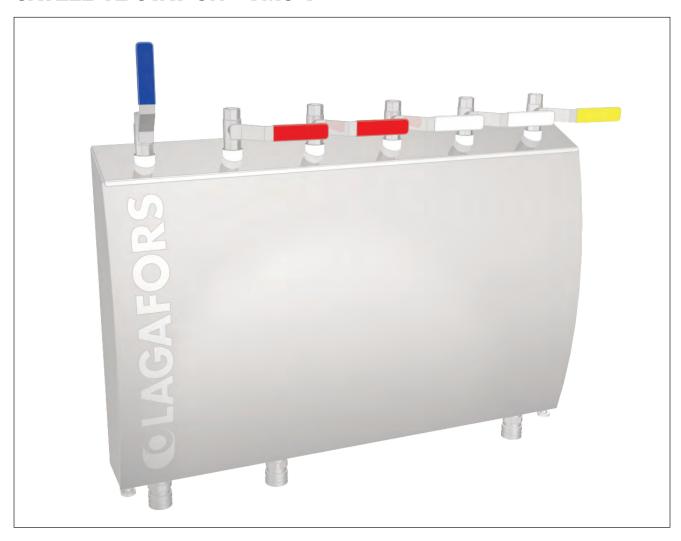




The hose reel (optional) increases the life cycle of the hose and provides good hygiene.



SATELLITE STATION - VMS-T



Lagafors® Variable Media Satellite, VMS-T, is a hygienically designed satellite station which is to be connected to to any Lagafors® water pump centre and the Lagafors® VCC for dosing of chemicals. Developed mainly to satisfy the needs of the meat industry, the great advantage with the VMS-T is that it is a all-in-one unit, which gives the possibility of using up to three different chemical solutions at the same time. E.g. the satellite station manages contemporaneously both alkaline chemicals and acid chemicals in parallel outlets without having to clean the unit when changing from one kind of solution to the other. This option represents a truly revolutionary feature both from a convenience and an operator safety point of view.

The VMS-T is completely made of stainless steel. It is easy to operate with an integrated colour coding for ball valves and nozzles. All media settings are fixed so no operator adjustments are needed. The VMS-T is user-friendly, easy to maintain and to clean both externally and internally, thanks to the open underside.

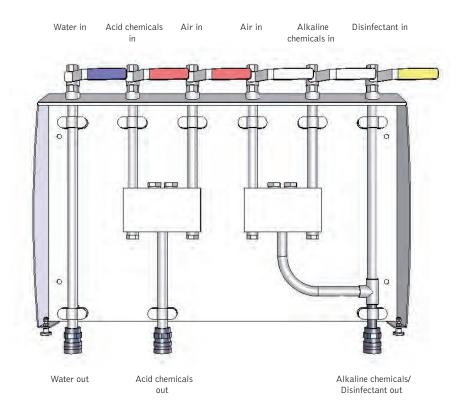
The VMS-T consists of:

- · Colour coded ball valves for each media.
- · Cabinet in stainless steel with slanting top for improved hygiene.
- · Unique mixer unit for foam and disinfectant.
- · Quick couplings for change of media.

| Features | Benefits | Facts |
|---|--|---|
| Easy to fix and connect | Time effective | Lower installation costs |
| Well thought out design | Easy to clean | Good from a hygienic perspective |
| "All-in-one"-principle | Only one hose to operate | Saves time during cleaning |
| Distributes chemical solutions, no concentrates | No handling of concentrate by the user | Reduced risk in the working environment |



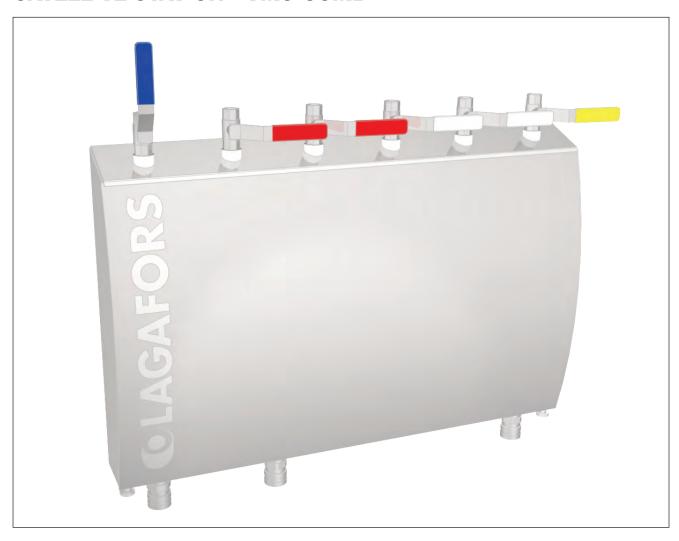
| Technical information Lagafors® Media Satellite VMS-T | | | |
|---|--|--|--|
| Connections incoming media (Internal thread) | | | |
| Water 5-160 bar | ISO-G 3/8" | | |
| Alkaline chemicals 6-8 bar (from VCC/CCU) | ISO-G 3/8" | | |
| Acidic chemicals 6-8 bar (from VCC/CCU) | ISO-G 3/8" | | |
| Disinfectant 6-8 bar (from VCC/CCU) | ISO-G 3/8" | | |
| Air 4 bar (from VCC/CCU) | ISO-G 3/8" | | |
| Waterflow, Max | 35 lit/min | | |
| Connections outgoing media | | | |
| Quick couplings | Easy change between water, acid and chemicals/disinfectant | | |
| Dimensions | | | |
| Measurements WxDxH | 680 x 112 x 435 mm | | |







SATELLITE STATION - VMS-COMBI



The Lagafors® Variable Media Satellite, VMS, is a hygienically designed satellite station, which can be used together with any of Lagafors's water pump centres and VCC chemical systems for chemical dosage. This unit is wall-mounted in the production area and is suitable for water pressures between 5 and 160 bar. The VMS-Combi variant, manages both centrally dosed chemical and disinfectant solutions, and thanks to an integrated injector, an optional chemical solution. This unit is essentially an alternative for customers who want centralized dosage, but also work in an environment where an optional chemical solution (e.g. car shampoo) is needed from time to time. This provides a large degree of freedom, while at the same time maintaining operator safety and centralized dosage.

The VMS-Combi is completely made of stainless steel. It is easy to operate with an integrated colour coding for ball valves and nozzles. All media settings are fixed so no operator adjustments are needed. The VMS-Combi is user-friendly, easy to maintain and to clean both externally and internally, thanks to the open underside.

The VMS-Combi consists of:

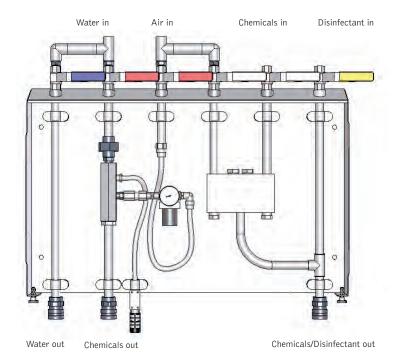
- · Colour coded ball valves for each media.
- · Cabinet in stainless steel with slanting top for improved hygiene.
- · A unique concept consisting of a mixer unit for central dosing of chemical and disinfectant solutions, as well as an injector for an optional chemical solution.
- · Quick couplings for change of media.

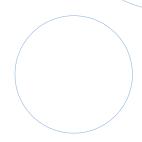
| Features | Benefits | Facts |
|---|--------------------------|----------------------------------|
| Easy to fix and connect | Time effective | Lower installation costs |
| Well thought out design | Easy to clean | Good from a hygienic perspective |
| "All-in-one"-principle | Only one hose to operate | Saves time during cleaning |
| Injector for optional chemical solution | Flexible | Meets all requirements |



| Technical information Lagafors® Media Satellite VMS-Combi | | | | |
|--|--------------------|--|--|--|
| Connections incoming media (internal thread) | | | | |
| Water 5-160 bar | ISO-G 3/8" | | | |
| Alkaline chemicals 6-8 bar (from VCC/CCU) | ISO-G 3/8" | | | |
| Disinfectant 6-8 bar (from VCC/CCU) | ISO-G 3/8" | | | |
| Air 4 bar (from VCC/CCU) | ISO-G 3/8" | | | |
| Waterflow, Max | 35 lit/min | | | |
| Connections outgoing media | | | | |
| Quick couplings Easy change between water, acid and chemicals/disinfectant | | | | |
| Dimensions | | | | |
| Measurements WxDxH | 680 x 112 x 435 mm | | | |

- Factory set values (approx. 4%) may need adjustments to local conditions e.g. water pressure, chemical viscosity etc. Colour-coded dosage nozzles are included with the unit.
- Incoming water pressure and dosing affects the foam quality, use a hose min. 1/2" with a maximum length of 20 metres.



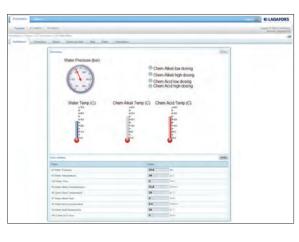


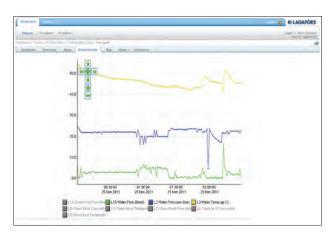


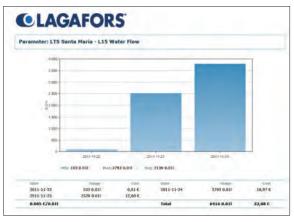




LOGTRACE SYSTEM - LTS









Lagafors'® new logging system, LogTrace System, was developed to help our customers manage their cleaning processes, ensure traceability, provide a system of metrics for critical parameters, including alarm features, as well as documentation. This product is comprised of logging pipes equipped with meters and sensors, as well as a data-gathering unit and wireless internet connection. Using a secure login via internet, the customer can view the status and history for one or more systems. Automatic alarm thresholds can be set for critical parameters, for example chemical concentration and a text message (SMS) is sent to the person responsible when the threshold value is passed. This makes for an active system enabling actions to be taken that ensure optimal hygienic results. Being able to measure running time is a process management tool that has proven to be much appreciated.

System features:

- · Logging
- · Traceability
- Measurability
- Documentation
- · Alarms for various parameters
- Consumption reports
- Cost reports

| Features | Benefits | Facts |
|---|--|--|
| Logging of all parameters for all media | Collection, optimization and comparative indexing | Actual values compared to pre-set values, connected to alarm features and process parameters |
| Traceability | All collected data are saved for future reference | For internal or external process monitoring |
| Alarm feature | Ability to Immediately correct settings for cleaning process, either on-site or via mobile phone | Ability to start or postpone production, depending on action |
| Measurability | Objective assessment of qualitative objectives | Benchmarking and Management by objectives |
| Data collection/presentation | Tool for process management | Optimizes critical parameters and enables Management by objectives |



| Technical information Lagafors® Log Trace System LTS | | |
|--|----------------------------------|--|
| Model | LTS | |
| Media, amount | 1-5 different (water / chemical) | |
| Connections (internal thread) | | |
| Chemical | ISO-G 1" | |
| Water < 150 lit / min | ISO-G 1 1/4" | |
| Water > 600 lit / min | ISO-G 2" | |
| Electric supply | | |
| Voltage | 230 V | |

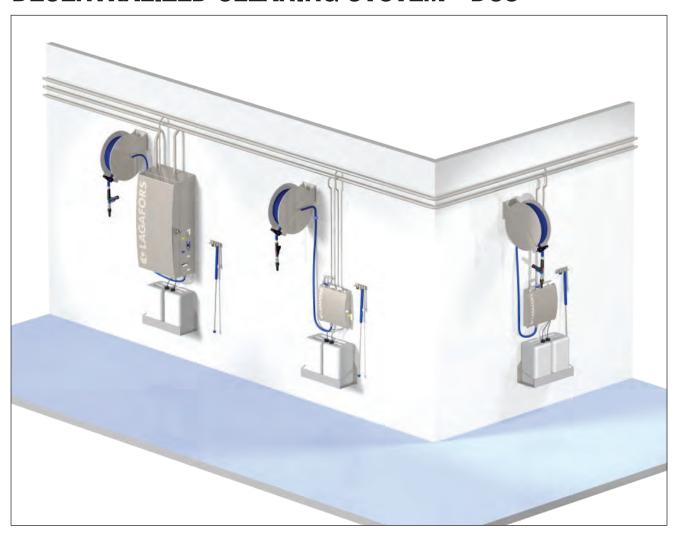
- The unit (antenna) must be positioned in an area with GSM network coverage. 15 meter (50 ft) antenna wire included.
- Conductive measurability is a requirement for all chemical solutions that are measured.







DECENTRALIZED CLEANING SYSTEM - DCS



The new Lagafors® Decentralized Cleaning System, DCS, helps companies in the food industry achieve first-class hygiene while at the same time delivering flexibility in the cleaning process. The DCS cleaning system is comprised of four main components that together comply with the highest capacity, performance and quality standards.

The main components supply the right pressure, flow and solution concentration to the places where they are needed. When used together with the Triggless® II spray gun, these components provide excellent ergonomic advantages.

The water pump unit is placed in the production area. Pipes are drawn from it to the satellite stations. Each satellite station is comprised of a hose reel with hoses for water, chemical solution and disinfectant solution. The Triggless® II spray gun and the PCN pre-cleaning nozzle are located by the hose.

The Lagafors DCS is suitable for installations of all sizes, but when using larger systems (>5 satellites), you should also consider installing a Lagafors CCS, Central Cleaning System.

| Features | Benefits | Facts |
|--------------------------|---|---|
| Water pump unit | Flexible pressure and flow | Desired pressure and flow for up to five simultaneous users |
| VMS-DC satellite station | Hygienic design | User-friendly |
| Injector dosaging | Flexble | Easy to switch chemical |
| Triggless® II | Ergonomic, flexible and efficient spray gun | No trigger, 0-150 bar, reduced muscle strain |
| Pre-Cleaning Nozzle, PCN | User-adjusted pressure and flow | Efficient cleaning from 0.3 to 7 metres, with optimal water-consumption |



THE FOUR MAIN COMPONENTS



Water pump units (LWP 10/20/40 CB)

The water pump centre is an essential component of the cleaning system. Lagafors offers a wide variety of pumps and customers can choose between different pressures (20-40 bar) as well as flow capacities for various numbers (1-5) of simultaneous users.

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Variable Media Satellite (VMS-DC)

Lagafors® Variable Media Satellite, VMS-DC (decentralized), is a hygienically designed satellite station made in stainless steel for water rinsing, foam application and disinfection. The VMS-DC is wall mounted in production areas/kitchens and suitable for water pressures between 5-160 bar. The satellite station has suction hoses with distinctive markings for chemicals and disinfectant. With an easy grip the operator changes between the different medias. Portable containers with chemical concentrate are placed near the satellite station. Compressed air is connected to the VMS-DC unit. For capacity increase, the VMS-DCT offers distribution of up to three different chemicals (e.g. alkaline chemicals, acid chemicals and disinfectant).

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Spray Gun (Triggless® II)

The patented Triggless® II spray gun is ergonomically designed to reduce muscle strain on the operator. The gun uses the reaction-force of the water to keep the valve open instead of a traditional trigger. It is light weight, safe whilst used with one hand and suitable for all pressure levels up to 150 bar. During operation the Triggless® II can be held in different ways to improve flexibility and efficiency. It also features a "dead man's" grip, i.e. the water flow is shut off if the gun is accidentally dropped.

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Pre-Cleaning Nozzle (PCN)

The patent pending Pre-Cleaning Nozzle (PCN) enables the user to control the water pressure for long or short distance cleaning, i.e. 0.3–7 metres. The purpose is to use the PCN instead of a high flow water-hose in the pre-cleaning stage. Correctly used, this method can significantly reduce the water consumption. The weight of the Pre-Cleaning Nozzle is only 125 grams.

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LOW PRESSURE CENTRE - LWP 10 CB



The Lagafors® LWP 10 CB low-pressure centre (Low Water Pressure, Combi Booster) is designed for cleaning with pressurized water as well as chemical and disinfectant solutions. This unit has a hygienic design, is intended for placement in a production area. The Lagafors® LWP is especially suitable for cleaning applications in hotel, restaurant, large-scale kitchens and smaller food processing industry, for example dairies, breweries, fishing industry, prepared food and other places where a high level of hygiene is required.

- · Working pressure 10 bar.
- · Delivered with a hygienically designed cabinet.
- · Unit is wall-mounted.
- · Connection of 1-2 satellite stations is possible.

| Features | Benefits | Facts |
|--|--------------------------------------|---------------|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | 10 bar |
| Supplies water as well as chemical and disinfectant solution | All-in-One concept | Flexible |
| Hygienic design | Enables placement in production area | Easy to clean |

| Technical information Lagafors® Low Pressure Centre LWP 10 CB | | | |
|---|---|--|--|
| Model | LWP 1020 CB | | |
| Outgoing water pressure | 10 bar | | |
| Water consumption | 0-20 llt/min | | |
| Flow capacity, max | 30 lit/min | | |
| Capacity (20lit/user) | 1 user | | |
| Surrounding temperature | 5-25 °C | | |
| Relative air humidity | 95% | | |
| Connections (internal thread) | | | |
| Water incoming | ISO-G 3/4" | | |
| Water supply, flow | 30 lit/min | | |
| Water supply, pressure | 3-6 bar | | |
| Water temperature, max | 0° 00 | | |
| Air, incoming | ISO-G 1/4" | | |
| Air, pressure | 6-8 bar | | |
| Air, flow | 100 lit/min | | |
| Electricity | | | |
| Voltage | 1 x 200-240 V+N+PE / 50/60 Hz (other specifications on request) | | |
| Current | 8,2 A | | |
| Power | 1,1 kW | | |
| Dimensions | Dimensions | | |
| Measurements WxDxH | 640 x 280 x 750 mm | | |
| Weight, approx. | 50 kg | | |



Lagafors® LWP 1020 CB



⁻ Alarm feature for low supply water pressure is standard.

LOW PRESSURE CENTRE - LWP 20 CB



The Lagafors® LWP 20 CB low-pressure centre (Low Water Pressure, Combi Booster) is designed for cleaning with pressurized water as well as chemical and disinfectant solutions. This unit has a hygienic design, is intended for placement in a production area and can be connected to a number of Lagafors® satellite stations. The Lagafors® LWP is especially suitable for cleaning applications in the food processing industry, for example dairies, breweries, fishing industry, prepared food, large-scale kitchens and other places where a high level of hygiene is required.

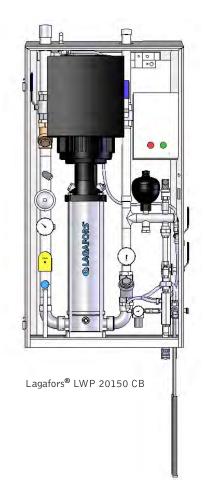
- · Working pressure 20-25 bar.
- · Delivered with a hygienically designed cabinet.
- · Unit is wall-mounted.

| Features | Benefits | Facts |
|--|--------------------------------------|---------------------------------|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | From 3-8 bar up to 25 bar |
| Flexibility in pressure and flow | Multiple options | 20-25 bar and up to 150 lit/min |
| Supplies water as well as chemical and disinfectant solution | All-in-One concept | Flexible |
| Hygienic design | Enables placement in production area | Easy to clean |



| Technical information Lagafors® Low Pressure Centre LWP 20 CB | | | |
|---|--|--------------|---------------|
| Model | LWP 2030 CB | LWP 2090 CB* | LWP 20150 CB* |
| Outgoing water pressure | | 20-25 bar | |
| Water consumption | 0-30 lit/min | 0-90 lit/min | 0-150 lit/min |
| Flow capacity, max | 50 lit/min | 100 lit/min | 165 lit/min |
| Capacity (30lit/user) | 1-2 users | 3 users | 5 users |
| Surrounding temperature | | 5-25 °C | |
| Relative air humidity | | 95% | |
| Connections (internal thread) | | | |
| Water incoming | | ISO-G 1 1/4" | |
| Water supply, flow | 70 lit/min | 150 lit/min | 210 lit/min |
| Water supply, pressure | 3-8 bar | | |
| Water temperature, max | 60 °C | | |
| Water outgoing | ISO-G 1" | | |
| Air, incoming | ISO-G 1/4" | | |
| Air, pressure | 6-8 bar | | |
| Air, flow | 150 lit/min | | |
| Electricity | | | |
| Voltage | 3 x 400 V+N+PE / 50 Hz (other specifications on request) | | |
| Current | 4,5 A 9 A 14,6 A | | 14,6 A |
| Power | 2,2 kW | 4 kW | 7,5 kW |
| Dimensions | | | |
| Measurements WxDxH | 640 x 380 x 1290 mm | | |
| Weight, approx. | 125 kg | 145 kg | 175 kg |

^{*}Frequency-regulated pumps.







⁻ Alarm feature for low supply water pressure is standard.

LOW PRESSURE CENTRE - LWP 40 CB



The Lagafors® LWP 40 CB low-pressure centre (Low Water Pressure, Combi Booster), is designed for cleaning with pressurized water and it is to be connected to a number of Lagafors® Variable Media Satellites (VMS). Lagafors® LWP is especially suitable for cleaning applications in the food processing industry, for example slaughterhouses, meat processing, dairies, breweries, fishing industry, prepared food, large-scale kitchens and other places where a high level of hygiene is required.

- · Working pressure 35-40 bar.
- · Delivered with or without cabinet.
- · Available for wall or floor installation.

| Features | Benefits | Facts |
|--|------------------------------------|-----------------------------------|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | From 3-8 bar up to 40 bar |
| Flexibility in pressure and flow | Multiple options | 35-40 bar and up to 90 lit/min |
| Constant pressure on outgoing media | Ergonomical and safe for the user | Insignificant pressure variations |
| Vertical multistage centrifugal pump | Reliable and robust pump model | Low maintenance costs |
| Frequency-controlled pump | Optimal energy consumption | Low operating costs |



| Model | LWP 4025 CB | LWP 4070 CB | |
|-------------------------------|--|-------------------|--|
| Outgoing water pressure | 35-40 bar | | |
| Water consumption | 0-25 lit/min | 0-70 lit/min | |
| Flow capacity, max | 50 lit/min | 90 lit/min | |
| Capacity (30lit/user) | 1-2 users | 3-4 users | |
| Surrounding temperature | | 5-25 °C | |
| Relative air humidity | | 95% | |
| Connections (internal thread) | | | |
| Water incoming | | ISO-G 1 1/4" | |
| Water supply, flow | 70 lit/min | 120 lit/min | |
| Water supply, pressure | 3-8 bar | | |
| Water temperature, max | 0° C | | |
| Water outgoing | ISO-G 1" | | |
| Air, incoming | ISO-G 1/4" | | |
| Air, pressure | 6-8 bar | | |
| Air, flow | 150 lit/min | | |
| Electricity | | | |
| Voltage | 3 x 400 V+N+PE / 50 Hz (other specifications on request) | | |
| Current | 9,4 A | 14,6 A | |
| Power | 4,6 kW 7,5 kW | | |
| Dimensions | | | |
| Measurements WxDxH | 640 | 0 x 380 x 1290 mm | |
| Weight, approx. | 100 kg | 110 kg | |

- Frequency-regulated pumps.
- Alarm feature for low supply water pressure is standard.







SATELLITE STATION - VMS-DC / VMS-DCT



Lagafors® Variable Media Satellite, VMS-DC (decentralized), is a hygienically designed satellite station made in stainless steel for water rinsing, foam application and disinfection. The VMS-DC is wall mounted in production areas/kitchens and suitable for water pressures between 5-160 bar. The satellite station has suction hoses with distinctive markings for chemicals and disinfectant. With an easy grip the operator changes between the different medias. Portable containers with chemical concentrate are placed near the satellite station. Compressed air is connected to the VMS-DC unit. For capacity increase, the VMS-DCT offers distribution of up to three different chemicals (e.g. alkaline chemicals, acid chemicals and disinfectant).

The VMS-DC consists of:

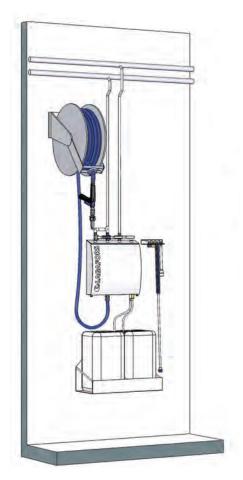
- · Ball valves for water, chemicals and air.
- · Suction hoses for chemicals and disinfectant.
- · Chemical/disinfectant injector.
- $\cdot \ Removable \ stainless \ steel \ cabinet \ for \ easy \ maintenance.$

| Features | Benefits | Facts |
|------------------------------|--|---|
| Stainless steel construction | Hygienic and robust material | Suitable for food processing facilities and restaurants |
| Suction hoses | Easy to change between different chemicals | Time saving |
| Easy to install and connect | Time effective | Lower installation costs |
| Few parts | Time and cost efficient service | Reduced maintenance costs |

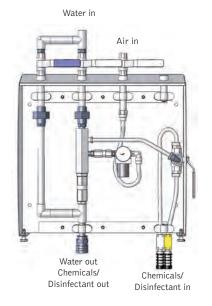


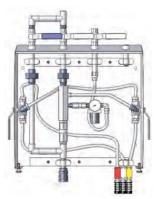
| Technical information Lagafors® Variable Media Satellite VMS-DC/VMS-DCT | | | | | |
|---|--|--------------------|------------|------------|-------------|
| Connections incoming water (Inte | Connections incoming water (Internal thread) | | | | |
| Water pressure | 5-10 bar** | 15-25 bar | 35-45 bar | 60-100 bar | 100-160 bar |
| Dimension | | | ISO-G 3/8" | | |
| Flow, Max | | | 35 lit/min | | |
| Connections incoming air (Interna | al thread) | | | | |
| Air pressure | | 6-8 bar | | | |
| Flow, min | 50 lit/min | | | | |
| Dimension | ISO-G 3/8" | | | | |
| Dosage | Dosage | | | | |
| Chemicals* | Ca. 5-7% Ca. 5% | | | | |
| Disinfectant* | Ca. 1.5% | | | | |
| Dimensions | | | | | |
| Measurements WxDxH | | 440 x 112 x 435 mm | | | |

- * Factory set values may need adjustments to local conditions e.g. water pressure, chemical viscosity etc. Colour coded nozzles are supplied to facilitate this process.
- ** Incoming water pressure and dosing affects the foam quality, use a hose min. 1/2" with a maximum length of 20 metres.



Hose reel and canister holder are optional. The hose reel increases the life cycle of the hose and provides good hygiene.









LOW PRESSURE INJECTOR - CDE



The Lagafors® Low Pressure Injector, or CDE (Chemical dosing equipment), is a functional, low-cost unit for flushing with water and application of foam/chemical solutions. The CDE unit is wall-mounted in the production area/kitchen and is suitable for water pressures from 3-8 bar. The operator can easily shift between different media with one easy maneuver. Concentrated chemicals are extracted from containers placed in the satellite station's immediate vicinity. The CDE unit is equipped with a pressurized air connection. This unit was designed for areas where good hygiene is required, but the use of pressurized water isn't.

Complete CDE unit consists of:

- · Stainless steel chemical solution injector.
- · Three-way valve for choice of water or chemical solution.
- · Hose rack.
- · 15 m hose and foam lance.

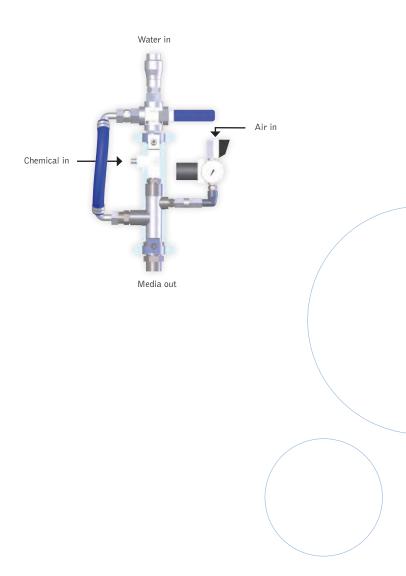
| Features | Benefits | Facts |
|---------------------------|---|-------------------------|
| Simple functionality | Low cost | Financial savings |
| All-in-One | Chemical solution and water in one unit | Time-saving |
| Easy to mount and connect | Time-efficient | Low installation cost |
| Small number of parts | Time and cost-efficient service | Lower maintenance costs |



| Technical information Lagafors® Low Pressure Injector CDE | | | |
|---|--------------------|--------|--|
| Model | CDE CDE-D | | |
| Connections incoming water (inter | nal thread) | | |
| Water pressure | 3-8 | bar | |
| Dimension | ISO-G | G 1/2" | |
| Connections incoming air (internal thread) | | | |
| Air pressure | 6-8 bar | | |
| Flow, min | 50 lit/min | | |
| Dimension | ISO-G 1/4" | | |
| Dosage | | | |
| Chemicals* | ca 4-6% | | |
| Disinfectant* | ca 1-2% | | |
| Dimensions | | | |
| Measurements WxHxD | 260 x 375 x 110 mm | | |



Sample installation. Container holder is optional. We recommend using a springloaded hose reel, as it extends the life span of the hose and provides better hygiene.



^{*} Factory-set values may need to be adjusted to local conditions, for example water pressure, chemical solution viscosity, etc.

⁻ Foam quality is affected by supply water pressure and dosing, Use a flush hose with a minimum diameter of 3/4" and max length of 20 metres (65 ft).

LOW WATER PRESSURE MOBILE - LWP-M



Lagafors® Low Water Pressure Mobile, LWP-M 2030/4025, is a complete mobile cleaning equipment for flushing with pressurised water and application of chemical foam and disinfectant. The LWP-M is built on a stainless steel frame with six wheels for easy transportation. The unit consists of a low pressure pump, a compressor for pressuried air and a satellite station with an injector and suction hoses for chemicals. Two 25 litres chemical containers can be placed on the trolley which also provides holders for hose and nozzles. LWP-M has a hygienically designed cabinet made in stainless steel that can easily be opened for service and maintenance.

The LWP-M is especially appropriate for cleaning applications in food processing, e.g. in slaughterhouses, meat processing, dairies, breweries, fish industries, prepared food industries, industrial kitchens and other places where a high level of hygiene is required.

- · Working pressure 20 bar or 40 bar.
- · Mobile unit with a smooth trolley for easy transportation.
- · Easy to install; simply connect water and electricity.
- $\cdot\,20$ metres hose, spray gun and nozzles for rinse, foam and disinfection are included.

| Features | Benefits | Facts |
|---------------------------|--|--|
| Pressure booster pump | Better cleaning energy on surfaces | From 3-8 bar up to 20-40 bar |
| Mobile unit | Suitable for cleaning in smaller production facilities | Lower investment than a central system |
| Compact "all-in-one"-unit | Flexible | Possible to use different chemicals |



| Technical information Lagafors® Low Water Pressure Mobile LWP-M | | | | |
|---|---------------------------|---------------------------------|--|--|
| Model | LWP-M 2030 | LWP-M 4025 | | |
| Outgoing water pressure | 20-25 bar | 35-40 bar | | |
| Water consumption | 0-30 lit/min | 0-25 lit/min | | |
| Capacity | 10 | user | | |
| Surrounding temperature | 5-2 | 5 °C | | |
| Relative air humidity | 95 | 5% | | |
| Water Connections | | | | |
| Water incoming | Quick (| coupling | | |
| Water supply, flow | > 50 | > 50 lit/min | | |
| Water supply, pressure | 3-8 | 3-8 bar | | |
| Water temperature, max | 60 | 60 °C | | |
| Water outgoing | 1/2" Hose | 1/2" Hose, 20 metres | | |
| Electricity | | | | |
| Voltage | 3 x 400 V+N+PE / 50 Hz (o | ther specifications on request) | | |
| Current | 4,5 A | 9,4 A | | |
| Power | 2,2 kW | 4,6 kW | | |
| Dimensions | | | | |
| Measurements | 770 x 1200 | 770 x 1200 x 1250 mm | | |
| Weight | 140 kg | 160 kg | | |



Accessories that are included



MOBILE FOAM UNIT - MFU 75



The mobile foam unit MFU 75 from Lagafors® is used for the application of chemical and disinfectant solutions in powder or liquid format. The dosing is done manually directly into the tank, only pressurized air must then be added. The whole unit is made of stainless material and is easy to move thanks to the smooth trolley function. The unit is especially suitable for the cleaning of smaller areas, alternatively when extra cleaning force is needed on one particular spot.

The MFU 75 can be used for cleaning applications in e.g. slaughterhouses, meet processing industries, dairies, breweries, fish industries and other places where a high level of hygiene is required.

The delivery includes:

- · 20 metre hose (66 ft) with shut-off valve.
- · Lances for application of foam or liquid.

| Features | Benefits | Facts |
|--|--------------------|-----------------|
| Applies a chemical solution in any format to the surface | Effective cleaning | Hygienic result |
| Construction made of stainless steel | Robust material | Long life time |
| Mobile unit mounted on a trolley | Easy to operate | Flexible |



| Technical information Lagafors® Mobile Foam Unit | | |
|--|---------------------|--|
| Model | MFU 75 | |
| Pressure, max | 9 bar | |
| Flow | 6-8 lit/min | |
| Temperature, max | 40°C | |
| Tank volume | 75 lit | |
| Connections (Internal thread) | | |
| Air, incoming | ISO 3/8" | |
| Air, pressure | 6-8 bar | |
| Air, flow | min 100 lit/min | |
| Dimensions | | |
| Measurements WxDxH | 650 x 550 x 1100 mm | |
| Weight | 50 kg | |





AUTOMATIC CLEANING SYSTEM - ACS



The Lagafors® Automatic Cleaning System, ACS, consists of a controller unit and valve units for water, chemical and disinfectant solutions. The system is designed for automatic cleaning of all types of conveyor belts, elevator belts etc. The ACS unit is module-based and can control the cleaning of 5-30 different objects. The design is based on Lagafors's well-known VMS satellite station series, and from a hygienic point of view the unit has been adapted to the food-processing industry. The ACS system is ready to be connected to any Lagafors pressurized water unit as well as the VCC dosaging central for chemical and disinfectant solutions. The unit is user-friendly, as well as easy to use and maintain. The system gives the customer consistent cleaning results, which means better hygiene and time-savings, as well as reduced water, chemical and disinfectant consumption. The ACS system can also be connected to and control your Lagafors® stationary flush ramps, SFR (on page 48).

The ACS unit is comprised of the following:

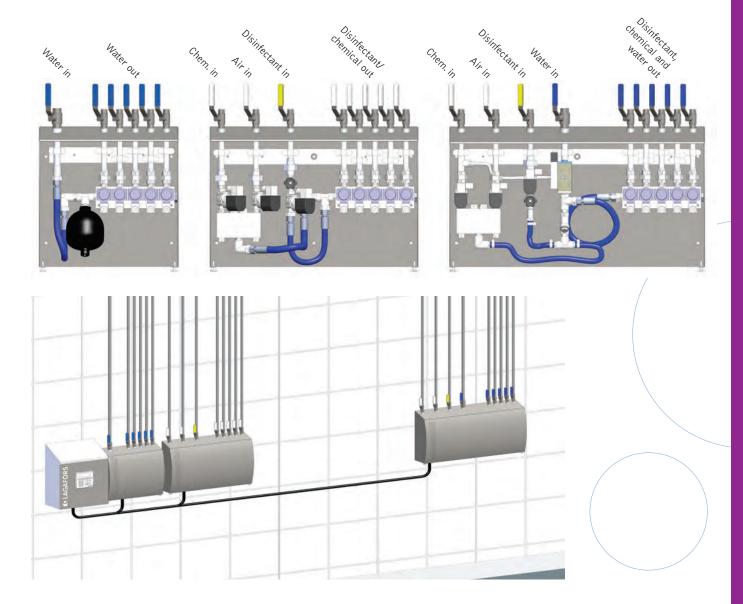
- · Stainless steel controller cabinet with a PLC and controller display.
- · Stainless steel valve cabinet with solenoid valves to regulate the water flow.
- · Stainless steel valve cabinet with solenoid valves to regulate chemical and disinfectant solutions.
- · Stainless steel valve cabinet (Combi) with solenoid valves to regulate water, chemical and disinfectant solutions.

| Features | Benefits | Facts |
|------------------------------|---------------------------------|---|
| Easy to mount and connect | Time-efficient | Low installation cost |
| Intelligent, hygienic design | Easy to clean | Excellent hygienic aspects |
| "All-in-One" principle | Rinses, foam cleans, disinfects | Excellent and consistent cleaning results |
| Time optimization per belt | Saving of time | Lower material consumption |
| "Start and go" principle | Minimal need of handling | Large work savings |



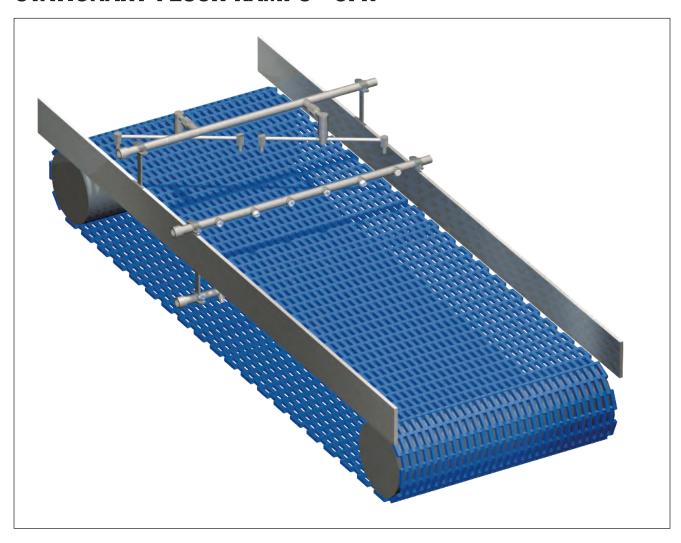
| Technical information Lagafors® Automatic Cleaning System ACS | | | | |
|---|------------------------------------|---------------|---------------------------|----------------|
| Model | ACS Controller Cabinet | ACS Water | ACS Chemical/Disinfectant | ACS Combi |
| Supply connections (internal threa | d) | | | |
| Electric rating | 230 V | | | |
| Water, pressure | | 20-100 bar | | 20-100 bar |
| Water, flow | | 10-50 lit/min | | 10-50 lit/min |
| Water, dimensions | | ISO-G ½" | | ISO-G 1/2" |
| Chemical solution, pressure | | | 6-8 bar | 6-8 bar |
| Chemical solution, flow | | | 6-15 lit/min | 6-15 lit/min |
| Chemical solution, dimensions | | | ISO 3/8" | ISO 3/8" |
| Disinfectant solution, pressure | | | 6-8 bar | 6-8 bar |
| Disinfectant solution, flow | | | 6-15 lit/min | 6-15 lit/min |
| Disinfectant solution, dimensions | | | ISO 3/8" | ISO 3/8" |
| Air, pressure | | | 5-8 bar | 5-8 bar |
| Air, flow | | | 50-200 lit/min | 20-100 lit/min |
| Air, dimensions | | | ISO 3/8" | ISO 3/8" |
| Exit connections (internal thread) | Exit connections (internal thread) | | | |
| Dimensions | | | 5 x ISO 3/8" | |

- We recommend a maximum length of 30 metres between the valve station's chemical/disinfectant connections and the object to be cleaned.
- A rotating ramp will further increase the cleaning effect and water savings. Please see the separate product sheet.
- Electrical connections between the units are not included. A complete schematic connection diagram is included.
- Pipe connections between the units are not included.





STATIONARY FLUSH RAMPS - SFR



Lagafors® stationary flush ramps, SFR, were developed for effective cleaning of conveyor belts and other conveyor systems in the food processing industry. Can be supplied with media from a satellite station using a regular hose or, which we recommend, using a pipe from a Lagafors® Automatic Cleaning System, ACS. Please see separate product sheet. The product series is divided into two main groups: Fixed and rotating ramps.

Rotating ramps for flushing increase the cleaning effectiveness and reduce water consumption. Fixed ramps can be used anywhere, but are especially suitable for tight spots (e.g. the inside of a conveyor belt). Fixed ramps can also used to apply chemical and disinfectant foam solutions.

- · Fixed positions for water as well as chemical and disinfectant solutions.
- · Rotating ramps for increased cleaning effectiveness and reduced water consumption.
- · Available in all sizes between 200 mm and 800 mm (larger sizes can also be supplied).

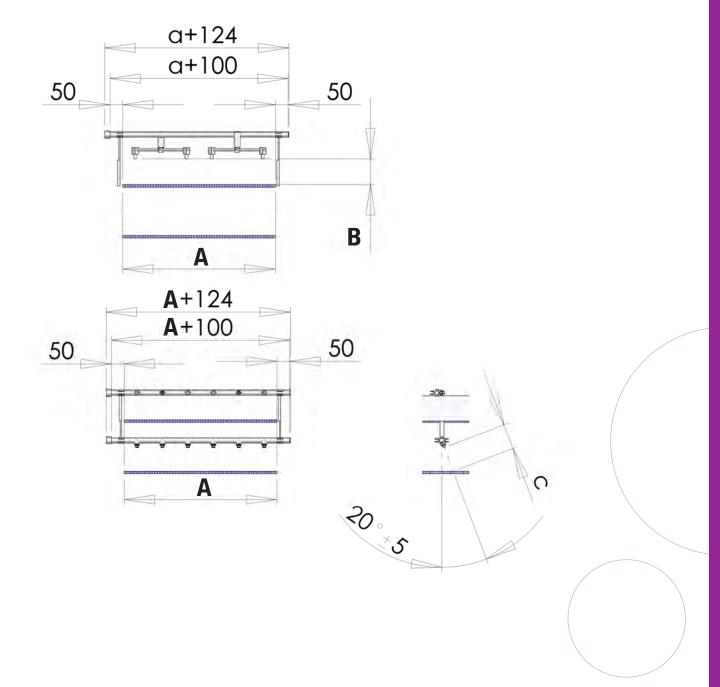
| Features | Benefits | Facts |
|--|----------------------------------|---------------------------|
| Conveyor flushing (stationary, rotating) | 100% coverage | Maximize hygienic results |
| Conveyor flushing (stationary, rotating) | Reduced work effort | Lower costs |
| Fixed flush ramp | Space-efficient | Suitable for tight spots |
| Rotating flush ramp | Increased cleaning effectiveness | Lower water consumption |



| Technical information Lagafors® Stationary Flush Ramps SFR | | | | |
|--|---------------------------------|----------------------------|-----------------|--|
| Model | Fixed flush ramp, water | Rotating flush ramp, water | Fixed foam ramp | |
| Connections (internal thread) | | | | |
| Supply media | | 1/2" | | |
| Dimensions | Dimensions | | | |
| Pipes | 21 mm | | | |
| Angle of dispersal | | | | |
| Nozzles/distance | 65°/ C = 80-95 mm (recommended) | 15° / B = 50-100 mm | 40° * * | |
| Nozzles/distance | 80°/ C = 65-80 mm | | | |

Legend:

- A = Belt width
 B = Recommended flush distance for rotating flush ramp
 C = Recommended flush distance for fixed flush ramp
- * Pipe holders and nozzles not included. Must be ordered separately.
- ** For the optimization of the foam ramp contact Lagafors or Lagafors dealers.



LOW WATER PRESSURE PUMP - LWP CBA



The Lagafors® low-pressure centre LWP CBA (Low Water Pressure, Combi Booster Automatic), is designed for automatic cleaning of production equipment in the food-processing industry, such as conveyor belts, refrigerators, freezers, cooking cabinets, smoking cabinets, automatic roasters, etc. The unit features Lagafors' unique hygienic design that makes it suitable for placement in production areas and can be complemented with a built-in satellite station equipped with outlets for water and chemical and disinfectant solutions. This makes OPC (Open Plant Cleaning) within the unit's immediate vicinity (max 30 meters, 100 feet) possible. The unit is available in the different pressure/flow versions and is equipped with solenoid valves, which enable management from the customer's PLC and operator panel. Separate PLC management of the unit can be provided on request.

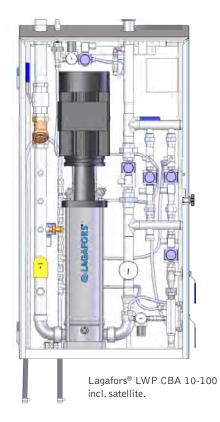
- · Up to 40 bar (580 psi) working pressure.
- · Up to 150 lit/min (40 US gallon/min) flow.
- Automatic and flexible system
- · Ability to integrate with VMS-DC
- · Delivered with a hygienically designed cabinet.
- · Unit is wall-mounted.

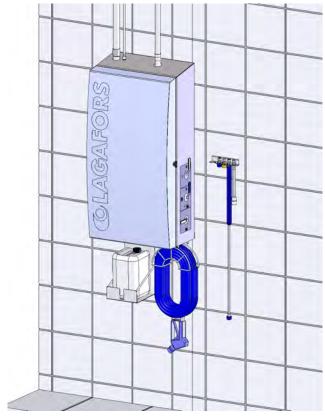
| Features | Benefits | Facts |
|--|--------------------------------------|--|
| Increases the pressure on outgoing media | Better cleaning energy on surfaces | From 3 bar up to 40 bar |
| Flexibility in pressure and flow | Multiple options | 40 bar and up to 150 lit/min |
| Supplies water as well as chemical and disinfectant solution | All-in-One concept | Flexible |
| Hygienic design | Enables placement in production area | Easy to clean |
| Electric cabinet with connection blocks | Management from customer's PLC | Low investment |
| Automatic and application flexibility | Quality and resource optimization | Saves time, water, chemicals and enables quality assurance |



| Model | LWP CBA 10-100 | LWP CBA 20-150 | LWP CBA 40-70 |
|-------------------------------|---------------------|--|---------------|
| Outgoing water pressure | 10-12 bar | 20-25 bar | 35-40 bar |
| Water consumption | 100 lit/min | 150 lit/min | 70 lit/min |
| Flow capacity, max | 130 lit/min | 165 lit/min | 90 lit/min |
| Surrounding temperature | | 5-25 °C | |
| Relative air humidity | | 95% | |
| Connections (internal thread) | | | |
| Water incoming | | ISO-G 1 1/4" | |
| Water supply, flow | 150 lit/min | 180 lit/min | 120 lit/min |
| Water supply, pressure | 3-8 bar | | |
| Water temperature, max | 60 °C | | |
| Water outgoing | ISO-G 1" | | |
| Air, incoming | ISO-G 1/4" | | |
| Air, pressure | 6-8 bar | | |
| Air, flow | 400 lit/min | | |
| Electricity | | | |
| Voltage | 3 x 4 | 400 V+N+PE / 50 Hz (other specifications on re | equest) |
| Current | 6 A 14,6 A | | |
| Power | 2,2 kW 7,5 kW | | |
| Control of the unit | | According to the wiring diagram | |
| Dimensions | | | |
| Measurements WxDxH | 640 x 380 x 1290 mm | | |
| Weight, approx. | 140 kg | 17 | 5 kg |

⁻ Units can be provided with or without a built-in satellite station.





The unit has optional equipment.



FLOOR FOAMING UNIT - FFU



The Lagafors® Floor Foaming Unit, FFU, is a hygienically designed satellite station that you can connect to a Lagafors® VCC Chemical Centre or a regular water main. The FFU is made entirely of stainless steel. You simply set the timer, and then press a push-button to start the unit.

The FFU is comprised of the following:

- · Colour-coded ball valves for each media.
- · Stainless steel hood with a slanted top for increased hygiene.
- · Time relay for optimum setting.
- · Foam ramp and 5 meters connection hose included.

| Features | Benefits | Facts |
|---------------------------|-----------------------------|----------------------------------|
| Easy to mount and connect | Time-efficient | Lower installation costs |
| Ingenious design | Easy to clean | Excellent hygienic aspects |
| "All-in-One" principle | Adjustable application time | Optimum hygiene at minimum costs |



| Technical information Lagafors® Floor Foaming Unit FFU | | |
|--|--------------------|--------------------|
| Connections (internal thread) | FFU-C | FFU-DC |
| Vatten 3-8 bar | ISO-G 3/8" | ISO-G 3/8" |
| Luft 6-8 bar | ISO-G 3/8" | ISO-G 3/8" |
| Alkaline chemicals 6-8 bar (from VCC/CCU) | ISO-G 3/8" | ISO-G 3/8" |
| | | |
| Luft 4 bar (from VCC/CCU) | ISO-G 3/8" | ISO-G 3/8" |
| Electricity | | |
| Voltage | 1 x 230 V+N+PE | 1 x 230 V+N+PE |
| Dimensions | | |
| Measurements WxDxH | 440 x 112 x 435 mm | 440 x 112 x 435 mm |



HOSE-KIT

Triggless® II Hose-Kit

Complete hose-kit containing the Triggless® II spray gun, 15-30 metre 1/2" hose, stainless steel quick couplings and hose nipples for connection to Lagafors satellite station VMS.

The hose-kit includes a 1/2" flexible low pressure hose for pressures below 50 bar and a 1/2" two-steel reinforced hose for pressures over 50 bar (max 150 bar).

| Art. No. | Description |
|----------|--|
| < 50 bar | |
| 17915 | Triggless® II Hose-Kit, 15 m |
| 17920 | Triggless® II Hose-Kit, 20 m |
| 17925 | Triggless® II Hose-Kit, 25 m |
| 17930 | Triggless® II Hose-Kit, 30 m |
| > 50 bar | |
| 17815 | Triggless® II Hose-Kit, 15 m |
| 17820 | Triggless® II Hose-Kit, 20 m |
| 17825 | Triggless® II Hose-Kit, 25 m |
| 17830 | Triggless [®] II Hose-Kit, 30 m |



Spray gun and hose-kit

Complete hose-kit containing spray gun, 15-30 metre 1/2" hose, stainless steel quick couplings and hose nipples for connection to Lagafors satellite station VMS.

The hose-kit includes a 1/2" flexible low pressure hose for pressures up to 50 bar

| Art. No. | Description |
|----------|------------------------------|
| < 50 bar | |
| 34140 | Spray gun and hose-kit, 15 m |
| 34141 | Spray gun and hose, 20 m |
| 34142 | Spray gun and hose, 25 m |
| 34143 | Spray gun and hose, 30 m |



Low pressure ball valve and hose-kit

Complete hose-kit containing low pressure ball valve, 15-30 metre 1/2" hose, stainless steel quick couplings and hose nipples for connection to Lagafors satellite station VMS.

The hose-kit includes a 1/2" flexible hose for pressures up to 50 bar. Not suitable for pressures above 25 bar.

| Art. No. | Description |
|----------|--|
| < 25 bar | |
| 34150 | Low pressure ball valve and hose-kit, 15 m |
| 34151 | Low pressure ball valve and hose-kit, 20 m |
| 34152 | Low pressure ball valve and hose-kit, 25 m |
| 34153 | Low pressure ball valve and hose-kit, 30 m |



HOSE REEL

Lagafors® Hose Reel

Professional spring-loaded hose reel in stainless steel for 15, 20, 25 or 30 metre hose. Equipped with a mobile arm which enables installation of the reel in narrow spaces or in the ceiling. Equipped with a connection hose. Length 2 metres.

| Art. No. | Description |
|----------|----------------------------|
| 17870 | Hose Reel for VMS, 15/20 m |
| 17875 | Hose Reel for VMS, 25/30 m |
| 34242 | Angle bracket, small |
| 34243 | Angle bracket, large |

| Technical specification | | |
|-------------------------|--|--|
| Max. working pressure | 150 bar | |
| Connection | 1/2" int. thread | |
| Material | Stainless steel | |
| Measurements WxDxH | 560 x 203 x 550 mm 575 x 488 x 550 mm | |



Hose reel Hygiene

This hose reel has been specially developed for industries with high hygienic requirements. All surfaces are made of stainless steel and it is designed to prevent build-up of filth and bacteria. The dual spring cassette ensures safe and efficient roll-up of the hose. Approved by the independent organization "Royal Institute of Public Health".

| Technical specification | |
|-------------------------|--------------------|
| Max. working pressure | 180 bar |
| Connection | 3/8" int. thread |
| Material | Stainless steel |
| Measurements WxDxH | 732 x 490 x 555 mm |

| Art. No. | Description |
|-----------|------------------------|
| AI C. NO. | Description |
| 20002 | Hose Reel Hygien, 25 m |



Manual hose reel

Light-weight and easy-to-use, manual stainless steel hose reel for both high and low pressure.

| Technical specification | |
|-------------------------|--|
| Max. working pressure | 200 bar |
| Connection | 1/2" external thread |
| Material | Stainless steel |
| Measurements WxDxH | 330 x 570 x 330 mm 460 x 600 x 460 mm |

| Art. No. | Description |
|----------|------------------------|
| 34263 | Hose reel manual, 20 m |
| 34264 | Hose reel manual, 35 m |



HOSE RACK / CANISTER HOLDER / QUICK COUPLINGS / HOSE NIPPLES

Hose rack

Stainless steel hose rack for hanging hoses by satellite stations or on a carriage. Robust and hygienic.

Features - Benefits - Facts

Stainless steel

- Hygienic material
- Saves time, cost of spare parts and increases hygiene

| Art. No. | Description | Hose length |
|----------|----------------------------------|-----------------|
| 14002 | Small, stainless steel hose rack | 30 m, 1/2" hose |
| | | 25 m, 3/4" hose |



Canister holder

Stainless steel canister holder to hold chemical solution containers. Robust and hygienic. Available in various sizes and materials.

Features - Benefits - Facts

Stainless steel

- Hygienic material
- Robust construction
- Reduced wear on the walls and floors at the satellite station

| Art. No. | Description | Size |
|----------|-----------------|--------------|
| 30065 | Canister holder | 1 x 5 liter |
| 30062 | Canister holder | 1 x 25 liter |
| 30099 | Canister holder | 2 x 25 liter |



Quick Coupling RF standard

Robust and dependable quick-coupling that is resistant to most chemical solutions as well as high pressure. Available with vulcanization for easier handling and shock absorption.

| Art. No. | Description |
|----------|--------------------|
| 3530 | 3/8" int. threaded |
| 3531 | 3/8" ext. threaded |
| 3532 | 1/2" int. threaded |
| 3533 | 1/2" ext. threaded |





Nipple RF standard

Robust and dependable hose nipple that is resistant to most chemical solutions as well as high pressure.

| Art. No. | Description |
|----------|--------------------|
| 3540 | 1/4" int. threaded |
| 3541 | 1/4" ext. threaded |
| 3542 | 3/8" int. threaded |
| 3543 | 3/8" ext. threaded |
| 3544 | 1/2" int. threaded |
| 3545 | 1/2" ext. threaded |







NOZZLES & LANCES / NOZZLE RACK / NOZZLE BAG

Lagafors® Nozzles & Lances

Nozzles and lances for different pressures and applications. Each nozzle is equiped with a hose nipple for connection to the spray gun. The Lagafors® Colour Coding System* is an integrated part of all nozzles and lances.

| Art. No. | Description |
|----------|------------------------------------|
| 17910 | Black Pre-Cleaning Nozzle |
| 17891 | Blue Rinse Nozzle, 20 bar |
| 17892 | Blue Rinse nozzle, 40 bar |
| 17890 | Blue Rinse nozzle, 60 bar |
| 17893 | Blue Rinse nozzle, 80 bar |
| 17882 | Yellow Disinfection nozzle, VMS |
| 17883 | Yellow Disinfection nozzle, VMS DC |

| Art. No. | Description |
|----------|---------------------------------|
| 17881 | White Foam lance |
| 17898 | Blue Rinse lance 800 mm, 20 bar |
| 17900 | Blue Rinse lance 800 mm, 40 bar |
| 17894 | Blue Rinse lance 800 mm, 60 bar |
| 17896 | Blue Rinse lance 800 mm, 80 bar |



*Lagafors® Colour Coding System

Lagafors® colour coding system makes the cleaning process simple and easy to understand. It consists of an operators guide that explains the correct cleaning process and usage thanks to matching colours for ball valve handles and nozzles. In the system blue stands for water, white for foam and yellow for disinfectant.

Nozzle rack

Stainless steel rack for nozzles. Fits up to 5 nozzles.



| Art. No. | Description |
|----------|-----------------|
| 36782 | Stainless steel |



Nozzle bag

A practical and hygienic nozzle bag that offers cleaning staff accessibility and better control of their tools. Using a simple fastener, the bag can be attached to the belt. When work has been completed, the bag and its contents can be cleaned in a dishwasher.

| Art. No. | Description |
|----------|----------------------|
| 30980 | Nozzle bag with belt |





SPRAY GUNS

Spray Gun Triggless® II

Lagafors® patented spray gun Triggless® II is ideal for use where ultimate ergonomics, work efficiency, flexibility, durability and safety is important. The spray gun is ergonomically designed to reduce muscle stress on the user. It also features a "dead man's" grip where the water flow is shut off if the gun is accidentally dropped.

| Technical specification | |
|-------------------------|--|
| Working pressure | 150 bar |
| Flow | 45 lit/min |
| Temperature | 70 °C |
| Weight | 700 g |
| Material | Stainless steel, plastic |
| Connection | in 1/2"int. thread out 3/8" int. thread |

| Art. No. | Description |
|----------|------------------------|
| 36734 | Triggless® II flexible |



Spray Gun HP2600/2700

Robust spray gun with a spring loaded trigger and an easy sqeeze function, which reduces the risk of muscle stress on the operator. Suitable for many different applications within professional high pressure cleaning. Delivered with or without swivel. Also available with stainless steel components.

| Technical specification * ST 2 | |
|--------------------------------|---|
| Working pressure | 310 bar / 125 bar * |
| Flow | 45 lit/min / 80 lit/min * |
| Temperature | 150°C |
| Weight | 600 g |
| Material | Brass, plastic or Stainless steel, plastic |
| Connection | in 3/8" int. thread out 1/4" int. thread |

| Art. No. | Description |
|----------|----------------------------|
| 5239 | Spray gun HP2600 |
| 5240 | Spray gun HP2600 w. swivel |
| 5241 | Spray gun HP2700 SS |
| 33018 | Spray gun HP2720 SS |



Spray Gun HP2725

Robust spray gun with a spring loaded trigger and an easy sqeeze function, which reduces the risk of muscle stress on the operator. Suitable for a wide variety of industrial cleaning applications. Equipped with a quick-coupling, swivel and dampened shut-off feature in order to minimize pressure surges.

| Technical specification | |
|-------------------------|--------------------------|
| Working pressure | 80 bar |
| Flow | 80 lit/min |
| Temperature | 150°C |
| Weight | 940 g |
| Material | Stainless steel, plastic |
| Connection | in 1/2" int. thread |

| Art. No. | Description |
|----------|---------------------|
| 34240 | Spray gun HP2725 SS |



SPRAY GUNS

Spray Gun LP 25 bar

Low pressure gun with a good grip for connecting plug or jet pipes directly. Swivel is standard.

| Art. No. | Description |
|----------|---------------------|
| 5043 | Spray gun LP 25 bar |

| Technical specification | |
|-------------------------|------------------------|
| Working pressure | 25 bar |
| Flow | 100 lit/min |
| Temperature | 93 °C |
| Weight | 1150 g |
| Material | Brass, rubber, plastic |
| Connection | 1/2" int. thread |



Spray Gun LP 25 bar

Low pressure spray gun with a robust spray nozzle and good grip that suits most cleaning applications. Adjustable spray pattern from tight beam to 60° wide. Suitable for most cleaning dutys. Swivel is standard.

| Technical specification | | |
|-------------------------|---------------------------|--|
| Working pressure | 25 bar | |
| Flow | 60 lit/min | |
| Temperature | 80°C | |
| Weight | 1050 g | |
| Material | Brass, rubber, plastic | |
| Connection | 1/2" int. thread (swivel) | |

| Art. No. | Description |
|----------|---------------------|
| 5045 | Spray gun LP 25 bar |



Low pressure ball valve

Easy too use low pressure ball valve with trigger guard. Very robust in its construction.

The low pressure ball valve is not equiped with "dead man's" grip. Not suitable for pressures above 25 bar.

| Technical specification | |
|-------------------------|------------------|
| Working pressure | 50 bar |
| Flow | 90 lit/min |
| Temperature | 70°C |
| Weight | 560 g |
| Material | Stainless steel |
| Connection | 1/2" int. thread |

| Art. No. | Description |
|----------|-------------------------|
| 35240 | Low pressure ball valve |
| | |



SPRAY PIPE / FLOOR CLEANING EQUIPMENT

Spray Pipe

Easy contruction without trigger, by turning the pipe flow and scattering angle is adjusted. Can be adjusted from concentrated spray to water mist.

| Art. No. | Description |
|----------|---------------------|
| 12010 | Spray pipe white |
| 12073 | Hose connector 1/2" |
| 12074 | Hose connector 3/4" |

| Technical specification | | |
|-------------------------|------------------|--|
| Working pressure | 10 bar | |
| Flow | 40-60 lit/min | |
| Temperature | 80°C | |
| Weight | 300 g | |
| Material | Brass, plastic | |
| Connection | 3/4" ext. thread | |



Rotating Floor Cleaning

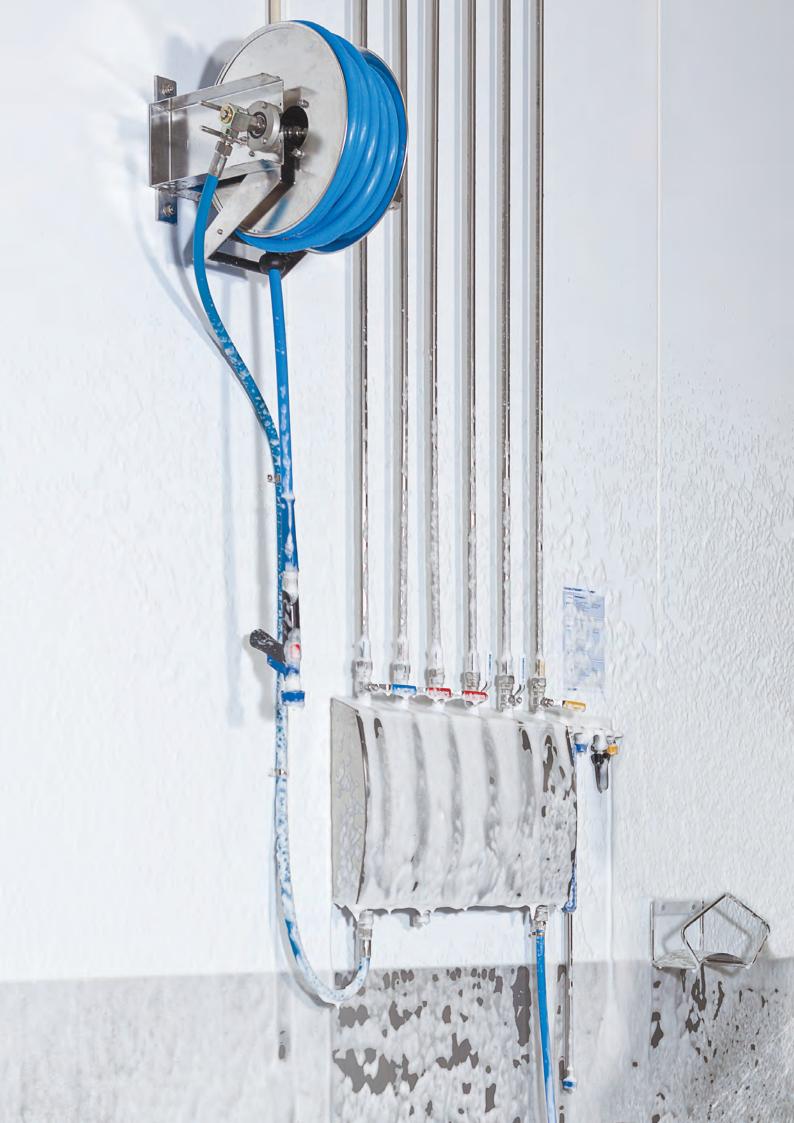
Floor cleaning equipment for fast and easy cleaning of flat surfaces with high water pressure. Is used preferably in facilities with open and large spaces. The equipment has a rotating flush arm under a stainless steel hood and four wheels for smooth transportation. The spray gun is not included.

| Art. No. | Description |
|----------|--------------------------|
| 30017 | Floor Cleaning, Rotating |

| Technical specification | | |
|-------------------------|----------------------------|--|
| Woring pressure | 250 bar | |
| Flow | Depending on pump capacity | |
| Temperature | 5 °C - 120 °C | |
| Nozzle | 1/4" ext. threaded | |
| Material | Stainless steel | |
| Diameter | 520 mm | |







HYGIENIC EQUIPMENT - HGE

Lagafors® provides a complete range of products in:

- ·Sinks
- · Shoe and boot washers
- · Hygiene ports
- · Washing stations
- · Etc...

Contact Lagafors for more information.



DISHWASHERS - DSW

Lagafors® dishwashers, DSW, meet the food-processing industry's high demands for hygiene, with lower costs and reduced environmental impact in an improved working environment. All this while at the same time meeting our customers' high standards regarding capacity, performance, quality.

All of our dishwashers have been developed with a normal cleaning cycle in mind, i.e. pre-wash, circulated dishwashing, rinsing and, when needed, disinfection or hot water. Most of our dishwashers recirculate the heated chemical solution, while refilling as needed. They also recycle the water, whenever possible, by reusing the rinse water in the pre-wash phase.

Contact Lagafors for more information.



LAGAFORS® SERVICE AGREEMENTS

Lagafors® service teams check and maintain existing Lagafors® cleaning system installations. A service agreement with Lagafors® ensures a visit from our service team one or more times per year, at a fixed rate. The frequency of our visits depends on how much the installation is used.

Advantages of a Lagafors® service agreement:

- Scheduled service visits. We keep an eye on the service intervals and contact you before each visit.
- Minimized maintenance costs. We provide preventive maintenance for your installations.
- Increased safety in production. Routine service reduces downtime.
- · Reduced workload for your own service and technical staff.













CLAGAFORS®

Lagafors® – delivering cleaning solutions that make a difference to the food industry

Do you want to obtain optimal hygiene at reduced cost, with minimized environmental impact in an improved working environment? Then you should contact us at Lagafors. We provide complete, tailor-made system solutions and a broad range of equipment for industrial cleaning.

What we offer

Our competence spans from manufacturing and installation of mobile units, to concepts, customized solutions and design of large, centralized cleaning systems. The systems are developed to dose foam detergents and disinfectants as well as deliver pressurized water ranging from low pressure to high pressure. We have been the market leader in Scandinavia for 40 years and are represented in a number of countries world-wide.

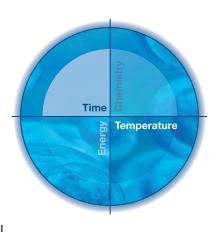
How we operate

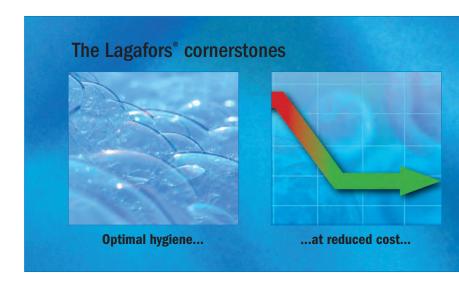
All of our work is guided by the principles of the Zinner Circle, which consists of 4 variables:

Energy Time Chemistry Temperature

When these variables are in equilibrium, you will obtain your desired hygiene level with minimal

consumption of water, energy, chemicals and effort. At Lagafors we never compromise on our cornerstones which are optimal hygiene, at reduced cost, with reduced environmental impact, in an improved working environment.





Why choose Lagafors®?

Thanks to our flexible and service-minded organization, we can quickly present you with a direct and tangible solution and can easily transform your production process' hygienic needs into a practical, working solution. Technical service is one of our strengths and we take pride in offering our customers timely and efficient service. We offer both a complete service program as well as idea generation and trouble shooting. On site training and production adjustments are part of every system sale but we can also provide customized training should there be a need.

SAO

Partnership

Some of our reference installations world-wide:

Abdon Mills
Almarai Group
Arla Foods AB
Atria
Danish Crown
Gilde
JBT FoodTech (Frigoscandia Equipment)
Hilton Food Group
Orcla
HK Scan
Swedish Match

Abelmann
Agrana Group
AstraZeneca
Baltika Breweries
Findus
Nestlé
Vital Fleisch
Marine Harvest
Wimex
Migros
Unilever



Our mission

To supply innovation based, complete hygiene systems to the food industry, offering our customers improved competitiveness in:

Cost
Food safety
Traceability / Documentation
Microbial load
Environmental impact
Ergonomics and working environment





