

# STATIONARY INSTALLATIONS - WHY COMPROMISE

*for every cleaning demand*

## Nilfisk ALTO

*Why Compromise*



**Wap  
KEW**

TECHNOLOGIES



# Speed up your Cleaning



## The connect and clean Nilfisk-ALTO ALPHA BOOSTER range – best in class cleaning at its most simple.

Stationary units are easy to use, save time and money and reduce storage needs :

- Compact, wall mounted design eases storage.
- The unit can be connected to piping system with several outlet points for cleaning in a multitude of sites.
- Reduced need for electrical connections, transport of cable and machine: the unit is immediately available for use – simply connect the hose and clean.
- Extra Hygiene: A stationary unit does not need to be in proximity to the cleaning site, ensuring a higher level of hygiene for example in milk-sheds and stables.

Reduced installation requirements mean saving time: you go straight to cleaning and get the job done as quickly as possible.

The Nilfisk-ALTO ALPHA BOOSTER is a complete range of 1 and 3 phase mid range units for cleaning in milk sheds, around small farms and garages or also in butcheries and bakeries (for example in supermarkets). It can also be used around swimming pool areas or for any general cleaning tasks that occur in a fixed site.

- 1 1450 rpm motor pump units for long life and low noise level
- 2 Complete spray equipment as standard accessories – product is ready to use
- 3 Stainless steel cabinet (ALPHA BOOSTER 5 and 8) is easy to clean, maintaining hygiene levels in your surroundings.



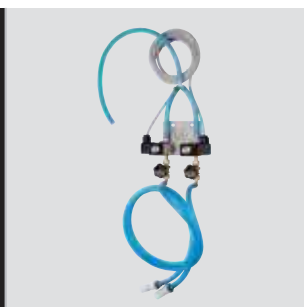
*Nilfisk-ALTO ALPHA BOOSTER*

The Nilfisk-ALTO ALPHA BOOSTER can be equipped with a wide range of accessories for floor, surface and equipment cleaning – please consult our catalogue.

# Tasks



		ALPHA BOOSTER 8-103	ALPHA BOOSTER 8-103B	ALPHA BOOSTER 5-49	ALPHA BOOSTER 3-41	ALPHA BOOSTER 5-27	ALPHA BOOSTER 3-26
<b>Technical data:</b>							
Pressure	bar/MPa	180/18	180/18	180/18	180/18	110/11	140/14
Cleaning impact	kg/Force	10.3	10.3	4.9	4.1	2.7	2.6
Water flow - QIEC	l/h	1950	1950	900	750	630	550
Water flow - Qmax	l/h	2000	2000	970	825	700	600
Max. inlet temp.	°C	60-70	60-70	60-70	60-70	60-70	60-70
Power absorbed	kW	12	12	6.9	5.2	3.2	3.2
	V~/Hz/A	400/3/50/21	400/3/50/21	400/3/50/12.5	400/3/50/9.9	230/1/50/15	230/1/50/15.6
Pump	RPM	1450	1450	1450	1450	1450	1450
Weight	kg	78	78	48	48	39	39
Dimensions L x W x H	mm	655 x 425 x 467	610 x 410 x 467	643 x 357 x 365	560 x 350 x 370	643 x 357 x 365	560 x 350 x 370
Cable	m	5	5	5	5	5	5
<b>Standard Equipment:</b>							
Hose	m/Ø	10/DN10	10/DN10	10/DN8	10/DN6	10/DN8	10/DN6
Ergo Gun		● Ergo 3000	● Ergo 3000	● Ergo 1000	● Ergo 1000	● Ergo 1000	● Ergo 1000
FlexoPower 3000 lance (92 cm)		●	●	●	●	●	●
Detergent injection low pressure		●	●	●	●	●	●
Cabinet		●	Option	●	Option	●	Option
Nozzle size		1000	1000	0500	0400	0435	0370
Full ceramic pistons		●	●	●	●	●	●



*The ALPHA BOOSTER 5 can also be equipped with an electronics control box that enables the product to be equipped with remote controls, coin boxes and 1 or 2, electronically activated detergents*



# Flexible, Reliable and always ready to

## – just Connect & Clean



The Nilfisk-ALTO UNO and DUO BOOSTER are 1 or 2 pump high pressure cleaning units for some of the most intense applications you can find. Assuring regular day to day cleaning often for more than 8 hours, the Nilfisk-ALTO UNO and DUO BOOSTERS are reliable partners in eliminating tough dirt in the industrial sector and maintaining hygiene levels in agriculture, food industry or simply in industry and construction.

### Technical data: UNO BOOSTER

Pump pressure	bar	160
	MPa	16
Water flow (Q <sub>max</sub> /Q <sub>IEC</sub> )	l/h	1200/1120
	l/h	540
Cleaning impact	kg/Force	5.7
Noise level	dB(A)	84
Max inlet temp.	°C	70
Power absorbed	kW	6.7
	V/~ /Hz/A	230/3/50/22.5 - 220/3/60/21 400/3/50/12 - 440/3/60/11
Weight	kg	81
Dimensions L x W x H	mm	370 x 700 x 500

### General information for Nilfisk-ALTO UNO and DUO BOOSTER

- Stainless steel cabinet is easy to clean maintaining hygiene levels in your surroundings.
- Servicing is easy thanks to the visible oil sight glass.
- Easy to use, single start/stop button – just switch on and clean.
- Stationary products require no transport. Ideal for sites where cleaning is always in the same place. Just attach the hose and clean.
- Low water security function.

### Technical data: DUO BOOSTER

Pump pressure	bar	160
	MPa	16
Water flow (Q <sub>max</sub> /Q <sub>IEC</sub> )	l/h	2400/2240
	l/h	1120
Cleaning impact	kg/Force	11.4
Noise level	dB(A)	83
Max inlet temp.	°C	70
Power absorbed	kW	2 x 6.7
	V/~ /Hz/A	230/3/50/45 - 220/3/60/42 400/3/50/24 - 440/3/60/22
Weight	kg	160
Dimensions L x W x H	mm	370 x 800 x 900

#### ◀ Nilfisk-ALTO UNO BOOSTER:

For single user applications. High water flow ideal for flushing and rinsing.

#### Nilfisk-ALTO DUO BOOSTER: ▶

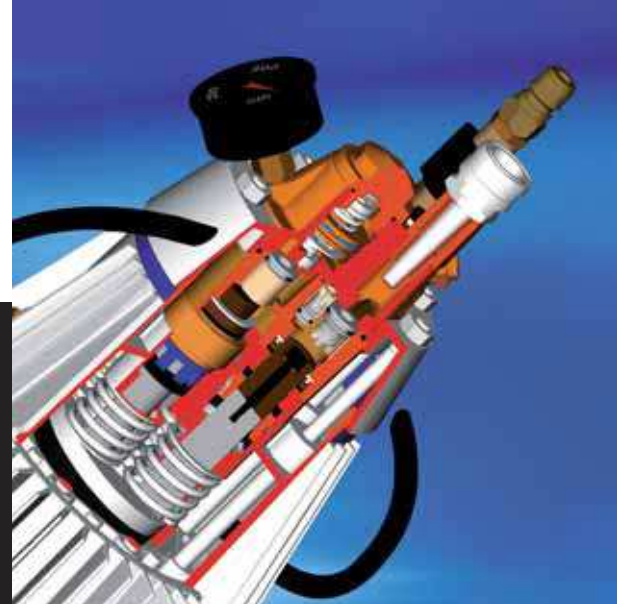
For 1 or 2 user applications. The 3 stage on-off button enables one user to operate with the capacity of 1 or 2 pumps (up to 2400 l/h) or two users simultaneously with the capacity of 1 pump each.



Nilfisk-ALTO UNO BOOSTER



# start



Nilfisk-ALTO offers personalised solutions. Each UNO or DUO machine can be produced as standard, or be equipped directly from the factory with a range of options to match your specific needs.

## Standard equipment: UNO/DUO BOOSTER

Cable length	m	4
Automatic standby		●
Ceramic pistons		●
Stainless steel cabinet		●



Nilfisk-ALTO DUO BOOSTER

## C3 quality PUMP

The famous C3 pump with 4 ceramic pistons and 1450 rpm motor has an exceptionally long working life. In addition, the C3 pump will accept pre-heated water up to 80°C, giving the possibility of using the cold water unit for hot water uses such as degreasing.

Through the last 20 years it has proven itself to be the most reliable and durable pump on the market, designed to tackle heavy duty applications day after day.

- Ceramic pistons and fibre reinforced seals, which allow an inlet temperature of up to 80°C
- Stainless steel valves
- Brass cylinder head
- Closed oil-system – No refill required as no oil waste – only oil change at service.
- Integrated filter in the pumphead prevents dirt entering the pump
- Visual oil inspection from outside the cabinet
- Integrated flow sensor – dry run protection
- Powerful integrated motor with double thermo sensors
- Robust and simple – no user interactions needed

# The Ultimate Solution



The Nilfisk-ALTO DELTA BOOSTER is a unique cleaning system designed for using in all industrial environments. Capable of up to six men simultaneous operation, the Nilfisk-ALTO DELTA BOOSTER has been developed to fully meet the cleaning demands of industry. Built with hygiene in mind, and with a host of features offering, for example, the flexibility of customised control as well as selectable water volume and pressure.

## ► Designed with hygiene in mind

The cabinet is constructed with large, easy-to-clean surfaces that will not harbour dirt in corners or crevices.

## ▼ Compact, space saving design

Because room is often at a premium - especially in confined areas, the Nilfisk-ALTO DELTA BOOSTER has been designed to use as little space as possible. This compact design also allows easy transportation and installation.



## ▲ Durable stainless steel construction

To meet with industry requirements for a long and effective working life, the cabinet, frame, water tank and the water passage are constructed from highly durable stainless steel and other non-corrosive materials. The tank incorporates a "type A" air gap in accordance with UK water regulations.

## ▲ Water tank

The water tank has both hot and cold water inlets, ensuring that the optimum, pre-set temperature is available at the commencement of cleaning operations.



## ▼ Optional mounting

In order to meet individual installation requirements, the water tank and inlet connections can be built, to suit the left or the right hand.





### ► Lances

Different cleaning tasks require different applications of water volume and pressure. Utilisation of the colour coded lances will ensure that you deliver the correct volume and pressure to efficiently complete the task in hand.



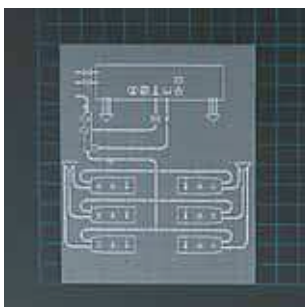
### ► Pump - The heart of the machine

The Nilfisk-ALTO DELTA BOOSTER is fitted with the unique KEW C3 piston pump. The pump features a pressurised sealed oil chamber, which virtually eliminates oil waste.



### ► Control

Individual control requirements vary. The control system is readily adaptable to suit particular circumstances, offering for instance, remote control and monitoring if required.



### ▼ Service-friendly

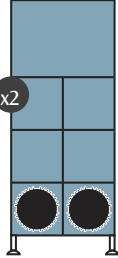
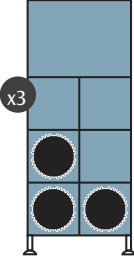
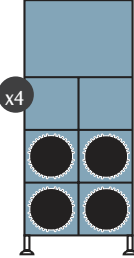
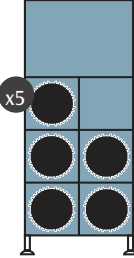
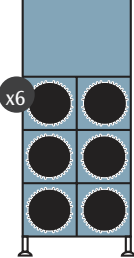
The large and fully removable access door at the front of the machine provides for easy access for servicing.



# Technical Specifications

## For Nilfisk-ALTO DELTA BOOSTER

### Common Features

						
Max. water output	l/h	2040	3060	4080	5100	6120
Current	A	42 <sup>1)</sup> 23 <sup>2)</sup> 21 <sup>3)</sup> 21 <sup>4)</sup>	62 <sup>1)</sup> 35 <sup>2)</sup> 32 <sup>3)</sup> 32 <sup>4)</sup>	83 <sup>1)</sup> 47 <sup>2)</sup> 42 <sup>3)</sup> 42 <sup>4)</sup>	104 <sup>1)</sup> 58 <sup>2)</sup> 53 <sup>3)</sup> 53 <sup>4)</sup>	125 <sup>1)</sup> 70 <sup>2)</sup> 64 <sup>3)</sup> 64 <sup>4)</sup>
Max. power consumption	kW	13,7	20,1	26,8	33,5	40,2
Weight	kg	250	300	350	400	450

1) 3 x 230 V, 50 Hz 2) 3 x 400 V, 50 Hz 3) 3 x 440 V, 60 Hz 4) 3 x 415 V, 50 Hz

### Water Data

Max. cleaning pressure	bar	160
	MPa	16
Min. cleaning pressure	bar	20
Adjustable cleaning pressure		Yes
Water tank capacity	l	80
Max. water inlet temperature	°C	80
Adjustable water temperature		Yes
Cold water connection Ø	BSP	1"
Hot water connection Ø	BSP	1"

### Electrical Data

Control panel	On machine
Control panel box	IP 55 Stainless steel
Control voltage (safety voltage)	24 V AC

### General Data

Construction	Stainless steel
Expandable	Yes
Motor temperature and current protection	Yes
Water temperature control	Yes
Low water protection	Yes
Burst pipe protection	Yes
Hours counter	Yes
Mimic display	Yes
Fault diagnosis display	Yes
Moisture resistance class (overall)	IP 45
Dimensions mm (L x W x H)	715 x 790 x 1800

## Nilfisk-ALTO DELTA BOOSTER Lances

The chart will help you to select the required combination of water volume and pressure appropriate to your needs. Desired pressures as low as 20 bar can be achieved at the point of use when using a white colour coded lance.

The chart illustrates the number of pumps required to operate a particular lance.



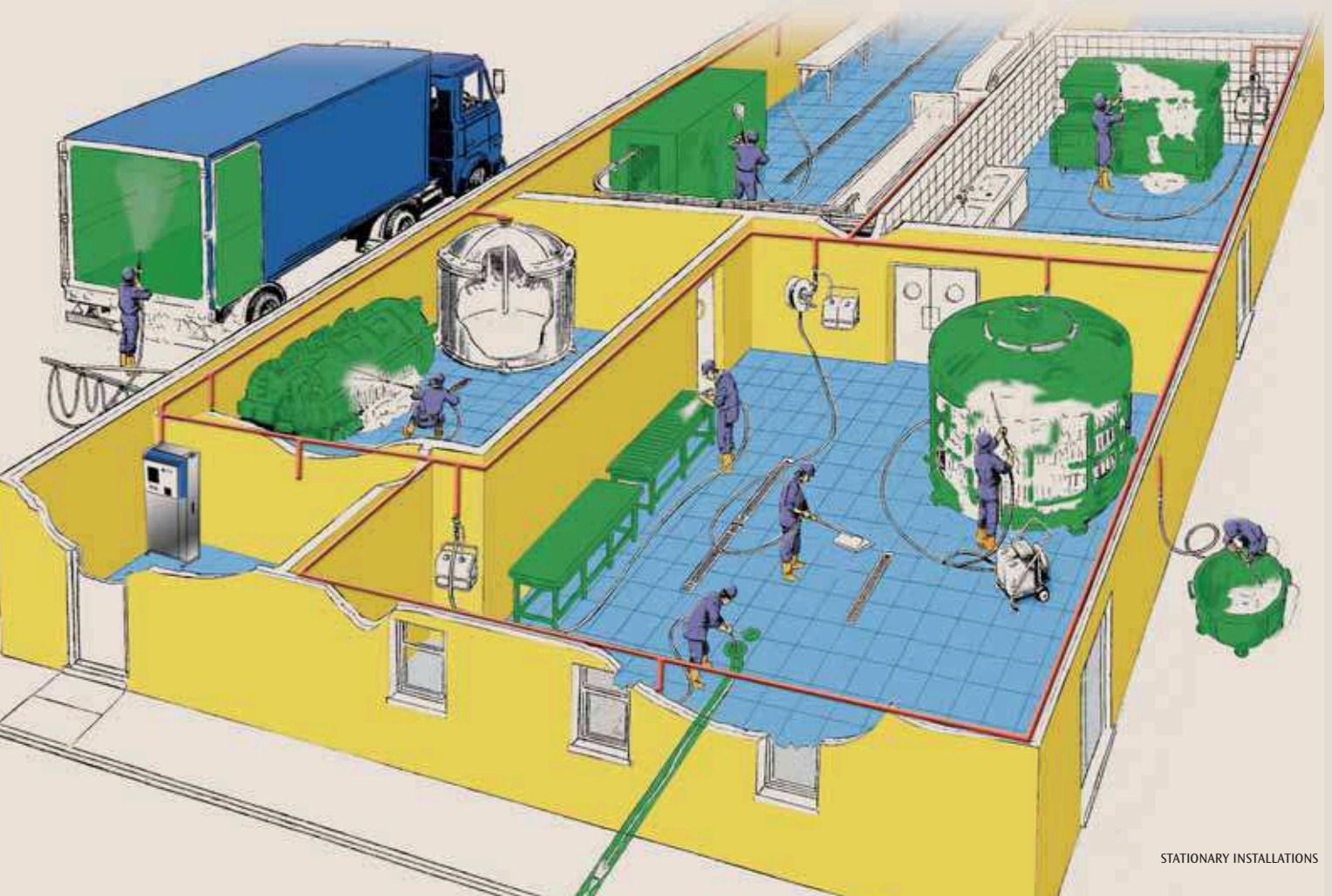
Lance	Desired pressure (bar)		Desired rating (water l/h.)		No of pumps required	
	120 bar*	160 bar*	120 bar*	160 bar*	120 bar*	160 bar*
White	20	27	1020	1020	1	1
Black	20	27	1920	2100	2	2
Brown	40	50	960	1020	1	1
Green	40	53	1920	1980	2	2
Blue	60	80	960	1020	1	1
Red	60	80	1560	1620	1.5	1.5
Orange	80	107	1020	1020	1	1
Yellow	80	107	1620	1560	1.5	1.5
Silver	114	152	1020	1020	1	1

\*Typical examples of pump pressure, variable to customer requirements.

# The Clean Solution

Nilfisk-ALTO stationary solutions are incredibly flexible. Through careful planning of the installation, it is possible not only to work directly next to the pressure washer, but also to plan and use a piping installation, allowing one or more users to clean at long distances away from the machine. The pressure washer can thus be stored in a special room, away from processing equipment, or non-authorized people.

The planning of a good installation can give rise to multiple outlets and detergent satellites. Thus, when moving from one cleaning point to another... you simply disconnect the hose and gun and move to the next site... without transporting an unwieldy pressure washer with you.



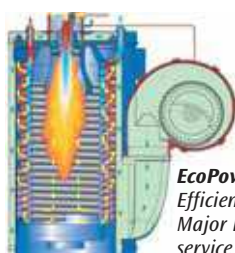
# Stationary Hot Water Pressure Washers



## Electrical, diesel or gas driven

The Nilfisk-ALTO SOLAR BOOSTER 5 series is adapted to general use in light industry, vehicle cleaning and even self-service. The Nilfisk-ALTO SOLAR BOOSTER 7 series is optimal for tough and intense cleaning applications in heavy industry, transport and food industry. The famous C3 pump used in the 7 series will just run and run... providing a valuable partner for the toughest jobs.

All Nilfisk-ALTO SOLAR BOOSTERS come equipped with stainless steel frames and cabinets for hygiene and ease of maintenance. Internal design is easy to service. All units are equipped with Nilfisk-ALTO's expandable control technology – meaning any standard machine can be turned into a personalised solution, thanks to a wide range of factory-mounted options.



**EcoPower Boiler:**  
Efficiency >92%.  
Major Fuel cost and service cost saving.

### Diesel-heated SOLAR BOOSTER 7-57D

- Long life C3 motor pump unit with 1450 RPM motor
- New burner technology for efficient and economic heating
- EcoPower boiler

### SOLAR BOOSTER 7-51D

- Long life C3 motor pump unit with 1450 RPM motor
- New burner technology for efficient and economic heating
- EcoPower boiler

### SOLAR BOOSTER 5-35D

- Low noise level NP5 pump with 1450 RPM motor
- New burner technology for efficient and economic heating
- EcoPower boiler

#### Basic

Pressure	bar	160	150	125
	MPa	16	15	12.5
Water flow - Qmax	l/h	1200	1100	835
Water flow - QIEC	l/h	1110	1030	780
Cleaning Impact	kg/Force	5.7	5.1	3.5
Noise level	dB(A)	77	77	76
Max inlet temp	°C	30	30	30
Power absorbed	kW	7.7	7.1	6.2
	V/~ /Hz/A	400/3/50/15.5 230/3/50/25	400/3/50/14.5	400/3/50/10
Heating capacity	kW	115	115	80
Diesel consumption	kg/h	4.9	4.6	3.8
Natural gas consumption (gas 10,35 kwh/m <sup>3</sup> )				
Dimensions L x W x H	mm	690 x 860 x 950	690 x 860 x 950	690 x 860 x 950
Weight	kg	220	215	190

#### Equipment

Couplings	Ergo	Ergo	Ergo
Feeder Pump			

### Diesel-heated

Pressure Washing Systems are suitable for diverse use in the industrial, commercial and trade sectors.

### Gas-heated

Pressure Washing Systems are primarily used in companies with modern types of energy such as natural gas.

### Electrically heated

Pressure Washing Systems are used wherever the exhaust gas from a burner is undesirable or prohibited.



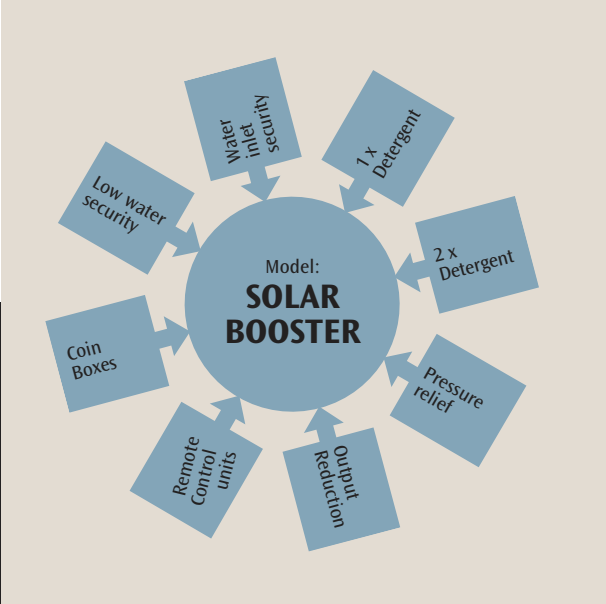
Nilfisk-ALTO SOLAR BOOSTER 5 D  
Nilfisk-ALTO SOLAR BOOSTER 7 D



**EcoPower**  
High Performance



Nilfisk-ALTO offers personalised solutions. Each Nilfisk-ALTO SOLAR BOOSTER machine can be produced as standard, or be equipped directly from the factory with a range of options to match your specific needs.



Gas-heated			Electrically heated		
SOLAR BOOSTER 7-57G	SOLAR BOOSTER 7-51GH	SOLAR BOOSTER 5-35G	SOLAR BOOSTER 7-57E18H	SOLAR BOOSTER 7-37E18H	
<ul style="list-style-type: none"> <li>• Long life C3 motor pump unit with 1450 RPM motor</li> <li>• New 2 stage gas burner for stable, economic heating</li> <li>• EcoPower boiler</li> </ul>	<ul style="list-style-type: none"> <li>• Long life C3 moto pump unit with 1450 RPM motor</li> <li>• New 2 stage gas burner for stable, economic heating</li> <li>• Stainless steel heating chamber and boiler</li> <li>• Feeder pump</li> </ul>	<ul style="list-style-type: none"> <li>• Low noise level NP5 pump with 1450 RPM motor</li> <li>• New 2 stage gas burner for stable, economic heating</li> <li>• EcoPower boiler</li> </ul>	<ul style="list-style-type: none"> <li>• Long life C3 motor pump unit with 1450 RPM motor</li> <li>• Heating capacities from 18 kW (standard version) up to 60 kW</li> <li>• Electric water heating means no exhaust gases – pollution free</li> <li>• Feeder pump</li> </ul>	<ul style="list-style-type: none"> <li>• Long life C3 motor pump unit with 1450 RPM motor</li> <li>• Heating capacities from 18 kW (standard version) up to 60 kW</li> <li>• Electric water heating means no exhaust gases – pollution free</li> <li>• Feeder pump</li> </ul>	
160	150	125	160	125	
16	15	12.5	16	12.5	
1200	1100	835	1200	875	
1110	1030	780	1110	810	
5.7	5.1	3.5	5.7	3.7	
77	76	76	76	76	
30	85	30	85	85	
7.6	7.1	6.2	7.7 + 18	5.6 + 18	
400/3/50/15.5	400/3/50/14.5	400/3/50/13	400/3/50/13+26	400/3/50/9.5+26 230/3/50/16.5+45	
90	70	80	18-60	18-60	
9.3	7.3	8.3			
690 x 860 x 1250	690 x 860 x 1250	690 x 860 x 1250	690 x 860 x 950	690 x 860 x 950	
235	220	225	180	175	
Ergo	Ergo	Ergo	Ergo	Ergo	
	●		●	●	



# Increased Flexibility with Nilfisk-ALTO Options



The Nilfisk-ALTO UNO, DUO, ALPHA and SOLAR BOOSTERS can be equipped with an electronic control board. This gives the possibility to use a wide range of factory-mounted options and equipment such as remote control, coin boxes, pressure relief...

The use of options means that a standard machine is quickly and easily configured to become a customer-specific solution.

Option	Description	UNO BOOSTER BASIC	UNO BOOSTER EXTENDED	DUO BOOSTER BASIC	DUO BOOSTER EXTENDED	ALPHA BOOSTER 5-27	ALPHA BOOSTER 5-49	SOLAR BOOSTER D/G	SOLAR BOOSTER E/GH
High Pressure detergent manual	Injection of detergent under high pressure, manually controlled at the machine	107340903	107340903	107340903	107340903	na	na	107340903	na
1 x detergent, electronic	Injection of 1 x detergent under high pressure controlled by solenoid valve and dosing unit. Detergent can be activated at a remote control unit or coin box. NOTE : For the DUO BOOSTER, the activation of detergent will only lead to the use of 1 of the 2 pumps capacity. For a special solution using 2 pump water capacity and injection of detergent, please request a special project.	na	107340900	na	107340906	na	na	107370952	107370952
2 x detergent	Injection of 2 x detergent under high pressure controlled by solenoid valve and dosing unit. Detergent can be activated at a remote control unit or coin box. NOTE : For the DUO BOOSTER, the activation of detergent will only lead to the use of 1 of the 2 pumps capacity. For a special solution using 2 pump water capacity and injection of detergent, please request a special project.	na	107340901	na	107340907	107360901*	107360901*	107370953	107370953
Pressure Relief	If the system is not in use for 10 minutes (or 20 seconds after the system closes down), a valve opens and relieves the pressure in the high pressure piping line. The entire system is free of pressure and must afterwards be started again.	na	107340902	na	107340902	na	na	107340902	107340902
No-Scale	Prevents scale in the boiler or internal water tank.	na	na	na	na	na	na	107370958	107370958
Low water security	Pressure switch on water inlet of the stationary unit. Set to 1 bar. Inlet water lower than 1 bar - the motor pump stops avoiding the unit running in "dry" mode.	107340905	107340905	107340905	107340905	na	na	107340905	Standard
Control kit	Option control kit for detergent, coin box, remote control with ALPHA BOOSTER 5	na	na	na	na	107360902	107360902	na	na



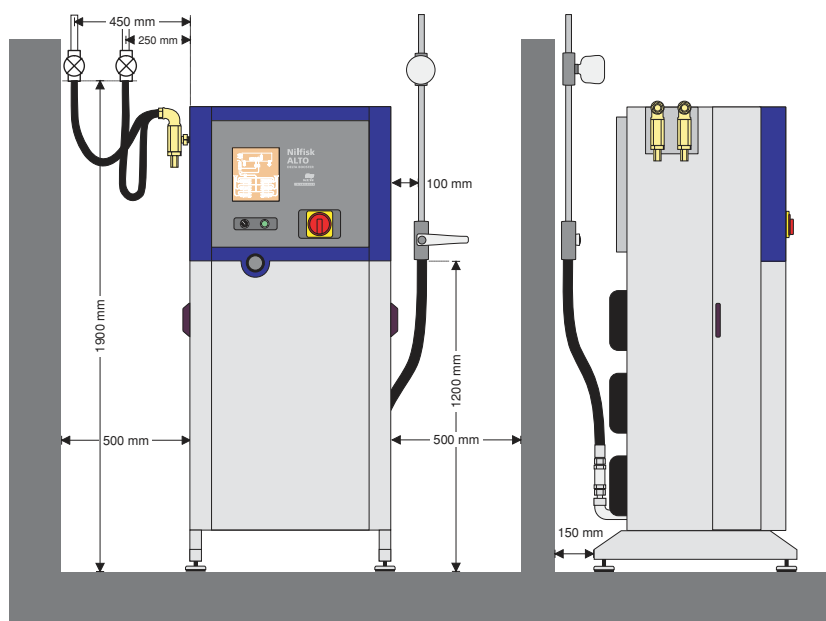
Option	Description	UNO BOOSTER BASIC	UNO BOOSTER EXTENDED	DUO BOOSTER BASIC	DUO BOOSTER EXTENDED	ALPHA BOOSTER 5-27	ALPHA BOOSTER 5-49	SOLAR BOOSTER D/G	SOLAR BOOSTER E/GH
Cold Warm switchover	Allows double water inlet (hot and cold) and switchover between sources.	na	107340915	na	107340916	na	na	na	na
Output reduction	Reduction of flow and pressure to a pre-chosen level. It allows increase in the concentration of detergent. The customer can choose % of reduction.	Text order	Text order	Text order	Text order	na	na	107370951	107370951
Water Inlet security	Comprises of a magnetic valve on the water tap, 5m cable and a 24v, DC plug. If the hose breaks, the valve on the tap closes, preventing water spill.	107340910	107340910	107340910	107340910	na	na	107340910	
Remote Control boxes	On-Off = 2 buttons	107340911	107340911	107340911	107340911	107340911*	107340911*	107340911	107340911
	On-Off + 1 function (burner or option ) = 3 buttons	na	107340912	na	107340912	107340912*	107340912*	107340912	107340912
	On-Off + 2 functions (burner or option ) = 4 buttons	na	107340913	na	107340913	107340913*	107340913*	107340913	107340913
	On-Off + 3 funtions (burner or option ) = 5 buttons	na	107340914	na	107340914	107340914*	107340914*	107340914	107340914
	Mains cut off button	29277	29277	29277	29277	29277*	29277*	29277	29277
Coin Boxes	Mechanical, simple on-off, €½	54328	54328	54328	54328	54328*	54328*	54328	54328
	Mechanical, simple on-off, €1	54329	54329	54329	54329	54329*	54329*	54329	54329
	Mechanical, simple on-off, €2	54331	54331	54331	54331	54331*	54331*	54331	54331
	Mechanical, simple on-off, Tokens	54330	54330	54330	54330	54330*	54330*	54330	54330
	Mechanical, on-off + 1 detergent, €½	54332	54332	54332	54332	54332*	54332*	54332	54332
	Mechanical, on-off + 1 detergent, €1	54333	54333	54333	54333	54333*	54333*	54333	54333
	Mechanical, on-off + 1 detergent, €2	54335	54335	54335	54335	54335*	54335*	54335	54335
	Mechanical, on-off + 1 detergent, Token	54334	54334	54334	54334	54334*	54334*	54334	54334
	Electronic, rotary switch, without LCD	na	29272	na	29272	29272*	29272*	29272	29272
	Electronic, rotary switch, with LCD	na	54321	na	54321	54321*	54321*	54321	54321
Kit for coin box	It allows the mounting of mechanical coin boxes on UNO and DUO BOSTER Basic versions.	107340908	107340908	na	na	na	na	na	na
Connection to external booster	It allows the connection of 2 SOLAR BOOSTERS together, or the connecton of a SOLAR BOOSTER to a UNO BOOSTER, to increase water capacity.	On demand	On demand	On demand	On demand	na	na	On demand	On demand
Frost protection (lost - requires pressure relief) Standard Deluxe with heater			107370954 107370955		107370954 107370955	na na	na na	107370954 107370955	107370954 107370955

# Installation diagram

*For stationary high pressure systems*

## Location of the Nilfisk-ALTO DELTA BOOSTER

The Nilfisk-ALTO DELTA BOOSTER is fitted with vibration absorbing rubber supports, so it may be placed straight on an even surface. The plant must be placed in frost-free premises, where the maximum temperature does not exceed 40°C.



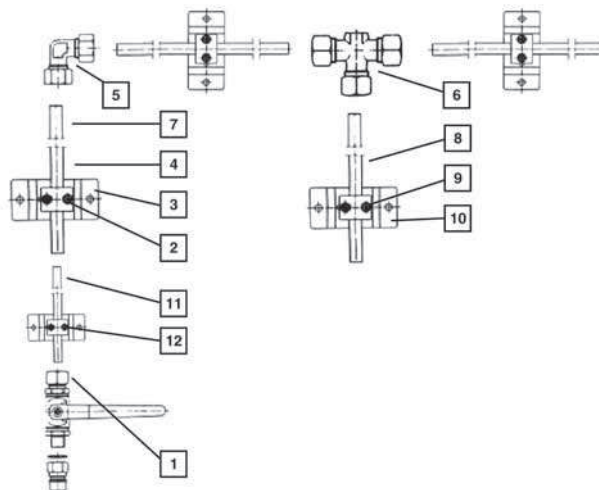
*(Nilfisk-ALTO DELTA BOOSTER is used as example in this explanation)*



## Piping Installation

What to prefer in each individual case of piping installation highly depends on the building, where it is to be located and special requirements, if any.

Due regard should be paid to the fact that big pipe dimensions and units are considerably more expensive, and the financial costs of each solution should therefore always be compared to one another. To the left one example is shown.



# Accessories, Detergents and Options

## *For stationary pressure washers*

### The difference between a product and a cleaning solution

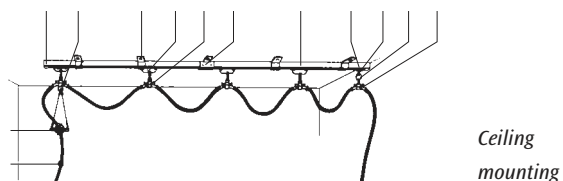
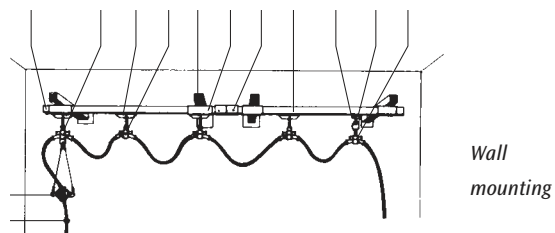
The Nilfisk-ALTO range of stationary pressure washers can be adapted to each particular situation in order to offer the best possible solution - and guarantee efficient and profitable cleaning for your sites.

### Accessories

Nilfisk-ALTO boasts one of the largest ranges of accessories, easing cleaning in difficult places or reducing cleaning time. This range includes :

- Cleaning heads for tanks, barrels and containers
- Hose routing systems
- Cleaning trolley
- Sand and softblasting kits
- Floor cleaning equipment – and much more...

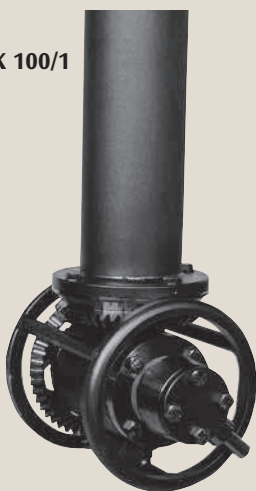
### Schematic diagram: Hose routing system



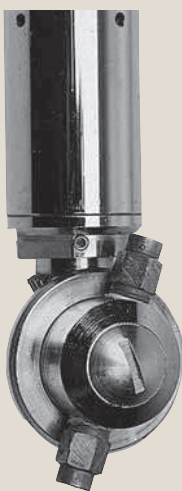
### Cleaning heads:

*The condition for excellent cleaning results.*

TRK 100/1



TRK 25



TRK 150



FRK 150



*See our product catalogue for more information.*

## The Nilfisk-ALTO Ergo System optimises ergonomics, user-friendliness and adaptability of the pressure washer for users..

Intensive use of a pressure washer can be tiring for hands, arms and shoulders. So the parts of the pressure washer handled most - the spray gun, lance and couplings, were studied and engineered to reduce operator fatigue and thereby increase operating efficiency.

**Ergo 1000 Spray Gun.** A new ergonomic spray gun based on tried and tested technology, the Ergo 1000 gun combines optimal serviceability with robustness and simplicity. Various accessories and attachments can be used to optimise the pressure washer for a specific cleaning task... and with the Ergo system described on next page, it is possible to change accessories in seconds, even without tools.

# Ergonomics

**Ergo<sup>3000</sup>System**  
Applied Ergonomics

## **Ergo 3000 is the user-friendly equipment system for the 3rd millennium. Optimal comfort, reduced operator fatigue, and maximum efficiency!**

The system includes the high pressure couplings, the spray gun, and 3 different types of lance along with the high pressure nozzle.

**Ergo 3000 Quick-Couplers** If you have ever struggled to connect or disconnect a threaded high pressure hose connection, or a hot one, you will appreciate this coupler system.

**Ergo 3000 Lances** Durable, comfortable and lightweight, they are manufactured with corrosion-resistant stainless steel pipes and an insulating grip designed to fit the operator's hand.

**Ergo 3000 Sidebar** For operators who prefer a sidebar, this accessory is designed for left or right-handed operators. And it can be positioned for operators with long or short arms.

**Ergo 3000 Spray Gun** The heart of the Ergo system, and the ultimate in spray gun ergonomics. The high pressure hose can swivel and rotate around the axis of the lance so it's not resisting your movements. And the quick-coupling system allows the changing of lances or accessories in a few seconds, without tools. To minimise the operator's fatigue, the two strongest fingers, instead of the two weakest ones activate the trigger.

**Ergo 1000 Spray Gun.** A new ergonomic spray gun based on tried and tested technology, the Ergo 1000 gun combines optimal serviceability with robustness and simplicity.

**Tornado Plus nozzles** You have to use it to see how much more powerful it is. The patented design focuses the impact of the water jet but does not narrow the cleaning pattern.



①

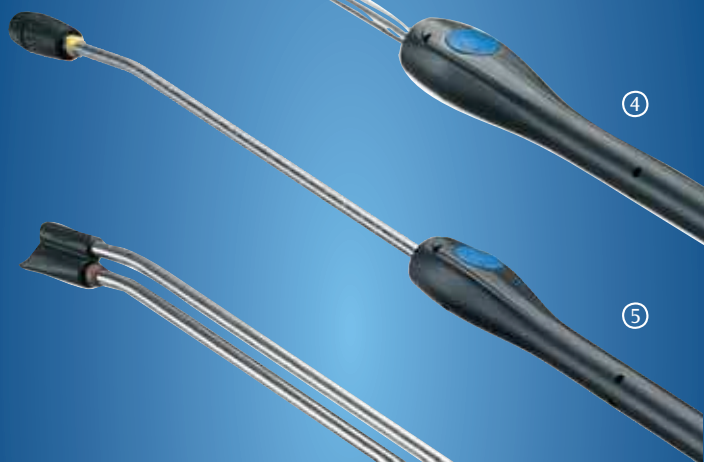


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③

④



⑤

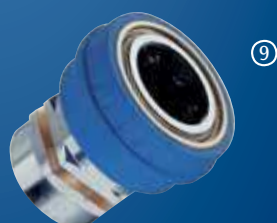
⑥



⑦



⑧



⑨

#### ① Ergo 1000 spray gun

- Large, robust design
- Quick bayonet coupling system for easy connection of accessories
- Innovative new Vario Press function (Ergo 1000 VP) situated within the trigger guard.
- Optimal serviceability – immediate access to valve seats through the hose coupling area

#### ② Ergo 3000 spray gun

- Low activation and holding force on trigger
- 360 degree flexo swivel for hose with locking device adding comfort in any working position
- Swivel couplings on hose avoid hose drilling
- Quick bayonet coupling system for easy connection of accessories
- Vario Press version available

#### ③ Ergo 3000 VarioPress spray gun

- Easy to regulate water pressure and flow close to the working place

#### ④ Universal 3000 Lance

- Lightweight and simple high pressure lance
- Stainless steel piping
- Ergonomic casing for optimal holding positions
- Available in different versions; curved and straight

#### ⑤ FlexoPower 3000 Lance

- Lightweight and simple lance
- Pressure regulation at nozzle head allowing work with low pressure detergent and rinsing
- Stainless steel piping
- Ergonomic casing for optimal holding positions
- Available in different lengths

#### ⑥ Tornado 3000 Lance

- Robust stainless steel double pipe lance
- Pressure regulation at lance
- Separate low pressure nozzle with optimal rinsing effect that gives possibility for using low pressure detergent
- Available in different lengths

#### ⑦ Sidebar

- New optional accessory for additional comfort in working posture
- Soft grip - Flexible solution: adaptable to left or right handed use, long or short reaches

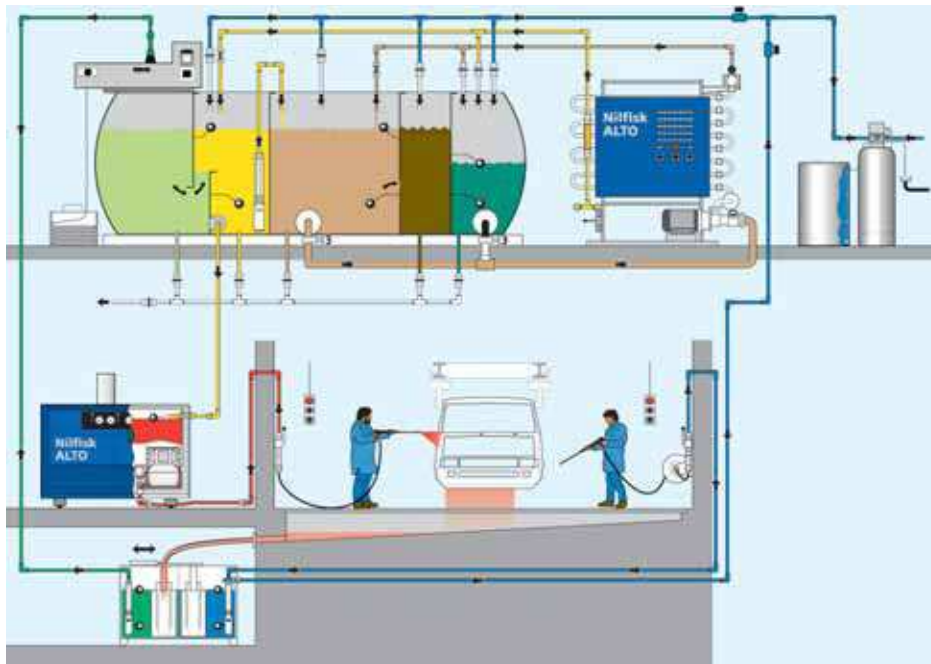
#### ⑧ Tornado Plus Nozzle

- Patented nozzle construction
- 75% more efficient spray profile through high level of water concentration

#### ⑨ Ergo 3000 high pressure couplings

- Quick and easy connection of hose and machine
- Protective cover shield against heat transfer
- Security against hose removal when hose is under pressure

# Water Treatment Systems



**Process:**  
*Example of sewage-free circulation of a high pressure cleaning facility for phosphatising and/or degreasing – mixed water mode.*

## Industrial High Pressure Cleaning Systems

### With Ultra-Filtration (OSMOMAT System), CMS Series

For industry and trade Nilfisk-ALTO offers application oriented, high pressure cleaning systems with perfected system technology. The Nilfisk-ALTO modular design meets a broad range of performance requirements.

Nilfisk-ALTO customers are supplied with complete systems from one supplier.

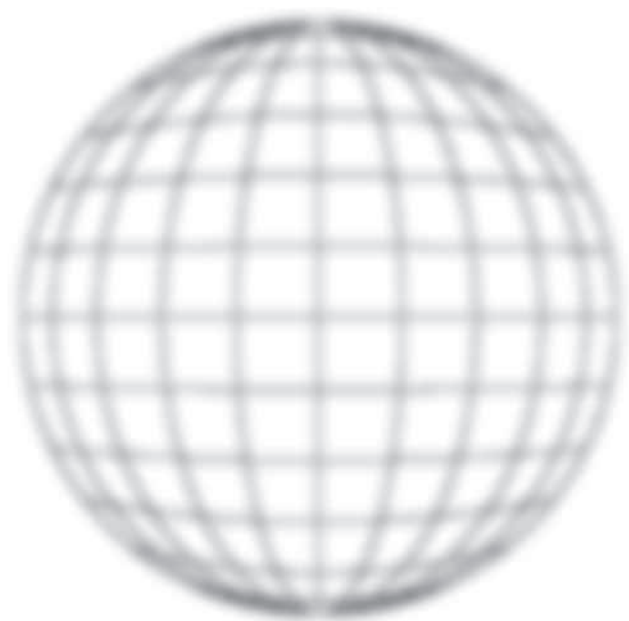
Process water is treated with ultra-filtration via a patented process used for processing waste water from cleaning, degreasing and phosphatising systems. Your advantages: Reduced water consumption, lower operating and energy costs, less detergent, prevention of waste-water and environmental hazards – thanks to the circulation system.



*Hot water high pressure: High efficiency with low energy requirement*



# A clean investment that will pay off!



**You will obtain the best possible cleaning solution for your installation thanks to...**

- **Our expertise in planning and installing units**
- **The most reliable and durable solutions on the market**
- **A range of options and accessories that enable you to customize the cleaning equipment to satisfy each of your specific needs**



Nilfisk-ALTO is a division of the Nilfisk-Advance group, which is the world's largest manufacturer of professional cleaning equipment with a turnover of close to 700 million € and around 3800 employees globally. We are located in all main European countries, North America and Asia with our headquarters in Denmark and manufacturing facilities in China, Denmark, Germany, Hungary, Italy, Sweden and North America.

We supply quality high pressure washers, vacuum cleaners and floor care equipment to agriculture, automotive and industrial companies, cleaning contractors and private consumers.

Nilfisk-ALTO is a product driven company with focus on innovation and growth. We believe in developing and maintaining long lasting relationships with our customers, suppliers and employees.

*No claims can be made on the basis of information or illustrations contained in this catalogue. Subject to alteration of technical data, design and equipment.*

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*Why Compromise*