

**LAVOR** **PRO**  
works for you



 **ITALIAN MADE**

**PRO** **PRO**  
LAVOR

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EVERYWHERE YOU WORK  
**ENJOY YOUR CLEANING**



# ICONS USED IN THIS CATALOGUE

## WOBBLE PLATE



### Axial Pump

The movement of the (3) pistons occur through the rotation of an inclined wobble plate (advancement) and springs (return). The longitudinal axes of the pistons (placed at 120° each other) is coaxial to the motor rotation axle.

## CRANKSHAFT



### Linear Pump

The movement of the (3) pistons occur through a system of connecting rods and crankshaft. The longitudinal axle of the pistons (placed at the same level or linear) is perpendicular to the motor rotation axle.



### Water Cooled Motor

Water flows through the S/S coil around the motor, this allows a better thermal exchange (and so a cooling) than air also in those countries where inlet water could reaches 60°C.



### Total Stop

Releasing the gun trigger the pump stops automatically avoiding element damages during the by-pass phase. Pulling the trigger, the high-pressure cleaner starts automatically. Max pump protection.



### Low Voltage and Delayed Total Stop

To avoid quick and multiple start and shut down of the motor/pump group whenever the gun trigger is pulled and released, this disposal delays of about 15 seconds the machine shut down. Prevention, energy saving, top safety and pump longer life.



### Motor Low Rotation Speed

The electric motor transfers the same number of revolutions to the pump. With a 4 poles motor there is a lower rotation speed of the components (1400 RPM in case of 50Hz or 1750 RPM in case of 60 Hz) granting longer pump life.



### High Pressure Detergent Suction

Chemical product (flowing though the pump) are supplied at the same operating pressure of the machine.



### Low Pressure Detergent Suction

Chemical product (that is not flowing though the pump, but is vacuumed with a VENTURI effect) are supplied lowering the operating pressure of the machine

## DETERGENT



### Detergent Tank

The machine has an integrated detergent tank. It is not necessary to have other external tanks that reduce movements.



### Pressure Accumulator

The release of the gun trigger produces a strong counterstroke in the pump. This device amortizes this power with great benefit for the pump components.

## PRESSURE GAUGE



### Pressure Gauge

It allows the visual control of the machine operating pressure.

## PRESSURE



### Adjustable Pressure

It is possible to lower the pressure for gentle uses and for water saving.



### Double Pipe Gasoline Pump

It makes the gasoil flowing back to the tank, avoiding the gasoil flowing inside the pump during by-pass phase (single tube pump operation): this allows to obtain low temperatures inside the pump avoiding greasy deposit formation that would block the pump



1  
MOTOR



2  
MOTORS



3  
MOTORS

### Number of Motor

It explains how many motors there are in the vacuum cleaner. Ignition is independent in order to increase progressively the performances. The working system is in parallel, so the air suction increases and the depression is steady whenever the motors are progressively switched on.



### Paper Collector Filter

Allows filtering and collection (with a valve) of rough dirt without dirty the tank whenever it is time to replace it. It is useful for dry waste, also in combination of other thinner filters.



CLOTH FILTER

### Cloth Filter

The cloth consistency and its shape allow a simple cleaning phase and the re-usage of the filter. It can be used only for vacuuming dry waste; if combined with nylon filter it is possible to work for a longer period of time.



CARTDRIGE

### Cartridge Filter

The continuous folders arranged in circle allow a higher filtering surface in a smaller area. More cleaning autonomy with a thin filtering action. It can be used only for vacuuming dry waste and it is re-usable.



WASHABLE

### Multi-Purpose Washable Filter

It combines all the advantages of the cartridge filter but with the plus that it can vacuum both dry and wet at the same time. It can be washed with tap water.



### Filter Shaker

It clears filter from dust without touching it or opening the vacuum cleaner; the vacuum efficiency is kept at max.



ELECTROSTATIC

### Anti Electrostatic Current Device

Using specific conductive materials and engineering, there's the prevention of ignition sparks from the machine side, up to the end of any tool available for this machine range

## ABOUT LAVOR PRO

A worldwide leader in the cleaning industry since 1975 offering a wide and complete range of cleaning machinery suitable for any kind of application, both indoor and outdoor.

Over the years, Lavor has grown to become a specialist manufacturer of professional and household cleaning systems, acquiring various leading brands and diversifying its own range to offer innovative products of excellence.

Choosing a professional product implies a careful choice of efficacy, reliability, safety and ease of use. These are the criteria followed by LavorPro in the conception of its professional range, resulting in highly technological products for a perfect blend of hygiene and cleaning power with significant savings in time and energy.

*“ Whether you’re in a dairy shed or an industrial workshop, lavor products are designed to make commercial and industrial cleaning an easy, hygienic and cost effective process ”*

*“ My Lavor Hyper 1211 has been regularly serviced and seen me through 5 years of heavy use without missing a beat - Webblin Agriculture ”*

PRO  
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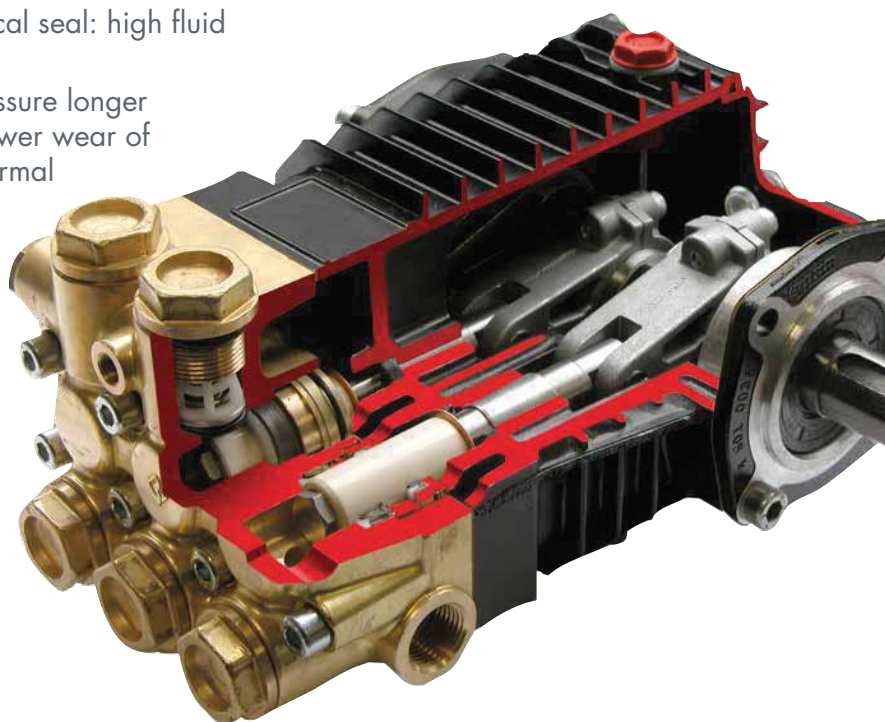
## 40 YEARS OF CONSTRUCTIVE EXPERIENCE...

LavorPro offers a comprehensive range of pumps and motor pumps constructed and designed to meet any requirement of the market, providing a longlasting and reliable solution to address cleaning needs ...

## NO COMPROMISES!

LavorPro's offering of pumps and motor pumps intentionally targets a clientèle seeking top quality and durability for this kind of products:

- 4-pole motors: They assure 1450 RPM speed, resulting in a decrease of pump and motor's operating temperatures, reduction in wear of consumables, lower oil deterioration inside the pump.
- Water cooled motors: Enhanced effectiveness and lower operating temperatures translate into compact sizes and high performance.
- Elastic coupling: it assures better alignment, dissipation of the heat from the motor rotor, lower stress on bearings, easy disassembly of the pump from the motor.
- Pump body in die cast aluminium: the casing design focuses on assuring stress is reduced to the minimum and operating temperatures are reduced, with the aim of guaranteeing unlimited service life.
- Forged brass pump head: improved mechanical strength, superior resistance to corrosion and oxidation phenomena.
- Nickel plated forged brass (CW5) pump head: the perfect surface finish, jointly with the properties of the plating, assure improved resistance to chemicals and lower chance of deterioration caused by cavitation phenomena.
- Double gasket seal system the choice of the "U" gasket profile represents the maximum quality standard, assuring lower wear due to friction.
- High temperature seals (CW5): They assure optimal durability up to 85° operation.
- Valves with stainless steel plate and spherical seal: high fluid dynamics performance.
- Ceramic pistons (on selected models): to assure longer service life of the pistons and guarantee lower wear of water seals and improved resistance to thermal shocks.
- Double housing connecting rods (CL5-CW 5): ease of maintenance.
- "READY TO USE" pumps (CL4): This range provides built-in by-pass valve, low pressure detergent injector, total stop actuation microswitch, pressure regulation and pressure gauge, making installation easier and speeding up replacement and maintenance operations.



# MCHPX 1211LP

Stainless steel frame & covers

3/4M inlet water fitting



Anti-vibration shock absorbers

Brass head for 40° degrees inlet temp  
(must be min. 10 bar pressure)

Single phase high output/MCHPX cold water stationary pressure cleaner is built for serious industrial use. 4 pole revving motor/pump unit and thermic overload are just some of the features that this boasts, allowing it to perform day-in/day-out with ultimate reliability. Best suited to cleaning cars, tractors, tracks and farm implements.

- Single phase
- 4 poles electrical motor (1450 RPM) with thermal protection
- Three ceramic coated pistons, brass linear pump head with built-in by-pass valve
- Stainless steel valves (inlet and delivery)
- HP detergent for increase pressure
- Pressure regulator. Glycerine pressure gauge
- Galvanised steel frame with stainless steel cover
- This model has a brass pump head for up to 40° degrees inlet temperature.

## Complete with Standard Equipment



#L37000030



#L37010015



#D15045-1/8M



#L46180143

## Optional Equipment

Turbo Nozzle  
#41570-042 Dirtkiller 042 Nozzle  
with 500mm Lance

Flat Floor Cleaner  
#PS18SSFC

Extension hose  
#L46180143 + #26070050

Detergent  
5L #B5LTW  
20L #B20LTW

Wall mount support  
#66080030

PRESSURE GAUGE



PRESSURE



CRANKSHAFT



DETERGENT



**T.S.** Total Stop

Code	MCHPX1211LP	Motorpump type/RPM	CL4/1450
Operat. pressure/max (psi)	1740	Water inlet temp. (max)	40 °C
Delivery rate	11L/min	Dimension (cm)	75 x 50 x 35
Abs. power/voltage	3000W - 230V~50Hz 1ph	Weight (kg)	42

# MCHPX 2021LP

Stainless steel frame & covers

3/4M inlet water fitting

Anti-vibration shock absorbers

Brass head for 40° degrees inlet temp  
(must be min. 10 bar pressure)

## Complete with Standard Equipment



#L37000030



#L37080001



#D2507-1/8M



#L46180143

## Optional Equipment

Turbo Nozzle  
#410727

Flat Floor Cleaner  
#PS18SSFC

Extension hose  
#L46180143 + #26070050

Detergent  
5L #B5LTW  
20L #B20LTW

Wall mount support  
66080030

Three phase ultra powerful cold water pressure washer suited for the most industrial environments. Powerful 21L/min@2900psi will shift the most stubborn dirt grease or muck. Featuring water cooled 1450 RPM slow speed motor/pump, delayed Total Stop and stainless protection, the MCHPX series is tough as nails.

- Pressure accumulator for reduced component wear
- Integrated elastic joint, for reduced vibration and long life
- 4 pole electrical motor (1450 RPM) with thermal protection and water cooling
- Full ceramic pistons, brass linear pump head with built-in by-pass valve
- Low voltage, delayed Total Stop
- Stainless steel valves inlet and delivery
- High pressure regulator and glicerine pressure gauge
- Wall mount support (optional code 66080030)
- This model has a brass pump head for up to 40° degrees inlet temperature.
- 15amp, 3 phase.



Code	MCHPX2021LP	Motorpump type/RPM	CL5/1450
Operat. pressure/max (psi)	2900	Water inlet temp. (max)	40 °C
Delivery rate	21L/min	Dimension (cm)	75 x 50 x 35
Abs. power/voltage	9400W - 400V~50Hz 3ph	Weight (kg)	58



# MISSISSIPPI



The Mississippi cold/hot water cleaner is a light commercial machine, great for cleaning jobs around home and the work place such as cars, vans, boats, house, pathways etc. Suitable for 4 - 6hrs/week. Complete with heavy duty gun, nozzle, lance and 8m high pressure hose.

- Three ceramic coated pistons, brass axial pump head with built-in by-pass valve
- Stainless steel valves (suction and delivery)
- Vertical burner with high thermal efficiency steel coil
- Temperature regulation gauge
- Diesel pump with by-pass valve
- Detergent built-in tank for indirect suction
- Pressure regulator. Glycerine pressure gauge
- Power cable holder
- Accessory holder
- Ergonomic handle and well-balanced wheeled design
- 10amp, single phase



**T.S.** Total Stop

## Complete with Standard Equipment



## Optional Equipment

Turbo Nozzle  
#410722

Flat Floor Cleaner  
#41850

ab extension lance  
#PS18TSW

Detergent  
5L #B5LWTW  
20L #B20LWTW

Code	MISSISSIPPI	Motorpump type/RPM	MPBX/2800
Operat. pressure/max (psi)	1885	Diesel/detergent tank	14/2.5 l.-3.7/2.5L
Delivery rate	10L/min	Dimension (cm)	80 x 55 x 83
Abs. power/voltage	3000W - 230V~50Hz 1ph	Weight (kg)	55
Temp. inlet/outlet (max)	40 °C/90 °C	Fuel consumption	1.83L/h - 2.84L/h



# NPX1310M

Vertical boiler for high efficiency

Heavy duty gun and lance

Convenient accessory storage

Convenient storage of fuel and detergent

Heavy duty 4 wheel system for superior stability

### Complete with Standard Equipment



#L37000030



#L37010015



#D15045-1/8M



#L46180143

The first of our commercial hot pressure cleaners. The NPX is ideal for automotive and light industrial applications. Complete with heavy duty gun, lance and 10m wire braided pressure hose.

- 3 ceramic pistons, brass head pump with built-in by-pass valve
- Low voltage and delayed Total Stop
- Stainless steel valves (inlet and delivery)
- Vertical burner with high thermal efficiency steel coil
- Temperature regulation gauge
- Low fuel lamp and safety valve
- Detergent built-in tank for indirect suction
- Pressure regulator. Glycerine pressure gauge
- Panel with analogic controls
- Accessory holder
- Two way fuel pump for reliability
- Ergonomic handle and well-balanced design
- 15 amp, single phase

### Optional Equipment

Turbo Nozzle  
#41570-042

Flat Floor Cleaner  
#PS18SSFC

Extension Lance  
#41154, #PS18TSW

Foaming Bottle  
#L6620053

Detergent  
5L #B5LTW  
20L #B20LTW



Code	NPX1310M	Temp. inlet/outlet (max)	40 °C/140 °C
Operat. pressure/max (psi)	1885	Absorbed power	3200
Fuel consumption	10L/min	Dimension (cm)	94 x 64 x 90
Voltage	230V ~ 50Hz 1ph	Weight (kg)	97

# HYPER 1211 – INOX

Food grade stainless steel vertical boiler for high efficiency and sensitive environments

Easy to read control panel with adjustable heat control

Roto moulded ABS chassis for rugged light weight strength



1450 RPM motor/pump inside. Ultra long-life

For all your commercial and industrial cleaning tasks. With maximum reliability, the best technology and components including a stainless steel boiler coil and a low speed 1450 RPM linear pump unit with high pressure detergent application, these single phase machines work continuously at top performance! 140°C destroys grease and food grime on transport and farm equipment. Complete with heavy duty gun, nozzle, lance and 10m wire braided high pressure hose.

- 4 pole electrical motor (1450 RPM) with thermal protection
- Ceramic coated pistons, brass linear pump head with built-in by-pass valve for long-life
- Integrated elastic joint for no vibration
- Low voltage and delayed Total Stop for long component life. Stainless steel valves (suction and delivery)
- High pressure detergent for increased pressure
- Temperature regulation gauge with stainless steel sensor
- Vertical burner with high thermal efficiency stainless steel coil
- Auxiliary motor for burner air cooling and mechanical two ways fuel pump
- 15 amp, single phase

#### CRANKSHAFT



#### DETERGENT



#### DETERGENT



#### PRESSURE GAUGE



#### PRESSURE



#### Complete with Standard Equipment



#L37000030



#L37010015



#D15045-1/8M



#L46180143

#### Optional Equipment

Turbo Nozzle  
#41570-042

Flat Floor Cleaner  
#PS18SSFC

Extension Lance  
#41154, #PS18TSW

Foaming Bottle  
#L6620053

Detergent  
5L #B5LTW  
20L #B20LTW

**Stainless Steel Boiler**

**5 YEAR WARRANTY**

Code	HYPER1211 - INOX	Temp. inlet/outlet (max)	40 °C/140 °C
Operat. pressure/max (psi)	217.5	Motorpump type/RPM	MP3/1450
Delivery rate	11L/min	Dimension (cm)	94 x 65 x 90
Abs. power/voltage	3000W - 230V~50Hz 1ph	Weight (kg)	109

# HYPER 2015 – INOX

Food grade stainless steel vertical boiler for high efficiency and sensitive environments

Easy to read control panel with adjustable heat control

Easy access fuel and detergent tanks

Convenient on-board accessory storage

Super stable 4 wheeled design



### Complete with Standard Equipment



#L37000030



#L37010015



#D25045 - 1/8M



#L46180143

For all your commercial and industrial cleaning tasks, this three phase, heavy duty machine comes with all the options! Water cooled motor, low speed 1450 RPM linear pump unit with high pressure detergent application and heavy duty pressure regulator. Perfect for destroying stubborn mud, grime and grease.

- 4 pole electrical motor for long, trouble-free operating life
- Full ceramic pistons, brass linear pump head with built-in by-pass valve
- Integrated elastic joint for low vibration long-life
- Delayed Total Stop thermic overload for safety and long-life components
- Vertical burner with high thermal efficiency stainless steel coil
- Temperature regulation gauge with sensitive s/steel sensor
- High pressure detergent for increased pressure
- Auxiliary motor for burner air cooling and mechanical two ways fuel pump
- S/steel inlet and delivery valves
- Auto anti-scale applicator
- Pressure accumulator for reduced component wear
- 15 amp, 3 phase

### Optional Equipment

Turbo Nozzle  
#41570-042

Flat Floor Cleaner  
#PS21SSFC

Extension Lance  
#41154, #PS18TSW

Foaming Bottle  
#L6620053

Detergent  
5L #B5LTW  
20L #B20LTW



Code	HYPER2015 - INOX	Temp. inlet/outlet (max)	40 °C/140 °C
Operat. pressure/max (psi)	2900	Motorpump type/RPM	MPW5/1450
Delivery rate	15L/min	Dimension (cm)	94 x 65 x 90
Abs. power/voltage	7300W - 400V~50Hz 3ph	Weight (kg)	129

# HYPER 2021 – INOX



With super duty Roto-moulded ABS chassis and water cooled 1450 RPM motor/the HYPER2021 is built tough for rugged environments. The most powerful machine in its class, the most stubborn of material is shifted with 21L/min@2900psi. 140°C temperature is perfect for removing grease and road grime on trucks, tractors and implements.

- 4 pole electrical motor (1450 RPM) with thermal protection and water cooling
- Full ceramic pistons, brass linear pump head with built-in by-pass valve for ultimate longevity of component life
- Integrated elastic pump coupling for low vibration
- Low voltage and delayed Total Stop for long component life
- Vertical burner with high thermal efficiency s/steel coil
- Temperature regulation gauge
- High pressure detergent system for increased pressure
- Auxiliary motor for burner air cooling and mechanical two way fuel pump
- Auto anti-scale applicator for increased boiler life
- Pressure accumulator for reduced component wear and coil vibration
- 15amp, 3 phase

#### CRANKSHAFT



#### Complete with Standard Equipment



#### Optional Equipment

Turbo Nozzle  
#410727

Flat Floor Cleaner  
#PS21SSFC

Extension Lance  
#41154, #PS18TSW

Foaming Bottle  
#L6620053

Detergent  
5L #B5LTW  
20L #B20LTW

**Stainless Steel Boiler**

**5 YEAR WARRANTY**

Code	HYPER2021 - INOX	Temp. inlet/outlet (max)	40 °C/140 °C
Operat. pressure/max (psi)	2900	Motorpump type/RPM	MPW5/1450
Delivery rate	21L/min	Dimension (cm)	125 x 64 x 89
Abs. power/voltage	9700W - 400V~50Hz 3ph	Weight (kg)	171



## WINDY: NEW COMMERCIAL WET & DRY RANGE OF VACUUM CLEANERS



WINDY range is the commercial vacuum cleaners line suitable for wet and dry applications: Capital Letter three models equipped with 1 up to 3 professional single stage motor, stainless steel or anti shock plastic tank, tilting or fixed tank: WINDY are mainly designed for daily light industrial use and are perfectly suited to the most common demand of cleaning contractors, garages, workshops etc...

**They are equipped with the new manual RF (reverse flow) filter cleaning system, granting high cleaning efficiency and longer lifespan of the motors.**

Practical in every situation, the new WINDY range offers accessories holder, cable holder and a new rotating ON/OFF switch, simple and resistant to daily use.

Equipped with professional accessories and professional filter options for any conditions WINDY is the answer to your requests!



# WINDY 265IF



New Reverse Flow  
(RF) cleaning system



Monster 7.5m  
power cable!

Industrial stainless  
steel tank and hand piece

Cartridge replacement  
feet for all applications

## Complete with Standard Equipment



#L37540083



#L52090021



#L62050126

#L37530020



#L62050151



#L37540048



#L37540049



#L37540084



#L37540085

With powerful twin 1100W - 2200W motors the WINDY 265IF is designed for daily light industrial use and perfectly suited to the most common demand of cleaning contractors, garages and workshops. Equipped with the new manual RF (reverse flow) filter cleaning system which grants high cleaning efficiency and longer lifespan of the motors.

- 2 high efficiency by-pass motors
- Suction system with by-pass cooling
- Filter cleaning system (reverse flow)
- 65L Stainless steel tank
- Static electric shock inhibitor and shock proof trolley
- Liquid float valve
- Cloth filter standard (cartridge optional)
- 7.5m power cable
- Non-marking wheels
- Accessories Ø 40mm
- Handy accessory holder
- 15amp, single phase



## Optional Equipment

Paper collector filter set  
-10 pcs  
#L52120022

Cloth filter for fine dust  
#L52090177

Nylon filter  
#L52120093

Gangway Tool  
#01100062

Code	WINDY265IF	Air suction	130L/s
Voltage	220-240V ~ 50-60Hz	total volume/dust/liquid	65L/30L/40L
n°motors - power (max)	2200W	Dimension (cm)	44 x 46 x 96
Column depression	22 kPa	Weight (kg)	14.5

# WINDY 365 IR



New Reverse Flow  
(RF) cleaning system

Tough ABS  
'anti-static' trolley



Powerful 3 x 1000W  
motors for 195L/s of 'suck'!

Tilting/removable tank  
for easy disposal of liquids

## Complete with Standard Equipment



#L37540083



#L52090021



#L62050126  
#L37530020



#62050151



#37540048



#37540049



#37540084



#37540085

Triple power! 3 x 1000W motors means the Windy 365IR is prepared for the toughest of cleaning jobs. With a 7.5m power cable to RF (reverse flow) self-cleaning system, this is built to last in semi-industrial environments such as car and truck workshops, commercial contractors and even home use!

- 3 high efficiency by pass motors
- Suction system with by-pass cooling
- Filter cleaning system (reverse flow)
- Fully removable tilting tank for easy draining of liquid
- Shock proof trolley with static electric shock inhibitor
- Liquid float valve
- Cloth filter standard (cartridge optional)
- 7.5m power cable
- Non-marking wheels
- Accessories Ø 40mm
- Handy accessory holder
- 15 amp, single phase



## Optional Equipment

Paper collector filter set  
-10 pcs  
#52120022

Cloth filter for fine dust  
#52090177

Nylon filter  
#52120093

Gangway Tool  
#01100062

Code	WINDY365IR	Air suction	195L/s
Voltage	220-240V ~ 50-60Hz	total volume/dust/liquid	65L/30L/40L
n°motors - power (max)	3000W	Dimension (cm)	62 x 51 x 100
Column depression	22 kPa	Weight (kg)	20

# WINDY FOAM



Reverse Flow (RF)  
cleaning system

Anti-static 70L  
stainless steel tank



Detergent application  
for easy cleaning of  
vehicles and furniture

Efficient 90%  
foam recovery

## Complete with Standard Equipment



#62050129



#64020108



#52120021



#62050132



#37540048



#55090143



#64020109

Windy IE Foam is an injection/extraction cleaning machine ideal for car cleaning as it can be used with thick foam or liquid detergent. It is equipped with a special brush that allows the foam to spread easily on car seats or mats which can then be removed after a few seconds with a transparent nozzle. Being equipped with two high depression vacuum motors, 90% of the foam is recovered with the great advantage of a very fast drying (20 min) and a better cleaning performance! It is also a wet and dry vacuum cleaner with 65L of tank capacity.

- Silenced two stage motors (2 x 1100W)
- Stainless steel tank
- 2000W with 70W detergent pump
- Armchair nozzle / carpet nozzle
- Suction system with by-pass cooling
- Static electric shock inhibitor
- Drain hose system
- 11L waste detergent tank for liquid
- Shock proof ABS trolley
- Liquid float valve
- Cloth filter
- Easy standing head (during filter cleaning)
- Non marking wheels
- 15 amp, single phase

## Optional Equipment

Paper collector filter set  
-10 pcs  
#L52120022

Cloth filter for fine dust  
#L52090177

Nylon filter  
#L52120093

Antifoam device  
#L01100020

Anti-foaming detergent  
for recovery tank  
#L36970036

Gangway Tool  
#L01100062



Code	WINDYFOAM	Air suction	130L/s
Voltage	220-240V ~ 50-60Hz	total volume/dust/liquid	65L/30L/40L
n°motors - power (max)	2200W	Dimension (cm)	44 x 46 x 96
Column depression	22 kPa	Weight (kg)	16



# FLOOR SCRUBBER–DRIERS

Direct experience of professional people has resulted in LavorPro floor scrubbers range: easy to handle, powerful, efficient, carefully conceived and designed by using topquality materials.

## Why cilindric brush?

High speed rotation for a polishing effect; great dirt degrease in floors with grout; the rotation direction assists forwarding in models without traction.

## Why disc brush?

Extended mechanical action of the bristles on the floor, ideal for persistent dirt: the special setting of the brush plate allows a balanced gripping effect, assisting easy use in the non traction models. Complete cleaning also next to walls is possible and the compact washing element lower at the sides is studied to scrub also under edges.

## How a squeegee should be designed?

The shape and the material used grant a perfect drying in every condition, also on floors with grout or when quick U turns are necessary.

The floating body can stay in the machine operating space (compact / room saving).

The manual adjusting system grants a perfect drying on each kind of floors.

## How long do battery charges last?

It is impossible to determine exactly how long a battery charge lasts and so how long a machine can work in autonomy.

Battery autonomy changes depending on type of surface, dirt quantity, brush type and way in which traction system is used (speed and slope).

Battery life is made up of number of charge cycles (also incomplete), if usage conditions, charging and service are perfectly observed.

Manufacturing technology diversifies numbers of cycles, service needed, usage/charging conditions and performances.



# WALK-BEHIND FLOOR SCRUBBER DRIERS



The unit can be supplied mains (15m optional extension cable available) or battery powered. Reclining handle: fit on any operator's height and allowing the perfect cleaning also on 90° corners. Shock-absorbing covers, simple cleaning of the recovery tank, non-marking wheels.

Easy access to mechanical parts (easy maintenance of each component), removable recovery tank without tools.



User friendly analogic control panel. Control lever for brush operation and detergent water outflow.

General ON/OFF switch, brush and vacuum motor switch, solenoid valve operation switch.

Parabolic squeegee, easy rubber blades replacement. The floating brush plate and squeegee grant the right cleaning pressure on any type of floor.



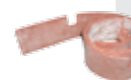
## Optional Accessories



#01070050



#01080051



#45081058, #45081059



#55111413, #55111411, #55111412



#55111129



#65080143, #65080144, #65080141



# 45120068

# QUICK 36



Suitable in congested areas like small shops, offices, kitchens, schools, hospitals, bars, gyms and restaurants or larger flat floors such as workshops and showrooms. Applies detergent scrubs (rotary action) and vacuums up liquid in one pass making a fast and efficient job.

Complete with brush, front and back squeegee blades and maintenance free battery with battery charger.

- Adjustable flow (automatic start-stop with solenoid valve) of the detergent solution depending on type of surface
- Brush with quick release
- Available in battery version with integrated battery or 230V supply
- On board charger with data memory and for any type of batteries
- Battery included
- Squeegee lifting lever
- Compact reclining handle with control switches
- Easy access and simple service of the components
- 10 amp single phase



## Complete with Standard Equipment



Removable brush  
#55111346



Battery charger  
#01080061



Rubber squeegee  
#45081040  
#45081041



Battery  
#01070061

Code	QUICK36	Recovery tank capacity	13L
Power supply	12V	Traction	Mechanical
Scrubbing	360	RPM / pressure brushes	18kg
Squeegee width	460mm	Brush motor power	250W
Working capacity (max)	1260 m <sup>2</sup> /h	Detergent solution system	Solenoid valve
Detergent tank capacity	11L	Dimension (cm) /weight (kg)	120 x 43 x 97 / 38

# COMFORT XXS



## Complete with Standard Equipment



Removable  
brush  
#55111789



Battery charger  
#01080054  
only for  
#85790002  
#85790011



Rubber  
squeegee  
#45081619  
#45081618



2 x Battery  
#01070063

Designed for the maintenance and deep cleaning of large areas (up to 3200 m<sup>2</sup>.) with a very important reduction of cleaning cost. Very compact size and great maneuverability like walk behind models: suited for maintenance cleaning.

- 32kg of constant pressure on the brushes
- Double counter rotating brush (66cm of scrubbing width) obtaining better stability and constant pressure
- Great working autonomy thanks to the possibility to use 4 batteries 6V 240Ah and to rear wheeldrive
- Large load tank capacity (real load of 85L ), resulting in reduced numbers of stops and maximum use of battery for effective operation of the machine
- Ergonomic steering wheel of new design with user friendly controls and digital display
- Easy access to electrical components
- Inspection cover for fast and easy cleaning and sanification of dirt water tank
- Automatic device that stops brushes and detergent water outflow when the machine is stationary
- Self-levelling brush plate
- Automatic detergent dosing system



Code	Comfort XXS 66 BT	Recovery tank capacity (max)	85L
Power supply	24V	Traction	Rear wheel-drive
Scrubbing	660	RPM / pressure brushes	32kg
Squeegee width	855mm	Brush motor power	2 X 400W
Working capacity (max)	3250 m <sup>2</sup> /h	Gradient empty (max)	13%
Detergent tank capacity	80L	Dimension (cm) /weight (kg)	123 x 63 x 121 / 160



# WORKSHOP FLOOR SWEEPERS

## Is it better a petrol engine driven or a battery powered model?

The use of a petrol engine implies the presence of exhaust gasses and therefore the machine must be used only in outside areas or in areas where the operator is not exposed at such risk. The battery models can be used also inside. From the technical and qualitative point of view the sweepers do exactly the same cleaning task, but the petrol engine machine can work nonstop (it is only necessary to fill up the tank with petrol), while the electric models, once the battery is empty, need to be re-charged (an average of 8-10 hours of charge, if battery is completely worn-out)

## How should the brush be?

In the sweepers, there are two types of bushes: the first one rotates with a perpendicular axle to the floor (this is the one called "side brush"), it is useful to move dirt into the collecting area and to reach dirt near borders or under edges; the second one rotates with a parallel axle to the floor (this is the one called "main brush"); it rotates counterclockwise (opposite) to the forward direction of machine and collects dirt into the collection tank. The brushes differ in the shape (round flat the "side brush" and cylindrical the "main brush"), in the type of bristles (the way bristles are arranged on the brush body), in the body material (that accordingly to options, provides resistance still in humid environment or competitive construction) and in the bristle material /diameter/shape. Generally, the stiffer and rougher the bristles are, the better they collect the heaviest dirt adherent to



the floor (typically wet leaves). The more flexible and thinner the bristles are, the better they collect light and thin dirt. To have a better scraping action, it is necessary to add steel bristle to the PP ones. To collect very thin dirt, it is necessary to use only short round PP bristles. As a consequence of motorization (petrol engine or electric one) and so of indoor or outdoor use, the walk behind models have stiffer or softer bristles, to adapt in best way possible to the type of dirt typically found in the working area.

## How long do battery charges last?

It is impossible to determine exactly how long a battery charge lasts.

Battery autonomy changes depending on type of surface, dirt quantity, brush type and way in which traction system is used (speed and slope).

Battery life is made up of number of charge cycles (also incomplete), if use conditions, charge and service are perfectly observed.

Manufacturing technology diversifies numbers of cycles, service needed, use/charge conditions and performances.

## Which kind of battery technology?

Batteries have different prices and so it is important to know their features in order to choose the best one as far as the operator's needs or habits are concerned.

They divide into two families according to the necessity of recurrent acid solution refilling. Acid lead batteries (Pb-Acid), need refilling, because during the charge cycle a lot of gasses are generated (for this reason a specific and aired room is necessary for safe working) and the solution vaporizes: it is necessary to add distilled water before the submerged lead parts that are

no more covered with water begin to oxidize (compromised efficiency). VRLA batteries (Valve Regulated Lead Acid) are airtight, this means that gasses generated during the charge cycle are rearranged inside the battery: refilling is not necessary, it is possible to charge them in any room and they can be carried without risk.

Acid lead batteries divide themselves into categories depending on the thickness of plate they are built of: if the plate is plane, the resistance to discharge is lower and few charge cycles are necessary, if the plate is tubular (or armed, recognizable opening the battery cap and verifying that the plate is made up of a lot of cylinders side by side instead of a thin leaf sheet) there is a higher resistance to discharge and to charge cycles. VRLA batteries divide themselves depending on the condition (liquid or gel) of the acid solution (that enables energy exchange) and on the way it is kept inside the battery: if it is liquid and kept by a spongy and filamentous material, the battery is called AGM; if it is a gel solution inside a membrane, the battery is called GEL battery. On the market there are a lot of products completely different in features and value and it is very important to know the manufacturing details to couple the right battery charger (it is not sure that any battery charger is suited and get a better result than the ones in our range that are specific for our batteries) and to come up to the working expectations.

Whatever technology may be it is important to know that batteries have a common effect of self

discharge (different for each type of manufacturing technology) and so it is important a recurrent charge (each three months approximately) if they are unused for long periods of time. Batteries suffer from incomplete charge cycle (except "pure lead" technology) and so it is necessary to charge them at the end of the working day (our battery charger is going to supply only the necessary energy and the charge cycle is going to finish earlier). It is also important not to cut off the charge before the battery charger has finished the cycle (green light). Respecting these simple rules, the best result and the best machine output will be obtained.



#### Belt drive

The circular section grants a high resistance, stillness, reliability and it doesn't need service.



#### Side brush exclusion

It is a system protecting bristles during machine stop or whenever it is not necessary to use it.



#### Dust vacuum system

It can be found in the main brush area. Together with the mechanical action, it conveys waste and dust that are collected into the tank through the right filters supplied.



#### Front dust vacuum system

As well as traditional vacuum system, a vacuum system can be found in the lateral brush/es collection area. Dust dispersion outside the machine is limited also before the main collection area is reached.



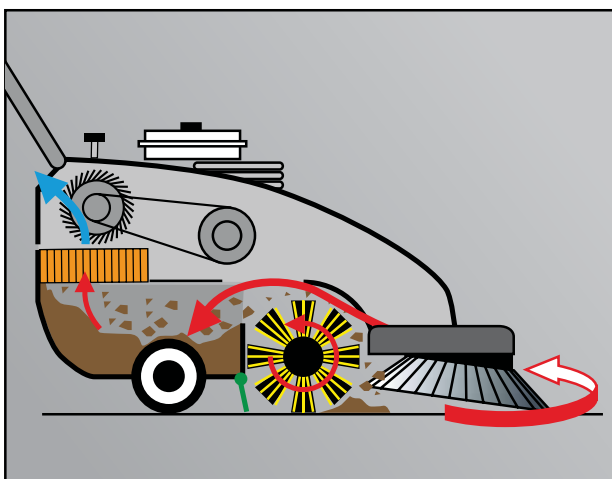
#### Flap raise system

The main brush collection area is delimited by protections (flaps) touching the ground, better vacuum effect. With a big residual is possible to raise the flap collecting it rather than keep going pushing it on the floor.



#### Filter shaker

It clears filter from dust without touching it or opening the sweeper; the vacuum efficiency is kept at max, granting the best comfort and output for the user.



# SWL900ET

## Professional Workshop Sweeper/Vacuum



### Complete with Standard Equipment



#09610009



#09610005 PP



#09610002

Wide 880mm with side sweeper brush this professional workshop sweeper is perfect for cleaning dust, dirt and small debris. Designed for harsh commercial environments it is equipped with long-life electric filter shaker belts and industrial brush system.

- Ideal for medium to large surfaces workshops/areas up to 3,700m<sup>2</sup>
- Large filter surface with electric filter shaker
- Side brush raising control
- Suction switch off
- Panel filter in horizontal position
- Main brush pressure regulation
- Indirect back collection
- Quick release main brush
- Long-life elastic belts
- Anti-static device
- Wide collector tank, heavy duty steel frame
- Side brush mechanical engagement
- Battery and battery charger not included

### Optional Equipment

Brush protection  
#09610028 side

PE panel filter  
#09610017

HEPA panel filter  
#09610019

Trolley for collector tank set  
#09610027

Batteries and battery charger



Code	SWL900ET	Motor type / power	12V / 400W
Main brush width	710mm	Filtering surface	3.02 m <sup>2</sup>
Main brush + 1 side brush width	880mm	Pressure on the brushes	Adjustable
Collector tank	60L	Filter shaker	Electric
Working capacity (max)	3700m <sup>2</sup>	Dimension (cm)	126 x 83 x 85
Traction	Mechanical	Weight (kg)	89
Speed (max)	4km	Conditions	Indent Only

# SWL1000ET

## Ride on Professional Sweeper/Vacuum



Easy to use  
adjustable controls

Electronic filter shaker  
for easy cleaning

Monster  
1230mm "mouth"

Powerful drive system for  
6300m<sup>3</sup>/work capacity



### Complete with Standard Equipment



#09610011



#09610007



6 x #09610004

The ultimate professional sweeping solution for large areas. Featuring a massive 1230mm sweeping width, commercial filtering system and HEPA option this is the true professional choice. Ideal for warehouses, yards and commercial applications this machine can "eat" more than 6000m<sup>3</sup> per hour.

- Ideal for large surfaces
- Large filter surface distributed on 6 cartridge filters fitted with electric filter shaker
- Side brush raising control, complete right/left side brush
- Suction switch off, lift flap pedal
- Main brush pressure regulation
- Indirect back collection, front dust vacuum system
- Quick changing of the main brush and side brush without tools
- Long-life elastic belts, suction selection lever
- Shock proof steel frame
- Traction lever, antistatic device
- Battery level indicator, wide collector tank
- Heavy duty steel frame, adjustable seat
- Perfectly balanced weight of the components, thus resulting in safe and quick changes of direction and can operate up to 12° gradient



### Optional Equipment

Steel collector tank  
#09610029

Non-marking wheels  
#09610031

Polyester filters  
#09610024

HEPA filters  
#09610025

Side brush protection  
#09610030

Code	SWL1000ET	Speed (max)	5.8km
Main brush width	700mm	Motor type / power	24V
Main brush + 1 side brush width	920mm	Filtering surface	6m <sup>2</sup>
Main brush + 2 side brush width	1230mm	Filter shaker	Electric
Collector tank	6L	Dimension (cm)	143 x 91 x 114
Working capacity (max)	6200m <sup>2</sup>	Weight (kg)	260
Traction/limiting gradient	Rear wheels / 12%	Conditions	Indent Only



# STEAM GENERATOR



**GV is suitable to degrease and sanitize any object or surface in an easy, ecological and definitive way.**

GV range is made up of electric generators, vacuum steam generators, vacuum steam generators with foam system, diesel steam generators and UPDS units producing saturated steam.

Ideal for food and baking industry, for private and institutional use, for pharmaceutical and mechanical industry, for dairy factories, for building sectors and so on.

## **Performances: temperature, steam production and pressure**

The same remarks about pressure and delivery rate made for high-pressure cleaners, have to be taken into consideration also for steam generators; in this case, the important difference is the physical relationship (and so not subjective or debatable) that exists between steam pressure and its temperature: to a fixed pressure values correspond right and univocal temperature.

Knowing these values it is easy to identify the ones (like us) who show the right double relation between pressure and temperature.

Outlet steam temperature (not boiler temperature, that is higher) is important because there are natural limits (about 140°C) under which it is not possible to talk about sanitification and so the purpose that led to the machine purchase (clearly wrong) could be unattended.

## **Is it better a steam generator or a hot water highpressure cleaner?**

As far as the choice is concerned, the aspects to be considered are the analysis of the task that must be done and all the elements that make up the cost of the operation, i.e. working speed (labour cost) and (more and more important) waste treatment (waste disposal cost).

As far as the working speed is considered, it is important the whole cleaning procedure and not only the effective washing time: with the high-pressure cleaner it is not possible an indoor washing, unless there is a filled in collection system, instead it is necessary to move the washing phase outside; with the steam generator it is not necessary to move outside, it is possible to wash the part exactly where it is, because the water generated can be easily dried.

Steam at 180°C allow to degrease dirt also without the use of heavy chemical products. If they are necessary to speed up the washing task, it is very important to consider the cost of draining away dirty water.

# VACUUM STEAM GENERATORS

## Features and Benefits



New simple and intuitive control panel, quick-coupling steam gun, main ON/OFF switch with lamp, boiler ON/OFF switch with lamp, steam/detergent regulator/selector, steam flow rate regulator, steam ready warning lamp, low level water indicator lamp with buzzer, steam pressure gauge. Gun with integrated start-up control, adjustment of the vacuum power and steam function activation key.

Unlimited autonomy thanks to the continuous power supply of the boiler, which enables water top-ups in the tank without having to stop the machine or interrupt work.

Hot air output blow function for quick drying of car interiors with a 2 m flexible hose and flat nozzle supplied. Discharge pipe to quickly drain dirty water collected without removing the head. Two-stage bypass vacuum motor with cyclone effect.



Equipped with 3 pumps: boiler, detergent and water. Maximum safety thanks to the 2 safety thermostats, 1 pressure switch and 1 mechanical maximum pressure valve.

### Fields of applications

Steam system: Food & beverage (food industry, catering, beverage, winery).

Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare).

Industry (industry, transportation, car washers, car dealers).



# GV ETNA 4000

## Professional Steam Generator/Vacuum



Steam up to 180° for removing the most stubborn material

Remote steam control on hard piece



Powerful 3kW stainless steel boiler

Powerful 1100W vacuum cleaner for debris removal

Degrease and sanitise any object or surface in an easy and ecological way. Ideal for food, pharmaceutical and mechanical industries. Featuring a vast range of tools and accessories stored. This commercial unit is well equipped for tasks such as cleaning entertainment venues outdoor and indoor, vehicles and commercial food environments.

- Stainless steel body AISI 304
- Ready steam warning lamp
- Boiler 3kW AISI 304 stainless steel
- Low level water lamp indicator
- Boiler is refilled continuously
- Switch for using chemicals and detergents mixed with steam
- Washable filter
- Flex: hose 4m
- 15am, single phase
- Recovery tank capacity 64L
- Drain hose system
- Steam regulation with remote control on hard piece
- Wheels suitable for use in food processing area
- Blower system available
- ON/OFF main switch with indicator lamp
- ON/OFF boiler switch with indicator lamp

### Complete with Standard Equipment



#L37540196



#L37540197



#L37540204



#L37530085



#L52120021



#L37540192



#L37540109



#L52090126



#L37540195



#L37540005



#L52110068



#L37540194



#L64050207



#L37540215



#L37540110



Code	GV ETNA	Column depression	20.39kPa
Steam pressure (max)	7 bar	Air flow	220m³/h
Temperature	165 °C	Water tank	5L
Boiler absorbed power	3000W - 230V~50Hz 1ph	Detergent tank	5L
Vacuum motor abs power	1100W	Conditions	Indent Only

# KOLUMBO

## Professional Steam Generator

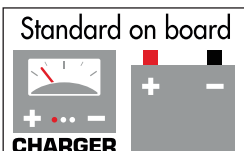


High efficiency steel boiler of steam produces 37.5/kg per hour



Removes all types of graffiti from walls, buildings and floors. Ideal for restoring and cleaning statues and monuments, sandblasting walls, railings, terracotta tiles, roofing tiles and wood. With no residues left at the end of cleaning, no water waste and noiseless, the Kolumbo makes sanitisation tasks using steam and detergent a breeze. No protective overalls or masks with filters nor electrical connection required, making this a portable and easy to use machine. Vertical burner with high thermal efficiency steel coil

- Auxiliary motor for burner
- Discharge valve: allows a complete discharge of the boiler
- Temperature regulator: the temperature is set-up by an electronic regulator
- Steam pressure gauge and low fuel lamp
- Integrated detergent tank with detergent delivery controller by the gun
- Double pipe gas oil pump
- User-friendly control panel
- Unit can be continually refilled
- Battery and battery charger included
- 15amp, single phase



### Complete with Standard Equipment



#64020085



#40080009



#64020094



#64020099



#37490475



#64020081



#64050207

### Optional Equipment

Steam gun with hose 35m  
#64020080

Steam gun with hose 15m  
#64020093

Steam gun with hose 20m  
#64020090

Code	KOLUMBO	Burner type	Diesel
Steam pressure (max)	10 bar	Fuel consumption	3L/h
Steam production (kg/h)	37.5	Water tank	25L
Absorbed power	350W/1 x 12DV 75Ah C5	Fuel tank capacity	25L
Temperature	178 °C	Conditions	Indent Only





# **PRESSURE WASHER ACCESSORIES**

**Don't see what you need?  
Phone **0800 387 678****

**[WWW.LAVOR.CO.NZ](http://WWW.LAVOR.CO.NZ)**

### Handguns

- L37000036** *Handgun to suit NPX1310M, Mississippi 3800psi, 30L/min. 3/8", 'AL15'*
- L37000030** *AL55 standard handgun to suit Hyper series, MCHPX Series.*
- L37000029** *PRO2021 Optional Handgun with pressure regulator suits all machines.*



### Lances

- L37010015** *Stainless steel lance with low pressure detergent nozzle to suit all machines.*
- L37080001** *Optional Lance without detergent nozzle suits all models. M22 M, 1/8" F BSP*
- 41154** *1000mm extension lance suits all models.*
- PS18TSW +H2500 -14 +AD1133** *15ft (5m) Telescopic Wand 5 Sections with adapters to suit all Lavor machines.*
- 41075** *Underbody lance to suit all machines.*
- 410722** *035 Turbo Nozzle w 500mm lance suits mississippi.*
- 410725** *045 Turbo Nozzle w 500mm lance suits NPX1310M, HYPER1211, MCHPX1211*
- 410723** *045 Turbo Nozzle w 500mm lance suits HYPER2015*
- 410727** *070 Turbo Nozzle w 600mm lance suits HYPER2021, MCHPX2021*
- 410501** *Rotary wash brush lance suits all models*
- L66020053** *Foaming Lance with 1L bottle suits all models.*





### Standard Hoses

<b>L46180143</b>	10m Hose - 3/8"F- AR7 suits NPX1310M, Hyper & MCHPX series
<b>L46180049</b>	8m Hose - 3/8" , suits Mississippi and Parana Universal Hose
<b>HPH10</b>	10m High presure hose, 3/8" Female BSP fitting both ends
<b>HPH15</b>	15m High presure hose, 3/8" Female BSP fitting both ends
<b>HPH20</b>	20m High presure hose, 3/8" Female BSP fitting both ends
<b>HPH30</b>	30m High presure hose, 3/8" Female BSP fitting both ends
<b>410581</b>	10m Pipe cleaning Hose
<b>41058</b>	15m Pipe cleaning Hose
<b>410285</b>	20m Pipe cleaning Hose
<b>410584</b>	30m Pipe cleaning Hose



### Floor Cleaners

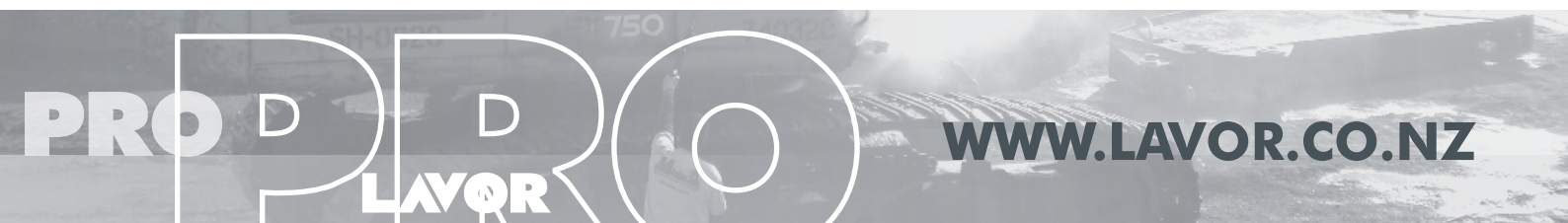
<b>41850</b>	UFO round floor cleaner suits Mississippi, NPX1310M, MCHPX1211, HPYER1211
<b>PS18SSFC</b>	18" round floor cleaner suits HYPER2015
<b>PS21SSFC</b>	21" round floor cleaner suits HYPER2021, MCHPX2021

### Other Accessories.

<b>B5LW</b>	5L Transwash liquid detergent
<b>B20LW</b>	20L Transwash liquid detergent
<b>310023</b>	3/8" male/male hose coupling.



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