



# RAINBOW ULTIMA

## Advanced Rollover Fleet Washer Product Catalogue Revision A – 1.1.2015

### EUROPE, RUSSIA AND C.I.S

#### Tammermatic Oy

Tesoman valtatie 28  
FI-33300 Tampere, Finland  
Tel. +358 201 373 400  
[www.tammermatic.com](http://www.tammermatic.com)

### WORLDWIDE

#### InterClean Equipment, Inc.

709 James L. Hart Parkway  
Ypsilanti, MI 48197, USA  
Tel. +1 (734) 961 3300  
[www.interclean.com](http://www.interclean.com)

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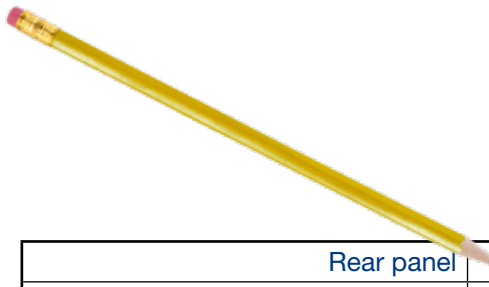
## General

In the beginning of each section of this product catalogue there is a table of available items. You can select only one item (if any wanted) in blocks with blue background. There is also a sticky note on the blue section as a reminder. Examples:

**CHOOSE ONE:**

Arch 1. pump 0.55 kW, mixing station	MSG 2031.1
Arch 1. pump 0.55 kW	MSG 2031.2
Arch 2. pump 0.55 kW mixing station	MSG 2032.1
Arch 2. pump 0.55 kW	MSG 2032.2
Prewash equipment for vans	MSM 2033.1
Foam application	MSG 2034.1
High pressure foam	MSG 2034.2
Wheel PW, pump 0.55 kW, mix station	MSM 2035.1
Wheel PW, pump 0.55 kW	MSG 2035.2
Drive-in prewash, pump 0.55 kW, mix station	MSG 2036.1

**CHOOSE ONE:**



Rear panel	MSG2025.1
Splash guards for side brushes	MSG2021.1
Door lights, left – Led	MSG2023.2
Door lights, right – Led	MSG2024.2

If the table, or part of it, has a white background, you can choose as many items as you wish on it. See the table on the left.

### ► About terminology

Base machine definition refers to a basic "building block", not to a fully operational unit. For new sites the minimum optional equipment for an operational machine is running tracks, festooning system for supply cables and hoses as well as a cycle initiation device in addition to the base machine. These equipment are not included in the base machine, because a customer replacing his or her Ultima gantry may use these equipment in the new installation.

### ► Abbreviations used

ass'y = assembly

abt. = about

O.D = outer diameter

C/S = chassis/sill

pc. = piece

pcs. = pieces

w/ = with

w/o = without

mtr = motor

strtr = starter

HP = high pressure

LP = low pressure

## 1. Base machine

Base Machine, Ultima, wash height 142/3600 in/mm	MAX5000.1
Base Machine, Ultima, wash height 154/3900 in/mm	MAX5000.2
Base Machine, Ultima, wash height 166/4200 in/mm	MAX5000.3
Base Machine, Ultima, wash height 177/4500 in/mm	MAX5000.4
Base Machine, Ultima, wash height 189/4800 in/mm *)	MAX5000.5
Base Machine, Ultima, wash height 201/5100 in/mm *)	MAX5000.6

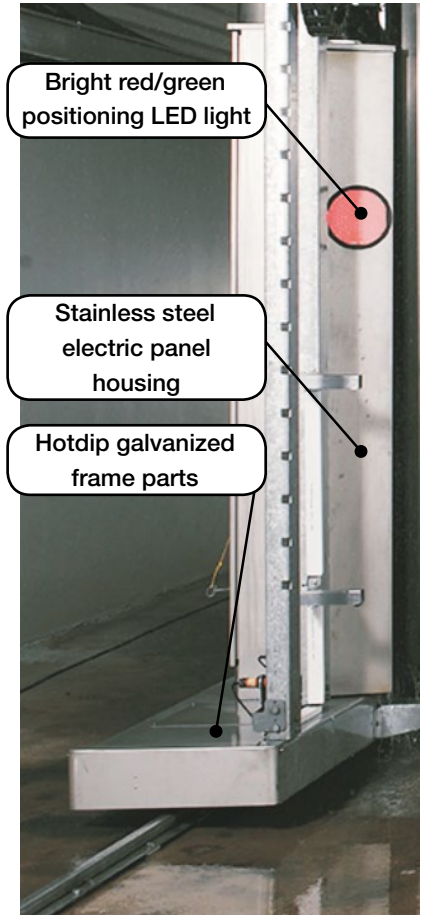
**CHOOSE ONE:**

\*) Please note! High pressure equipment for sides of vehicles of gantry with wash height 189/4800 in/mm or 201/5100 in/mm cover effectively the area up to 177/4500 in/mm from the running track level. This restriction is not valid for gantries with spinner system.

### The base machine includes

- Hot-dip galvanized steel frame structure
- Stainless steel housing for gantry motor control panel
- Switch and protection gears (main switch, residual-current circuit-breaker, motor-protective circuit-breakers and miniature circuit-breakers), CPU and related control circuits.
- Remote override push-button station (see next page).

**Please note!** The use of the Ultima machine requires that machine configuration includes either PC with touch screen 10" (item MAX5084.1) or PC with touch screen 17" (item MAX5084.2). Both packages include Wash Server software which has several useful functions as diagnostics, wash counters, photocell tests, input and output tests as well as wash program tailoring and machine configuration features.



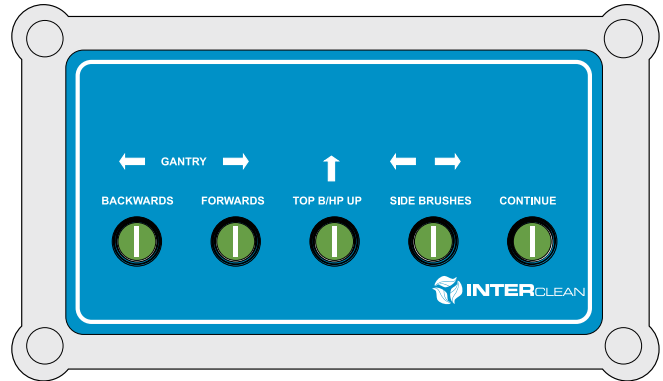
- Service lines from the gantry to the service termination points: air hose, supply and control cables as well as water hose
- Vehicle positioning lights and auto-start provisions
- Compressed air maintenance unit
- AC-inverter driven gantry travel machinery and gantry derailing locks
- If a machine configuration includes prewash or High Pressure system or a cycle initiation terminal, washbay door control circuits are included (impulse doors, drive-thru or back-off washbays etc.).
- Installation accessories: connectors for flexible service lines, proximity switch (gantry travel) floor activators etc.

**Please note!** The base machine definition refers to a basic "building block", not to a fully operational unit. The base machines do not include e.g. prewash, high-pressure water equipment nor brushes but only provisions and space reservations for them.

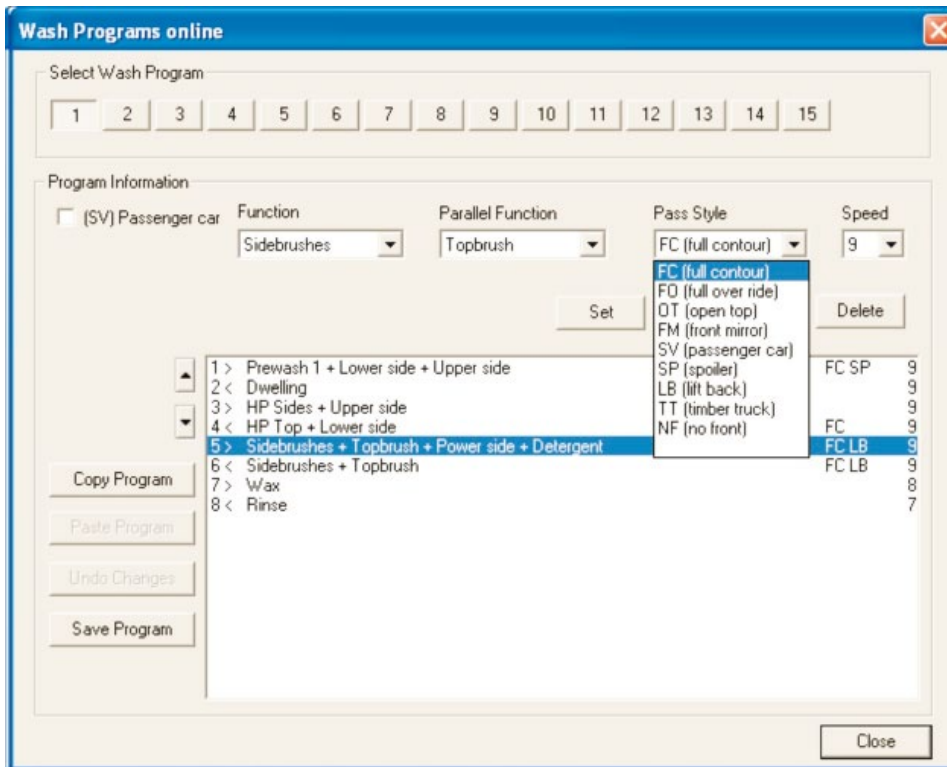
This arrangement and larger variety of available options facilitate operators to configure Ultima equipment to serve their fleet cleaning needs in the best way available in the market.

### Remote override push-button station

Control cable included. The length of the cable is subject to type of cable & hose festooning system used and extends 10 m from service termination points of the washbay.



### Ultima - program elements, contouring modes and functional features subject to equipment configuration.



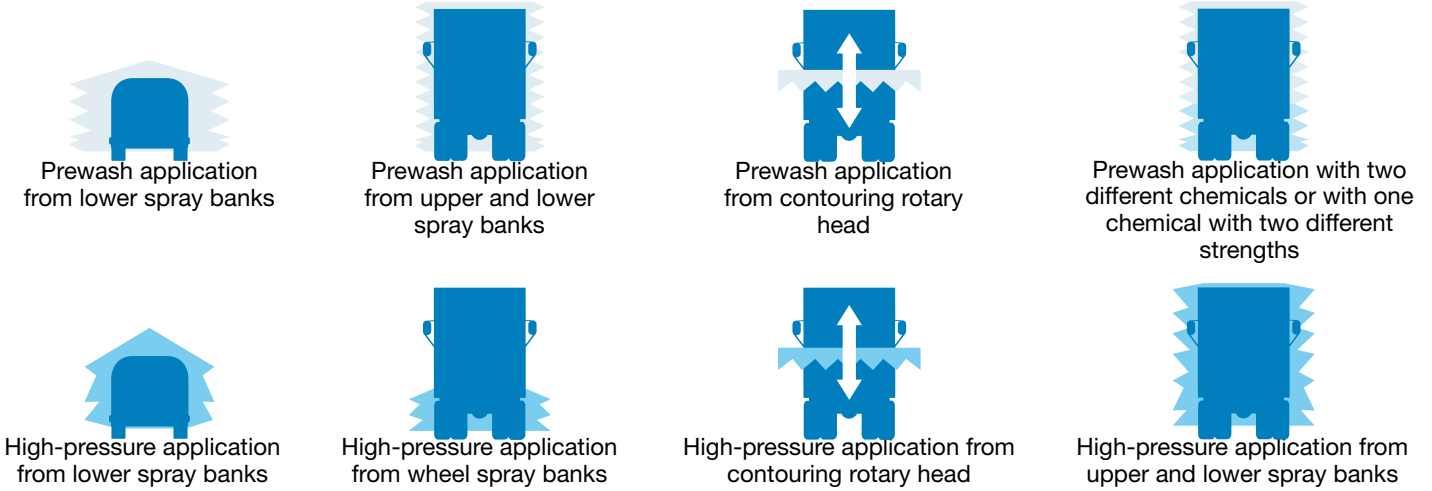
Program menus can be easily customized for individual needs by means of Wash Server software (mandatory option, see note on page 6).

For each pass main and parallel functions to be performed as well as speed reference can be set.

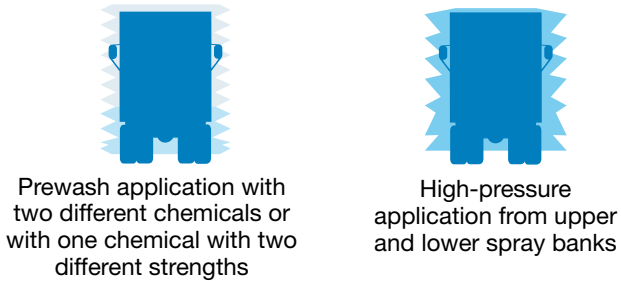
The maximum number of various wash programs, which can be stored into the memory of the gantry is fifteen (15). Customized menus (e.g. for different seasons) can be saved into memory of user interface/PC (MAX5084.1, MAX5084.2 or MAX5087.1) and quickly retrieved for further use.



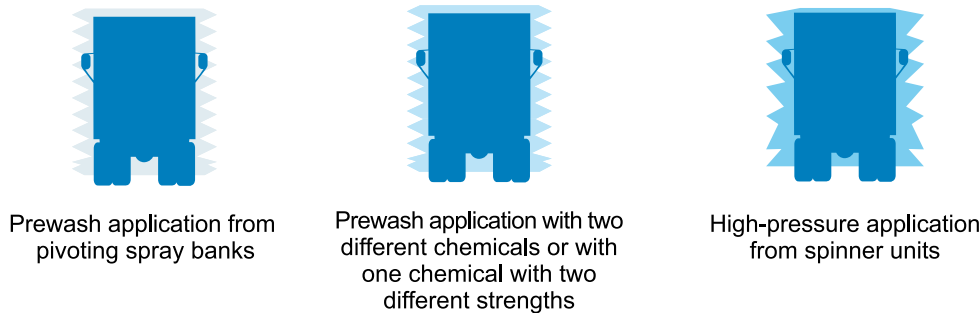
**Ultima - program elements - applicable for non-spinner applications**



**Ultima - program elements - applicable for V-spray applications**



**Ultima - program elements - applicable for spinner applications**



**Special program features**

TB = No Cabin Brushing

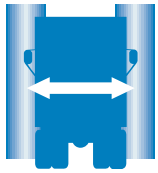
This feature is for vehicles with cabins that can't be brush washed. When activated the top and side brushes start washing action after cabin area has been passed.

TT = Timber Truck Mode

When TT mode is selected top and side brushes wash only the cabin of a vehicle, where after brushes are retracted. If a side High Pressure or spinner application is selected as a parallel function, the side High Pressure or spinner application continues for duration of the passage. In TT mode the function of the top nozzle is similar to function of the top brush.

**The program is available as an option. See page 41.**





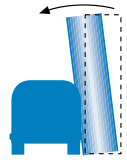
Wraparound 2-brush wash



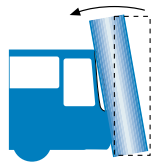
3-brush wash with contouring top brush and wraparound side brushes



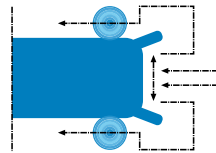
CW200, CW150 or spinner under carriage wash available



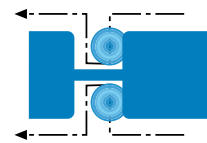
Vertical side contour-tilting action for vans and other small vehicles



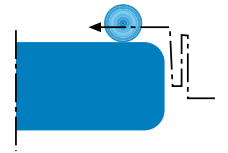
Vertical front contour tilting action



Front mirror override mode for side brush trajectories



Adjustable draw bar limit for side brushes



Side brush cross-over wash - performed with both brushes



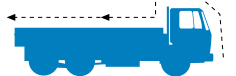
Small vehicle mode: effects to brush pressure and top brush lower limit settings



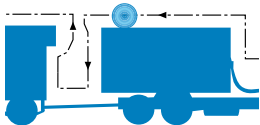
Full contouring mode for rotary head and top brush



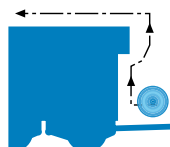
Full override mode for rotary head and top brush



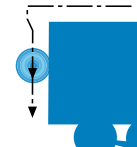
Open top and flat bed vehicle mode for rotary head and top brush



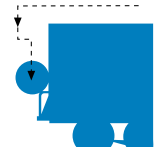
Two settings for top brush lower limit and arctic level



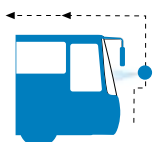
Top brush - back-off feature



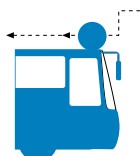
Top brush - intensified rear wash/back-on feature



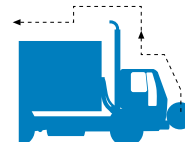
Adjustable load platform limit for top brush



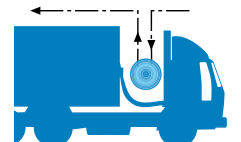
Automatic front mirror override mode for rotary head trajectory



Front mirror override mode for top brush trajectory



Pre-programmed override sequence for rotary head and top brush



Automatic arctic gap sensing feature

## 2. Optional panels

Front panel	MAX5020.1
Rear panel	MAX5021.1
Splash guard for top brush, SS	MAX5022.1
Splash guard for side brushes, SS	MAX5023.1
Splash guard for side brushes, canvas material	MAX5023.2
Top corner covers	MAX5024.1



- ▶ MAX5021.1 Rear panel **and**
- ▶ MAX5022.1 Splash guard for top brush **and**
- ▶ MAX5023.2 Splash guard for side brushes, canvas material **are not shown.**

### 3. Prewash equipment

	Side 1-Step Chemical prewash arch for 290 psi/20 bar High Pressure, full height	MAX5030.1
	Side 2-Step Chemical prewash arch for 290 psi/20 bar High Pressure, full height	MAX5030.2
CHOOSE ONE:	Side 1-Step Chemical prewash arch, divided for 290 psi /20 bar High Pressure, full and half height	MAX5030.3
	Side 2-Step Chemical prewash arch, divided for 290 psi/20 bar High Pressure, full and half height	MAX5030.4
	Side prewash arch (HP 1015 psi/70 bar oscillating), full height, divided	MAX5032.1
	Side prewash, (HP 1015 psi/70 bar oscillating), 2 chemicals, full height, divided	MAX 5033.1
	Top prewash (HP 1015 psi/70 bar oscillating)	MAX5034.1
CHOOSE ONE:	Prewash station, pump and mixer	MAX5037.1
	Prewash station, 2 x pumps and mixers	MAX5037.2
	Prewash station, Dosatron pump for alkali	MAX5037.3
	Prewash station, Dosatron pump for acid	MAX5037.4
	Water softeners	MAX5037.5
	Water heater	MAX5037.6

➤ **MAX5030.1 Side 1-Step Chemical prewash arch for 290 psi/20 bar High Pressure, full height**

This prewash arch is comprised from two stainless steel pipe assemblies in the side sections, connecting water hoses and solenoid valve. The spray pipes are mounted on pivoting swing frames.

➤ **MAX5030.2 Side 2-Step Chemical prewash arch for 290 psi/20 bar High Pressure, full height**

The content of this item is same as previous item but with two chemicals.

➤ **MAX5030.3 Side 1-Step Chemical prewash arch, divided for 290 psi/20 bar High Pressure, full and half height**

The spray assemblies of this arch are similar to arch MAX5030.1 but both side assemblies are divided to upper and lower sections to facilitate economical prewash application for small vehicles and lightly soiled large vehicles. The spray pipes are mounted on pivoting swing frames.

➤ **MAX5030.4 Side 2-Step Chemical prewash arch, divided for 290 psi/20 bar High Pressure, full and half height**

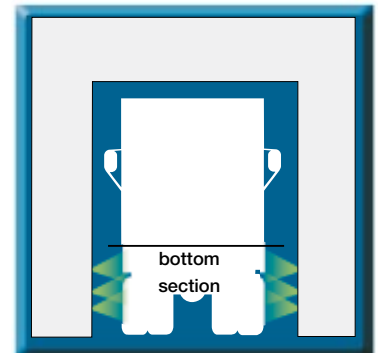
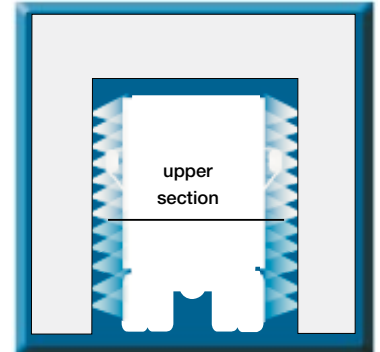
➤ **MAX5032.1 Side prewash (HP 1015 psi/70 bar oscillating), full height, divided**

The spray assemblies of this arch are similar to arch MAX5030.1 but both side assemblies are divided to upper and lower sections to facilitate economical prewash application for small vehicles and lightly soiled large vehicles. The spray pipes are mounted on pivoting swing frames.

➤ **MAX5033.1 Side prewash (HP 1015 psi/70 bar oscillating), 2 chemicals, full height, divided**

The arch MAX5033.1 is used parallel with arch MAX5032.1. It is fed by a separate prewash pump (see page 13). This arrangement allows prewash application with two different chemicals or with one chemical of two different strengths.

The application of stronger prewash chemicals contributes to intensified cleaning of wheels, bogey and bottom parts of vehicles. This application can be carried out as only function during a single pass or together with applications of arch MAX5032.1.

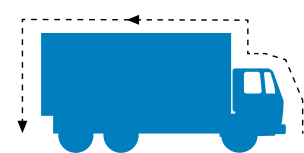
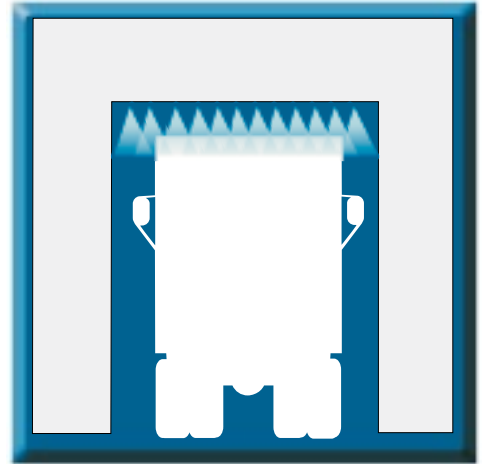


► **MAX5034.1 Top prewash  
 (HP 1015 psi/70 bar oscillating)**

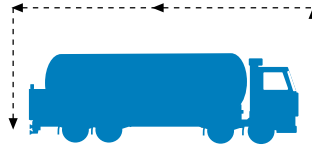
**Applicable for spinner applications  
 with 2-brush machine**

This prewash arch is placed on vertically moving rotary head and is comprised from a stainless steel pipe assembly, connecting water hose and solenoid valve.

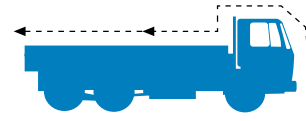
During an application the head rotates around its horizontal shaft directing the chemical spray towards the vehicle. Prewash application with rotary head can be executed with three different contouring modes as described below.



Full contouring mode.

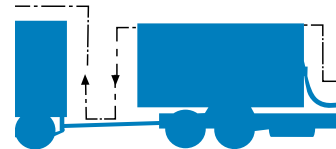


Full override mode.



Open top and flat bed  
 vehicle mode.

In full contouring mode the rotary head is capable to profile a space between two trailers apart from each other at standard distance.



► **MAX5037.1 Prewash station, pump and mixer**

Mixing station for prewash chemical

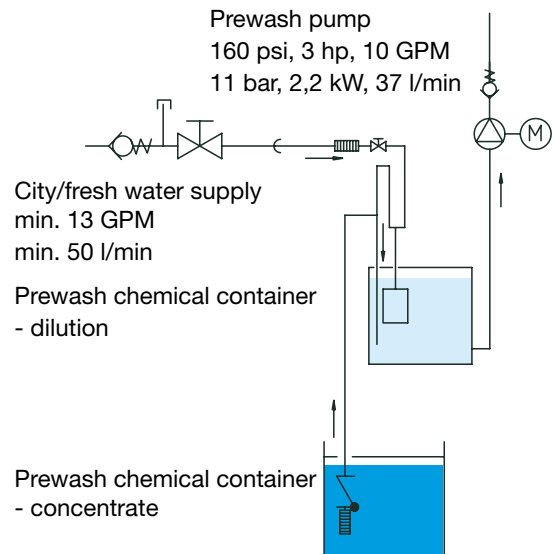
The float placed into the reservoir opens a non-electric magnetic valve. The flow of water siphons liquid concentrate into the water stream, automatically maintaining the level of ready-to-use solution. When the tank reaches the preset fill level, the system will be shut off.

The system also includes a metering tip kit and suction tube with foot valve.

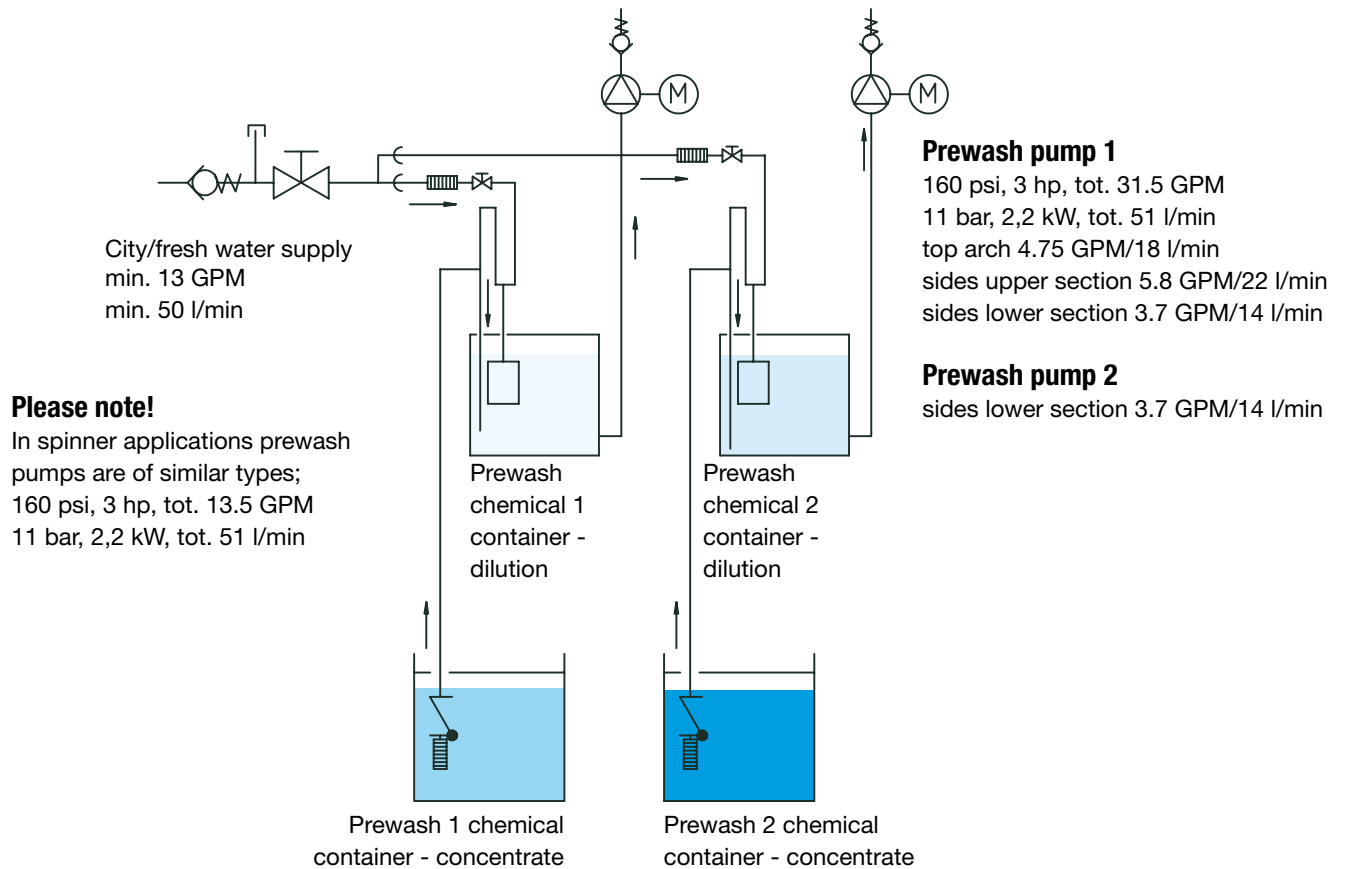
**Please note!**

- Item MAX5030.1 is applicable only with 20 bar HP systems
- Items MAX5032.1, MAX5033.1 and MAX5034.1 are applicable only with 70 bar HP systems
- Item MAX5037.2 is applicable only with item MAX5033.1

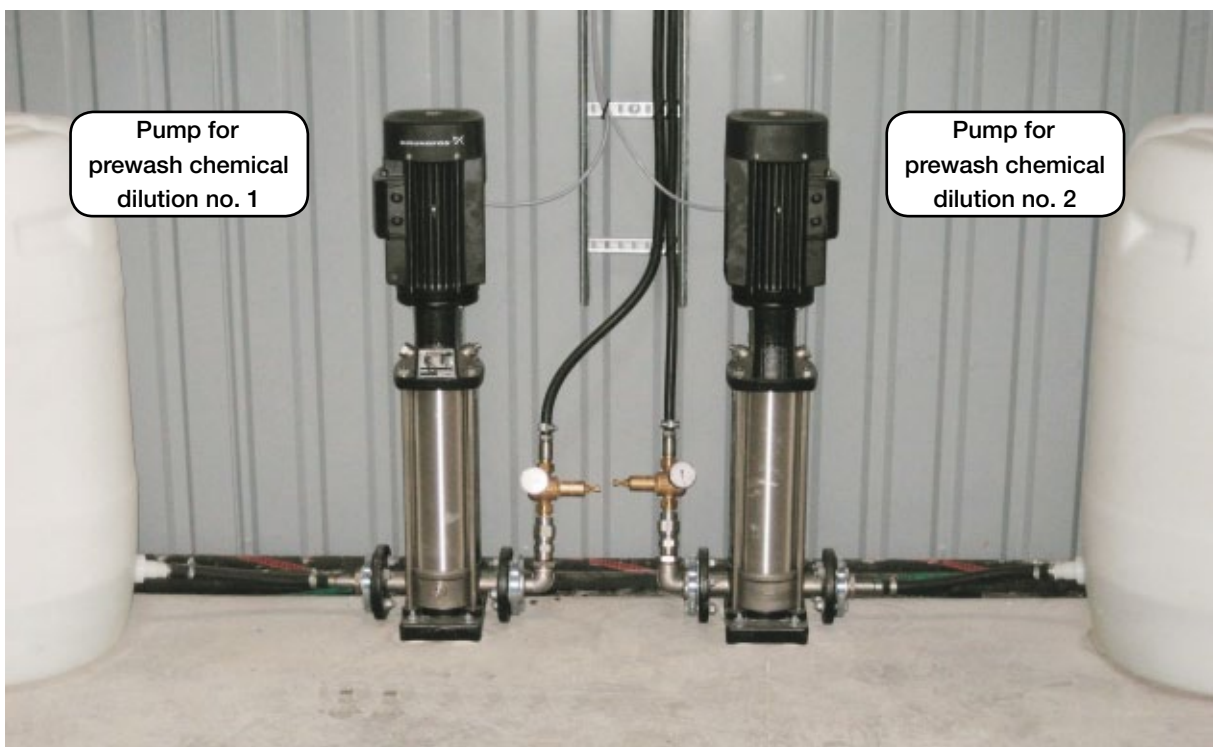
**For Spinner and V-spray HP (290 psi/20 bar) systems only items MAX5030.1 – MAX5030.4 are available. In spinner applications use of two various chemicals (alkaline and acid based) can be used and controlled by CarWash Server software.**



► **MAX5037.2 Prewash station, 2 x pumps and mixers (only with MAX5033.1)**



*In spinner applications use of two various chemicals (alkaline and acid based) can be used and controlled by Wash Server program*

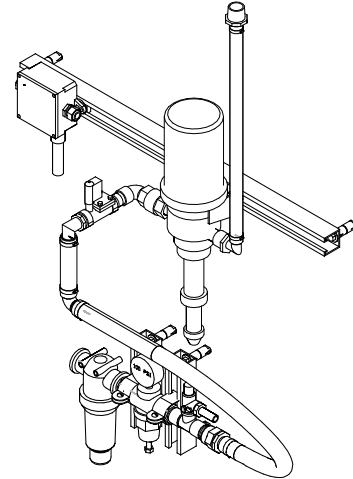


► **MAX5037.3 Prewash station, Dosatron pump for alkali**

- Dosatron pump (Aflas 1:20)
- Ass'y one pump
- Wall mount.

► **MAX5037.4 Prewash station, Dosatron pump for acid**

- Dosatron pump (Viton 1:50)
- Ass'y one pump
- Wall mount.



► **MAX5037.5 Water softeners**

Model FDS3011S, specifications:

- Flow Rate: 8-45 GPM (30-170 lpm)\*
- Capacity: 63-300 K grains (4.1-19.4 kg)\*
- Regeneration: Meter Initiated Alternating Standby\*
- Pipe Size: 1 & 1-1/2 inch NPT (Std.) or BSP
- Pressure: 100 psi Max. (689 kPa)
- Vacuum: None
- Temperature: 40-100 F (4-40 °C)
- Electrical: 120V/60HZ (Std.), or 220V/50HZ\*
- Turbidity: 5 NTU Max.
- Chlorine: 1 mg/L Max.
- Iron: 3 mg/L Max.\*\*

\* Dependant upon system configuration selected

\*\* All softeners are capable of removing limited amounts of "clear-water" iron although they are neither designed nor warranted to do so. An iron filter should be installed before the softener if iron levels exceed 3 mg/L, iron is "red-water" iron or if iron bacteria is present.



Actual product may vary from image shown

► **MAX5037.6 Water heater**

Model G100-200(A), specifications:

- Small jacket diameters
- Short floor-to-vent heights
- Multiple water connection options
- 199 BTU
- Natural gas, propane and electric available



Actual product may vary from image shown

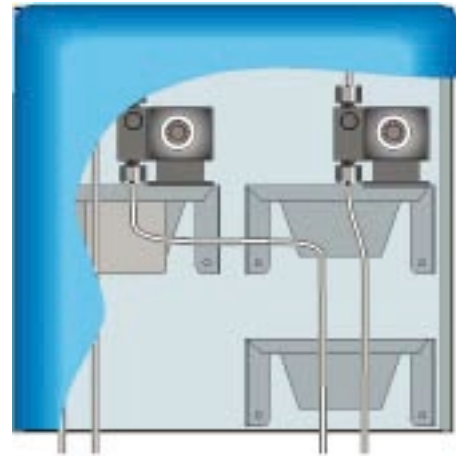
## 4. Wax equipment

Wax equipment with dosing pump	MAX5040.1
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### ► MAX5040.1 Wax equipment with dosing pump

The low pressure water pipes into which wax/rinse-aid is fed are included in brush assemblies.

Wax/rinse-aid chemicals are fed to the water stream of the arch with adjustable electric metering pump (capacity 162 oz. fl./4,8 liters per hour). The pump is placed into chemical base station, which is included in side brush assembly (5050.X). See page 17.



The wax/rinse-aid pump is shown with detergent/brush shampoo pump.



## 5. Side brushes

**CHOOSE ONE:**

Side brushes, standard	MAX5050.1
Side brushes, frontal inclination	MAX5050.2
Side brushes, frontal and side inclination	MAX5050.3
Top brush	MAX5051.1

### ► MAX5050.1 Side brushes, standard

#### Contents

- Side brushes with rotation motors and gear reducers
- Brush transfer machineries with traverse carriages, running guides and electric power transmission systems
- Required switch and control gears
- Chemical station with base unit and detergent pump
- Related LP water arches

#### Functional features

- Wrap-around cross-over wash
- Front/side mirror override mode
- Adjustable draw bar limit
- Standard frontal inclination 5-7 degrees
- interpolating power-intake measurement brush pressure control.

Chemical station for detergent (and wax/rinse-aid) consists of a base plate and a plastic (ABS) cover and is included in the base machine.

The base plate is of wall mounting type and has mounting brackets for metering pumps.

The base plate and mounting brackets are of galvanized steel.

Dimensions: H = 19¼" W = 24" D = 11¾" or 590 x 610 x 300 mm.

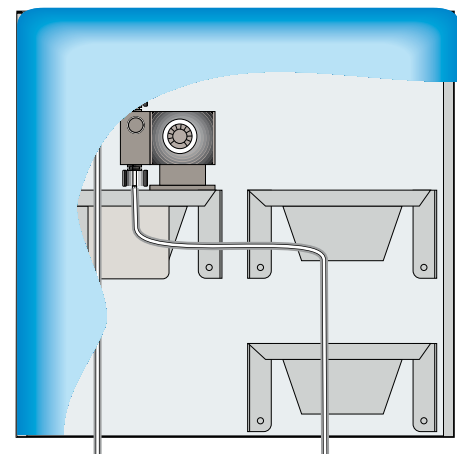
Detergent/brush shampoo chemical is fed to the water stream of the arches with adjustable electric metering pump (capacity 162 oz. fl./ 4,8 liters per hour).



Side brushes performing cross-over wash



Traverse carriage



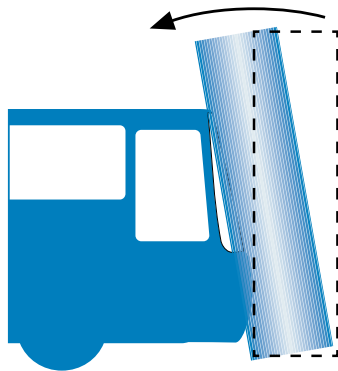
Chemical station and detergent pump

► **MAX5050.2 Side brushes, frontal inclination**

This brush construction is similar to standard side brushes but is capable to pneumatically-aided vertical front contour-tilting action.

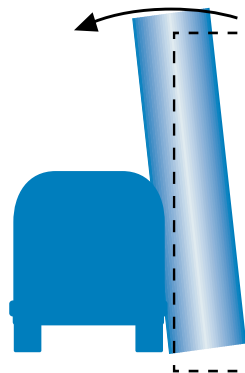
The brush inclination is executed with expanding pneumatic pressure pillows.

The inclination angle of standard side brushes is 5 - 7 degrees and with frontal inclination feature the angle is even 15 degrees.



► **MAX5050.3 Side brushes, frontal and side inclination**

This brush construction is similar to side brushes MAX5050.2 but is capable to vertical front contour-tilting action as well as to vertical side contour-tilting action.



► **MAX5051.1 Top brush**

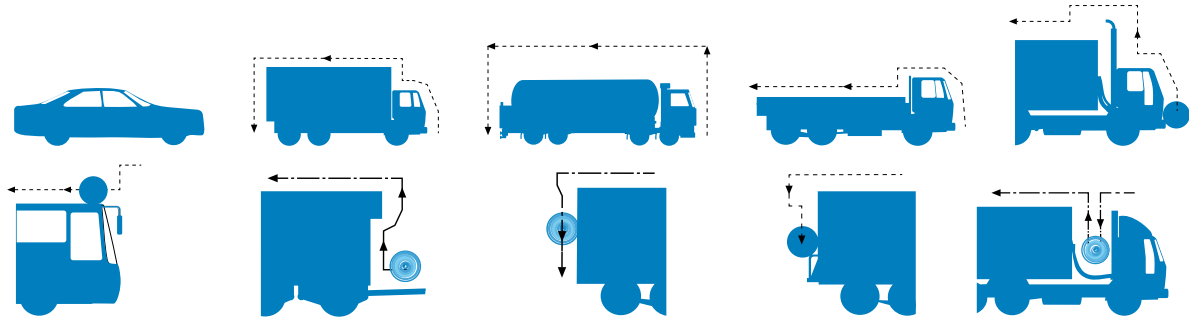
**Contents**

- Top brush with rotation machinery
- AC-inverter driven lift machinery
- Required switch and control gears
- Related LP water arches



**Top brush - Functional features**

- Interpolating power-intake measurement brush pressure control
- Front mirror over-ride mode
- Back-off feature
- Adjustable load platform limit
- Intensified rear wash/back-on feature
- Automatic arctic gap sensing feature
- Pre-programmed override sequence for top brush
- Two settings for top brush lower limit and arctic level
- Small vehicle pressure adjustment
- Three contouring modes



Brush fiber material: extruded polyethelene filament with flagged ends, X-shaped cross-section, diameters of all brushes: Ø 40½" or 1028 mm.

**AVAILABLE BRUSH SEGMENT COLOURS:**

**Available plain segment colors**

	<b>Green</b> Code 01
	<b>Black</b> Code 02
	<b>Red</b> Code 03
	<b>White</b> Code 04
	<b>Blue</b> Code 05
	<b>Yellow</b> Code 06
	<b>Dark blue</b> Code 07
	<b>Orange</b> Code 08
	<b>Dark green</b> Code 09

**Available spiral segment colors**

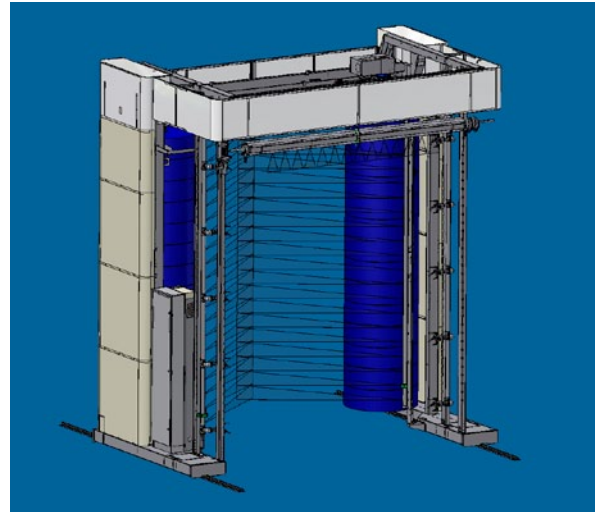
	<b>Black/Red</b> Code 23		<b>Dark green / Green</b> Code 91
	<b>Black/Yellow</b> Code 26		<b>Dark green / Red</b> Code 93
	<b>Red/White</b> Code 34		<b>Dark green / Orange</b> Code 98
	<b>Red/Yellow</b> Code 36		<b>Blue/Yellow</b> Code 56
	<b>Blue/Red</b> Code 53		<b>Dark blue / White</b> Code 74
	<b>Blue/Green</b> Code 51		
	<b>Blue/White</b> Code 54		
	<b>Dark blue / Orange</b> Code 78		

**Please note! The colours herein may not fully refelect actual brush colours and are intended as a visual guide only.**

## 6. High Pressure equipment

	High Pressure rear and side V-spray arch, for Spinner machine, uses Spinner machine pump	MAX5055.1
	High Pressure system, 290 psi/20 bar, V-spray, sides, w/ pump 25 hp/18,5 kW, tank 528 gal/2 m <sup>3</sup>	MAX5060.1
	High Pressure system, 290 psi/20 bar, V-spray, sides, w/ pump 25 hp/18,5 kW	MAX5060.2
	High Pressure system, 290 psi/20 bar, V-spray, sides, w/ motor starters for 25 hp/18,5 kW pump	MAX5060.3
	High Pressure system, 290 psi/20 bar, V-spray, sides+top, pump 25 hp/18,5 kW, tank 528 gal/2 m <sup>3</sup>	MAX5060.4
<b>CHOOSE ONE:</b>	High Pressure system, 290 psi/20 bar, V-spray, sides+top, pump 25 hp/18,5 kW	MAX5060.5
	High Pressure system, 290 psi/20 bar, V-spray, sides+top, motor starters 25 hp/18,5 kW	MAX5060.6
	Divided side High Pressure system, 290 psi/20 bar, V -spray, can be used only with MAX5060.1 - MAX5060.6	MAX5060.9
<b>CHOOSE ONE:</b>	Fresh Water Spinner system (12), w/ pump 60 hp/37 kW, 190 GPM/720 l/min, w/ tank	MAX5061.1
	Fresh Water Spinner system (12), motor starter for 60 hp/37 kW pump, 190 GPM/720 l/min, w/ tank	MAX5061.2
	EQ-Unit, w/ 75 hp/55 kW pump, Recycling for Spinner system (12), 190 GPM/720 l/min, w/ Spinner arch	MAX5061.3
<b>CHOOSE ONE:</b>	High Pressure system, 1015 psi/70 bar, oscillating, sides, pumps 2 x 25 hp/18,5 kW, tank 528 gal/2 m <sup>3</sup>	MAX5062.1
	High Pressure system, 1015 psi/70 bar, oscillating sides, pumps 2 x 25 hp/18,5 kW	MAX5062.2
	High Pressure system, 1015 psi/70 bar, oscillating sides, motor starters 2 x 25 hp/18,5 kW	MAX5062.3
<b>CHOOSE ONE:</b>	High Pressure system, 1015 psi/70 bar, oscillating sides+top, pumps 2 x 25 hp/18,5 kW, tank 528 gal/2 m <sup>3</sup>	MAX5062.4
	High Pressure system, 1015 psi/70 bar, oscillating sides+top, pumps 2 x 25 hp/18,5 kW	MAX5062.5
	High Pressure system, 1015 psi/70 bar, oscillating sides+top, motor starters 2 x 25 hp/18,5 kW	MAX5062.6
	Top only High Pressure system, 1015 psi/70 bar, oscillating top only, 25 hp/18,5 kW, tank 528 gal/2 m <sup>3</sup>	MAX5062.7
	Bottom High Pressure power-wash system 1015 psi/70 bar, oscillating (only w/ MAX5062)	MAX5064.1

- ▶ **MAX5055.1 High Pressure rear and side V-spray arch, for Spinner machine, uses Spinner machine pump**



- ▶ **MAX5060.1 High Pressure system, 290 psi/20 bar, V-spray, sides, w/ pump 25 hp/18,5 kW, tank 528 gal/2 m<sup>3</sup>**

#### Contents

- Spray units for vehicle sides and front and rear corners. The units are mounted onto pivoting swing frames.
- High-impact flat spray nozzles
- Required solenoid valves and control circuits included.
- High Pressure pump station (25 hp/ 18,5 kW vertical multistage centrifugal pump, 290 psi/20 bar, 90 GPM/340 l/min + interim tank 528 gal/2 m<sup>3</sup> with fill-up solenoid valve, float switch and low-level-alarm as well with dry-run protection.
- Motor starter and control circuits for High Pressure pump station.
- High Pressure water hoses (2 x 1") are included and terminated to 1" female threaded connectors. The lengths of the hoses are subject to type of cable & hose festooning system used and extend 400" or 10 meters from service termination points of the washbay.



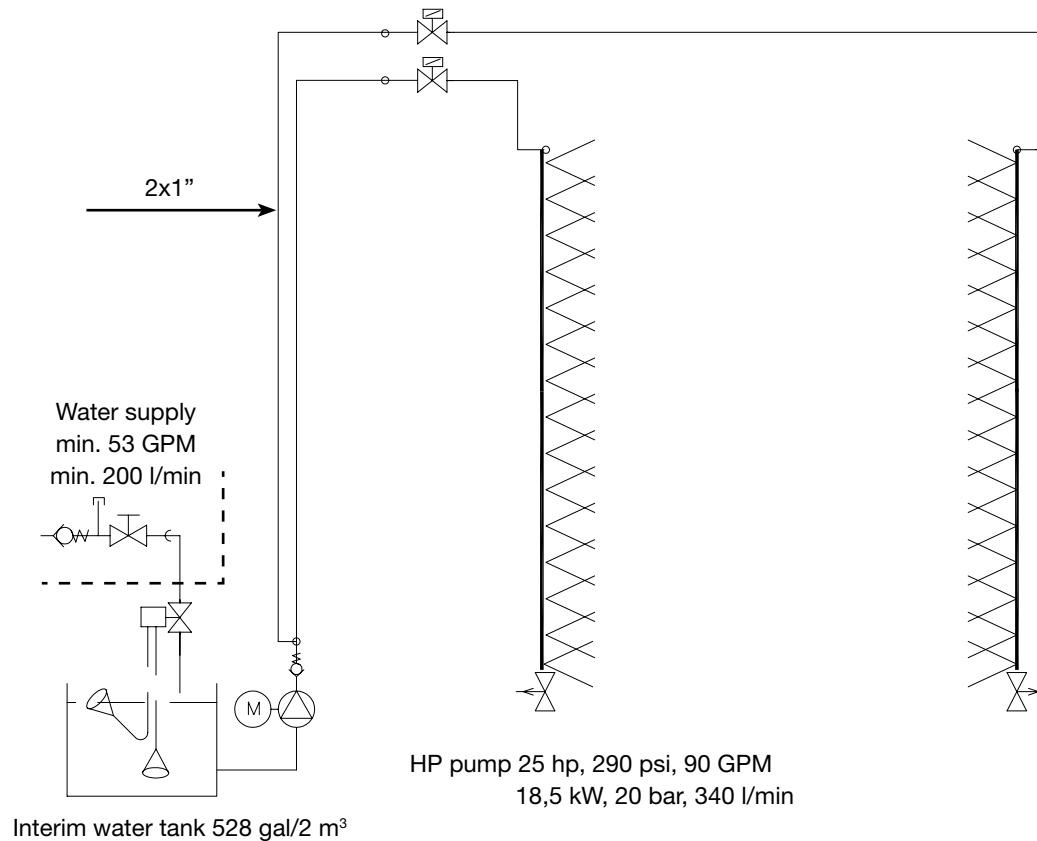
For pipeline schematic see next page.

- ▶ **MAX5060.2 High Pressure system, 290 psi/20 bar, V-spray, sides, w/ pump 25 hp/18,5 kW**

The content of this item is same as previous item excluding interim water tank.

Interim water tank 528 gal/2 m<sup>3</sup>





► **MAX5060.3 High Pressure system, 290 psi/20 bar, V-spray, sides, w/ motor starters for 25 hp/18,5 kW pump**

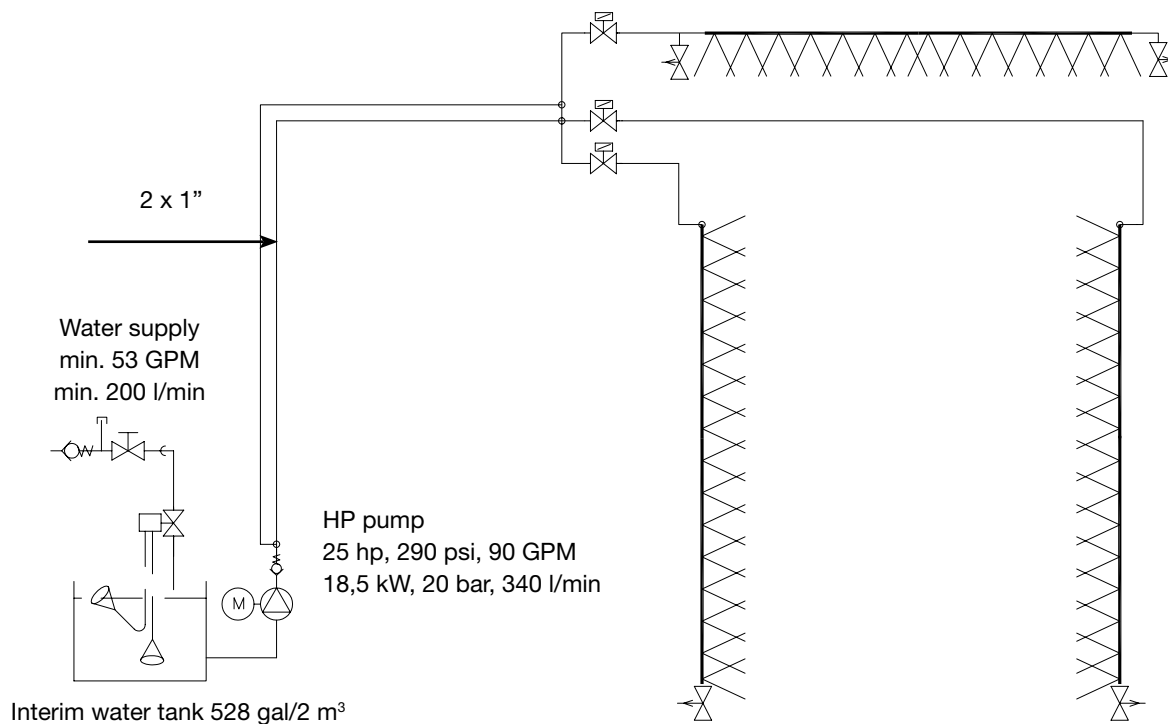
- Spray units for vehicle sides and front and rear corners. The units are mounted onto pivoting swing frames.
- High-impact flat spray nozzles
- Required solenoid valves and control circuits included.
- Motor starter (for 25 hp/18,5 kW motor) and control circuits for High Pressure pump station.
- High Pressure water hoses (2 x 1") are included and terminated to 1" female threaded connectors. The lengths of the hoses are subject to type of cable & hose festooning system used and end to service termination point of the washbay 400 in or 10 meters extension is not included.

**This item is intended for sites where High Pressure pump and interim tank already exist.**

► **MAX5060.4 High Pressure system, 290 psi/20 bar, V-spray, sides+top, pump 25 hp/18,5 kW, tank 528 gal/2 m<sup>3</sup>**

**Contents**

- Spray units for vehicle sides and front and rear corners. The units are mounted onto pivoting swing frames.
- Spray units for front, roof and rear. The units are mounted on contouring rotary head.
- Lift machinery for the rotary head with AC-inverter drive.
- High-impact flat spray nozzles.
- Required solenoid valves and control circuits included.
- HP pump station (25 hp/18,5 kW pump, 290 psi/20 bar, 90 GPM/340 l/min + interim tank 528 gal/2 m<sup>3</sup> with fill-up solenoid valve, float switch and low-level-alarm as well with dry-run protection.)
- Motor starter and control circuits for HP pump station.
- HP water hoses (2 x 1") are included and terminated to 1" female threaded connectors. The lengths of the hoses are subject to type of cable & hose festooning system used and extend 400 in or 10 m from service termination points of the washbay.



► **MAX5060.5 High Pressure system, 290 psi/20 bar, V-spray, sides+top, pump 25 hp/18,5 kW**

The content of this item is same as previous item excluding interim water tank.

► **MAX5060.6 High Pressure system, 290 psi/20 bar, V-spray, sides+top, motor starters 25 hp/18,5 kW**

**Contents**

- Spray units for vehicle sides and front and rear corners. The units are mounted onto the swing frames.
- Spray units for front, roof and rear. The units are mounted on contouring rotary head.
- High-impact flat spray nozzles
- Required solenoid valves and control circuits included.
- Motor starter and control circuits for HP pump station.
- HP water hoses (2 x 1") are included and terminated to 1" female threaded connectors. The lengths of the hoses are subject to type of cable & hose festooning system used and end to service termination point of the washbay 400 in or 10 meters extension is not included
- System designed for flow of 90 GPM/340 l/min.



Rotary head assembly.

► **MAX5060.8 High Pressure system, 290 psi/20 bar, V-spray, top (using side HP piston pump)**

**Contents**

- Spray units for front, roof and rear mounted on contouring rotary head.
- Lift machinery for rotary head with AC-inverter drive.
- High-impact flat spray nozzles.
- Required solenoid valve and control circuits included.
- This item is intended to be used together with item MAX5062.1, MAX5062,2 or MAX5062.3 only

► **MAX5060.9 Divided side High Pressure system, 290 psi/20 bar, V-spray, can be used only with MAX5060.1 - MAX5060.6**

The spray assemblies of this arch are similar to arch MAX5060.1 but both side assemblies are divided to upper and lower sections to facilitate economical high pressure wash application for small vehicles and lightly soiled large vehicles. Spray units for vehicle sides and front and rear corners. The units are mounted on pivoting swing frames.



► **MAX5061.1 Fresh Water Spinner system (12), w/ pump 60 hp/37 kW, 190 GPM/720 l/min, w/ tank**

- Rotary spray units (12 pcs.) for vehicle top, sides, front and rear part..
- The nozzles are of solid-stream type
- Required solenoid valves and control circuits included.
- High Pressure pump station (60 hp/37 kW, 290 psi/20 bar, 190 GPM/720 l/min + interim tanks 2 x 528 gal/ 2 m<sup>3</sup> with fill-up solenoid valves, float switches and low-level-alarms as well with dry-run protection.
- Motor starter and control circuits for High Pressure pump station.
- High Pressure water hose (2") is included. The length of the hose is subject to type of cable & hose festooning system used and extends 400 in or 10 m from service termination points of the wash bay.

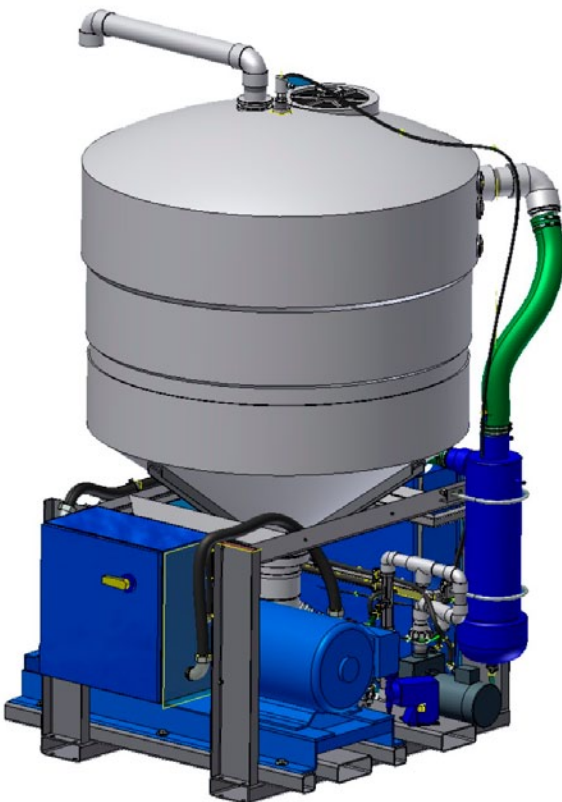


► **MAX5061.2 Fresh Water Spinner system (12), motor starter for 60 hp/37 kW pump, 190 GPM/720 l/min, w/ tank**

The content of this item is same as content of MAX5061.1 but pump stations are excluded.

► **MAX5061.3 EQ-Unit, w/ 75 hp/55 kW pump, Recycling for Spinner system (12), w/ Spinner arch**

- EQ Unit is the patented anti-turbulent recycling module and is capable of producing up to 300 GPM (1,250 l/m) recycled water continuously.
- The system recycles and aerates the wash water automatically, without changing filters or manual supervision.
- The module facilitates the inexpensive and reliable use of high volumes of recycled wash water.
- The system is capable of operating under the most demanding vehicle wash conditions such as recycling the water used to wash garbage trucks.
- The system uses no chemicals or additives and is totally environmentally sound.
- The module is pre-wired, pre-plumbed and mounted on a skid. The overall dimensions of the unit are such that it can be shipped in standard road trailers, or in high cube 40 feet ocean freight containers (W = 150 cm or 60", L = 150 cm or 60, H = 260 cm or 102").
- The system has its own electrical panel, which includes a slave PLC that controls all system internal functions, such as liquid level monitoring and adjustments.
- The system allows modem hook-up for remote control and trouble shooting.



► **MAX5062.1 High Pressure system, 1015 psi/70 bar, oscillating, sides, pumps 2 x 25 hp/18,5 kW, tank 528 gal/2 m<sup>3</sup>**

- Oscillating spray units for vehicle sides, front and rear part.
- The units are mounted onto pivoting swing frames. The both side assemblies are divided to upper and lower sections to facilitate economical High Pressure application for small vehicles.
- The nozzles are of solid-stream type
- Required solenoid valves and control circuits included.
- HP pump station (25 hp/18,5 kW pump, 1015 psi/70 bar, 2 x 30 GPM/115 l/min + interim tank 528 gal/2 m<sup>3</sup>) with fill-up solenoid valve, float switch and low-level-alarm as well with dry-run protection.
- Motor starter and control circuits for HP pump station.
- HP water hoses (2 x 3/4") are included and terminated to 3/4" female threaded connectors. The lengths of the hoses are subject to type of cable & hose festooning system used and extend 10 m from service termination points of the wash bay.



Upper and lower side section in action.

► **MAX5062.2 High Pressure system, 1015 psi/70 bar, oscillating, sides, pumps 2 x 25 hp/18,5 kW**

The content of this item is same as content of MAX5062.1 but interim tank 528 gal/2 m<sup>3</sup> is excluded.

► **MAX5062.3 High Pressure system, 1015 psi/70 bar, oscillating, sides, motor starters 2 x 25 hp/18,5 kW**

The content of this item is same as content of MAX5062.1 but interim tank 528 gal/2 m<sup>3</sup> and pump stations are excluded.



Lower side section in action.

**For oscillating technique demonstration see**

**[www.tammermatic.com](http://www.tammermatic.com) > Heavy-Duty Wash > Standard Products > Rainbow Ultima > Learn more:**

- **MAX5062.4 High Pressure system, 1015 psi/70 bar, oscillating, sides+top, pumps 2 x 25 hp/18,5 kW, tank 528 gal/2 m<sup>3</sup>**



Side arches in operation



Top arch in operation



Both arches in operation

- **MAX5062.5 High Pressure system, 1015 psi/70 bar, oscillating, sides+top, pumps 2 x 25 hp/18,5 kW**

The content of this item is same as content of MAX5062.4 but interim tank 528 gal/2 m<sup>3</sup> is excluded.

- **MAX5062.6 High Pressure system, 1015 psi/70 bar, oscillating, sides+top, motor starters 2 x 25 hp/18,5 kW**

The content of this item is same as content of MAX5062.4 but interim tank 528 gal/2 m<sup>3</sup> and pump stations are excluded.

- **MAX5062.7 Top only High Pressure system, 1015 psi/70 bar, oscillating top only, 25 hp/18,5 kW, tank 528 gal/2 m<sup>3</sup>**

- **MAX5064.1 Bottom High Pressure power-wash system 1015 psi/70 bar, oscillating (only w/ MAX5062)**

This product provides extra cleaning power for lower vehicle areas. It includes oscillating spray banks with solid-stream nozzles, required solenoid valves and hoses as well as control circuit.

This item is applicable only with items MAX5062.1 – MAX5062.6. (See schematic on next page.)



The Bogey & Wheel Spray Banks can be configured to operate as only function during a single pass or together with side brushes during forward pass.

HP power-wash system includes HP assemblies marked with red. When the system is in operation also nozzles - marked with blue - of item MAX5062.X are activated.

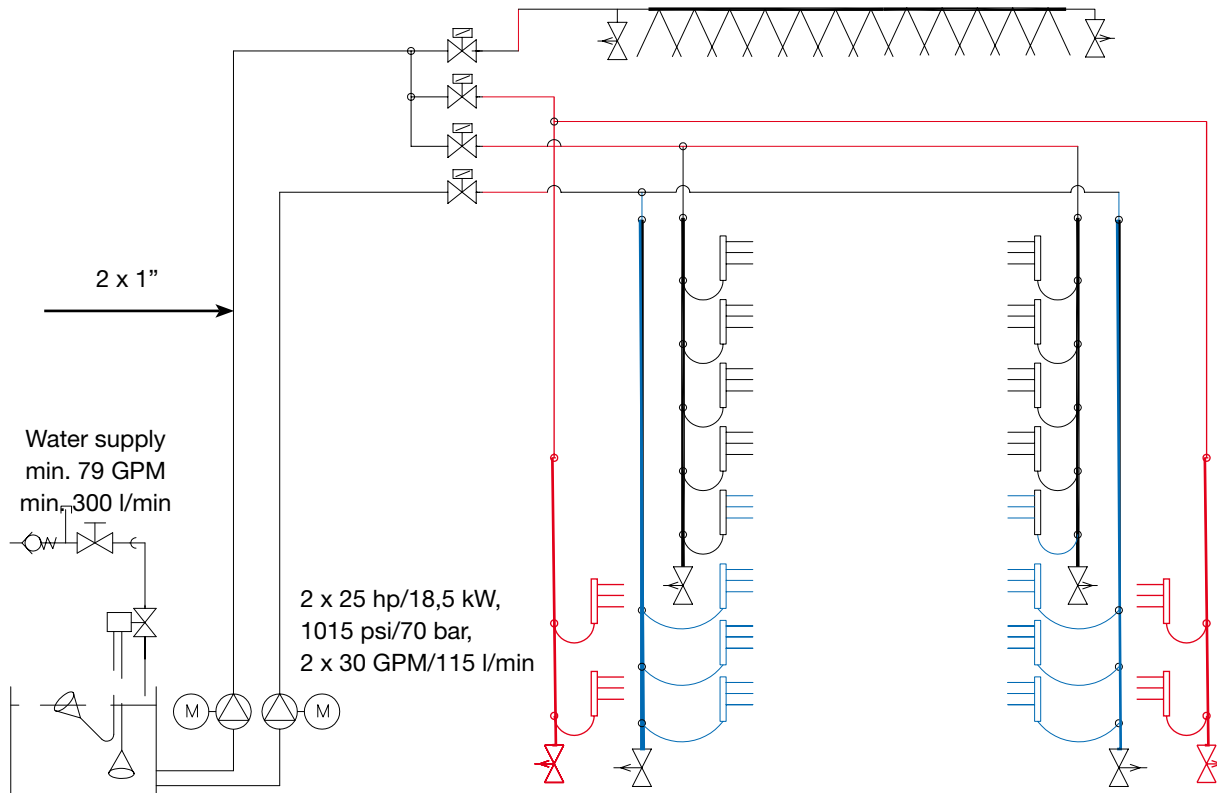
This arrangement produces five HP water-jets for each side.

Each water-jet is generated by a group of three solid-stream nozzles, whose sprays form uniform impact area on a vehicle surface.



**For oscillating technique demonstration see**

**[www.tammermatic.com](http://www.tammermatic.com) > Heavy-Duty Wash > Standard Products > Rainbow Ultima > Learn more:**



The HP power-wash systems direct full impact power of 2 x 25 hp/18,5 kW 1015 psi/70 bar piston pumps to vehicle lower areas providing very effective method to clean especially wheels and bogeys.

Use of HP power-wash system is recommended for sites having tractor-trailer and especially tanker, car transporter and container carrier truck customers.

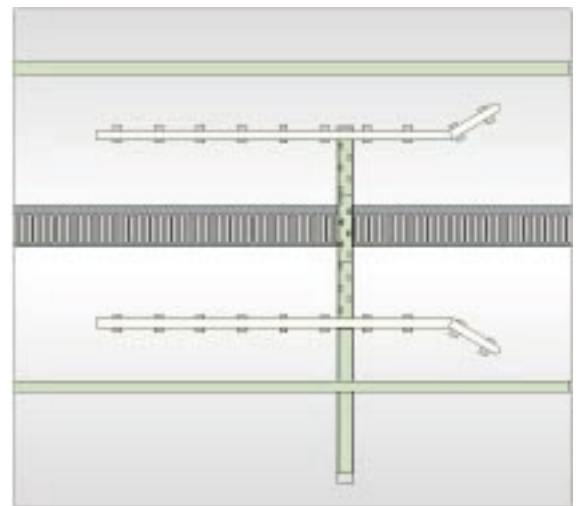
## 7. Chassis wash

<b>CHOOSE ONE:</b>	Chassis wash, CW150 fixed, uses High Pressure system pump	MAX5067.1
	Chassis wash, CW150 fixed, w/ pump 25 hp/18,5 kW	MAX5067.2
	Chassis wash, CW150 fixed, w/ motor starter for 25 hp/18,5 kW pump	MAX5067.3
	Chassis wash, CW150 fixed, w/ pump 25 hp/18,5 kW, w/ tank 528 gal/2 m <sup>3</sup>	MAX5067.4
	Chassis wash, CW200 oscillating, uses High Pressure system pump	MAX5067.5
	Chassis wash, CW200 oscillating, w/ pump 25 hp/18,5 kW	MAX5067.6
	Chassis wash, CW200 oscillating, w/ motor starter for 25 hp/18,5 kW pump	MAX5067.7
	Chassis wash, CW200 oscillating, w/ pump 25 hp/18,5 kW, w/ tank 528 gal/2 m <sup>3</sup>	MAX5067.8

### ► **MAX5067.1 Chassis wash, CW150 fixed, uses High Pressure system pump**

#### Content

- Spray pipe assembly with 8 pcs. forwards plus 8 pcs. backwards directed fixed high-impact High Pressure nozzles.
- Valves to connect spray ass'y to High Pressure pump of the gantry.
- Required control circuits including photocell transmitter and receiver.
- Installation accessories.
- High Pressure water hoses (2 x 1") are included and terminated to 1" female threaded connectors. Length of hoses is 400 in or 10 m.

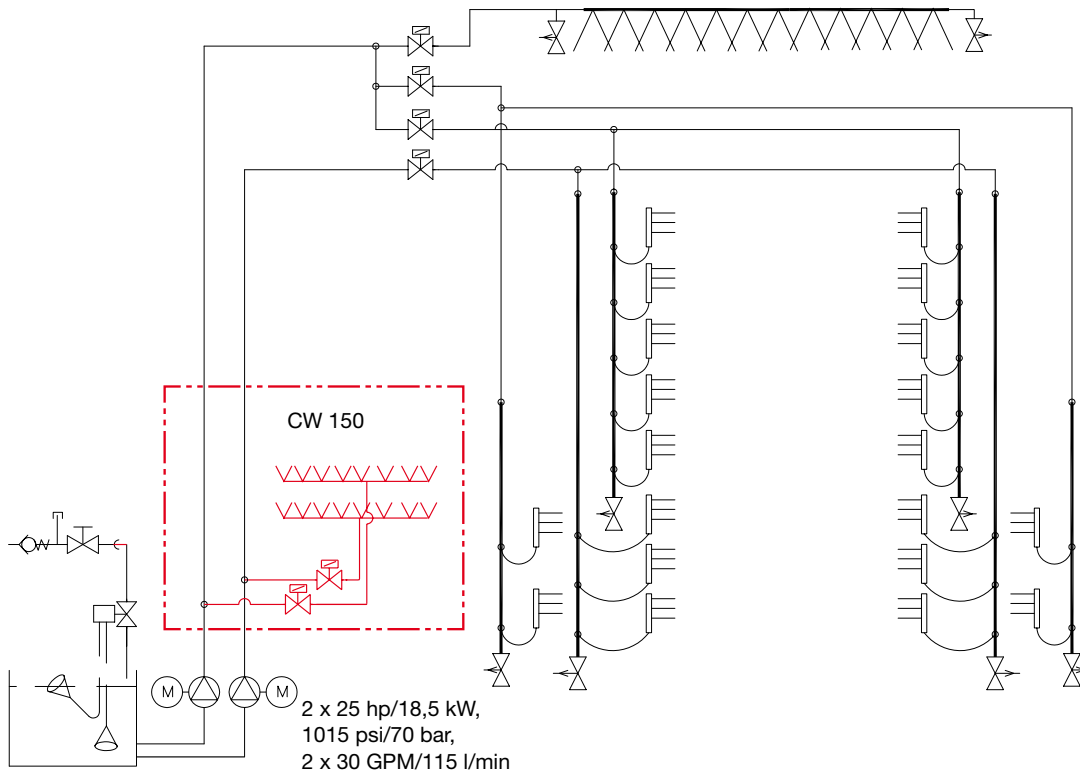


A typical connection is shown on the next page.

**Chassis washers CW150 and CW200 can be used as standalone units without the Ultima gantry.**



MAX5067.1 Chassis wash, CW150 fixed, uses HP system pump (pipelines marked with red) connected to items MAX5062.4 and MAX5064.1 shown as an example.



**Please note!** Chassis washer CW150 MAX5067.1 can be connected also to all 290 psi/20 bar as well as to all 1015 psi/70 bar High Pressure systems.

► **MAX5067.2 Chassis wash, CW150 fixed, w/ pump 25 hp/18,5 kW**

**Content**

- Spray pipe assembly with 8 pcs. forwards plus 8 pcs. backwards directed fixed high-impact High Pressure nozzles.
- Valves to connect spray ass'y to High Pressure pump.
- Required control circuits including photocell transmitter and receiver.
- 25 hp/18,5 kW vertical multistage centrifugal High Pressure pump, 290 psi/20 bar, 90 GPM/340 l/min with switch and protection gears.
- Installation accessories.
- High Pressure water hoses (2 x 1") are included and terminated to 1" female threaded connectors. Length of hoses is 400 in or 10 m.



The inlet of the pump is connected to interim High Pressure tank of the gantry. The inlet hose is not included in the delivery.

► **MAX5067.3 Chassis wash, CW150 fixed, w/ motor starter for 25 hp/18,5 kW pump**

The content of this item is same as of item MAX5067.2 excluding the pump.

► **MAX5067.4 Chassis wash, CW150 fixed, w/ pump 25 hp/18,5 kW, w/ tank 528 gal/2 m<sup>2</sup>**

The content of this item is same as of item MAX5067.1 but with interim tank with fill-up solenoid valve, float switch, low level alarm and dry run protection.

► **MAX5067.5 Chassis wash, CW200 oscillating, uses High Pressure system pump**

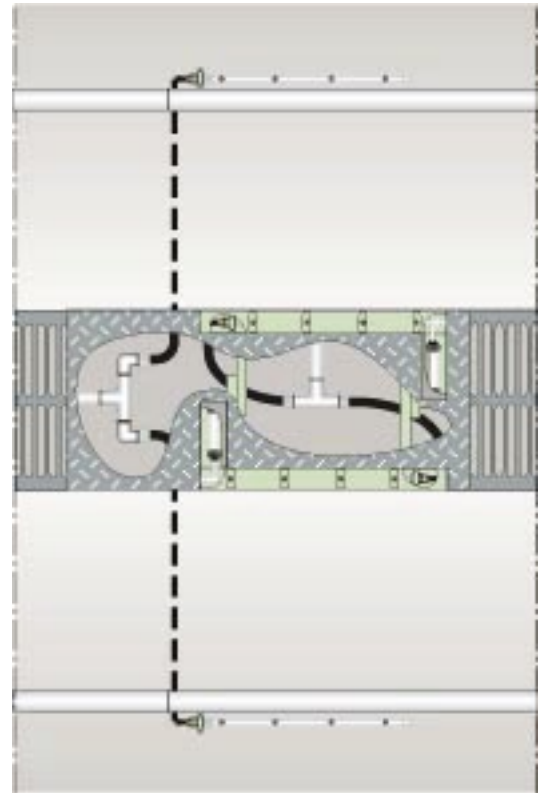


**Content**

Chassis washer spray nozzle ass'y: 2 pcs. fixed outer spray pipes (nozzles: 4 pcs./each pipe), spray ass'y body with covers and air cylinders and 2 pcs. rotating inner spray pipes (nozzles: 4 pcs./each pipe), photocell transmitter and receiver.

High pressure valve assembly: valves to connect outlets of the high pressure station to pipework of the spray nozzle assembly.

High Pressure water hoses (2 x 1") are included and terminated to 1" female threaded connectors. Length of the hoses is 400 in or 10 m.



See a piping schematic shown on the next page.

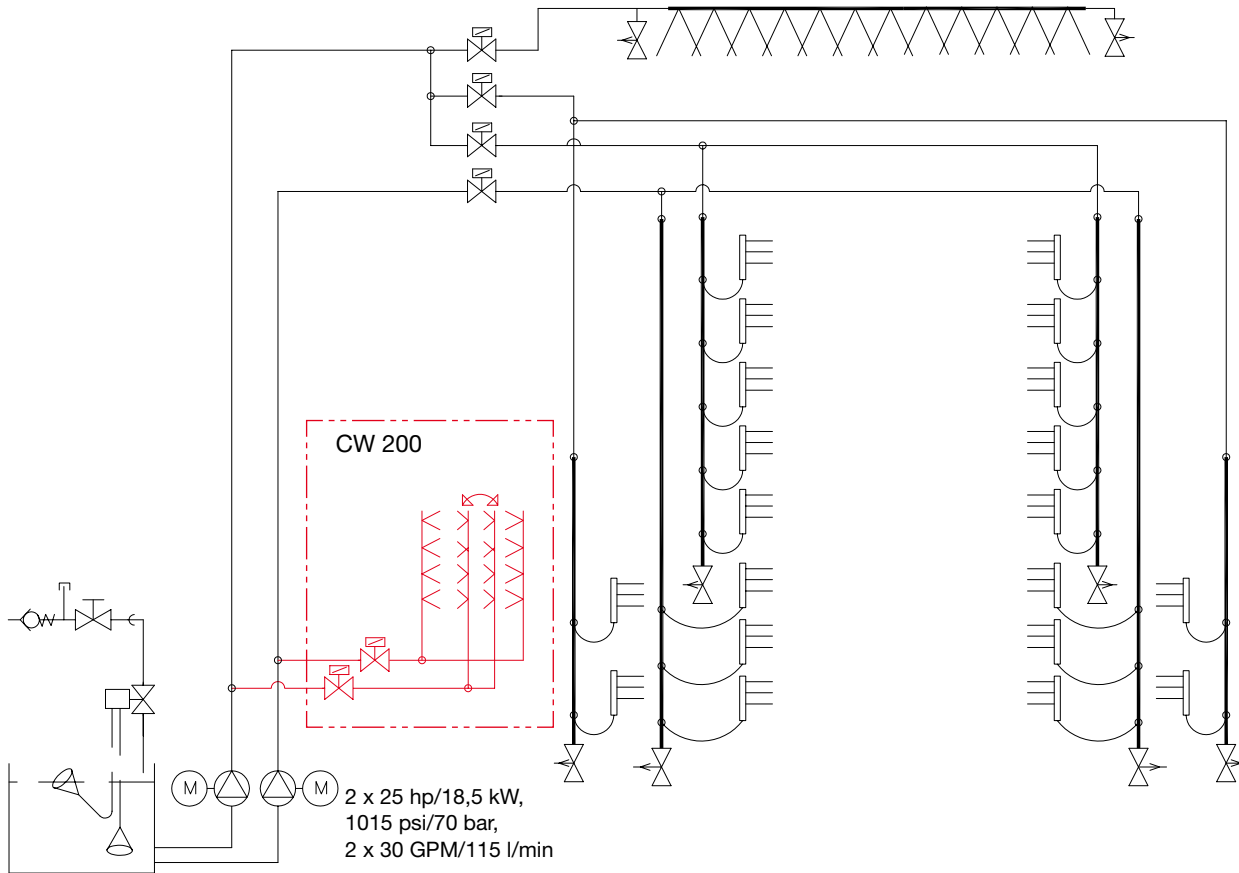


► **MAX5067.6 Chassis wash, CW200 oscillating, w/ pump 25 hp/18,5 kW**

The content of delivery is same as of MAX5067.5 but includes 25 hp/18,5 kW vertical multistage centrifugal High Pressure pump, 290 psi/20 bar, 90 GPM/340 l/min with switch and protection gears. The inlet of the pump is connected to interim High Pressure tank of the gantry. Inlet hose is not included in the delivery.



MAX5067.5 Chassis wash, CW200 oscillating, uses HP system pump (pipelines marked with red) connected to items MAX5062.4 and MAX5064.1 shown as an example.



**Please note!** Chassis washer CW150 MAX5067.4 can be connected also to all 290 psi/20 bar as well as to all 1015 psi/70 bar HP systems.

► **MAX5067.7 Chassis wash, CW200 oscillating, w/ motor starter for 25 hp/18,5 kW pump**

The content of delivery is same as that of MAX5067.5 but it includes motor starter for 25 hp/18,5 kW pump.

► **MAX5067.8 Chassis wash, CW200 oscillating, w/ pump 25 hp/18,5 kW, w/ tank 528 gal/2 m<sup>2</sup>**

The content of this item is same as of item MAX5067.5 but includes interim tank with fill-up solenoid valve, float switch, low level alarm and dry run protection.



## 8. Auxiliary equipment

Booster pump 3 hp/1,5 kW	MAX5070.1	CHOOSE ONE:
Booster, motor starter for 3 hp/1,5 kW pump	MAX5070.2	
RO-water arch 3 hp/1,5 kW pump	MAX5071.1	CHOOSE ONE:
RO-water arch, motor starter 3 hp/1,5 kW	MAX5071.2	
RO-water arch	MAX5071.3	
Buffer tank for LP water, 160 gal/600 l	MAX5072.1	CHOOSE ONE:
Antifreeze system	MAX5073.1	
Water recycling provisions	MAX5074.1	CHOOSE ONE:
Outdoor installation set	MAX5080.1	
Soft start for High Pressure systems, for 1 25 hp/18,5 kW pump	MAX5082.1	
Soft start for High Pressure systems, for 2 25 hp/18,5 kW pumps	MAX5082.2	
Soft start for High Pressure systems, for 3 25 hp/18,5 kW pumps	MAX5082.3	CHOOSE ONE:
Soft start for High Pressure systems, for 60 hp/37 kW pump	MAX5082.4	
User interface, w/ 10" touch screen, w/ CarWash Server software	MAX5084.1	CHOOSE ONE:
User interface, w/ 17" touch screen, w/ CarWash Server software	MAX5084.2	
User interface, w/ 10" touch screen, w/ CarWash Server software, control box door	MAX5084.4	
User interface, w/ TAMMERNET® with 17" touch screen, w/ CarWash Server software	MAX5087.1	
Remote controller, wireless	MAX5088.1	CHOOSE ONE:
Floor cleaning program (only with top HP)	MAX5089.1	
Van and Pick-up truck program	MAX5092.1	
Log trailer program	MAX5093.1	

### ► MAX5070.1 Booster pump 3 hp/1,5 kW

This is centrifugal multi-stage pump with drive motor and coupling, output about 26 GPM/100 l/min, pressure in outlet connector; 58 psi/4 bar. The delivery includes also motor starter with short circuit and overload protection.

### ► MAX5070.2 Booster, motor starter for 3 hp/1,5 kW pump

Content of delivery as above excluding the actual pump assembly.

### ► MAX5071.1 RO-water arch 3 hp/1,5 kW pump

Acid-proof stainless steel (AISI 316) spray pipes mounted to the drive-in opening, solenoid valve, supply pump and motor starter as well as control circuits. The length of the hoses from pump to the gantry is subject to type of cable & hose festooning system used and extend 400 in or 10 m from service termination points of the washbay.

**Please note!** The actual RO-water filtration equipment is not included.

► **MAX5071.2 RO-water arch, motor starter  
3 hp/1,5 kW**

Content of delivery as above but the pump and 400 in or 10 meters hose extension are excluded.

► **MAX5071.3 RO-water arch**

Acid-proof stainless steel (AISI 316) spray pipes mounted to the drive-in opening, solenoid valve, supply pump and motor starter as well as control circuits. The length of the hoses from pump to the gantry is subject to type of cable & hose festooning system used and extend 400 in or 10 m from service termination points of the washbay.

**Please note!** The actual RO-water filtration equipment is not included.

► **MAX5072.1 Buffer tank for LP water,  
160 gal/600 l**

Includes plastic tank, fill-up solenoid valve, float switch, low level alarm and dry run protection.

► **MAX5073.1 Antifreeze system**

When temperature limit set by adjustable thermostat is exceeded for duration of 5 minutes, and wash cycle is over, the control system of the machine opens blow-off air lines, whereby freezing prone water lines are drained.

The system drains low pressure and high pressure arches including chassis washer lines as well as prewash arches.

When temperature rises to an acceptable range, the machine is set automatically to the ENABLE state.

► **MAX5074.1 Water recycling provisions**

The system minimizes possible odor inconveniences caused by use of recycled water in High Pressure applications. If the machine is not operated within an hour, High Pressure pipes are automatically drained by compressed air flows to minimize odor causing bacteria growth.

► **MAX5080.1 Outdoor installation set**

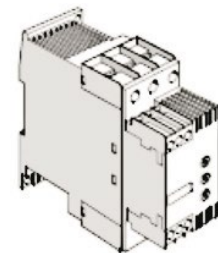
- Rain covers for side sections to protect lift machineries
- Storm park - locking devices for securing the gantry to running tracks for duration of storm hazards.
- UV-exposure resistant hoses.

Use of Antifreeze system (MAX5073.1) in connection with this item is strongly recommended.



- **MAX5082.1 Soft start for High Pressure systems,  
for 1 25 hp/18,5 kW pump**
- **MAX5082.2 Soft start for High Pressure systems,  
for 2 25 hp/18,5 kW pumps**
- **MAX5082.3 Soft start for High Pressure systems,  
for 3 25 hp/18,5 kW pumps**
- **MAX5082.4 Soft start for High Pressure systems,  
for 60 hp/37 kW pump**

These options can be used in lieu of standard Y/D starters.



Soft start switch gear

► **MAX5084.1 User interface, w/ 10" touch screen, w/ CarWash Server software**

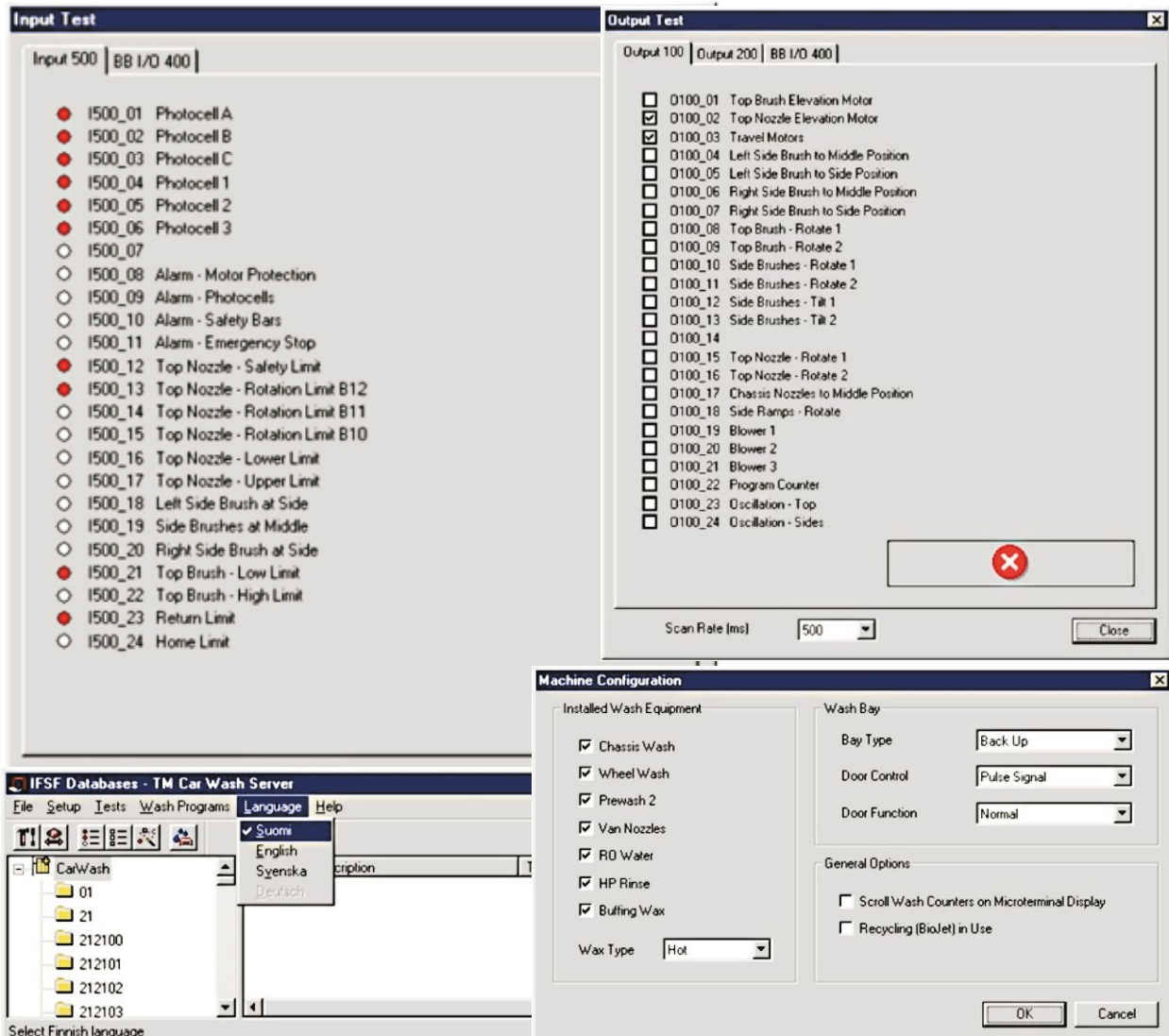
This item includes an industrial PC with 10" touch screen with a color display. The PC is placed into a steel enclosure equipped with an emergency-stop button.

The CarWash Server software included in this item is required in performing following functions.

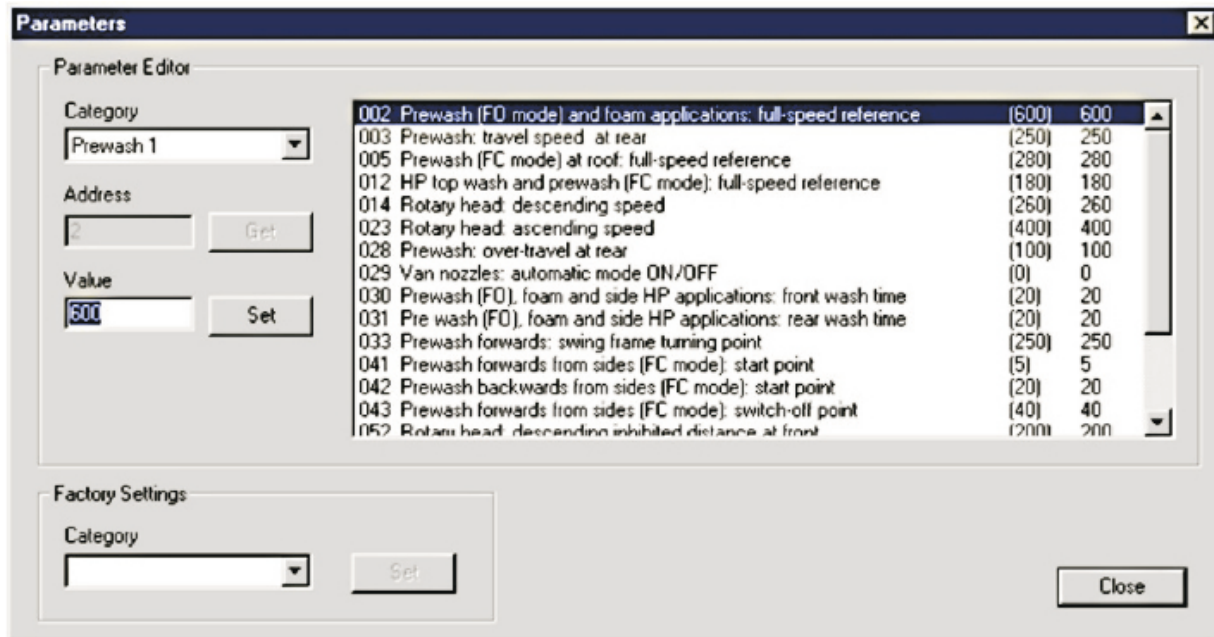
- Updating of control software of the vehicle wash machine.
- Machine configurations.
- Parameter set-up.
- IO- and special tests.
- Wash program tailoring.



The system also includes provisions for GSM connection. By connecting a GSM-modem to PC of the machine alarm messages can be transmitted to GSM phones.



CarWash Server and Monitor software include following language selections: English, Finnish, Italian, Swedish and Russia.



The CarWash Monitor features are included in the CarWash Server software.

Monitor window:

- Displays progress of a wash program.
- Includes start, stop and halting features of wash programs.
- Facilitates reading of wash counters.

### ► MAX5084.2 User interface, w/ 17" touch screen, w/ CarWash Server software

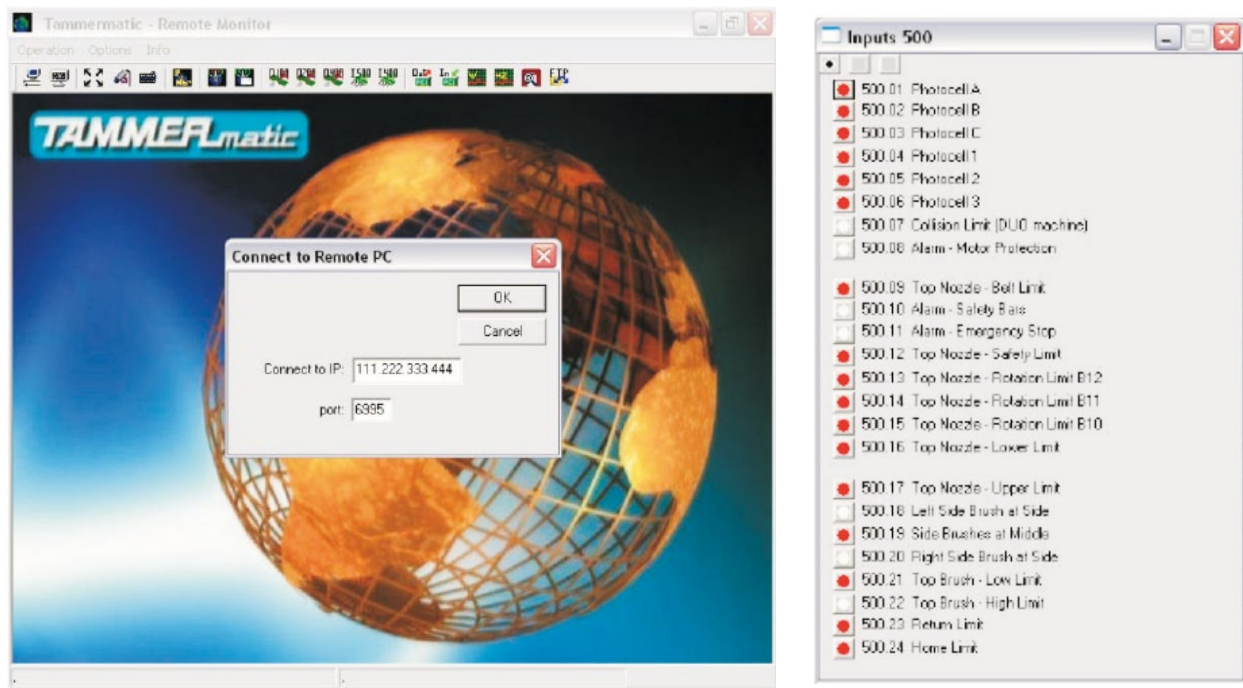
The content of this item is same as of MAX5084.1 but the size of the screen is larger (10" > 17").

### ► MAX5084.4 User interface, w/ 10" touch screen, w/ CarWash Server software, control box door

The content of this item is same as of MAX5084.1 but the interface is mounted on the door of the main switch enclosure.



► **MAX5087.1 User interface, w/ TAMMERNET® with 17" touch screen, w/ CarWash Server software**



**TAMMERNET®** system is developed to manage and control Tammermatic vehicle wash machines.

It is comprised of server PC with 17" touch screen, video capture card and video camera and **TAMMERNET®** and CarWash Server software. For CarWash Server details see pages 36 and 37.

### **TAMMERNET®**

- Standalone service partner that records all process data and video picture to AVI file of every single wash.
- The data includes: video, input data, output data, brush power values, lift and movement speed and direction.
- In case of a failure, it sends email alarms to predefined parties and provides all machine process data information included in the video picture through the Internet displaying actual events at the moment of failure.
- The mail includes IP address, timestamp, alarm/error message, input and output states, relevant power intake values, video reference and a freeze frame picture from the washbay.
- Records all washes and stores last 30 washes. Also last 30 washes that caused error or warning are stored as well. The recordings include input, output and brush rotation power-intake windows.
- Video recordings can be scrolled back and forth frame by frame for accurate pinpointing of cause of interruption.

A significant benefit of the system is that the situation analysis and instructions for corrective measures can be carried out by experts at remote locations minimizing down-time and expenses as well as avoiding traveling costs.

Measures are executable through the Internet:

- Updating of control programs of vehicle wash systems.
- Viewing of live video stream and recorded videos.
- Perform all input and output tests.
- Download videos by FTP (file transport protocol).
- Remote debugging of controlling processor memory areas can be performed while wash cycles are executed (e.g. height level counters and other variables).

### **TAMMERNET®** requirements on site

For local use Internet connection is not required, but if remote access and emailing features are utilized, Internet connection is required.

System uses TCP/IP pipe so basically any Internet connection can be used, but in some cases it may require adjusting.

Examples of **TAMMERNET®** usage:

#### 1. ADSL (with “public” IP number)

- This is the default Internet connection type. PC has an own Internet connection and ISP DHCP server gives “public” IP number to PC. IP number may be static or dynamic.
- This connection type doesn't require technical skills

#### 2. ADSL (“non public” subnet IP number, may exist behind a firewall)

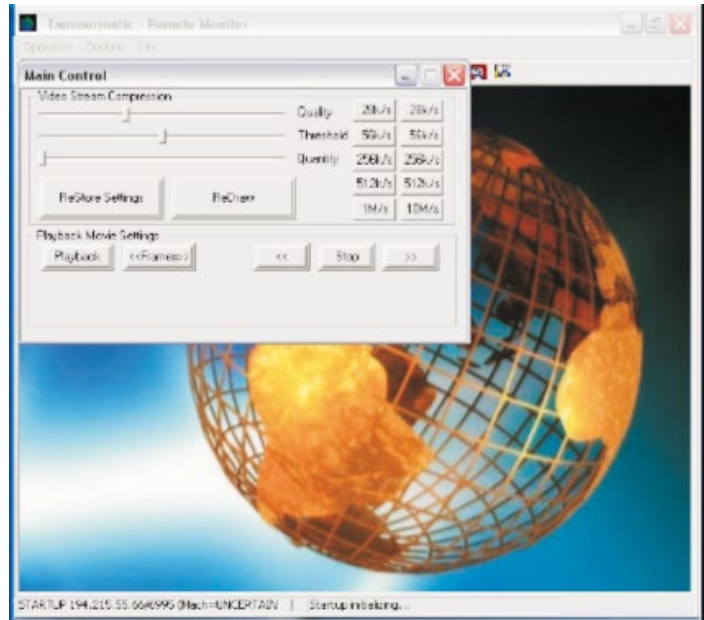
- With this kind of connection system uses customer's existing Internet connection. **TAMMERNET®** PC is a single PC in customer's subnet. This connection type requires some adjustment on customer ADSL box. Predefined port must be forwarded to **TAMMERNET®** PC in order to access **TAMMERNET®** PC from Internet.
- This connection is fast to startup and cheap, technical knowledge is needed adjusting ADSL box.

#### 3. 3G wireless data connection

- Mobile Internet connection requires operator SIM card and GPRS/3G terminal (modem). This is suitable configuration if PC is used as troubleshooting purposes and PC can be switched from one wash machine to another fast.
- This connection requires technical skills and cost of SIM card and usage are dependent on the operator used.

#### 4. Analog 56k Modem

- Connection is slow but can be used.
- This connection doesn't require technical skills but usage of it causes operator expenses.
- Free telephone line in the vicinity of user interface (PC) required.

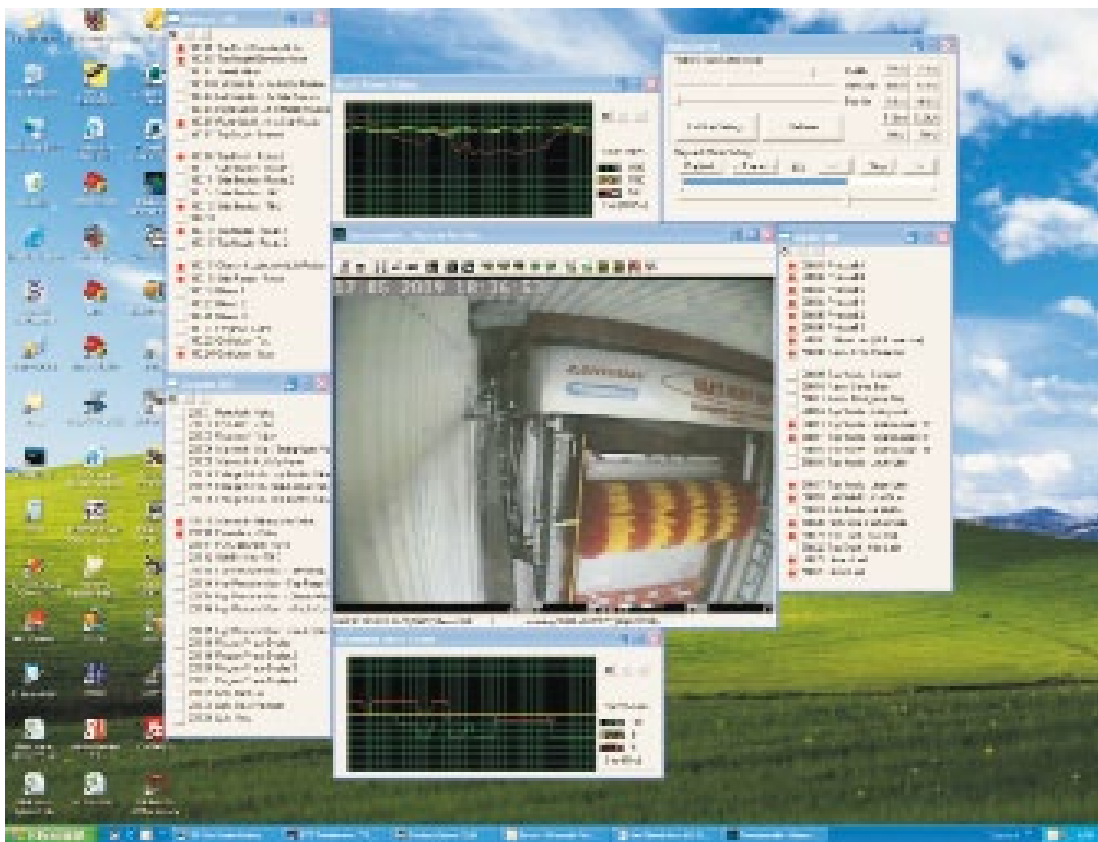


## What needs to be done at the Customer's ADSL connection?

**TAMMERNET®** is “server-side“ program. This means that when user is accessing from Internet (“Wan”) to PC that is running **TAMMERNET®** software at Local Area Network (LAN), customers ADSL router needs to support this activity.

Default configuration with ADSL routers is “disable all incoming traffic from WAN to LAN”, and this needs to be modified customers ADSL router:

1. ADSL router firewall needs to be opened for ports: 370, 371, 5800, 5900, 6991-6995.
2. All incoming traffic for above opened ports, needs to be redirected to **TAMMERNET®** PC at LAN (for instance 192.168.1.191). This is done by “port forwarding” mechanism at ADSL router.
3. Note! Tammermatic PC needs to be configured to have a “static IP number” at LAN (for instance 192.168.1.191), instead of “obtain IP-number automatically from DHCP server”. This way portforwarding works ok after poweroff.

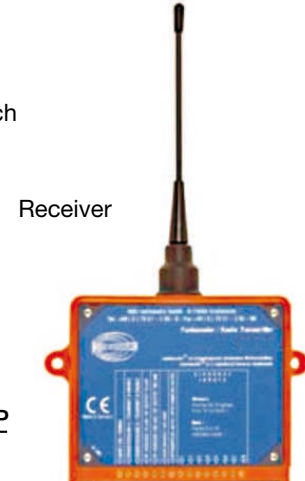
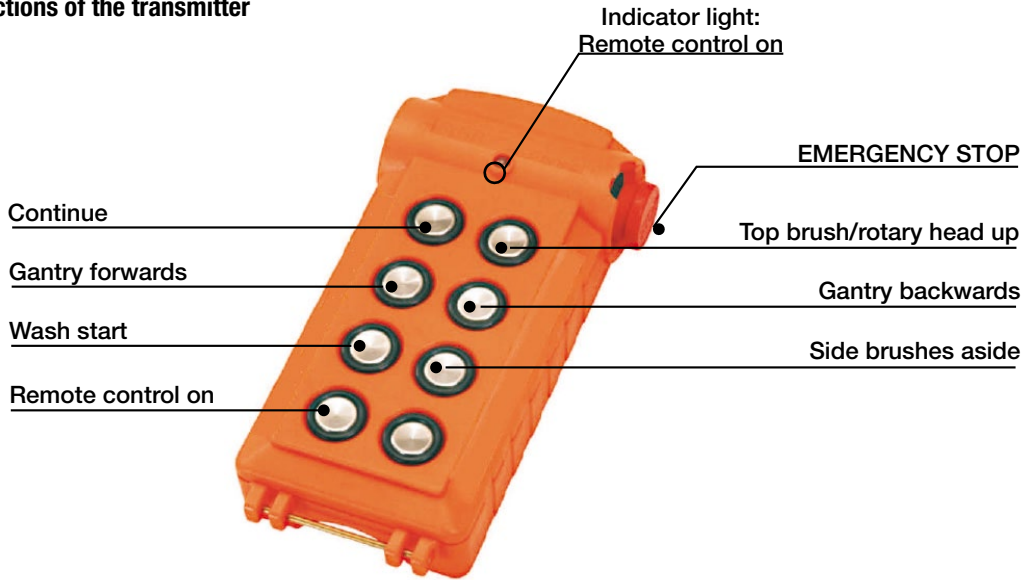




► **MAX5088.1 Remote controller, wireless**

The system includes a hand-held transmitter and a receiver, which is placed adjacent to main switch enclosure of the gantry.

**Functions of the transmitter**



► **MAX5089.1 Floor cleaning program (only with top HP)**

Sequence of operation: When the cycle is initiated, the rotary head assembly descends to bottom position. The high pressure pump runs. Motor of the rotary head assembly directs high pressure water jets diagonally forwards and the gantry travels length of the tracks. Gantry reverses, water jets are directed diagonally backwards. Gantry returns to the home position and the cycle is over.

► **MAX5092.1 Van and Pick-up truck program**

The program activates pre-set lower brush pressures, side inclination function of side brushes and top brush/rotary head bottom limit adjustment. This item also includes an additional photocell transmitter and receiver pair needed for small vehicle length measurement.

► **MAX5093.1 Log trailer program**

In this mode the cabin of a tractor-trailer vehicle is washed with High Pressure jets and brushes. After passing the cabin the brushes are switched off and the trailer part is cleaned with High Pressure jets. This item also includes an additional photocell transmitter and receiver pair needed to detect length of the cabin.

## 9. Safety devices

Safety flaps	MAX5090.1
Safety bars	MAX5090.1



### ► MAX5090.1 Safety flaps

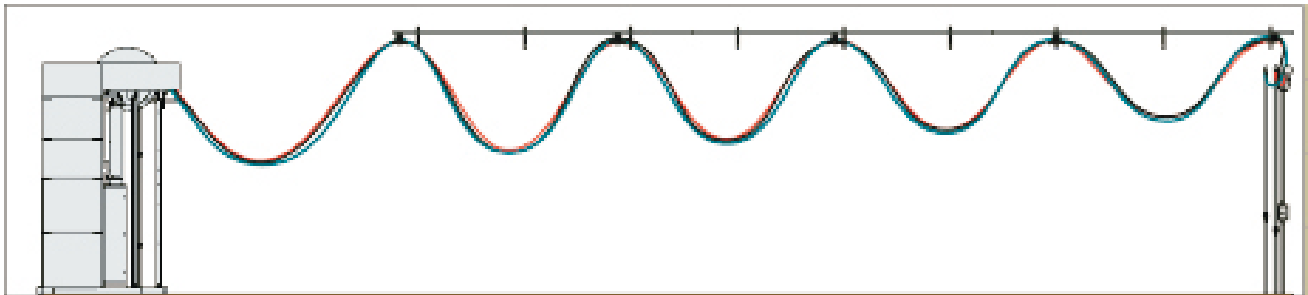
Content of delivery 4 pcs. touch sensitive plates at front and rear of the gantry at the both side sections, which interrupt the function, should the plates be deflected.

### ► MAX5091.1 Safety bars

Content of delivery 2 touch sensitive width bars at drive-in opening with switches, which interrupt the function, should the bars be deflected.

## 10. Gantry related auxiliary devices

<b>CHOOSE ONE:</b>	Festooning system, rail 59 feet/18 m (bay 65-82 feet/20-25 m)	MAX5100.1
	Festooning system, rail 78 feet/24 m (bay 82-98 feet/25-30 m)	MAX5100.2
	Festooning system, rail 98 feet/30 m (bay 98-108 feet/30-33 m)	MAX5100.3
<b>CHOOSE ONE:</b>	Festooning system, energy chain 59 feet/18 m	MAX5100.4
	Festooning system, energy chain 78 feet/24 m	MAX5100.5
	Festooning system, energy chain 98 feet/30 m	MAX5100.6
<b>CHOOSE ONE:</b>	Energy chain for Spinner system 59 feet/18 m	MAX5100.7
	Energy chain for Spinner system 78 feet/24 m	MAX5100.8
	Energy chain for Spinner system 98 feet/30 m	MAX5100.9
<b>CHOOSE ONE:</b>	Junction box for cable extension	MAX5101.1
	Support stanchions for festooning system, 59 feet/18 m (4 posts)	MAX5102.1
	Support stanchions for festooning system, 78 feet/24 m (5 posts)	MAX5102.2
<b>CHOOSE ONE:</b>	Support stanchions for festooning system, 98 feet/30 m (6 posts)	MAX5102.3
	Running tracks, 2 x 82 feet/25 m, flat top	MAX5104.1
<b>CHOOSE ONE:</b>	Running tracks, 2 x 106 feet/32,5 m, flat top	MAX5104.2



► **MAX5100.1 Festooning system, rail 59 feet/18 m (bay 65-82 feet/20-25 m)**

3 support rails (à 236 in or 6 m), 9 mounting brackets including anchor bolts, 7 cable trolleys, cable and hose clamps.

► **MAX5100.2 Festooning system, rail 78 feet/24 m (bay 82-98 feet/25-30 m)**

4 support rails (à 236 in or 6 m), 11 mounting brackets including anchor bolts, 9 cable trolleys, cable and hose clamps.



► **MAX5100.3 Festooning system, rail 98 feet/30 m (bay 98-108 feet/30-33 m)**

5 support rails (à 236 in or 6 m), 14 mounting brackets including anchor bolts, 11 cable trolleys, cable and hose clamps.

**All overhead rails are of reinforced type.**



- **MAX5100.4 Festooning system, energy chain 59 feet/18 m**
- **MAX5100.5 Festooning system, energy chain 78 feet/24 m**
- **MAX5100.6 Festooning system, energy chain 98 feet/30 m**

These items include plastic chain, cable tray ass'y, required support brackets, end links and guide arm.



- **MAX5100.7 Energy chain for Spinner system 59 feet/18 m**
- **MAX5100.8 Energy chain for Spinner system 78 feet/24 m**
- **MAX5100.9 Energy chain for Spinner system 98 feet/30 m**

These items include plastic chain, cable tray ass'y, required support brackets, end links and guide arm.

➤ **MAX5101.1 Junction box for cable extension**

The box includes terminal strips and connectors for all cables, which has to be extended due to a distant location of an equipment room.

- **MAX5102.1 Support stanchions for festooning system, 59 feet/18 m (4 posts)**
- **MAX5102.2 Support stanchions for festooning system, 78 feet/24 m (5 posts)**
- **MAX5102.3 Support stanchions for festooning system, 98 feet/30 m (6 posts)**



Support stanchions are made of hotdip galvanized steel beam with mounting bases and cable tray/overhead rail brackets.

Heights of stanchions

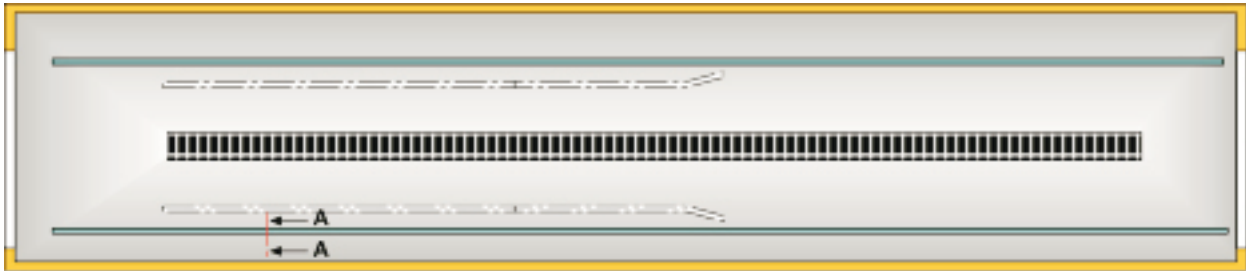
Festooning system

- Cables and hoses on the right-hand side of the gantry: same as wash height of the gantry
- Cables and hoses on the left-hand side of the gantry: same as wash height of the gantry

Energy chain

- Cables and hoses on the right-hand side of the gantry: same as wash height of the gantry
- Cables and hoses on the left-hand side of the gantry: 97 in or 2,5 meters.

The quantity of stanchions is subject to weight of cables and hoses to be supported.

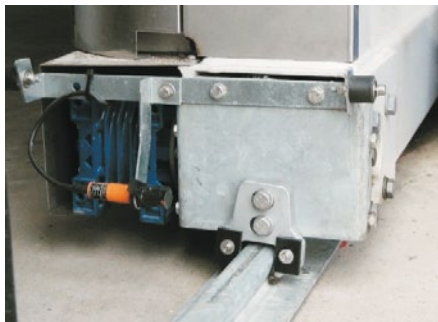


► **MAX5104.1 Running tracks, 2 x 82 feet/25 m, flat top**

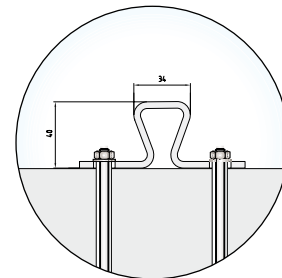
Hotdip galvanized tracks with anchor bolts, shims and end stoppers.

► **MAX5104.2 Running tracks, 2 x 106 feet/32,5 m, flat top**

Hotdip galvanized tracks with anchor bolts, shims and end stoppers.



Running track & derailing lock



Section A-A

## 11. Cycle initiation devices

Manual wash cycle start, 8 programs	MAX5104.3	<b>CHOOSE ONE:</b>
Manual wash cycle start, 15 programs	MAX5141.1	

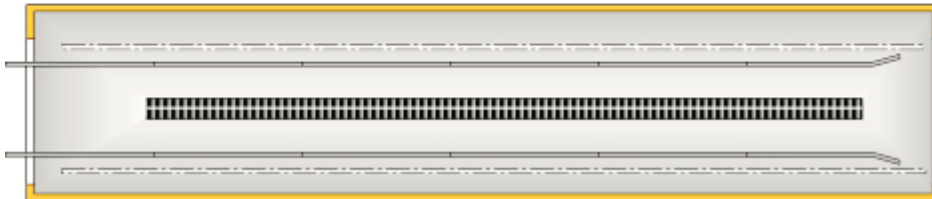
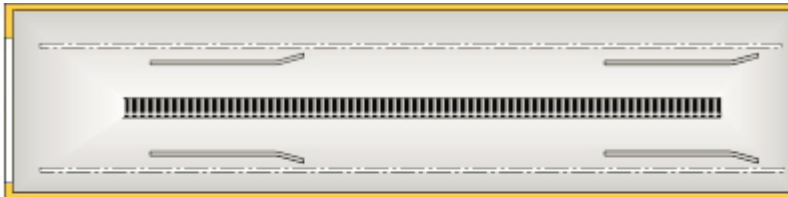


- ▶ **MAX5104.3 Manual wash cycle start, 8 programs**
- ▶ **MAX5141.1 Manual wash cycle start, 15 programs**

These push button stations may be used in lieu of card readers and are available for selection of 8 and 15 various programs.

## 12. Optional accessories

<b>CHOOSE ONE:</b>	Guide rails, 4 x 10 feet/3 m	MAX5160.1
	Guide rails, 2 x 39 feet/12 m	MAX5160.2
	Guide rails, 2 x 59 feet/18 m	MAX5160.3
	Guide rails, 2 x 78 feet/24 m	MAX5160.4
	Guide rails, 2 x 98 feet/30 m	MAX5160.5
	Centralized lubrication	MAX5161.1
	Wash program illustration tables	MAX5162.1
	Auxiliary door control enclosure (when NO prewash, HP or payment terminal)	MAX5164.1
<b>CHOOSE ONE:</b>	Manual HP cleaning equipment, rails 2 x 59 feet/18 m, without pump	MAX5167.1
	Manual HP cleaning equipment, rails 2 x 78 feet/24 m, without pump	MAX5167.2
	Manual HP cleaning equipment, rails 2 x 105 feet/32 m, without pump	MAX5167.3
	Pre-wash Chemical equipment w/ chemical pump in MAX5167.1, rail 59 feet/18 m	MAX5167.4
	Pre-wash Chemical equipment w/ chemical pump in MAX5167.2, rail 78 feet/24 m	MAX5167.5
	Pre-wash Chemical equipment w/ chemical pump in MAX5167.3, rail 105 feet/32 m	MAX5167.6
<b>CHOOSE ONE:</b>	Nilfisk ALTO Unobooster Central High Pressure pump 6,7 kW	MAX5167.7
	Nilfisk ALTO Neptune 7-63 FAX 2 Hot High Pressure pump 8,3 kW	MAX5167.8
<b>CHOOSE ONE:</b>	Hose reel 49 feet/15 m + wash gun for interior cleaning, 1 pc.	MAX5168.1
	Hose reel 49 feet/15 m + wash gun for interior cleaning, 2 pcs.	MAX5168.2



- **MAX5160.1 Guide rails, 4 x 10 feet/3 m**
- **MAX5160.2 Guide rails, 2 x 39 feet/12 m**
- **MAX5160.3 Guide rails, 2 x 59 feet/18 m**
- **MAX5160.4 Guide rails, 2 x 78 feet/24 m**
- **MAX5160.5 Guide rails, 2 x 98 feet/30 m**

These items include reinforced hotdip galvanized steel rails (ø 4.5"/115 mm) and anchor bolts.

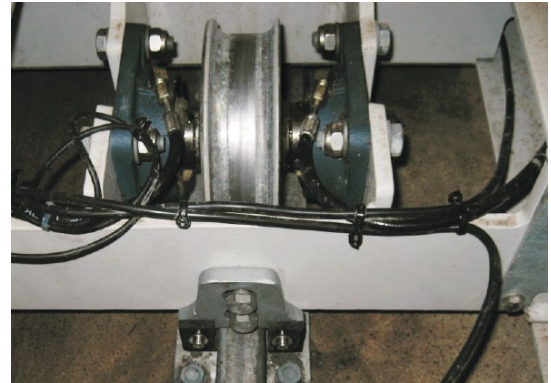


### ► MAX5161.1 Centralized lubrication

Lubrication lines for each grease nipple of the gantry.

- Gantry idle wheel bearings (8)
- Side brush rotation ass'y (4)
- Top brush lift machinery (6), if applicable
- Rotary head lift machinery (6), if applicable.

Inlet grease nipple blocks mounted to the right and left hand side sections for ease of access.



### ► MAX5162.1 Wash program illustration tables

Contains colour printouts of illustrations of configured wash programs placed into a binder with plastic pockets.

### ► MAX5164.1 Auxiliary door control enclosure (when NO prewash, HP or payment terminal)

Applicable for washbays with motorized doors, when a machine configuration doesn't include prewash or HP applications or a wash cycle initiation terminal.

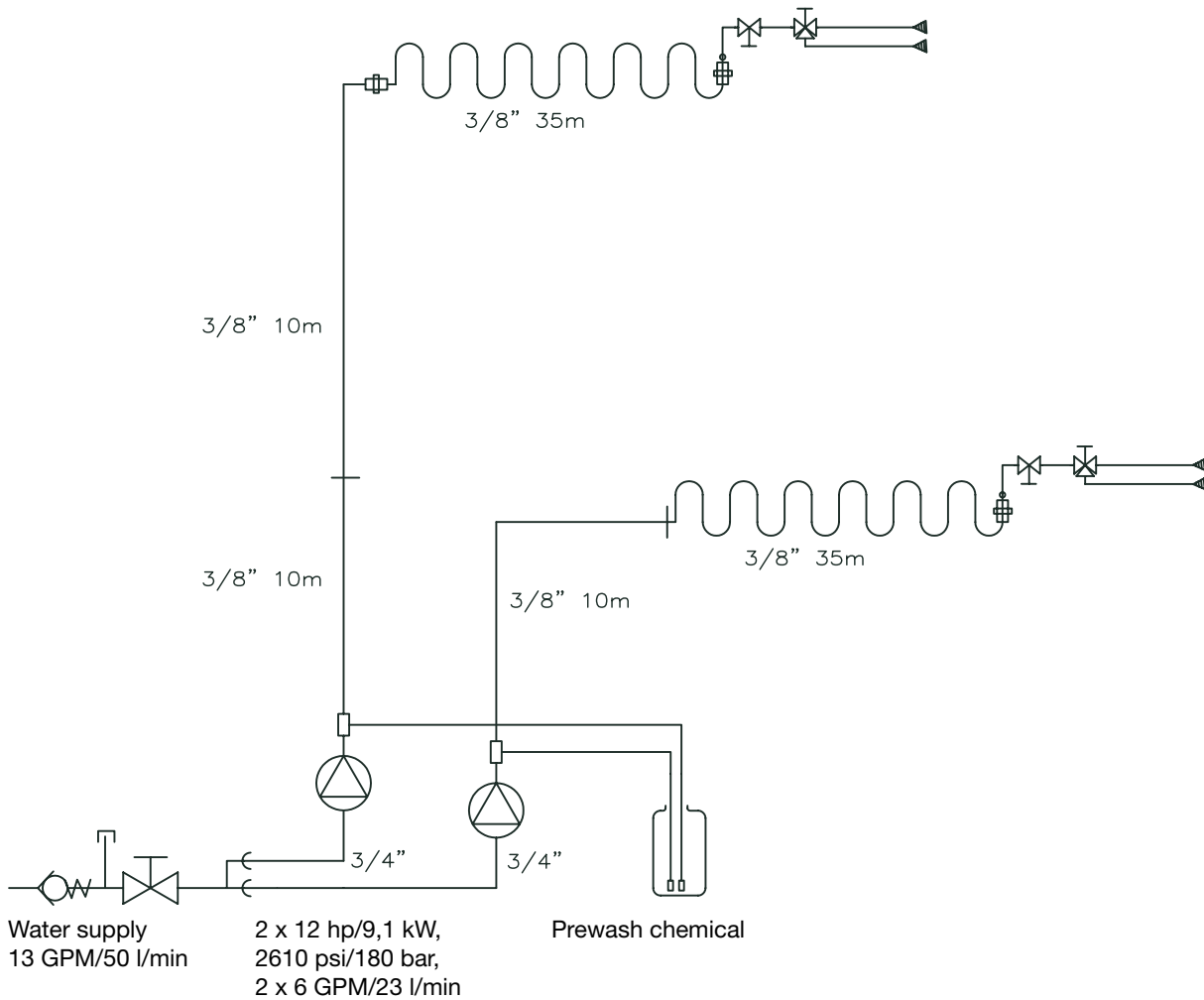
The door control circuits are wired to terminal strips of this enclosure providing open-close signals. External wiring and other control



### ► MAX5167.1 Manual HP cleaning equipment, rails 2 x 59 feet/18 m, without pump, MAX5167.2 Manual HP cleaning equipment, rails 2 x 78 feet/24 m, without pump, MAX5167.3 Manual HP cleaning equipment, rails 2 x 105 feet/32 m, without pump

- 2 high pressure units; 2610 psi/180 bar for left- and right-hand sides, 12 hp/9,1 kW each, 6 GPM/23 l/min.
- Hand-held guns with wand and hose assemblies for low pressure chemical application as well as for HP detailing.
- Hose rails with wall mounting brackets, 2 x 115 feet/35 m.
- Hose lengths shown in the schematic on the next page.





- **MAX5167.4 Pre-wash Chemical equipment w/ chemical pump in MAX5167.1, rail 59 feet/18 m**  
**MAX5167.5 Pre-wash Chemical equipment w/ chemical pump in MAX5167.2, rail 78 feet/24 m**  
**MAX5167.6 Pre-wash Chemical equipment w/ chemical pump in MAX5167.3, rail 105 feet/32 m**

- **MAX5167.7 Nilfisk ALTO Unobooster Central High Pressure pump 9 hp/6,7 kW**

- **MAX5167.8 Nilfisk ALTO Neptune 7-63 FAX 2 Hot High Pressure pump 11 hp/8,3 kW**



- **MAX5168.1 Hose reel 49 feet/15 m + wash gun for interior cleaning, 1 pc.**  
**MAX5168.2 Hose reel 49 feet/15 m + wash gun for interior cleaning, 2 pcs.**

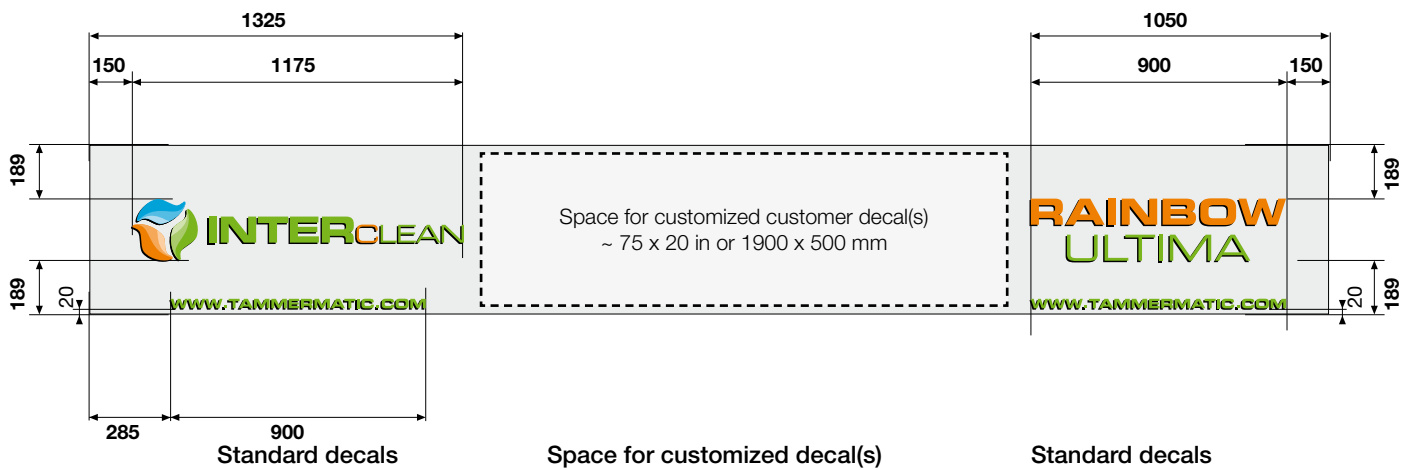
### 13. Customizing

Front panel decal	MAX5200.1
Rear panel decal	MAX5202.1

- **MAX5200.1 Front panel decal**
- **MAX5202.1 Rear panel decal**

Both front and rear panels according to customers design. Area available; ~ 75 x 20 in or 1900 x 500 mm.

**Please note!** If precise reproduction is requested or graphics in question are of complex shape, the sample of decal is to be sent as a vector graphics file (preferred formats Adobe Illustrator or PDF).



## 14. Crating

Crating, disassembled gantry	MAX5260.1
Crating, disassembled gantry, sea packing	MAX5260.2
Crating, disassembled gantry, pallet only	MAX5260.3
Crating, disassembled gantry, strengthened packing, special supports *)	MAX5260.4
Disinfected packing material **)	MAX5262.1

**CHOOSE  
ONE:**

\*) Recommended for transportations carried out in demanding/shaking road condition.

\*\*\*) Treatment according to SPM 15 standard.

## 15. Transport and installation

Equipment setup	MAX5263.1
Crane rentals	MAX5263.2
Start Up and Training	MAX5263.3
Freight, FOB factory	MAX5263.4



# CLEAN BY NATURE



## WORLDWIDE



InterClean Equipment, Inc.  
709 James L. Hart Parkway | Ypsilanti, MI 48197 | USA

Phone: +1 (734) 961 3300  
or, in the U.S. and Canada,  
1-800-INTERCLEAN (1-800-468-3725)

Fax: +1 (734) 961 0092

sales@interclean.com  
techsupp@interclean.com  
[www.interclean.com](http://www.interclean.com)

## EUROPE, RUSSIA AND C.I.S



Tammermatic Oy  
Tesoman valtatie 28 | FI-33300 Tampere | Finland

Customer service: +358 201 373 400  
Procurement & logistics: +358 201 373 401  
Finance & administration: +358 201 373 402

Fax: +358 201 373 409

sales@tammermatic.com  
service@tammermatic.com  
[www.tammermatic.com](http://www.tammermatic.com)