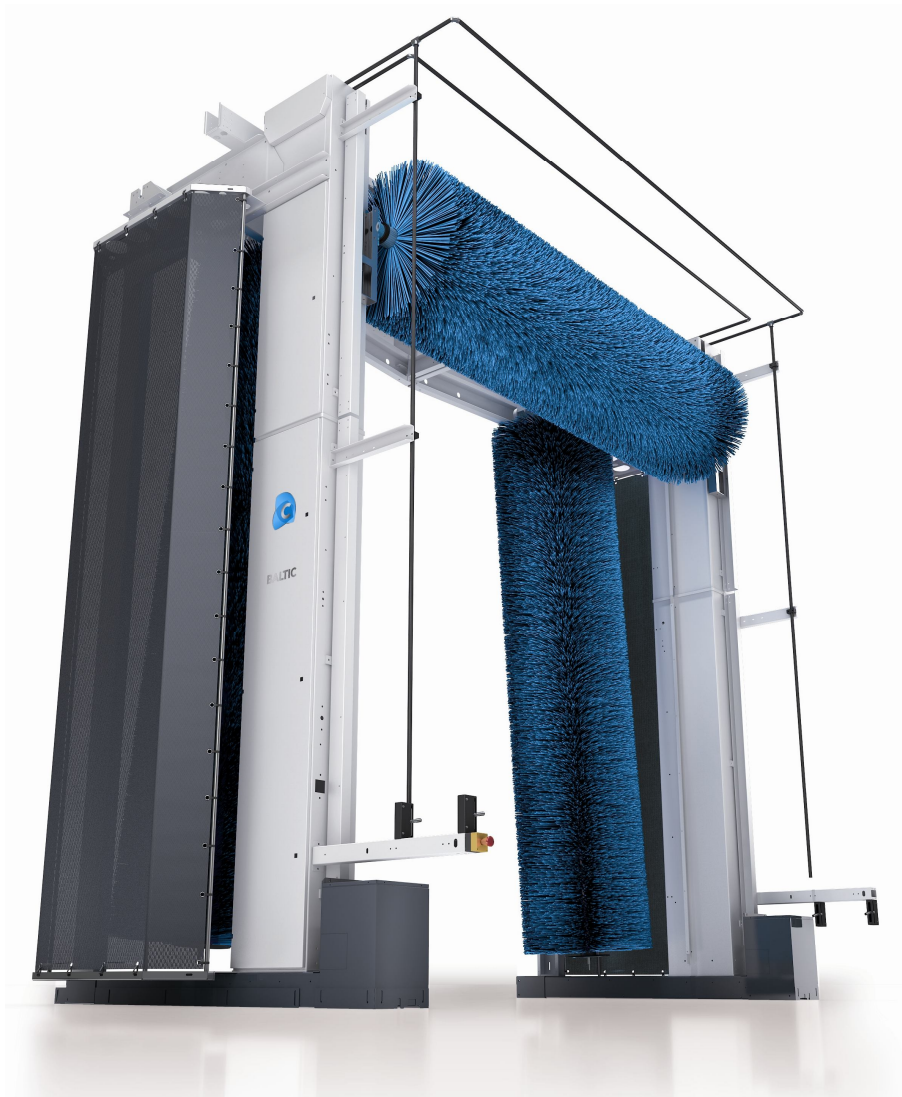


BALTIC



Machine Description

This Industrial Vehicles washing unit is made of a steel gantry structure, moving on tracks fixed to the ground, washing with three brushes (two vertical, one horizontal brush) sprinkling water, detergent and, optionally, finishing chemicals.

The control panel is on board. There's no pneumatic control.

Baltic includes few versions:

Baltic "standard" - Baltic Overlapping – Baltic Total High Pressure – Baltic Side H.P.



Baltic "standard"



Baltic H.P. with Overlapping



Baltic Total High Pressure



Main Characteristics

Brushes Bristles

- The brushes bristles are fixed with stainless steel screws and are easily replaceable
- Colours available are: black-blue, rainbow, light green-dark green, light blue-dark blue

Horizontal High Pressure Arch

The horizontal high pressure arch performs touch less wash action, keeping an optimal distance from the vehicle's surface, being equipped with specific sensors. The nozzles are placed on a rotating bar. It can turn and position the nozzles towards the vertical surfaces in the front/rear end of the truck or towards other vertical surfaces present on the truck (e.g. at the end of the driving cockpit). The electronics and sensors



a

equipping the plant can detect the increase/decrease of the shape's height during the movement of



the portal; the inclination of the bar is consequently commanded.

The sprinklers themselves are rotating; they're made to clean with the same impact as the normal sprinklers, but they have the plus of creating a cone 20° or 26° wide, which allows a total coverage of the surface to be washed.

High Pressure vertical series

The side bars equipped with nozzles can wash the sides of the vehicle. The impact is able to guarantee a very effective removal action.

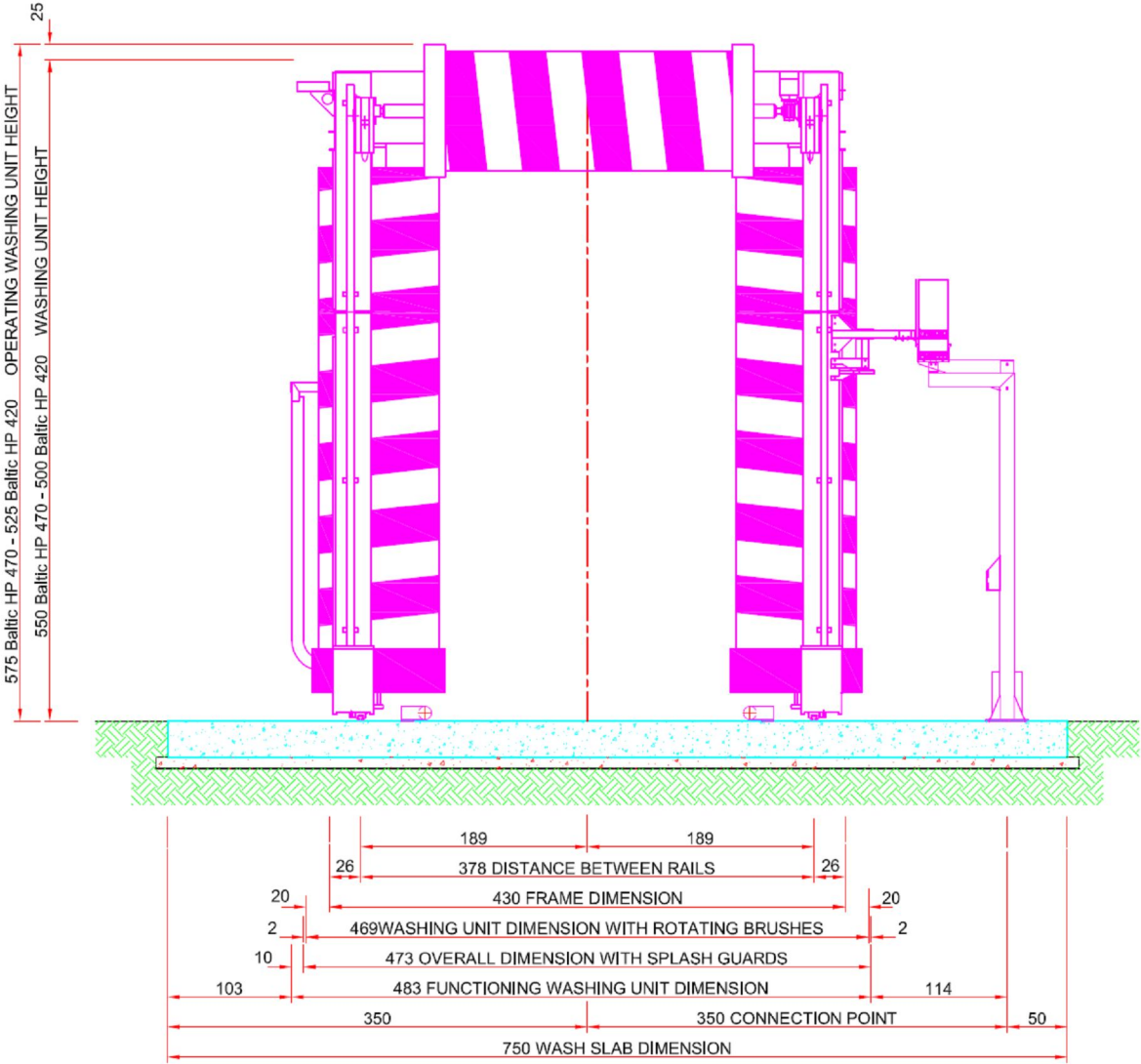
Hydraulic Equipment

- Cooling – Water sprinkling
- Detergent sprinkling
- Rinse – Water sprinkling
- Chemicals tanks of 25 litres
- Water supply with 3 external pump (basic version), one of 3 kW for the cooling and soak action, three of 7.5 kW for the water sprinkling at high pressure, up to 70 bar (ALT. 1 pump of 37.5 kW for a water pressure up to 30 bar)
- Supply hoses are supported by a cable supporting rod

Dimensions

Max. width	2,7 m
Max. height	4,2 m (ALT 4,7 m)
Max. length	12 m (ALT 18 m)

During the wash phase, protrusions longer than 600 mm will be overcome automatically.
 The gantry is furthermore equipped with a special program in order to avoid the external rear mirrors damage.



Main Characteristics

The unit is made of:

- Galvanised 12/10 steel structure, optionally painted
- Stainless steel in-sight screws
- Closing doors in pre-galvanised 15/10 iron
 - In the columns you can find all the spaces for the electric panel and the hydraulic equipment, including also the chemicals reservoirs
 - In one column you can find the horizontal brush moving devices as well as the horizontal high pressure arch moving devices
 - The closing doors have an IP55 protection degree
- Translation allowed by motors equipped with Inverter for a better control and movement
- Overturning-proof device

Rails

- Section rails for a heavy duty performance
- Safety stop devices at the ends

Brushes

- Horizontal Brush electrically moved, with pressure control on the vehicle through power absorption devices;
 - The horizontal brush moves on galvanised steel tracks, fixed on the side columns and directly attached to the motor;
 - Steel chain support the horizontal brush allowing its suspension and positioning movement
 - The horizontal brush motor is a self breaking type
 - The rotation is inverted during the back movement of the portal
- Vertical Brushes on moving trolleys with controlled opening movement, and pressure control on the vehicle through multi-thresholds power devices
 - Vertical brushes close driven by on purpose motors / Vertical Brushes close by gravity
 - Safety proximity sensors
 - Each trolley is fitted with a rotation motor that is attached to the brush, which is allowed to move according to the vehicle shape
 - The rotation is inverted during the back movement of the portal

Brushes Bristles

- The brushes bristles are fixed with stainless steel screws and are easily replaceable
- Colours available are: black-blue, rainbow, light green-dark green, light blue-dark blue

Hydraulic Equipment

- Cooling – Water sprinkling
- Detergent sprinkling
- Rinse – Water sprinkling
- Chemicals tanks of 25 litres
- Water supply with 1 external pump (basic version) of 3 kW for the cooling and soak action
- Supply hoses are supported by a cable supporting rod / Supply hoses are supported by a specific caterpillar



Push Buttons

The Push buttons are on a dedicated structure equipped with

- Key selector
- Programs switches
 - Start Push Button
 - Vertical and Horizontal brushes opening switches
 - Stop Push Button
 - Emergency Stop

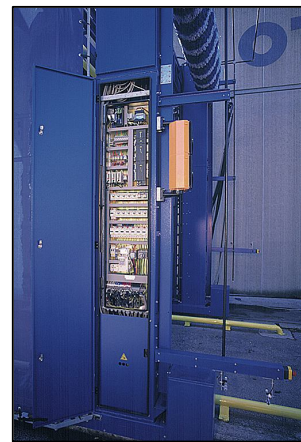
Control Panel

The Electrical Panel, connected to a PLC is water proof

Ancillary circuits are supplied at 24V

Electrical door lock

Motors are equipped with safety magneto-thermal switches



Uniop

Device for diagnostic and cycles programming



Technical Characteristics

Unit dimensions and weight (STANDARD 4,2 mt height dimension)

Width..... 4 600 mm
 Length..... 2 800 mm
 Height 4 950 mm
 Weight..... 1 680 Kg

Rails

Gauge 3780 mm
 Length 18 m

Connections

Water inlet R 1 1/2"
 Water pressure 2.5 - 3.5 bar
 Standard supply 400 ± 10% V - 50 Hz
 Supply cable (400V) 5x2.5 sq. mm

Portal speed..... 6 / 12 m/min

Total power supply required..... 10.4 kW

MOTORS

Action	Quantity	Power (kW)
Transfer	2	0.37
Horizontal brush rotation	1	0.75
Vertical brush rotation	2	0.75
Horizontal brush movement	1	0.37
Trolleys opening	1	0.37

Available Optional

- **On board side splash shields**



Splash guards

- **Pump and arch for self drying chemical**
- **Automatic Winter Discharge**
 - Activated by thermostat
 - Water supply stop and air blowing in the pipes
 - Brushes quick rotation for self drying
- **Traffic light**

Two lights traffic light with movable supports. It could be installed on board or on columns.



- **Under Chassis**

Different types of Under chassis and High Pressure side wash are available.



- **Robowash**

On Board High Pressure washing system for wheel and lower truck body device.



- **Wheel guides**

- Big thickness (90 mm)
- First module 5,5 m; Intermediate module 5 m



- **Self service cards reader**
 - To activate the wash plant in *self service* mode
 - Equipped with key selector
- **Single post cable support**
 - To support hydraulic and electric connections up to 18 m.
 - Made in hot zinc coated steel
 - Columns made of two pieces for an easy transport
 - Fixed to the ground with steel *Fischer* or with counter plates
- **Triple cable support moving on guide**
 - To support hydraulic and electric connections up to 26 m.
 - Made in hot zinc coated steel
 - Columns made of two pieces for an easy transport
 - Fixed to the ground with steel *Fischer* or with counter plates
- **Wall Cable support**
- **Caterpillar**

Installation on columns, to the wall, or on the ground



Programs

1 Standard truck



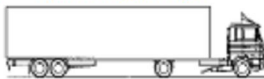
All vehicles without interruptions in the body, that is the top brush lowering and the side brushes closing movements are controlled only by power absorption.

2 Tractor



Tractors without trailer. The top brush washes only the driver's cabin. The side brushes close on the cabin but the closing movement remains locked for the remaining length of the vehicle. In the backward run the top brush climbs at the back of the driver's cabin, with little pressure and gantry stop.

3 Articulated truck



These are the vehicles that have an open space between the truck and the trailer. In this area the top brush goes down until a presetted height and the side brushes closing movement is blocked.

4 Lorry



Vehicles that have an open space between the tractor and the trailer. In this area the top brush goes down until a presetted height and the side brushes closing movement is blocked.

5 Open truck/Pick-up



Vehicles with no roof that can be washed. After the cabin, in the forward run, the top brush does not lower beyond a given height in order not to touch the vehicle body.

6 Garbage trucks



Vehicles where it is not possible or dangerous to wash the rear. At the vehicle rear end the top brush goes down to a given height and the side brushes closing movement is blocked.

7 Front mirrors



Busses equipped with protruding front mirrors. The top brush will go over the front mirrors without touching them and the side brushes do not close at the vehicle front.

8 Side mirrors



Vehicles equipped with fixed or protruding side mirrors. The side brushes open after washing the vehicle front and close again after the mirrors.

9 Lorry with trailer



Vehicles with a space (interruption) between tractor and first trailer and between first and second trailer. The brush operation is a combined action as described for lorry and articulated truck.

10 Standard truck USA



Standard truck with american style long nose and possibly with fixed and large rear mirrors, antennas, horns, special lights, special sun shields that may be damaged with a contact with the brushes or with the em/hp arch.

11 Tractor USA



Tractor with american style front part (long nose) and possibly with fixed and large rear mirrors, antennas, horns, special lights, special sun shields that may be damaged with a contact with the brushes or with the em/hp arch. Locking of side brushes closing movement after the driver's cabin and tractor function (see tractor).

12 Articulated truck USA



Articulated truck with american style front part (long nose) and possibly with fixed and large rear mirrors, antennas, horns, special lights, special sun shields that may be damaged with a contact with the brushes or with the em/hp arch. Locking of side brushes closing movement after the driver's cabin up to the trailer.

13 Trailer truck USA




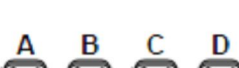
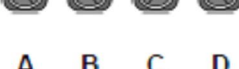




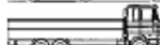
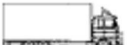



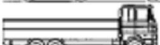

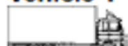












Trailer truck with american style front part (long nose) and possibly with fixed and large rear mirrors, antennas, horns, special lights, special sun shields that may be damaged with a contact with the brushes or with the em/hp arch. Locking of side brushes closing movement after the driver's cabin up to the trailer end.

PROGRAMME

BALTIC

BALTIC HP

<p>1</p> <p>A B C D</p>  <p>2</p> <p>A B C D</p>  <p>3</p> <p>A B C D</p>  <p>4</p> <p>A B C D</p>  <p>5</p> <p>A B C D</p> 	<p>Vehicle from 1 to 5</p>      <p>Standard brush cycle with shampoo in the forward run and wax in the backward run.</p>	<p>Vehicle from 1 to 5</p>      <p>Standard brush cycle with shampoo in the forward run and wax in the backward run.</p>
<p>6</p> <p>A B C D</p> 	<p>Vehicle 1</p>  <p>Brushes in the forward run in stop & go mode. Idle backward run.</p>	<p>Vehicle 1</p>  <p>Brushes in the forward run in stop & go mode. Idle backward run.</p>
<p>7</p> <p>A B C D</p> 	<p>Vehicle 2</p>  <p>Double combo half-run with brushes forward and double idle back run.</p>	<p>Vehicle 2</p>  <p>Double combo half-run with brushes forward and double idle back run.</p>
<p>8</p> <p>A B C D</p> 	<p>Vehicle 7</p>  <p>Standard brush cycle with shampoo in the forward run and wax in the backward run.</p>	<p>Vehicle 1</p>  <p>Four-run standard touchless cycle: contour following prewash chemical, contour following HP, side HP and wax.</p>
<p>9</p> <p>A B C D</p> 	<p>Vehicle 2</p>  <p>Brush half-run combo, with prewash chemical also in the backward run. Brush half-run combo and robowash forward. Wax in the last run.</p>	<p>Vehicle 1</p>  <p>Contour following prewash chemical forward, contour following HP backward, side HP with side brushes forward and then brushes with wax.</p>