

# RAINBOW ULTIMA

**ULTIMATE FLEET  
CLEANING POWER**



## TAMMERMATIC GROUP

### Vehicle Wash Systems Engineered with Decades of Global Experience

Tammermatic Group is a global high-technology company that manufactures washing machines for cars, heavy transport vehicles, buses, rail fleets and a range of special equipment. Tammermatic Group was established when Tammermatic Oy and InterClean Equipment, Inc. merged in 2008.

#### Over 4000 Large Vehicle Installations World Wide

InterClean is an engineering, innovation and technology pioneer in the field of large vehicle cleaning applications.

Tammermatic has manufactured thousands of Rainbow fleet washes and has installed them all over the world.

Our customers include post offices, transit and cargo companies, car and truck manufacturers, dairies, military bases, food and beverage manufacturers as well as several others.

#### Rainbow Ultima - Ultimate Cleaning Power for All Fleets

The new Rainbow Ultima Fleet Washer uses state-of-the-art, large vehicle cleaning technology for a variety of applications.

Our high-end models combine advanced brushless and brush wash methods to clean all kinds of vehicles from small passenger cars to odd-shaped tractors and trailers.

The Ultima two-brush gantry is a wise investment for operators washing buses and other box-shaped vehicles on a regular basis. It takes just two minutes to clean a standard size bus with our two-brush crossover system.





## HEAVY DUTY CLEANING POWER for Hard to Clean, Odd Shaped Vehicles

The Rainbow Ultima is designed to provide the best available cleaning power for tanker, garbage and other odd-shaped vehicles.

For standard applications, Ultima can be equipped with conventional flat, high-pressure nozzles.

### The Key Element is High-Pressure Washing

Transportation vehicles have a large number of areas that are beyond the reach of brushes. High pressure washing addresses this problem. The Rainbow Ultima is equipped with pre-wash and high-pressure wash systems. Flat spray techniques are used for standard cleaning while, solid stream nozzles are designed for more demanding applications.

After a chemical prewash, high pressure jets use an oscillating and spinning motion to quickly and efficiently clean spaces on odd-shaped vehicles that brushes cannot reach. Additionally, these high pressure water jets remove sand and other coarse particles which could potentially scratch finishes during the brush stage of the wash.

### Solid Stream Nozzles for Far Reaching Cleaning Power

While a flat spray pattern is ideal for short and medium distances, a solid stream spray pattern is more effective over greater distances.

The Ultima machines feature high-pressure spray units with 3 parallel, solid stream nozzles. The water jets form a uniform area on the target surface.





## TRIPLE COVERAGE SWEEPING Technique for Enhanced Cleaning

### Vertically sweeping jets clean the sides from sill to roof.

For enhanced cleaning, jets oscillate up and down so that they overlap each other. Similarly, the high-pressure water jets on the rotary head oscillate sideways.

The rotational motion of the head, together with the lateral oscillating pattern, directs the spray from the water jets into vehicle recesses that are beyond the reach of brushes, cleaning vertical and horizontal surfaces from bumper to bumper.

### Wheel Wash

Wheel spray banks provide extra cleaning power for lower vehicle areas.

### Vertical Front Contour Tilting Brush Action

Brush inclination is an important feature in modern vehicle wash machines. The Rainbow Ultima's solution is to pneumatically control the brush inclination instead of the traditional power push and tilt method. This unique solution gives an excellent wash result and is safe to use on the large windshield areas of many modern vehicles.

*Wheel Spray Banks*



*Vertical Front Contour Tilting Brush Action*







## CHASSIS WASHERS for Heavy Mud Removal

Ultima models can be equipped with either a static or high-pressure oscillating chassis washer.

The chassis washer is installed at the entrance of the wash bay. The cleaning cycle starts when a vehicle drives over the spray head while entering the wash bay.

A chassis washer can be fed either with a multistage centrifugal pump (18.5 kW, 340 l/min, 20 bar) or with piston pumps (2 x 18.5 kW, 2 x 125 l/min, 75 bar).

If the gantry is equipped with a high pressure system, no additional pump for the chassis wash is needed.

The power spray function of the wheel washer can be used together with general high-pressure applications as well as with brush cycles.







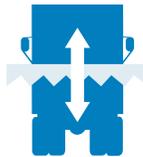
Program Elements, Contouring Modes And Functional Features



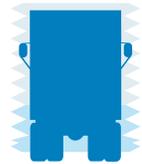
Prewash application from lower spray banks



Prewash application from upper and lower spray banks



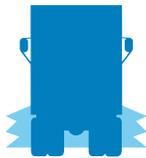
Prewash application from contouring rotary head



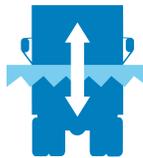
Prewash application with two different chemicals or with one chemical with two different strengths



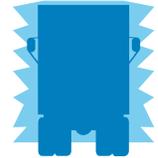
High-pressure application from lower spray banks



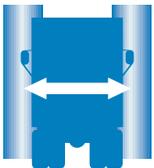
High-pressure application from wheel spray banks



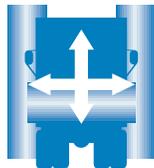
High-pressure application from contouring rotary head



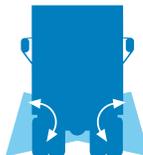
High-pressure application from upper and lower spray banks



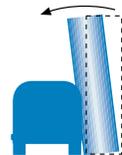
Wraparound 2-brush wash



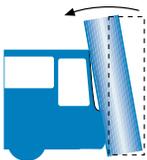
3-brush wash with contouring top brush and wraparound side brushes



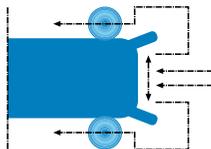
Oscillating under carriage wash



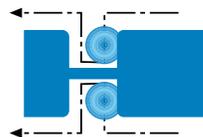
Vertical side contour-tilting action for vans and other small vehicles



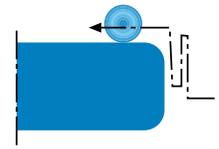
Vertical front contour tilting action



Front mirror override mode for side brush trajectories



Adjustable draw bar limit for side brushes



Side brush cross-over wash - performed with both brushes

# ULTIMATE UNPARALLELED

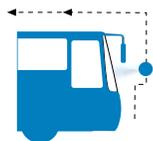
## Compatibility and Cleaning Power for Any Given Fleet

Automated cleaning of on-road vehicles can pose a challenge due to the variety of shapes and sizes of vehicles within the fleet.

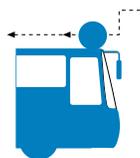
A straightforward basic brush wash with or without prewash is an adequate method for cleaning vehicles with flat sides.

However, the cleaning of vehicles with irregular shapes requires contouring of the brushes and movable spray banks that have to be placed at an optimal distance from the surfaces to be cleaned.

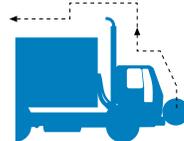
The control system of the Ultima, the most advanced in the industry, produces unparalleled contouring accuracy. It offers a wide range of selectable and built-in programming elements, contouring modes and functional features, which facilitate customizing wash programs to suit all the needs of the fleet.



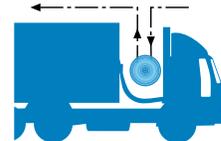
Automatic front mirror override mode for rotary head trajectory



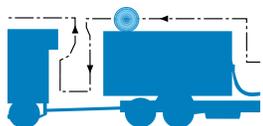
Front mirror override mode for top brush trajectory



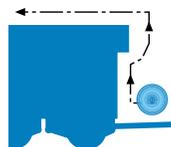
Pre-programmed override sequence for rotary head and top brush



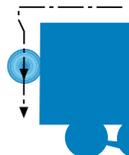
Automatic arctic gap sensing feature



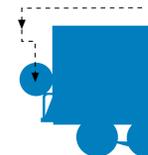
Two settings for top brush lower limit and arctic level



Top brush - back-off feature



Top brush - intensified rear wash / back-on feature



Adjustable load platform limit for top brush



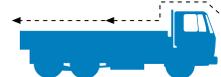
Small vehicle mode: effects to brush pressure and top brush lower limit settings



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



## HIGHLIGHTS and Special Features

- Overhead front and rear panels
- Primed and epoxy painted frame structure
- AC inverter driven lift motors
- Wraparound side brushes
- Vertical front contour-tilting action
- Profiling top brush
- Stainless steel splash shields
- Stainless steel housing for gantry motor control panel
- Bright LED positioning display
- Motor-starters for brushes with soft-start feature
- Touch-sensitive safety-flaps
- AC inverter driven gantry travel motors
- Centralized lubrication system
- Derailing locks

### Prewash arches

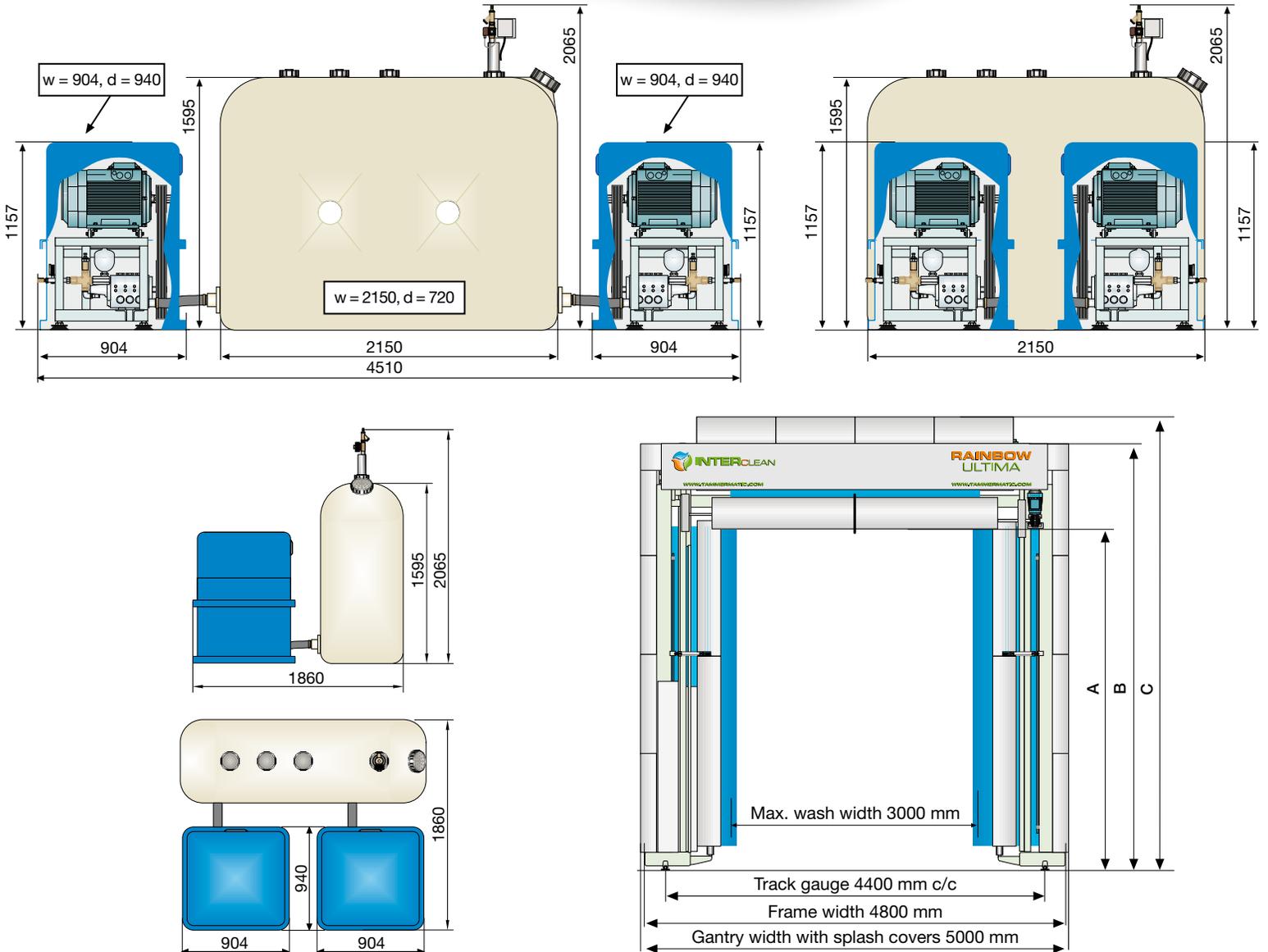
- Vertical full height pivoting solid spray banks
- Vertical full height pivoting and divided spray banks
- Vertical partial height pivoting spray banks for intensified treatment of vehicles lower areas
- Horizontal spray banks placed on contour profiling rotary head

### HP arches

- Vertical full height pivoting solid spray banks - flat spray nozzles
- Vertical full height pivoting and divided spray banks - solid stream nozzles
- Wheel spray banks - solid stream nozzles to complete the full height oscillating solid stream system
- Horizontal spray banks placed on contour profiling rotary head - available with flat or solid stream HP nozzles.



# DIMENSIONS AND SERVICE CONNECTIONS



## Basic 2-Brush version

Washbay length: vehicle + 5500 mm (safety distances 2 x 500 mm included). Min. washbay width 5400 mm.

Power supply 3NPE 50 Hz, 400 V	A = Wash height / mm	4200	4500	4800	5100
Rated power: 9 kW, Back-up fuses: 3 x 35 A	B = Frame height / mm	4900	5200	5500	5800
Water supply: DN25, 3.5 bar, 150 l/min	C = Total height / mm	4900	5200	5500	5800
Compressed air supply: DN10, 6-8 bar	Washbay min. height / mm	5000	5300	5600	5900

## 2-Brush version with 18.5 kW & 20 bar HP-pump

Washbay length: vehicle + 5500 mm (safety distances 2 x 500 mm included). Min. washbay width 5400 mm.

Power supply 3NPE 50 Hz, 400 V	A = Wash height / mm	4200	4500	4800	5100
Rated power: 27 kW, Back-up fuses: 3 x 63 A	B = Frame height / mm	4900	5200	5500	5800
Water supply; DN50, 3.5 bar, 300 l/min	C = Total height / mm	4900	5200	5500	5800
Compressed air supply: DN10, 6-8 bar	Washbay min. height / mm	5000	5300	5600	5900

## Basic 3-Brush version

Without top splash shield total and washbay heights are reduced by 300 mm. Washbay length: vehicle + 6000 mm (safety distances 2 x 500 mm included). Min. washbay width 5400 mm.

Power supply 3NPE 50 Hz, 400 V	A = Wash height / mm	4200	4500	4800	5100
Rated power: 10.5 kW, Back-up fuses: 3 x 35 A	B = Frame height / mm	5200	5500	5800	6100
Water supply: DN 25, 3.5 bar, 150 l/min	C = Total height / mm	5500	5800	6100	6400
Compressed air supply: DN10, 6-8 bar	Washbay min. height / mm	5600	5800	6200	6500

## 3-Brush version with 18.5 kW & 20 bar HP-pump

Without top splash shield total and washbay heights are reduced by 300 mm. Washbay length: vehicle + 6000 mm (safety distances 2 x 500 mm included). Min. washbay width: 5400 mm w/o top HP arch, w/ HP top arch min. washbay length is vehicle + 7500 mm.

Power supply 3NPE 50 Hz, 400 V	A = Wash height / mm	4200	4500	4800	5100
Rated power: 29 kW, Back-up fuses: 3 x 80 A	B = Frame height / mm	5200	5500	5800	6100
Water supply: DN50, 3.5 bar, 300 l/min	C = Total height / mm	5500	5800	6100	6400
Compressed air supply: DN10, 6-8 bar	Washbay min. height / mm	5600	5800	6200	6500

## 3-Brush version with 2 x 18.5 kW & 70 bar HP-pump

Without top splash shield total and washbay heights are reduced by 300 mm. Washbay length: vehicle + 6000 mm (safety distances 2 x 500 mm included). Min. washbay width: 5400 mm w/o top HP arch, w/ HP top arch min. washbay length is vehicle + 7500 mm.

Power supply 3NPE 50 Hz, 400 V	A = Wash height / mm	4200	4500	4800	5100
Rated power: 46 kW, Back-up fuses: 3 x 100 A	B = Frame height / mm	5200	5500	5800	6100
Water supply: DN50, 3.5 bar, 300 l/min	C = Total height / mm	5500	5800	6100	6400
Compressed air supply: DN10, 6-8 bar	Washbay min. height / mm	5600	5800	6200	6500

# CLEAN BY NATURE



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