

A large, stylized white letter 'R' with a period, set against a blue-tinted background of a sewer cleaning machine.

R.

Catalogue 2019

A blue-tinted photograph of a Rioned sewer cleaning machine. The machine is a truck-mounted unit with a large spool of cable and various hoses and connectors. The word 'Rioned' is visible on the side of the machine. The background is a solid blue color.

# Rioned Sewer Cleaning Machines

A vertical bar on the left side of the page, composed of four colored segments: orange, yellow, red, and green.

Keeping your business flowing

**Rioned.**



Pipe diameter



Diesel engine



Petrol engine



PTO



Electric engine



Water tank capacity



Water / sludge capacity



Weight of device



Weight category vehicle



High pressure reel turn / swivelling



Spring diameter



Spring length



Remote control

# THE FUTURE OF SEWER CLEANING BEGINS TODAY

Our sewage systems have to endure more and more. With the impacts of climate change, ageing of pipes and changes in sewer use by people and companies, good maintenance is essential.

The market for sewer cleaning equipment is changing. New emission regulations have recently been introduced, and the ergonomic and safety requirements are getting stricter. That's why we at Rioned work with passion and dedication to adapt our product range to these changes. Our smart adaptations and innovative solutions give you the peace of mind of knowing your work will continue to be hasslefree and enjoyable. We truly live up to our slogan: 'Keeping your business flowing'.

In this catalogue we present our latest machines, which meet all current and future requirements. We are proud to announce eCityJet, the world's first full-featured machine that is completely electrically powered. This allows you to work without concern in areas where special environmental measures apply, such as ultra low emission zones and inner cities. Another innovation we are proud of is the CityJet PTO. This machine does not have its own combustion engine but rather is driven by the vehicle's engine. Installed in a new van, this machine meets the latest environmental standards.

In addition to our high pressure jetting machines, this catalogue also contains an overview of our jet/vac combination units. Do you work in difficult to reach places? Then the pioneering Rioned UrbanCombi is the machine for you. The UrbanCombi has been specially developed for use in multi-level car parks and hard-to-reach areas. Our range of robust spring machines is also included in this catalogue. So we have the right machine for every job. From compact spring machines to complete jet/vac combination units.

We develop all our products with one goal in mind: the job safety and satisfaction of our customers. Today, tomorrow and in the distant future. That is why we say: prepare for tomorrow today.

Jan Pieters, CEO Rioned





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# WE KEEP YOUR BUSINESS FLOWING

RIONED SPECIALISES IN CLEANING MACHINES FOR SMALL AND MEDIUM SIZED DRAINS AND SEWERS

Since the start in 1956 Rioned has always been at the forefront of innovation. In this catalogue you will find a host of features and functions that enhance the user-friendliness and effectiveness of your high pressure jetting machine. Every machine that leaves our factory in Tilburg, the Netherlands is rigorously tested. Our modern facility measures and registers the pressure and flow of every machine and only if all criteria are met the machine is ready for shipment to the customer. Thousands of companies worldwide rely on their Rioned jetting machine, day in- day out.

OUR PRODUCT RANGE CONSISTS OF:

- Spring Machines
- High pressure jetting machines
- Jet/vac combination units
- Inspection and detection systems

By using only the very best components and state-of-the art technologies we can guarantee lower costs during the service life of your machine. Our jetters use less water, less fuel and are designed to work at the maximum. A host of standard fit smart features help you to work faster and more effectively.





# RIOHIRE: EQUIPMENT RENTALS

## IF YOU CAN'T BUY THE BEST, HIRE THE BEST



Andrew Wilson,  
General Manager Rioned UK

### READY-MADE SOLUTION

"We've standardised the vehicle implementation process to produce an enhanced standard package. It's a customer-first approach that offers a ready-made solution with unique features, while still providing good value for money over short- or longer-term agreements."

With a large UK fleet of rental units our customers are able to satisfy their short or long term jetting demands by utilizing our hire services. Van-pack vehicles and combination units are available on long- and short-term rental contracts. We are able to supply and install jetters and accessories into customers owned vehicles as well as the provision of fully equipped vehicles.

The standard van-pack hire vehicle is the long-wheelbase Transit van 350 with exterior chevron signage for highways compliance. The vehicles have been fitted with a nightheater to provide frost-protection for the jetter, which also doubles up as a heater for a storage cupboard that is heated for drying wet overalls.

For long term hire we can arrange delivery and collection, vehicle wraps, vehicle customization along with fully maintained packages to make the service totally hassle free. A simple hire agreement and completion of associated documentation can have you driving away within 24 hours. We often have a variety of units available, including the Rioned Jetting units for those ultra-demanding or sophisticated tasks



# AROUND THE GLOBE

All Rioned products are manufactured in our headquarters in Tilburg (the Netherlands). They continue their way to the customer via one of our European sales offices or worldwide distribution partners.

Rioned have sales offices in Belgium, France and the United Kingdom and works with sister companies in Germany and the United States.



Rioned Headquarters, the Netherlands



Rioned UK, Thetford (Norfolk)



Rioned UK / Andy Guest Jetters, Keighley  
(West Yorkshire)



R.

## FROM IDEA TO WORLD FIRST

Innovation, sustainability and the job satisfaction of our customers. Those are my greatest drives, says Marc Soethout, chief new product development at Rioned. Marc has spent the last few years working on Rioned's most prestigious project: the development of the eCityJet. An electric CityJet that meets the most stringent emission requirements yet in no way compromises quality or job satisfaction.

The project was a big challenge, Marc says. Many of the technical solutions we came up with for the emissions were just not able to meet our standards. Of course, we did set the bar high for ourselves. By remaining critical and not making any concessions we have succeeded in creating this innovative product. A world first I am proud of.



Marc Soethout, chief new product development at Rioned

## High pressure jetting machines

### HIGH PRESSURE MACHINES

Our portfolio consists of a wide range of machines to clean and unblock sewers and drains quickly & effectively. By using the best components and modern technology we can guarantee lower operational cost and the unrivalled longevity of our machines. Our jetters use less water, less fuel and are designed to work at the maximum. Standard fit smart features help you to work faster and more effectively.

### PORTABLE JETTERS

Portable machines for professional cleaning of small diameter pipework. Powered by either a petrol engine or silent electric motor.

### TRAILER JETTERS

Versatile trailer units available un-braked with a max capacity of 750 kgs or braked systems with the power to complete the toughest of jobs.

### VAN PACKS

A range of skid mounted machines for the professional user. From the compact AquaJet, suitable for small vehicles up to our top of the range Profi Jet for the most demanding of applications.



MiniJet

25 – 100 mm

Engine and pump 30 kgs  
Hose reel 26 kgs

HD30 130 bar / 30 lpm

40 – 200 mm

90 kgs

HD30 100 bar / 40 lpm

40 – 200 mm

100 kgs

HIGH PRESSURE JETTING MACHINES

MINIJET AND  
HD30

PROFESSIONAL CLEANING OF DRAINS  
UP TO 200 MM

MINIJET

The MiniJet is a high pressure jetting machine for residential- and light commercial use. Equipped with a silent and powerful electric motor and professional pump it is ideal for cleaning drains from 25 - 100 mm.

The MiniJet is easy to transport on stairs or in the elevator. The motor/pump unit can be easily removed and used independently (with a NW 5 hose) from the hose reel meaning you can leave the hose reel section behind if the workspace is limited.



MiniJet

TECHNICAL SPECIFICATIONS			
	MiniJet 110 bar / 10 lpm	HD30 130 bar / 30 lpm	HD30 100 bar / 40 lpm
Operating range	25-100 mm	40-200 mm	40-200 mm
Engine	1.8 kW electro engine 230V - 50Hz	Honda 8 kW petrol engine	Honda 8 kW petrol engine
Rioned/Speck	Rioned/Speck Max. 110 bar / 10 lpm 1600 psi / 2,2 gpm	Rioned/Speck P21 130 bar / 30 lpm 1900 psi / 6,5 gpm	Rioned/Speck P30 100 bar / 40 lpm 1450 psi / 8,8 gpm
HP hose	20 metres NW 8 1/4"coupling 10 metres NW 5 hose 1/8"coupling 1,5 metres suction hose	40 metres NW 8	40 metres NW 10
Weight	Engine and pump 30 kgs Hose reel 26 kgs	90 kgs	100 kgs
Nozzles	2 nozzles 1/4" (1 open, 1 blind) 1 nozzle 1/8"(blind)	2 nozzles 1/4" (1 open, 1 blind)	2 nozzles 1/4" (1 open, 1 blind)
Accessories	High pressure gun with 600 mm lance liquid suction hose with filter	High pressure gun with 600 mm lance liquid suction hose with filter	High pressure gun with 600 mm lance liquid suction hose with filter

HD30


The HD30 mobile high pressure jetting machine is fitted with a petrol engine that guarantees optimal cleaning of small drains and sewers up to 200 mm. This machine is particularly suitable for jetting and cleaning of house connections, roof water drains, sewers blocked with grease and industrial sewers. It is also very effective at cleaning street furniture and terraces.

The HD30 can be connected directly to a water supply therefore eliminating the need for a separate water tank. The HD30 is supplied with two nozzles and a high pressure gun with lance.




HD30


FlexJet Basic



Max 300 mm




As from 370 kgs




400 litres


FlexJet Standard



Max 300 mm




As from 390 kgs




400 litres


FlexJet+



Max 350 mm



As from 430 kgs



550 litres

HIGH PRESSURE JETTING MACHINES

FLEXJET AND FLEXJET+

SETTING A NEW STANDARD

The FlexJet and FlexJet+ are super compact trailers with a powerful pump suitable for professional unblocking and cleaning of drains and sewers up to 300 mm (FlexJet) or 350 (FlexJet+) mm. The trailer is suitable for professional cleaning companies, councils, building contractors and water authorities.

INTELLIGENT DESIGN

Due to the streamlined and modern design the FlexJet has a low air resistance. Thanks to the use of high strength steel and synthetic material the total weight remains low, making it possible to carry more water.

The light weight FlexJet can be transported by practically all types of vehicle and on a standard driving license. The FlexJet has excellent road holding and maneuvering abilities, thanks to its compact size. The Flexjet+ is a braked trailer. The hose reels are mounted at the perfect working height for ultimate operational comfort. The operator has full control of the FlexJet at the rear. The FlexJet has an integrated 400 litres water tank with a large tool box and lockable cover. The FlexJet+ holds 550 litres of water.

STABLE BUT FLEXIBLE

The innovative construction of the water tank gives a stable road holding both when empty and full by preventing sway during driving. The trailer is very user friendly and is available in various pressure and flow capacities. As the name already indicates this machine can be used flexibly and is well suited to drainage and surface cleaning.

The motor-pump compartment of the FlexJet+ is enclosed and supplied with flame retardant insulation material along with a special cooling system. The FlexJet+ is heavily noise damped. The cover can remain closed during operation and during transport meaning the machine remains free from road dirt and salt.



Flexibility at it's best

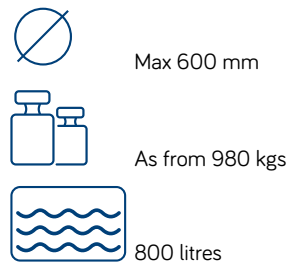


TECHNICAL SPECIFICATIONS			
	FlexJet Basic	FlexJet Standard	FlexJet+
Operating range	Max 300 mm	Max 300 mm	Max 350 mm
Version	Unbraked, no cover	Unbraked, with cover	Braked, with cover
Engine	Honda, 15 kW (20 HP)	Honda, 15 kW (20 HP)	Honda, 15 kW (20 HP) Honda 18 kW (24 HP)
Pump Rioned/Speck	150 bar / 45 lpm	150 bar / 45 lpm	140 bar / 60 lpm 150 bar / 45 lpm 150 bar / 55 lpm
	2200 psi / 10 gpm	2200 psi / 10 gpm	2100 psi / 13 gpm 2200 psi / 10 gpm 2200 psi / 12 gpm
Pressure regulator	Type Speck with automatic bypass	Type Speck with automatic bypass	Type Speck with automatic bypass
Water tank	400 litres	400 litres	550 litres
Fuel tank	15 litres	15 litres	15 litres
Filling reel	35 metres NW 19	35 metres NW 19	35 metres NW 19
HP hose	50 metres NW 13 (1/2")	50 metres NW 13 (1/2")	60 metres NW 13 (1/2")
HP hose reel	Manual drive	Manual drive	Manual drive
Weight	As from 370 kgs	As from 390 kgs	As from 430 kgs
Dimensions (LxWxH)	2815 x 1375 x 1320 mm	2815 x 1375 x 1320 mm	3070 x 1375 x 1320 mm
Nozzles	2 x 1/2" (1 open, 1 blind)	2 x 1/2" (1 open, 1 blind)	2 x 1/2" (1 open, 1 blind)
Accessories	Spraygun and lance	Spraygun and lance	Spraygun and lance
Color	Yellow (RAL 1032) or white (RAL 9010), other colors optionally available		
OPTIONS			
Remote control	RioMote 5 channel radio remote control (gas regulation, pump on/off, emergency stop)		
RioPulse Pulsator	Pump adjustment to send water in pulses through the hose		
Extra hose length	60 or 80 metres NW 13 (1/2") MaxFlow hose instead of 50 metres		
Hydraulic drive (+)	Hydraulically driven HP reel		
2nd high pressure hose reel (+)	Filling reel converted to a second HP hose reel for work with small diameter hose (FlexJet+ only)		
Mechanic freewheel HP hose reel (+)	RioFree mechanical freewheel at the hose reel for coiling off without any resistance		
Hydrant connection	Supply line with hydrant connection for fast filling of the water tank		
Light metal wheels	Light metal wheel rims instead of standard wheel rims		



- Compact and light weight
- Modern design, easy to use
- Integrated water tanks
- Several configurations available
- For drains and sewers up to 350 mm





# HIGH PRESSURE JETTING MACHINES MULTIJET THE HEAVY-DUTY, HIGH CAPACITY JETTING TRAILER

The Rioned MultiJet is a high pressure jetting trailer designed and built with the latest technology and is suitable for unblocking and cleaning of drains and sewers up to 600 mm. The powerful MultiJet is the quietest trailer mounted jetting machine in its class thanks to the water cooled diesel engine, special exhaust system and enclosed body.

### MAXIMUM VISIBILITY

The MultiJet has two integrated 400 litres water tanks that are interconnected. The unique design and low center of gravity ensure excellent driving characteristics and road stability. When pivoted out the hose reel remains within the machine body minimizing obstructions into the road thus preventing accidents. The placement of the lights guarantee maximum visibility and safety.

### FRAME AND DESIGN

The new heavy duty tow bar and chassis are built to withstand many years of intensive use, the robust construction of the pivoting hose reel mechanism ensures trouble-free operation for the life of the machine. As with all premium Rioned machines, safety systems are fitted to maximize the longevity of the MultiJet's major components.

The aerodynamic design of the MultiJet contributes to ensuring lower fuel consumption of the towing vehicle. Noise levels are reduced to an absolute minimum by the use of a heat exchanger system to cool the engine. Two integrated and lockable tool compartments provide ample storage space for tools and other equipment.

### NEW PIVOTING HOSE REEL CONSTRUCTION

The pivoting hose reel now pivots to over 90° + 180° and further from the rear of the machine for optimum working comfort under all circumstances. The hose reels are protected by the cover of the machine, further ensuring trouble-free working during periods of frost.

The new high pressure jetting hose fitted to the MultiJet is not only the lightest hose of its kind on the market it also ensures minimum pressure loss thanks to the smooth inner surface and widened inner diameter. Due to the new hose the effective output of the new MultiJet is further increased delivering more working pressure at the nozzle. For single man operation a radio remote control option is available along with a spray beam to clear road surfaces from oil spills and dirt.

### SPRAYBEAM

The optional spraybeam with rotating nozzles is ideal to clear streets from oil spills etc.

TECHNICAL SPECIFICATIONS		
Operating range	Max 600 mm	
Version	Braked, noise reducing cover	
Engine	Watercooled Kubota Diesel 25 kW (34 HP), 30 kW (41 HP)	
Pump Rioned/Speck	160 bar / 75 lpm 200 bar / 60 lpm	2400 psi / 17 gpm 3000 psi / 13 gpm
Pressure regulator	Type Speck with automatic bypass	
Water tank	800 litres (2x 400 litres)	
Fuel tank	30 litres	
Filling reel	50 metres NW 19	
HP hose	80 metres NW 13 (1/2"), NW 16 or NW 19 (dependent on configuration)	
HP hose reel	Hydraulic drive, 90° + 180° pivoting	
Weight	As from 980 kgs (max 1900 kgs)	
Dimensions (LxWxH)	3640 x 1840 x 1500 mm	
Nozzles	2 x 1/2" (1 open, 1 blind)	
Accessories	Spraygun and lance	
Color	Yellow (RAL 1032), blue (RAL 5010) or white (RAL 9010)	

OPTIONS	
Remote control	RioMote 7 channel radio remote control (engine start/stop, gas regulation, pump on/off, emergency stop)
RioPulse Pulsator	Pump adjustment to send water in pulses through the hose
Anti-freeze tank	30 litres anti-freeze tank mounted to protect HP circuit. Drain valve mounted on heat exchanger
Ventury tank filling system	Suction device to fill up the tank with water from natural sources
2nd high pressure hose reel	Filling reel converted to a second HP hose reel for work with small diameter hose
Extra hose length	Extra hose lengths available
Mechanic freewheel HP hose reel	RioFree mechanical freewheel at the hose reel for coiling off without any resistance
Hydrant connection	Supply line with hydrant connection for fast filling of the water tank
Spraybeam	Spraybeam with rotating nozzles to clear streets from oil spills
Light metal wheels	Light metal wheel rims instead of standard wheel rims



800 litres water on board



90° + 180° Pivoting hose reel



Large storage compartments



eControl+ control panel

- Robust and durable
- Designed for tough jobs
- Patented 90° + 180° pivoting high pressure hose reel
- Very stable road holding
- Low noise level



Max 350 mm



As from 280 kgs



400 litres

## HIGH PRESSURE JETTING MACHINES

# AQUAJET

## SMALL SIZE & BIG PERFORMANCE, SUITABLE FOR ALL COMMERCIAL VEHICLES

The AquaJet is suitable for unblocking and cleaning of drains and sewers up to 350 mm. Thanks to its very compact design and low weight it fits almost any lightweight van and pick-up such as Toyota Hiace, Mercedes Benz Vito, Volkswagen Transporter, Caddy or Peugeot Partner.

The AquaJet leaves maximum internal loading space for storage of tools and equipment without exceeding the maximum payload of the van. The machine is also easily installed.

### VALUE FOR MONEY

The choice of various engines, pumps and water tanks enables Rioned to build the machine to your specification.

The Rioned AquaJet is designed with maintenance in mind, the removable cover allows easy access to the engine and pump for servicing.

### GREAT ERGONOMICS

The steel hose reels and control panel are mounted at the optimum working height, giving you ultimate operation comfort.

The AquaJet is available in various configurations and can be enhanced with many options such as RioMote radio remote control, RioPulse pulsator system (jump-jet) and hydraulic hose reel drive.



- Very compact construction
- Low weight
- Choice of different engines, pumps and water tank configurations
- Maintenance friendly
- Fits into almost any vehicle



eControl control panel  
(with RioMote remote control)

TECHNICAL SPECIFICATIONS		
Operating range	Max 350 mm	
Engine	Honda 15 kW (20 HP), Honda 18 kW (24 HP) or Kubota Diesel D902 18 kW (24 HP)	
Pump Rioned/Speck	130 bar / 60 lpm 150 bar / 45 lpm 150 bar / 55 lpm 190 bar / 45 lpm	1900 psi / 13 gpm 2200 psi / 10 gpm 2200 psi / 12 gpm 2800 psi / 10 gpm
Pressure regulator	Type Speck with automatic bypass	
Water tank	400 litres	
Fuel tank	15 litres	
Filling reel	35 metres NW 19	
HP hose	60 metres NW 13 (1/2")	
HP hose reel	Fixed, manual operation	
Weight	As from 280 kgs	
Dimensions (LxWxH)	1100 x 950 x 1095 mm	
Nozzles	2 x 1/2" (1 open, 1 blind)	
Accessories	Spraygun and lance	
Color	Blue covers, black metal frame	
OPTIONS		
Remote control	FlexMote 3 channel radio remote control (gas regulation, pump on/off, emergency stop)	
Remote control	RioMote 5 channel radio remote control (gas regulation, pump on/off, emergency stop)	
RioPulse Pulsator	Pump adjustment to send water in pulses through the hose	
Pump protection	Run dry protection with overrun possibility	
Anti-freeze tank	30 litres anti-freeze tank mounted to protect HP circuit	
Extra water tanks	2 x 300 litres water tanks instead of 1 x 400 litres 2 x 400 litres water tanks instead of 1 x 400 litres	
Extra hose length	80 metres NW 13 (1/2") MaxFlow hose instead of 60 metres	
Ventury tank filling system	Suction device to fill up the tank with water from natural sources	
Hydraulic drive	Hydraulically driven HP reel	
Mechanic freewheel HP hose reel	RioFree mechanical freewheel at the hose reel for coiling off without any resistance	
Hydrant connection	Supply line with hydrant connection for fast filling of the water tank	





Max 350 mm



As from 440 kgs



600 litres

## HIGH PRESSURE JETTING MACHINES

# URBANJET

## TAKING DRAIN CLEARANCE TO THE NEXT LEVEL

### LIGHTWEIGHT

The new light weight UrbanJet is designed to fit most compact 3.5T vans such as the VW transporter, Ford Transit, Vauxhall Movano, MB Vito or similar sized vans. Delivering 200 bar / 45 litres per minute the new UrbanJet is suited for unblocking of pipes up to 350 mm. The new system is also available with a 140 bar / 60 litres per minute pump.

### EVERYTHING YOU NEED

The UrbanJet is supplied as a complete package including hydraulically driven high pressure hose reel with 60 metres MaxFlow lightweight jetting hose and filling reel with 35 metres of NW19 hose. The standard included 5-channel radio remote control allows single man operation and allows the user to control the pump (on/off) and engine revs and emergency stop.

The run dry function for low water pump protection has an override facility allowing the operator to use the hydraulic system to retrieve the hose from the drain. The UrbanJet is available with several different tank configurations for optimum flexibility.

### eControl+ INTERFACE

Despite its affordable price the new UrbanJet is fitted with our award winning eControl+ user interface with LCD display. It includes many useful features and provides a full machine status at a glance. The eControl+ system also provides the user with machine error information for quick fault diagnostics.



- Lightweight to fit most popular and compact 3.5t + vehicles
- eControl+ control panel with machine status indicators
- Hydraulically driven high pressure hose reel as standard
- Equipped with radio remote control for single man operation as standard

### TECHNICAL SPECIFICATIONS

Operating range	Max 350 mm
Engine	Kubota D1105 Diesel Engine (capacity 18.5 kW/25 HP)
Pump Rioned/Speck	200 bar / 45 lpm 3000 psi / 10 gpm 140 bar / 60 lpm 2000 psi / 13 gpm
Pump protection	Run dry protection with overrun possibility
Pressure regulator	Type Speck with automatic bypass
Water tank	2 x 300 litres (600 litres total)
Fuel tank	30 litres
Filling reel	35 metres filling hose
HP hose	60 metres NW13 (1/2")
HP hose reel	Fixed hose reel, hydraulically operated
Control	Rioned eControl+ with LCD display, warning lights, hour counter and service interval warning
Remote control	RioMote 5 channel radio remote control (gas regulation, pump on/off, emergency stop)
Weight	As from 440 kgs
Dimensions (LxWxH)	1305 x 1240 x 1195 mm
Nozzles	2 x 1/2" (1 open, 1 blind)
Color	Blue covers, black metal frame

### OPTIONS

Remote control	Upgrade from 5 to 7 channel radio remote to also include start/stop of the engine remotely
RioPulse Pulsator	Pump adjustment to send water in pulses through the hose
Anti-freeze tank	30 litres anti-freeze tank mounted to protect HP circuit. Drain valve mounted on heat exchanger
Extra water tanks	1 x 400 litres or 4 x 300 litres water tanks instead of 2 x 300 litres
Extra hose length	80 metres NW 13 (1/2") MaxFlow hose instead of 60 metres
Ventury tank filling system	Suction device to fill up the tank with water from natural sources
Mechanic freewheel HP hose reel	RioFree mechanical freewheel at the hose reel for coiling off without any resistance
Hydrant connection	Supply line with hydrant connection for fast filling of the water tank
Accessories	Spraygun and lance



RioMote 5 channel radio remote control included



Compact built, leaving space for camera and tools



Max 450 mm



As from 530 kgs



600 litres

## HIGH PRESSURE JETTING MACHINES

# CITYJET

## EXCEEDING ALL YOUR EXPECTATIONS IN DESIGN, PERFORMANCE, USER FRIENDLINESS AND RELIABILITY

The Rioned CityJet sets the standard in design, performance and reliability. It is the most compact machine in its class and thousands of users worldwide rely on their CityJet day-in day-out. The all new CityJet hosts a range of innovative new features to enhance the machine functionality while offering superior ergonomics.

The compact design and low weight maximizes the carrying capacity of the vehicle.

### MORE EFFECTIVE

The high pressure hose reel now pivots through 180 degrees for optimum working conditions in all circumstances. The new hose reel has been widened to accommodate up to 140 metres of 1/2" high pressure hose or 120 metres of 5/8"hose. And the new electric locking mechanism on the hose reel is a major improvement in user friendliness and safety.

The RioFree freewheel system ensures that the hose reel can be coiled off without any friction of the hydraulics, this feature significantly reduces the effort required to operate the hose reel. The new high pressure jetting hose fitted to the CityJet is not only the lightest hose in its class. It also ensures minimum pressure loss thanks to the smooth inner surface and widened inner core. This also results in an increase of 12% effective working pressure at the nozzle.

### USER FRIENDLY

The CityJet fits most popular vehicles such as the Mercedes-Benz Vito, Volkswagen Crafter and Ford Transit. The modern, newly designed covers protect the user from rotating parts and reduce the noise levels of the machine to a minimum. The covers are easily removed for quick access to the engine and pump when servicing is required. With an easy fill fuel tank and special forklift lifting provision the new CityJet is extremely user friendly.

### DRIVES

The CityJet can be supplied with petrol, diesel or even an electric engine. A PTO (Power Take Off) version is also available. All systems host a range of innovative features to maximize performance and user friendliness. The CityJet Petrol e.g. has a patent pending system to cool the exhaust of the machine.

### ECO PACKAGE OPTION

The eco package helps you to save water and fuel. The start/stop system shuts of the engine automatically when the pump is off. The built up pulsator significantly reduces the consumption of water by sending pulses through the hose. Insulated machine covers and a special stainless steel exhaust system reduce noise levels to the absolute minimum.



- 180° pivoting hose reel
- eControl+ control panel
- High performance
- Light-weight
- Large capacity hose reel for up to 140 metres hp hose
- Electric hose reel locking mechanism



RioFree mechanical freewheel at the hose reel for coiling off without any resistance



Wide 180° pivoting hose reel for max. 140 metres of 1/2"hose

TECHNICAL SPECIFICATIONS	
Operating range	Max 450 mm
Engine	Kubota Diesel V1505 25kW (34 HP) Kubota Petrol WG 1605 33,5 kW (45 HP)
Pump Rioned/Speck	Diesel 160 bar / 75 lpm    2400 psi / 17 gpm 200 bar / 60 lpm    3000 psi / 13 gpm  Petrol 150 bar / 100 lpm    2250 psi / 22 gpm 160 bar / 85 lpm    2400 psi / 19 gpm 200 bar / 72 lpm    3000 psi / 16 gpm 250 bar / 60 lpm    3600 psi / 13 gpm 270 bar / 54 lpm    4000 psi / 12 gpm 320 bar / 46 lpm    4700 psi / 10 gpm
Pump protection	Run dry protection with overrun possibility
Pressure regulator	Type Speck with automatic bypass
Water tank	600 litres (2 x 300 litres)
Fuel tank	30 litres
Filling reel	50 metres NW 19
Hydrant connection on the tank	Supply line with hydrant connection for fast filling of the water tank
HP hose	80 metres NW 13 (1/2") or NW 16 (dependent on configuration)
HP hose reel	Hydraulic drive with RioFree freewheel, 180° pivoting
Weight	As from 530 kgs
Dimensions (LxWxH)	1335 x 1240 x 1195 mm
Nozzles	2 x 1/2" (1 open, 1 blind)
Accessories	Spraygun and lance
Color	Blue hose reel, black frame

OPTIONS	
Remote control	RioMote 7 channel radio remote control (engine start/stop, gas regulation, pump on/off, emergency stop)
RioPulse Pulsator	Pump adjustment to send water in pulses through the hose
Anti-freeze tank	30 litres anti-freeze tank mounted to protect HP circuit. Drain valve mounted on heat exchanger
Extra water tanks	4 x 300 litres water tanks instead of 2 x 300 litres
Extra hose length	Extra hose lenghts available
Ventury tank filling system	Suction device to fill up the tank with water from natural sources
2nd high pressure hose reel	Filling reel converted to a second HP hose reel for work with small diameter hose
Electric water level control	Automatic sysstem to open and close the filling line of your machine if the water has reached its minimum or maximum level in the tank
RioMeter hose counter	RioMeter hose length counter to display the length of the hose that is feeded in the drain
Riomote hose reel operation	Coiling on- and off via the radio remote control operation





Max 350 mm



As from 550 kgs



600 litres

## HIGH PRESSURE JETTING MACHINES

# eCITYJET

## THE FUTURE OF SEWER CLEANING BEGINS TODAY

Rioned introduces the first fully electric sewer cleaning machine for pipes with a diameter of up to 350 mm. The eCityJet has all the features of the conventional CityJet and meets all current and future environmental standards.

### ZERO EMISSION

The fully electric CityJet uses state-of-the-art technology, and features a strong electric motor powered by an extremely efficient battery pack. This means the machine produces zero emissions, which makes the eCityJet ideally suited for use in city centres where strict emission requirements apply and in areas that are completely or partially enclosed. The eCityJet has all the features of a conventional diesel-driven machine and is hardly heavier. Depending on the selected battery configuration, the empty machine weighs approximately 600 kg. The machine is also barely larger than a diesel-powered CityJet, making it suitable for most vans (such as a Mercedes Vito or Sprinter or a Ford Transit).

### PERFORMANCE

The performance of the eCityJet is in no way inferior to that of diesel-driven machines. With a maximum working pressure of 200 bar and a water flow of 60 lpm, the machine is ideally suited for unblocking pipes up to 350 mm. With fully charged batteries, it can handle 6 to unblocking operations.

### BATTERY PACK

The eCityJet can be fitted with three 5 kWh batteries or six 5 kWh batteries. The batteries are charged using regular mains power from an ordinary wall socket. The charging time for three batteries is four hours and for six batteries approximately eight hours. You can even top up the charge during the day for longer flushing.

### COMPLETE

The eCityJet comes as a complete system, with Riomote remote control, pulsator and eControl+ operating panel. Winding in and out is done electrically. No hydraulic fluid is used, which reduces environmental impact. The machine is supplied as standard with two 300-litre water tanks, a 135° pivoting reel with mechanical freewheel, 80-metre MaxFlow HP hoses and a filling reel with 50 metres of NW19 hose.



- Zero emission
- Up to 1 hour of jetting time
- Ideal for work in ultra low emission zones

With the eCityJet you are ready for the future. In the coming years there will be more and more emphasis on limiting NOx, particulate and CO2 emissions. The eCityJet already gives you a considerable advantage when it comes to customers who prefer to work in an environmentally friendly way. An additional advantage is that the machine is also considerably quieter than one with a diesel engine, which is an important factor when working at night, for example. The machines are easy to maintain, which in the long run will certainly result in considerable savings. Making the switch now will allow you to stand out in the market.

TECHNICAL SPECIFICATIONS	
Operating ranges	Up to 350 mm diameter
Motor	Electric motor
Battery pack	15 kWh or 30 kWh battery pack
Pump Rioned/Speck	200 bar / 60 lpm 3000 psi 13 gpm 160 bar / 75 lpm 2400 psi / 17 gpm
Pump protection	Dry drunning protection with bypass
Pressure regulation	Type Speck with automatic bypass function
Water tank	600 litres (2x 300 litres)
Filling reel	50 metres NW19
Permanently attached filling hose	Permanent attached filling hose with hydrant connection for quick filling of the tank
HP hose	60 metres NW 13 (1/2") or 80 metres NW 16
HP reel	180° swiveling, electrically controlled and equipped with RioFree freewheel
Weight	550 kgs / 640 kgs
Dimensions (lwxwxh)	1615 x 1240 x 1195 mm
Accessories	Spray gun with lance 2x 1/2"(1 open, 1 blind)
Color	Blue/black
OPTIONS	
Remote control	RioMote 7 channel radio remote control (engine start/stop, gas regulation, pump on/off, emergency stop)
RioPulse Pulsator	Pump adjustment to send water in pulses through the hose
Anti-freeze tank	30 litres anti-freeze tank mounted to protect HP circuit. Drain valve mounted on heat exchanger
Extra hose length	Extra hose lenghts available
Ventury tank filling system	Suction device to fill up the tank with water from natural sources
2nd high pressure hose reel	Filling reel converted to a second HP hose reel for work with small diameter hose
Electric water level control	Automatic sysytem to open and close the filling line of your machine if the water has reached its minimum or maximum level in the tank
RioMeter hose counter	RioMeter hose length counter to display the length of the hose that is feeded in the drain
Riomote hose reel operation	Coiling on- and off via the radio remote control





Max 600 mm



As from 550 kgs



600 litres

HIGH PRESSURE JETTING MACHINES

CITYJET PTO

POWERED BY THE ENGINE OF A MERCEDES BENZ SPRINTER OR VITO

DRIVE

The CityJet PTO (Power Take-Off) is driven by the engine of the vehicle in which it is placed. A sophisticated hydraulic system reduces the power of the vehicle-driven shaft to allow the high-pressure pump to do its job, so there is no longer any need for a separate combustion engine or other motor. Installed in a new van, this drive meets all legal environmental requirements.

VEHICLES

A CityJet PTO can be built into a Mercedes Benz Sprinter (3.5 or 5 tonnes) that is equipped with the Mercedes PTO factory options. Customers who often work in multi-level car parks can also choose the low clearance Mercedes Benz Vito. The drivetrain of this van includes a transfer case that provides direct power.

EQUIPMENT

The CityJet PTO is equipped with Riomote control and eControl+ operating panel. The machine is supplied as standard with two 300-litre water tanks, a 135° pivoting reel with mechanical freewheel, 80-metre MaxFlow HP hoses and a filling reel with 50 metres of NW19 hose.

BENEFITS

A CityJet with PTO drive in a EURO-6 van meets all environmental regulations. The total weight is lower than that of a machine with a combustion engine. The noise level is lower than that of a machine with a combustion engine, which is a great advantage when working at night, for example.



- Designed for MB Vito and Sprinter
- Low maintenance
- Low noise

TECHNICAL SPECIFICATIONS	
Operating range	Up to 600 mm diameter
Drive	Driven by vehicle engine
Pump Rioned/ Speck	Various capacities, depending on the power available from the vehicle
Pump protection	Dry-running protection with bypass
Pressure regulator	Type Speck with automatic bypass function
Water tank	600 litres (2x 300 litres)
Filling reel	50 metres NW19
Permanently attached filling hose	Permanently attached filling hose with hydrant connection for quick filling of the tank
HP hose	80 metres NW 13 (1/2") or 80 metres NW 16
HP reel	180° swivelling, hydraulic and equipped with RioFree freewheel
Weight	From 550 kgs
Dimensions	1335 x 1240 x 1195 mm
Spray nozzles	2x ½" (1 open, 1 blind)
Accessories	Spray gun with lance
Colour	Blue/black
Accessories	Spray gun with lance
Color	Blue/black
OPTIONS	
Remote control	RioMote 7 channel radio remote control (engine start/stop, gas regulation, pump on/off, emergency stop)
RioPulse Pulsator	Pump adjustment to send water in pulses through the hose
Anti-freeze tank	30 litres anti-freeze tank mounted to protect HP circuit. Drain valve mounted on heat exchanger
Extra water tanks	4 x 300 litres water tanks instead of 2 x 300 litres
Extra hose lengths	Extra hose lengths available
Ventury tank filling system	Suction device to fill up the tank with water from natural sources
2nd high pressure hose reel	Filling reel converted to a second HP hose reel for work with small diameter hose
Electric water level control	Automatic sysytem to open and close the filling line of your machine if the water has reached its minimum or maximum level in the tank
RioMeter hose counter	RioMeter hose length counter to display the length of the hose that is feeded in the drain
Riomote hose reel operation	Coiling on- and off via the radio remote control operation





Max 600 mm



As from 725 kgs



800 litres

## HIGH PRESSURE JETTING MACHINES

# PROFIJET T4: TIER 4 / STAGE V

## THE MOST POWERFUL AND GREEN MACHINE IN ITS CLASS

### TOP OF THE RANGE

The ProfiJet T4 is the top of the range model. It is designed to work long and hard. It offers unrivalled user-friendliness and hosts a wealth of innovative features to make your work easier and more effective. The award winning eControl+ user interface is fitted as standard, it provides you with useful features and gives you a full status update of your system at a glance. The new model eControl+ has a hose meter counter to indicate the length of jetting hose deployed from the machine. The ECO stop function shuts the engine down when the pump is not in use. The optionally available electric water level control system opens and closes the inlet valve of the tank automatically at the minimum or maximum water level.

### FUTURE PROOF ENGINE

Tier 4 (US) and Stage V (Europe) is legislation that requires industrial diesel engines to reduce the effects on the environment in relation to exhaust emissions. These regulations require the reduction of particulate matter (PM) and nitrogen oxides (NOx). In the near future all new non-road diesel engines have to comply with these new regulations. The new ProfiJet T4 stage V is powered by a fuel efficient Kubota V2403-CR-Turbo diesel engine with built in Diesel Particle Filter.

### POWERFUL YET COMPACT PACKAGE

The engine delivers up to 49 kW (65 HP) and the pump capacity is 280 bar/80 lpm or 160 bar/130 lpm allowing you to take on even the toughest of jobs. The light weight frame is made out of extra strong aluminium and it is designed to fit in a wide range of commercial vehicles like a MB Sprinter, Ford Transit or even MB Vito. Two separate water tanks are inter connected to optimize road stability and driving comfort.



Tier 4/stage V ready engine with built-in diesel particle filter



Pivoting and rotating hose reel



- Fuel efficient Tier 4-Stage/Stage V Kubota engine complying to current and future emission regulations
- Unique pivoting and swivelling high pressure hose reel
- eControl+ user interface with integrated hose meter counter

TECHNICAL SPECIFICATIONS		
Operating range	Max 450 mm	
Engine	Kubota V2403-CR-Tier 4/stage V 49 kW (65 HP)	
Pump Rioned/Speck	280 bar / 80 lpm 160 bar / 130 lpm	4100 psi / 18 gpm 2300 psi / 29 gpm
Pump protection	Run dry protection with overrun possibility	
Pressure regulator	Type Speck with automatic bypass	
Water tank	2 x 300 litres (600 litres total)	
Fuel tank	30 litres	
Filling reel	35 metres filling hose	
HP hose	80 metres NW 16 (80 lp) or NW 19 (130 lpm)	
HP reel	Hydraulic drive with RioFree freewheel, 90° + 180° pivoting	
Control	Rioned eControl+ with LCD display, warning lights, hour counter and service interval warning The ProfiJet T4 has a hose length meter counter to dispaly the length of the hose that is feeded in the drain	
Remote control	RioMote 7 channel radio remote control (engine start/stop, gas regulation, pump on/off, emergency stop)	
Weight	As from 800 kgs	
Dimensions (LxWxH)	1736 x 1383 x 1186 mm	
Nozzles	2 x 1/2" (1 open, 1 blind)	
Accessories	Spray gun with lance	
Colour	Blue hose reel, black aluminium frame	
OPTIONS		
RioPulse Pulsator	Pump adjusment to send water in pulses through the hose	
Anti-freeze tank	30 litres anti-freeze tank mounted to protect HP circuit. Drain valve mounted on heat exchanger	
Extra water tanks	2 x 400 litres water tanks instead of 2 x 300 litres	
Extra hose length	Extra hose lenghts available	
Ventury tank filling system	Suction device to fill up the tank with water from natural sources	
2nd high pressure hose reel	Filling reel converted to a second HP hose reel for work with small diameter hose	
Electric water level control	Automatic sysytem to open and close the filling line of your machine if the water has reached its minimum or maximum level in the tank	
RioSpindel	RioSpindel automatic hose guidance on the first HP hose reel	
Remote hose reel operation	Coiling on- and off via the radio remote control	

## HIGH PRESSURE JETTING MACHINES

# OPTIONS

### ENHANCE THE FUNCTIONALITY OF YOUR JETTING MACHINE



#### RIOMOTE

With RioMote radio remote your jetting machine can be controlled by a single man. With the 5 channel RioMote radio remote on our petrol driven jetters, you can switch the pump on or off and increase or decrease the engine revs. In addition there is a 7 channel radio remote available on our diesel machines meaning you can also switch the engine on or off. There is also an emergency stop with auto-reset function for maximum safety.

RioMote remote control has a massive operating range and thanks to the extra battery supplied you can work continuously.



#### RIONED ACCESSORIES

Enhance your efficiency with a range of accessories. We offer a complete range of jetting nozzles for all types of application. From standard and rotating nozzles to hydraulic root cutters and specialist nozzles to remove soil.

To extend the life of your high pressure hose we can supply hose inlet guidance tubes and rollers. The suction ventury device is a simple tool to empty flooded cellars without having to use a separate suction pump. See [www.rioned.com](http://www.rioned.com) for more details.



#### WINTER PROTECTION

Severe winter conditions can seriously damage the critical components of your jetting machine. Rioned offers an anti-frost system with tank to prevent extreme weather damage.



#### PULSATOR

The Pulsator is an adjustment to the pump that continuously interrupts the water flow and sends pulses of water through the hose.

Water savings of up to 80% can be achieved while time is saved because the pulsed action feeds the high pressure hose quickly and effectively into the pipework.



#### ELECTRIC WATER LEVEL CONTROL

The automatic water level control system automatically opens the filling valve if the water level is low and also shuts the supply feed off if the tank level has reached its maximum. This option allows the user to continuously fill and work uninterrupted when connected to a tap.



#### VENTURY TANK FILING SYSTEM

The ventury system creates suction pressure in the clean water tanks which allows you to fill up with water from lakes and canals at high speed.



#### RIOFREE

The RioFree freewheel system ensures that the hose reel can be coiled off without friction of the hydraulic system, this feature significantly reduces the effort required to operate the hose reel.



#### RIOMETER HOSE METER COUNTER

The Riometer hose meter counter supplies accurate information on how far the nozzle is inserted in the drain. It is especially useful on longer runs or when a drain is already partially cleaned. The hose meter counter is accurate to c. 2% at 100 metres.

#### MAXFLOW SEWER HOSE

By using the latest technology Rioned has developed a new type of lightweight high pressure sewer hose with a larger inner diameter. This optimizes the flow inside the hose and reduces pressure loss significantly without compromising the working or burst pressure.





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Matthijs, springmaker at Rioned.

## SPRINGS REQUIRE CRAFTSMANSHIP

The reliability and durability of our products come first. We only use premium components. Let something slip through? Not here. Never. Quality comes first. We make no compromises in that respect. We are speaking with Matthijs, springmaker at Rioned.

I am proud of our springs. What makes our springs unique is the blue Riocore core. This core of steel wire with plastic makes the springs both flexible and resilient. Difficult to make. But after five years of making springs, I have the knack, Matthijs says with a laugh.

## Spring machines

### SPRING MACHINES

Rioned supplies manual spring machines in addition to electrical drum and suitcase machines for professional cleaning of drain and sewers from ø 12 mm up to ø 250 mm. Rioned springs are equipped with the Riocore blue inner core. The core of steel wire with a plastic outer sleeve provides stability to improve cleaning power and durability of the spring.

### HANDTOOLS

A range of handy tools to clear light blockages.

### DRUM MACHINES

Machines for professional cleaning and unblocking of drains up to 250 mm. The closed spring drum is ideal for indoor use.

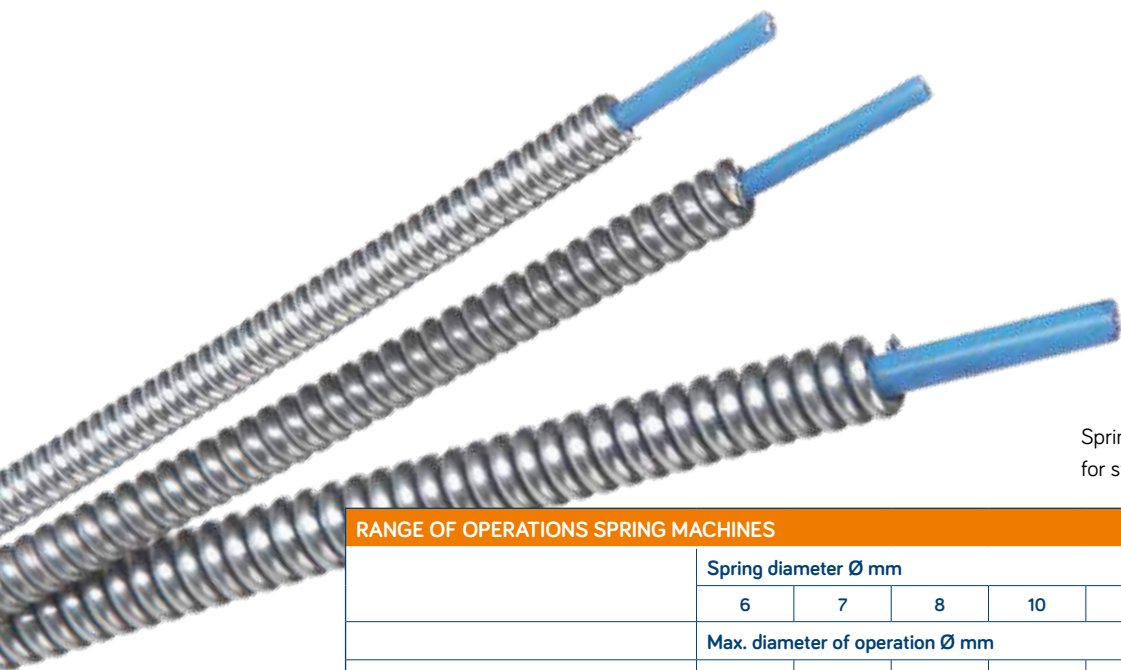
### SUITCASE MACHINES

Designed to clean vertical pipes and larger diameter drains.

SPRING MACHINES

# WHICH SPRING DO YOU NEED?

Rioned supplies a complete range of springs for every machine, from 6 mm springs up to 22 mm sectional springs for tough jobs. As from 10 mm our springs can be supplied with a fixed bulbous head or with an easy coupling system to attach accessories. Our drum model springs have a steel inner core with plastic outer for more cleaning power and extra durability. Our suitcase models use open wound sectional springs in 2 or 4 meter lengths.



Springs from 10 mm have a Riocore inner for stability and maximum flexibility

RANGE OF OPERATIONS SPRING MACHINES								
	Spring diameter Ø mm							
	6	7	8	10	13	16	20	22
	Max. diameter of operation Ø mm							
	35	50	60	70	100	125	250	250
Hand tools								
Type D *	20 - 50							
Super *	20 - 75							
HandMatic	12 - 75							
Drum machines								
FlexMatic+	12 - 100							
AllRound+		40 - 125						
Master				70 - 250				
Suitcase machines								
Mini Victor		32 - 150						
Victor		32 - 250						

\* Manually driven. All other spring machines are electrically driven.



**SYPHON PUMP**  
Handy pump to clear blockages in toilets, urinals and drains



**CLOSET AUGER**  
Hand tool to clear blockages in toilets without damaging the ceramics



**TYPE D**  
Simple spring machine for small blockages in drains up to 50 mm

TECHNICAL SPECIFICATIONS	
Ø Drain/sewer	20 mm - 50 mm
Ø Spring	6 - 7 mm
Spring length	5 - 7,5 m
Weight incl. spring	1,5 kgs

Type D

20 - 50 mm

6 - 7 mm

5 - 7,5 m

1,5 kgs



**SUPER**  
Small tool to clear drains up to 75 mm. Suitable for 8 mm and 10 mm springs

TECHNICAL SPECIFICATIONS	
Ø Drain/sewer	20 mm - 75 mm
Ø Spring	6 - 8 - 10 mm
Spring length	7,5 - 10 m
Weight incl. spring	4 kgs

Super

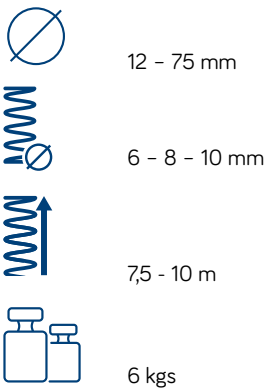
20 - 75 mm

6 - 8 - 10 mm

7,5 - 10 m

4 kgs





SPRING MACHINES

# DRUM MACHINES

HANDMATIC, FLEXMATIC+, ALLROUND+ AND MASTER

The drum machines automatic spring feed unit provides an easy-to-use solution for all drain and sewer cleaning problems. Rioned drum machines have a closed drum to protect floors and walls from water and dirt while working. Rioned spring machines are lightweight due to the use of aluminum and plastics. The compact construction and low-weight make Rioned spring machines easy to transport and easy to maneuver in restricted areas. The powerful electric motor allows the suitcase models to be used for cleaning of standpipes and larger diameter drains up to 60 metres of length.

Rioned springs for drum machines come with a fixed bulbous head or with the unique square spring coupling system. With the reliable coupling system a wide range of different tools can be connected depending on the type of blockage.

HANDMATIC

The HandMatic is an electric spring machine which is suitable for cleaning drains up to 75 mm. The HandMatic can be supplied with a drill or as a set-up unit suitable for any type of drill with a forward and reverse facility. The spring is capable of cleaning drains to their full length including bends and syphon traps. The automatic spring feed unit feeds the spring in and out of the drum.

The springs have coiled bulbous heads. The 10 mm spring has the unique Rioned square coupling system allowing different types of tools to be used depending on the type of blockage. The spring drum is closed preventing walls and floors from becoming dirty during operation.



Carrying case for the HandMatic and accessories



Automatic springfeed



TECHNICAL SPECIFICATIONS	
Motor	230 Volt / 0,63 kW
Ø Drain/sewer	12 mm - 75 mm
Ø Spring	6 - 8 - 10 mm
Spring length	7,5 - 10 m
Weight incl. spring	6 kgs
Maximum Dba	84
Accessories/tools *	1 - 4 - 5 - 11

\* See page 42 and 43 for a description



FLEXMATIC+

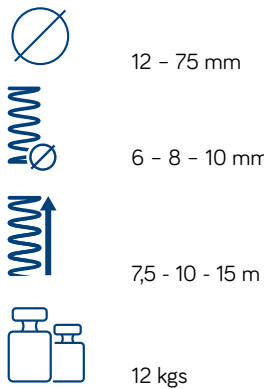
The FlexMatic+ is the ideal spring machine for professional cleaning of drains and sewers between 12 - 75 mm diameter. The lightweight and compact design in addition to the flexible adapter hose makes it easy to handle and maneuver in narrow spaces.

The automatic spring feed unit has large roller bearings for long term use. It is easy to operate by pushing the handle forward and back to drive the spring in and out of the drain. The spring rotates in neutral position. The flexible adapter hose is ideal for narrow spaces.

The air activated foot switch turns the machine on and off which leaves both hands free for working. The springs have coiled bulbous heads. The 10 mm springs have the unique Rioned square coupling system allowing different kinds of tools to be used.

TECHNICAL SPECIFICATIONS	
Motor	230 Volt / 0,18 kW
Ø Drain/sewer	12 mm - 75 mm
Ø Spring	6 - 8 - 10 mm
Spring length	7,5 - 10 - 15 m
Weight incl. spring	12 kgs
Maximum Dba	69
Accessories/tools *	1 - 4 - 5 - 8 - 9 - 11

\* See page 42 and 43 for a description

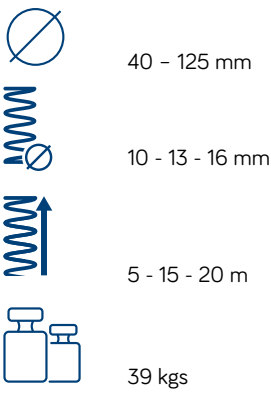


Practical automatic spring feed unit



Integrated drawer for accessories





**ALLROUND+**

The Allround+ is a real wizard. It is very compact and easy to transport. The large wheels make easy work of all types of stairs. Suitable for larger cleaning jobs the Allround+ with its powerful electric motor provides a solution for sewers and pipework of 40 - 125 mm diameter. To deal with stubborn blockages in larger pipes the springs are supplied with square couplings in order to connect a wide range of accessories for all different kinds of blockages.

The Allround+ has a closed drum of synthetic material which ensures a safe working environment and a clean working area. The drum can be changed or removed in minimal time and can be carried separately. The newly redesigned automatic spring feed unit allows the spring to feed in and out of the drain with one movement. The Allround+ has an integrated tool case with 5 standard accessories. An extensive accessories kit is optionally available including a special tulip cutter, chain flails, cutting knives and drilling heads to name a few. The Allround+ can also be supplied with foot switch.



Large wheels to take stairs

TECHNICAL SPECIFICATIONS	
Motor	230 Volt / 0,25 kW
Ø Drain/sewer	40 mm - 125 mm
Ø Spring	10 - 13 - 16 mm
Spring length	5 - 15 - 20 m
Weight incl. spring	39 kgs
Maximum Dba	75
Accessories/tools *	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 11 - 12

\* See page 42 and 43 for a description



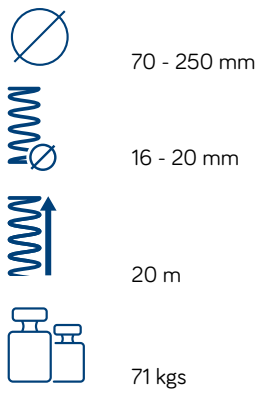
**MASTER**

The Master is a larger version of the Allround+. All obstinate blockages such as roots, urine, stone and chalk can be cleared with this machine. The Master will clean drains and sewers from 70 - 250 mm.

The spring is protected by an aluminum drum which ensures a clean working area. With 2 extra spring drums you can work with a maximum length of 60 metres with a 20 mm spring.

The Master comes with six standard accessories & tools supplied in a metal case which can be transported in the special support. An extensive accessories kit with special cleaning heads is also available.

The Master is safe and user friendly. It is very easy to transport, compact in design and has an adjustable hand grip.



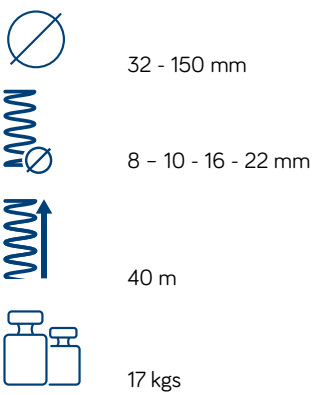
Drains up to 250 mm

TECHNICAL SPECIFICATIONS	
Motor	230 Volt / 0,45 kW
Ø Drain/sewer	70 mm - 250 mm
Ø Spring	16 - 20 mm
Spring length	20 m
Weight incl. spring	71 kgs
Maximum Dba	76
Accessories/tools *	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12

\* See page 42 and 43 for a description







SPRING MACHINES

# SUITCASE MODELS

MINI VICTOR AND VICTOR

Our suitcase models are designed to clean vertical pipes and larger diameter drains. These models use open, sectional springs in lengths of 2 metres (16 mm) or 4 metres (22 mm). The section springs make it easy to install the correct accessory for the job.

MINI VICTOR

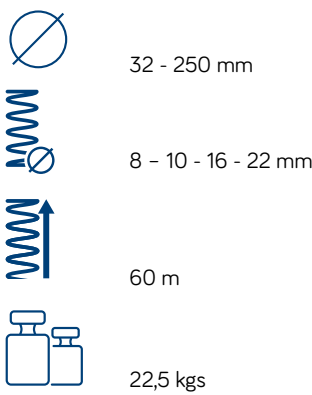
The Mini Victor is the perfect machine for cleaning down pipes with a diameter from Ø 32 - 150 mm over a maximum length of 40 metres. The Mini Victor is supplied with an electric motor with a two direction switch (L-R). The machine is very easy to operate by the means of a hand grip on the machine. The unique, easy to clean clamping system clamps over the full length of the spring for optimal transmission of the motor. The flexible adapter hoses with a length of 2 metres (16 mm) or 4 metres (22 mm) prevent dirt in the working area.

The machine, the springs and the accessories can be transported separately making it extremely portable. The Mini Victor is easy to clean, safe to use and operator friendly.



TECHNICAL SPECIFICATIONS	
Motor	230 Volt / 0,37 kW
Ø Drain/sewer	32 mm - 150 mm
Ø Spring	8 - 10 - 16 - 22 mm (8 - 10 mm with adapter drum)
Spring length	40 m
Weight incl. spring	17 kgs
Maximum DbA	70
Accessories/tools *	11 - 13 - 14 - 15 - 16 - 17

\* See page 42 and 43 for a description



VICTOR

The Victor has the same advantages and characteristics as the Mini Victor but has a more powerful electric motor and is suitable for down pipes, drains and sewers from 32 - 250 mm diameter over a maximum length of 60 metres.

The machine and springs are transported separately. The Victor is easy to maintain, multifunctional and safe to use. Furthermore the Victor is with an adapter drum suitable for 8 mm and 10mm springs.



TECHNICAL SPECIFICATIONS	
Motor	230 Volt / 0,75 kW
Ø Drain/sewer	32 mm - 250 mm
Ø Spring	8 - 10 - 16 - 22 mm (8 - 10 mm with adapter drum)
Spring length	60 m
Weight incl. spring	22,5 kgs
Maximum DbA	78
Accessories/tools *	11 - 13 - 14 - 15 - 16 - 17

\* See page 42 and 43 for a description



Ideal for vertical pipes

SPRING MACHINES

# APPLICATION TOOLS

Rioned supplies a complete range of springs for every machine, from 6 mm springs up to 22 mm sectional springs for tough jobs. As from 10 mm our springs can be supplied with a fixed bulbous head or with an easy coupling system to attach accessories.

APPLICATIONS TOOLS					
	Blockage				
	soap/hair	clothes	roots	cleaning	urine stone/chalk
1 Standard bulbous head	••	•		••	
2 Straight drilling head		•		••	
3 Funnel head		••			
4 Cutting knife	••		••	•	••
5 4 or 6 blade drilling head	••		•	••	••
6 Retrieving hook		••			
7 Diamond shaped head	••		•	••	••
8 Chain head	•			••	•
10 Root cutter			••		
11 Tulip cutter	••			•	••

Best possible: ••  
Possible: •



**1 BULBOUS HEADS**  
For light cleaning in curved pipes.



**6 RETRIEVING HOOKS**  
To remove obstacles from pipes such as cloths, napkins etc.



**11 TULIP CUTTER**  
The Tulip Cutter causes less damage, never gets stuck and removes debris more evenly, safely and cleanly than similar tools, such as a chain head. Ideal for removing hardened grease, lime and urine deposits and rust in pipes ranging from 50 to 125 mm.



**2 STRAIGHT DRILLING HEADS**  
Tool to determine right accessory for the job.



**7 DIAMOND SHAPED HEADS**  
F or pipes tarnished with chalk or urine stones.



**12 INLET GUIDE TUBE**  
To guide the spring in difficult places.



**3 FUNNEL HEADS**  
For long curved pipes.



**8 CHAIN HEADS**  
to clean steel and iron pipes. The chain heads with cam chains are for cleaning strong polluted pipes.



**4 CUTTING KNIVES**  
To mill large pipes.



**9 REPAIR AND QUICK COUPLINGS**  
to connect springs or to repair broken springs.



**5 4 AND 6 BLADE DRILLS**  
To mill overgrown pipes.



**10 ROOT CUTTERS**  
To saw tree roots.



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# Combination Units

Rioned is a specialist in the design of compact, high-quality jetting/vacuum units for emptying grease and oil traps, basements and for cleaning drains and sewers. Our combination units are often used where larger vehicles struggle to gain access. Using smaller vehicles also has considerable economic benefit with much lower operational costs.

Rioned offers a series of concept vehicles which can be easily configured with a range of useful options.



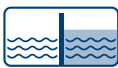




Max 450 mm



9-channel



400 / 800 litres



3.2 / 3.5 T

COMBINATIONS UNITS

# URBANCOMBI

THE NEW URBAN JET/VAC COMBINATION UNIT  
THAT GOES WHERE OTHERS CAN'T

NARROW STREETS

The new Rioned urban combination unit is developed for working in height restricted areas and narrow city streets. It is also well suited for use on difficult terrain and in rural areas.

FOUR WHEEL DRIVE

With a maximum height under 1.85 meters and four wheel drive capability this new combination unit can be driven and used in the most difficult to reach places.

UNDERGROUND CAR PARKS

Despite its compactness it is well suited to cleaning horizontal or vertical pipes and emptying grease traps or septic tanks. The UrbanCombi is a versatile vehicle that can access car parks where there is low height restrictions.

ALUMINUM TANK

To reduce the weight of the vehicle the 1200 litres tank and lockable tool boxes are all manufactured using durable aluminum. The tank has an 800 litres waste water and 400 litres clean water compartment separated by a slanted tank partition. It has fixed supports to neatly stow lengths of suction hose. The manually opening rear door has a 3" inlet and 3" outlet valve. The suction hose reel is equipped with 10 metres of 2.5" hose. (Alternatively 13 metres of 2" hose is available as an option).

PERFORMANCE

Don't be misled by its size! The UrbanCombi has two powerful pumps to get the job done. The P45 high pressure pump delivers pressures up to 375 bar allowing the operator to clean vertical pipes from the ground up. The GD SLS54V vacuum pump offers a massive suction capacity of 325 m3/hour similar to that of many larger combination units.



eControl+ control panel



- Mini jet/vac unit ideal for restricted access applications
- Robust 3.2 tons four-wheel drive Ford Ranger chassis
- Aluminum tank with 1200 litres total capacity
- Height under 1.85 metres for underground parking access
- Powerful high pressure and vacuum pump

TECHNICAL SPECIFICATIONS	
Chassis	Ford Ranger 2,2 TDCi
Drive	PTO
Tank	Aluminum, 800 litres waste, 400 litres clean water
High pressure pump	Rioned Speck P45 with automatic pressure regulator with by-pass 375 bar / 37 lpm    5400 psi / 8 gpm 320 bar / 46 lpm    4600 psi / 10 gpm 250 bar / 60 lpm    3600 psi / 13 gpm 160 bar / 75 lpm    2400 psi / 17 gpm
Pump protection	Run dry protection with overrun possibility
Hose reel	Hydraulically driven, 180° hose reel with 80 metres 1/2"light-weight hose
Vacuum pump	GD SLS54V (capacity 325 m³/ hour)
Control	Rioned eControl+ with LCD display, warning lights, hour counter and service interval warning
Remote control	Riomote remote control to control pumps, gas regulation and emergency stop
Storage	Lockable storage trays for hand tools
Dimensions (LxWxH)	5500 x 1950 x 1850 mm
Safety	LED warning lights
Included accessories	High pressure jetting nozzles, spray gun and lance





UniCom, basic version



Max 300 mm



Optional



1,000 / 500 litres



3.5 / 5.5 / 4.5 T

UniCom, standard version



Max 450 mm



7 or 9-channel



1,000 / 500 litres



4.5 / 5.5 / 7.5 T



Basic model UniCom with suction reel

COMBINATIONS UNITS

# UNICOM

## COMPACT AND LIGHTWEIGHT, SUITABLE FOR ALMOST EVERY COMMERCIAL VEHICLE

COMPLETELY CUSTOM MADE

Its contemporary design makes this machine a real jack-of-all-trades, perfectly suited for all kinds of high pressure and suction cleaning work in city centres, parking garages and other difficult-to-reach places. House connections, sewers, grease traps and street wells can be efficiently unblocked and cleaned with the UniCom. You can have this modular UniCom combination unit completely customised with any of the available options, based on the specifications and options you require.

ONTO, IN OR BEHIND THE VEHICLE

The design of the UniCom makes it easy to install on 3.5 T and 4.5 T chassis cabs such as the Nissan Cabstar, Renault Maxity, VW Crafter, Mercedes Sprinter or Iveco Daily. Depending on the type/brand of commercial vehicle and the weight distribution of the tank, it is possible to drive a vehicle fitted with this UniCom combination with a category B Dutch driving licence. The UniCom can also be mounted on a trailer or in an enclosed service van. Thanks to its limited size, the UniCom moves nimbly through busy city traffic.

MANY POSSIBILITIES

The UniCom has a 1,500 litres tank with a 1,000-litres waste- and 500-litres clean water compartment or in a different configuration if required. The UniCom can be equipped with many options and accessories: from a radio remote control system to a hydraulically-operated suction hose reel; the choice is yours.

You can opt for a basic version with petrol engine and a simple cap over the engine and pump compartment or a standard version with powerful diesel engine and completely enclosed engine- and pump compartment. All components are easily accessible for maintenance. The tank is galvanised, but it can also be spray-painted in any desired company colour.

COMPLETE PACKAGE

Whatever version you choose, the UniCom is ready to get the job done in a professional manner. A reliable petrol or diesel engine in combination with a top quality high pressure and suction pump. The rear hatch swings all the way open to enable you to empty and clean it. The slanted discharge partition ensures that little or no waste remains behind.

Two suction hoses, including couplings, 60 m x NW 13 high pressure hose and two jet nozzles make the package complete.



Standard model with ample storage space

- 270° pivoting high pressure hose reel
- Suitable for all types of vehicle
- High-performance engine
- 1,500 litres tank partitioned according to your requirements

TECHNICAL SPECIFICATIONS		
	Basic version	Standard version
Tank	1,500 litres (500 litres clean, 1,000 litres waste water tank, other division possible) Galvanized or painted steel	1,500 litres (500 litres clean, 1,000 litres waste water tank, other division possible) Galvanized or painted steel
High pressure pump Rioned/Speck	140 bar / 60 lpm 2200 psi / 13 gpm	140 bar / 60 lpm 2000 psi / 13 gpm 200 bar / 45 lpm 3000 psi / 10 gpm
Vacuum pump	MEC 5000 (5,000 lpm / 300 m³/hour)	GD SLS54V (5,400 lpm / 325 m³/hour)
Engine	Honda 24 HP petrol	Kubota D1105 25 HP diesel
Cover engine and pumps	Cover, fully enclosed engine/pump compartment optionally available	Fully enclosed engine/pump compartment
Storage	Storage for hoses underneath the tank	Tool boxes at both sides of the tank
High pressure hose reel	Pivoting, manually driven with 60 metres high pressure hose	Pivoting, hydraulically driven with 60 metres high pressure hose
Supply hose reel	Optional	Supplied with 35 metres NW 19 supply hose
Suction hose reel	Optional	Manually or hydraulically driven hose reel with 25 metres 2,5" suction hose
Remote control	Optional	RioMote 7 or 9 channel radio remote control
Magnetcoupling	Optional	On vacuum pump
Options	Extra drain valve, working light, warning light, suction ventury, anti-freeze system, RioPulse pulsator system	Extra drain valve, working light, warning light, suction ventury, anti-freeze system, RioPulse pulsator system

FlexCom, basic version



Max 650 mm



Optional



3,000 or 3,500 litres



7.5

FlexCom, standard version



Max 650 mm



9-channel



3,750 litres



7.5 / 10 / 12 T



Maximum manoeuvrability

COMBINATIONS UNITS

FLEXCOM

NEW CONCEPT WITH MAXIMUM FLEXIBILITY

FLEXCOM HIGHLY VERSATILE

The Rioned FlexCom has been designed for use in built up areas and in locations where larger vehicles struggle to gain access. The FlexCom is available in a range of models mounted on a 7.5t chassis such as a Mitsubishi Fuso Canter 7C or even a 10 or 12t chassis such as Mercedes-Benz Atego, DAF LF or MAN TGL.

FLEXIBLE CAPACITY

The basic model is perfectly suited to a 7.5t chassis it has a tank with a 3,500 litres capacity and features a powerful diesel engine. If you prefer the standard model FlexCom, you will benefit from a tank capacity of 3,750 litres and a PTO drive facility. The FlexCom can be supplied with a sliding partition to allow the capacity of the clean water or waste water sections of the tank to be adjusted. The hydraulic cylinder allows you to move the partition to your preferred position.

EFFECTIVE STORAGE SPACE

The FlexCom has been designed to ensure perfect weight distribution resulting in stable road handling. This allows you to carry more water without compromising on space.

The basic FlexCom comes with large tool boxes on either side of the vehicle for storing suction hoses and other large accessories. The standard FlexCom is equipped with storage boxes on either side of the tank and hose-storage boxes above.

USER-FRIENDLY REELS

The suction reel is connected directly to the tank and the 21/2" suction hose can be coiled and uncoiled using the hydraulic system. This feature allows the vehicle to be parked some distance from where you are working. The unique RioMote radio remote control system allows one person to operate the machine with ease from a distance. The pivoting high pressure reel provides optimum ergonomics and ease of use. The reel features a new hose guide system (optional) and can pivot 180°. The control panel pivots with the reel ensuring the best operating height and angle at all times.

VACUUM PUMP

The FlexCom is equipped with a high-performance, air-cooled, oil-lubricated SLS54V vacuum pump as standard. The pump has a suction capacity of 5,400 lpm (325 m³ per hour). You can also choose a highperformance & environmentally friendly liquid ring pump (8,600 lpm), which not only offers considerably higher power but is also silent in operation. A third option is a highly efficient and rotary blower pump with air cooling, allowing you to work continuously with a minimum free air displacement of 25,000 litres per minute (1,500 m³ per hour).



Standard FlexCom, MB Atego chassis MB Atego

Basic FlexCom, Mitsubishi Canter chassis

- Gross vehicle weight 7.5, 10 or 12 tonnes
- Hydraulically adjustable partition (optional)
- Compact dimensions and lightweight
- Liquid-ring pump available optionally
- Suitable for all cleaning operations in built up areas



Movable partition for capacity increases

TECHNICAL SPECIFICATIONS		
	Basic 7.5 tonnes	Standard 7.5, 10 or 12 tonnes
Tank	3,000 or 3,500 litres total	3,750 litres total
Tank opening	Manual	Fully hydraulic
Movable partition	Optional	Optional
High pressure pump Rioned/Speck	Several configurations possible	Several configurations possible
Vacuum pump	0.8 bar suction / 0,5 bar pressure GD SLS54V, 5,400 lpm (325 m³/hour)	0.8 bar suction / 0,5 bar pressure Palette blade pump (325 m³/hour), air injected pump (430 m³/hour), liquid ring pump (516 m³/hour) or blower suction pump (1,500 m³/hour)
Drive	PTO	PTO
Connection	3" suction valve, 4" drain valve, hydrant filling connection	3" suction valve, 4" drain valve, hydrant filling connection
Storage	Hose storageboxes at both sides of the tanks	Tool boxes with hose boxes on top
High pressure hose reel	180° pivoting with hydraulic drive with 80 metres high pressure hose	180° pivoting with hydraulic drive with 80 metres high pressure hose
Supply hose reel	Supplied with 35 metres NW 19 supply hose	Supplied with 35 metres NW 19 supply hose
Suction hose reel	Hand or hydraulically driven hose reel with 25 metres 2,5" suction hose	Hydraulic driven hose reel with 25 metres 2,5" or 3" suction hose
Pneumatic valve		Remote controlled pneumatic valve optionally available
Remote control	Optional	RioMote 9 channel radio remote control





Max 650 mm



9-channel



800 litres



5.5 T

COMBINATIONS UNITS

# SKIDCOM

THE ALL-YEAR ROUND JETTING / VACUUM COMBINATION UNIT

BEHIND CLOSED DOORS

The SkidCom is a jetting/vacuum unit built into a Mercedes Benz Sprinter or Iveco Daily. As the unit is safely stored behind closed doors, it is well protected in harsh weather conditions. Due to its compactness, it is also ideal for jetting- and suction jobs in narrow streets and other difficult-to-reach places. Flooded cellars, grease traps and clearance of heavily polluted drains can be cleared all year round.

LIGHT WEIGHT

The waste water tank can hold 800 liters, the polyethylene lightweight tanks take 800 liters of clean water. Frame and waste water tank are made out of high strength aluminum keeping the total weight at a minimum of around.

COMPLETE SYSTEM

The SkidCom is very versatile and complete. It comes with an hydraulically driven suction reel (with ca. 30 meters of 2" suction tube) in addition to a 3" tank inlet. The swing-out high pressure reel accommodates two hydraulically driven high pressure jetting reels. Spray-nozzles in the waste water tank, a 3" outlet and a large inspection shutter make it easy to remove any remaining dirt. A work light for late-night jobs as well as a filling reel come as standard. The fixed supply line is equipped with an electric water level control system for automatic filling and to avoid water spillage.

PERFORMANCE

The powerful Speck high pressure pump delivers ca. 200 bar / 70 liters per minute (depending on PTO output of the car). The first high pressure reel is equipped with 80 meters 1/2" or 5/8" MaxFlow jetting hose, the second reel with 60 meters of 3/8" hose for smaller diameter pipes. The air cooled, oil lubricated GD SLS54V vacuum pump has a suction capacity of 325 m3/hour. The Riomote remote control system allows operation by a single man.

POWER OPTIONS

Options for the SkidCom include a second high pressure pump of 375 Bar / 37 liters per minute for effective cleaning of standpipes. Another addition to the system is a hot water boiler unit (550 bar / 22 lpm) which is ideal work on cold days and to clear fat, oil and grease effectively.



Optional hot water boiler available



Ample space to store tools and accessories



- Built-in unit to withstand harsh winters
- Mercedes Benz Sprinter or Iveco Daily chassis
- 800 liters clean, 800 liters waste water
- Powerful high pressure- and vacuum pump
- Lightweight aluminum construction

TECHNICAL SPECIFICATIONS	
Chassis	Mercedes Benz Sprinter, Iveco Daily
Drive	PTO, hydraulic
Tank	Aluminum waste water 800 liters PE clean water tanks 2 x 400 liters
High pressure pump	Rioned Sopeck 200 bar / 72 lpm or 150 bar / 100 lpm
Pump protection	Run dry protection with overrun possibility
Hose reels	2 swing-out hydraulically driven high pressure hose reels, 1 reel with 80 meters 1/2" or 5/8" light-weight hose, 1 reel with 60 meters 3/8" hose Hydraulically driven suction hose reel with ca. 25 meters 2" suction hose
Vacuum pump	GD SLS54V (capacity 325 m³)
Control	Rioned eControl+ with LCD display, warning lights, hour counter and service interval warning
Remote Control	Riomote remote control system: engagement of pumps, gas regulation and emergency stop
Dimensions (LxWxH)	2816 x 1400 x 1470 mm
Included accessories	High pressure jetting nozzles, spray-gun and lance, suction hose and tube
Electric water level control	Automatic opening and closing of the filling valve
Tank emptying	3" outlet, inspection cover, spray nozzles in tank
Boiler	Hot water boiler 500 bar / 22 lpm



Rioned eControl+ control unit



Max 650 mm



9-channel



3,000 litres



7.5 T

### COMBINATIONS UNITS

# RIOCOM 7.5 T

## ALLROUND JET/VAC FOR DAILY USE

#### POWERFUL CONCEPT

The RioCom is Rioned's affordable alternative to large combination units, ideal for contractors working in congested city centres. It is compact, manoeuvrable and designed for everyday use at a low operational cost. The powerful high-pressure Speck pump in combination with the enhanced suction pump clears the most stubborn blockages and easily cleans grease traps, wet wells, pump stations and flooded basements. The RioCom is a true single-resolution vehicle for the drainage industry.

#### TANK

This combination unit has a split 3,000 litres tank compartment - 2,000 litres waste and 1,000 litres clean water - with an interconnecting valve to allow both tanks to be filled with clean water for large descaling or jetting tasks. The tank has a fully opening rear door with hydraulic, swivelling jetting hose reel, a 3" inlet and a 4" outlet as well as a sludge tank level indicator. The added suction hose reel with 17m of 3" suction hose is directly connected to the tank for immediate operation.

#### SINGLE MAN OPERATION

The radio remote system allows the vehicle's engine and both pumps and the revs to be controlled from a distance by a single person. The unique eControl+ system, with clear LCD screen, provides operators system information at a glance. An easy-to-use jog-wheel guides users quickly through a clear menu system with all machine functions available at a single click. The integrated LED lights indicate current machine status with functions displayed including working hours, engine rpm, run dry protection, eco function, service intervals and various temperature and liquid level warnings.

#### STORAGE

The RioCom incorporates comprehensive storage possibilities, enabling contractors to carry additional equipment. Based on customer feedback, additional secure, shuttered doors have been added, with the cabinets along both sides providing enough capacity for PPE, an inspection camera and all the tools required to carry out the most demanding jobs.

#### VERSATILITY

The RioCom offers great versatility and was developed for use in built-up areas and locations where larger vehicles may struggle to gain access. Despite its compact design, the unit houses two very powerful pumps that can operate simultaneously. In some cases no additional driving licence requirements are needed.

#### CLEAN AND GREEN

The base vehicle of the RioCom is a Mitsubishi Fuso Canter 7C18 chassis with EURO-6 turbo-charged, direct-injection engine. The new unit has been built to meet new emission standards by featuring a PTO (Power Take-off) drive that uses power from the vehicle engine to operate the pumps. With the introduction of ultra-low emission zones (ULEZ) across major European cities, the RioCom has full European type approval and is ULEZ ready.



- Powerful pumps that operate simultaneously
- 3.000 litres tank with fully opening door
- Suitable for all cleaning operations in built-up areas
- Plenty of secure storage space for PPE and tools
- ULEZ (ultra-low emission zone) compliant

TECHNICAL SPECIFICATIONS	
Chassis	Fuso Canter 7C18, 176 HP, EUR 6, white
Drive	PTO
Tank	3,000 litres (660 gallons) 2,000 litres waste, 1,000 litres clean water Fully opening rear door (manually) Equipped with wastewater level indicator, 3" inlet and 4" outlet
Pump	Rioned Speck P52 150 bar / 100 lpm (2,200 psi / 22 gpm) 4,000 psi / 12 gpm 270 bar / 70 lpm 3,000 psi / 16 gpm 200 bar / 70 lpm
Pump protection	Run-dry with override possibility
Jetting hose reel	Hydraulically driven with 100m x NW16 (5/8") with ½" coupling
Clean water filling	Filling reel with 50m ¾" hose, 2" hydrant connection
Vacuum	Jurop PNR 82, oil lubricated, compressed air cooled 8,200 litres minute / 0.8 bar suction and 0.50 bar pressure
Suction hose reel	Direct connected to tank with 17 ca. meters 3" hose or 20m 2.5" hose
Operation	Rioned eControl+ system with digital display
Remote control	Riomote 9-channel radio remote system to start/stop the engine, pumps on/off, gas up/down and emergency stop
Storage	Lockable compartments at both sides of the tank (roller shutter doors optional), hose storage boxes
Dimensions (LxWxH)	6260 x 2080 x 2488 mm
Empty dry weight	4816 kgs
Road safety	LED warning lights, reflective markers
Included accessories	Nozzles, gun and lance, suction- and jetting hoses







# JETTING NOZZLES

## A DIFFERENT NOZZLE FOR EACH BLOCKAGE AND DRAIN

Rioned supply a wide range of nozzles for every type of machine. Our extensive range of jetting nozzles clear all types of blockage in drains up to 650 mm.

### ENHANCE YOUR JETTING PERFORMANCE

Choosing the correct nozzle is essential for the performance of your machine and can enhance the efficiency of your jetting machine saving you time and money. The right nozzle provides:

- thorough cleaning,
- optimal rinsing effect,
- high to very high traction,
- minimal loss of pressure,
- minimized cleaning time,
- high performance velocity from the water jets,
- low friction resistance,
- no damage to sewer pipes.

Rioned supply (stainless) steel, aluminum or bronze nozzles that meet the highest efficiency demands.

### FOR EVERY BLOCKAGE

There are two main categories of nozzles; radial jetting nozzles are optimized for unblocking of drains while rotating nozzles are designed for cleaning. The static jet streams of radial nozzles have maximum traction power due to their rear facing nozzles. The jets in rotating jetting nozzles have a 360° wide reach to clean the entire pipe wall. They are often used to do extra cleaning after unblocking a drain to prevent forming of new blockages.

There are specialty nozzles to clear drains from different contaminates like F.O.G. (Fat, Oil, Grease), soap or urine scale. Others are equipped with chains or steel wires to handle the most difficult jobs like descaling of lime, cement or concrete, hard grease and tree roots.

### OPEN OR BLIND

An open jetting nozzle has forward and rear facing holes. The forward jet streams unblock and the rear jet streams provide traction. A blind jetting nozzle has only rear facing holes to provide the best possible traction optimizing the unblocking power.

### INSERTS

Many jetting nozzles have inserts that are replaceable. Overtime the water wears out the nozzles causing a loss of pressure. Hardened steel or even ceramic nozzle inserts are most resistant to wear.

### HOSES AND ACCESORIES

Just like the nozzle the quality of the jetting hose is essential for optimum performance. As a result of rigorous testing, Rioned has designed a hose that is light-weight, flexible and features a smooth inner core. The new Rioned MaxFlow hose has wider inner diameter than any other comparable hose and therefore has less pressure loss, guaranteeing maximum water flow. Several accessories are available to protect the hose from premature damage like sharp edges.

	Cleaning	Unblocking grease and soap	Sand	Hardened deposits (lime concrete, cement etc.)	Ice in drains	Roots	Washing wells and pumps
Standard jetting nozzles	•	•	•				
S31	•	•	•				
Front jetter							••
High yield jetting nozzle	••	•	•				
Rocket jetting nozzle black	•	••	•	••			
Granate	•	••	•	••			
Torpedo	•	••	•	••			
Quatro set	•		•	••	••		
Standard rotating jetting nozzle	••	••	•				
Tornado	•	••	•	••	••	•	
Buster	•	••	•	••	•	•	
Blizzard	•	••		••	••	••	
Root cutter		•		•	••	••	
Sand shoe			••				

Possible •  
Best solution ••

NOZZLE SETS AND SPECIALTY NOZZLES

Rioned offer two complete nozzle kits with a complete range of tools for different applications. The Basic kit includes the nozzles every professional sewer cleaner working in residential and commercial areas should have in his toolbox. The nozzles in the Professional kit are for the most demanding jobs in larger diameter pipes.



THE BASIC CONTAINS:

- Two mini jetting nozzles 1/8" (open and blind) suitable for a mini high pressure jetting hose
- S31
- High efficiency jetting nozzle
- Front jetter
- Granite jetting nozzle
- Quatro set
- Rotating jetting nozzle stainless steel
- Nozzle needles
- Universal lubricating oil



THE PROFISET CONTAINS:

- Two mini jetting nozzles 1/8" (open and blind) suitable for a mini high pressure jetting hose
- S31
- High efficiency jetting nozzle
- Front jetter
- Rotating jetting nozzle tempered steel
- Tornado
- Quatro set
- Torpedo
- Sand shoe
- Nozzle needles
- Universal lubricating oil

BLIZZARD (WARTHOG) JETTING NOZZLE

The Warthog jetting nozzle offers unrivalled performance and is among the most popular nozzle in the industry. It easily removes grease, cuts roots, clears ice and soil blockages. The hydraulically speed controlled jets provide a powerful spray-beam for both cleaning and unblocking purposes. Numerous centralizer accessories are available to position the jet in different sized drains.



	Mini	Small	Large	Extra Large
Diameter	48	48	79	107 mm
Length	67	112	191	231 mm
Design	stainless steel, open			
Water flow	15 - 45 lpm 3 - 10 gpm	27 - 75 lpm 6 - 17 gpm	42 - 150 lpm 9 - 33 gpm	190 - 300 lpm 42 - 67 gpm
Pressure	275 / 4000	275 / 4000	550 / 8000	200 / 3000 bar/psi
Connection	3/8"	1/2"	1/2" or 3/4"	1"
Usage	drains with Ø 75 - 900 mm 90°-bends starting from: 75 mm                      110 mm                      250 mm                      300 mm			
Rotation speed	300 - 500	200 - 500	150 - 300	150 - 300 rpm

BUSTER JETTING NOZZLE

Made for the most difficult obstructions, but relatively light-weight. It hits, cuts and scrapes through everything.

The Buster is delivered as a set with a body and three jetting nozzles provided with:

- Link chains for hardened blockages (limescale, cement or concrete)
- Industrial chains, sharp enough to tackle grease or smaller roots
- Steel wires to scrape the pipes clean.

The set also contains a cutting point to drill through blockages.



Diameter	50 mm
Length	65 mm
Design	tempered stainless steel, open and blind
Water flow	30 - 120 lpm / 7 - 27 gpm
Pressure	80 - 300 bar / 1130 - 4230 psi
Connection	1/2"
Usage	drains with Ø 80 - 250 mm 90°-bends starting from Ø 90 mm
Rotation speed	depending on the capacity of the machine

HYDRAULIC ROOT CUTTER

The best solution for drains that are blocked by roots, hard grease, compacted sand or soil. Rioned root cutters are powerful, reliable and easy to use. They consist of a central body with knives in different sizes and matching skids to keep them centralized in the drain. The knives have sharp angular teeth at front and rear.

Rioned supplies two types: there is a standard root cutter as well as the Maxi. The Maxi is for high pressure jetting machines and combination units with more water flow and bigger connections.

All root cutters come as a complete set in a carrying box. Each set contains:

- standard knives
- standard skids
- transport box
- grease/waternipple
- mounting set
- grease gun



Hydraulic root cutter



Hydraulic root cutter Maxi

	Hydraulic root cutter	Hydraulic root cutter Maxi
Diameter	starting from 100 mm	starting from 150 mm
Length	200 mm (knife included)	310 mm (knife included)
Design knives	tempered steel	tempered steel
	open	open
Water flow	40 - 120 lpm / 9 - 27 gpm	135 - 230 lpm / 30 - 51 gpm
Pressure	max. 140 bar / 2100 psi	max. 140 bar / 2100 psi
Connection	1/2"	3/4", 1"
Usage	drains with Ø 100 - 350 mm	drains with Ø 150 - 500 mm
Standard knives	Ø 100, 150 or 200 mm	Ø 150, 200, 250, 300 or 375 mm
Optional knives	Ø 125, 225 or 250 mm	
Standard skids	Ø 100, 150 or 200 mm	Ø 150, 200, 250, 300 or 375 mm
Optional skids	Ø 125, 225 or 250 mm	





# ROTATING JETTING NOZZLES

## STANDARD ROTATING JETTING NOZZLE STAINLESS STEEL



Rotating jetting nozzle that cleans away deposits of soap and grease and leaves drains streakfree.

Diameter	40 mm
Length	85 mm
Design	stainless steel, steel insert nozzles
Water flow	40 - 120 lpm / 9 - 27 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1/2"
Usage	drains with Ø 90 - 200 mm 90°-bends starting from 110 mm
Suitcase	Basic

## TORNADO JETTING NOZZLE



The 'super unblocker'. This jetting nozzle has a special construction with a rotating ceramic part so that the water comes out in the form of a cone. This cone drills away any obstructions. At the same time the Tornado has an excellent traction.

Diameter	39 mm
Length	64 mm
Design	stainless steel, open with insert nozzles
Water flow	30 - 120 lpm / 7 - 27 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1/2"
Usage	drains with Ø 75 - 200 mm 90°-bends starting from 110 mm
Suitcase	Basic

## STANDARD ROTATING JETTING NOZZLE TEMPERED STEEL



Rotating jetting nozzle made of tempered steel with ceramic insert nozzles.

Diameter	40 mm
Length	85 mm
Design	stainless steel, ceramic insert nozzles
Water flow	10 - 400 lpm / 2 - 89 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1/8", 1/4", 3/8", 1/2"
Usage	drains with Ø 32 - 250 mm 90°-bends starting from 110 mm
Suitcase	Profiset

# RADIAL JETTING NOZZLES

## STANDARD JETTING NOZZLE

Rioned delivers standard nozzles with each new high pressure jetting machine. They belong to the basic equipment and are mainly used for working on deposits of grease and soap in pipes in or around the house.

Diameter	16 - 50 mm
Length	17 - 60 mm
Design	stainless steel, open and blind
Water flow	10 - 120 lpm / 2 - 27 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1/8", 1/4", 3/8", 3/4", 1/2", 1"
Usage	drains with Ø 32 - 250 mm 90°-bends starting from 110 mm
Suitcase	Basic and Profiset



## S31 JETTING NOZZLE

The shorter version of the Standard jetting nozzle; also meant for unblocking pipes in or around the house. It has a strong jet stream for good cleaning. However, the S31 can move through curves and smaller pipes better because of its shorter length.

Diameter	34 mm
Length	31 mm
Design	stainless steel, open and blind
Water flow	30 - 120 lpm / 7 - 27 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1/2"
Usage	drains with Ø 75 - 250 mm 90°-bends starting from 90 mm
Suitcase	Basic and Profiset



## FRONT JETTER

This jetting nozzle has only 1 front jet and no jet stream backwards. Therefore it is best used to clean wells and pumps or to push forward the sludge through the pipes.

Diameter	28 mm
Length	85 mm
Design	precious steel, blind (no holes at the rear)
Water flow	30 - 400 lpm / 7 - 89 gpm
Pressure	max. 200 bar / 2900 psi
Connection	1/2"
Suitcase	Profiset



## HIGH YIELD JETTING NOZZLE

Combines traction with cleaning capacity. Its high yield comes from a built-in chamber that limits the loss of pressure in the jetting nozzle. Its cleaning capacity comes from two spray rings giving jet streams at different angles.

Diameter	38 mm
Length	46 mm
Design	stainless steel, open and blind
Water flow	40 - 120 lpm / 9 - 27 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1/2"
Usage	drains with Ø 90 - 300 mm 90°-bends starting from 110 mm
Suitcase	Basic



# RADIAL JETTING NOZZLES



## GRANATE JETTING NOZZLE

A standard jetting nozzle for larger diameter pipes. It also has an excellent traction.

Diameter	50 mm
Length	75 mm
Design	stainless steel, open with insert nozzles
Water flow	40 - 120 lpm / 9 - 27 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1/2"
Usage	drains with Ø 90 - 250 mm 90°-bends starting from 150 mm
Suitcase	Basic



## TORPEDO JETTING NOZZLE

The Torpedo nozzle is the bigger brother from the Granate. Suited for large pipe diameters. The rear jets provide maximum traction.

Diameter	75 mm
Length	125 mm
Design	stainless steel, open with insert nozzles
Water flow	40 - 400 lpm / 9 - 89 gpm
Pressure	max. 300 bar / 4350 psi
Connection	1" (if necessary adapter ring 1" to 1/2" or 3/4")
Usage	drains with Ø 150 - 500 mm 90°-bends starting from 200 mm
Suitcase	Profiset



## QUATRO SET JETTING NOZZLE

The tapering jetting nozzle is best for difficult obstructions. It cuts, breaks and removes them. The Quatro set is also the ideal tool to deal with ice in the pipes.

Diameter	18 - 50 mm
Length	28 - 85 mm
Design	tempered steel, open
Water flow	17 - 400 lpm / 4 - 89 gp
Pressure	max. 300 bar / 4350 psi
Connection	1/8", 1/4", 1/2", 3/4", 1"
Usage	drains with Ø 32 - 500 mm 90°-bends (depending on the size) starting from 50 mm
Suitcase	Basic and Profiset



## SAND SHOE

Designed to clear away sand and stones. Because of their shape, they remain flat on the bottom of the sewer. Therefore they are extremely suitable to clean the bottom of wider drains. They are capable to replace many times their own weight of sand and stones. To achieve the highest efficiency, always use a sand shoe in combination with a rotating coupling.

Diameter	97 - 160 mm
Length	195 - 260 mm (without coupling)
Design	aluminium / bronze, open
Water flow	30 - 400 lpm / 7 - 89 gpm
Pressure	max. 200 bar / 2900 psi
Connection	1/2", 3/4", 1"
Usage	drains with Ø starting from 250 mm 90°-bends starting from 250 mm
Suitcase	Profiset

# MAXFLOW SEWER HOSE



By using the latest technology Rioned has developed a new type of lightweight high pressure sewer hose with a larger inner diameter. This optimizes the flow inside the hose and reduces pressure loss significantly without compromising the working or burst pressure.

Inside diameter	Length	Coupling
NW 5 (= 3/16")	10, 15 or 20 m	1/8" x 1/8"
NW 6 (= 1/4")	10, 15 or 20 m	1/8" ext. 3/8" int.
NW 8 (= 5/16")	10, 20 or 30 m	1/4" x 3/8"
NW 10 (= 3/8")	20, 30, 40 or 50 m	2" x 1/2"
NW 13 (= 1/2")	20, 40, 50, 60, 80, 100 or 120 m	2" x 1/2"
NW 16 (= 5/8")	80, 100 or 120 m	2" x 1/2"

# ACCESSORIES

## RIOPROTECT

This "Tiger tail hose protector" protects hoses from the sharp edges of wells and manholes. It extends the life of your valuable jetting hose considerably and eases insertion into the drain. An essential accessory for the proud owner of every jetting machine!





The background image shows two men in a brick-paved outdoor area. On the left, a man in a dark uniform with a 'Ried' patch is using a handheld device. On the right, a man in a light t-shirt and dark pants is operating a large camera system mounted on a reel. The entire image has a blue tint.

**R.**

# Inspection and detection

## KEEP AN EYE ON YOUR BUSINESS

Our inspection and detection machines make your work easy. Our machines are reliable, service friendly and help you to easily detect, locate and inspect the problem. Easy, safe and simple to use. If you would like to have further information visit our website or contact us directly.

### CAMERA SYSTEMS

With our camera systems you can easily detect the problem in almost any drain. A small camera for inspection in the bathroom or kitchen, or choose a big camera system for larger drains and sewers around houses and commercial premises. Every camera is suitable for a specific diameter range. They all move easily through the drains and provide you with excellent pictures. All functions, options and available camera heads differ for each camera.





Riotrack



SaniCam

RIOSTEAM

The RioSteam is a portable flue gas device that faultlessly finds leaks. The machine is used for controlling air streams in ventilating flues and lines and to control density of chimneys. The RioSteam is very reliable, solidly built and also operator and service friendly. The tank for the liquid, which can often be vulnerable part of this type of machine, has been designed to reduce the risk of damage. With the RioSteam you can locate the problem within several minutes.

RIOTRACK AND RIOTRACK PRO

The RioTrack is affordable and easy to use. The locator is the perfect alternative for customer who want to track power cables or transmitter sondes. Push button, clear symbols and graphic display of the signal strength on the display make the RioTrack user friendly. As from today tracking problems with tracking sondes is history.

SANICAM

The SaniCam is a professional line of all-in one camera systems for inspection of sanitary pipes in bathrooms and kitchens.

	Model 1	Model 2	Model 3
Range	Ø 16 - 50 mm, 90° bends as from 32 mm	Ø 25 - 75 mm, 90° bends as from 40 mm	Ø 50 - 150 mm, 90° bends as from 50 mm
Cable length	20 metres	20 metres	25 metres
Camera head	20 mm length, Ø 13 mm, fixed	20 mm lang, Ø 20 mm, exchangeable	20 mm lang, Ø 20 mm, exchangeable



FlexCam

FLEXCAM

The FlexCam is the most complete sewer camera in its class. It features a self-levelling camera, built in sonde and a daylight viewable screen. It has a detachable rod with connectors at both ends. In the event of damage the user can remove the damaged rod, install a new rod and continue working while the damaged rod is repaired. The MINA reporting software and App enhance the functionality and provide a second screen.

MAXCAM

MaxCam is the ultimate system, suitable for pipe sizes 17mm up to Ø 450mm. The MaxCam control box is the heart of the system and is packed with innovative and helpful features to enhance user efficiency and provide everything you need to carry out a professional drainage survey. It comes pre-installed with WinCan reporting software, a 44 mm self-levelling camera head, built-in sonde transmitter and a super-bright sunlight readable LCD display.

	FlexCam	MaxCam
Range	Ø 40 - 125 mm, 90° bends as from 50 mm	Ø 70 - 200 mm, 90° bends as from 90 mm
Cable length	40 metres	60 metres
Camera head	Ø 30 mm, self levelling	Ø 44 mm, self levelling
Screen	10,4"	10,4"
Location sonde	512 Hz in camera head	512 Hz camera head
Software	MINA reporting	MINA reporting WinCan embedded
Data	32 GB HDD, USB, SD, Wifi-enabled	32 GB HDD, USB, SD, Wifi-enabled
Battery	Li-ion, up to 9 hours usage	Li-ion, up to 9 hours usage

The MaxCam and FlexCam are both compatible with the same control box.

FIBERCAM+

The Fibercam+ is our top of the range inspection system for sewer professionals. The FiberCam+ is a compact and modular system that can be equipped with Ø 55 mm self-levelling or Ø 78 mm pan and tilt camera head. The robust stainless steel frame comes with 60 meters pushrod.



MaxCam



FiberCam+





# Rioned.

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