

Spring length



## INNOVATING FOR A SUSTAINABLE FUTURE

Our sewer system is under unprecedented pressure. If we want to minimise the effects of climate change and continue to meet the essential needs of our growing society, investments in innovative cleaning equipment are necessary.

New technologies are essential to continue guaranteeing a good flow. The 'smart sewer' is making its appearance in many places. By installing sensors and connectivity in the sewers, we can collect real-time information. This data gives us insight into water quality, system condition and flow.

With the introduction of smart sewer cleaning machines, equipped with eControl Touch controls, Rioned is contributing to this development. The intuitive touch screen provides a user-friendly interface and allows users to monitor essential information. This ensures more efficient work and avoids unnecessary machine downtime. The display of the smart Riomote remote control gives the user information everywhere, for example Pressure, Water flow and water level in the tank.

In line with the growing demand for emission-free and environmentally friendly solutions, Rioned is proud to introduce a new generation of electric high pressure cleaning machines. These pioneering machines are extremely efficient. They are also distinguished by their impressive battery capacity, allowing them to work for days without interim charging. The battery only needs to be recharged after the water tank has been filled 8 to 10 times. The unprecedented low noise level makes these electric high pressure cleaners ideal for use in residential areas, car parks, tunnels or factories, day or night. An additional advantage is the low running costs.

With a view to further strengthening the relationship with our valued customers, we are proud to announce that we will further expand our European network of own branches and distribution partners. This will bring us closer to you and enable us to be even more responsive to your needs. In addition, we are strongly committed to online accessibility in order to respond quickly, with your convenience and satisfaction at the centre. These expansion and improvements in our organisation are all aimed at ensuring an optimal buying experience for you.

Thank you for choosing us. We look forward to greeting you in person or online and continuing to build a successful and lasting relationship together.

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 its formation 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, making sure all criteria and standards are met before shipment to the customer. Thousands of companies worldwide rely on their Rioned jetting machine, day in, day out.

#### OUR PRODUCT RANGE CONSISTS OF:

- Mechanical drain cleaning
- High-pressure cleaning
- Jetting/Vacuum cleaning
- 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 machines consume less water, less fuel, have a longer life and a high trade-in value. Numerous built-in smart functions enable you to work faster and with visibly better results. A host of standard fit smart features help you to work faster and more effectively.





# FOR A HEALTHY FUTURE



Within 5 to 10 years, the vast majority of newly purchased sewer cleaning machines will be electrically powered. Rioned is one of the driving forces behind this change. Already in 2019, we introduced the first all-electric machine for cleaning and unblocking sewers. With this machine, Rioned is paving the way for further innovation in the sector. But our sustainability goals do not stop with the production of electric machines.

#### **OUR GOALS**

Rioned has set itself the goal of becoming climate neutral by 2030. The guiding principles are the United Nations' so-called '17 Sustainable Development Goals' charter, which aims to make cities more sustainable, encourage sustainable energy production and combat the effects of climate change. Wherever possible, work is done according to these guidelines. Several years ago, the first steps were already taken to reduce or reuse waste, reduce energy consumption and water consumption and limit CO2 emissions from our machines.

#### **ENERGY SAVING**

In the production halls in Tilburg, the old lighting has been replaced for an energy-efficient alternative and an ingenious air circulation system significantly reduces energy requirements. Other measures include the installation of semi-automatic doors to reduce heat loss.

An important step is also the collection of water used during the testing of our machines. Waste is disposed of in 17 streams for reuse. A start has been made on electrification of the vehicle fleet and circularity plays an increasingly important role in the use of components. A next step towards an emission-free future is the use of 100% green energy.



Part of the sustainability programme is concern for equality and the welfare of employees and relations. Rioned is part of the Heico Companies a company with more than 9,000 employees in 70 companies. Core values of the company are integrity, hard work and safety.

The comprehensive Code of Conduct (www.heicocompanies.com/who-we-are) ensures equal opportunities, fair business practices and the safety of employees and customers. Instructional films, eBooks and materials are offered to our customers to make sewer workers aware of potential hazards in and around the workplace.



#### PRODUCT OVERVIEW

VAN PACKS				
	Drive	Engine Capacity	Pump	
AquaJet	Honda petrol air-cooled Honda petrol air-cooled Honda petrol air-cooled Honda petrol air-cooled	15 kW / 20 hp 18 kW / 24 hp 18 kW / 24 hp 18 kW / 24 hp	150 bar / 45 lpm 140 bar / 60 lpm 150 bar / 55 lpm 190 bar / 45 lpm	2200 psi / 10 gpm 2000 psi / 13 gpm 2200 psi / 12 gpm 2800 psi / 10 gpm
UrbanJet	Kubota diesel Kubota diesel Kubota petrol water-cooled	18,5 kW / 25 hp 18,5 kW / 25 hp 23 kW / 30 hp	200 bar / 45 lpm 140 bar / 70 lpm 200 bar / 55 lpm	3000 psi / 10 gpm 2000 psi / 15 gpm 3000 psi / 12 gpm
CityJet	PTO* PTO* Kubota petrol water-cooled or Kubota diesel common rail	32 kW / 43 hp 32 kW / 43 hp 42.5 kW / 57 hp or 33 kW / 44 hp	200 bar / 60 lpm 160 bar / 75 lpm 320 bar / 46 lpm 250 bar / 60 lpm 160 bar / 85 lpm 270 bar / 54 lpm 200 bar / 72 lpm 150 bar / 100 lpm	3000 psi / 13 gpm 2400 psi / 17 gpm 4600 psi / 10 gpm 3600 psi / 13 gpm 2400 psi / 19 gpm 4000 psi / 12 gpm 3000 psi / 16 gpm 2200 psi / 22 gpm
ProfiJet	PTO* PTO*	32 kW / 43 hp 32 kW / 43 hp	200 bar / 72 lpm 150 bar / 100 lpm	3000 psi / 16 gpm 2200 psi / 22 gpm
ProfiJet T4	Kubota diesel common rail  Kubota diesel common rail	33 kW / 44 hp 33 kW / 44 hp 33 kW / 44 hp 33 kW / 44 hp 49 kW / 65 hp 49 kW / 65 hp	250 bar / 60 lpm 200 bar / 72 lpm 160 bar / 85 lpm 150 bar / 100 lpm 280 bar / 80 lpm 160 bar / 130 lpm	3600 psi / 13 gpm 3000 psi / 16 gpm 2400 psi / 19 gpm 2200 psi / 22 gpm 4100 psi / 18 gpm 2300 psi / 29 gpm
eFlow One	Electric	14 kW / 20 hp 14 kW / 20 hp	150 bar / 50 lpm 200 bar / 35 lpm	2200 psi / 11 gpm 3000 psi / 8 gpm
eCityJet	Electric	25 kW / 33 hp 25 kW / 33 hp	200 bar / 60 lpm 160 bar / 75 lpm	3000 psi / 13 gpm 2300 psi / 17 gpm



<sup>\*</sup> Approximate power and capacity (MB Sprinter only)

TRAILERS				
	Drive	Engine Capacity	Pump	
FlexJet	Honda petrol	15 kW / 20 hp	150 bar / 45 lpm	2200 psi / 10 gpm
FlexJet+	Honda petrol Honda petrol Honda petrol	15 kW / 20 hp 18 kW / 24 hp 18 kW / 24 hp	150 bar / 45 lpm 150 bar / 55 lpm 140 bar / 60 lpm	2200 psi / 10 gpm 2200 psi / 12 gpm 2000 psi / 13 gpm
MultiJet	Kubota petrol water-cooled or Kubota diesel common rail	42.5 kW / 57 hp or 33 kW / 44 hp	160 bar / 85 lpm 200 bar / 72 lpm 150 bar / 100 lpm 250 bar / 60 lpm	2400 psi / 19 gpm 3000 psi / 16 gpm 2200 psi / 22 gpm 3600 psi / 13 gpm



STANDARD (	DUTFIT								
	AquaJet	UrbanJet	CityJet	eCityJet	ProfiJet	ProfiJet T4	FlexJet	FlexJet <sup>+</sup>	MultiJet
eControl(+), eControl Touch	Optional	Standard (+)	Standard (+), eControl Touch standard on V1505-CR T	Standard (++)	Standard (+)	Standard (+)	Optional	Optional	Standard (+)
RioMote	Optional 5-channel	Optional 5 or 7-channel	Optional 7-channel	Optional 7-channel	Optional 7-channel	Optional 7-channel	Optional 5-channel	Optional 5-channel	Optional 7-channel
Drive reel	Optional hydraulic or electric	Hydraulic	Hydraulic	Electric	Hydraulic	Hydraulic	Optional electric	Optional electric	Hydraulic
Mechanical free wheel	Optional	Optional	Standard	Standard	Standard	Standard	-	Optional	Optional
Run dry protection	Optional	Standard	Standard	Standard	Standard	Standard	Optional	Optional	Standard
Hosemeter counter	-	-	Optional, standard on V1505-CR T	Optional	Optional	Standard	-	-	Optional
Accessories	Nozzles,	Nozzles	Nozzles,	Nozzles,	Nozzles,	Nozzles	Nozzles,	Nozzles,	Nozzles,

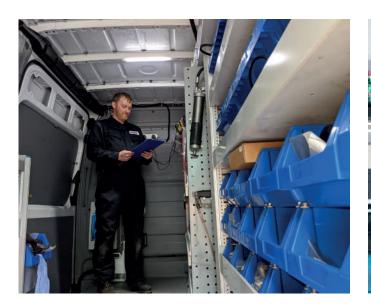


## SERVICE, RENTAL AND FINANCE

#### RIOHIRE: EQUIPMENT RENTALS

Rioned's operation-ready rental equipment and vehicles (UK only) are a popular option for many contractors, particularly when used to fulfil interim contracts or add additional resource to their fleet. Standalone jetters, van-pack vehicles and jet/vac combination units can be supplied with a simple hire agreement on long and short-term rental contracts with customisations to suit client requirements.

The standard van-pack hire vehicle is a long-wheelbase Transit 350 with exterior chevron signage for highways compliance. The interior conversion includes the installation of a dividing bulkhead, waterproof spray lining, LED lighting, washbasins, shelving and a night heater to provide frost-protection for the jetter and to heat a storage cupboard for drying wet overalls. (Only applicable in the UK)





Hiring also means that companies can try our best-in-class equipment before they buy, taking advantage of full maintenance coverage, which ensures no unforeseen costs over the length of the contract.

The customer-first approach offers a ready-made solution with unique features, while still providing good value for money over short or long-term agreements.

#### **EQUIPMENT SERVICING AND REPAIR**

Annual maintenance is essential in preventing equipment malfunctions and the key to improving the efficiency and operational life of your machine. We offer a range of annual and periodic servicing packages to help customers spread the cost of maintenance. Our global network of service agents and fully-equipped service vehicles provide mobile servicing and reactive maintenance. Rioned service vehicles carry a full complement of spare parts and accessories, with the service teams equipped to carry out most standard repairs in a single call-out.

Rioned is committed to providing the highest quality of after-sales service, providing assurance for all our customers that they are looked after in the right way. That includes the quick distribution of parts and accessories via our global network.

All servicing and repair work is undertaken by Rioned trained and approved technicians.

#### EQUIPMENT AND VEHICLE FINANCE AND LEASING

IWe work closely with leading providers to offer finance and leasing packages that are tailored to suit different requirements and financial circumstances. Access to low-rate solutions helps customers manage ongoing costs and maintain cash-flow in their businesses.



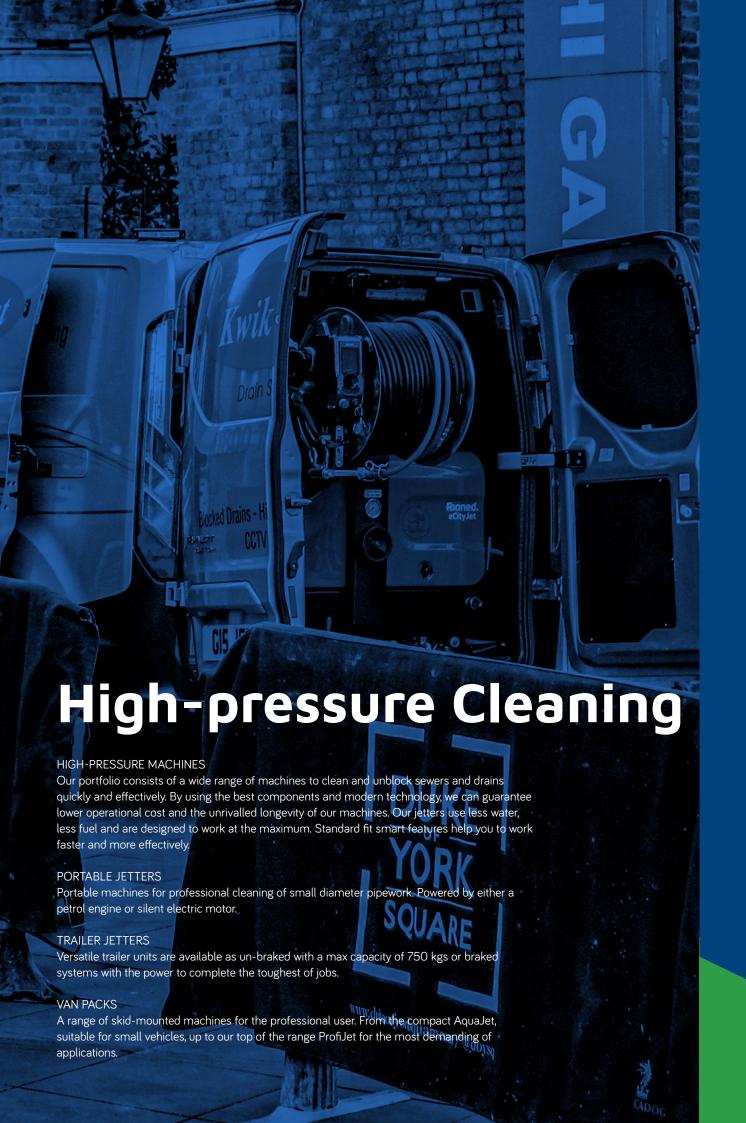


Many of our customers choose combined jetter and vehicle finance, which is generally viewed as a hard-asset purchase and therefore attracts lower monthly rates. Alongside the supply of the drain cleaning equipment and the vehicle, we often also bundle ancillary equipment, vehicle conversions and the ongoing service and repair costs into finance packages.

Customers can also opt for balloon payment terms, which again reduce monthly outgoings, and provide the opportunity to trade in old equipment against new at the end of the contract.

By choosing a single-source solution, many contractors have discovered a hassle-free and cost-effective way to satisfy their complete jetting requirements.







#### 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 CLEANING

## 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.



TECHNICAL SPECIFICATIONS							
	MiniJet 110 bar / 10	) lpm	HD30 130 bar / 30	HD30 130 bar / 30 lpm		HD30 100 bar / 40 lpm	
Operating range	25-100 mm		40-200 mm		40-200 mm		
Engine	Electric (1.8 kW / 23	30V - 50Hz)	Honda petrol (8 kW	/ / 11 hp)	Honda petrol (8 kW	Honda petrol (8 kW / 11 hp)	
Pump Rioned/Speck	110 bar / 10 lpm	1600 psi / 2,2 gpm	130 bar / 30 lpm	1900 psi / 6,5 gpm	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		40 metres NW 8		40 metres NW 10	
Weight	Engine and pump 3 Hose reel 26 kgs	Engine and pump 30 kgs Hose reel 26 kgs			100 kgs		
Nozzles	2 nozzles 1/4" (1 open, 1 blind) 1 nozzle 1/8" (open)		2 nozzles 1/4" (1 op	en, 1 blind)	2 nozzles 1/2" (1 op	en, 1 blind)	
Accessories		High-pressure gun with 600 mm lance suction hose with filter		with 600 mm lance lter	High-pressure gun suction hose with fi	with 600 mm lance lter	

#### 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.











Max 300 mm



As from 280 kgs



400 litres



#### HIGH-PRESSURE CLEANING

## **AQUAJET**

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

The AquaJet is suitable for unblocking and cleaning of drains and sewers up to 300 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, with a removable cover allowing 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
- Light weight
- Choice of different engines, pumps and water tank configurations
- Maintenance friendly
- Fits in almost any vehicle





RioMote remote optional

TECHNICAL SPECIFICATIONS				
Operating range	Max 300 mm			
Engine	Honda petrol air-cooled (15 kW / 20 hp) or Honda petrol air-cooled (18 kW / 24 hp)			
Fuel tank	15 litres			
Pump Rioned/Speck	Honda petrol air coo (15 kW / 20 hp)	oled		
	150 bar / 45 lpm	2200 psi / 10 gpm		
	Honda petrol air cod (18 kW / 24 hp)	oled		
	140 bar / 60 lpm 150 bar / 55 lpm 190 bar / 45 lpm	2000 psi / 13 gpm 2200 psi / 12 gpm 2800 psi / 10 gpm		
Pump protection	Optional			
Pressure regulation	Type Speck with automatic bypass			
Water tank	400 litres			
Filling reel	35 metres NW 19			
Fixed hydrant connection	Optional			
HP hose	60 metres NW 13			
HP reel	Fixed, manually ope	rated		
Control	Rioned control box, eControl optional			
Weight	From 280 kgs			
Dimensions (lxwxh)	1,100 x 950 x 1,095	mm		
Nozzles	2 x 1/2" (1 open, 1 bl	lind)		
Accessories	Spray gun with lance			
Color	Blue cover, black metal frame			

OPTIONS				
Remote control	RioMote 5-channel remote control system			
RioPulse Pulsator	Pump adjustment to send the water through the hose in pulses			
Pump protection	Run-dry protection with overrun possibility			
Anti-freeze tank	30 litre anti-freeze tank with circulation system to protect the high-pressure pump			
Extra water tanks	2 x 400 litres or 2 x 300 litres water tanks instead of 1 x 400 litres			
Extra HP hose length	80 metres NW 13			
Fixed suction venturi	Suction device for filling the tanks with tanks with surface water			
Fixed hydrant connection	Fixed hydrant connection for rapidly filling the tank			
HP reel	Electrically or hydraulically driven			
Second HP reel	Second HP reel instead of filling reel			
RioFree mechanical freewheel HP reel	RioFree mechanical freewheel for uncoiling without resistance (only in combination with hydraulic HP reel)			









Max 350 mm



As from 440 kgs



600 litres



Optional



#### HIGH-PRESSURE CLEANING

### **URBANJET**

#### TAKING DRAIN CLEARANCE TO THE NEXT LEVEL

#### LIGHTWEIGHT

The new lightweight 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. The new UrbanJet is ideally suited for unblocking of house connections and work in domestic and light commercial areas. The UrbanJet is also available with an industrial, water-cooled diesel or petrol engine to service pipes up to 350 mm.

#### **EVERYTHING YOU NEED**

The UrbanJet is supplied as a complete package, including a hydraulically driven high-pressure hose reel with 60 metres MaxFlow lightweight jetting hose and filling reel with 35 metres of NW 19 hose. The optionally included 5 or 7-channel radio remote control allows single-person operation and allows the user to control the pump (on/off), 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 various water tanks and can be optionally equipped with a pivoting reel for maximum 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..

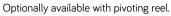




- Lightweight to fit most popular and compact 3.5t+ vehicles
- eControl+ control panel with machine status indicators
- Hydraulically driven high-pressure hose reel as standard
- Optionally equipped with radio remote control for single-person operation

#### PIVOTING REEL







Operating range	Max 350 mm		
Engine		Kubota diesel D1105 (18.5 kW / 25 hp) or Kubota petrol water-cooled WG972 (23 kW / 30 hp)	
Fuel tank	30 litres		
Pump	Kubota diesel D110	5	
Rioned/Speck	200 bar / 45 lpm 140 bar / 70 lpm	3000 psi / 10 gpm 2000 psi / 15 gpm	
	Kubota petrol water	-cooled WG972	
	200 bar / 55 lpm	3000 psi / 12 gpm	
Pump protection	Run-dry protection with overrun possibility		
Pressure regulation	Type Speck with automatic bypass		
Water tank	600 litres (2 x 300	litres)	
Filling reel	35 metres NW 19		
Fixed hydrant connection	Optional		
HP hose	60 metres NW 13		
HP reel	Fixed, hydraulically driven		
Control	Rioned eControl+		
Weight	From 440 kgs		
Dimensions (lxwxh)	1,305 x 1,240 x 1,195 mm		
Nozzles	2 x 1/2" (1 open, 1 blind)		
Color	Blue cover, black me	etal frame	

OPTIONS	
Remote control	RioMote 5 or 7-channel remote control system
RioPulse Pulsator	Pump adjustment to send the water through the hose in pulses
Anti-freeze tank	30 litre anti-freeze tank with circulation system to protect the high-pressure pump
Extra water tanks	2 x 400 litres or 4 x 300 litres water tanks instead of 2 x 300 litres
Extra HP hose length	80 metres NW 13
Fixed suction venturi	Suction device for filling the tanks with tanks with surface water
Fixed hydrant connection	Fixed hydrant connection for rapidly filling the tank
HP reel	180° swivelling, hydraulically driven
Second HP reel	Second HP reel instead of filling reel
RioFree mechanical freewheel HP reel	RioFree mechanical freewheel for uncoiling without resistance (only in combination with hydraulic reel)
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
Accessories	Spray gun with lance











Max 450 mm



As from 530 kgs



600 litres





STAGE V



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



Pivoting reel for max. 120 metres of hose

#### HIGH-PRESSURE CLEANING

### CITYJET

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

WITH

eCONTROL

TOUCH

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 FEFECTIVE

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 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 a diesel engine, petrol engine or even a fully electric engine. The CityJet with V1505-CR T Diesel is equipped as standard with the new eControl Touch control system. A PTO version is also available. The CityJet PTO (Power Take-off) is powered by the engine of the vehicle in which it is mounted. A sophisticated hydraulic system takes power from the vehicle axle to allow the high-pressure pump to do its work. A separate combustion or other engine is therefore no longer necessary. Installed in a new van, this drive meets all legal environmental requirements.

All systems host a range of innovative features to maximize performance and user-friendliness. The CityJet Petrol has a patent pending system to cool the exhaust of the machine.



- 180° pivoting hose reel
- eControl+ or eControl Touch control panel
- High-performance
- Lightweight
- Large capacity hose reel for up to 140 metres HP hose
- Electric hose reel locking mechanism



TECHNICAL SPECIFICATIONS			
Operating range	Max 450 mm		
Engine	Kubota diesel common rail turbo V1505-CR T (33 kW / 44 hp) or in MB Sprinter PTO, Kubota petrol WG1605 (42,5 kW / 57 hp)		
Fuel tank	30 litres		
Pump	PTO		
Rioned/Speck	200 bar / 60 lpm 160 bar / 75 lpm	3000 psi / 13 gpm 2400 psi / 17 gpm	
	Kubota petrol WG16 diesel common rail		
	320 bar / 46 lpm 250 bar / 60 lpm 160 bar / 85 lpm 270 bar / 54 lpm 200 bar / 72 lpm 150 bar / 100 lpm	4600 psi / 10 gpm 3600 psi / 13 gpm 2400 psi / 19 gpm 4000 psi / 12 gpm 3000 psi / 16 gpm 2200 psi / 22 gpm	
Pump protection	Run-dry protection with overrun possibility		
Pressure regulation	Type Speck with automatic bypass		
Water tank	600 litres (2 x 300	litres)	
Filling reel	50 metres NW 19		
Fixed hydrant connection	Fixed hydrant connection for rapidly filling the tank		
HP hose	80 metres NW 13 o	r 80 metres NW 16	
HP reel	180° swivelling, hydraulically driven and with RioFree freewheel		
Control	Rioned eControl <sup>+</sup> , Rioned eControl Touch standard on V1505-CR T engine		
Weight	From 530 kgs		
Dimensions (lxwxh)	1,460 x 1,398 x 1,199	5 mm	
Nozzles	2 x 1/2" (1 open, 1 b	lind)	
Accessories	Spray gun with lance		
Color	Blue cover, black m	etal frame	

OPTIONS		
Remote control	RioMote 7-channel remote control system or RioMote Premium 7 channel remote control system with display (only i.c.w. eControl Touch)	
RioPulse Pulsator	Pump adjustment to send the water through the hose in pulses	
Anti-freeze tank	30 litre anti-freeze tank with circulation system to protect the high-pressure pump	
Extra water tanks	2 x 400 litres or 4 x 300 litres water tanks instead of 2 x 300 litres	
Extra HP hose length	100 or 120 metres NW 13 or 100 metres NW 16	
Fixed suction venturi	Suction device for filling the tanks with tanks with surface water	
Second HP reel	Second HP reel instead of filling reel	
Radiographic control HP reel	Coiling on and off via the radio remote control	











Standard on CityJet with V1505-CR T diesel engine



Scan QR-code for product video

#### SYSTEM MANAGEMENT

## **eCONTROLTOUCH**

## NEXT-LEVEL SEWER MACHINE MANAGEMENT FOR UNRIVALLED CONTROL AND DIAGNOSTICS

The eControl Touch is the next generation of machine control systems for use across our range of high-pressure drain and sewer cleaning machines. Following on from the success of the first eControl unit, which garnered a prestigious Red Dot award for innovation in 2015, the latest iteration comes with a range of new smart features and offers unrivalled sewer machine control and diagnostics.

#### eCONTROL TOUCH

The new eControl Touch heralds the arrival of a platform designed for the future, offering operators more control to improve efficiencies and reduce running and maintenance costs. With operation, functionality, and sustainability at the forefront of the brief, the eControl Touch offers an unrivalled level of machine diagnostic and operational intelligence. The design takes into account future developments, such as wide-ranging connectivity, and delivers on the aim to help operators reduce carbon emissions and running costs by saving on fuel and water usage.

#### **NEW LOOK**

The new-look unit has been designed to provide complete fingertip control, with an ergonomic shape developed for ease of use. The new configuration includes a larger 7" LCD touch screen, displaying complete system information at a glance. A robust jog wheel has also been added to enable operators quick access to the complete range of system information even when wearing gloves.

#### **BUILT-IN SENSORS FOR REAL-TIME MEASUREMENTS**

Key to the development is the inclusion of more real-time sensors, with operators now able to monitor pressure and flow, RPMs and fuel and water level at a glance. Sensors also continuously monitor machine components, with the eControl Touch displaying warning alerts and solutions when detecting impending machine malfunctions. This accurate monitoring of the condition of critical components enables users to reduce machine downtime and maintenance costs.





- Ergonomic design with 7" touchscreen and jog wheel
- Complete system information at a glance
- More built-in sensors for real-time diagnostic data
- Continuous engine, pump and component monitoring
- RioMeter included as standard

#### **NEW FEATURES**

The new eControl Touch can be started with an RFID (Radio Frequency Identification) tag to increase operator safety when working remotely from the jetter. A unique code can also be used if the RFID tag is lost. Rioned's popular RioMeter has also been installed as standard, providing highly accurate measurements of the amount of hose that has travelled along a pipe.

#### **NEW HANDSET**

The new RioMote handset includes an LCD screen that displays essential system information relayed directly from the eControl Touch. Operators working at a distance from the machine can view pressure, flow, run time, system warnings and other component information at a glance, improving operator safety and minimising machine downtime.



#### RIOCONNECT;

MACHINE DATA ON YOUR PHONE
By means of an app, you can connect
to eControl Touch. This way, it is
possible to read data from your
machine on your phone as well. Handy
if you want to know how much water
and fuel you have left before you leave.



The new RioMote handset includes an LCD screen displaying information from the eControl Touch









Max 600 mm



As from 800 kgs



600 litres





Tier 4/Stage V ready engine with built-in diesel particulate filter and catalyst



Pivoting and rotating hose reel

#### HIGH-PRESSURE CLEANING

## PROFIJET T4

#### THE MOST POWERFUL AND GREEN MACHINES

#### TOP OF THE RANGE

The ProfiJet T4 is the top model in our range of built-in machines, designed for long and intensive work. The ProfiJet is unprecedentedly user-friendly and offers a host of functions that enable you to work faster and more effectively.

The eControl+ control box gives you all information on the status of your machine at a glance. The hydraulically driven HD reel swings out  $90^{\circ}$  and can also rotate  $180^{\circ}$ , ideal for work in hard-to-reach areas with little parking space for a van.

#### **ENGINES**

The ProfiJet Tier 4 is based on the latest generation of diesel engines. The 44 HP and 65 HP Kubota diesel are equipped with built-in catalytic converter and self-cleaning diesel particulate filter (DPF) that minimises harmful emissions.

With a capacity of 280 bar / 80 litres per minute or 160 bar / 130 litres per minute, the ProfiJet is up to the toughest jobs. House connections, street sewers and industrial drains up to 650 mm are cleaned effortlessly.

#### POWERFUL YET COMPACT PACKAGE

The lightweight frame made of reinforced aluminium is compact, making the ProfiJet T4 ideally suited to most medium-sized vans such as the Mercedes Sprinter, Volkswagen Crafter or Iveco Daily. Two separate water tanks of 400 litres each are connected to each other for stable handling and comfortable driving. The water capacity is expandable to 1,600- or even 2,400-litres.

A hose length meter is part of the standard equipment, useful to see how far the hose is in the sewer or how many metres have been cleaned. A second high-pressure hose reel can be added to the machine to also clean smaller pipes with many bends.

#### COOLING OF OUR ENGINES

The engine of the ProfiJet Tier 4 (and our other diesel machines) is cooled by the rinse water from the tank. A special heat exchanger transfers heat from the engine to the water from the tank, which thus becomes a few degrees warmer. This way of cooling ensures that the machine is able to work much longer continuously. An additional advantage is that the rinse water becomes slightly warmer and cleans more effectively. Refilling the rinse water regularly in summer conditions ensures optimum operation.



- Fuelefficient Tier 4/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 SPECIFI	CATIONS	
Operating range	Max 600 mm	
Engine	Kubota diesel common rail turbo V1505-CR T (33 kW / 44 hp) or Kubota diesel common rail turbo V2403-CR T (49 kW / 65 hp)	
Fuel tank	30 litres	
Pump Rioned/Speck	Kubota diesel common rail turbo V2403-CR T	
	280 bar / 80 lpm 160 bar / 130 lpm	4100 psi / 18 gpm 2300 psi / 29 gpm
	Kubota diesel comm V1505-CR T	non rail turbo
	250 bar / 60 lpm 200 bar / 72 lpm 160 bar / 85 lpm 150 bar / 100 lpm	3600 psi / 13 gpm 3000 psi / 16 gpm 2400 psi / 19 gpm 2200 psi / 22 gpm
Pump protection	Run-dry protection with overrun possibility	
Pressure regulation	Type Speck with automatic bypass	
Water tank	800 litres (2 x 400 litres)	
Filling reel	35 metres NW 19	
Fixed hydrant connection	Fixed hydrant conne filling the tank	ection for rapidly
HP hose	80 metres NW 13, 8 80 metres NW 19	30 metres NW 16 or
HP reel	180° swivelling, 90° hydraulically driven freewheel	
Control	Rioned eControl <sup>+</sup>	
Weight	From 800 kgs	
Dimensions (lxwxh)	1,736 x 1,383 x 1,186 mm	
Nozzles	2 x 1/2" (1 open, 1 blind)	
Accessories	Spray gun with lance	
Color	Blue cover, black me	etal frame

OPTIONS			
Remote control	RioMote 7-channel remote control system		
RioPulse Pulsator	Pump adjustment to send the water through the hose in pulses		
Anti-freeze tank	30 litre anti-freeze tank with circulation system to protect the high-pressure pump		
Extra water tanks	$4 \times 400$ litres water tanks instead of $2 \times 400$ litres		
Extra HP hose length	100, 120 or 140 metres NW 13, 100 or 120 metres NW 16		
Fixed suction venturi	Suction device for filling the tanks with surface water		
Second HP reel	Second HP reel instead of filling reel		
Radiographic control HP reel	Coiling on and off via the radio remote control		
RioSpindel	RioSpindel automatic hose guidance on the first HP hose reel		
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		













Max 350 mm



As from 440 kgs



600 litres







#### HIGH-PRESSURE CLEANING

## eFLOW ONE AND eCITYJET

#### **ELECTRICALLY DRIVEN MACHINES**

All-electric sewer cleaning machines for sewers up to 350 mm

Many European cities will ban diesel-powered vans from city centres from 2025. The electric van has made its appearance and is rapidly gaining popularity. Electrification of machinery is also in full swing. Rioned introduced the first all-electric sewer machine in 2019, a world first for the time. Electric cleaning and unblocking of sewers is very much up to date and long gone. Rioned is ready for it and sets the standard! With the introduction of the eFlow One, there is now an economically interesting electric machine that is in many ways superior to conventional, fuel-driven machines.

#### **VANS**

Meanwhile, there is also a wide range of, practically deployable, electric vans available. The new generation of vans has a range of more than 300 km, something that until recently seemed unfeasible. However, an electric machine is not necessarily tied to an electric van; an electric machine also offers many advantages in a diesel or petrol-powered van. Think of jobs carried out at night or in a densely populated residential area. The noise level of an electric machine is many times lower than that of a fuel-driven machine. Operating costs are also significantly lower due to lower maintenance requirements and fuel costs. During unblocking operations in a car park, tunnel or building, the user and his surroundings are not affected by harmful emissions. If required, the machine can still be placed in an electric bus later.

#### BATTERIES AND BATTERY MANAGEMENT SYSTEM

The eFlow One and eCityJet are two fully electrically powered sewer cleaning machines. The pumps of both machines are powered by state-of-the-art Li-ion MGE batteries that can be used to work for days without needing to be recharged. Only when the water tanks have been filled 8 to 10 times do the batteries need to be energised.

A high-quality battery management system is essential for proper machine operation. The BMS of both Rioned machines is equipped with a clear LCD display, which provides insight into the charging status and condition of each individual battery and guarantees optimum operation. Battery charging can take place anywhere a normal (230V) socket is available. At the end of the working day, the plug goes into the socket to start work the next morning with renewed energy.

Each individual battery has a capacity of 5.8 kWh. The eFlow One has 3 of these power sources, while the eCityJet has as many as 6. With both machines, you can work the same amount of time with the eCityJet having the highest capacity (Pressure and litres per minute). With normal use, it will take at least 8 years for the batteries to lose some capacity. If there is a power connection at the work site, the machine can be recharged while working.





Fully controllable with the RioMote



- Zero emissions
- Extremely low noise level
- Work for days without charging
- Suitable for any type of van (fuel or electric)



#### eFLOW ONE

The eFlow One is a completely new design electric machine, a breakthrough in electric sewer cleaning. With its 150 bar pressure and 50 litres of water per minute or 200 bar pressure and 35 litres of water per minute, the machine is ideally suited for cleaning and unblocking house connections pipes up to about 250 mm. The machine is compact and, above all, lightweight. Control takes place entirely by means of the remote control with display supplied as standard. All important information (pressure, litres, water level and service messages) is thus within easy reach of the operator, wherever he or she may be. The high-pressure reel is electrically driven as standard and the high-pressure hose can be uncoiled remotely. This entry-level model makes electric cleaning accessible to everyone.

#### eCITYJET

In terms of performance, the eCityJet rivals the most powerful fuel-driven machines. With 200 bar / 60 litres per minute, or 160 bar 85 litres per minute rinsing capacity, the machine is well suited for cleaning pipes up to 350 mm. As standard, the machine comes with two water tanks of 300 litres each, a  $135^{\circ}$  swivelling reel with mechanical clearance and 80 metres of MaxFlow HD hose.



TECHNICAL SPECIFICATION	ONS				
	eFlow One		eCityJet		
Operating range	Max 250 mm		Max 350 mm		
Electric motor	14 kW		24 kW		
Battery pack	17 kWh		34 kWh		
Battery Management System	With LCD display for mon Battery status and charge		With LCD display for monitoring individual batteries Battery status and charge warning.		
Rioned/Speck Pump	150 bar / 50 lpm 200 bar / 35 lpm	2200 psi / 11 gmp 3000 psi / 8 gpm	160 bar / 75 lpm 200 bar / 60 lpm	2300 psi / 17 gpm 3000 psi / 13 gpm	
Pump protection	Run-dry protection with o	verrun possibility	Run-dry protection with o	verrun possibility	
Pressure regulation	Type Speck with automati	c bypass	Type Speck with automatic bypass		
Water tank	400 litres		600 litres (2 x 300 litres)		
Filling reel	35 metres NW 19		50 metres NW 19		
Fixed hydrant connection	Optional		Connection with GK coupling for filling the tank Hydrant connection possible		
HP hose	60 metres NW 13		80 metres NW 13 or NW	16	
HP reel	Fixed reel, electrically drive Equipped with freewheel	Fixed reel, electrically driven. Equipped with freewheel		180° swivelling, electrically driven and with RioFree freewheel	
Control	By means of 7-channel remote control with display including pressure, water flow and water level		Rioned eControl+		
Weight	from 440 kg			From 750 kg	
Dimensions (lxwxh)	1,260 x 1,050 x 1,105 mm		1,615 x 1,240 x 1,195 mm		
Nozzles	2 x 1/2" (1 open, 1 blind)		2 x 1/2" (1 open, 1 blind)		
Accessories	Spray gun with lance			Spray gun with lance	
Color	Blue cover, black metal frame		Blue cover, black metal fra	ame	
OPTIONS					
Remote control	Included		Riomote 9-channel remo	ote control	
RioPulse pulsator	Pump adjustment to send in pulses	water through the hose	Pump adjustment to send in pulses	d water through the hose	
Anti-freeze tank	30 litre anti-freeze tank w protect the high-pressure		30 litre anti-freeze tank w protect the high-pressure	·	
Extra HP hose lenght	80 metres NW 13		100, 120 or 140 metres N	W 13 or NW 16	
Fixed suction venturi	Suction device for filling the surface water	Suction device for filling the tanks with tanks with surface water		he tanks with tanks with	
Second HP hose reel	Second HP reel instead of filling reel		Second HP reel instead o	f filling reel	
Radiographic control HP reel	Included		Coiling on and off via the	radio remote control	
RioMeter hose counter	N/A	N/A		r displaying metres of	
Electric water level control	N/A	N/A		en and close the filling e water has reached its evel in the tank	







#### **FlexJet**





Max 300 mm



As from 370 kgs



400 litres

#### FlexJet+





Max 350 mm



As from 430 kgs



550 litres



#### HIGH-PRESSURE CLEANING

## FLEXJET AND FLEXJET+

#### FLEXIBILITY AT ITS BEST

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 lightweight FlexJet can be transported by practically all types of vehicle and on a standard driving license. The FlexJet has excellent road handling 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 handling 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<sup>+</sup> is enclosed and supplied with flameretardant insulation material along with a special cooling system. The FlexJet<sup>+</sup> is heavily noise damped. The cover can remain closed during operation and during transport, meaning the machine remains free from road dirt and salt.



Ergonomic working height



TECHNICAL SPECIFICATIONS					
	FlexJet		FlexJet+		
Operating range	Max 300 mm		Max 350 mm		
Version	Unbraked, with or w	rithout cover	Braked, with cover		
Engine	Honda (15 kW / 20	Honda (15 kW / 20 HP)		Honda (15 kW / 20 hp) Honda (18 kW / 24 hp)	
Fuel tank	15 litres		15 litres		
Pomp	150 bar / 45 lpm	2200 psi / 10 gpm	Honda petrol (15 kW / 20 hp)		
Rioned/Speck			150 bar / 45 lpm	2200 psi / 10 gpm	
			Honda petrol (18 kV	V / 24 hp)	
			150 bar / 55 lpm 140 bar / 60 lpm	2200 psi / 12 gpm 2000 psi / 13 gpm	
Pump protection	Optional		Optional		
Pressure regulation	Type Speck with automatic bypass		Type Speck with automatic bypass		
Water tank	400 litres		550 litres		
Filling reel	35 metres NW 19		35 metres NW 19		
HP hose	50 metres NW 13		60 metres NW 13		
HP reel	Fixed, manually ope	Fixed, manually operated		erated	
Control	Rioned control box, eControl optional		Rioned control box,	eControl optional	
Weight	From 370 kgs		From 430 kgs		
Dimensions (lxwxh)	2,815 x 1,375 x 1,320 mm		3,070 x 1,375 x 1,32	20 mm	
Nozzles	2 x 1/2" (1 open, 1 blind)		2 x 1/2" (1 open, 1 blind)		
Accessories	Spray gun with lance		Spray gun with lance		
Color	White (FM-1450)		White (FM-1450)		

#### OPTIONS

Remote control	RioMote 5-channel remote control system	RioMote 5-channel remote control system
RioPulse Pulsator	Pump adjustment to send the water through the hose in pulses	Pump adjustment to send the water through the hose in pulses
Pump protection	Run-dry protection with overrun possibility	Run-dry protection with overrun possibility
Extra HP hose length	60 or 80 metres NW 13	60 or 80 metres NW 13
Fixed hydrant connection	Fixed hydrant connection for rapidly filling the tank	Fixed hydrant connection for rapidly filling the tank
HP reel	Hydraulically driven	Hydraulically driven
Second HP reel	Second HP reel instead of filling reel	Second HP reel instead of filling reel
RioFree mechanical freewheel HP reel	RioFree mechanical freewheel for uncoiling without resistance (only in combination with hydraulic HP reel)	RioFree mechanical freewheel for uncoiling without resistance (only in combination with hydraulic HP reel)
Accessories	Alloy wheels instead of standard wheels	Alloy wheels instead of standard wheels
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	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



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









Max 450 mm



As from 980 kgs



800 litres





800 litres water on board



 $90^{\circ}$  +  $180^{\circ}$  Pivoting hose reel

#### HIGH-PRESSURE CLEANING

### **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 450 mm. The powerful MultiJet is the quietest trailer-mounted jetting machine in its class thanks to the water-cooled diesel or petrol engine, special exhaust system and enclosed body.

#### MAXIMUM VISIBILITY

The MultiJet has two integrated 400 litres water tanks that are connected. 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, maximizing 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, while 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.

#### OPTIMUM WORKING COMFORT

The pivoting reel first swings out up to  $90^{\circ}$  from the back of the machine. The reel itself can then be rotated a further  $180^{\circ}$  for optimum working comfort in all conditions. The reels are shielded by the machine's hood, which definitely improves the machine's service life.

The MultiJet's high-pressure hose is not only the lightest of its kind, but also has minimal pressure loss thanks to its smooth inner surface and larger inner diameter. This further increases the MultiJet's effective output, allowing the nozzle to deliver a higher working pressure. Naturally, the MultiJet can be equipped with remote control for optimum ease of operation by one person. An oil trail cleaning option is also among the possibilities.



- Robust and durable
- Designed for tough jobs
- $-90^{\circ} + 180^{\circ}$  pivoting high-pressure hose reel
- Very stable road handling
- Low noise level

TECHNICAL SPECIFICATIONS		
Operating range	Max 450 mm	
Version	Braked, with soundproof cover	
Engine	Kubota petrol WG1605 (42,5 kW / 57 hp) or Kubota diesel common rail turbo V1505-CR T (33 kW / 44 hp)	
Fuel tank	30 litres	
Pump Rioned/Speck	Kubota petrol WG1605 or Kubota diesel common rail turbo V1505-CR T	
	160 bar / 85 lpm 200 bar / 72 lpm 150 bar / 100 lpm 250 bar / 60 lpm	2400 psi / 19 gpm 3000 psi / 16 gpm 2200 psi / 22 gpm 3600 psi / 13 gpm
Pump protection	Run-dry protection possibility	with overrun
Pressure regulation	Type Speck with automatic bypass	
Water tank	800 litres (2 x 400	litres)
Filling reel	35 metres NW 19	
Fixed hydrant connection	Fixed hydrant connection for rapidly filling the tank	
HP hose	80 metres NW 13 o	r 80 metres NW 16
HP reel	180° swivelling, 90° rotating, hydraulically driven	
Control	Rioned eControl+	
Weight	From 980 kgs	
Dimensions (lxwxh)	3,640 x 1,840 x 1,500 mm	
Nozzles	2 x 1/2" (1 open, 1 blind)	
Accessories	Spray gun with land	e
Color	Yellow (RAL 1032), white (RAL 9010)	blue (RAL 5010) or

Large storage compartments



eControl+

OPTIONS	
Remote control	RioMote 7-channel remote control system
RioPulse Pulsator	Pump adjustment to send the water through the hose in pulses
Anti-freeze tank	30 litre anti-freeze tank with circulation system to protect the high-pressure pump
Extra HP hose length	100 or 120 metres NW 13
Fixed suction venturi	Suction device for filling the tanks with tanks with surface water
Second HP reel	Second HP reel instead of filling reel
Radiographic control HP reel	Coiling on and off via the radio remote control
RioMeter hose counter	RioMeter hose counter for displaying metres of hose in the pipe
RioFree mechanical freewheel HP reel	RioFree mechanical freewheel for uncoiling without resistance
Spraybeam	Spraybeam with rotating nozzles to remove oil pollution from streets
Accessories	Alloy wheels instead of standard wheels



#### HIGH-PRESSURE CLEANING

### **OPTIONS**

## ENHANCE THE FUNCTIONALITY OF YOUR JETTING MACHINE



#### RIOMOTE

With RioMote radio remote your jetting machine can be controlled by a single person. With the 5-channel RioMote radio remote on our petrol driven jetters and UrbanJet, 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 orther 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 venturi device is a simple tool to empty flooded cellars without having to use a separate suction pump. See 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.



#### **RIOPULSE 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 aachieved, whilst time is saved as the pulse 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.



### VENTURI TANK FILLING 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. Included as standard on our CityJet and ProfiJet T4 models.



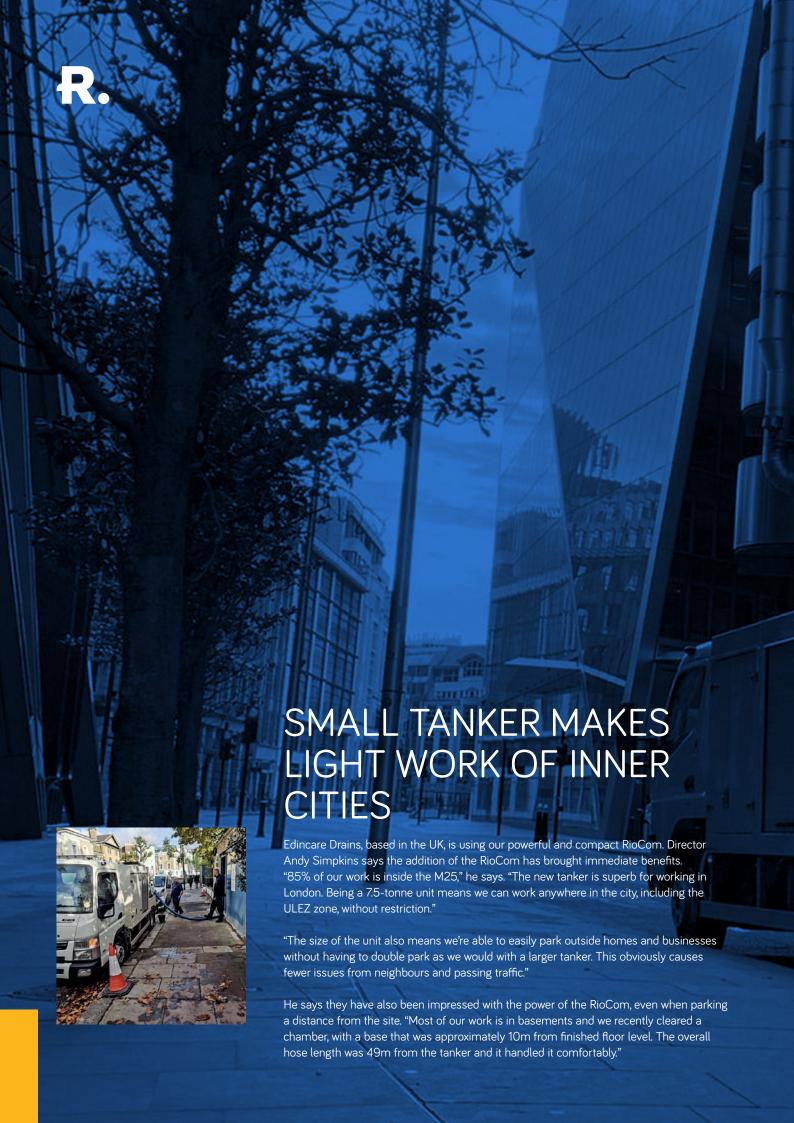
# RIOMETER HOSE METER COUNTER

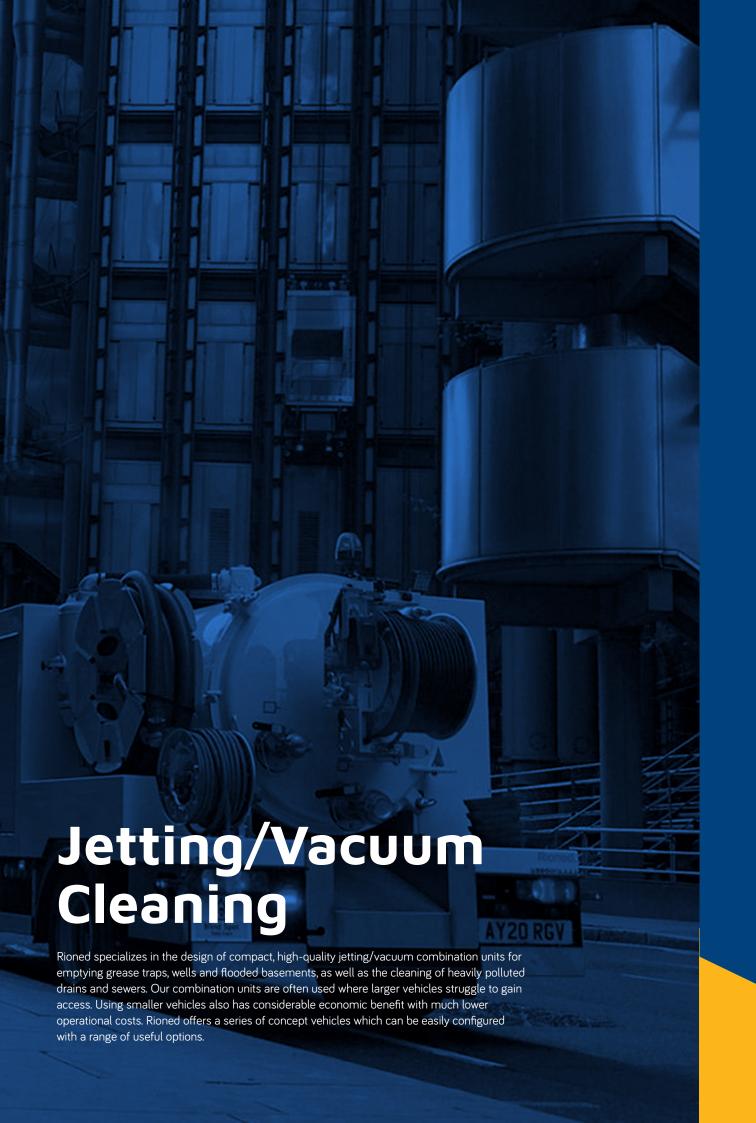
The Riometer hose meter counter supplies accurate information on how far the nozzle is inserted in the drain. It is especially useful on longer runs or when a drain is already partially cleaned. The hose meter counter is accurate to c. 2% at 100 metres.

# 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.













2.100 litres



1.450 kgs





# JETTING/VACUUM CLEANING

# SUCTION UNIT AND -TRAILER

# POWERFUL AND MANOEUVRABLE

### 2.100 LITRES NETTO CAPACITY

The robust Rioned suction trailer is made to empty flooded cellars, severely polluted sewers, septic tanks and wells. With a total height of just under 1.95 metres, this double axle trailer is also suitable for use in parking garages. The thermal immersion tank has a net volume of 2,100 litres, more than enough for the majority of jobs. With an empty weight of approximately 1,450 kgs, the total weight of the trailer and its contents in normal use remains below the permitted load of 3,500 kgs.

#### UNDER THE HOOD

Under the hood of the motor pump/compartment, we find a 2 cylinder, 20 HP Honda Engine driving the powerful Jurop PNR 73 vacuum pump. This pump has a suction capacity of 425m³ per hour (7,200 litres per minute) and is suitable for continuous operation. The discharge mode on the pump helps to empty the tank. A double float ball in the tank and a siphon prevent dirt particles from entering the pump. The housing of the motor and pump protect against dirt and weather influences. A muffler on the exhaust minimizes the volume of noise generated during work.

### **FULLY OPENING REAR COVER**

The rear cover is fitted with a 3" inlet, a 3" outlet and three sight glasses to determine the liquid level. The tank can be opened completely for cleaning and the removal of solids. With 25 metres of 2.5" hose on the suction reel, the machine is ready for action. On one side of the trailer, an open storage box provides room for the two 3" hoses that are supplied as standard; on the other side you will find a lockable storage box for storage of tools.

# SUCTION TRAILER (Model R1)

With an overall height of just under 1.95 metres, the double-axle trailer can also cope well in most car parks. Thanks to its empty weight of around 1,450 kg, the total weight of the trailer with contents remains below the permissible load of 3,500 kg in normal use.

# SUCTION UNIT (Model R2)

The suction unit has the same technical features as the suction trailer and can be supplied with or without a standard trailer for deployment at a fixed location or for mobile use. Of course, you can also mount it on your own approved trailer. Rather not have a trailer? This unit can also be mounted on the back of a chassis of, for example, an Iveco Daily or a Ford Ranger. The frame under the tank has extra space for suction hoses and the reel offers space for an advertising message.



- 2,100 litres netto capacity
- Powerful vacuum pump
- Model with (R1) and with optional (R2) trailer
- Suction reel ready for immediate use
- Ample storage space

TECHNICAL SPECIFICATIONS		
Frame model R1	Double-axle trailer, max load 3,500 kgs	
Dimensions (lxwxh)	Model R1: 4,380 x 1,854 x 1,875 mm Model R2: 3,270 x 2,000 x 1,515 mm without trailer	
Empty weight	Model R1: Ca. 1,450 kg Model R2: Ca. 1,162 kg (without trailer)	
Tank capacity	2,100 litres	
Waste water level indicator	3" sight glasses	
Tank material	Steel	
Tank opening	Fully opening rear door, manual	
Connections	3" inlet, 3" outlet	
Motor/drive	Honda air-cooled petrol engine (15kW / 20 hp)	
Vacuum pump	Jurop PNR73 (7.200 lpm, 425 m³/hour, 0.8 bar suction / 0.49 bar pressure)	
Suction reel	25 metres 2.5" suction hose, manually operated	
Control	On the engine	
Storage	Lockable storage boxes, open hose storage boxes	
Safety	Worklight, beacon and LED warning lights optionally available	
Standard accessories	2 x 3 metres 3" suction hose, 1 x PE suction pipe, toggle spanner for opening and closing the tank	





#### UniCom, basic version







Max 300 mm



Optional



500 / 1.000 litres





#### UniCom, standard version









Max 450 mm



7 or 9-channel



500 / 1.000 litres





# JETTING/VACUUM CLEANING

# **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 4.5t and larger chassis cabs such as the Nissan Cabstar, Renault Maxity, VW Crafter, Mercedes Sprinter or Iveco Daily. 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 hydraulicallyoperated suction hose reel; the choice is yours. You can opt for a basic version with petrol engine and a simple canopy over the engine and pump compartment or a standard version with 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.





TECHNICAL SPECIFICATIONS

TECHNICAL SPECI	FICATIONS				
	Basic version		Standard version		
Chassis	Trailer, 4.5 or 5.5 tons		Trailer, 4.5, 5.5 of 7.5 tons		
Dimensions (lxwxh)	3,000 x 1,740 x 1,450 mm (exclu	ding chassis)	3,000 x 1,740 x 1,450 mm (excluding chassis)		
Empty weight	From 1,200 kgs (depending on ch	nassis)	From 1,200 kgs (depending on cl	From 1,200 kgs (depending on chassis)	
Tank capacity	1,500 litres (500 litres clean / 1,0	00 litres waste)	1,500 litres (500 litres clean / 1,0	000 litres waste)	
Movable partition	No		No		
Waste water level indicator	3" sight glasses		3" sight glasses		
Tank material	Steel		Steel		
Tank opening	Fully opening rear door, manual		Fully opening rear door, manual		
Connections	3" inlet, 3" outlet		3" inlet, 3" outlet		
Motor/drive	Honda petrol (18 kW / 24 hp)		Kubota diesel D1105 (18.5 kW/25 hp)		
HP pump Rioned/Speck	140 bar / 60 lpm 200 bar / 45 lpm	2000 psi / 13 gpm 3000 psi / 10 gpm	140 bar / 60 lpm 200 bar / 45 lpm	2000 psi / 13 gpm 3000 psi / 10 gpm	
Pump protection	Run-dry protection with overrun p	possibility	Run-dry protection with overrun possibility		
Vacuum pump	MEC 5000 (capacity 5.000 lpm, 300m³/hour, 0.8 bar suction / 0.49 bar pressure) or GD SLS54V, air-cooled, oil-lubricated (capacity 5.400 lpm, 300m³/hour, 0.8 bar suction / 0.49 bar pressure)		GD SLS54V, air-cooled, oil-lubrica 300m³/hour, 0.8 bar suction / 0.		
HP hose reel	60 metres NW 13, 180° swivelling		60 metres NW 13, hydraulically-driven, 180° swivelling		
Suction reel	Optional		25 metres 2.5" suction hose, handmatig or hydraulically-driven		
Filling reel	Optional		35 metres NW 19 filling hose		
Motor and pump housing	Cover		Fully enclosed housing		
Control	Rioned eControl		Rioned eControl+		
Remote control	RioMote 7-channel remote control system optional		RioMote 7 or 9-channel remote control system optional		
Storage	Storage for hoses underneath the tank		Storage boxes on both sides of the tank		
Safety	Worklight, beacon and LED warni	ng lights optionally available	Worklight, beacon and LED warning lights optionally available		
Standard accessories	Nozzles, 2 x 3 metres 3" suction hose		Nozzles, 2 x 3 metres 3" suction hose		
Options	RioPulse pulsator system, RioMet system, additional outlet, addition chassis	er hose meter counter, anti-freeze al storage space depending on	RioPulse pulsator system, RioMet system, additional outlet, addition chassis	ter hose meter counter, anti-freeze al storage space depending on	













Max 450 mm



7-channel



400 / 800 litres





eControl<sup>+</sup> control panel

# JETTING/VACUUM CLEANING

# **URBANCOMBI**

# THE JETVAC COMBINATION UNIT THAT GOES WHERE OTHERS CAN'T

#### **NARROW STREETS**

The Rioned UrbanCombi was specially developed for use in car parks, narrow city streets and for its deployment during picket shifts. However, the small combi with 4-wheel drive also feels perfectly at home on difficult roads and in car parks and is suitable for emptying grease pits and small septic tanks. With the special upgrade option, the permitted total weight is increased from 3,200 to 3,490 kilograms. This gives the UrbanCombi the largest payload in its class.

### **ALUMINIUM TANK**

To keep the total weight of the car as low as possible, the storage cabinets and the 1,200-litre tank are made of strong aluminium. The tank is divided into an 800-litre waste water section and a 400-litre clean water section. The tank lid has two 3" openings.

### **PRESTATIONS**

Size is not everything! Despite its compact design, the UrbanCombi is equipped with two powerful pumps that solve any problem. The P45 high-pressure pump delivers up to 320 bar pressure, allowing even down pipe cleaning. The GD SLS54V vacuum pump has a suction capacity of 325 m3/hour, equal to that of many large units.

### TWO MODELS

The UrbanCombi comes in two versions. Model 2.0 comes with tall storage cabinets and accommodates a suction reel, equipped with 25 metres of 2" suction hose. Especially for customers who need to carry extra Lengths of loose suction hose, we have developed model 2.1, with facilities for suction hose on top of the lowered cabinets.



UrbanCombi 2.0



Mini JetVac unit ideal for restricted
access applications

- Two versions available
- Robust 3.2 tons chassis with upgrade option to 3.5 tons
- 4-wheel drive for hard-to-reach places
- Aluminium tank with 1,200 litres total capacity
- Powerful high-pressure and vacuum pumps

TECHNICAL SPECIFICATIONS			
Chassis	3.2 tons Ford Range	er, 4-wheel drive	
Dimensions (lxwxh)	5,500 x 1,950 x 1,850 mm		
Empty weight	Ca. 2,870 kgs (inclu	uding chassis)	
Tank capacity	1,200 litres (400 litres clean / 8	300 litres waste)	
Movable partition	No		
Waste water level indicator	3" sight glasses		
Tank material	Aluminium		
Tank opening	4" inspection valve		
Connections	3" inlet, 3" outlet		
Motor/drive	PTO		
HP pump Rioned/Speck	320 bar / 46 lpm 250 bar / 60 lpm 180 bar / 75 lpm	4600 psi / 10 gpm 3600 psi / 13 gpm 2600 psi / 17 gpm	
Pump protection	Run-dry protection with overrun possibility		
Vacuum pump	GD SLS54V, air-cooled, oil-lubricated (capacity 5.400 lpm, 300m³/hour, 0.8 bar suction / 0.49 bar pressure)		
HP hose reel	80 metres NW 13, hydraulically-driven		
Suction reel	25 metres 2" suction hose, hydraulically driven		
Filling reel	35 metres NW 19 fi	lling hose optional	
Control	Rioned eControl+		
Remote control	RioMote 7-channel remote control system		
Storage	Lockable storage boxes on both sides of the tank		
Safety	LED warning lights		
Standard accessories	Nozzles, spray gun v suction hose	with lance,	
Options	RioPulse pulsator sy hose meter counter		



UrbanCombi 2.1









Max 650 mm



9-channel



1,000 / 2,000 litres



7.5 T





Watch the video of the RioCom on our website



# JETTING/VACUUM CLEANING

# RIOCOM 7.5 T

# ALLROUND JETVAC 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 and has immediate availability.

### **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-PERSON OPERATION

The radio remote system allows the vehicle's engine, 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 oers 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-o) 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 ans 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 SPECIF	FICATIONS		
Chassis	7.5 tons Mitsubishi Fuso Canter 7C18		
Dimensions (lxwxh)	6,260 x 2,080 x 2,488 mm		
Empty weight	4,816 kgs		
Tank capacity	3,000 litres (1,000 litres clean /	2,000 litres waste)	
Movable partition	No		
Wastewater level indicator	Mechanical level inc	dicator	
Tank material	Steel		
Tank opening	Fully opening rear d	loor, manual	
Connections	3" inlet, 4" outlet, 2" connection	fixed hydrant	
Motor/drive	PTO		
HP pump Rioned/Speck	150 bar / 100 lpm 200 bar / 72 lpm 250 bar / 60 lpm	2250 psi / 22 gpm 3000 psi / 16 gpm 3600 psi / 13 gpm	
Pump protection	Run-dry protection with overrun possibility		
Vacuum pump	Jurop PNR83, air-cooled, oil-lubricated (capacity 8.200 lpm, 492m³/hour, 0.8 bar suction / 0.49 bar pressure)		
HP hose reel	80 metres NW 13, hydraulically-driven, 180° swivelling		
Suction reel	17 metres 3", or 25 metres 2.5" suction hose		
Filling reel	50 metres NW 19 fi	lling hose	
Motor and pump housing	Fully enclosed hous	ing	
Control	Rioned eControl+		
Remote control	RioMote 9-channel remote control system		
Storage	Storage cabinets with roller doors on both sides of the tank, hose storage boxes		
Safety	LED warning lights, reflectors, side protection		
Standard accessories	Nozzles, spray gun with lance, suction hose		
Options	RioPulse pulsator sy hose meter counter		







Max 650 mm



9-channel



3,500 of 3,750 litres



, 7.5 / 10 / 12 T





FlexCom on a Fuso Canter



Movable partition for capacity increases, only for Flexcom 10 or 12 tonnes.

# JETTING/VACUUM CLEANING

# **FLEXCOM**

# THE VERSATILE JET/VAC COMBINATION UNIT

### 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 with a range of options, mounted on a 7.5t Mitsubishi Fuso Canter or even a 10 or 12t Mercedes-Benz, DAF or MAN chassis.

#### FLEXIBLE CAPACITY

The FlexCom has a tank with a 3,500 or 3,750 litres capacity, depending on the chosen chassis. It can be supplied with a sliding partition to allow the capacity of the clean water or wastewater 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. It comes with large storage compartments on either side of the vehicle for storing accessories, suction hoses and other tools.

### **USER-FRIENDLY REELS**

The suction reel is connected directly to the tank and the 2 1/2" 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 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 powerful, air-cooled, oil-lubricated Jurop PNR83 vacuum pump. This pump has a suction capacity of 8,200 lpm (492 m³ per hour). This pump makes it possible to cover lengths of 100 metres of hose.



- Gross vehicle weight of 7.5, 10 or 12 tonnes
- Hydraulically-adjustable partition (optional)
- Compact dimensions
- Lightweight
- Suction hose reel with tank connection
- Suitable for all cleaning operations in built-up areas



TECHNICAL SPECIFICATIONS			
Chassis	7.5, 10 or 12 tons		
Dimensions (lxwxh)	6,580 x 2,080 x 2,500 mm		
Empty weight	From 4,800 kgs (depending on chassis)		
Tank capacity	3,500 or 3,750 litre (depending on chas		
Movable partition	Optional		
Waste water level indicator	2 long-sight glasses	5	
Tank material	Steel		
Tank opening	Fully opening rear d hydraulic	loor, manual or	
Connections	3" inlet, 4" outlet, 1" connection	fixed hydrant	
Motor/drive	PTO		
HP pump Rioned/Speck	150 bar / 100 lpm 160 bar / 130 lpm 200 bar / 72 lpm 250 bar / 60 lpm	2200 psi / 22 gpm 2300 psi / 29 gpm 3000 psi / 16 gpm 3600 psi / 13 gpm	
Pump protection	Run-dry protection with overrun possibility		
Vacuum pump	Jurop PNR83, air-cooled, oil-lubricated (capacity 8.200 lpm, 492m³/hour, 0.8 bar suction / 0.49 bar pressure)		
HP hose reel	80 metres NW 13, hydraulically-driven, 180° swivelling		
Suction reel	25 metres 2.5" or 3" suction hose, hydraulically-driven		
Filling reel	35 metres NW 19 fi	lling hose	
Motor and pump housing	Fully enclosed hous	ing	
Control	Rioned eControl+		
Remote control	RioMote 7 or 9-channel remote control system		
Storage	Toolboxes with hose storage boxes on top		
Safety	Worklight and LED warning lights optionally available		
Standard accessories	Nozzles, spray gun v suction hose	with lance,	
Options	RioPulse pulsator sy hose meter counter guide, anti-freeze sy controlled pneumat	, RioSpindel hose estem, remote	









32 - 75 mm



6 - 8 - 10 mm



7,5 - 10 m



6 kg



Now also available with cordless drill



Carrying case for the HandMatic and accessories



# MECHANICAL CLEANING

# SPRING MACHINES

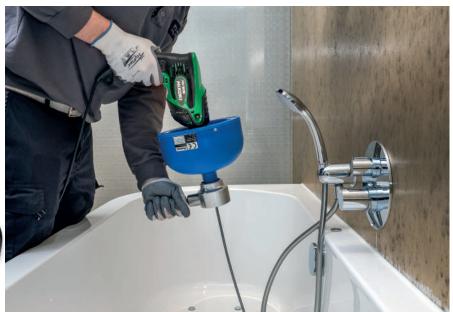
# HANDMATIC, FLEXMATIC+, ALLROUND+ AND MASTER

The drum machine's 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 manoeuvre in restricted areas. The powerful electric motor allows suitcase models to be used to clean standpipes and larger diameter drains up to 60 metres in length.

#### **HANDMATIC**

The HandMatic is an electric spring machine, which can be used for the professional cleaning of drains with a diameter up to 75 mm. The HandMatic is available with a (cordless) drill. An attachment HandMatic is also available. This is suitable for any type of drill with two directions of rotation.

The spring is able to clean the entire length of the drain and can easily negotiate bends and siphons. The automatic spring transporter with infinitely variable speed regulation feeds the spring in and out of the drum. The springs are fitted with a fixed drill head.



# FLEXMATIC+

The FlexMatic+ is the ideal spring machine for professional cleaning of drains and sewers between 32 - 75 mm diameter. The lightweight and compact design, in addition to the flexible adapter hose, makes it easy to handle and manoeuvre 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.



32 - 75 mm



6 - 8 - 10 mm



7,5 - 10 - 15 m



12 kg







Convenient automatic spring conveyor





40 - 125 mm

10 - 16 mm

5 - 15 - 20 m

39 kg

### 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 made from 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 five 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. In the UK, the Allround+ is supplied with foot switch.





### **MASTER**

The Master is a larger version of the Allround<sup>+</sup>. 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 two 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 and 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.



70 - 250 mm



16 - 20 mm



20 m



71 kg









32 - 160 mm



8 - 10 - 16 - 22 mm



60 m



25 kg



Supplied with an adaptor drum suitable for 8 and 10 mm springs



Never lose the decoupling pin again



Store the power cable safely



Spring baskets and accessories can be transported separately

# MECHANICAL CLEANING

# SECTIONAL MACHINES

# **VICTOR**

More powerful, more compact, and more flexible! The new Victor Light and Premium outperform their predecessors with various useful features that make unclogging jobs even easier. We succeeded in adding new and innovative features to the product by carefully listening to users of the Victor.

# THE BEST OF BOTH WORLDS IN ONE MACHINE

The best of the traditional Victor and Mini Victor models has been retained and merged into a new, improved design. This makes the machine suitable for stubborn blockages and long pipes. The motor is a silent electric motor with a two-way switch (L-R). The spring machine is suitable for down pipes, sewers and drains with a diameter of 32 mm to 160 mm over a maximum length of 60 metres. By using an adapter drum, springs of 8 or 10 mm can be used. The Victor is suitable for segment springs of 16 mm (in lengths of 2 metres) or 22 mm (in lengths of 4 metres).

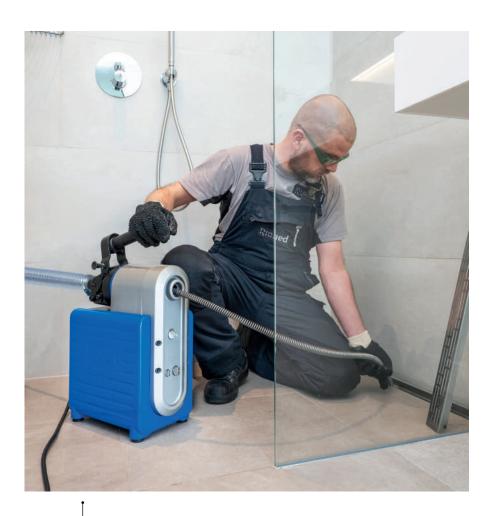
### **WORKING SAFELY**

With the Victor you work safely. For example, there is a plug with earth leakage protection and two protective covers that protect the user frominjury caused by coming into contact with electronic parts. The machine has a very stable frame with shock absorbers to reduce vibrations. The cord is stored securely on the two dedicated hooks.

### EASE OF USE

The Victor Premium is equipped with a lever mechanism. Because of this, the user only has to press the handle gently to operate the spring, which is very practical if you are using the machine for a longer period of time or over a longer distance! Cleaning the bearings has become much easier, due to the use of seals and low maintenance bearings. Dirt and moisture don't stand a chance. A release pin for the springs is stored in a fixed place in the frame so you don't have to look for it.

The Victor is a very robust machine, very easy to maintain, multifunctional and safe for the user.

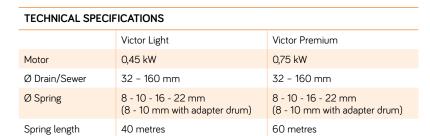


Unprecedentedly powerful and silent machine

Suitable for stand pipes and pipes up to 60 metres

Light operation thanks to lever mechanism

• With adapter drum also suitable for 8 and 10 mm springs

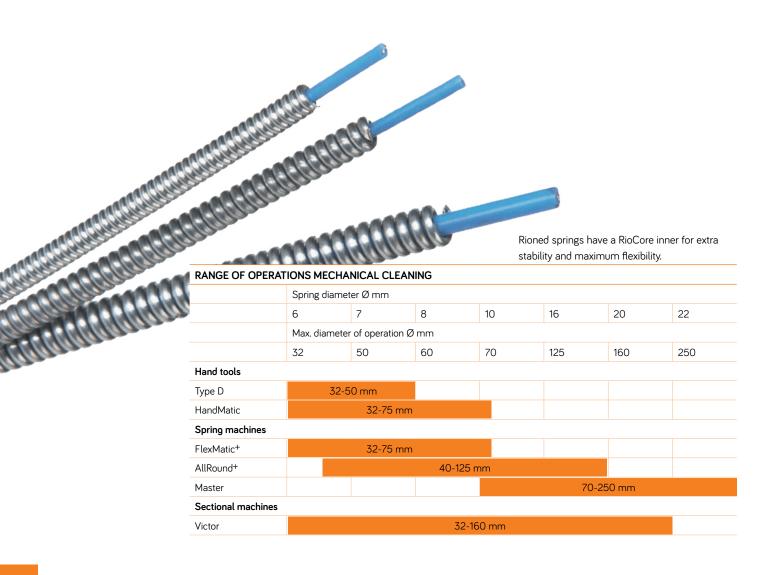




# MECHANICAL CLEANING

# WHICH SPRING DO YOU NEED?

Rioned supply a complete range of springs for every machine, from 6 mm springs up to 22 mm sectional springs for tough jobs. Springs larger than 10mm can also 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.



#### SPRING MACHINE APPLICATION TOOLS Blockage soap/hair clothes wortels reiniging urine stone/ 1 Standard bulbous head Straight drilling head 3 Funnel head 4 Cutting knife 6 4 or 6 blade drilling head •• •• •• • 6 Retrieving hook •• Diamond shaped head 8 Chain head Root cutter ••

Tulip cutter



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



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



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



### **2 STRAIGHT DRILLING HEADS**

Tool to determine right accessory for the job.



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



**4 CUTTING KNIVES** 

To mill large pipes, where the blade diameter can be chosen to suit the pipe to be cleaned.



# **6 RETRIEVING HOOKS**

To remove obstacles from pipes such as cloths, napkins etc.



# 7 DIAMOND-SHAPED HEADS

For pipes tarnished with chalk or urine stones.



# **8 CHAIN HEADS**

To clean steel and iron pipes.



### 10 TULIP CUTTER

Ideal for removing hardened grease and rust in pipes.



# 11 REPAIR AND QUICK COUPLINGS

To connect springs or to repair broken springs.

<sup>•</sup> Possible solution •• Best solution



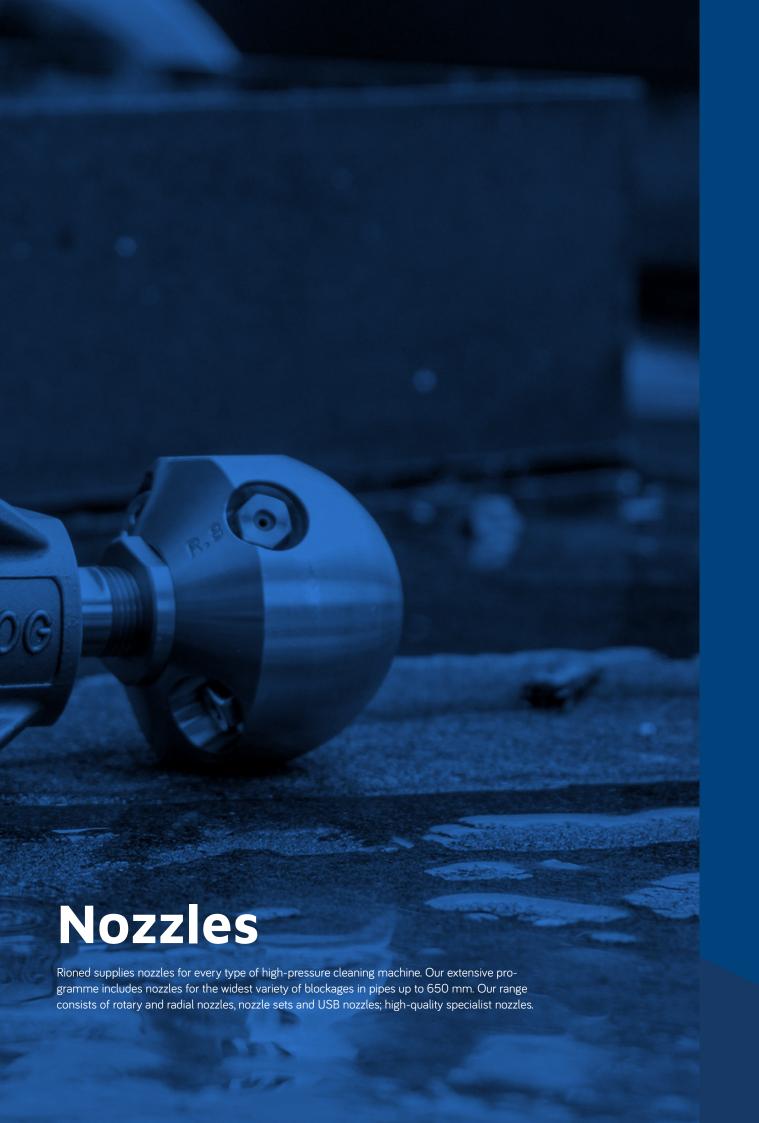




More than 40 years of development and production of sewer cleaning tools

# WARTHOG NOZZLES

Warthog nozzles are the result of more than 40 years of development and production of sewer cleaning tools for high-pressure machines. Thanks to a thorough knowledge of water jetting and years of experience, Warthog nozzles are one of the most powerful and most durable tools in the sewer industry. Warthog nozzles have the pulling and blasting power to get to the blockage and break through it, descaling and flushing along the way.













# **NOZZLES**

# A SUITABLE NOZZLE FOR EVERY JOB

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 undertake 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. Other nozzles 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. Over time, 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 lightweight, flexible and features a smooth inner core. The new Rioned MaxFlow hose has a 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, such as sharp edges.

	Cleaning	Unblocking grease and soap	Sand	Hardened deposits (lime concrete, etc.)	Ice in drains	Roots	Washing wells and pumps
Standard jetting nozzle	•	•	•				
S31	•	•	•				
Front Jetter							• •
High yield jetting nozzle	••	•	•				
Granate	•	••	•	• •			
Torpedo	•	• •	•	• •			
Quatroset	•		•	• •	• •		
Standard rotating jetting nozzle	••	••	•				
Tornado	•	• •	•	• •	• •	•	
Buster	•	• •	•	••	•	•	
Warthog	•	• •		••	• •	• •	
Sand shoe			••				

- Possible solution
- •• Best solution









# NOZZLE SETS AND SPECIALITY 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
- Granate jetting nozzle
- Quattro set
- Stainless steel rotating jetting nozzle
- 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
- S3
- High-efficiency jetting nozzle
- Front jetter
- Rotating jetting nozzle tempered steel
- Tornado
- Quattro set
- Torpedo
- Sand shoe
- Nozzle needles
- Universal lubricating oil

# HIGH QUALITY NOZZLE SET

High-quality case set with special nozzles for the most demanding jobs. Hard steel inserts for flow rates from 45 lpm. Get the most out of your sewer cleaning machine.

# Set contains:

- Grenade bomb small, when pulling back, heavy debris will also be removed
- Aquadrill, opens complete blockages, also in vertical pipes
- $\bullet$  360 nozzle, cleans the entire tube thanks to 12 inserts
- Chisel point, breaks the most stubborn blockages like ice and fat

# WHARTOG NOZZLE

The Warthog jetting nozzle offers unrivalled performance and is among the most popular nozzles 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	27 - 75 lpm	42 - 150 lpm	190 - 300 lpm
Pressure	275 / 4000	275 / 4000	550 / 8000	200 / 3000 bar/psi
Connection	3/8"	1/2"	1/2" of 3/4"	1"
U	Drains with Ø 75 - 900 mm 90° bends starting from:			
Usage	75 mm	110 mm	250 mm	300 mm
Rotation speed	300 - 500 rpm	200 - 500 rpm	150 - 300 rpm	150 - 300 rpm





# **BUSTER JETTING NOZZLE**

Made for the most difficult obstructions, but relatively lightweight, it hits, cuts and scrapes through everything.

The Buster is supplied as a set, consisting of a body, three jetting nozzles and accessories including:

- 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.

50 mm
65 mm
Tempered stainless steel, open and blind
30 - 120 lpm / 7 - 27 gpm
80 - 300 bar / 1130 - 4230 psi
1/2"
Drains with Ø 80 – 250 mm 90° bends starting from Ø 90 mm
Depending on the capacity of the machine











# ROTATING JETTING NOZZLES

# STANDARD ROTATING JETTING NOZZLE STAINLESS STEEL

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





# TORNADO JETTING NOZZLE

Change to: Known as 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 cleaning and clearing 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", 1/2"
Usage	Drains with Ø 32 - 250 mm 90° bends starting from 39 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 one front jet and no rear jets 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 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 NOZZLE

The Torpedo nozzle is the bigger brother to 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)	
Usage	Drains with Ø 150 - 500 mm 90° bends starting from 200 mm	
Suitcase	Profiset	



# **QUATTRO SET NOZZLE**

The tapering jetting nozzle is best for difficult obstructions. It cuts, breaks and and removes them.

The Quattro 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"	
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 its shape, the sand shoe remains 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
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

# USB NOZZLES

Rioned is an official supplier of USB nozzles. USB is a German manufacturer of high-quality stainless steel nozzles. The nozzles are precision engineered to ensure durability and superior cleaning performance. By using only the strongest and most durable industrial materials, these nozzles are resistant to chemicals, acids and alkalis and other mineral substances. USB nozzles are designed to clean better with less water and can also be used with recycled water.

# **PRIMUS**

The Primus is a highly innovative and effective nozzle, specially designed for controlled rotation and use with recycled water. This user-friendly nozzle is made of hardened stainless steel and requires little maintenance. Internal parts do not need to be lubricated or replaced during the first year. Thanks to its rotating nozzle, the Primus is very effective at removing grease, hard deposits and roots in sewer and drainage pipes.



# TURBO 0

The Turbo O is one of the smallest chain cutters on the market. The nozzle is made of hardened stainless steel and comes with one-piece ceramic spray heads. Despite its compact size, the Turbo O is very effective. The Turbo O uses turbine technology to deliver the highest cutting and cleaning power. Various cutting accessories make the nozzle suitable for removing roots, grease and mineral blockages. The practical storage case contains various accessories, such as extra chains, cutting heads and tools for maintenance.







Turbo O special Case

# R.



# FD2

The FD2 nozzle is specially designed for cleaning semi-open or fully open drains. The ceramic inserts are placed in the nozzle at a very small angle. Because of the small angle, the water will be sprayed almost straight back. This prevents the water from splashing out of the drain. This makes the FD2 very suitable for cleaning and unblocking gutters in city centers and petrol stations.

# **PRODUCTEIGENSCHAPPEN**

	Primus	Turbo 0	Pipe Wolf 3D	FD2
Connection	1/2"	1/2"	1/2"	1/2"
Capacity (lpm)	From 40 lpm	From 30 lpm	From 40 lpm	40 lpm
Diameter (mm)	80 - 200 mm (90° turns as from DIN 110)	75 - 150 mm	75 - 150 mm (45° turns as from DIN 100)	100 mm
Dimensions (cm)	11 x 6 cm	10 x 5 cm	11 x 5 cm	12 x 5 cm
Weight (kg)	1,4 kg	0,4 kg	1,1 kg	1,2 kg
Rear jets	3	-	-	6
Front jets	1	3	6	-
Radial jets	4	-	-	-
Turbine jets	-	3	3	-



# **MINIGATOR**

The Minigator nozzle is the smaller version of the Primus nozzle. This innovative and effective nozzle is specially designed for controlled rotation. The nozzle is made of hardened stainless steel and is very easy to use and maintain.

In fact, internal parts do not need to be lubricated or replaced during the first year. The cleaning head is driven by a powerful ceramic clutch plate, which enables controlled rotation and optimal cleaning power. The Mini-Gator's dynamic and rotating front jet pierces fine hair roots and effortlessly removes grease residue, urine scale and blockages. The rear jets in the head clean the pipe 360° around and flush the loosened material backwards.

# MAXFLOW SEWER HOSE

By using the latest technology, Rioned has developed a new type of lightweight highpressure 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.

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

### **DEFLECTION ROLLER UPPER EDGE**

The roller guide protects high-pressure hoses during use in drain pits. By placing the roller guide above the pit and lowering the hose into the pit via the roller guide, the hose remains protected from sharp edges and other obstacles. A useful attribute for extending the life of high-pressure hoses and working safely.

# SAFETY KIT

Rioned's safety product bundle includes essential personal protective equipment for the safe operation of high-pressure jetting and suction machines. The bundle includes rubber work gloves, a hard hat, a high-visibility vest, ear defenders and safety glasses.







# SAFETY

It is important to us that our customers work safely with our products. After all, work on sewers is not without danger and improper use of high-pressure equipment can lead to serious injury. Users of high-pressure machines must therefore take all safety aspects into account and be properly trained.

#### SIR

Rioned is a proud member of SIR, the Industrial Cleaning Foundation that sets the standard for sewer cleaning in the Netherlands and Belgium. SIR aims to promote and regulate safe industrial cleaning and has drawn up the guidelines that are applied in training courses and exams in the Benelux. Successful candidates receive a course certificate valid for five years. To maintain registration with SIR, it is recommended to attend a refresher course after the certificate expires, which should consist of at least two ½-day practical study courses (at least 8 hours in total).

#### **#WORKSAFE**

In our #WORKSAFE campaign, we ourselves have made various materials available free of charge to our customers, and other interested parties, to promote safe working practices. On our website, there are videos, blogs and eBooks for download. This material offers various safety instructions, tips and features so that users of high-pressure machines operate in the right way. For example, on our website you will find a short video on the safe use of Rioned equipment and an eBook on Health and Safety in the Sewer Cleaning Industry. Scan the QR code on this page to go to the #WORKSAFE campaign on our website.



View the Worksafe campaign on our website



# SAFETY FUNCTIONS RIONED EQUIPMENT

All Rioned machines are equipped with various safety features to reduce the risk of machine breakdowns and injury to users. From closed spring drums to remote control systems and from practical machine accessories to machine management systems, we try to do everything possible to make our machines as safe as possible. Read the article on our safety page to find out more about the main safety features that are fitted as standard on Rioned equipment.

### **5 SAFETY TIPS**

On our Safety web page, we offer a clear infographic with 5 essential safe working practices. Briefly read below the 5 tips that lead to a safe working environment during sewer cleaning operations.

#### 1. Check area and kit before work

To reduce the risk of unauthorised access, use barriers and signs to create a safe cordon around the site. Always perform standard machine checks before starting work.

# 2. Wear the correct PPE

Water jets as low as 500psi can cut through skin, and cause blindness. It is essential that operatives wear the correct PPE.

### 3. Correct machine use

Personnel operating jetting and suction equipment should be professionally trained and certified to use the machines

# 4. Use the right gear

Advances in tech has made a range of intelligent tools readily available to contractors

### 5. Install welfare kit

First aid kits and wash stations help protect engineers against bacterial and biological infections from drain cleaning..



R.



Rioned MaxCam with self-leveling camera head

Vincent from Kanalis shares their experience with Rioned's inspection and detection systems: "We have been doing business with Rioned for years and carry out camera inspections on a daily basis. In addition to a high-pressure sewer cleaning machine and spring machines, all our vehicles are also equipped with a camera system. This allows us to check after a blockage has been cleared whether it is really gone and whether the pipe is clean."

Kanalis has more than 40 years of experience in unblocking and cleaning pipes, emptying septic tanks and performing camera inspections in Brussels and the surrounding area. "We are very satisfied with the results we have achieved with the Rioned MaxCam and FlexCam." Vincent says: "The reporting software works very well. In addition, the self-leveling camera head and razor-sharp image quality make work much easier."



# R.



RioSteam



RioTrack Pro 2



CompactCam



CompactCam XL

### **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 PRO 2

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

### **COMPACTCAM**

The CompactCam is a professional camera system for the inspection of kitchen and bathroom pipes. The 15-metre long push cable is very flexible and can easily take sharp bends. The integrated 5" monitor gives a clear image of the situation in the pipe, under all circumstances. Videos and images are stored on the Micro-SD card, but can also be sent directly to a smartphone. To do this, an optionally available WiFi module is required.

### **COMPACTCAM XL**

The CompactCam XL is an all-in-one inspection camera. This camera system is designed to inspect pipes between 15 and 125mm in diameter. The robust housing of this beautiful system ensures that the 7-inch screen and 30-metre cable are always well protected. Despite its adequate battery capacity, the camera still weighs only 7 kg. Like the CompactCam, the CompactCam XL can send videos and still images directly to a smartphone with an optional WiFi module.



RioTrack Pro 2

#### X40

With a battery life of 6 hours and a cable length of 40 metres, the X40 is the perfect camera system for quick and easy inspection of house connections and indoor drains. Records of defects and pipe damage can be easily captured and shared via photo, film and reporting. With its 30 mm camera head, the X40 inspection camera has a deployment range of 50 to 150 mm. The self-levelling colour camera has excellent clarity and makes its way through curved drains with ease. The Zebra tablet with Mina app enables professional reports with drawings and floor plans.

#### **MAXCAM**

MaxCam is the ultimate system, suitable for pipes 70 mm up to 300 mm. 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.

	X40	MaxCam
Range	Ø 50 - 150 mm, 90° bends as from 90 mm	Ø 70 - 300 mm, 90° bends as from 90 mm
Cable lenght	40 metres	60 metres
Camera head	Ø 30 mm, self levelling	Ø 44 mm, self leveling
Screen	8"	10,4"
Location sonde	512 Hz	512 Hz
Software	Mina rapportage	Mina rapportage WinCan embedded
Data	64 GB Flash	32 GB HDD, USB, WSD, Wifi-enabled
Battery	Li-ion, up to 6 hours usage	Li-ion, up to 9 hours usage



X40



MaxCam

### 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  $\emptyset$  55 mm self-levelling or  $\emptyset$  78 mm pan and tilt camera head. The robust stainless steel frame comes with 60 meters push-rod.



