

 Made in Germany

Optimas® S19 *PaveJet*

S19

PaveJet



www.optimas.de

 **Optimas®**

S19



PaveJet

It is usually the special that asserts itself on worldwide market, don't you agree?

Optimas proudly presents most modern paver laying machine: S19 PaveJet - Ergonomic, Economical and High-performance

Perfect conception

We at Optimas take pride in our status as manufacturer of high-quality products and will never outsource or produce anything other than the very best. We make sure that all our staff continually hone their skills in a process of ongoing professional development and never work on anything less than the most up-to-date production equipment.

Our new S19 PaveJet paver laying machine represents the product of 40 years experience. We know what construction sites of all sizes need and remain in constant contact with our clients to ensure that we meet all their needs. We also used industrial designers for the visual appearance of the machine, the cover matches to the state-of-the-art technology underneath.

True to our desire to provide customers with what they need, the great majority of our paver laying machines are made-to-measure so as to fulfil all customer needs in terms of features and finish.

...at a glance

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The features make for all the fun!

Laying pavers quickly, effectively and exceptionally easily...
The new S19 PaveJet can do this!



joystick steering*



joystick operation



comfort seat



clearly set out fittings



heating with 2-stage fan



considerable space for entry/exit



adjustable steering column



retractable front windscreen



headlights*



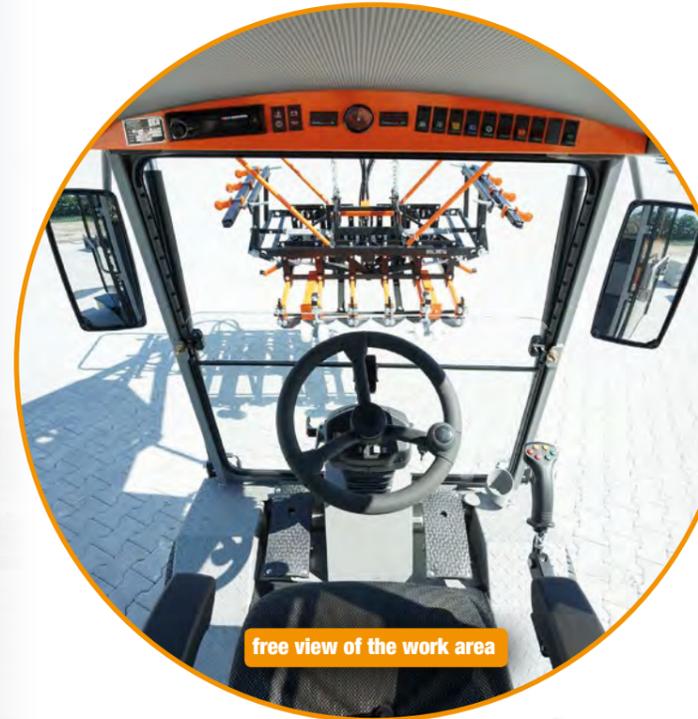
adjustable pedals



radio*



working lights*



free view of the work area

Details of all features:
Pages 8 - 11!

Cabin and features

Extremely fast, the S19 PaveJet paver laying machine installs pavers with a top-quality finish in record time. We focus on the comfort of operator:

- **simple operation** with an open design
- the **practical** cabin* with a sinkable front windscreen for fresh air intake and good communication with other workers
- a **comfortable** air-sprung heated driver's seat*, LED cabin lighting, an infinitely-variable heating system* and a large rear mirror (can be heated as an option)
- **easy to use:** A user-friendly working environment ensures a constantly high quality of the work on a 8-hour day.
- a tried-and-tested geometry makes for great **manoeuvrability**
- both **stable and agile**, even during an extreme change in the balance point

* special equipment

Maximum performance is our entitlement!

The Optimas S19 PaveJet paver laying machine – designed for an effective working day.



top illumination, day or night*

Details of all features: Pages 8 - 11!

Engineering and performance

Staff shortage is no longer an issue. The S19 PaveJet is your reliable and highly effective worker.

- the **optimum manoeuvrability** of our paver laying machine - whether on small or large job sites - and its perfect combination of a 2-axle turntable steering and continuous clamp rotation gear allow simple alignment of the Paver-Clamp at the paver package or the laying edge
- **versatile use**, whether for operation in an underground car park or for taking stones from a height of 2.60 m
- **excellent illumination** of the work area whether by day or night
- **short-term amortisation** of the purchase – Long life span of the S19 PaveJet
- **great effectiveness** for companies
- **The S19 PaveJet is quick...** with optimal site organization, the operator can lay pavers in 20-second work cycle
- installation of 1000 m² (10.000 ft²) and more per day



storage



Cycle counter + Hour counter + Rev counter



2-axle turntable steering system



grab height up to 2.60 m*



continuous clamp rotation gear*



working in underground car parks*

Optimas® S19 =PaveJet=
Basic configuration



Our machine functions never fail to convince!

The Optimas S19 PaveJet paver laying machine – solid and well thought-through!



Engineering

Customer benefits

Multi6 M Paver-Clamp

See explanation on pages 14 + 15

A flexible frame and push-in handles allow precise positioning along a wall.

Tap Down Device

Tap down device for the first row of pavers when laying.

Twist free placing of paving stones and a perfect paving joint in accordance to German DIN standard requirements.

Joystick - operation

All operating buttons triggering the clamp function (open/close; lateral alignment/shifting) are mounted on a single joystick.

Simple operation via logic arrangement of the operating buttons. Joystick can be adjusted for inclination and longitudinal direction. Comfortable position, produces fatigue-free working.

Semi-automatic

The clamp functions "lateral aligning" and "gripping" are triggered by only one single button press.

Simple operation.

Adjustable steering column

The steering column can be set for height and incline.

No need to bend down to the steering wheel. Comfortable position during steering makes for fatigue-free working.

Adjustable foot pedal

The foot pedals are conceived as a rocker and can be adapted for the angle of inclination.

An optimal sitting position protects health and makes for fatigue-free working. Feet and legs are relaxed.

Seat

The back rest is adjustable, the seat can be set individually to the weight of the driver, the arm rests can be folded up. Seat suspension with 80 mm deflection.

An optimal sitting position protects health and makes for fatigue-free working.

4-Cylinder diesel motor Kohler/ LDW1404

4 - cylinder water-cooled, 17.9 KW (24.3 HP), engine block mounted on special rubber buffers, motor compartment fitted with special sound insulating material

High-performance motor, rarely used to its fullest extent, thus very low wear and constantly high-performance reserves. Long life span extremely low vibration and quiet.

The hydrostatic drive can be set with throttle valve

The front wheels are driven continuously by hydraulic wheel motors. A foot pedal is used to regulate the speed sensitively and to control the forward and reverse drive steplessly. The hydraulic oil quantity can be regulated exactly by using the throttle valve.

Simple operation; the machine speed and direction depends on the position of the pedal. This enables very sensitive driving. The throttle valve can be used to set the driving behaviour of the machine for every driver type from cautious to very aggressive.

2-axle turntable steering system

Engineering

All 4-wheel steering. All 4 wheels roll even with steering at a standstill. 2-axle turntable steering.

Customer benefits

No thrust force impacts on the freshly-laid paver from steering movements. High manoeuvrability through a low turning radius (inside radius 0.75 m; outside radius 1.8 m). The clamp can be moved 1 m left and right from a standstill only via steering movements. Narrow, angled construction sites do not pose a problem. (e.g. cycle paths 1.20 m wide).

Storage / on-board tools

Storage space with cover

Waterproof storage room

Steel components

Powder-coated

Coating is very resistant and durable

Roof, front panel, side panels, bonnet

glass fibre reinforced plastic in RAL colour 2004 (pure orange)

GFRP-parts: among other things high strength, UV-resistant, weatherproof and not rusting.

Bottle holder

Stable holder for bottles and cans.

To accommodate drinks in a fixed position accessible during driving.

12 Volt connection + USB charging socket

12 Volt connection at steering column + USB charging socket

e.g. for charging a mobile telephone

Central lubrication system

Axle bearing and steering cylinder are connected to the central lubrication system

Otherwise poorly-accessible lubrication points are easy to access and are lubricated. Long life span.

Cycle counter

Counts every working cycle.

Calculation aid.

Cycle counter, resettable

Counts every work cycle, reset button can reset the counter to zero at any time.

Calculation aid – the operator and operating company can get an overview of the work output at any time.

Hour counter

Counts all operating hours.

Overview of the total operating hours. Checking the maintenance intervals.

Rev counter

Indicates engine speed.

For operators very simple to drive with the best engine-performance (optimum torque at 2,200 rpm) - which means less diesel is consumed and the machine is also pleasantly quiet.

Optimas® S19 =PaveJet=
Special Features



Additional comfort not only makes life easier, but also increases performance.

Optimas S19 PaveJet – the darling of every jobsite.

Paver-Clamp Multi6 ME
See explanation on pages 14+15

Engineering

Optionally available with electric adjustment (Multi6 ME)

Customer benefits

All 6 clamping arms simply adjust themselves automatically to the optimum gripping dimension.

Cabin	The wind screen can be opened, surrounded by safety glass, lockable doors on both sides. Mounted separately from the chassis on special rubber cushions. Soundproofed.	Simple fresh air supply, direct contact with co-workers. Optimal protection against outside influences, (rain, sun, wind, dust). 12-Month season, high degree of utilization, protects health, low vibrations, fatigue-proof working
Interior cabin lighting	LED illumination, switchable	All switches and instruments can be read in the dark. Pleasant, anti-glare light.
Foot mat	Washable under high pressure	Pleasant for the driver
Heating (in connection with the cabin)	Controllable temperature with 2-stage fan.	Source of heat - permits working even at low temperatures. Fan - prevents the cabin from steaming up, thereby guaranteeing a free view.
Hydraulic Rotor Head	Hydraulic rotation gear with which the operator can rotate the clamp endlessly to each side without restriction.	The driver can drive to the pavestone package or laying edge from any angle without problem. Narrow job sites with trees and other obstacles cause no problem. The exact placing of the clamp on the pavestone package means that there is no danger that the insecure package can fall apart during the approach.
Automatic	The clamp functions lateral aligning, gripping and lifting are performed automatically.	Simple operation, fatigue-proof working and increased laying performance. Exact laying - the driver needs only concentrate on driving.
Two-stage boom	1. stage – gripping height - 0.25 – 1.05 m vertical clearance min. 2.02m. 2. stage – gripping height up to 2.60 m.	Clearance height of 2.02 m enables work in underground car parks. Pickup height of 2.60 m allows picking up of layers from packages stacked on top of each other and picking up from the truck.
Comfort seat with air suspension and heating seat	Suspension can be set exactly to every weight, seat heating can be activated.	Very comfortable workstation. Comfortable working even at low temperatures.
Heating outside mirror	Can be activated as necessary.	Outside mirrors do not become obscured giving free rear view.



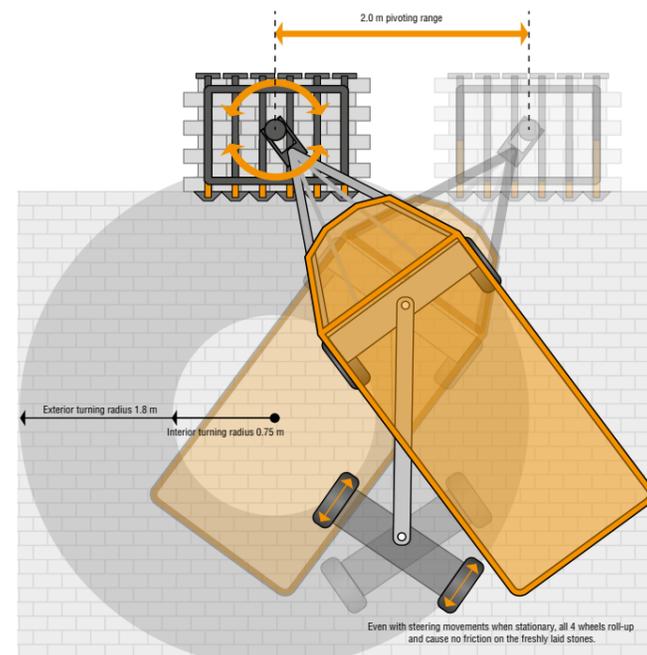
LED headlights package	2-LED working headlights, 1-LED front headlights, 2-LED reversing lights	Significantly better illumination of the driving and working area than with standard headlights.
LED rotating beacon	Warning light, orange Flash frequency changeable	Important for working in traffic and pedestrian areas
Radio	Radio with USB connection, 2 speakers and antenna.	To motivate the operator. Pleasant working.
Mobile phone holder	Adjustable for all common smart phones	Safe, visible place for your mobile phone
Radio with Bluetooth hands-free unit connected to the mobile telephone bracket	Radio with Bluetooth hands-free unit, mobile telephone bracket, USB connection, 2 speakers and antennae.	To motivate the operator. Pleasant working. A safe place for your mobile telephone. Hands-free telephoning.
4-wheel drive	All 4 wheels are driven and braked hydrostatically.	Less displacement in the pavers with an aggressive driving style; the thrust dissipates via the four wheels over the laying edge; the rear tyres pull the machine around the curve when reversing
Anti-slippage can be switched.	Only in connection with all-wheel drive. Only wheels with grip are driven.	Off-road capable, improved traction.
Joystick steering <i>(Only in combination with comfort seat)</i>	Integrated in the left armrest of the comfort seat.	Considerable assistance to the driver during frequent work cycles, simple and intuitive operation, comfortable and convenient steering, free view of the paving edge (no steering column), relaxed sitting position, work is significantly less tiring on huge jobsites.
Special paint coat	Paintwork in all RAL tones 1 and 2 colour possible.	Advertising with company colours.
Loading lugs	Transport bracket fixed to the boom.	Crane loading possible.
Particulate filter	Complies with TRGS554	Inexpensive solution, simple fitting, long service life (c. 4000 working hours); simple cleaning with a high-pressure cleaner
Rear view camera	Camera, incl. 7" screen	Operator has a better view of the situation behind the machine.

These technical highlights make the Optimas S19 PaveJet exceptional.

Our paver laying machine with 2-axle turntable / articulated steering system, optional with 4-wheel drive and joystick steering.

Protection against displacement of freshly-laid pavers!

2-axle turntable / articulated steering



All 4-wheel steering.

Advantages:

- Steering movement without lateral thrust force to the freshly-laid paver surface.
- High manoeuvrability through low turning radius.
- Large pivoting range of the clamp only via the steering movement.
- Can be deployed on narrow winding jobsites.

4-wheel drive with switchable anti-slippage



All 4 wheels are driven and braked hydrostatically.

Advantages:

- Distribution of the thrust force during acceleration and braking across all 4 wheels.
- Improved off-road traction.



Strong, economical, quiet!

4-cylinder diesel engine

The combination of a powerful engine (17.9 kW) and a high-performance hydraulic pump provides the following advantages:

- economical
- powerful
- without restriction in environmental zones usable (under 19 kW)

The Optimas S19 PaveJet is available with a particulate filter (complies with TRGS554). This permits operation in closed areas (e.g. underground car park).



Technical data

Height:	1.970 mm
Length:	3.900 mm
Width:	1.350 mm
Weight: *	1.300 kg



Innovation!

The Optimas S19 PaveJet – the first paver laying machine in the world with optional joystick steering

Our new joystick steering integrated in an arm rest - an absolute highlight. This feature relieves the driver when required to perform frequent working cycles and provides the following advantages:

- simple and intuitive operation
- simple and easy steering
- exceptional comfort and control
- free view onto the Paver-Clamp
- relaxed sitting position
- the work is less fatiguing

Use our features packages with price advantages

Our feature packages include extensive extras with an attractive price advantage. Use these discounted extras for a more comfortable working place.

Features package: STANDARD

- Continuous clamp rotation gear
- LED headlight package (1 front light, 2 working lights and 1 reversing light)
- LED rotating beacon
- Mobile phone holder

Features package: EXCLUSIVE

- Cabin: Front windscreen can be opened Enclosed with safety glass
- Interior cabin lighting
- Heating with 2-stage fan
- Automatic: all clamp functions are performed automatically
- Second stage – work in the underground car park and clamping from 2 packages
- Continuous clamp rotation gear
- LED headlight package (1 front light, 2 working lights and 1 reversing light)
- LED rotating beacon
- Radio incl. loudspeaker and antenna
- Mobile phone holder

ADDITIONALLY AVAILABLE FEATURES:

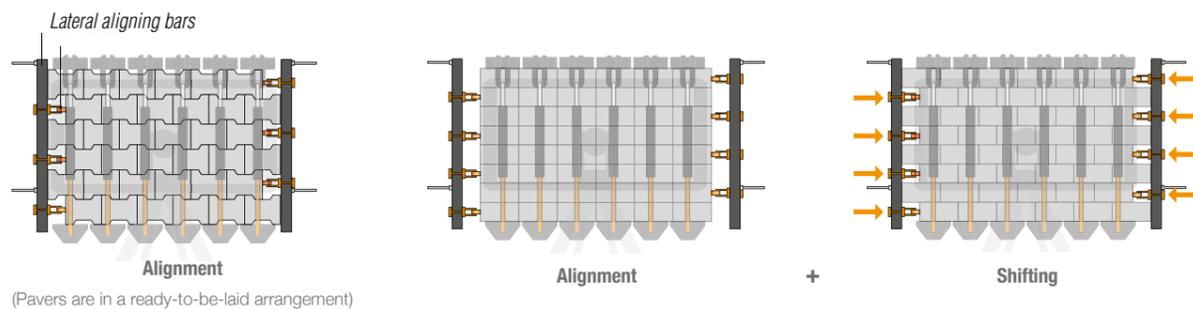
- Comfort seat with air suspension and heating
- Joystick steering (only in combination with Comfort seat)
- Radio with Bluetooth hands-free unit
- Heatable outside mirrors
- 4-wheel drive incl. switchable Anti-Slippage
- Special coating in your company colours
- Loading lugs for crane loading
- Particulate filter complies with TRGS554
- Rear view camera incl. 7" monitor

Three steps to a perfectly-laid paver surface:

Mature engineering ensures highest quality.

The design and mode of operation of the Multi6 M ensures a unique working process and leads to an outstanding result.

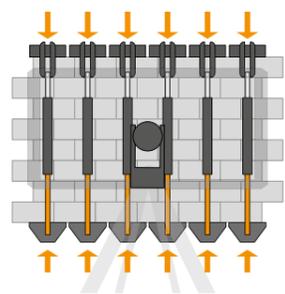
1. Alignment



Layer will be aligned and the clamp will be centered.

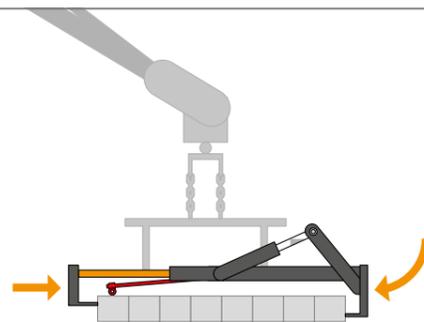
Rectangular paving stones can be shifted in a running bond by screwing pressure-rolls on the aligning bars.

2. Gripping

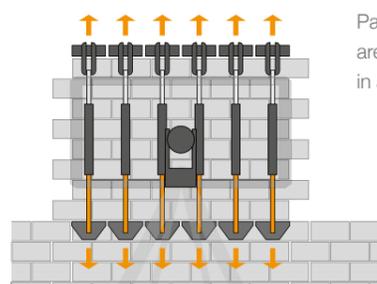


The 6 individual clamp arms are connected by spring steel strips to ensure the right pressure on each point of the layer.

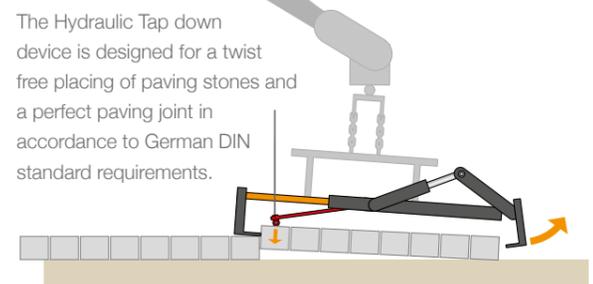
Therefore, a low pressure of **only 60 bar** is used, which is **gentle to the stones and the Paver-Clamp**.



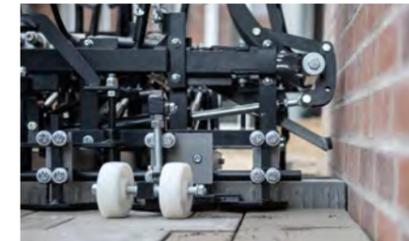
3. Placing pavers



Paving stones are placed in a gentle manner.



The Hydraulic Tap down device is designed for a twist free placing of paving stones and a perfect paving joint in accordance to German DIN standard requirements.



One Paver-Clamp for all your needs and applications

There are so many different concrete paver patterns available on the market. This raises the question as to whether a single Paver-Clamp is sufficient for the countless paver types (different dimensions and mould configurations)? Our answer is simple and clear: Yes! While other manufacturers often offer up to five or more different models for worldwide use, we have designed only one mature system to meet all your possible needs. This can be set to all paver formats and sizes, with only a very few actions and without special tools.



...and these are your advantages

- The Paver-Clamp can be connected to Optimas paver laying machine or to any other construction machine.
- for laying directly along walls

- Paver layer sizes of 0.6 m² (6,5 ft²) to 1.5 m² (16 ft²) can be laid without problem

- The Multi6 M clamps thin (40 mm) or thick (240 mm) pavers and paver layer weights up to 550 kg (1.200 lbs)

- Is able to clamp uneven stone layers.

- Is able to shift paving stones into a running bond pattern even if they have been produced with a shift-protection (big spacers).

- Paver layers in herring bone pattern with or without half stones can be clamped and laid without any problem as well

- Not only concrete paving stones, also clay bricks are clamped with low pressure and a high degree of safety.

- Through the smart 6-arm clamping technology only 60 bar hydraulic pressure is required. Paving stones are placed in a unique gentle manner.



Automatic adjustment

- Optionally available as „Multi6 ME“ with electric adjustment. All 6 clamping arms simply adjust themselves automatically to the optimum gripping dimension.

Our successful experience shows: Optimas Paver-Clamps install some 100,000 m² (million ft²) of pavers without any trouble. This is confirmed by the solid processing and the advantages conferred by being “Made in Germany”. We recommend making a price-performance comparison: Optimas cannot be beaten in terms of price-performance ratio.

Impressive versatility for any task on paving job-sites.

Intelligent attachments for Optimas S19 PaveJet - Paver installation only is not enough for us!

Paver Joint Filling device

The Optimas paver joint filling device for laying machine is perfectly-suited for inserting joining material in paver joints on both small and large paver surfaces.

The device is fixed to the S19 with socket pins without the need for tools. The extremely high manoeuvrability of the paver laying machine means that the joining material can also be inserted in the curves and edges.

The joining material can be inserted dry and with water. As the best results (depending on the material to be filled) are often obtained by using a mixture with water, Optimas provides a water container (1.000 L).

The overlapping and rotating brushes fill the paver joints with joining material completely, a precondition for a long life of the paver surface.

By cleaning the paved areas with sweepers over the years, some joint material is removed. Also for subsequent filling with jointing material of this paved areas the Optimas Paver Joint Filler can be used.

Only a completely filled joint transfers force from stone to stone, preventing stone movement and maintaining the elasticity of the paver surface.



Technical data

Working width:	1,70 m (5.6 ft.)
Depth:	1,70 m (5.6 ft.)
Height:	0,55 m (1.8 ft.)
Weight:	110 kg (242 lbs.)
Option:	Water container (1000 L (264 gal)) & central hose guidance in the sweeping area.



Vacuum-BE

The vacuum device is very fast and simple mounted on the boom of the Optimas and is then ready for use.

Suitable for concrete and natural stone elements (kerbs, slabs, gutter stones) are taken directly from the package and placed weightless. This means not only a labour costs reduction, even as important is to get rid of the heavy physical work.

Suction pads for almost each type of concrete & natural stone element are available or can be produced custom-made.

Technical data

Vacuum-BE as an attachment for Optimas Paver Laying machines	
Dead weight:	70 kg (154 lbs)
Dimensions:	540 x 630 x 55 mm
Load capacity:	600 kg (1.320 lbs) for S19 (Depends on type of Laying machine)



Clean-Sweeper

The Optimas sweeping machine is a further attachment with a hydraulic drive for the Optimas paver laying machine. The sweeping machine is fitted to the front axle quickly and easily. Simple mechanical inclination 20° to the right and left.

The swept material can also be collected in a collecting container (optional)

Ideal for sweeping (cleaning) jobsites.

The Optimas Clean sweeper can also be attached easily to wheel loader with an adapter for forks.

Technical data

Working width:	1,80 m (5.9 ft.)
Weight:	140 kg (308 lbs)
Drive:	hydraulic
Option:	Material collector container



Kerb-Clamp

Hydraulically driven Optimas Kerb-Clamp is quickly exchanged against the Paver-Clamp and ready for placing kerbs or other concrete & granite elements.

Gripping lengths is infinitely variable between 450 – 1400 mm with extensions up to 2000 mm.

The rubber grab jaws are able to clamp almost everything, even curved kerbs and special elements.

As the S19 PaveJet can be delivered with 4-wheel drive, the Kerb-Clamp can be used in almost every terrain.

Technical data

Weight:	100 kg (220 lbs)
Lengths from 0.45 to 1.40 m infinitely variable clampable	
Gripping length:	450 – 1400 mm (with extension up 2000 mm)



Is not the road to success paved with stumbling stones?

The world's first "Paver Laying machine" was developed in the private car garage of Harald Kleinemas in 1978.



„Made in Germany“

Optimas was established by Harald Kleinemas in Saterland-Ramsloh in 1978.

After laying pavers on his own premises by hand, Harald Kleinemas identified the need for an automated method to save time and energy.

Developing a prototype paver laying machine, he established Optimas to manufacture and market the new machines.

The first self-driving paver laying machine (the T33) was developed in Mr Kleinemas' car garage. It was obvious from the beginning, that Harald Kleinemas paver laying machine represented a real and revolutionary solution for paving construction sites.

The development process involved long consultation with the manufacturers of concrete paver products, so as to optimize rationalisation effects for mechanical paver installation. The savings of money and time paired with a will to succeed meant that Harald Kleinemas idea soon gained wide acceptance. Supported by his wife Ruth, Mr Kleinemas built up a prosperous business with a product portfolio concentrating on the needs of paving contractors seeking to rationalize and humanize working practices.

Producing on 13.400 m² premises, the company is the market leader in mechanical installation of paving stones and purely focussed on innovative products for the paving jobsite, in short...

„the Paving Specialist“



Machine generations from 1978 until today

Optimas® World market leader in paver laying technology

Your global contact partner – Optimas, world's no. 1!

**Trendsetting engineering through visionary concepts and
continuous brainstorming with our customer for more than 40 years.**

Your Optimas team



We develop practical and profitable solutions which work for our customers. The foundation of our success is a highly-trained and motivated workforce dedicated to the realization of our company principles and procedures:

Consequent specialization on products for “rationalizing and humanizing working procedures on paving jobsites”.

Intensive consultation with customers to develop innovative, market-driven products. The use of cutting-edge technology with a considerable production-depth to ensure highest quality standards.

Holistic support of our international customer network with advice, demonstrations, technical services and training.

Contact us for questions and quotes



Optimas®

Paving Specialist

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