

Nobody Paves Easier and Better Than Your Excavator Operator

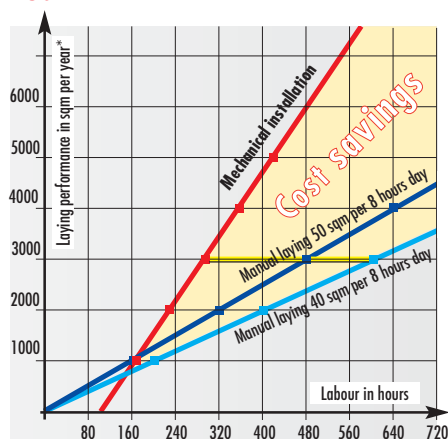
The Calculation is Simple, Convincing and Verifiable

▶ In order to manually lay 80 sqm for 8 hours per day you need two hard-working paving installers. If you already have an excavator with the conventional two hydraulic circuits you just attach the Probst hydraulic installation clamp HVZ-uni ROBOGRIP. Therewith your excavator operator effortlessly lays 400 sqm of pavers per 8 hour day. This is 5 times more compared to the job the two workmen can deliver. The few steps for mounting the installation clamp to the excavator and the setting of the clamp according to the size of the layer considering tabular defaults do not carry any weight. The excavator operator paves from his driver's seat automatically and in optimum laying quality. This overstrains neither the excavator driver nor the excavator nor the HVZ-uni ROBOGRIP.

Enormously Economic

▶ Paving 2000 sqm per year a contractor can save up to EUR 5,000 compared to manual laying*.

Rationalisation Benefit Laying Performance in sqm per Year



*Brochure: Ask for comparison of the operating costs!

HVZ-uni for Highest Demands

▶ The multitude of various pavement layouts and paver types request high requirements concerning the flexibility of an installation clamp. The HVZ-uni ROBOGRIP is optimally armed for them.



Without Ifs and Buts

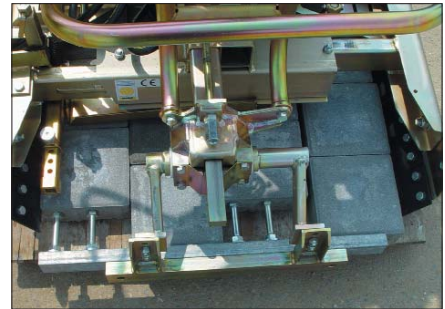
▶ Heavy excavator on uncompacted pavement? Don't worry! A standing excavator disperses its weight so evenly on the pavement, that the pressure on the surface is barely higher compared to the pressure of a man's feet. If the excavator drives slowly and straight ahead, the pressure is due to the evenly spread load. Therefore there is no danger for the newly-laid pavement. In case of a rotation of the excavator it is recommended to lay plywood sheets below the wheels of the crawler.

Quality Pays Off

▶ As all machines and equipment from Probst the HVZ-uni ROBOGRIP features excellent long-term capacity and reliability. A practical and perfected design, using best materials and modern production techniques band together to an overall result of the highest possible benefit for the user.

Minimum Maintenance

▶ The robust hydraulic system does not need any additional oil filter. A time-consuming and cost-intensive filter maintenance can be omitted!

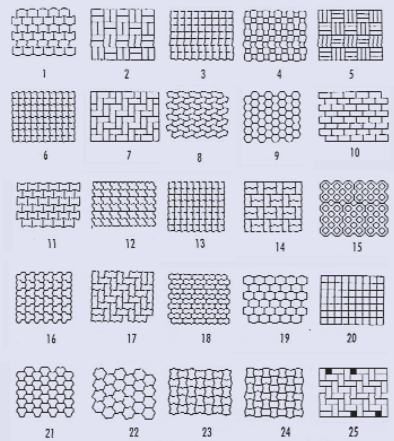


Brief Start-Up Time

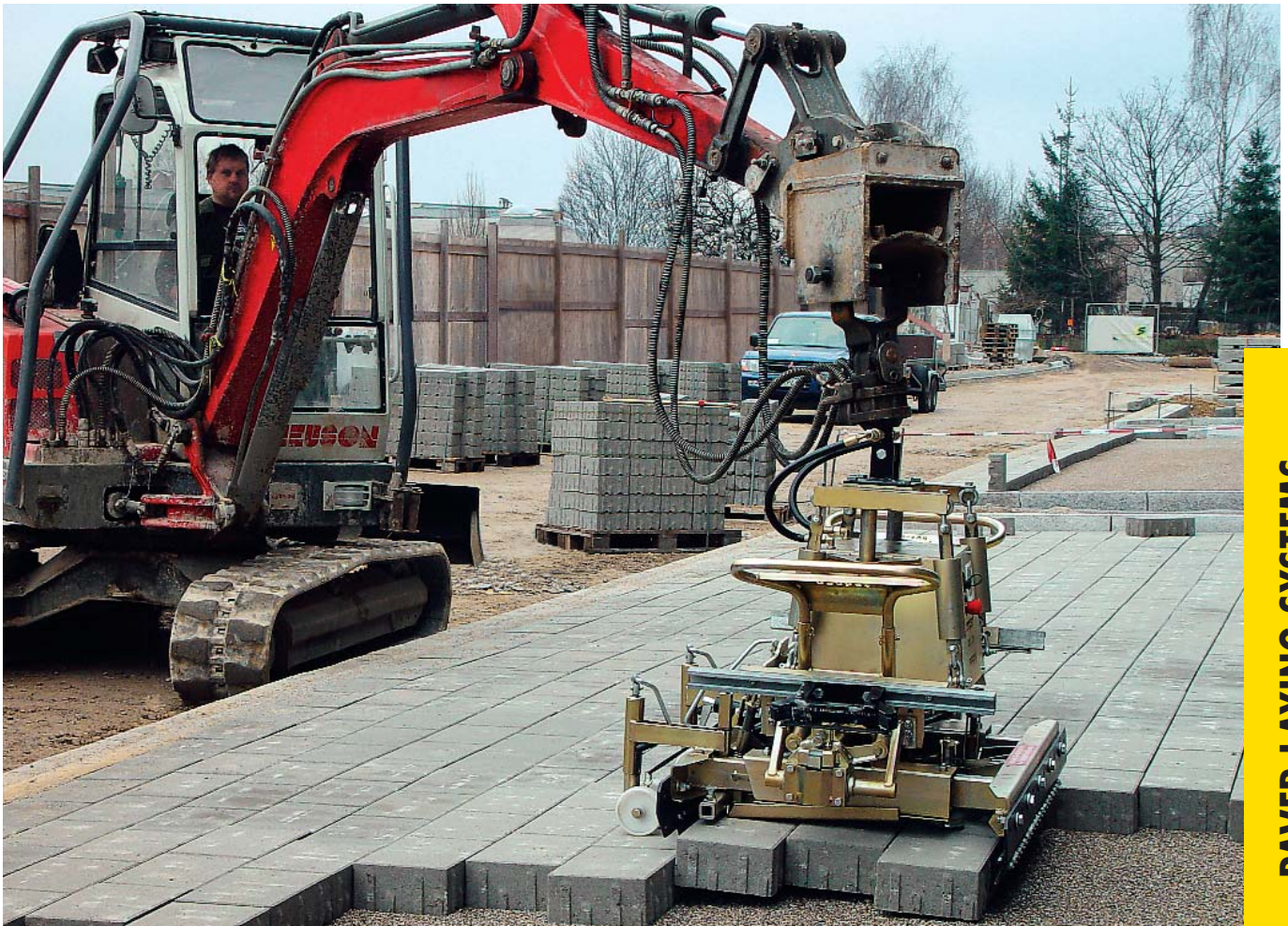
▶ With a few knacks the HVZ-uni ROBOGRIP can be quickly adjusted to various paver types and laying layouts. The only required tool – a socket wrench – is attached to every clamp. For special stone formations and to shift the pavers into running bond we hold adjustable adapters.

Exemplary

The stone formations 1 - 20 as shown below are dedicated for mechanical installation. However other stone formations are also easily laid with the HVZ-uni ROBOGRIP. Special formations can be served with the purpose-built Probst special adapters.



Further information and brochures can be obtained from your competent construction machinery dealer or directly from us.



PAVER LAYING SYSTEMS

HYDRAULIC INSTALLATION CLAMP HVZ-uni › ROBOGRIP‹ Innovative Synthesis of Intelligence and Power

The HVZ-uni ROBOGRIP is a hydraulically operated paver laying clamp to be used together with an excavator. It is equipped with a programmable logic controller (PLC) for all movements of the grab and a hydraulic rotator with continuous rotation of 360°. The gripping of the paver layer including the possibly required shifting into running bond is automatically done. The operator of the excavator has only to start the gripping and releasing movements via the lever grip. Everything else is controlled by the programmable logic controller (PLC). Equal joint widths of highest precision which meet the regulations are ensured by the patented pushing off device ADV. This future-proof technology eases the operator's work even if he is not very experienced. The grab can be simply adjusted with scale-pointers and fixed to the excavator without retrofitting.



Unbeatable Advantages

Highest achievable increase in productivity up to 400 sqm per 8-hour day.

- ▶ Flush laying without any gap along kerbs and walls even with small layers!
- ▶ The excavator operator can pave alone.
- ▶ First-class laying quality.



"Trend-setting technology"

Future-Proof, Profitable Technology

Hydraulic Installation Clamp HVZ-uni ROBOGRIP with Programmable Logic Controller (PLC) for Automised Paving with Excavators

Cost pressure is increasing. Reducing costs is essential for construction companies who are looking to survive.

With the installation clamp HVZ-uni ROBOGRIP Probst gives its users a tool for permanent effective cost reduction at hand. At the present time Probst is the only producer who provides an installation clamp equipped with a programmable logic controller (PLC) to be used together with an excavator. Paving installers are optimally armed for the present and the future if they use the HVZ-uni ROBOGRIP. One of the advantages of the programmable logic controller is its absolutely simple handling. Every operator of an excavator can immediately and productively work with it having had no training or long practice. The flexibility of the programmable logic controller in changed requirements is simple. New software can be installed anytime. The user immediately profits from further developments and is always up-to-date. Any retrofitting of the excavator is therefore a thing of the past!



Pushing Off Device (ADV) – No Realignment – Joints Always Comply with the Regulations

Powerful Solutions for Easy Paving

Clamping without Jamming

▶ The firm grip of the innovative clamping technology perfectly aligns the paver layer before it is laid.

Running Bond without Additional Work

▶ On demand the clamp is shifting any paver layer of rectangular, quadratic or T-pavers from cross into running bond. The programmable logic controller can automatically do this and any additional work of the excavator operator is needless.



▶ By the way the electronics used in the HVZ-uni ROBOGRIP have proved their robustness and reliability in the Probst paver installation machine VM 204 for many years.

Easy Operation

▶ In contrary to a hydraulic control the operator does not have to pay attention to any specialties in operation when using the Probst installation clamp. It is therefore fool-proof!



Joints Conforming to the Requirements

▶ During the laying process the pavers slightly creep apart from each other. This bears the advantage that the joints are increased by 1 to 1.5 mm in addition to the spacer bars which results in joints complying to the requirements. A second person for realignment by hammering the pavers is needless. It would be even counterproductive to hammer the pavers since this reduces not only the approved joints in between the pavers but furthermore decreases the rationalisation and cost saving effect achieved by mechanical laying.

Fully Automatic

The programmable logic controller (PLC) automatically runs all specified movements of the clamp. Even special actions such as the shifting of T-stones into running bond are programmable. Anytime the operator has the possibility to cut a course or to reset or continue it.

Clamp Adjustment

Without special instruction every person can do the presetting of the clamp through scales according to tables and to respectively position the bolts.

Quality

The design: Modern development and production techniques optimised with FEM/CAD ensure highest capacity and lowest weights – the clamp weighs only 340 kg. First-class workmanship, high-quality components and a robust construction guarantee operational reliability and longevity.

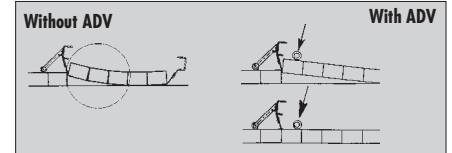
Corrosion Protection

Durable galvanised surfaces.

One Person Operates — The PLC Controls and the HVZ-uni Works Instead of Five!



Innovative Pushing Off Technology (ADV) for Unbeatable Laying Performance



▶ The HVZ-uni ROBOGRIP is serially equipped with the patented and automatic Probst pushing off device ADV. Therewith speed and quality of paver laying are unmatched. Seamlessly and easily paver layer by paver layer is applied to the already installed pavement. Almost simultaneously by opening the clamp the ADV automatically pushes at cyberspeed the pavers in the laying course. This avoids cocking and drifting of single pavers. Manual reworking is spared. This results in savings of labour time as well as manpower and produces a consistent joint appearance.

High Laying Performance without Bustling

▶ The HVZ-uni ROBOGRIP not only works automatically, it is also quickly adjustable. E.g. the main grippers can be exchanged in a few steps in order to lay smaller paver layers of 1 x 1 m in flush. High laying performance in quality and amount is thus granted.

Control of Success

▶ The programmable logic control (PLC) includes a cycle counter which records every working operation. In this way a permanent survey of the productivity regarding the time-performance ratio is kept.

Easy Adjustment of Clamp

Continuous Rotation

▶ On top of the programmable logic control (PLC) of the ROBOGRIP is the rotator with a continuous rotation of 360°. It is driven by the second hydraulic circuit of the excavator and contributes to the nearly unlimited PLC-controlled flexibility of this clamp. This rotator ranks among the best of his kind as concerns quality.

No Retrofitting of the Excavator

▶ Retrofitting of the hydraulic system or even an installation of new components can be saved with the HVZ-uni ROBOGRIP.

Hydraulic hoses for two control circuits (one circuit for the PLC controlled movements of the clamps and one for the rotator).

Rotator with continuous rotation for a perfect positioning of the clamp. The operator can turn the clamp to the exact working position. Additional manpower is needless!

Shock absorbing chain suspension for reduced wear and a gentle touch-down of the clamp.

The side grippers can be hydraulically swung up so that the pavers can be laid closely to any kind of rigid and high pavement tie-ins such as walls and kerbs.

Main and side gripping width can be easily and quickly adjusted through scales to the paver layers to be installed.

Individually beared spring steel plates for gripping guarantee strong and safe gripping of one paver level even if the layer is big.

