

Road maintenance



There are many road maintenance techniques. The treatment of cracks and potholes, the creation of joints are all different works needing specific equipment.

SECMAIR and BREINING, united in the maintenance sector of the FAYAT group, accompany road work companies by offering innovating solutions that meet the criteria for sustainable development, safety and ergonomics.



The answers to all expectations for roads

Budgetary requirements for road maintenance have led us to develop simple, reliable and efficient equipment in partnership with our customers. Further, our equipment has considerably evolved in order to guarantee greater safety for the users and the operators.

The maintenance equipment is fitted with ergonomic driving stations and technical specificities which limit strenuous manual work to a minimum.

They are also fitted with accurate dosing systems which make it possible to reduce material consumption.

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Pothole processing using hot asphalt

The most durable solution for the repair of a pothole is without doubt the hot asphalt technique. These works must be carried out in all seasons and hot asphalt remains the most stable product, especially in winter.

Method

In order to be durable, the repair of a pothole requires several essential operations.

The hole must first be purged in order to work on a clean support. Next the bitumen glue layer will be used to maintain the asphalt concrete. After compacting, the sealing of the repair must be ensured.

Purging the pothole

A hydraulic and/or pneumatic supply is available on the machine as is a pneumatic drill (optional) in order to prepare the support before the repair.

Bitumen glue

A binder tank is fitted to the front of the vehicle. The binder layer is applied using a manual sprayer.

Filling the pothole

The hot asphalt is poured into the pothole using an ergonomic swivelling chute.

Compacting

The onboard vibrating plate is used to compact the asphalt.

Sealing layer

An application of binder and aggregates seals the repair.



SWIFT, the all in one machine

Swift is designed to deal with pothole repair issues at the lowest cost. All the working components are available on a single machine.

Binder tank

The binder is stored in a heat insulated tank and is heated by a burner. An immersed binder pump supplies the product to the manual sprayer. This binder can be used for the bitumen glue layer and for the final sealing layer.

Asphalt hot box

The asphalt storage box is heat insulated. A screw supplies the distribution chute thus avoiding all tipping effects. A burner heats the screw to facilitate its operation.

Services

A water tank and a fuel tank with a distribution system are available on the machine to supply the equipment. Pneumatic and hydraulic supplies are also available for the pneumatic drills.

Storage

Large storage spaces with secure boxes are easily accessible from the ground.

Additional equipment available as options:

- BOMAG vibrating plate
- BOMAG single cylinder compacting roller
- Hydraulic and pneumatic drill
- Air compressor



The traditional spraying machine

As a complement to its line of Spreaders and Combined Synchronous Chipspreaders for high yield works, the FAYAT group proposes equipment for small works.



Applications

- Minor maintenance work
- Trench sealing
- Private courtyard works

Spraying using air pressure or a pump

- Use of bituminous emulsion
- Air pressure spraying or pump
- Ergonomic hand spraying lance
- A spray bar is available as an option

Heating

- Manual burner or automatic

Design

- On a 1 and 2 axle trailer
- On a skid to be installed in a skip
- 1000, 2000 and 3000 litre capacities



The traditional spraying machine

The discretion of road repair works is essential. The HANDSEALER makes it possible for the road maintenance team to be autonomous in binder and chips. The ergonomics of the equipment provides maximum comfort for the operators.

Polyvalent

- The Handsealer has several versions. It is especially proposed on a removable chassis, making it possible to use the truck for other activities.

Spraying by binder pump

- Mixing in the tank making it possible to accelerate the heating of the binder
- Possibility to vacuum into the tank for end of works purging

Heating

- Manual burner

Design

- On fixed chassis
- On a skid to be installed in a skip
- Removable using twist-locks or on a skip transport truck

Capacities

- Tank: 2,500 litres of emulsion
- Hopper: 2 X 1,500 litres of chips



The solution for joints and cracks

The cracking of road surfaces is the number one enemy for roads. The overbanding technique guarantees its lifespan. Further, the sealing joints on concrete or paved surfaces as well as the central joint on asphalt layers are essential factors in the success of the works.



The sealant heater

MONO AFU/FU/SPM ensures the preparation and application of the product.

Technical specifications

- Propulsion unit or pumping
- 500 litres melting tank
- Mixer
- Indirect heating using heat oil
- Pouring lance

Design

- On a fixed trailer chassis (AFU version)
- On a skid to be installed in a skip (FU version)
- On a spreader (SPM version)

Additional application

In order to ensure the quality of the central joint and the interface between two hot asphalt edges, the heater can be fitted with an inclinable bar to spread.

Option

A driving wheel is possible on the AFU model.



Economical and ecological crack bridging

Road maintenance requires more compact equipment. Works are most often carried out without closing the road and the repair equipment must be as short as possible for the safety of the operators and the fluidity of traffic.

Crack treatment method:

- The crack is cleaned
- The sealer is applied to the crack (bridging)
- The sealer is protected by the spreading of a layer of sand

MONO AFU Kompressor is a compact machine that groups together the 3 functions

- The HOT DOG thermal lance for the in-depth cleaning of the crack
- The pouring lance
- The sand lance

The heater is autonomous, fitted with a single motor thus reducing fuel consumption and polluting emissions by at least 30% compared to traditional equipment. Further, the team at work is clearly visible to the users of the road, there is no truck to obstruct the view. The machinery is at least 30 metres more compact than a classical organisation.



The mechanisation of material spreading

The spreading of aggregates of all types and sizes requires a range of specific equipment, whether for spreading chips on small surface covering sites or when placing bands of materials.



Mechanisation of works preparation

Before laying the rolling surface, site preparation requires the application of all types of materials (0-31,5 particle size for re-profiling or 10/14 for road bed). A gravitational spreader guarantees the spreading of these aggregates.

Technical advantages of the chip spreader

- Easily adapted to skips
- Spreading width of 2.5 m or 3.10 m
- Manual hatches

Construction of the asphalt or "quarry run" type materials band

PGR 6000 advantageously replaces a two skip truck and a digger by reducing the number of machines on site and by multiplying the speed of the operation by ten.



Dosing accuracy

A surface wear coating is made up of 80% gravel by weight. The longitudinal and transverse spread of the dose must be as perfect as for the spraying of the binder.

Spreading quality

The design of the chip spreader and especially its distribution system, guarantee the final result:

- Distribution roller (GPB 1400 version)
- Extraction roller (GPB 14000 version)
- Patented rounded hood for the perfect transverse spread on the entire spreading width (3,10 m).

Dosing accuracy

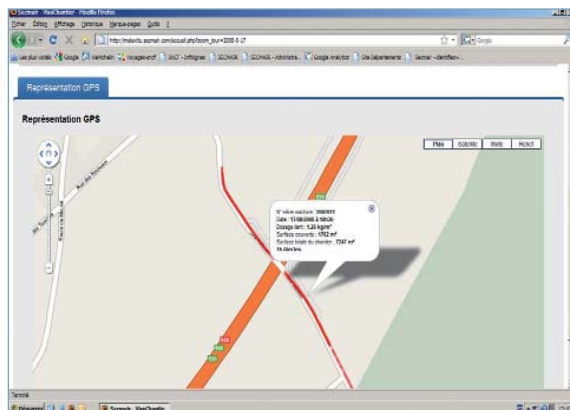
The dosage is coupled to a computer depending on the speed, the slope of the road and the size of the aggregates. (Yellow box and GPB 1400 version with GRAVIDOS dosage management).

Traceability within the scope of CE marking of surface coverings

- Instant dosing
- Surfaces and quantities
- GPS Position
- Site cartography
- Web platform to consult site data

Ergonomics

- Return box for materials for manual works (VEYMONT version)
- Driving console facing the site
- Spreading controls in the cabin



Example of the visualisation of site data on the web platform

Spreaders for confined sites

The usage rate of a binder sprayer on certain types of urban sites is very low. The self drive line makes it possible to intervene quickly at a low cost per square metre.



The FAO spreader for small sites

Some applications in built-up areas or on narrow roads require specific small spreaders.

- An adapted width: total width 1,40 m
- Binder pump spreading system
- Spraying bar: 2.50 m
- Specific weight characteristics for roads not designed to carry high axle weights: 3 Tonne load per axle
- Binder capacity: 800 litres
- Trailer maximum authorised load: 2,600 Kgs



The solution: a self-driven machine

We propose a self-driven spreader with ergonomic driving, easy to transport, designed to move in a confined space.



The auto-chip spreader applied to narrow roads: The Wagonnette

Traditional equipment is not adapted to building parkways, cycling paths and private yards. These sites nevertheless require the same finishing quality as other works

Mechanisation of works

Small spreading works are very often carried out manually. The Wagonnettes line makes it possible for enterprises to optimise the yield and the safety of the operators.

Further a savings in materials (binder and aggregates) of at least 30% is guaranteed

Advantages

The design of the vehicle allows very precise work:

- The rear axle is the directional axle for accurate movements.
- The bar and the spreader are placed at the front of the machine.
- The driving seat gives a perfect view of the site.

Technical specifications

- Self-driven chassis
- Chipping hopper 1.5 m³
- Working width 1.2 m
- Chip distribution roller
- 400 litre emulsion tank with spraying bar (optional).



The mini asphalt plant

The BELUGA BB5 mini plant meets the requirements for local repairs and on site production of small quantities of bituminous products. The cost price of the finished product, especially when using recycling, is very low.

Application

The Beluga is designed to work using recycled or mixed products

Advantages

The on-site production of hot asphalt has several advantages:

- Reduction in transport costs
- Manufacture of the product on demand without extra production
- Quick execution of works during which disruption of user traffic must be very limited.

Technical specifications

- 600 litres available capacity dryer drum for 1 tonne loads
- 5 cycles per hour
- A bitumen heater



- A bitumen pump
- A 200 kg drum holder
- A 100 litre aggregates skip



The product line

All the solutions for road maintenance

Binder spraying	Type of spreading	Type of chassis	Binder capacity	Heating
FAO	Lance and bar	Self driving trailer	800 litres	Direct heating
WAGONNETTE	Lance and bar	Self-driven chassis	400 litres	Indirect heating using heat transporting fluid
MINIPAT 1000	Lance	Trailer	1000 litres	Direct heating
MINIPAT 2000	Lance and bar	Trailer	2000 litres	Direct heating
SMART s	Lance	Trailer or skid	1 300/2000/3000 litres	Direct heating
SMART i	Lance and bar	Trailer or skid	1 300/2000/3000 litres	Direct heating
HANDSEALER	Lance	Skip transporter/fixed chassis/skid	2500 litres	Direct heating

Chipsealers	Spreading width	Type of distribution	Hatch opening	Materials return box
WK	2.50 m or 3.10 m	Gravitational	Manual or pneumatic	Yes
GPB 1400	3.10 m	Distribution roller	Pneumatic	No
VEYMONT	3.10 m	Distribution roller	Pneumatic	Yes
GPB 14000	3.10 m	Extractor roller	Pneumatic	No
WAGONNETTE	1.20 m	Distribution roller	Pneumatic	Yes
PGR 6000		Side tipping belt	Manual	

Joint spreading	Spreading type	Type of chassis	Capacité liant	Heating
AFU/FU	Lance	Trailer and skid	500 litres	Thermo-fluid heating
AFU/FU KOMPRESSOR	Lance	Trailer and skid	500 litres	Thermo-fluid heating
SPM	Bar	Skid	90/250/500 litres	Thermo-fluid heating

Crack cleaning	Type of treatment	Air assisted.	Gas pressure	Heating
HOT DOG	Thermal lance	By independent compressor	3.5 bars	Gas

Asphalt spreading	Type of distribution	Type of chassis	Capacity	Heating
SWIFT	Manual	Fixed chassis on a carrier	4 m ³	Direct heating
BELUGA BB5	Manual	Trailer	600 litres	Direct heating

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