

# Unigrout Flatbed M2 S

The next-level grouting solution with full connectivity and control



# The next-level grouting solution

Unigrout Flatbed M2 S is the latest addition to Epiroc's grouting offerings, which continues to be the first choice in injection grouting in civil construction. The unit is built with accessibility in mind, featuring a new design with functions adapted to your needs, ensuring smoother operations. Additionally, with a strong focus on productivity and digitalization, Unigrout Flatbed M2 S optimizes the entire grouting process.

## ⊕ Main benefits

**Integrated operations** of the entire grouting process, from platform leveling to mixing and operation, thanks to efficient management with Epiroc's Rig Control System (RCS)

**Increased productivity** thanks to the addition of a second mixer, allowing double mixing capability and fully independent operations, with individual loading of dry cement and a dedicated additive system for each mixer

**Improved accessibility** with the new flatbed design, through easy access to all needed functions from centralized operating area



The new additive dosing pump combines the metering system and pump into one, to achieve higher accuracy.



External three-phase and single-phase electrical outlets to facilitate convenient and flexible operations.



Improved design to enable easy refill of additive.



Operating lights at the face and in the operating area

Hydraulic-operated silo lid to reduce manual heavy lifting

Electrical and water reels with guidance

Easy access to all hydraulic functions

Centralized operating area

Wheels for easy movement on the construction site

# An integrated grouting process

Epiroc's Rig Control System is central to the Unigrout Flatbed M2 S unit to ensure a fully integrated grouting process. The Measure While Drilling (MWD) data and drill plan from the face drill rig are saved in the Rig Control System and later used as a basis for grouting and Measure While Grouting (MWG) data. The Underground Manager software combines MWG- and MWD-data to display clear and informative graphs and tables for reporting.



## + Safety

The built-in touch screen on the Unigrout Flatbed M2 S enable the operator to control the main functions and access data for full reporting. Positioned in the centralized operating area, the touch screen offers enhanced functionality and is easy to use. This setup facilitates a safer working environment by providing improved control and an overview of the entire grouting process.



## + Well-known mechanics

This grouting rig is equipped with the double-acting Pumpac and two mixers with Epiroc's well-known mixer design, to ensure state of the art functionality and desirable results in every grouting operation.



## + Packers and accessories

Packers are a crucial part of a total grouting solution, from grouting works to water tests. We offer a wide range of packers along with the essential accessories to adapt to all different operations.



## A comprehensive service offering

Even the best equipment needs to be serviced regularly to make sure it sustains peak performance. An Epiroc service solution offers peace of mind, maximizing availability and performance throughout the lifetime of your equipment. We focus on safety, productivity and reliability.

By combining genuine parts and an Epiroc service from our certified technicians, we safeguard your productivity – wherever you are.

## Unigrout selection guide

Your choice of Unigrout system primarily depends on three main selection criteria: the grouting type/application, the grouting capacity required and the degree of automation needed for your operation.

### Grouting type/application

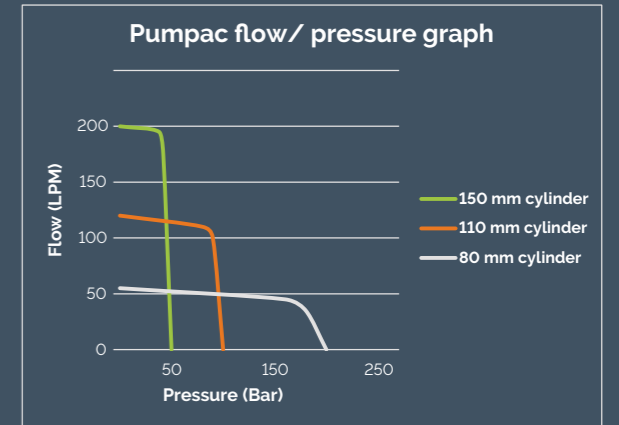
Your selection is influenced mainly by the type of grouting to be performed and by the size of the work place.

### Grouting capacity

Pumping capacity is often understood as grouting capacity, but in reality these can differ substantially. Actual grouting capacity always depends on the availability of grout and this is determined by the mixing capacity. For short-time and non-continuous grouting, there are ways to increase the actual capacity. For continuous injection, mixing capacity is the key. Continuous mixing capacity is the result of several factors such as type and size of mixer, grout mix design, supply of water and cement, and last but not least, whether manual or automated batching/feeding is used.

### Automation

Unigrout Flatbed M2 S with automated batching is the right choice when it is desirable to improve batching accuracy and increase mixing capacity by reducing human error and fatigue.



		Pressure max, bar	Flow max, l/min	Cylinder Ø mm
HP High Pressure	HP1	200	50	80
	HP2	100	100	110
LP Low Pressure	LP1	100	100	110
	LP2	50	200	150

## Why grouting? - Minimize risk

Grouting is an engineering method used globally for treatment of ground and structures in order to achieve the required characteristics. In many cases, it all comes down to risk management and avoiding disastrous accidents or hazards in mining and civil engineering projects, whether in construction or in operation.

### Sealing

Water is a crucial resource that needs to be protected. On the other hand, water may cause risk and difficulties in mining and construction operations. Grouting reduces permeability, which minimizes the impact of excavation on the ground water, while reducing risk and de-watering costs during construction and operation. Whether it is about sealing the rock mass around a tunnel or underground structure (e.g. pre-grouting), beneath a dam (e.g. curtain grouting) or in a mine. This type of grouting is generally most extensive and demanding.

### Strengthening/stabilizing

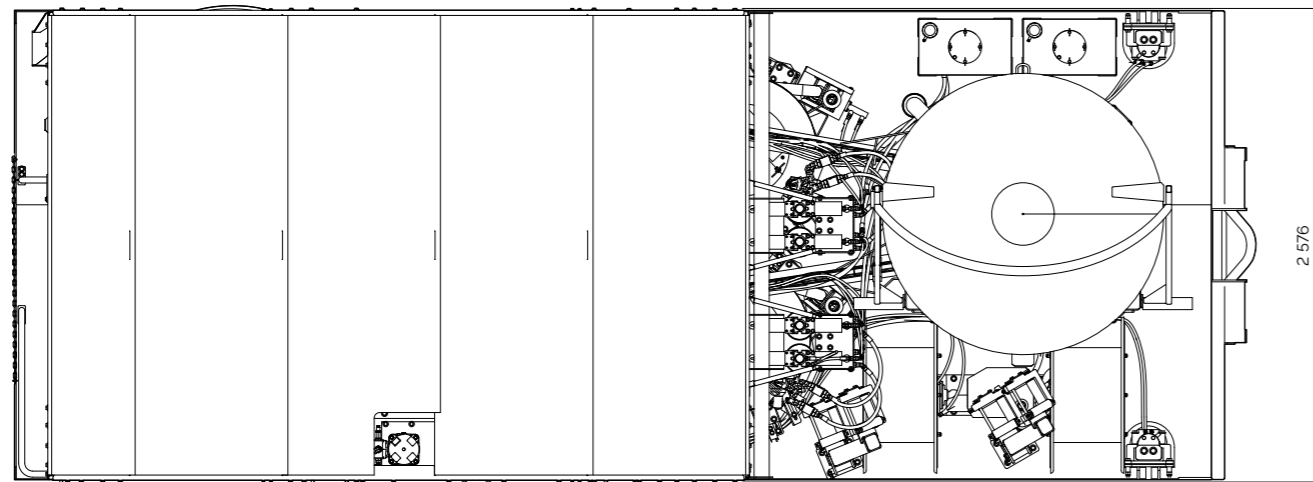
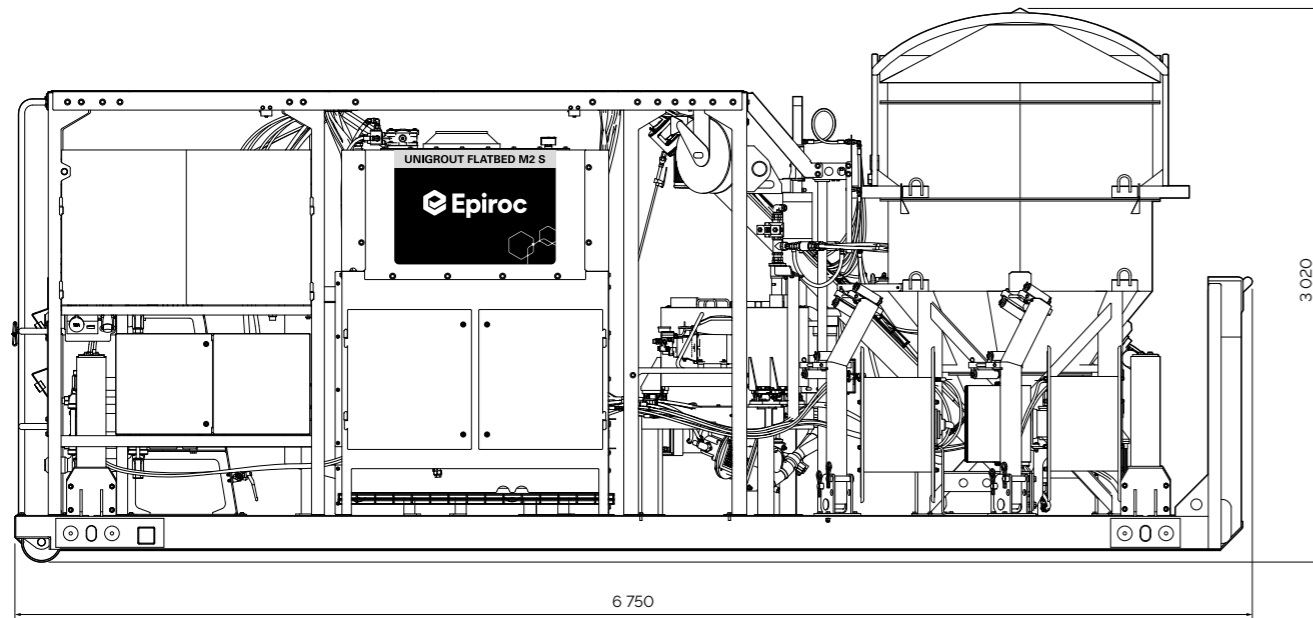
Natural ground conditions do not always meet the full construction specification. Among other methods, grouting is applied to improve ground characteristics. In almost any civil projects – tunneling, roads, dam construction, foundations or mining – there is a need to improve the rock or soil using e.g. consolidation grouting.

### Filling

Sometimes grouting is used to fill a hole, gap or similar. In this category, common applications include bolting/anchoring, contact grouting/backfilling, piling or micro-piling, cavity grouting, etc.

# Technical specifications

Measurements in millimeters



# Technical specifications

● - Standard ○ - Option

## Mixer

2 x 200 l tank volume, independent weight batching system	●
1800 rpm rotation speed (adjustable)	●

## Agitator

2 x 400 l tank volume	●
60 rpm rotation speed	●

## Grout pump

50 bar pressure, 200 l/min flow (Pumpac)	○
100 bar pressure, 100 l/min flow (Pumpac)	○
200 bar pressure, 50 l/min flow (Pumpac)	○

## Silo

1.3 tonnes	○
2.3 tonnes	●

## Additive tank system

2 x 100 l storage tank, including 4 x weight batching dosing pumps	●
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## Electrical control system

Epiroc Rig Control System (RCS)	●
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## Power unit

53 kW installed power	●
380-690 V voltage	○
1 000 V voltage	○
50/60 Hz frequency	●

## Additional equipment

Hydraulic legs	●
Water reel	●
Electrical reel	●
External wheels	●
High pressure washer	●
Antistick oil system	●
External hardener pump kit	○
WLAN kit	●

## Dimensions

Weight	8 200 kg
Length	6750-6764 mm
Width	2576 mm
Height	2962-3020 mm

## Sound and vibrations

Operator sound pressure level, standing near the operator display (ISO 11201)	90 ± 3 dB(A)
Sound power level (ISO 3747)	99 ± 3 dB(A)
Operator vibration level (ISO 2631-1)	0.07 ± 0.07 m/s <sup>2</sup>

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Performance unites us, innovation inspires us, and commitment drives us to keep moving forward. Count on Epiroc to deliver the solutions you need to succeed today and the technology to lead tomorrow.  
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