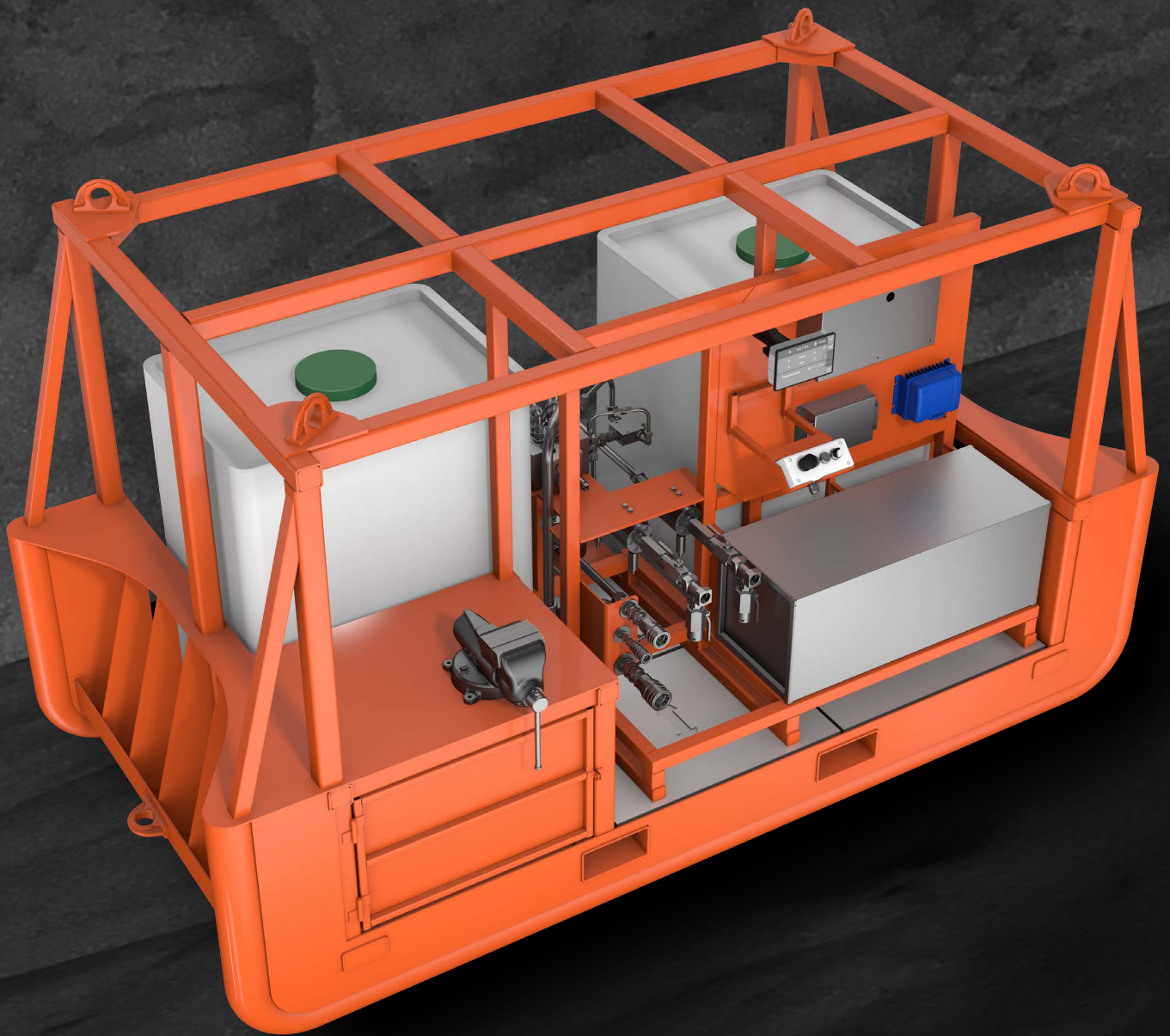


HPA20

automatic injection pump



Putting your safety first

The mining industry continues to demand even higher levels of safety and productivity. In order to meet these requirements, we work continuously to develop safer products, and to produce comprehensive manuals on the safe and effective use of our products.

It's all about everyone's health

Helping you to ensure a safer workplace and healthier workforce is of the utmost importance to us. The wellbeing of any person coming into contact with our equipment is paramount. Therefore, we strive to identify and assess potential risk factors that could threaten the health of you and your employees.

All products in this catalogue are designed to meet safety requirements.

Be aware of all safety procedures

We ask that you start by obeying all instructions given. Never work under an unsupported roof or close to potential pinch point locations. Beware of the potential hazards of a loose roof and side walls. Beware of possible rock burst. Scale down any loose rock from the roof and side walls prior to bolting. It is important to bolt early in the mining process – as soon as it is safely and practically possible..

Safe work procedures should incorporate inspection – before the machine operates, and also through regular monitoring based upon mining conditions, safety and hazard management systems. Workers should be provided with safety information, instruction and training on transportation, installation, operational care and disposal of drilling tools.

Dress right from head to toe

You must wear appropriate personal protective equipment (PPE) at all times. This is what we strongly recommend to help avoid injury:

- Safety helmet
- Hearing protection
- Safety glasses
- Protective, high visibility clothing
- Respiratory protection
- Safety boots
- Safety gloves
- Any site-specific PPE as required

Make a risk analysis before you start

Pay attention to safety when planning all of your work. Before you start, always take the time to go through all operations. Identify any potential risks and take appropriate measures to avoid them.

If necessary, seek expert advice on how to help minimize risks. Finally, make sure that you have the right resources to perform all tasks in the safest manner possible.



HPA20

(hydraulic power automatic)

automatic injection pump

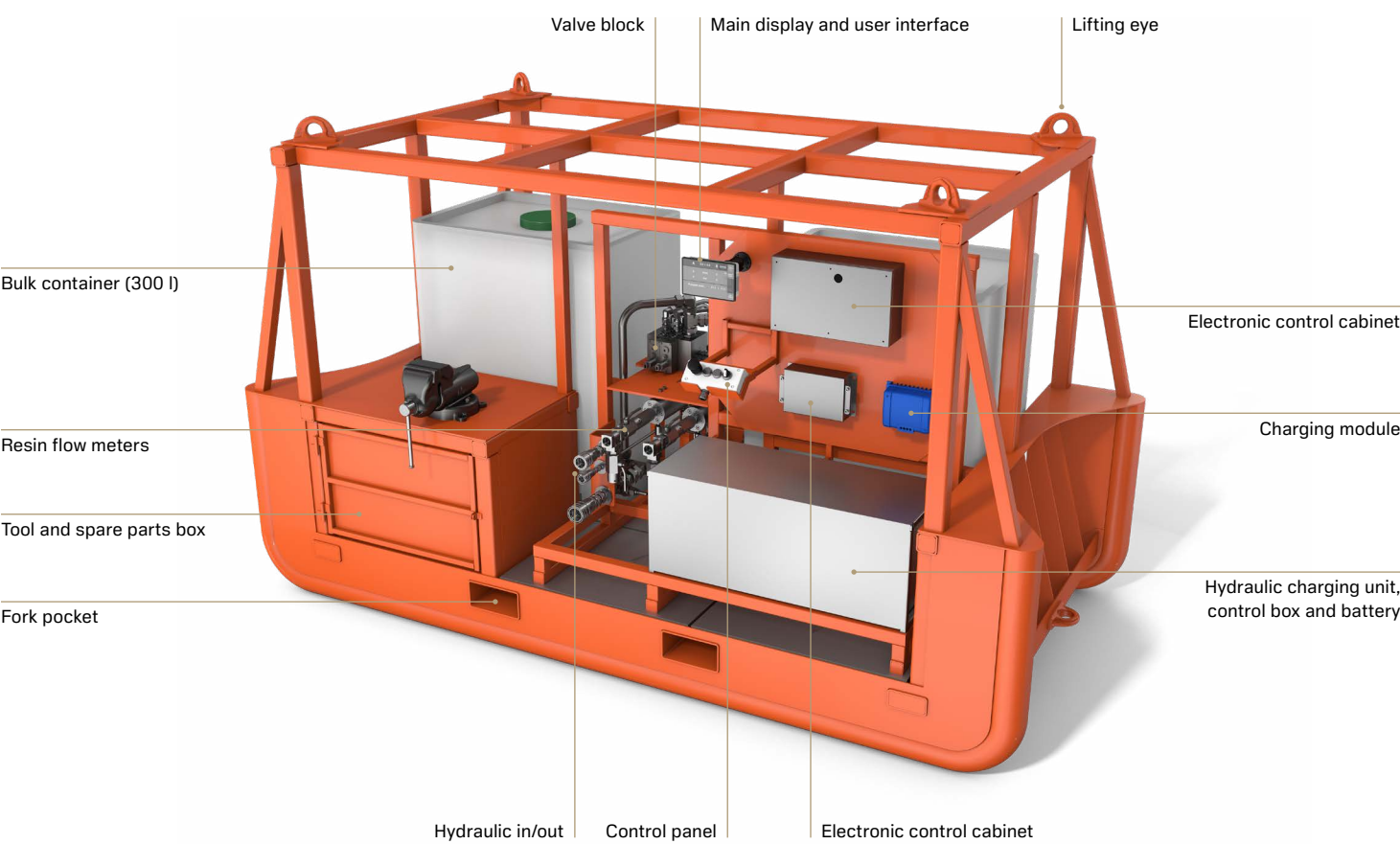
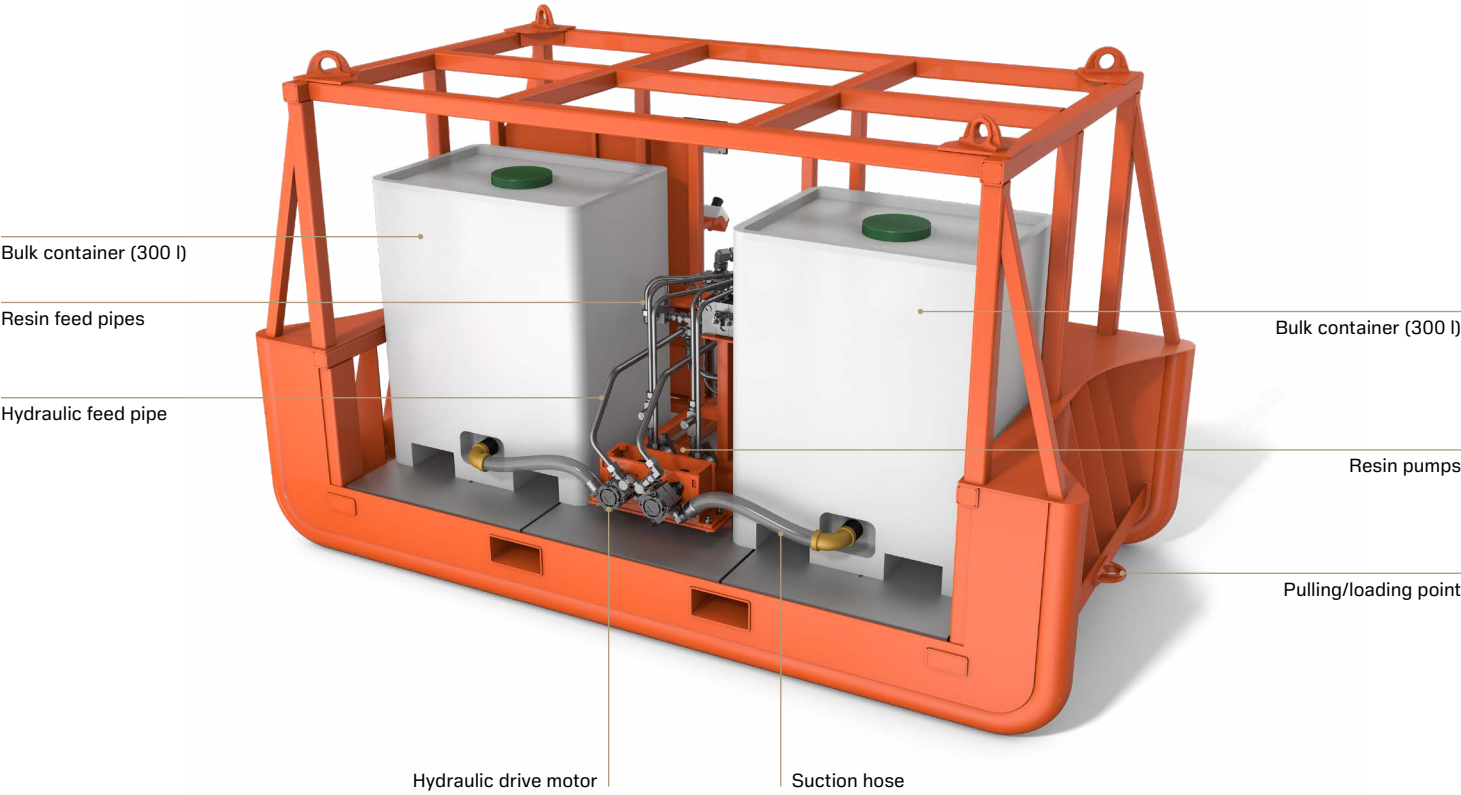
Unique flexibility combined with enhanced quality and security

The HPA20 automatic injection pump provides a higher level of automation and quality control compared to traditional resin pumps. It is suitable for 2-component silicate & polyurethane resins, allowing manual & automatic injection for several applications in hard rock mining and civil engineering. From anchoring & rock bolting to ground consolidation & stabilization – the HPA20 automatic injection pump in combination with our extensive portfolio of pumpable resins is the cost-efficient flexible solution for a large variety of applications. The intelligent self-calibrated system always supports the right mixing ratio and, in automatic mode, even collects all the data from each session, providing comprehensive information for QA/QC procedures.

Technical specifications	
Resin tank size	300 l + 300 l
Mixing ratio	1:1
Resin type	Two component resin
Maximum resin pressure	200 bar
Maximum resin flow	10 liters/component
Operational temperature	10 °C-45 °C
Two different user levels	Operator and supervisor
Weight	1,275 kg (empty IBCs)
Dimensions (L x W x H)	~2.8 x 1.4 x 1.6 m

The pump has two different operating modes: manual and automatic. In manual mode, the operator has full control of the injection work. In automatic mode, the pump operates until it reaches the preset target level in liters. Maximum resin flow errors can be adjusted, and the pump automatically stops, if levels cannot be adjusted. In automatic mode the data from each session is collected. This collected data can be copied to a USB-stick and imported into different systems for later review. The diagnostic view provides comprehensive information from the system status. Thanks to the fully sealed system and the easy to replace IBCs, there is zero exposure for operators during filling and injection work, enhancing the safety of the workers.

Data collection	
Session counter	Up to 50 different
Date	Time stamp for each session
Average resin mixing ratio	%: %
Average resin pressure	bar
Average resin flow	l/min
Actual pumped resin	Liters
Target pumped resin	Liters
Cumulative pumped resin	Liters



All dimensions, weights, quantities, and specifications are those applicable at the time of this publication and may be amended from time to time. Please contact your local representative for final confirmation of any key specifications.