



BLASTING BARRICADES

"Light as a Feather, Tough as a Diamond"
Advance with Confidence.

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Introduction

Uretech is a leading manufacturer of polyurethane products for mining and bulk material applications. Founded in 2004 in South Africa, we have developed and patented many innovative solutions that are safe and easy to install, while being cost-effective for our customers. Our products are made of high-quality polyurethane. It is six times lighter than steel and has similar wear and impact resistance. Our products are sold and distributed both domestically and globally by means of independent and technically proficient partners.

Blasting Barricades

Our blasting barricades are the ideal solution for your blasting requirements. They are sturdy, durable, lightweight, and easy to install. Not only do they enhance your ore recovery process but also double as a ventilation curtain. Use Uretech's Blasting Barricades to run your mining operation more effectively and safely.

About Uretech Blasting Barricades

Blasting is an essential process in mining that uses explosives to break up rock and extract minerals. Post-blast, the area is strewn with rocks and dust. Uretech's Blasting Barricades are designed to keep the ore near the blasting face, ensuring efficient recovery of all fines created during the blast and minimizing clean-up time.

Traditional blasting barricades, made from heavy materials like wood, concrete, or plastic, can be cumbersome to transport and install underground. They occupy significant space and fail to cover the entire face, potentially compromising efficiency, profitability, and safety.

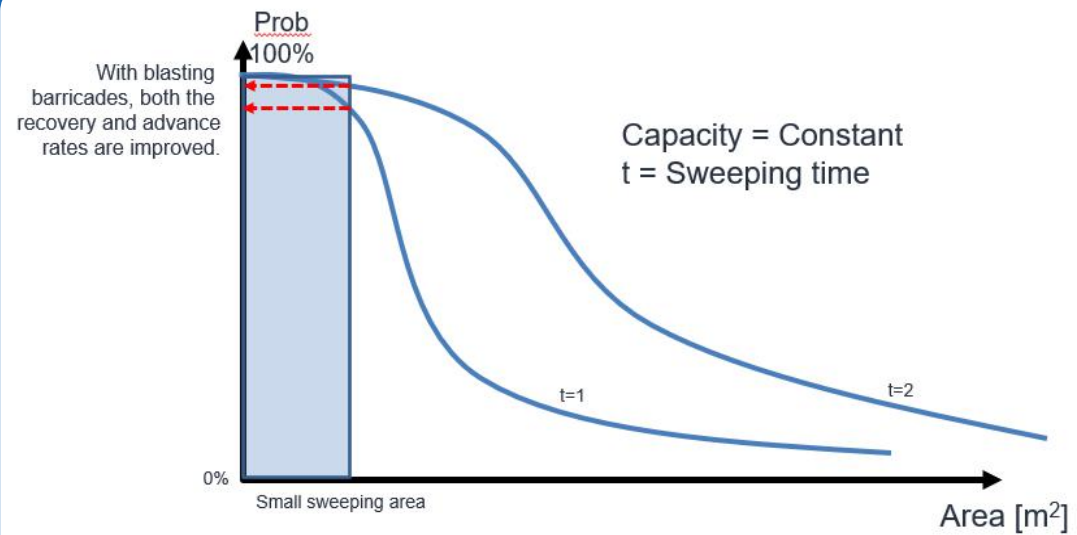
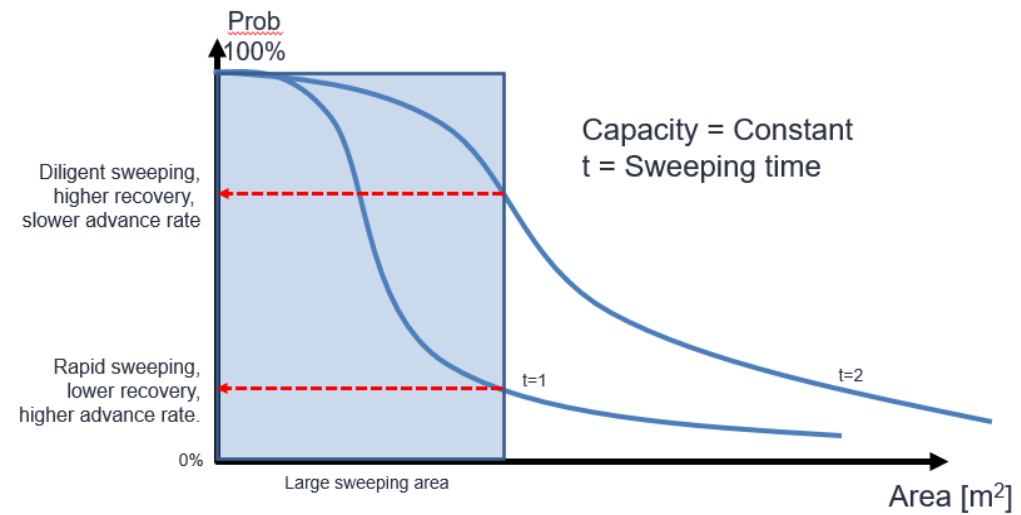
Presenting Blasting Barricades (UBB) from Uretech. Crafted from robust polyester straps woven together and coated with a unique polyurethane layer, these barricades are both blast and impact-resistant. Their lightweight design makes them easy to handle, transport and install. Moreover, they cover almost the entire face, keeping most of the ore near the blast.

The Financial Benefits of using Blasting Barricades

A gold mine in South Africa found that the smallest ore particles (<3mm) had the highest gold content (22%) after a blast. This means that recovering the fine ore is very valuable. However, without blasting barricades, the fine ore can fly far away from the face and be lost. Blasting barricades contain the blast and limit the distance that the ore travels.

This increases the chance of recovering the ore (improved yield) and reduces the time needed to sweep the area. Additionally, this enables the miners to advance faster and increase the monthly output. This can lead to significant financial benefits for the mine.

The graphs below illustrate the relationship between sweeping area, recovery probability, and advance rate. In essence, if a sweeping team has a fixed time limit to clean a blasted area ($t=1$), the probability of collecting all the ore will decrease, as the sweeping area increase. To increase the probability of collecting all the valuable ore, one either needs to decrease the sweeping area or increase the time ($t=2$) to clean the area. Cleaning time is wasted time, because monthly revenue is highly dependent on the advance rate, in other words, the number of blasts per month.



Installation Method

Steel chains are used to connect steel cables to the support packs. The cables are installed at the top and bottom of the supports, and then they are tensioned with a ratchet tool (site specific).

Uretech blasting barricades have attachment straps at both the top and bottom of the barricade. One end of the strap has two steel buckles, which are used to fasten the strap after it is attached to the roof and floor cables. These attachment straps also help to secure the barricades to each other.





Safety Features

Uretech's Blasting Barricades have passed the tests for underground suitability. The tests showed that:

- The barricades do not support fire propagation.
- The Blast Barricade material prevented any flame spread.
- The Blast Barricade material contributed very little heat.
- The gases released during testing had acceptable toxicity levels for underground use.



Service and Support

Uretech provides technical assistance, especially with choosing the right product size. The barricades are made in standard sizes that match the stope heights. Uretech also offers barricades that are height adjustable. This is done by overlapping one barricade behind another and lowering the back barricade.

Our accredited training partners can offer formal installation training.





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