STEMLOCK®
INCORPORATED

Improving & Controlling Blasting

# Gas Bags®

## Self-Inflating Borehole Plugs

The Stemlock Gas Bag is a self-inflating bore hole plug used to seal a borehole at depth. The Stemlock Gas Bag has two activation methods, Vinegar & Bicarb or Aerosol.

Many uses include:

- Presplitting with Production Drills
- Production Air Deck Blasting
- Seal off cavities/voids and VCR work
- Seal off water to use ANFO
- Reduce air blast and vibration
- Limit throw on narrow benches

## Sizes 3" to 24"



Speed up your loading process.
Our strings come measured to your specific length.

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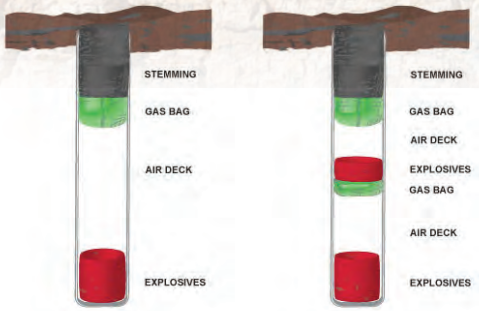
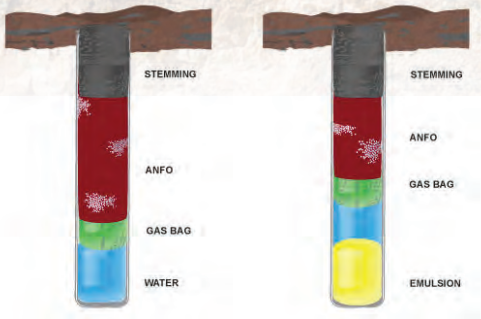
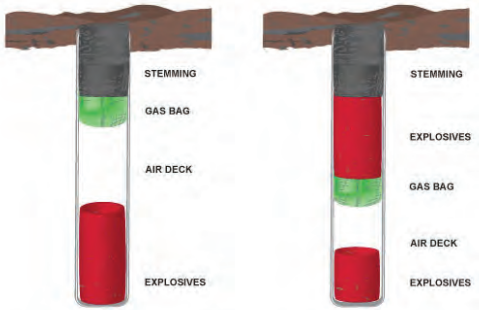


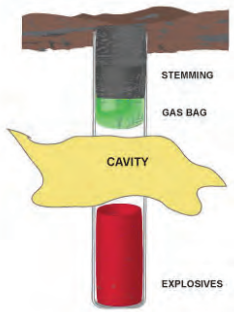

## Presplitting Use




## Seal Off Water




## Production Air Deck Blasting with Less Explosives




## Block Open Holes

# StemPlug

## Stemming Enhancement

The StemPlug is placed after the borehole has been charged and before the stemming has been loaded. Small amounts of stemming or cuttings are placed on top of the explosives that the StemPlug will sit on.

The StemPlug works by acting as a wedge. Upon detonation, the explosive energy drives the StemPlug upwards and engages the stemming. Using StemPlugs provides better fragmentation and higher loads for cap rock.

## Multiple Sizes Available

| Part # | Plug Size | Part # | Plug Size | Part # | Plug Size |
|---|---|---|---|---|---|
| SP0300 | 3" | SP0500 | 5" | SP0778 | 7 7/8" |
| SP0350 | 3.5" | SP0550 | 5.5" | SP0900 | 9" |
| SP0400 | 4" | SP0600 | 6" | SP1058 | 10 5/8" |
| SP0450 | 4.5" | SP0650 | 6.5" | SP1225 | 12 1/4" |

# Benefits of Use

### Better Fragmentation
Independent computer analyses have documented improvements in fragmentation of more than 20% when using StemPlugs with the same amount of explosives. There is also a corresponding cost savings from the reduction of oversize rock.

### Higher Loads for Hard Cap Rock
In applications like breaking hard cap rock, where the required stemming height would otherwise limit the amount of explosives that could be effectively used, StemPlugs allow explosives to be loaded higher into the cap rock. With the higher column loading, better fragmentation is achieved.

### Air Blast & Dust Reduction
The high plumes of dust and much of the noise produced by blasting are mostly generated by explosive energy venting through the boreholes. A marked reduction in both dust and noise are benefits of using StemPlugs. This makes blasting less offensive to the surrounding community and environment.

### Expanded Hole Patterns
Because StemPlugs allow full utilization of explosive energy, they may permit hole patterns to be expanded in many applications, thus reducing both drilling and explosive costs. An additional benefit of fewer holes is fewer fines.

### Improved Safety
In all applications, it has been found that eliminating the venting of explosive force through the boreholes greatly reduces flyrock. Thus, in addition to improving blasting safety in general, it is possible to extend the safe use of explosives into areas where safety would otherwise be marginal.

### Reduced Costs
Drilling and blasting can be reduced up to 30 percent. Fewer holes are needed to blast the same amount of rock but similar or better fragmentation is achieved. Better fragmentation results in savings through decreased machinery maintenance and labor in handling the oversize. Less stemming is needed to adequately hold the blast, allowing more powder to be placed in each hole.

# Max-Blast Plug

## Creating a Positive Seal

The Max-Blast plug is constructed of flexible vinyl and designed to be a friction fit. Doing so allows Max-Blast plugs to be used in vertical, horizontal or up holes.

The Max-Blast plug works by creating a positive seal in the bore hole. At detonation, expanding gases force the plug upwards. When the plug meets the stemming it flattens, creating a seal. This prevents the explosive gases from passing up through the stemming material.

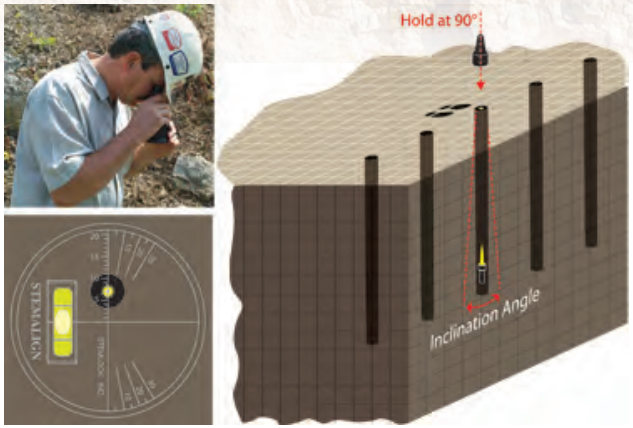
## Multiple Sizes Available

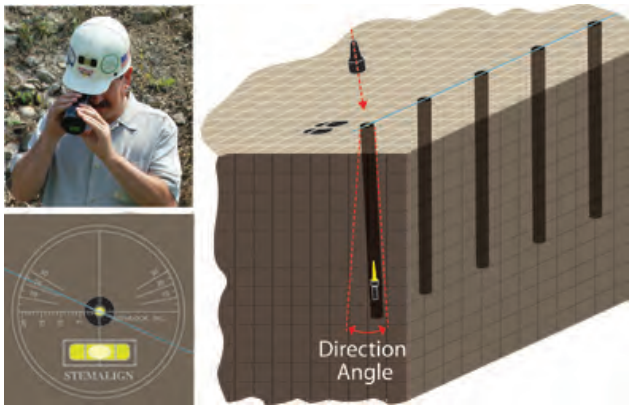
| Part # | Inches / MM | Part # | Inches / MM | Part # | Inches / MM |
|---|---|---|---|---|---|
| MB0150 | 1.5"/ 38 | MB0250 | 2.5"/ 64 | MB0450 | 4.5"/ 114 |
| MB0175 | 1.75"/ 44 | MB0300 | 3"/ 76 | MB0500 | 5"/ 127 |
| MB0200 | 2"/ 51 | MB0350 | 3.5"/ 89 | MB0550 | 5.5"/ 140 |
| MB0225 | 2.25"/ 57 | MB0400 | 4"/ 102 | MB0600 | 6"/ 152 |

## Increased Fragmentation

Max-Blast plugs are loaded by pushing them to the desired depth. A standard loading pole works well. You can push the plug right up to the explosive or leave space for an air deck.

When you are using an expanding type explosive (gassed explosives) you can load the Max-Blast plug to the stemming depth very easily. Just push the Max-Blast plug down to the desired depth and stem the hole. The expanding explosive will rise up to the Max-Blast plug, and the plug will remain as set.




# StemAlign™

## Optical Tool

StemAlign™ is an optical tool that uses a beam of light to obtain the exact angle and direction of boreholes. This easy-to-use tool provides precise measurements for better blast control.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# Stemlocker

## Stemming Plug

- Economical
- Easy to Use
- Color Coded

## Three Sizes Available

| Part # | Diameter (inches) |
|---|---|
| SLK3-4 | 3" - 4" |
| SLK4-6 | 4" - 6" |
| SLK6-7 | 6" - 7" |

# Collar Plugs

## Better Blasting

- Protects vertical holes from backfill
- Wide range of sizes
- Bright red for easy visual inspection
- Economical

## Multiple Sizes Available

| Part # | Plug Size |
|---|---|
| BBCP-1 | 1"- 2" |
| BBCP-1A | 2"- 2.5" |
| BBCP-2 | 2"- 3.5" |
| BBCP-6 | 3"- 5.5" |
| BBCP-9 | 5.5"- 9" |
| BBCP-10 | 5.5"- 11" |
| BBCP-18 | 11"- 18" |

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# StemLiner™

## Blast Hole Liners

Patented Stemlock® StemLiners™ help you load explosives quickly, accurately and with confidence knowing they will stay dry and deploy predictably down a durable, non-stick chute.

**Above Ground StemLiner™**

**Underground StemLiner™**

www.Stemlock.com

# Depth Gauges

## Keson Dealer Imperial and Metric Tapes

# Stemwāte™

## Made with Industrial Ceramics

## Two Sizes Available

| Ounces | Pounds |
|---|---|
| 8 oz | 1/2 lb |
| 16 oz | 1 lb |

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