

# **Role of stemming in engineering blasting operation-a review**

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## **ABSTRACT**

The objective of blasting in the mining and construction industries is to obtain the required result by transferring as much as possible of the explosive energy into the rock that is being blasted. The problem is that the blast hole itself is the path of least resistance for the escape of the explosive energy after detonation of the explosive charge. This not only reduce the effectiveness of blast, but ejection of stemming material out of the blast hole can also be hazardous. To solve this problem, a blast hole needs to be confined in order to function properly and improve the explosive energy utilization. The earliest documents regarding the advantages of stemming in productions blast may date as far back as two century ago to the work by Sir John Burgoyne (1849). This paper emphasized the role of stemming and its advancement with time in engineering blasting operation.

Keywords: Engineering blasting, Stemming, Length of stemming, Types of stemming, Stemming devices