# GAURANGA GENERAL TRADERS

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# **Our Brand**

DEAL-IT is leading brand in Expansive Mortar in North India market.....







# **About Us**

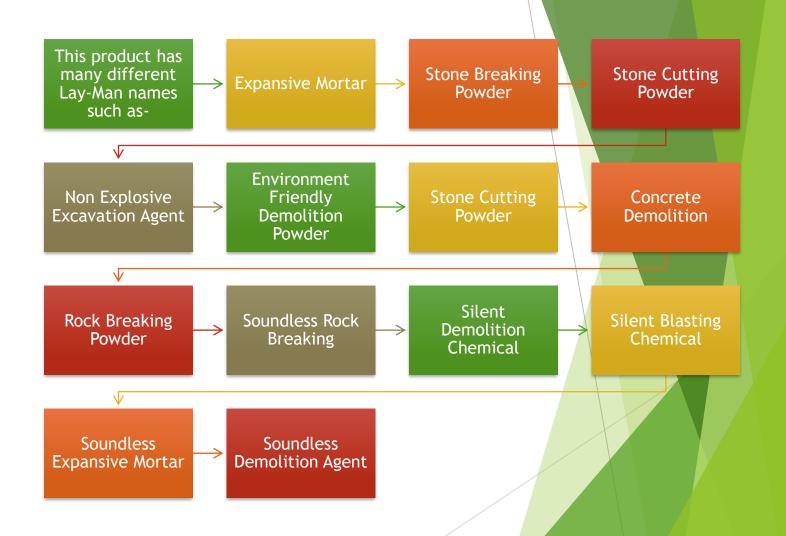
- Demolition Agent because it is better solution in India to remove rocks without blasting in populated area and where there are previous construction which may be damaged by blasting. We knew that this product is eco-friendly and eliminates the need of Explosives almost in all the industries.
- Saving the environment is not easy but we are doing our bit by trying to Market Non-Explosive Demolition agent and reduce the risk and pollution involved with traditional explosives. Our Non-Explosive Demolition Powder has an amazing strength which is proven to Demolish and Break Rocks and Concrete.
- lts use has increased very much recently because of government regulations in certain areas which prohibits traditional Explosions.
- We are also doing drilling and controlled blasting in quarries.
- ▶ We also provide mining machineries spares like DTH hammer, Button Bits, Teeth Point etc.
- Who We Are!
- Gauranga General Traders specializes in use of Non-Explosive Demolition Agents which is widely used in Mining, Rock Excavation and Concrete Demolition. We have supplied throughout the country and have extensive know-how of this Stone & Rock Cutting Powder also suitable for Concrete Demolition. Our Non-Explosive Demolition Powder has an amazing strength which is proven to Demolish and Break Rocks and Concrete.

# Product (NonExplosive Demolition Agent)

#### **DESCRIPTION**

- 1. Non-Explosive Demolition Agent known as Stone Cutting Powder, Rock Breaking Chemical, Expansive Mortar Powder etc. acts as an eco-friendly alternate to Traditional Explosions and Blasting.
- 2. The guide to using the product is very simple and you can learn How to Use here.
- 3. Its most widely used in Underground Mining and Hills as it makes the process of extraction and debris removal very easy by Breaking Big Rocks into Small Pieces. Moreover its cost efficient than traditional Explosion Techniques and is also environment friendly.
- 4. Its use has increased very much recently because of government regulations in certain areas which prohibits traditional Explosions. Also explosions are much more risky than our Non-Explosive Expansive Mortar.
- 5. Another advantage is that the Chemical ensures that there are no Vibrations and the Demolition Process is Silent.
- 6. The Cracks and Splits in the demolition process can be controlled according to drilling pattern.

# Lay-Man Names



# Main Uses of Non-Explosive Demolition Powder

#### Mining and Natural Stone Quarrying

- It ensures controlled expansion, increases safety and saves wastage of Valuable Stones. It's the most cost-efficient alternative in Natural Stone Mining. Successful in removing Stones above Coal Mines.
- The other method which is used to avoid wastage is the Diamond Wire Saw Machine which is used majorly in Granite and Marble Mines is much more expensive.
- Diamond Wire Saw Machine method is very costly compared to Non-Explosive Demolition Powder and the end result is similar.
- ▶ Rock Breaking, Blasting and Excavation
- Excavation of Underground rocks is required for any new construction. Rock and Slab Breaking for Road Expansion Projects etc. Its much more safer than using explosive blasting and detonating chord.
- Construction of new Roads or Big Project always have a common problem Big Rocks coming in the way of Levelling the Land before use. This powder can easily solve this problem without the need of Traditional Explosions thus reducing the cost and increasing the safety. Moreover in certain circumstances explosion might risk the entire project. Non-Explosive Demolition Agent is now used in Rock and Debris Removal a lot as it's the superior choice.

#### Reinforced Concrete Demolition

- Silent Demolition of Mass Concrete structures and Buildings. Concrete Structures Demolition require Controlled demolition most of the time which is easily possible by Non-Explosive Demolition Agents/ Concrete Demolition Powder. The Demolition Highly Depends on the drilling Pattern used.
- (For the best results the Expansive Mortar should be used properly according to the strength of the structure to demolish and results can vary specially if not used as per guidelines.)

# Usage Guidelines

- ► Preparatory Things before usage
- Bucket
- ► Clean & Normal Hot Water
- ► Suitable Rod Manual or Automatic for Mixing
- ► Safety Goggles
- Mask
- ▶ Gloves
- ► Helmet
- ► Face Shield



The first step is to drill holes in the Rock, Stone, Concrete etc you want to break and demolish.

# Step 1 (Drilling)



Distance Between holes - 7-12inches Diameter of holes - 35mm Hole Depth - 95% of the length you want to break. (Minimum 1.5ft)

Free Space - There should be some free space on at least one side so that Rock/Concrete can move after Cracking.



**Note:** We don't take any responsibility for injuries caused as this happens generally when material usage instructions are violated.



# Step 2 (Mixing)

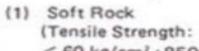
Mixing

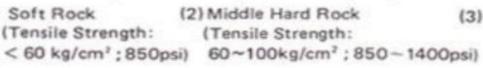
The Powder supplied by us than needs to be mixed into water.

#### HOLE DESIGN FOR ROCKS

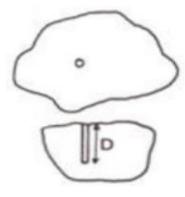
#### 1 General Concept for Boulder (1 ~ 1.5m3; 1.5 ~ 2 yd3)

d	38~44mm		
-	1%" ~ 1%"		
D	70% of Height		





Hard Rock (Tensile Strength: > 100 kg/cm<sup>2</sup>; 1400psi)

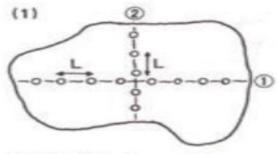




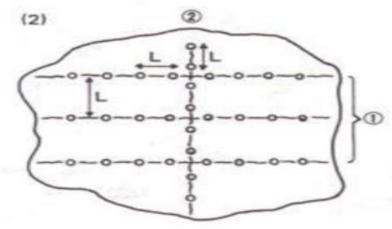


#### 2 Splitting of Large Boulder

d	32 ~ 35 mm	44 ~ 51 mm
	11/4" ~ 13/6"	13/4" ~ 2"
L	30 ~ 40 cm	60 ~ 90 cm
	1'~1'4"	2'~3'
D	70% of Height	

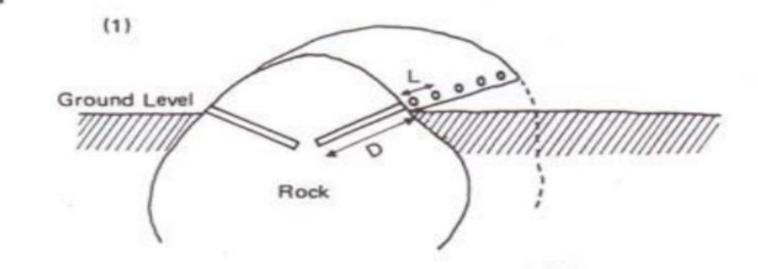


Fill in (1) holes and then 2 holes after 6 ~ 20 hours.

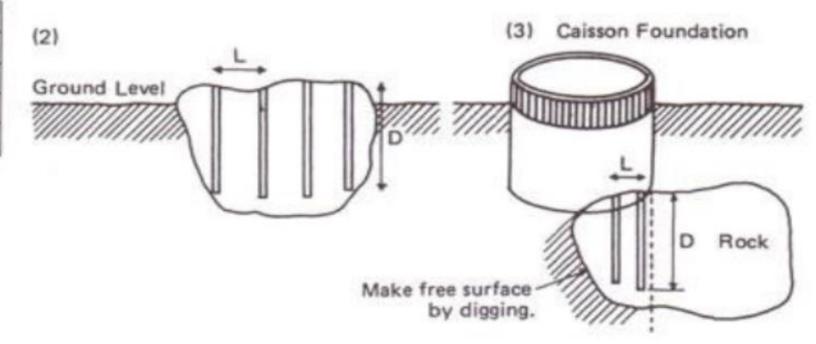


#### 3 Underground Excavation

d	38 ~ 44 mm	
u	1%" ~ 1%"	
L	30 ~ 60 cm	
	1'~2'	
D	Shown in Figure	



d	38 ~ 51 mm	
	1%" ~ 2"	
	60 ~ 90 cm	
-	2' ~ 3'	
D	90% of Height'	



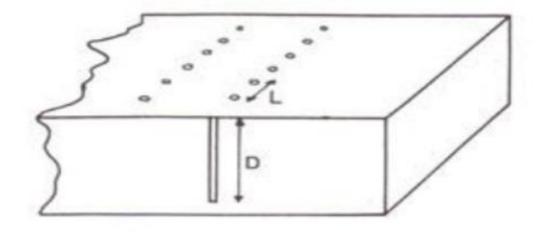
#### 4 Slabbing

-	32 ~ 35 mm	44 ~ 51 mm
d	1%"~ 13/8"	1%" ~ 2"
	20 ~ 30 cm	40 ~ 50 cm
L	8"~1"	1'4" ~ 1'8"
D	90% of Height	

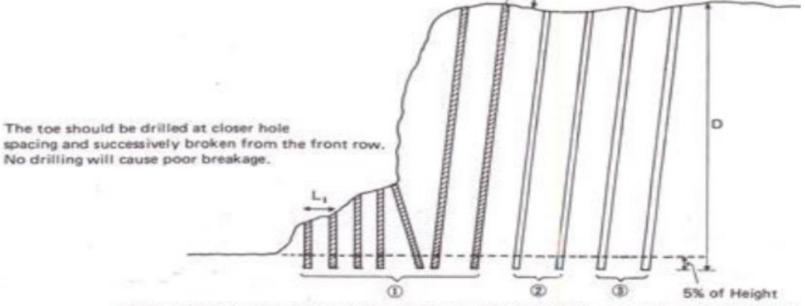
Small d and L should be used to obtain a straight crack line.

#### 5 Breakage of Virgin Rock

d	44 ~ 51 mm
	1%"~2"
L,	30 ~ 40 cm
	1'~1'4"
L,	60 ~ 90 cm
20	2' ~ 3'
D	Adding 5% of Height
0	80 ~ 90°

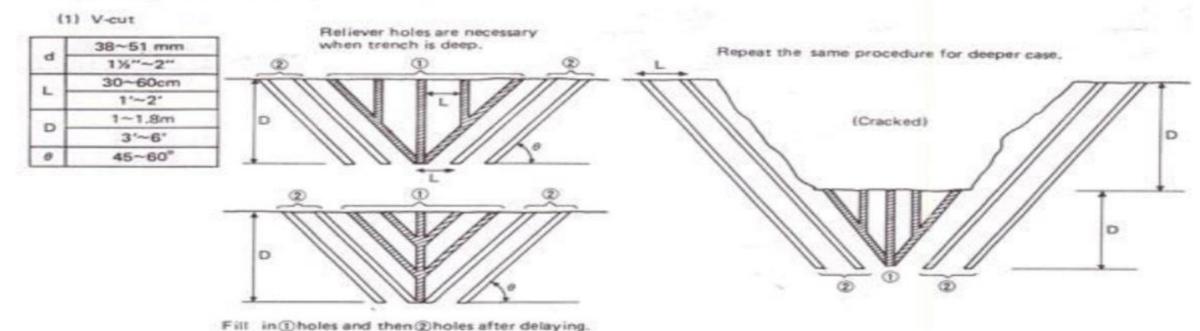


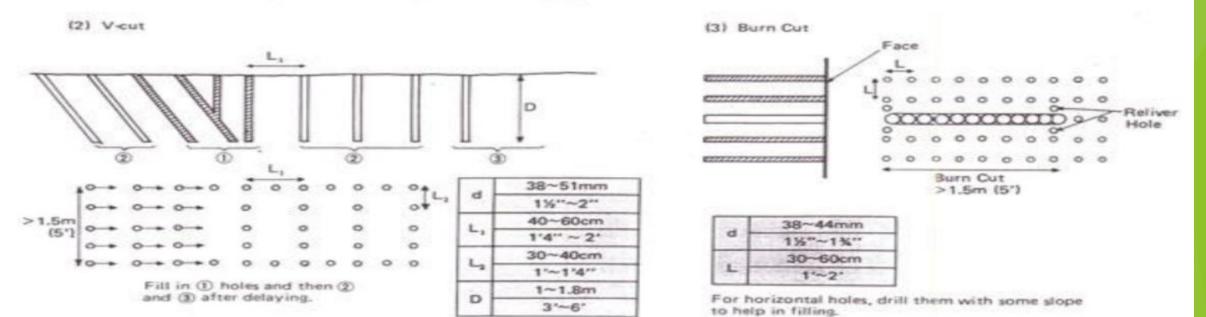
Free Surface



The front holes (up to sixth row) may be simultaneously filled in. It is more effective for the removal to fill in 1 holes and then each two rows 2, 3) after a delay of  $6 \sim 20$  hours.

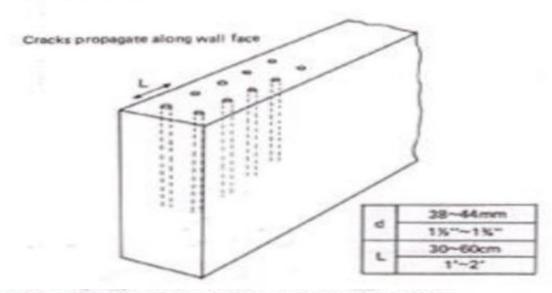
#### 6 Trenching and Tunneling



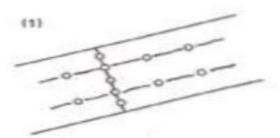


## HOLE DESIGN FOR CONCRETE

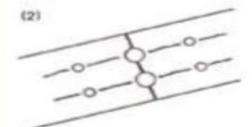
#### 5 Thick Wall



When perpendicular cracks to wall face are necessary:



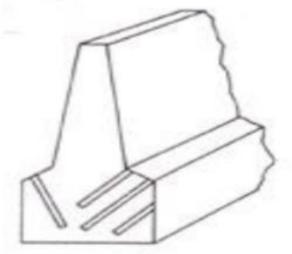
Add a reliever hole. Spacing may be 10cm (4") though 20cm (8").

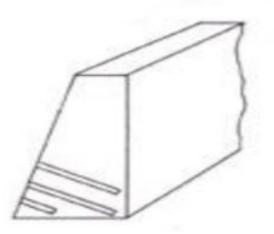


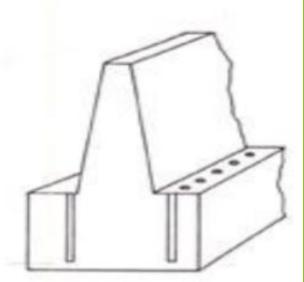
Drill larger d of holes.

#### 6 Pier, Bridge Foundation, Retaining Wall

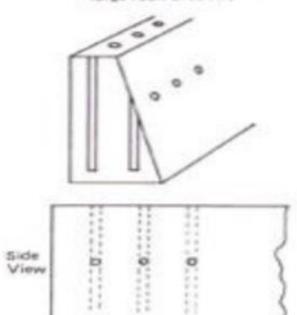
Drilling depends on a shape of structure and a circumstance.



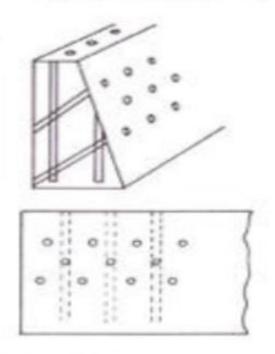




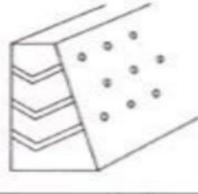
 Making of large block;
 Secondary breaking with large rock breaker.

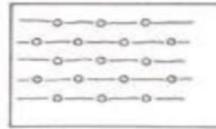


(2) Making of small pieces; Drilling is only from one side.

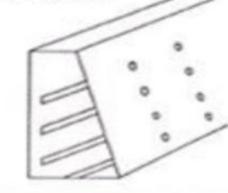


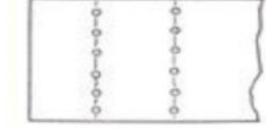
(3) Wall is very high; Vertical drilling is difficult.





(4) Foundation is thick, Secondary breaking with large rock breaker.

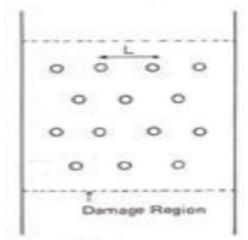


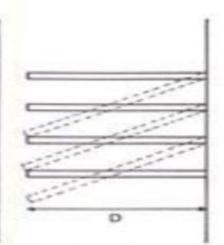


#### 7 Zone Demolishing (Pillar, Beam, Wall)

(1) Stagged Arrangement (Pillar)

ď	38~44mm
	1%"~1%"
L	30 ~ 40 cm
	1'~1'4"
D	90% of Width or Height

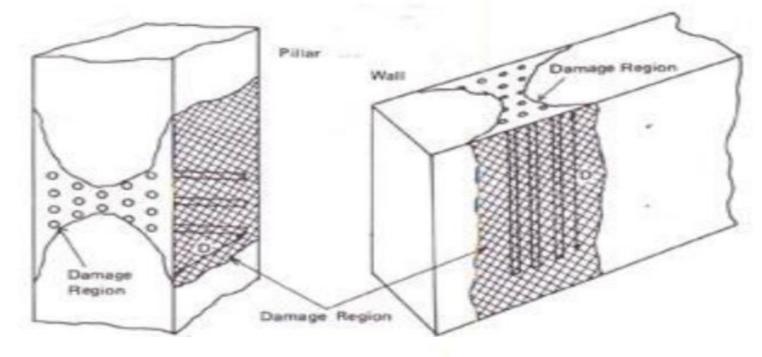




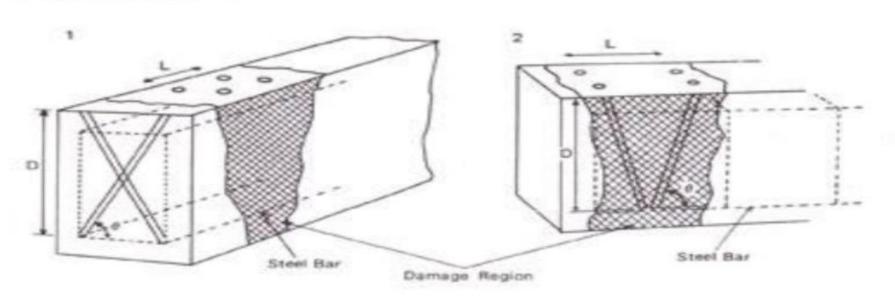
Horizontal or Inclinated Hole (60 - 80°)

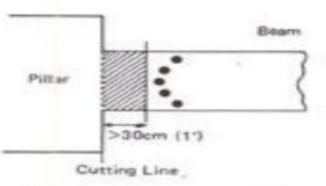
(2) X Figure Arrangement (Pillar, Wall)

d	38~44mm
	1%"~1%"
L	30 ~ 40 cm
	1'~1'4"
D 90% of Width or Heigh	



#### (3) Cross Drilling (Beam)





Try to set safety zone to avoid pillar cracking.

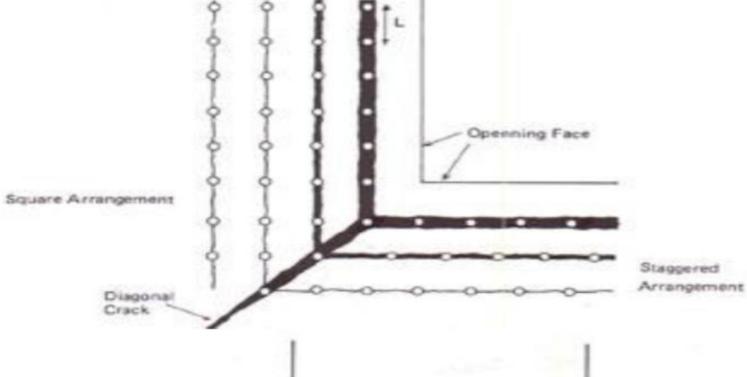
d	38~44mm	
	1%"~1%"	
L	30 ~ 40 cm	
	1'~1'4"	
D	90% of Width or Height	
8	60~80*	

#### 8 General Concept for Thin Concrete (Wall, Slab)

13

-	32~38mm
0	1%"~1%"
	26~30cm
-	10"~1"
D	Around Wall Thickness

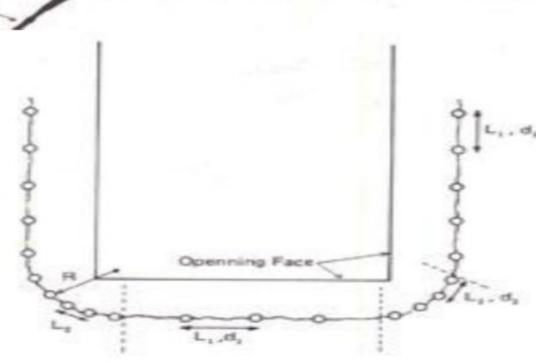
Crack width of the front row is opened much larger than that of the behind rows.



#### 2) Avoid diagonal crack

d,	32~38mm	d <sub>3</sub>	25mm	32~38mm
	1%"~1%"		1"	1%"-1%"
	25~30cm	L,	10cm	10~15cm
	10"-1"		4"	4"~6"

The curvature at corner (R) should be more than 15cm (6').

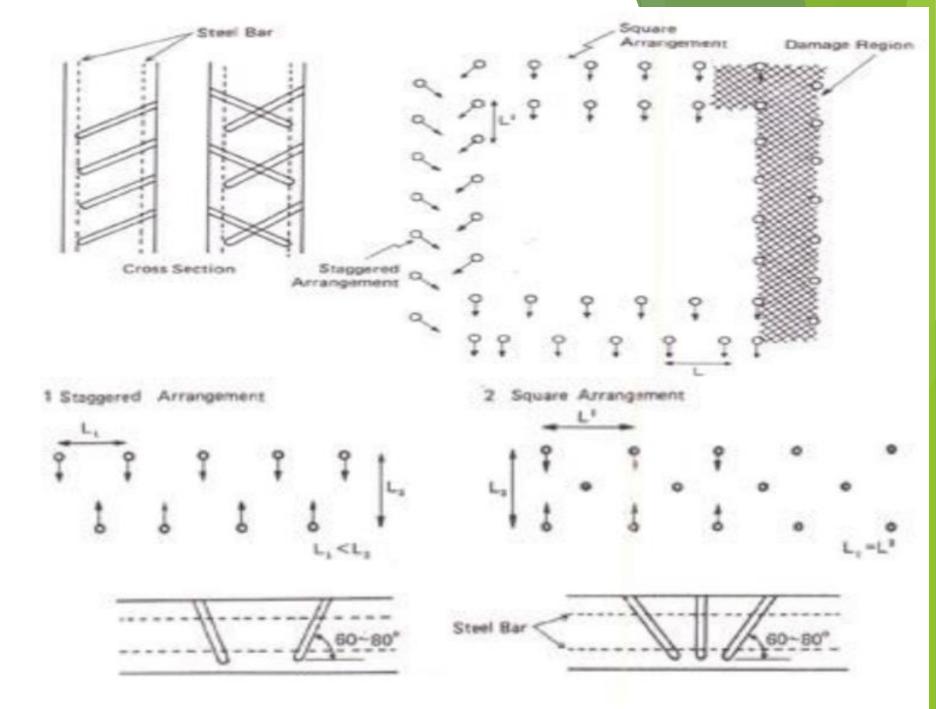


#### 3) Splitting of Wall

4	38~44mm
0	1%"~1%"
	25~30cm
- 1	10"-1"

#### 4) Splitting of Slab

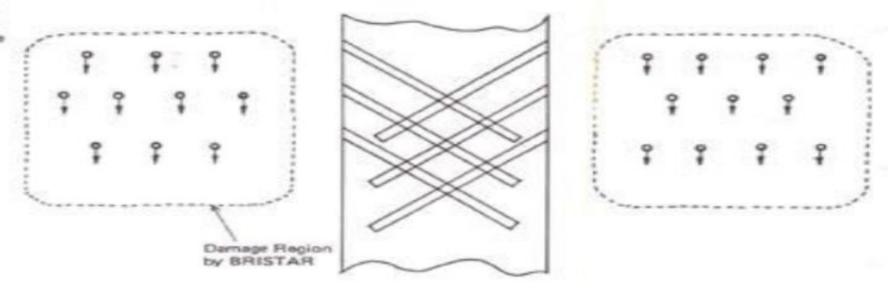
d	38~44mm
	116"~1%"
L,	25 ~ 30 cm
	10"~1"



#### 5) Establishment of free surface

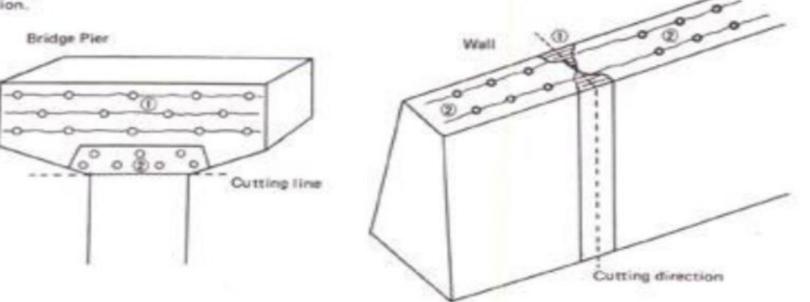
In stead of Burn Cut (chapter 6 of Rock), cross drilling may be used to establish the free surface for wall case.

d	38~44mm
	1%"~1%"
L	20 ~ 25cm
	8"~10"

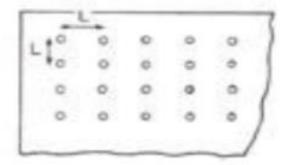


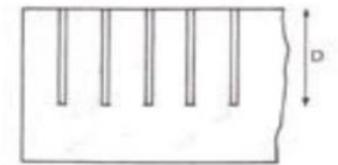
#### 9 Delay Filling

Fill in (1) holes and then (2) holes after delaying. [See 2, 6 of Rock, and 3 of Concrete.] This can be applied for controlling of a crack direction.



#### 1 General Concept for Concrete

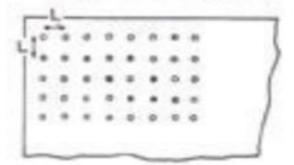


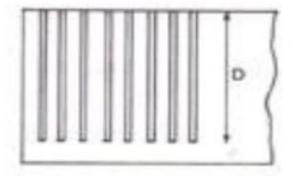


-	38~44mm
a	1%"~1%"
	40~60cm
-	1'4"-2"
D	70% of Height

When vertical drilling is difficult, drill horizontal holes with some slope.

2 General Concept for Reinforced Concrete



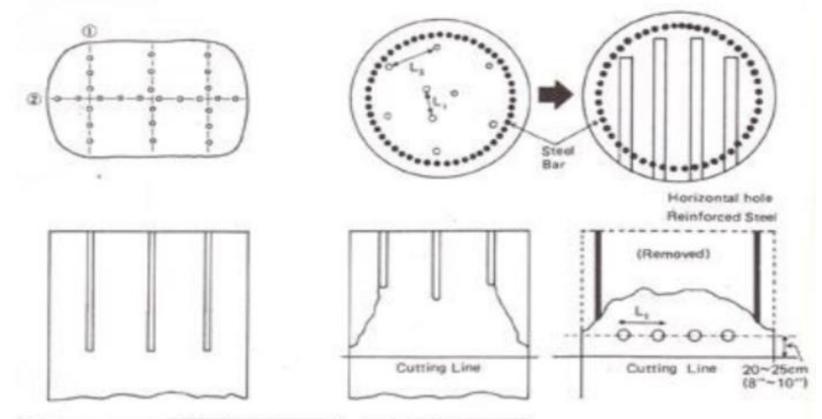


	35mm	38~44mm
0	13/4"	1%"~1%"
	20~25cm	30~40cm
0.6	8"~10"	1'~1'4"
D	90% of Height	

d and L depend on both quantity of reiforced steel and shape of that.

#### 3 Mass Concrete (Bridge pier and Foundation etc.)

#### 4 Pile Foundation



V	Concrete	Reinforced concrete
	38~51mm	38~44mm
d	1%"-2"	1%"~1%"
-	50~90cm	40~60cm
-	1'8''-3'	1'4"~2"

Fill in ① holes and then ② holes after delaying.

d	38 ~ 44 mm
	1%"~ 1%"
. 1	20 cm
-	8"
٤,	20 ~ 25 cm
	8"~10"

# Step -3 (Pouring)

► The watery mixture prepared is than Poured into the Holes drilled in Step 1.



# **Safety Instructions**



# Some of Finest Results of our product



# **Advantages**

- Non Explosive
- No Noise
- Eco Friendly
- Safe & Easy to Use
- Controlled Demolition
- No Licenses Required
- No Heavy Machinery
- No Wastage of Valuable Stones in Mining
- No Pollution
- Silent Demolition
- The main advantage of using Non-Explosives
  Demolition Agent is that no special licenses are
  required for usage and hence it promotes quick
  and efficient working eliminating all the
  cumbersome procedures.
- It also ensures that the Demolition is done in such a way as to provide an optimal

## **Technical Data**

Type OF EXPANSIVE MORTAR/ CRACKING AGENT/ DEMOLITION AGENT/EXPANSIVE CEMENT

Type of SPLIT AG	Usable Temperature
SCA-1	25°C-40°C
SCA-2	10°C-25°C
SCA-3	-5°C-10°C

# Consumption

Hole Diameter(mm)	30 32 34 36 38 40 42 44 46 48 50
Consumption(kg/m³)	1.2 1.3 1.5 1.7 .1.9 2.1 2.3 2.5 2.8 3.0 3.2
Hole Depth	1

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