

# Hand Splitter



Wedges (Plugs) and feathers are also known as Wedge and Shims or Wedges and Feathers, they are among the oldest styled tools still used today and remain one of the best methods of splitting stone, these tools designed to split rock when driven into a drilled hole or natural crack. The wedge fits in the hole between two feathers whose flat side form a guide that prevents the wedge from jamming as it is driven into the hole.

## 1. Functions

Wedge and shims is a kind of manual tool that uses manpower to impact the metal wedge into holes on stone, thereby split stone. It is mainly used in splitting cracked stone and arch stone which by utilizing a wedge set can be separated into smaller or standard stone blocks. It can also trim relative large and irregular stone blocks.

## 2. The Characteristics

- 1.) Mainly rely on manpower, therefore its labor intensive.
- 2.) Suitable for exposed ore, cranny-up growth efflorescence ore belt, particularly for naturally formed multi-free surfaces ores, and arch stones with one or two surfaces connected with original rock. Hence, wedge is a very effective and labor-saving tool, especially for mines applying small size of quarrying stone blocks.
- 3.) Suitable for mining where lack of power, water supply.
- 4.) Suitable for quarrying layered ores which are either horizontal or gently inclined, have layer depth around 1.5m.
- 5.) Can apply desegregation and separation of large stone blocks quarried through other methods.
- 6.) It is easy to handle with and maintains its value in mines of which have better rock fracturing performance and low mechanical level. However, the workload of leveling stone blocks is high which affect the finish rate.

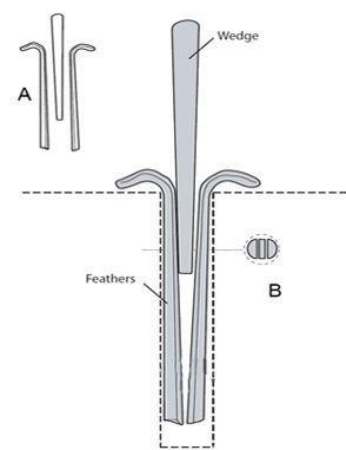
## 3. Operating

Three sets of wedge and shim are required for per foot of length of stone. The depth of drilled hole depends on the length of wedge.

## 4. Specifications

Hole diameter design: 14mm to 38mm / 3/8" to 1-1/2"

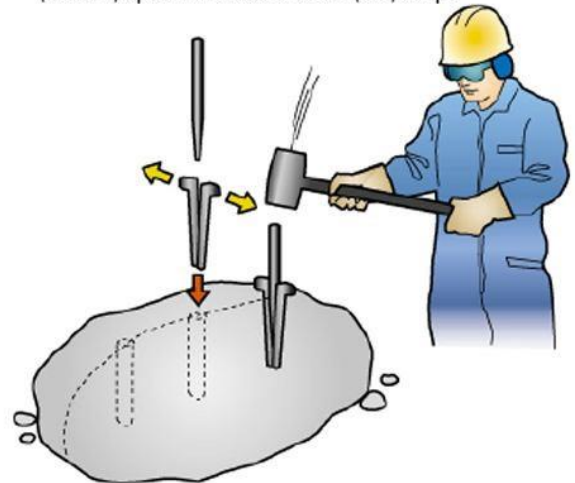
Length: 64mm to 1220mm / 2-1/2" to 48"





Using a motorized drill/breaker, you can split large rocks safely and accurately.

Start by drilling holes in a straight line across the rock you want to split. The holes should be about 30-40 cm (12"-16") apart and at least 40 cm (16") deep.



**5. Producing technology**

We produce this manual stone splitter by forging. It's largely prolonged the life time of the tools.

Specifications:



<b>Length</b>	Inch	2-1/2"	2-5/8"	2-3/4"	3"	3-3/8"	3-3/4"	4"	5"
	mm	64	67	70	76	86	95	100	127
<b>Hole size</b>	Inch	3/8"	1/2"	5/8"	5/8"	3/4"	3/4"	7/8"	7/8"
	mm	9.5	13	16	16	19	19	22	22
<b>Length</b>	Inch	6"	8"	12"	18"	24"	36"	48"	
	mm	152	203	305	457	610	915	1220	
<b>Hole size</b>	Inch	1"	1-1/4"	1-3/8"	1-3/8"	1-1/2"	1-1/2"	1-1/2"	
	mm	25	32	35	35	38	38	38	