

2022 | NEW MODEL

HONG KONG ROCK SPLITTER

RS-1000
RS-1700
RS-2000



KONG BONG RS1700-ROCK SPLITTER

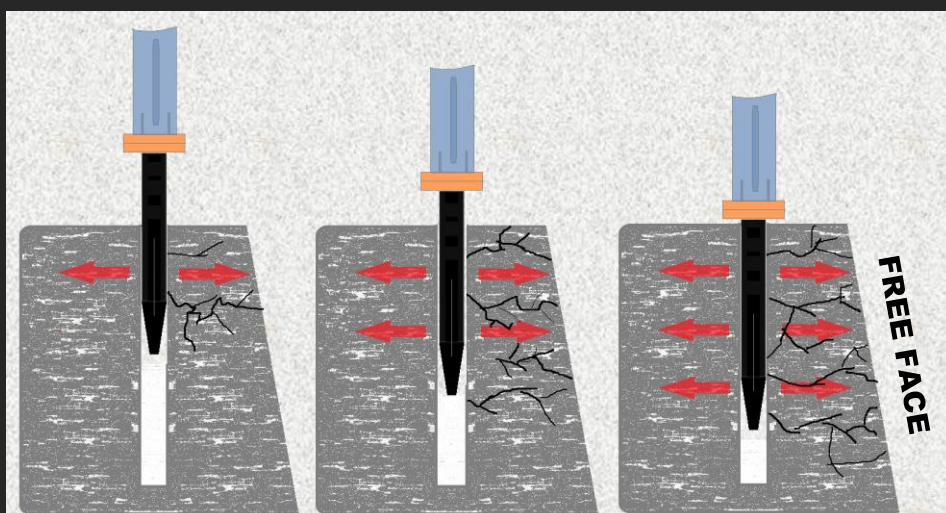
Used for stone mining operations, large ore (metallic or non-metallic ore), partial and complete demolition operations. It has a simple structure, is easy to operate, has a large splitting force (single machine splitting force is up to 3600 tons), no vibration induced, no noise, high operation efficiency, low cost, safe and more suitable for large areas rock demolition work.

Principle of Rock Splitter

Any object has its own characteristics. Rock and concrete have extremely high external compressive strength, but the tensile strength from the inside to the outside is very small. The rock splitter is designed with the principle of wedge, it can release a great splitting force outward in the narrowest hole. It drives the center wedge to move forward, pushes the counter wedge to spread them apart and the rock is forced to crack.

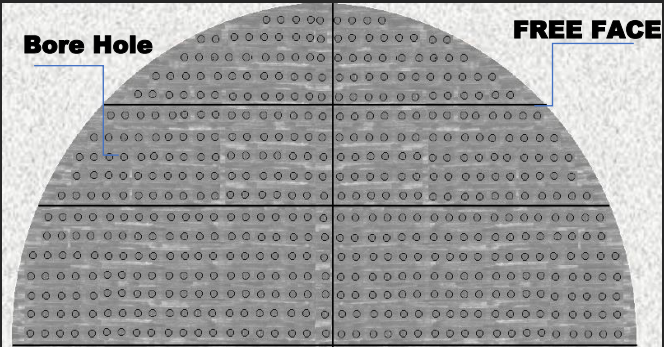
HOW IT WORKS

- Drill a hole with a specific diameter and depth on the area to be split,
- Rotate the splitter to the desired direction and make sure the center of the wedge is aligned with the center of the hole before inserting into it,
- Insert 1/2 of wedge inside of the hole and move forward between the two counter wedges by hydraulic pressure, the maximum splitting force of 3000-3600 tons pushes them outwards. When there is an initial crack, the center wedge needs to be retracted,
- Repeat the process again by 3/4 of total length of the wedges. Eventually, repeat the process again on full length of the wedges.



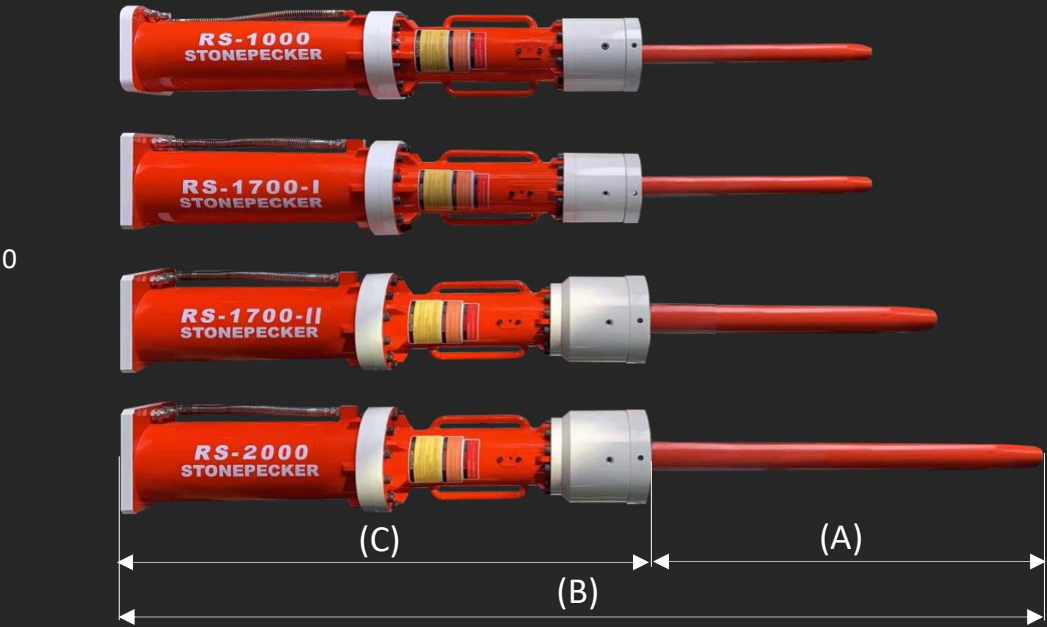
Drilling Pattern of the holes depend on the hardness and condition of the rock.

The length of the drilled holes is proportional to the production rate. However, the hardness of the rock is the key factor that defines the distance between each hole, which means the higher the hardness of the rock is, the shorter distance between the holes is. Moreover, the free face is the key factor to easily split the rock.



MODEL	UNIT	RS1000	RS1700-I	RS1700-II	RS2000-I	RS2000-II
Weight	Kg	822	852	1030	1174	1260
Drill hole diameter	mm	Ø102	Ø102	Ø127	Ø127	Ø127
Drill hole depth	mm	1500	1500	2300	2300	2500
Splitting force	Ton	2250	3500	3500	4065	4065
Splitting distance	mm	25	30	30	30	30
Wedge diameter	mm	Ø95 to Ø110	Ø95 to Ø110	Ø120 Ø160	Ø120 to Ø160	Ø120 to Ø160
Wedge effective length (A)	mm	1025	1025	1430	1450	1755
Splitter length (B)	mm	3105	3090	3560	3570	3880
Cylinder length (C)	mm	1905	1905	1905	1905	1905
Hydraulic pressure (min/max)	Mpa	28-35	28-35	28-35	28-35	28-35

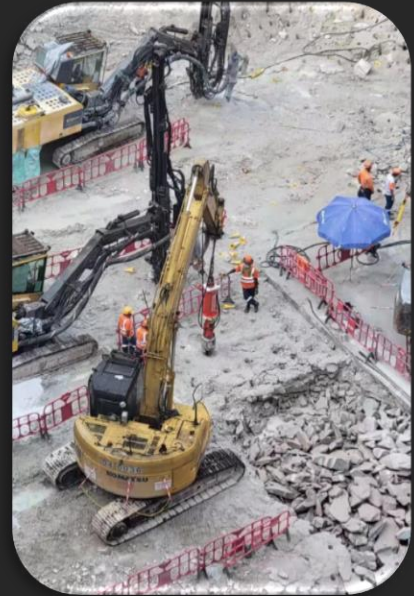
The specification data will be varied due to the technical modification of the rock splitter.



VERTICAL APPLICATIONS

1 DRILLING

Drill the hole with $\varnothing 102\text{mm}$ and depth 1.8m for RS1000 or RS1700, or $\varnothing 127\text{mm}$ and depth 2.5m depth for R2000. The drilling pattern we suggested is 400-700mm spacing for RS1000 and RS1700 and 700mm – 900mm for RS2000, which depend on the hardness of rock. And the drilling slot is producing in the picture.

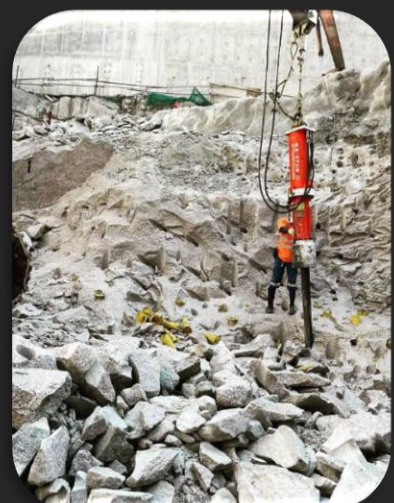


2 SPLITTING

Insert the full wedge set inside the hole that face to the free face and split the rock. Remember to keep liner with the wedge center and do not bend the wedge.

3 BREAKING AND MUCKING

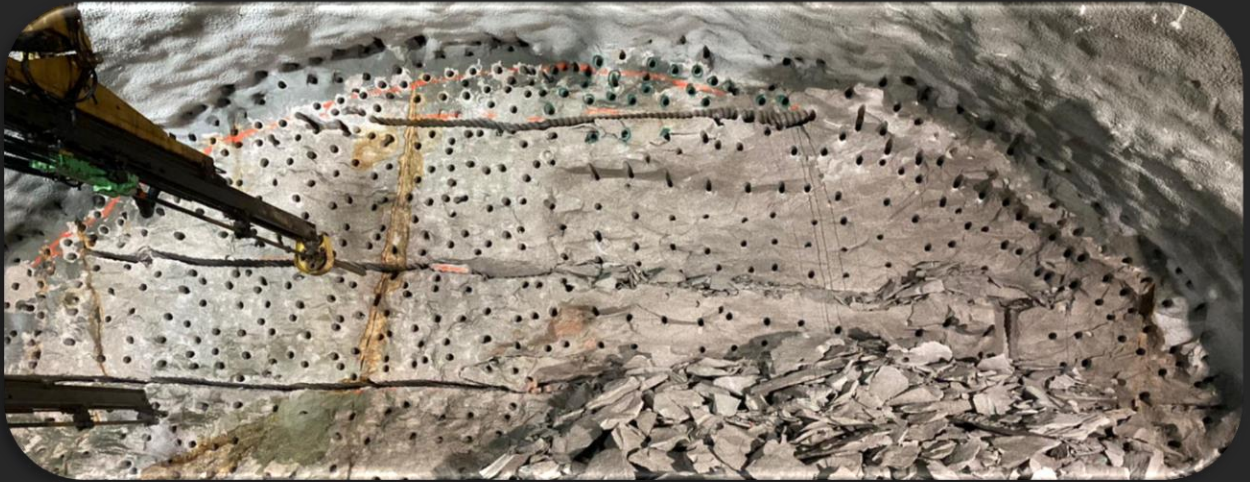
By using our XBL breaker to break the split rock into small pieces after splitting. Remove the split rock by bucket will make more free face available.



HORIZONTAL APPLICATIONS

1 DRILLING

Free face is made from the bottom of the face as shown in the picture. The production holes are drilled between the free faces.



2 SPLITTING

Start splitting the holes close to the free face and start from bottom to the up. First Insert half of the wedge set inside the hole, then 3/4 of the wedge set, and finally all of the wedge into the hole that face to the free face by using rotator. Remember to keep in line with the wedge center and do not bend the wedge. Retract the wedge in one direction along the wedge center.



3 BREAKING AND MUCKING

By using our XBL breaker to break the big split rock into small pieces after splitting and make the free face bigger along the cracks. Then Remove the rock by bucket



KONG BONG PISTON SPLITTER



MODEL	HD80	HD85	HD90	HD95	HD105	HD122	HD180
Cylinder per splitter(nos)	6	6	6	6	6	6	6
Cylinder weight (kg)	28	34	35	37	36	89	200
Cylinder diameter (mm)	80	85	90	95	105	122	180
Piston diameter (mm)	45	50	55	60	70	75	125
Piston max. stroke (mm)	28	28	28	27	26	35	45
Piston per cylinder (nos)	11	10	10	11	7	10	7
Cylinder force (ton)	175	196	238	311	269	442	859
Rock splitter force (ton)	1050	1176	1428	1866	1614	2652	5154
Working oil pressure	1000 Bar						
Oil tank	35L						
Electricity	380V/ 3 phase						
Dimension	800 x 1150 x 900						

The specification will vary due to improvement
Cylinder diameter can be customized.

ABOUT KONG BONG



Since 1980, Kong Bong supply hydraulic motor, hydraulic valve all over China and we first located in Canton road. Even today, we also manufacture and supply drum cutter, piston splitter, rock splitter, hydraulic breaker, crusher bucket, drilling tools and other spare part relative to the drill and split. Our aim is to give high efficiency, low cost, safe and sustainable development.



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