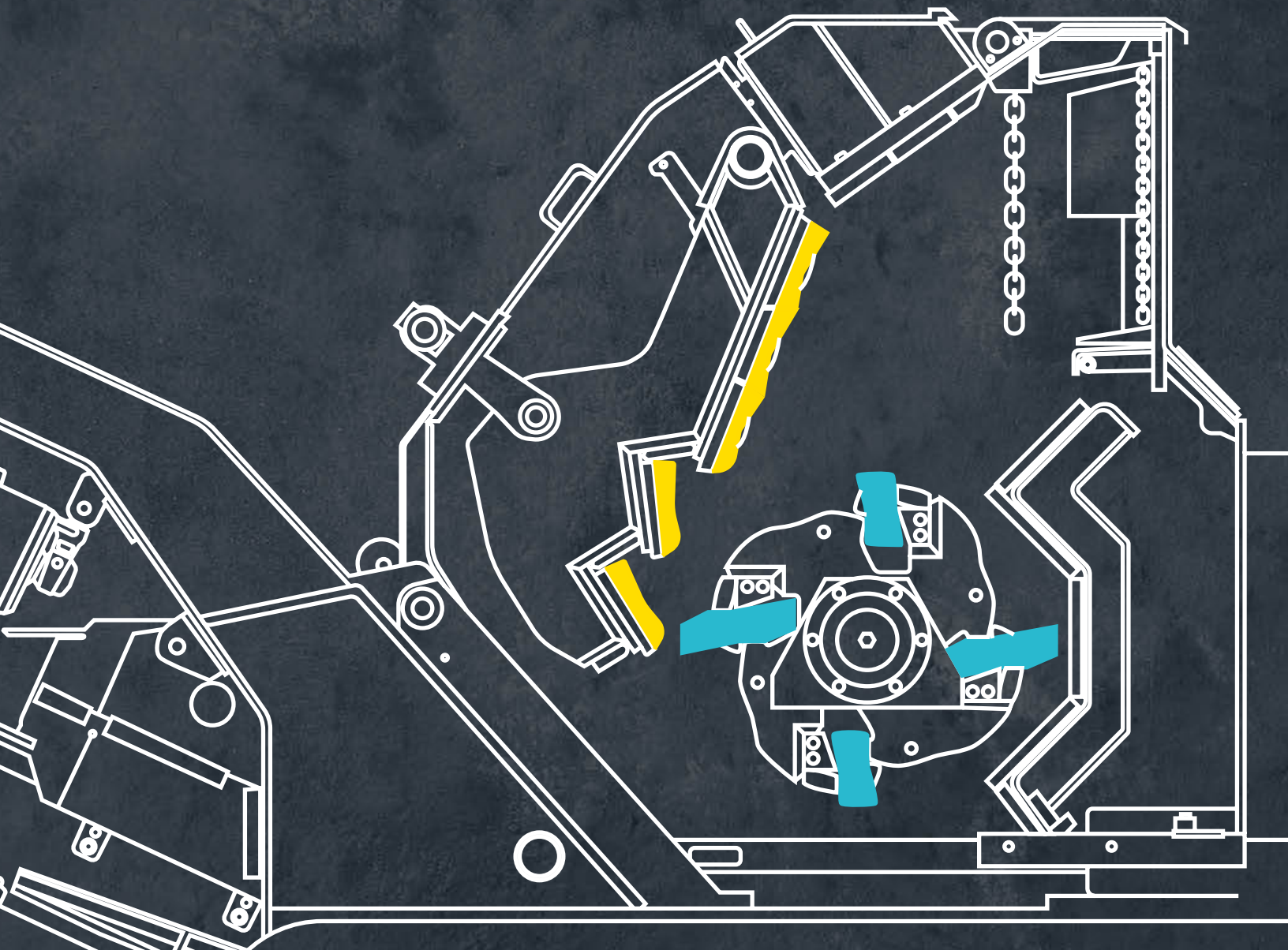
Welcome! to our world

RM GROUP

MAXIMIZE WEAR LIFE
MINIMIZE OPERATING COSTS

HAMMER SELECTION GUIDE FOR IMPACT CRUSHER



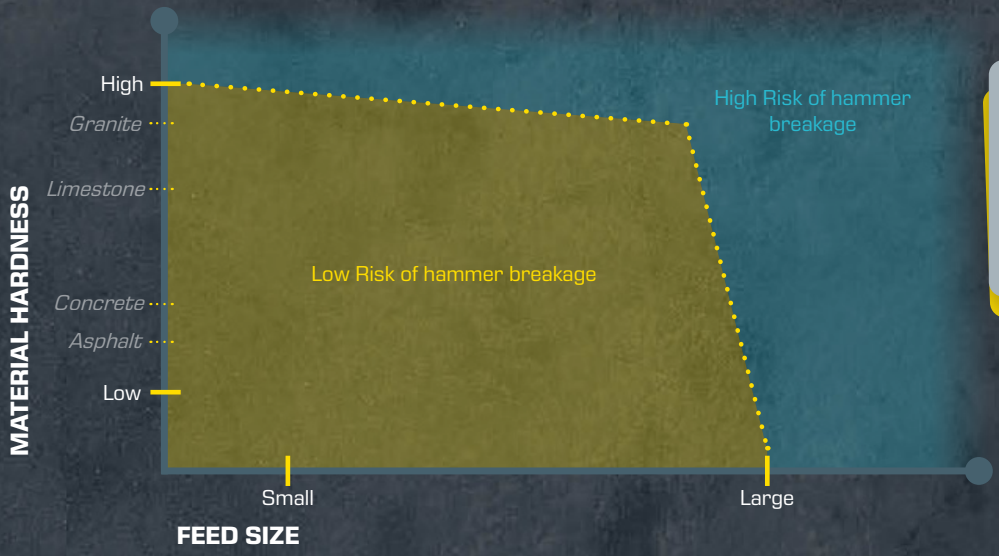
WHAT MATERIAL DO YOU CRUSH?

Every material has unique hardness, abrasiveness, and breaking characteristics.
Harder, more abrasive materials demand closer control of feed size and hammer type.

	ABRASIVENESS How much does it wear?	CRUSHABILITY How easy does it break?
CONCRETE	✅ Low	✅ Easy
ASPHALT	❌ High	✅ Easy
LIMESTONE	✅ Low	✅ Easy
GRANITE	❌ High	🟡 Medium
BASALT	🟡 Medium	🟡 Medium
GRAVEL	🟡 Medium	✅ Easy

WHAT IS YOUR MAXIMUM FEED SIZE?

Feed size is important in selecting blow bars because it defines the required crushing force. The bigger your feed size, the greater the risk of breaking your hammers. Staying below the ideal feed size keeps a steady flow, reduces breakage risk, and wear costs.

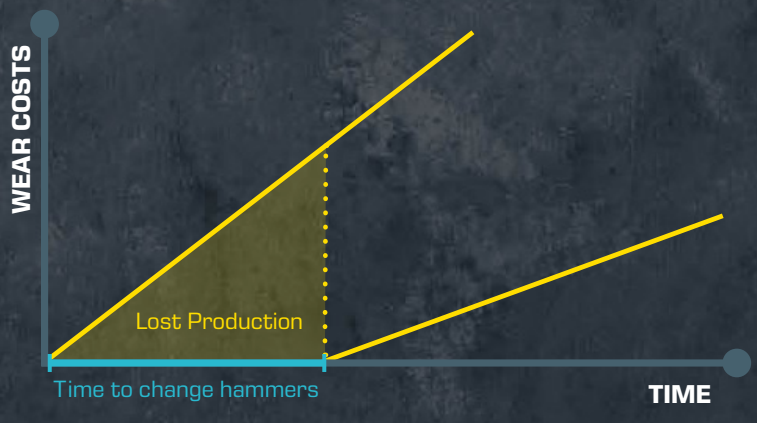


MAX FEED SIZE ≠ IDEAL FEED SIZE

The ideal feed size depends on the material and hammers, and should stay below 80% of the crusher inlet width to ensure steady flow and reduce wear costs.

HAMMER CHANGE VS WEAR COST SAVINGS

Switching hammers can save money, but it takes time and only pays off when handling large volumes of another material.



KNOW WHEN TO CHANGE HAMMERS!

If you are down waiting for parts, you are losing money. Keep an eye on the wear progress by opening up your crusher once a day and keeping spare hammers on the shelf to reduce downtime. Since hammers are weight-matched to keep the rotor balanced, they **must always be replaced in opposing pairs**.

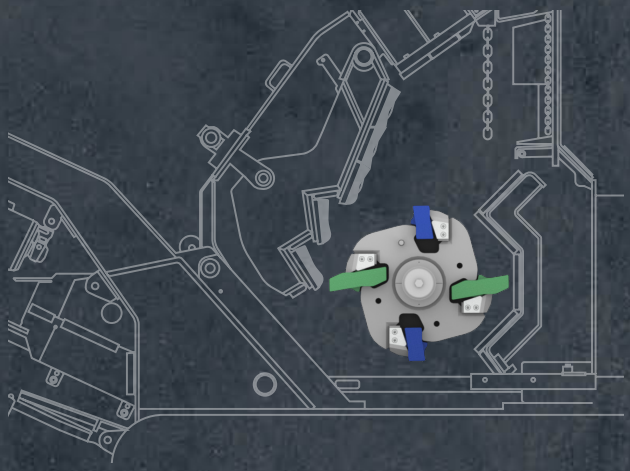
NEW HAMMER

HALF WORN HAMMER
needs to be flipped

FULLY WORN HAMMER
needs to be changed
(or kept as short hammers)

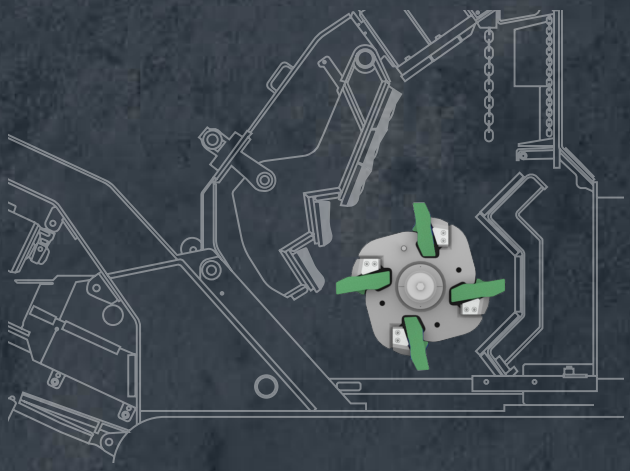
KNOW YOUR ROTOR TYPE!

The hammer configuration affects both reduction ratio and wear. A 4-bar rotor allows for 2 configurations depending on your application.



2 LOW, 2 HIGH

- Better penetration
- Reduced blow bar wear
- Less fines produced
- Suitable for primary crushing applications
- Time between blow bars is doubled improving penetration on material



4 HIGH

- Reduce oversize
- Increased fines produced
- Good for secondary crushing applications where shape and size outweigh throughput
- High reduction on softer feed material

CONCRETE

ABRASIVENESS low | **CRUSHABILITY** easy

PRIMARY CRUSHING

Concrete from demolition and pre-processed by a hammer or concrete pulverizer. Tramp iron is encapsulated in concrete.

HAMMER SELECTION

Martensitic blow bars with ceramic inlays
2 low, 2 high configuration

Martensitic blow bars with ***extra*** ceramic inlays
2 low, 2 high configuration
Only available for RM 120X models.

OPERATIONAL TIPS

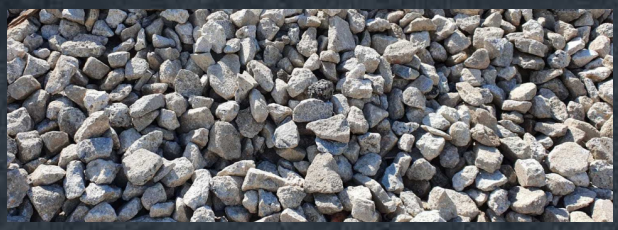
- Prep material with a concrete pulverizer or a hydraulic hammer to size material to 80% of your crusher inlet width.
- Set oversize pieces aside.
- Feed with an excavator so that you can spot issues early and set tramp iron aside.
- Rebar should not be thicker than 12 mm (½").
- Watch your wear progress closer when reaching your wear limit as ceramic inlays get less.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	550 mm | 21"
RM 90X	625 mm | 24"
RM 100X	750 mm | 30"
RM 120X	800 mm | 31"

SECONDARY CRUSHING

Preprocessed concrete by a mobile jaw crusher. Tramp iron is liberated and segregated.



HAMMER SELECTION

Martensitic blow bars with ceramic inlays.
2 low, 2 high configuration.

Martensitic blow bars with ***extra*** ceramic inlays
2 low, 2 high configuration
Only available for RM 120X models.

OPERATIONAL TIPS

- Use a mobile screening plant to remove excessive fines before the crushing process.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	200 mm | < 8"
RM 90X	250 mm | < 10"
RM 100X	350 mm | < 13"
RM 120X	400 mm | < 15"

ASPHALT

ABRASIVENESS high | **CRUSHABILITY** easy

PRIMARY CRUSHING

Chunk asphalt peeled from roads and parking lots.

HAMMER SELECTION

High chrome hammers
2 low, 2 high configuration

OPERATIONAL TIPS

- Feed with an excavator so that you can spot potential tramp iron or milling bits.
- Break oversize pieces with your bucket teeth.
- Use as little water as possible for dust suppression — but as much as necessary.
- Ensure ample difference between your long and short hammers to prevent slabs from riding on top of the hammers, resulting in a loss of production and high wear.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	600 mm | 23“
RM 90X	650 mm | 25“
RM 100X	800 mm | 31“
RM 120X	850 mm | 33“

SECONDARY CRUSHING

Asphalt millings and asphalt material generated by a full-depth reclaimer.

HAMMER SELECTION

High chrome hammers
4 high configuration

OPERATIONAL TIPS

- Use a mobile screening plant to remove excessive fines before the crushing process.
- Use as little water as possible for dust suppression — but as much as necessary.
- In case everything needs to be fractionated use a blinding plate in your pre-screen.

ARE YOU CRUSHING ASPHALT ONLY?

The optional **asphalt sealing kit** minimizes dust build-up and cleaning effort in the underneath the crusher.

MAX FEED SIZE

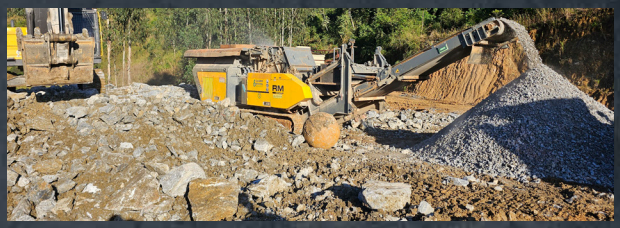
MODEL	DIAGONAL SIZE
RM 70GO! 2.0	200 mm | < 8“
RM 90X	250 mm | < 10“
RM 100X	350 mm | < 13“
RM 120X	400 mm | < 15“

LIMESTONE

ABRASIVENESS low | **CRUSHABILITY** easy

PRIMARY CRUSHING

Blasted limestone.



HAMMER SELECTION

Martensitic blow bars with ceramic inlays
2 low, 2 high configuration

Martensitic blow bars with ***extra*** ceramic inlays
2 low, 2 high configuration
Only available for RM 120X models.

OPERATIONAL TIPS

- Feed with an excavator so that you can set oversize boulders aside and reduce the risk of hammer breakage.
- Keep your crusher pre-screen open to bypass fines and extend the wear life of your hammers.
- If the feed average size exceeds your recommended impact crusher feed size the use of a primary jaw crusher is recommended.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	350 mm | 14“ - 500 mm | 19”
RM 90X	400 mm | 15“ - 550 mm | 21”
RM 100X	400 mm | 15“ - 650 mm | 25”
RM 120X	450 mm | 17“ - 750 mm | 29”

SECONDARY CRUSHING

Preprocessed limestone by a mobile jaw crusher. Rerun of an aggregate stockpile.

HAMMER SELECTION

High chrome hammers
4 high configuration

OPERATIONAL TIPS

- Use a mobile screening plant to remove excessive fines before the crushing process.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	200 mm | < 8“
RM 90X	250 mm | < 10“
RM 100X	350 mm | < 13“
RM 120X	400 mm | < 15“

BASALT

ABRASIVENESS medium | **CRUSHABILITY** medium

PRIMARY CRUSHING

Blasted basalt.

HAMMER SELECTION

Martensitic blow bars with ceramic inlays
2 low, 2 high configuration

Martensitic blow bars with ***extra*** ceramic inlays
2 low, 2 high configuration
Only available for RM 120X models.

OPERATIONAL TIPS

- Feed with an excavator so that you can set oversize boulders aside and reduce the risk of hammer breakage.
- Keep your crusher pre-screen open to bypass fines and extend the wear life of your hammers.
- If the feed average size exceeds your recommended impact crusher feed size the use of a primary jaw crusher is recommended.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	100 mm | 4“ - 300 mm | 11”
RM 90X	150 mm | 6“ - 350 mm | 13”
RM 100X	150 mm | 6“ - 350 mm | 13”
RM 120X	200 mm | 7“ - 400 mm | 15”

SECONDARY CRUSHING

Preprocessed basalt by a mobile jaw crusher. Rerun of an aggregate stockpile.

HAMMER SELECTION

High chrome hammers
4 high configuration

OPERATIONAL TIPS

- Use a mobile screening plant to remove excessive fines before the crushing process.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	200 mm | < 8“
RM 90X	250 mm | < 10“
RM 100X	350 mm | < 13“
RM 120X	400 mm | < 15“

GRANITE

ABRASIVENESS high | **CRUSHABILITY** medium

PRIMARY CRUSHING

Blasted granite rock.

HAMMER SELECTION

Martensitic blow bars with ceramic inlays
2 low, 2 high configuration

Martensitic blow bars with ***extra*** ceramic inlays
2 low, 2 high configuration
Only available for RM 120X models.

OPERATIONAL TIPS

- Feed with an excavator so that you can set oversize boulders aside and reduce the risk of hammer breakage.
- Keep your crusher pre-screen open to bypass fines and extend the wear life of your hammers.
- If the feed average size exceeds your recommended impact crusher feed size the use of a primary jaw crusher is recommended.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	300 mm | 11“ - 400 mm | 14”
RM 90X	350 mm | 13“ - 450 mm | 17”
RM 100X	350 mm | 13“ - 450 mm | 17”
RM 120X	400 mm | 15“ - 500 mm | 19”

SECONDARY CRUSHING

Preprocessed granite by a mobile jaw crusher. Rerun of an aggregate stockpile.

HAMMER SELECTION

High chrome hammers
4 high configuration

OPERATIONAL TIPS

- Use a mobile screening plant to remove excessive fines before the crushing process.

MAX FEED SIZE

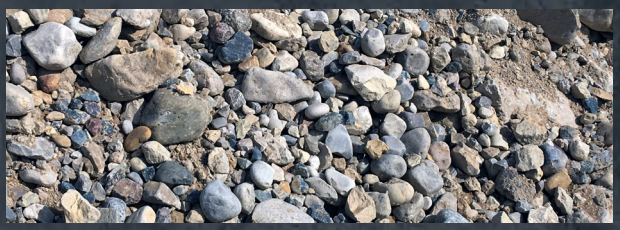
MODEL	DIAGONAL SIZE
RM 70GO! 2.0	200 mm | < 8“
RM 90X	250 mm | < 10“
RM 100X	350 mm | < 13“
RM 120X	400 mm | < 15“

SAND & GRAVEL

ABRASIVENESS medium | **CRUSHABILITY** medium

PRIMARY CRUSHING

Bony gravel with large boulders.



HAMMER SELECTION

Martensitic blow bars with ceramic inlays
2 low, 2 high configuration

Martensitic blow bars with ***extra*** ceramic inlays
2 low, 2 high configuration
Only available for RM 120X models.

OPERATIONAL TIPS

- Feed with an excavator so that you can set oversize boulders aside and reduce the risk of hammer breakage.
- Keep your crusher pre-screen open to bypass fines and extend the wear life of your hammers.
- Optional active pre-screens improve the bypassing and segregating of fines prior to the crushing process.
- If the feed average size exceeds your recommended impact crusher feed size the use of a primary jaw crusher is recommended.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	300 mm | 11“ - 400 mm | 15”
RM 90X	350 mm | 13“ - 450 mm | 17”
RM 100X	350 mm | 13“ - 550 mm | 21”
RM 120X	400 mm | 15“ - 600 mm | 23”

SECONDARY CRUSHING

Screened gravel. Crushed gravel. Sand & gravel or conglomerate with a high percentage of fine material.

HAMMER SELECTION

High chrome hammers
4 high configuration

OPERATIONAL TIPS

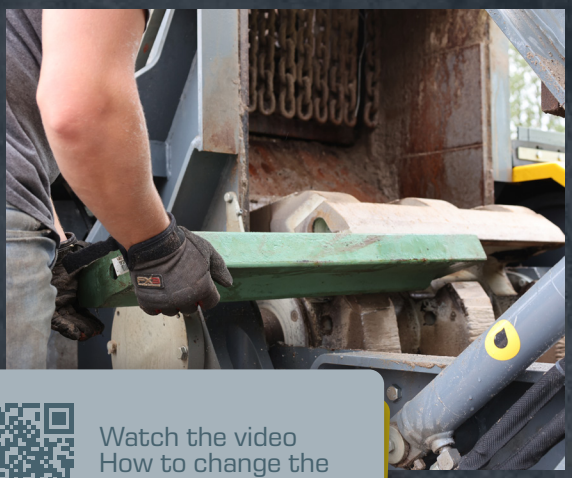
- Use a mobile screening plant to remove excessive fines before the crushing process.

MAX FEED SIZE

MODEL	DIAGONAL SIZE
RM 70GO! 2.0	200 mm | < 8“
RM 90X	250 mm | < 10“
RM 100X	350 mm | < 13“
RM 120X	400 mm | < 15“

MAXIMIZE PROFIT BY KEEPING SPARE BLOW BARS ON THE SHELF

Minimizing downtime is essential to maintaining productivity and maximizing profit. A broken hammer without a spare on hand doesn't just halt your machine—it stops your entire operation. That means idle crew, delayed timelines, and costly interruptions. By keeping critical crusher spares like blow bars on the shelf, you stay in control—no waiting on store hours, no relying on next-day shipping.



Watch the video How to change the blow bars.

NO SPARE HAMMERS = REAL FINANCIAL LOSS

- You produce 150 TPH of 0/20 mm base material valued at €8 per ton
- Just 4 hours of downtime equals 600 tons of lost output - **€4,800 of lost material value**
- Your excavator sits idle at €150 per hour = **€600 lost**
- Your loader is down, your ground man is down, and you're stuck on the phone chasing parts.

MONITOR WEAR TO AVOID SURPRISES

Open the crusher or inspection window regularly to check hammer wear. Once the wear limit is reached, the bars must be either flipped or replaced.

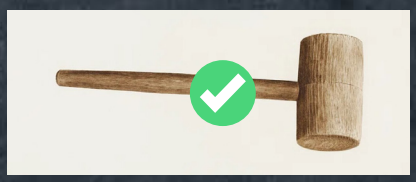
Learn how to adjust the closed-side settings.

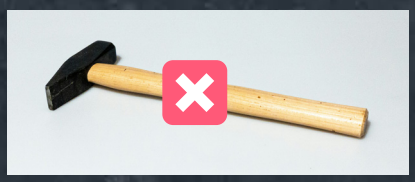
THE RIGHT TOOLS FOR CHANGING BLOW BARS MAKES ALL THE DIFFERENCE

If the hammers are 'cemented in' with fine material, they can be difficult to remove. Whenever possible, remove the material between the hammers and rotor body using a pressure washer or compressed air.

Always **use a wooden hammer** instead of an iron hammer to loosen the blow bars. An iron hammer carries the risk of chipping material, which can cause injuries. RUBBLE MASTER impact crushers offer the option of a hydraulic hammer ejector that quickly and easily pushes out the bars, saving you from endless hammering to get them loose.

Don't forget: after each hammer change, the closed-side setting must be readjusted.





SPOT ISSUES EARLY TO MINIMIZE DOWNTIME AND MAXIMIZE WEAR LIFE

NORMAL EVEN HAMMER WEAR

Hammers should be worn evenly, across the entire rotor width.

ISSUE	CAUSE	SOLUTION	
FAILING TO CHECK WEAR	Failing to change hammers within wear limit results in expensive rotor damage.	Open the crusher box to inspect wear progress daily. Get replacement hammers installed in time.	
EXCESSIVE WEAR ON THE SIDE	Wet and sticky material builds up on the side wear plates and causes wear on the side of the hammers	• Reduce fines in your feed. • Reduce moisture by adjusting the dust suppression system. • Mix wet with dry feed material. • Open and clean crusher box frequently.	
EXCESSIVE WEAR ON ONE SIDE	The crusher is not level from side to side causing the feed material to slide to one side. Crusher may sink in on soft ground.	Make sure the machine is level. If needed build a proper pad to place the machine.	
EXCESSIVE WEAR IN THE MIDDLE	An oversize slabs rides on top of the hammers over a longer period wihtout the operator noticing.	Observe the feed and listen to the crusher noises to identify potential issues. Activate the Release System to resolve blockages.	
BROKEN HAMMER	An uncrushable or hard oversize rock caused a crack or material chipped away.	• Replace the broken hammers. • Watch your feed size. • Sort through your pile and remove uncrushables. • Switch to cast martensitic hammers with cermic inlays.	

THE PART THAT MATTERS

RUBBLE MASTER understands that when your equipment goes down, it doesn't just cost you time, it costs you money. That's why, when you choose RUBBLE MASTER, you get more than great equipment, you get the industry's best service and parts support.

FIND YOUR CLOSEST RUBBLE MASTER DEALER

The information provided is based on experience and represents approximate values.
Consult your local material processing specialist!

#KEEPCRUSHING

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