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# Robi®

## Multiprocessors

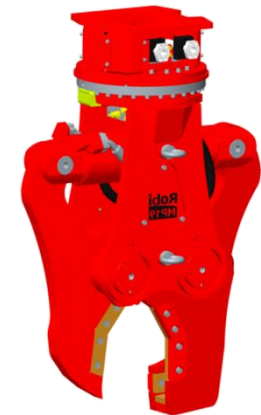
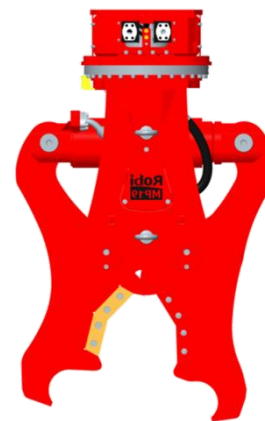
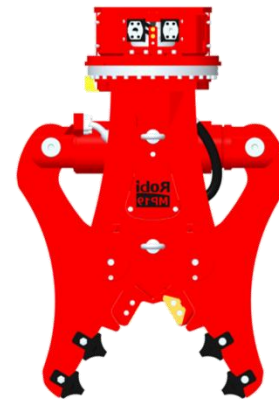
MP - range

**Approved**  
HYDRAULICS



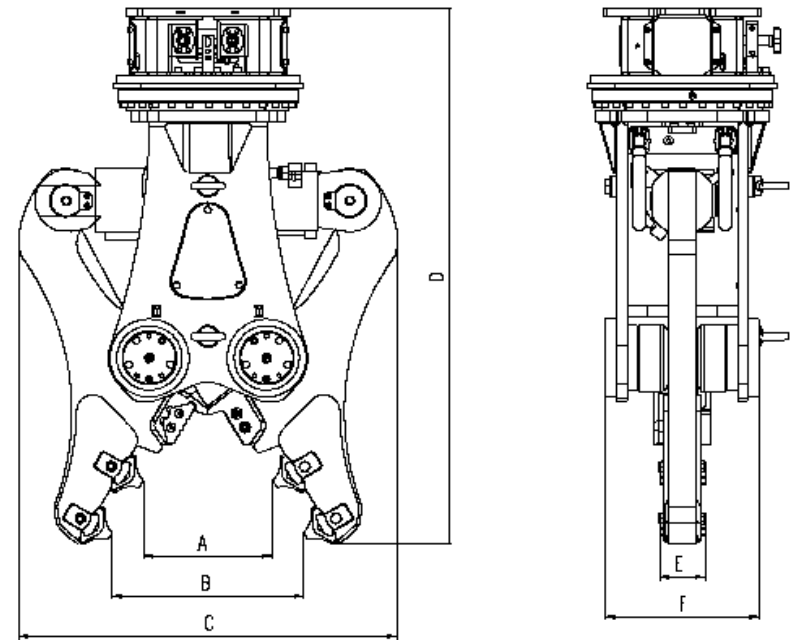
Robi multiprocessors has been designed to perform all kind of tasks of demolition. It has options for each application. By combining different jaws and tools, only one unit is needed.

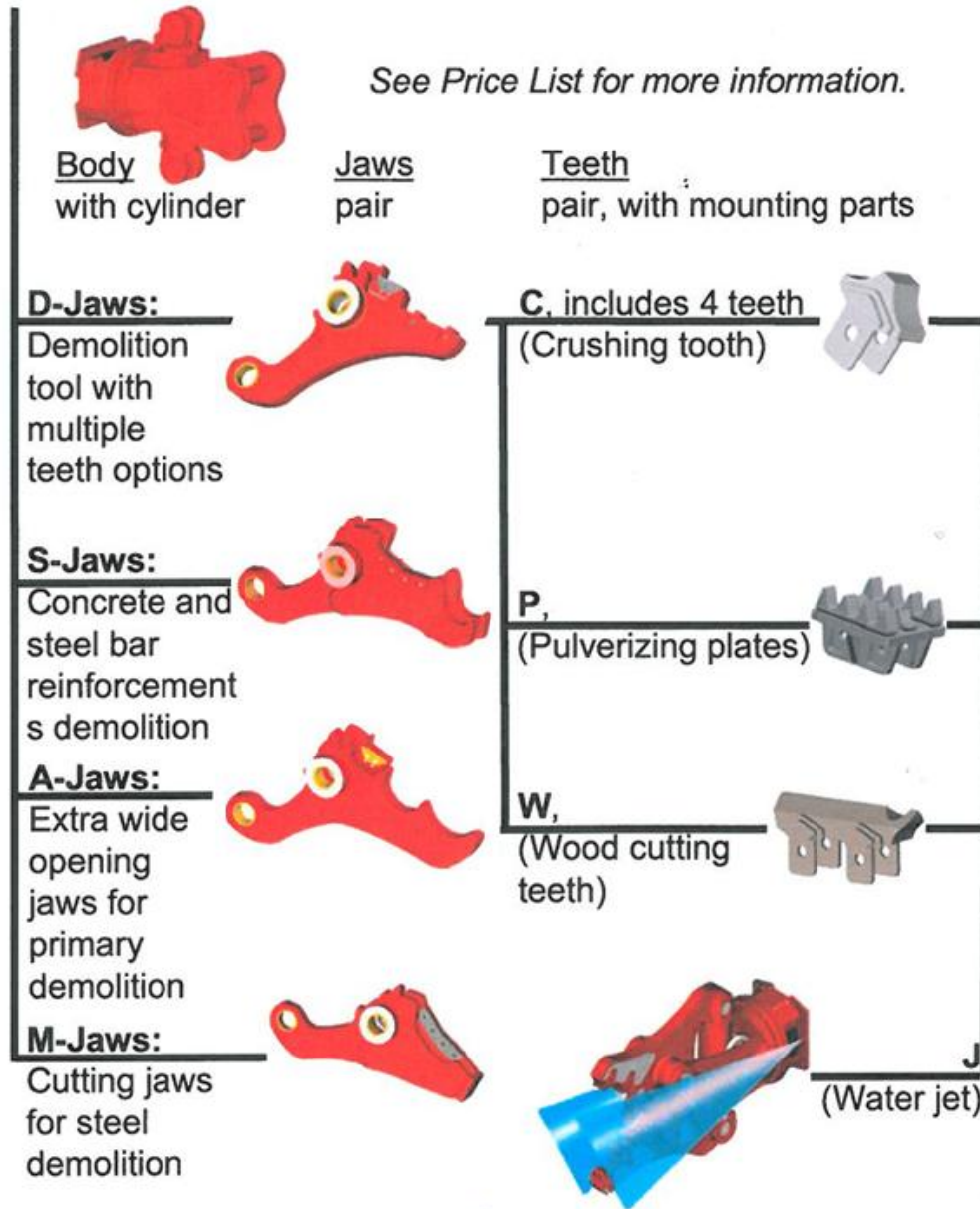
	MP 7	MP 15	MP 19	MP 32
<b>DEMOLITION</b>				
Concrete walls				
■ inside building	x	x		
■ outside building		x	x	x
Beam cutting				x
Sewage systems	x	x		
Side walks	x	x		
Long boom applications		x	x	x
<b>OTHER</b>				
Underwater applications				
Tree cutting		x	x	x
Pulverizing		x	x	x
Railway sleepers		x	x	x



# Technical Specifications

Item	MP7	MP15	MP19	MP25	MP32
Weight, A-JAW	592	1580	2350	2830	3400
Weight, D-JAW		1600	2350	2790	3300
Weight, S-JAW		1680	2250	2650	3350
Weight, M-JAW			2250		
Jaw opening, D-JAW ,A		403	474		
Jaw opening, A-JAW , B	494	800	1000	1100	1182
Jaw opening, D-JAW , B		566	702	829	912
Jaw opening, S-JAW , B		543	853	892	928
Jaw opening, M-JAW , B			373		
Total width, C	864	1182	1391	1471	1511
Total height, D	1494	1832	1996	2151	2326
Jaws width, E	50	120	140	160	160
Thickness, F	340	494	564	565	600
Max. cutting force	1430 kN	2060 kN	2800 kN	3300 kN	3420 kN
Crushing force, front, A-JAW	290 kN	500 kN	640 kN	701 kN	700 kN
Crushing force, front, D-JAW		640 kN	880 kN	1050 kN	1500 kN
Crushing force, front, S-JAW		509 kN	750 kN	846 kN	828 kN
Crushing force, front, M-JAW			700...850 kN		
Crushing force, back, A-JAW	494 kN	799 kN	1020 kN	1135 kN	1084 kN
Crushing force, back, D-JAW		900 kN	1350 kN	1420 kN	1500 kN
Crushing force, back, S-JAW			980 kN	1600 kN	
Crushing force, middle, M-JAW			1200...1700 kN		
Max operating pressure	250-320 bar	320 bar	350 bar	350 bar	320 bar
Oil flow (recom.)	150 l/min	230 l/min	230 l/min	230 l/min	280 l/min
Hose connections	JIC 1 1/16	JIC 1 5/16	JIC 1 5/8	JIC 1 5/8	JIC 1 5/8
Max. operating pressure, rotation	100 bar	100 bar	100 bar	100 bar	100 bar
Max oil flow, rotation	30 l/min	30 l/min	30 l/min	30 l/min	30 l/min
Connections, rotation	JIC 06 (9/16-18)	JIC 06 (9/16-18)	JIC 06 (9/16-18)	JIC 06 (9/16-18)	JIC 06 (9/16-18)
Cutting blade length, A-JAW, D-JAW	130	130	130	180	220
Cutting blade length, S-JAW		300	400	450	500
Cutting blade length, M-JAW			425		
Pulverizing blade length		310	435	485	485
Pulverizing blade width		280	420	360	360
Wood cutting blade length		375	480	550	550
Carrier weight (a)	6...10 t	10...18 t	16...25 t	22...35 t	28...35 t

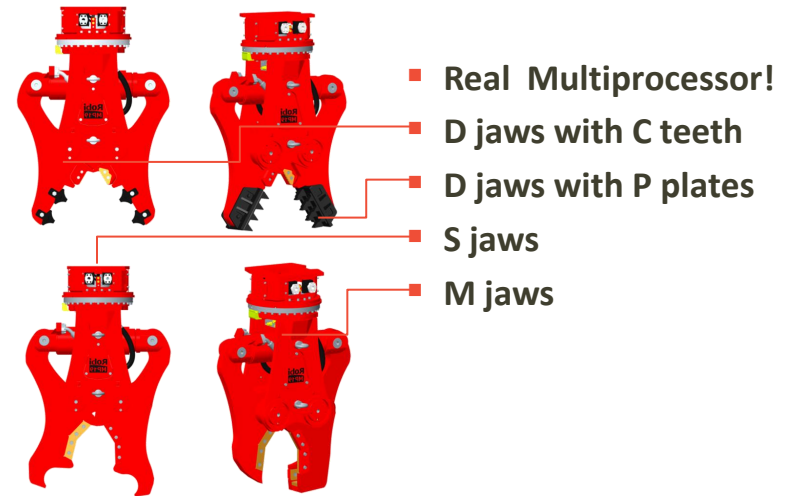




- **Lots of options**
  - Only one unit is needed
  
- **High speed valve**
  - »Better productivity
  
- **Light weight**
  - »Good power / weight ratio
  
- **High force**
  - »Productivity
  
- **Changeable wear parts**
  - »Productivity
  - »Savings

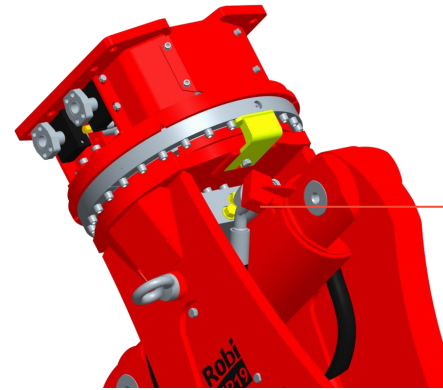
### ► Only one unit is needed

- »A customer satisfaction is achieved by offering multiple options for MP.
- »Customer can choose between different jaw options: D for demolition, S for steel demolition and M for metal cutting
- »D jaws offers also possibilities for tools. Customer can change C teeth for crushing, P pulverizing plates for recycling and pulverizing or W teeth for wood cutting

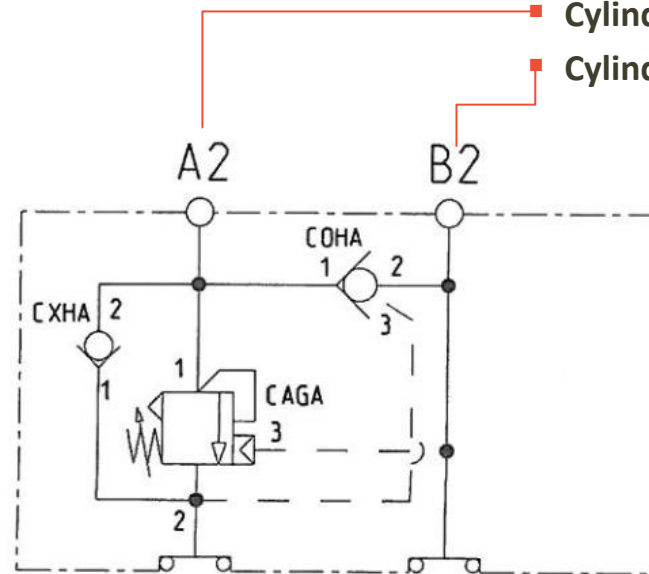


### ► Better productivity with high speed

- »High speed is automatically combined with the full cutting and crushing force by high speed valve. Both machine's speed and force are crucial for high productivity: the faster the jaws are opened after crushing the faster it is to move to the next object. Relatively, high closing speed does not count without a destructive breaking power.
- »Oil flow is guided from cylinder rod side to piston side with a high speed valve. Power movement will be switched on automatically when full force is needed. It increases speed of closing of jaws by 50%.
- »Available in MP15, MP19, MP25 and MP32



- High speed valve
- Cylinder rod side
- Cylinder piston side



### ▶ Good power / weight ratio

»Light weight, optimised design and hydraulic rotation make MP an excellent choice for long boom applications. Manouvereability in high places, where the operator can not see the target very clearly, is extremely important for high productivity.

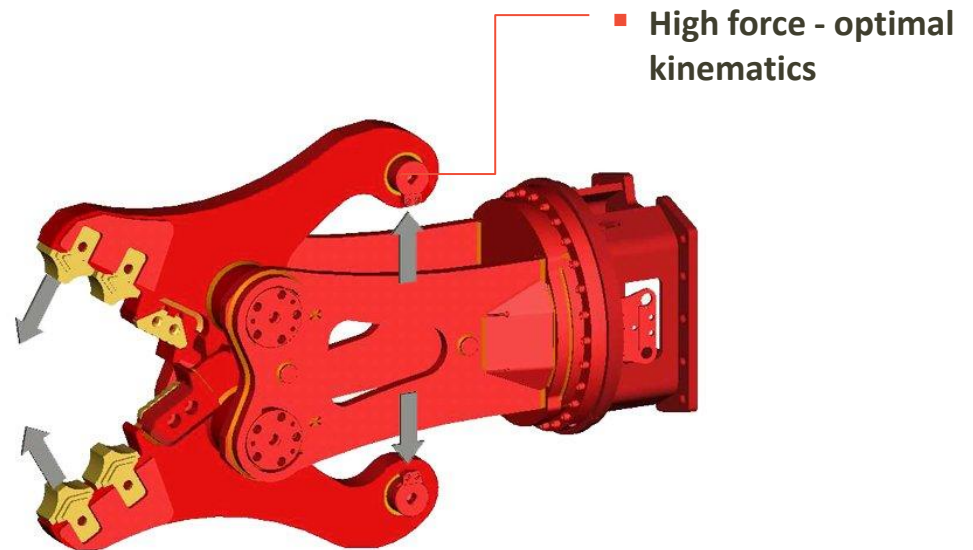


- Light weight
- Suitable for long reach



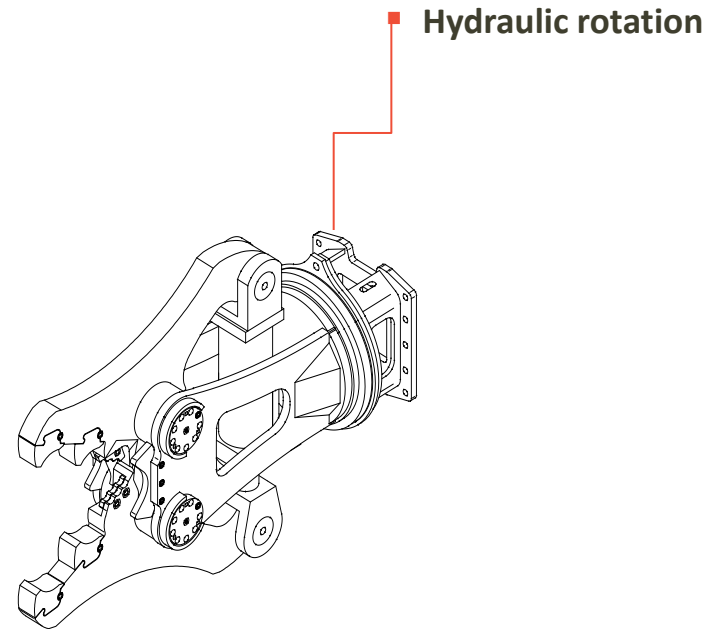
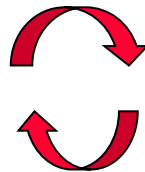
### ▶ High productivity

»Very high cutting and crushing force are achieved by optimal kinematics.



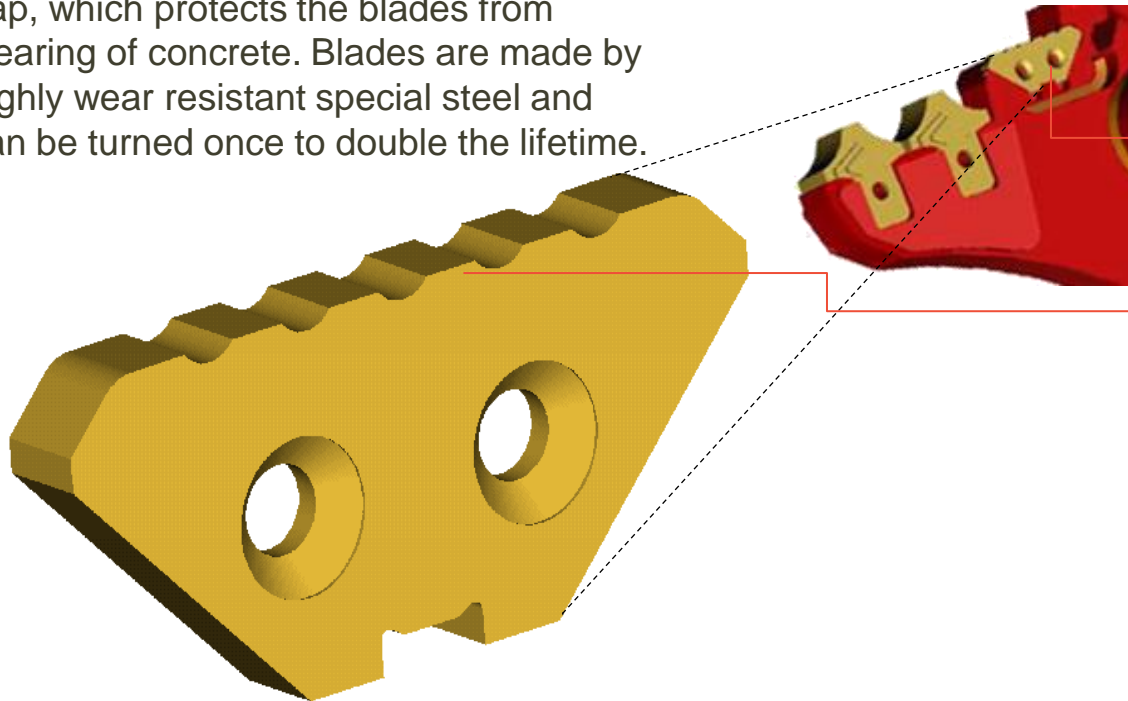
### ► More versatility in narrow spaces

- »Hydraulically controlled rotation provides enhanced initial positioning of crusher to target (hydraulic rotation is by-passed, when crusher is in contact with target).
- »It is also easy and effective to sort material (e.g. rebar) in narrow spaces. The crusher is automatically positioned in proper angle to the material to be broken, which eliminates bending stress to crusher and excavator boom. Hydraulic rotation is essential for high reach boom carriers!



### ► Less down time

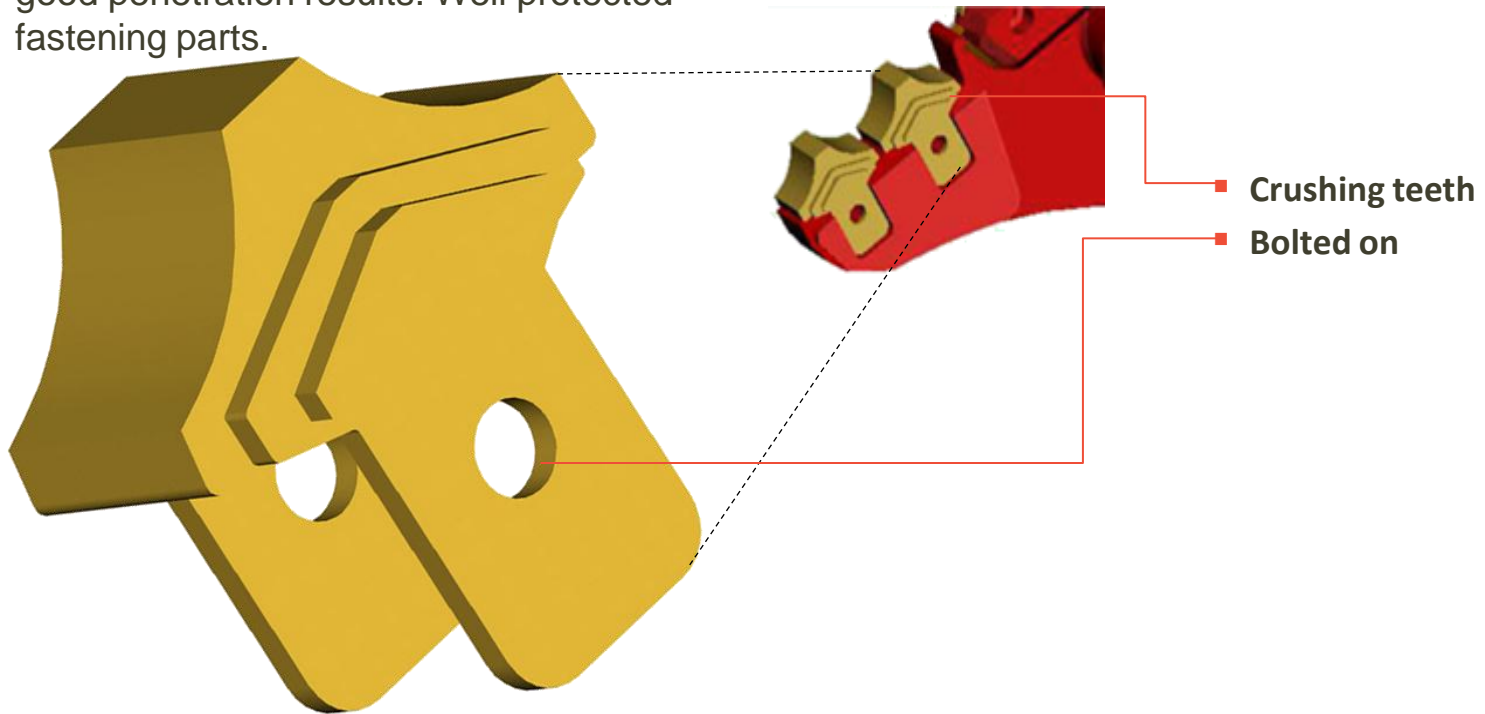
»Cutting area is separated from crushing area by bringing the blades deep to the gap, which protects the blades from wearing of concrete. Blades are made by highly wear resistant special steel and can be turned once to double the lifetime.



- Easily replaceable cutting blades
- Shape prevents slipping of material

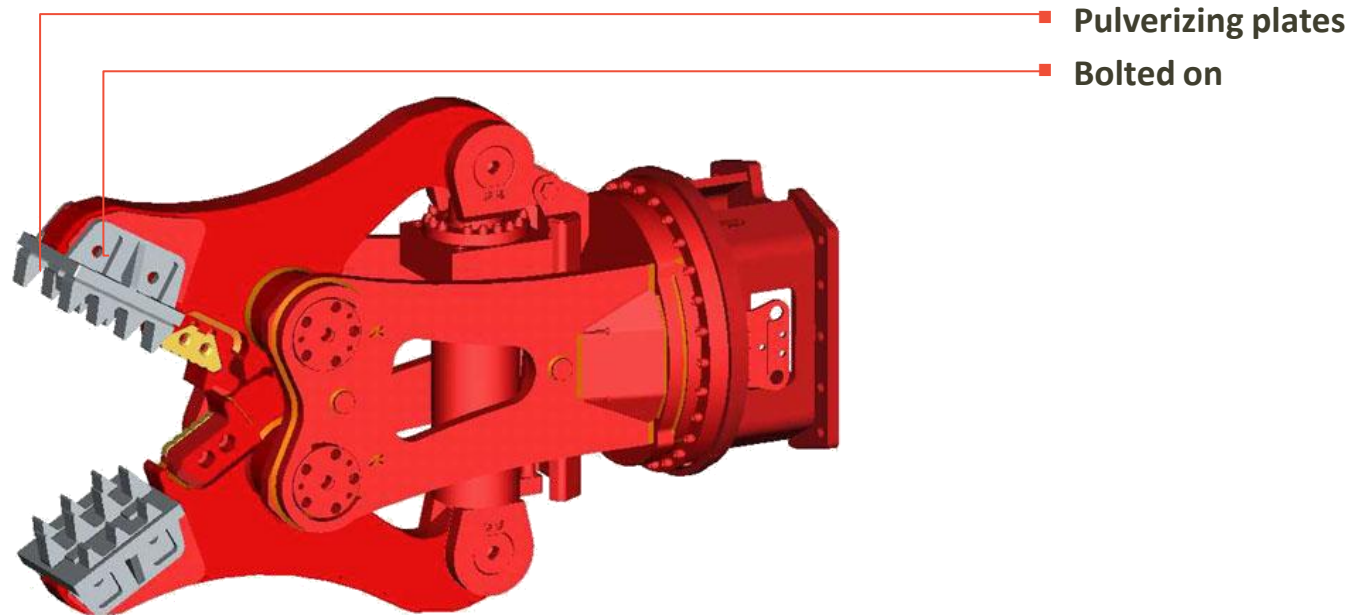
### ► **Crushing teeth are easily changeable**

»Made by wear resistant special steel. Rapid to change even at site. Firm construction for good penetration results. Well protected fastening parts.



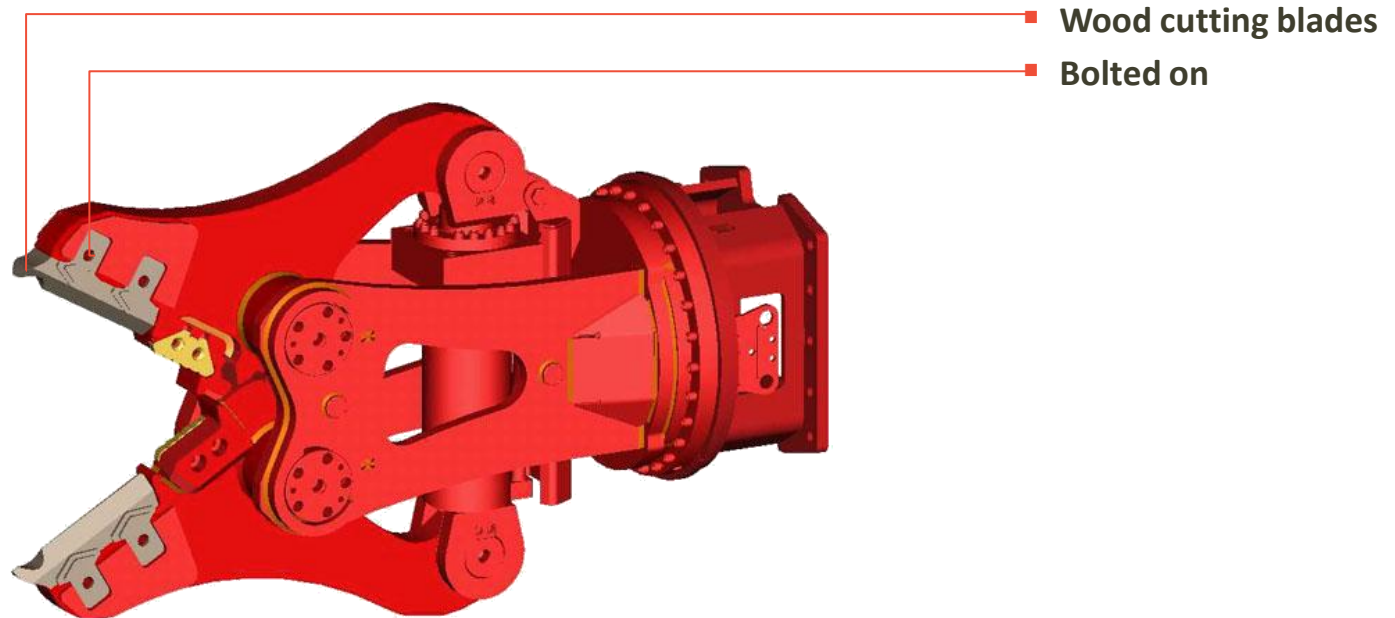
### ► Pulverising plates are easily changeable

»Fast, powerful and versatile. Ideal for secondary pulverising, also suitable for primary crushing. Plates easy to change in just a few minutes even at site. Result is very clean rebars.



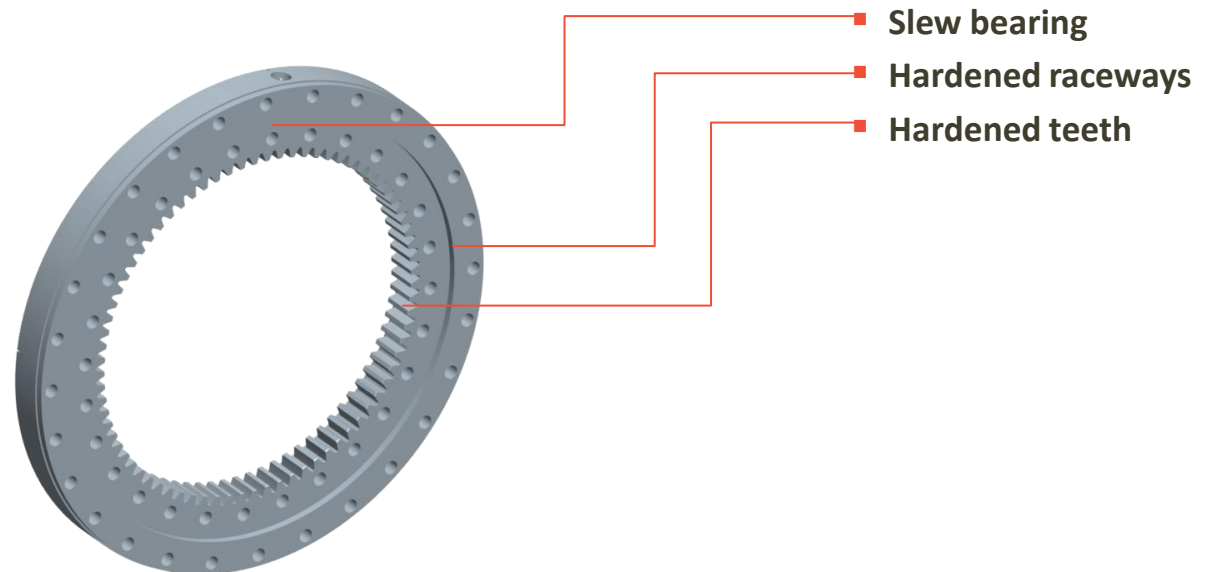
### ▶ Wood cutting blades easily changeable

»Fast, powerful and versatile. Suitable for wood cutting, tree stubs, railway sleepers etc. Teeth are made by wear resistant material and they are easy to change in just a few minutes even at site.



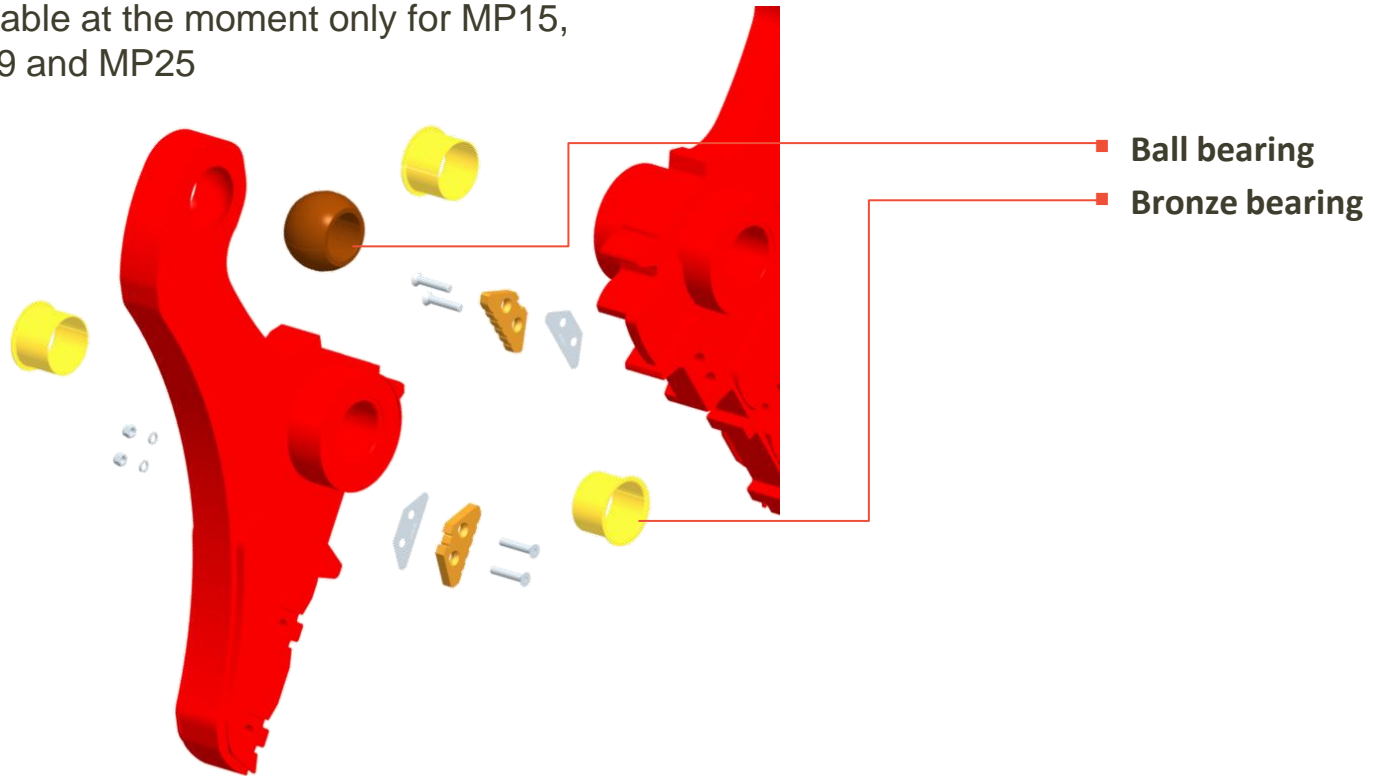
### ► Savings and reliability

- » Accurate rotation is achieved by slew bearing which is made from strong and durable material
- » Tolerances are the tightest possible.



### ► Better wear life with changeable parts

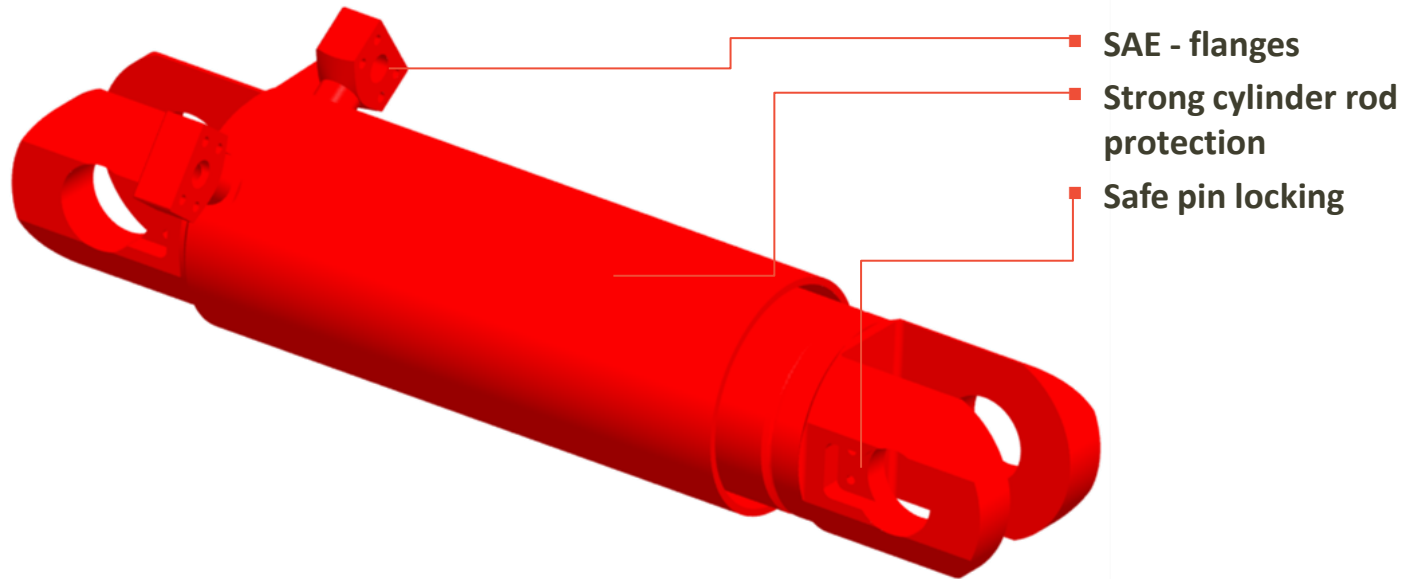
- »Ball bearing has been developed to prevent damages caused by bending forces of jaws. It is made by Krutex200. It is assembled to cylinder's rod side by making ball shape directly to jaw.
- »Available at the moment only for MP15, MP19 and MP25





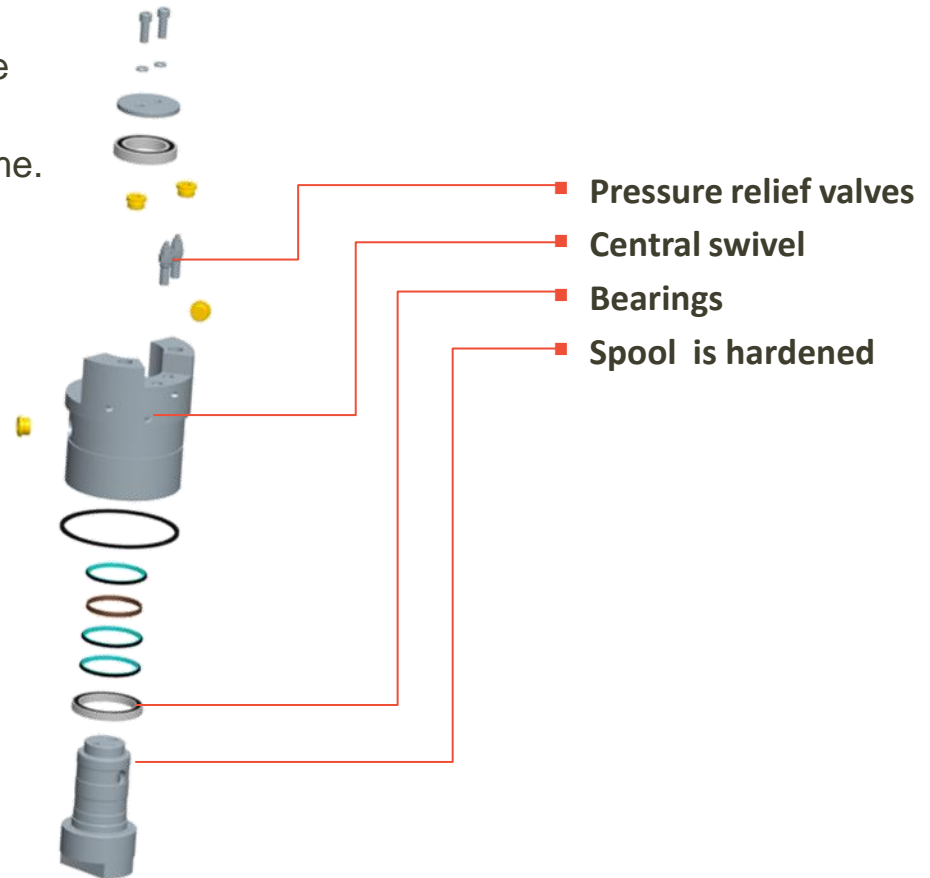
### ► Better life time of the cylinder

»Cylinder of MP19 has been improved. There is stronger and better cylinder protection. It is completely round and oil is led through cylinder rod to piston side. SAE – flanges for accurate and leak free mounting of hoses.



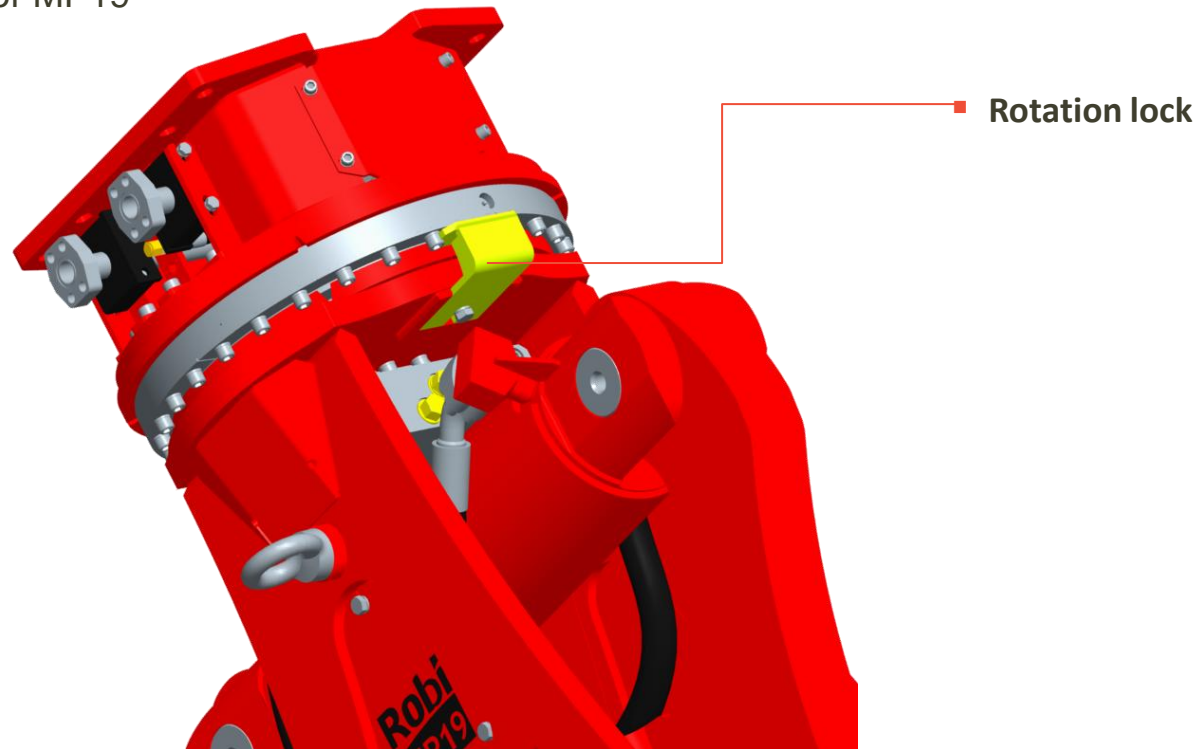
### ► Reliability

- »Central swivel has ball bearings to give longer life time. Pressure relief valves are added to protect the cylinder. They are located in both piston and rod side of the cylinder.
- »Heat treatment of spool for longer life time.
- »Available for MP19, MP25 and MP32



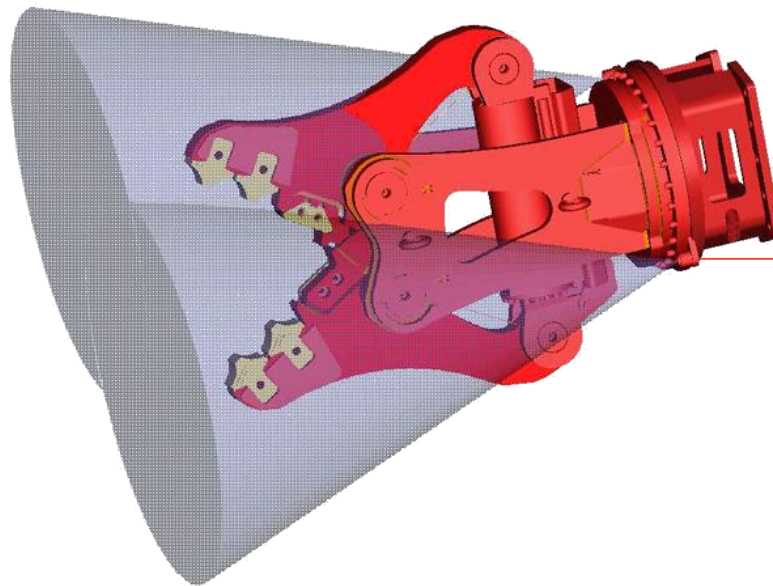
### ► Safety

- » Locking system of rotation has been added.  
During maintenance rotation locking is useful.
- » Available only for MP19



#### ► Protects the work area and the operator

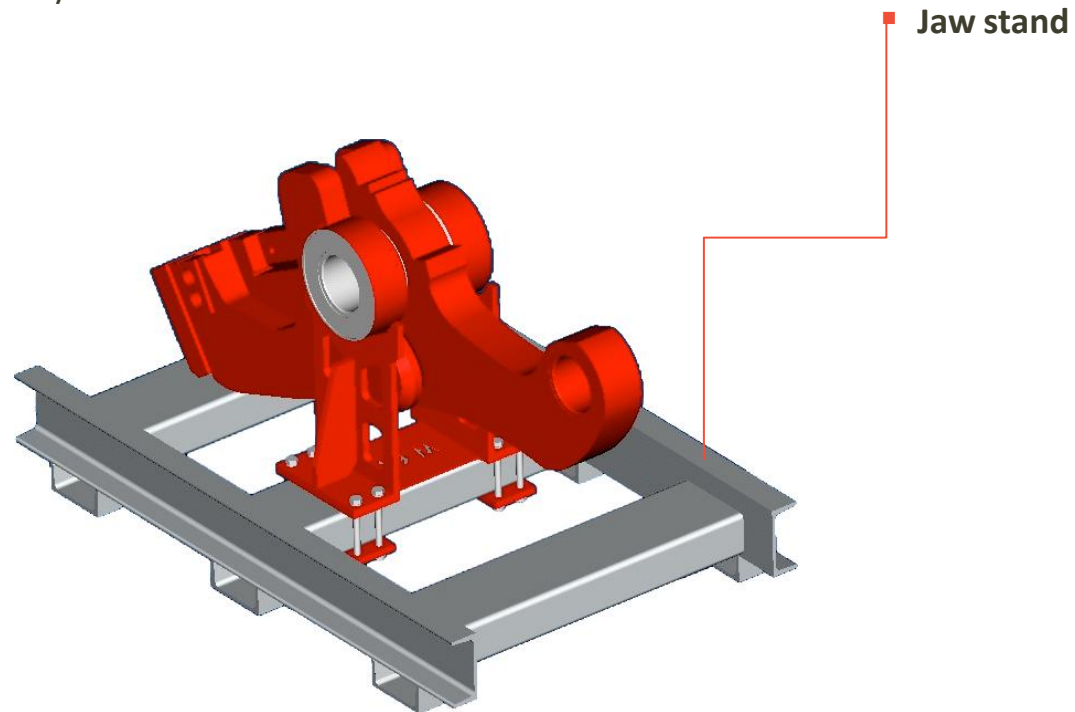
- »Protects the operator and surrounding area from dust. The operator can also see the target better, which increases the crusher productivity.
- »Normal water pressure is enough to run WATER JET, but for very fine water spray a separate pump is needed. The finer the spray, the better the dust compression is. The best mist is achieved when nozzles are fastened to mounting bracket.



■ Water jet (option)

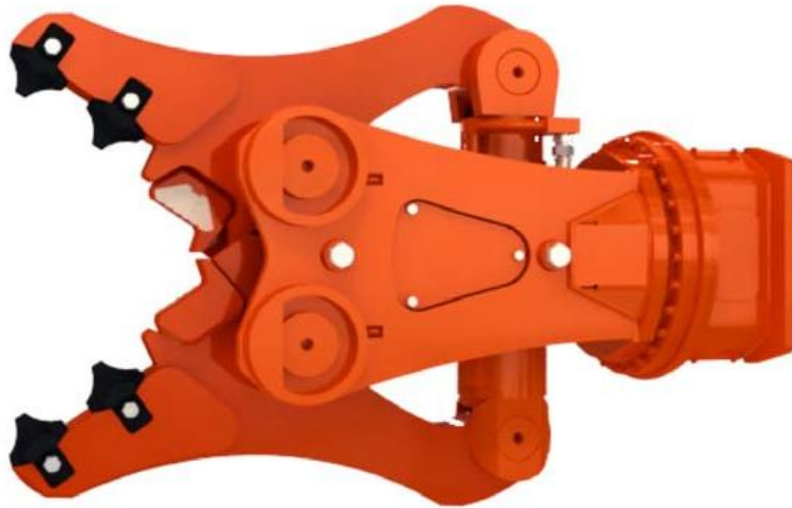
### ► Savings

In order to exchange the jaws on a MP Range, it is important to use a proper jaw exchange stand. The exchange can be done by using an excavator. The frame (grey part in the picture below) can be ordered from the factory or drawings can be provided to make the frame by distributor.



## Applications

Robi MP is an ideal cutter crusher. It has excellent power / weight ratio which makes it well suitable for long reach boom applications.





## Applications

As a rotating pulverizer, Robi MP is successful due to power and speed. It can be classified as a primary pulverizer because it has a rotation as standard.

Changing between crusher teeth and pulverizer pad at work site is quick with proper tools.



## Applications

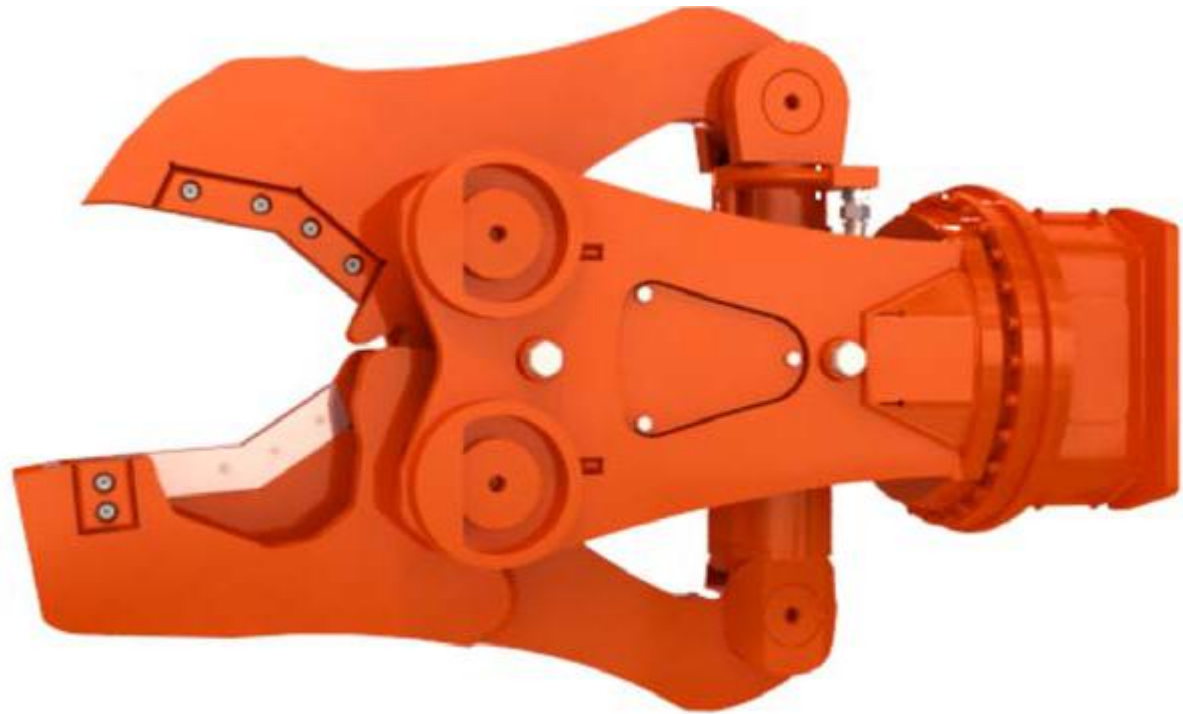
Light metal cutting is a typical application for MP. MP equipped with S – jaws is designed for demolishing of structures with concrete and steel.

Bigger opening in wider jaw - more space for handled material. Material can fall down, cutting instead of crushing

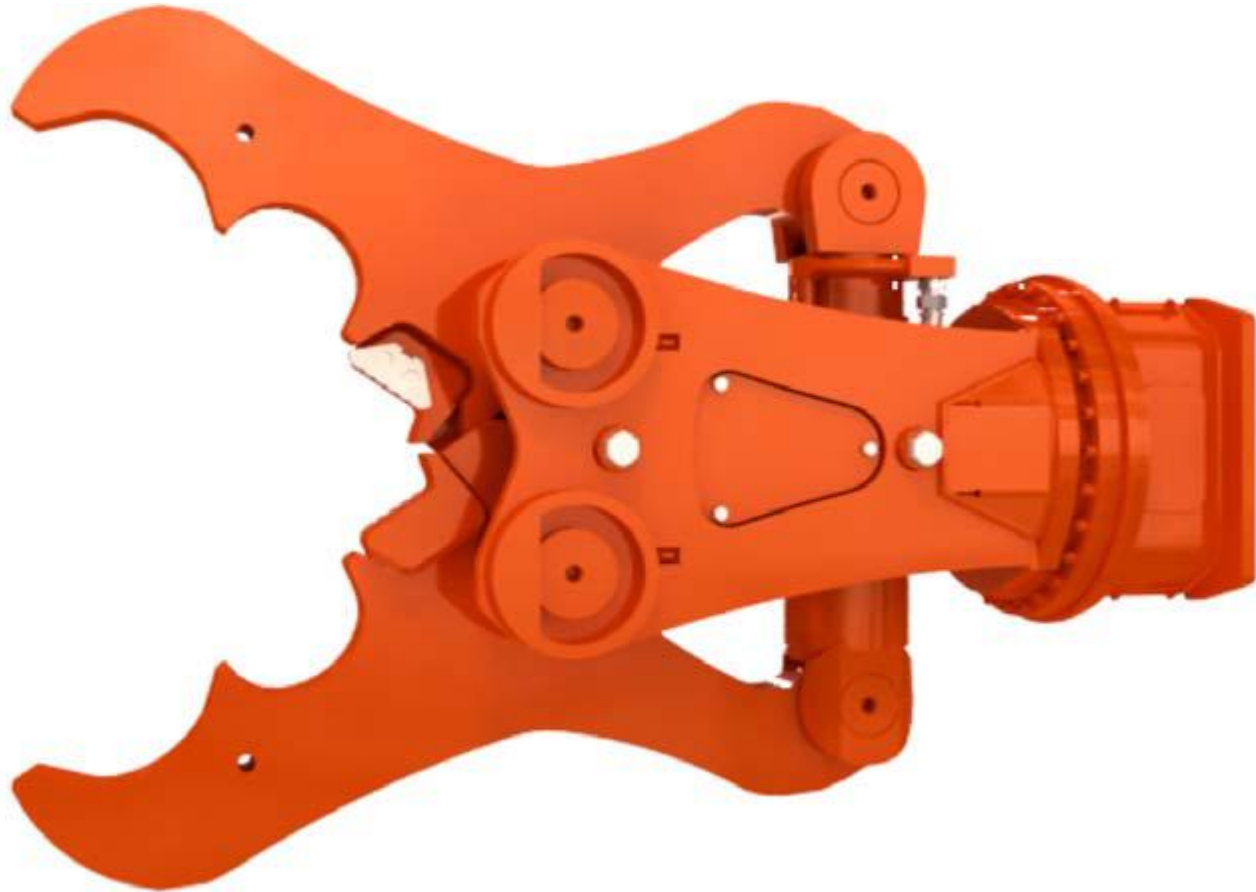




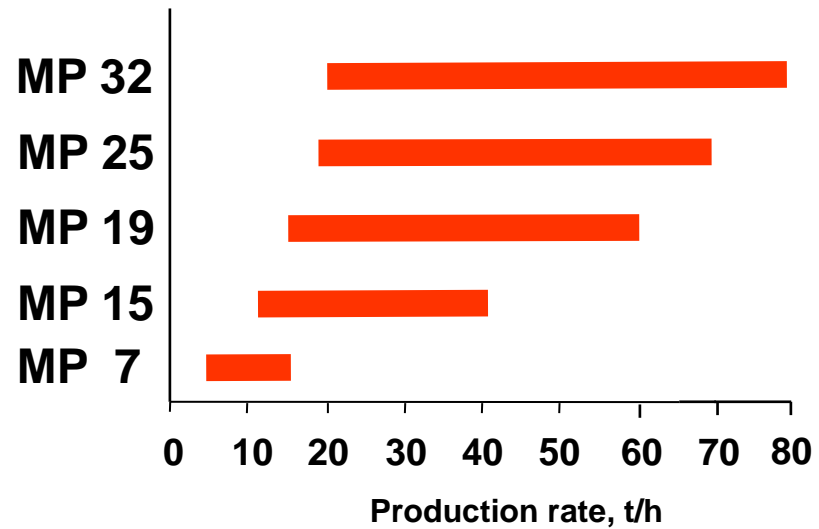
MP with M – jaws offers an attachment for metal cutting.



MP with A – jaws is an attachment for primary crushing where large opening is needed.

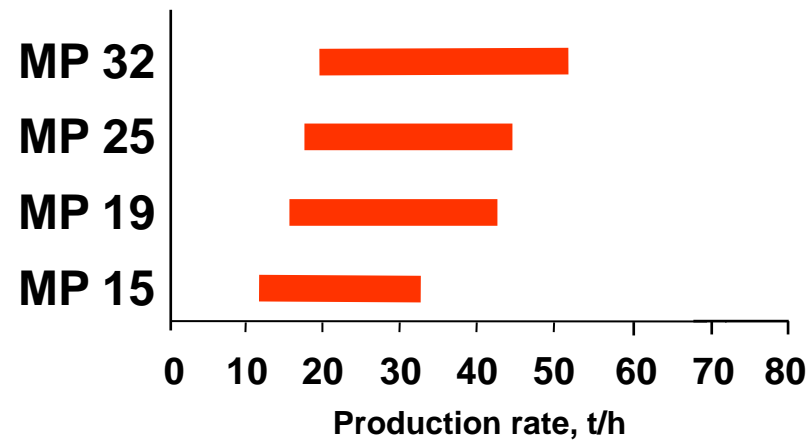


## Concrete primary demolition



The production rate figures are for comparison and evaluation purposes only. Results will vary depending on reinforcement of concrete, operator, carrier and job conditions.

## Concrete secondary pulverizing



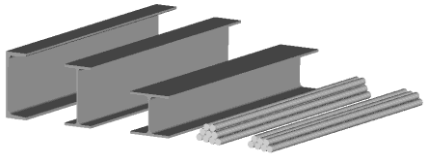
The production rate figures are for comparison and evaluation purposes only. Results will vary depending on reinforcement of concrete, operator, carrier and job conditions.

## Cutting and crushing force of D-jaws



## Cutting force of S - iaws

## Productivity



<i>European Beam</i>		Strength (1)	MP15 S	MP19 S	MP25 S	MP32 S
U	(2	S235	U 220	U 240	U 280	U 280
IPE		S355	IPE 200	IPE 220	IPE 240	IPE 270
HEA		S355	HEA 160	HEA 160	HEA 200	HEA 200
Ø25 x pcs		S235	8 pcs	9 pcs	11 pcs	12 pcs
Ø25 x pcs		S355	6 pcs	7 pcs	9 pcs	10 pcs

1) Strength grade according to EN 10025

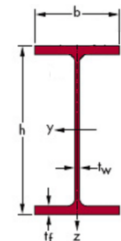
2) Size number denotes height in millimeters.

### Corresponding

<i>American Beam</i>		Strength (3)	MP15 S	MP19 S	MP25 S	MP32 S
Channel	(4	Grade 36	C 9 x 20	C 10 x 20	C 12 x 25	C 12 x 25
Wide Flange Beam	(4	Grade 50	W 8 x 4 x 15	W 8 x 5.25 x 18	W 10 x 4 x 19	W 10 x 5.75 x 22
Wide Flange Beam		Grade 50	W 6 x 6 x 20	W 6 x 6 x 20	W 8 x 6.5 x 28	W 8 x 6.5 x 28
Ø 1 inch x pcs		Grade 36	8 pcs	9 pcs	11 pcs	12 pcs
Ø 1 inch x pcs		Grade 50	6 pcs	7 pcs	9 pcs	10 pcs

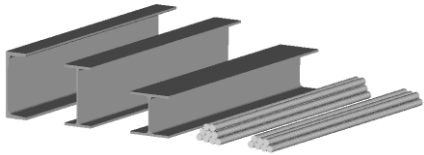
3) Strength grade according to ASTM A709-07

4) h x b x lbs/ft



## Cutting force of M - iaws

## Productivity



### Cutting capability

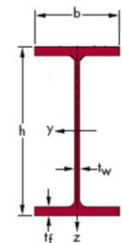
		MP 15 M	MP19 M	MP25 M	MP32 M
		N.A.	M-jaw	N.A.	N.A.
<b>European Beam</b>	<b>Strength (1)</b>				
U	(2) S235	-	U 280	-	-
IPE	S355	-	IPE 270	-	-
HEA	S355	-	HEA 220	-	-
Ø25 x pcs	S235	-	9 pcs	-	-
Ø25 x pcs	S355	-	8 pcs	-	-

- 1) Strength grade according to EN 10025
- 2) Size number denotes height in millimeters.

### Corresponding

American Beam	Strength (3)				
Channel	(4) Grade 36	-	C 12 x 25	-	-
Wide Flange Beam	(4) Grade 50	-	W 10 x 5.75 x 22	-	-
Wide Flange Beam	Grade 50	-	W 10 x 8 x 33	-	-
Ø 1 inch x pcs	Grade 36	-	9 pcs	-	-
Ø 1 inch x pcs	Grade 50	-	8 pcs	-	-

- 3) Strength grade according to ASTM A709-07
- 4) h x b x lbs/ft



# Productivity

Cycle time of MP

