MOBILE CONE CRUSHERS

MOBICONE EVO
A LONG TRADITION OF EXPERTISE.

For the past 100 years, KLEEMANN GmbH has been developing and manufacturing machines and plants for the natural stone and recycling industry.

High levels of performance and innovative details, simple handling and maximum safety for the operator – this is what KLEEMANN crushing and screening plants stand for.
With more than 200 subsidiaries and dealers worldwide
MOBICONE EVO
The powerful compact class.

For heavy-duty work.

The machines in the MOBICONE EVO-LINE are powerful and versatile in application: in medium-hard to hard and abrasive natural stone, they guarantee a very high final product quality at high feed capacities.

They are also relatively light, easy to transport and have a drive concept that meets the requirements of changing application conditions. They are specially designed for the second and third crushing stage and their operation is particularly cost-effective.
First-class product quality.

**Does an outstanding job**

Precise and efficient – for high-quality final products.
Agile and compact – during transport and operation.

The machines in the MOBICONE EVO-LINE are designed for operation in natural stone.

They demonstrate their strengths above all as team players in combination with KLEEMANN jaw crushers and screening plants. In a multi-stage process, they stand out with first-class product quality especially in hard and medium-hard natural stone where impact crushers would most probably reach their limits due to excessive wear.

They are also used as stand-alone machines for loading with wheel loaders, for example, in gravel.
MCO 9 S EVO in gravel
Loading a MCO 9 EVO
MCO 9 S EVO on the way to its next application
MCO 9 EVO and MC 110 Z in natural stone
Linking of MC 110 Z / MCO 9 / MS 953 EVO
MCO 9 S in use in tough conditions
HIGHLIGHTS

Perfectly equipped.
Well thought-out feeding unit
Continuous crusher feed through CFS (Continuous Feed System)
Cone crusher with large stroke
Efficient and powerful diesel direct-drive
Simple control with menu-guided touch panel
Wide and robust crusher discharge conveyor
Simple transport
Powerful secondary screening unit (MCO 9 S)
Good linkage option
High output and availability
Accessibility and safety
A WELL THOUGHT-OUT FEEDING UNIT

For short set-up times and optimum loading.

MCO 9(i) EVO
MCO 9 S(i) EVO

up to 298 US t/h
up to 270 US t/h

Approx. feed capacity
Hopper volume
Hopper volume with hopper extension

approx. 8.4 yd³
approx. 8.4 yd³

approx. 9.8 yd³
approx. 9.8 yd³
The plants in the MOBICONE EVO-LINE have compact feeding units with a simple sliding mechanism. The machine can therefore reach a compact dimension without requiring the disassembly of components - making fast setup and simple transport possible.

The sliding mechanism enables adaptation of the material discharge pattern into the crusher. The crusher can therefore be ideally loaded.

To protect the crusher against metallic material, a metal detector is installed in the standard version and a magnet is available as an option – an effective measure for increasing operational safety.

The bolted support beam with replaceable wear elements and the material crusher flap guarantee optimum material guidance in the crusher, therefore preserving the feeding unit.

To ensure a long service life, the hopper is a bolted construction made of robust wear-resistant steel. The optional hopper extension enables convenient loading, also with a wheel loader.

Compact feeding unit with simple sliding mechanism.

The cost-effective loading of a cone crushing plant is characterized by a continuous material layer on the feeding conveyor.

A natural wear layer that protects the feeding conveyor is therefore created.
CONTINUOUS FEED SYSTEM (CFS)

For a continuous crusher feed.

The CFS regulates the belt speed of the feeding unit in good time to achieve an ideal crusher filling level.  

Result: a high-quality final product with a high throughput and low wear
Uniform loading of the crusher is indispensable for a good product, low wear and optimum throughput.

To ensure that the crushing chamber is always filled evenly, the Continuous Feed System (CFS) monitors the crusher filling level with an ultrasonic probe. Depending on the filling level of the crusher, the frequency-controlled adjustment of the output of the feeding conveyor is effected.

Optimal tuning to the application = high throughput + low wear + best grain shape

The CFS facilitates the operator’s work since the machine automatically deals with a homogeneous material flow, therefore ensuring optimum loading of the crusher.
POWERFUL CRUSHER UNIT

The heart of the machine.
$D = 38''$

**Crusher system size**

**Crusher gap adjustment**

**Direct crusher drive**

via fluid coupling

---

Convenient crusher gap setting

Extensive selection of crusher cone and bowl liners

Integrated overload system

Cone crusher with a large stroke
01 Cone crusher with a large stroke

The MCO EVO crusher units have a three-arm design and have a large stroke for high crushing capacities. Thanks to their stable design and high crusher drive power, a high crushing ratio is possible.

**Result:** high throughput combined with top reliability

02 Gap setting

To make changes to the material or the desired end grain size, a simple crusher gap adjustment is indispensable. With the MOBICONE EVO plants, the crushing gap can be adjusted automatically via the touch panel from the ground. A real bonus for efficiency and productivity.

**Rule of thumb:** the smaller the set CSS, the more critical the content of fines in the feed material in terms of ring bounce.

03 Overload system

The integrated “Tramp Release” overload system protects the crusher against uncrushable material such as wood or metal. The bowl including the bowl liner lifts automatically to allow uncrushable material to fall through. The plant therefore remains protected and the crushing tools are subject to less wear.

Additional overload detection is provided by the intelligent “Ring Bounce Detection”. Here, the hydraulic pressure of the crusher overload system is monitored continuously and appropriate action is initiated. Two modes can be set in the software:

- **Mode 1 - PRECISE MODE** for the production of grit: the machine stops feeding as soon as the ring bounce is detected; the operator receives a fault message and can adapt the process. In this mode, no impermissible oversize grain is produced and the machine is protected against crusher damage.

- **Mode 2 - MIXTURE MODE** for the production of mixtures: in this mode, the machine adapts the crushing gap automatically – without operator intervention – to reduce ring bounce. After a definable time without ring bounce, the gap is closed again.
The correct feed size has a considerable influence on the crushing result, the wear and the output of the cone crusher.

If the **feed material is too large**, the feed behavior is not ideal and the crushing capacity is reduced. Crushing then takes place above the actual crushing zone of the tool, which leads to increased and uneven wear. In the worst case, ring bounce can occur.

If the **feed material is too small**, the power of the crusher is not adequately used and the final product quality suffers. Partial washout develops on the crushing tool, which leads to a reduction in the crushing capacity and a shorter service life of the crushing tool.

Fines in the feed material must generally be avoided.

**Rule of thumb:** the supplied content of fines of 0-5 mm should not exceed 5 %!
INNOVATIVE DRIVE CONCEPT

Impressive performance - with the best possible consumption values.

Diesel-direct-electric Drive

up to 332 hp / 387 hp Output of MCO 9/9 S EVO

up to 30% less consumption compared to hydraulic drives
The machines from the MCO EVO-LINE use the innovative "diesel-direct-electric" drive concept.

Equipped with an efficient, powerful diesel engine with fluid coupling, the cone crushers from the EVO-LINE impress with extremely low efficiency losses: the direct crusher drive provides maximum power directly at the crusher. All secondary drives – for example, for operation of the conveyors – are electrically operated.

The fluid coupling guarantees high operational safety – for operator and machine.

Innovative concept: economical, safe and resource-conserving.

Diesel-electric drives have advantages over hydraulic drives not only with regard to lower fuel consumption. The machines also require significantly less hydraulic oil, which has a positive effect on the costs of oil changes while conserving resources. In the event of leaks, the risk of contamination and environmental pollution is also lower.

Furthermore, electrical components are significantly less susceptible to wear than hydraulic components – a further positive effect that results in longer service lives and lower running costs!
### INTUITIVE CONTROL SYSTEM CONCEPT

For simple operation.

<table>
<thead>
<tr>
<th>Touch panel</th>
<th>Radio remote control</th>
<th>Status displays</th>
</tr>
</thead>
<tbody>
<tr>
<td>in lockable control cabinet</td>
<td>for ergonomic operation</td>
<td>of the machine components</td>
</tr>
</tbody>
</table>

Menu-guided operation with a text indicator display enables simple, intuitive operation. All components and functions can be controlled conveniently, status displays of the components help during operation.

The touch panel is integrated in a lockable control cabinet that is protected against dust and vibrations.

To avoid always having to open the complete control system flap, rapid access to the operator panel is provided via a separate smaller flap (door-in-door). This prevents excessive amounts of dust from entering the machine through the large flap. Radio remote control enables ergonomic operation from the excavator.

The machines from the MOBICAT EVO-LINE can be operated with a simplified and intuitive control system via a touch panel and illuminated pushbuttons.
Focus on wear

A wear indicator including menu-guided wear measurement – integrated in the software – records the current wear on the crushing tool.

Operators can therefore simply inform themselves of the status of the tool via the control panel. This reduces machine failures and can optimize the service life of the crushing tool.
OPTIMIZED CONVEYOR UNIT

With robust crusher discharge conveyor.

31.5”
wide crusher discharge conveyor

Spray system
for dust reduction
Determining the crushing capacity

There are different ways of determining the crushing capacity of a machine:

Apart from the classic method with the help of a weighbridge for lorries, an optional belt scale integrated in the crushing plant is also available which is installed below the crusher discharge conveyor. This allows quick and simple reading of the crushing capacity via the machine control system. On the MCO 9 S EVO with secondary screening unit, the belt scale can measure the plant performance below the fine grain conveyor.

Optionally, an additional belt is available for the MCO 9 EVO to ensure external oversize grain returning. A mobile KLEEMANN screening plant’s oversize grain material can therefore be supplied to the crushing process of the cone crusher.
MOBICONE EVO-LINE > SECONDARY SCREENING UNIT + MAGNETIC SEPARATOR

SECONDARY SCREENING UNIT

Effective for the final product.

Single deck vibrating screen
highly efficient even with small grain sizes < 0.79"

Hook-lift system
for simple loading
The optional secondary screening unit of the MCO 9 S EVO can be used to screen a defined grain size.

The large screening surface enables effective screening even for grain sizes below 0.79". The discharge height is designed for a high stockpile volume and optimally tuned to the transfer to the subsequent crushing or screening stage.

Oversized grain can be processed in a closed material circuit via a return conveyor. The conveyor can be swivelled hydraulically by up to 100°, which also makes side discharge possible. A kidney-shaped stockpile can therefore be created manually.

**Cone crushing plant oversize grain circuit**

1. Feeding unit
2. Transport of feed material via the feeding conveyor
3. Pressure crushing in the cone crusher
4. Transport of crushed material via the crusher discharge conveyor onto the
5. Single-deck classifying screen
6. Discharge of the oversize grain via the transfer conveyor onto the
7. Return conveyor with discharge onto the feeding conveyor
8. Discharge of the classified final product via the fine grain conveyor
SIMPLE TRANSPORT

For rapid deployment.

High flexibility for changing work locations

Short make-ready times thanks to uncomplicated set-up

Weight
Low weight makes for easy transportation
The cone crushers from the MOBICONE EVO-LINE are agile and compact - and therefore easy to transport.

The EVO cone crushers are extremely versatile and can start work directly at their place of application. Even if the place of work changes frequently, the machine can be easily transported to the next site. The reason for this is the compact design and its relatively light weight.

After arrival at the construction site, set-up times are very short: the feeding unit and conveyors can be moved into operating position hydraulically.

The secondary screening unit can be disassembled and easily transported thanks to its compact container dimensions. Thanks to its mounting on skids, that hook-lift system can be used due to simple loading.
Simple in operation and convenient for maintenance.

All machine components are especially easy to access to guarantee trouble-free production, simple operation and fast service. The outstanding plant equipment also increases operating comfort - a spray system tuned to requirements and LED lighting of the plant are already included in the basic plant configuration. Premium lighting is also available and provides even better illumination of all important operating positions.

The cone crushers from the EVO-LINE are also equipped with the best possible safety equipment. All function- and safety-related cylinders have safety valves (lowering/brake holding valves). Each cylinder stays in the current position in the event of deactivation or failure.

Result: guard devices that work hand in hand with operability and the machine design.
Safety valves on cylinders

High operating convenience thanks to spray system and LED lighting
MOBICONE MCO 9i EVO

- Compact dimensions
- Transport-friendly weight (66,150 - 73,900 lbs*)

CRUSHER SYSTEM SIZE
- d = 38”

FEED CAPACITY
- 298 US t/h

RECOMMENDED USE:
- Secondary and tertiary crushing of medium-hard to hard and abrasive natural stone
- For varying deployment locations thanks to ease of transportation
- For low to medium hourly output
- For a complete process: combinable with the jaw crushers of the MOBICAT EVO-LINE and screening plants from the MOBISCREEN series

MOBICONE MCO 9 Si EVO

- Compact dimensions
- Transport-friendly weight (90,400 - 93,700 lbs*)

CRUSHER SYSTEM SIZE
- d = 38”

FEED CAPACITY
- 270 US t/h in a closed circuit

EXTRA-POWERFUL DRIVE UNIT, LARGE RUNNING GEAR AND CHASSIS

SECONDARY SCREENING UNIT OPTIONALLY AVAILABLE

RECOMMENDED USE:
- Secondary and tertiary crushing of medium-hard to hard and abrasive natural stone
- For varying deployment locations thanks to ease of transportation
- For low to medium hourly output
- For a complete process: combinable with the jaw crushers of the MOBICAT EVO-LINE and screening plants from the MOBISCREEN series
WELL COMBINED

For perfect processes.

Technical expertise.

The line coupling option allows KLEEMANN machines to be coupled with each other. The crushing process between the crushing plants is then optimized automatically so that material is always conveyed with maximum efficiency through the machines.

A probe is installed at the crusher discharge conveyor of the upstream machine, which monitors the filling level of the feeding unit of the downstream machine. When the filling level reaches a defined height, the output of the upstream plant is temporarily reduced, therefore effectively reducing the overfilling of individual machines and ensuring that machine utilization is always ideal. The feed control Continuous Feed System (CFS) also guarantees optimum utilization of the crusher.

For safety reasons, the crushing and screening plants are connected with each other by a cable. If an emergency stop button is pressed on the plant train in the event of an emergency, all machines are safely stopped.
In combination for top performance.

Intelligent material flow control thanks to line coupling: continuous utilization of the crusher and complete interlinked plant.
FORMULA FOR SUCCESS

For excellent crushing results.

An optimum crushing result can only be achieved with perfectly tuned plant components - and the right settings at the operator’s discretion in each case.

Before implementing the project, it is important to know the full details of the application and make important preparations. Our KLEEMANN experts will gladly support you!

IMPORTANT BASIC POINTS:

☑️ What do I want to achieve with my application? Define the objective of the application: output and/or quality
☑️ What exactly does my application look like? Take material samples and have them examined
☑️ Which machines are suitable for the application? KLEEMANN will support you with the AggFlow preparation
☑️ Which tools do I have to use? Info can be found in AggFlow
☑️ Do I have personnel trained for a cone crusher? KLEEMANN will train your personnel during commissioning
☑️ Have provisions been made for maintenance and spare part supply? Discuss this with your Service contact person

AREAS OF APPLICATION OF CONE CRUSHING PLANTS
With these tips, it is possible to find the ideal settings for any task:

**WELL FILLED CRUSHING CHAMBER**
- guarantees the throughput because a higher crushing effect is created in the crushing gap

**CENTRICAL FEEDING OF THE CRUSHED MATERIAL**
- ensures a homogeneous distribution in the crushing chamber

**UNIFORM FEEDING**
- guarantees stable process
- uniform feeding through the correct selection of the crushing tools, the crushing gap and the correct setting of loading via the CFS

**CORRECT FEED SIZE**
- has a strong influence on the crushing result, wear and the output of the cone crushing plant

**CRUSHING RATIO**
- The maximum crushing ratio (ratio of feed grain size / grain output) largely depends on the physical properties of the feed material. The following guide values result

<table>
<thead>
<tr>
<th>Specification</th>
<th>Crushing stage</th>
<th>Compressive strength</th>
<th>Circuit</th>
<th>Crushing ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>standard head</td>
<td>secondary</td>
<td>&lt;300 MPa</td>
<td>open/closed</td>
<td>4:1</td>
</tr>
<tr>
<td>short head¹</td>
<td>tertiary/ quaternary</td>
<td>&lt;300 MPa</td>
<td>open/closed</td>
<td>3.5:4.5:1</td>
</tr>
<tr>
<td>short head²</td>
<td>tertiary/ quaternary</td>
<td>&lt;300 MPa</td>
<td>open/closed</td>
<td>2:3:1</td>
</tr>
</tbody>
</table>

¹ normal grain shape requirements, ² high grain shape requirements
CONE CRUSHER BASICS

PRIOR TO STARTING: CHECK PROCESS (AGGFLOW)

Before use in a new application, you have to check whether the installed tool is suitable for the task and which crushing gap can be operated. A check must be carried out to determine whether the cone crusher can process the feed material without any problems to prevent damage caused by excessively coarse or fine material.

Process simulation (AggFlow) can provide support in this area. Requests for quotation can be submitted to the responsible branch free of charge.

FILL EVENLY, AVOID RUNNING EMPTY

A material layer should always be present in the feed hopper because this cushions the load of newly fed material and therefore reduces the wear on the feed hopper. Overfilling of the hopper can lead to blockages and the material can no longer reach the crusher in a trouble-free manner. If the feed hopper is not filled evenly, this results in a fluctuating filling level and empty running of the cone crusher— with the following negative consequences:

- Flatter product
- Increased share of coarse grains
- Increased and uneven wear
- Bearing damage through abrupt loading

REGULAR PROCESS MONITORING DURING OPERATION

Regular monitoring of the process is absolutely necessary to guarantee a uniform material flow. Overloading can be identified early and damage avoided.

Ensure that the hoppers are never overfilled; it may be necessary to adapt the process parameters. On material return sections, ensure that there is not too much material in the return flow; it may also be necessary in this case to adapt the process parameters.

OBSERVING MAINTENANCE AND INSPECTION INTERVALS

Regular maintenance and observance of the inspection intervals increase plant availability and therefore the total production output. Regular maintenance and inspection allows damage to be avoided or to be identified in good time, therefore preventing long downtimes. The maintenance intervals are listed in the instruction manual.
ADAPTING PROCESS IN THE CASE OF OVERLOAD

Overloading of the crusher is indicated by an abrupt standstill of the crusher due to tripping of the overload protection at the drive motor. This means that the available drive power has been exceeded. A further indication of overloading is so-called "ring bounce". In this case, the bowl rises from the seating surface of the main frame. This can be detected by a hammering noise or microvibrations on pulsating hydraulic hoses. If it occurs at regular intervals, it can result in permanent damage. It can be caused by excessively coarse or fine feed material.

Countermeasures:
- Prior to feeding, the feed material must be pre-crushed to make it smaller or fine material must be prescreened.
- Increase the size of the gap and, if this is still insufficient, the speed can also be increased.

NO WET, STICKY FEED MATERIAL

Wet and sticky feed material causes jamming and clogging of the crushing chamber. This initially reduces the throughput and, as clogging of the crushing chamber increases, the crushed material can become briquetted. This leads to a blockage of the crushing process. The resultant uncontrollably high forces lead to permanent damage of the cone crusher or its failure.

Countermeasures:
- Avoid feeding with wet and sticky feed material; if necessary, pre-separate sticky material by means of prescreening. A clogged crushing chamber must be cleaned.

AVOID FINES

When fine material is fed in, tool wear is significantly higher than with prescreened feed material. The feeding of fine material into the crushing chamber of the cone crusher results in an increase in crushing pressure and therefore the crushing forces. If they exceed the available drive power, the crusher is shut down automatically. Fines can also cause ring bounce, which leads to permanent damage to the crusher.

Countermeasures:
- Activate prescreening at the upstream jaw crusher and therefore separate sufficient fines. Alternatively, cut in a screen upstream of the cone crusher to separate the fine aggregate.

OBSERVE THE CORRECT FEED SIZE

Feed sizes that are too large or too small can both have negative effects on the process or damage the cone crusher:
- If the feed material is too large, the material is not drawn sufficiently into the crushing chamber and material blockages form above the crushing chamber. This results in reduced crushing capacity, increased and uneven wear and, in the worst case, damage to the crusher.
- If the feed material is too small, the power of the crusher is not adequately used and the product quality suffers. Partial washout develops on the crushing tool, which leads to a reduction in the crushing capacity and quality as well as a shorter tool service life.

Countermeasures:
- Select the tool to match the feed size or adapt the feed size to match the tool. Only feed material with a uniform grain distribution and avoid gap grading.
YOUR KLEEMANN SERVICE

From the WIRTGEN GROUP.

Reduced downtimes, minimal wear costs, maximum customer proximity.

Service network
Our local contact partners provide you with comprehensive support for all tasks and questions related to our products. Thanks to our closely-knit, global WIRTGEN GROUP network, we guarantee short response times and quick solutions.

Training courses
An essential element of the successful use of our plants is knowledge of their operation. In order to communicate the necessary technical knowledge to your employees, KLEEMANN offers a wide range of training courses.

Parts and accessories
Original parts and accessories from KLEEMANN can assure the high reliability and availability of the machines in the long term. An overview of all parts is available under www.partsandmore.net
SPARE PARTS

Correct wear parts for the best results.

APPLICATION-SPECIFIC WEAR PARTS

Crusher cone

Versions:
- Standard
- Short Head

Bowl liner

Versions:
- Standard Fine
- Standard Medium
- Standard Coarse
- Short Head Fine
- Short Head Medium
- Short Head Coarse

Two qualities available: > XPERT with 18% manganese > XTRA with 20% manganese

Secondary crushing stage
Final product > 32 mm
open circuit
large feed opening

Tertiary crushing stage
Final product < 32 mm
closed circuit
long calibration zone
# SUCCESSFUL PROJECTS WITH CONE CRUSHERS

In order to implement project with mobile cone crushers, it is important to know the application and to collect all important information. This questionnaire will help you.

<table>
<thead>
<tr>
<th>Customer</th>
<th>Project / working area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact data:</th>
<th>Phone</th>
<th>Mobile phone</th>
<th>E-Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 1. Information about feed material:

- **Application**: Quarry, Mining, Sand/Gravel pit, Recycling
- **Kind of material**: Basalt, Granite, Gneiss, Slate, Gypsum, Limestone, Sandstone, Sand/Gravel, Rubble, Bricks, Asphalt blocks, Others (e.g. slag, ore, etc.)

<table>
<thead>
<tr>
<th>Feed size</th>
<th>mm max. (L x W x H)</th>
<th>Sieve analysis available:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes (please add)</td>
</tr>
</tbody>
</table>

- **Estimated feed gradation**: coarse, medium, fine
- **Exploitation**: dry, wet
- **Material consistency**: cohesive, loamy, organic
- **Mining / quarrying method**: blasted, ripped, chiseled, pre-crushed

### Physical properties of feed material (if available)

- **Pressure resistance (MPa)** (N/mm²)
- **Bond Work Index (kWh/t)**
- **Abrasion Index (AI)** (g)
- **LA-Value (%)**
- **Crushability (LCPC) (%)**
- **French Abrasiveness (LCPC) g/t**
- **Others**: Solid density (t/m³), Bulk density (t/m³)

## 2. Feeding device

- **Excavator**, **Wheel loader**, **Belt / prescreen**
- **Bucket content**: m³
- **Bucket width**: mm

## 3. Production

- **Feed capacity**: t/h
- **Final product capacity**: t/h
- **Prescreening at**: mm
- **Final products - separation cuts**: mm

## 4. Use of final products

- **Subbase / road construction**, **Asphalt**, **Intermediate products**, **Others**: Railway construction, Concrete
- **Applied standards**: ASTM, EN, BS, AS, TR / GOST
### EVO LINE

<table>
<thead>
<tr>
<th></th>
<th>MCO 9 EVO</th>
<th>MCO 9 S EVO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed size up to max. (depending on material)</td>
<td>8”</td>
<td>8”</td>
</tr>
<tr>
<td>Crusher system size D=</td>
<td>38”</td>
<td>38”</td>
</tr>
<tr>
<td>Feed capacity up to approx.</td>
<td>298 US t/h</td>
<td>270 US t/h&lt;sup&gt;1)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Transport weight of basic plant – max. configuration</td>
<td>66,150 - 73,900 lbs</td>
<td>90,400 - 93,700 lbs&lt;sup&gt;2)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Drive concept</td>
<td>Diesel-direct-electric</td>
<td></td>
</tr>
<tr>
<td>Features</td>
<td>Simple control, menu-guided touch panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feed control CFS Continuous Feed System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Automatic zero point calculation and crusher gap setting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hydraulically foldable crusher discharge conveyor (optional)&lt;sup&gt;3)&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sliding mechanism for the feeding unit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optional oversize grain returning with external screening plant</td>
<td>Secondary screening unit with return conveyor (optional)</td>
</tr>
</tbody>
</table>

### Application spectrum

Natural stone

---

<sup>1)</sup> closed circuit  
<sup>2)</sup> incl. secondary screening unit  
<sup>3)</sup> not for MCO 9 S EVO with secondary screening unit
## QUARRY LINE

<table>
<thead>
<tr>
<th>MCO 11 PRO</th>
<th>MCO 11 S</th>
<th>MCO 13</th>
<th>MCO 13 S</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.4”</td>
<td>8”</td>
<td>13”</td>
<td>11”</td>
</tr>
<tr>
<td>44”</td>
<td>44”</td>
<td>52”</td>
<td>52”</td>
</tr>
<tr>
<td>518 US t/h</td>
<td>496 US t/h(^1)</td>
<td>650 US t/h</td>
<td>717 US t/h(^1)</td>
</tr>
<tr>
<td>109,150 - 127,900 lbs</td>
<td>165,350 lbs*</td>
<td>154,300 lbs*</td>
<td>253,350 lbs*</td>
</tr>
</tbody>
</table>

* Diesel-electric, connection to external power supply possible (optional)

- Easy to operate SPECTIVE control system
- Electrical control with plain text display
- Hydraulically supported crusher gap adjustment
- Extended, hydraulically foldable crusher discharge conveyor
- Natural stone, mining

\(^1\) Minimum weight without options, exact weight specifications upon request