

Mobile cone crusher

# MOBICONE MCO 90(i) EVO2



# A LONG HERITAGE OF EXPERTISE

Efficient crushing and screening plants.

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

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.

## THE KLEEMANN PRODUCT RANGE

**MOBICAT**  
Mobile jaw crushers

**MOBIREX**  
Mobile impact crushers

**MOBICONE**  
Mobile cone crushers

**MOBISCREEN**  
Mobile screening plants

**MOBIBELT**  
Mobile stackers

Over 100 years of  
tradition

A WIRTGEN GROUP Company  
An internationally active group of companies



With more than 200  
subsidiaries and dealers in Germany and abroad

**KLEEMANN**

# MOBICONE MCO 90(i) EVO2

The team player in hard stone.

Top product quality is expected from a cone crusher - and this is what the MOBICONE MCO 90(i) EVO2 delivers together with a high production capacity.

The MCO 90(i) EVO2 is the perfect complement to the MOBICAT MC 110(i) EVO2 jaw crusher. The innovative cone crusher stands out with outstanding cost-effectiveness, intelligent control engineering and top product quality.

easy operability thanks to SPECTIVE and SPECTIVE CONNECT. Equipped with an intelligent and highly effective overload system, the cone crusher ensures safety and stable processes to deliver top product quality even under challenging conditions.

Cone crushers are used in medium-hard to hard stone mainly in the 2nd and 3rd crushing stages. But cone crushers are also at home in stand-alone applications, for example, gravel. In all applications, the MCO 90(i) EVO2 is characterised by



Cost-effectiveness  
at its best



Operability at its  
most intuitive



Product quality  
at a glance



# THE HIGHLIGHTS

Perfectly equipped.



- > Very good accessibility and a high level of safety
- > Simple transport thanks to hydraulic foldings and reduced transport height

## 01 Feeding unit

- > Simple sliding mechanism for fast set-up and transport, easy adaptation of the material discharge pattern into the crusher

## 02 CFS (Continuous Feed System)

- > Innovative feed control with CFS (Continuous Feed System) guarantees optimum material flow

## 03 Crusher unit

- > Cone crusher with large stroke for maximum crushing capacity

## 04 Overload systems

- > Effective overload systems protect the crusher

## 05 Drive

- > Efficient and powerful diesel direct drive

## 06 Operating concept

- > SPECTIVE intuitive operating concept
- > With SPECTIVE CONNECT, important information is available directly on your smartphone

## 07 Post screening unit

- > Single-deck vibrating screen with optimised surface utilisation



# WELL THOUGHT-OUT FEEDING UNIT

For short set-up times and optimum loading.

**up to 270 t/h**  
Feed capacity

**approx. 6.6 m<sup>3</sup>**  
Hopper volume

**approx. 8.3 m<sup>3</sup>**  
Hopper volume with hopper extension



## The MOBICONE MCO 90(i) EVO2's feeding unit is compact and equipped with a simple sliding mechanism.

With the sliding mechanism, the MCO 90(i) EVO2 features compact transport dimensions without requiring component disassembly - enabling fast set-up and easy transport. The sliding mechanism makes it possible to adapt the material discharge pattern into the crusher. The crusher can therefore be ideally loaded.

To protect the crusher from metallic material, a metal detector is installed in the standard version of the feeding unit. A magnetic remover a magnet is available as an option - an effective measure for increasing operational safety and reducing downtimes.

The bolted relief beam with exchangeable wear elements supports and protects the material to be conveyed, and ensures an even distribution of the feed material.

To ensure a long service life, the hopper is a bolted construction made of robust wear-resistant steel. A steep hopper rear wall prevents caking in the feed area. The optional hopper extension increases the hopper volume and remains on the machine during transport. Rear-side loading by a wheel loader can be carried out conveniently via the hydraulically foldable hopper filling aid.

## KLEEMANN > PROCESS KNOWLEDGE

High cost-effectiveness and top product quality require homogeneous loading of the cone crusher. How the material is loaded is decisive: to guarantee even distribution of the material, rear-side loading by a wheel loader should be carried out. This can be performed comfortably with the hydraulically foldable hopper filling aid.

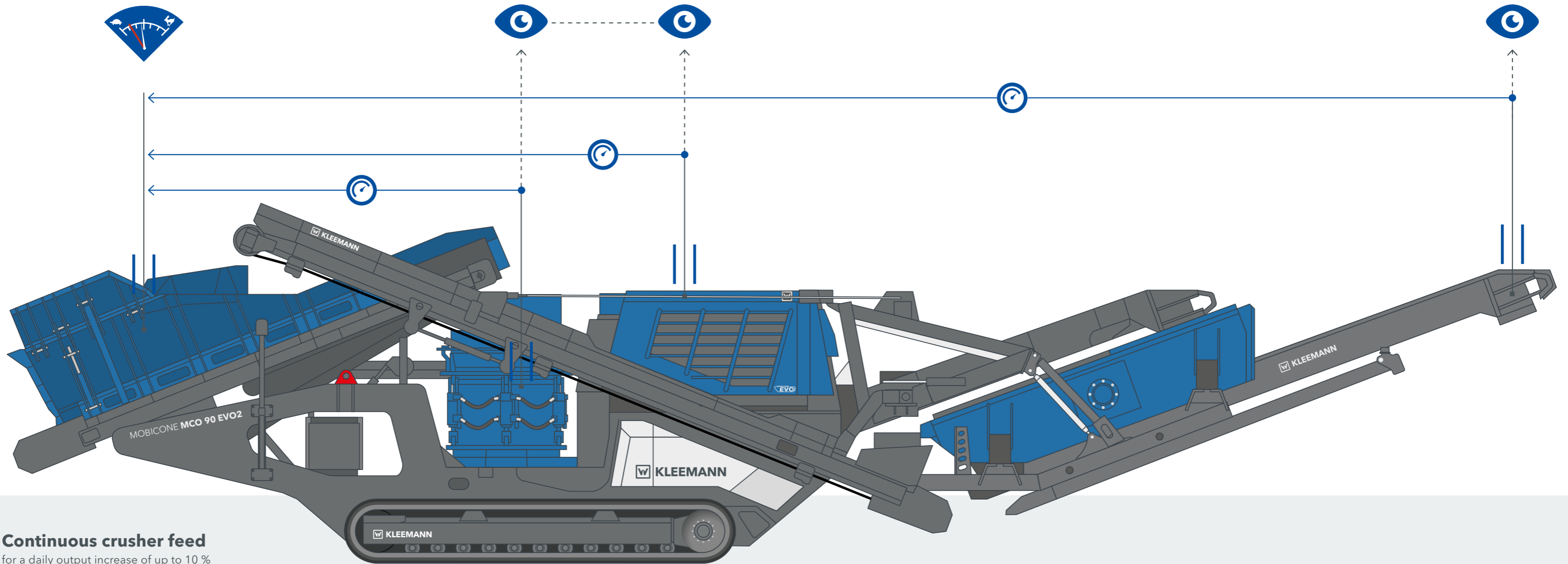
The material not only distributes itself evenly before it reaches the crusher, it also forms a material layer that acts as natural wear protection.



# CONTINUOUS FEED SYSTEM (CFS)

For a continuous crusher feed.

The stockpile is monitored with the line coupling option



**Continuous crusher feed**  
for a daily output increase of up to 10 %

**Uniform loading is indispensable to achieve a good product, optimum throughput and low wear.**

To ensure that the crushing chamber is always filled evenly and optimally, the Continuous Feed System (CFS) monitors the crusher level, the utilisation at the crusher drive, the speed of the crusher and the stockpile probe at the crusher discharge conveyor or the fine grain conveyor. Depending on the fill level

of the crusher, the frequency-controlled adjustment of the output of the feeding conveyor is carried out. The CFS facilitates the operator's work as the machine automatically regulates a homogeneous material flow, therefore ensuring optimum loading of the crusher.

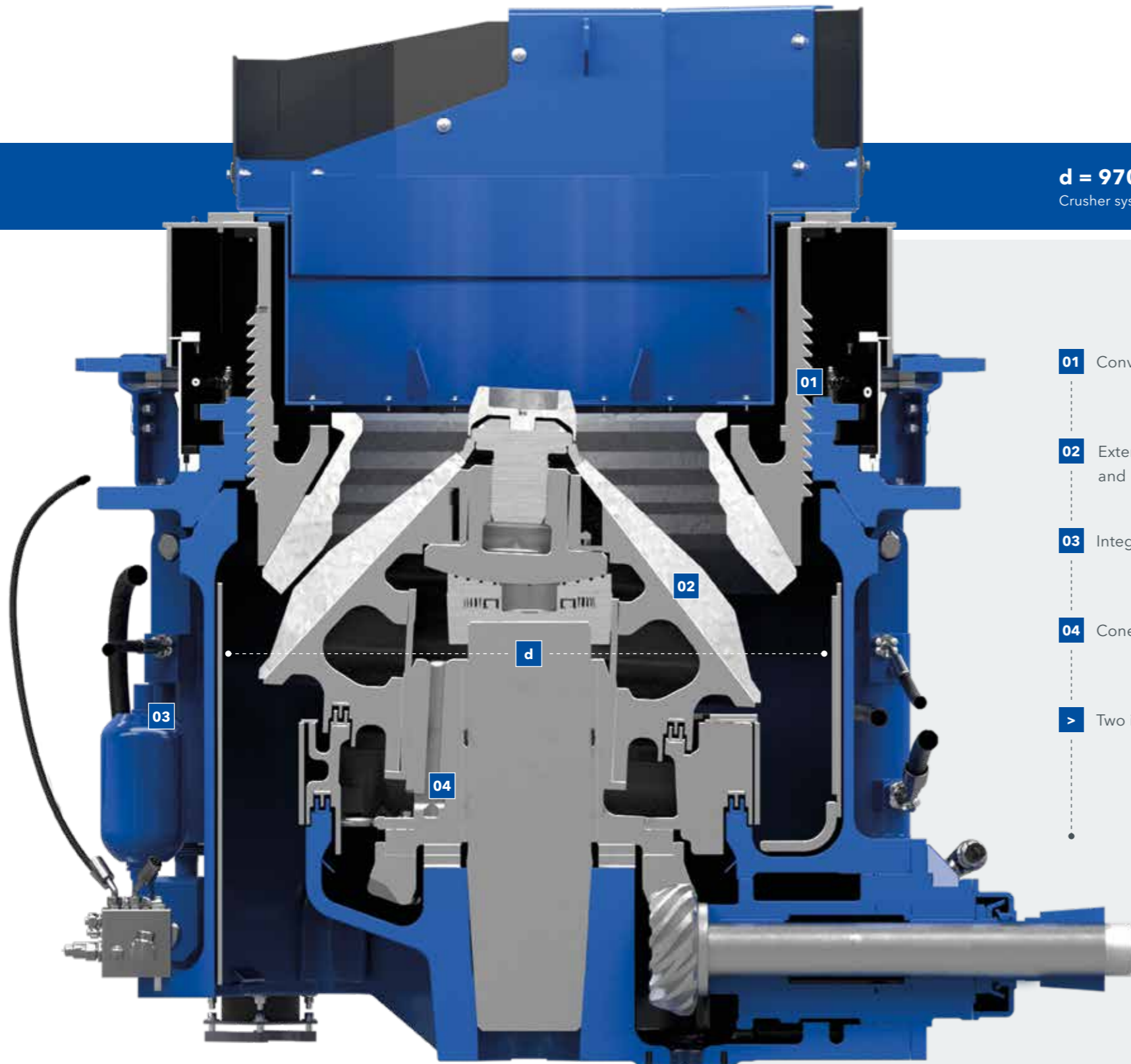
**KLEEMANN > PROCESS KNOWLEDGE**

The CFS regulates the feeding unit's belt speed in good time to achieve an ideal crusher fill level. The CFS learns continuously at the same time and can therefore optimise its performance.

**Result:** a high-quality final product with a high throughput and low wear.

# POWERFUL CRUSHER UNIT

The heart of the machine.



**d = 970 mm**  
Crusher system size

**Fully hydraulic**  
Crusher gap adjustment

**Direct crusher drive**  
via fluid coupling

**01** Convenient crusher gap setting

**02** Extensive selection of crusher cone and bowl liners

**03** Integrated overload system

**04** Cone crusher with large stroke

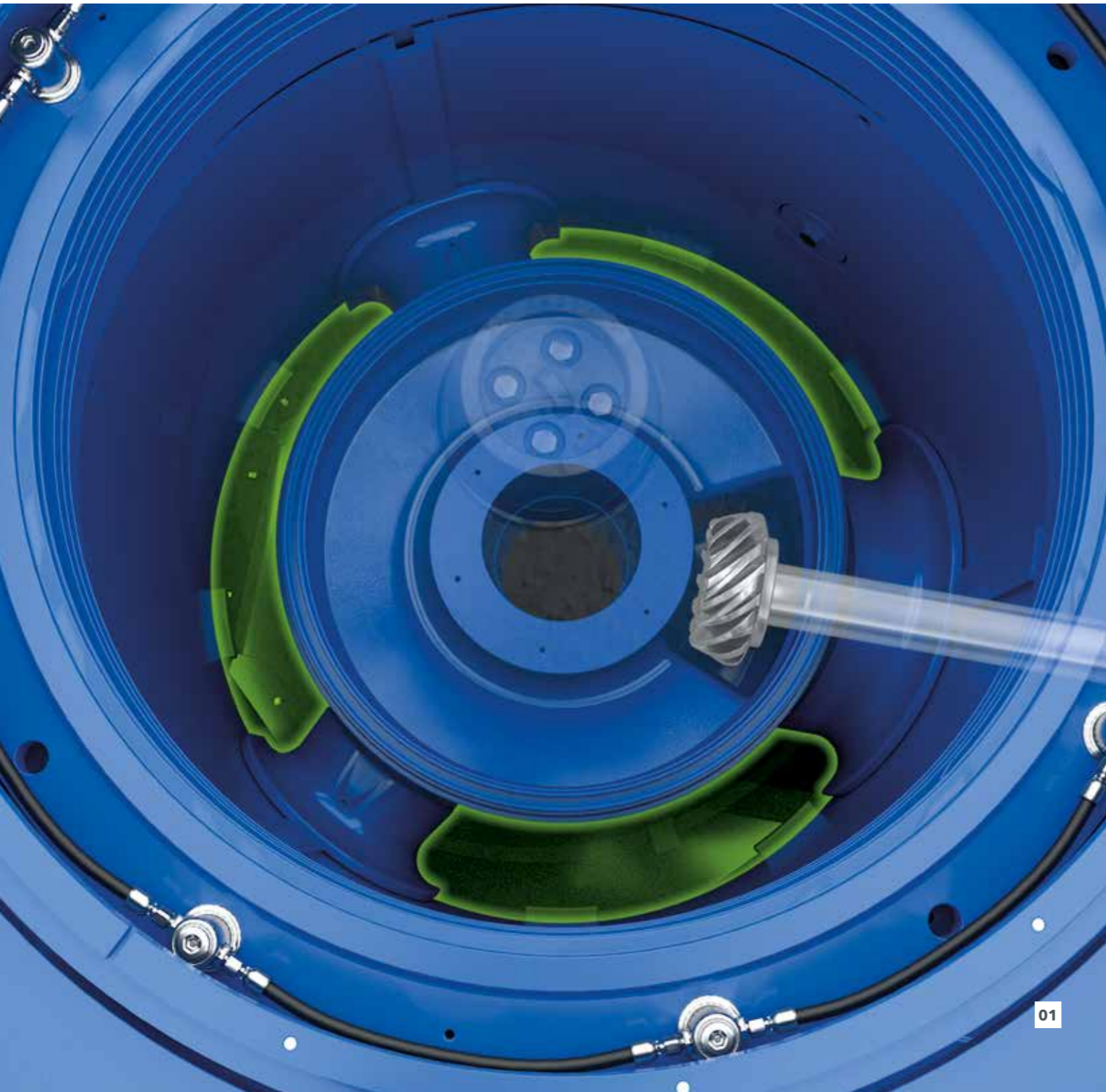
**>** Two inspection hatches

The crusher unit of the MCO 90(i) EVO2 is the centrepiece of the machine. A large stroke and the three-arm crusher structure guarantee an impressive crushing capacity and high throughput. The cone crusher, with its various crushing tools, covers gap widths ranging from 6-45 mm.



The MOBICONE MCO 90(i) EVO2 mobile cone crusher has a high, constant crusher drive power of up to 185 kW and a maximum of up to 250 kW. A continuous crushing process and higher production volume in special applications is therefore possible. Thanks to a short heating-up phase of the lube oil,

the plant is quickly ready for operation. changes are also very easy and take place entirely without sealing compound. The cone crusher, with its various crushing tools, covers gap widths ranging from 6-45 mm. Further conversion tasks on the crusher are not required for this wide spectrum of applications.



### Cone crusher with large stroke

The MCO 90(i) EVO2 crusher unit features a three-arm design and a large stroke for high crushing capacities. Thanks to its stable design and high crusher drive power, a high reduction ratio is possible.

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

### Gap setting

To make adaptations to the desired final grain size or to compensate for wear, a simple gap setting is indispensable. The adjustment of the crushing gap can be carried out conveniently via the touch panel or the radio remote control. A real bonus for efficiency and productivity.

**Rule of thumb:** the smaller the CSS, the more closely the process has to be monitored with regard to overloading - the ringbounce detection helps here.



01 Crusher passage 02 Gap setting

## KLEEMANN > PROCESS KNOWLEDGE

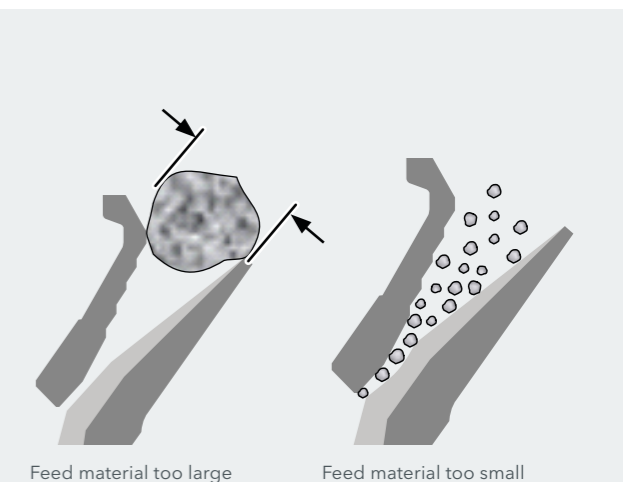
The correct feed size greatly influences the crushing result, the wear and output of the cone crusher.

If the **feed material is too large**, the feed behaviour 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, ringbounce 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 %!



Feed material too large

Feed material too small



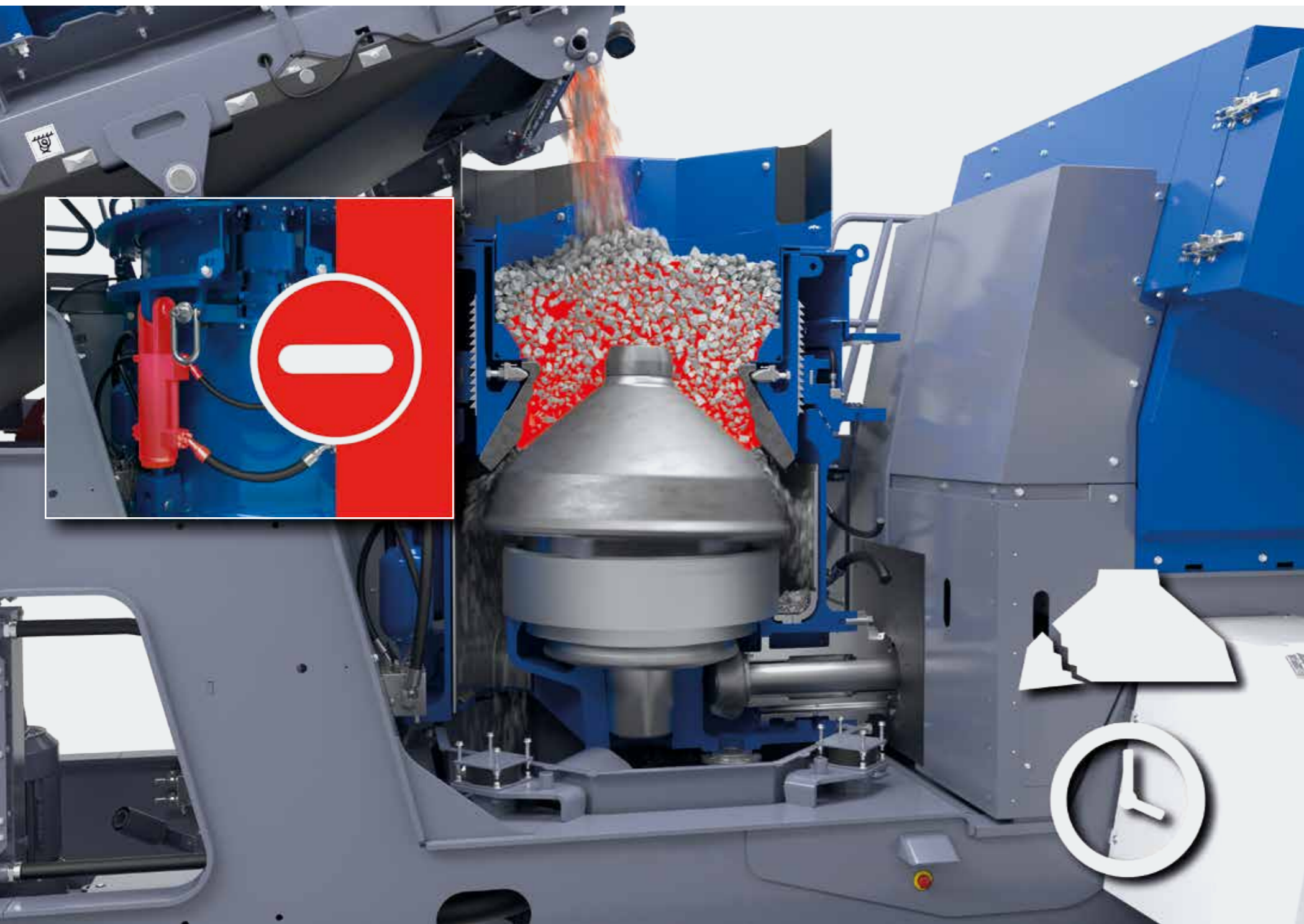
# EFFECTIVE OVERLOAD SYSTEMS

To protect the plant.

During the crushing process, various short-term or prolonged overload situations can arise. With the MOBICONE MCO 90(i) EVO2 cone crusher, intelligent overload systems protect against damage and failures.

The integrated „Tramp Release“ overload system protects the crusher against uncrushable material such as wood or metal.

The bowl, including the bowl liner, lifts to allow uncrushable material to fall through. The plant therefore remains protected.



Additional overload detection is provided by the intelligent "Ringbounce Detection". Here, the hydraulic pressure and other parameters of the crusher are monitored continuously. If necessary, the system reacts and prevents latent overloads that could cause serious damage.

Two modes can be set in the software:

1



## • **PRECISE MODE for the production of grit**

- > The machine stops feeding as soon as ringbounce is detected; the operator receives a fault message and can adapt the process.
- > In this mode, no additional impermissible oversize grain is produced and the machine is protected against crusher damage

2

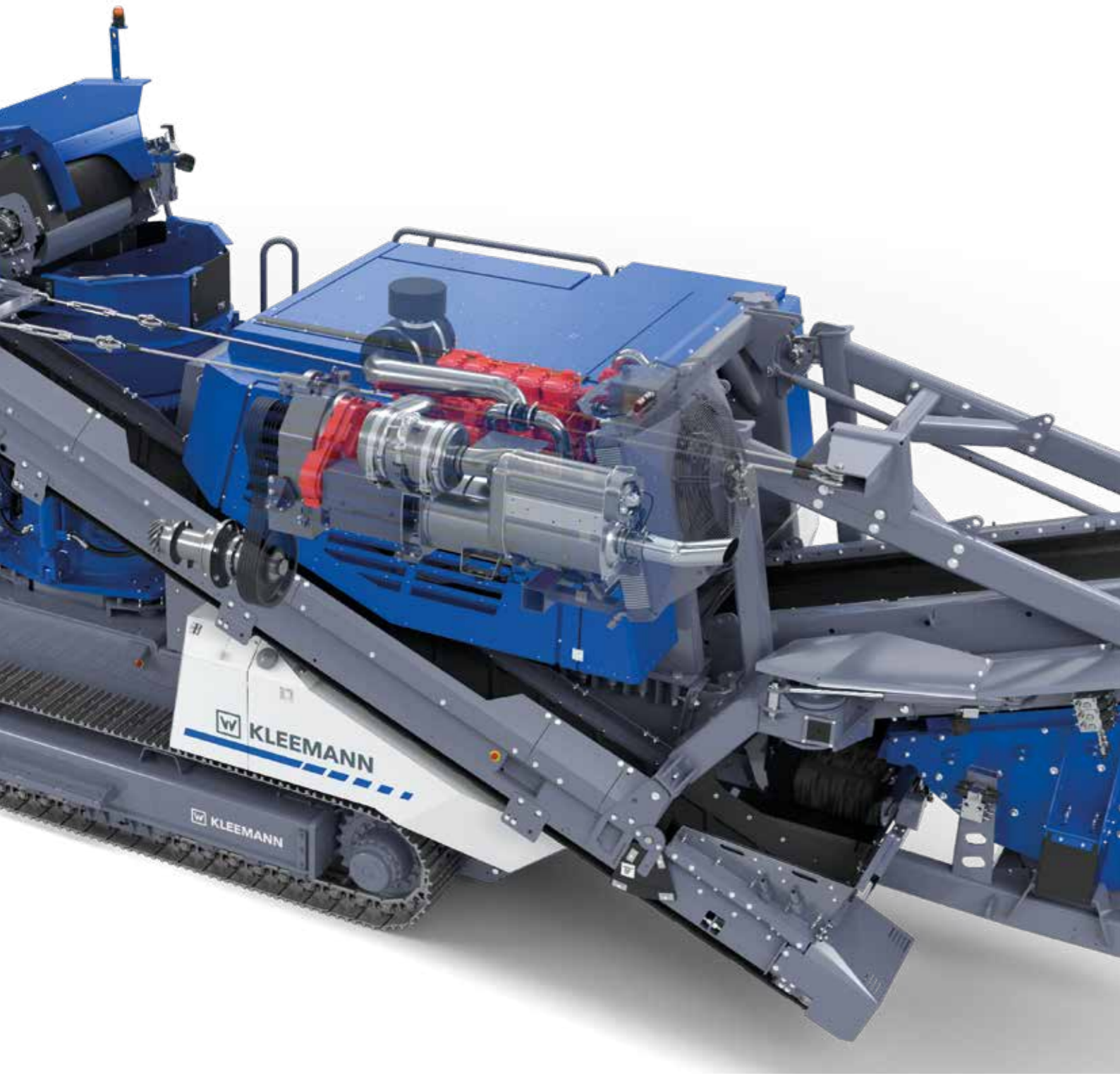


## • **MIXTURE MODE for the production of mixtures**

- > In this mode, the machine adapts the crushing gap automatically - without operator intervention - to avoid ringbounce.
- > After a definable time without ringbounce, the gap is closed again.
- > Thanks to virtually uninterrupted operation, the system automatically adjusts the gap, oversize particles are accepted or, in the case of operation with a pre-screening unit, returned to the circuit.

# INNOVATIVE DRIVE CONCEPT

Impressive performance - with the best possible consumption values.



**The MOBICONE MCO 90 (i) EVO2 has an innovative "diesel-direct-electric" drive concept which is both powerful and economical.**

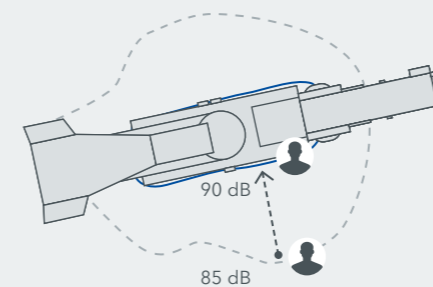
The MCO 90(i) EVO2 stands out with its holistic drive concept with an efficient diesel direct drive whereby the crusher is driven directly via a fluid coupling from the diesel engine. The power and load-dependent fan ensures a low-noise and even more economical operation. Via a power splitter gearbox, the generator is driven by a large cardan shaft, which means that the more maintenance-intensive timing belts are not required. The drive system pumps are activated via a clutch coupling

and can therefore draw on the full power of the diesel engine - for enhanced driving performance. All other hydraulic pumps for auxiliary and set-up functions and for the cooler drive are also driven via the gearbox.

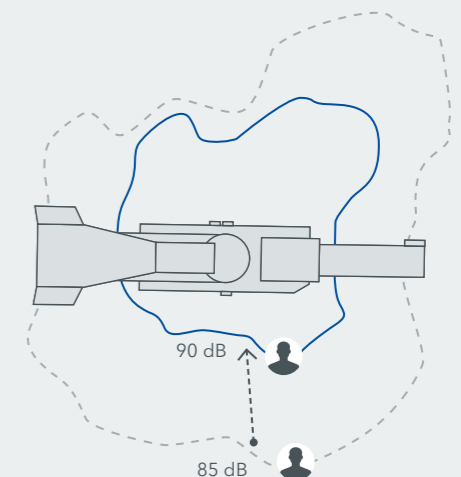
The plant can be optionally equipped with a heat package (-15 to +50 °C) or cold package (-25 to +40 °C).

## KLEEMANN > PROCESS KNOWLEDGE

Thanks to the output- and load-dependent fan, the basic configuration of the plant is very low-noise, which makes work near the machine a lot more pleasant and easier on the operator.



**MCO 90(i) EVO2**



**MCO 9 EVO**

**Diesel-direct-electric**  
Drive

**287 - 289 kW**  
Drive output



**up to 30 % less consumption**  
compared to hydraulic drives

# THE SPECTIVE INTUITIVE OPERATING CONCEPT

For a better result.

With the increasing demands that are placed on modern crushing plants, their complexity also increases. At the same time, the technology must be safe and as simple as possible to master - without long training sessions. This is precisely the strength of the SPECTIVE operating concept.

The MOBICONE MCO 90(i) EVO2 can be operated simply and intuitively with the different SPECTIVE components. Apart from the touch panel, the holistic operating concept includes a large

and small radio remote control and the SPECTIVE CONNECT digital solution.



## 01 Touch panel and operating buttons

From the starting procedure and on to making the initial settings, from the elimination of malfunctions and on to maintenance - on its 12" touch panel, SPECTIVE provides users with all important plant information in a clearly arranged manner and enables all plant settings from a single location. The optimised arrangement of the button below the display is self-explanatory in combination with the display and guarantees high operating comfort. The lockable operating mode selector switch protects against misoperation. The user guidance and visualisation of the operating process are even more clearly presented. Troubleshooting aids and support contribute to minimisation of downtimes.

## 02 Radio remote control

The new radio remote control allows operation of all plant functions, including the complete set-up and driving operation, from a safe distance. Once it has been set up and put into operation in automatic mode, for most procedures the operator no longer has to go to the plant. Furthermore, advantages in the field include the long battery runtime (> 10h) with LED for battery charge indication, a battery change without tripping an emergency stop and a very long range.

## 03 Small radio remote control

Thanks to its compact size, the small radio remote control is suitable for carrying in the loading device. All relevant functions can therefore be operated in automatic mode conveniently in the excavator or wheel loader. The small radio remote control is the ideal complement to SPECTIVE CONNECT.

## 04 SPECTIVE CONNECT

With SPECTIVE CONNECT, users receive a display of the user interface via smartphone anywhere they may be - for example, in the excavator or wheel loader. Apart from relevant data such as speed, consumption values and fill levels, fault messages or warnings are also displayed. In addition, important process and machine data can be summarised in a report and conveniently transmitted.



## KLEEMANN > GOOD TO KNOW

### Everything at a glance with WITOS®

The WITOS FleetView telematics system supports efficient **fleet and service management**. Information on the operating status of the machines is available independently of location and time. Even users with only one machine benefit from WITOS.

From support for maintenance and diagnostic processes to the targeted monitoring of the machines: the range of services is diversified and ideally complements the WIRTGEN GROUP Smart Service agreements.

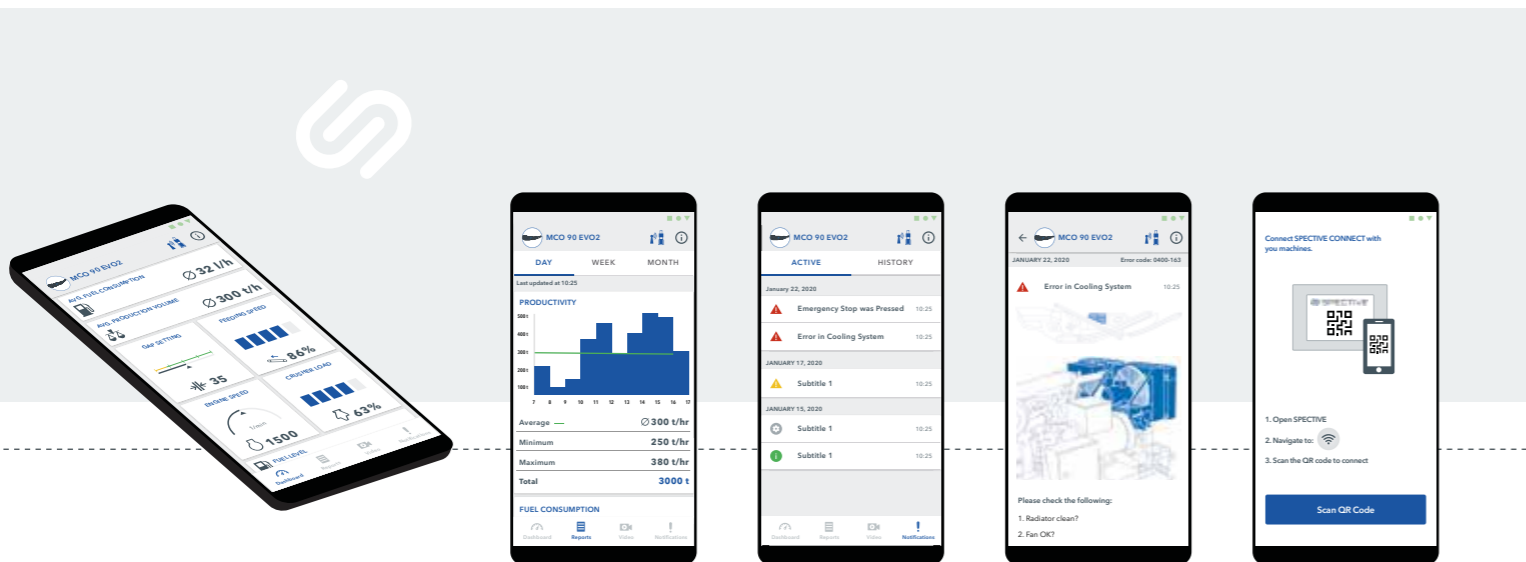
# SPECTIVE CONNECT

Plant data on your smartphone.

**SPECTIVE CONNECT is the logical extension of SPECTIVE since the crusher's human-machine interface is brought directly to the operator in the excavator or the wheel loader.**

SPECTIVE CONNECT can be used to display all relevant operating data such as engine speed, consumption, throughput (in conjunction with belt scale) and fill levels of the MCO 90(i) EVO2, as well as fault messages, warnings and other

messages. Work does not need to be interrupted to view the status. The option for preparing and sending a clearly arranged report ensures additional transparency for the operator.



## 02 Fault elimination aids

All active faults incl. fault history, warnings and messages can be displayed in the same manner as the SPECTIVE touch panel. The operator knows what has to be done and is also supported in a targeted manner with fault elimination aids.



## 01 Dashboard

A non-verbal display provides a clearly arranged presentation of all information on the crushing plant relevant to the operator:

- > Average fuel consumption
- > Average production output
- > The current gap setting
- > Speed and utilisation
- > Feed speed
- > Fill levels



## 03 Reporting

A clearly arranged report on the crushing plant's operation and output allows the operator and operating company to draw conclusions regarding the current utilisation of the plant. The following can be displayed:

- > Average fuel consumption
- > Average production output (belt scale for crusher discharge conveyor)
- > Plant utilisation (when is the plant stationary, when is it fully utilised, ...)

The reports can be sent conveniently as a PDF.

## KLEEMANN > GOOD TO KNOW

### Is your plant ready for SPECTIVE CONNECT?

If your plant is equipped with the SPECTIVE CONNECT option, then simply download the app for your smartphone and get started!

1. Select the WiFi symbol on the SPECTIVE start screen.
2. Scan the QR code and you will be connected with the plant immediately.

Following this, the connection is always established when you are in the vicinity of the machine.



Scan the code for further information on SPECTIVE CONNECT



The availability of SPECTIVE CONNECT depends on the country-specific situation. Further information can be obtained from your local contact person or under [www.wirtgen-group.com/spective-connect-kleemann](http://www.wirtgen-group.com/spective-connect-kleemann)

# POST SCREENING UNIT

Contributes to final product quality.

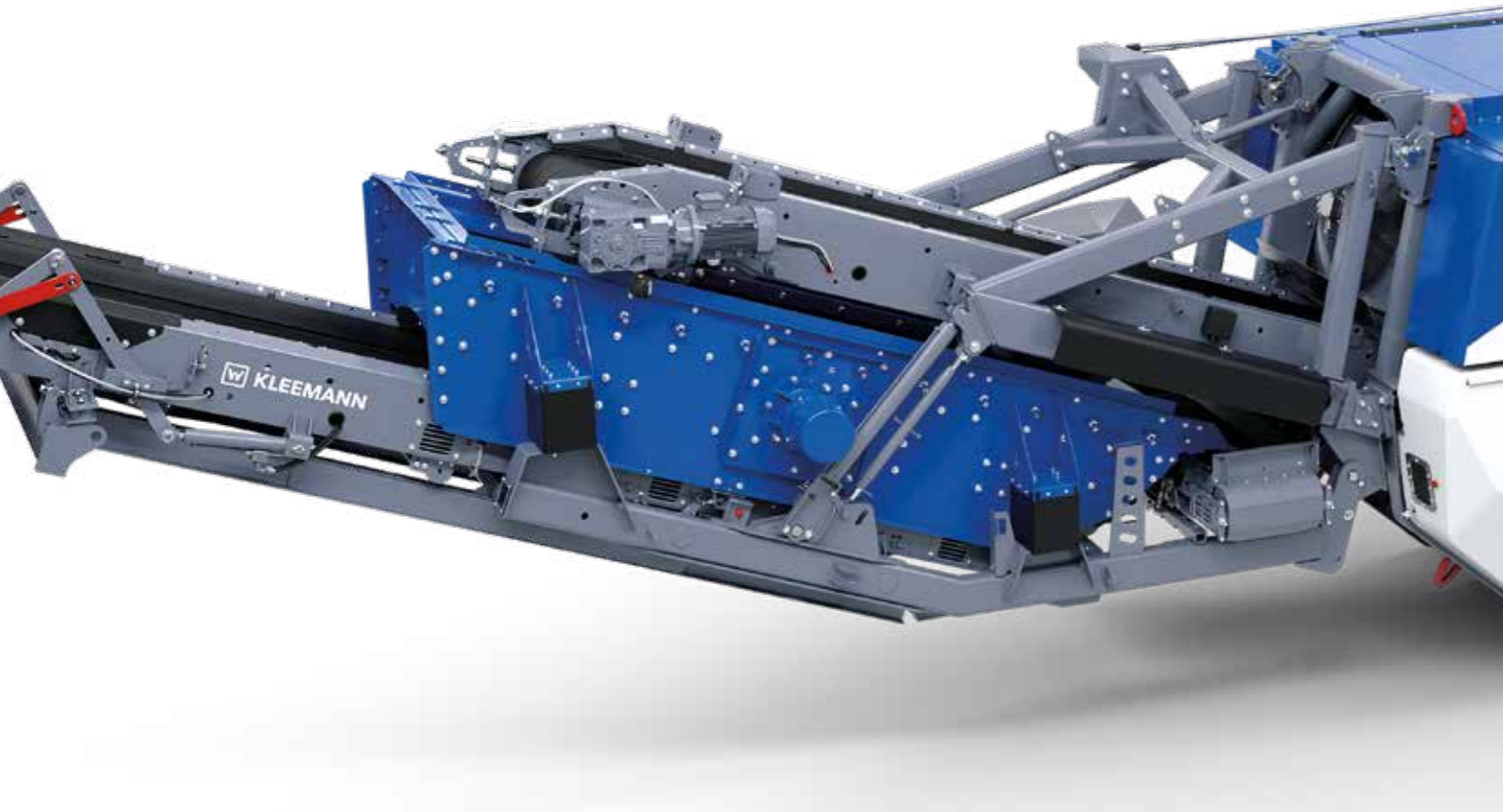
The MCO 90(i) EVO2's optional post screening unit can be used to screen a defined grain size.

The large screening surface with optimum screen utilisation enables effective screening even with grain sizes below 20 mm. The discharge height is designed for a high stockpile volume and optimally tuned to the transfer to the subsequent crushing or screening stage. The assembly and disassembly of the post screening unit can be carried out quickly and easily in a few minutes.

Oversize grain can be processed in a closed material circuit via a return conveyor. As an option, the conveyor can be swivelled hydraulically by up to 100°, which also enables side

discharge. A kidney-shaped stockpile can therefore be created manually.

**Note:** The MCO 90(i) EVO2 can also be subsequently retrofitted with a post screening unit. The more powerful generator this requires can also be provided in the initial configuration.



**Single deck vibrating screen**  
highly efficient even with small grain sizes < 20 mm

**Assembly and disassembly**  
can be carried out in a few minutes



## KLEEMANN > PROCESS KNOWLEDGE

### Cone crushing plant oversize grain circuit



- 01** Material feeding
- 02** Transport of feed material via the feeding conveyor
- 03** Pressure crushing in the cone crusher
- 04** Transport of crushed material via the crusher discharge conveyor onto the single-deck classifying screen
- 05** Diffuser for better material distribution
- 06** Single-deck classifying screen
- 07** Discharge of the oversize grain via the transfer conveyor onto the return conveyor
- 08** Return conveyor with discharge onto the feeding conveyor
- 09** Discharge of the classified final product via the fine grain conveyor

# ACCESSIBILITY AND SAFETY

For outstanding operating comfort.

## A machine can be easy to operate and safe, but convenient maintenance is also very important to the operator.

All machine components are especially easy to access to guarantee trouble-free production, simple operation and fast service. A central drain point for fluids, for example, enables

ergonomic maintenance. Spray systems at different transfer points, as well as LED lighting for illuminating the work area, are included in the plant's basic configuration.

Central drain point



## Additional options increase operating comfort

Optionally available Premium lighting provides even better illumination of the machine environment. Simple refuelling of the machine is possible from the ground or with the help of a refuelling pump for filling from tanks.

## The focus is always on safety

The MOBICONE MCO 90(i) EVO2 is also ideally equipped in terms of safety features. All function- and safety-related cylinders are equipped with safety valves (lowering/brake holding valves). Each cylinder stays in its current position - to protect the machine operator and machine in the event of deactivation or failure. Thanks to plant operation via the radio remote control, and therefore from a safe distance, safety on the construction site is also increased.



● Standard lighting    + Premium lighting    □ Mobile work lamp

### Standard lighting

The standard lighting includes the illumination of the travel path, the steps and the area of the touch panel. A USB charging port for a mobile maintenance lamp is also available.

### Premium lighting

The premium lighting includes a large number of headlamps for extended illumination of the machine area as well as a mobile maintenance lamp.

# SIMPLE TRANSPORT

Quickly on site. Immediately ready to work.

**The MOBICONE MCO 90(i) EVO2 cone crusher is versatile, compact and easy to transport.**

The MCO 90(i) EVO2 can be used very flexibly and is quickly ready for operation. And even if the work location changes frequently, the machine is quickly transportable and also quickly loaded thanks to its relatively light weight.

After arrival at the work site, set-up times are very short: the feeding unit and conveyors can be conveniently moved into operating position hydraulically and from a safe distance with SPECTIVE radio remote control.

The post screening unit can remain on the machine for transport, although it can also be disassembled in a few minutes. Thanks to its compact container dimensions, it is also easy to transport separately.

With a transport height reduced to 3,400 mm, transport is now even easier and more cost-effective - including the post screening unit.



**High flexibility**  
for changing work locations



**Short make-ready times**  
thanks to uncomplicated set-up

**Weight**  
is ideal for easy transportation

**3,400 mm transport height**  
with and without post screening unit

# IDEALLY COMBINED

For perfect processes.

## Process-related knowledge

The line coupling option allows KLEEMANN machines to be coupled with each other. The crushing process between the crushing plants is then optimised automatically so that material is always conveyed through the machines with maximum efficiency. A probe is installed at the crusher discharge conveyor and/or fine grain conveyor of the upstream machine, which monitors the fill level of the feeding unit of the respective downstream machine. When the fill level reaches a defined height, the output of the upstream plant is temporarily reduced.

For safety reasons, the crushing and screening plants are connected to 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.

MC EVO2 + MCO EVO2 + MS EVO



# TARGETED TO SUCCESS

For perfect crushing results.



**An ideal crushing result is always achieved when components of the complete plant are perfectly tuned to each other, combined with the settings made by the operator.**

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

**Important basics**

- > What do I want to achieve with my application? Define the objective of the application: output and/or quality
- > What does my application look like exactly? 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**

**NATURAL STONE**

Limestone / sandstone / greywacke / gravel / granite / gneiss / marble / quartzite / diabase / gabbro / basalt	Iron ore	Coal	Clay

**With these tips, it is possible to define the ideal settings for any task:**

**A well filled crushing chamber**

- > Guarantees the throughput because a higher crushing effect is created in the crushing gap

**Correct feed size**

- > Has a strong influence on the crushing result, wear and the output of the cone crushing plant

**Central feeding of the feed material**

- > Ensures homogeneous distribution in the crushing chamber

**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 standard values result:

**Uniform feeding**

- > Guarantees stable process
- > Is achieved through the correct selection of the crushing tools, the crushing gap and the correct setting of loading via the CFS

**CRUSHING RATIO**

Specification	Crushing stage	Compressive strength	Circuit	Crushing ratio
standard head	secondary	<300 Mpa	open/closed	4:1
short head <sup>1</sup>	tertiary/quaternary	<300 Mpa	open/closed	3.5-4.5:1
short head <sup>2</sup>	tertiary/quaternary	<300 Mpa	open/closed	2-3:1

<sup>1</sup> normal grain shape requirements

<sup>2</sup> high grain shape requirements

**KLEEMANN > GOOD TO KNOW**

In order to implement project with mobile cone crushers, it is important to understand the application and to collect all important information. We have created a questionnaire to assist you. Find out more on the Internet under [www.wirtgen-group.com/questionnaire-kleemann](http://www.wirtgen-group.com/questionnaire-kleemann)

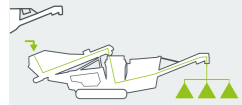


For further information, scan the code



# CONE CRUSHER 1 X 1

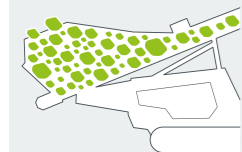
For a trouble-free work process.



## Prior to starting: check process (AggFlow)

Before embarking on 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.



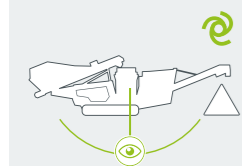
## Fill evenly, avoid running empty

A material layer should always be present in the feed hopper, as this cushions the load of newly fed material and therefore reduces the wear on the feed hopper.

Overfilling 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:

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



## Regular process monitoring during operation

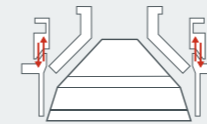
- > Regular monitoring of the process is absolutely necessary to guarantee a uniform material flow. Overloading can be identified early and damage can be avoided.
- > Ensure that the hoppers are never overfilled; it may be necessary to adapt the process parameters. On material return sections, ensure 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 the process in the event of overload

- > Watch out for overloading and keep the Ringbounce Detection overload system activated.
- > Signs of overloading include frequent tripping of the overload system, crusher stops, pulsating hydraulic hoses or a vibrating bowl (micro-vibrations).

### Countermeasures:

- > The feed material must be pre-crushed to make it smaller or fine material must be prescreened.
- > Increase in gap size and, where necessary, increase in speed.

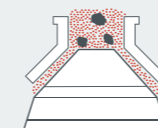


## Avoid wet, sticky feed material

- > Wet, sticky feed material causes jamming and clogging of the crushing chamber. This reduces the throughput and, as clogging of the crushing chamber increases, the feed material can become briquetted, which leads to blocking 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, sticky feed material; if necessary, pre-separate sticky material by means of prescreening. A clogged crushing chamber needs to be cleaned.

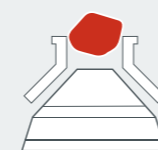


## Avoid fines

- > When fine material is fed in, tool wear is significantly higher than with prescreened feed material. Fines also lead to an increase in the crushing forces and the drive output is then possibly no longer sufficient. An excessive content of fines can trigger a latent overload (ringbounce) and lead to permanent crusher damage.

### Countermeasures:

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



## Observe correct feed size

- > If the feed material is too large, the material will not be drawn sufficiently into the crushing chamber and material blockages form. The result is a reduced crushing capacity, increased or uneven wear as well as damage to the crusher.
- > If the feed material is too small, the power of the crusher is not adequately used and product quality suffers. Partial washout can develop on the crushing tool. This can lead to a reduction in the crushing capacity, quality and 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 size distribution and avoid gap grading.

# YOUR WIRTGEN GROUP CUSTOMER SUPPORT

Service you can always rely on.

Place your trust in our reliable and fast support during the complete life cycle of your machine. Our wide service offer includes suitable solutions to meet all of your challenges.



## Service

We keep our service promises - with fast and uncomplicated assistance both on the building site as well as in our professional workshops. Our Service team has received expert training. Thanks to special tools, repair, care and maintenance work is completed quickly. Upon request, we can support you with tailored service agreements.

> [www.wirtgen-group.com/service](http://www.wirtgen-group.com/service)



## Spare parts

Original parts and accessories from KLEEMANN can ensure the high reliability and availability of your machines in the long term. Our experts will be glad to advise you on application-optimised wear part solutions. Our parts are available worldwide, at any time and are easy to order.

> [parts.wirtgen-group.com](http://parts.wirtgen-group.com)



## Training

Staff responsible for the WIRTGEN GROUP's product brands are specialists in their areas and have decades of application experience. Our customers also greatly benefit from these experts. In our WIRTGEN GROUP training courses, we gladly pass on our knowledge to operators and service personnel.

> [www.wirtgen-group.com/training](http://www.wirtgen-group.com/training)



## Telematics solutions

Construction machines with leading technology and perfected telematics solutions work hand-in-hand in the WIRTGEN GROUP. Intelligent monitoring systems such as WITOS or JD Link\* not only facilitate the maintenance planning of your machines but also increase productivity and economy.

> [www.wirtgen-group.com/telematics](http://www.wirtgen-group.com/telematics)

# SPARE PARTS

Correct wear parts ensure the best results.

## APPLICATION-SPECIFIC WEAR PARTS

### Crusher cone - versions

- > Standard
- > Short Head

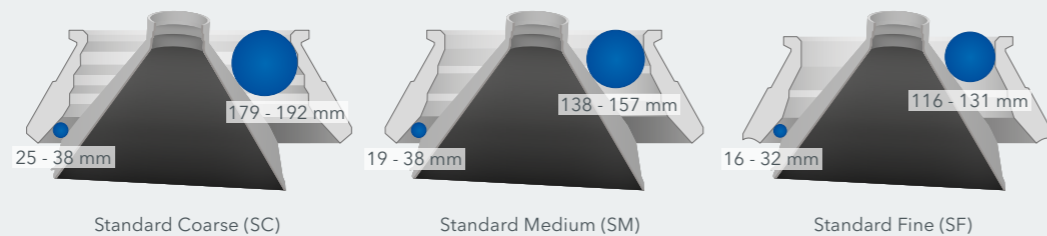
### Bowl liner - versions

- > Standard Fine
- > Standard Medium
- > Standard Coarse
- > Short Head Fine
- > Short Head Medium
- > Short Head Coarse

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

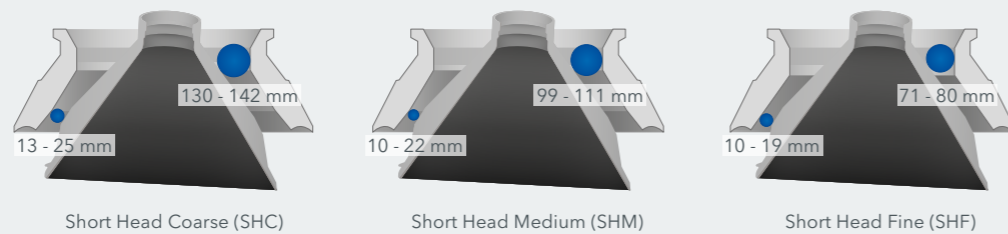
### Secondary crushing stage

- > final product > 32 mm
- > open circuit
- > large feed opening



### Tertiary crushing stage

- > final product < 32 mm
- > closed circuit
- > long calibration zone



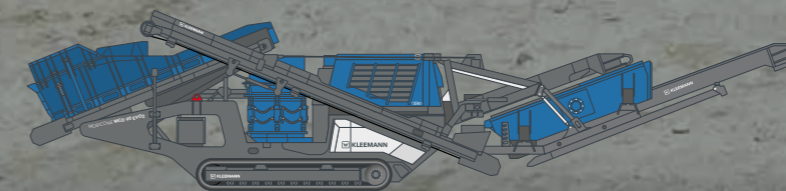
Further information: [parts.wirtgen-group.com](http://parts.wirtgen-group.com)

# TECHNICAL DATA AT A GLANCE

MOBICONE MCO 90(i) EVO2



### TECHNICAL DATA \*



### MCO 90(i) EVO2

- > Crusher system size (d) = 970 mm
- > Feed capacity: 270 t/h
- > Weight: 43,500 - 46,500 kg

\* Illustration contains options



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