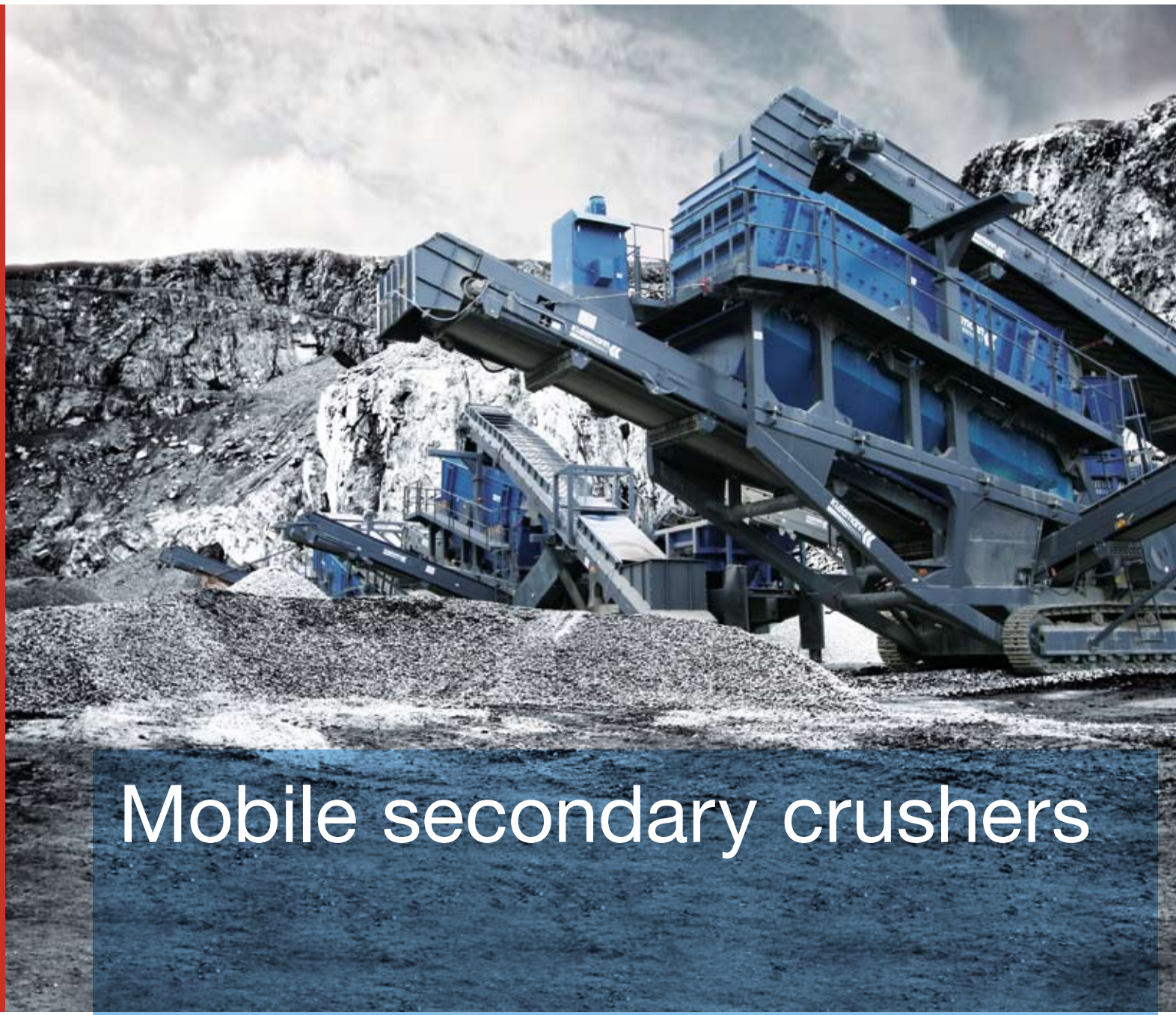


Mobile secondary crushers

- MOBICONE CONE CRUSHERS
- MOBIFOX IMPACT CRUSHERS

Mobile crushers: When stationary becomes mobility.

With its tradition in stationary plant construction, Kleemann GmbH is able to draw on its extensive knowledge of processing raw minerals. This becomes even more important as the requirements become even more demanding for the respective end product, and the greater the amount to be produced.

Previously only stationary plants were used for complicated processes. But thanks to the technical advancements made in machine technology, it is becoming increasingly possible to employ mobile technology for stationary applications.

The high-performance and technically advanced track-mounted cone crusher from the MOBICONE series, as well as the track-mounted impact crusher from the MOBIFOX series, are specially designed for such applications. Kleemann therefore offers a unique combination of an extensive product range of primary crushers and secondary crushers, and the design of reliable and high-performance interlinked plants.

WIRTGEN GROUP

KLEEMANN

What‘s needed for the successful implementation of high-performance interlinked plant systems?
Plants capable of high performance and process knowledge – two strong points of Kleemann.

Contents overview

Opening up new possibilities with extremely efficient mobile plants

Feed capacity of 500 t/h, up to seven final products of which five comply with the strict standards for asphalt and concrete products - and all this is possible using a mobile plant? Using the plant combination at Kelly's of Fantane in Ireland, Kleemann demonstrated what can be achieved today using mobile plant.

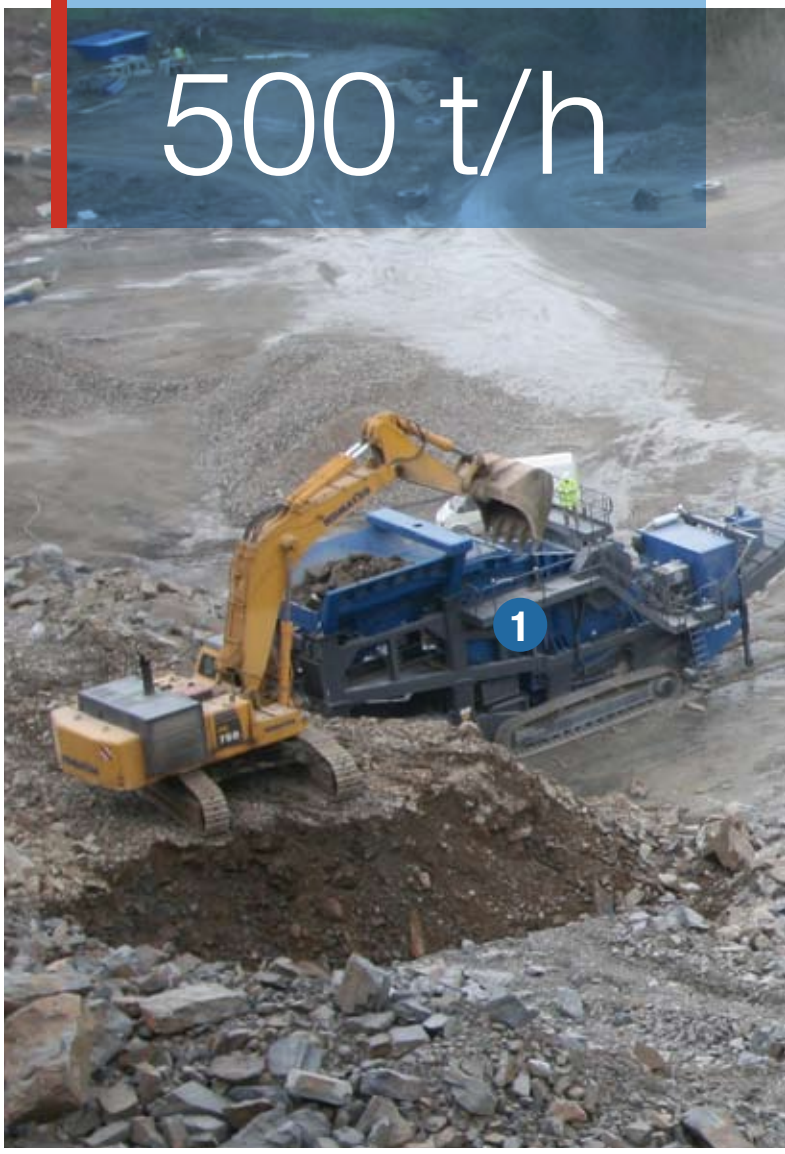
Two, three or several plants can be combined for use in both natural stone quarrying and recycling. The potential output of such plant combinations currently ranges from 100 t/h up to 500 t/h, but the upper limit has not yet been reached.

Mobile crushers and screen plants are advancing more and more into output ranges that up to a few years ago were only possible using stationary plants. Examples such as the plant combination in use at Kelly's of Fantane in Ireland are leading the way for the future.

The principle could be described as follows: Interlinked mobile plants are crushers and screens that work in conjunction with each other, and are coordinated in terms of performance and function.

KELLY'S OF FANTANE, IRELAND

500 t/h



> 1. MOBICAT MC 140 Z
> 2. MOBICONE MCO 13 S
> 3. MOBICONE MCO 13 S
> 4. MOBISCREEN MS 20 D

Why are interlinked mobile plants becoming more popular?

> mining permits are under time constraints
> better resale value and reusability
> plants can also be used individually
> progress made in stone quarries
> saves on cost of personnel and transport vehicles

Requirements and expectations

> thanks to modern technology, mobile plants can achieve final aggregate fractions which was earlier only possible from stationary plants
> production availability is on a par with stationary plants

What are the potential areas of application?

> in all quarries
> also for small deposits
> owner has several quarries
> various operation sites

What does Kleemann specifically offer?

> long-term experience in both the mobile and stationary field
> expertise in the processing of rock and stone
> an entire crushing programme and screen plants of all sizes

Quality end products at maximum efficiency

Mobile cone crushers - MOBICONE

Mobile cone crushers have been a part of the extensive range of crushers from Kleemann for many years. The MOBICONE series is specially designed for secondary and tertiary crushing in hard-stone applications. They are extraordinarily efficient, diverse in application and very economical to use.

To meet the diverse requirements in processing technology, the MOBICONE plants are available in different sizes and configurations. Whether it's only a cone crusher, or in addition with a triple-deck screen for closed loop operation, with various size cone crushers or a double-deck screen and oversize return conveyor, Kleemann offers a suitable plant for almost every task.

The MCO 9 S is loaded directly from a mobile Kleemann jaw crusher, MOBICAT MC 120 Z model.

A very important technical detail of the MCO 11 is its large feed hopper.

Various applications, a diverse product range, with various size cone crushers, and with or without screens, MOBICONE plants cover a large range of assignments.

The MCO 9 S produces three high-quality product sizes in closed loop operation.

MCO 9

The MCO 9 is available with („S“ version) and without a screen unit and can be used either as a secondary or tertiary crushing plant. Due to the low total weight, it is possible to change locations without great difficulty using a flat-bed trailer.

In addition, all components apart from the side discharge conveyors can remain on the plant during transportation. This has the added benefit of short setup times, allowing for more flexibility when moving from site to site. The plants can be loaded using excavators, wheel loaders or primary crushers.

MCO 9		MCO 9 S	TECHNICAL INFORMATION
Feed size:	up to max. 150 mm	Feed size:	up to max. 150 mm
Crusher inlet opening:	D = 900 mm	Crusher inlet opening:	D = 900 mm
Feed capacity*:	up to 200 t/h	Screen size:	1500 x 4500 mm
		Feed capacity*:	up to 220 t/h
Measurements:		Measurements:	
Length:	approx. 17000 mm	Length:	approx. 17000 mm
Width:	approx. 3400 mm	Width:	approx. 3400 mm
Feed height:	approx. 4250 mm	Feed height:	approx. 4240 mm
Weight:	approx. 38000 kg	Weight:	approx. 52000 kg

All information given is based on a standard design in operating position; subject to technical changes.

* depending on the type and consistency of the feed material, the primary screen selected, as well as the end product to be manufactured

MCO 11 / MCO 13

The MCO 11 and the MCO 13 also are available with and without screen units, similar to the MCO 9. For the MCO 11 S or the MCO 13 S, an extremely efficient triple-deck screen unit is used, which allows for closed-loop operation and also produces three final products. Here the screen areas are generously chosen – for the MCO 13 S for example, 2300 x 6000 mm – so large material quantities can be screened efficiently.

In addition, it ensures that the cone crusher always has the correct filling level which is particularly important for the quality of the end product.

With the so-called „SX“ versions, technology also makes it possible to return the overgrain from a downstream plant. These versions have a double-deck screen unit with a large run-off chute and can thus produce large quantities of relatively smaller final grain sizes.

MCO 11	
Feed size:	up to max. 250 mm
Crusher inlet opening:	D = 1100 mm
Feed capacity*:	up to 280 t/h
Measurements:	
Length:	approx. 17000 mm
Width:	approx. 3400 mm
Feed height:	approx. 4250 mm
Weight:	approx. 48000 kg

MCO 11 S	TECHNICAL INFORMATION
Feed size:	up to max. 250 mm
Crusher inlet opening:	D = 1100 mm
Screen size:	2000 x 5000 mm
Feed capacity*:	up to 280 t/h
Measurements:	
Length:	approx. 20000 mm
Width:	approx. 3400 mm
Feed height:	approx. 3600 mm
Weight:	approx. 75000 kg

All information given is based on a standard design in operating position; subject to technical changes.

* depending on the type and consistency of the feed material, the primary screen selected, as well as the end product to be manufactured

The MCO 11 can also be loaded using a wheel loader.

The MCO 13 S combines first-class end grain quality with extremely high performance.

The screen areas of the „S“ versions are very generously chosen – for the MCO 13 S for example 2300 x 6000 mm – so that large material quantities can be screened efficently.

MCO 13	
Feed size:	up to max. 280 mm
Crusher inlet opening:	D = 1300 mm
Feed capacity*:	up to 400 t/h
Measurements:	
Length:	approx. 19000 mm
Width:	approx. 3550 mm
Feed height:	approx. 4450 mm
Weight:	approx. 57000 kg

MCO 13 S	TECHNICAL INFORMATION
Feed size:	up to max. 280 mm
Crusher inlet opening:	D = 1300 mm
Screen size:	2350 x 6000 mm
Feed capacity*:	up to 400 t/h
Measurements:	
Length:	approx. 23000 mm
Width:	approx. 3550 mm
Feed height:	approx. 4250 mm
Weight:	approx. 105000 kg

All information given is based on a standard design in operating position; subject to technical changes.

* depending on the type and consistency of the feed material, the primary screen selected, as well as the end product to be manufactured

Best suited for soft to medium-hard stone

Mobile impact crushers – MOBIFOX

With the mobile impact crushers from the MOBIFOX series, Kleemann is in a position to meet the most demanding technical requirements.

The impact crushers from the SNH series are specially developed for secondary crushing and guarantee maximum end product quality.

The MOBIFOX mobile impact crushers for secondary crushing are, so to speak, the sister plants of the mobile cone crushers from the MOBICONE series. Whereas these are designed for hard-stone applications, the MOBIFOX is designed for soft to medium-hard stone. Similar to the mobile cone crushers, the mobile impact crushers are also available in the most important technical configurations. With or without screen unit, with return conveyor for closed material loop or with oversize return feed via a downstream screen. In addition, there are crushers in three different sizes, depending on the quantity requirement and size of the feed material.

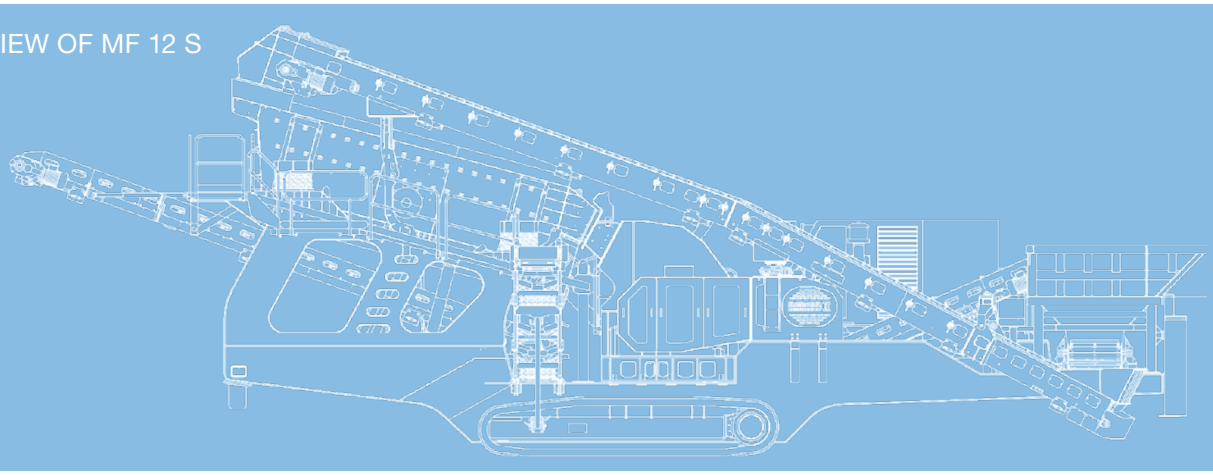
The special feature among the MOBIFOX products is the impact crusher in the SNH series. In comparison to other Kleemann impact crushers for primary crushing, the SHB or SHH series, the SNH crushers are equipped with a third impact apron, a so-called „grinding path“. This impact apron is not responsible for crushing the material, but ensures the ever so important cubicity of the grain size. This way it is possible to obtain first-class end products, which can be used then as high-quality aggregate for manufacturing concrete or asphalt.

The plants in the MOBIFOX series are available in three different sizes depending on the quantity requirement and size of the feed material.

MF 12 S

Similar to all Kleemann plants, which are designed for use in quarries, the MF 12 S also has a diesel/electric drive concept. The high degree of efficiency of this concept has the result of very low fuel consumption. The drive is used solely for producing electricity, which in turn generates less service costs and high availability. In addition, the diesel engine has an elaborate noise-reduced design in order to meet today's environment protection requirements.

OVERVIEW OF MF 12 S



MF 12 S — TECHNICAL INFORMATION

Feed size:	up to max. 200 mm
Crusher inlet opening:	1220 x 600 mm
Screen size:	2000 x 5000 mm
Feed capacity*:	up to 280 t/h
Measurements:	
Length:	approx. 19300 mm
Width:	approx. 3400 mm
Feed height:	approx. 3800 mm
Weight:	approx. 61000 kg

All information given is based on a standard design in operating position; subject to technical changes.

* depending on the type and consistency of the feed material, the primary screen selected, as well as the end product to be manufactured

Ideally suited for quarry requirements: diesel-electric drive concept.

MF 14 S

The MF 14 S is a reliable mobile secondary crushing plant that is used in the natural stone industry. Specially designed for the requirements in secondary or tertiary crushing stages in natural stone, it impresses with its high economy and availability.

The diesel-electric drive concept also proves its superiority here. The intelligent control of the plant via PLC ensures optimal adjustment to the complete crushing process.

MF 14 S — TECHNICAL INFORMATION

Feed size:	up to max. 220 mm
Crusher inlet opening:	1420 x 600 mm
Screen size:	2000 x 5000 mm
Feed capacity*:	up to 300 t/h
Measurements:	
Length:	approx. 20000 mm
Width:	approx. 3400 mm
Feed height:	approx. 3600 mm
Weight:	approx. 75000 kg

All information given is based on a standard design in operating position; subject to technical changes.

* depending on the type and consistency of the feed material, the primary screen selected, as well as the end product to be manufactured

Kleemann MOBIFOX MF 14 in use when processing limestone.

The MF 16 S offers performance at the highest level – both in relation to the processing quantity and quality of the end product.

MF 16 S

The MOBIFOX MF 16 S is a unique machine for manufacturing first-class material – and also huge production. Exactly as with the smaller plants in the MOBIFOX series, a high level of operational safety is the underlying principle here.

Simple maintenance, convenient access by steps and operating platforms, as well as technical auxiliary attachments, are some features of this plant.

MF 16 S — TECHNICAL INFORMATION

Feed size:	up to max. 250 mm
Crusher inlet opening:	1620 x 600 mm
Screen size:	2350 x 6000 mm
Feed capacity*:	up to 400 t/h
Measurements:	
Length:	approx. 22300 mm
Width:	approx. 4050 mm (without feeding conveyor)
Feed height:	approx. 4500 mm
Weight:	approx. 120000 kg

All information given is based on a standard design in operating position; subject to technical changes.

* depending on the type and consistency of the feed material, the primary screen selected, as well as the end product to be manufactured

Thanks to the grinding path as a third impact apron, the crushers in the SNH series produce the best possible end product quality.

Mobile plant combinations from Kleemann – a worthwhile investment.

MCO 11 / MCO 11 SX / MS 17 Z / MS 20 D ■ PATERSONS QUARRIES LTD., SCOTLAND

In what situations can a mobile plant combination replace a stationary plant? In what circumstances is the mobile solution the best alternative? In the following example there is a list of reasons why the old stationary plants have been replaced with a mobile process.

One reason is that in the long run, mobile plant combinations offer much greater flexibility. For example, as an operator of several stone quarries, the customer can use the plants, in changing market situations, at different excavation sites. In addition, they can also be used as individual machines. A further decisive factor is that mobile plants, in general, require a lot simpler and shorter licensing procedures.

Furthermore, today it is generally possible to meet complex requirements using mobile plants. Kleemann is a reliable partner when it comes to the professional and precise design of an interlinked plant combination. It also allows us to provide our complete range of mobile primary and secondary crushers, as well as screens, from the one source. Together with the reliable service offered around the world, which Kleemann guarantees with the Wirtgen Group subsidiaries and retailers, the result is a long-term successful investment.

Brief description Paterson, Scotland

Feed position	
Charged material:	blasted dolorite
Feed size:	0/600 mm
Feed capacity:	approx. 220 t/h
End products:	20/31,5 mm 14/20 mm 10/14 mm 6/10 mm 3/6 mm 0/3 mm
End product quality:	i.a.w. EN Norms

Machines used	
Plant type:	
Mobile jaw crusher:	MOBICAT MC 120 Z
Mobile cone crusher:	MOBICONE MCO 11
Mobile cone crusher:	MOBICONE MCO 11 SX with external overgrain return feed
Double-deck screen:	MOBISCREEN MS 17 Z
Triple-deck screen:	MOBISCREEN MS 20 D

It also allows us to provide our complete range of mobile primary and secondary crushers, as well as screens, from the one source.