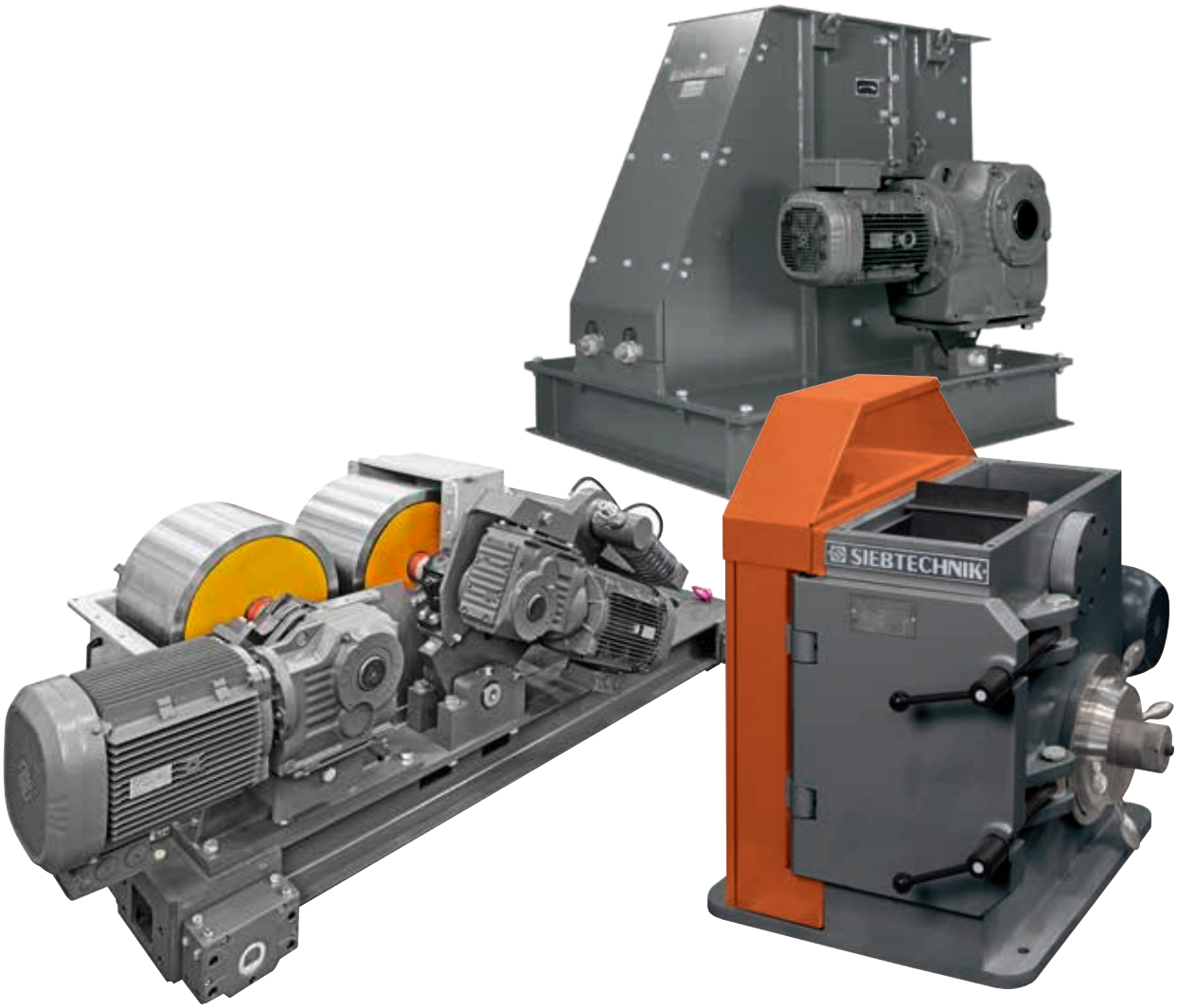
SIEBTECHNIK TEMA



Jaw crushers and roller mills

For the comminution of brittle materials

JAW CRUSHER - EB SERIES

With our various models and sizes of jaw crushers, we are sure to have the right model for your application. SIEBTECHNIK TEMA offers models for laboratory applications "-L" (with feed hopper, collection container and integrated control system) as well as versions for integration into plants.

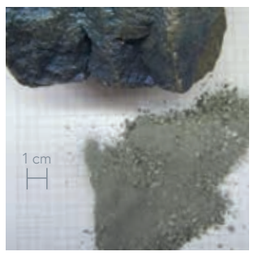
EB 50x40-L · EB 100x80-L · EB 150x100-L · EB 200x125-L · EB 300x250-L

In the jaw crusher, comminution takes place in a wedge-shaped crushing chamber between one fixed and one moving crushing jaw.

Our jaw crushers deliver:

- **High final fineness of up to 90% < 1 mm*[1)]**
  depending on the size of the crusher, the material, and the crushing gap set, it is possible to achieve comminution ratios of up to 1:200.
- **A fixed crushing jaw, which is designed like a door**
  this allows the crushing chamber to be opened quickly and without tools for purposes of cleaning and full inspection, making it possible to ensure that no cross contamination of material takes place.
- **Continuously adjustable crushing gap**
  which can be read via a scale on the housing. The zero point of the scale can be readjusted when the crushing jaws are worn down.
- **Reversible overload protection**
  for size EB 100x80-L and above
- **Crushing jaws can be rotated 180°**
  the service life of the crushing jaws can thus be doubled, as the main wear usually occurs in the area of the smallest crushing gap.
- **Dust extraction connection**
  via a connection flange in the tamper-proof feed chute.
- **Low-maintenance and lubricant-contamination-free comminution**
  with the sealed and lifetime-lubricated bearings up to size EB 200x125-L.
- **Low-contamination comminution with crushing jaws made from**
  high-carbon cast steel, stainless steel, tungsten carbide or zirconium oxide.

EB 200x125



Comminution of ferroalloys

JAW CRUSHER - EB SERIES

If you would like to save a preparation step during sample preparation, our **jaw crushers with integrated dividers** are ideally suited for this purpose:

- **Innovative app control**
  - Standard Operating Procedures (SOP)
  - Display showing the gap width setting
  - Accessing the operating instructions
  - Direct spare parts inquiry
  - Sample/machine data exportable in csv format
  - Update-friendly app and firmware
- **The turntable with 5 containers**
  for dividing the sample quantity into 3x 1:4 and 2x 1:8

EB 150x100-TL

Technical data

Jaw crusher		EB 50×40-L	EB 100×80	EB 150×100	EB 200×125	EB 300×250
Dimensions with door closed (W × H × L)	mm	325×630×620	470×578×773 470×951×773 (-L)	615×701×938 615×1150×938 (-L)	663×874×1192 663×1340×1192 (-L)	972×1610×1639 972×1874×1717 (-L)
Weight	kg	95	220 250 (-L)	335 380 (-L)	735 787 (-L)	2160 2255 (-L)
Drive power	kW	1.1	2.2	4	7.5	18.5
Jaw width	mm	50 × 40	100 × 80	150 × 100	200 × 125	300 × 250
Stroke in discharge gap (min.)	mm	0.5	1.2	1.4	1.4	2.0
Discharge gap	mm	0 – 10	0 – 12	0 – 15	0 – 32	0 – 32
Max. feed unit size for individual infeed	mm	30	70	90	110	240
Throughput rate	kg/h	10 – 50	50 – 350	75 – 500	250 – 2000	400 – 3500
Operating voltage		400 V, 3/N/PE, 50 Hz				

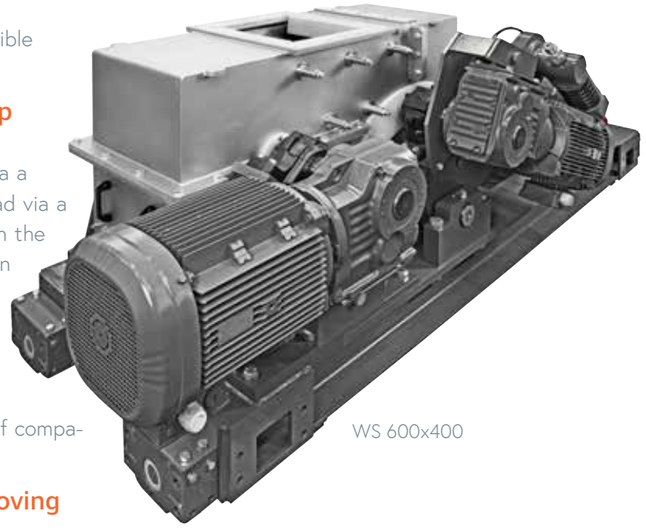
Jaw crusher with integrated divider		EB 100×80-TL	EB 150×100-TL	EB 200×125-TL
Dimensions (W × H × L)	mm	730 × 1315 × 978	730 × 1451 × 978	790 × 1696 × 1300
Weight	kg	445	550	1150
Drive power	kW	2.2 and 0.25	4 and 0.25	7.5 and 0.25
Collection container volume, cumulative	dm^3	7	7	12

The throughput rate depends on the size of the discharge gap, the bulk density and the comminution behavior of the crushed material.
*1) The final fineness obtained is largely determined by the discharge gap selected, the stroke and the comminution behavior of the material. To achieve sufficient particle precision, the feed batch should be crushed for a period of at least 30 seconds.
Depending on the machine type, the collection containers can only be partially filled.
Subject to technical changes.

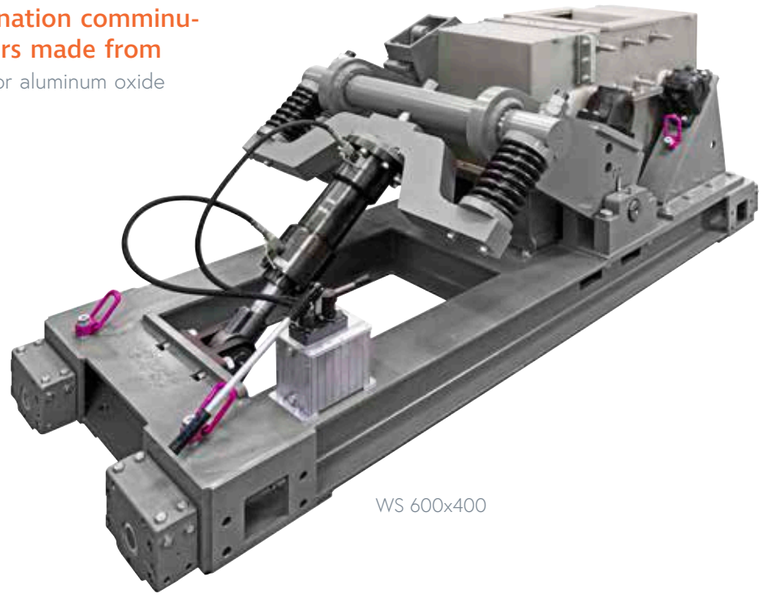
Our Double-roller mills are also available in two versions.
One for plant applications and the other for laboratory applications (-L).
The laboratory version is additionally equipped with a feed hopper, a base frame with a collection container and a control system, so that it is supplied wired ready for connection.

The Double-roller mill crushes material using two rollers that are rotating in opposite directions. The rollers pull the material into the roller gap and crush it using pressure and shearing forces.
Our roller mills have:

- **A comminution ratio**
  usually of 1:2 to 1:5, with a maximum possible ratio of 1:20.
- **Continuously adjustable roller gap**
  One of the two rollers is fixed in position, while the second roller can be adjusted via a spindle. The selected roller gap can be read via a scale and recorded by a sensor and can, in the laboratory version, be viewed in the app. In the app, the zero point can also be reset accordingly when the rollers are worn.
- **Reversible overload protection**
  Spring packs give the moving roller the possibility to avoid damage in the event of comparatively small non-breakable materials.
- **High force transmission to the moving crushing roller**
  which is installed on a rocker, so that high compressive forces can be generated in the roller gap.
- **Low-wear, low-contamination comminution with crushing rollers made from**
  cast steel, tungsten carbide or aluminum oxide



WS 600x400



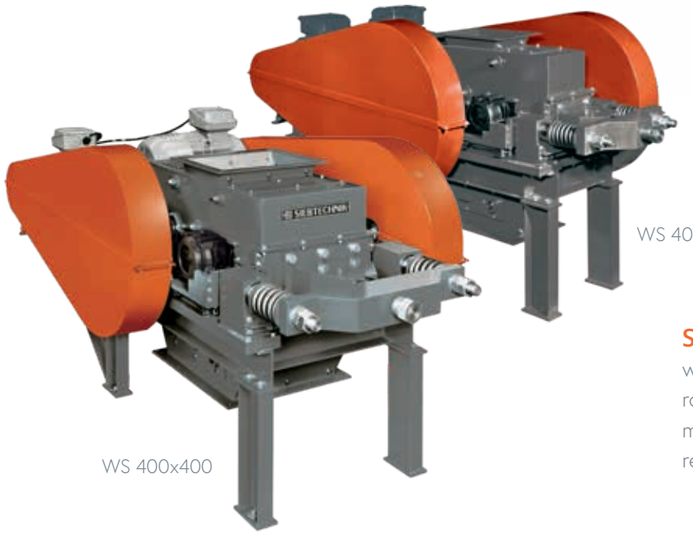
WS 600x400

DOUBLE-ROLLER MILLS – WS

The laboratory versions also feature

- **Innovative app control**
  - Standard Operating Procedures (SOP)
  - Roller gap display
  - Accessing the operating instructions
  - Direct spare parts inquiry
  - Sample/machine data exportable in csv format
  - Update-friendly app and firmware
- **Easy cleaning and inspection of the grinding chamber**
  via the flap-open upper crusher housing
- **Extractor connection**
  below the rollers

WS 250x150-L



WS 400x200

WS 400x400

Special design variations
with torque measurement, hydraulic/electric roller gap adjustment and roller pressure measurement as well as other specific requirements for your application.

Technical data

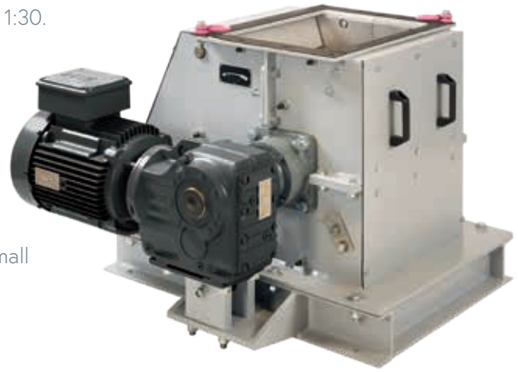
Double-roller mill		WS 250x150	WS 400x200	WS 400x400	WS 600x400	WS 600x800
Dimensions (W × H × L)	mm	1070×530×676 1113×1368×676 (-L)	1916×862×822 1916×1547×950 (-L)	2300×1160×1100	3400×1150×1430	2960×1130×1600
Weight	kg	323 479 (-L)	929 973 (-L)	1920	3000	4850
Motor	kW	3	2 x 5.5	2 x 7.5	2 x 15	2 x 22
Roller size (Ø x W)	mm	Ø 250×150	Ø 400×200	Ø 400×400	Ø 600×400	Ø 600×800
Gap, min. – max.	mm	0.2 – 5.0	0.2 – 15	0.2 – 15	0.2 – 15	0.2 – 15
Max. feed unit size	mm	12	20	20	50	50
Throughput rate	kg/h	50 – 2000	75 – 6000	150 – 10000	180 – 10000	360 – 17000

The throughput rate depends on the size of the discharge gap, the bulk density and the comminution behavior of the crushed material. The final fineness obtained is largely determined by the discharge gap selected. Subject to technical changes.

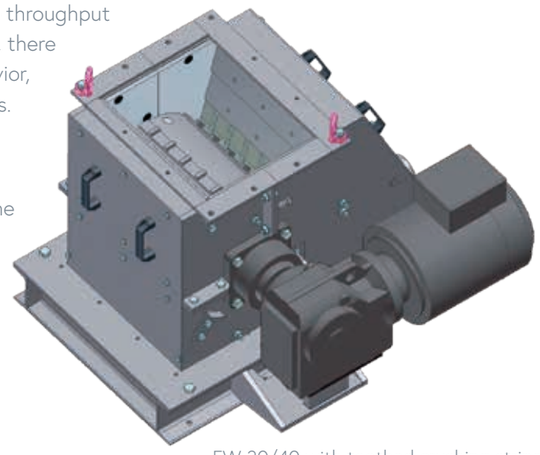
SINGLE-ROLLER MILLS – EW

Single-roller mills crush material between a rotating roller and a crushing plate.
The material is drawn into the crushing gap and crushed using pressure and shearing forces before it is able to pass through.
Our roller mills have:

- **A comminution ratio**
  usually of 1:5 to 1:15, with a maximum possible ratio of 1:30.
- **Continuously adjustable crushing gap**
  The crushing plate is supported on pre-tensioned springs, enabling the continuous adjustment of the crushing gap.
- **Reversible overload protection**
  Spring packs give the moving crushing plate the possibility to avoid damage in the event of comparatively small non-breakable materials.
- **Tiered arrangement of the crushing plate**
  which pulls in coarse material more effectively
- **Crushing strips on the roller**
  which can be adjusted in height using shims, improving feeding behavior and letting the user adjust the throughput rate. In the version with toothed crushing strips, there are additional benefits relating to feeding behavior, especially when working with wet feed materials.
- **Segmented housing**
  enables the removal of one housing segment in order to replace the crushing strips as well as the wear plates on the roller body.



EW 30/40 in stainless steel



EW 30/40 with toothed crushing strips

Technical data

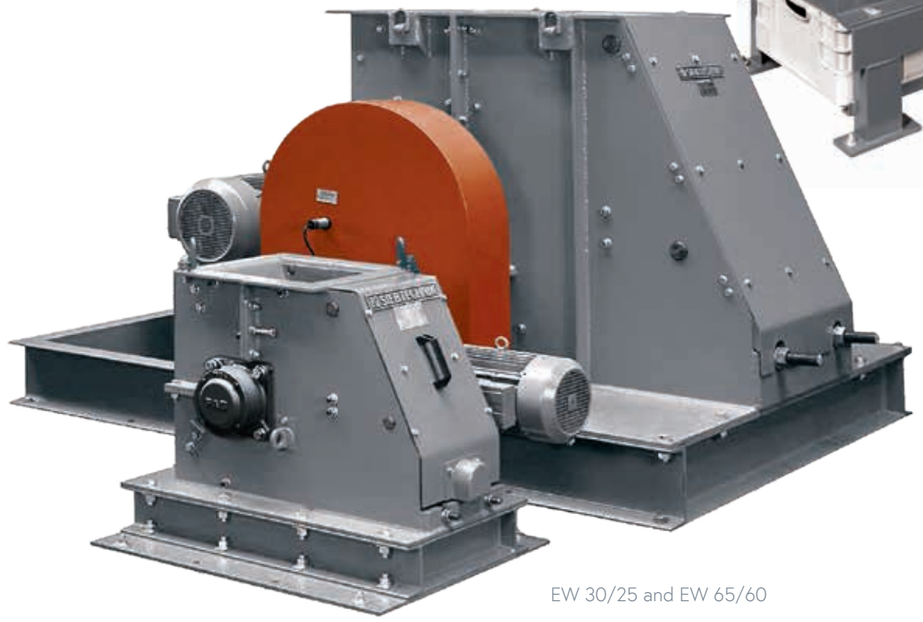
Single-roller mill		EW 30/25	EW 30/25-L	EW 30/40	EW 30/60
Dimensions (W x H x L)	mm	675 x 500 x 1360	1000 x 1500 x 925	850 x 1100 x 2120	1100 x 1160 x 2300
Weight	kg	480	570	590	820
Motor	kW	5.5	5.5	7.5	9.2
Roller size (Ø x W)	mm	Ø 300 x 250	Ø 300 x 250	Ø 300 x 400	Ø 300 x 600
Gap, min. – max.	mm	5 – 30	5 – 30	5 – 30	5 – 30
Max. feed unit size	mm	120	120	120	120
Throughput rate	kg/h	500 – 2500	500 – 2500	750 – 3500	1000 – 4500

The throughput rate depends on the size of the discharge gap, the bulk density and the comminution behavior of the crushed material. The final fineness obtained is largely determined by the discharge gap selected. Subject to technical changes.

SINGLE-ROLLER MILLS – EW

The **Single-roller mill EW 30/25-L** is intended for **laboratory applications** and is supplied wired ready for connection with a hinged, tamper-proof feed hopper, a base frame with a collection container and a control system.
Thanks to the hinged feed hopper, the crushing chamber can be easily inspected/cleaned in order to prevent cross contamination between samples.

EW 30/25-L



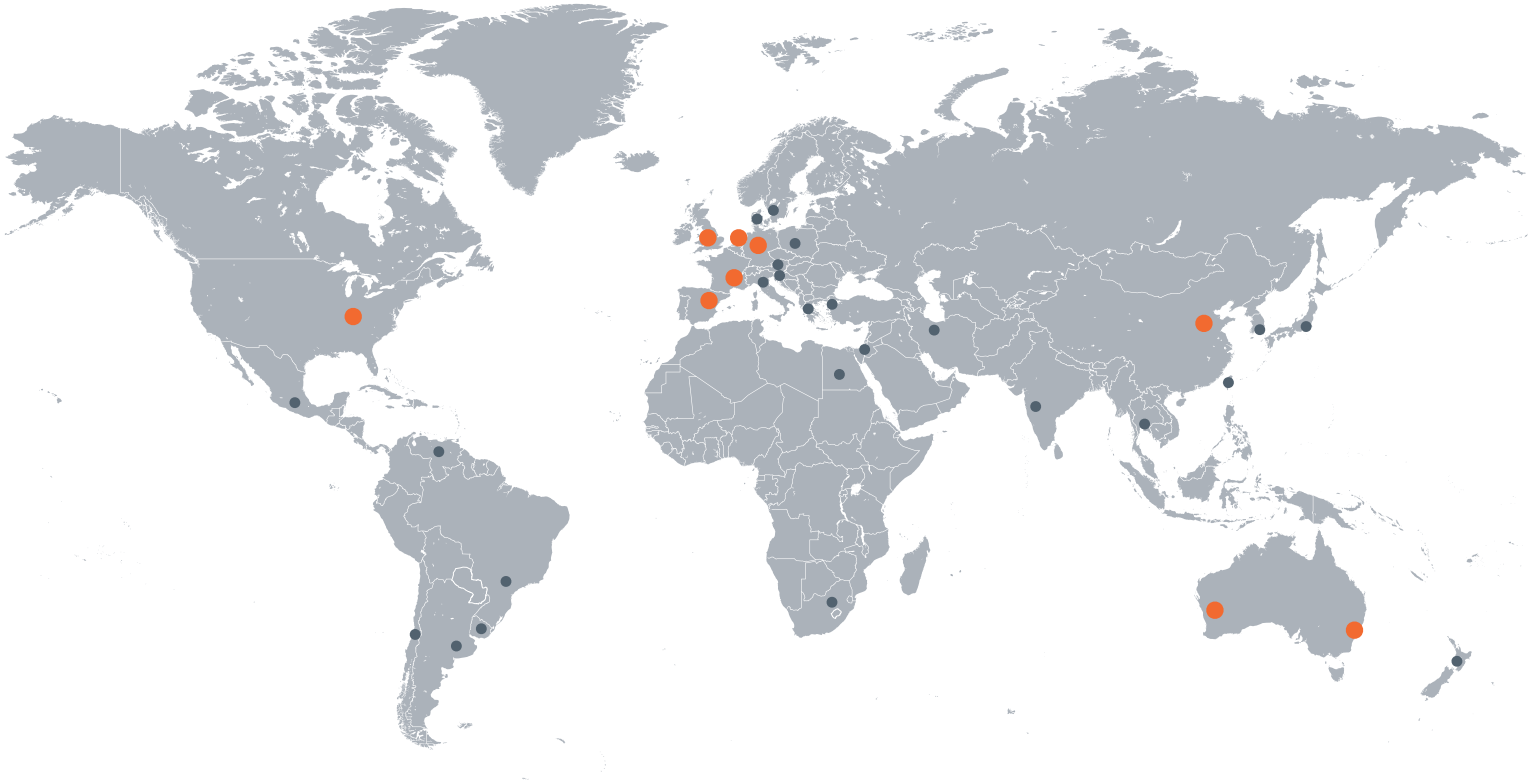
EW 30/25 and EW 65/60

Technical data

Single-roller mill		EW 50/40	EW 50/60	EW 65/40	EW 65/60
Dimensions (W x H x L)	mm	1300 x 1100 x 3400	1750 x 1100 x 3400	1300 x 1400 x 1620	1660 x 1400 x 2480
Weight	kg	1410	2150	2450	3720
Motor	kW	11	15	15	18.5
Roller size (Ø x W)	mm	Ø 500 x 400	Ø 500 x 600	Ø 650 x 400	Ø 650 x 600
Gap, min. – max.	mm	5 – 60	5 – 60	5 – 60	5 – 60
Max. feed unit size	mm	200	200	300	300
Throughput rate	kg/h	750 – 5500	1000 – 7500	750 – 5500	1000 – 7500

The throughput rate depends on the size of the discharge gap, the bulk density and the comminution behavior of the crushed material. The final fineness obtained is largely determined by the discharge gap selected. Subject to technical changes.

One Solution. Worldwide.



SIEBTECHNIK TEMA provides more than 50 local support offices worldwide as well as main sites located in:

Mülheim an der Ruhr, Germany | Rijswijk / The Hague, The Netherlands | Madrid, Spain
Daventry, Great Britain | Mundolsheim, France | Sydney & Perth, Australia | Cincinnati, USA
Tianjin, China

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WB277e | 03/2023