



# Mills

Version 1.0

# Overview



Our range of batch, inline and tube mills from IKA® is designed to fulfill your laboratory needs, whether it's to grind, crush or mix materials. Across the range, they enable efficient and precise sample preparation.

## BATCH MILLS

Our range of batch mills is designed for efficient, reliable grinding of small to medium sample volumes. These mills accommodate both hard and soft materials, offering flexibility across different applications.

They feature high-speed performance, interchangeable or disposable grinding chambers to reduce contamination and options for cooling or dual-use operation. With compact designs and robust construction, the batch mills provide consistent results for research, quality control as well as routine sample preparation in scientific and industrial environments.



## INLINE MILLS

Thanks to its powerful drive motor, the MF10 inline mill is ideal for continuous material processing. It can produce fine to moderate particle size reduction, offers adjustable grind settings through changeable sieves and it is built for integration with industrial or pilot-scale setups. The MF10 inline mill reduces batch handling and is ideal for applications where high output and consistency are required.



## TUBE MILLS

Our range of tube mills is designed for safe, efficient grinding of small sample volumes. These mills use disposable or interchangeable grinding chambers, minimising cleaning and cross-contamination. Compact and easy to operate, they handle dry, brittle materials and offer variable speed control for consistent results.

Ideal for laboratories requiring flexibility and contamination-free processing, tube mills provide a practical solution for routine sample preparation across research, industrial, and quality control applications.



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# Batch Mills



## A11

A Batch mill for two different grinding procedures:

**Impact grinding** of hard, brittle or non-elastic grinding materials with high-grade stainless steel beater. This beater can be used for a 6 Mohs hardness (included with delivery).

**Cutting grinding** for pulverizing soft, fibrous materials with a cutting blade (optional accessory).



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### FEATURES + BENEFITS

- Grinding chamber made of Tefcel (PTFE, glass fibre-reinforced) with stainless steel inlet (1.4571)
- Moist and gluey materials can be pulverised by adding water (required blade not included in delivery)
- 28,000rpm fixed speed
- 80mL volume supplied as standard
- Optional 250mL grinding chamber available
- 10mm maximum granularity of material
- Overload protection

### OPERATION



#### Supplied with:

- A11 Basic
- A11.1 Beater



# Batch Mills



## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Batch
<b>OPERATING PRINCIPLE</b>	Cutting / Impact
<b>MOTOR RATING INPUT</b>	160W
<b>MOTOR RATING OUTPUT</b>	100W
<b>SPEED MAX.</b>	Fixed 28,000rpm
<b>CIRCUMFERENTIAL SPEED MAX.</b>	53m/s
<b>USEABLE VOLUME MAX.</b>	80mL
<b>FEED HARDNESS MAX.</b>	6 Mohs
<b>FEED GRAIN SIZE MAX.</b>	10mm
<b>MATERIAL BEATER/CUTTER</b>	Stainless Steel 1.4034
<b>MATERIAL MILLING CHAMBER</b>	Stainless Steel 1.4571
<b>MILL FEED CAN BE COOLED IN MILLING CHAMBER WITH DRY ICE</b>	Yes
<b>MILL FEED CAN BE COOLED IN MILLING CHAMBER WITH LIQUID NITROGEN</b>	Yes
<b>DIMENSIONS (WxHxD)</b>	85 x 240 x 85mm
<b>WEIGHT</b>	1.5kg

### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0002900000I</a>	A11 Mill (A11.1 included with delivery)	Each
<a href="#">0002904600I</a>	A11.1 Spare beater, stainless steel	Each
<a href="#">0002905200I</a>	A11.2 Cutting blade, stainless steel	Each
<a href="#">0002983000I</a>	A11.3 Beater, stainless steel	Each
<a href="#">0002904100I</a>	A11.4 Grinding chamber, 250mL volume	Each
<a href="#">0002983100I</a>	A11.5 Grinding chamber, 80mL volume	Each
<a href="#">0003302900I</a>	A11.6 Double beater	Each
<a href="#">0003048700I</a>	A11.7 Funnel, suits A11.5 (prevents splashing)	Each

## ACCESSORIES



[0002904600I](#)  
A11.1 Spare beater



[0002905200I](#)  
A11.2 Cutting blade



[0002983000I](#)  
A11.3 Beater, suitable for  
up to hardness 9 Mohs



[0002904100I](#)  
A11.4 Grinding chamber,  
250mL volume



[0002983100I](#)  
A11.5 Grinding chamber,  
80mL volume



[0003302900I](#)  
A11.6 Double beater



[0003048700I](#)  
A11.7 Funnel

# Batch Mills

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## A10

The redesigned A10 batch mill grinds hard, brittle, soft and fibrous materials for volumes up to 50mL. Also suitable for tough, oily and aqueous samples.

The development of the A10 mill had particular emphasis on safety. For example, it starts only when the lid is closed and can be opened only at standstill. Also, a quick stop feature and bayonet lid lock allows for simple and safe use.



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### FEATURES + BENEFITS

- Digital timer
- Digital counter for grinding time
- Interval function
- Brushless motor for low maintenance and low noise level
- Integrated cooling connections
- Error code display
- Simple handling with keypads
- Changeable beater/cutter for a variety of applications
- Supplied with grinding chamber reduction for small sample sizes
- Stainless steel cutter A10.1 included with delivery
- Mill feed can be cooled in milling chamber with dry ice

### OPERATION



#### Supplied with:

- A10 Basic
- A10.1 Stainless steel cutter
- A10.4 Grinding chamber reduction
- 2x Clips for cooling hose
- 2x Felt rings
- Tool kit

# Batch Mills

## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Batch
<b>OPERATING PRINCIPLE</b>	Cutting / Impact
<b>MOTOR RATING INPUT</b>	300W
<b>MOTOR RATING OUTPUT</b>	240W
<b>SPEED MAX.</b>	Fixed 25,000rpm
<b>SPEED DEVIATION</b>	±500rpm
<b>CIRCUMFERENTIAL SPEED MAX.</b>	73m/s
<b>USEABLE VOLUME MAX.</b>	50mL
<b>FEED HARDNESS MAX.</b>	5 Mohs
<b>FEED GRAIN SIZE MAX.</b>	6mm
<b>MATERIAL BEATER/CUTTER</b>	Stainless Steel 1.4034
<b>MATERIAL MILLING CHAMBER</b>	Stainless Steel 1.4301
<b>MILLING CHAMBER CAN BE COOLED WITH WATER</b>	Yes
<b>MILL FEED CAN BE COOLED IN MILLING CHAMBER WITH DRY ICE</b>	Yes
<b>DIMENSIONS (WxHxD)</b>	130 x 250 x 145mm
<b>WEIGHT</b>	3.13kg

## ACCESSORIES



[0025001680I](#)  
A10.1 Cutter



[0025001162I](#)  
A10.2 Star shaped cutter



[0025001161I](#)  
A10.3 Hard metal cutter,  
suitable for up to hardness  
9 Mohs



[0025001664I](#)  
A10.4 Grinding chamber  
reduction

## Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0004020700I</a>	A10 Basic Mill (A10.1 included with delivery)	Each
<a href="#">0025001680I</a>	A10.1 Cutter, stainless steel	Each
<a href="#">0025001162I</a>	A10.2 Star shaped cutter	Each
<a href="#">0025001161I</a>	A10.3 Hard metal cutter, tungsten carbide	Each
<a href="#">0025001664I</a>	A10.4 Grinding chamber reduction	Each

# Batch Mills



## M20

The M20 is a lab-scale batch mill ideal for dry grinding of hard and brittle substances. It operates at a fixed speed of 20,000rpm and has a usable chamber volume of 250mL.

Uniquely designed with a dual chamber, allowing for two alternating grinding chambers operated with the one drive. Retain sample integrity with the double-walled stainless steel milling chambers that can be cooled with water through two hose adapters. Easy to clean thanks to removable grinding chambers.



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### FEATURES + BENEFITS

- Double-walled grinding chamber can be cooled by water through two hose adapters
- Removable grinding chamber, easy to clean
- Two grinding chambers operated with one drive
- M21 blade included with delivery

### OPERATION



#### Supplied with:

- M20 Mill
- M21 Cutter Stainless Steel
- Tool kit

# Batch Mills



## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Batch
<b>OPERATING PRINCIPLE</b>	Cutting / Impact
<b>MOTOR RATING INPUT</b>	450W
<b>MOTOR RATING OUTPUT</b>	225W
<b>SPEED MAX.</b>	Fixed 20,000rpm
<b>CIRCUMFERENTIAL SPEED MAX.</b>	72m/s
<b>USEABLE VOLUME MAX.</b>	250mL
<b>FEED HARDNESS MAX.</b>	5 Mohs
<b>FEED GRAIN SIZE MAX.</b>	7mm
<b>MATERIAL BEATER/CUTTER</b>	Stainless Steel 1.4034
<b>MATERIAL MILLING CHAMBER</b>	Stainless Steel 1.4301
<b>MILLING CHAMBER CAN BE COOLED WITH WATER</b>	Yes
<b>MILL FEED CAN BE COOLED IN MILLING CHAMBER WITH DRY ICE</b>	Yes
<b>DIMENSIONS (WxHxD)</b>	170 x 350 x 170mm
<b>WEIGHT</b>	6.6kg

## ACCESSORIES



[0008006200I](#)

M20.1 Grinding chamber,  
supplied with 1x M21 cutter



[0000328200I](#)

M21 Spare cutter



[0000521800I](#)

M22 Hard cutter, suitable  
for up to hardness 9 Mohs



[0001443400I](#)

M23 Star shaped cutter

## Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0001603600I</a>	M20 Mill (M21 included with delivery)	Each
<a href="#">0008006200I</a>	M20.1 Grinding chamber, stainless steel	Each
<a href="#">0000328200I</a>	M21 Spare cutter, stainless steel	Each
<a href="#">0000521800I</a>	M22 Hard cutter, tungsten carbide	Each
<a href="#">0001443400I</a>	M23 Star shaped cutter, stainless steel	Each

# Batch Mills

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## PRODUCT COMPARISON GUIDE



SPECIFICATIONS	A11	A10	M20
PRODUCT CODE	<a href="#">00029000001</a>	<a href="#">00040207001</a>	<a href="#">00016036001</a>
PROCESS TYPE		Batch	
OPERATING PRINCIPLE		Cutting / Impact	
MOTOR RATING INPUT	160W	300W	450W
MOTOR RATING OUTPUT	100W	240W	225W
FIXED SPEED MAX.	28,000rpm	25,000rpm	20,000rpm
CIRCUMFERENTIAL SPEED MAX.	53m/s	73m/s	72m/s
USEABLE VOLUME MAX.	80mL	50mL	250mL
FEED HARDNESS MAX.	6 Mohs		5 Mohs
FEED GRAIN SIZE MAX.	10mm	6mm	7mm
MATERIAL BEATER/CUTTER		Stainless Steel 1.4034	
MATERIAL MILLING CHAMBER	Stainless Steel 1.4571		Stainless Steel 1.4301
MILLING CHAMBER CAN BE COOLED WITH WATER	-		Yes
MILL FEED CAN BE COOLED IN MILLING CHAMBER WITH DRY ICE		Yes	
MILL FEED CAN BE COOLED IN MILLING CHAMBER WITH LIQUID NITROGEN	Yes		-
DIMENSIONS (WxHxD)	85 x 240 x 85mm	130 x 250 x 145mm	170 x 350 x 170mm
WEIGHT	1.5kg	3.13kg	6.6kg

# Batch Mills



## MULTIDRIVE BASIC

Whether samples are hard, soft or fibrous, the MultiDrive Basic can perform a wide range of grinding tasks involving coarse and fine grinding, thanks to the variety of accessories available (accessories not included in delivery). It's also suitable for mixing.

A high-performance unit, packed with features, such as interval operation, integrated cooling and USB interface for easy operation and documentation.



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## FEATURES + BENEFITS

### High performance

Excellent grinding performance is guaranteed by a combination of variable rotational speeds, ranging from 3,000rpm to 20,000rpm and a 1,000 Watt output.

### Interval operation

The option of interval programming is simple to activate at the press of a button. Interval operation is an asset during the coarse grinding of hard samples or more thorough blending.

### Integrated cooling

A cooling system is integrated in the milling chambers (MI, available as accessory), which allows indirect heat dissipation. Thus, coolant and the sample remain separate.

### Variety of accessories

## OPERATION



### Supplied with:

- MultiDrive Basic
- Socket wrench
- Disassembly tool 1
- Disassembly tool 2
- Cleaning brush
- USB Cable - USB A to Micro-B, 2m

# Batch Mills

## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Batch
<b>OPERATING PRINCIPLE</b>	Cutting / Impact / Blending / Dispersing
<b>MOTOR RATING INPUT</b>	1,000W
<b>MOTOR RATING OUTPUT</b>	800W
<b>SPEED RANGE</b>	3,000 to 20,000rpm
<b>SPEED DEVIATION</b>	±5%
<b>MOTOR</b>	Brushless DC
<b>DISPLAY</b>	7 segment LED
<b>VESSEL DETECTION</b>	Yes
<b>DIMENSIONS (WxHxD)</b>	300 x 350 x 250mm
<b>WEIGHT</b>	8.5kg
<b>PROTECTION CLASS</b>	IP31
<b>USB INTERFACE</b>	Micro-USB

### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0025002638I</a>	MultiDrive Basic	Each
<b>MILLING VESSELS</b>		
<a href="#">0020112097I</a>	MI250-S Vessel with beater	Each
<a href="#">0020112099I</a>	MI400-S Vessel with beater	Each
<a href="#">0020113275I</a>	CS1 Spare filter foam - for covers of milling chamber	PK5
<b>DISPERSING VESSELS</b>		
<a href="#">0025003961I</a>	BL2000 Vessel with mixing knife	Each
<b>BEATERS, CUTTERS AND KNIVES</b>		
<a href="#">0020023166I</a>	MT250.1 Standard beater, stainless steel	Each
<a href="#">0020023168I</a>	MI250.3 Beater, tungsten carbide	Each
<a href="#">0020023170I</a>	MT400.1 Standard beater, stainless steel	Each
<a href="#">0020023172I</a>	MI400.3 Beater, tungsten carbide	Each
<a href="#">0020023167I</a>	MI250.2 Star Shaped cutter, stainless steel	Each
<a href="#">0020023171I</a>	MT400.2 Star Shaped cutter, stainless steel	Each
<a href="#">0020023169I</a>	BL2000.1 Standard blend knife, stainless steel	Each

## ACCESSORIES



[0020112097I](#)  
MI250-S Vessel with beater



[0020112099I](#)  
MI400-S Vessel with beater



[0020113275I](#)  
CS1 Spare filter foam



[0025003961I](#)  
BL2000 - Vessel with mixing knife



[0020023166I](#)  
MT250.1 Standard beater



[0020023168I](#)  
MI250.3 Beater



[0020023170I](#)  
MT400.1 Standard beater



[0020023172I](#)  
MI400.3 Beater, suitable for hardness up to 9 Mohs



[0020023167I](#)  
MI250.2 Star shaped cutter



[0020023171I](#)  
MT400.2 Star shaped cutter



[0020023169I](#)  
BL2000.1 Standard blend knife

# Batch Mills



## MULTIDRIVE CONTROL

Whether samples are hard, soft or fibrous, the MultiDrive Control can perform a wide range of grinding tasks involving coarse and fine grinding, thanks to the variety of accessories available (accessories not included in delivery). It's also suitable for mixing.

It is a high performance unit that has interval programming, integrated cooling, a large TFT-display and a wide range of accessories to suit your laboratory requirements. Also, the USB interface allows for easy operation and documentation.

## FEATURES + BENEFITS

### High performance

Excellent grinding performance is guaranteed by a combination of variable rotational speeds, ranging from 3,000rpm to 20,000rpm and a 1,000 Watt output.

### Interval operation

The option of interval programming is simple to activate at the press of a button. Interval operation is an asset during the coarse grinding of hard samples or more thorough blending.

### Integrated cooling

A cooling system is integrated in the milling chambers (MI, available as accessory), which allows indirect heat dissipation. Thus, coolant and the sample remains separate.

### TFT-display

A clear TFT-display guarantees user-friendly operation. The weighing function is also integrated into the workflow. Weighing is performed before grinding using the same mixing cup, so that no transfer of contents is required.

### Variety of accessories



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### Accessories:

MultiDrive accessories provide the right tool for each grinding task:

- Milling vessels MI: for dry grinding
- Milling vessels autoclavable (MT150)
- Blending vessels BL: for wet grinding
- Dispersing vessels DI: with star-rotor
- Blending tubes (BT250)

Additionally, there are vessels with temperature (T) measurement.

A temperature limit can be set for temperature-sensitive materials or for specific planned reactions to protect against overheating.

The vessels are not part of the scope of delivery. See range of accessories on [page 15](#).

## OPERATION



### Supplied with:

- MultiDrive Control
- Socket wrench
- Disassembly tool 1
- Disassembly tool 2
- Cleaning brush
- USB Cable - USB A to Micro-B, 2m

# Batch Mills

## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Batch
<b>OPERATING PRINCIPLE</b>	Cutting / Impact / Blending / Dispersing
<b>MOTOR RATING INPUT</b>	1,000W
<b>MOTOR RATING OUTPUT</b>	800W
<b>SPEED RANGE</b>	3,000 to 20,000rpm
<b>SPEED DEVIATION</b>	±5%
<b>MOTOR</b>	Brushless DC
<b>DISPLAY</b>	TFT
<b>RFID READER / WRITER UNIT</b>	Yes
<b>TEMPERATURE DISPLAY</b>	Yes
<b>TEMPERATURE MEASUREMENT RESOLUTION</b>	0.1K
<b>ACCURACY OF TEMPERATURE MEASUREMENT</b>	±1K
<b>TEMPERATURE LIMIT MIN.</b>	-50°C
<b>TEMPERATURE LIMIT MAX.</b>	120°C
<b>MONITORING MAINTAIN TIME</b>	Yes
<b>WEIGHING FUNCTION</b>	Yes
<b>WEIGHING RANGE</b>	5 - 4,000g
<b>WEIGHING RESOLUTION</b>	1g
<b>LOAD CAPACITY WEIGHING FUNCTION MAX.</b>	4kg
<b>WEIGHING ACCURACY</b>	±(0.3%+2)g
<b>VESSEL DETECTION</b>	Yes
<b>RAMP PROGRAMMING</b>	Yes
<b>DIMENSIONS (WxHxD)</b>	300 x 350 x 250mm
<b>WEIGHT</b>	8.5kg
<b>PROTECTION CLASS</b>	IP31
<b>USB INTERFACE</b>	Micro-USB
<b>WPAN INTERFACE</b>	Yes



# Batch Mills

## Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0025002643I</a>	MultiDrive Control	Each
<b>MILLING VESSELS</b>		
<a href="#">0020112097I</a>	MI250-S Vessel with beater	Each
<a href="#">0020112098I</a>	MI250T-S Vessel with beater and temperature sensor	Each
<a href="#">0020112099I</a>	MI400-S Vessel with beater	Each
<a href="#">0020112100I</a>	MI400T-S Vessel with beater and temperature sensor	Each
<a href="#">0020113275I</a>	CS1 Spare filter foam for covers of the milling chamber	PK5
<b>DISPERSING VESSELS</b>		
<a href="#">0025003962I</a>	BL2000T Vessel with mixing knife and temperature sensor	Each
<a href="#">0025003960I</a>	DI2000T Vessel with dispersing element	Each
<b>TUBES</b>		
<a href="#">0020023173I</a>	MT150.5 Tube grinding - disposable	Each
<a href="#">0020023174I</a>	BT250.5 Tube grinding - disposable	Each
<a href="#">0020023489I</a>	TC1 protective housing for MT150 / BT250	Each
<a href="#">0020023490I</a>	TS1 Spare seal	PK5
<b>BEATERS, CUTTERS AND KNIVES</b>		
<a href="#">0020023166I</a>	MT250.1 Standard beater, stainless steel	Each
<a href="#">0020023168I</a>	MI250.3 Beater, tungsten carbide	Each
<a href="#">0020023170I</a>	MT400.1 Standard beater, stainless steel	Each
<a href="#">0020023172I</a>	MI400.3 Beater, tungsten carbide	Each
<a href="#">0020023167I</a>	MI250.2 Star shaped cutter, stainless steel	Each
<a href="#">0020023171I</a>	MT400.2 Star shaped cutter, stainless steel	Each
<a href="#">0020023169I</a>	BL2000.1 Standard blend knife, stainless steel	Each



## ACCESSORIES



[0020112097I](#)  
MI250-S Vessel with beater



[0020112098I](#)  
MI250T-S Vessel with beater and temperature sensor



[0020112099I](#)  
MI400-S Vessel with beater



[0020112100I](#)  
MI400T-S Vessel with beater and temperature sensor



[0020113275I](#)  
CS1 Spare filter foam



[0025003962I](#)  
BL2000T Vessel with mixing knife and temperature sensor



[0025003960I](#)  
DI2000T Vessel with dispersing element



[0020023173I](#)  
MT150.5 Tube grinding - disposable



[0020023174I](#)  
BT250.5 Tube grinding - disposable



[0020023489I](#)  
TC1 protective housing for MT150 / BT250



[0020023490I](#)  
TS1 Spare seal



[0020023166I](#)  
MT250.1 Standard beater



[0020023168I](#)  
MI250.3 Beater, suitable for hardness up to 9 Mohs



[0020023170I](#)  
MT400.1 Standard beater



[0020023172I](#)  
MI400.3 Beater, suitable for hardness up to 9 Mohs



[0020023167I](#)  
MI250.2 Star shaped cutter



[0020023171I](#)  
MT400.2 Star shaped cutter



[0020023169I](#)  
BL2000.1 Standard blend knife

# Batch Mills

## PRODUCT COMPARISON GUIDE



SPECIFICATIONS	MULTIDRIVE BASIC	MULTIDRIVE CONTROL
<b>PRODUCT CODE</b>	<a href="#">0025002638I</a>	<a href="#">0025002643I</a>
<b>PROCESS TYPE</b>	Batch	
<b>OPERATING PRINCIPLE</b>	Cutting / Impact / Blending / Dispersing	
<b>MOTOR RATING INPUT</b>	1,000W	
<b>MOTOR RATING OUTPUT</b>	800W	
<b>SPEED RANGE</b>	3,000 to 20,000rpm	
<b>SPEED DEVIATION</b>	±5%	
<b>MOTOR</b>	Brushless DC	
<b>DISPLAY</b>	7 segment LED	TFT
<b>RFID READER / WRITER UNIT</b>	-	Yes
<b>TEMPERATURE DISPLAY</b>	-	Yes
<b>TEMPERATURE MEASUREMENT RESOLUTION</b>	-	0.1K
<b>ACCURACY OF TEMPERATURE MEASUREMENT</b>	-	±1K
<b>TEMPERATURE LIMIT MIN.</b>	-	-50°C
<b>TEMPERATURE LIMIT MAX.</b>	-	120°C
<b>MONITORING MAINTAIN TIME</b>	-	Yes
<b>WEIGHING FUNCTION</b>	-	Yes
<b>WEIGHING RANGE</b>	-	5 - 4,000g
<b>WEIGHING RESOLUTION</b>	-	1g
<b>LOAD CAPACITY WEIGHING FUNCTION MAX.</b>	-	4kg
<b>WEIGHING ACCURACY</b>	-	±(0.3%+2)g
<b>VESSEL DETECTION</b>		Yes
<b>RAMP PROGRAMMING</b>	-	Yes
<b>DIMENSIONS (WxHxD)</b>		300 x 350 x 250mm
<b>WEIGHT</b>		8.5kg
<b>PROTECTION CLASS</b>		IP31
<b>USB INTERFACE</b>		Micro-USB
<b>WPAN INTERFACE</b>	-	Yes

# Inline Mills



## MF10 (Grinder Drive only)

The MF10 grinder is a versatile laboratory inline mill designed for continuous operation. It utilises interchangeable grinding heads to process a wide range of materials by cutting or impact.

Durable, efficient and adaptable, it delivers reliable performance for a diverse range of sample preparation needs.

### FEATURES + BENEFITS

- Powerful drive
- Easy to clean working surface made of stainless steel
- Two different grinding heads can be attached to the drive
- Heads are easily changeable

Grinding heads not included with delivery.



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### TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
PROCESS TYPE	Inline
OPERATING PRINCIPLE	Cutting / Impact
MOTOR RATING INPUT	1,000W
MOTOR RATING OUTPUT	500W
SPEED RANGE	3,000 to 6,500rpm
DIMENSIONS (WxHxD)	320 x 380 x 300mm
WEIGHT	9.7kg

#### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0002836001</a>	MF10 Grinder Drive only	Each

# Inline Mills



## MF10.1 (Cutting/Grinding Head)

The MF10.1 Cutting/Grinding Head is ideal for grinding fibrous substances such as paper and vegetation as well as plastics and materials with a low volume weight.

Before being discharged, the ground material passes through a sieve. This sieve is interchangeable and available in different hole sizes (not included with delivery).

### FEATURES + BENEFITS

- Ideal for paper and vegetation, plastics and low weight materials
- Interchangeable sieves (not included in delivery) ranging from 0.25mm - 4mm



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### TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Inline
<b>OPERATING PRINCIPLE</b>	Cutting / Grinding
<b>CIRCUMFERENTIAL SPEED MAX.</b>	24.5m/s
<b>FEED GRAIN SIZE MAX.</b>	15mm
<b>MATERIAL MILLING CHAMBER</b>	Stainless Steel 1.4308
<b>DIMENSIONS (WxHxD)</b>	320 x 560 x 300mm
<b>WEIGHT</b>	2.63kg

#### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">00028709001</a>	MF10.1 Cutting/Grinding Head	Each

# Inline Mills



## MF10.2 (Impact/Grinding Head)

The MF10.2 Impact/Grinding Head is ideal for grinding brittle, hard materials such as minerals, building materials up to hardness 6 Mohs.

Before being discharged, the ground material passes through a sieve. This sieve is interchangeable and available in different hole sizes (not included with delivery).



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### FEATURES + BENEFITS

- Ideal for grinding brittle, such as minerals, building materials up to hardness 6 Mohs
- Interchangeable sieves (not included in delivery) ranging from 0.25mm - 4mm

### TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
PROCESS TYPE	Inline
CIRCUMFERENTIAL SPEED MAX.	34m/s
FEED HARDNESS MAX.	6 Mohs
FEED GRAIN SIZE MAX.	10mm
MATERIAL MILLING CHAMBER	Stainless Steel 1.4308
DIMENSIONS (WxHxD)	320 x 450 x 300mm
WEIGHT	2.942kg

#### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">00028710001</a>	MF10.2 Impact/Grinding Head	Each

## ACCESSORIES

Interchangeable sieve for insertion into the grinding heads ensures maximum particle size filtering.



[00029389001](#)  
MF0.25 - Sieve 0.25mm



[0002939001](#)  
MF0.5 - Sieve 0.5mm



[00029392001](#)  
MF1.0 - Sieve 1mm



[00029394001](#)  
MF2.0 - Sieve 2mm



[00029395001](#)  
MF3.0 - Sieve 3mm



[00029396001](#)  
MF4.0 - Sieve 4mm

### Ordering Information

PRODUCT CODE	DESCRIPTION	HOLE SIZE DIAMETER	MATERIAL	PACK SIZE
<a href="#">00029389001</a>	MF0.25 Sieve	0.25mm	Stainless Steel AISI 304	Each
<a href="#">0002939001</a>	MF0.5 Sieve	0.5mm	Stainless Steel AISI 304	Each
<a href="#">00029392001</a>	MF1.0 Sieve	1mm	Stainless Steel AISI 304	Each
<a href="#">00029394001</a>	MF2.0 Sieve	2mm	Stainless Steel AISI 304	Each
<a href="#">00029395001</a>	MF3.0 Sieve	3mm	Stainless Steel AISI 304	Each
<a href="#">00029396001</a>	MF4.0 Sieve	4mm	Stainless Steel AISI 304	Each

# Tube Mills



## CONTROL

The Tube Mill Control is the world's first patented batch mill that features a disposable grinding chamber, eliminating the possibility of cross-contamination and simplifying equipment cleanup. The grinding chamber and cover are made of a transparent material so grinding tests can be observed at any time.

The mill is suitable for dry and brittle materials and up to a hardness of 5 Mohs. It is especially suitable for grinding seeds, such as corn and wheat.

Packed with safety features, the mill will only start when the hood is closed. When the grinding chamber is not inserted properly or not closed properly, the drive unit will display an error message and the drive will not start. During operation, the grinding chamber cannot be opened. The drive and the grinding chambers are secured with a labyrinth seal. No dust can escape from the chamber or enter the drive.



**IKA®**

## FEATURES + BENEFITS

- Multilingual OLED display
- Adjustable timer (5 seconds to 3 minutes)
- USB interface (control and document all parameters)
- Interval operation
- Infinitely variable speed from 5,000 to 25,000rpm
- Various operating modes
- Adjustable safety speed and time
- Programmable and storable test conditions
- Error code display
- Reproducible test results
- Easy operation with touch keypad
- Dustproof sealed housing
- Quiet operation

## OPERATION



### Supplied with:

- Tube Mill Control
- MT40 milling tube, 40mL
- MMT40.1 Multi-use milling tube
- Coupling extractor
- USB A-B cable

# Tube Mills

## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Batch
<b>OPERATING PRINCIPLE</b>	Cutting / Impact
<b>MOTOR RATING INPUT</b>	100W
<b>MOTOR RATING OUTPUT</b>	80W
<b>SPEED RANGE</b>	5,000 to 25,000rpm
<b>SPEED DEVIATION</b>	±2%
<b>CIRCUMFERENTIAL SPEED MAX.</b>	65m/s
<b>USEABLE VOLUME MAX.</b>	40mL
<b>FEED HARDNESS MAX.</b>	5 Mohs
<b>FEED GRAIN SIZE MAX.</b>	10mm
<b>MILLING CHAMBER CAN BE COOLED WITH DRY ICE</b>	Yes
<b>DIMENSIONS (WxHxD)</b>	180 x 170 x 300mm
<b>WEIGHT</b>	2.7kg
<b>USB INTERFACE</b>	USB-B

## ACCESSORIES



[0004425000I](#)  
MT40.10 Disposable grinding chamber, 40mL, PK10



[0020001173I](#)  
MT40.100 Disposable grinding chamber, 40mL, PK100



[0020001984I](#)  
MTC.10 Sterile Disposable grinding chamber, 40mL, PK10



[0020001182I](#)  
MTC.100 Cover for MT40, PK100



[0020003165I](#)  
MMT40.1 Multi-use chamber, 40mL - reusable, Each



[0020015380I](#)  
MTT40.10 Disposable grinding chamber, 40mL - titanium beater, PK10

### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0004180000I</a>	Tube Mill Control	Each
<a href="#">0004425000I</a>	MT40.10 Disposable grinding chamber, 40mL	PK10
<a href="#">0020001173I</a>	MT40.100 Disposable grinding chamber, 40mL	PK100
<a href="#">0020001984I</a>	MTC.10 Sterile disposable grinding chamber, 40mL	PK10
<a href="#">0020001182I</a>	MTC.100 Cover for MT40	PK100
<a href="#">0020003165I</a>	MMT40.1 Multi-use chamber, 40mL - reusable	Each
<a href="#">0020015380I</a>	MTT40.10 Disposable grinding chamber, 40mL - titanium beater	PK10

# Tube Mills

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## 100 CONTROL

The Tube Mill 100 Control is the world's first patented batch mill that features a disposable grinding chamber, eliminating the possibility of cross-contamination and simplifying equipment cleanup. The grinding chamber and cover are made of a transparent material so grinding tests can be observed at any time.

The Tube Mill 100 Control accommodates larger grinding chambers with a maximum volume of 100mL.

The mill is suitable for dry and brittle materials and up to a hardness of 5 Mohs. It is especially suitable for grinding seeds, such as corn and wheat.

Packed with safety features, the mill will only start when the hood is closed. When the grinding chamber is not inserted properly or not closed properly, the drive unit will display an error message and the drive will not start. During operation, the grinding chamber cannot be opened. The drive and the grinding chambers are secured with a labyrinth seal. No dust can escape from the chamber or enter the drive.



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## FEATURES + BENEFITS

- Larger grinding chambers with max. volume of 100mL
- Multilingual OLED display
- Adjustable timer (5 seconds - 3 minutes)
- USB interface (control and document all parameters)
- Interval operation optional
- Infinitely variable speed 5,000 - 25,000rpm
- Various operating modes
- Adjustable safety speed and time
- Programmable and storable test conditions
- Error code display
- Reproducible test results
- Easy operation with touch keypad
- Dustproof sealed housing
- Quiet operation

## OPERATION



### Supplied with:

- Tube Mill 100 Control
- MT100 milling tube, 100mL
- MT40 milling tube, 40mL
- MMT40.1 Multi-use milling tube
- Coupling extractor
- USB A-B cable

# Tube Mills



## TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
<b>PROCESS TYPE</b>	Batch
<b>OPERATING PRINCIPLE</b>	Cutting / Impact
<b>MOTOR RATING INPUT</b>	100W
<b>MOTOR RATING OUTPUT</b>	80W
<b>SPEED RANGE</b>	5,000 to 25,000rpm
<b>SPEED DEVIATION</b>	±2%
<b>CIRCUMFERENTIAL SPEED MAX.</b>	65m/s
<b>USEABLE VOLUME MAX.</b>	100mL
<b>FEED HARDNESS MAX.</b>	5 Mohs
<b>FEED GRAIN SIZE MAX.</b>	10mm
<b>MILLING CHAMBER CAN BE COOLED WITH DRY ICE</b>	Yes
<b>DIMENSIONS (WxHxD)</b>	180 x 212 x 300mm
<b>WEIGHT</b>	2.8kg
<b>USB INTERFACE</b>	USB-B

### Ordering Information

PRODUCT CODE	DESCRIPTION	PACK SIZE
<a href="#">0020007144I</a>	Tube Mill 100 Control	Each

PRODUCT CODE	DESCRIPTION	CAPACITY	PACK SIZE
<a href="#">0004425000I</a>	MT40.10 Disposable grinding chamber	40mL	PK10
<a href="#">0020001173I</a>	MT40.100 Disposable grinding chamber	40mL	PK100
<a href="#">0020001984I</a>	MTC.10 Sterile disposable grinding chamber	40mL	PK10
<a href="#">0020001182I</a>	MTC.100 Cover for MT40	-	PK100
<a href="#">0020003165I</a>	MMT40.1 Multi-use chamber - reusable	40mL	Each
<a href="#">0020015380I</a>	MTT40.10 Chamber grinding - titanium beater	40mL	PK10
<a href="#">0020017838I</a>	MT40 Chamber grinding	40mL	PK10
<a href="#">0020011531I</a>	MT40 Chamber grinding	40mL	PK100
<a href="#">0020008386I</a>	MT100.10 Chamber grinding	100mL	PK10
<a href="#">0020012571I</a>	MT100.10 Sterile chamber grinding	100mL	PK10
<a href="#">0020006984I</a>	MT100.50 Chamber grinding	100mL	PK50
<a href="#">0020016315I</a>	MMT100.1 Multi-use milling tube	100mL	Each
<a href="#">0020019576I</a>	MTT100.10 Chamber grinding - titanium beater	100mL	PK10
<a href="#">0020003378I</a>	A-MMT40.100 Abrasion set	-	Each

## ACCESSORIES



[0004425000I](#)  
MT40.10 Disposable grinding chamber, 40mL, PK10



[0020001173I](#)  
MT40.100 Disposable grinding chamber, 40mL, PK100



[0020001984I](#)  
MTC.10 Sterile Disposable grinding chamber, 40mL, PK10



[0020001182I](#)  
MTC.100 Cover for MT40, PK100



[0020003165I](#)  
MMT40.1 Multi-use chamber, 40mL - reusable, Each



[0020015380I](#)  
MTT40.10 Chamber grinding, 40mL - titanium beater, PK10



[0020017838I](#)  
MT40 Chamber grinding, 40mL, PK10



[0020011531I](#)  
MT40 Chamber grinding, 40mL, PK100



[0020008386I](#)  
MT100.10 Chamber grinding, 100mL, PK10



[0020012571I](#)  
MT100.10 Sterile chamber grinding, 100mL, PK10



[0020006984I](#)  
MT100.50 Chamber grinding, 100mL, PK50



[0020016315I](#)  
MMT100.1 Multi-use milling tube, 100mL, Each



[0020019576I](#)  
MTT100.10 Chamber grinding, 100mL - titanium beater, PK10



[0020003378I](#)  
A-MMT40.100 Abrasion set, Each



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