



## IKA® Analytical Mill A 11 basic

1

Batch mill for 2 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 Mohs hardness up to 6 (included with delivery).
- **Cutting grinding** for pulverising soft, fibrous materials with a cutting blade (**not included with delivery**).

- Moist and gluey materials can be pulverised by adding water.
- Grinding chamber made of Tefcel (ETFE, glass fiber-reinforced) with stainless steel inlet (AISI 316L), useful volume 80 ml (included with delivery). For embrittlement of grinding materials with liquid nitrogen in the grinding chamber.
- **Optionally**, a 250 ml grinding chamber is available.

### Technical Data:

Motor rating input / output	300 / 160 W
Speed (fixed):	28000 min <sup>-1</sup>
Circumferential speed:	53 m / s
Useful volume:	80 ml
Duty cycle ON / OFF:	5 min / 10 min
Overload protection:	yes
Max. granularity:	10 mm
Dimensions (WxDxH):	85 x 85 x 240 mm
Weight:	1.5 kg
Mains supply:	230 V, 50 / 60 Hz
Protection class acc. to DIN EN 60529:	IP 43

Description	PU	Order No.
Analytical mill A 11 basic	1	0222900000

## Spare Beater A 11.1

2

For pulverising substances with a Mohs hardness up to 6. Stainless steel (AISI 420). Included with the A 11.

Description	PU	Order No.
A 11.1 spare beater	1	0222904600

## Double Beater A 11.6

3

For use up to Mohs hardness 3. Only applicable with grinding chamber A 11.4. Titanium, surface-hardened (**not included with the A 11 basic**).

Description	PU	Order No.
A 11.6 double beater	1	0223302900

## Funnel A 11.7

4

Prevents splashing by pouring in liquid nitrogen in the grinding chamber A 11.5. Jacket made of PTFE, sieve made of stainless steel (AISI 316 L) (**not included with the A 11 basic**).

Description	PU	Order No.
A 11.7 funnel	1	0223048700

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**Cutting Blade A 11.2****1**

For pulverising soft, fibrous grinding materials. Made of stainless steel (AISI 440B) **(not included with the A 11 basic).**

Description	PU	Order No.
A 11.2 cutting blade	1	0222905200

**Beater A 11.3****2**

For pulverising substances with a Mohs hardness up to 9. Made of stainless steel (AISI 440B), coated with chromium carbide **(not included with the A 11 basic).**

Description	PU	Order No.
A 11.3 beater	1	0222983000

**Grinding Chamber A 11.4****3**

Made of polycarbonate with stainless steel inlet (AISI 316L). Not suitable for cooling with N<sub>2</sub>. Useful volume 250 ml. Only applicable with double beater A 11.6 **(not included with the A 11 basic).**

Description	PU	Order No.
A 11.4 grinding chamber	1	0222904100

**Spare Grinding Chamber A 11.5****4**

Made of Tefcel (ETFE, glass fibre-reinforced) with stainless steel inlet (AISI 316L). Excellent resistance to chemicals and low temperatures (- 200 °C). Useful volume 80 ml **(included with the A 11 basic).**

Description	PU	Order No.
A 11.5 spare grinding chamber	1	0222983100

**IKA®****5****Universal Mill M 20**

Batch mill suitable for dry grinding of hard and brittle substances.

- Double-walled grinding chamber, can be cooled with water through two hose adapters.
- Removable grinding chamber, easy to clean.
- Cutter M 21 included in delivery.
- Two grindig chambers can be alternately operated using one drive.

**Technical Data:**

Useful volume:	250 ml
Motor rating - input / output:	440 / 225 W
Speed (fixed):	20000 min <sup>-1</sup>
Circumferential speed:	72 m / s
Overload protection:	current limitation
Material - grinding chamber / cover:	stainless steel (AISI 304)
Max. granularity of task:	max. 6 to 7 mm
Duty cycle ON / OFF (with cooling):	7 min / 10 min
Dimensions (W x D X H):	170 x 170 x 350 mm
Weight:	6.6 kg
Mains supply:	230 V, 50 / 60 Hz 115 V on request!
Protection class acc. to DIN EN 60529:	IP 21

Description	PU	Order No.
Universal mill M 20	1	0221603600

