

# Specifications

## ■ Motor:

Power: 1/4 HP. = 0.18 kW

Revolutions: approx. 1000 r.p.m

The motor is used for 1-phase or 3-phase current.

1-phase current	3-phase motor
230 V 50 HZ	3x 230 V 50 HZ
	3x 400 V 50 HZ
230 V 60 HZ	3x 230 V 60 HZ
	3x 440 V 60 HZ
110 V 60 HZ	3x 110 V 60 HZ

Note: The voltages for the 3-phase motor are measured between 2 phases.

An elastic coupling is used to connect the motor to the swinging top, protecting the motor from overload and resulting in smooth operation. The coupling may be easily replaced. The swinging top is held on three rubber columns.

## ■ Container: (capacities based on 2.5 SpG. glass)

Two forms of containers are available. The larger container with a capacity of 100 ml has a grinding ring and stone; the smaller container for 50 ml has a grinding stone only.

The standard containers are made of a special chrome steel hardened to 70 Rockwell. Containers made of Tungsten carbide are available.

The container covers are absolutely dust proof. There are neither losses, nor dust contaminating the surroundings.

The container may be changed in a few seconds. If several containers are used no time is lost by cleaning.

## ■ Timer:

Constant grinding times are obtained using the timer supplied with the mill. After a preset time the mill stops automatically.

## ■ Dimension:

Mill: Dia 380 mm, Hight 460 mm, Mass 46 kg

Control unit: Lenght 270 mm, Hight 130 mm, Width 200 mm, Mass 4,3 kg

# NAEF

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# «BLEULER»

■ Laboratory

■ Disc

■ Swing

■ Mill



**Mill and Control unit**

We are pleased to sending you our sales documentation for the Laboratory Rotary Mill «BLEULER» which is produced by top qualified precision factory in Switzerland. The rotary mill meets the very highest requirements for durability and functionality. The well known «BLEULER» Rotary Mills are in service worldwide with outstanding performance at Cement factories and at University institutes.

**Mills for single phase current:** Mills with singlephase > triphase converter type: ATV triphase motor, complete with 1 grinding set 100 g (Type M39)\*

M01/10	9070 000 012	1 x 110 V / 50 Hz
M02/05	9070 000 022	1 x 230 V / 50 Hz
M03/10	9070 000 032	1 x 110 V / 60 Hz
M04/06	9070 000 042	1 x 230 V / 60 Hz

**Mills for triphase current:** Mills with triphase motor, elelctro-mechanical control unit EMT-2 or EMT-3, complete with 1 grinding set 100 g (Type M39)\*

M05	9070 000 052	3 x 230 V / 50 Hz (3P + E)
M06	9070 000 062	3 x 230 V / 60 Hz (3P + E)
M07	9070 000 072	3 x 400 V / 50 Hz (3P + N + E)
M08	9070 000 082	3 x 440 V / 60 Hz (3P + E)
M09	9070 000 092	3 x 110 V / 60 Hz (3P+E)

#### Container:

M39	9070 080 002	Grinding set 100 g chromesteel
M39-T	9070 081 002	Grinding set 100 g tungsten carbide
M40	9070 170 002	Grinding set 50 g chromesteel
M50	9070 190 002	Grinding set 200 g chromesteel (made on req.)

#### ■ Time of delivery

The Equipmennt is available from stock, normally. Dispatch FOB Airport Zurich within 1 week. Express orders for spare parts are delivered within 3 days, only.

#### ■ Guarantee

The «BLEULER» mill type is a well proven Equipment, established on market since very long time. We guarantee «Swiss Quality» in all respect. Wear parts service is available at any time.

# Rotary Mill

for sample preparation

#### ■ Application:

The rotary mill was designed to meet the requirements of a modern sample preparation laboratory. The mill grinds and mixes laboratory samples of practically all materials where preparation comprises a powder phase. The mill will satisfactorily grind materials of various hardnesses. Depending upon the hardness, the initial grain size may be as large as 20 mm.

The high r.p.m. and the design of the containers result in short grinding time for a given granulometry. Short grinding times and easy handling provide rapid sample preparation.

The rotary mill gives very uniform grinding results. The reproducibility of an analytical procedure is a function of the reproducibility of each stage involved in it. Therefore, grinding with reproducible granulometry is most important in spectrochemical analysis.

Operation with a minimum of maintenance was one of the design goals. Simple, safe, and durable construction was used throughout. The mill only requires setting up on a firm horizontal surface; e.g. a laboratory table.

#### Grinding and particle size data:

Material	Sample Weight	Starting Size	Grinding Time	Mesh Size	Proportions
50% Fe-Si	65 g	12 mm	1 min.	200 (>74 μ) 325 (44-74 μ) -325 (<44 μ)	21,09% * 75,80% 3,19%
50% Fe-Mn	130 g	5 mm	2 min.	200 (>74 μ) 325 (44-74 μ) -325 (<44 μ)	15,60% * 76,05% 8,33%
50% Fe-Si	19,5 g	16 mm	1 min.	200 (>74 μ) 325 (44-74 μ) -325 (<44 μ)	5,96 * 64,50% 29,59%
Cr-Si	10 g	50-200 μ	2 min.	200 (>74 μ) 325 (44-74 μ) -325 (<44 μ)	1,60% 1,21% 97,75%
Si	16 g	6 mm	1 min.	200 (>74 μ) 325 (44-74 μ) -325 (<44 μ)	0,53% 5,10% 94,40%

\* With detergent and automatic sieving; not comparable with data obtained under different conditions.