

ELECTROMAGNETIC LABORATORY MICROMILL

FOR PULVERIZING AND HOMOGENIZING OF SMALL SAMPLES

FRITSCHE

® pulverisette 0



ORDER NUMBER:

P-0150 = 220 volts, 50 cycles a. c.

P-0151/1 = with transformer for 110 volts, 50/60 cycles 300 VA. a. c.

WEIGHT:

net: 44 lbs.

gross: 79 lbs.

SIZE:

12½" x 12" x 12"

PACKING:

22" x 22" x 30"



ELECTROMAGNETIC LABORATORY MICROMILL

FOR PULVERIZING AND HOMOGENEOUS MIXING (DRY OR WET) OF SMALL SAMPLES



APPLICATIONS:

Analytical Chemistry	X-Ray and Spectral Analysis
Electron Microscopy	UR-Spectrophotometry
Nuclear Research	Trace Analysis
Mineralogy	Microbiology

Working Capacity: $\approx 0.1 \text{ cc} \div \approx 10 \text{ cc}$
Feeding Grain Size: $< 1/4''$ edge length

DESCRIPTION AND METHOD OF OPERATION:

Vertical oscillations are imparted to the mortar by electromagnetic action. These oscillations are transmitted to the pulverizing ball through the material to be pulverized. The impact force of the pulverizing ball can be regulated as required by means of a built-in variable resistor. The impact force can be increased still further by use of a ball of higher specific gravity.

First the coarse grains are selectively triturated. As soon as the grain size is becoming smaller the pulverizing ball in the mortar begins to perform a tumbling motion. This insures uniform super-pulverizing (grinding), and mixing, that is, homogenizing of the material to be pulverized.

ADVANTAGES:

● SELECTIVE PULVERIZING

The oscillations cause the fine particles of the material to move up on the inner mortar wall so that the ball mainly strikes the coarse particles. This way a ductile or sticky sample is better ground (with less abrasion) because the fines cannot agglomerate by repeated trituration.

● PLEXIGLAS WINDOW

The plexiglas window allows observation of the pulverizing process.

● FEET WITH SPRINGS

The three feet of the micromill are vertically adjustable. These feet increase the tumbling rotation of the ball.

● SILENT AND SMOOTH OPERATION

The soft spiral springs fitted inside the feet insure silent operation of the unit. Moreover, they dampen the transmission of oscillations to the work table.

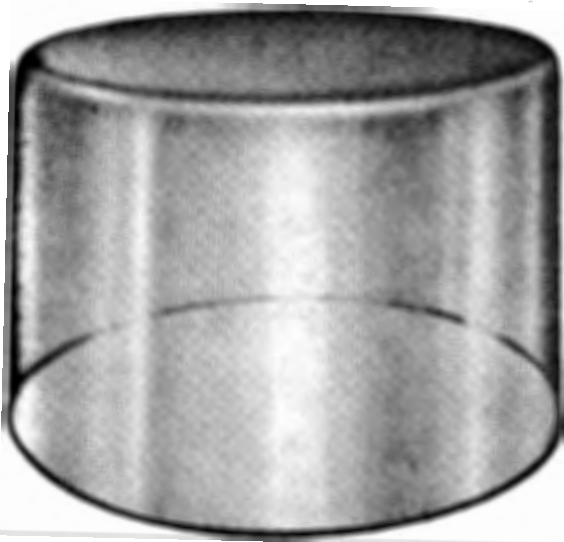
● SOUND-ABSORBENT HOOD

A plexiglas hood is available as an accessory. The hood reduces the operating noise considerably.

● LUBRICATION AND MAINTENANCE are not necessary with the electromagnetic drive, because there are no rotating parts or parts which move on one another.

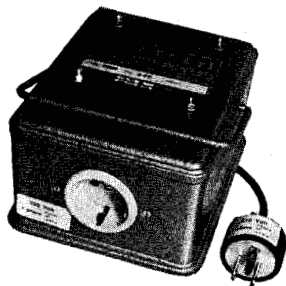
● ONE YEAR WARRANTY

ACCESSORIES
FOR ELECTROMAGNETIC LABORATORY MICROMILL



ORDER NUMBER: P-0152-1
Sound-Absorbent Hood
of Plexiglas with profiled rubber base

16½" dia.
12" high
3¼ lbs.



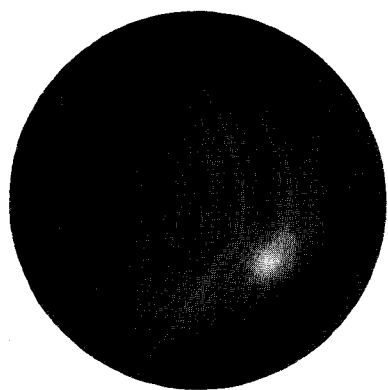
ORDER NUMBER:
P-0151-1 = 110 volts, 50/60 cycles a. c.

Transformer
with fuse — „slow-blow type” 1,6 amp.
with 8 feet connecting cord and U. S. plug
6¼" x 5⅛" x 4"
6½ lbs.

primary: 110 volts: 50/60 cycles a. c., input
secondary: 220 volts, 300 VA a. c., output

This transformer is required only for a 110 volts a. c. supply

PULVERIZING SETS FOR ELECTROMAGNETIC LABORATORY MICROMILL



50 mm Ø



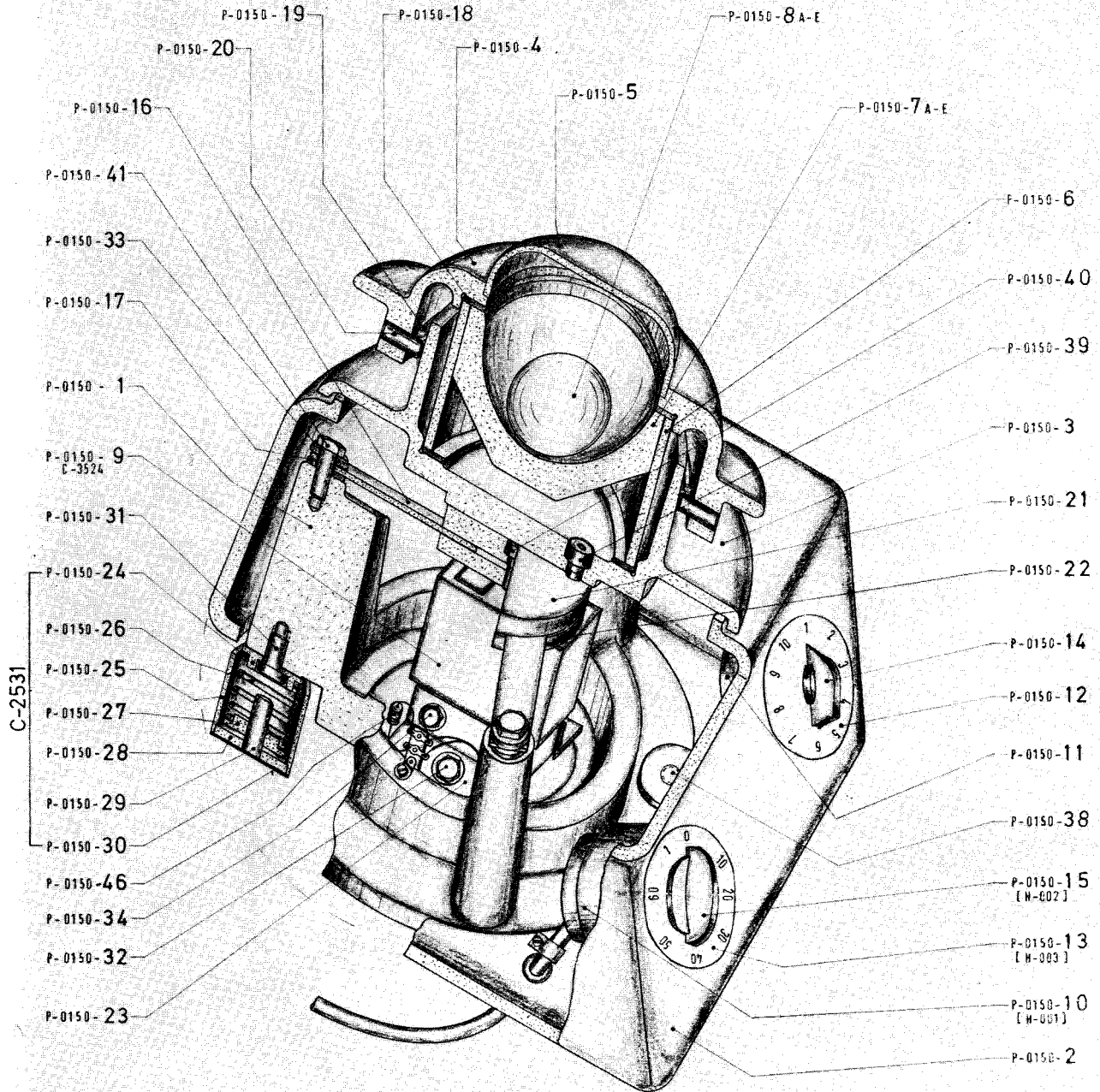
ORDER NUMBER:

		<u>NET WEIGHT</u>	<u>SPECIFIC GRAVITY</u>	<u>WEAR</u>
a)	P-0150-7/1 Mortar carbide metal, tungsten carbide (WC+Co)	2300 g	14.75 g/cc	a) negligible
	P-0150-8/1 Ball as above	1000 g		
b)	P-0150-7/2 Mortar hardened Cr. steel (material No. 2436) hardness: = 63 Rc	2300 g	7.85 g/cc	b) medium
	P-0150-8/2 Ball as above	500 g		
c)	P-0150-7/3 Mortar stainless Cr Ni steel (material No. 4571) hardness: = 55 Rc	2300 g	7.85 g/cc	c) medium
	P-0150-8/3 Ball as above	500 g		
d)	P-0150-7/4 Mortar sintered alumina = 99,7 % Al ₂ O ₃	2300 g	3.70 g/cc	d) medium
	P-0150-8/4 Ball as above	250 g		
e)	P-0150-7/5 Mortar agate (Si O ₂)	2300 g	2.60 g/cc	e) low
	P-0150-8/5 Ball as above	170 g		



ELEKTROMAGNETISCHE MIKRO - MUEHLE

FRITSCH
pulverisette-0



Type + 220 V = P-0150

Type + 110 V = P-0151 separater Trafo

ALFRED FRITSCH OHG
LABORGERÄTEBAU
IDAR - OBERSTEIN 1
WEST - GERMANY