

# Mills

## McCrone Mill

An effective means of reducing samples to sub-micron sizes suitable for x-ray diffraction/fluorescence, infra-red spectroscopy and atomic absorption analysis.

- ◆ Minimal sample damage and contamination
- ◆ Exceptionally homogeneous and reproducible sample distribution
- ◆ Choice of grinding element materials
- ◆ Wet and dry grinding capability

### Operation

The unique grinding action (contact blows and planar shearing) ensures a short grinding time with virtually no sample loss and exceptionally even particle distribution. A choice of grinding elements (agate or corundum) allow wet and dry grinding of many materials, including carbides, nitrides, borides, cement, clay, shale and mica. In use, a 125ml polypropylene grinding jar is filled with an array of 48 cylindrical grinding elements and accepts up to 4ml of sample (2ml is optimal). A timed grinding period can be set between 3 and 30 minutes, depending on the sample, achieving an ultimate fineness of 4 to 5µm, based on the required initial particle size of 0.5mm. There is minimal damage to surfaces and internal structure of the grinding chamber. An accessory sample preparation kit reduces sample material to the required 0.5mm size.

### McCrone Mill

As described. Overall 480 x 175 x 160mm L x W x H. Weight 9kg. For 220-240V 50Hz single phase supplies. Supplied as indicated.

**MR075-05** Mill only (requires grinding set for operation)

**MR075-30** Mill with 2 x sets agate elements, 2 x grinding jars, loading device and pouring cap

### Accessories and spares

#### Sample preparation kit

For preparation of samples to the required 0.5mm particle size. With stainless steel percussion mortar, ten corundum cylinders, 0.5mm mesh sieve and sieve brush.

**MR077-05** Sample preparation kit

#### Agate grinding set

With 50 x agate grinding elements, grinding jar and lid.

**MR077-25** Agate grinding set

#### Corundum grinding set

With 48 x corundum grinding elements, grinding jar and lid.

**MR077-35** Corundum grinding set

**MR077-60** Spare grinding jar and lid

## Ball Mill



For dry or wet grinding of a wide range of material including: ceramics, chemicals, cosmetics, powders, minerals, paints, printing inks, pharmaceuticals, plastics, etc.

### Model No. 9

For grinding small quantities of material. Variable speed 0 to 350rpm. Accepts either 1 x 0.5 litre or 1 x 1 litre pots. The rubber covered rollers are 48mm diameter and have a usable length of 190mm. The rolling mechanism and ball pots are totally enclosed behind a transparent safety shield. Overall 210 x 250 x 400mm H x W x D. Weight 14kg. For 230V 50Hz single phase supplies. Without pot or ball charge.

**MR102-10** No. 9 variable speed

### Ball Pots

Acid resistant porcelain with flat covers and sealing gaskets. Capacity given is nominal. Without ball charge.

**MR150-10** 0.5 litre

**MR150-15** 1 litre

### Ball Charges

Manufactured in acid resistant porcelain. Selection of different diameters most appropriate for efficient grinding.

**MR153-12** For 0.5 litre pot

**MR153-17** For 1 litre pot



MR075



MR102-10