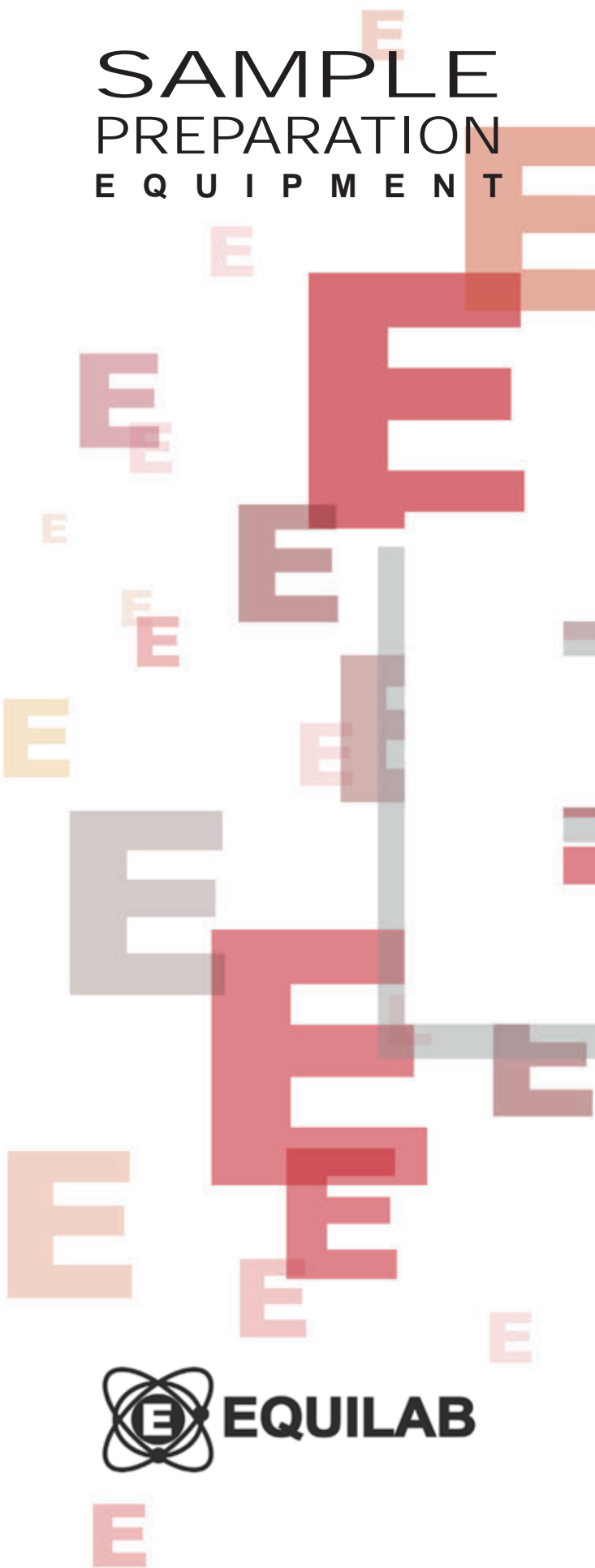


# SAMPLE PREPARATION EQUIPMENT





***“For truly representative and repeatable results in any analytical process, the first step, preparing the sample, is the most important. Excellence in the treatment of the sample can only come from high quality units”.***

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**30**  
years

# EQP-30 Manual Hydraulic Pellet Press

*Getting reliable and repeatable results in RX or LIBS depends greatly on how the pellet is manufactured.*

*The EQP-30 Manual Hydraulic Pellet Press has been especially designed to prepare high quality pellets, homogeneous and stable.*

*This press can exert a pressure of up to 30 tons. It is a durable unit, safe and user friendly.*



The sample is placed in the chamber specially designed for that purpose. The spindle can then be pulled downwards, and the user may exert pressure using the hydraulic lever progressively until reaching the desired pressure – which can be controlled at all times with the analogic manometer -.

When the requested level is reached, the unit will let off pressure via a pressure relief device, then the spindle can be shifted upwards, and the tablet removed.



## Applications:

**Glass, cement, plaster, ceramics, minerals, silicates, slags.**

- Automatic pressure relief system
- Easy to manage
- Does not need electrical power
- Compact, robust and durable unit

## Technical specifications:

Method: pressure

Applications: cement industry, metallurgy, thermal plants, environmental laboratories, materials recovery facilities, recycling industry, geology and mineralogy, ceramics

Maximum pressure: 30 tons

Dimensions: 410mm (high) x 315mm (long) x 200mm (wide)  
Approx weight: 56Kg



# FX Series Induction Fluxers

*The new generation in fusion units is modular.*

*You can start by purchasing a single station unit (FX1) and then have the possibility of extending the capacities of the fluxer at any time by acquiring a new unit and connecting it to the initial one. That way one working station (FX1) can become a two station unit (FX2) or a three station unit (FX3). If to this feature we add the fact that the FX Fluxers are high productivity units, we have an unrivalled equipment.*



The **FX** fluxers represent a great step forward from the well know **F1** and **F2** models, and have been especially designed to prepare glass disks (beads) for analysis by XRF, and dissolutions for AA/ICP. They produce, quickly and accurately, beads (with Lithium Borates) and acid dissolutions. Efficient both in high and low temperatures, you can customize your fluxer to up to three modules controlled by a single PC, keeping however the capacity of each module to work independently.

**Features.** The **FX Series** units are a step ahead from other units of their generation as they heat by electric induction in an homogeneous, quick and efficient way.

These are highly automated units able to control and monitor in real time each step of the fusion process from one (**FX1**) to three (**FX3**) samples, maintaining the operative Independence of each module.

The **FX Series** include an optical pyrometer oriented to the base of the crucible and with which you can check the fusion temperature at all times.

A powerful interactive software gathers and displays all the information. The result is a unit able to thoroughly control and modify the fusion process of each sample in real time. Together with its innovative heating system by induction you may find a constant temperature check up system, and a great software. The result is a unit that can control and modify comprehensively and at all times the fusion process of each of the samples, in real time.

**Operation.** In the **FX Series** units the heating is achieved by a high frequency electromagnetic field generated in the inside of a coil – no flame nor direct contact -, efficiently heating up the crucible in a short time.

**Quicker.** The heating by induction is noticeably quicker, more accurate, cleaner, and more dependable than any other system.

It allows you to reach very high temperatures (1200°C) in seconds and to control them easily. Any changes are so swiftly applied that it makes it possible to have a detailed control of the fusion in real time. The only parts of the unit that actually heat up are the ceramic holders – this allowing to reduce the times between fusion cycles, as it is not necessary to cool down large heated up surfaces -.

**Flexibility.** Each of the modules can work synchronized with the others or independently, with different programs each, for example to prepare samples of varied nature.

This freedom enables the user to to prepare new samples and process them the moment each working module finishes the current execution, making a continuous cycle that increases production noticeably.

**Better features**

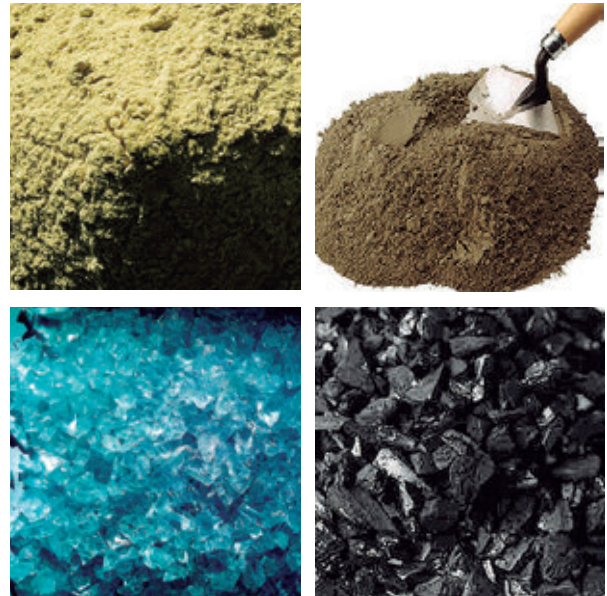
- The programmable crucible stirring mechanism allows you to obtain a higher homogenization of the samples during the heating process.
- An optical pyrometer pointing to the base of the crucible carries out a constant check up of the fusion temperature.
- A programmable cooling system for crucibles and molds speeds up the cooling of crucible and mold most effectively.
- An exclusive gas extraction system allows for the unit to be installed without exhaust hoods.
- As safety measure, the door is blocked during the time when the temperature inside may represent a risk for the user.
- The coil is cooled down via a closed water circuit with a small cooling system – no water consumption or refrigerant fluids -.

**Low consumption.** The induction system speeds up the heating process with a very moderate electrical consumption.



**Technical specifications:**

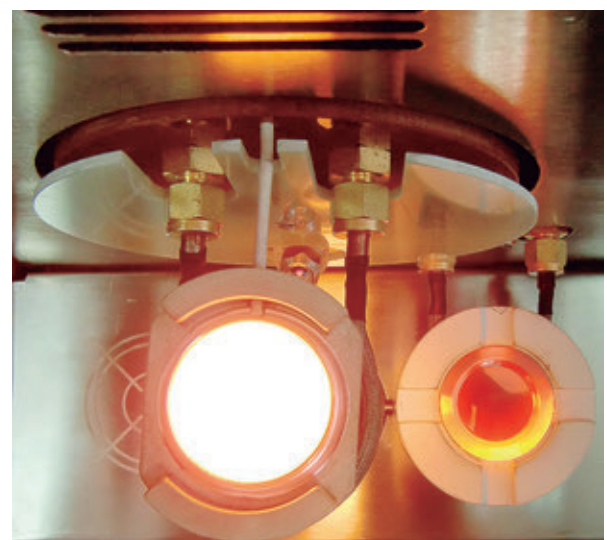
Method:	fusion, stirring, mixing and homogenization
Applications:	geological samples, cements, minerals, slags, ceramics, oxides, glass, metals, ferroalloys, sulphides, fluorides, alloys, etc.
Produces:	<ul style="list-style-type: none"> <li>• Glass disks/beads for XRF</li> <li>• Dissolutions for AAs and ICP</li> <li>• Peroxide or Pyrosulphate solutions</li> </ul>
Programs:	50 modifiable independent programs
Maximum consumption:	9000 W (when heating 3 crucibles and 3 molds)
Power:	230V - 16A
Control:	PC control with touch screen
Cooling system:	a - Closed circuit <ul style="list-style-type: none"> <li>• minichiller 300W (FX and FX2)</li> <li>• minichiller 500W (FX3)</li> </ul> b - Open circuit / External circuit 1,5 LPM
Working frequency:	130..160 KHz
Programmable features:	crucible stirring system / crucible stirring angle / pouring speed and angle / solutions stirring system / crucible and mold cooling down system by ventilation
Temperature control:	50 to 1200°C limited by software
Software:	intuitive, with graphics. Screens for diagnosis and settings
Accessories:	admits crucibles and molds of platinum and zirconium
<b>FX1</b>	
Dimensions:	45cm (height) x 32cm (width) x 58cm (deep)
Approx weight:	26kg
<b>FX2</b>	
Dimensions:	45cm (height) x 63cm (width) x 58cm (deep)
Approx weight:	52kg
<b>FX3</b>	
Dimensions:	45cm (height) x 94cm (width) x 58cm (deep)
Approx weight:	78kg



**Applications:**

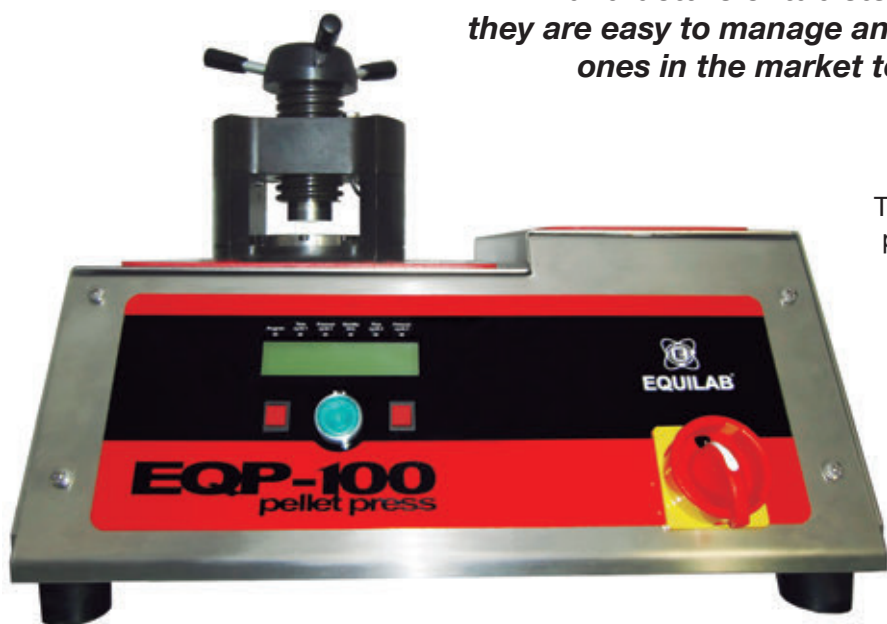
**Glass, cements, plaster, slag, coal, clinker, coke, metal oxides, ferroalloys, ceramic materials, mineral and mineralogical samples.**

- **Beads for XRF**
- **Solutions for AA and ICP**
- **Peroxide oxidations**
- **Electric all over**
- **Exhaustive control of the fusion temperature**
- **User-friendly software, intuitive, with graphics**



## EQP-100 & EQP-200 Pellet Press

*To obtain truly representative results in XR or LIBS, the samples request a fine finish – very flat surfaces, regular and without cracks -. Therefore, the manufacture of the pellets must guarantee a high degree of cohesion and stability. The EQP-100 and EQP-200 units have been especially developed for getting the best result in the manufacture of tablets. With a robust and durable design, they are easy to manage and very effective. These are the only ones in the market to offer up to five working programs in single or double cycle.*



The double cycle option allows the user to program the EQP-100 and EQP-200 units to apply pressure two times during the same process, letting you digitally adjust the time and the strength, and the time elapsed between each cycle. That time is necessary, in many of the cases, to allow the release of gas trapped within the sample – this gas is generally the reason for irregularities or fissures in the pellets.- This capacity makes of them the best alternative to treat difficult samples.

Both the EQP-100 and the EQP-200 press have been specifically designed to prepare dust samples (pellets), the objective of the tablets is to be analyzed by XR.

The preparation of samples is a common technique that will allow us to manipulate and store the samples easily, as well as ensuring analytical repeatable results.

This technique consists in compressing the particles of the dust sample (by themselves or mixed with a binding agent)

until obtaining a perfectly homogeneous pellet with a flat surface, mechanically robust and free of cracks or dust.

- The EQP-100 manufactures pellets of a single size, 40 mm.
- Thanks to a comfortable replaceable tool, the EQP-200 Pellet Press can prepare pellets of 32 and 40 mm. Other diameters under request. Its versatility allows it to work as well with different types of mould, such as square, rectangular, etc.





**THE ONLY ONES  
WITH PROGRAMMABLE  
DOUBLE CYCLE**

built-in security cabinet

### Technical specifications:

Method: pressure

Applications: cement industry, metallurgical industry, Thermal Stations, Environmental Laboratories, material recovery companies, recycling plants, Geology and Mineralogy, ceramics

Speed control: frequency converter 25/75 Hz

Sample diameter: EQP-100 / 40 mm  
EQP-200 / 32 & 40 mm. (other sizes and moulds under request)

Maximum pressure: 40 t / 50 t

Engine power: 750W

Power source: 220V

Consumables: aluminium cups 40 mm diam. / Binding Agent

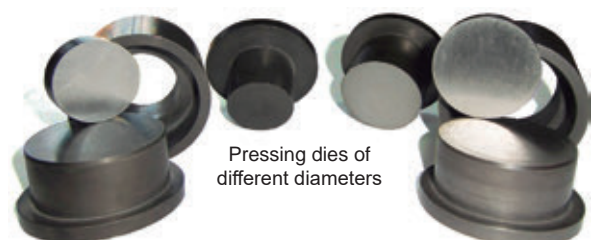
Dimensions: 40 cm (height) x 51 cm (width) x 42 cm (depth)  
Approximate weight: 75 kg.



### Applications:

Glasses, earths, cements, plaster, ceramic materials, minerals, silicates, geological and mineralogical samples.

- High quality pellets in no time
- Simple handling
- 5 working modes
- Double press cycle
- User friendly English/Spanish display
- Compact design
- Great value
- Obtain pellets of different diameters and facilitate the cleaning of the unit choosing the EQP-200 model



## EQJ-100 & EQJ-200 Jaw Crusher



*The EQJ-100 and EQJ-200 Jaw Crusher are crushing units specially designed for the primary reduction of semi-hard, hard, brittle and tough materials.*

*Able to quickly and efficiently crush glass, earth, slag, metallic oxides, cements and construction materials, ferroalloys, ceramic materials, minerals and stones.*

*These are very robust and simple units, able to take in and reduce samples for years practically maintenance free.*



During the sample preparation step, you can have samples of varied sizes. If the initial size of the sample is very big – over 10 mm -, it is necessary to undertake a pre-crushing process, named primary reduction.

The great variety of samples (semi-hard, hard, brittle and tough) and the wide crushing range of the Equilab Jaw Crushers make of these units the ideal equipment to undertake this primary reduction.

After this first reduction you can proceed to use other units such as vibratory disc mills or ball mixer mills, which shall help to reach the requested final analytical granulometry.

### **Working process**

The sample is fed via a “anti rebound” hopper and falls directly to the crushing chamber. Here a powerful grinding process starts, due to the energetic action of a movable jaw against a fixed one, the sample being crushed between both. The gap between the jaws is adjustable. When the sample reaches an equal or inferior size than the one sought after, it falls in a removable container. An adjusting analog system allows the user to select the required sample size, via an analog signal in the control window located in left side of the unit.





**Safe**

With the “anti-rebound” hopper, it is possible to safely feed the unit even when operative. It has also got an electrical protection against overload. All the moving parts of the unit are protected to ensure the safety of the user.

**Fast**

The power of the engine reaches the moving jaw via an eccentric shaft, causing an elliptical movement of the part, extending thus the crushing and friction area.

**Method**

The breaking of the sample takes place in the inside of the crushing chamber by the high pressure level exerted between the movable and the fixed jaw, and the interaction with the other pieces of the sample.

**Technical specifications:**

Method:	pressure and friction
Applications:	cement industry, metallurgy, power plants, environmental laboratories, material recovery plants, recycling plants, geology and mineralogy, ceramic industry
Initial feeding size:	EQJ-100: < 50 mm EQJ-200: < 100 mm
Final grain size:	EQJ-100: < 1 mm EQJ-200: < 1 mm
Crushing speed:	EQJ-100: 230 rpm EQJ-200: 270 rpm
Engine power:	EQJ-100: 1100W EQJ-200: 4000W
Power:	3 x 380V + earth
Jaws:	manganese steel
EQJ-100 Dimensions: Approximate weight:	122,5 cm (height) x 50cm (width) x 42cm (depth) ~185 kg
EQJ-200 Dimensions: Approximate weight:	138 cm (height) x 90cm (width) x 58cm (depth) ~550 kg

**Applications:**

**Glass, cement, plaster, slags, coal, clinker, bones, coke, metallic oxides, ferroalloys, ceramic materials, minerals, silicates, chemical products, geological and mineralogical samples.**

- Quick primary reduction of samples
- Ample range of samples
- Great crushing power
- Simple and safe
- Comfortable collection of the crushed samples



## EQR-200 Vibratory Disc Mill



*The EQR-200 Vibratory Disc Mill is a grinding mill specially designed to obtain analytical grain sizes in a wide variety of samples, such as glass, earth, slags, metallic oxides, ferroalloys, cements, and ceramic materials amongst others. It can quickly grind a wide range of different materials, from semi-soft to the hardest, fragile or fibrous.*

*All the processes can be controlled via a full color digital display. Its ease of handling and the robustness of all its components make of this mill a unit practically maintenance free.*

Once we put the sample in the milling jar, we just need to select one of its five programs and set the milling time and the desired speed using the comfortable 3.5" full color screen.

When the milling cycle starts, the screen will show the countdown to the end of the program. It is a very stable and silent unit, as it is especially adapted to avoid vibrations and acoustically insulated to reduce the noise level to a minimum.

### Simple

Controlled by a microprocessor, it has got five programs, where you can fix the different times and speeds for the milling process. When you place the jar and close the door, just choose one of the programs and push the Start key. The unit will start automatically and, after the selected time has elapsed, the mill will stop, moment when you can open the door again and take the jar out with the milled sample.

### Safe

The fixing system of the milling jars, as well as the interlocking system of the door, preventing it from opening until the engine is completely still, make of this mill a highly safe unit.

**Full color digital screen**

- Current program in use
  - Timer
- Countdown
  - Power
  - Status

**Stable**

The frequency converter integrated in the mill, apart from letting you adjust the speed of the engine to the most appropriate for each type of sample, enables the unit to reach the working speed and then pass to zero by an acceleration or deceleration ramp, avoiding vibrations in the start and when stopping.

**Quick**

The grinding of the sample is made inside the jar with the hitting of the blocks with one another and then the friction between them and the jar. The milling times are really short.

**Nominal milling time approximately 1 minute.**

**Technical specifications:**

Method: Friction, mixing and grinding

Applications: Cement and Metallurgical Industry, Thermal Power Plants, Environmental Laboratories, Material Recovery Industries, Recycling Plants, Geology and Mineral related Industries, Ceramic Industry.

Initial granulometry\*: < 15mm

Final granulometry\*: < 50 µm

Grinding speed: Regulable / 700 a 1500 rpm

Motor power: 1100W

Power: 2 x 220V + earth

Milling jars:
 

- Steel 100ml
- Steel 200ml
- Steel 250ml
- Tungsten carbide 100ml
- Tungsten carbide 200ml

Dimensions: 108.5cm (height) x 65cm (width) x 64cm (depth)

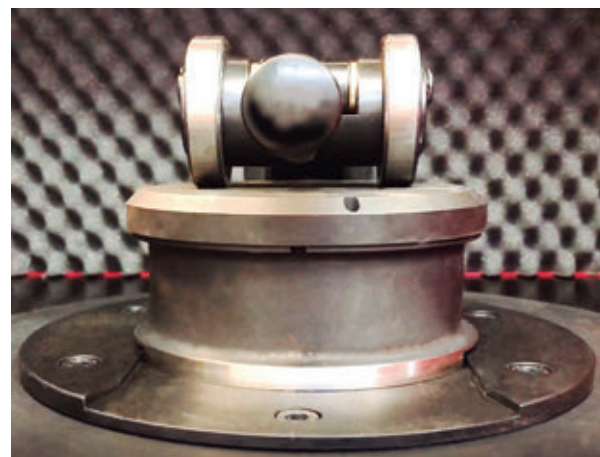
Approximate weight: 226kg

\* Depending on the sample material and the milling program

**Applications:**

**Glasses, soils, dregs, coal, clinker, coke, metallic oxides, ferro-alloys, cements, ceramics, minerals, silicates, geological and mineralogical samples.**

- Obtain an analytic grain size in seconds.
- Easy to use
- Control the parameters from a full color 3.5" digital screen
- 5 working programs
- Grinds a wide range of materials
- Quick and easy replacement of the milling jars.
- Silenced and anti-vibration system
- The best quality/price ratio in the market



## EQM-402 Ball Mixer Mill

**The EQM-402 Ball Mixer Mill is a specially helpful milling device as it can crush, mix and homogenize, quickly and easily, small volumes of a wide range of samples. Designed for the final preparation of small amounts of hard, semi-hard and fragile samples – up to 50 ml – it is the right unit to reduce two samples simultaneously from a grain size of 0.8 to 1.5 mm. to sizes of less than 10 $\mu$  speedily and effectively – in 1 to 4 minutes -.**

The excellent efficiency/time ratio of this mill appoints it as the ideal unit for the final reduction in the preparation of samples by fusion – using 10 $\mu$  grain sizes accelerates the homogenization of the sample and the fluxer, shortening the fusion times noticeably.

It is also specially recommended for preparing and mixing samples with binding agents to produce tablets/pellets by pressure, to be later analyzed by X-Ray.

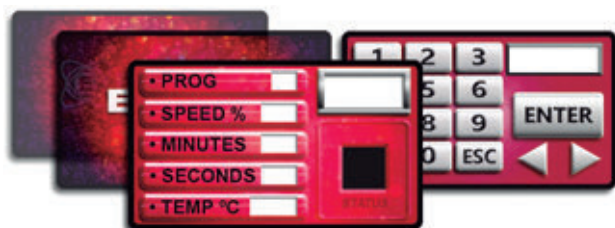
The EQM-402 Mixer Mill allows us to reduce samples in dry to a final size of 10 $\mu$  in really short milling times – from 1 to 4 minutes –, in a compact desktop unit. Operation is very simple thanks to its touchscreen and appealing visual software, from where you control a microprocessor with 5 working programs. The milling speed and time are completely configurable in each of the programs. This unit is also designed to reduce noise and vibration to a minimum.

The unit is composed of two sample receptacles that are easily fitted in place and very safe to manage: both containers are connected to a powerful engine. The milling jars have been specially designed to make the cleaning tasks easier and quicker.



A series of joints transfer the power of the engine to the milling jars, in order to produce an intense agitation. Inside the jars, the sample collides energetically against the milling balls, which can be of different diameters, reducing thus the size of the particles.

Easy to operate: the sample is introduced in the milling jars together with one or several balls, depending on the type and initial size of the sample and the final size sought. Then one of the five programs can be selected and the start button pushed. The rocking motion of the jars has the balls colliding with the sample within, crushing, milling and mixing anything inside. The combination of balls in the jars can help us to achieve different final grain sizes depending on the milling needs.



### Technical specifications:

Method: crushing, milling, friction, mixing and homogenizing

Applications: hard, semi-hard and fragile materials such as coal, coke, glass, slags, minerals, earths, ceramics, silicates, bones, plastic, wood, electrical waste, cereals, chemical products, tobacco, etc.

Programs: 5 independent working programs  
Speed %: 5 to 100  
Minutes: 0 to 59  
Seconds: 0 to 59  
Engine temperature °C: maximum 60°C

Power: 150W

Engine: 220V - 150W

Power supply: 220V - 150W

Safety system: instant stop system connected to the door

Accessories: 50 ml stainless steel milling jars  
Tungsten Carbide balls: Ø 10 mm/ Ø 15 mm/ Ø 20 mm/ Ø 25 mm

Dimensions: 31 cm (high) x 36,5 cm (length) x 47 cm (width)  
Approx weight: 25 kg



### Applications:

glass, earths, slags, coal, clinker, bones, coke, metallic oxides, ferroalloys, plastics, cements, ceramic materials, wood, minerals, silicates, electronic waste, chemical products, tobacco, cereals, geological and mineralogical samples.

- Obtain different analytical grain sizes in seconds
- Simple, easy operation
- 5 working programs
- Accepts a wide range of materials
- Exchanging jars is quick and safe
- User friendly visual software controlled with a touchscreen



# EQH-3.0 Induction Heater

*The preparation of metallic samples is currently made in many and various ways – depending on the hardness of the metal. More times than not you need to heat the sample previously in order to soften the metal and thus allow its further processing, whether by cutting, crushing or punching. The Induction Heater EQH-3.0 has been specially developed for the red hot heating of lollipops and bars for their quick softening.*

The Induction Heater **EQH-3.0** has got 5 preset programs to cater for the requests of the routine preparation of samples in steel mills and foundries. These programs can be modified according to the type of sample and the needs of each particular client.

The **EQH-3.0** only needs a 50x50 cm space and a plug of 220V/15A, and it is able to heat a piece of metal to red hot in barely 30 seconds – depending on the program chosen. The use of the heater is very simple. Once the program is selected, you put the sample for heating inside the coil and push the “START” button: the heater is immediately working – the lamp in unit 2 shows that the coil is heating up, and shall remain in that state until the programmed time for the heating up has expired. When that moment is reached, the unit warns with a high pitch beep that the power of the coil is being withdrawn so that the sample can be taken out, ready for processing. As a safety measure, the lamp and the cooling system will continue on for 30 more seconds. It has got an internal closed water circuit, constituting the cooling system. The **EQH-3.0** is a simple and fast unit which allows the heating up of a lollipop or a metal bar in just 30 seconds.

## Technical specifications:

Method:	Induction heating
Applications:	Manufacturers of steel, iron and alloys
Programs:	Five programs
Heating speed:	Regulable
Maximum power:	3KVA
Power:	220V 50/60 Hz
Induction Frequency:	120 kHz ... 150 kHz
Cooling:	Liquid by internal closed circuit
Dimensions:	40cm (height) x 51cm (width) x 42cm (depth)
Approximate weight:	12Kg



## Fusion unit.

Especially designed to melt soft metal samples – for example, copper - in a quick manner. Most of the clients do use it to group several small pieces such as wires, threads or granules, and melt them in a single coin. This small coin is normally used to undertake analysis by spark.

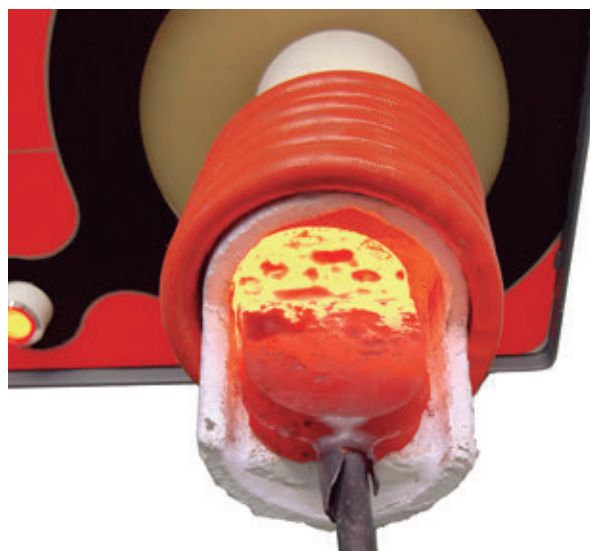
Applications: Copper



**Applications:**

**Steel, iron and alloy samples.**

- Heat your metal samples very fast
- Simple handling
- 5 adjustable working programs
- User friendly display with instructions in English and Spanish
- Compact design
- The best value in the market



# MultiEQP-100 Processing System for Metallic Samples

*The versatility of the new MultiEQP-100 makes of this unit an essential instrument for the treatment and manufacturing of metallic samples. Effective for cutting, crushing and punching metallic samples, you can also include the capacity for pressing pellets that will be analyzed afterwards by RX. The objective of punching the samples is the obtention of pins for their analysis in Elemental Analyzers. With a touchscreen and intuitive software, the multiple possibilities available in the MultiEQP-100 are easily controlled. The addition of two magnetic sensors on the left hand side of the pistons allow the automation of the working cycles.*

The special adaptability conditions of the **MultiEQP-100** make it immediately ready for undertaking different tasks. This unit has got a specially designed system for the fast and safe changeover of tools fitted for different purposes.

The need of the clients for the immediate readiness of different tools for processing metallic samples led us to transform the **MultiEQP-100** in a samples processing system, as it is able to hold up to three working pistons with capacity to assume, each of them, multiple types of tools. In fact, we can manufacture the tools according to the specifications of use.

Each of these working stations can be controlled directly from a single control unit – by a user friendly software and a touchscreen-, from which we can adjust the parameters such as the desired time, the stroke of the piston and the pressure: up to 50 tons.

To select a working unit you can do it through the touchscreen, or directly at the unit.

## Complementary operation with the Induction Heater

Due to the hardness that some samples can reach (for example  $C > 0.2$ ), they can't be processed directly and must be preheated to soften the metal; the combined use of the EQH3.0 Induction Heater with this unit make possible the quick and convenient processing of these kind of samples.

16 • Equilab • Sample Preparation



## Technical Specifications:

Method: pressure, cutting, crushing, punching

Applications: metallurgical industry

Speed control: frequency converter 25/75Hz

Power source: 2 x 220V

Consumables: aluminium cups 40 mm diam.

## Dimensions

Control unit: 40 cm (height) x 51 cm (width) x 42 cm (depth)

Control unit weight: 40 kg

Piston weight: 60 kg





Safety housing



<p><b>Pellet Press Piston:</b></p> <p>Maximum stroke: 53 mm                  Diameter: 120 mm                  Flow: 1.17 l/min                  Maximum pressure: 450 kg/cm<sup>2</sup>                  Maximum strength: 50 T</p>	<p><b>Punching Tool piston:</b></p> <ul style="list-style-type: none"> <li>• Pressure control</li> <li>• Time control</li> </ul> <p>Amount of pins: 3                  Pins' diameter: 6 mm (other diameters under request)                  Maximum strength: 25 T (limited by software)</p>
<p><b>Cutting Tool piston:</b></p> <ul style="list-style-type: none"> <li>• Pressure control</li> <li>• Time control</li> </ul> <p>Cutting diameter: bars up to 30 mm Ø                  Maximum strength: 50 T</p>	<p><b>Crushing Tool piston:</b></p> <ul style="list-style-type: none"> <li>• Time control</li> </ul> <p>Contact surface: 53 mm Ø                  Maximum strength: 50 T</p>



**Applications:**

**Steel and ferroalloys**

- Process all kinds of metallic samples with just one unit
- The best quality/price ratio in the market
- Special tools under request
- Simple to operate
- Fast change of tooling
- Customized configuration
- User friendly digital display
- Programs specially adapted to your needs



## EQ-PUL Polishing Kit

***The status of the platinumware when preparing beads has got a great influence in the final result of the analysis by XRF. Apart from improving and facilitating the timings for sample preparation. Equilab presents their EQ-PUL Polishing Unit, specially designed to firmly hold the different pieces for grinding and polishing. This unit can apply up to 8 selectable turning speeds. It is a small device, easy to use and very versatile.***

The proper care and maintenance of the platinumware in the fusion process is of utmost importance, first because the high cost of these pieces and also because of their influence in the analytical results. From an analytical point of view, it is important to know that the small scratches and lines – deriving from the wear and tear – in the molds can increase the possibility of misreadings by the XRF unit, as these imperfections are imprinted in the surface of the bead. From an operative point of view, the proper maintenance of our pieces does affect directly the sample preparation times, also facilitating the removal of the beads and the complete discharge of the molten sample within the crucible. From a financial point of view, to take good care of the platinumware may extend the useful life of the pieces to double or even treble the time.

*Until now, the polishing techniques resulted too arduous and requested specialized staff. The EQ-PUL is specially designed to maintain the platinumware in the best conditions without the need of highly qualified technicians. This polishing unit is compact and easy to manage. It includes a holding device to secure it firmly to any working station. The EQ-PUL is controlled by a microprocessor and has got up to 8 working speeds. This feature enables operations when it is necessary to apply a stronger abrasion as well as those where the process is very delicate.*

The unit comprises two modules. From the lower one the features of the units are controlled. The upper module is independent and is fixed onto an axis, therefore it can be moved to work in an horizontal position, maintain it upright, or hold it in intermediate positions. This option allows for changing the position of the working area to access each piece comfortably.

### Technical Specifications:

Application: platinumware users

Speeds: 400 / 600 / 800 / 1200 / 1500 / 2000 / 2500 / 3000 rpm

Consumables:  
(includes) 10 abrasive discs P500  
10 abrasive discs P1000  
10 abrasive discs P1500  
10 abrasive discs P2500  
500 ml polishing liquid 3 µm  
500 ml polishing liquid 6 µm  
500 ml polishing liquid 14 µm  
3 polishing cloths 400 x 300 mm

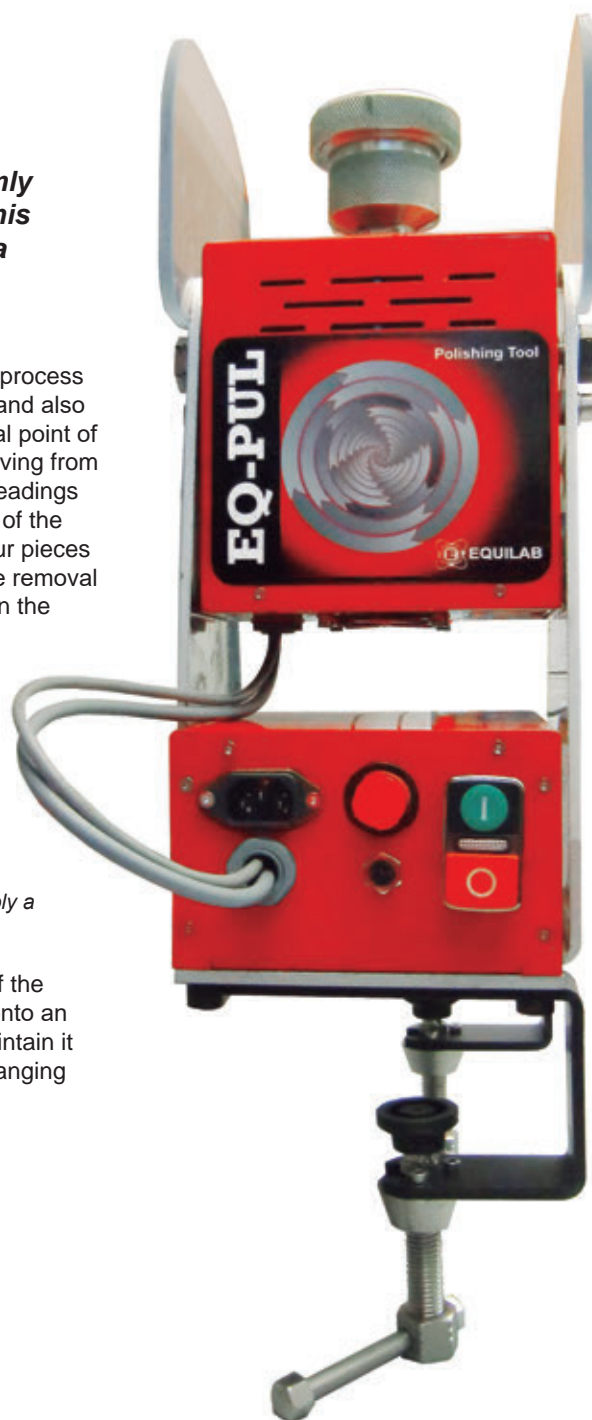
Engine power: 150W

Power supply: 220V/100W

Dimensions: 550 mm (height) x 220 mm (width) x 255 mm (depth)

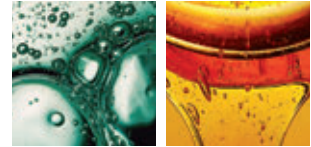
Approximate weight: 11 kg

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The unit is handed over with an initial kit including all the accessories to start working with the unit immediately. The versatility and low cost of the **EQ-PUL** Polishing Kit make of this device an essential tool to maintain the platinumware in the best condition.

# EQHP Hot Plate and Magnetic Stirrer



*This unit has been specially designed to mix and/or heat liquids in laboratories. Its ceramic cover grants an excellent resistance to chemical and technical attacks, as well as to general corrosion. Able to heat fluids up to a temperature of 550°C and to stir liquids within a range of 0 to 1500 rpm simultaneously or alternatively. During the time when the unit may maintain some residual heat (>50°C) the word HEAT will show in the display as safety sign.*

## Technical Specifications:

Method:	heat, stirring
Applications:	liquids in general
Adjustment:	gradual increase of the temperature gradual increase of the stirring speed
Power:	1030/30W
Heating power:	1000W
Temperature:	0 to 550°
Stirring:	0 to 1500rpm
Safety measures:	alert when residual heat up to 50°C
Protection classification:	IP21
Dimensions:	112mm (height) x 215mm (wide) x 360mm (depth) Approximate weight: 4.5 kg

## EQUILAB Flux Range

Flux with a borate base for the obtention of glass discs for analysis by XRF.

- EQF-TL-100 Lithium Tetraborate
- EQF-ML-100 Lithium Metaborate
- EQF-TML-6634 Lithium Tetraborate 66% + Lithium Metaborate 34%
- EQF-TML-5050 Lithium Tetraborate 50% + Lithium Metaborate 50%
- EQF-TML-3466 Lithium Tetraborate 34% + Lithium Metaborate 66%
- EQF-TL-100-5 Lithium Tetraborate 99,5% + Lithium Bromide 0,5%
- EQF-ML-100-5 Lithium Metaborate 99,5% + Lithium Bromide 0,5%
- EQF-TML-6634-5 Lithium Tetraborate 66% + Lithium Metaborate 34% + Lithium Bromide 0,5%
- EQF-TML-5050-5 Lithium Tetraborate 50% + Lithium Metaborate 50% + Lithium Bromide 0,5%
- EQF-TML-3466-5 Lithium Tetraborate 34% + Lithium Metaborate 66% + Lithium Bromide 0,5%
- EQF-TL-100-510 Lithium Tetraborate 99,5% + Lithium Iodide 0,5%
- EQF-ML-100-510 Lithium Metaborate 99,5% + Lithium Iodide 0,5%
- EQF-TML-6634-510 Lithium Tetraborate 66% + Lithium Metaborate 34% + Lithium Iodide 0,5%
- EQF-TML-5050-510 Lithium Tetraborate 50% + Lithium Metaborate 50% + Lithium Iodide 0,5%
- EQF-TML-3466-510 Lithium Tetraborate 34% + Lithium Metaborate 66% + Lithium Iodide 0,5%



**Our fluxes are manufactured following the most strict quality normatives to ensure the highest purity grade.**

## Platinumware

Equilab supplies a variety of pieces for heating up processes by muffle type furnaces.  
Crucibles and molds compatible with the main fusion unit brands in the market.  
Electrodes and special instruments on demand.



## Reshaping units for Pt crucibles and molds

Special tools to reshape your crucibles and molds to their original state.



## Pressing tools

EQP-13P Pressing tool Ø13mm  
 EQP-30 Pressing tool Ø30mm  
 EQP-32P Pressing tool Ø32mm  
 EQP-40P Pressing tool Ø40mm

PD-40\_32 Ring pressing tool OD40mm / ID32mm  
 PD-40\_32-04 Steel ring OD40mm / ID32mm  
 PD-40\_35 Ring pressing tool OD40mm / ID35mm  
 PD-40\_35-04 Steel ring OD40mm / ID35mm  
 PD-51.5\_35 Ring pressing tool OD51,5mm / ID35mm  
 PD-51.5\_35-04 Steel ring OD51,5mm / ID35mm



## Consumables for preparing pellets

**Binding agents and aluminium cups to prepare pellets for XRF**

EQP-WAX Wax C for pellets RX - 1kg  
 EQP-BORA Boric acid 5kg  
 EQP-CAS Aluminium cups Ø40mm x 12mm - 1000un



## Milling jars

**EQR-200 Vibratory Disc Mill**

- EQR-A-100 Steel milling jar 100 ml
- EQR-A-200 Steel milling jar 200 ml
- EQR-W-100 Tungsten Carbide milling jar 100 ml
- EQR-W-200 Tungsten Carbide milling jar 200 ml



## Jars and balls

**EQM-402 Ball Mixer Mill**

- EQM-J-50 Steel milling jar 50ml
- EQM-B-25 Tungsten Carbide ball Ø25mm
- EQM-B-20 Tungsten Carbide ball Ø20mm
- EQM-B-10 Tungsten Carbide ball Ø10mm



## Tools

**MultiEQP-100 Metallic samples processing system**

- MEQP-100-P Punching tool
- MEQP-100-C Cutting tool
- MEQP-100-CR Crushing tool
- MEQP-FLAT Pellet press tool
- Other tools on demand



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