

# ESSEMCE TOOLS & MACHINERY

2002-1

## EQUIPMENT – HOT END



### Two station centrifuge

with two separate drive units, speed infinitely variable through frequency converters. All functions controlled via two control boxes: acceleration, braking, cooling and ejection. Both boxes are within easy reach of the operator, permitting operation with just one operator and one gatherer.

As an option to all-pneumatic ejection, the glass can, via foot pedal, be manually lifted a few centimetres in the mould, before the pneumatics cuts in. This gives better control of the ejection process and thereby improved quality.

#### SPECIFICATIONS:

Motor: 3kW  
 Length, electrical box excl.: 1800 mm  
 Depth: 900 mm  
 Height of machine table: 680 mm  
 Weight: approx. 600 kg

Connections: 400V, 50Hz 3-phase, air pressure 0.5-0.8 Mpa, blow air.

Single-station and round-table centrifuges with 3, 4 or 6 station also available.

### Automatic stempulling machine

With a machine for automatically pulling stems a team is organized as follows:

- 2 blowers
- 1 foot gatherer
- 1 foot maker

as well as a carrier (who can serve more than 1 team).

The advantages over manual pulling are increased productivity per person as well as better quality (stems are always straight and of exactly the right length).

Up to 80 different models can be stored in the machine's control system.

Resetting time is a matter of minutes once the programs have been loaded.

#### Description

A blowpipe with a ready-blown bowl is placed in the machine. A glory hole on wheels is pushed forward and the peg is heated. When this is completed the blowpipe is automatically transferred to the pulling station. A tool trolley locates the glass and the pulling tool clamps round the peg. The stem is now pulled to the desired length and thickness. The blowpipe is moved one the last time and is placed on the foot maker's workbench. The heating and pulling stations work independently of each other. 3 AC servo motors, freely programmable from the control system, control the movements of the pulling station.



### Single spindle centrifuge

with infinitely variable speed through frequency converter. The following functions are controlled via a control box: acceleration, braking and ejection.

As an option to all-pneumatic ejection, the glass can, via foot pedal, be manually lifted a few centimetres in the mould before the pneumatics cuts in. This gives better control of the ejection process and thereby improved quality.

The mould locks in a self-centering, three-jaw chuck.

#### SPECIFICATIONS:

Motor: 3kW  
 Length, electrical box excl.: 1480 mm  
 Depth: 1050 mm  
 Height of machine table: 740 mm  
 Weight: approx. 275 kg

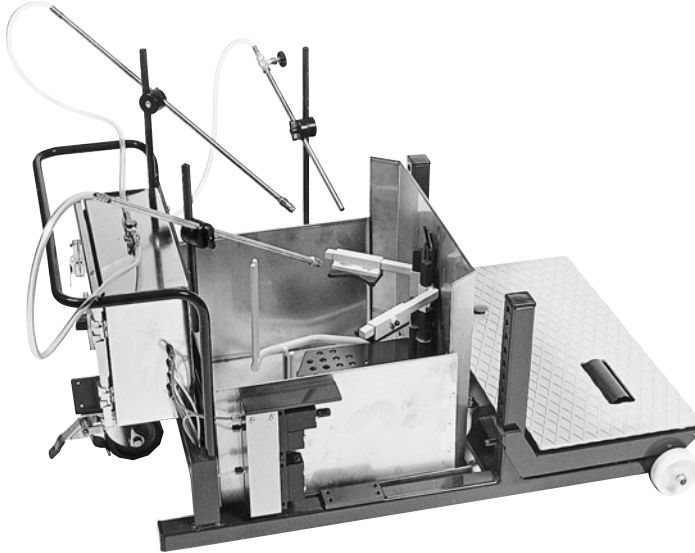
Connections: 400V, 50Hz 3-phase, air pressure 0.5-0.8 Mpa, blow air.

## Mechanical boys

with timed (1–60 sec) automatic water cooling.

The mould is opened and shut by a compressed air piston controlled by a pedal conveniently located on the platform. After the mould has opened, cooling water is sprayed automatically from adjustable nozzles. The spraying period is adjustable between 1 and 60 seconds by a knob on the timing valve.

The Mechanical boys should be connected to compressed air at a pressure of minimum 0.5 Mpa and to supply source of water and to a drain.



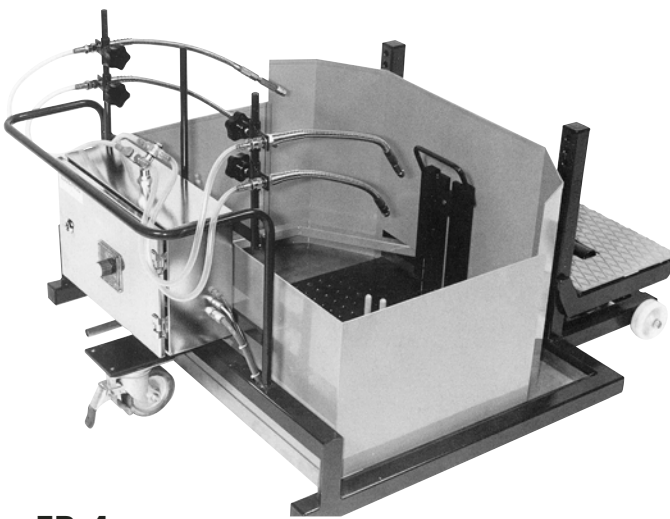
### Type FB-3

Platform adjustable from about 100 mm to about 350 mm. The mould plate is adjustable in height to a maximum of about 150 mm from floor level.

The distance between the mouldhandle holders when the arms are open is about 370 mm and from the back of mould to the holders in closed position about 250 mm.

As an option the FB-3 Mechanical Boy can be supplied with a cutting-down-unit as shown on the picture.

**Width:** 600 mm  
**Length:** 1000 mm  
**Weight:** 60 kilos



### Type FB-4

Platform adjustable from 150 mm to about 450 mm. Mould plate to about 150 mm from floor level.

The distance between the mouldhandle holders when the arms are open is about 650 mm and from the back of mould to the holders in closed position about 500 mm.

**Width:** 950 mm  
**Length:** 1200 mm  
**Weight:** 75 kilos

## Blowpipe cooling machine

to be connected to a water supply. By placing the pipe in the machine you open a valve and the pipe is cooled with water from 5 spray nozzles. The valve is automatically closed when you remove the blowpipe.

**Total height:** 900 mm



## Blowpipe rollers

All with steplessly variable speed control with thyristor drive and d.e. motor.

**Voltage:** 220V, 50Hz single-phase. Other voltages available on request.



### Blowpipe roller, type PS-2

Free-standing model, generally used for 4 blowpipes with a centre distance of approx. 125 mm. Both sides vertically adjustable. Fitted with wheels.

**Width:** 560 mm  
**Length:** 870 mm



### Blowpipe roller, type PS-1

Intended for mounting on a glass working bench, comprises two parts: a power (shown on the photo) and a support side. For not more than 2 blowpipes at a centre distance of approx. 125 mm.



## Blowpipe roller, type PS-4

Free-standing model, for heavier glass. For not more than 4 blowpipes with a centre distance of approx. 175 mm. Rubberized drive rollers. Thanks to the design of the support side, the blowpipes can be placed either above or below the support rollers. Both sides vertically adjustable. Fitted with wheels.

Width: 725 mm  
Length: 890 mm



## Blowpipe roller, type PS-3

Free-standing model, for heavier glass. For not more than 2 blowpipes with a centre distance of approx. 350 mm. Rubberized drive rollers. Thanks to the design of the support side, the blowpipes can be placed either above or below the support rollers. Both sides vertically adjustable. Fitted with wheels.

Width: 550  
Length: 890 mm



## Glasworking benches

Traditional glassworking bench with wooden seat. Available with either straight or curved sidepieces on the right.



## Working bench "Ergo"

Glassworking bench with separate working chair, intended for sedantary light work. Prepared for the fitting of Blowpipe Roller PS-1. The support sides are adjustable in height.



## Working bench "Ergomatic"

Glassworking bench with separate working chair, specially designed for table-ware, which relieves shoulders and wrists. It is fitted with a blowpipe roller, an arm which grips, lifts, turns and passes over the blowpipe to the footmarker for the addition of the foot. To enable this movement, the left-hand supportside is automatically folded down.

As standard the bench is intended for  $\varnothing$  16 mm pipes.

To be connected to 220V, 50Hz single-phase and compressed air 0.5 – 0.8 pa.



**NEW!**

## Glory holes

The Glory holes are available in three sizes, Ø 250, 350 and 500 mm. The stand is adjustable in height. It is also possible to adjust both the glory hole and the yoke in the longitudinal direction. All in order to adapt it to your individual requirements.

The glory hole is provided with stainless protective heat and sound insulation plates. The protective glass is in a cartridge for fast replacement. The burner placement has been changed in order to provide improved efficiency. Since the insulation consists of cast tubing, it is easy to replace.

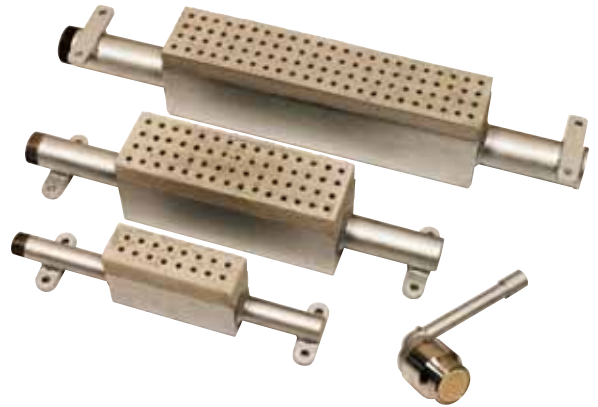
**Air and gas pressure:** 0,04 – 0,05 bar (4 – 5kPa)

## Burners for glory holes

1. **Round burner** used in our glory hole for stems with inside dimensions: Ø 10 x 15 cm. Ceramic burner plate approx. Ø 45 mm.
2. **16-flame oblong burner** used in our glory hole No. 0 with inside dimension approx. 250 x 250 x 300 mm.
3. **60-flame oblong burners** used in our glory holes No. 1 No. 2. In No. 2 only when propane is used.
4. **90-flame oblong burner** used in our glory hole No. 2 when using natural gas.

The burners can be used for both propane and natural gas, with the exceptions stated above.

**Air and gas pressure:** 0.04-0.05 bar (4-5 kPa).



## Glory hole for stems

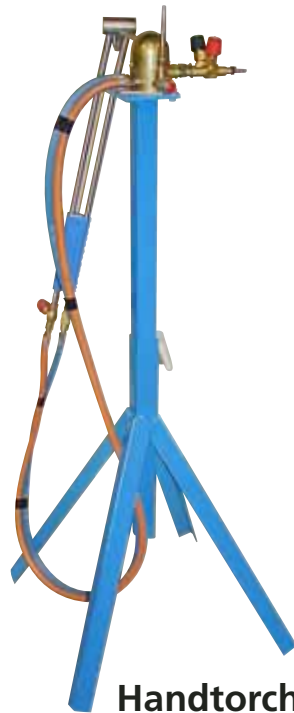
Insulation consists of ceramic fibre.

**Inside dimensions:** Approx. Ø10 x 15 cm

**Outside dimensions:** Approx. 22 x 22 x 22 cm

The burners fitted with replaceable ceramic inserts.

**Air and gas pressure:** 0,04 – 0,05 bar (4 – 5kPa)



## Handtorch

For fire-polishing with oxygen/propane.

