



BPD 100 – BATCH PROCESS DISTILLER

Fully automatic and safe Mercury Recovery Technology



GENERAL INTRODUCTION

The Batch Distillers are designed for processing all kinds of lamp waste, electrical devices, mercury button cell batteries, thermometers in addition to heavy mercury contaminated wastes with a higher content of organic substances such as mercury zinc batteries, dental amalgam, medical wastes, sludge and wastes from the military and chemical industry.

The process is fully automatic which makes it extremely safe, and removes the risk of human error. All essential functional parameters such as pressure, temperature and process time are adjusted to conform to the waste treated. This enables optimum efficiency.



TECHNICAL SPECIFICATIONS BATCH PROCESS DISTILLER 100L (BPD 100)

Capacity:

.....1 dome 4 x 25 l/batch
For limitations, health and safety and environmental protection provisions, see operations manual.

Process time:

100 l/batch of crushed lamps and tube ends: approx. 10 hours
100 l/batch of fluorescent powder: approx. 14 - 16 hours
100 l/batch of arc tubes from high pressure mercury vapour lamps: approx. 12 hours.
100 l/batch of button cell batteries: approx. 20 - 24 hours.
Process time varies depending on material composition and moisture content.

Media:

Electrical connection:400V, 50Hz, 5-core cable, max. 35 kW, 100 A
Compressed air: Maximum 250 m³ per batch.
Supply pressure:6 bar dry (dew point +3 °C) oil free.
Maximum flow 500 l/minute. Connection pipe 0.5 inch hose nipple or ¼ inch thread.

Oxygen:10 - 15 m³ per batch.
Supply pressure: 5 bar ± 5 % dry
Maximum flow 2000 NI/h*. Connection pipe 6 mm hose nipple or ¼ inch thread.

Nitrogen: 7 - 10 m³ per batch.
Supply pressure:5 bar ± 5 % dry.
Maximum flow 4000 NI/h. Connection pipe 6 mm hose nipple or ¼ inch thread.

Dimensions:

Length: 3 000 mm
Width: 1 600 mm
Height: 3 800 mm

Operational temp range:

.....+10 C° - +35 C°

Hg content after distillation:

Hg concentration:max. 0.1 mg/l
Hg content values have to be confirmed by using Leachate procedure in accordance with SS-EN 12457-2.

PURCHASE SPECIFICATIONS AND ADDITIONABLE OPTIONS

The purchase will include the following components:

- 1 pc dome
- 1 pc combustion chamber
- 1 pc condenser
- 1 pc vacuum system
- 1 pc exhaust fan
- 1 pc cooling fan
- 2 pcs carbon filters
- 1 pc control system
- 1 pc crane pillar and telpher
- 1 pc cooling unit
- 8 pcs distiller barrels (30L)
- Remote process monitoring and service

Options:

- UPS unit
- Extra distiller barrels
- Transformer for alternative electrical connection

EEC Conformity:

The equipment is manufactured in accordance with:
EEC Directive on Machinery (2006/42/EG)
EEC Directive on Low Voltage (2014/35/EG)
EEC Directive on Electromagnetic Compatibility, EMC (2014/30/EG)