

## MFD 50 – MERCURY FINE DISTILLER

99,9999% purity of Mercury guaranteed.

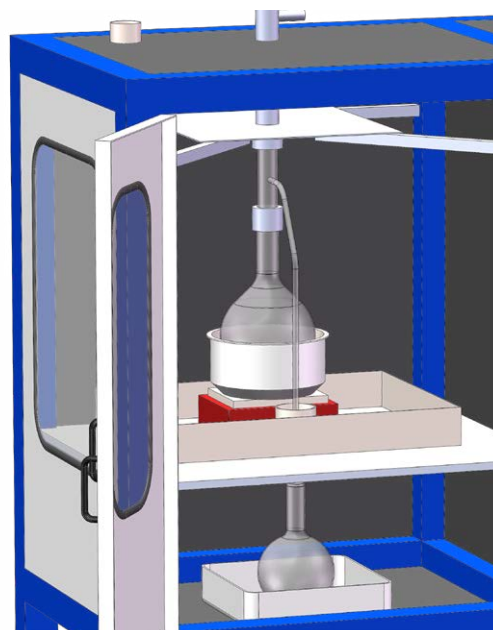


## GENERAL INTRODUCTION

The MRT Mercury Fine Distiller (MFD) is for users demanding the highest grade of Mercury from their distillation. The MFD 50 is designed for 24/7 operation and the last step after the BPD or RPD. The equipment can refine to near Virgin Mercury quality up to grade 99,9999 % of purity, which can be used in industrial processes and for scientific purposes.

The Fine Distillation process is carried out in three steps. First the Oxygen phase, where impurities are removed from the Mercury during a 3 to 14-day treatment. Then the Nitrogen phase to ensure all Oxygen is removed from the Mercury which lasts approximately for one week. And finally, the actual distilling in the MFD 50 is carried out.

The MRT Mercury Recovery concept chain makes it possible to avoid toxic Mercury from products in our daily life to end up in the general flow of waste. Each part of our concept creates conditions to protect the greater environment and our food sources from Mercury contamination. MRT is thus an important part of the value chain in creating life of quality or quality of life.



## TECHNICAL SPECIFICATIONS MERCURY FINE DISTILLER (MFD 50)

### Capacity:

..... up to 50 kg/24 hrs

### Media:

Electrical connection:..... 220 V, 50 Hz, 3-core cable, max. 10 kW

Oxygen:..... 1 m<sup>3</sup> per batch.

Nitrogen:..... 1 m<sup>3</sup> per batch.

Specification for connection for both Oxygen and Nitrogen: Connection pipe 6 mm hose nipple or ¼ inch thread.

### Dimensions:

Length:..... 3.000 mm

Width:..... 1.600 mm

Height:..... 3.800 mm

### Weight:

The equipment weighs approximately 1 ton without any Mercury in process. The BELFA container can carry approximately 1 ton each, so in the machine and working area total weight will be up to 3 tons.

The payload of the equipment (1 ton) is 6 connection points to the floor each 10x10 cm. The BELFA containers will be placed on normal pallets.

### Operational temperature range:

..... +10 °C - +35 °C

### Hg emission to the atmosphere:

Working area:..... max 0,020 mg/m<sup>3</sup>

Exhaust:..... max 0,020 mg/m<sup>3</sup>

The working area has to be ventilated by fresh air not less than 3 exchanges/h. The Hg concentration is mainly depending on how waste is handled in the working area and how maintenance work on the equipment is executed. The distiller itself generates only negligible amounts of mercury concentration in the working area during operation.

### Exhaust:

Exhaust flow: ..... max 500 m<sup>3</sup>/h

Exhaust duct:..... Ø 125 mm

The process air is discharged through two series connected carbon filters. Hg exhaust to be confirmed by using Jerome 431-X instrument in stationary air.

### Hg purity after distillation:

Hg purity: ..... 99,9999 %

## PURCHASE SPECIFICATIONS AND ADDITIONABLE OPTIONS

### The purchase will include the following components:

- 3 pc BELFA containers (100 l.)
- 1 pc Mercury Fine Distiller (MFD 50)
- 1 pc vacuum system

### EEC Conformity:

- The equipment is manufactured in accordance with:
- EEC Directive on Machinery (2006/42/EG)
- EEC Directive on Low Voltage (2006/95/EG)
- EEC Directive on Electromagnetic Compatibility, EMC (2004/108/EG)

