



## • POLUS-M



The luminescent sorter POLUS-M is designed for exploration of diamond deposits, enrichment of dry diamond concentrates in the field with particle size:

- 8 +4 mm,
- 4 +2 mm,
- 2 +1 mm,
- 1 +0.5 mm.

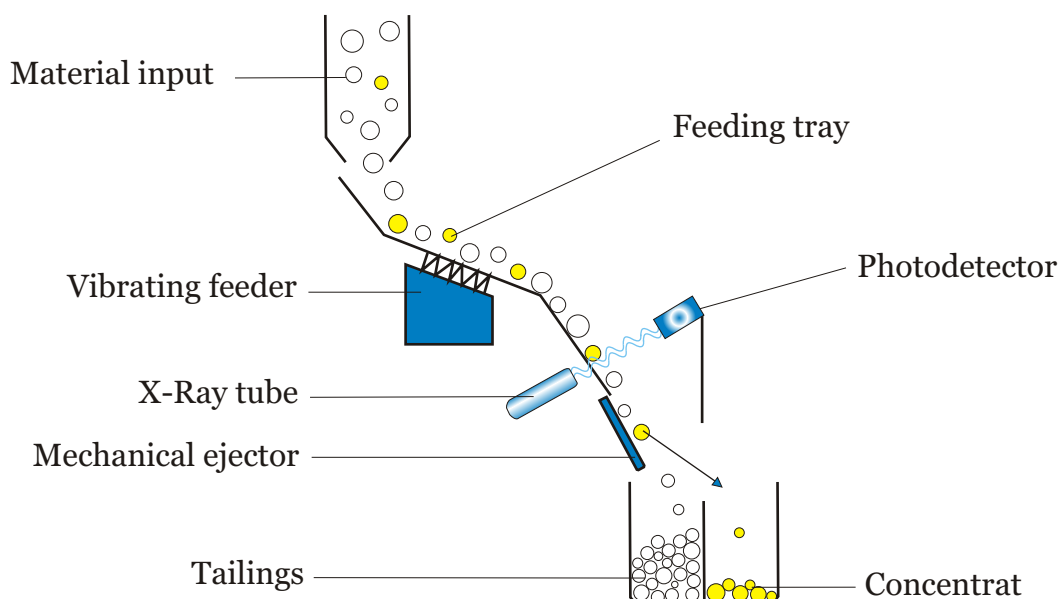
Full protection against X-ray radiation is guaranteed.

### • Work principle

The principle of employment of the X-ray sorter Polus-M is based on use of property of diamonds to luminesce under X-ray radiation and distinction of these properties at diamonds and accompanying luminescing minerals.

Selection of diamonds in the concentrate is carried out by a mechanical ejector consisting of the shovel and an electromagnet.

### • The technological scheme



# X-RAY LUMINESCENCE SORTER



## **BOUREVESTNIK, Inc.**

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### • Technological characteristics

Class size of processed material: -8 +4 mm, -4 +2 mm, -2 +1 mm, -1 +0,5 mm

Productivity in the processing of the material particle size:

-8 +4 mm .....	up to 160 kg/h
-4 +2 mm .....	up to 100 kg/h
-2 +1 mm .....	up to 50 kg/h
-1 +0,5 mm .....	up to 20 kg/h

Output material per cut-off (at rated output):

the class -8 +4 mm .....	no more than 3,7 g
the class -4 +2 mm .....	no more than 1,5 g
the class -2 +1 mm .....	no more than 0,7 g
the class -1 +0,5 mm .....	no more than 0,3 g

Dimensions (L x W x H):

Sorter.....	635 x 300 x 590 mm
Control unit.....	490 x 440 x 230 mm

Weight (without packing box):

Sorter.....	36,5 kg
Control unit.....	15 kg

Extraction.....not less than 98-99%

Consumption.....no more than 300 W

Nutrition.....from AC 220 V, 50 Hz

Operating temperature range from +5 C to +45° C with relative humidity up to 80%.

Separator Polus-M has successfully passed the stage of testing and trial operation at the sites of exploration of diamond deposits of Yakutia (Russia).

### • Description

The separator consists of a sorting machine and a control and registration unit.

Photodetector and X-ray source are located on opposite sides of the flow of material.

A transport channel is enclosed in a separate housing. Access to the transport channel is possible through removable hatches.

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