

# ASA-2F

# Diamond shape sorting machines

New product



Diamond sorting machine is designed for automatic diamonds classification by shape and its sorting in 10 groups.

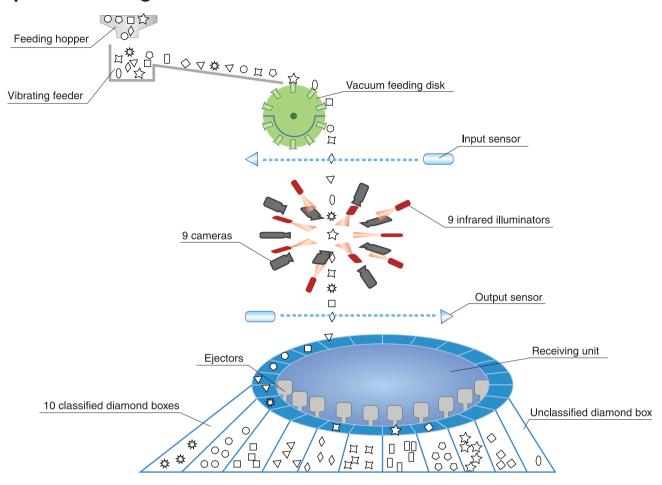
## **Operation**

Diamonds automatically come one by one from the feeding bin to the detection zone. Nine cameras take and transmit diamond projections to the software, which generates 3D image, defines diamond's shape and assign each crystal to certain group. Then, the diamond comes into a cell of the receiving drum where it is ejected to the corresponding concentrate box.

Size fraction, mm	-4,5+1,8
Size variations for each size fraction, mm	0,3
Sorting rate, patricles per second, not less	5
Number of groups of diamonds after sorting: - classified diamonds - unclassified diamonds	10 1
Sorting accuracy: after sorting each classified group of diamonds contains: - assigned type of stones, not less than 90% - another type of stone, not more than 10%	90 10 (including >90% of diamonds from neighbor groups)
Accuracy of mechanical extraction of diamonds, %	99
Compressed air consumption (0.4 MPa), I/min	not more than 200
Overall dimensions (LxWxH), mm	1200×900×1500
Net weight, kg	235
Power consumption, VA (single phase main, 220 V/50 Hz)	500

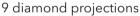


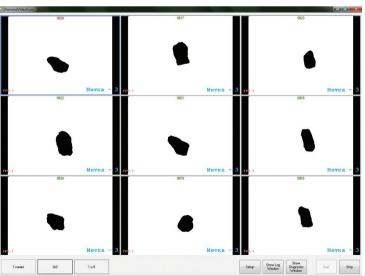
## **Principal Process Diagram**



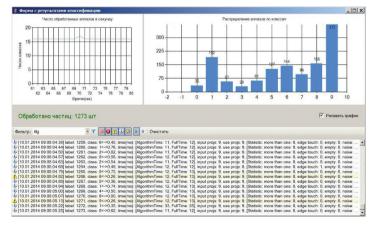
#### **Software interface**

Software analyses diamond projections obtained from nine cameras, generates 3D image of the diamond, classifies it to the certain group depending on its shape and ensure that the crystal is ejected to the corresponding box.





#### Form of classification results



#### "Bourevestnik", JSC

3, bld 1, Lyotchik Parshin st., 197350, Saint-Petersburg, Russia

www.bourevestnik.com

### Marketing, Advertisement and Sales Aftersales Service **Department:**

Tel.: +7 (812) 458-89-95, 458-86-48

E-mail: marketing@bv.alrosa.ru

Tel./Fax: +7 (812) 528-82-83 E-mail: service@bv.alrosa.ru