

## Intelligent Fineness of Grind Tester

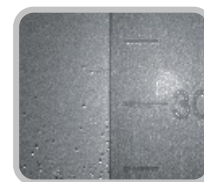
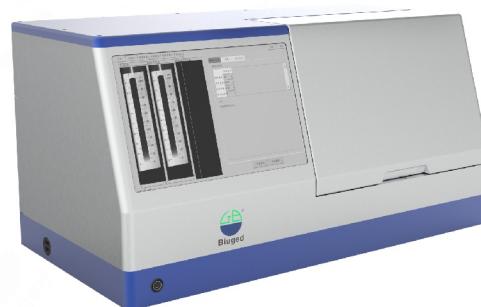
The test results of fineness of grind from different operators are often with low reproducibility. The different power and speed applied on the scrapers are ones of the reasons of the inconsistent. Another reason is that, there are always some subjective factors to judge particle number and distribution, because it is not easy to give a test result in 5 seconds, especially for the gauges with small range such as 0-25 $\mu$ m.

**BGD 246 Intelligent Fineness of Grind Tester** is an intelligent instrument newly developed by our company. This instrument can not only automatically complete the standard scraping of the sample on the groove of the grinding gauges, but also immediately take and save the pictures of the sample particles in the area. And according to the regulations of the result reading of the relevant standards, it can automatically identify the scraper fineness value of the sample within 5 seconds, and also display the statistical chart of particle distribution.

- ◆ Full-automatic and rapid fineness measurement with excellent convenience, high efficiency and good repeatability & reproducibility.
- ◆ Directly demonstrate the test results with two determination methods A or B according to GB/T 1724-2019.
- ◆ Compatible with different types of grinding gauges, including single-channel (170mm  $\times$  50mm), double-channel (175mm  $\times$  65mm), wide-channel (175mm  $\times$  65mm) with different measuring ranges of 0-25 $\mu$ m、0-50 $\mu$ m、0-100 $\mu$ m and 0-150 $\mu$ m.
- ◆ Anti-interference to the defects of pits, scratches, tiny bubbles, and bubble aggregation, displaying the number and sizes of such noise defects.
- ◆ The displayer shows the current sample name, sample batch, testing time, the current steps being executed during the operation, the original image after scraping, the image processed by the algorithm, particle distribution, and the final judgment results according to Method A and Method B.
- ◆ To ensure consistency between human eye and the recognition system, operator can arbitrarily set the threshold range for the system to recognize particle size. If the detected particles are smaller than the lower limit, they will not be included in the statistics; if larger than the higher limit and present the characteristics of the pits, they will be considered as pits.
- ◆ For the convenience of operators to judge the results through GB/T 1724-2019 Method A and ISO 1524, the system provides a frame with a height of 3mm. The operator can drag this box up and down, and the number of particles framed inside would be displayed real-time.
- ◆ The operation interface is designed for both professional and concise versions. The professional version displays image processing parameters (particle threshold setting), speed setting, fine plate groove ROI detection area, counting the number of defects, and providing a special option for users to select and delete some misjudged particles, manually mark undetected particles with the mouse, and set the Z-axis paint scraping height; The concise version only present results and bar charts after paint scraping.

### Main Technical Parameters:

- ★ Measuring Range: 0~200  $\mu$  m ( corresponding to a variety of scrapers, including 0~25  $\mu$  m, 0~50  $\mu$  m, etc., and the maximum is 0~200  $\mu$  m )
- ★ Scraping Speed: 50mm/s~150mm/s (adjustable)
- ★ Measuring Accuracy:  $\pm$ 5% FS
- ★ Single Testing Time: < 2 min.
- ★ **Ordering Information:** BGD 246---Intelligent Fineness of Grind Tester



High-definition Sample Particles Image