

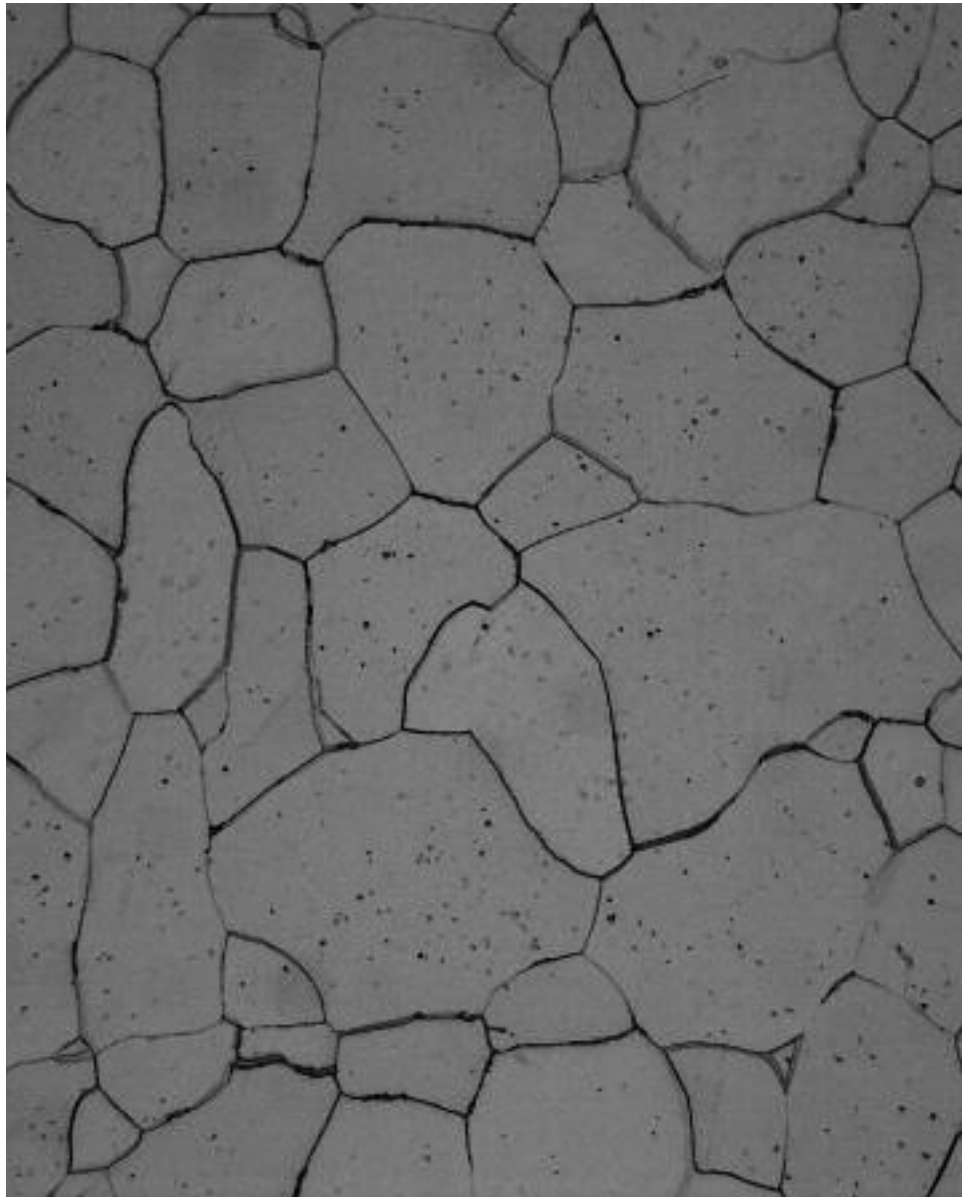
BUEHLER®

OmniMet®

IMAGE ANALYSIS APPLICATIONS SOLUTIONS

86-3100 Grain Size Assessment Module

- **Accurate Determination of the Grain Size According to ASTM E112 and ISO 643**
- **Additional Routines Provided to Assess Duplex Size Distributions and Make ALA Determinations**
- **Automated Measurement Assures Ease-of-Use, Repeatability and Reproducibility**
- **Impressive Report Generated in Microsoft® Excel in Just a Few Mouse Clicks**



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The 86-3100 Grain Size Assessment Module has been designed for use with either the OmniMet® Express Image Analysis System or OmniMet® Enterprise Image Analysis System and provides automatic measurement of the grain size according to the requirements of ASTM E112, E1181, E930 and ISO 643.

Routines are provided to conduct fully automated analysis or replicate traditional methods. Select the method that best meets your needs.

Automated Analysis of grain size is accomplished by first detecting the grain boundaries based on grayscale differences brought out by etching. Once the grains are well defined the grain size can be calculated in three different ways:

- **Field Grain Size** - this approach employs all of the rows and columns of pixels as intersection lines to calculate the grain size for each field of view.
- **Feature Grain Size** - The size of each individual grain can be determined based on area. The grains can then be sorted into categories and the relative area fraction occupied by each grain size can be calculated. This is particularly helpful when examining duplex structures or estimating the largest grain observed (ALA grain size).
- **Grid Overlays** - The OmniMet software counts the number of intersections in each field. The applications module will calculate the grain size using either the Abrams 3-circle or Heyns Lineal

equations based on the operator's selection.

Benefits of the Automated Measurement of Grain Size with OmniMet Express and OmniMet Enterprise:

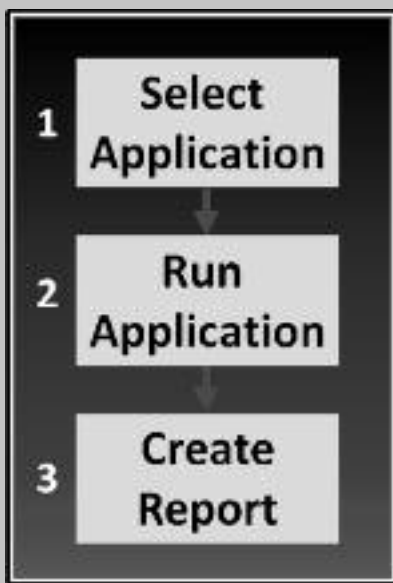
- The Microsoft® Excel based reports may be saved in the OmniMet® PC or a networked drive, e-mailed or printed
- All images are calibrated and may be archived in the Omnimet database and retrieved later

Industry Use

Customers needing to assess the grain size of final product or incoming stock

Running the 86-3100 Grain Size Assessment Module is as simple as 1-2-3!

With the OmniMet® Applications Solutions Simplicity is the Essence



Step 1.
Select the application from the folder.



Step 2.
Push the "Run multifield" button to run the analysis for as many fields as needed. Open the results window to see the data collected.



Step 3.
Run the OmniMet application macro to generate the desired report.



The OmniMet application macro quickly generates a professional report for intercept grain size methods according to ASTM E112 and can be easily customized with your company logo and contact information.

Buehler continuously makes product improvements; therefore, technical specifications are subject to change without notice.

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