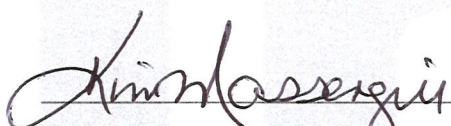
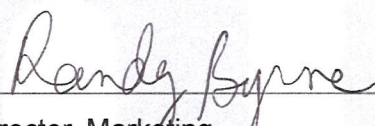


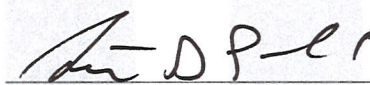
# MIC SAS<sup>®</sup> II 5800

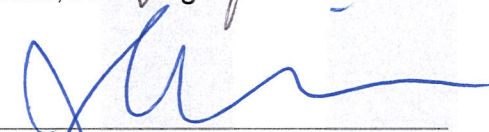
SUB-SIEVE AUTO SIZER

This Operator Training Checklist was reviewed and approved by:

  
Director, Quality Assurance

  
Director, Marketing

  
Service Manager - Americas

  
Technical Director

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## OPERATOR TRAINING CHECKLIST

580-42870-03  
June 2019  
(Rev -)

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## CORPORATE PROFILE

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Micromeritics Instrument Corporation is a leading global provider of solutions for material characterization with best-in-class instrumentation and application expertise in five core areas: density; surface area and porosity; particle size and shape; powder characterization; and catalyst characterization and process development. Founded in 1962, the company is headquartered in Norcross, Georgia, USA and has more than 300 employees worldwide. With a fully integrated operation that extends from a world class scientific knowledge base through to in-house manufacture, Micromeritics delivers an extensive range of high-performance products for academic research and industrial problem-solving. The implementation of tactical partnerships to incubate and deliver valuable new technologies exemplifies the company's holistic, customer-centric approach which extends to a cost-efficient contract testing laboratory – the Particle Testing Authority (PTA). The strategic acquisitions of Freeman Technology Ltd and Process Integral Development S.L. (PID Eng & Tech) reflect an ongoing commitment to optimized, integrated solutions in the industrially vital areas of powders and catalysis.

Freeman Technology (Tewkesbury, UK) brings market-leading powder characterization technology to Micromeritics' existing portfolio of particle characterization techniques. The result is a suite of products that directly supports efforts to understand and engineer particle properties to meet powder performance targets. With over 15 years of experience in powder testing, Freeman Technology specializes in systems for measuring the flow properties of powders. In combination with detailed application know-how these systems deliver unrivalled insight into powder behavior supporting development, formulation, scale-up, processing and manufacture across a wide range of industrial sectors.

PID Eng & Tech (Madrid, Spain) complements Micromeritics' renowned offering for catalyst characterization with technology for the measurement and optimization of catalytic activity, with a product range that extends to both standard and bespoke pilot scale equipment. Launched in 2003, PID Eng & Tech is a leading provider of automated, modular microreactor systems for the detailed investigation of reaction kinetics and yield. These products are supported by a highly skilled multidisciplinary team of engineers with in-depth expertise in the design, construction and operation of laboratory units and process scale-up.

The Particle Testing Authority (PTA) provides material characterization services for fine powders and solid materials using Micromeritics' instrumentation alongside complementary solutions from other vendors. With the certification and expertise to operate across a wide range of industries the PTA offering runs from single sample analysis to complex method development, method validation, new product assessment, and the analytical support required for large scale manufacturing projects. An experienced, highly trained team of scientists, engineers, and lab technicians works closely with every client to ensure that all analytical requirements are rapidly and responsively addressed.

Micromeritics has a strong global network with offices across the Americas, Asia, and Europe complemented by a dedicated team of distributors in additional locations. This ensures that local, knowledgeable support is available for every customer, in academia or industry. Micromeritics works across a truly diverse range of industries from oil processing, petrochemicals and catalysts, to food and pharmaceuticals, and at the forefront of characterization technology for next generation materials such as graphene, metal-organic-frameworks, nanocatalysts, and zeolites. Engineering solutions that work optimally for every user is a defining characteristic of the company.

## ***DOCUMENT REVISION HISTORY***

REV	ECN #	Description of Change	Checked By	Date
-	190001	Formal Release	<i>M. Carter</i>	7/2/2019

## 1. OVERVIEW

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This document contains a checklist to be used for training of MIC SAS II 5800 system operators. Place a check mark next to the items that were shown and discussed.

## 2. ORIENTATION

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- ☐ 1. Operator Manual organization and conventions
- ☐ 2. Equipment description
- ☐ 3. Power up and power down
- ☐ 4. Standby mode
- ☐ 5. Instrument and cable connections
- ☐ 6. Front and rear panel components
- ☐ 7. Piston and anvil
- ☐ 8. Menu structure
- ☐ 9. Software usage topics
- ☐ 10. Trainee allowed time to become familiar with software application

## 3. SOP

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- ☐ 1. SOP defined and discussed
- ☐ 2. Review Records created after analysis
- ☐ 3. Review Reports after analysis

## 4. SAMPLE RUN

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- ☐ 1. Run types
- ☐ 2. Sample run
- ☐ 3. Starting and viewing analyses
- ☐ 4. Operation verification

## **5. ANALYSIS REPORTS**

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- \_\_\_\_\_ 1. Reports in *Records* view
- \_\_\_\_\_ 2. Printed reports
- \_\_\_\_\_ 3. Importing and exporting reports

## **6. TROUBLESHOOTING AND MAINTENANCE**

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- \_\_\_\_\_ 1. Troubleshooting
- \_\_\_\_\_ 2. Error messages
- \_\_\_\_\_ 3. Preventive maintenance procedures
- \_\_\_\_\_ 4. Clean the equipment
- \_\_\_\_\_ 5. Recover from a power failure

## **7. RETURNED GOODS AND PARTS ORDERING**

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- \_\_\_\_\_ 1. Returned goods policy
- \_\_\_\_\_ 2. Parts and accessories

## **8. WARRANTY STATEMENT**

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- \_\_\_\_\_ 1. Warranty policy

\_\_\_\_\_ All questions on operation resolved? (Enter **Yes** or **No**.)

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## 10. VERIFICATION

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\_\_\_\_\_ All items on the Operator Training Checklist completed? (Enter **Yes** or **No**)

Name of trainer: \_\_\_\_\_

Date of training: \_\_\_\_\_

Company address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Analyzer name: \_\_\_\_\_

Analyzer serial number: \_\_\_\_\_

The following section is to be completed by the primary operator trained during this session. Please complete to acknowledge that installation training has been carried out to your satisfaction.

Operator verifying completion of training: \_\_\_\_\_

Date signed: \_\_\_\_\_

Operator's title: \_\_\_\_\_

Operator's phone number: \_\_\_\_\_