



# Pilot Testing Service for Vacuum Drying

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To ensure the tests are run properly and safely, McGill AirPressure's experienced technicians operate all the vacuum drying equipment. They can also perform the actual tests or help you and your personnel perform them.

## We Can Help You Find the Right Vacuum Dryer for Your Application

McGill AirPressure's vacuum dryer pilot testing service can help you find the best way to dry any type of heat-sensitive material. We can run a test program to determine the feasibility of using a vacuum dryer for your process. With our pilot testing service, you can see our vacuum drying equipment in action and find out how your material reacts under actual drying conditions. This service does away with the guesswork involved in selecting and sizing the proper vacuum dryer. It will give you the data needed to make a confident choice about a full-size vacuum drying system for your application.

McGill AirPressure has been designing and building vacuum drying systems since 1986, using technology developed by J.P. Devine Manufacturing starting in 1904. We have extensive experience supplying vacuum dryers to meet the needs of the chemical, pharmaceutical, and food processing industries, as well as manufacturers of electrical and electronic equipment. Our vacuum dryers provide an effective way to dry any type of heat-sensitive material or product.

## Types of Vacuum Dryers

Vacuum dryers are indirect-heated, batch-type systems that remove moisture by using reduced pressure. A low level of heat is supplied during the drying process to replace heat lost through vaporization. Our test facility has a full line of vacuum drying equipment:

- Shelf Dryer
- Rotary Dryer

- Conical Dryer
- Chamber Dryer
- Chamber/Rotary Dryer

We will help you select a dryer that is suitable for your material. Then we can customize it with the appropriate auxiliary equipment to approximate the fullsize drying system that you would use for processing.

## Complete Testing Service

McGill AirPressure's service technicians have extensive experience with vacuum drying systems. By combining our knowledge of vacuum drying equipment with your understanding of your material and processing needs, we can provide the following testing services:

**Developing Test Programs**—After discussing your drying needs, we can work with you to develop a test program that will give you meaningful results. The tests will be designed to provide data that will enable you to size a full-scale vacuum drying system. We can make recommendations about test variables such as vacuum level, temperature, drying time, batch size, desired moisture reduction, and turning speed (for rotary and conical dryers).

**Evaluating Test Programs**—If you have your own test program planned, we can evaluate it to make sure it is scaled to our drying equipment. With our knowledge of vacuum drying, we can suggest any changes that might be needed to produce valid test results.

**Setting Up Equipment**—We can customize our test facility's vacuum drying equipment for your test program. That means supplying any auxiliary equipment needed to meet your vacuum, heating, or solvent recovery requirements.

**Performing Tests**—Our technicians will operate the vacuum drying system for your tests. Their expertise with the equipment ensures that the tests will be run properly and safely. We can perform the actual tests or help your personnel perform them. That includes any



*During testing we can record a variety of test data such as vacuum, temperature, drying time, and moisture reduction level (pictured). From this data we can produce a testing report that provides the information and analysis needed to make accurate and cost-effective recommendations about your vacuum drying equipment requirements.*

special handling, measuring, or loading of the material being tested. We can also record test data such as vacuum level, temperature, drying time, and moisture reduction (weight before and after drying).

**Documentation**—If you desire, we can write a report based on the raw data from the tests. We can document whether the tests met your stated goals and draw conclusions about the validity of using a full-size dryer for your process. If the test results are not satisfactory, we can recommend further testing with a different type of drying equipment or different test parameters.

McGill AirPressure can help you find the right vacuum drying system for your application. Please contact us to learn more about our vacuum dryer pilot testing service.