

**PRO Scientific** NEWSLETTER

November 2017

**PRO Laboratory Homogenizers**  
Over 25 years of experience offering precision homogenizers.

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[www.proscientific.com](http://www.proscientific.com)  
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## Homogenizing Tip

PRO Generators are unique in their design and this is what really sets us apart from the competition. The double bearing design of our probes provides fast & complete sample breakdown with precision & consistency.

Also, PRO Generator Probes are heat resistant to 390°F; all probe components can be autoclaved!

[Learn more about PRO Generator Probe Maintenance](#)

## Homogenizing research



### *In the news: Biofuel research*

The Smithsonian Magazine (Barth, 2017) wrote about research that was being done on abundant species that could be used as biofuel. PRO Scientific is happy to have been

involved in this research and we have worked with customers homogenizing turf grass.

PRO Scientific high shear homogenizers provide aggressive homogenization to effectively break down the various agricultural waste products such as cornstalks, poplar trees and switch grass.

[Learn more.](#)

## PRO Scientific explains the field of homogenizing

The field of homogenizing encompasses a very broad area and is constantly evolving.

The word homogenize means "to make or render homogeneous" while homogeneous means "having the same composition, structure or character throughout". Homogenizing is what is called an umbrella word - a word which covers a very large area. When someone says that they are homogenizing, they may mean that they are actually doing one or more of the following: blending, mixing, disrupting, emulsifying, dispersing, stirring etc.

The current processes or methods of homogenizing can be broken down into three (3) major categories: mechanical, ultrasonic and pressure.

Mechanical homogenizers can be broken down into three (3) separate categories: rotor-stator

homogenizers, blade type homogenizers and bead homogenizers.

Learn more about the full range of Rotor-Stator Homogenizers available from PRO Scientific; including Package Kits, Hand-Held or Stand Mounted, Benchtop and Programmable Benchtop Homogenizers.

[These are reviewed in detail online.](#)

# Fall Homogenizing



All of us at PRO Scientific were excited to embrace the fall season and discover some fall themed homogenizer applications as well as get some hands-on homogenization



PRO homogenizer used to process cucurbita (pumpkin) pollen. (C. Carrizo García, 2014)

Instituto Multidisciplinario de Biología Vegetal (CONICET), Córdoba, Argentina

<https://proscientific.com/rotor-stator-homogenizers/>

## The Great Pumpkin Homogenization

Our staff got some hands-on fun carving and homogenizing!

Take a look at our homogenizer products in action.



Seeds, pulp and pumpkin chunks homogenized with the SB-1, PRO250 and Multi-Prep Homogenizers

# Homogenizer Applications

A range of powerful PRO high shear Homogenizers are available to handle a wide range of viscosities and volumes.

## Food and agricultural laboratory applications

PRO Scientific Homogenizers are ideal bench-scale high-shear homogenizers for both the food and agricultural laboratories.

- PRO250 Homogenizer - 3/4 hp, 576 Watt
- PRO25D Digital Homogenizer - 3/4 hp, 576 Watt
- PRO400D or 400PC Homogenizer - 1 3/4 hp, 1305 Watt



**Bio-Gen**

A PRO Homogenizer was used to emulsify anhydrous milk fat with various surfactants as part of food science research. (D.W. Everett, 2000)

[Learn more about the PRO Homogenizers](#)

PRO Generators are precision crafted with a very narrow clearance between the inner rotating shaft and outer tube/chamber. This allows for quick, effective and repetitive processing, meaning you will get the results you want each and every time.

Specialty HD or Titanium Generators are also available to address concerns of trace analysis.

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*This allows for quick, effective and repetitive processing*

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Shear numbers are known for each and every PRO Quick Connect Generator. This means we can easily work with customers when the times comes to scale up from our high shear homogenizer equipment to larger industrial homogenizers.

**PRO200 homogenizer produced emulsions w/lactoferrin-based nano-particles. (G. Shimoni, 2013)**

[Learn more about the Bio-Gen PRO200](#)





# Homogenizer Reviews

## PRO Homogenizers

★★★★★ Average Rating: 5.0

★★★★★

Ease of use

★★★★★

After sales service

★★★★★

Value for money

Status: Reviewer

Member since: 2017

Organization: Washington University in St. Louis

Ease of use ★★★★★  
After sales service ★★★★★  
Value for money ★★★★★

“Amazing product, easy to use”

Rating: 5.0 ★★★★★

Application Area: Homogenized Mouse Skin Tissue, both Infected and Healthy Tissue.

"This product has been in use in our lab for many years, and has not wavered in its functionality. It is easy to assemble, maintain and use. Definitely consider this product when dealing with mouse skin tissue, as skin tissue is notoriously hard to homogenize."

Review date: 03 Oct 2017 | Homogenizers

Our customer at WUSTL has been using a PRO homogenizer for years now to process their mouse skin tissue. They recently gave our PRO Homogenizers a 5-star review for ease of use, after sales services and value for money!

Reviews are collected by a 3rd party company, SelectScience

### CONNECT WITH US



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### POWER & PERFORMANCE

Watch the PRO400D homogenizer process a 1lb paint sample w/a viscosity of 800,000 cP!



[Learn more.](#)