

Mini Pilot Plant Product Development

Save R&D Time and Money

Do you have limited resources or want to produce a small quantity of product? Now you can save money, produce just the right amount of material, and accelerate product development by using an in-between scale of processing equipment. The equipment – known as “mini pilot plant scale” is available for contract research at POS Pilot Plant. Its unique capacity allows clients to conduct investigations that emulate industrial practice - but on a scale that falls between the lab and pilot plant. It will allow you to produce fully refined oil from as little as 50 kg of soy or canola seed at a cost of approximately \$100/hour.

The Economies of Scale

The major advantage of mini-pilot plant scale over regular pilot plant scale is that it requires fewer resources: less starting material, less manpower to operate the equipment, and less time to complete each run. That means reduced logistics and warehousing requirements, reduced equipment operation and maintenance personnel, and increased flexibility for project scheduling. Clients benefit from reduced costs and accelerated product development.

The major advantage of mini-pilot plant scale over laboratory scale is that projects are readily scaleable when using mini-pilot plant equipment, since the equipment’s operating procedures and parameters emulate industrial practices. That means fewer steps. Again clients benefit from reduced time and costs.

Meet Product Development Challenges

Have you been in these situations? Here is how our mini pilot plant equipment can help. Imagine the possibilities for your organization:

You develop ingredients for nutraceuticals. You want to produce small quantities of high-value components for further research. You don’t want to purchase and transport large quantities of starting material just to feed the equipment. This scale is perfect for you.

You are a plant breeder. Your test plots yield a limited quantity of material. Now you don’t need to wait until the next crop year to acquire enough starting material for trials. You can start now.

You are an entrepreneur. You’ve got big ideas - but limited resources. Use this equipment to keep your costs down while producing reliable proof of concept results. You can proceed quickly without capital outlay.

Key Features of Mini-Pilot Plant Equipment:

- **requires fewer resources than pilot scale equipment**
- **more easily scaled up than laboratory scale equipment**

Applications

Our mini pilot plant equipment offers processing capability for a wide range of applications and materials. They include food, nutraceuticals & functional foods, fats, oils & lipids/oilseeds, cereals, protein, fibre, biotechnology, pharmaceuticals, cosmetics, fine chemicals, animal feed. Materials that can be processed include fats, oils, and lipids, botanicals, grains, cereals, legumes, marine and many other bio-based materials.

Listed below are key pieces of mini pilot plant equipment. They complement POS's traditional pilot plant and resources:

Flaking Mill. Capacity: 5 kg/hr. Manufacturer: AAFC

Screw Press. Capacity: 5 kg/hr. Manufacturer: Gusta.

Solvent Extractor. Capacity: 3 – 6 kg/hr. Manufacturer: Soxhlet

Supercritical Fluid Extractor. Capacity: 1–5 litres. Manufacturer: Thar Technologies.

Refining, Bleaching, & Deodorizing System. Capacity: 20 kg/8 hrs. Manufacturer: RBD Technologies

Pressure Leaf Filter. Capacity: 4L. Manufacturer: Industrial Filter & Pump

Hollow Fiber Ultrafiltration System. Capacity: 5 – 10 litres/8 hrs. Manufacturer: Millipore.

Centrifugal Partitioning Chromatography (CPC). Capacity: up to 20 grams/batch. Manufacturer: Sanki.

About POS

POS Pilot Plant is a confidential contract research organization serving bioprocessing related industries such as food & ingredients, nutraceuticals, cosmetics, fats & oils, and biotechnology. Our 54,400 sq. ft. facility offers the ultimate in confidential contract processing to quickly bring your product from concept to successful commercial reality. We provide grams to tons processing capability and 24-hours/day operation.

Facility features include 11 fully equipped laboratories for carrying out a wide variety of bioprocessing investigations, 5 large dedicated pilot plant processing areas, and fully integrated support services such as analytical services, logistics, and information services.

Quality Assurance and Regulatory Compliance

- cGMP, GLP, HACCP, CFIA and HPB
- Health Canada NHP Site license for manufacturing natural health products
- Conformance to ISO 9001:2000
- Traceability and food safety systems In addition to the substantial cluster of services that we offer in-house, we have also created strong, productive partnerships with a select range of facilities and agencies within the surrounding research community. These are designed to ensure a smooth interface for clients, with leading edge resources and cost effective solutions.

For more information contact:

POS Pilot Plant Corporation
118 Veterinary Road
Saskatoon, Saskatchewan, Canada
S7N 2R4
Phone: (306) 978-2800
Fax: (306) 975-3766
Toll Free: **1-800-230-2751**
website: www.pos.ca
E-mail: pos@pos.ca