



## 100N Fluid-Bed



### Laboratory Fluid Bed Granulator/Coater

*Applied Chemical Technology's Laboratory Fluid Bed offers the perfect solution for testing or developing chemical products and processes.*

*This versatile unit is easy to use and suitable for applications from industrial chemicals to food and pharmaceuticals. With an ACT Laboratory Fluid Bed, you can easily experiment with fluidization velocities, operating temperatures, coating methods, drying and cooling curves, and other process variables.*

*The Laboratory Fluid Bed is also ideal for batch production runs and product evaluation. In addition, all data is directly applicable for scale up to ACT's industrial fluid bed units.*

APPLIED CHEMICAL TECHNOLOGY  
4350 Helton Drive  
Florence, Alabama 35630  
256-760-9600 | 1-800-ACT-3217  
www.appliedchemical.com  
act@appliedchemical.com

### Ordering Information

*To order one of our standard fluid beds, or for more information about ACT services, including complete catalogs of ACT fluid beds and other process equipment, you may contact us by phone, post, or e-mail.*



## 100N Fluid Bed Standard Features

- 5 liter 304 SS product bowl
- 4" diameter fluidization plate, 6% open area perforated plate
- Full instrumentation (S.I. or English)
  - Digital air flow/fluidization velocity indicator
  - Differential pressure readouts across filter bags, screen and bed
  - Digital inlet air temperature indicator/controller
  - Digital exit air temperature indicator
  - High temperature alarm and warning light
  - Digital product temperature indicator
- Variable speed blower for precise air flow control
  - Up to 70 cfm at 40" w.c. (2m<sup>3</sup>/min at 1016 kg/m<sup>2</sup>)
  - Locking potentiometer control
- Insulated 3 kW heater for air temperatures up to 120o C
- Air atomized removable stainless steel spray system
  - Top nozzle configuration
  - Air regulator to measure and control atomization air for spray nozzle
- Four (4) Goretex coated Nomex filter bags for collecting particulates greater than 0.3 microns
- Touch operated back pulse filter bag cleaning system
- Motorized chamber sealing system for easy access and operation
- Stainless steel construction

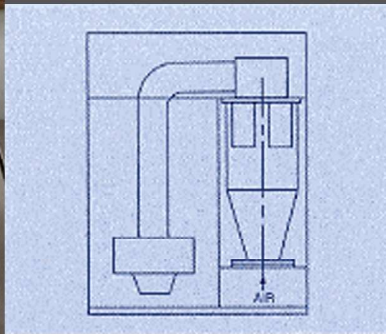




## Custom Features and Accessories

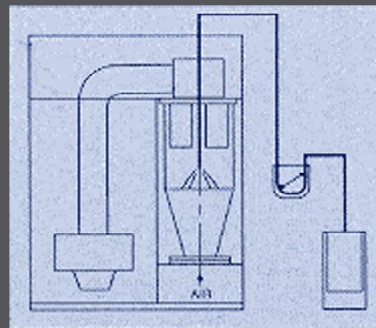
Optional additional equipment and modifications include:

- Wurster/draft tube assembly
- Alternate perforated plates (1% to 16.45% open area)
- Sintered metal distributor plates for use with fine particles
- Sample thief
- Stainless steel upper chamber with two view ports
- Three piece stainless steel/acrylic fluidization velocity chamber
- FDA approved gaskets
- Automated bag pulse
- Electronic data logging
- Inert gas intake
- Peristaltic pump for spray system
- Custom modifications to design, materials, or instrumentation
- Explosion protected model also available
- Bottom spray nozzle configuration



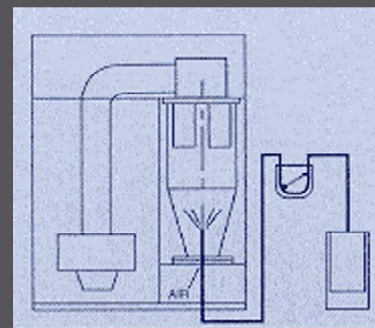
### Drying

Heated air passes through the fluidized particles to remove moisture rapidly and efficiently. The process can use lower temperatures than conventional methods.



### Agglomerating

Spraying a binding agent into a fluidized powder produces particles with very uniform size, weight, and shape. The fluid bed can also be used as a dryer once the desired particle size is reached.



### Coating

Liquids can be easily sprayed onto fluidized particles from the top or bottom, producing an even and uniform coating.

## Dimensions and Technical Specifications (Standard Model)

Dimensions: 30" wide x 20" deep x 39" high (762 mm x 508 mm x 991 mm)

- Unit requires total 48" (1219 mm) height clearance and additional 3" (76 mm) clearance to left and right.

- Additional clearance required for insertion and removal of top spraying system.

Weight: 250 lbs (114 kg)

Container (Bowl) Volume: 0.18 ft<sup>3</sup> (5 Liters)

Typical Charge Weight: 0.4—6.6 lbs (0.2—3 kg) (depends on material)

Air Volume: 70 cfm (2 m<sup>3</sup>/min)

Fan Motor: 1.5 kW—2 HP

Heater: 3 kW—10,200 Btu/hr

Comp. Air Pressure: 4 bar gauge (60 psi) recommended

Power Requirements: 220V single phase, 60 Hz



## The stability of ACT's workforce provides continuity across longterm projects.

To find out more about our services or to discuss your project with an ACT engineer, you may contact Applied Chemical Technology by phone, mail, email, or web form. All initial consultations are strictly confidential and free of charge.

### *Why ACT?*



*Applied Chemical Technology, Inc.  
4350 Helton Drive  
Florence, Alabama, USA 35630  
800-ACT-3217 • 256-760-9600  
Fax: 256-760-9638  
act@appliedchemical.com  
website: appliedchemical.com*



Visit us online [appliedchemical.com](http://appliedchemical.com)