

Continuous Fluid Bed Systems

Applied Chemical Technology also engineers, designs, and fabricates Continuous Fluid Beds. ACT's Continuous Fluid Beds offer nonstop production capabilities for almost unlimited process applications. Our versatile range of fluid bed sizes can meet any need—from research and development operations to full-scale production plants. Bring the unique advantages of ACT fluid bed technology to your process with a Continuous Fluid Bed from Applied Chemical Technology.



Standard Fluid Bed System



Continuous Fluid Bed Dryer



100N Fluid Bed



PG-100 Fluid Bed



300N Fluid Bed

COMPLETE BATCH FLUID BED SYSTEMS



Windstorm™



100XP Fluid Bed



300XP Fluid Bed

Information

To discuss your project with an engineer or for more information about ACT services, including complete catalogs of ACT fluid beds and other process equipment, you may contact us by phone, fax, or email.

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ACT Batch Fluid Bed Systems support a wide range of process applications including:

- | | | | | |
|---------|-------------|---------------|----------|-----------------|
| Cooling | Mixing | Impregnating | Coating | Drying |
| Heating | Granulating | Agglomerating | Reacting | Decontaminating |

PG-100 Fluid Bed System

The PG-100 is one member of ACT's outstanding fluid bed product line. Designed specifically for the pharmaceutical industry, the PG-100 is capable of granulation, coating, and drying particulates in the same unit. The system is easily disassembled for cleaning and sterilization to conform with cGMP standards.



PG-100 in operation



Product bowl swinging out



Automated Tilt/Drop Bowl

Standard System Features:

- | | |
|---|--|
| <ul style="list-style-type: none"> • 300 L Bowl/ 180 L working capacity • Allen Bradley DeviceNet system • Back pulse system for cleaning cartridge filters • External motors seal lower plenum, product bowl, and expansion zone • Exhaust filter; top load pleated cartridge filters | <ul style="list-style-type: none"> • Fully instrumented • Air temperatures to 250°F • Product bowl automatically tilts, which discharges material from the bowl • Perforated fluidization plate with retention screen • Platform mounted for easy setup |
|---|--|

Custom Features Available

100N Fluid Bed

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.

Standard System Features:

- 5L bowl
- Full instrumentation
- Variable speed blower: 70 cfm @ 40" W.C.
- Air temperature to 250°F
- Air atomized spray system
- Touch operated pulsed air filter cleaning system
- Motorized chamber sealing system for easy access and operation
- Easy operation and cleaning
- Stainless steel construction

Custom Features Available



100XP Fluid Bed System

The 100XP unit is a multipurpose fluid bed for small scale coating, granulating, and drying applications. It is ideal for process development and for collecting scale-up data for commercial processes. The standard hot oil heater provides a maximum operating temperature of 200°C. The 100XP withstands maximum developed pressures up to 12 bar.



Standard System Features:

- 5L bowl with Teflon coated filters
- Manual pulsejet bag cleaning system (automatic available)
- Maximum temperature: 200°C
- Capable of recirculating or venting the gas stream
- Top and bottom spray configuration
- 304 SS cooling coil (does not include chiller for solvent recovery)
- Ductwork exhaust flanged to facilitate connection of additional piping
- Explosion proof construction to meet Class I, Div II specifications
- Explosion proof: 12 bar shock rated
- 316 SS construction
- Air atomized removable stainless steel spray system
- 16 SS upper housing with glass view port
- 70 cfm blower
- Full instrumentation

Custom Features Available

Windstorm™ Fluid Bed System

The Windstorm™ Fluid Bed System is the versatile, low cost solution for batch processing and production. Windstorm™ is a complete process system, with a blower, ductwork, heating/cooling system, integral dust collector, explosion protection, and more. Its recirculating design allows inert gas or air operation, and the compact layout is ideally suited for sites with limited space. Windstorm™ Fluid Bed Systems also feature ACT's exclusive on-demand discharge door; batches unload at the touch of a button without shutting down the system.

Whatever your needs, the Windstorm™ Fluid Bed System is the perfect way to process industrial chemicals, foods, fine cosmetics, pharmaceuticals, and more.

Standard System Features:

- 304 SS construction
—Mill #2b finish
- Drying capacity
- 300°F air temperature
- Steam/coolant coil for moisture removal or solvent recovery
- Full instrumentation
- Blower
- Recirculating system
- Integral dust collector with polyester bag filters
- Pulse jet bag cleaning
- On demand product discharge door
- Sealed discharge hopper with airlock
- Removable air distribution plate
- Air flow and temperature control
- Complete ductwork of contained air
- Fluid bed and ductwork disassemble for cleaning

Custom Features Available



Windstorm™ Fluid Bed

300XP Fluid Bed System



- Standard System Features:**
- 50L product bowl
 - Control system includes Allen Bradley touch screen panel
 - Inlet gas temperature: 250°F
 - Fluidization velocity: 45-500 ft/min
 - 316 SS construction
 - Mill finish/welds ground
 - Bed area: 1.35 ft²
 - Bowl mounted on cart for easy removal
 - Bowl tilts manually to remove product
- Custom Features Available**

300 N Fluid Bed

The 300N, a larger version of our 100N lab fluid bed, dries, agglomerates, and coats a wide range of particulate materials. The 300N batch sizes range from 5 L to 20 L. The drying/granulating/coating process is easily viewed through the upper acrylic section. The 300N is equipped with a pivoting product bowl for easy discharge of the processed product. The design of the pivoting product bowl makes emptying the bowl quick and easy and eliminates strain on the operator.

- Standard System Features:**
- 20L product bowl
 - Full instrumentation
 - Fluidization velocity: 45-500 ft/min
 - Variable speed blower
 - Inlet air temperature: 250°F (max.)
 - 340 SS construction
 - Pulsed air filter cleaning system (manual or automatic)
 - Cartridge type air filter system
 - Easily disassembled for cleaning
- Custom Features Available**



300N Fluid Bed Bowl Extended

System Options		
<p>Explosion Proof</p> <ul style="list-style-type: none"> • Isolation valves • Inert system with oxygen concentration controller and alarm • Solvent recovery system 	<p>Filtration System</p> <ul style="list-style-type: none"> • Pressure filter assembly • Mirror finish • Heads 	<p>Other</p> <ul style="list-style-type: none"> • Batch report system • Humidity indicator • Total remote operation • Vacuum purge system • Mirror finish • Sanitary light • Spare bowl • Cart • Product bowl covers

300N Fluid Bed

