

# CONTINUOUS FLUID-BEDS



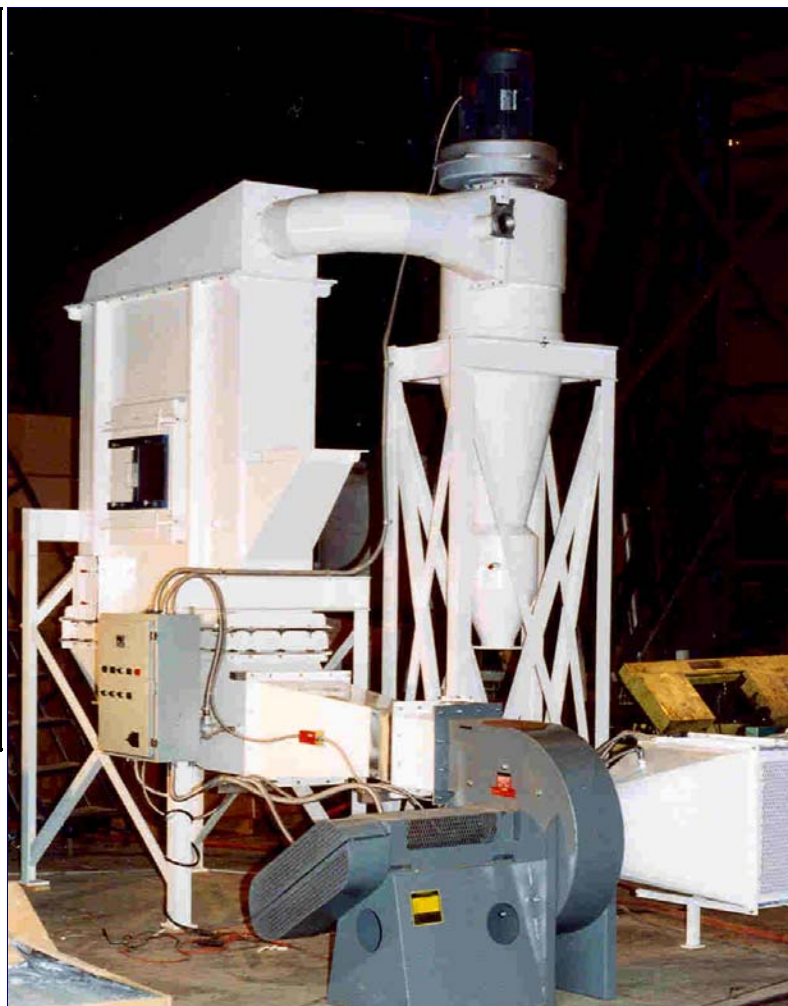
**APPLIED  
CHEMICAL  
TECHNOLOGY™**

The World Leader In Process Engineering.

**A**ppplied Chemical Technology'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.

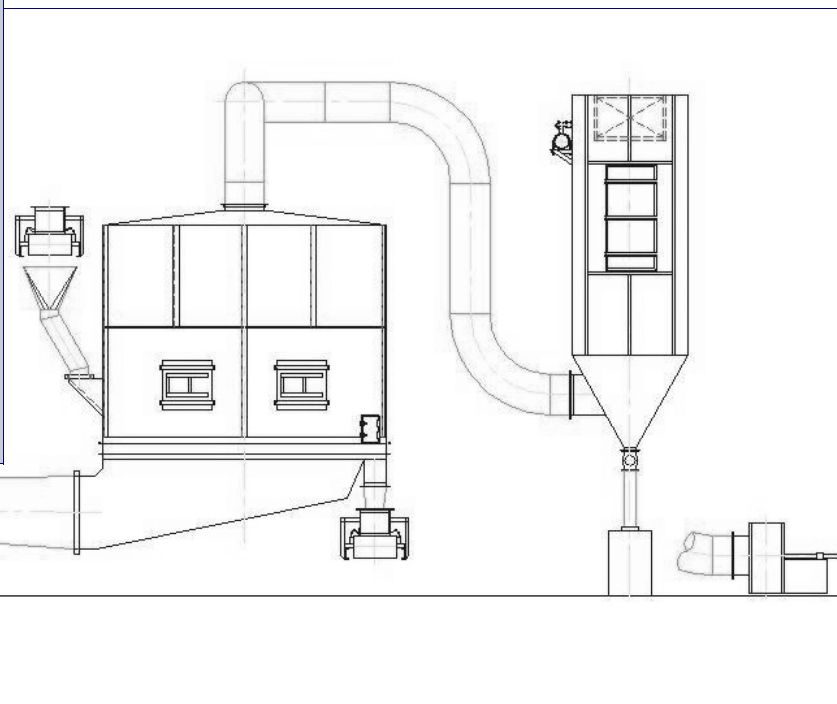
ACT's Continuous Fluid-Beds are ideal for a wide range of process applications including

- Coating
- Granulating
- Heating
- Prilling
- Drying
- Agglomerating
- Conveying
- Sizing
- Reacting
- Spray Drying
- Impregnating
- Cooling



## Standard Features (All Models)

- ACT's exclusive air distribution plenum for even fluidization
- Replaceable distributor plate
  - Standard plate punched to your materials requirements
  - Wide range of open areas
- Adjustable material retention dam
  - 1" height increments, up to 12" total bed depth
- Differential pressure gauge
- Multi-function removable access door
  - Access
  - View port
  - Sample port (atmospheric operation only)
- Window at discharge end
- Bolted plenum access door
- Wash out drains
- End air feed
- Pressure  $\pm$  20" water column
- Handles materials up to 90 lbs/ft<sup>3</sup> bulk density
- Up to 250° F operating temperature standard
- Can be configured to operate under positive, negative, or atmospheric pressures
- Carbon steel construction, primed and painted
- Mounting lugs



# Optional Features and Accessories

- High temperature gaskets and seals
  - Support operating temperatures up to 700° F
- Feed distribution system
  - Evenly dispenses material across the screen
  - Optional air spreaders
- Alternate distributor plates (wide range of open areas)
  - V-wire plates for added durability and alternate flow patterns
  - Porous metal plates
  - Directional punched plates
  - Specialty punched plates
- Custom internals
- Wurster spouting tubes
- Special internals to prevent forward mixing
- Sampling ports
  - Self-sealing thief ports for pressure options
  - Sample ports for atmospheric operations
- Additional view port and access doors
- Quick opening plenum access door
- External actuated dump
  - Manual or automatic
- Steam cleaners
- Side or bottom air feed
- Zones plenum for multiple air temperature operation
  - Allows heating and cooling in the same unit
- Unit available without plenum for negative pressure operation
- Air flow and temperature instrumentation controls
- Automation with full integration into your process operations
- Complete spray system accessories
  - Pumps, filters, nozzles, piping, etc.
  - Top, bottom, or side-mounted
- Explosion proof rating
- Steam jacketed bed chamber
- Custom internal finish/coating
- Structural steel support
- Specialty access platform
- Stainless steel construction
- Custom paint

ACT maintains a fully equipped laboratory and pilot plant for testing to help determine the best system for your needs. We also offer lease units and technical assistance for testing operations at your location.

## Custom Engineering

ACT maintains a full staff of chemical, mechanical, and electrical engineers and designers who can custom design your fluid bed for an unlimited range of process requirements, from extreme temperature operations to hazardous materials processing. Your custom modifications could include

- Designs for materials over 90 lbs/ft<sup>3</sup> bulk density
- Designs for high temperature operations
  - 1400° F and above
- Designs for cryogenic operations
- Designs for specialty chemicals or hazardous materials
- Custom construction materials such as Hastelloy®, Inconel®, and other exotic metals
- Custom dimensions
- Custom shape
- Flared disengaging for low profile units
- Complete systems, including blowers, ducts, heaters/coolers, condensers, mist eliminators, inert gas operation, recirculation systems, emission controls, etc.



## Dimensions and Technical Specifications (Standard Models)

Model #	H	W	L	H.A.S.*	S.A. †	No. of Access Doors Bed/Plenum
205FB	208 cm (6'-10")	38 cm (1'-3")	152 cm (5')	152 cm (5')	.5 m <sup>2</sup> (5 ft <sup>2</sup> )	1/1
210FB	224 cm (7'-4")	51 cm (1'-8")	213 cm (7')	152 cm (5')	.9 m <sup>2</sup> (10 ft <sup>2</sup> )	1/1
215FB	326 cm (10'-8.5")	61 cm (2')	259 cm (8'-6")	244 cm (8')	1.4 m <sup>2</sup> (15 ft <sup>2</sup> )	1/1
220FB	417 cm (13'-8")	61 cm (2')	335 cm (11')	305 cm (10')	1.9 m <sup>2</sup> (20 ft <sup>2</sup> )	1/1
330FB	432 cm (14'-2")	76 cm (2'-6")	396 cm (13')	305 cm (10')	2.8 m <sup>2</sup> (30 ft <sup>2</sup> )	2/2
340FB	462 cm (15'-2")	76 cm (2'-6")	518 cm (17')	305 cm (10')	3.7 m <sup>2</sup> (40 ft <sup>2</sup> )	2/2
350FB	493 cm (16'-2")	76 cm (2'-6")	640 cm (21')	305 cm (10')	4.6 m <sup>2</sup> (50 ft <sup>2</sup> )	3/3
360FB	523 cm (17'-2")	76 cm (2'-6")	762 cm (25')	305 cm (10')	5.6 m <sup>2</sup> (60 ft <sup>2</sup> )	3/3
380FB	544 cm (17'-10")	91 cm (3')	843 cm (27'-8")	305 cm (10')	7.4 m <sup>2</sup> (80 ft <sup>2</sup> )	3/3
3100FB	594 cm (19'-6")	91 cm (3')	1047 cm (34'-4")	305 cm (10')	9.3 m <sup>2</sup> (100 ft <sup>2</sup> )	3/3

\* Height Above Screen

† Screen Area

All dimensions are subject to change and are given for space estimation only

## Ordering Information

To order, or for more information about ACT's complete line of process equipment and engineering services, contact

### APPLIED CHEMICAL TECHNOLOGY, INC.

4350 Helton Drive  
Florence, Alabama, USA 35630

**Phone:** 1-256-760-9600

**Fax:** 1-256-760-9638

**Toll Free:** 1-800-ACT-3217

**e-mail:** [act@appliedchemical.com](mailto:act@appliedchemical.com)

**Web site:** <http://www.appliedchemical.com>



*The World Leader in  
Process Engineering*