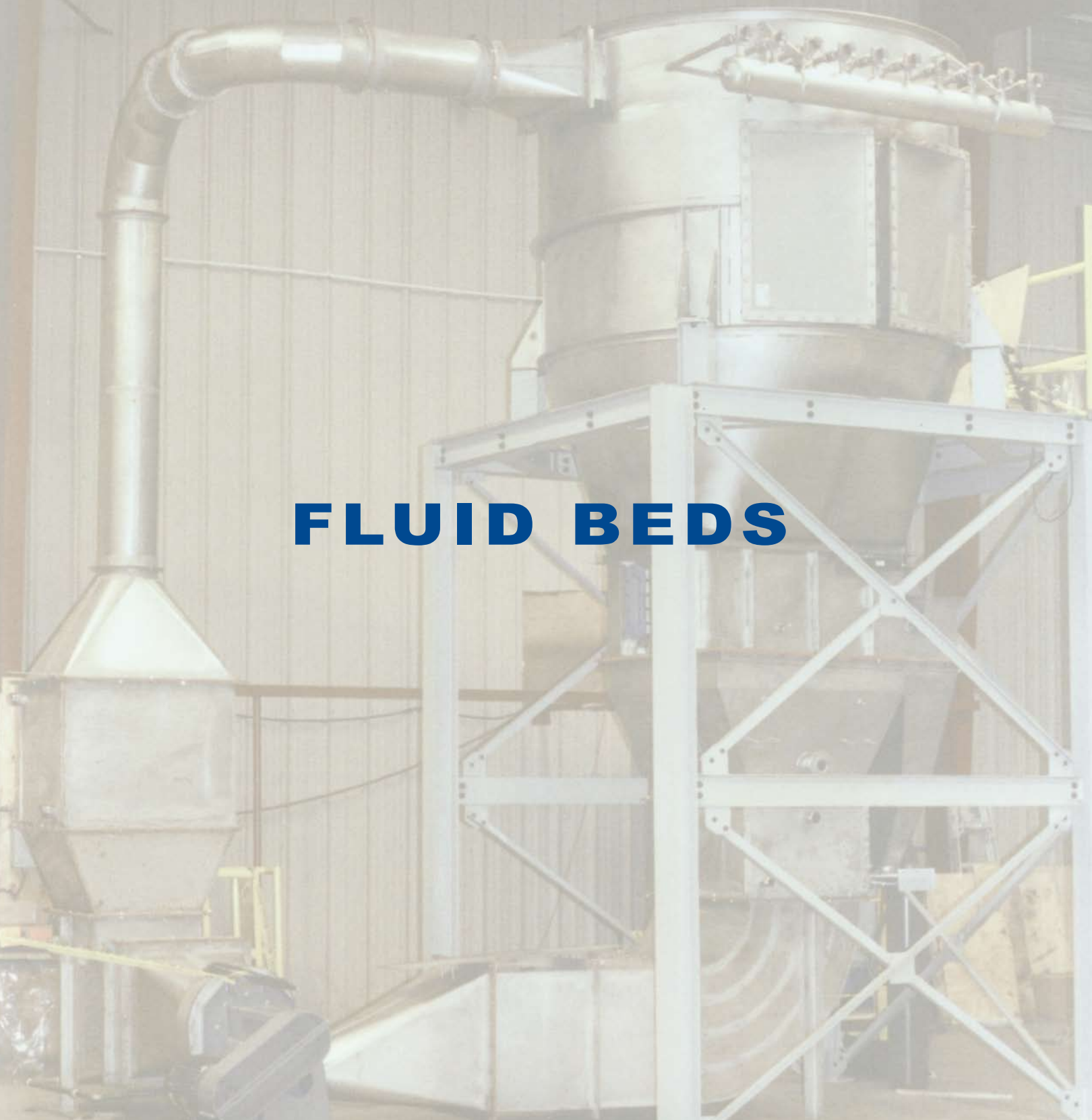




# APPLIED CHEMICAL TECHNOLOGY

THE WORLD LEADER IN PROCESS EQUIPMENT DESIGN

## FLUID BEDS



EXHAUST  
EXPLOSION  
RELIEF

COLLECTED ON DUCT

COMP. GAS SUPPLY  
(INERT, AIR, ETC.)

RAW MATERIAL

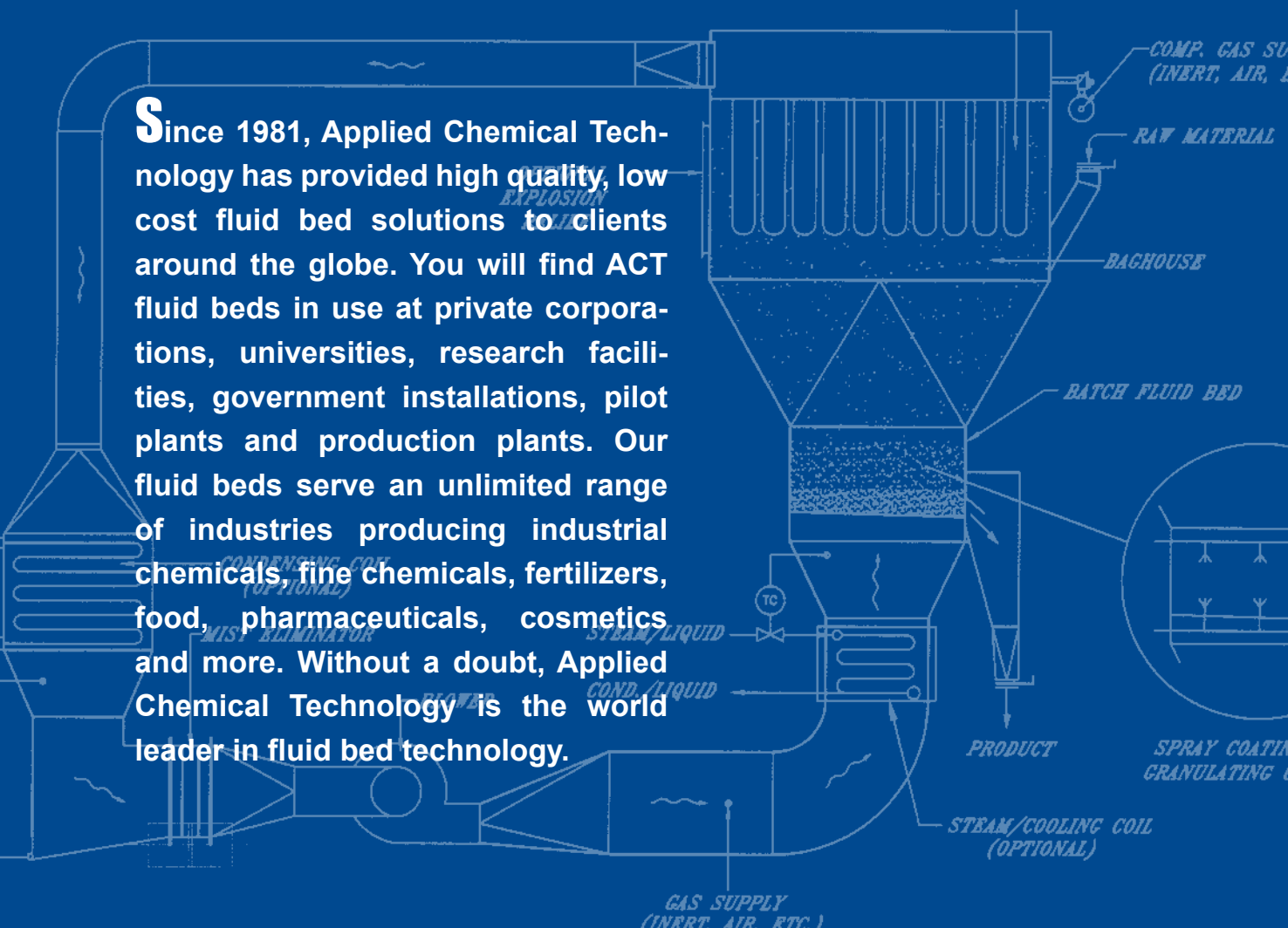
BAGHOUSE



Large Scale, continuous fluid bed/baghouse combination, installed in production plant.

5  
465

Since 1981, Applied Chemical Technology has provided high quality, low cost fluid bed solutions to clients around the globe. You will find ACT fluid beds in use at private corporations, universities, research facilities, government installations, pilot plants and production plants. Our fluid beds serve an unlimited range of industries producing industrial chemicals, fine chemicals, fertilizers, food, pharmaceuticals, cosmetics and more. Without a doubt, Applied Chemical Technology is the world leader in fluid bed technology.



## Benefits and Applications

An ACT fluid bed sends a powerful stream of air up through your particulate material, suspending and circulating the particles like a boiling fluid. This churning action, or “Fluidization”, produces an even distribution of air among the particles, making the fluid bed perfect for heating, cooling or drying processes. The fluidized particles can also be easily and evenly coated or otherwise treated using a variety of techniques. The fluid action is achieved using nothing more than air, thus your material is handled as gently as possible. Whatever your production needs, ACT fluid beds offer a proven, low cost solution.

### ACT Fluid Beds Are Ideal For:

- Heating
- Cooling
- Drying
- Coating
- Reacting
- Granulating
- Special handling
- Conveying
- Mixing
- Impregnating
- Dedusting
- Classifying
- Decontaminating
- Scrubbing



**ACT Laboratory Fluid Bed Dryer/ Granulator/Coater - Model 100N.** Standard model includes batch operation, variable speed blower, full pressure and temperature instrumentation, air temperature up to 250°F.



**ACT Continuous fluid bed/baghouse combination, unassembled and ready for shipment.** Left to right: Fluid bed, baghouse top and air plenum (In background).

## Standard Fluid Beds

ACT can provide you with a variety of fluid bed systems suitable for any application. Our fluid beds offer batch or continuous operation and are available in static and vibrating designs. We also build complete process systems to handle every aspect of your production needs. Many of our models include baghouse systems, heating and cooling units, or other custom features to save you space and money. Sizes of our standard models range from our bench top laboratory fluid bed (capable of approximately 2kg/batch, depending on material) to industrial scale continuous models with operating capacities of 50 tons per hour.

CONDENSATE  
DRAIN

CONDENSING COIL  
(OPTIONAL)

MIST ELIMINATOR



Fluid bed/baghouse cooler for continuous operation.

### ACT Standard Fluid Beds Include the Following:

- Batch or continuous operation
- Static or vibrating designs
- Push, pull or combination air flow
- Positive, negative or atmospheric pressure
- Particle size capacity ranging from 2 inches to 10 microns
- 1/4 sq. ft. to 1000 sq. ft. bed sizes
- 2 kg batch to 50 ton/hour continuous production
- Optional ACT spray systems and bed inserts
- Modular or complete system designs
- Scalability
- Easy operation and clean up
- Full compatibility with all ACT industrial equipment

## Specialty Designs and Modifications

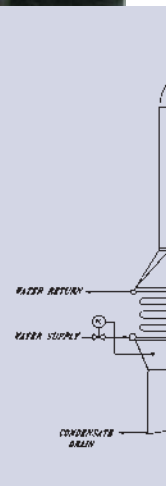
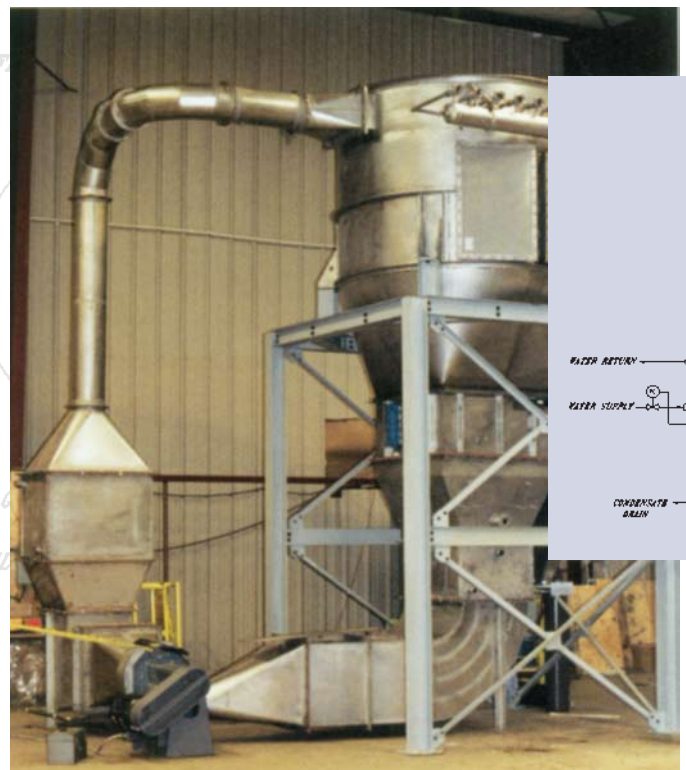
At ACT we understand that one size does not fit all. That's why all of our fluid beds can be easily modified to meet your process specifications and, whenever necessary, we can build your fluid bed from specialty materials. We design and build ASME pressure vessels.

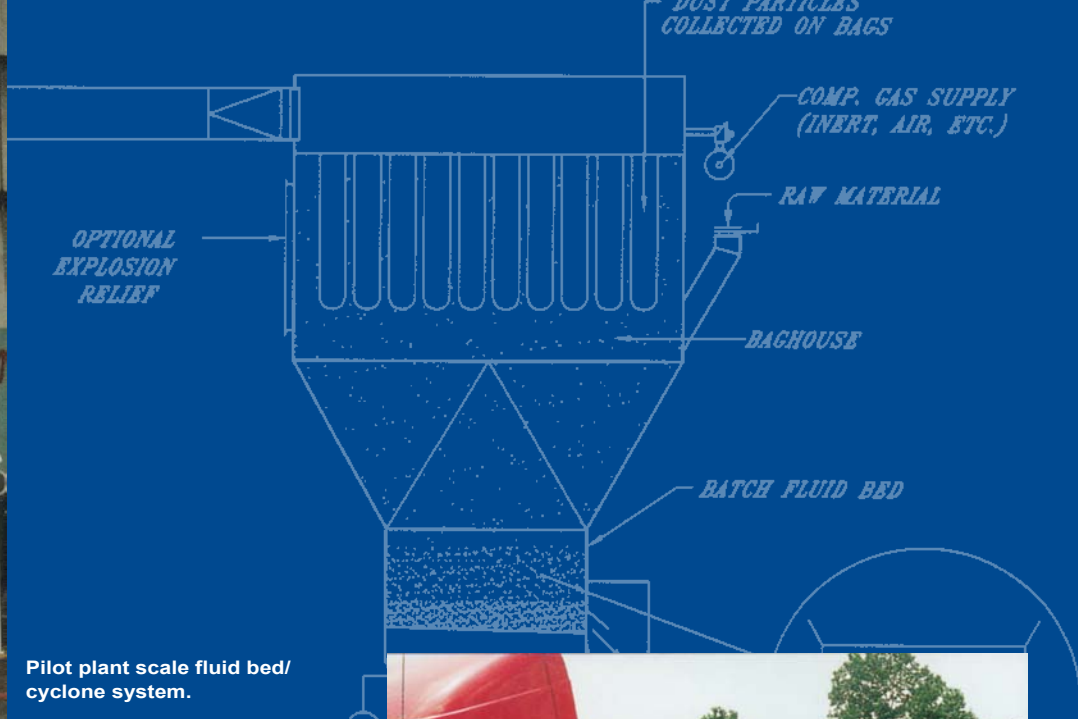
Fully automated ACT 125 lb. batch fluid bed system with inert gas recirculation. Features solvent recovery system, integral bag filter, explosion resistance, steam heating and stainless steel construction.

### Your Specialty Fluid Bed Could Include:

- Complete custom engineering and design
- Custom size and shape
- Food/pharmaceutical
- Specialty alloys or other specialty materials
- High temperature operation
- Explosion resistant material
- Hazardous chemical systems
- Recirculating contained gas design
- Specialty inserts, screens and spraying systems
- Fully automated operation

(INERT, AIR, ETC.)





## Client Services

ACT welcomes and encourages client involvement in every step of fluid bed design. We consider your input crucial to the development process. We will provide office space and support to your personnel at our own facilities throughout the design, development, testing and training process. In addition, ACT operates under the strictest confidentiality guidelines. Your proprietary information is protected by signed secrecy agreements provided by ACT.



Two ACT standard large scale continuous fluid beds preparing to ship. Air plenums in foreground, beds in background.

## 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.

### 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>

**APPLIED  
CHEMICAL  
TECHNOLOGY**

*The World Leader  
in Process Equipment Design*