



Mixers ■ Dryers ■ Reactors

Viscous Pumps ■ Bag Dump Stations ■ Conical Mills



**AMERICAN
PROCESS
SYSTEMS**

Member

Eirich Group

Plow Blenders, Dryers & Reactors



From the traditional Plow Blender to the shorter but larger diameter Turbulent Mixer series, American Process Systems offers tailor-made solutions to today's mixing challenges.

Mixers & Reactors To Fit Your Individual Needs

- capacities from 2.5 to 1,200 ft³
- batch or continuous operation
- stainless steel, carbon steel, or specialty alloys
- corrosion, erosion or abrasion resistant internal coatings

Quality Workmanship

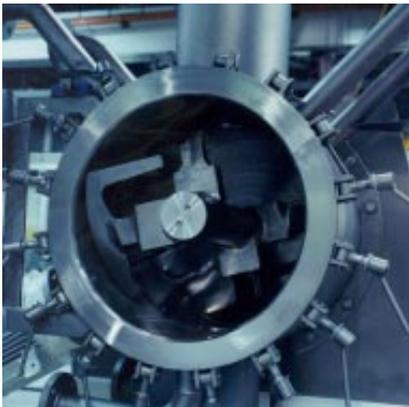
- solid agitator shafts
- FDA, USDA and 3A Dairy approved designs

Custom Tailored Solutions

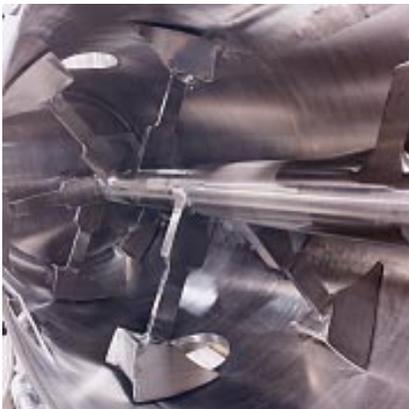
- over 25 years of process experience
- unlimited options
- fully equipped test lab or test at your facility

ASME Certified Facility

- in-house manufacture of reactors and dryers
- full vacuum mixers
- pressures to 700 psi (48 bar)
- temperatures to 700°F (370°C)



T 4.5 Turbulent Mixer With Paddle Agitator



CPB-45 Cylindrical Blender With Plow Agitator



Jacketed Mixer/Reactor With 50 PSI Internal Pressure And Full Vacuum Capability

Please ask for our special "Plow Blender" publications

Ribbon, Paddle & Paddle-Ribbon Blenders

The Best Warranty In The Industry: Guaranteed For Life

APS' agitators are designed to exceed torque and twist of the drive and any deflection due to rotor and batch weight and are guaranteed not to break for the life of the mixer.

The Best Mixer For Your Product

- choice of agitator style: double ribbon, paddles, or inner ribbon - outer paddle combination
- choice of tank style: u-shaped, cylindrical, or semi-cylindrical
- stainless or carbon steel construction
- Dairy, USDA and FDA compliant designs

Easy Maintenance Through

- all continuous internal and external welds
- split packing glands for easy access
- single weldment mixing tank without seams
- flange free rotor construction
- many other standard features



Double Ribbon Agitator



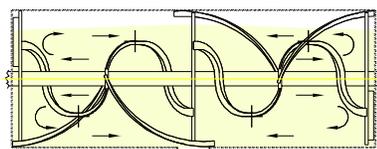
Combination Paddle-Ribbon Agitator



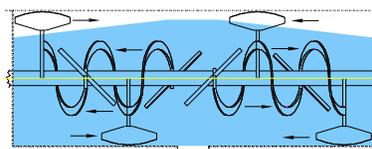
Paddle Agitator



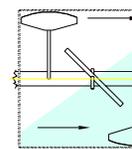
Product Flow in a mixer with...



double ribbons



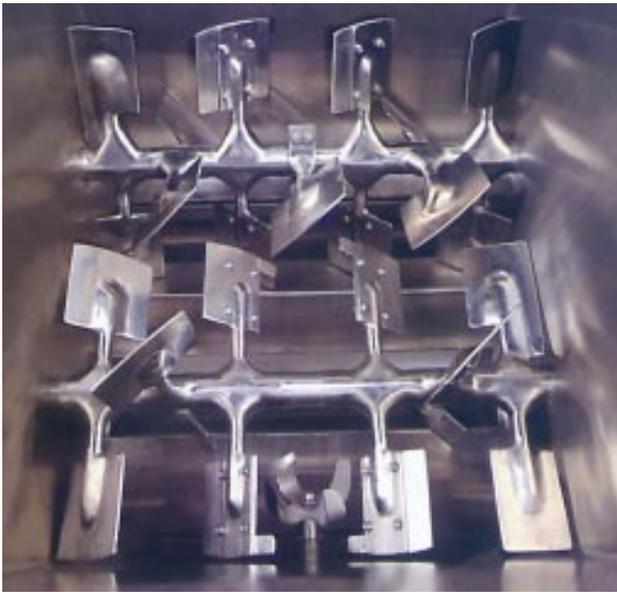
combination inner ribbons / outer paddles



paddles only

Please ask for our special "Ribbon Blender" publications

Forberg™ Mixers



The Counter-Rotating, Twin Agitator Of The Forberg Mixer

Standard APS Design Enhancements Improve Your Bottom Line

- solid agitator shafts will not break
- split packing glands for easy removal and maintenance
- stub shaft assembly for rotor removal through the top
- shafts lathed to ≤ 0.004 " total indicator runout to assure optimal sealing surfaces

Money Saving

- lowest cost per volume mixed
- low power consumption
- lower initial investment for smaller mixer
- high mix efficiencies (1:1,000,000)
- short mixing times (10 to 60 seconds)

Space Saving

- rapid mix cycles require smaller unit for same throughput

Gentle

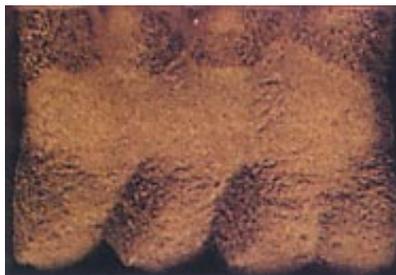
- minimal product degradation
- low rotor speeds
- constant tip speed
- no shear or shear with optional high speed chopper
- no heat generation
- mass flow discharge



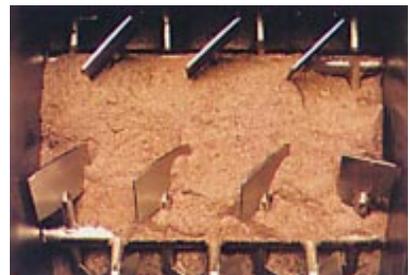
The fastest mixer on the market today



Start



5 Seconds



10 Seconds

Time interval photos of blending flour, pepper and paprika. Notice the fluidized zone between the rotors in the 5 second interval photo.

Please ask for our special "Forberg" publications

Continuous Mixers



Sanitary continuous mixer

Choice of Agitators

- ribbons
- paddle
- plow

System Integration

- feeders
- conveyors, etc.

Design Flexibility

- cooking
- cooling
- mix dry solids or pastes
- vacuum and pressure capable
- low, medium, or high intensity
- high or low shear

High Speed & Conical Finishers

Conical Mill

- mills difficult product
- deagglomerates
- may be choke fed

Gentle

- low heat generation

Customizable

- many screen variations
- choice of impeller design



CF-240 Conical Finisher

High Speed Finisher

- delumps after mixing
- continuous processing



HS-14 High Speed Finisher

Please ask for our application specific publications

Viscous Pumps Pumping • Metering • Extruding



Save Time & Money

- handle products up to 20 million cps without air pockets
- accurately meter additions for batch or continuous processes
- extrude directly from upstream process
- transport product through piping without product loss
- application specific controls
- modular construction to meet product specific requirements

Reduce Operating Costs

- eliminate multiple handling & toting
- feed cold blocks (butter, shortening) without tempering
- eliminate air pockets
- meter accurately
- maximize blender capacity
- reduce mix times
- tool-less disassembly for easy cleaning

Versatile, Mobile

- feed to or discharge from multiple mixers with one unit
- meter accurately (+/- 1%)
- extrude/co-extrude
 - ropes
 - blocks
 - logs
 - any custom shape
- homogenize
- feed other equipment



Removable, counter-rotating augers and feed roller



Cold block shortening being fed, pumped, and extruded



Please ask for our special "Viscous Pumps" publications

Bag Dump Stations

Comply With Safety Regulations

- keep dust away from workers
- provide a clean work environment

Reduce Clean-Up

- efficient dust removal and filtration

Save Raw Materials

- filters collect dust for full product recovery

Low, Easy Maintenance

- on-line filter cleaning via alternating blasts of air
- easy, tool-less filter replacement
- product changeover typically in less than 2 minutes

Easy Process Integration

- modular design
- free standing or flange mounted
- lift up or drum dump doors
- 1, 2 or 4 filter cartridges
- retrofitting

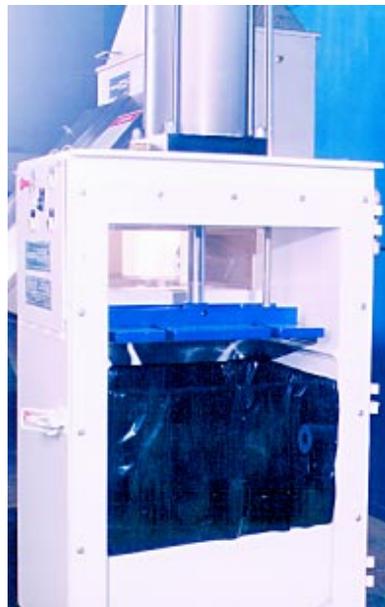


Free standing bag dump with standard hopper and integrally mounted compactor

Bag Compactors



Bag dump with inverted plenum to minimize height



PBS-50 Pneumatic Bag Compactor

Clean, convenient, safe

- fully pneumatic operation
- no hydraulics
- no electrical components
- extremely quiet
- reliable
- convenient bag disposal
- product recovery through bag dump work station
- maintenance free
- integrally mounted or free standing
- capacities from 50 to 200 bags

Please ask for our special "Bag Dump & Compactor" publications



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Eirich Machines, Inc. and American Process Systems manufacture batch and continuous mixers, dust collection and other ancillary equipment and complete systems for the processing of materials in a great many different industries, including: food, pharmaceuticals, chemicals, ceramics, glass, building materials, molding sand, technical products, surface finishing materials, metallurgy, agricultural chemicals and environmental protection.

Through extensive research and development efforts in our test centers, we draw directly on the practical experience and know-how gathered all over the world. This expertise is reflected in innovative new equipment and processes which are energy and cost efficient while providing environmentally responsible solutions.

For More Information Contact:

Air Process Systems & Conveyors Co., Inc.

774 Burr Oak Drive • Westmont, Illinois 60559

Phone: 630.887.0770 • 800.822.0771

Fax: 630.887.0771

Website: www.AirProcessSystems.com • E-mail: Sales@AirProcessSystems.com



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