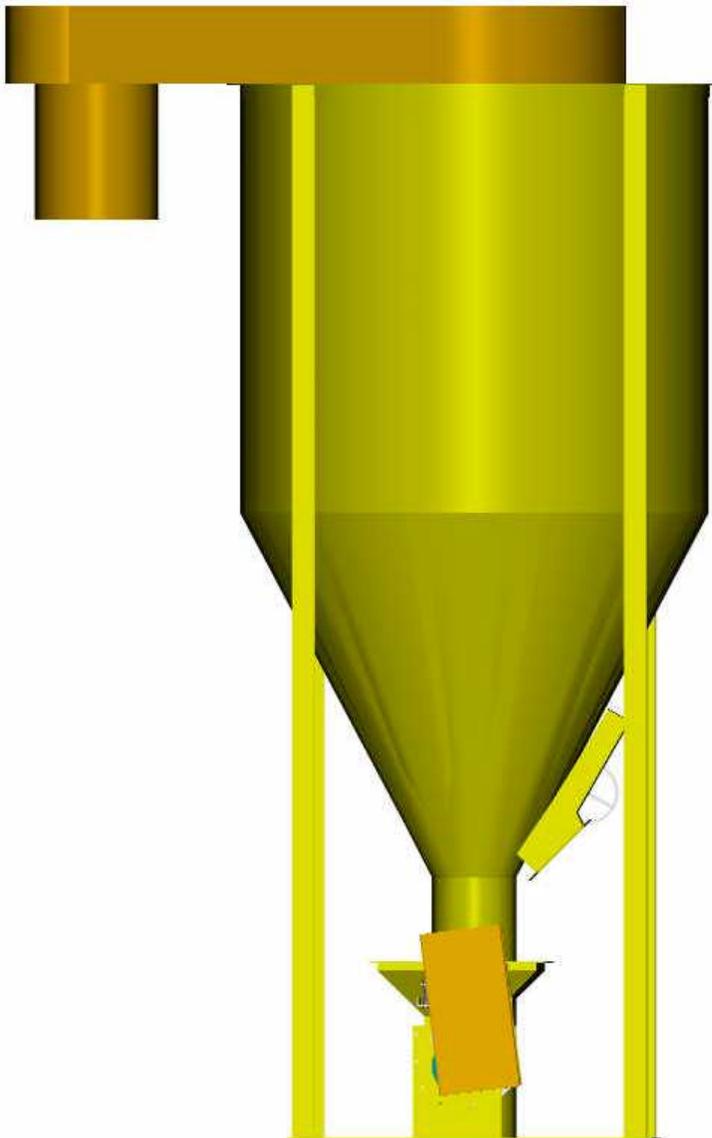


For over a century Kelly Duplex has been manufacturing industrial processing and material handling machinery to handle a wide range of materials and applications for industrial processes. We have specialized in building heavy duty, trouble-free machines to meet our customer's individual needs. Our goal is not to sell a new machine to replace a 5-7 year old machine, but to install a new unit next to the original one. *As our customers grow, we grow.*

# Industrial Mixers and Blenders



This broad experience has not been limited to a few types of machinery – or a few models. For example, we build a variety of distinctly different types of industrial mixing equipment. All are constructed to give you top performance and long life under maximum production conditions. All are customized and available in a wide range of capacities, and throughputs. All are built to meet our own rigid safety standards.

In the broadest terms we build mixers and blenders for continuous or batch operations. These mixers may be handling a very small batch of chemicals in a laboratory, bulk complete trailer loads of plastic, or adding water to ash in a foundry. With our experience and design expertise we can manufacture mixers and blenders to meet just about any customer's application.

We also offer a variety of mixing actions for both batch and continuous operations. We can design mixers and blenders to gently handle products, or to very aggressively apply shear for high energy mixing dispersion.

In addition to our mixers & blenders we also manufacture a complete line of complimentary material handling equipment.

# Horizontal Mixers

The Kelly Duplex Horizontal Mixer is unsurpassed for fast, thorough, accurate blending, heavy duty construction, long life, and trouble free performance. Curved, adjustable paddle blades combine a scooping and lifting action with a unique “criss-cross” blending pattern to assure that all material is continuously overlapped and blended to obtain a completely uniform product throughout the batch. This blending action provides the turbulent upward and downward movement required to blend liquids with solids, yet is gentle enough that such delicate materials as granular chemicals or rolled grains can be mixed without

destroying the flake or texture. This unique Kelly Duplex action assures rapid mixing, leaves no pockets, lets you blend materials with widely varying densities, mixes micro ingredients with large amounts of basic ingredients, provides for a thorough cleanout and positive discharge. The mixer uniformly blends partial batches as easily and completely as it does full batches.

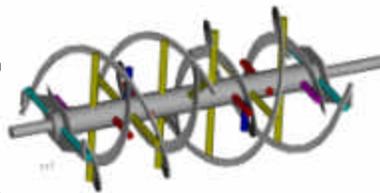
### Paddle & Plow Mixers

The mixing rotor in a Horizontal Paddle / Plow Mixer provides fast, accurate, and gentle mixing for difficult or hard hand materials. Any combination of plows and paddles may be used.



### Ribbon Mixers

The mixing rotor in a Horizontal Ribbon Mixer can be manufactured in a number of different configurations to meet special mixing needs. Especially suitable for mixing flow resistant materials.



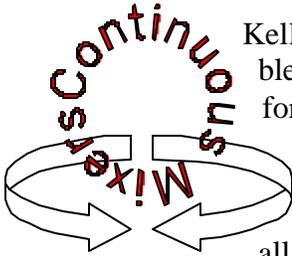
### Fluid Bed Mixers

Special plow type blades concentrically arranged on a rapidly rotating horizontal shaft actually suspends and fluidizes dry solids in free air to obtain a precise and extremely fast mixing action.



Standard horizontal mixer sizes & capacities. Custom sizes available.

Mixer Series	Diameter	Inside Length Range	Nominal Working Capacity Range	HP Range
190	19"	1'-4'	2-8 ft. <sup>3</sup>	1-5
270	27"	2'-8'	8-32 ft. <sup>3</sup>	2-15
3600	36"	4'-12'	32-94 ft. <sup>3</sup>	10-40
4200	42"	4'-14'	42-145 ft. <sup>3</sup>	10-60
4800	48"	4'-14'	56-195 ft. <sup>3</sup>	10-60
6000	60"	4'-14'	90-315 ft. <sup>3</sup>	20-100



Kelly Duplex Continuous Mixers are unsurpassed for fast, thorough, continuous stream blending. For well over 50 years Kelly Duplex has been consistently building a reputation for rugged, accurate, and economical continuous mixers. Our continuous mixers are ideally suited for an almost limitless variety of solid-to-solid and liquid-to-solid continuous stream mixing jobs. Typical capacities range from 50 ft.<sup>3</sup> – 12,000 ft.<sup>3</sup> / hour. There is an almost unlimited number of options available for these mixers, like all of our mixers; customized spray manifolds, access panels, customized mixing tool combinations, and of course sizing to meet unique customer requirements. Whatever the continuous mixing requirement, we're confident we can meet it.

### Continuous Twin Ribbon Mixer

Combines excellent continuous mixing action with controlled conveying of bulk materials.



### Continuous Twin Rotor

High intensity continuous blending with adjustable paddles



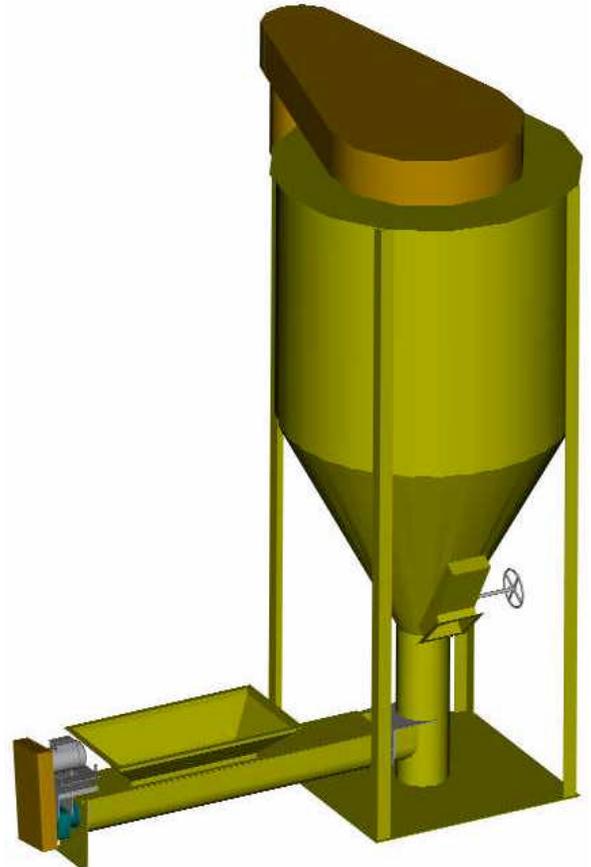
### Continuous Paddle Mixer

A blending of our horizontal paddle mixer with a continuous mixer which produces a unique and very thorough mixing action.



# VERTICAL MIXER

Kelly Duplex Vertical Mixers are designed for fast, thorough blending of free flowing granular or fine materials. Typical mixers can handle batch sizes from 10 ft.<sup>3</sup> to 1800 ft.<sup>3</sup>. Large batch volumes are possible at a low initial cost with low horsepower requirements when compared with traditional (horizontal) type mixers. Excellent and rapid mixing action is provided by a large vertical helicoid screw spiral partially enclosed in an internal tube. Free flowing materials are elevated to the top of the mixer vessel where the product is mechanically dispersed. Mixing takes place by combining gravity flow, top dispersion, and bottom agitation in the lower conical area of the body. This mixer is especially well suited to applications requiring extra large batch sizes, where floor space is limited, or where a self-loading, self-discharging agitated storage vessel is required.



### Optional Features

Special mixer configurations

Inlets

Top covers

Bolted

Partial opening

Full open

Full open with counterweights

Full open with manual / automatic drive

Discharges

Contoured slide gate

Knife gate

Plug valve

Special cleanout features and construction

Drives

V-Belt

Roller Chain

Shaft mount

Hydraulic & pneumatic

Variable speed

Shaft seals

Air purge

Mechanical

Vacuum & pressure

Special mixing rotors

Whizzers

Controls

Vibrators

Air Stimulators

Load Cells, level indicators

Liners

Heating and/or cooling jackets

Explosion relief vents

Air vents

Portable frames

Spray manifolds

Motor Control Centers

### Standard machinery features

- Rugged, heavy duty construction
- Modular, adjustable design
- Factory assembled and test operated
- Designs adapted to meet customer's needs on a per order basis

Materials of construction: Carbon steel, stainless steel, aluminum, special alloys

Finishes: Machinery enamel paints, sand blasting, glass bead blasting, special paints, sanitary construction



**Example of continuous mixer modular construction**

**Whatever your mixing and blending requirements may be, be sure to contact Duplex Mill. We strive to meet and exceed our customer's needs!**

To compliment our mixers, we also offer a complete line of accessory equipment, including; conveyors, reduction equipment, elevators, valves, and custom fabrication.