



**PROCESSALL**

# Plow Tilt-A-Mix

## Mixers/Dryers/Reactors

**The Processall Tilt-A-Mix Laboratory processor is a rugged, flexible, and sanitary plow mixer / vacuum dryer / material reactor of patented design**

The Processall Plow Tilt-A-Mix mechanical fluidized bed agitation principle is generated by the rotation of an agitator within the confines of a horizontal mixing chamber. The rotation of this agitator causes the material to be lifted and moved throughout the chamber. Material is constantly moving in an axial and radial motion. A constant folding action is caused by the plow shaped elements with their rotating paths. This assures the constant intermingling and interchanging of material with each rotation of the agitator. Multi-processing, such as precision mixing, drying and chemical reactions, can be accomplished in this equipment. Also, scale-up information can be obtained from data gathered during operation.

### Options:

#### Liquid Ingredient Injection System

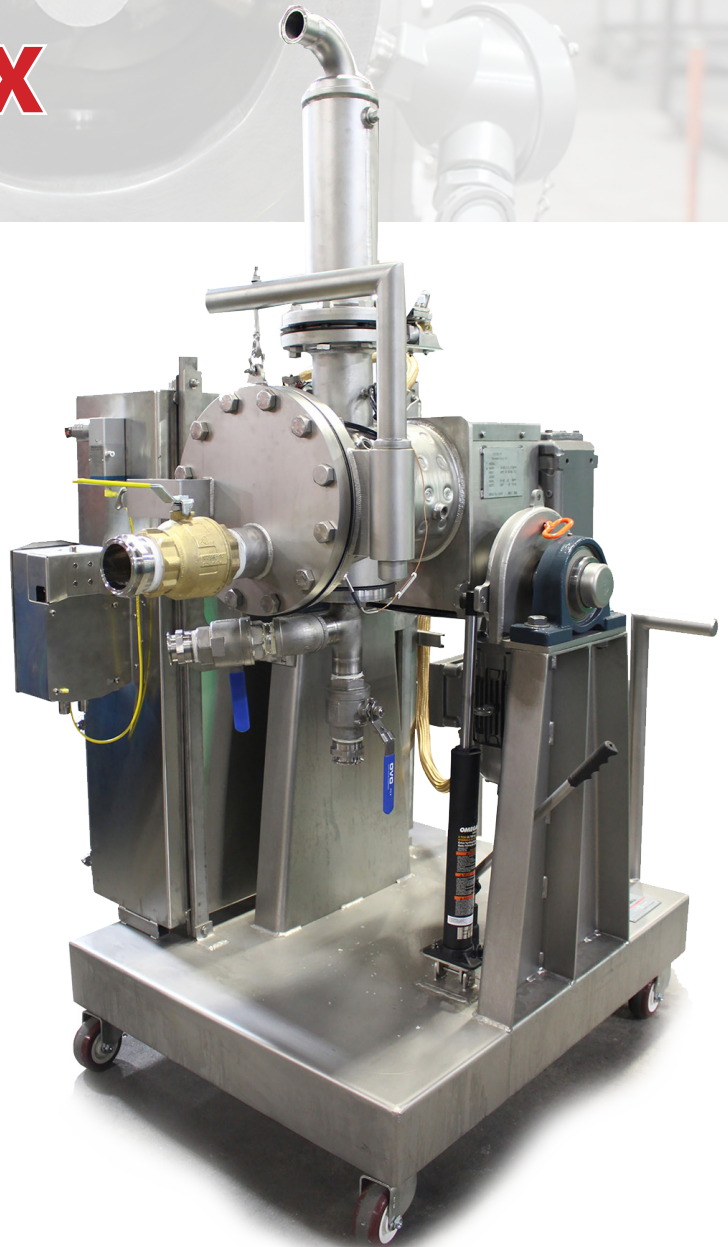
The optional liquid ingredient injection system is indispensable for adding small to medium amounts of liquid additives to the Plow Tilt-A-Mix. It comes in 240ml and 2 liter sizes and is equipped with sanitary fittings for easy connection to the mixing chamber. After loading the injection system with product, the unit is pressurized with either compressed air or inert gas. The bottom injection valve is then opened to introduce the liquid. The unit completely disassembles for cleaning and inspection.

#### Vacuum Drying System

The Plow Tilt-A-Mix can be equipped with an optional vacuum drying system for efficient removal of volatiles. Vacuum is drawn through the stack which prevents solids from leaving the mixing chamber. When the agitator is run, the product is fluidized exposing a maximum surface area to the jacket surface. Heat is applied to the outer jacket which raises the temperature of the product to the point at which the volatiles are removed. Final moisture contents of less than 1% can easily be achieved using the Plow Tilt-A-Mix drying system.

#### Solvent Recovery System

The Processall solvent or moisture recovery system for the Plow Tilt-A-Mix can be used with the vacuum filter stack when using the Plow Tilt-A-Mix as a dryer. This system utilizes a liquid ring vacuum pump to achieve vacuum levels above 27 in.hg (686 Torr). Higher vacuums can be achieved by using mechanical face seals. A shell and tube heat exchanger removes the condensables to a 5 gallon recovery tank. Product contact surfaces are 304 stainless steel and the entire unit is mounted on casters for mobility.





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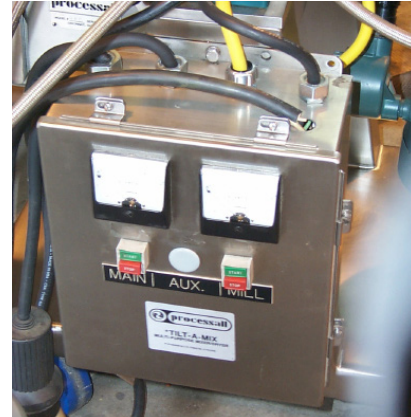
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### Electrical Control Panel

The Processall Plow Tilt-A-Mix can be supplied with an optional Nema 4 electrical control panel. This panel comes equipped with pushbuttons, starters and overloads sized to the customer's voltage. Two ammeters display the main and mill motor loads. A third control circuit can be supplied in this electrical panel for running the optional Vacuum Recovery System. Other electrical control panels can be supplied to meet particular customer requirements.

Larger models are available up to 25,000 liters.  
Excellent scale-up is possible between all sizes.

The Plow Tilt-A-Mix is available with high pressure up to 250 psi for special applications.



Model	4 H/V	20 H/V	40 H/V	60 H/V	90 H/V
Capacity	4 liters (1 gallon)	20 liters (5 gallons)	40 liters (10 gallons)	60 liters (15 gallons)	90 liters (23 gallons)
Main Motor	1 1/2 HP Exp. Proof	5 HP Exp. Proof	5 HP Exp. Proof	7.5 HP Exp. Proof	7.5 HP Exp. Proof
Mill (Chopper) Motor	2 HP Exp. Proof	2 HP Exp. Proof	2 HP Exp. Proof	2 HP Exp. Proof	2 HP Exp. Proof
Main Seal Design	Stuffing Box	Mechanical Seal	Mechanical Seal	Mechanical Seal	Mechanical Seal
Mill Seal Design	Stuffing Box	Stuffing Box	Stuffing Box	Stuffing Box	Stuffing Box
Material	Stainless	Stainless	Stainless	Stainless	Stainless
Jacket	75 PSIG (stainless)	75 PSIG (stainless)	75 PSIG (stainless)	75 PSIG (stainless)	75 PSIG (stainless)
Internal Pressure	Optional	Optional	Optional	Optional	Optional
Mobility	S/S Base w/ Casters	S/S Base w/ Casters	S/S Base w/ Casters	S/S Base w/ Casters	S/S Base w/ Casters
Removable Head	Yes	Yes	Yes	Yes	Yes
Indexing Positions/ Tilt	Multiple (Manual)	Multiple (Auto)	Multiple (Auto)	Multiple (Auto)	Multiple (Auto)
Mixing Element	Removable	Removable	Removable	Removable	Removable
Drying Filter	Optional	Optional	Optional	Optional	Optional
Spray Nozzle	Optional	Optional	Optional	Optional	Optional
Thermometer	Optional	Optional	Optional	Optional	Optional
Safety Switch	Removable	Removable	Removable	Removable	Removable
Electrical Controls	Optional	Optional	Optional	Optional	Optional
Ammeters	Optional	Optional	Optional	Optional	Optional
Standard Voltage	208/230/460	208/230/460	208/230/460	208/230/460	208/230/460
Std. PH / Hertz	3 Phase / 60 Hertz	3 Phase / 60 Hertz	3 Phase / 60 Hertz	3 Phase / 60 Hertz	3 Phase / 60 Hertz
Power Requirement	10 Amps @ 230 V	20 Amps @ 230 V	25 Amps @ 230 V	25 Amps @ 230 V	25 Amps @ 230 V
Total Weight (Approx.)	600 LBS	1000 LBS	1100 LBS	1300 LBS	1600 LBS
Approximate Dim.	40"H x 20"W x 36"L	107"H x 34"W x 81"L	107"H x 34"W x 81"L	107"H x 34"W x 81"L	114"H x 34"W x 88"L



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