AMF

# TILT BOWL MIXER (TBM)



**Heavy Duty Horizontal Tilt Bowl Dough Mixer** 

Designed for Mixing Breads, Rolls, Buns, Flour Tortillas,
Croissants, Bagels, Pizza, Specialty Doughs and English Muffins

### **FEATURES AND BENEFITS**

- Most robust frame and bowl design in the industry
- Easy access design and 6" (152 mm) floor clearance facilitate cleaning and maintenance
- New bowl design for maximum glycol cooling efficiency and optimal dough temperature control
- Heavy duty stainless steel triple roller agitator and shafts
- Long lasting sanitary style shaft seals are designed for easy removal when replacement is needed
- Single end belt drive system for minimal maintenance



## **TILT BOWL MIXER**

### **MECHANICAL SPECIFICATIONS**

#### **Frame Assembly**

- The exterior of the mixer is entirely covered with polished stainless steel and mounted on a rigid steel frame treated with a stainless steel epoxy paint
- Rigid stainless steel bumper guards
- Lift lugs
- Anti-vibration pads

### **Bowl and Cooling Jacket**

- The bowl is tilted to 120 degrees towards the front
- Stainless steel bowl and jacket totally redesigned for high efficiency (Glycol cooling)
- Bowl insulated with urethane foam covered with a welded stainless steel sheet
- Bowl rests on Nylatron bushings
- Bowl tested at 150 PSI
- Glycol manual hand valves are included
- Refrigeration hoses are included

### **Agitator and Drive Assembly**

- Solid stainless steel Y type spiders split at main shaft and agitator bars
- Stainless steel primary and secondary agitator bars mounted on lubrication free UHMW bushings
- Main shaft seals are easily removable and fabricated of polyethylene for exceptional durability. This new type of seal allows easy cleaning.
- Solid stainless steel breaker bar (adjustable four positions)
- Heavy duty stainless steel main shaft
- Single end belt drive with integral gearhead motor mounted on adjustable base eliminates binder
- Main motor can be replaced from the back or the drive side (depending on option)
- Standard agitator RPM: 35/70 (other RPM's are available as options)
- Manual central lubrication system

### Top Assembly

- 12" (305 mm) O.D. butterfly or sliding flour gate
- Two stainless steel liquid inlets
- Canopy scraper
- Flour vent

### **Tilting Assemblies**

- Hydraulic tilt on all models include:
  - Hydraulic unit with manual back-up pump
  - Hydraulic cylinder



Mixer Top Canopy With Multiple Flour Inlets and Sponge Door



**Sanitary Main Shaft Seal** 



**Mechanical Overtilt Options** 



**Agitator Drive Side** 



**Hydraulic Tilt Mechanism Side** 



### **ELECTRICAL SPECIFICATIONS**

### Operator panel is NEMA 4X rated and contains the following:

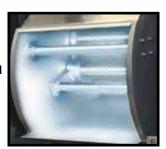
- Allen Bradley PanelView Plus touchscreen/keypad operator interface which displays:
  - Mixing and refrigeration time
  - Dough temperature
  - Status and alarm messages
  - Product codes and recipes
  - Total operation time clock
- Allen Bradley push-buttons for the following functions:
  - Mixing (slow, fast, stop)
  - Tilting (lower, raise)
  - Alarm (acknowledge/reset)
  - Safety
  - Emergency stop

#### NEMA 12 remote enclosure (painted steel) including:

- Fused disconnect switch
- AC inverter
- Allen Bradley Programmable logic controller
- Motor overheat protection installed in the stator winding
- Wash down duty Weg drive motor (aluminum or copper rotor) integral mount with NORD gear reducer
- High/low speed jog operation with special anti-jog function
- Mixer and refrigeration mode selection from operator interface
- Timer and setpoint based temperature control modes included
- Safety: Latching safety devices on ingredient and access doors interlocked with agitator motion monitor.
- Standard voltage 460 and 600 volts / 3 Phase / 60 Hz (other voltages available)
- PLC I/O voltage 24VDC in/24 VAC out

### **MECHANICAL OPTIONS**

- Bowl drain valve
- Lip extension
- Bowl end cooling
- PolarBar refrigerated breaker bar (includes bowl end cooling option)
- Double extra heavy duty stainless steel primary agitator bars (included in models 2000 lb. and above)
- Y-T asymmetrical full split stainless steel agitator
- Extra liquid inlet
- Additional flour inlet (available only with butterfly valve)
- Rear sponge door, air operated hinge type
- Rear ingredient door with safety bars and agitator motion interlock
- Solid, full length legs with high performance stainless steel pigmented gray epoxy paint up to 24" (610 mm)
- Mechanical overtilt to 140 degrees on 1600 lb. to 3200 lb. models include:
  - Integral gearhead brake motor with chain and sprockets
  - Caliper and disk bowl lock mechanism
  - Air driven hydraulic pump for calipers
- Mechanical reverse tilt 25 degrees with seal cleaning system
- Automatic central lubrication system
- Trough hold down mechanism, manual or air operated





Arctic Cooling Package



**Optional Y-T Agitator** 



## **TILT BOWL MIXER**

### **ELECTRICAL OPTIONS**

- Dual speed drive motor/starter in lieu of inverter package
- Ampmeter or wattmeter to display motor load
- Dough Guardian quality monitor to trend agitator motor energy and reference to pre-recorded curves
- Remote pedestal mount stainless steel operator console
- Stainless steel main electrical enclosure
- Full auto mode (automatic discharge sequence programming with status messages and interfacing)
- Processor and operator interface upgrades
- ARC flash relocation panel

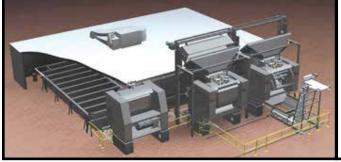


Optional Remote Pedestal Operator Console with Dough Quality Monitoring System

### **SPECIFICATIONS**

Model Name		TBM	TBM	TBM	TBM	TBM	TBM	TBM	ТВМ
		800	1000	1300	1600	2000	2400	2800	3200
Mixing	lb.	800	1000	1300	1600	2000	2400	2800	3200
Capacity <sup>12</sup>	kg	363	454	590	726	907	1089	1270	1452
Bowl Volume	ft³	30	37.5	45.3	61.8	77.2	81.8	91.4	98.2
	liters	850	1062	1283	1750	2186	2316	2588	2781
Base Motor	НР	20/40	25/50	30/60	37.5/75	50/100	62.5/125	75/150	87.5/175
Main Power Requirement	KVA	45	55	65	80	105	130	155	180
Approximate	lb./ft²	1790	1900	2090	1200	1350	1400	1450	1525
Floor Load	kg/m²	8739	9275	10203	5859	6591	6835	7080	7446
Approximate	lb.	17500	18500	20000	21000	24000	24500	25000	26000
<b>Shipping Weight</b>	kg	7938	8391	9072	9525	10886	11113	11340	11793

- 1: Estimated for dough densities of 60 lb./ft3
- 2: Minimum mixing capacity should not be lower than 50% of Mixing capacity



AMF is Your Industry Leading Source for Complete Integrated Dough Systems from Design to Professional Project Management and Implementation

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