

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



Mechanical Overtilt Options



Agitator Drive Side



Mixer Top Canopy With Multiple Flour Inlets and Sponge Door



Sanitary Main Shaft Seal



Hydraulic Tilt Mechanism Side

ELECTRICAL SPECIFICATIONS

Operator panel is NEMA 4 rated and contains the following:

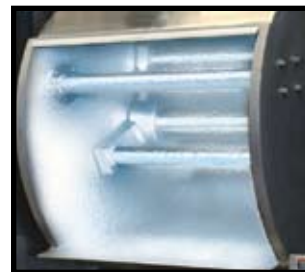
- Allen Bradley PanelView 550 operator interface which displays:
 - Mixing and refrigeration time
 - Dough temperature
 - Status and alarm messages
 - Editable product codes and recipes
 - Total operation time clock
- Allen Bradley push-buttons for the following functions:
 - Mixing (slow, fast, stop)
 - Tilting (lower, raise, stop)
 - Alarm (acknowledge/reset)
 - Safety
 - Emergency stop

NEMA 12 remote enclosure (painted steel) including:

- Main breaker
- Full voltage magnetic NEMA rated consequent pole starter
- Allen Bradley SLC 5/03 processor
- Wash down duty Weg drive motor (aluminum or copper rotor) integral mount with NORD gear reducer
- Motor overheat protection installed in the stator winding
- 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/120VAC out

MECHANICAL OPTIONS

- Bowl drain valve
- Lip extension
- Bowl end cooling
- PolarBar refrigerated breaker bar (includes bowl end cooling option)
- ArcticAgitator cooling package (provides bowl end, breaker bar and standard agitator cooling)
- 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

ELECTRICAL OPTIONS

- Single speed main drive motor with AC inverter speed control
- Ampmeter or wattmeter to display motor load
- Dough 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



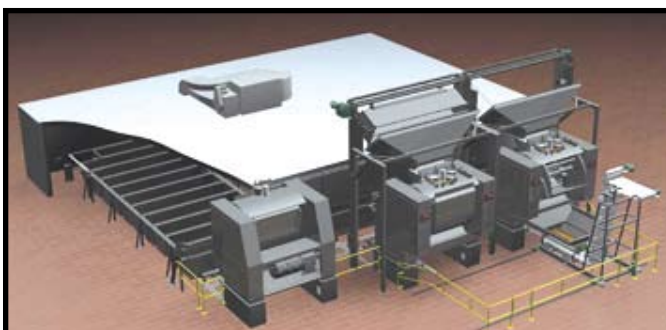
Optional Remote Pedestal Operator Console with Dough Quality Monitoring System

SPECIFICATIONS

Model Name		TBM 800	TBM 1000	TBM 1300	TBM 1600	TBM 2000	TBM 2400	TBM 2800	TBM 3200
Mixing Capacity ^{1,2}	lb. kg	800 363	1000 454	1300 590	1600 726	2000 907	2400 1089	2800 1270	3200 1452
Working Capacity	ft ³ liters	22.9 649	28.9 817	37.6 1064	46.6 1319	58.2 1649	63.7 1804	71.3 2019	76.3 2161
Bowl Volume	ft ³ liters	30 850	37.5 1062	45.3 1283	61.8 1750	77.2 2186	81.8 2316	91.4 2588	98.2 2781
Base Motor	HP	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 Floor Load	lb./ft ² kg/m ²	1790 8739	1900 9275	2090 10203	1200 5859	1350 6591	1400 6835	1450 7080	1525 7446
Approximate Shipping Weight	lb. kg	17500 7938	18500 8391	20000 9072	21000 9525	24000 10886	24500 11113	25000 11340	26000 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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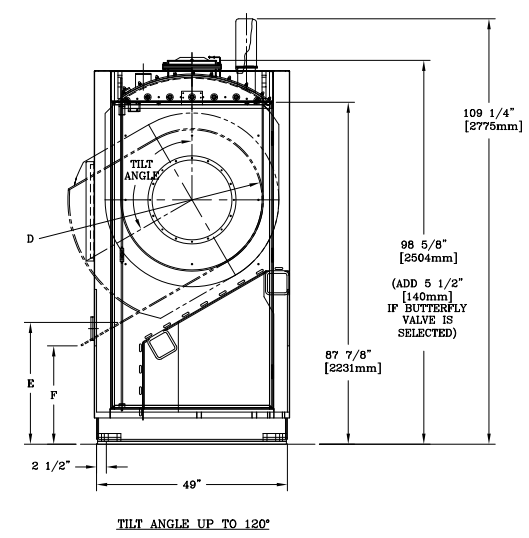
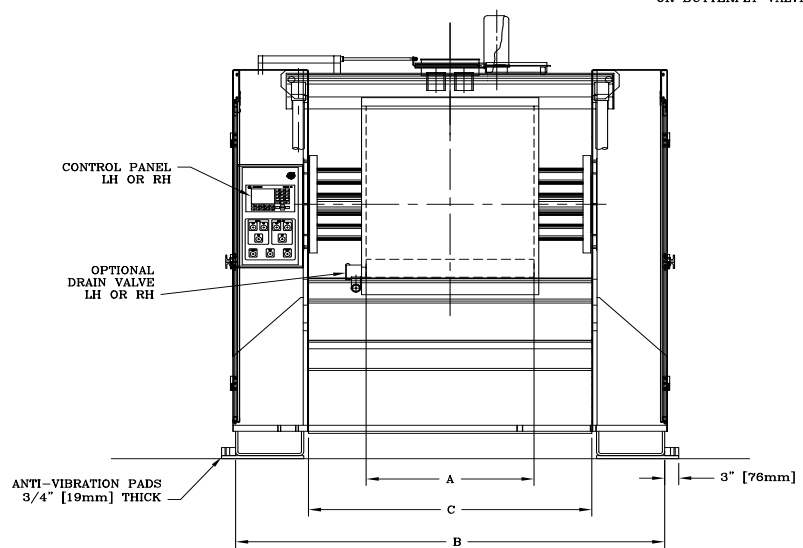
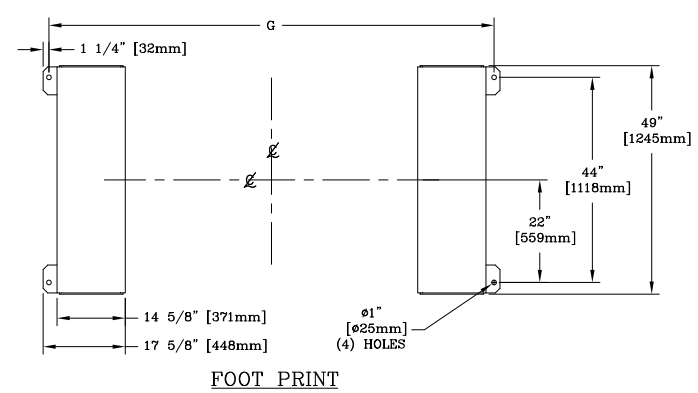
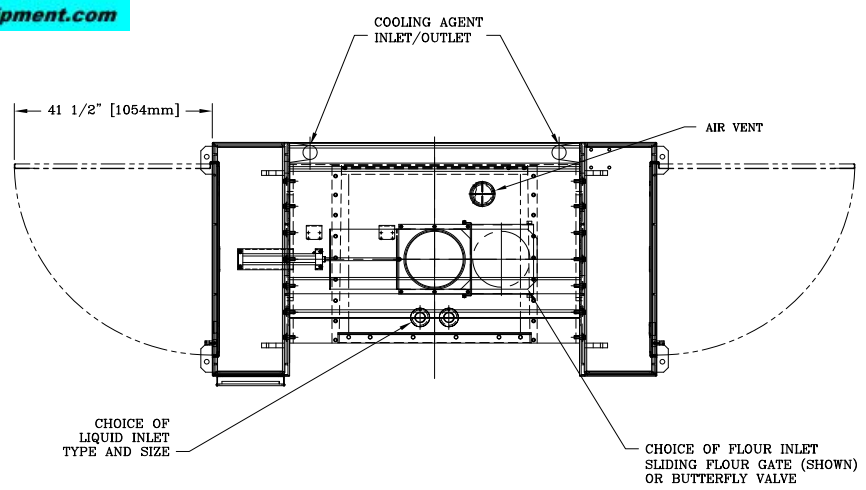
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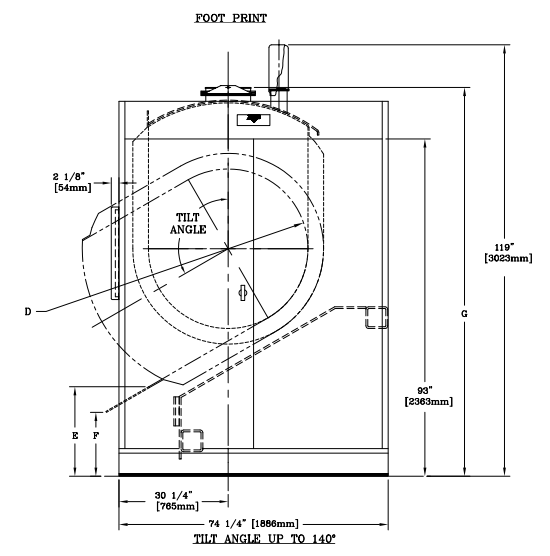
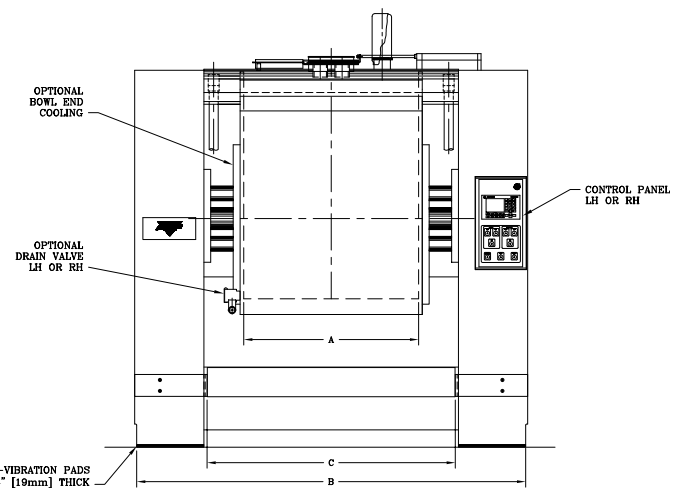
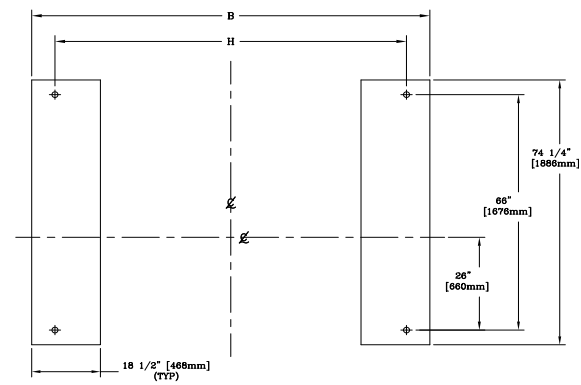
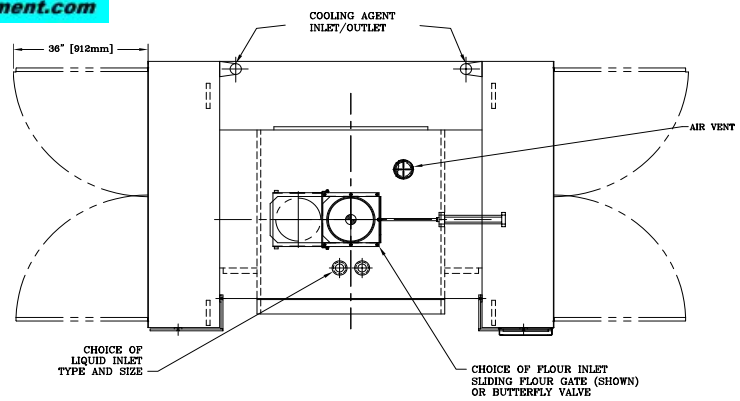
AMF's focus on continuous improvement may result in changes to machinery specifications without notice.



TBM		A Bowl Width	B Mixer Width	C Mixer Inside Width	D Bowl Radius	E Bowl Lip Height Versus Tilt Angle				F Bowl Lip Height Versus Tilt Angle with Optional Lip Extension ¹			G Anchor Holes
						90°	100°	110°	120°	100°	110°	120°	
800	in. mm	36 914	98 2489	60 3/4 1543	18 457	43 11/16 1110	38 9/16 979	34 1/8 867	30 1/2 775	38 15/16 989	32 1/2 826	24 9/16 624	95 1/2 2426
1000	in. mm	45 1143	107 2718	69 3/4 1772	18 457	43 11/16 1110	38 9/16 979	34 1/8 867	30 1/2 775	38 15/16 989	32 1/2 826	24 9/16 624	104 1/2 2654
1300	in. mm	47 1194	107 2718	69 3/4 1772	20 508	41 11/16 1059	36 9/16 929	32 1/4 819	28 13/16 732	36 15/16 938	30 7/16 773	22 3/8 568	104 1/2 2654

¹Optional lip extension length will vary based on tilt angle
 General note: All elevation subject to change according to mixer leg option





TBM		A Bowl Width	B Mixer Width	C Mixer Inside Width	D Bowl Radius	E Bowl Lip Height Versus Tilt Angle						F Bowl Lip Height Versus Tilt Angle with Optional Lip Extension ²			G ³ Flour Inlet Elevation	H Anchor Holes
						90°	100°	110°	120°	130° ¹	140° ¹	100°	110°	120°		
1600	in. mm	48 1219	106 3/4 2711	68 1/8 1730	22 559	40 3/8 1026	34 1/8 867	28 3/4 730	24 3/8 619	21 1/4 540	19 1/4 489	34 1/8 867	26 3/4 679	17 5/8 448	107 1/4 2724	94 1/4 2394
2000	in. mm	60 1524	118 3/4 3016	80 1/8 2035	22 559	40 3/8 1026	34 1/8 867	28 3/4 730	24 3/8 619	21 1/4 540	19 1/4 489	34 1/8 867	26 3/4 679	17 5/8 448	107 1/4 2724	106 1/4 2699
2400	in. mm	60 1524	118 3/4 3016	80 1/8 2035	23 584	39 1/2 1003	32 7/8 835	27 1/8 689	22 5/8 575	19 1/4 489	17 1/8 435	N/A	26 1/8 664	17 432	107 3/4 2737	106 1/4 2699
2800	in. mm	67 1702	125 3/4 3194	87 1/8 2213	23 584	39 1/2 1003	32 7/8 835	27 1/8 689	22 5/8 575	19 1/4 489	17 1/8 435	N/A	26 1/8 664	17 432	107 3/4 2737	113 1/4 2877
3200	in. mm	72 1829	130 3/4 3321	92 1/8 2340	23 584	39 1/2 1003	32 7/8 835	27 1/8 689	22 5/8 575	19 1/4 489	17 1/8 435	N/A	26 1/8 664	17 432	107 3/4 2737	118 1/4 3004

¹ With overtilt option selected

³ Add 5 1/2" (140mm) if butterfly valve is selected

² Optional lip extension length will vary based on tilt angle

General note: All elevation subject to change according to mixer leg option

