



MORSE 2-309 SERIES

SPECIFICATIONS SHEET

DOUBLE DRUM TUMBLERS

Mix inside closed drum.

No Mess, No contamination.

Mixing in a Closed Drum Means Fewer Hazards

Enjoy the benefits of mixing inside closed shipping drums. Eliminate worker exposure to dangerous ingredients, spills and risk of contamination. Mix right inside a sealed drum with a Morse Drum Tumbler™.

- Mix 1 or 2 Drums at a Time
- Thorough “corner-over-corner” mixing action
- Saves time, labor and money
- Use separate drum for each batch
- No container to purge between batches

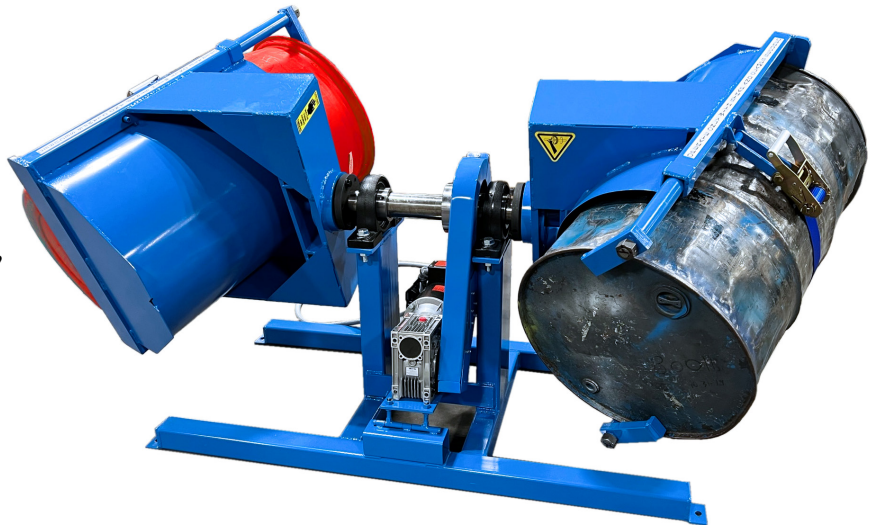
TUMBLE A CLOSED PLASTIC, STEEL OR FIBER DRUM

Mix products inside a drum:

- 29” to 37” (74 to 94 cm) tall
- 18” to 23.5” (46 to 60 cm) diameter

Capacity:

- 800 Lb. (363 kg) Full Drum
- 400 Lb. (181 kg) Half-Full Drum



Half-full Capacity is an indication of the capacity for tilting an unbalanced, bottom-heavy drum. A partially full drum with an unbalanced and shifting load is harder to tilt than a full drum.



Load an Upright Drum with Your Hoist or Crane

Open the hinged ratchet plate and two top clamps, then load a drum into the tumbler with model 92 Below-Hook Drum Lifter and hoist or crane, or with forklift, model 284 Fork Hook, and model 92 Below-Hook Drum Lifter (inset).



Secure Your Drum in Holder with Web Strap and Two Top Clamps

Secure the drum in the tumbler using the web strap and ratchet around the drum, and tightening the two top clamps. Then turn the motor on to begin drum tumbling.

Control Packages (sold separately)

Morse Control Packages include the Control Mast and the appropriate Control Box for each model. Use power controls to start and stop drum tumbling. Position the control mast outside the safety enclosure on either the left or right side, or at the back of Drum Tumbler.

Control Mast and AC Control Box for Model 2-309-1 NEMA 4/12 for NON-Hazardous Areas

Includes Control Mast and Control Box with:

- Fixed Drum Rotation Speed at 14 RPM
- Timer adjusts from a few seconds to 16 hours
- Start and Stop Buttons
- Red Emergency Stop Button
- Lockable Main Disconnect to shut off and lock out power to the unit
- Wire terminals for external connection of safety interlock switch



Control Mast and AC Control Box for Model 2-309-3 NEMA 4/12 for NON-Hazardous Areas

Includes Control Box with:

- Variable Speed Drum Rotation from 2 to 20 RPM
- Timer adjusts from a few seconds to 16 hours
- Start and Stop Buttons
- Red Emergency Stop Button
- Lockable Main Disconnect to shut off and lock out power to the unit
- Wire terminals for external connection of safety interlock switch



Control Mast and Explosion Proof AC Control Box NEMA 7/9 for Hazardous Areas

Includes Control Mast and Explosion-Proof Control Box with:

- Fixed Drum Rotation Speed at 14 RPM (12 RPM on 50Hz models)
- Start and Stop Buttons
- Run / Jog Selector Switch
- Wire terminals for external connection of safety interlock switch



Control Mast and Air Controls are Included with Model 2-309-A

Air Controls Include: Filter, Regulator and Lubricator (FRL), On / Off Valve

Air powered model requires plant air at 50 to 60 psi and flowing at a rate of 60 scfm. Air Powered Drum Tumbler (model 2-309-A) rotates a drum at 14 RPM and allows you to vary RPM with air flow and pressure. Sound level during operation is about 75 db.

Guard Enclosure Kits (sold separately)

Enclosures with Safety Interlock to Meet OSHA Requirements

Install all Morse Rotators in accordance with local requirements for enclosure and safety interlock, etc. One way to accomplish this is with a Morse enclosure with safety interlock, so the rotator automatically turns off when enclosure door is opened. Power connections and motor controls must also comply with applicable local codes.

For OSHA compliance in the USA, see OSHA subpart O.1910.212 (a)(4) "Barrels, containers, and drums. Revolving drums, barrels, and containers shall be guarded by an enclosure which is interlocked with the drive mechanism, so that the barrel, drum, or container cannot revolve unless the guard enclosure is in place."

Enclosure outside post-to-post dimensions: L76" x W52" x H63.25" (193 x 132 x 161 cm)

Double Drum Tumbler Models

MODEL	MOTOR STYLE	HP	PHASE	MOTOR VOLTAGE	HERTZ	AMP DRAW	DRUM RPM	CONTROL PACKAGE OPTION	GUARD ENCLOSURE KIT
2-309-1	TEFC	1.5	1	115	60	12.2	14	5996-P	GEK-2-309-1
				208		6.7		5997-P	
				230		6.1		5997-P	
2-309-3	Inverter-Duty	1.5	3	230/460	60	4.73	14 RPM or Add Morse Control Package for Variable Speed 2 to 20 RPM	CP-2-309-1-115 *	GEK-2-309-3
						4.73		CP-2-309-1-230 *	
						4.73		CP-2-309-3-230 *	
						2.26		CP-2-309-3-460 *	
2-309-E1	Explosion proof **	1.5	1	115/230	60	19	14	CP-2-309-E1-115 *	GEK-2-309-E1
						9.5		CP-2-309-E1-230 *	
2-309-E3	Explosion proof **	1.5	3	230	60	4.6	14	CP-2-309-E3-230 *	GEK-2-309-E3
				460		2.3		CP-2-309-E3-460 *	
2-309-A	Air Motor ***	-	-	-	-	-	14 Vary RPM with air flow & pressure	On/Off Air Valve, Filter, regulator, lubricator included with 2-309-A ***	GEK-2-309-A
MODELS FOR COUNTRIES WITH 50HZ POWER SUPPLY									
2-309-E1-50	Explosion proof **	1.5	1	110/220	50		12	CP-2-309-E1-220-50 *	GEK-2-309-E1
2-309-E3-50	Explosion proof **	1.5	3	230/400	50		12	CP-2-309-E3-230-50 *	GEK-2-309-E3
								CP-2-309-E3-400-50 *	

CRATES FOR EXPORT	
EXPORT CRATE OPTION	FULLY ENCLOSED CRATES FOR EXPORT - HEAT TREATED AND IPPC COMPLIANT
6712Xi-P	Crate to Export Drum Tumbler, Control Package and Guard Enclosure Kit

* ONLY NON-Explosion Proof AC Control Packages include a pre-wired control box. Models with explosion proof Control Packages have no wiring from the NEMA 7/9 control box to the motor. Please consult an electrician to complete the wiring in accordance to your local code.

** Explosion Proof motor on model 2-309-E1-50 is rated for Class 1 Group D. Other Explosion Proof motors are rated for Class I Group D, and Class II Groups F and G.

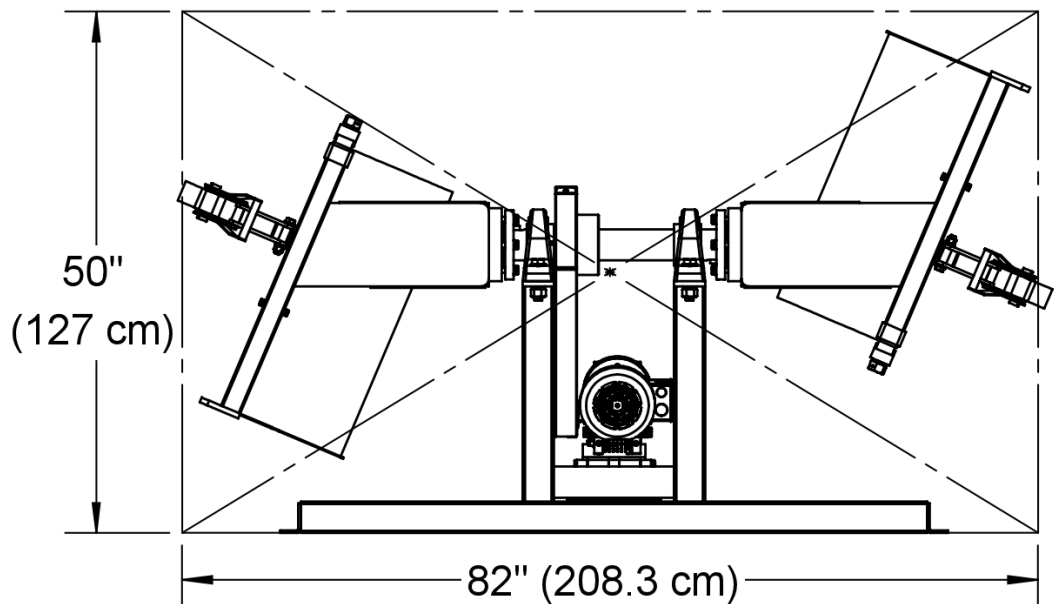
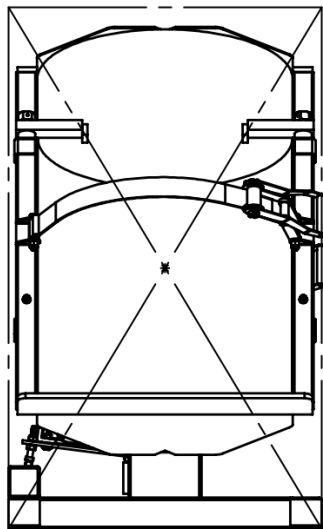
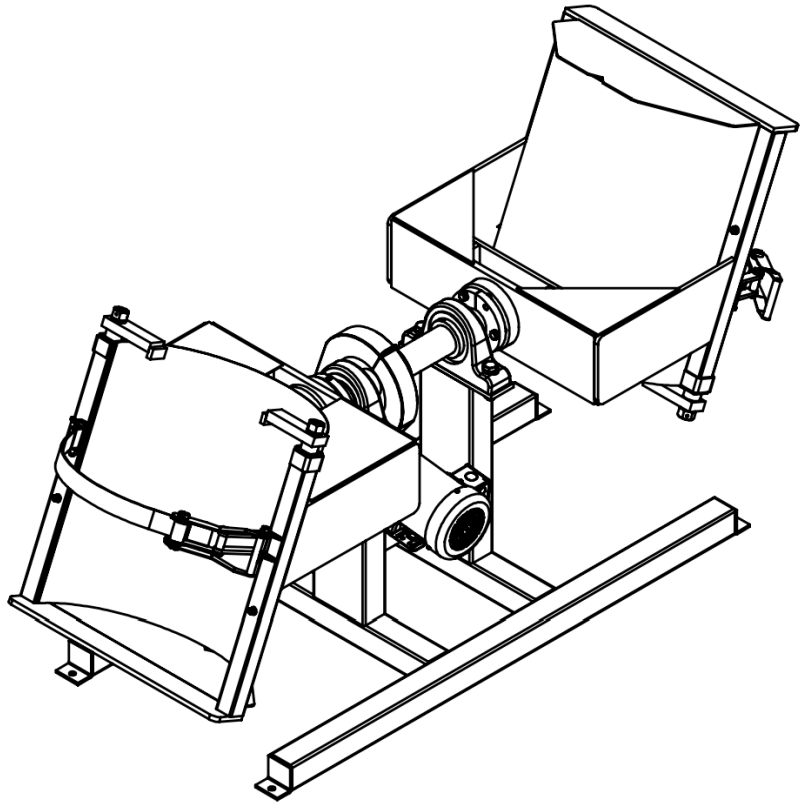
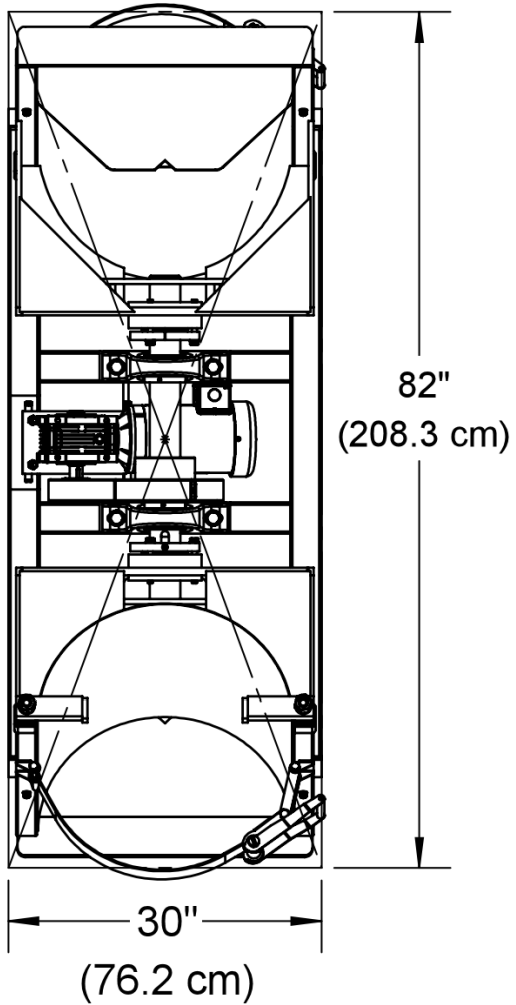
*** Air Controls included with model 2-309-A.



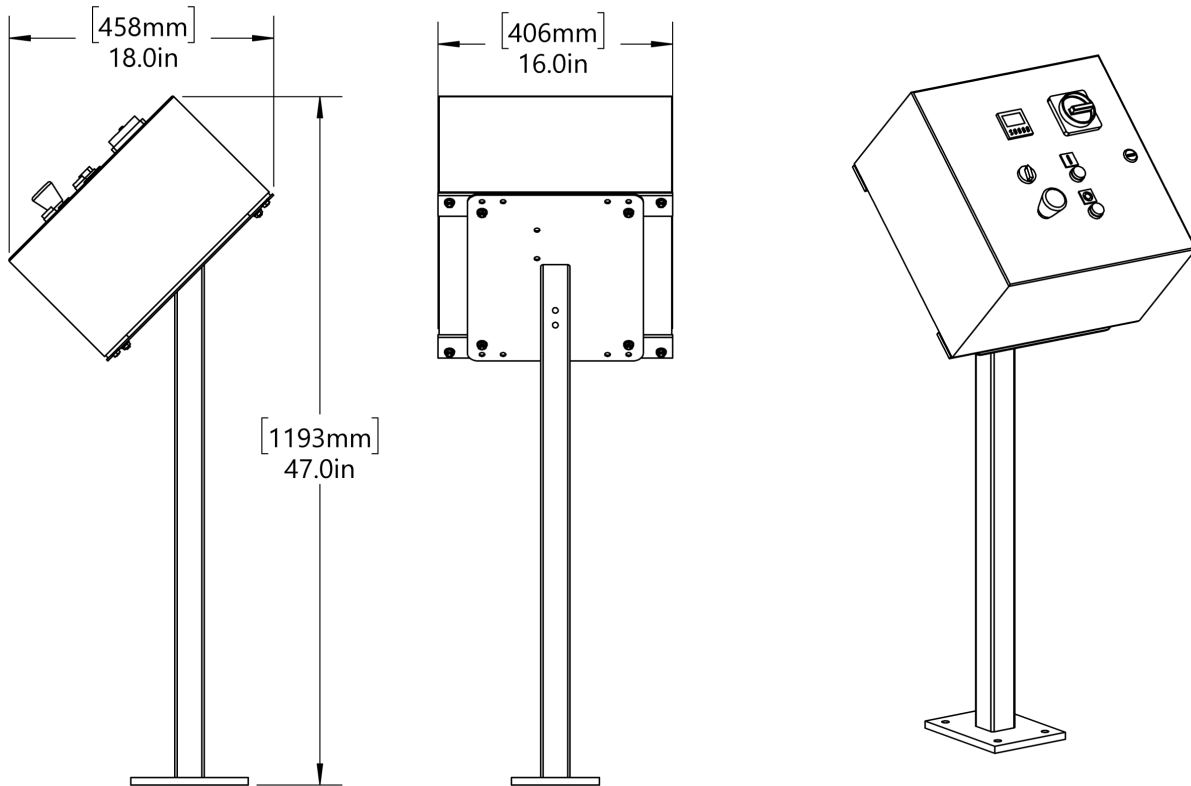
2-309 SERIES

Double Drum Tumblers

SPECIFICATIONS SHEET



Control Station Dimensions for NON-Hazardous Areas



Control Station Dimensions with Explosion-Proof Box for Hazardous Areas

