

- Thorough “corner-over-corner” mixing action
- Saves time, labor and money
 - Use a separate drum for each batch
 - No container to purge between batches
 - Common drums make economical vessels



MADE
IN
USA



Model # 309-3 Drum Tumbler™
shown with Control Package
Option # CP-309-3-230 (sold separately)



Model # 309-3 Drum Tumbler™



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shown with Control Package
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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.

Mixing in a Closed Drum Means Less 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™.

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 your hoist or crane.

Or with your 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 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 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

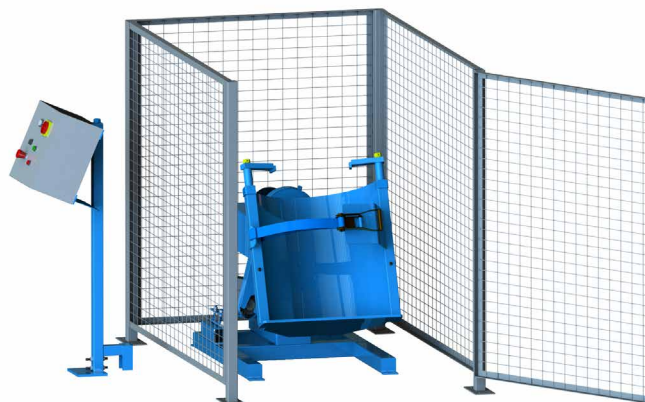
Includes Control Mast and Explosion-Proof Control Box with:

- 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



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)

Control Mast and Air Controls Included with Model 309-A

Air Controls Include

- Filter, Regulator and Lubricator (FRL)
- On / Off Valve



Drum Tumbler™ Model Numbers

Model #	Motor Style	HP	Phase	Motor Voltage	Hertz	Amp Draw	Drum RPM	Control Package Option #	Guard Enclosure Kit #
309-1	TEFC	1	1	115	60	12.8	14	5996-P	GEK-309-1
				208		7.0		5997-P	
				230		6.4		5997-P	
309-3	Inverter-Duty	1	3	230/460	60	2.8	14 RPM or Add Morse Control Package for Variable Speed 2 to 20 RPM	CP-309-1-115 *	GEK-309-3
						2.8		CP-309-1-230 *	
						2.8		CP-309-3-230 *	
						1.4		CP-309-3-460 *	
309-E1	Explosion proof **	1	1	115/230	60	13	14	CP-309-E1-115 *	GEK-309-E1
						6.5		CP-309-E1-230 *	
309-E3	Explosion proof **	1	3	208	60	3.1	14	CP-309-E3-208 *	GEK-309-E3
				230		3.0		CP-309-E3-230 *	
				460		1.5		CP-309-E3-460 *	
309-E3-575	Explosion proof **	1	3	575	60	1.2	14	CP-309-E3-575 *	GEK-309-E3
309-A	Air Motor ***	-	-	-	-	-	14 Vary RPM with air flow & pressure	On/Off Air Valve, Filter, regulator, lubricator included with 309-A ***	GEK-309-A
Models for Countries with 50Hz Power Supply									
309-E1-50	Explosion proof **	1	1	110/220	50	6.2	12	CP-309-E1-220-50 *	GEK-309-E1
309-E3-50	Explosion proof **	1	3	230/400	50	3.5	12	CP-309-E3-230-50 *	GEK-309-E3
						2.0		CP-309-E3-400-50 *	

* **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 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 309-A

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

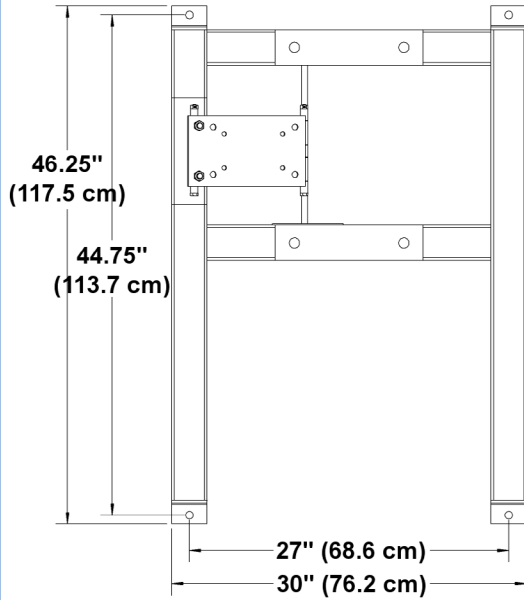
Air powered model requires plant air at 40 to 60 psi and flowing at a rate of 40 scfm. Air Powered Drum Tumbler (model 309-A) rotates a drum at 14 RPM and allows you to vary RPM with air flow and pressure. Sound level during operation is about 75 db.



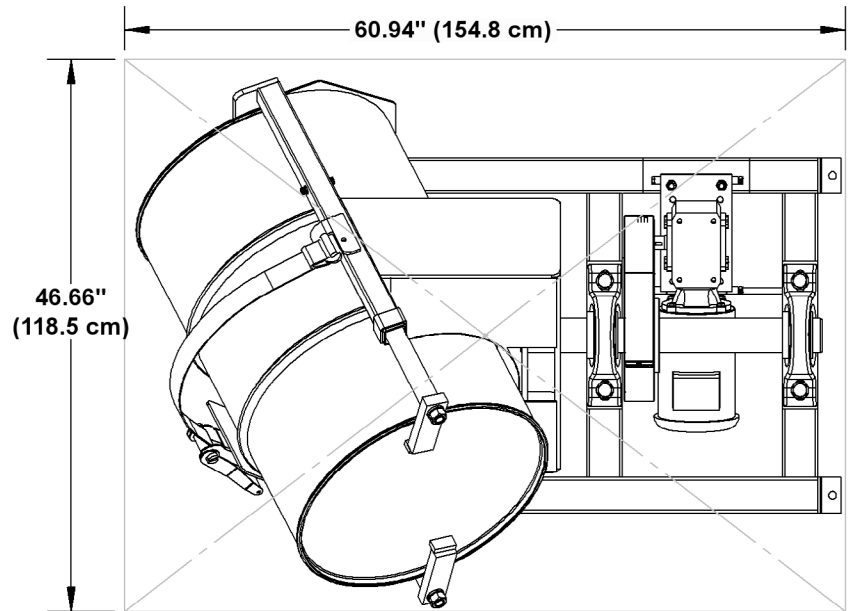
Crates for Export

Model #	Fully Enclosed Crates for Export - Heat Treated and IPPC Compliant
5979X-P	Export Drum Tumbler (with or without Control Package)
5980X-P	Export Drum Tumbler, Control Package and Guard Enclosure Kit

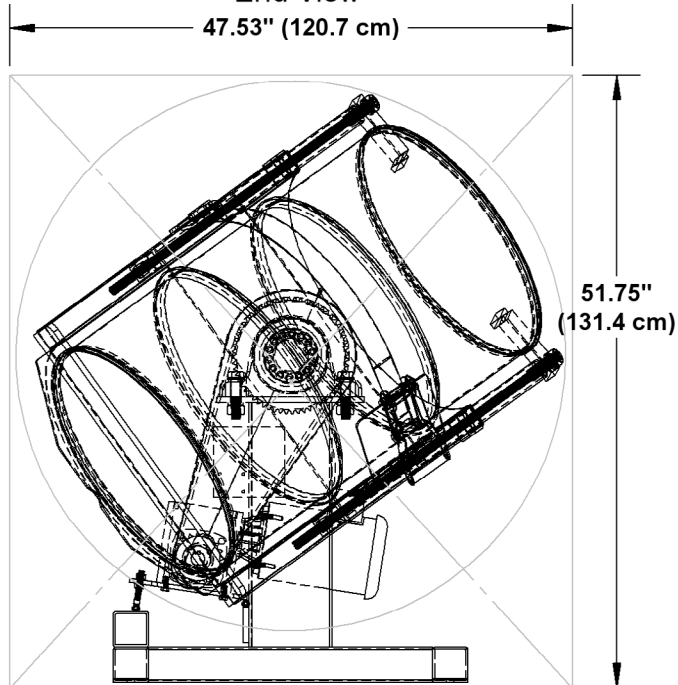
Base Dimensions



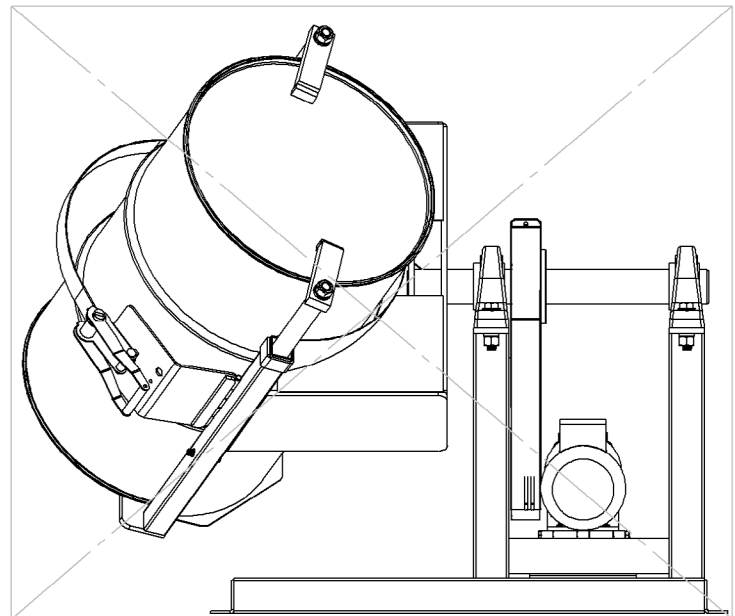
Top View



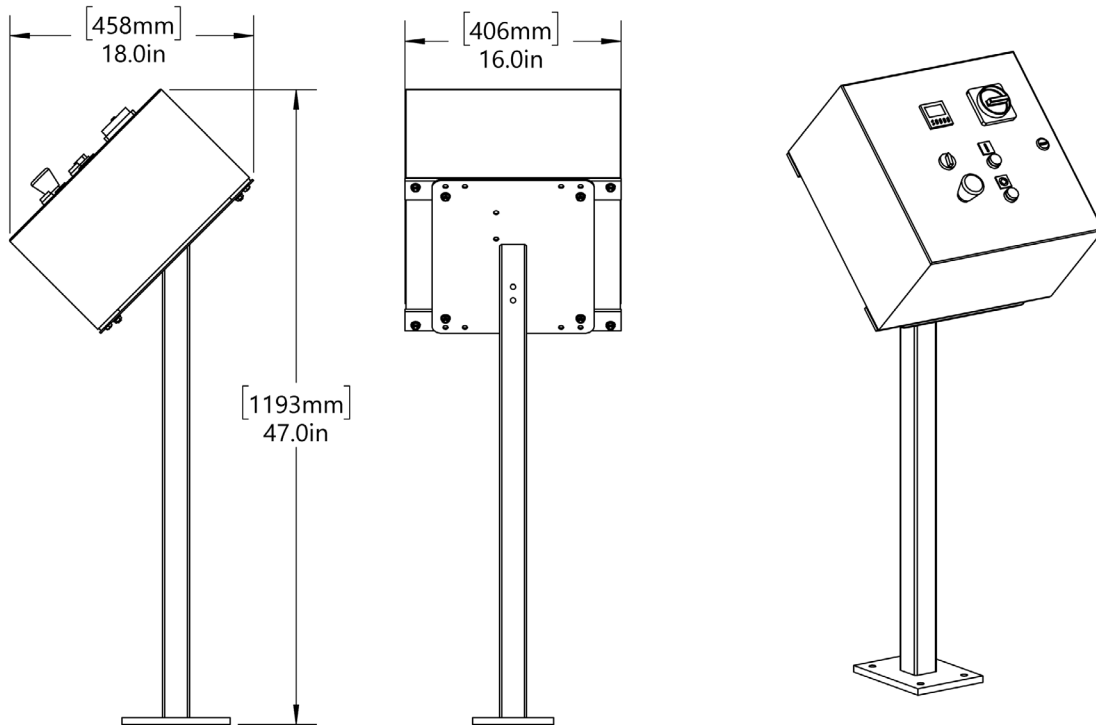
End View



Side View



Control Station Dimensions for NON-Hazardous Areas



Control Station Dimensions with Explosion-Proof Box for Hazardous Areas

