

MODEL **IMD 600 SERIES** CAPSULE GRANULIZER

FOR CAPSULES, PODS & PADS CONTAINING BOTH ESPRESSO & FRESH BREW COFFEE



WHY ARE GRIND SIZE & GRIND PROFILE INCREASINGLY CRITICAL WHILE BREWING ESPRESSO CAPSULES?

1. SPEED REQUIRES PERFORMANCE

As coffee extraction time decreases, say from 4-6 minutes for filter brewing, down to 20-40 seconds for espresso and capsules, the need for grind control and consistency increase exponentially.

2. SMALL CHANGES MAKE A BIG DIFFERENCE

Small alterations in average grind size (even 20 microns), significantly affect brew strength.

3. GRIND AND DENSITY CONSISTENCY IS KEY

- a. Consistent coffee grind allows for consistent brew quality and brew strength.
- b. Consistent density from start to finish ensures proper fill height and weights given the small, fixed package volume.
- c. Real-time feedback and controls are essential to guarantee consistency.

4. SPACE IS LIMITED

If volume is limited, density can increase brew strength. Density can also accommodate for coffee that has low bulk density. MPE's Vortex Densifier can achieve bulk densities in excess of 0.400 g/cc.

MODEL IMD 600 CAPSULE GRAN-U-LIZER

SPECIFICATIONS

- Roll Size:** 8 x 8 inches [203 x 203 mm]
- Sections:** Three (3) stacked grinding sections
- Power:** 3 - 10 HP [3.7-7.5 kW] per section/50 or 60 Hz
10 HP [7.5 kW] for the normalizer section
- Drawing(s):** Available upon request

ACCOMMODATES ALL GRIND SIZES

FILTER	ESPRESSO
PADS	CAPSULES
PODS	



Model	Grinding Sections	Normalizer	Approximate Capacity lbs/hr [kg/hr]			
IMD 600	3	Y	0	400 [181]	1,000 [453]	1,500 [680]
					Espresso	Filter
	ADCS	Densifier	Up to 350 g/Liter (Up to 20% density increase)			
	Vortex	Densifier	Up to 400 g/Liter (Up to 45% density increase)			

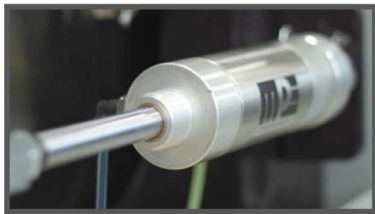
Traditional Grind Range [average size in microns]	
Espresso	200 - 450 microns
Filter	450 - 1,000 microns

FEATURES



GREATER CAPACITY & EFFICIENCIES WITH MODULAR GRINDING SECTIONS

Each modular grinding section is driven by its own high-efficiency **Independent Motor Drive (IMD)**, which allows for faster roll speeds and higher throughput than traditional serpentine belt designs. **HTD (High Torque Drive) Belts** and spring-loaded tensioners provide maintenance-free power transmission to the rolls at increased speeds (up to 3,000 RPM).



RUGGED DESIGN & CONSTRUCTION

Heavy-duty construction and oversized double spherical roller bearings provide a long service life, reduced vibrations and maintain tight tolerances under extreme conditions.



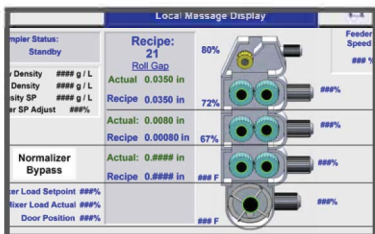
VORTEX DENSIFIER

Can achieve coffee density above 0.400 g/cc with consistent density output. The Vortex Densifier includes the ADCS (Automated Density Control System) Intelligent Density Cylinder that ensures consistent density from start to finish.

EASY CLEAN OUT FEATURES

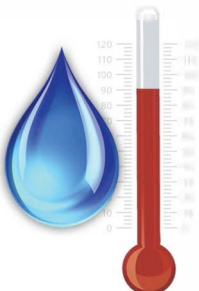
1. Internal vibrators to minimize coffee buildup during grinding.
2. Easy-clean normalizer/densifier cover with gas spring assist and no lifting requirements.
3. Air jet clean out system removes residual coffee from mixer basin and other accumulation zones during clean out.

Gas-Tight Construction (Optional)



AUTOMATED RECIPE-DRIVEN CONTROL SYSTEM WITH PRECISION SERVO GAP CONTROL

Unique pneumatic servomotor design and micrometer indicators on each grinding section provide easy, micro fine gap adjustments with accuracy of +/- 0.0005" (10 µm). The Recipe-Driven Control System monitors and controls all grind and density requirements.



WATER-COOLED ROLLS & COFFEE TEMPERATURE SYSTEMS

Maintaining low coffee temperatures throughout the grinding and normalizing (homogenizing) process **preserves the coffee volatile oils and aroma** and prevents a "second roast" or darkening of the coffee, during grinding. The 600 Series normalizer features veined water channels and the largest surface area in the industry for efficient heat transfer.