

Toronto Key Equipment List – Development Scale

Equipment (Features / Scale)		Capsules	Powders & Granules	Tablets
Blending	V-Blenders (142L/5 cu. Ft., with intensifier bar)	●	●	●
	Galley Tote Bins (113 – 1500)	●	●	●
Compounding	Jacketed Kettles (15 – 300L)			
	Mixers / Homogenizers			
Granulation	Roller Compactor (Gerteis, Vector TFC-220, mini-pactor/ macropactor)	●	●	●
	High Shear Granulator (PMA, 1 – 300 L)	●	●	●
	Milling (Quadro), Screening (Russell, Kason)	●	●	●
Drying	Fluid Bed Dryers / Granulators (Aeromatic S1, S2, S4)	●	●	●
Compression	Tablet Presses (Manesty monolayer Belopress – 16 stations, Korsch XH12 D tooling – B layer/Single layer – 18 stations, 10 station, 12 station D, 16 station B, Courtoy Modul S, microtableting) Picoola monolayer – 10 stations (B tooling)			●
	Bi-layer (11 station, 18 station D)			●
Coating	Tablet Coaters (12" – 36")			●
Encapsulation	Encapsulators (4)	●		
	Tamping, Dosing	●		
Packaging	Blistering	●		●
	Bottles	●	●	●
	Bulk	●		●

Toronto Key Equipment List – Commercial Scale

Equipment (Features / Scale)		Capsules	Powders & Granules	Tablets
Blending	V-Blender (1 – 142 L, V-5) maximum with intensifier bar	●	●	●
	Galley Tote Bin (113 – 1500 L)	●	●	●
Granulation	Roller Compactor (Gerteis Macropactor C) Gerteis Minipactor/ Macropactor	●		●
	High Shear Granulator (PMA: 65, 300, 400, 800, 1200)	●	●	●
	Top Spray Granulation (S4, S6, MP7)	●	●	●
	Milling (Quadro, Fitzpatrick), Screening (Russell, Kason, Flex sift)	●	●	●
Drying	Fluid Bed Dryer/Granulator (Aeromatic S2, S4, S6, MP6, MP7)	●	●	●
Compression	Tablet Press (Korsch x2, 29D-35B, Courtoy x2)			●
Coating	Tablet Coater (24" – 60")			●
Encapsulation	Encapsulators (3) Gerteis Minipactor/Macropactor	●		
	Tamping	●		
Packaging + Serialization Certon and bottle label serialization	Blistering (thermo form and cold form)	●		●
	Bottles	●	●	●
	Bulk	●	●	●

* For detailed equipment information please contact your Thermo Fisher Scientific representative.

* Minimum and maximum batch sizes are not necessarily related to scale, batch size requirements are dependent on the project details.