

Texas A&M AgriLife Research
Invitation To Bid #AG-RSCH-ITB-1326
Bid Specifications

Grinding Mill, to be used for dry biomass sample grinding. The mill must be functionally equal to or better than a Thomas Scientific Model 4 Wiley® Mill with the following specifications:

Specifications:

Milling Chamber Diameter:	6"-8"
Sample Input Diameter:	2"-3"
Sample Volume:	50 to 1000 grams
Milling Speed:	similar to 800 rpm at 60 Hz or 667 rpm at 50 Hz
Hopper Dimensions:	3"-5" top internal diameter 2"-3" throat internal diameter
Overall Dimensions:	maximum: 22x26x49" (WxDxH)
Moving parts:	totally enclosed, all steel construction

Shearing Action:	4 minimum adjustable hard tool steel knives bolted to removable rotor
Grinding Chamber:	Steel chamber measures 170-200 mm inside diameter x 70-80 mm deep. Hinged, heavy steel plate door for full access to chamber for cleaning
Knives:	Inlaid edges must be formulated steel, tempered and hardened. Knife body should absorb shocks
Hopper:	Steel hopper with enameled exterior finish mounted to top of grinding chamber. Capacity approx. 550-700 ml. with lid. Sliding stainless steel plate must control feeding rate.
Sieves:	316 stainless steel, curved round-hole screens fit against top of delivery chute block so that samples cannot enter chute without passing through screen. Chute block must release for sieve interchanging.
Receivers:	Adapter chutes must be able to slide into secondary glass or paper container to collect product. Minimum two chutes included and interchangeable without opening door.
Jar Chute:	Threaded to take standard Mason glass jars up to 2 qt capacity
Beaker Chute:	Similar to 105 mm i.d. x 146 mm deep without spout. Spring-loaded runners hold containers securely against adapter plate to prevent sample loss while removing container.
Drive Unit:	Mounted in enameled steel housing directly behind the grinding chamber. Motor must be minimum 1 hp, continuous duty, enclosed ball-bearing type, equipped with thermal, overload cutout and no lubrication and maintenance for years. Safety switch must prevent operation when chamber open. Rotor speed must be similar to 800 rpm at 60 Hz and 667 rpm at 50 Hz