

World Coffee Events

Coffee Grinder Testing and Evaluation

2017

Introduction

The purpose of coffee grinder testing is to ascertain that candidate coffee grinders meet minimum performance criteria and to qualitatively assess candidates' use as competition coffee grinders within the system of world, national, and regional competitions. This document provides information related to the type of machine being solicited for WCE use, installation in the testing environment, required manufacturer support during the tests, and information about the tests themselves. An ad-hoc committee convened by the WCE Board of Directors performs this testing.

Manufacturer Requirements and Responsibilities

Installation

Manufacturers will provide 3 testing machines of the same model with identical burr sets in each for evaluation.

The manufacturer is responsible for installing the coffee grinder prior to the tests, and ensuring that the grinder performs to the manufacturer's satisfaction.

Operation, Maintenance, and Repair

The manufacturer is responsible for maintenance and repair of its grinder during the tests.

Machine Removal

The manufacturer is responsible for removal of the grinder after testing is concluded.

Access to Burr Chamber

The manufacturer's designated service personnel shall provide access to the burr chamber of the grinder as requested by members of the testing committee.

Electrical

The electrical supply at the test site is 230V 50Hz and grinders must be capable of operating using this power source.

Coffee Grinder Requirements

1. A coffee grinder should be an electro-mechanically driven device capable of the even comminution of roasted coffee.
2. Grind setting adjustment can be by mechanical or electrical means and must be easily accessible.
3. When set for a nominal "auto-drip" setting, grind distribution will have less than 17% (by weight) of the grinds above 1168 μm in size, at least 65% of grinds falling between 589-1198 μm , and 18% or less being smaller than 589 μm .

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Testing and Evaluation

Ability to Produce Acceptable Grind Distribution

Grind distribution will be assessed using lab equipment from Hosokawa Alpine (eLS 200)., Grind distribution tests will be made using the Swiss method. For this, 25 gram coffee samples are tested individually per sieve and are run at 3000 pascals for three (3) minutes. This method will elucidate the ability of the grinder to meet the above stated grind distribution and determine if distribution meets requirements for fines minimum (18% > smaller than 589 µm).

Ability to Produce Coffee that can be Brewed to Acceptable Distribution

Using SCAA/SCAE Gold Cup standards, ground coffee will be brewed on a Fetco Extractor (or similar batch brewer) and analysed using a refractometer to ensure an extraction between 18 – 23%.

Disqualification during Qualitative Testing

The testing committee may disqualify a coffee grinder that exhibits significant technical issues that would, in the opinion of the testing committee, make the coffee grinder a poor choice for WCE competitions use. Such issues might include, but are not limited to, defective beverage quality, as well as any safety or usability issues not detected in quantitative testing.

Ranking of Results

All coffee grinders passing the quantitative requirements and not disqualified during qualitative testing are eligible for WCE sponsorship consideration. The score applied during qualitative testing will be used to rank eligible grinders for desirability as the next WCE competition coffee grinder. This ranking is the opinion of the testing committee as to the fitness for competition use and does not select the next WCE competition coffee grinder.

Confidentiality of Results

Results may be discussed among members of the testing committee, but they may not be discussed publicly. Manufacturers are entitled to a copy of their respective results only and they are free to discuss them publicly.