Task:

**Application field:** Environment

**Material:** Wood, Branches with beechnuts

**Feed size:** 5-40 mm

**Feed quantity:** 50 g

**Material specification(s):** fibrous, dry

**Customer requirement(s):** approx. 4 - 8 mm as preparation for fine-grinding in ZM 200

**Final fineness approx. < 1 mm**

**Subsequent analysis:** Heavy Metal Analysis, Aqua Regia Method

Solution:

**Selected instrument(s):** Cutting Mill SM 300

**Configuration(s):**
- Parallel section rotor SM 300, stainless steel;
- Bottom sieve round holes 4 mm, stainless steel (**Test 1**);
- Bottom sieve trapezoid holes 0.5 mm, stainless steel (**Test 2**);
- Standard hopper

**Parameter(s):**
- **Test 1:** Revolution speed 1500 rpm
- **Test 2:** Revolution speed 3000 rpm

**Time:** 30 s

**Achieved result(s):**
- **Test 1:** approx. 4 mm
- **Test 2:** predominantly < 1 mm
Remark(s):

Test 1:
With a 4 mm bottom sieve the sample could be pre-ground for a fine-grinding step in the ZM 200 of the customer.

Test 2:
Grinding of both samples in our Cutting Mill SM 300 with a bottom sieve 0.5 mm in order to achieve the required fineness without the second machine for fine grinding.

Recommendation: For grinding wood our Cutting Mill SM 300 is suitable under the above mentioned conditions.

Pictures of the sample

Fig. 1: Wood before grinding

Fig. 2: Wood after grinding in SM 300, sieve 0.5 mm

Fig. 3: Branches with beechnuts before grinding

Fig. 4: Branches with beechnuts after grinding in SM 300, sieve 0.5 mm