Task:

Application field: Agriculture

Material: Vegetal Fibres, hemp

Feed size: 100-150 mm (length of fibres)

Feed quantity: 500 ml (per sample)

Material specification(s): fibrous, bulky

Customer requirement(s): < 10 - 20 mm

Subsequent analysis: Manual fabrication of paper

Solution:

Selected instrument(s): Cutting Mill SM 100

Configuration(s): Bottom sieve square holes 20 mm, stainless steel; Standard hopper

Parameter(s): Revolution speed approx. 1500 rpm

Time: 5 min. (per sample)

Achieved result(s): length of fibres < 15 mm, defibrated

Remark(s): Fibres longer than 200 mm should be shortened before grinding, down to 150 mm, because otherwise the material will be drawn into the machine too fast, so that the rotor can block.

Recommendation: For pre cutting of different fibres material, the Cutting Mill SM 100 is suitable under the above mentioned conditions.
Pictures of the sample

Fig. 1: Original fibres of “Abaca”

Fig. 2: After pre cutting in SM 100 bottom sieve 20 mm