

CYCLONE MILL TWISTER



The cyclone mill TWISTER is specially designed for the processing of foods and feeds for subsequent NIR analysis. The optimized form of rotor and grinding chamber generates an air jet which carries the ground sample through the **integrated cyclone** into the sample bottle. The air jet prevents the material from heating up, thus **preserving the moisture content**.

The provided sieves guarantee an optimum particle size distribution so that it is not necessary to recalibrate the NIR spectrometer. The rotor speed can be adjusted in 3 steps allowing for perfect adaptation to the sample requirements. **Cleaning the mill is quick and easy** as the air jet effects a complete discharge of the material from the grinding chamber.

This new cyclone mill in proven RETSCH quality optimizes the **reproducible sample preparation** to NIR analysis thus allowing for meaningful and reliable analysis results.

APPLICATION EXAMPLES

cereals, corn, feed pellets, forage, pasta, pharmaceutical products, rice, soy, tobacco, ...

PRODUCT ADVANTAGES

- | ideal for grinding feeds, grains, forage and other similar products
- | 3 controlled speeds
- | cyclone separator with 250 ml collecting bottle for quick extraction of sample
- | no cross contamination thanks to easy cleaning
- | convenient operating panel
- | robust industrial motor 900 W with long lifetime

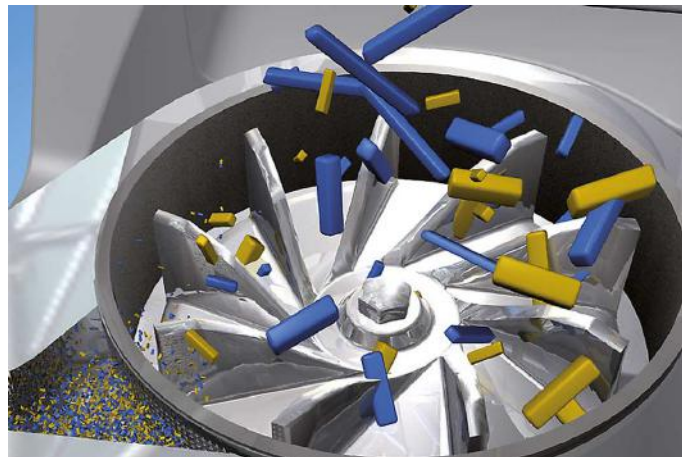
FEATURES

Applications	grinding prior to NIR analysis
Field of application	agriculture, foods / feeds, medicine / pharmaceuticals
Feed material	fibrous, soft
Size reduction principle	impact, friction
Material feed size*	< 10 mm
Final fineness*	< 250 µm
Batch size / feed quantity*	< 250 ml
Speed setting	10,000 / 12,000 / 14,000 min ⁻¹
Rotor peripheral speed	52 / 62 / 72 m/s
Rotor diameter	98.5 mm
Sieve sizes	1 mm / 2 mm
Drive	series-characteristic motor
Drive power	900 W
Electrical supply data	different voltages
Power connection	1-phase
W x H x D closed	449 x 427 x 283 mm
Net weight	14 kg
Standards	CE

*depending on feed material and instrument configuration/settings

FUNCTIONAL PRINCIPLE

In the cyclone mill TWISTER size reduction is effected by **impact and friction** between the rotor and the friction surface of the fixed grinding ring. The feed material passes through the hopper (with splash-back protection) onto the rotor which is rotating with high speed and is thus submitted to preliminary size reduction. The sample is then thrown outwards by centrifugal acceleration and is pulverized between rotor and grinding ring. The **2-step grinding** ensures particularly **gentle but fast processing**. The feed material only remains in the grinding chamber for a very short time. The integrated cyclone provides cooling of the sample and the grinding tools. This guarantees preservation of the sample properties to be determined. The ground material is separated in the cyclone and collected in a sample bottle.



www.retsch.com/twister