TWISTER – Reproducible Sample Preparation to NIR Analysis

The Cyclone Mill TWISTER was specially designed for the processing of food and feeds for subsequent NIR (Near Infrared Spectroscopy) analysis. It quickly and gently pulverizes fibrous and soft materials by impact and friction to the required analytical fineness and is virtually self-cleaning.

The high speed and the optimized geometry of rotor and grinding chamber generate an air stream which carries the sample through the integrated cyclone into the sample bottle. The cyclone provides cooling of the sample and the grinding tools and due to its efficient extraction of the sample from the grinding chamber, avoids cross-contamination. This prevents loss of moisture and thermal degradation and ensures preservation of the sample properties to be determined. The ground material is separated in the cyclone and collected in a 250 ml sample bottle for full recovery.

With the optional connection of an industrial vacuum cleaner, the TWISTER is virtually self-cleaning.

10 mm ▽ 250 μm*

Ideal for Feeds and Grains

Cyclone Mill TWISTER

Benefits

- 3 controlled speeds
- No cross-contamination thanks to easy cleaning
- Ideal for grinding feeds, grains, forage and similar products
- Convenient operating panel
- Professional industrial design ensures long lifetime
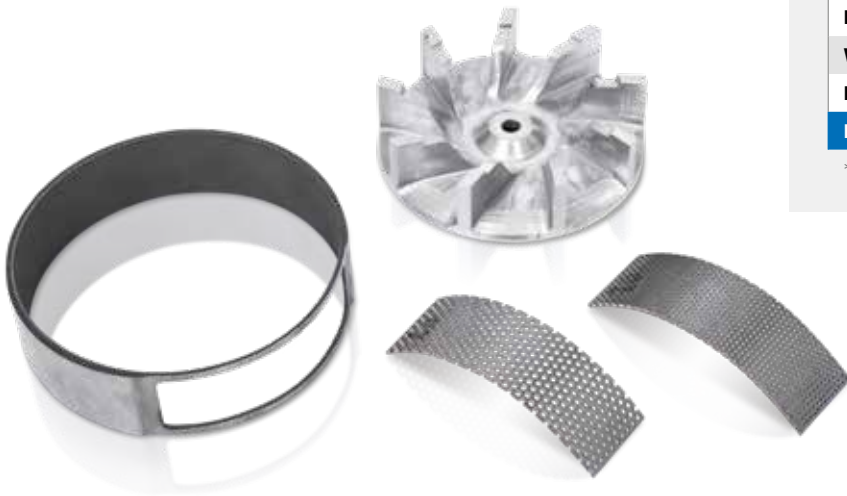
Video on www.retsch.com/twister

Accessories and Options

The Cyclone Mill TWISTER is supplied with the following components:

- Aluminum rotor
- Stainless steel grinding ring with CrWFe coating
- Two stainless steel sieve inserts (1 mm and 2 mm)
- Adapter for connection of vacuum cleaner
- Cyclone with filter bag and ten 250 ml sample bottles

Other accessories:

- Sieve insert 0.5 mm and 0.8 mm
- Industrial vacuum cleaner

TWISTER at a Glance

Model	Cyclone Mill
	TWISTER

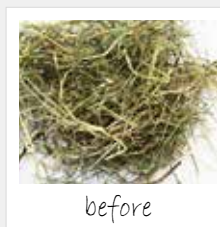| Application	sample preparation to NIR analysis
Fields of application	agriculture food & feeds, medicine/ pharmaceuticals
Feed material	fibrous, soft

Performance data

Feed size*	< 10 mm
Final fineness*	$d_{90} < 250$ µm
Batch size/sample volume*	< 250 ml
Speed	10,000 / 12,000 / 14,000 min^{-1}
Rotor peripheral speed	52 / 62 / 93 m/s
Connection for vacuum cleaner	✓

Technical data

Drive power	900 W
W x H x D	449 x 427 x 283 mm
Net weight	approx. 14 kg
More information on	www.retsch.com/twister

*depending on feed material and instrument configuration

Typical Sample Materials

The Cyclone Mill TWISTER is perfectly suitable for grinding samples such as feed, grain, pharmaceutical products, tobacco, etc.

before

after

Application example: Hay