



## 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.

## 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

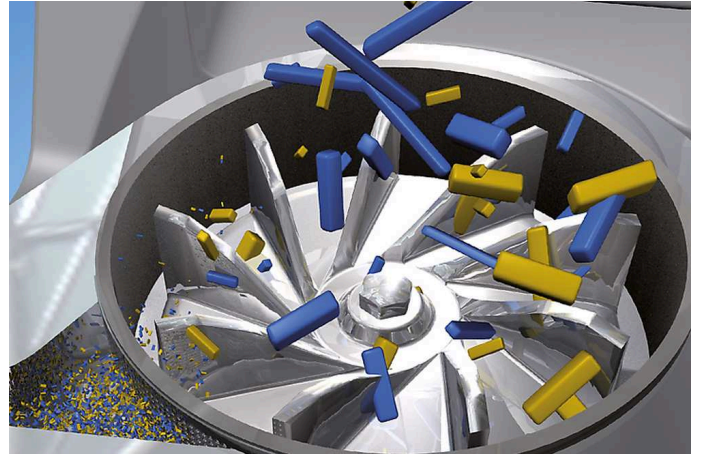
## APPLICATION EXAMPLES

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

To find the best solution for your sample preparation task, visit our application database.

## 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.



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## TECHNICAL DATA

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


\*depending on feed material and instrument configuration/settings


[www.retsch.com/twister](http://www.retsch.com/twister)

## ORDER DATA

### CYCLONE MILL TWISTER


**Cyclone Mill TWISTER complete with rotor, grinding ring, sieve section (1.0 mm and 2.0 mm), wooden plunger and 10 sample bottles 250 ml**


20.831.0001  TWISTER 220–240 V, 50/60 Hz

20.831.0002  TWISTER 100–120 V, 50/60 Hz


### ACCESSORIES CYCLONE MILL TWISTER

#### SIEVE SECTIONS TWISTER


03.647.0366  Sieve section 0.5 mm, stainless steel


03.647.0367  Sieve section 0.8 mm, stainless steel

03.647.0368  Sieve section 1.0 mm, stainless steel

03.647.0369  Sieve section 2.0 mm, stainless steel

#### ADDITIONAL ITEMS TWISTER


03.614.0011  Grinding ring, stainless steel with CrWFe coating

03.608.0110  TWISTER rotor, aluminum

22.355.0008  Cassette, incl. rotor, grinding ring, sieve section 1.0 mm and 2.0 mm

03.725.0035  Wooden plunger

02.186.0004  Filter bag for cyclone

22.523.0001  Sample bottles, 250 ml, 10 pieces

22.523.0006 Sample bottles, 250 ml, 50 pieces

22.748.0005 Industrial vacuum cleaner for mills, 230 V, 50/60 Hz  
(other electrical versions and spare filter bags available upon request)