

## Modern equipment and instruments for Grain Quality Measurement laboratories Made in Ukraine

## Laboratory Mill LM-7020

- Qualitative sample preparation of cereals, oilseeds and processed products before analysis
- Connectable water cooling
- 6 levels of knife rotation speed
- Closed grinding chamber
- Adjustable grinding size





### Homogeneous grinding

without heating and loss of moisture

Closed grinding chamber and water cooling make it possible to produce a quality grinding of the product with a moisture content up to 20% and an oil content up to 55%. The size of the grind is controlled by the speed of rotation of the knife and the grinding time.



### Water cooling

improves the quality of grinding

When the water cooling of the mill is connected, the quality of grinding of the product is noticeably improved. The heating of the sample decreases, as a result of which the release of moisture and oil during grinding decreases.

Water cooling of the grinding chamber allows continuous grinding of oilseeds and solid products.



### **Manufacturer's Warranty**

The LM-7020 mill is designed to provide laboratories in the agroindustrial sector a reliable tool for sample preparation of the product before laboratory analysis.

Since 1998, we have been developing, supplying and repairing instruments and equipment used in grain quality control laboratories. The experience we received during this time we used to create a Mill, that meets high standards of quality.

LM-7020 is a grinding machine, which will not fail at the crucial moment.



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### Multipurpose

2 types of knifes

With the easily replaceable knifes you can perform homogenous grinding of different products. Use sharpened knife for cereals, beans, oilseeds or use cross type knife for crushing solid materials like feed, cake, meal, pelleted or pressed products.



#### Motor

1 kW with overload protection

A powerful engine with a variable speed of rotation from 5000 to 25000 rpm has a sufficient supply of power to grind the most solid and oily products. Overload protection will keep your mill safe if stones, rubble or other litter get in the chamber.









# LM-7020 with connectable water cooling

# LABORATORY KNIFE MILL

### **BASIC APPLICATION**

The Mill can be used in laboratories engaged in the assessment of the quality of agricultural crops and products of their processing, in bread making, milling and grain processing companies, feed factories, and oil and fat industry.

It is intended for grinding samples of cereals, legumes, oil crops, fodder and raw materials before processign with their analysis using NIR spectroscopy and the laboratory method of analysis on moisture content.

### PRINCIPLE OF WORK

The principle of the mill operation is based on the grinding of the product with a rotating with high speed knife.

For the uniform grinding, as well as the comfort of loading and unloading the sample, the grinding chamber can rotate in 200 degrees.

For quality grinding, depending on the type of product, the mill allows the installation of different types of knives and the choice of speed in the range of 5000 to 25000 rpm.

The grinding time can be set in the range of 5 to 60 seconds using a build in timer.

The desired grinding size can be set by adjusting the grinding time and the speed rotation of the knives.

The connecting water cooling of the grinding chamber allows continuous grinding of the product without heating, oil extraction from sample, loss of moisture and overheating of the motor.

It is possible to connect the mill to tap or to the autonomous water cooling tower.

### **MOTOR**

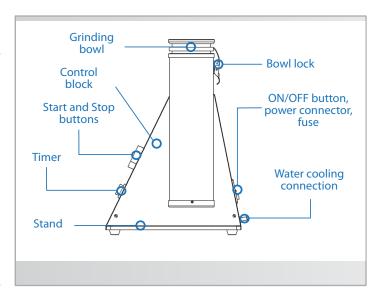
A 1 kW motor with electronic overload protection provides a sufficient power supply which is enough for grinding crops with a high oil content, like soybean, sunflower, rapeseed, and other products of grain production like feed, meals, cake, which have solid or granular structure.

Overload protection will save your mill if you get stones, rubble or other debris into the grinding chamber.

### WATER COOLING

The water cooling of the mill allows for continuous grinding of seeds and solid products with oil content up to 55% and moisture content up to 20%.

Water cooling of the grinding chamber improves the grinding quality of the sample, greatly reduces the heating, oiling and sticking of the grinded sample to the walls of the milling chamber.



TECHNICAL SPECIFICATIONS	
Power consumption, W	1000
Overload protection	Electrical
Time of activation of the overload protection, sec	2
Operating mode	Continuous
Power supply	50 Hz, 220V
Volume of grinding bowl, ml	250
Maximum amount of the grinded product, kg / h	1,6
Weight of the sample for grinding, g	25-70
The time of grinding, sec	5-60
Knife rotation speed, rpm	5000-25000
Number of knife rotation speeds	6
Water cooling	Connectable
Dimensions (WxHxD), mm, not more	340x250x325
Weight, kg, not more	12

