

# HARDNESS TESTER HERCULES

For testing the hardness of different pellets



↑ Illustration: Hercules XL

With the hardness tester it is possible to check the hardness of a wide range of pellets for all industries. The device is equipped with a receptacle for the pellet to be tested and a cone. The cone presses on the pellet until an indentation or crack is visible on the pellet.

As an instrument in quality assurance, the hardness tester enables the quality of produced pellets to be determined. An average value can be calculated from the measured data, which allows conclusions to be drawn about the production process.

## Technical Data

### Hercules M

K3175-0000	Value	Unit
Weight	1.0	kg

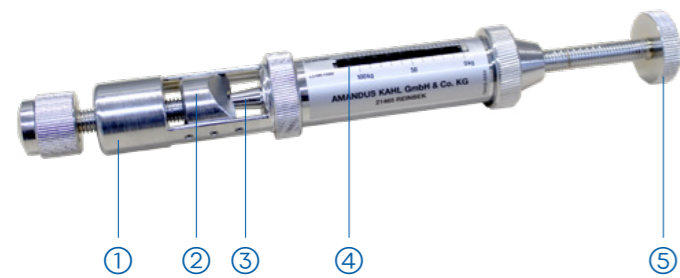
### Hercules L

K3175-0011	Value	Unit
Weight	3.7	kg
Operating voltage	230	V
Frequency	50	Hz
Emission sound pressure level	≤ 70	dB(A)

### Hercules XL

K3175-0020	Value	Unit
Weight (with carrying case)	11	kg
Operating voltage	230	V
Frequency	50	Hz
Emission sound pressure level	≤ 70	dB(A)

# THREE OPTIONS FOR USE IN ALL AREAS



## Hercules M

In the basic version, the hardness tester is operated mechanically. The break value obtained can be read on the scale of the device.

- 1 Tensioning screw
- 2 Anvil
- 3 Cone
- 4 Graduated cylinder with spring
- 5 Pressure screw



## Hercules L

The cone is driven electrically. The break value obtained can be read on the scale of the device.

- 1 Tensioning screw
- 2 Anvil
- 3 Cone
- 4 Graduated cylinder with spring
- 5 Button for forward motion
- 6 Button for backward motion
- 7 Connection of the power supply unit

## Hercules XL

The cone is driven electrically. The device enables test series that can be started and stopped via the integrated touch panel. Via the integrated Ethernet interface, the measured data can be transmitted to a computer for evaluation.

- 1 Case
- 2 Case of the feed unit
- 3 Protective cover
- 4 Sample holder
- 5 Operator panel



# WHICH HARDNESS SHOULD PELLETS HAVE?

## Comparative values for pellet hardness

Product	Newton (N)	KAHL hardness (KH)
Dogfood	177.4	24.9
Wood	175.8	24.7
Wallpaper residues	61.7	10.2
Pea meal	98.8	15.4
Oat hulls	28.7	5.0
Beet pulp	1096.9	148.6
Sunflower seed hulls	116.7	17.8

The pellet hardness depends on many factors during the production process. Among other things, the properties of the input product, the supply of steam and liquid quantities as well as the condition of the production line must be taken into account.

The specified values were measured in the KAHL pilot plant using the hardness tester and are given for guidance.



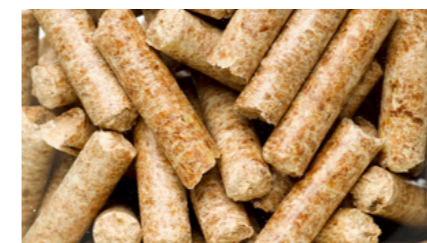
↑ Pig feed pellets



↑ Fertiliser pellets



↑ Grass-cutting pellets



↑ Pine wood pellets



↑ Oak wood pellets



↑ Sugar mix pellets



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