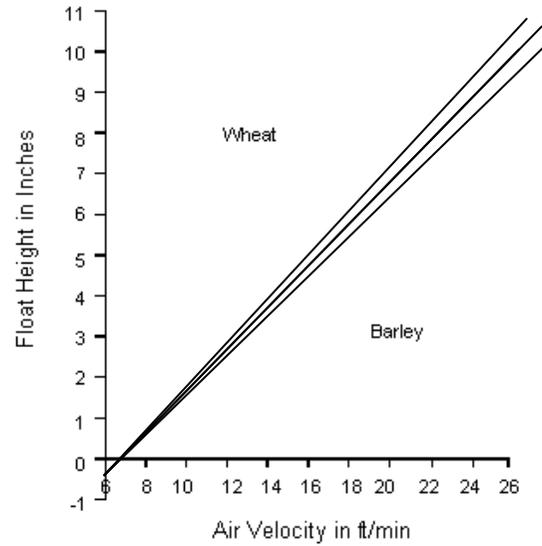


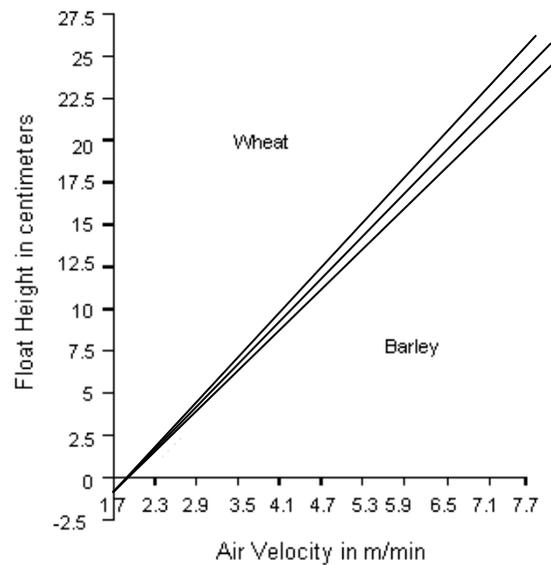
Casella Crop Airflow Meter

User Instructions

AIRFLOW METER CALIBRATION ON WHEAT AND BARLEY



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Martin Lishman

Unit 2B Roman Bank, Bourne, Lincolnshire, PE10 9LQ

Tel: 01778 426600 Fax: 01778 426555

Website: www.martinlishman.com

E-mail: sales@martinlishman.com

1. Introduction

Ventilated grain ensures that the moisture content of the stored grain is kept within a safe limit by the steady flow of air through the grain. The Casella Airflow Meter for grain is an essential instrument for the successful storage of grain in bulk. It is used during the drying of grain USING BLOWING FANS to confirm that there is an adequate flow of air from the surface of the grain.

2. Principle of operation

A lightweight float made from a thin aluminium disc, moves up and down a tapered transparent tube.

A wire running through the centre holds the float in place. The float has been designed to spin, removing possible errors by reducing friction.

Air passing up the tube supports the float at a height where its weight is balanced by the pressure drop of the air.

A scale on one side gives the flowrate in both ft/min and m/min. On the opposite side of the tube is a white strip to aid reading the flow rate.

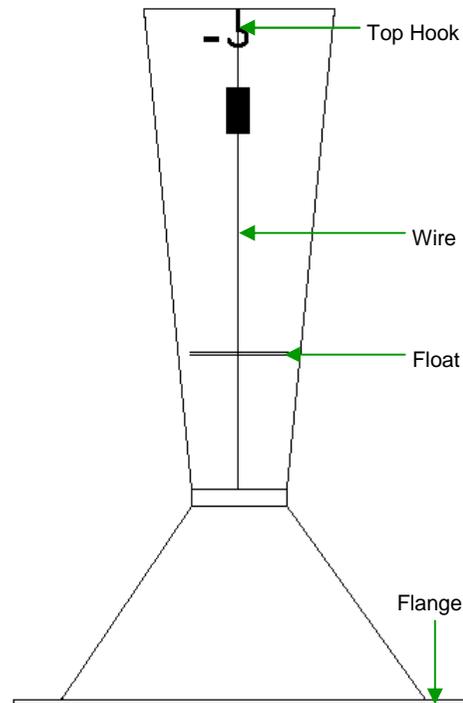


Figure 1:
The Airflow Meter

3. Method of Operation

1. Flatten/level an area on the surface of the grain with your hand. Do not compact as this will affect the flow rate.
2. Place the meter on the surface and gently press down until you just start to feel resistance, then stop. The flange should be level with the grain.
3. Read the airflow from the edge of the float to the nearest ft/min, m/min mark.

4. Calibration

The following can cause variation in airflow in bulk stored grain.

- The variety of grain
- Tightness of packing
- Moisture content

The scale provided is an average between wheat and barley, with wheat slightly high and for barley slightly low. For the practical purposes for which this instrument is intended, departures from the mean are not serious for any cereal grains of similar characteristics to wheat and barley.

Two graphs on the next page (m/min" and "ft/min) show the position of the mean line used for the instrument scale, compared with calibrations on wheat and barley.