

# ARBO

# ARBOMETER

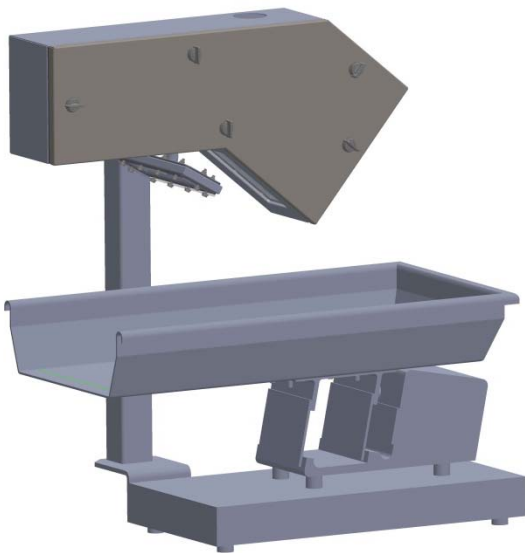
## Flow Meter for Solids

The Arbometer is a Mass Flow meter for particulates including pellets, flakes, chips, powder, seeds, and solid objects. The device can accurately measure the mass flow of solid material while being conveyed across a rigid surface.

Using a vision system that incorporates a state-of-the-art software program, the Arbometer scans the surface of the material as it is conveyed to collect real-time data on the surface area and the material speed to calculate the volumetric flow rate.

All the components are mounted in an IP65 enclosure. The enclosure can be constructed of a light weight polyamide with flame resistance or a stainless steel polished to match the process requirements. The enclosure has been designed to be accessible for maintenance and cleaning.

The Arbometer can be integrated with any conveying system without modifying the equipment stack-up or layout. For open conveying systems, the Arbometer can be mounted on a support next to the tray, while in the case of closed conveying systems, a custom cover can be provided. The Arbo engineering team offers their expertise to aid in the integration of the equipment.



The Arbometer can be used in numerous applications. The core function of the Arbometer is to precisely measure volumetric or mass flow for monitoring of process performance and the optimization of downstream equipment making the Arbometer ideal for improving the performance of packaging machines, blenders, coaters, mixers, extruders and weighing equipment. Applications include snack foods, consumer products, plastics, chemicals, pharmaceuticals, building materials and most continuous processes. Minimal maintenance and calibration are required. The stainless steel model is suitable for washing. Additionally, the Arbometer can be paired with any existing spraying or packaging systems that would benefit from a volumetric and/or mass flow measurement.

For more information on the Arbometer or to see the rest of the equipment line, please visit our website at [www.arbo-feeders.com](http://www.arbo-feeders.com).

### Technical Data

- Flow Rate: 100-10000 kg/hr based on 500kg/m<sup>3</sup>
- Bulk Density Range: 48-4800kg/m<sup>3</sup>
- Accuracy: Better Than  $\pm 1\%$
- Power Requirements: 110V 1ph, 15A

Patent Pending #: 61/423,406

The logo for ARBO, featuring the word "ARBO" in bold red capital letters on a white diagonal banner that is set against a blue background.

- Outputs: 4-20mA, RS232& OPC

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### Component Summary

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- 1 **Arbometer Assembly**
  - Mechanical
    - 304ss external components
    - 1x AVT Manta Camera
    - 1x Basler Ace Camera
    - 1x Opto Engineering LED Pattern Projector
    - 2x LED flood lights
    - 1x Intel ECM-QM57 computer
    - FDA approved red silicon gaskets
    - FDA approved acrylic panes for camera view points
    - Tool-less access door for maintenance
    - Self-contained cooling mechanism
    - IP65 (NEMA 4) rating
  - Control & Electrical
    - Power & data connected to control panel through IP65 cable
    - Software Revision AM-001-01
  - Operation & Maintenance manual provided
- 2 **Control Panel Assembly**
  - Mechanical
    - 304ss external components
    - 12V, 10A power supply
    - 48V, 1A power supply
    - Compression latched access door for maintenance
    - Self-contained cooling mechanism
    - IP65 (NEMA 4) rating
  - Control & Electrical
    - 110V 15A required
    - 4-20mA Signal sent to PLC and OPC connection available
    - Power & data output connected to IP65 gland
- 3 **Option #1: Human-Machine interface**
  - Integrated touch monitor on control panel for monitoring and calibrating the Arbometer