Gravimetric Blenders
Product Guide

OVERVIEW
Overview of our Maguire WSB Blender Range

HOW IT WORKS
Key Benefits
Controls & Settings
Easy Materials Changes
Materials Usage Data

PRODUCT INFORMATION
WSB Options
WSB Accessories
Technical Specifications

CONTACT
Find out your local contacts or where your regional head office is located.

THE MOST POPULAR GRAVIMETRIC BLENDERS WORLDWIDE

Gravimetric Blenders

Maguire
Intelligent Simplicity
OVERVIEW
The most popular gravimetric blenders worldwide.

HOW IT WORKS
Total control of a processor's most expensive operational cost – raw materials.

Key Benefits
Controls & Settings
Easy Materials Changes
Materials Usage Data

MODEL SUMMARY
Full product information for options, accessories and specification.

Blender & Feeder Options
Accessories
Technical Specifications

CONTACT
Find out where your nearest Maguire Partner is located.

Your Local Contacts
Maguire Main Contacts

Gravimetric Blenders

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Maguire Products offers one of the most comprehensive warranties in the plastics industry.

5 YEAR WARRANTY

GRAVIMETRIC BLENDERS PRODUCT GUIDE
The most popular gravimetric blenders worldwide

Nine blender series with over 120 models plus options to add on a range of feeders for pellets and powders as well as integrate liquid colour.

Blenders Available

- WSB MB MICRO BLENDER
- WSB 140MP MICRO PLUS
- WSB 100 SERIES
- WSB 200 SERIES
- WSB 400 SERIES
- WSB 900 SERIES
- WSB 1800 SERIES
- WSB 2400 SERIES
- WSB 3000 SERIES

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### Blenders Available

#### SMALL

**MB MICRO BLENDER**
- 5 models available
- Up to 100 lb/hr (45 kg/hr)
- Ideal for small injection machines
- Easy flow regrind corner valve
- Removable hoppers for quick color changes
- Up to 4 components

**140MP MICRO PLUS**
- 5 models available
- Up to 350 lb/hr (160 kg/hr)
- Optional loader lift for fast clean out
- For injection molders, small extruders, and central blending
- Removable hoppers for quick color changes
- Up to 4 components

**WSB 100 SERIES**
- 5 models available
- Up to 450 lb/hr (200 kg/hr)
- For injection molders and small extruders
- Removable hopper option for quick color changes
- Up to 4 components

#### MEDIUM

**WSB 200 SERIES**
- 12 models available
- Up to 900 lb/hr (400 kg/hr)
- For injection molders, small extruders, and central blending
- Removable hopper option for quick color changes
- Up to 8 components

**WSB 400 SERIES**
- 12 models available
- Up to 1,450 lb/hr (650 kg/hr)
- For small to medium extruders, large injection machines and central blending systems
- Removable hopper option
- Up to 8 components

**WSB 900 SERIES**
- 21 models available
- Up to 4,000 lb/hr (1,800 kg/hr)
- Designed for large extruders, blown film lines and central blending systems
- 2, 4, or 6 compartment hoppers
- Up to 6 feeders
**OVERVIEW**

**MAGUIRE PRODUCTS INC.**

**LARGE**

**WSB 1800 SERIES**
- 21 models available
- Up to 5,000 lb/hr (2,270 kg/hr)
- Ideal for high output extruders and large central blending systems
- 2, 4, or 6 compartment hoppers
- Up to 6 feeders

**WSB 2400 SERIES**
- Capable of handling bulk powders like additives and wood flour
- Up to 8,000 lb/hr (3,600 kg/hr)
- High flow dispense valve rated at 10,000 grams/ second
- For as many as 12 ingredients

**WSB 3000 SERIES**
- Capable of handling bulk powders like additives and wood flour
- Up to 12,000 lb/hr (5,500 kg/hr)
- High flow dispense valve rated at 10,000 grams/ second
- For as many as 12 ingredients

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HOW IT WORKS

Key benefits
Complete management and total control of a processors most expensive operational cost – raw materials.

ALL MATERIALS METERED BY WEIGHT
- Accuracy is constantly monitored.
- Automatic compensation for material variations.

VIBRATION MANAGEMENT
- Load cell readings that have been compromised by machine shock or vibration are detected and discarded.
- Many models may be mounted directly on the process machine.

VERY SIMPLE OPERATION
- Load hoppers with material: regrind, natural, colour and additive.
- Set thumbwheel switches for percentage desired.
- Turn controller on.
- The unit now operates automatically, adding components in the proper percentages. If material runs out, an alarm sounds.

ADVANCED DISPENSE TECHNOLOGY
- Batch to batch blend ratio is held to 0.1%.
- Advanced error-correction logic recognizes even miniscule errors and makes a correction for perfect blend ratio every time.
- Micro-Pulse™ dispense capability is 3 to 4 pellets per dose.

AUTOMATIC RE-CALIBRATION
- Material flow rate is constantly monitored, and each batch is followed by a correction routine to deliver perfect dispense weights.
Controls and settings

Advanced controls provide flexibility and accountability.

Advanced Controller

All the features of the standard controller plus the ease of touch screen navigation. This optional control includes an intuitive, user-friendly touch screen and ethernet connectivity.

Unique onboard wireless capability eliminates the cost of installing cable throughout the production area and readily links to other wireless equipped machines.

Standard Controller

Enter settings for percentage of color, additive or regrind on the thumbwheel switches, and the system does the rest. Clear messages in 9 languages replaces coded readout.

User-friendly interface:
- 2-line, 40-character vacuum fluorescent display.
- USB port included for software updates, printers and documentation.
- Ethernet capability now standard.

Advanced Controller Features

TOUCH SCREEN CONTROL
A single control with Ethernet connectivity and intuitive 5.5" color touch screen controls all functions of all Weigh Scale Blenders®

EASY COMPONENT ASSIGNMENT
Easy assignment of each component type on a single screen

INTUITIVE DISPLAY
Intuitive display and tracking of all parameters for up to 12 ingredients

EASY ACCESS TO PARAMETERS
Set Control Times, Vibration Control, Weight Limits, Components, Regrind Control, and Mixer

RECIPE STORAGE
Enter recipes as percentages or as ratios - stores up to 99 internal recipes

RECORD KEEPING
Material usage, alarms and operation details are easily downloaded to a USB drive or a printer

FLEXIBLE COMMUNICATIONS
Ethernet connectivity

AUTOMATIC CALIBRATION
Auto self-check and load cell calibration

PASSWORD SECURITY
Two-level password security

SOFTWARE UPDATES
Can be uploaded via USB port
HOW IT WORKS

Easy materials changes

The Gravimetric Blenders has been designed to easily manage material changes that will reduce cleaning and re-calibration times, ensuring continued productivity.

NO TOOLS REQUIRED
Rapid access & fast cleaning

THIRD PARTY CONNECTIVITY
Maguire can provide several methods to allow customers to connect their blenders to other systems, including Central PLC Control Panels, SCADA systems, Plant Wide Control Systems, or Accounting Systems managing materials stocks.

Examples of these have included:

NETWORKING
Connections can either be at a software level utilizing SQL or OPC based links, or alternatively machine to machine communications via Maguire’s open source MLAN protocol, or industry leading fieldbus protocols such as Industrial Ethernet, Profibus, DeviceNet and Modbus TCP/IP.

THE BENEFITS
The value of integrated data for proper production planning and control contributes enormously to the planning and control of most plastics processors’ largest cost – raw materials. By proper, active reporting Maguire blenders provide precise information on materials consumption allowing for better control of inventory, improved purchase planning, quality control, data for ISO and proper planning for job costing.
G2 Networking Software

The G2 software package makes possible rapid two-way communication between a PC and the controllers of Maguire® Weigh Scale Blenders on multiple processing machines.

Material Usage Reports
Usage reports can be generated based on many combinations of criteria such as time, date, blender ID number, part number, work order number, operator number, recipe number, material type, etc.

Alarm Functions
G2 detects any alarm in the network and reports location and description of the alarm.

Ability To Download/Update Recipes
G2 users can download recipes to be certain that the correct recipes are running on the proper machines. Recipe settings may be up-dated from a remote location according to part number, work order number, operator number, recipe number, etc.

Security
Extensive security functions are provided to selectively limit access to recipes and blender operation. There are 3 classes of user password security with predefined templates: Administrator, Supervisor, and Operator. Each user’s privileges may be further refined by adjusting over 30 different security fields.

Advanced Inventory Management Programs
Inventory levels can be monitored, and reorder points can be flagged to notify purchasing when low levels are reached. In addition a material accounting record allows entry of material cost to track inventory value on a real-time basis.

Instant Access to Maintenance Updates and Upgrades
Software updates/upgrades are immediately available at – http://www.maguire.com/page.php/downloads.htm where you will find new programs or maintenance updates may be downloaded directly to the user’s system.

Multilingual Versions
G2 is available in English, German, Spanish, Italian, French, and Dutch.

Multiplant Networking
G2 technology expands the potential for multiplant and even multinational networking.
Blender and Feeder Options

WSBs utilise many different types of dispense devices to accurately meter a variety of materials. The selection of a dispense device depends on 3 factors:

- size of the blender
- volume of dispense
- material flow characteristics
Add-on Feeder Options

**ADD-ON PELLET FEEDER**
For low bulk density powders

**ADD-ON POWDER FEEDER**
Model AWF-8P

**ADD-ON LIQUID COLOUR FEEDER**
Model AWL

**WOOD FLOOR/POWDER FEEDER**
For low bulk density powders

**LOADER SUPPORT ASSEMBLY**
Model ASRH
Accessories

WSBs utilise many different types of accessories to enhance your production output. These include:

- Storage & Loading
- Access & Cleaning
- Blender Floor Stands
Hopper extensions are available when additional hopper capacity is required. For series WSB-100 through to WSB-3000. The flared design greatly increases hopper capacities. Straight sides are also available.
Access & Cleaning

- **MATERIAL DRAIN CHUTES**
  Model 572

- **SELF DRAINING MIX CHAMBERS**
  Model KIT-019

- **SENSOR BLOW OFF**
  Model KIT-021

- **MAGNET DRAWERS**

- **CLEAR-VU SURGE HOPPER**
  Model MCSH

- **CONTROLLER REMOTE CABLE KITS**
  Model AEK
Blender Floor Stands

FLOW CONTROL ASSEMBLY
Model FCA

FLOW CONTROL BUTTERFLY VALVES
Model FCA-B

ADDITIONAL STAND PROBES
Probe for vacuum take-off stand

AWS STANDS
AWS Barrel or Gaylord style stands

VTA BLENDER FLOOR STANDS
VTA stand + WSB-140R on VTA stand
# Technical Specifications

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<th>SLIDE GATES</th>
<th>FEEDERS</th>
<th>THROUGHPUT CAPACITY (UP TO)</th>
<th>OVERALL DIMENSIONS</th>
<th>WEIGHT</th>
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## PRODUCT INFO

### Model Batch Size

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### Components

- **US (lb)**
- **Metric (g)**

### Slide Gates

- **US (lb)**
- **Metric (g)**

### Feeder

- **US lb/hr**
- **Metric Kg/hr**

### Throughput Capacity (Up To)

- **US (in)**
- **Metric (cm)**

### Overall Dimensions

- **US (lb)**
- **Metric (g)**

### Weight

- **US (lb)**
- **Metric (g)**

### Table Notes

- **Most popular models shown**
- **Generally, slide gates are correct for components over 3% (may go lower with valve restrictors)**
- **MicroPulse valves are correct for dispenses less than 10g**
- **Compressed air - 60 psi recommended for WSB-MB, 80 psi recommended for all others (25 psi minimum)**
- **Compressed air consumption - 10 ft³/hr**

- **Voltage:** 120V 60Hz, 230V 50/60Hz
  - Exception: WSB-3000 models
- **230V 3Ph 60Hz, 480V 3Ph 60 Hz, 400V 3Ph 50Hz**
- **Contact Maguire to determine actual throughput for your application based on resin type and bulk density**

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Maguire 5D – watch our products come to life

Download our Maguire 5D app and explore our WSB blender, VBD Vacuum Dryer and Liquid Colour products in a more detailed experience. Available at Android and iOS stores – just search for Maguire 5D.

For printable targets for these products, refer to our Maguire 5D webpage and start exploring NOW: http://www.maguire.com/page.php/5d.htm