



**AUSTRALIAN  
WEIGHING  
EQUIPMENT**  
*Way ahead in Weighing*

PRODUCT GUIDE

# DE-50-AV HORIZONTAL AUGER

- Fast bagger for free-flowing, non-clumping powders & granules
- Single or Dual Auger options





■ **ABOUT THE DE-50  
HORIZONTAL AUGER**

Weighs bag & contents while being filled.

Production rate: Up to 4 bags per minute.

For filling accuracy the DE-50-AV uses a variable speed drive on the main auger feeder for fast, and slow filling, with the third dribble feed via a vibratory feeder tube.

The filling nozzles have a specially designed inlet housing to prevent product bridging during the filling cycle, and are fitted with pneumatic bag clamps linked to the machine cycle.

■ **SUITABLE FOR USE WITH**

- Granulated pellets
- Cement
- Adhesives
- Renders
- Powders
- Small aggregates
- Flaked products
- Free-flowing foods



Single Spout  
DE-50-AV Packer  
with bag kicker

Fill up to  
**4 bags per minute\***

■ **OUR CLIENTS**



DE-50-AV Packer installed under  
ribbon mixer

\* Fill speed is dependant upon type of product & bag capacity.



■ **FEATURES & BENEFITS**



**ACCURACY & PRODUCTIVITY**

- » High accuracy patented load cell technology
- » Three stage filling for accurate filled bag weights
- » Speed can be adjustable manually for weight fine-tuning
- » Quick adjustment control to suit bag sizes
- » Operator friendly controls
- » Secure system: operator access levels can be password protected



**INTERNATIONAL QUALITY BUILD**

- » Manufactured to comply to International & Australian standards
- » Uses quality European component brands such as Festo, Metalwork, Scheider & SMC



**DURABLE & EASY TO MAINTAIN**

- » Choice of powder-coated Mild Steel or selective Stainless Steel
- » Internal & external parts are easy to clean
- » Changeover new products with minimum downtime
- » Built with universal industrial components to ensure easy maintenance
- » Components kept dust-free: pneumatic & electrical control equipment housed in positive pressure enclosure
- » Structural steel construction



**GROWS WITH YOUR BUSINESS**

- » Hands-on training & manuals to help you maximise ROI
- » Modular design: interfaces with other filling systems & check weighers
- » Future-proof control panel: DE-50-AV control panel can be extended to operate additional machinery or conveyors in the future
- » Higher speed production rate available with our PVPE Air Packer
- » Customisation options available



DE-50-AV with a Drum & Valve Spout



Vibratory Feeders

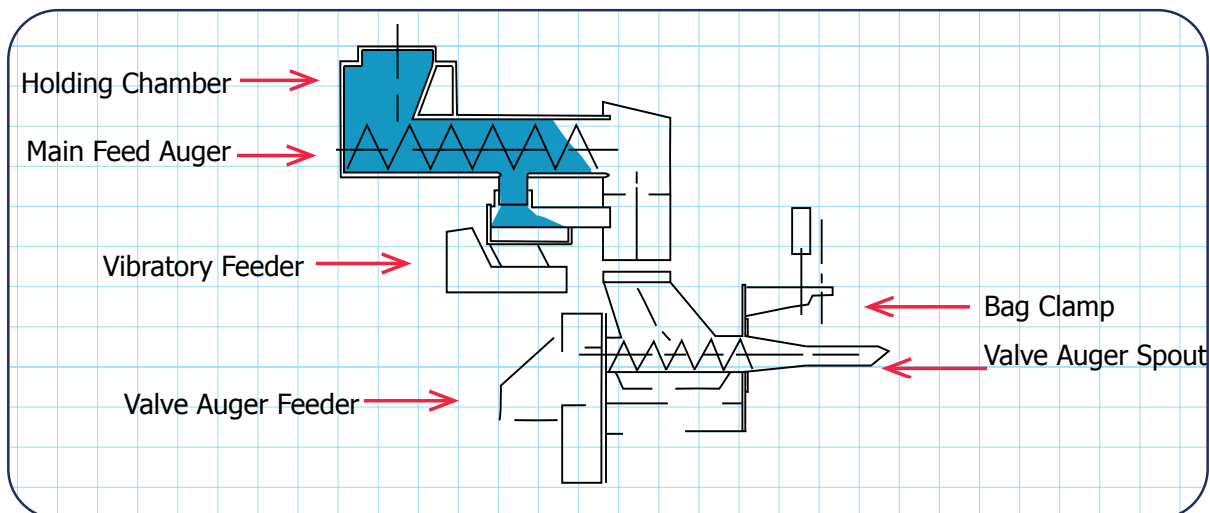


Optional Bag Chair Kickers

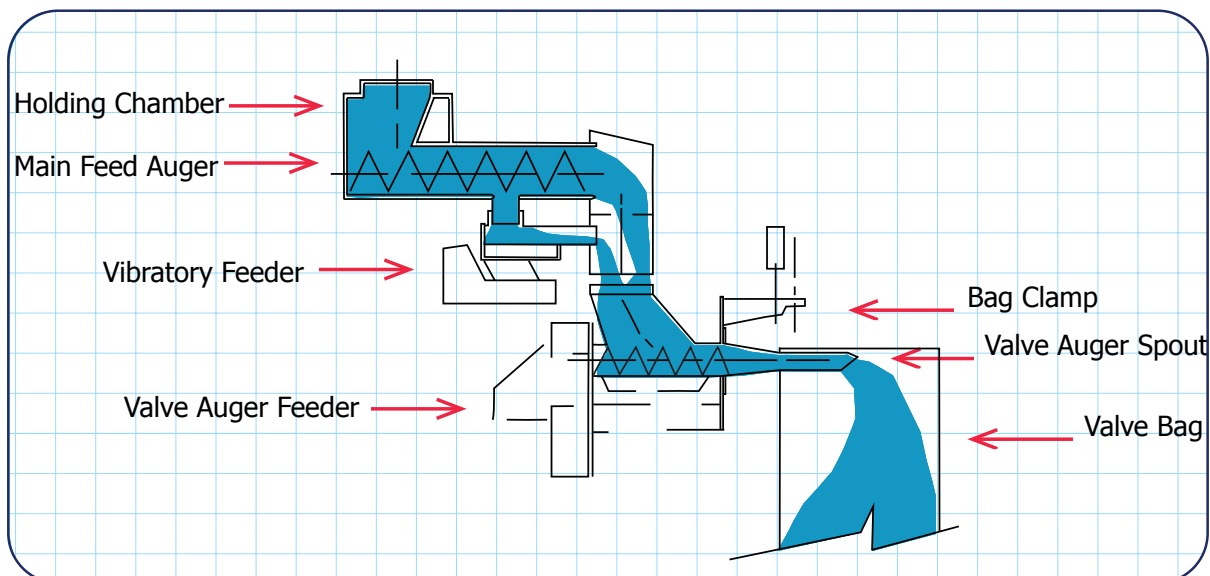


### ■ HOW DOES IT WORK?

1. The bagger is fed from an overhead hopper, silo or mixer containing the product to be bagged.
2. The packing cycle begins by managing a charge of material from the overhead vessel into the DE-50-AV holding chamber.



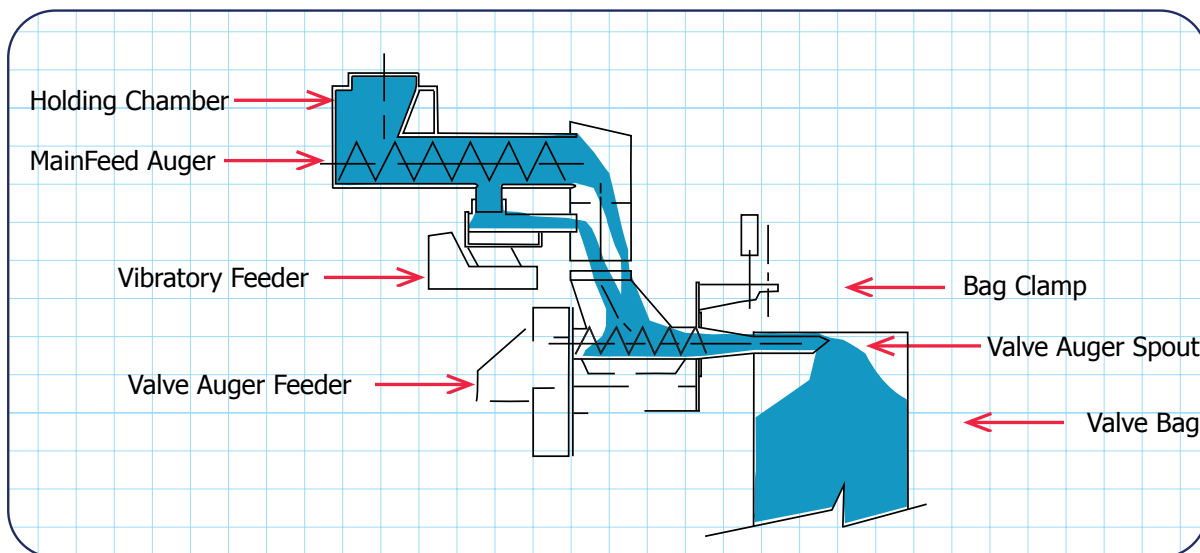
3. The filling cycle begins with the placement of bag(s) onto the nozzle. Pressing a foot switch or start button initiates the filling cycle. The main feed auger, vibratory feeder and valve auger feeder turn on simultaneously to activate flood fill.



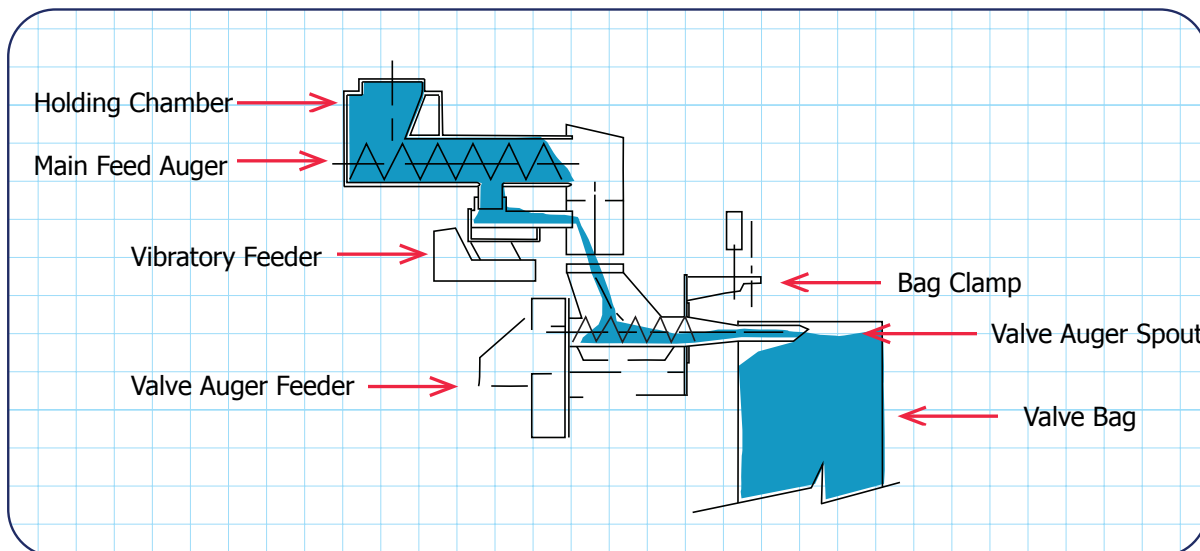


### ■ HOW DOES IT WORK?

4. Once flood-fill-setpoint has been achieved then slow speed filling begins. A variable-frequency drive (VFD) sends a signal to slow down the main feed auger. After filling to a pre-determined weight e.g 98% then main feed auger shuts off.



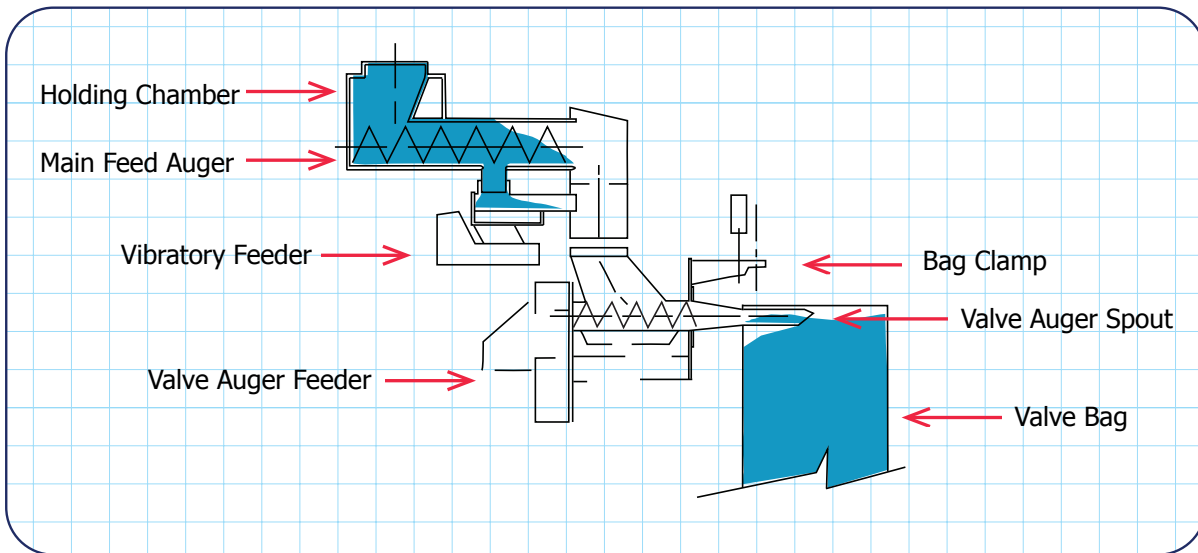
5. Vibratory feeder and valve auger continue to run together until final setpoint is achieved. Using 3 different speeds of filling, accuracy & speed is achieved.





■ **HOW DOES IT WORK?**

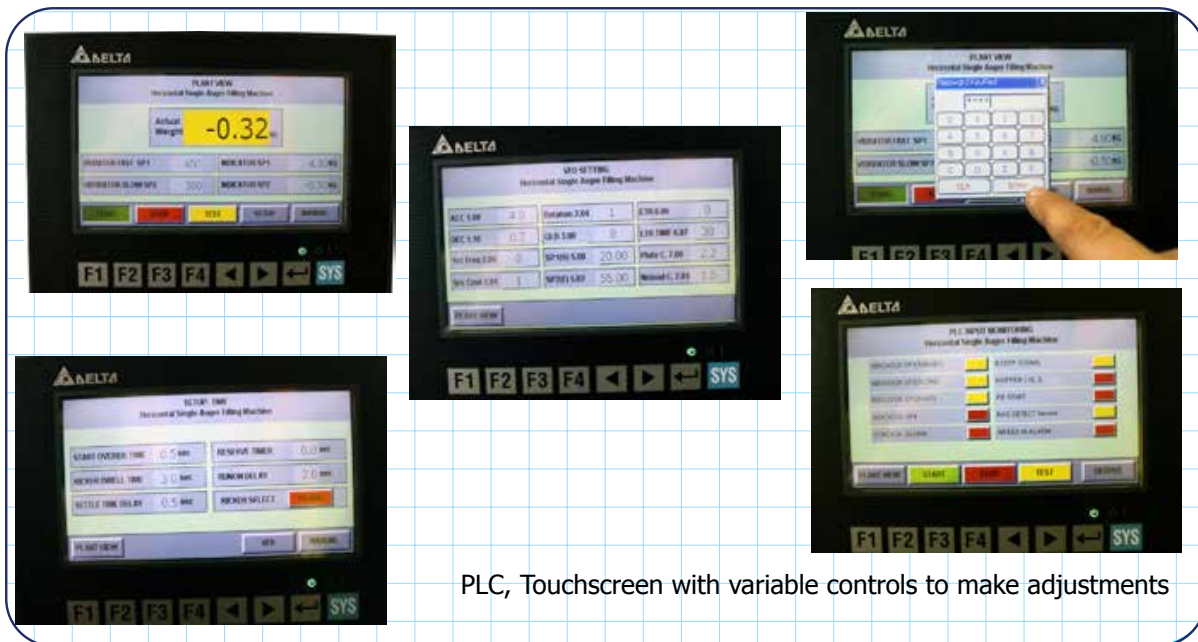
6. Filling cycle is complete.



7. Next step in production workflow:

**Single Auger Filler:** Replace bag for the cycle to continue.

**Dual Auger Filler:** Head 1 & head 2 are independant. Fill them simultaneously or one at a time.

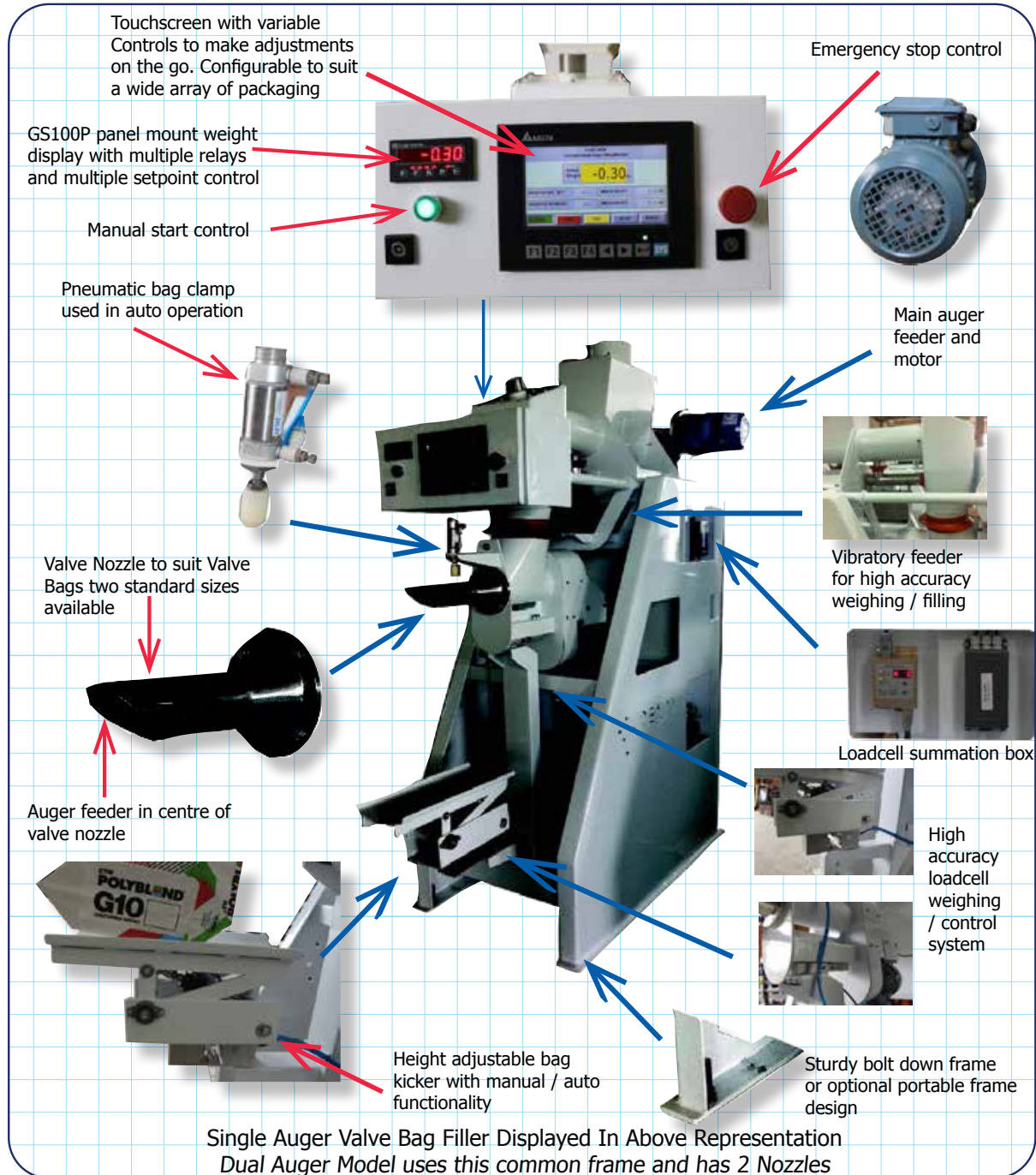


PLC, Touchscreen with variable controls to make adjustments

- The DE-50-AV fills bags by gross weight. The filler tare/zeros the bag and fills product to the desired weight.
- Bag placement options:
  - 1) Manual placement & manual removal
  - 2) Manual placement & automatic removal
  - 3) Automatic placement & automatic removal



■ **COMPONENTS OF THE DE-50-AV**





## ■ CUSTOMISATION OPTIONS



### BULK HANDLING OPTIONS

- » Surge hoppers or Feeding systems
- » Inlet surge bins
- » Discharge chute
- » Dust collection vacuum system reducing dust around fill nozzle
- » Food Grade construction
- » Integrated rotary valves - Industrial or Food grade (removes high head pressures from mixers)



### BAG LOADING & HANDLING OPTIONS

- » Automatic bag loader (Arm loader)
- » Bag placers
- » Bag flatteners
- » Multiple bag collision sensors
- » Conveyors
- » Out-feed conveyor
- » Check weigher
- » Palletisers
- » Self-leveling palletizers
- » Ultrasonic sealers
- » Foot switch for manual valve tuck positioner



Simple Operator Controls View



Vibratory Controls & Summation Box

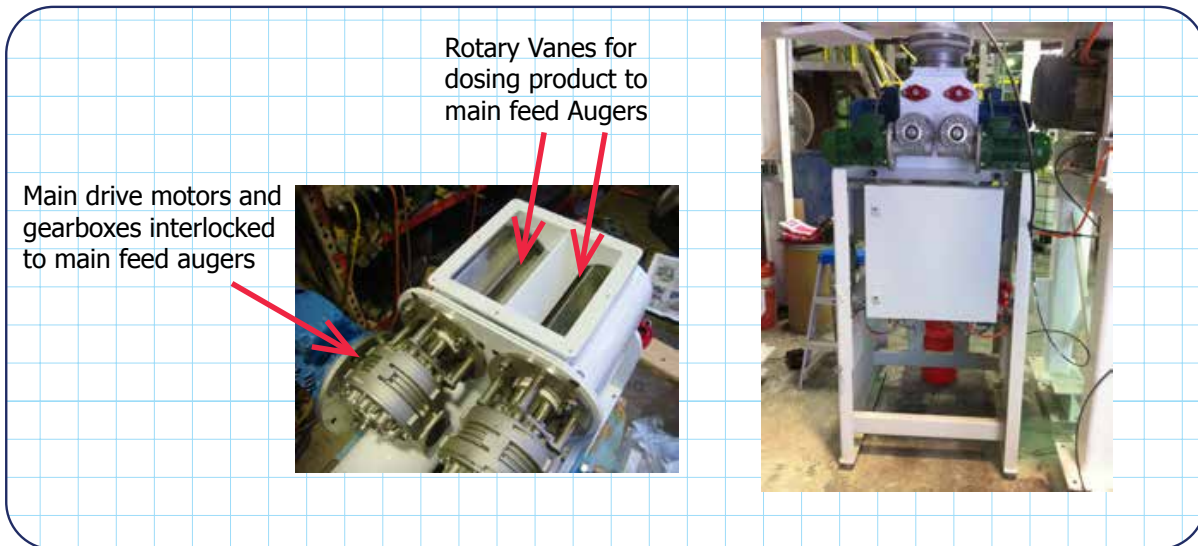


Side View of Valve Auger Feeder

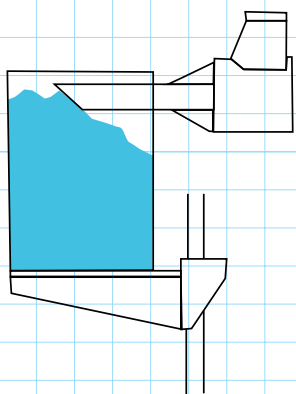




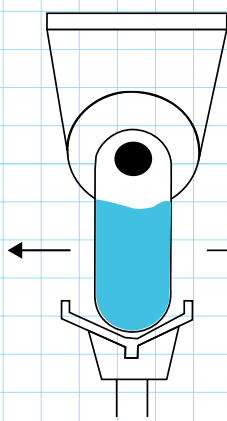
■ **ROTARY FEEDERS FOR THE DE-50-AV**



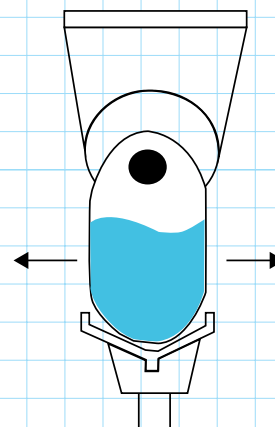
**Things To Remember About Valve Bags & Valve Bag Filling**



When the volume of the bag is not enough, there is excessive wear on flights pushing the last amount into bag.



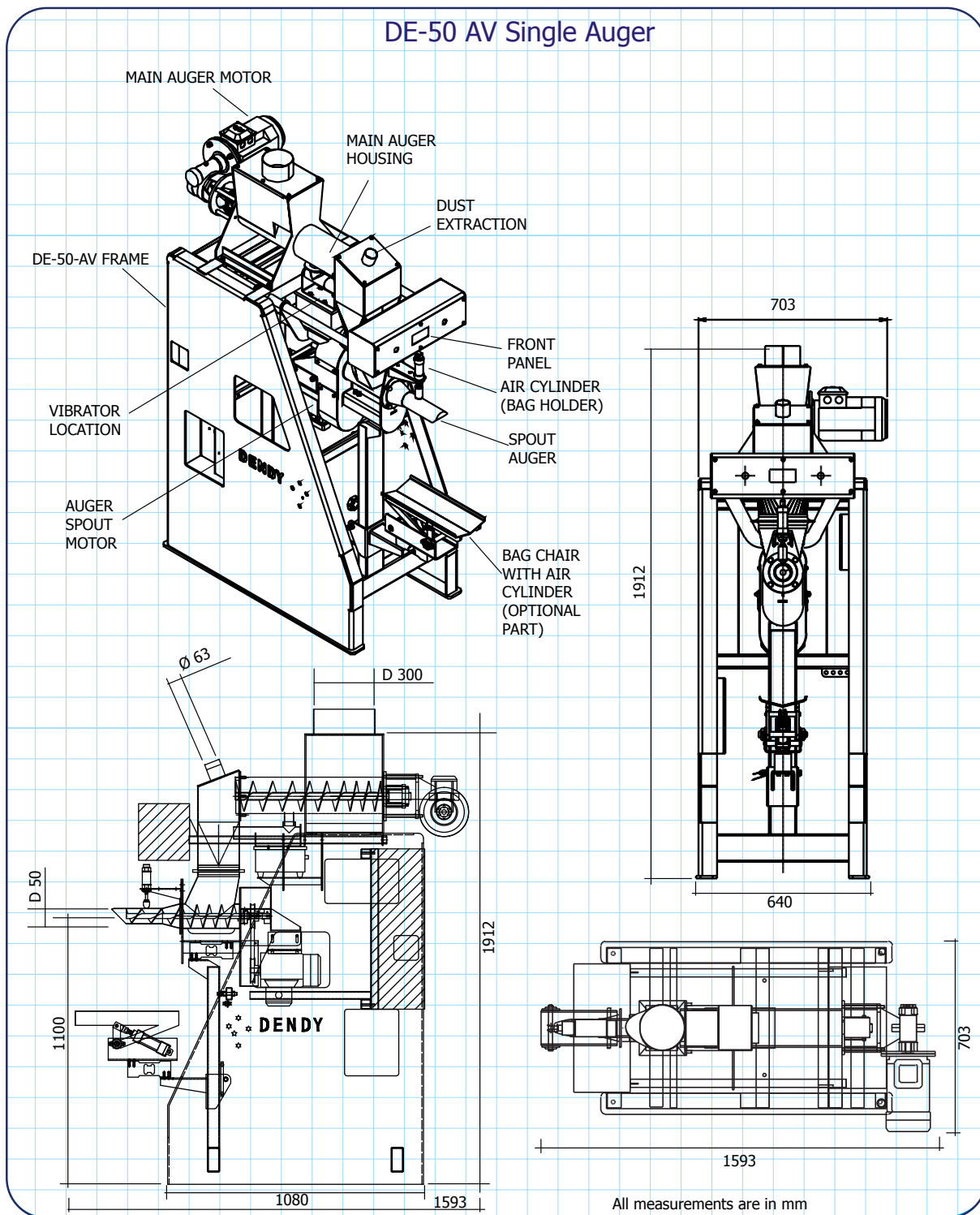
When the bag is unsupported the weight of the material in the bag keeps the sides of the bag straight decreasing volume in valve bag.



With the bag supported, the side of the bag is allowed to bellow out to increase volume in the valve bag.

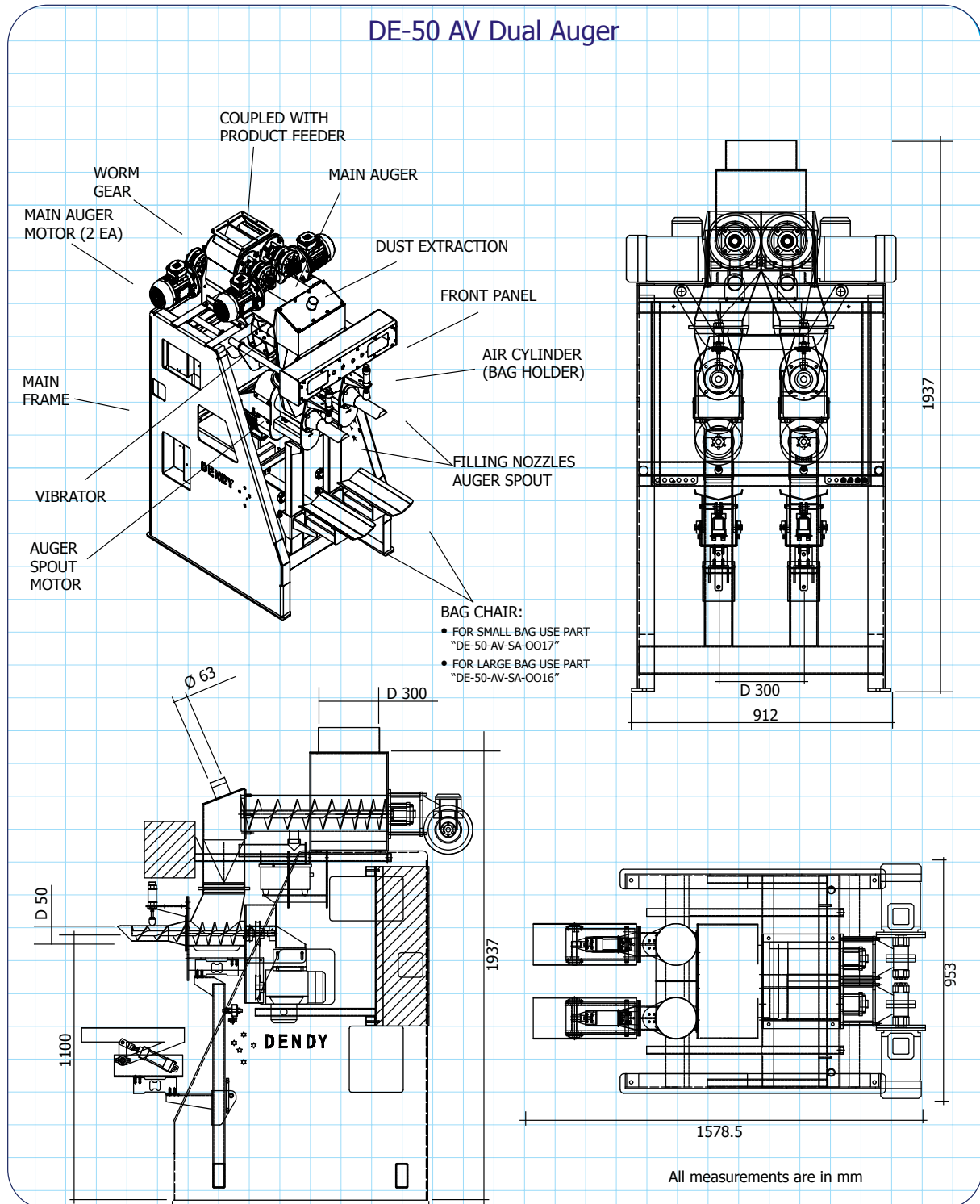


■ **DIMENSIONS**





■ **DIMENSIONS**





**■ QUESTIONNAIRE**

**DATA REQUEST**

Quotation due date \_\_\_\_\_ Estimated installation date \_\_\_\_\_

Project for: (Name) \_\_\_\_\_

(Address) \_\_\_\_\_ Funds approved: Yes  No

(City) \_\_\_\_\_ Quarter: \_\_\_\_\_

(Plant location) \_\_\_\_\_

Contact: (Name) \_\_\_\_\_

(Title) \_\_\_\_\_

(Telephone) \_\_\_\_\_

Equipment discussed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Copy of proposal to:

Customer \_\_\_\_\_

Customer \_\_\_\_\_

Salesman \_\_\_\_\_

Others \_\_\_\_\_

Attachments: Supplement  Bag sample

Pallet Data  Product sample

Sketch / Drawing  Hazard sheet



**Product Details:** One (1) sample & product hazard sheet to be forwarded on (date) \_\_\_\_\_

A	Name:			
B	Description:			
C	Particle Size (Mesh):			
D	Density:			
E	Pack Temperature:			
F	Flash Point:			
G	Melting Point:			
H	Angle of Repose:			
I	Bridging Characteristics:			
J	Corrosive:			
K	Abrasive:			
L	Hygroscopic:			
M	Explosive:			
N	Flammable:			
O	Toxic:			
P	Poisonous:			
Q	Cost:			
R	Other:			

**Filling Bag Details:** Empty samples will be forwarded (date) \_\_\_\_\_

		Empty	Filled	Empty	Filled	Empty	Filled
A	Bag Face Width:						
B	Bag Gusset Width/Thickness:						
C	Bag Length:						
D	Top & Bottom Width:						
E	Bag Type (O.M., Valve):						
F	Valve Size (inside):						
G	Valve Location:						
H	Valve Sleeve Type:						
I	Valve Sleeve Dimensions*:						
J	Bag Construction:						
K	Rigid Container Diameter/Width:						
L	Rigid Container Length:						
M	Rigid Container Height:						
N	Rigid Container Tare Wt:						
O	Net Bag/Container Filled Wt:						

\* Length from outside edge of bag to inside edge of sleeve insert.

O.M.= Open Mouth

Valve= Valve Bag



### Performance Requirements:

A DUTY: Hours/Day \_\_\_\_\_ Days/Week \_\_\_\_\_ Weeks/Year \_\_\_\_\_

B Kg per Hour: 

--	--	--

C Bags/Containers per minute: 

--	--	--

D Accuracy at 2 Sigma: 

--	--	--

E % of Production: 

--	--	--

F Operating Environment: Wet \_\_\_\_\_ Dusty \_\_\_\_\_ Dry \_\_\_\_\_ Clean \_\_\_\_\_

G Operating Temp (Min/Max): Per Day \_\_\_\_\_ Per Day \_\_\_\_\_ Humidity \_\_\_\_\_

H Surge Hopper Cap: 

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I Headroom: 

--	--	--

J Automation of Bag Placement:  Manual  Automatic

K  Please advise of room availability. Add hand sketches or photos.

### Utilities:

A Power Voltage: \_\_\_\_\_ Ph. \_\_\_\_\_ Hz. \_\_\_\_\_

B Control Voltage: \_\_\_\_\_ Ph. \_\_\_\_\_ Hz. \_\_\_\_\_

C Classification controls: Dust tight \_\_\_\_\_ Water tight \_\_\_\_\_

Explosion proof: Class \_\_\_\_\_ Group \_\_\_\_\_ Div. \_\_\_\_\_ Other \_\_\_\_\_

D Motors: Exp. proof \_\_\_\_\_ Chem. duty \_\_\_\_\_ Hi eff. \_\_\_\_\_ Other \_\_\_\_\_

E Compressed air: PSI \_\_\_\_\_ Volume CFM \_\_\_\_\_ Pressure \_\_\_\_\_

### Materials of Construction:

F Platework type: \_\_\_\_\_ Product contact only \_\_\_\_\_ All other (specify) \_\_\_\_\_

G Paint: powder coated \_\_\_\_\_ other (submit specs) \_\_\_\_\_

### Equipment Details: (Describe components & provide sketch of layout including critical dimensions & obstacles)

A \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B  by AWE Group  by Others

C Controls Description: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

D Additional info & comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



■ **HORIZONTAL AUGER SPECS**



<b>Bag Sizes</b>	Valve Size Suit 50mm (2") Fill Nozzle (standard)	Valve Length 280 mm long	Bag Width 100 - 180 mm Flat Dimension	Bag Height 300 - 600 mm
<b>Filling Speed</b>	1 to 4 bags per minute, depending on no. of spouts, product density, valve size, bag weight, quality of bag, accuracy required and product flow characteristics			
<b>Bag Weights</b>	5 Kg to 50 Kg			
<b>Accuracy</b>	+/- 0.25% depending on filling speed, product bulk, flow characteristics, particle size, infeed system and bag size. (Typically +/- 50g @ 3 bags/ min @ 20kg Dual Spout Version On Tile Adhesives)			
<b>Electrical</b>	Base machine is 415 Vac 3 phase, 50 hz 2.5 amps			
<b>Air System</b>	Pressure Range Control Air	500Kpa (5 Bar) - 1000Kpa (10 Bar) 1CMH @ 800Kpa (8 Bar), Clean Dry Air		
<b>Size</b>	please see drawings attached in brochure			
<b>Weighing System</b>	Fitted as standard with load cell and precision digital read-out indicator/controller.			
<b>Flow Control</b>	Three stage main/ dribble, vibratory feed cut off system			



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At AWE, it's more than just delivering perfectly-designed equipment, it also requires a team of dedicated people who will back you up with great service and support. Any servicing, installation and technical support issues you encounter can be addressed either onsite or remotely by our engineers and tradesmen who carry qualifications as:

- Licensed Tradesmen
- Mechanical Engineers
- Electrical Engineers
- Structural Engineers
- Draftsmen
- Fitter & Turners
- Boilermakers
- Fully Qualified Scale Makers
- Electronic Technicians
- Instrument Fitters
- Electricians
- Service Technicians
- Project Managers
- Formworkers
- Concreters



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If you have questions about

- **weighing equipment**
- **packaging equipment**
- **bulk materials handling**
- **componentry**

call the sales team at *AWE Group* to find the right solution for your individual needs.

■ **AWE PRODUCT RANGE**



Weighbridges



Load Cells



Scales



Crane Scales



Indicators



Packaging Equipment



Onboard Weighing



Batching Consoles



Test Weight



Maintenance





## ■ WHO IS “AUSTRALIAN WEIGHING EQUIPMENT GROUP”

Jeff & Trevor Baillie started Australian Weighing Equipment (or AWE) in 1981, focusing on weighing solutions based on engineering principles. For nearly 40 years AWE has built its reputation as a leading supplier of robust weighing, packaging & bulk handling equipment. Our innovative engineering and continuous product developments have led to designs that will stand up to the rigours and demands of your applications.

AWE has increased its investment in manufacturing facilities with a new 3,200sq/m factory in Sydney which features;

- A CNC Machine Shop
- Heavy Metal Fabrication Shop
- Larger work areas for our team of qualified tradesman

Acquisitions of Bradwood Packaging and Dendy Packaging and Design Engineering has increased our packaging and engineering experience.

In 2008, AWE established a manufacturing facility in China - AWE Group Packaging and Bulk Materials Handling Equipment, a purpose-built 5,000sq/m factory in Suzhou China (70kms From Shanghai).

All of the products we offer are Australian designed and manufactured under our strict quality control system in our own factories both locally and internationally.

## ■ LOCATIONS OF AUSTRALIAN WEIGHING EQUIPMENT



Australian Weighing  
Equipment - Sydney Office

8 Heald Road  
Ingleburn NSW 2565



Australian Weighing  
Equipment - Melbourne Office

37 Barrie Road  
Tullamarine, VIC, 3043



Australian Weighing  
Equipment - Brisbane Office

7 Darnick Street  
Underwood, QLD 4119

## ■ AUSTRALIAN WEIGHING EQUIPMENT ON SOCIAL MEDIA



@AustralianWeighingEquipment



@australianweighingequipment



/company/awegrouppaustralia



www.youtube.com/AustWeighing



www.awe.com.au

Dealer's Information:

SCAN HERE



www.awe.com.au