



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

PRODUCT GUIDE

# CONICAL SCREW MIXER

Nauta Mixer

Powder Mixing Solution





## ■ ABOUT THE CONICAL SCREW MIXER

Conical screw mixer is a highly efficient and low-energy consumption vertical mixer for powder and granule mixing applications. Various particle size materials can be mixed in the conical screw mixer.

- Conical screw mixer is applicable to diverse industries such as pigment, dye, pharmaceuticals, chemical, food, cosmetics, battery, pesticide, construction material, and plastics granule manufacturing.
- For different raw material and particle sizes, conical screw mixer is highly efficient with excellent processing time.
- Gentle mixing with low shear forces is suitable for fragile and sensitive products.
- Compare with horizontal mixer, conical screw mixer is of low-energy consumption. It is helpful for energy-saving and environmental protection.
- Easy to clean. Conical screw mixer is cleanable through cleanout door or spray system.
- Conical screw mixer applies to less than 15% liquid additive. It meets the needs in many fields.
- Jacket like dimpled jacket, electric heating bars jacket, water jacket, heat transfer oil jacket, steam jacket is widely used in different applications.
- Discharges including dislocation valve, slide gate valve, ball valve and butterfly valve are optional for different applications. Moreover, different control like manual, pneumatic, electric drives are available.
- Vertical structure is good for discharge. Tapered angle of 170° minimizes the residue in the vessel.
- The vessel fabrication is stable, robust and easy to install. The whole mixing process is reliable and gentle which results in low maintenance and wear.





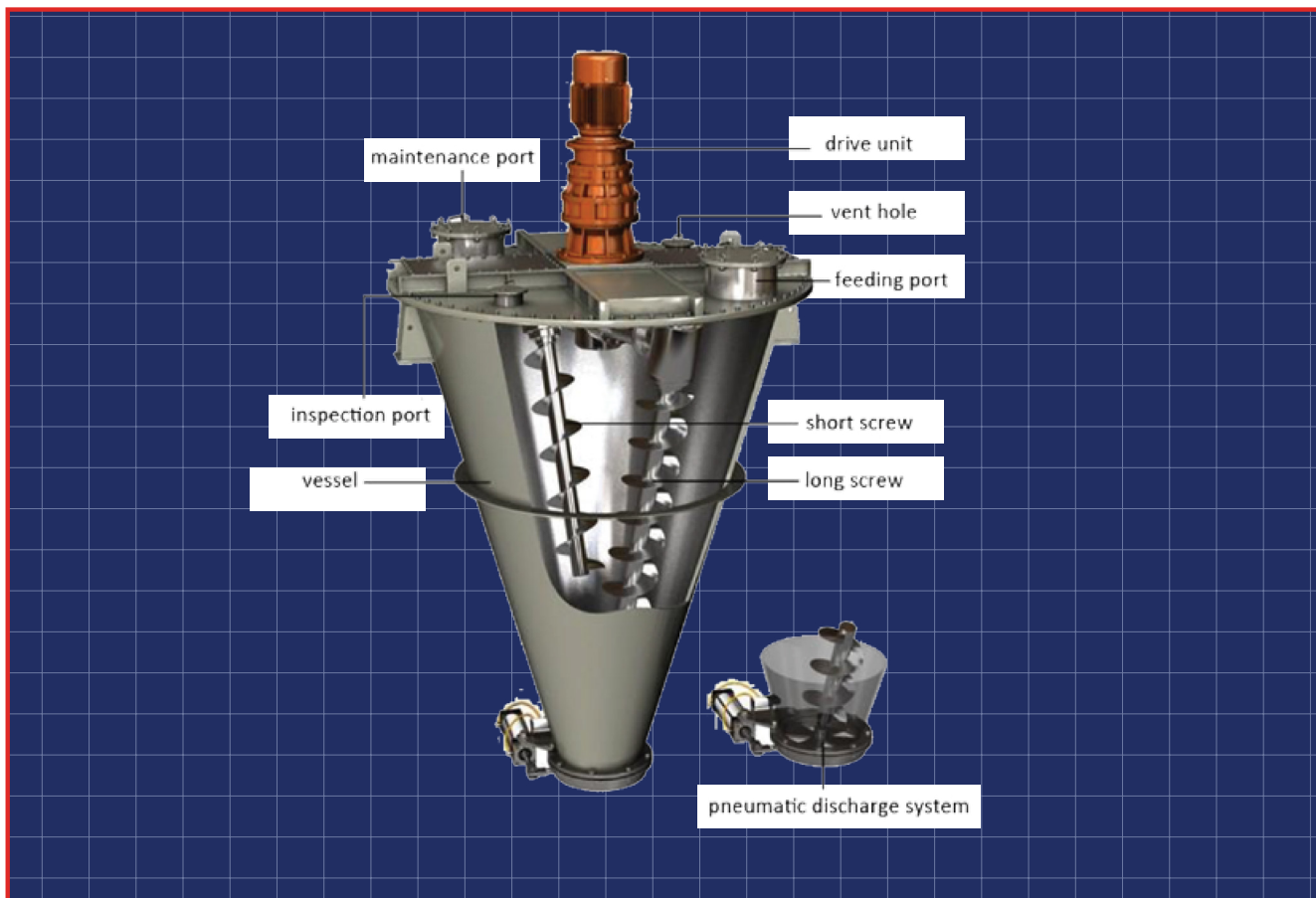
# Conical Screw Mixer



Auger Agitator Drive Units

- Bradwood Packaging uses universal and industrial components to give the machinery extra long life cycles. The way machinery should be built (this way you're not locked into expensive proprietary systems).
- Manufactured to comply with Australian and International Machine Safety & Electrical Standards.
- Bradwood Packaging prides itself on providing plain English proposals, there's no hidden surprises. You'll know what you're getting.
- Bradwood Packaging manufactures complete lines from raw material, conveying, dosing, mixing, packaging through to palletising.

## ■ **STRUCTURE**





## ■ **WORKING PRINCIPLE**

The screws and screw arms driven by motor and reducer, both separately move at different speed. Screws revolve on its own axis driven by a bevel gear, which elevates the raw materials upwards from the mixer bottom causing same material to fall downward by gravity. At the same time, the screw arm revolves around the central shaft to keep the materials rotating in the mixer. The whole mixing forms a three dimensional action; where raw materials are sheared and diffused repeatedly in the vessel. The mixture, thus, achieves optimum homogeneity.



**Double Screw Mixer**



**Single Screw Mixer**

## ■ **ADVANTAGES**

1. Optimal mixing homogeneity
2. Short mixing time
3. Excellent reproducibility of batch production
4. Minimum wear and low maintenance
5. Easy access to mixer/ Easy to cleaning
6. Excellent mixing at any product level
7. Low power





■ **APPLICATIONS**

- Chemical
- Pharmaceuticals
- Food
- Pesticide
- Pigment & Dye
- Cosmetics
- Animal Feed
- Metallurgy
- Battery
- Construction Material
- Ceramic Powder
- Mining Industry



■ **SPECIFICATIONS**

Model	Total Volume (M)	Loads Coefficient	Motor Power (KW)	Size (mm)	Screw / Arm Speed (rpm)
DSH-0.06	0.06	0.4-0.6	1.5	φ630×1451	118/2
DSH-0.1	0.1	0.4-0.6	1.5	φ715×1569	118/2
DSH-0.3	0.3	0.4-0.6	2.2	φ920×1960	118/3
DSH-0.5	0.5	0.4-0.6	3	φ1140×2320	118/3
DSH-1	1	0.4-0.6	4	φ1480×2895	78/2.2
DSH-1.5	1.5	0.4-0.6	5.5	φ1633×3210	78/2.2
DSH-2	2	0.4-0.6	5.5	φ1816×3495	78/2.2
DSH-3	3	0.4-0.6	7.5	φ2040×3760	74/1.45
DSH-4	4	0.4-0.6	11	φ2250×4425	74/1.45
DSH-6	6	0.4-0.6	15	φ2548×4940	74/1.45
DSH-8	8	0.4-0.6	18.5	φ2780×5360	74/1.45
DSH-10	10	0.4-0.6	22	φ3018×5815	64/1.45
DSH-12	12	0.4-0.6	22	φ3204×6100	64/1.45
DSH-15	15	0.4-0.6	30	φ3442×6540	64/1.3
DSH-20	20	0.4-0.6	37	φ3805×7420	43/1.3
DSH-25	25	0.4-0.6	37	φ4086×7800	43/1
DSH-30	30	0.4-0.6	45	φ4330×8200	43/1






**■ POWER MIXING DATA SHEET**

Consult with our Bradwood Packaging sales engineers for sizing, correct feeding methods, particle sizes, densities, air pressure, or types of componentry to be used.

We recommend filling out the attached basic data sheet to assist you best with your specific requirements.

 <p><b>AUSTRALIAN WEIGHING EQUIPMENT</b> <i>Way ahead in Weighing</i></p> <p><b>INQUIRY FORM</b></p> <p><input type="checkbox"/> Firm Quote <input type="checkbox"/> Budget Quote</p>	Date: _____ Quotation Due Date: _____ Name: _____ Company: _____ Phone: _____ Job Reference: _____ QUOTE TO: _____ _____ Phone: _____ Fax: _____	<p><b>NOTE</b> If there are any Special Fabrication, Structure, Engineering or Testing Requirements, Please Attach Data to This Sheet</p>

Equipment Data			
Operation condition		<input type="checkbox"/> NPT	<input type="checkbox"/> Vacuum
Design capacity ( Kg/batch)			
Bulk Density of final product (Kg/L)			
Start mixer after load		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Power supply(V/HZ/P)		Voltage: _____	Frequency: _____ Phase: _____
Vessel		Design Temp. (°C): _____	Working Temp(°C): _____
		Design Press. (Mpa ): _____	Design Press. (Mpa ): _____
Jacket	Needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Temperature	Design Temp. (°C): _____	Working Temp(°C): _____
	Pressure	Design Press. (Mpa ): _____	Design Press. (Mpa ): _____
	Function	<input type="checkbox"/> Heating	<input type="checkbox"/> Cooling
	Way	<input type="checkbox"/> Electric heating	<input type="checkbox"/> External cycle source
Liquid addition	Media	<input type="checkbox"/> Water	<input type="checkbox"/> steam <input type="checkbox"/> heat transfer oil
	Needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Type	<input type="checkbox"/> Manual	<input type="checkbox"/> Mechanical
	How much	Percentage: _____ or Volume: _____ L	
Construction material		Contact area with raw material:	
		Non-contact area:	
		Jackets:	
Surface treatment		Painting for outside CS part (RAL colour)	
		Polishing for inside SS part (Grade: _____)	
		Sandblasting for outside SS part	
Feeding		<input type="checkbox"/> Manual	<input type="checkbox"/> Mechanical
Discharge		<input type="checkbox"/> Pneumatic	<input type="checkbox"/> Manual <input type="checkbox"/> Electric
Discharge valve		<input type="checkbox"/> dislocation valve <input type="checkbox"/> butterfly valve	
		<input type="checkbox"/> ball valve <input type="checkbox"/> slide gate valve <input type="checkbox"/> rotary valve	



**MOTORS & GEARING**

Motor	Type	<input type="checkbox"/> Normal	<input type="checkbox"/> Variable frequency
	Protection	<input type="checkbox"/> Explosion-proof	<input type="checkbox"/> High efficiency
Gear reducer	Brand	Enclosure protection: IP _____ Insulation: Grade _____	
	Brand	<input type="checkbox"/> SEW <input type="checkbox"/> Siemens <input type="checkbox"/> ABB <input type="checkbox"/> Others	
Control Panel	Needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Starting	<input type="checkbox"/> Normal (power ≤7.5KW)	<input type="checkbox"/> soft start
		<input type="checkbox"/> variable frequency	<input type="checkbox"/> Step-down voltage
	Electric components	<input type="checkbox"/> Schneider brand	

Note: 1. Options for construction material: CS, SUS304, SUS316, SUS316L and others.  
2. Any special requirements shall state clearly.

**Customer's Experience for Using Mixer**

Mixer type	Remarks
Total volume	
Batch capacity (Kg)	
Motor power (KW)	
Rotating speed (rpm)	

**Raw Material Specifications**

Items	Material A	Material B	Material C	Material D	Material E
Name					
Properties					
Percentage (%)					
Bulk density					
Particle size					
Moisture					
Feeding way					
Viscosity					
Flowability					
Abrasiveness rating					
PH value					
Magnetism					
Corrosion					

Note: 1. Properties include: powder, granule, flaky, crystal, liquid etc. please state clearly if the raw materials are not allowed to be damaged.  
2. Please illustrate a similar material if no exact data or related to confidential info.

**Remarks**

On the space below, write down your desired mixing process or work flow. Other points or major considerations you may have must be written in detail. Use a separate sheet as necessary.

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■ **AWE - THE BEST IN THE BUSINESS**

AWE has built a reputation in providing world class products and services to customers from a wide range of industries for many unique applications. All the products come with AWE Quality Guarantee- giving you the assurance that they have been tested to meet or exceed the specifications and requirements of your application. 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

Call AWE today.



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.

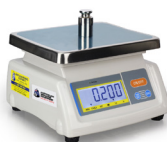
■ **AWE PRODUCT RANGE**



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 has

- 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, QLD1 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

Brochure: 150920  
Version: 140820