

## CJ Waterhouse Co Ltd

MATERIALS HANDLING ▼ WEIGHING SYSTEMS ▼ PROCESS SOLUTIONS
PLANT CONTROL ▼ AUTOMATION ▼ BESPOKE MACHINERY

# Feeding & Dosing



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### Feeding & Dosing

Feeding and dosing systems are designed to accurately dispense your materials to a specific downstream process, storage vessel or weighing system. For precision dosing systems we incorporate feeder shut off valves or catch gates and variable speed drives to ensure the highest level of accuracy is achieved. All our systems are custom designed to suit our client's requirements with respect to speed, throughput and accuracy.

We supply a variety of dosing & feeding equipment to suit your specific material requirements from fine powders to granules, liquids and solids. From belt feeding devices to screw conveyors we can provide the correct solution to handle your materials efficiently and carefully.

#### Screw Feeders

Dosing screw feeders are generally supplied for applications where accurate dispensing of powders is required. Such feeders are custom designed to suit the specific materials and throughput requirements. Feeders can be supplied with tubular or 'U' trough casings with removable top plates

The majority of feeders are supplied with rigid casings and solid shafts with welded

> flights, however flexi-screws can be supplied where the unit comprises of a curved or flexible tubular casing with a flexible coreless flight helix. Such systems are useful where elevation is required but a straight

feeder body is not achievable





For applications where higher batch sizes and varying throughputs are required specialist feeders can be supplied which include duplex flights of different diameters to increase throughput range whilst maintaining accuracy. For maximum throughput both flights are run simultaneously and for maximum accuracy just the smaller flight is run.





### **Feeding & Dosing**



#### **Vibratory Feeders**

Vibratory feeders are extremely versatile and capable of conveying and dosing a wide range of material types from powders to large granules and solids. These feeders comprise of a trough assembly mounted to a support frame via anti-vibration mounts. Single or twin vibratoy



motors are mounted to the trough to provide material movement via amplitude vibration. Manual adjustment to the feed rate can be

made by setting the offset of the motor weights. This type of vibratory feeder can not incorporate automated speed changes but are suitable for application where careful material conveying at a fixed speed is required. All vibratory feeders are well suited to

production lines where quick and easy clean down is required due to their simple trough design.



#### **Electromagnetic Vibratory Feeders**

Electromagnetic drive feeders are favored in production lines where variable controlled conveying is required. High frequency vibration is generated into tray assembly from the main drive unit providing forward product movement over tray length. Full instantaneous speed control from 0 to 100% is achieved without any speed lag typically ideal for dosing system applications or where controlled conveying is required.

Both vibratory motor and electromagnetic feeders can be supplied as open tray or can incorporate removable lids dependant upon the material and process requirements. Construction can be of mild or stainless steel and each unit is designed to suit the client's specific production and physical plant requirements.

Bespoke solutions can also be supplied incorporating multiple inlets and custom trough designs, outlet configurations and discharge gate assemblies.



#### **Belt Feeders**

Material dosing can also be provided via belt feeding devices. Such feeders can provide accurate dispensing of both powder and granule materials and have low impact on the conveyed material due to the gentle nature of the conveying method. Our belt feeders can be supplied with either constant rate or variable speed drives and can incorporate multiple inlets and discharge catch gates.



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