



# Tascol Shore Engineering Limited

MANUFACTURERS OF PROCESS WEIGHING, FEEDING AND CONTROL EQUIPMENT

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## T33 SUPPORTING TEXT.

The T33 provides a cost effective solution to weighing between 10 kg and 50 kg of material into sacks. The machine readily fits to hopper outlets, even in low headroom situations, and will operate consistently despite variations in the material level in the hopper. The T33 is traceable to National Weights and Measures Certificate number 2113/1.

The T33 operates in a semi-automatic manner, meaning that the operator has an intervention in the filling process. The operator places a sack into the sack holder and opens the feed handle. Material flows into the sack, and feed cuts off automatically slightly before the correct weight is reached. The operator then jogs the remainder into the sack by small deflections of the feed handle, until the single pendulum weight indicator show correct weight. The filled sack is then removed and the cycle repeated with a fresh sack. Whilst the initial filling of the fresh sack is taking place, the operator can pass the previous filled sack through a sewing machine or other sack closing device.

Speeds that can be achieved are operator dependent, and are usually 2 or 3 sacks per minute. This, however, can be improved by using a foot operated air cylinder on the sack holder, which can add an extra 20 to 30 sacks per hour onto the output. It normally takes about 10 seconds to fill a sack, and between 6 and 10 seconds to change a sack. The accuracy of the balance indicator is better than  $\pm 25$  grammes. Filling accuracy depends on the operator, but  $\pm 0.25\%$  of a 50 kg sack can easily be achieved.

When handling free flowing materials such as animal feed pellets, various grains, sugar, plastic chips, etc., the T33 can be fitted under a hopper of almost any capacity. Non free flowing materials such as flour and animal feed meals should be stored in small hoppers above the T33, and care must be taken to ensure that material will flow into the T33 inlet of 200 mm x 180 mm. When non free flowing materials are stored in large capacity hoppers, it is necessary for some type of hopper discharger to be used, such as a screw or belt feeder. Powders are best handled by a screw feeder, and palletised or coarse materials by a belt feeder. Vibratory feeders are used for lumpy materials, but the feeding rate may be reduced. Any material storage hopper should have  $60^\circ$  valley angles as a minimum.

There is a dust collection aperture in the T33 housing which connects to an air escape channel in the sack holder. If a direct connection is made to this aperture, the dust collection must be diverted to atmosphere during filling of the sack. Tascol Shore Engineering Ltd can provide limit switches to detect open and closed states of the sack holder clamps to operate the dust collection. Most of the dust produced will occur when the sack is released from the sack holder. Tascol Shore Engineering Ltd have a standard recommendation for dust collection from this area.

The gravity feed T33 is purely mechanical, whilst the belt and screw feed versions have a motor starter unit and a limit switch mounted on the T33 housing to start and stop the feed. After the majority of the sack has been filled, the feed handle can be deflected slightly to jog the remaining material into the sack without starting the feeder's motor.

The T33 is easy to install and set up. The Tascol Shore Engineering Ltd handbook provided is simple to follow and allows the user to set up his own machine to an exacting standard. A low cost spares set for two years operation is available.

The sack holder supplied depends upon the type and capacity of sack. Interchangeable sack holders can be supplied when a wide variety of sack sizes are to be fitted. The sack holders supplied are normally used for paper, plastic or hessian sacks, and keep the neck of the sack completely closed whilst filling takes place.

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## **SPECIFICATION.**

### **GENERAL**

3mm (10 s.w.g) machine housing.  
5:1 ratio beam.  
Precision steel knife edges.  
Twin knife edge single pendulum balance indicator.  
Beam dashpot damping.  
Symmetrical machine housing with steep valley angles.  
Twin bearing precision catchgate, using universal sealed bearings.  
Adjustable material flow regulator.

### **FEEDERS AVAILABLE**

Gravity, Screw, Belt, Vibrator, Rotary seal.

### **SPEED**

2 to 3 sacks per minute allowing 6 to 10 seconds per sack change.

### **ACCURACY**

Balance indicator accuracy better than  $\pm 25$  grammes.  
Filling accuracy depends on the operator, but  $\pm 0.25\%$  of 50 kg is easily achievable.

### **WEIGHT DETAILS**

Range 10 kg to 50 kg.  
Weigh weights provided as standard:  
1 x 25 kg, 2 x 10 kg, 1 x 5 kg.  
Weigh weights can be individually configured to cater for any desired targets in the 10 kg to 50 kg range. There is a 100 kg filling option.

### **MACHINE INLET AND HEADROOM**

Inlet 180mm x 200mm. 700mm headroom required above top of sack.  
Allow an extra 200mm if a screw is fitted, and an extra 750mm for a belt feeder.

### **SACK HOLDER SIZES**

300mm x 200mm Pecan shape, 760mm circumference. **This is the most popular version.**  
250mm x 150mm Pecan shape, 600mm circumference.  
300mm Circular, 940mm circumference.

### **OPTIONAL EXTRAS**

Electronic version using load cells.  
Valve sack filling option.  
Sewing machines and conveyors.  
Stainless steel contact parts (304 and 316).  
Foot operated air cylinder on sack holder.  
Guarded moving parts on sack holder.  
Mobile stand.  
Exhaust vent.  
4 digit counter.  
Drum cradle.  
Sack holder clamps open/closed limit switches.