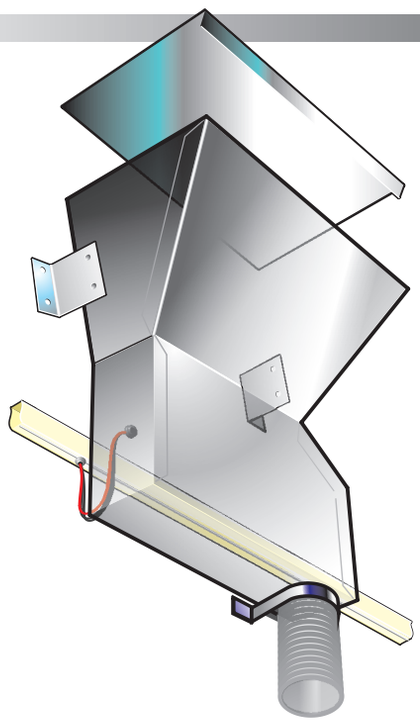
20″ FEEDER AND HOPPER INSTALLATION



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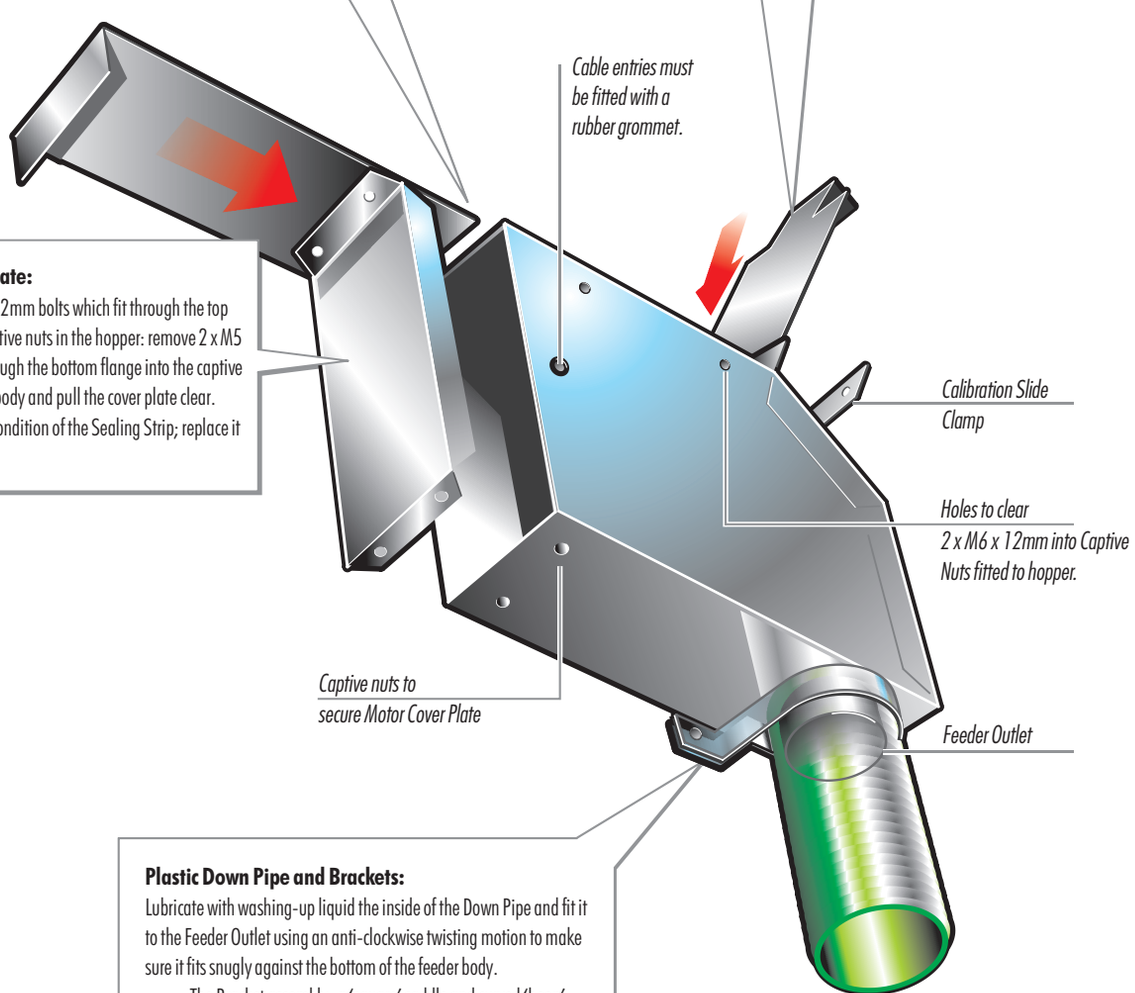
20" FEEDER AND HOPPER INSTALLATION: **1**

The ATL 12volt DC Electric Timed Feeder: Standard Body

Cut Off Slide:
Prevents cake spilling out of the hopper when the feeder is removed. Remove the Motor Cover Plate and fit the Cut Off Slide into the narrow slit above the motor compartment and below the hopper flange. Keep the slide horizontal so that it rests upon the two rivets at the rear of the feeder body and the captive nuts at the front. With the slide in position the feeder may be removed from the hopper.

The Calibration Slide:
Used to 'throttle' the flow of cake to the auger to ensure all of the feeders deliver the same ration in a given time, the Calibration Slide fits into the narrow slot between the hopper mounting flange and the feeder end and MUST rest upon the fixing rivet.. The Clamping Plate and 2 x M6 x 12mm stainless steel bolts lock the slide in position when calibration is complete. The slide is factory fitted to the feeder.



Motor Cover Plate:
Remove 2 x M6 x 12mm bolts which fit through the top flange into the captive nuts in the hopper: remove 2 x M5 x 10mm fitted through the bottom flange into the captive nuts in the feeder body and pull the cover plate clear.

Check the condition of the Sealing Strip; replace it if it is damaged.

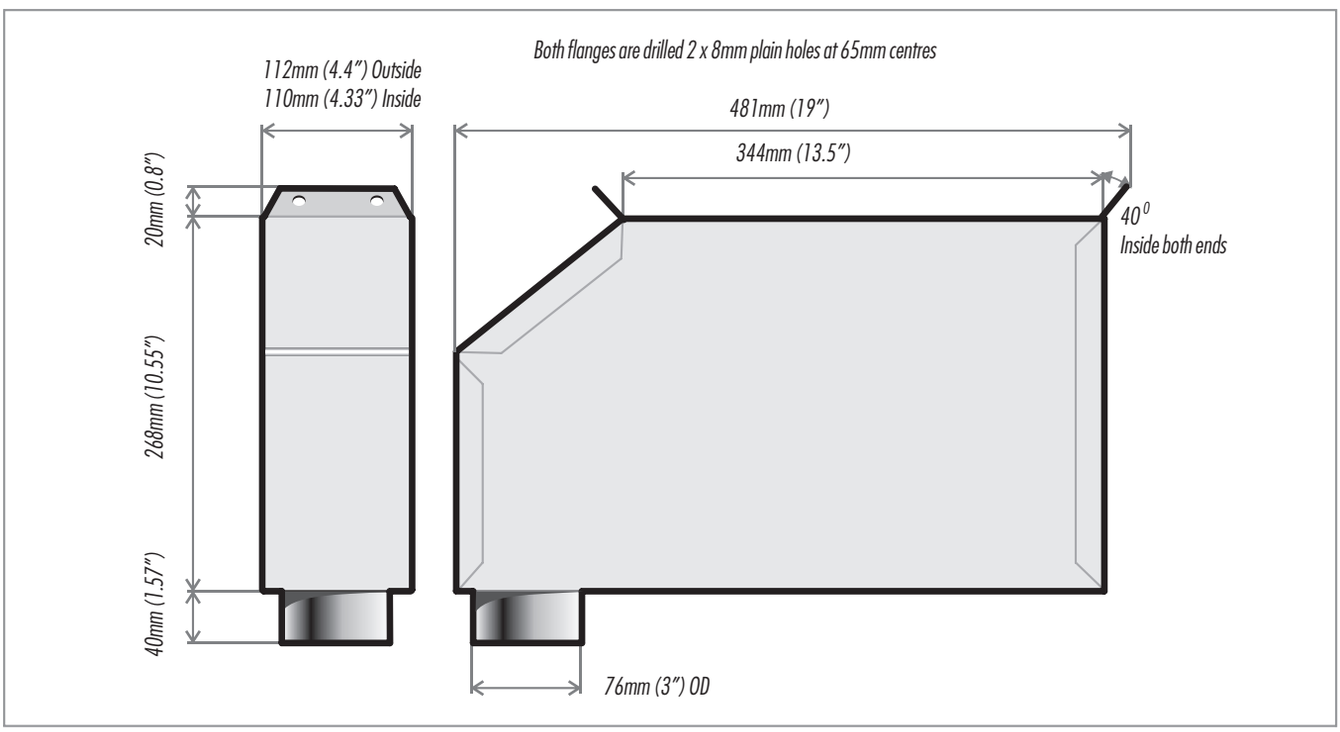
Plastic Down Pipe and Brackets:
Lubricate with washing-up liquid the inside of the Down Pipe and fit it to the Feeder Outlet using an anti-clockwise twisting motion to make sure it fits snugly against the bottom of the feeder body.

The Bracket assembly- a 'square' saddle and curved 'hoop' must be located as tightly as possible beneath the feeder body so that it both clamps the down pipe in position and helps to support the feeder. Use the M8 x 60mm coach screws and plugs supplied.

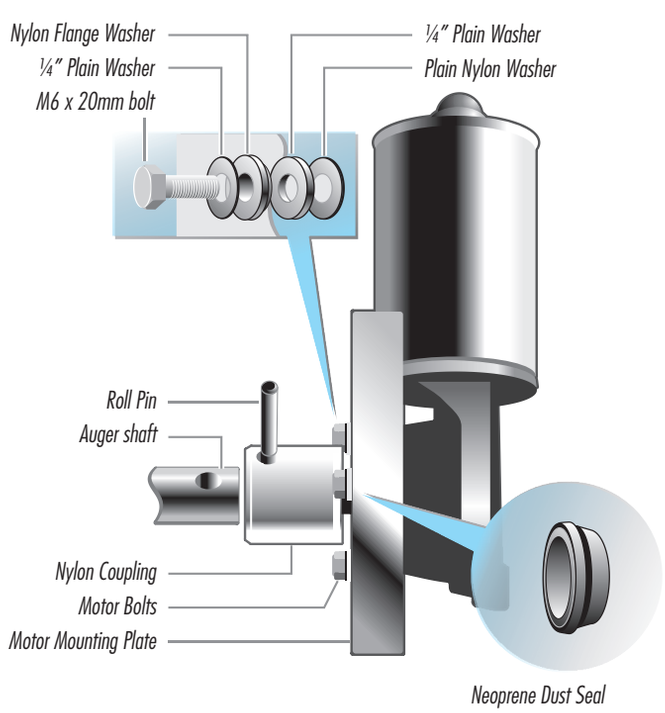
20" FEEDER AND HOPPER INSTALLATION: **2**

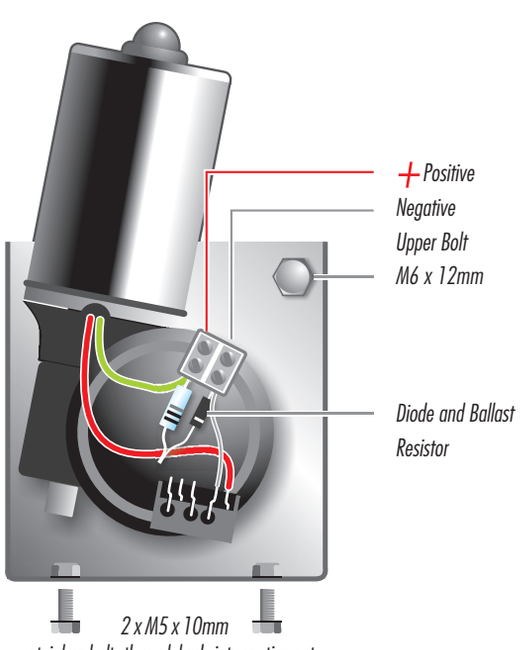
ATL Standard 12volt Timed Feeder.

All dimensions are nominal. For difficult, space critical installations please contact ATL before ordering.



ATL Standard 12volt DC Feeder Motor Connections, Mounting Plate and Coupling details.



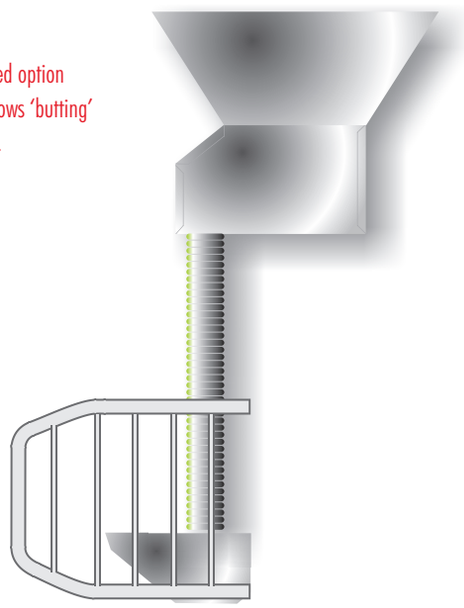


20" FEEDER AND HOPPER INSTALLATION: **3**

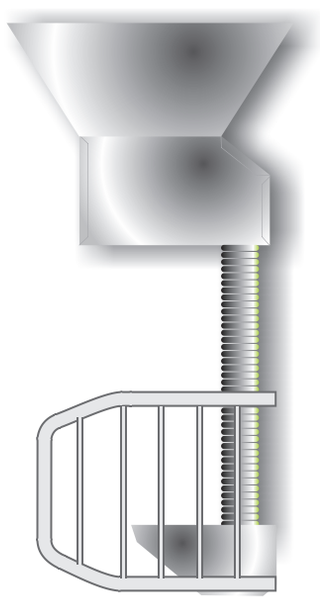
ATL Standard 12volt Timed Feeder: Hopper and Feeder arrangements:

Feeder and Hopper Offset from Stall

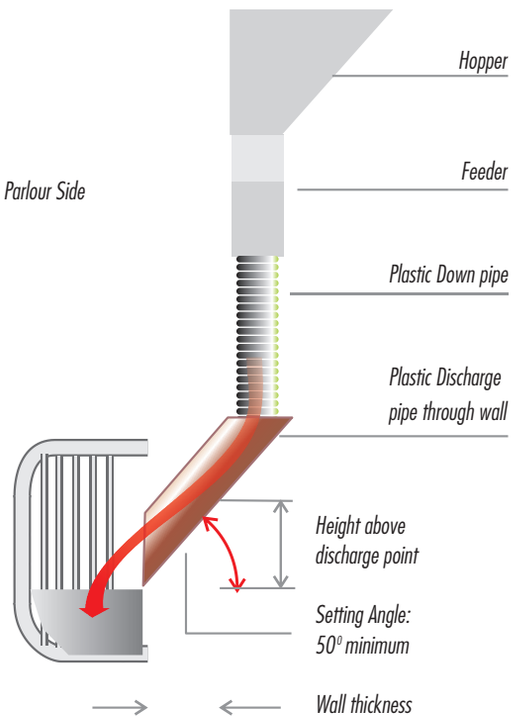
* Preferred option prevents cows 'butting' the feeder.



Feeder and Hopper in line with Stall



Feeder and Hopper on the outside of the parlour



Where possible, mounting the feeders and hoppers outside the parlour reduces clutter, improves hygiene, prevents cows 'nibbling' at down pipes and from whacking feeders in the (vain) hope of dislodging a little extra cake!

But out of sight cannot mean out of mind. Fixings- especially the number of down pipe brackets must not be skimped because a hopper full of feed exerts a hefty load on the feeder.

With this arrangement, a short piece of flexible down pipe discharges into a length of slightly larger plastic pipe which is champfered to follow the inside line of the wall and act as a 'scoop' at the outer end. The discharge into the manger must be flush with the wall.

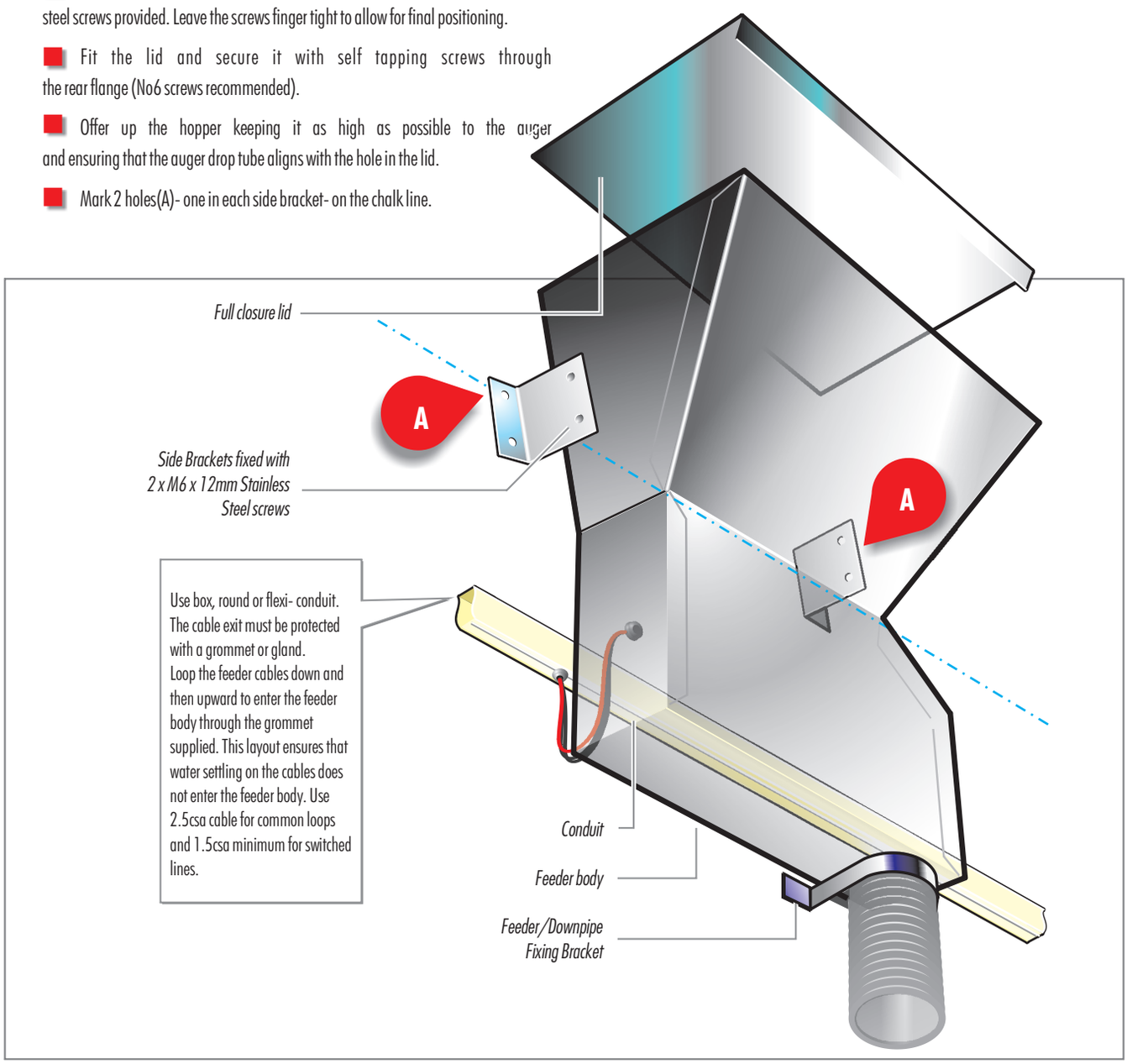
The setting angle is important; less than 50° and cake will jam in the pipe and create a backlog. Follow the chart below for the optimum angle v wall thickness.

Wall Thickness:	Height above Discharge:
230mm (9")	274mm (10.8")
254mm (10")	305mm (12")
280mm (11")	335mm (13.2")
305mm (12")	365mm (14.4")
343mm (13.5")	411mm(16.2")

20" FEEDER AND HOPPER INSTALLATION: **4**

20" Hopper and Feeder Fixings:

- The hopper is mounted using two side brackets with lower support provided by the downpipe bracket on the feeder. Two M8 x 60mm coach screws and wall plugs are supplied.
- Hoppers are supplied complete with flat, full closure lids that locate against the front edge of the hopper by a down-turned flange and may be secured by drilling the rear edge and fitting self-tapping screws (not supplied).
- Snap a chalk line the length of the side, 150mm (4") below the top of the hopper.
- Fit the two side brackets to the hopper using 2 x M6 stainless steel screws provided. Leave the screws finger tight to allow for final positioning.
- Fit the lid and secure it with self tapping screws through the rear flange (No6 screws recommended).
- Offer up the hopper keeping it as high as possible to the auger and ensuring that the auger drop tube aligns with the hole in the lid.
- Mark 2 holes(A)- one in each side bracket- on the chalk line.
- Drill the walls M10 x 60mm (minimum). Fit the wall plugs and mount the hopper using 2 x M8 coach screws supplied. Do not fully tighten the screws.
- Referring to Page (5), fit the feeder and downpipe.
- Check and adjust the hopper alignment (for vertical) and tighten the side bracket and mounting screws.



20" FEEDER AND HOPPER INSTALLATION: **5**

ATL Standard Feeder-to-Hopper Fixing:

- The grommet through which the feeder motor cables pass must be fitted into the side facing the wall. Do not drill additional holes through the motor cover plate.
- Remove the motor cover plate and the calibration slide clamp plate (if fitted).
- Offer up the feeder body and feed the motor cables though the grommet and into the motor compartment.
- Tilt the feeder and locate the two holes inthe casing rear over the two rivet heads that project from the rear of the hopper flange (A). *The hopper fits inside the feeder*
- Straighten the feeder, align the two holes in the front top edge with the two captive nuts fitted to the hopper front flange (B).
- Fit 2 x M6 x 12mm stainless steel screws through the feeder body and into the captive nuts.
- Align the holes in the feeder end with the captive nuts fitted to the hopper end (D). Ease the calibration slide up so that the clamp plate can be fitted with 2 x M6 x 12mm stainless steel screws. Again, leave the screws finger tight.
- The downpipes should be cut to the appropriate length. Smear a little washing up liquid around the inside edge of the downpipe and fit it to the feeder outlet using an anti-clockwise twisting motion. The pipe must fit tightly against the bottom face of the feeder body.
- The top downpipe bracket must be fitted as close as possible to the underside of the feeder, clamping the downpipe and supporting the feeder. Each bracket comprises a 'square' support and a curved' clamp which are secured using the M8 x 60mm plugs and coach supplied.
- Additional brackets must be fitted at no more than 500mm (20") intervals to provide acceptable support.
- Connect the feeder motor cables checking the polarity and ensuring that diodes are in place and fitted correctly- the white band to the (+) supply.
- Replace the motor cover plate securing it with 2 x M6 x 12mm (Top flange) and 2 x M5 x 10mm (Bottom flange) stainless steel screws.
- Check that the whole assembly is 'true' and tighten all of the screws.