

# Vacuum Extraction Auger

**Operation Manual** 



A Vacuum Extraction Auger can be utilised to discharge wood pellets from your Collinson BoxStor™ or BioStor Silo .

The Collinson RotaFlex™ vacuum extraction auger is fitted with a digital speed controller which can be easily adjusted to transport pellets from 0 - 120 kg per hour, gently conveying pellets from the silo to the vacuum extraction intake.



**Control Unit** 



Vacuum Extraction Auger (VEA) BioStor intake shown

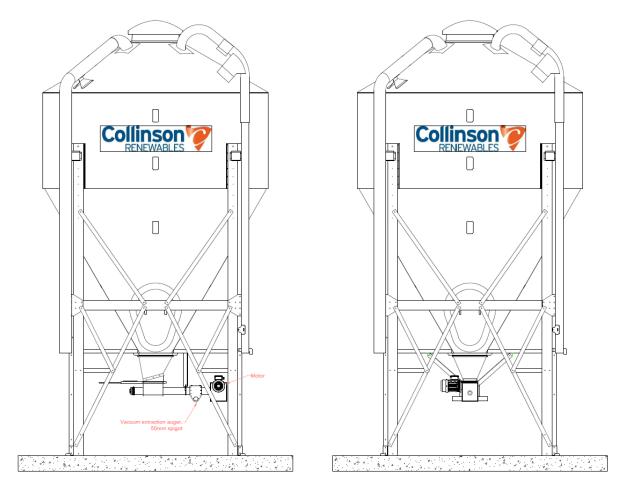
Rotaflex 50mm Vacuum Extraction Auger c/w Digital Speed Controller, 0-120kg/hr

The control unit should be mounted internally, with access to a single phase power supply. The motor will be pre wired and supplied with a 10m cable, this can then be routed to the internal control unit and plugged in to power the motor.

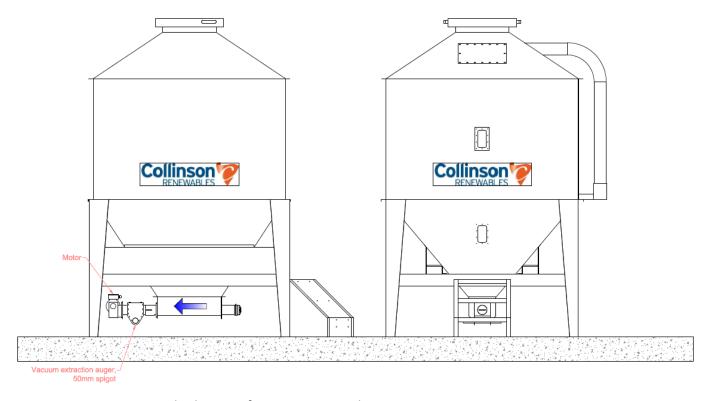
For ease of installation the vacuum unit is handed, giving you the option to exit the unit from the right or left.

Note: The motor is supplied with a 10m length of cable, if more is required this will need to be extended by your electrician.

## **Typical Installation**



Vacuum Extraction Auger discharging from a BioStor silo



Vacuum Extraction Auger discharging from a BoxStor silo

The Rotaflex auger discharges pellets for uptake by the vacuum auger, therefore prior to using the augers the discharge speed will need to be set in order to match the rate at which the vacuum hose can remove the pellets efficiently to feed the boiler requirements.

#### Prior to filling the silo

To prevent the product compacting on the open auger ensure the slide unit is closed prior to filling the silo. When filling is complete, gradually open the slide as required allowing the product to trickle on to the spiral.

#### Procedure for using your auger for the first time

When the pellets have been blown into the silo, gradually open the slide circa 60mm allowing the product to trickle on to the spiral, leave the slide in this position until the auger has been run for approximately 7 – 10 hours, to 'run the auger in', after this period the slide can be opened to allow throughput as required. This process will 'polish' the auger; unpolished augers may overload the motor.

If the motor trips, close the slide, allow the motor to cool, then press the reset button and start motor.

#### **Set up Procedure**

The discharge speed of the Rotaflex auger needs to be set to efficiently match the requirements of the vacuum auger, we recommend you start the auger on a slower setting and increase as required.

It is important the auger speed is adjusted to the required flow as running it too fast can cause a build up of pellets to block the auger alternatively if it is too slow there will not be sufficient pellets to feed the boiler.

- 1. Power up the system, a 3 pin plug is fitted to the control panel for connection to a single phase electricity supply.
- 2. Press START, the green button.
- 3. Adjust the wheel clockwise to increase and anti clockwise to decrease the pellet flow, see fig 1

Key	Function	Description
	Digital dial	Used to change the frequency setting and parameter values.  Press to display the following:  Displays the set frequency in the monitor mode
		<ul> <li>Currently set value is displayed during calibration</li> </ul>
		Displays the order in the faults history mode

Fig 1

4. When the optimum speed has been set, press SET to store the flow rate, see fig 2

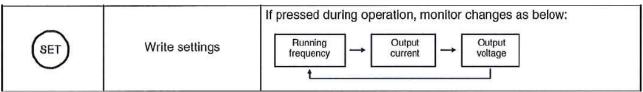


Fig 2

5. For all future use, press START and STOP as required, the pellet throughput will now remain constant.

### 3.2 Terminal connection diagram

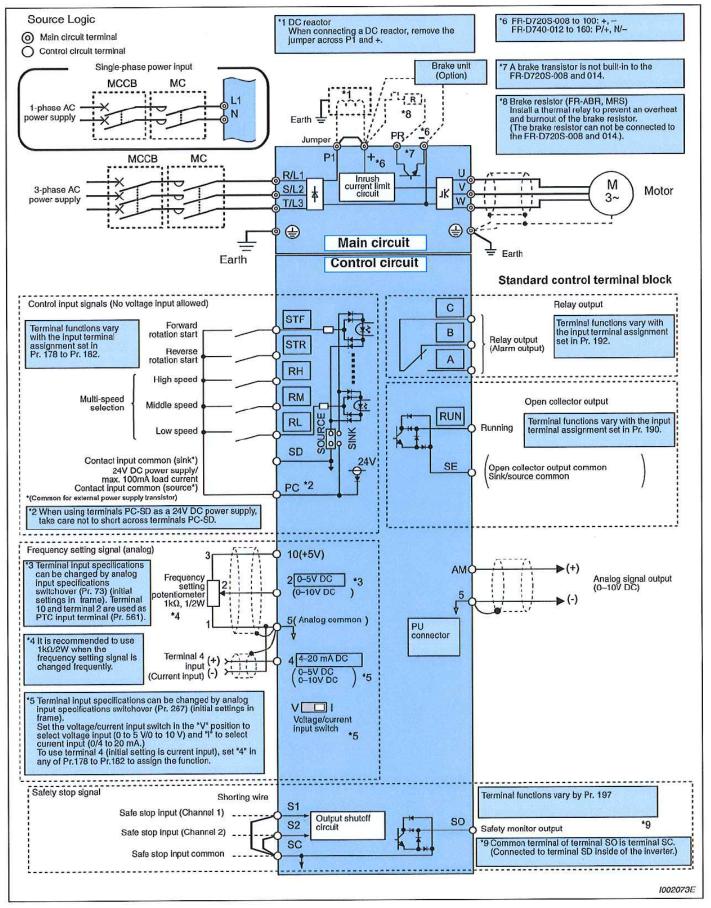


Fig. 3-3: Terminal connection diagram of the inverter



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Riverside Industrial Park, Tan Yard Road, Catterall, Preston, Lancashire, PR3 OHP

T: 01995 606 451