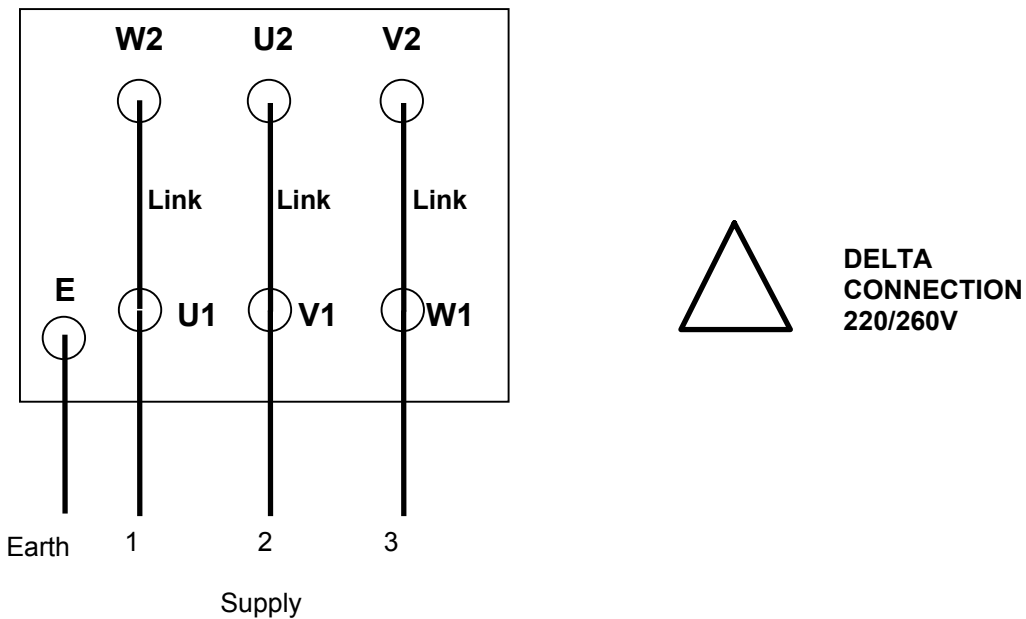
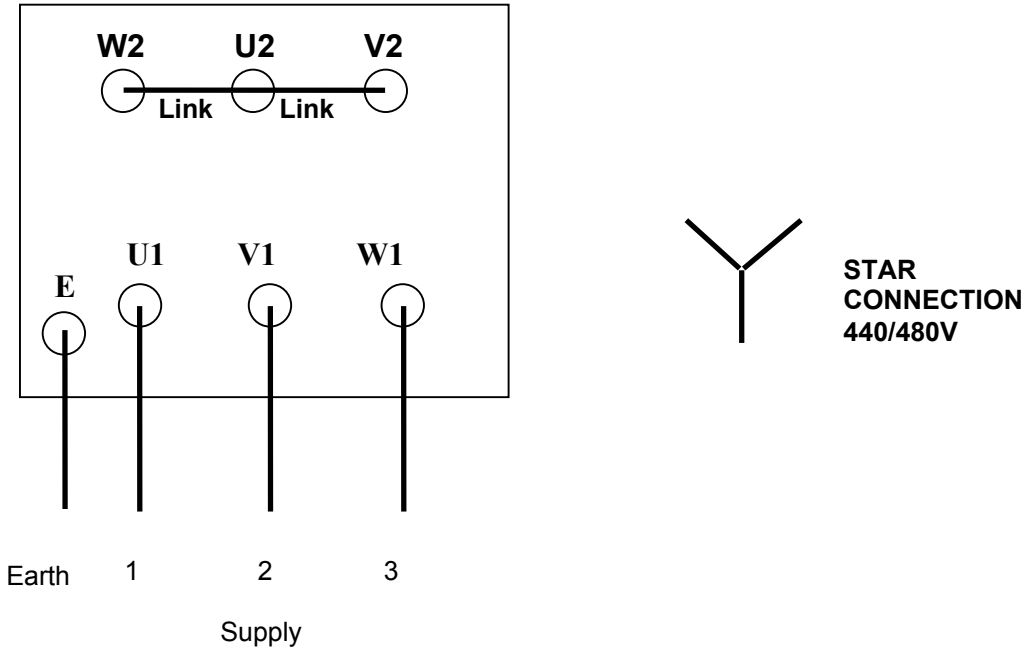


AFTE showing Home, Depth and No Hole Sensors on A7(PNP) A8 (NPN) Control Blocks



**Electric Motor Connection**

The electric motor used on the AFTE's are 3 phase mechanical brake motors and can be connected to into both 440-480 volts or 220-240 volts at 60Hz by changing the connections to the motor as shown below.



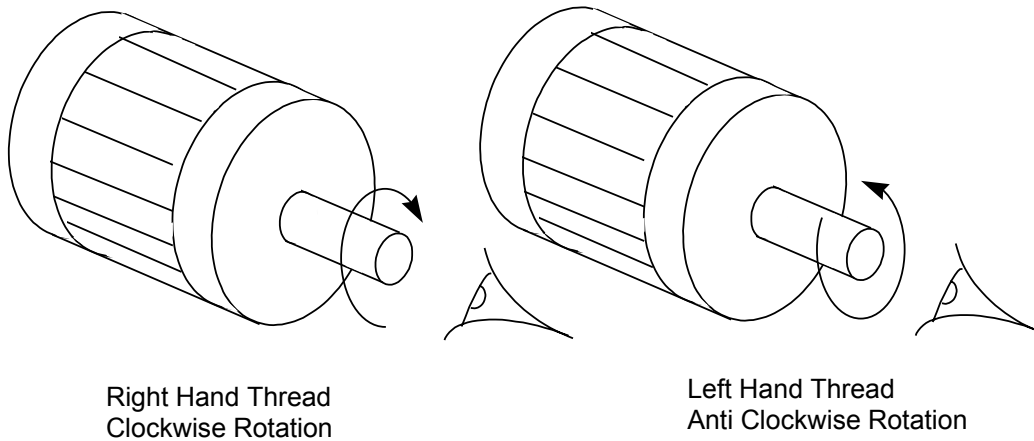
The motors must be connected to a 3 phase supply in accordance to the Voltage Charts in the relevant service sheet and provided with a starter fitted with an overload protection.



Recommended overload settings and the connection type.

Tool Series (Motor Part No.)	Speeds (50Hz)	Voltage /V	Frequency /Hz	Motor Connection	Power /hp	Full Load Current /A	Recommended Overload Setting /A
<b>AFTE270</b> <b>(381253)</b>	<b>1100-2950</b> <b>4 pole</b>	<b>220/260</b> <b>440/480</b>	<b>60</b> <b>60</b>	<b>Delta</b> <b>Star</b>	<b>0.28</b>	<b>1.0</b> <b>0.6</b>	<b>1.0-1.2</b> <b>0.6-0.8</b>
<b>AFTE470</b> <b>(310373)</b>	<b>180-1450</b> <b>4 pole</b>	<b>220/260</b> <b>440/480</b>	<b>60</b> <b>60</b>	<b>Delta</b> <b>Star</b>	<b>0.6</b>	<b>2.0</b> <b>1.1</b>	<b>2.0-2.2</b> <b>1.1-1.3</b>
<b>AFTE480</b> <b>(380433)</b>	<b>180-1450</b> <b>4 pole</b>	<b>220/260</b> <b>440/480</b>	<b>60</b> <b>60</b>	<b>Delta</b> <b>Star</b>	<b>1.2</b>	<b>3.8</b> <b>2.2</b>	<b>3.8-4.0</b> <b>2.2-2.4</b>

When connecting the motor ensure that the motor rotation is correct. Remove the belt from the pulley's and view the motor from the shaft end of the motor. For right hand threads the rotation should be clockwise and anti clockwise for left hand threads.



To reverse the motor interchange U1 and V1 connections.

**NOTE: Before cycling a leadscrew tapper check the following:-**

- 1. Electric Motor is running in the correct direction.**
- 2. Proximity switches are fitted correctly i.e. are sensing datum and depth and that the logic of the control circuitry is functioning correctly:-**
  - i.e. Depth reverses the direction of the electric motor.**
  - Datum stops the electric motor.**

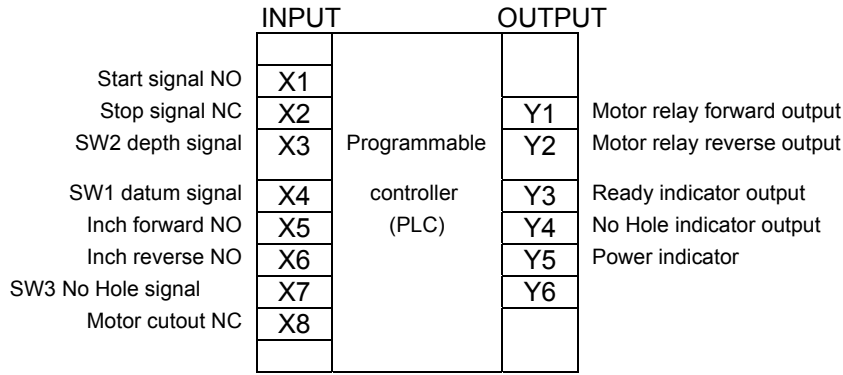


## Operation of AFTE Tapper using a Programmable Controller

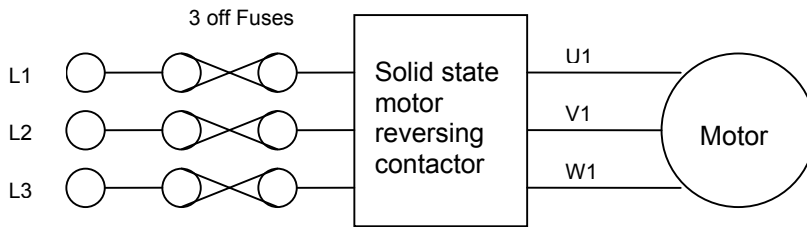
### Electrical connections to AFTE270/470/480:

Consult tool service sheet for correct wiring of motor and proximity switches.

### Control circuit:



### Motor Switching Circuit:



Note\*: Ultra-fast fuses must be used. The fuses must have an I<sup>2</sup>T rating lower than the contactor.  
Fuse size Ø10 x 38mm.

Motor rotation test must be carried out as described in AFTE service sheet before operating the tool.

Desoutter recommends that the SRC3D Solid State Relay from Intercable Danmark is used in the circuit.

### Warning :

Customer is responsible for ensuring the safe installation and operation of the control equipment.



