GENERAL INFORMATION

AND

INSTALLATION

INSTALLATION

1. STEPS FOR MECHANICAL INSTALLATION

SHIPPING CRATE

The crate measures 35"x40"x30" and weighs 800 lbs. It should be moved from the heaviest side (back of the machine) by means of a fork lift truck.

UNPACKING

The machine is attached to the wooden pallet at the base. The crate sides are screw bolted to the wooden pallet and to cross ties within the crate. The screws should be removed around the outside base of the crate and the sides lifted straight up to clear the machine.
The machine should be inspected for signs of damage. If there is any indication of damage, a claim should be filed with the carrier. For other damages refer to the warranty policy.

REMOVING THE PALLET

The machine is held to the wooden pallet with six nuts. These should be removed. Then the machine can either be lifted directly by the temporary lift points (painted red) off the pallet or lifted by means of a fork lift truck with the tines inserted along the sides of the base.

LOCATING THE MACHINE

The machine should be placed on an adequate table (steel) capable of supporting approximately 700 lbs (300Kg).
The bolt hole pattern is given in the illustrations.

FREEING THE COUNTER WEIGHT

The Z axis is counterbalanced by a counter weight that is bolted to the column for shipment. These bolts should be removed and kept inside the tool box. They should be replaced if the machine is to be moved.

CONTROL PANEL SUPPORT

This bolts on to the coolant tray with 4 socket screws. The controller slides in on top.

2. STEPS FOR ELECTRICAL INSTALLATION

CHECKING THE VOLTAGE

Slide up the cover of the transformer and check that the power cord is correctly installed to the voltage you requested. It should be either at 110 VAC or 220 VAC, both single phase.
Make sure that the outlet corresponds in voltage.
Make sure that the ground line (color green) corresponds to the ground pin of the power plug.
Make sure that the ground in the socket is grounded and not floating free in the wall.

CURRENT REQUIREMENTS

At 110 VAC single phase current is 12 Amps maximum
At 220 VAC single phase current is 6 Amps maximum

VOLTAGE SURGE REQUIREMENTS

The voltage should always be within 110 VAC +/- 10% or 220 VAC +/- 10% . There may be present, at some times, higher or lower voltages due to other heavy equipment being turned off or on from the line. This will lead to erratic behavior of the machine if these limits are exceeded.

R.F. REQUIREMENTS

Do not locate the machine near any electric arc welding sites. This can cause the machine to operate erratically.

POWER PACKAGE

Open the power package and check that there are no loose connections and that the boards are correctly seated. Sometimes the crate gets inverted in shipping.

3. POWERING UP

1) Make sure that the main power switch on the control panel is off and the spindle switch is off.

2) Slide in the controller and plug in the controller cable. Always before unplugging out or plugging in the controller make sure there is no power i.e. the main power switch is off.

3) Plug in the wall power cord. Rotate the red emergency switch clockwise to check that it is OUT on the control panel and switch the main power switch on.

4) The controller should display READY? Press the YES key and the Z axis will retract, freeing the wooden block under the spindle head. The machine is now initialized on each axis to the home position. The controller will display MODE?

5) Check the spindle. Rotate the switch to spindle local (i.e. you are in control-not the controller) and turn the spindle ON switch. Rotate the speed dial. The spindle should rotate. The rpm can be seen in the display at the front of the spindle head.

4. POWERING DOWN

Turn the main power switch to OFF.

5. LEVELING THE MACHINE

Clean the table and inside the spindle nose with a light oil. This removes the anti-rust coating. A level indicator should be placed on the table and the leveling adjusted until the table is horizontal in both the X and Y axes. The level reading should be under 0.04mm/meter or 0.0005"/ foot.
This level adjustment is important for proper machine operation.

6. AUTOLUBE SYSTEM

The autolube system is mounted at the back of the machine on the left side of the vertical column. The system is automatically activated when the machine is turned on and periodically lubricates the slides and ball screws. The system should be checked occasionally and should not be allowed to run dry. Switch the machine off when not in use or the autolube system will eventually pump dry.

7. INSPECTION REPORT

Accompanying the machine is a clear plastic envelope that contains the inspection report. The identification numbers on the report and on ~~the~~ machine should be verified for agreement. Each machine goes through a rigorous accuracy test for parallelity, accuracy and spindle total indicator runout (TIR). The values which were actually measured are printed beside the allowable quality control (QC) values and are typically very much better than the permissible deviations.

8. ACCESSORIES

Included with each machine are:

1) A tool box containing a variety of tools.
2) A clamp kit with T nuts, bolts, clamps, and riser blocks

9. OPTIONAL ACCESSORIES

Optional accessories are packaged separately. Operation and assembly instructions for the optional accessories are included in their own shipping cartons if not in this manual. Operating instructions for the controller are contained in this manual.