Installation Instructions

Electrical Requirements:

It is the responsibility of the customer to insure that the proper electrical power is available for the machine. The AutoBrakes require 230 Volts ac, three phase power with a ground. Additionally, it is highly recommended that a 5/8 inch copper grounding rod be installed adjacent to the right rear leg. The rod should be 8 feet long and only 8 inches should be extending above the floor level. Run a ground wire from ground rod to the lower leg and secure.

Current requirements:

Unit	service required	minimum wire size
AB1014 series	20 amp	14 ga
AB1216 series	20 amp	14 ga
AB1009 series	30 amp	10 ga
AB1211 series	30 amp	10 ga

An electrical disconnect needs to be installed within 10 feet of the machine for maintenance and OSHA requirements. The electrical power is feed through the main electrical cabinet in the rear. This connection must be flexible to allow opening and closing of the electrical control panel. See Figure 1.

During installation their are a couple of conditions that can effect the control system. In some parts of the United States the incoming voltage is only 208 vac. The incoming voltage must be between 220 and 250 vac, (230 vac, -5%+10%.) If the incoming voltage is below or above these limits then a set of Buck/Boost transformer must be installed. **Note; if these transformers must be installed, they are the responsibility of the customer.** Buck/Boost transformers automatically increase or decrease the voltage potential by 10 %. These voltage limitations are critical due to internal step down transformers. Additionally, low incoming voltage can have an adverse affect on the power output of the main motors.

There are several different manufactures of these transformers and they are readily available across the country.

Hevi-duty Electric Model HS19F500A	2 required
Acme Electric Corporation Model T-1-81051	2 required
Square “D” model 500/V46F 200 to 230 vac 6.5KVA, 15% tolerance	2 required

Flexible electrical connection going into the rear of the main electrical cabin.

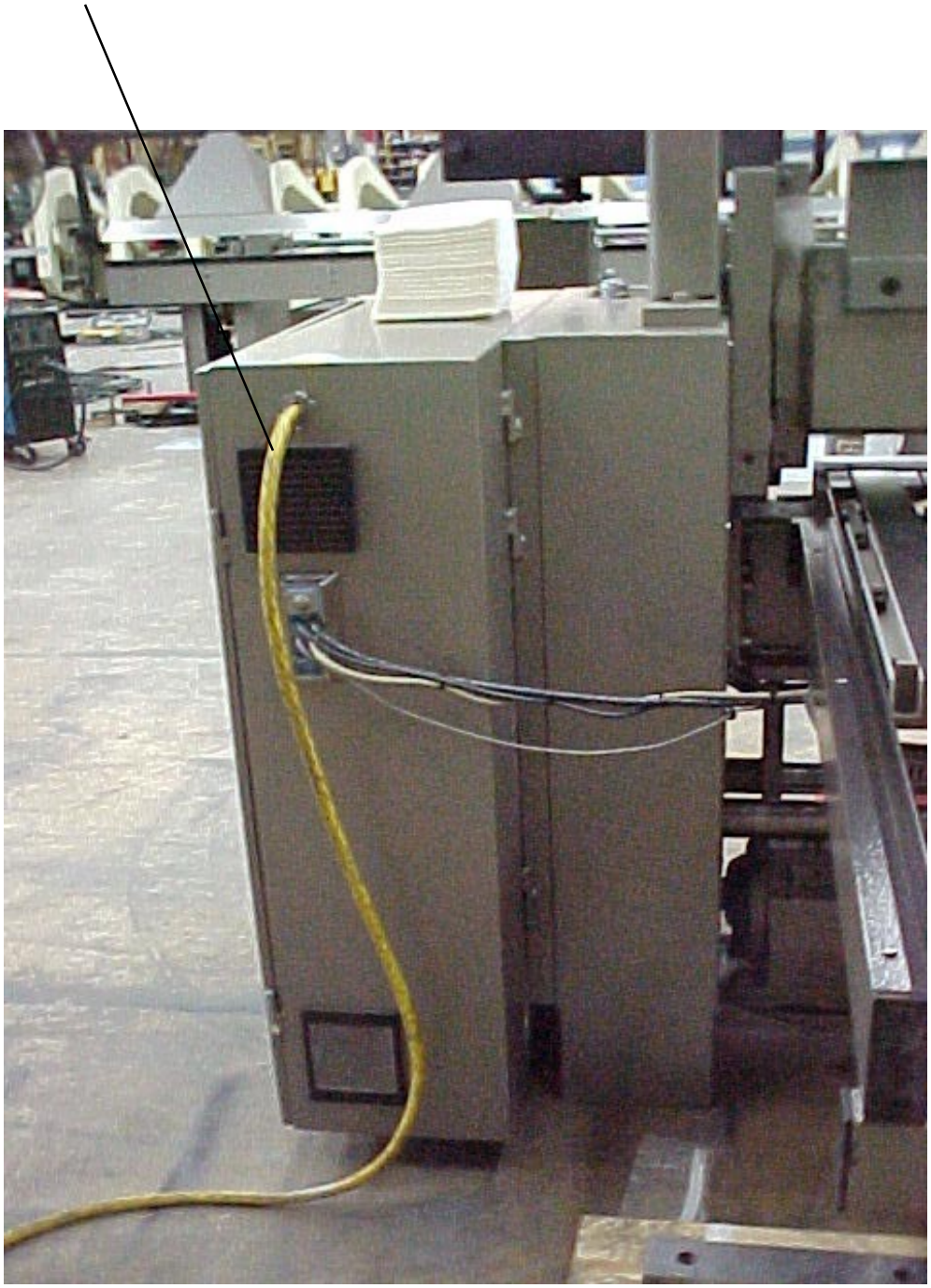


Figure 1

The second condition is singal phase 220 vac systems. In this case an external phase converter must be installed.

A phase converter creates an artificial third leg that is synchronized with the other two incoming phases. **Note; when working with inductive motors, only a rotary inverter should be used. If a static inverter is installed it will most likely burn out within several hours of use.** The phase converter must be rated one size up from the largest motor on the machine. It is also recommended that a voltage stabilizer be installed along with the phase converter.

We recommend:

Phase-A-Matic
39917 18 th Street West
Palmdale, Ca. 93551
(800)962-6976

or

ARCO Electric Products
2325 E. Michigan Rd.
Shelbyville, In. 46176-2655
(800)428-4370

Due to the varying rules and regulation across the country it is the customers responsibility to insure that all local codes are complied with. We recommend the use of a certified electrician, that is familiar with the Machine Tool Industry in your area.

Prior to our service personnel arrival electrical power should be stubed into the main control panel with 3 extra feet for routing. Our people will do the actual electrical hook up, inside the machine. (This means that all buck/boost transfomers or phase converters must be installed and wired.)

The AutoBrake is sent on a single skid. Upon arrival inspect the unit for any visible sings of damage. If any is noted, please contact the trucking company immediately and take pictures of the damage.

If the machine arrives on a flat bed and there is no loading dock the unit can be picked up by the upper clamping jaw. This includes the skid, back gauge assembly and base unit. However, it is easier to handle the machine if the shipping frame is removed, the back gauge assembly removed, the storage box removed.

Start by removing the shipping frame, then the storage box and finally the back gauge assembly. The back gauge assembly is mounted vertically for shipment. The back gauge table should only be picked up by the lower frame assembly. Once removed, set it aside. It will be installed later by the service person.

Pick up by the lower frame only using slings.

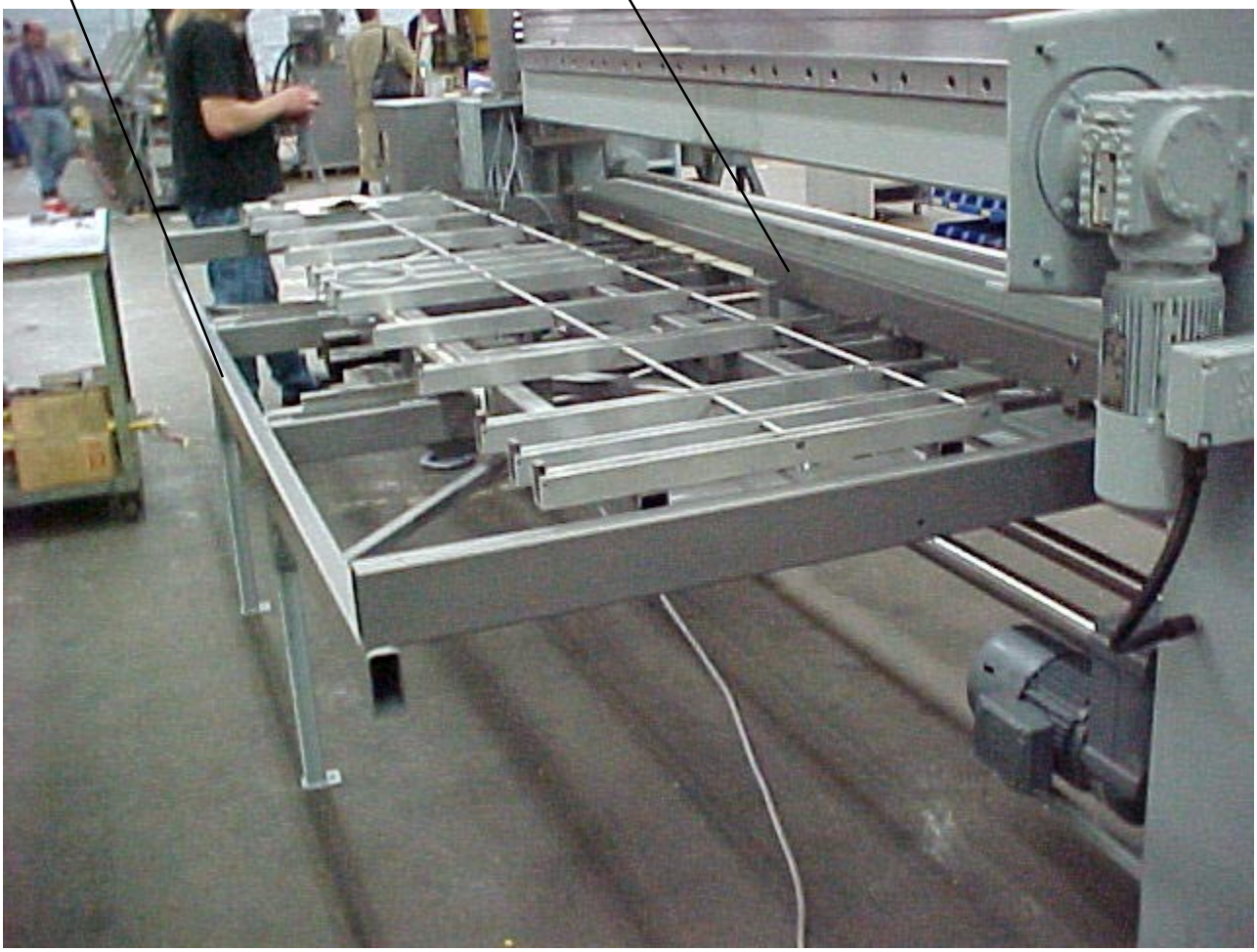
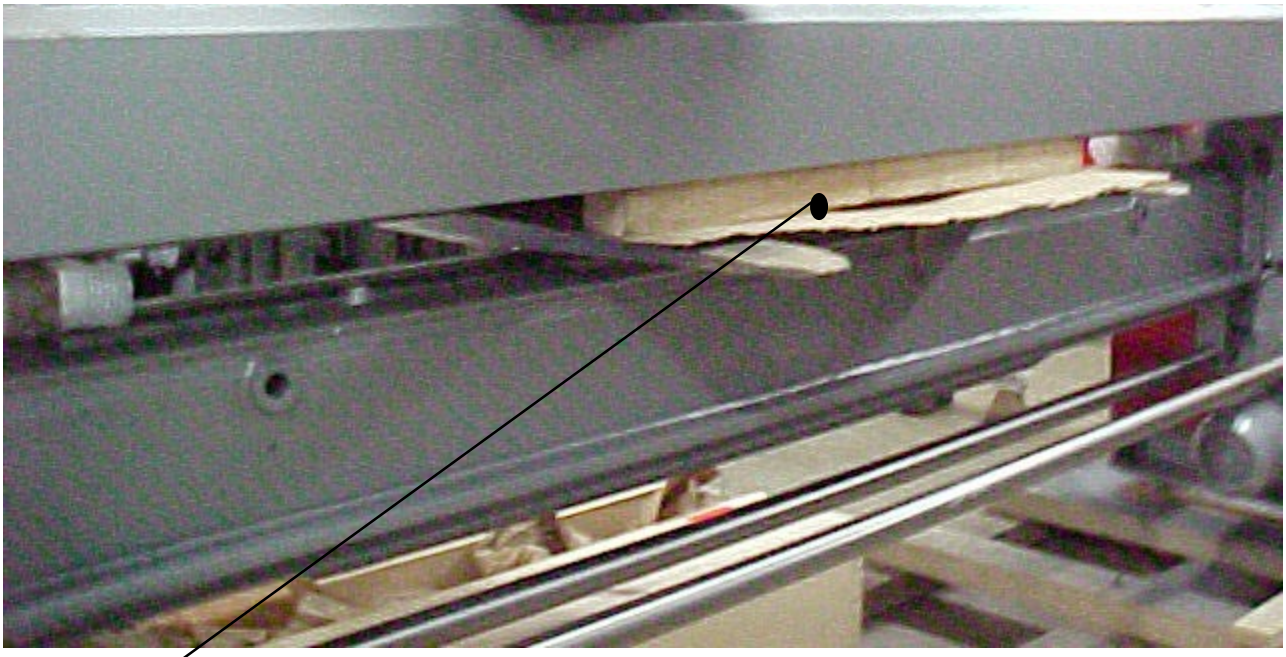


Figure 2

Position the forks as far apart as possible. Position the forks between the upper and lower jaws. Place plywood on top of the forks to prevent marring the upper jaw. Place a 4 X 4 or two 2 X 4 on top of the forks 12 inches back from the front. This helps keep the machine level when picking it up. Adjust the tilt as required to pick the machine straight up and off of the lag bolts holding it to the skid. Position the machine as required. Note; align the fork lift up with the center of the machine and insert the forks as far as possible for better control when lifting.

Figue 3



Position a 3 x 4 or equivalent between the forks and the upper beam to lift the machine up straight.

Figure 4

The AutoBrake must be in place and bolted to the floor prior to the arrival of service personnel. The AutoBrakes are very heavy and difficult to move. When fully skidded the AB1014K, with a 61 inch back gauge, weighs 9,800 lbs. Therefor, we recommend that a qualified rigging crew position the base machine, mark the floor, install anchor bolts and bolt the machine to the floor.

The machine should be bolted to the floor using 3/4-10 inch expanding anchor bolts. The minimum floor thickness is 4 inches.

Access for the right leg is gained by opening the electrical control panel fully. Remove the two Allen heads screw in the inch vertical channel between the cast Iron leg and the electrical control panel. This allows the cabinet to be swung open.

Figure 5: The machine must be located such that there is 18 inches of clearance on the left side, 18 inches of clearance for the back gauge, when installed, and 18 inches of clearance on the right side with the electrical control panel fully open.

Figure 6: After positioning the machine, correctly, mark the floor with a scribe. Move the machine out of the way, drill and install the 4 anchor bolts. Reposition the machine carefully and lower the machine over the bolts, being carefully not to damage the bolt threads. Set the anchor bolts securely.

Due not level the machine at this time or install the back gauge assembly, the service person will perform these operations upon arrival.

Foundation Requirements

Model	Weight
AB813K	8,000
AB806K	18,500
AB1014S	7,800
AB1014K	8,200
AB1009K	22,000
AB1210K	23,300
AB1216	9,600
AB1211K	22,500
AB1311K	24,400

AutoBrakes weighing less then 10,000 pounds can safely be placed on existing concrete floors 4 inchs thick AutoBrakes weighing over 10,000 pounds should be placed on concrete floors 8 inches thick.

An alternative is to install independent pads on undisturbed ground or 80 % compacted, using number 6 re-bar with a 6 X 6 grid. The pads should be two feet by four feet in size. Using independent pads AutoBrakes under 10,000 pounds can be placed on 4 inch thick pads and AutoBrakes over 10,000 pounds can be placed on 6 inch pads.

The back support legs for the back gauge table do not require any special support or foundations.

Note; the guide lines are minimum recommendations only. Always check and insure that all local codes are being complied with.