## Adjustments and Operation of Automatic Feed Control - DYNAPAC



### Mechanical Adjustments

Cutoff shoes should be set flush with the bottom of the feedbox (inset view Fig. 1). If this setting is maintained, the height gage reading will agree with the actual distance the cutoff shoes are above the mold.

With the mold in the raised and leveled position, 5/8'' (A – Fig. 1) above the mold throat with the feed control cam roller contacting the feed control cam at the point marked "low" (B – Fig. 1A), adjust the links (C- Fig. 1 & 1A) until the apron plate is 1/8'' above the mold top plate shown at (D- Fig. 1).

### Manual Control

If manual control is preferred, toggle "Auto Feed Off." Use the "Auto Feed Up" and "Auto Feed Down" on the display to your desired setting. The auto-feed will stay in this position until moved again. This is also used to set the auto-feed lever at the midpoint on the gage for using the automatic feature of the auto-feed. We start the automatic operation here because we want the auto-feed to have room to adjust up or down.

Adjust Timers for Auto-feed Control (Up & Down Movement of Feedbox)

Adjust Timer T4:7. This is the dwell timer. It is a window that extends beyond Finish Time. If the height pins come together before the dwell timer times out, there will be no auto-feed correction. If the height pins come together before the Finish Timer times out, an auto-feed "up" correction will occur. And, if the height pins come together after both the Finish Timer and Dwell Timer time out, an auto-feed "down" correction will be made.



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The recommended preset on this timer is 0040, which equals .4 second. Too much dwell time can actually decrease production and cause an inconsistent product. Too little dwell time will cause the auto-feed to be constantly searching and cause undue wear on the mechanism.

Adjust Timer T4:10. This is the "Auto-Feed Correction Time". It controls the amount of movement of the auto-feed mechanism during one "up" or "down" correction. The recommended preset of 0010 or .1 second will cause an adjustment equal to 1/16 inch or ½ of one gradation. More time on this timer will cause an over-correction and the auto-feed will again be "hunting".

Toggle the "Auto-Feed On". Adjust Finish Timer T4:1 to 0200, which is 2 seconds. Place a rag over one lower height stop. This will simulate too much material in the mold. Run the machine automatically until it stops with the head down. When the Finish Timer and Dwell timer time out, the auto-feed will adjust "down" ½ of one gradation or 1/16".

Stop the machine and remove the rag from the height stop. Run the machine automatically with no material. The height pins will come together before the Finish Timer times out and the auto-feed will adjust "up" ½ of one gradation or 1/16".

The auto-feed can be looked at as a "Quality control" system. If a concrete unit requires a certain amount of material and a certain finish time for proper density and texture, the automatic feed will attempt to maintain this through the amount of feed in the mold. If the concrete batches remain consistent, the automatic feed will maintain consistency. However, it will not compensate for batches that are too wet or too dry! If batch consistency changes due to an admix not getting in the batch or a material gradation change, the system may not have enough adjustment to compensate for this. In this event, the cause of the batch change must be determined. It may be necessary to lower or raise the Feed Timer T4:0 preset in order to compensate until the batch inconsistency can be corrected. Feed times and finish times will vary from material to material and from mold to mold. These will have to be determined through experience and it is important that records of this be maintained, so that values of this can be used as a starting point the next production run. This will help in maintaining production levels and maintaining a consistent quality product.

The Delay Timer T4:2 may have to be changed from product to product. This value is important in preventing crushing and cracking. During the finish time the pallet receiver rubbers are compressed and this compression must be relieved prior to stripping. Depending on materials, finish times, and product densities, this value must also be recorded as a starting point for future production runs. Generally .1 to .5 seconds is sufficient but in certain instances, this may have to be increased.



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### SAFETY BULLETIN

This notice is issued to advise you that some previously accepted shop practices may not be keeping up with changing Federal and State Safety and Health Standards. Your current shop practices may not emphasize the need for proper precautions to insure safe operation and use of machines, tools, automatic loaders and allied equipment and/or warn against the use of certain solvents or other cleaning substances that are now considered unsafe or prohibited by law. Since many shop practices may not reflect current safety practice and procedures, particularly with regard to the safe operation of equipment, it is important that you review your practices to ensure compliance with Federal and State Safety and Health Standards.

#### IMPORTANT

The operation of any machine or power-operated device can be extremely hazardous unless proper safety precautions are strictly observed. Observe the following safety precautions:

#### <u>ALWAYS</u>:

- ✓ Be sure proper guarding is in place for all pinch, catch, shear, crush, and nip points.
- ✓ Be sure that all personnel are clear of the equipment before starting it.
- ✓ Be sure the equipment is properly grounded.
- ✓ Turn the main electrical panel off and lock it out in accordance with published lockout/tagout procedures prior to making adjustments, repairs, and maintenance.
- ✓ Wear appropriate protective equipment such as safety glasses, safety shoes, hearing protection, and hard hats.
- ✓ Keep chemical and flammable material away from electrical or operating equipment.
- ✓ Maintain a safe work area that is free from slipping and tripping hazards.
- ✓ Be sure appropriate safety devices are used when providing maintenance and repairs to all equipment.



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### NEVER:

- ✓ Exceed the rated capacity of a machine or tool.
- ✓ Modify machinery in any way without prior written approval of the Besser Engineering Department.
- ✓ Operate equipment unless proper maintenance has been regularly performed.
- ✓ Operate any equipment if unusual or excessive noise or vibration occurs.
- ✓ Operate any equipment while any part of the body is in the proximity of potentially hazardous areas.
- ✓ Use any toxic flammable substance as a solvent cleaner.
- ✓ Allow the operation or repair of equipment by untrained personnel.
- ✓ Climb or stand on equipment when it is in operation.

It is important that you review Federal and State Safety and Health Standards on a continual basis. All shop supervisors, maintenance personnel, machine operators, tool operators, and any other person involved in the setup, operation, maintenance, repair or adjustment of Besserbuilt equipment should read and understand this bulletin and Federal and State Safety and Health Standards on which this bulletin is based.

