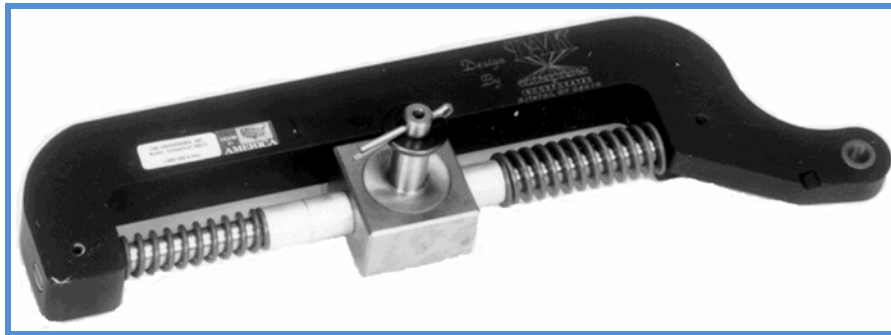




TAK Enterprises, Inc.



Vari-Feed

**INSTRUCTIONS FOR THE S AND F SERIES #0,
#1, #2 AND #3 MACHINES**

70 Enterprise Drive Bristol, CT 06010-7400
(860)583-0517 Fax(860)585-0479
www.takenterprises.com e-mail: tak@takenterprises.com

TAK VARIFEED Rev.04/17/03
for the Nilson fourslide machines

INSTRUCTIONS FOR THE S AND F SERIES #0, #1, #2 AND #3 MACHINES

Familiarize yourself with the VARIFEED by the brochure provided. Before dismantling any components from the VARIFEED or your machine, read these instructions completely through.

1. For positioning the FEED BLOCK to the desired end of stroke you must preset the spacers to the proper side of the PIVOT BLOCK. This procedure is to replicate the hole positions in the FEED CONNECTING LINK which will be replaced by the VARIFEED. If you view the holes in the FEED CONNECTING LINK as being replaced by the SPACERS on the VARIFEED, you can preset the SPACERS as you would normally set the hole positions.

To move the spacers proceed as follows:

Carefully remove the two (2) SET SCREWS from the FEED BODY.

Push the GUIDE ROD through with the use of a smaller diameter knock out rod until all the SPACERS, SPRINGS and the PIVOT BLOCK are free.

Reassemble with the SPACERS in their proper position.

First put the SPACER or SPACERS onto the front end of the GUIDE ROD, only if needed for your set up.

Slide on the HEAVY DUTY SPRING, PIVOT BLOCK, and then LIGHT DUTY SPRING, and lastly the remaining SPACERS.

“NOTE”: Heavy duty spring always installs on the feed box end of the vari-feed body nearest the steel bushing in the vari-feed body.

Reposition the GUIDE ROD FLATS with the screw holes in the FEED BODY. Then reinsert and tighten the (2) set screws.

2. INSTALLATION:

BEFORE PROCEEDING, UNLOCK FEED STOP RODS TO FREELY MOVE.

- Remove the existing FEED CONNECTING LINK from your fourslide machine.
- At this time you should check the FEED BLOCK for wear or looseness. If necessary adjust the GIB SCREWS for a snug, but free, gliding action. This is most important in order to hold accurate feed lengths.
- Install the VARIFEED as shown in the picture: Insert the PIVOT SHAFT through the ROCKER ARM. Slide washer onto PIVOT SHAFT then insert COTTER PIN and bend one leg to hold in place. Lay the front end down and bring the FEED BLOCK into position then replace the SHOULDER BOLT through the VARIFEED and the FEED BLOCK, lock in place with the NUT. Make sure that nothing is binding after the installation. Test by carefully cycling the machine.

WARNING: The VARIFEED is designed to compress 1/2" on both front and back end. Any more than that can cause damage to the feed mechanism or the VARIFEED unit.

3. FEED ADJUSTMENT:

At the FEED ECCENTRIC on your fourslide machine, adjust for your desired feed blank length but approximately 1" longer. You need only to set the feed from 1/4" to 1 1/8" over the desired feed blank. You do not have to be any more accurate than that at this point. The following will describe an easy way to accomplish this task:

- a. Unlock and move the BACK STOP ROD in towards the FEED BLOCK then finger lock very lightly so that the ROD can still move freely if pushed.
- b. Next, cycle the machine one revolution to stop when the FEED BLOCK is in its most forward position.
- c. Measure with a scale ruler the gap between the end of the BACK STOP ROD and the FEED BLOCK and compare to the length desired.
- d. Return to the FEED ECCENTRIC if necessary to make an adjustment only to the rough feed determined. Repeat (a) if necessary.
- e. Next cycle the machine carefully until the FEED BLOCK comes within 1/2 of the over feed previously set at the BACK STOP ROD.

Example: A feed blank is needed at 2.314. The rough feed was set at 3 1/8". The difference is about 13/16". Half of 13/16" is about 13/32". Well you really don't even have to be that accurate in fact 3/8" is really close enough.

- f. So stop the cycle when the FEED BLOCK is approximately 3/8" from the BACK STOP ROD.

- g.** Next move the BACK STOP ROD carefully forward until it just touches the FEED BLOCK and secure in place.
- h.** Cycle the machine a little bit back so that the FEED BLOCK is pushed against the BACK STOP ROD.
- i.** With the use of a telescoping gage, preset it to the exact feed blank you desire.
- j.** Insert the gage between the FRONT STOP ROD and the STOP BUTTON at the STOCK CHECK. Push the FRONT STOP ROD against gage and the STOCK CHECK and secure the FRONT STOP ROD in place.

Your feed setup is now completed. When you make your first blank, measure it for accuracy. If you find you need to adjust it, repeat i and j with the difference to be compensated.

EXAMPLE: If the first blank cut is measured and is .007 longer than desired, reset the telescoping gage to be .007 shorter than the first setting and then reset the FRONT STOP ROD to the new gap.

You will find one more tremendous advantage with using the VARIFEED, you will be feeding that same blank into your tooling area in approximately 90 to 100 degrees less time. That means you have gained that much more time to accomplish your tasks within your tooling cycle. In addition to our other products, the VARI-FEED was developed to make fourslides more efficient and reliable.

We, at TAK, have experienced many examples of unusual and difficult tooling operations that have been accomplished only with the use of the VARI-FEED.

One of the most effective uses is that the VARI-FEED can be used to relieve the hard hitting (solid) bumper stops of the feed assembly in a normal set-up. So, when setting the feed, the rough adjustment does not have to be so critical. The feed can be set for a longer stroke than the feed blank.

The longer the feed is set the faster the material will feed in. Positive blank control is obtained by the machine's feed rod stops, which can be set with adjustable parallels or telescoping gages. The speeds at which the unit can run are obviously determined by the amount of over-feed you've set.

The VARI-FEED is designed with replaceable standard parts, bushings, case hardened shafts and can receive automatic oil fittings.

NOTE: Oil the VARI-FEED guide rod and pivot block frequently during operation to insure long life.

CAUTION: This unit has been designed and tested with 1/2" compression of the springs in each direction, avoid more than 1/2" or it could cause damage to the unit or your machine.

Please advise us if you have any problems, we do stand behind our products.

EXAMPLE CHART USING 1/2" SPRING COMPRESSION AT EACH END

<u>ACTUAL FEED</u>	<u>PART BLANK</u>	<u>ACTUAL FEED TIMING (degrees)</u>	<u>SPACERS POSITION</u>		
			<u>FRONT</u>	<u>REAR</u>	
	2"	1"	50	3	0
	3"	2"	80	3	0
	4"	3"	90	3	0
	5"	4"	110	3	0
	5.5"	4"	94	2	1
	6"	5"	108	2	1
	6"	5.5"	108	2	1
	7"	6"	110	1	2
	8"	7"	120	1	2
	9"	8"	125	0	3
	10	9"	130	0	3
	11	10"	130	0	3

**IF ALL TROUBLESHOOTING TESTS FAIL
PLEASE CALL TAK SUPPORT:**

(860) 583-0517

TAK ENTERPRISES INC. ASSUMES NO RESPONSIBILITY FOR NEITHER INJURY OF PERSON OR PRODUCT OR ANY LIABILITY RESULTING FROM THE PURCHASE OF PRODUCTS SOLD WITH THE INTENTION OF MODIFYING OR ATTACHING TO EXISTING EQUIPMENT. ANY EQUIPMENT MODIFIED FROM THE ORIGINAL CONFIGURATION STATED ON THE PURCHASE ORDER OR CONSIDERED AS MODIFIED CONFIGURATION BY TAK, WILL NOT BE COVERED BY ANY GUARANTY OF OPERATION OR FUNCTION. ANY SUPPORT FOR THE MODIFIED EQUIPMENT WILL BE DETERMINED BY TAK ON AN INDIVIDUAL INCIDENT BASIS.