

When we make letters, we must make sure the feeding length correct.

Once the feeding length is incorrect, we could fix it by adjust the following parameters:

Calc. Encoder Ahead(Pulse)

Encoder Pulse/MM

Calc. Encoder Ahead(Pulse) and Encoder Pulse/MM

It is the most important parameter to ensure the feeding length correctly.

Before set it, firstly we should make sure fore-end compensation and back-end compensation value as "0", like the pic shows:

Fore-End Compensation(MM)	<input type="text" value="0"/>
Back-End Compensation(MM)	<input type="text" value="0"/>

ParameterSetting

Encoder Pulse/MM: 130.128988
Feeding Pulse/MM: 134.939724

☒ Use Encoder
Bender L/R idle Stroke (Degree): 21.5 25.5
Bending Pulse/Deg: 0.3
Mill Vertical Pulse/MM: 436.36573
Mill Vertical Stroke (MM): 88.0
Min Len for Bender (MM): 0.0
OuterLine Compensation(MM): 0.0
InnerLine Compensation(MM): 0.0

Bending Pulse/Deg: 640
Bender Adjustment (Deg): -70.5
Mill Rotating Pulse/Degree: 195.555555
Mill R. Search Stroke (Deg): -32.0
Mill-Bender Distance (MM): 179.0
Outer Angel (mm): -0.6
Inner Angel (mm): 0.6

Single Cut
Splice Len(MM): 0.0
End-Slot Degree: 90.0
M. V. Stroke (MM): 50.0
Min continuous Lines Len (MM): 72.0

Angle(deg)/Bend Radius(mm)
Select Section: 442-DF88-B1a
Edit Name: 442-DF88-Black
Section Thickness(mm): 0.3

No.	M.Angle	L.Radius	R.Radius	Pat L.Radius	Pat R.Radius
1	3.0		2162.73		
2	4.0	903.58	968.58		
3	5.0	605.13	549.35		
4	6.0	471.16	310.11		
5	7.0	314.59	174.5		
6	8.0	212.71	135.58		
7	9.0	173.05	104.12		
8	10.0	124.04	88.04		
9	11.0	89.74	76.1		
10	12.0	79.02	67.04		
11	13.0	64.87	57.94		
12	14.0	55.33	50.24		
13	15.0	47.06	43.17		
14	16.0	42.39	38.69		
15	17.0	37.73	34.98		
16	18.0	33.89	32.86		
17	19.0	31.06	30.31		
18	20.0	28.05	27.97		
19	21.0	26.69	25.64		

StartSpd(p/s) Speed(p/s) Acc(p/s2)

Feed Speed	4000	7000	3.11 m/m	50000
Bending	3000	40000	62.5 d/s	800000
ManualBending	3000	40000	62.5 d/s	800000
Bender Home	3000	45000	70.31 d/s	800000
Mill Vertical	2000	24000	55.0 mm/s	80000
Mill Rotating	2000	13000	66.48 d/s	80000
Mill Home	2000	14000	71.59 d/s	80000

Milling Start Angle (Degree): 20.0
Mill Min Interval (mm): 5.0
Bending Min Radius (mm): 15.0
Max Inner Ang (Degree): 100.0

Mill pre-on Stroke (mm): 5.0
Blade Degree (Degree): 49.0
Cutter Radius (mm): 1.4
Max Out Angle (Degree): 60.0

Calc. Encoder Ahead(Pulse): 36.5
Feeding Break: 20.0
Space Interval (mm): 40.0
Division Waiting(s): 6.0

Sort Show Curve

Save Cancel

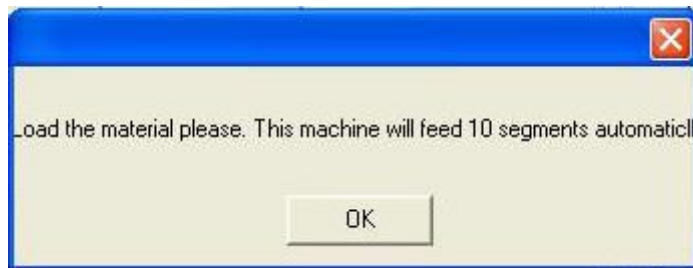
We set the parameter **Calc. Encoder Ahead(Pulse)** and **Encoder Pulse/MM** together as the following steps:

STEP 1--Calc. Encoder Ahead(Pulse):

1) Feed the material at the starting place, the following pic showed the starting place of the material should be:



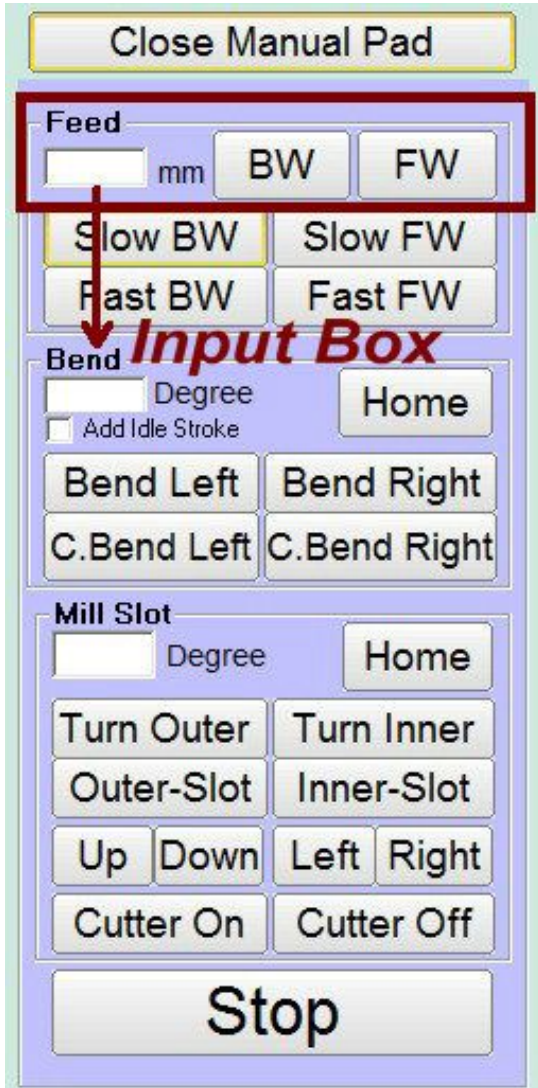
2) Open the settings, click **Calc. Encoder Ahead(Pulse)** . There will be the following Dialog Box pop-up.



Click OK. The material will feed 10 times automatically. Once the material stops, A new **Calc. Encoder Ahead(Pulse)** parameter will be generated automatically.

3) Click Save to save the new generated **Calc. Encoder Ahead(Pulse)** parameter.

STEP 2-- Encoder Pulse/MM



- 1) Feed the Material at the stating place or just leave the material at where the material stopped in the last step. Mark a line with a knife along the whole material width as the testing start line.
- 2) Come to the Manual Pad, input 1000 or 500(mm) into the Input Box as the testing value. Here we take 1000 or 500 as the **Input feeding length**.
- 3) Click **FW**, the material will feed forward. Mark another line at the same place with the knife along the whole material width as the testing stop line when the material stops.
- 4) Feed the material out of the machine, find a ruler to measure the length between the testing start line and testing stop line. Check out the length is 1000 or not. If not, keep the record of the actual feeding length. Here we assume **999mm as the actual feeding length**. Apparently, it is coming shorter 1 mm than the length of 1000mm we wanted. In this case, we should reset the **Encoder Pulse/MM** as the following mathematical formula:

$$\begin{aligned}
 & \frac{\text{Encoder Ahead(Pulse)} \times \text{Input feeding length}}{\text{Actual feeding length}} \\
 &= \frac{130.831281(\text{Original Encoder Ahead(Pulse)}) \times 1000}{999} \\
 &= 130.962243243 \\
 &\approx 130.962243
 \end{aligned}$$

- 5) Input 130.962243 to replace the **Original Encoder Ahead(Pulse)**.

- 6) Retest the feeding length as the order from 1) to 6). Usually, it will take 2-3 times, a correct **Encoder Pulse/MM parameter** could be done.

When should we reset the Calc. Encoder Ahead(Pulse) and Encoder Pulse/MM?

When you load a different material from the material you used previously. Especially, when the material has big difference from thickness, hardness and elasticity.