

# Marc3 Configuration for High-Z S400

Mach3 menu: Config -> Ports & Pins

**Engine Configuration... Ports & Pins**

Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

**Port #1**

Port Enabled

Port Address  
Entry in Hex 0-9 A-F only

**Port #2**

Port Enabled

Port Address  
Entry in Hex 0-9 A-F only

Pins 2-9 as inputs

OR

**MaxNC Mode**

Max CL Mode enabled

Max NC-10 Wave Drive  
Program restart necessary

**Restart if changed**

Sherline 1/2 Pulse mode.

ModBus Input/Output Support  
 ModBus PlugIn Supported.

TCP Modbus support

Event Driven Serial Control

Servo Serial Link Feedback

**Kemel Speed**

25000Hz  35000Hz  45000Hz  60000Hz

65000Hz  75000Hz  100kHz

Note: Software must be restarted and motors returned if kemel speed is changed.

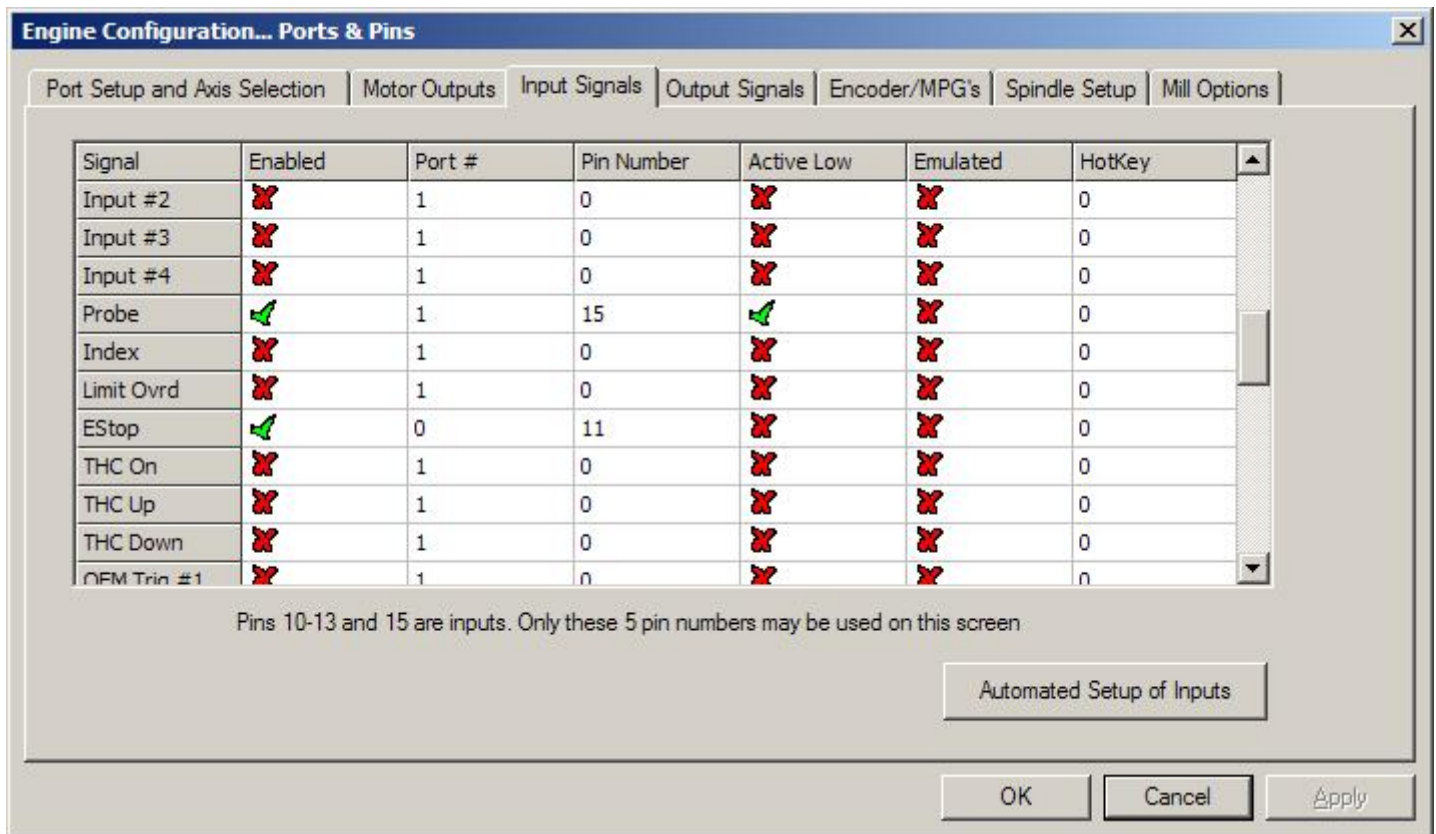
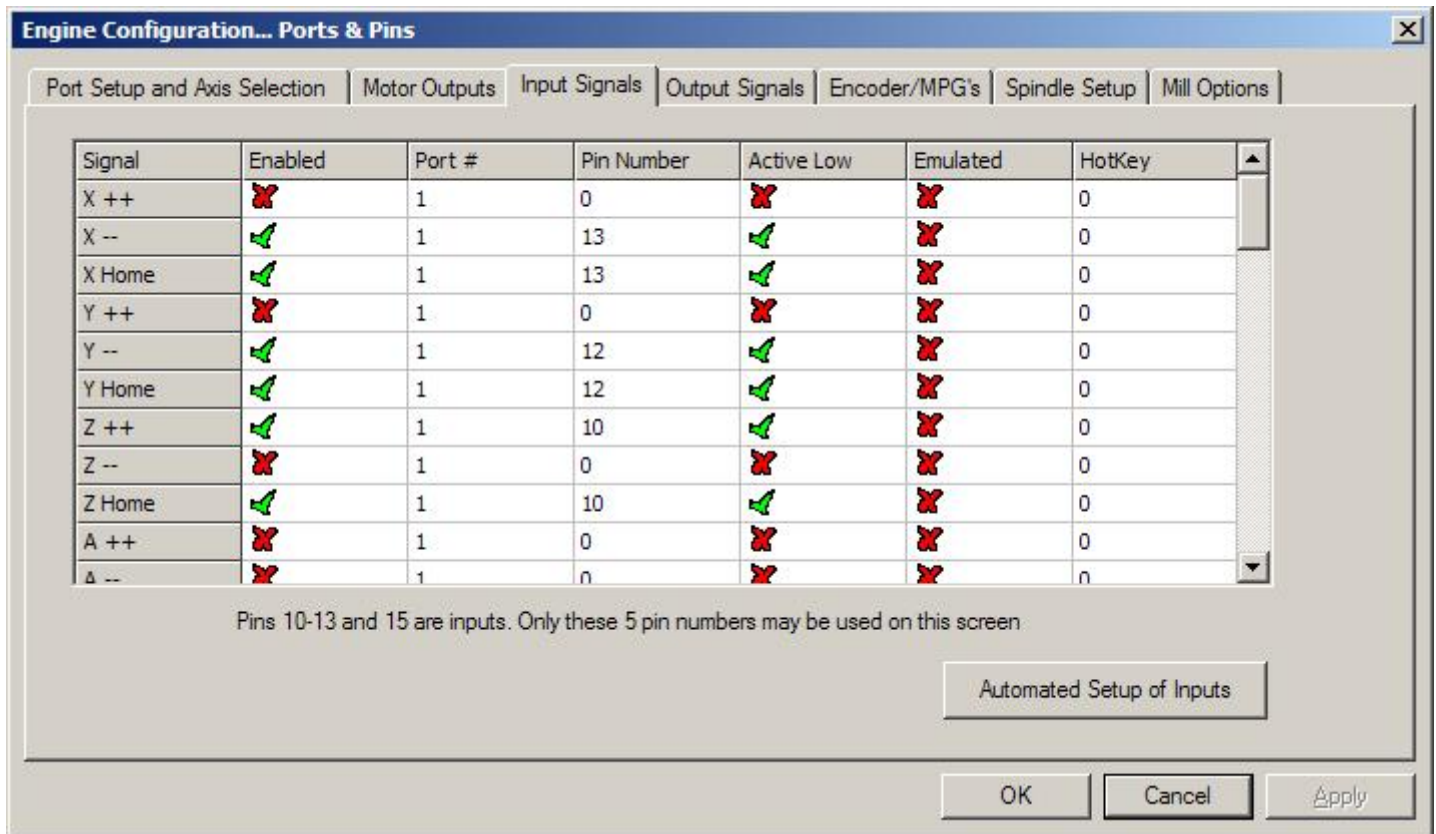
OK Cancel Apply

**Engine Configuration... Ports & Pins**

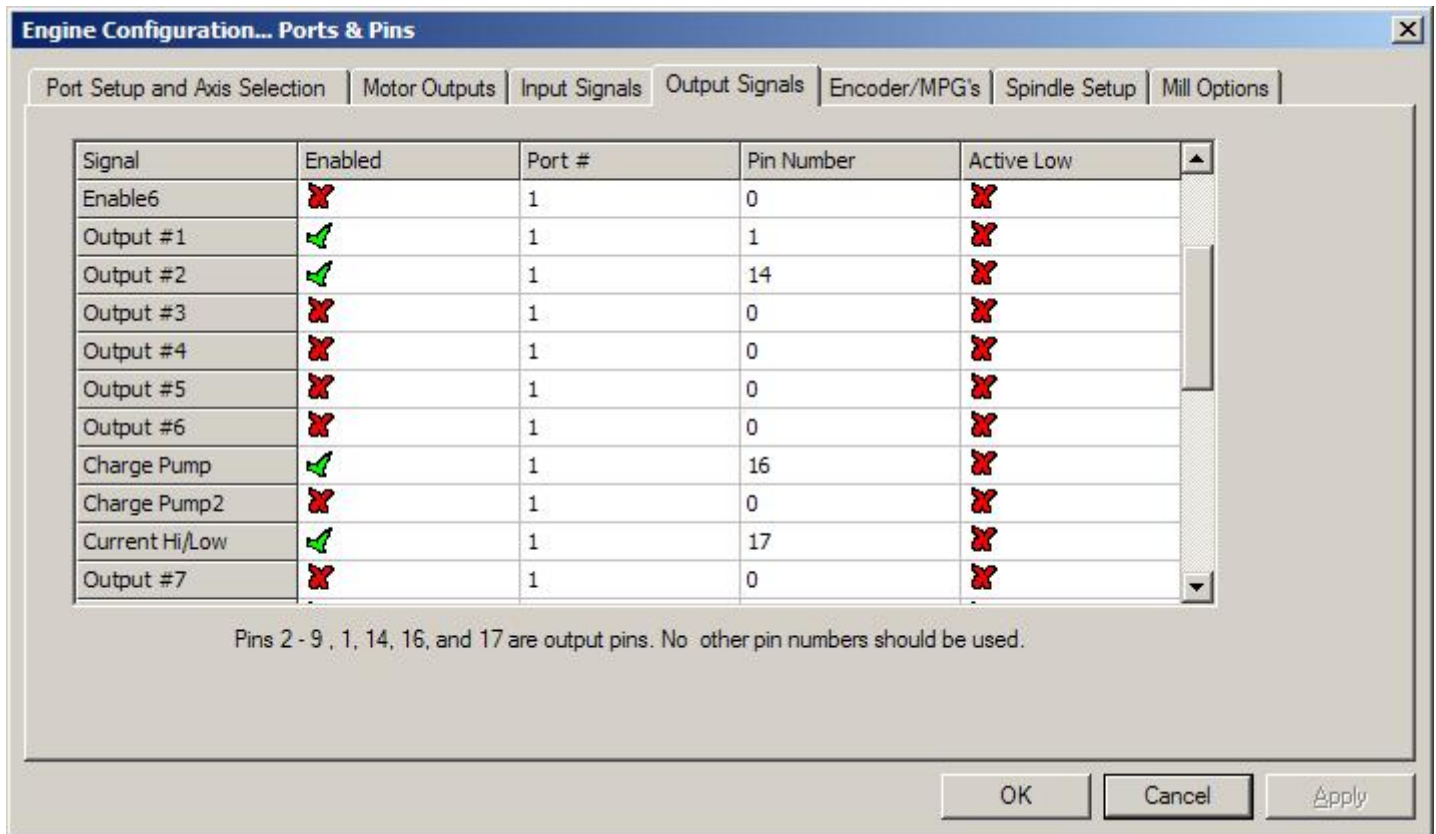
Port Setup and Axis Selection | Motor Outputs | Input Signals | Output Signals | Encoder/MPG's | Spindle Setup | Mill Options

Signal	Enabled	Step Pin#	Dir Pin#	Dir LowActive	Step Low Ac...	Step Port	Dir Port
X Axis		3	2			1	1
Y Axis		5	4			1	1
Z Axis		7	6			1	1
A Axis		9	8			1	1
B Axis		0	0			0	0
C Axis		0	0			0	0
Spindle		0	0			0	0

OK Cancel Apply



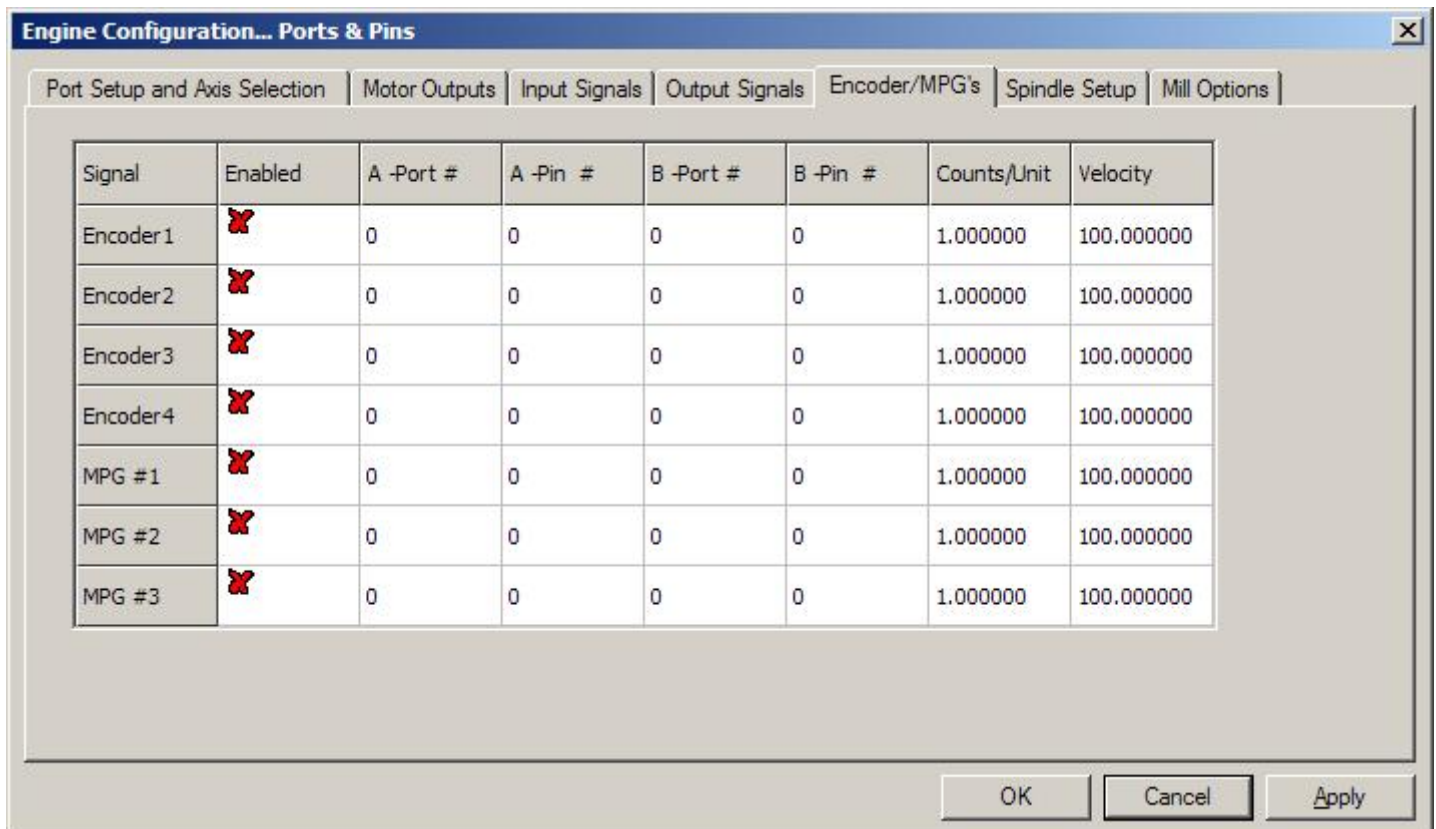
Only shown inputs is set, all others is off.  
 There is an EStop input on pin 11 but it is unstable and triggers unwanted random EStops.



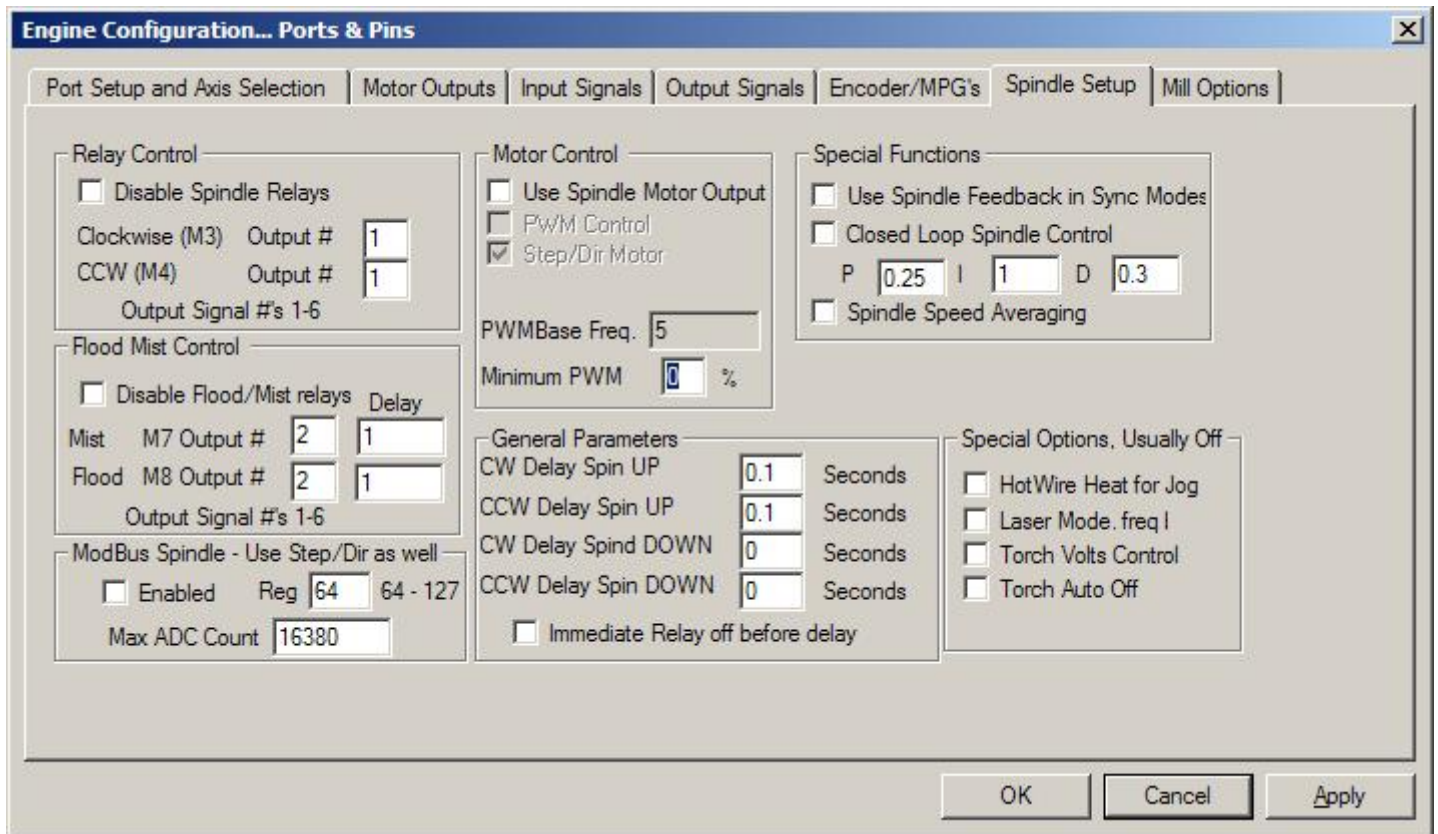
Output #1 is used for spindle relay and output #2 is for mist/flood relay control. They use the same relay. Chargepump on output #16 is wired on the controller diagram but I don't think it is working.

Output #17 is used for controlling "power save" on controller and reduces the noise when the motors are not running.

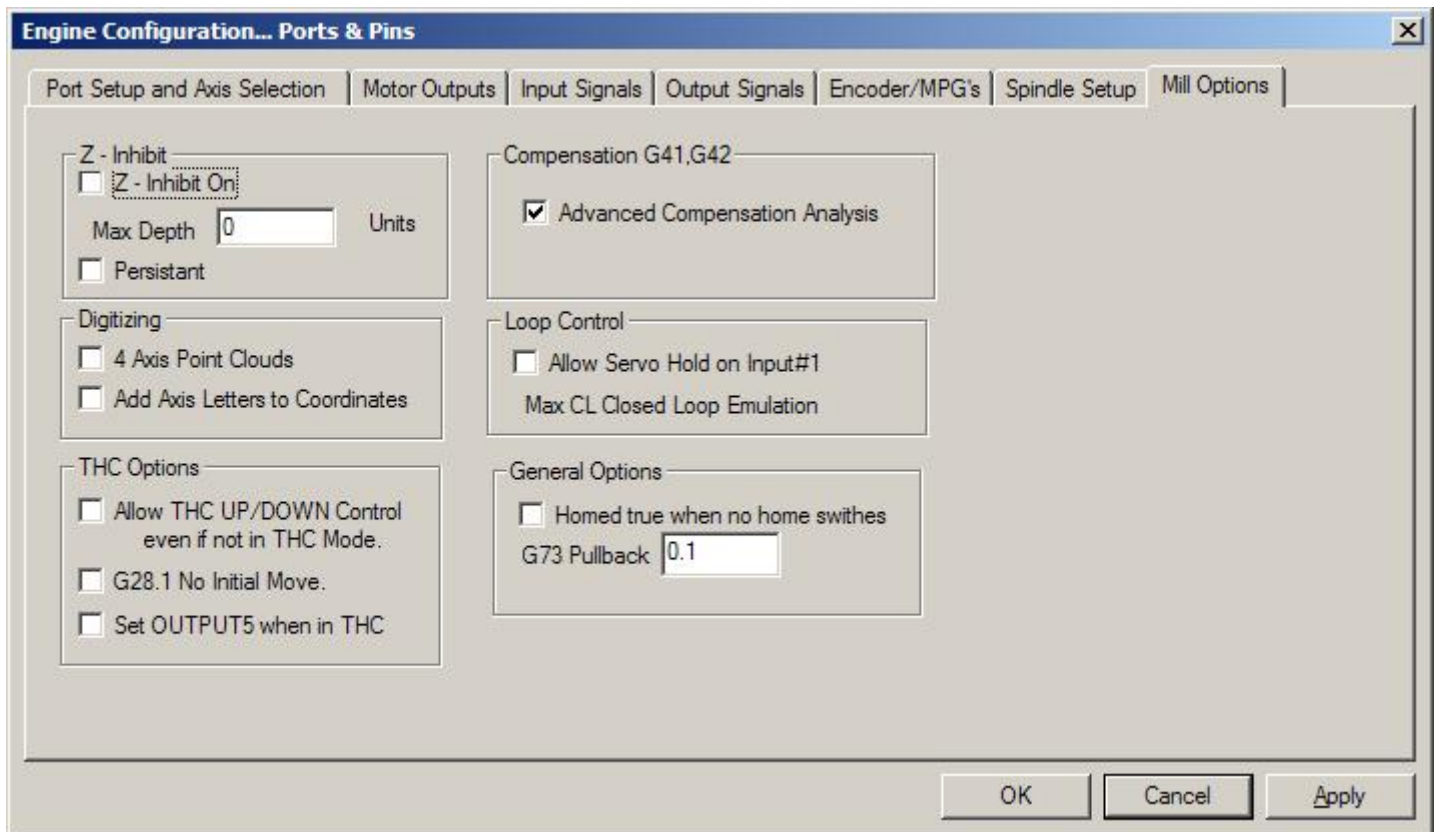
All other outputs are off (or not configured).



Encoder/MPG's are not used in my configuration.

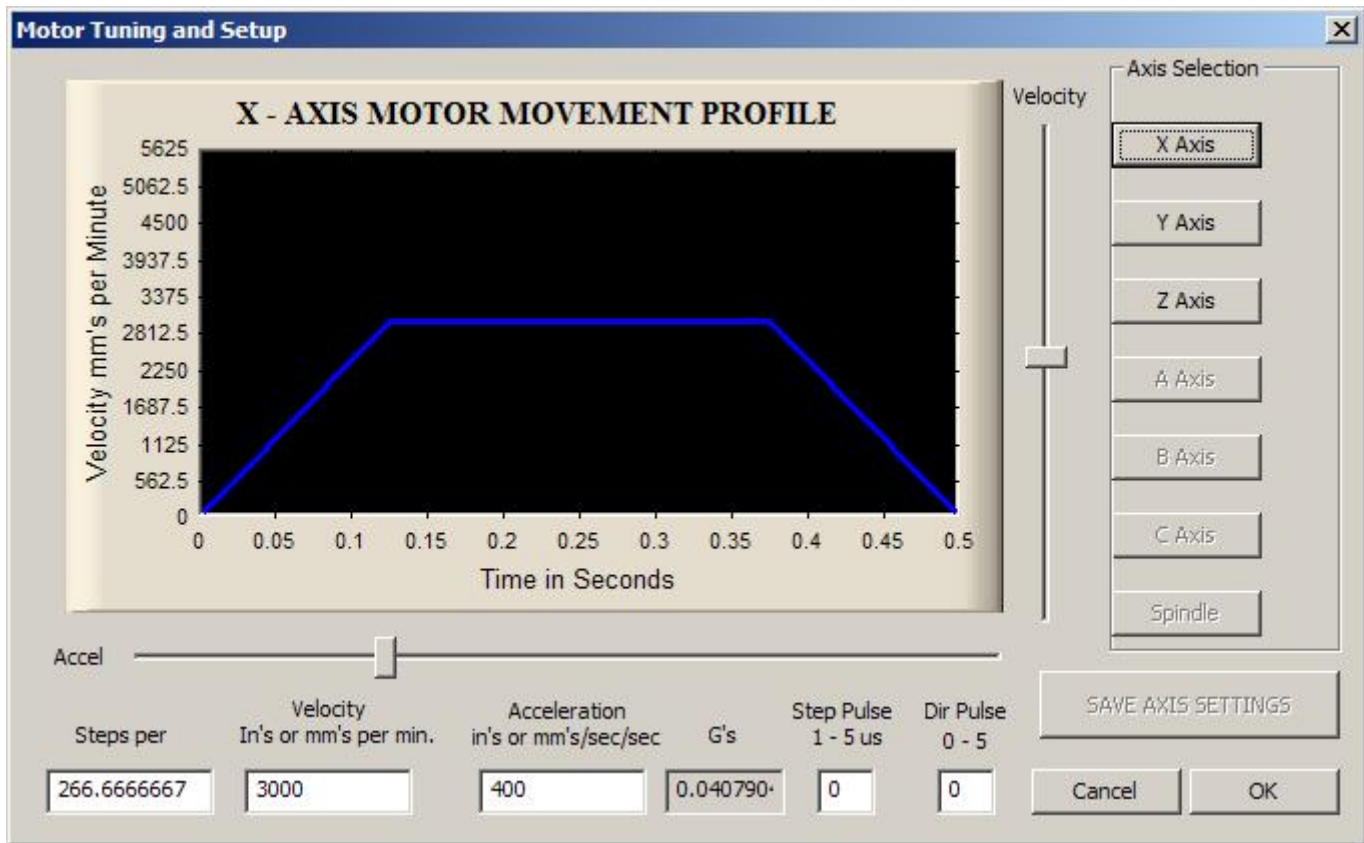


Here spindle (output #1) and mist/flood (output #2) is setup.  
 Values for spin up/down may need adjustment.



All set to default settings.

Mach3 menu: Config -> Motor Tuning



All axes have same configuration.  
 Note max velocity for S-720/S-1000 is lower and higher for T models.

Mach3 menu: Config -> Homing/Limits

**Motor Home/SoftLimits**

Entries are in setup units.

Axis	Reversed	Soft Max	Soft Min	Slow Zone	Home Off.	Home Neg	Auto Zero	Speed %
X	✘	400.00	0.00	3.00	0.0000	✔	✔	20
Y	✘	288.00	0.00	3.00	0.0000	✔	✔	20
Z	✘	0.00	-110.00	3.00	0.0000	✘	✔	10
A	✘	100.00	-100.00	1.00	0.0000	✘	✔	20
B	✘	100.00	-100.00	1.00	0.0000	✘	✔	20
C	✘	100.00	-100.00	1.00	0.0000	✘	✔	20

G28 home location coordinates

X: 0    A: 0

Y: 0    B: 0

Z: 0    C: 0

OK