SHERLINE TEST - USING DIAG SCREEN

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**SHERLINE TEST WITH MACH-THREADING USING DIAG**																	
2	THD CYCLE	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
3	*TEST#1*																	
4	RPM	98	98	97	98	97	97	98	98	98	98	46	45	45				
5	TRIGGER		X	X	X	X	X	X	X	X	X	X	X	X				
6	THREADING		X	X	X	X		X				X	X	X				
7	G94	X																
8	G95		X	X	X	X	X	X	X	X	X	X	X	X				
9																		
10	*TEST#2*																	
11	RPM	98	99	99	99	99	65	65	65	65	65	65	64	80	79	79	80	79
12	TRIGGER		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13	THREADING		X	X	X		X	X	X	X	X		X					
14	G94	X																
15	G95		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16																		
17																		

The above shows two tests of a dry run of threading and what info was displayed when using the diagnostics screen. A typical threading cycle is as follows:
There was a x-z move to the start of thread location so the G94 box is on, but before the threading move starts, the trigger box momentarily turns green, the G94 box turns off and the G95 box stays on (feed changed from feed/min to feed/rev). The z axis now moves making the thread cut.

COMMENTS RELATIVE TO THE RPM IN ABOVE TABLE

1.If the spindle rpm doesn't change then the threading box will not remain lit. So the z speed is not changed for the next cut.
Now I will clarify something shown in TEST#2. The rpm displayed in the box didn't change (it was always a whole number). I was also monitoring the pulse from the sensor, for a .01 HZ change (approx ½ rpm) it was sensed by MACH, so there actually was a change in the rpm, and the threading box remained green.

2.If there is a change in speed during the threading or before the threading cycle starts the threading box remained on after the trigger flashed green..

3.In Test#1 / cycle #10, I arbitrarily changed the spindle speed (46 rpm) and after the trigger, the threading remains lit (now you can hear the change in z speed).

4. In Test#2 / cycle #5, I arbitrarily changed the speed but the speed did change some from cycle #6 to #9. Monitored pulse showed small variation similar to what I clarified in comment #1.And again you hear the change in Z speed.

5.In Test#2 / before cycle #10, I arbitrarily changed spindle speed ***higher (approx 170 rpm)*** for a short period and lowered it. The red speeds shown may not be not correct and the z speed remained at some lower speed.

Just one last comment: If in the configuration>ports & pins>spindle? – if it is <u>unchecked</u> you will not get a trigger or threading box response.