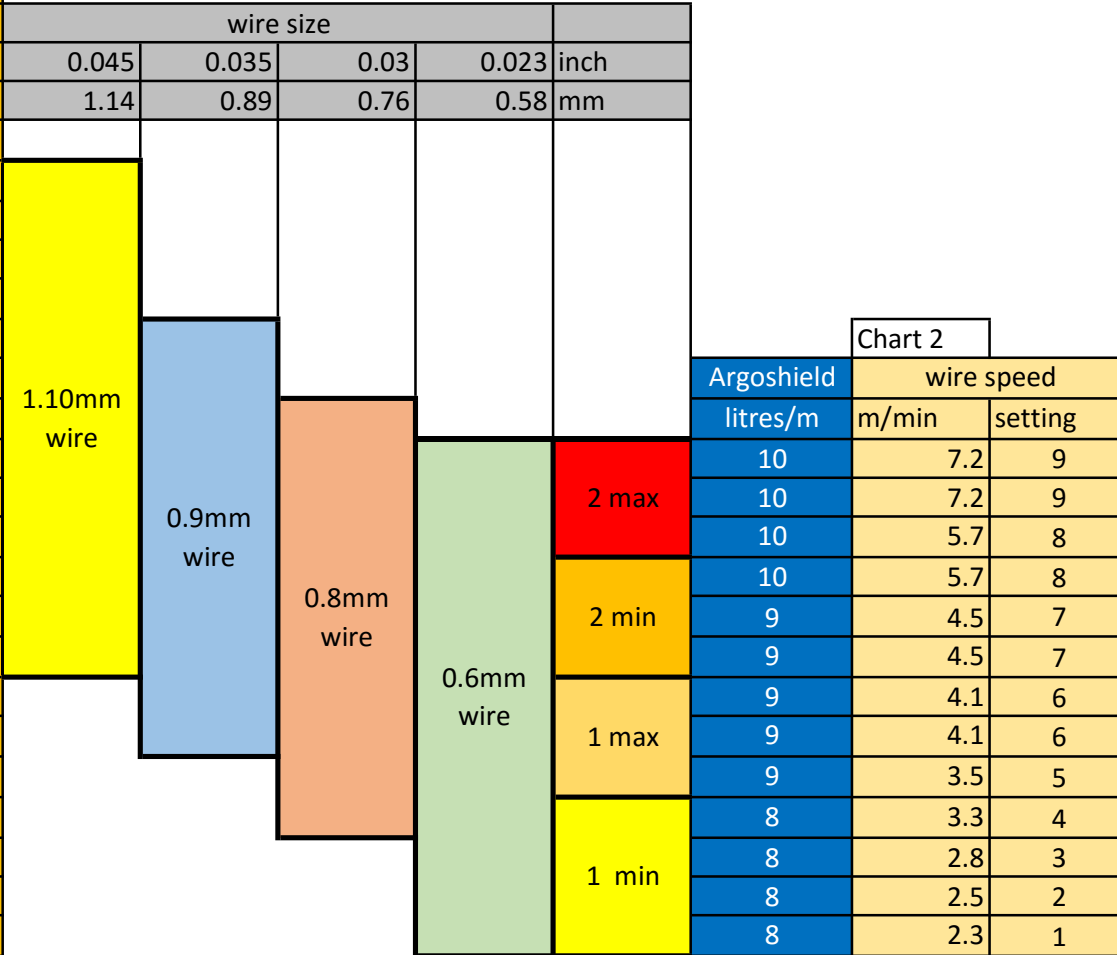


work thickness			current
swg	(in)	(mm)	amps
7/0	0.5	12.7	500
6/0	0.464	11.786	464
5/0	0.432	10.973	432
4/0	0.4	10.16	400
3/0	0.372	9.449	372
2/0	0.348	8.839	348
0	0.324	8.23	324
1	0.3	7.62	300
2	0.276	7.01	276
3	0.252	6.401	252
4	0.232	5.893	232
5	0.212	5.385	212
6	0.192	4.877	192
7	0.176	4.47	176
8	0.16	4.064	160
9	0.144	3.658	144
10	0.128	3.251	128
11	0.116	2.946	116
12	0.104	2.642	104
13	0.092	2.337	92
14	0.08	2.032	80
15	0.072	1.829	72
16	0.064	1.626	64
17	0.056	1.422	56
18	0.048	1.219	48
19	0.04	1.016	40
20	0.036	0.914	36
21	0.032	0.813	32
22	0.028	0.711	28
23	0.024	0.61	24

## MIG settings for mild steel - using the Telwin Bimax 132

.... By Nik James



### **How the spreadsheet was compiled**

The m/c has controls only for wire speed and amps, with no digital readouts.

The wire speed is a simple rotary dial with markings 1-10. I needed to know what these settings deliver in meters or feet/min.

This was done simply by measuring the length of wire delivered in 6 seconds, then multiplying by 10 to get the m/min.

These results are in the chart 1 below.

The next step is to compile a chart of metal thickness in SWG, Imperial and metric and the amps required to weld it...

This is shown in colls 1-4.

The next step is to align the 4 popular wire sizes with range of amps that they work with.

This is shown for 1.10, 0.9, 0.8 and 0.6 mm wire.

The amp controls are very coarse on the Telwin 132, comprising two toggle switches marked 1/2 and Min/Max.

Some research clarified that the 4 combinations of the settings of these switches result in amps of approx 35 ,55 , 85 and 120

These 4 settings for amps are aligned with the thickness of the work via the 4 coloured boxes , 1-min, 1-max, 2-min, 2max.

Now the wire speed CHART 2 can be aligned with the 4 amp ranges.

### **Using the chart**

Measure the thickness of the metal to be welded, and select the corresponding row.

Extend across to check the suitability of the wire you have in the m/c and the amp setting and wire speed.

This will give a good starting point. Adjust the wire speed until it sounds like frying bacon

Chart 1			
TELWIN BIMAX 132 wire speed settings			
pos	m/min	in/ min	ft/min
1	2.3	90.6	7.5
2	2.5	98.4	8.2
3	2.8	110.2	9.2
4	3.3	129.9	10.8
5	3.5	137.8	11.5
6	4.1	161.4	13.5
7	4.5	177.2	14.8
8	5.7	224.4	18.7
9	7.2	283.5	23.6