

AMI TUBE WELDING - CONTINUOUS MODE - GUIDELINES

-----Tube OD (mm) -----Tube Wall (mm) -----Type -----Material

1) Circumference = outside diameter x 3.142	_____ x 3.142 =	
2) RPM = 125 ÷ Circumference	125 ÷ _____ =	
3) Total Welding Time (seconds) = 60 ÷ RPM	60 ÷ _____ =	
4) Level Time = Total Welding Time ÷ No of Levels (4)	_____ ÷ _____ =	
5) Delay time = 2 (2.5) x Wall thickness (mm)	2 (2.5) x _____ =	
6) Overlap time = 10.1 x Total Welding Time	0.1 x _____ =	
7) Level 1 Time = level Time + Delay Level 2 Time = level Time Level 3 Time = level Time Level 4 Time = level Time + Overlap	_____ + _____ = _____ = _____ = _____ + _____ =	
8) Pulse Time = 0.13 x Wall Thickness (PRI PULSE = BCK PULSE)	0.13 x _____ =	
9) Level 1 PRI AMPS = 40 x Wall Thickness	40 x _____ =	
10) Background Amps = 0.3 x Level 1 PRI AMPS (Keep the same for all levels)	0.3 x _____ =	
11) Level 2 PRI AMPS = 0.95 x Level 1 PRI AMPS Level 3 PRI AMPS = 0.95 x Level 2 PRI AMPS Level 4 PRI AMPS = 0.95 x Level 3 PRI AMPS	0.95 x _____ = 0.95 x _____ = 0.95 x _____ =	
12) Arc Gap (mm) = (LVL1 PRI AMPS ÷ 60) + 0.2 (or 0.3)	(_____ ÷ 60) + 0.2 =	

Notes:

Use mm for all calculations.

Other Settings: Up Slope = 0
 Down Slope = 5 to 12 seconds
 ROT = "CW" for 1/16" Tungsten, "CCW" for 3/32" Tungsten
 PULSE = "ON"
 ROT = "CONT"

AMI TUBE WELDING - CONTINUOUS MODE - GUIDELINES

_____ Tube OD (mm) _____ Tube Wall (mm) _____ Type _____ Material

1) Circumference = outside diameter x 3.142	_____ x 3.142 =	
2) RPM = 100 ÷ Circumference	100 ÷ _____ =	
3) Total Welding Time (seconds) = 1.2 x Circumference	1.2 x _____ =	
4) Level Time = Total Welding Time ÷ No of levels (4)	_____ ÷ _____ =	
5) Delay time = 2 x Wall thickness (mm)	2 x _____ =	
6) Overlap time = 0.1 x Total Welding Time	0.1 x _____ =	
7) Level 1 Time = level Time + <u>Delay</u> Level 2 Time = level Time Level 3 Time = level Time Level 4 Time = level Time + Overlap	<div>_____ + _____ =</div> <div>_____ =</div> <div>_____ =</div> <div>_____ + _____ =</div>	
8) Pulse Time = 0.3 x Wall Thickness (PRI PULSE = BCK PULSE)	0.3 x _____ =	
9) Level 1 PRI AMPS = 33 x Wall Thickness	33 x _____ =	
10) Background Amps = 0.3 x Level 1 PRI AMPS (Keep the same for all levels)	0.3 x _____ =	
11) Level 2 PRI AMPS = 0.95 x level 1 PRI AMPS Level 3 PRI AMPS = 0.95 x level 2 PRI AMPS Level 4 PRI AMPS = 0.95 x level 3 PRI AMPS	<div>0.95 x _____ =</div> <div>0.95 x _____ =</div> <div>0.95 x _____ =</div>	
12) Arc Gap (mm) = (LVL 1 PRI AMPS ÷ 60) + 0.2 (or 0.3)	(_____ ÷ 60) + 0.2 =	

Notes:

Use mm for all calculations.

Other Settings: Up Slope = 0
 Down Slope = 10 to 17 seconds
 ROT = "CW" for 1/16" Tungsten, "CCW" for 3/32" Tungsten
 PULSE = "ON" ROT = "STEP" PRI RPM = 0