

Process	MIG Type	Wire Type	Wire Diameter	Gas Type	Arc Control	Range
MIG	CV	Steel	0.9mm	92%Ar 8%CO <sub>2</sub>	Pinch	100 — 815 ipm (2.54 — 20.7 m/min)
				90%Ar 10%CO <sub>2</sub>		100 — 815 ipm (2.54 — 20.7 m/min)
				85%Ar 15%CO <sub>2</sub>		100 — 815 ipm (2.54 — 20.7 m/min)
				82%Ar 18%CO <sub>2</sub>		100 — 815 ipm (2.54 — 20.7 m/min)
				80%Ar 20%CO <sub>2</sub>		100 — 815 ipm (2.54 — 20.7 m/min)
				75%Ar 25%CO <sub>2</sub>		100 — 815 ipm (2.54 — 20.7 m/min)
			100%CO <sub>2</sub>	75 — 800 ipm (1.91 — 20.32 m/min)		
			1.0mm	92%Ar 8%CO <sub>2</sub>	Pinch	100 — 800 ipm (2.54 — 20.32 m/min)
				90%Ar 10%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)
				85%Ar 15%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)
				82%Ar 18%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)
				80%Ar 20%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)
		75%Ar 25%CO <sub>2</sub>		100 — 760 ipm (2.54 — 19.3 m/min)		
		100%CO <sub>2</sub>	100 — 800 ipm (2.54 — 20.32 m/min)			
		1.2mm	92%Ar 8%CO <sub>2</sub>	Pinch	100 — 555 ipm (2.54 — 14.1 m/min)	
			90%Ar 10%CO <sub>2</sub>		100 — 555 ipm (2.54 — 14.1 m/min)	
			85%Ar 15%CO <sub>2</sub>		100 — 555 ipm (2.54 — 14.1 m/min)	
			82%Ar 18%CO <sub>2</sub>		100 — 555 ipm (2.54 — 14.1 m/min)	
			80%Ar 20%CO <sub>2</sub>		100 — 555 ipm (2.54 — 14.1 m/min)	
			75%Ar 25%CO <sub>2</sub>		100 — 645 ipm (2.54 — 16.38 m/min)	
		100%CO <sub>2</sub>	100 — 605 ipm (2.54 — 15.37 m/min)			
		Stainless 3XX	0.9mm	98%Ar 2%CO <sub>2</sub>	Pinch	100 — 800 ipm (2.54 — 20.32 m/min)
				98%Ar 2%O <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)
			1.0mm	98%Ar 2%CO <sub>2</sub>	Pinch	100 — 800 ipm (2.54 — 20.32 m/min)
	98%Ar 2%O <sub>2</sub>			100 — 800 ipm (2.54 — 20.32 m/min)		
	1.2mm		98%Ar 2%CO <sub>2</sub>	Pinch	75 — 745 ipm (1.91 — 18.92 m/min)	
			98%Ar 2%O <sub>2</sub>		75 — 745 ipm (1.91 — 18.92 m/min)	
	Metal Core	1.2mm	92%Ar 8%CO <sub>2</sub>	Pinch	100 — 610 ipm (2.54 — 15.49 m/min)	
			90%Ar 10%CO <sub>2</sub>		100 — 610 ipm (2.54 — 15.49 m/min)	
			85%Ar 15%CO <sub>2</sub>		100 — 610 ipm (2.54 — 15.49 m/min)	
			82%Ar 18%CO <sub>2</sub>		100 — 610 ipm (2.54 — 15.49 m/min)	
			80%Ar 20%CO <sub>2</sub>		100 — 610 ipm (2.54 — 15.49 m/min)	
			75%Ar 25%CO <sub>2</sub>		100 — 650 ipm (2.54 — 16.51 m/min)	
	Low Fume Pulse	Steel	1.0mm	UltimArc®	75 — 800 ipm (1.91 — 20.32 m/min)	
			1.2mm	UltimArc®	60 — 800 ipm (1.52 — 20.32 m/min)	
	STT (Root Pass)	Steel	0.9mm	UltimArc®	92%Ar 8%CO <sub>2</sub>	100 — 350 ipm (2.54 — 8.89 m/min)
90%Ar 10%CO <sub>2</sub>					100 — 350 ipm (2.54 — 8.89 m/min)	
85%Ar 15%CO <sub>2</sub>					100 — 350 ipm (2.54 — 8.89 m/min)	
82%Ar 18%CO <sub>2</sub>					100 — 350 ipm (2.54 — 8.89 m/min)	
80%Ar 20%CO <sub>2</sub>					100 — 350 ipm (2.54 — 8.89 m/min)	
75%Ar 25%CO <sub>2</sub>					100 — 350 ipm (2.54 — 8.89 m/min)	
1.0mm			92%Ar 8%CO <sub>2</sub>	UltimArc®	100 — 275 ipm (2.54 — 6.99 m/min)	
			90%Ar 10%CO <sub>2</sub>		100 — 275 ipm (2.54 — 6.99 m/min)	
			85%Ar 15%CO <sub>2</sub>		100 — 275 ipm (2.54 — 6.99 m/min)	
			82%Ar 18%CO <sub>2</sub>		100 — 275 ipm (2.54 — 6.99 m/min)	
			80%Ar 20%CO <sub>2</sub>		100 — 275 ipm (2.54 — 6.99 m/min)	
			75%Ar 25%CO <sub>2</sub>		100 — 275 ipm (2.54 — 6.99 m/min)	
1.2mm		92%Ar 8%CO <sub>2</sub>	UltimArc®	90 — 225 ipm (2.29 — 5.72 m/min)		
		90%Ar 10%CO <sub>2</sub>		90 — 225 ipm (2.29 — 5.72 m/min)		
		85%Ar 15%CO <sub>2</sub>		90 — 225 ipm (2.29 — 5.72 m/min)		

**Weld Set Reference: Z215111**  
**PipeFab® (Metric units)**



			82%Ar 18%CO <sub>2</sub>		<u>90</u> — <u>225</u> ipm	(2.29 — 5.72 m/min)
			80%Ar 20%CO <sub>2</sub>		<u>90</u> — <u>225</u> ipm	(2.29 — 5.72 m/min)
			75%Ar 25%CO <sub>2</sub>		<u>90</u> — <u>225</u> ipm	(2.29 — 5.72 m/min)

Process	MIG Type	Wire Type	Wire Diameter	Gas Type	Arc Control	Range		
MIG	STT (Root Pass)	Stainless 3XX	0.9mm	98%Ar 2%CO <sub>2</sub>	UltimArc®	100 — 350 ipm (2.54 — 8.89 m/min)		
				98%Ar 2%O <sub>2</sub>		100 — 350 ipm (2.54 — 8.89 m/min)		
				62.2%Ar 35%He 2.8% CO <sub>2</sub>		100 — 350 ipm (2.54 — 8.89 m/min)		
			1.0mm	98%Ar 2%CO <sub>2</sub>	UltimArc®	100 — 300 ipm (2.54 — 7.62 m/min)		
				98%Ar 2%O <sub>2</sub>		100 — 300 ipm (2.54 — 7.62 m/min)		
				62.2%Ar 35%He 2.8% CO <sub>2</sub>		100 — 300 ipm (2.54 — 7.62 m/min)		
		1.2mm	98%Ar 2%CO <sub>2</sub>	UltimArc®	90 — 250 ipm (2.29 — 6.35 m/min)			
			98%Ar 2%O <sub>2</sub>		90 — 250 ipm (2.29 — 6.35 m/min)			
			Metal Core		1.2mm	UltimArc®	85%Ar 15%CO <sub>2</sub>	90 — 225 ipm (2.29 — 5.72 m/min)
							82%Ar 18%CO <sub>2</sub>	90 — 225 ipm (2.29 — 5.72 m/min)
	80%Ar 20%CO <sub>2</sub>	90 — 225 ipm (2.29 — 5.72 m/min)						
	75%Ar 25%CO <sub>2</sub>	90 — 225 ipm (2.29 — 5.72 m/min)						
	Smart Pulse	Steel	0.9mm	92%Ar 8%CO <sub>2</sub>	UltimArc®	100 — 800 ipm (2.54 — 20.32 m/min)		
				90%Ar 10%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)		
				85%Ar 15%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)		
				82%Ar 18%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)		
			1.0mm	80%Ar 20%CO <sub>2</sub>	100 — 800 ipm (2.54 — 20.32 m/min)			
				92%Ar 8%CO <sub>2</sub>	UltimArc®	100 — 800 ipm (2.54 — 20.32 m/min)		
				90%Ar 10%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)		
				85%Ar 15%CO <sub>2</sub>		100 — 800 ipm (2.54 — 20.32 m/min)		
			82%Ar 18%CO <sub>2</sub>	100 — 800 ipm (2.54 — 20.32 m/min)				
			1.2mm	80%Ar 20%CO <sub>2</sub>	100 — 800 ipm (2.54 — 20.32 m/min)			
				92%Ar 8%CO <sub>2</sub>	UltimArc®	100 — 605 ipm (2.54 — 15.37 m/min)		
				90%Ar 10%CO <sub>2</sub>		100 — 605 ipm (2.54 — 15.37 m/min)		
		85%Ar 15%CO <sub>2</sub>		100 — 605 ipm (2.54 — 15.37 m/min)				
		82%Ar 18%CO <sub>2</sub>	100 — 605 ipm (2.54 — 15.37 m/min)					
		Stainless 3XX	0.9mm	UltimArc®	98%Ar 2%CO <sub>2</sub>	150 — 800 ipm (3.81 — 20.32 m/min)		
					98%Ar 2%O <sub>2</sub>	150 — 800 ipm (3.81 — 20.32 m/min)		
					62.2%Ar 35%He 2.8% CO <sub>2</sub>	150 — 800 ipm (3.81 — 20.32 m/min)		
					98%Ar 2%CO <sub>2</sub>	100 — 800 ipm (2.54 — 20.32 m/min)		
			1.0mm	UltimArc®	98%Ar 2%O <sub>2</sub>	100 — 800 ipm (2.54 — 20.32 m/min)		
					62.2%Ar 35%He 2.8% CO <sub>2</sub>	100 — 800 ipm (2.54 — 20.32 m/min)		
					98%Ar 2%CO <sub>2</sub>	100 — 595 ipm (2.54 — 15.11 m/min)		
98%Ar 2%O <sub>2</sub>					100 — 595 ipm (2.54 — 15.11 m/min)			
Metal Core		1.2mm	UltimArc®	92%Ar 8%CO <sub>2</sub>	100 — 620 ipm (2.54 — 15.75 m/min)			
				90%Ar 10%CO <sub>2</sub>	100 — 620 ipm (2.54 — 15.75 m/min)			
	85%Ar 15%CO <sub>2</sub>			100 — 620 ipm (2.54 — 15.75 m/min)				
	82%Ar 18%CO <sub>2</sub>			100 — 620 ipm (2.54 — 15.75 m/min)				
HyperFill <sup>1</sup>	Steel		0.9mm 80%Ar 20%CO <sub>2</sub>	100 — 535 ipm (2.54 — 13.59 m/min)				
			1.0mm 80%Ar 20%CO <sub>2</sub>	100 — 420 ipm (2.54 — 10.67 m/min)				
	Metal Core		1.2mm 80%Ar 20%CO <sub>2</sub>	100 — 415 ipm (2.54 — 10.54 m/min)				

Process	FCAW Type	Wire Type	Wire Diameter	Gas Type	Arc Control	Range
FCAW	CV	Steel	1.2mm	75%Ar 25%CO <sub>2</sub>	Pinch	175 — 600 ipm (4.45 — 15.24 m/min)
				100%CO <sub>2</sub>		175 — 600 ipm (4.45 — 15.24 m/min)
			1.4mm	75%Ar 25%CO <sub>2</sub>	Pinch	150 — 500 ipm (3.81 — 12.7 m/min)
				100%CO <sub>2</sub>		150 — 500 ipm (3.81 — 12.7 m/min)
			1.6mm	75%Ar 25%CO <sub>2</sub>	Pinch	125 — 400 ipm (3.18 — 10.16 m/min)
				100%CO <sub>2</sub>		125 — 400 ipm (3.18 — 10.16 m/min)

Process	Electrode	Type	Size	Gas Type	Arc Control	Range
Stick	Soft (EXX18)	Steel	All	N/A	Arc Force	15 — 405 A
	Crisp (EXX10)	Steel	All	N/A	Arc Force	15 — 405 A
	Stainless 3XX	Stainless 3XX	All	N/A	Arc Force	15 — 405 A

Process	Procedure	Type	Size	Gas Type	Arc Control	Range
TIG	HF	N/A	All	Ar / He		5 — 405 A
	Touch Start	N/A	All	Ar / He		5 — 405 A

<sup>1</sup>**HyperFill® & Process HDT™ Waveform Activation Capability with Power Wave® and PIPEFAB™ Systems**

Your purchase of a Lincoln Power Wave or PIPEFAB Welding System comes with (i) a license to use Lincoln Electric standard Power Wave / PIPEFAB waveforms, and (ii) HyperFill & Process HDT waveform capability, which requires a separate license. Without the separate license, the HyperFill and Process HDT waveforms are not available for use on these machines, and only the standard Power Wave / PIPEFAB waveforms are usable.