

Process	MIG Type	Wire Type	Wire Diameter	Gas Type	Arc Control	Range
MIG	CV	Steel	0.9mm	92%Ar 8%CO ₂	Pinch	100 — 815 ipm (2.54 — 20.7 m/min)
				90%Ar 10%CO ₂		100 — 815 ipm (2.54 — 20.7 m/min)
				85%Ar 15%CO ₂		100 — 815 ipm (2.54 — 20.7 m/min)
				82%Ar 18%CO ₂		100 — 815 ipm (2.54 — 20.7 m/min)
				80%Ar 20%CO ₂		100 — 815 ipm (2.54 — 20.7 m/min)
				75%Ar 25%CO ₂		100 — 815 ipm (2.54 — 20.7 m/min)
			100%CO ₂	75 — 800 ipm (1.91 — 20.32 m/min)		
			1.0mm	92%Ar 8%CO ₂	Pinch	100 — 800 ipm (2.54 — 20.32 m/min)
				90%Ar 10%CO ₂		100 — 800 ipm (2.54 — 20.32 m/min)
				85%Ar 15%CO ₂		100 — 800 ipm (2.54 — 20.32 m/min)
				82%Ar 18%CO ₂		100 — 800 ipm (2.54 — 20.32 m/min)
				80%Ar 20%CO ₂		100 — 800 ipm (2.54 — 20.32 m/min)
		75%Ar 25%CO ₂		100 — 760 ipm (2.54 — 19.3 m/min)		
		100%CO ₂	100 — 800 ipm (2.54 — 20.32 m/min)			
		1.2mm	92%Ar 8%CO ₂	Pinch	100 — 555 ipm (2.54 — 14.1 m/min)	
			90%Ar 10%CO ₂		100 — 555 ipm (2.54 — 14.1 m/min)	
			85%Ar 15%CO ₂		100 — 555 ipm (2.54 — 14.1 m/min)	
			82%Ar 18%CO ₂		100 — 555 ipm (2.54 — 14.1 m/min)	
			80%Ar 20%CO ₂		100 — 555 ipm (2.54 — 14.1 m/min)	
			75%Ar 25%CO ₂		100 — 645 ipm (2.54 — 16.38 m/min)	
		100%CO ₂	100 — 605 ipm (2.54 — 15.37 m/min)			
	Stainless 3XX	0.9mm	Pinch	98%Ar 2%CO ₂	100 — 800 ipm (2.54 — 20.32 m/min)	
				98%Ar 2%O ₂	100 — 800 ipm (2.54 — 20.32 m/min)	
		1.0mm		98%Ar 2%CO ₂	100 — 800 ipm (2.54 — 20.32 m/min)	
				98%Ar 2%O ₂	100 — 800 ipm (2.54 — 20.32 m/min)	
		1.2mm		98%Ar 2%CO ₂	75 — 745 ipm (1.91 — 18.92 m/min)	
				98%Ar 2%O ₂	75 — 745 ipm (1.91 — 18.92 m/min)	
	Metal Core	1.2mm	Pinch	92%Ar 8%CO ₂	100 — 610 ipm (2.54 — 15.49 m/min)	
				90%Ar 10%CO ₂	100 — 610 ipm (2.54 — 15.49 m/min)	
				85%Ar 15%CO ₂	100 — 610 ipm (2.54 — 15.49 m/min)	
				82%Ar 18%CO ₂	100 — 610 ipm (2.54 — 15.49 m/min)	
				80%Ar 20%CO ₂	100 — 610 ipm (2.54 — 15.49 m/min)	
				75%Ar 25%CO ₂	100 — 650 ipm (2.54 — 16.51 m/min)	
Low Fume Pulse	Steel	1.0mm	80%Ar 20%CO ₂	UltimArc®	75 — 800 ipm (1.91 — 20.32 m/min)	
		1.2mm	80%Ar 20%CO ₂	UltimArc®	60 — 800 ipm (1.52 — 20.32 m/min)	
STT (Root Pass)	Steel	0.9mm	UltimArc®	92%Ar 8%CO ₂	100 — 350 ipm (2.54 — 8.89 m/min)	
				90%Ar 10%CO ₂	100 — 350 ipm (2.54 — 8.89 m/min)	
				85%Ar 15%CO ₂	100 — 350 ipm (2.54 — 8.89 m/min)	
				82%Ar 18%CO ₂	100 — 350 ipm (2.54 — 8.89 m/min)	
				80%Ar 20%CO ₂	100 — 350 ipm (2.54 — 8.89 m/min)	
				75%Ar 25%CO ₂	100 — 350 ipm (2.54 — 8.89 m/min)	
		1.0mm		92%Ar 8%CO ₂	100 — 275 ipm (2.54 — 6.99 m/min)	
				90%Ar 10%CO ₂	100 — 275 ipm (2.54 — 6.99 m/min)	
				85%Ar 15%CO ₂	100 — 275 ipm (2.54 — 6.99 m/min)	
				82%Ar 18%CO ₂	100 — 275 ipm (2.54 — 6.99 m/min)	
				80%Ar 20%CO ₂	100 — 275 ipm (2.54 — 6.99 m/min)	
				75%Ar 25%CO ₂	100 — 275 ipm (2.54 — 6.99 m/min)	
				92%Ar 8%CO ₂	100 — 275 ipm (2.54 — 6.99 m/min)	
				90%Ar 10%CO ₂	100 — 275 ipm (2.54 — 6.99 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 ₂	UltimArc®	100 – 350 ipm (2.54 – 8.89 m/min)
				98%Ar 2%O ₂		100 – 350 ipm (2.54 – 8.89 m/min)
				62.2%Ar 35%He 2.8% CO ₂		100 – 350 ipm (2.54 – 8.89 m/min)
			1.0mm	98%Ar 2%CO ₂	UltimArc®	100 – 300 ipm (2.54 – 7.62 m/min)
				98%Ar 2%O ₂		100 – 300 ipm (2.54 – 7.62 m/min)
				62.2%Ar 35%He 2.8% CO ₂		100 – 300 ipm (2.54 – 7.62 m/min)
		1.2mm	98%Ar 2%CO ₂	UltimArc®	90 – 250 ipm (2.29 – 6.35 m/min)	
			98%Ar 2%O ₂		90 – 250 ipm (2.29 – 6.35 m/min)	
	Metal Core	1.2mm	85%Ar 15%CO ₂	UltimArc®	90 – 225 ipm (2.29 – 5.72 m/min)	
			82%Ar 18%CO ₂		90 – 225 ipm (2.29 – 5.72 m/min)	
			80%Ar 20%CO ₂		90 – 225 ipm (2.29 – 5.72 m/min)	
			75%Ar 25%CO ₂		90 – 225 ipm (2.29 – 5.72 m/min)	
	Smart Pulse	Steel	0.9mm	92%Ar 8%CO ₂	UltimArc®	100 – 800 ipm (2.54 – 20.32 m/min)
				90%Ar 10%CO ₂		100 – 800 ipm (2.54 – 20.32 m/min)
				85%Ar 15%CO ₂		100 – 800 ipm (2.54 – 20.32 m/min)
				82%Ar 18%CO ₂		100 – 800 ipm (2.54 – 20.32 m/min)
			1.0mm	80%Ar 20%CO ₂	100 – 800 ipm (2.54 – 20.32 m/min)	
				92%Ar 8%CO ₂	UltimArc®	100 – 800 ipm (2.54 – 20.32 m/min)
				90%Ar 10%CO ₂		100 – 800 ipm (2.54 – 20.32 m/min)
				85%Ar 15%CO ₂		100 – 800 ipm (2.54 – 20.32 m/min)
			82%Ar 18%CO ₂	100 – 800 ipm (2.54 – 20.32 m/min)		
			1.2mm	80%Ar 20%CO ₂	100 – 800 ipm (2.54 – 20.32 m/min)	
				92%Ar 8%CO ₂	UltimArc®	100 – 605 ipm (2.54 – 15.37 m/min)
				90%Ar 10%CO ₂		100 – 605 ipm (2.54 – 15.37 m/min)
		85%Ar 15%CO ₂		100 – 605 ipm (2.54 – 15.37 m/min)		
		82%Ar 18%CO ₂	100 – 605 ipm (2.54 – 15.37 m/min)			
		Metal Core	1.2mm	80%Ar 20%CO ₂	100 – 605 ipm (2.54 – 15.37 m/min)	
		Stainless 3XX	0.9mm	98%Ar 2%CO ₂	UltimArc®	150 – 800 ipm (3.81 – 20.32 m/min)
				98%Ar 2%O ₂		150 – 800 ipm (3.81 – 20.32 m/min)
62.2%Ar 35%He 2.8% CO ₂				150 – 800 ipm (3.81 – 20.32 m/min)		
98%Ar 2%CO ₂				UltimArc®		100 – 800 ipm (2.54 – 20.32 m/min)
98%Ar 2%O ₂						100 – 800 ipm (2.54 – 20.32 m/min)
62.2%Ar 35%He 2.8% CO ₂						100 – 800 ipm (2.54 – 20.32 m/min)
1.0mm	98%Ar 2%CO ₂		UltimArc®		100 – 800 ipm (2.54 – 20.32 m/min)	
	98%Ar 2%O ₂				100 – 800 ipm (2.54 – 20.32 m/min)	
	62.2%Ar 35%He 2.8% CO ₂				100 – 800 ipm (2.54 – 20.32 m/min)	
1.2mm	98%Ar 2%CO ₂		UltimArc®	100 – 595 ipm (2.54 – 15.11 m/min)		
	98%Ar 2%O ₂			100 – 595 ipm (2.54 – 15.11 m/min)		
Metal Core	1.2mm	92%Ar 8%CO ₂	UltimArc®	100 – 620 ipm (2.54 – 15.75 m/min)		
		90%Ar 10%CO ₂		100 – 620 ipm (2.54 – 15.75 m/min)		
		85%Ar 15%CO ₂		100 – 620 ipm (2.54 – 15.75 m/min)		
		82%Ar 18%CO ₂		100 – 620 ipm (2.54 – 15.75 m/min)		
		80%Ar 20%CO ₂		100 – 620 ipm (2.54 – 15.75 m/min)		
HyperFill ¹	Steel	0.9mm	UltimArc®	100 – 535 ipm (2.54 – 13.59 m/min)		
		1.0mm		100 – 420 ipm (2.54 – 10.67 m/min)		
	Metal Core	1.2mm		100 – 415 ipm (2.54 – 10.54 m/min)		

Weld Set Reference: Z204741
PipeFab® (Metric units)



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

¹HyperFill® & 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.