

**Weld Set Reference: Z245403**  
**PipeFab® (Metric units)**



Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2		
GMAW	Manual CV	Any	N/A	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A		
	CV	3XX Stainless	0.9 mm	98% Ar 2% CO <sub>2</sub>	2.54 to 20.32 m/min	Pinch -10.0 to 10.0	N/A		
				98% Ar 2% O <sub>2</sub>					
				Ar-Mix					
			1.0 mm	98% Ar 2% CO <sub>2</sub>					
				98% Ar 2% O <sub>2</sub>					
				Ar-Mix					
		1.2 mm	98% Ar 2% CO <sub>2</sub>	1.90 to 18.92 m/min					
			98% Ar 2% O <sub>2</sub>						
			Ar-Mix						
			MCW Steel		1.2 mm	75% Ar 25% CO <sub>2</sub>	2.54 to 16.51 m/min	Pinch -10.0 to 10.0	N/A
						80% Ar 20% CO <sub>2</sub>			
						82% Ar 18% CO <sub>2</sub>			
		85% Ar 15% CO <sub>2</sub>							
		90% Ar 10% CO <sub>2</sub>							
		92% Ar 8% CO <sub>2</sub>							
		Ar-Mix							
		CV	Steel	0.9 mm	100% CO <sub>2</sub>	2.54 to 20.70 m/min	Pinch -10.0 to 10.0	N/A	
					75% Ar 25% CO <sub>2</sub>				
					80% Ar 20% CO <sub>2</sub>				
					82% Ar 18% CO <sub>2</sub>				
					85% Ar 15% CO <sub>2</sub>				
	90% Ar 10% CO <sub>2</sub>								
	92% Ar 8% CO <sub>2</sub>								
	Ar-Mix								
	1.0 mm			100% CO <sub>2</sub>	2.54 to 20.32 m/min				
				75% Ar 25% CO <sub>2</sub>					
				80% Ar 20% CO <sub>2</sub>					
				82% Ar 18% CO <sub>2</sub>					
			85% Ar 15% CO <sub>2</sub>						
			90% Ar 10% CO <sub>2</sub>						
	92% Ar 8% CO <sub>2</sub>								
	Ar-Mix								
	1.2 mm		100% CO <sub>2</sub>	2.54 to 15.37 m/min					
			75% Ar 25% CO <sub>2</sub>						
			80% Ar 20% CO <sub>2</sub>						
			82% Ar 18% CO <sub>2</sub>						
			85% Ar 15% CO <sub>2</sub>						
		90% Ar 10% CO <sub>2</sub>							
	92% Ar 8% CO <sub>2</sub>								
	Ar-Mix								
	HyperFill <sup>®1</sup>	MCW Steel	1.2mm	80% Ar 20% CO <sub>2</sub>	3.81 to 8.64 m/min	UltimArc <sup>®</sup> -10.0 to 10.0	N/A		
				Ar-Mix					
		Steel	0.9 mm	80% Ar 20% CO <sub>2</sub>	3.81 to 15.11 m/min	UltimArc <sup>®</sup> -10.0 to 10.0	N/A		
				Ar-Mix					
			1.0 mm	80% Ar 20% CO <sub>2</sub>					
				Ar-Mix					
HyperFill <sup>®</sup> STT <sup>®1</sup>	Steel	0.9 mm	75% Ar 25% CO <sub>2</sub>	2.54 to 6.35 m/min	UltimArc <sup>®</sup> -10.0 to 10.0	N/A			
			80% Ar 20% CO <sub>2</sub>						
			82% Ar 18% CO <sub>2</sub>						
			85% Ar 15% CO <sub>2</sub>						
			90% Ar 10% CO <sub>2</sub>						
			92% Ar 8% CO <sub>2</sub>						
	Ar-Mix								
	1.0 mm	75% Ar 25% CO <sub>2</sub>	1.90 to 5.08 m/min						
		80% Ar 20% CO <sub>2</sub>							
		82% Ar 18% CO <sub>2</sub>							
		85% Ar 15% CO <sub>2</sub>							
		90% Ar 10% CO <sub>2</sub>							
92% Ar 8% CO <sub>2</sub>									
Ar-Mix									

**Weld Set Reference: Z245403**  
**PipeFab® (Metric units)**



Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2				
GMAW	Low Fume Pulse™	Steel	1.0 mm	80% Ar 20% CO <sub>2</sub>	1.90 to 20.70 m/min	UltimArc® -10.0 to 10.0	N/A				
				Ar-Mix							
			1.2 mm	80% Ar 20% CO <sub>2</sub>	1.52 to 20.32 m/min						
				Ar-Mix							
	Smart Pulse®		3XX Stainless	0.9 mm	62.2% Ar 35% He 2.8% CO <sub>2</sub>	3.81 to 20.32 m/min	UltimArc® -10.0 to 10.0	N/A			
					98% Ar 2% CO <sub>2</sub>						
					98% Ar 2% O <sub>2</sub>						
					Ar-Mix						
					Tri-Mix (Ar)						
					62.2% Ar 35% He 2.8% CO <sub>2</sub>						
				98% Ar 2% CO <sub>2</sub>	2.54 to 20.32 m/min						
				98% Ar 2% O <sub>2</sub>							
				Ar-Mix							
				Tri-Mix (Ar)							
				62.2% Ar 35% He 2.8% CO <sub>2</sub>		2.54 to 15.11 m/min					
				98% Ar 2% CO <sub>2</sub>							
			98% Ar 2% O <sub>2</sub>								
			Ar-Mix								
			Tri-Mix (Ar)								
			62.2% Ar 35% He 2.8% CO <sub>2</sub>								
			MCW Steel	1.2 mm	80% Ar 20% CO <sub>2</sub>	2.54 to 16.51 m/min	UltimArc® -10.0 to 10.0	N/A			
					82% Ar 18% CO <sub>2</sub>						
					85% Ar 15% CO <sub>2</sub>						
					90% Ar 10% CO <sub>2</sub>						
					92% Ar 8% CO <sub>2</sub>						
					Ar-Mix						
				Steel	0.9 mm	80% Ar 20% CO <sub>2</sub>			2.54 to 20.32 m/min	UltimArc® -10.0 to 10.0	N/A
						82% Ar 18% CO <sub>2</sub>					
	85% Ar 15% CO <sub>2</sub>										
	90% Ar 10% CO <sub>2</sub>										
	92% Ar 8% CO <sub>2</sub>										
	Ar-Mix										
1.0 mm	80% Ar 20% CO <sub>2</sub>										
	82% Ar 18% CO <sub>2</sub>										
	85% Ar 15% CO <sub>2</sub>										
	90% Ar 10% CO <sub>2</sub>										
	92% Ar 8% CO <sub>2</sub>										
	Ar-Mix										
1.2 mm	80% Ar 20% CO <sub>2</sub>	2.54 to 15.37 m/min									
	82% Ar 18% CO <sub>2</sub>										
	85% Ar 15% CO <sub>2</sub>										
	90% Ar 10% CO <sub>2</sub>										
	92% Ar 8% CO <sub>2</sub>										
	Ar-Mix										

**Weld Set Reference: Z245403**  
**PipeFab® (Metric units)**



Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2
GMAW	STT® (Root Pass)	3XX Stainless	0.9 mm	62.2% Ar 35% He 2.8% CO <sub>2</sub>	2.54 to 8.89 m/min	UltimArc® -10.0 to 10.0	N/A
				98% Ar 2% CO <sub>2</sub>			
				98% Ar 2% O <sub>2</sub>			
				Ar-Mix			
			Tri-Mix (Ar)				
			1.0 mm	62.2% Ar 35% He 2.8% CO <sub>2</sub>	2.54 to 7.62 m/min		
				98% Ar 2% CO <sub>2</sub>			
				98% Ar 2% O <sub>2</sub>			
				Ar-Mix			
			Tri-Mix (Ar)				
			1.2 mm	98% Ar 2% CO <sub>2</sub>	2.29 to 6.35 m/min		
				98% Ar 2% O <sub>2</sub>			
		Ar-Mix					
		Ar-Mix					
		MCW Steel	1.2 mm	75% Ar 25% CO <sub>2</sub>	2.29 to 5.72 m/min	UltimArc® -10.0 to 10.0	N/A
				80% Ar 20% CO <sub>2</sub>			
				82% Ar 18% CO <sub>2</sub>			
				85% Ar 15% CO <sub>2</sub>			
				Ar-Mix			
		Steel	0.9 mm	75% Ar 25% CO <sub>2</sub>	2.54 to 8.89 m/min	UltimArc® -10.0 to 10.0	N/A
				80% Ar 20% CO <sub>2</sub>			
				82% Ar 18% CO <sub>2</sub>			
				85% Ar 15% CO <sub>2</sub>			
				90% Ar 10% CO <sub>2</sub>			
				92% Ar 8% CO <sub>2</sub>			
				Ar-Mix			
				Ar-Mix			
			1.0 mm	100% CO <sub>2</sub>	2.54 to 6.35 m/min		
				75% Ar 25% CO <sub>2</sub>	2.54 to 6.99 m/min		
				80% Ar 20% CO <sub>2</sub>			
82% Ar 18% CO <sub>2</sub>							
85% Ar 15% CO <sub>2</sub>							
90% Ar 10% CO <sub>2</sub>							
92% Ar 8% CO <sub>2</sub>							
Ar-Mix							
Ar-Mix							
1.2 mm	100% CO <sub>2</sub>		2.29 to 5.08 m/min				
	75% Ar 25% CO <sub>2</sub>		2.29 to 5.72 m/min				
	80% Ar 20% CO <sub>2</sub>						
	82% Ar 18% CO <sub>2</sub>						
	85% Ar 15% CO <sub>2</sub>						
	90% Ar 10% CO <sub>2</sub>						
	92% Ar 8% CO <sub>2</sub>						
	Ar-Mix						
Ar-Mix							

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**PipeFab® (Metric units)**



Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2	
FCAW-G	Manual CV	Any	N/A	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A	
	Gas-Shielded	3XX Stainless	1.2 mm	100% CO <sub>2</sub>	4.45 to 15.24 m/min	Pinch -10.0 to 10.0	N/A	
				75% Ar 25% CO <sub>2</sub>				
				80% Ar 20% CO <sub>2</sub>				
		Gas-Shielded	Steel	1.2 mm	100% CO <sub>2</sub>	4.45 to 15.24 m/min	Pinch -10.0 to 10.0	N/A
					75% Ar 25% CO <sub>2</sub>			
					80% Ar 20% CO <sub>2</sub>			
				Ar-Mix				
				1.4 mm	100% CO <sub>2</sub>	3.81 to 12.70 m/min		
					75% Ar 25% CO <sub>2</sub>			
			80% Ar 20% CO <sub>2</sub>					
			1.6 mm	100% CO <sub>2</sub>	3.17 to 10.16 m/min			
				75% Ar 25% CO <sub>2</sub>				
	80% Ar 20% CO <sub>2</sub>							
	HyperFill <sup>®1</sup>		Steel	1.2 mm	100% CO <sub>2</sub>	2.54 to 8.51 m/min	N/A	N/A
75% Ar 25% CO <sub>2</sub>					2.54 to 7.62 m/min	Pinch -10.0 to 10.0		
80% Ar 20% CO <sub>2</sub>								
Ar-Mix								
Gouge	Arc Gouge	Carbon Arc	N/A	Compressed Air	60 to 405 A	N/A	N/A	
GTAW	HF TIG	N/A	N/A	Helium, Argon	5 to 405 A	N/A	N/A	
	Touch Start TIG					Frequency 0.3 to 35.6 Hz	Background 20 to 100 %	
	HF TIG Pulse							
	Touch Start TIG Pulse							
SMAW	Crisp (EXX10)	Stick	N/A	No gas	15 to 405 A	Arc Force -10.0 to 10.0	Hot Start 0.0 to 10.0	
	Soft (EXX18)							
	Stainless (E3XX)							

<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.