The Lincoln Electric Company
www.lincolnelectric.com

Weld Set Reference: Z254532
PipeFab® (Imperial Units)

THE WELDING EXPERTS

Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2
GMAW	Manual CV	Other	None	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A
	CV	3XX Stainless	.035 in	90% He 7.5% Ar 2.5% CO_2	100 to 800 in/min	Pinch -10.0 to 10.0	N/A
				98% Ar 2% CO_2			
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)			
			.040 in	90% He 7.5% Ar 2.5% CO_2			
				98% Ar 2% CO_2			
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)			
			.045 in	90% He 7.5% Ar 2.5% CO_2	75 to 645 in/min		
				98% Ar 2% CO_2	75 to 745 in/min		
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)	75 to 645 in/min		
		MCW Steel	.045 in	75% Ar 25% CO_2	100 to 650 in/min	Pinch -10.0 to 10.0	N/A
				80% Ar 20% CO_2	100 to 610 in/min		
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
		Steel	.035 in	100% CO_2	75 to 800 in/min	Pinch -10.0 to 10.0	N/A
				75% Ar 25% CO_2	100 to 815 in/min		
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
			.040 in	100% CO_2	100 to 800 in/min		
				75% Ar 25% CO_2	100 to 760 in/min		
				80% Ar 20% CO_2	100 to 800 in/min		
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
			.045 in	100% CO_2	50 to 800 in/min		
				75% Ar 25% CO_2	50 to 780 in/min		
				80% Ar 20% CO_2	50 to 615 in/min		
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
	HyperFill®[1]	MCW Steel	.045 in	90% Ar 10% CO_2	150 to 330 in/min	UltimArc® -10.0 to 10.0	N/A
				Ar-Mix			
		Steel	.035 in	90% Ar 10% CO_2	150 to 585 in/min	UltimArc® -10.0 to 10.0	N/A
				Ar-Mix			
			.040 in	90% Ar 10% CO_2	100 to 410 in/min		
				Ar-Mix			
	HyperFill-RA®[1]	Stainless	.035 in	Ar-Mix	100 to 500 in/min	UltimArc® -10.0 to 10.0	N/A
				98% Ar 2% CO_2			
	HyperFill® STT®[1]	Steel	.035 in	75% Ar 25% CO_2	100 to 250 in/min	UltimArc® -10.0 to 10.0	N/A
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
			.040 in	75% Ar 25% CO_2	75 to 200 in/min	UltimArc® -10.0 to 10.0	N/A
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
		Stiainless	.035 in	Ar-Mix	100 to 200 in/min	UltimArc® -10.0 to 10.0	N/A
				Tri-Mix (Ar)			
				98% Ar 2% O_2			
				98% Ar 2% CO_2			
				90% He 7.5% Ar 2.5% CO_2			
			.045 in	Ar-Mix	100 to 200 in/min	UltimArc® -10.0 to 10.0	N/A
				Tri-Mix (Ar)			
				98% Ar 2% O_2			
				98% Ar 2% CO_2			
				90% He 7.5% Ar 2.5% CO_2			

The Lincoln Electric Company
www.lincolnelectric.com

Weld Set Reference: Z254532
PipeFab® (Imperial Units)

LINCOLN® ELECTRIC
THE WELDING EXPERTS

Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2
GMAW	Low Fume Pulse™	MCW Steel	.052 in	90% Ar 10% CO_2	60 to 650 in/min	UltimArc® -10.0 to 10.0	N/A
				Ar-Mix			
		Steel	.035 in	90% Ar 10% CO_2	75 to 815 in/min	UltimArc® -10.0 to 10.0	N/A
				Ar-Mix			
			.040 in	90% Ar 10% CO_2	75 to 800 in/min		
				Ar-Mix			
			.045 in	90% Ar 10% CO_2	100 to 800 in/min		
				Ar-Mix			
	Smart Pulse®	3XX Stainless	.035 in	90% He 7.5% Ar 2.5% CO_2	125 to 800 in/min	UltimArc® -10.0 to 10.0	N/A
				98% Ar 2% CO_2			
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)			
			.040 in	90% He 7.5% Ar 2.5% CO_2	100 to 800 in/min		
				98% Ar 2% CO_2			
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)			
			.045 in	90% He 7.5% Ar 2.5% CO_2	100 to 765 in/min		
				98% Ar 2% CO_2	100 to 750 in/min		
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)	100 to 765 in/min		
		MCW Steel	.045 in	90% Ar 10% CO_2	100 to 650 in/min	UltimArc® -10.0 to 10.0	N/A
				Ar-Mix			
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
		Steel	.035 in	80% Ar 20% CO_2	100 to 800 in/min	UltimArc® -10.0 to 10.0	N/A
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
			.040 in	80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
			.045 in	80% Ar 20% CO_2	100 to 700 in/min		
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
		ER90S-B9	0.035	75% Ar 25% CO_2	125 to 200 in/min	UltimArc® -10.0 to 10.0	N/A
				85% Ar 15% CO_2			
				Ar-Mix			

The Lincoln Electric Company
www.lincolnelectric.com

Weld Set Reference: Z254532
PipeFab® (Imperial Units)

LINCOLN® ELECTRIC
THE WELDING EXPERTS

Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2
GMAW	STT® (Root Pass)	3XX Stainless	.035 in	90% He 7.5% Ar 2.5% CO_2	100 to 350 in/min	UltimArc® -10.0 to 10.0	N/A
				98% Ar 2% CO_2			
				98% Ar 2% O_2			
				Ar/CO_2/H			
				Ar/CO_2/N			
				Ar-Mix			
				Tri-Mix (He)			
			.040 in	90% He 7.5% Ar 2.5% CO_2	100 to 300 in/min		
				98% Ar 2% CO_2			
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)			
			.045 in	90% He 7.5% Ar 2.5% CO_2	90 to 250 in/min		
				98% Ar 2% CO_2			
				98% Ar 2% O_2			
				Ar-Mix			
				Tri-Mix (He)			
		MCW Steel	.045 in	Ar-Mix	90 to 225 in/min	UltimArc® -10.0 to 10.0	N/A
				75% Ar 25% CO_2			
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
		Steel	.035 in	100% CO_2	125 to 250 in/min	UltimArc® -10.0 to 10.0	N/A
				75% Ar 25% CO_2	100 to 350 in/min		
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
				95% Ar 5% O_2			
			.040 in	100% CO_2	100 to 250 in/min	UltimArc® -10.0 to 10.0	N/A
				75% Ar 25% CO_2	100 to 275 in/min		
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
			.045 in	100% CO_2	100 to 200 in/min		
				75% Ar 25% CO_2	90 to 250 in/min		
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
				95% Ar 5% O_2	90 to 300 in/min		
			.052 in	100% CO_2	75 to 175 in/min	UltimArc® -10.0 to 10.0	N/A
				75% Ar 25% CO_2			
				80% Ar 20% CO_2			
				85% Ar 15% CO_2			
				90% Ar 10% CO_2			
				Ar-Mix			
		ER90S-B9	.035 in	75% Ar 25% CO_2	125 to 200 in/min	UltimArc® -10.0 to 10.0	N/A
				85% Ar 15% CO_2			
				Ar-Mix			

The Lincoln Electric Company
www.lincolnelectric.com

Weld Set Reference: Z254532
PipeFab® (Imperial Units)

THE WELDING EXPERTS

Process Type	Waveform	Wire Type	Wire Size	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2
FCAW-G	Manual CV	Other	None	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A
	Gas-Shielded	3XX Stainless	.045 in	100% CO_2	175 to 600 in/min	Pinch -10.0 to 10.0	N/A
				75% Ar 25% CO_2			
				80% Ar 20% CO_2			
				Ar-Mix			
			1/16 in	100% CO_2	125 to 400 in/min		
				75% Ar 25% CO_2			
				80% Ar 20% CO_2			
				Ar-Mix			
		Steel	.045 in	100% CO_2	175 to 600 in/min	Pinch -10.0 to 10.0	N/A
				75% Ar 25% CO_2			
				Ar-Mix			
			.052 in	100% CO_2	150 to 500 in/min		
				75% Ar 25% CO_2			
				Ar-Mix			
			1/16 in	100% CO_2	125 to 400 in/min		
				75% Ar 25% CO_2			
				Ar-Mix			
	HyperFill®[1]	Steel	.045 in	100% CO_2	100 to 335 in/min	N/A	N/A
				75% Ar 25% CO_2	100 to 360 in/min	Pinch -10.0 to 10.0	N/A
				80% Ar 20% CO_2			
				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						
	HF TIG Pulse					Frequency 0.3 to 35.6 Hz	Background 20 to 100 %
	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)						

[1] ***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.