

Weld Set Reference: Z254530
Power Wave® 300C (Metric units)



(§) Requires Advanced machine

Process type	Wire type	Wire size	Waveform	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2	Wave Control 3
GMAW	Manual CV	None	CV	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A	N/A
	3XX Stainless	0.8 mm	CV	98% Ar 2% CO ₂	2.54 to 20.32 m/min	Pinch -10.0 to 10.0	N/A	N/A
				98% Ar 2% O ₂				
				Ar-Mix				
			Precision Pulse™	62.2% Ar 35% He 2.8% CO ₂	2.54 to 15.24 m/min			
				98% Ar 2% CO ₂				
				98% Ar 2% O ₂				
				Ar-Mix				
				Tri-Mix (Ar)				
				98% Ar 2% CO ₂				
			Pulse	98% Ar 2% CO ₂	2.54 to 20.32 m/min			
				98% Ar 2% O ₂				
				Ar-Mix				
		Rapid X® (§)	98% Ar 2% CO ₂	2.54 to 20.32 m/min				
			98% Ar 2% O ₂					
			Ar-Mix					
		RapidArc®	98% Ar 2% CO ₂	2.54 to 20.32 m/min				
			98% Ar 2% O ₂					
			Ar-Mix					
		Smart Pulse® (§)	62.2% Ar 35% He 2.8% CO ₂	3.81 to 15.24 m/min				
			98% Ar 2% CO ₂					
			98% Ar 2% O ₂					
			Ar-Mix					
			Tri-Mix (Ar)					
			98% Ar 2% CO ₂					
	STT® (Root Pass) (§)	62.2% Ar 35% He 2.8% CO ₂	3.18 to 8.89 m/min					
		98% Ar 2% CO ₂	3.18 to 10.16 m/min					
		98% Ar 2% O ₂						
		Ar-Mix	3.18 to 8.89 m/min					
		Tri-Mix (Ar)						
		1.0 mm	CV	98% Ar 2% CO ₂	2.54 to 17.53 m/min	Pinch -10.0 to 10.0		
	98% Ar 2% O ₂							
	Ar-Mix							
	Precision Pulse™		62.2% Ar 35% He 2.8% CO ₂	1.52 to 15.24 m/min				
			98% Ar 2% CO ₂					
			98% Ar 2% O ₂					
Ar-Mix								
Tri-Mix (Ar)								
98% Ar 2% CO ₂								
Pulse	98% Ar 2% CO ₂		2.54 to 15.24 m/min					
	98% Ar 2% O ₂							
	Ar-Mix							
Rapid X® (§)	98% Ar 2% CO ₂	2.54 to 20.32 m/min						
	98% Ar 2% O ₂							
	Ar-Mix							
RapidArc®	98% Ar 2% CO ₂	2.54 to 20.32 m/min						
	98% Ar 2% O ₂							
	Ar-Mix							

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GMAW	3XX Stainless	1.0 mm	Smart Pulse® (§)	62.2% Ar 35% He 2.8% CO ₂	2.54 to 19.30 m/min	UltimArc® -10.0 to 10.0		
				98% Ar 2% CO ₂				
				98% Ar 2% O ₂				
				Ar-Mix				
			Tri-Mix (Ar)					
			62.2% Ar 35% He 2.8% CO ₂					
		STT® (Root Pass) (§)	98% Ar 2% CO ₂	2.54 to 7.62 m/min				
			98% Ar 2% O ₂					
			Ar-Mix					
			Tri-Mix (Ar)					
		1.2 mm	CV	98% Ar 2% CO ₂	1.91 to 14.61 m/min	Pinch -10.0 to 10.0		
				98% Ar 2% O ₂				
				Ar-Mix				
			Precision Pulse™	62.2% Ar 35% He 2.8% CO ₂	1.27 to 11.18 m/min			
				98% Ar 2% CO ₂				
				98% Ar 2% O ₂				
				Ar-Mix				
			Pulse	98% Ar 2% CO ₂	1.91 to 11.81 m/min			
	98% Ar 2% O ₂							
	Ar-Mix							
	Rapid X® (§)		98% Ar 2% CO ₂	2.54 to 15.24 m/min				
			98% Ar 2% O ₂					
		Ar-Mix						
	RapidArc®	98% Ar 2% CO ₂	2.54 to 15.24 m/min	UltimArc® -10.0 to 10.0				
		98% Ar 2% O ₂						
		Ar-Mix						
	Smart Pulse® (§)	62.2% Ar 35% He 2.8% CO ₂	2.54 to 13.46 m/min					
		98% Ar 2% CO ₂						
		98% Ar 2% O ₂						
		Ar-Mix						
STT® (Root Pass) (§)	62.2% Ar 35% He 2.8% CO ₂	2.29 to 5.72 m/min						
	98% Ar 2% CO ₂	2.29 to 6.35 m/min						
	98% Ar 2% O ₂	2.29 to 6.35 m/min						
	Ar-Mix	2.29 to 6.35 m/min						
AI 4XXX	1.0 mm	AC Precision Pulse™ (§)	3.81 to 17.78 m/min	UltimArc® -10.0 to 10.0				
		CV	3.18 to 20.32 m/min	Pinch -10.0 to 10.0				
		Precision Pulse™						
	1.2 mm	AC Precision Pulse™ (§)	3.18 to 12.70 m/min	UltimArc® -10.0 to 10.0				
		CV	3.18 to 14.99 m/min	Pinch -10.0 to 10.0				
		Precision Pulse™	2.16 to 15.24 m/min	UltimArc® -10.0 to 10.0				
	1.6 mm	AC Precision Pulse™ (§)	2.54 to 8.89 m/min	1.91 to 8.64 m/min	Pinch -10.0 to 10.0			
		CV	1.91 to 8.64 m/min		Pinch -10.0 to 10.0			
		Precision Pulse™			UltimArc® -10.0 to 10.0			

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GMAW	MCW Steel	1.2 mm	Smart Pulse® (§)	92% Ar 8% CO ₂	2.54 to 12.95 m/min	UltimArc® -10.0 to 10.0	N/A	N/A
				Ar-Mix				
			STT® (Root Pass) (§)	75% Ar 25% CO ₂	2.29 to 5.72 m/min			
				80% Ar 20% CO ₂				
				82% Ar 18% CO ₂				
	85% Ar 15% CO ₂							
	NiCr Alloy	1.0 mm	Pulse	Ar-Mix	1.91 to 20.32 m/min	UltimArc® -10.0 to 10.0	N/A	N/A
				100% Ar				
				75% Ar 25% He				
				80% Ar 20% He				
				Ar/He-Mix				
		Tri-Mix (Ar)						
		1.2 mm		100% Ar	1.91 to 15.24 m/min			
				75% Ar 25% He				
				80% Ar 20% He				
				Ar/He-Mix				
	Tri-Mix (Ar)							
	Si Bronze	1.0 mm	RapidArc®	100% Ar	2.54 to 11.43 m/min	UltimArc® -10.0 to 10.0	N/A	N/A
			STT® Braze (§)		3.05 to 8.89 m/min			
		1.2 mm	RapidArc®		1.91 to 10.16 m/min			
			STT® Braze (§)		2.29 to 7.62 m/min			
	Steel	0.8 mm	AC STT® (§)	75% Ar 25% CO ₂	2.54 to 8.89 m/min	Balance 0 to 100 %	UltimArc® -10.0 to 10.0	N/A
				80% Ar 20% CO ₂				
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
				92% Ar 8% CO ₂				
				Ar-Mix				
CV			100% CO ₂	3.18 to 20.32 m/min				
			75% Ar 25% CO ₂					
			80% Ar 20% CO ₂					
			82% Ar 18% CO ₂					
			85% Ar 15% CO ₂					
			90% Ar 10% CO ₂					
			92% Ar 8% CO ₂					
Precision Pulse™			Ar-Mix	3.18 to 15.24 m/min				
			80% Ar 20% CO ₂					
			82% Ar 18% CO ₂					
			85% Ar 15% CO ₂					
			90% Ar 10% CO ₂					
Pulse			92% Ar 8% CO ₂	2.54 to 15.24 m/min				
	Ar-Mix							
	80% Ar 20% CO ₂							
	82% Ar 18% CO ₂							
	85% Ar 15% CO ₂							
90% Ar 10% CO ₂								

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Process type	Wire type	Wire size	Waveform	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2	Wave Control 3
GMAW	Steel	0.8 mm	Pulse	92% Ar 8% CO ₂	2.54 to 15.24 m/min	UltimArc® -10.0 to 10.0	N/A	N/A
				Ar-Mix				
			Rapid X® (§)	80% Ar 20% CO ₂	1.91 to 20.32 m/min			
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
				92% Ar 8% CO ₂				
			RapidArc®	Ar-Mix	3.18 to 20.32 m/min			
				80% Ar 20% CO ₂				
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
			Smart Pulse® (§)	92% Ar 8% CO ₂	3.18 to 10.16 m/min			
				Ar-Mix				
				75% Ar 25% CO ₂				
		80% Ar 20% CO ₂						
		82% Ar 18% CO ₂						
		STT® (Root Pass) (§)	85% Ar 15% CO ₂	1.91 to 6.35 m/min				
			90% Ar 10% CO ₂					
			92% Ar 8% CO ₂					
			Ar-Mix					
			100% CO ₂					
		1.0 mm	AC STT® (§)	75% Ar 25% CO ₂	2.54 to 18.42 m/min	Balance 0 to 100 %	UltimArc® -10.0 to 10.0	
				80% Ar 20% CO ₂				
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
			CV	92% Ar 8% CO ₂	2.54 to 15.62 m/min	Pinch -10.0 to 10.0		
				Ar-Mix				
				75% Ar 25% CO ₂				
80% Ar 20% CO ₂								
82% Ar 18% CO ₂								
85% Ar 15% CO ₂								
90% Ar 10% CO ₂								
Low Fume Pulse™ (§)	92% Ar 8% CO ₂		1.91 to 20.70 m/min	UltimArc® -10.0 to 10.0				
	Ar-Mix							
	80% Ar 20% CO ₂							
Precision Pulse™	82% Ar 18% CO ₂	1.91 to 14.61 m/min	UltimArc® -10.0 to 10.0					
	85% Ar 15% CO ₂							
	Ar-Mix							

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Process type	Wire type	Wire size	Waveform	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2	Wave Control 3
GMAW	Steel	1.0 mm	Precision Pulse™	90% Ar 10% CO ₂	1.91 to 14.61 m/min	UltimArc® -10.0 to 10.0	N/A	N/A
				92% Ar 8% CO ₂				
				Ar-Mix				
			Pulse	80% Ar 20% CO ₂	2.54 to 15.24 m/min			
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
				92% Ar 8% CO ₂				
				Ar-Mix				
			Rapid X® (§)	80% Ar 20% CO ₂	1.91 to 20.32 m/min			
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
				92% Ar 8% CO ₂				
				Ar-Mix				
			RapidArc®	80% Ar 20% CO ₂	2.54 to 18.80 m/min			
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
		90% Ar 10% CO ₂						
		92% Ar 8% CO ₂						
		Ar-Mix						
		Smart Pulse® (§)	100% CO ₂	2.54 to 6.35 m/min				
			75% Ar 25% CO ₂					
			STT® (Root Pass) (§)	80% Ar 20% CO ₂	2.54 to 6.99 m/min			
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
92% Ar 8% CO ₂								
Ar-Mix								
1.2 mm	AC STT® (§)	75% Ar 25% CO ₂	1.91 to 5.08 m/min	Balance 0 to 100 %	UltimArc® -10.0 to 10.0			
		80% Ar 20% CO ₂						
		82% Ar 18% CO ₂						
		85% Ar 15% CO ₂						
		90% Ar 10% CO ₂						
		92% Ar 8% CO ₂						
CV	100% CO ₂	2.54 to 11.56 m/min	2.54 to 10.92 m/min	Pinch -10.0 to 10.0	N/A			
		75% Ar 25% CO ₂				2.54 to 12.83 m/min		
		80% Ar 20% CO ₂						
		82% Ar 18% CO ₂						
		85% Ar 15% CO ₂						

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Process type	Wire type	Wire size	Waveform	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2	Wave Control 3	
GMAW	Steel	1.2 mm	CV	90% Ar 10% CO ₂	2.54 to 10.92 m/min	Pinch -10.0 to 10.0	UltimArc® -10.0 to 10.0	N/A	N/A
				92% Ar 8% CO ₂					
				Ar-Mix					
			Low Fume Pulse™ (§)	80% Ar 20% CO ₂	1.52 to 17.78 m/min				
				Ar-Mix					
			Precision Pulse™	80% Ar 20% CO ₂	1.91 to 14.10 m/min				
				82% Ar 18% CO ₂					
				85% Ar 15% CO ₂					
				90% Ar 10% CO ₂					
				92% Ar 8% CO ₂					
				Ar-Mix					
			Pulse	80% Ar 20% CO ₂	1.91 to 11.30 m/min				
				82% Ar 18% CO ₂					
				85% Ar 15% CO ₂					
				90% Ar 10% CO ₂					
				92% Ar 8% CO ₂					
				Ar-Mix					
			Rapid X® (§)	80% Ar 20% CO ₂	1.91 to 17.15 m/min				
				82% Ar 18% CO ₂					
				85% Ar 15% CO ₂					
				90% Ar 10% CO ₂					
				92% Ar 8% CO ₂					
				Ar-Mix					
			RapidArc®	80% Ar 20% CO ₂	1.91 to 16.26 m/min				
				82% Ar 18% CO ₂					
				85% Ar 15% CO ₂					
				90% Ar 10% CO ₂					
				92% Ar 8% CO ₂					
Ar-Mix									
Smart Pulse® (§)	80% Ar 20% CO ₂	2.54 to 12.57 m/min							
	82% Ar 18% CO ₂								
	85% Ar 15% CO ₂								
	90% Ar 10% CO ₂								
	92% Ar 8% CO ₂								
	Ar-Mix								
STT® (Root Pass) (§)	100% CO ₂	2.29 to 5.08 m/min							
	75% Ar 25% CO ₂	2.29 to 5.72 m/min							
	80% Ar 20% CO ₂								
	82% Ar 18% CO ₂								
	85% Ar 15% CO ₂								
	90% Ar 10% CO ₂								
	92% Ar 8% CO ₂								
	Ar-Mix								
Duplex ER2209	1.0 mm	Pulse	69.75%Ar 30% He 0.25% CO ₂	2.54 to 12.70 m/min	UltimArc® -10.0 to 10.0	Hot Start 0.0 to 10.0	N/A		
Duplex ER2209	1.2 mm	Pulse	69.75%Ar 30% He 0.25% CO ₂	2.54 to 12.70 m/min	UltimArc® -10.0 to 10.0	Hot Start 0.0 to 10.0	N/A		
Super Duplex ER2594	1.0 mm	Pulse	69.75%Ar 30% He 0.25% CO ₂	2.54 to 12.70 m/min	UltimArc® -10.0 to 10.0	Hot Start 0.0 to 10.0	N/A		
Super Duplex ER2594	1.2 mm	Pulse	69.75%Ar 30% He 0.25% CO ₂	2.54 to 12.19 m/min	UltimArc® -10.0 to 10.0	Hot Start 0.0 to 10.0	N/A		

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Process type	Wire type	Wire size	Waveform	Gas Type	Workpoint Limits	Wave Control 1	Wave Control 2	Wave Control 3
FCAW-S	Self-Shielded	None	Self-Shielded	No gas	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A	N/A
	Manual CV	None	Gas-Shielded	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A	N/A
FCAW-G	Steel	1.2 mm	Gas-Shielded	100% CO ₂	4.45 to 15.24 m/min	Pinch -10.0 to 10.0	N/A	N/A
				75% Ar 25% CO ₂				
				80% Ar 20% CO ₂				
				Ar-Mix				
		1.4 mm		100% CO ₂	3.81 to 12.70 m/min			
				75% Ar 25% CO ₂				
				80% Ar 20% CO ₂				
				Ar-Mix				
		1.6 mm		100% CO ₂	3.18 to 9.91 m/min			
				75% Ar 25% CO ₂	3.18 to 9.14 m/min			
				80% Ar 20% CO ₂				
				Ar-Mix				
Gouge	Carbon Arc	N/A	Arc Gouge	No gas		60 to 350 A	N/A	N/A
GTAW	GTAW	N/A	Helium, Argon	HF TIG (§)	5 to 350 A	N/A	N/A	N/A
				Touch Start				
				HF TIG Pulse (§)		Frequency 0.3 to 35.6 Hz	Background 20 to 100 %	
				Touch Start TIG Pulse	10 to 350 A	AC Frequency 50 to 200 Hz	AC Balance 35 to 85 %	DC Offset -30 to 30 %
				HF AC TIG (§)				
				Touch Start AC TIG (§)				
SMAW	Stick	N/A	No gas	AC SMAW (§)	15 to 350 A	Arc Force -10.0 to 10.0	Hot Start 0.0 to 10.0	AC Frequency 20 to 100 Hz
				Crisp (EXX10)				
				DCEN SMAW (§)				
				Soft (EXX18)				
				Stainless (E3XX)				