

Weld Set Reference: Z245304
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% O ₂	2.54 to 20.32 m/min			
				Ar-Mix				
				98% Ar 2% CO ₂				
		Rapid X® (§)	98% Ar 2% CO ₂	3.81 to 15.24 m/min				
			98% Ar 2% O ₂					
			Ar-Mix					
		RapidArc®	98% Ar 2% CO ₂	3.18 to 8.89 m/min				
			98% Ar 2% O ₂					
			Ar-Mix					
		Smart Pulse® (§)	62.2% Ar 35% He 2.8% CO ₂	3.18 to 10.16 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						
		98% Ar 2% O ₂						
		Ar-Mix						
	1.0 mm	CV	98% Ar 2% CO ₂	2.54 to 17.53 m/min				
			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% O ₂	2.54 to 20.32 m/min					
		Ar-Mix						
		98% Ar 2% CO ₂						
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 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	N/A	N/A	
				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						
		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	UltimArc® -10.0 to 10.0				
			98% Ar 2% CO ₂						
			98% Ar 2% O ₂						
		Ar-Mix							
	Pulse	Tri-Mix (Ar)	1.91 to 11.81 m/min						
		98% Ar 2% CO ₂							
		98% Ar 2% O ₂							
	1.2 mm	Rapid X® (§)	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						
		RapidArc®	98% Ar 2% CO ₂						
			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) (§)	Tri-Mix (Ar)	2.29 to 5.72 m/min							
	62.2% Ar 35% He 2.8% CO ₂								
	98% Ar 2% CO ₂								
	98% Ar 2% O ₂								
Al 4XXX	1.0 mm	AC Precision Pulse™ (§)	100% Ar	N/A	N/A				
		CV							
		Precision Pulse™							
	1.2 mm	AC Precision Pulse™ (§)							
		CV							
		Precision Pulse™							
	1.6 mm	AC Precision Pulse™ (§)							
		CV							
		Precision Pulse™							
		1.91 to 8.64 m/min							
		Pinch -10.0 to 10.0							
		UltimArc® -10.0 to 10.0							

Weld Set Reference: Z245304
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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	Al 5XXX	1.0 mm	AC Precision Pulse™ (§)	100% Ar	3.18 to 17.78 m/min	UltimArc® -10.0 to 10.0	N/A	N/A
			CV		4.45 to 19.05 m/min	Pinch -10.0 to 10.0		
			Precision Pulse™		3.81 to 20.32 m/min	UltimArc® -10.0 to 10.0		
		1.2 mm	AC Precision Pulse™ (§)		2.54 to 17.78 m/min	Pinch -10.0 to 10.0		
			CV		3.18 to 19.05 m/min	UltimArc® -10.0 to 10.0		
			Precision Pulse™		2.16 to 17.78 m/min	Pinch -10.0 to 10.0		
		1.6 mm	AC Precision Pulse™ (§)		2.54 to 10.16 m/min	UltimArc® -10.0 to 10.0		
			CV		3.18 to 11.94 m/min	Pinch -10.0 to 10.0		
			Precision Pulse™		2.54 to 10.16 m/min	UltimArc® -10.0 to 10.0		
	Copper	1.0 mm	Pulse	75% Ar 25% He	1.91 to 12.70 m/min	UltimArc® -10.0 to 10.0	N/A	N/A
				Ar-Mix				
		1.2 mm		75% Ar 25% He				
				Ar-Mix				
	MCW Steel	1.2 mm	CV	75% Ar 25% CO ₂	2.54 to 16.51 m/min	Pinch -10.0 to 10.0	N/A	N/A
				80% Ar 20% CO ₂	2.54 to 14.86 m/min			
				82% Ar 18% CO ₂				
				85% Ar 15% CO ₂				
				90% Ar 10% CO ₂				
				92% Ar 8% CO ₂				
			Ar-Mix	1.91 to 13.59 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	1.91 to 11.94 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			1.91 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								
92% Ar 8% CO ₂								
Ar-Mix			2.54 to 12.95 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								
Smart Pulse® (§)								

Weld Set Reference: Z245304
Power Wave® 300C (Metric units)



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

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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				
				Ar-Mix				
			RapidArc®	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				
		Smart Pulse® (§)	80% Ar 20% CO ₂	3.18 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					
		STT® (Root Pass) (§)	75% Ar 25% CO ₂	3.18 to 10.16 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					
		1.0 mm	AC STT® (§)	75% Ar 25% CO ₂	1.91 to 6.35 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	Ar-Mix		2.54 to 15.62 m/min	Pinch -10.0 to 10.0	N/A			
	100% CO ₂							
	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							
Low Fume Pulse™ (§)	80% Ar 20% CO ₂	1.91 to 20.70 m/min	UltimArc® -10.0 to 10.0					
	Ar-Mix							
Precision Pulse™	80% Ar 20% CO ₂	1.91 to 14.61 m/min	UltimArc® -10.0 to 10.0					
	82% Ar 18% CO ₂							
	85% Ar 15% CO ₂							

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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				
			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®	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					
		Smart Pulse® (§)	100% CO ₂	2.54 to 6.35 m/min				
			75% Ar 25% CO ₂					
			80% Ar 20% CO ₂					
			82% Ar 18% CO ₂					
			85% Ar 15% 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								
AC STT® (§)	75% Ar 25% CO ₂	1.91 to 5.08 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							
CV	100% CO ₂	2.54 to 11.56 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	2.54 to 10.92 m/min						
	82% Ar 18% CO ₂							
	85% Ar 15% CO ₂							

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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								
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									

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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		3.81 to 12.70 m/min				
		100% CO ₂						
		75% Ar 25% CO ₂						
	1.6 mm	80% Ar 20% CO ₂	3.18 to 9.91 m/min					
		Ar-Mix						
		100% CO ₂						
		75% Ar 25% CO ₂						
				80% Ar 20% CO ₂	3.18 to 9.14 m/min			
				Ar-Mix				
Gouge	Carbon Arc	N/A	Arc Gouge	No gas	60 to 350 A	N/A	N/A	N/A
GTAW	GTAW	N/A	HF TIG (§)	Helium, Argon	5 to 350 A	N/A	N/A	N/A
			Touch Start			Frequency 0.3 to 35.6 Hz	Background 20 to 100 %	
			HF TIG Pulse (§)					
			Touch Start TIG Pulse		10 to 350 A			AC Frequency 50 to 200 Hz
			HF AC TIG (§)					
Touch Start AC TIG (§)								
SMAW	Stick	N/A	AC SMAW (§)	No gas	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)					N/A
			DCEN SMAW (§)					
			Soft (EXX18)					
			Stainless (E3XX)					