

**Weld Set Reference: Z215116**  
**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	3XX Stainless	Manual CV	CV	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A	N/A
		None	CV	98% Ar 2% CO <sub>2</sub>	2.54 to 20.32 m/min	Pinch -10.0 to 10.0	N/A	N/A
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
			Precision Pulse™	62.2% Ar 35% He 2.8% CO <sub>2</sub>	2.54 to 15.24 m/min			
				Tri-Mix (Ar)				
				98% Ar 2% CO <sub>2</sub>				
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
				Ar-Mix				
			Pulse	98% Ar 2% CO <sub>2</sub>	2.54 to 20.32 m/min			
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
			Rapid X® (§)	98% Ar 2% CO <sub>2</sub>	2.54 to 20.32 m/min			
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
			RapidArc®	98% Ar 2% CO <sub>2</sub>	2.54 to 20.32 m/min			
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
		Smart Pulse™ (§)	62.2% Ar 35% He 2.8% CO <sub>2</sub>	3.81 to 15.24 m/min				
			Tri-Mix (Ar)					
			98% Ar 2% CO <sub>2</sub>					
			98% Ar 2% O <sub>2</sub>					
		STT® (Root Pass) (§)	62.2% Ar 35% He 2.8% CO <sub>2</sub>	3.17 to 8.89 m/min				
Tri-Mix (Ar)	3.17 to 10.16 m/min							
98% Ar 2% CO <sub>2</sub>								
98% Ar 2% O <sub>2</sub>								
CV	98% Ar 2% CO <sub>2</sub>	2.54 to 17.53 m/min						
	98% Ar 2% O <sub>2</sub>							
	Ar-Mix							
1.0 mm	Precision Pulse™	62.2% Ar 35% He 2.8% CO <sub>2</sub>	1.52 to 15.24 m/min					
		Tri-Mix (Ar)						
		98% Ar 2% CO <sub>2</sub>						
		98% Ar 2% O <sub>2</sub>						
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	3XX Stainless	1.0 mm	Pulse	98% Ar 2% CO <sub>2</sub>	2.54 to 15.24 m/min	Ultimarc® -10.0 to 10.0	N/A	N/A
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
			Rapid X® (§)	98% Ar 2% CO <sub>2</sub>	2.54 to 20.32 m/min			
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
			RapidArc®	98% Ar 2% CO <sub>2</sub>	2.54 to 19.30 m/min			
				98% Ar 2% O <sub>2</sub>				
				Ar-Mix				
			Smart Pulse™ (§)	62.2% Ar 35% He 2.8% CO <sub>2</sub>	2.54 to 19.30 m/min			
				Tri-Mix (Ar)				
				98% Ar 2% CO <sub>2</sub>				
	98% Ar 2% O <sub>2</sub>							
	STT® (Root Pass) (§)	62.2% Ar 35% He 2.8% CO <sub>2</sub>	2.54 to 7.62 m/min					
		Tri-Mix (Ar)						
		98% Ar 2% CO <sub>2</sub>						
		98% Ar 2% O <sub>2</sub>						
	1.2 mm	CV	98% Ar 2% CO <sub>2</sub>	1.90 to 14.60 m/min	Ultimarc® -10.0 to 10.0			
			98% Ar 2% O <sub>2</sub>					
			Ar-Mix					
		Precision Pulse™	62.2% Ar 35% He 2.8% CO <sub>2</sub>	1.27 to 11.18 m/min				
			Tri-Mix (Ar)					
			98% Ar 2% CO <sub>2</sub>					
			98% Ar 2% O <sub>2</sub>					
Pulse		98% Ar 2% CO <sub>2</sub>	1.90 to 11.81 m/min					
		98% Ar 2% O <sub>2</sub>						
		Ar-Mix						
Rapid X® (§)		98% Ar 2% CO <sub>2</sub>	2.54 to 15.24 m/min					
		98% Ar 2% O <sub>2</sub>						
	Ar-Mix							
RapidArc®	98% Ar 2% CO <sub>2</sub>	2.54 to 13.46 m/min						
	98% Ar 2% O <sub>2</sub>							
	Ar-Mix							
Smart Pulse™ (§)	62.2% Ar 35% He 2.8% CO <sub>2</sub>	2.54 to 13.46 m/min						
	Tri-Mix (Ar)							
	98% Ar 2% CO <sub>2</sub>							
	98% Ar 2% O <sub>2</sub>							
			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	3XX Stainless	1.2 mm	STT® (Root Pass) (§)	62.2% Ar 35% He 2.8% CO <sub>2</sub>	2.29 to 5.72 m/min	Ultimarc® -10.0 to 10.0	N/A	N/A	
				Tri-Mix (Ar)					
				98% Ar 2% CO <sub>2</sub>	2.29 to 6.35 m/min				
				98% Ar 2% O <sub>2</sub>					
			Ar-Mix						
	Al 4XXX	1.0 mm	AC Precision Pulse™ (§)	100% Ar	3.81 to 17.78 m/min	3.81 to 17.78 m/min	Ultimarc® -10.0 to 10.0	N/A	N/A
					CV		3.17 to 20.32 m/min		
					Precision Pulse™	3.17 to 12.70 m/min			
		1.2 mm	AC Precision Pulse™ (§)		3.17 to 14.99 m/min		Pinch -10.0 to 10.0		
			CV			2.16 to 15.24 m/min	Ultimarc® -10.0 to 10.0		
			Precision Pulse™		2.54 to 8.89 m/min		Pinch -10.0 to 10.0		
		1.6 mm	AC Precision Pulse™ (§)			1.90 to 8.64 m/min	Pinch -10.0 to 10.0		
			CV		Ultimarc® -10.0 to 10.0				
			Precision Pulse™						
	Al 5XXX	1.0 mm	AC Precision Pulse™ (§)	100% Ar	3.17 to 17.78 m/min	3.17 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™ (§)		3.17 to 19.05 m/min		Pinch -10.0 to 10.0		
			CV			2.16 to 17.78 m/min	Ultimarc® -10.0 to 10.0		
			Precision Pulse™		2.54 to 10.16 m/min		Pinch -10.0 to 10.0		
		1.6 mm	AC Precision Pulse™ (§)			3.17 to 11.94 m/min	Pinch -10.0 to 10.0		
			CV		Ultimarc® -10.0 to 10.0				
			Precision Pulse™						
	Copper	1.0 mm	Pulse	75% Ar 25% He	1.90 to 12.70 m/min	Ultimarc® -10.0 to 10.0	N/A	N/A	
		1.2 mm		Ar-Mix					
					75% Ar 25% He				
			Ar-Mix						
Metal Core	1.2 mm	CV		75% Ar 25% CO <sub>2</sub>	2.54 to 14.86 m/min	Pinch -10.0 to 10.0	N/A	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					
		Precision Pulse™		80% Ar 20% CO <sub>2</sub>	1.90 to 13.59 m/min	Ultimarc® -10.0 to 10.0			
				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					

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GMAW	Metal Core	1.2 mm	Pulse	80% Ar 20% CO <sub>2</sub>	1.90 to 11.94 m/min	Ultimarc® -10.0 to 10.0	N/A	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					
			Rapid X® (§)	80% Ar 20% CO <sub>2</sub>	1.90 to 20.32 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					
			RapidArc®	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					
			Smart Pulse™ (§)	80% Ar 20% CO <sub>2</sub>	2.54 to 12.95 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							
	STT® (Root Pass) (§)	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>								
Ar-Mix								
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®		1.90 to 10.16 m/min				
		STT® Braze (§)		2.29 to 7.62 m/min				
Steel	0.8 mm	AC STT® (§)	75% Ar 25% CO <sub>2</sub>	2.54 to 8.89 m/min	Balance 0 to 100 %	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						
		CV	100% CO <sub>2</sub>	3.17 to 20.32 m/min				
			75% Ar 25% CO <sub>2</sub>					
80% Ar 20% CO <sub>2</sub>								

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GMAW	Steel	0.8 mm	CV	82% Ar 18% CO <sub>2</sub>	3.17 to 20.32 m/min	Pinch -10.0 to 10.0	N/A	N/A
				85% Ar 15% CO <sub>2</sub>				
				90% Ar 10% CO <sub>2</sub>				
				92% Ar 8% CO <sub>2</sub>				
				Ar-Mix				
			Precision Pulse™	80% Ar 20% CO <sub>2</sub>	3.17 to 15.24 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>				
			Pulse	80% Ar 20% CO <sub>2</sub>	2.54 to 15.24 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>				
			Rapid X® (§)	80% Ar 20% CO <sub>2</sub>	1.90 to 20.32 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>				
			RapidArc®	80% Ar 20% CO <sub>2</sub>	Ultimarc® -10.0 to 10.0			
				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>				
			Smart Pulse™ (§)	80% Ar 20% CO <sub>2</sub>	3.17 to 20.32 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>				
STT® (Root Pass) (§)	75% Ar 25% CO <sub>2</sub>	3.17 to 10.16 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								

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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	AC STT® (§)	75% Ar 25% CO <sub>2</sub>	1.90 to 6.35 m/min	Balance 0 to 100 %	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					
			CV	100% CO <sub>2</sub>	2.54 to 18.41 m/min	Pinch -10.0 to 10.0		
				75% Ar 25% CO <sub>2</sub>	2.54 to 15.11 m/min			
				80% Ar 20% CO <sub>2</sub>	2.54 to 15.62 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					
			Low Fume Pulse™ (§)	80% Ar 20% CO <sub>2</sub>	1.90 to 20.70 m/min			
				Ar-Mix				
			Precision Pulse™	80% Ar 20% CO <sub>2</sub>	1.90 to 14.60 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					
			Pulse	80% Ar 20% CO <sub>2</sub>	2.54 to 15.24 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								
Rapid X® (§)	80% Ar 20% CO <sub>2</sub>	1.90 to 20.32 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								
RapidArc®	80% Ar 20% CO <sub>2</sub>	1.90 to 20.32 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								

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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	Smart Pulse™ (§)	80% Ar 20% CO <sub>2</sub>	2.54 to 18.80 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				
		STT® (Root Pass) (§)	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>					
		1.2 mm	AC STT® (§)	75% Ar 25% CO <sub>2</sub>	1.90 to 5.08 m/min	Balance 0 to 100 %	Ultimarc® -10.0 to 10.0	
				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>							
	CV		100% CO <sub>2</sub>	2.54 to 11.56 m/min	Pinch -10.0 to 10.0			
			75% Ar 25% CO <sub>2</sub>	2.54 to 12.83 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>					
	Low Fume Pulse™ (§)	80% Ar 20% CO <sub>2</sub>	1.52 to 17.78 m/min					
		Ar-Mix						
	Precision Pulse™	80% Ar 20% CO <sub>2</sub>	1.90 to 14.10 m/min	Ultimarc® -10.0 to 10.0				
		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>								
Pulse	80% Ar 20% CO <sub>2</sub>	1.90 to 11.30 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							

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GMAW	Steel	1.2 mm	Rapid X® (§)	80% Ar 20% CO <sub>2</sub>	1.90 to 17.15 m/min	Ultimarc® -10.0 to 10.0	N/A	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					
			RapidArc®	80% Ar 20% CO <sub>2</sub>	1.90 to 16.26 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					
			Smart Pulse™ (§)	80% Ar 20% CO <sub>2</sub>	2.54 to 12.57 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								
STT® (Root Pass) (§)	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								
FCAW-G	Manual CV	None	Gas-Shielded	Unspecified	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A	N/A
	Steel	1.2 mm	Gas-Shielded	100% CO <sub>2</sub>	4.45 to 15.24 m/min	Pinch -10.0 to 10.0	N/A	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>				
		Ar-Mix						
		1.6 mm		100% CO <sub>2</sub>	3.17 to 9.91 m/min			
	75% Ar 25% CO <sub>2</sub>							
	80% Ar 20% CO <sub>2</sub>							
	Ar-Mix							
FCAW_S	Self-Shield	None	Self-Shielded	No gas	10.0 to 45.0 V	Pinch -10.0 to 10.0	N/A	N/A



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GTAW	GTAW	N/A	HF TIG (§)	Helium, Argon	5 to 350 A	N/A	N/A	N/A
			Touch Start					
			HF TIG Pulse (§)		10 to 350 A	AC Frequency 50 to 200 Hz	AC Balance 35 to 85 %	DC Offset -30 to 30 %
			Touch Start TIG Pulse					
			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)					
Gouge	Carbon Arc	N/A	Arc Gouge	No gas	60 to 350 A	N/A	N/A	N/A