

* Range is limited by power source rating, module rating, or feeder configuration

Type	Size	Procedure	Waveform	Gas Type	Mode #	Arc Control	Max. Range (*)	
All	All	GMAW CV	STD CV		5	Pinch	10 - 45	V
		GMAW Power	Power Mode®		40	Pinch	0.1 - 9.00	kW
Steel	0.8 mm	GMAW CV	CV	CO ₂	93	Pinch	75 - 700	ipm (1.91 - 17.78 m/min)
				Argon Mix	94		75 - 700	ipm (1.91 - 17.78 m/min)
		GMAW Pulse	Pulse	Argon Mix	95	UltimArc®	65 - 700	ipm (1.65 - 17.78 m/min)
				Argon Mix	410		100 - 600	ipm (2.54 - 15.24 m/min)
	0.9 mm	GMAW CV	CV	CO ₂	138	Pinch	50 - 700	ipm (1.27 - 17.78 m/min)
				Argon Mix	139		50 - 700	ipm (1.27 - 17.78 m/min)
		GMAW Pulse	Pulse	Argon Mix	140	UltimArc®	60 - 700	ipm (1.52 - 17.78 m/min)
				Argon Mix	141		75 - 700	ipm (1.91 - 17.78 m/min)
	GMAW Pulse	RapidArc®	Argon Mix	411	UltimArc®	100 - 600	ipm (2.54 - 15.24 m/min)	
			Argon Mix	411		100 - 600	ipm (2.54 - 15.24 m/min)	
	1.0 mm	GMAW CV	CV	CO ₂	10	Pinch	50 - 630	ipm (1.27 - 16 m/min)
				Argon Mix	11		50 - 520	ipm (1.27 - 13.21 m/min)
		GMAW Pulse	Pulse	Argon Mix	12	UltimArc®	75 - 485	ipm (1.91 - 12.32 m/min)
				Argon Mix	13		60 - 600	ipm (1.52 - 15.24 m/min)
	GMAW Pulse	RapidArc®	Argon Mix	412	UltimArc®	75 - 600	ipm (1.91 - 15.24 m/min)	
			Argon Mix	412		75 - 600	ipm (1.91 - 15.24 m/min)	
	1.2 mm	GMAW CV	CV	CO ₂	20	Pinch	50 - 420	ipm (1.27 - 10.67 m/min)
				Argon Mix	21		50 - 355	ipm (1.27 - 9.02 m/min)
GMAW Pulse		Pulse	Argon Mix	22	UltimArc®	60 - 405	ipm (1.52 - 10.29 m/min)	
			Argon Mix	18		60 - 465	ipm (1.52 - 11.81 m/min)	
GMAW Pulse	RapidArc®	Argon Mix	413	UltimArc®	75 - 450	ipm (1.91 - 11.43 m/min)		
		Argon Mix	413		75 - 450	ipm (1.91 - 11.43 m/min)		
Stainless	0.8 mm	GMAW CV	CV	Argon Mix	61	Pinch	100 - 700	ipm (2.54 - 17.78 m/min)
				Ar He CO ₂	63		100 - 700	ipm (2.54 - 17.78 m/min)
		GMAW Pulse	Pulse	Argon Mix	64	UltimArc®	100 - 700	ipm (2.54 - 17.78 m/min)
	Argon Mix	66	100 - 700	ipm (2.54 - 17.78 m/min)				
	0.9 mm	GMAW CV	CV	Argon Mix	29	Pinch	75 - 700	ipm (1.91 - 17.78 m/min)
				Argon Mix	30		UltimArc®	60 - 700
		GMAW Pulse	Pulse	Argon Mix	421	UltimArc®		100 - 600
	GMAW Pulse	Precision Pulse™	Argon Mix	421	UltimArc®		100 - 600	ipm (2.54 - 15.24 m/min)
	1.0 mm	GMAW CV	CV	Argon Mix		31	Pinch	75 - 700
				Ar He CO ₂	33	75 - 595		ipm (1.91 - 15.11 m/min)
		GMAW Pulse	Pulse	Ar He CO ₂	34	UltimArc®	60 - 690	ipm (1.52 - 17.53 m/min)
				Argon Mix	36		60 - 690	ipm (1.52 - 17.53 m/min)
GMAW Pulse	Precision Pulse™	Argon Mix	422	UltimArc®	60 - 600	ipm (1.52 - 15.24 m/min)		
		Argon Mix	422		60 - 600	ipm (1.52 - 15.24 m/min)		
1.2 mm	GMAW CV	CV	Argon Mix	41	Pinch	75 - 410	ipm (1.91 - 10.41 m/min)	
			Ar He CO ₂	43		75 - 395	ipm (1.91 - 10.03 m/min)	
	GMAW Pulse	Pulse	Ar He CO ₂	44	UltimArc®	50 - 390	ipm (1.27 - 9.91 m/min)	
			Argon Mix	46		50 - 405	ipm (1.27 - 10.29 m/min)	
GMAW Pulse	Precision Pulse™	Argon Mix	423	UltimArc®	50 - 400	ipm (1.27 - 10.16 m/min)		
GMAW Pulse	Precision Pulse™	Argon Mix	423		50 - 400	ipm (1.27 - 10.16 m/min)		
Metal Core	1.2 mm	GMAW CV	CV	Argon Mix	81	Pinch	50 - 410	ipm (1.27 - 10.41 m/min)
		GMAW Pulse	Pulse	Argon Mix	82	UltimArc®	50 - 425	ipm (1.27 - 10.8 m/min)
	1.4 mm	GMAW Pulse	Pulse	Argon Mix	84	UltimArc®	50 - 285	ipm (1.27 - 7.24 m/min)

* Range is limited by power source rating, module rating, or feeder configuration

	Type	Size	Procedure	Waveform	Gas Type	Mode #	Arc Control	Max. Range (*)	
	GMAW	Aluminum (AISI)	1.0 mm	GMAW CV	CV	Argon	148	Pinch	125 - 700 ipm
GMAW Pulse				Pulse	Argon	149	UltimArc®	125 - 700 ipm	(3.18 - 17.78 m/min)
				CC Pulse	Argon	150		125 - 700 ipm	(3.18 - 17.78 m/min)
GMAW Pulse on Pulse			Pulse on Pulse	Argon	98	Frequency	100 - 500 ipm	(2.54 - 12.7 m/min)	
1.2 mm			GMAW CV	CV	Argon	71	Pinch	125 - 500 ipm	(3.18 - 12.7 m/min)
			GMAW Pulse	Pulse	Argon	72	UltimArc®	85 - 565 ipm	(2.16 - 14.35 m/min)
		CC Pulse		Argon	69	85 - 565 ipm		(2.16 - 14.35 m/min)	
GMAW Pulse on Pulse		Pulse on Pulse	Argon	99	Frequency	85 - 500 ipm	(2.16 - 12.7 m/min)		
Aluminum (A1Mg)		1.0 mm	GMAW CV	CV	Argon	151	Pinch	175 - 700 ipm	(4.45 - 17.78 m/min)
			GMAW Pulse	Pulse	Argon	152	UltimArc®	125 - 700 ipm	(3.18 - 17.78 m/min)
				CC Pulse	Argon	153		125 - 700 ipm	(3.18 - 17.78 m/min)
		GMAW Pulse on Pulse	Pulse on Pulse	Argon	101	Frequency	140 - 700 ipm	(3.56 - 17.78 m/min)	
		1.2 mm	GMAW CV	CV	Argon	75	Pinch	125 - 700 ipm	(3.18 - 17.78 m/min)
			GMAW Pulse	Pulse	Argon	76	UltimArc®	85 - 700 ipm	(2.16 - 17.78 m/min)
CC Pulse				Argon	70	85 - 700 ipm		(2.16 - 17.78 m/min)	
GMAW Pulse on Pulse	Pulse on Pulse	Argon	102	Frequency	100 - 600 ipm	(2.54 - 15.24 m/min)			
SiBr	1.0mm	GMAW Pulse	Pulse	Argon	192	UltimArc®	80 - 650 ipm	(2.03 - 16.51 m/min)	
	1.2mm	GMAW Pulse	Pulse	Argon	191	UltimArc®	50 - 470 ipm	(1.27 - 11.94 m/min)	
Cu	1.0mm	GMAW Pulse	Pulse	Ar He	198	UltimArc®	75 - 500 ipm	(1.91 - 12.7 m/min)	
	1.2mm	GMAW Pulse	Pulse	Ar He	196	UltimArc®	75 - 430 ipm	(1.91 - 10.92 m/min)	
NiCr	1.0mm	GMAW Pulse	Pulse	Ar He	170	UltimArc®	75 - 700 ipm	(1.91 - 17.78 m/min)	
	1.2mm	GMAW Pulse	Pulse	Ar He	175	UltimArc®	75 - 650 ipm	(1.91 - 16.51 m/min)	
FCAW	Flux Core	All	FCAW-S	Self Shield CV	NA	6	Pinch	10 - 45 V	
			FCAW-G	Gas Shield CV	NA	7	Pinch	10 - 45 V	
	Cored Wire	1.2 mm	FCAW-G	CV	CO ₂	90	Pinch	175 - 600 ipm	(4.45 - 15.24 m/min)
					Argon Mix	91		175 - 565 ipm	(4.45 - 14.35 m/min)
SMAW	NA	NA	DCEP SMAW	SMAW Soft	NA	1	Arc Force, Hot Start	15 - 295 A	
				SMAW Crisp	NA	2	Arc Force, Hot Start	15 - 295 A	
				SMAW Pipe	NA	4	Arc Force	50 - 250 A	
GTAW	NA	NA	DCEN GTAW	Touch Start TIG	Argon	3	Hot Start	5 - 300 A	
				Touch Start TIG Pulse	Argon	8	Frequency, Background, Hot Start	5 - 300 A	
CAG	NA	NA	CAG	Arc Gouge	Compressed Air	9		60 - 300 A	