



## Typical Operating Parameters for MIG WIRE (Solid Wire)

PRODUCT	SIZE	SHORT-ARC (1)				SPRAY (1)				PROPERTIES	
		Amps (3)	Volts (3)	Wire Stick-Out	Shielding Gas (2)	Amps	Volts (3)	Wire Stick-Out	Shielding Gas (2)	Tensile (psi)	Elongation
OLD FAITHFUL	.035"	60-200	18-22	3/8" - 1/2"	Tri Mix (90%He/ 7-1/2%Ar/2-1/2%CO <sub>2</sub> )	175-225	24-26	3/8" - 3/4"	98% Ar/ 2% O <sub>2</sub>	125,000 (186,000)	35%
	.045"	75-225	18-22	3/8" - 1/2"		200-300	25-28	3/8" - 3/4"			
TRUE BLUE	.024"	50-120	12-18	3/8" - 1/2"	75% Ar/25% CO <sub>2</sub> or Straight CO <sub>2</sub>	175-200	23-28	3/8" - 1/2"	98% Ar/ 2% O <sub>2</sub>	85,000	26%
	.030"	75-125	14-20	3/8" - 1/2"		200-225	24-29	3/8" - 1/2"			
	.035"	90-150	15-21	3/8" - 1/2"		200-250	25-30	3/8" - 3/4"			
	.045"	100-200	16-22	3/8" - 1/2"		225-275	26-32	3/8" - 3/4"			
SAND DUNE	.030"	75-125	14-20	3/8" - 1/2"	75% Ar/25% CO <sub>2</sub> or Straight CO <sub>2</sub>	200-225	24-29	3/8" - 1/2"	98% Ar/ 2% O <sub>2</sub>	120,000	28%
	.035"	90-150	15-21	3/8" - 1/2"		200-250	25-30	3/8" - 3/4"			
	.045"	100-200	16-22	3/8" - 1/2"		225-275	26-32	3/8" - 3/4"			
	.062" (1/16")	125-225	17-23	3/8" - 3/4"		250-325	27-33	3/8" - 3/4"			
COOL COAT	.024"	50-150	16-20	3/8" - 1/2"	Tri Mix (90%He/ 7-1/2%Ar/ 2-1/2%CO <sub>2</sub> )	120-200	24-26	3/8" - 3/4"	98% Ar/ 2% O <sub>2</sub>	85,000	42%
	.030"	50-150	18-22	3/8" - 1/2"		130-200	24-26	3/8" - 3/4"			
	.035"	60-200	18-22	3/8" - 1/2"		150-200	24-26	3/8" - 3/4"			
	.045"	75-225	18-22	3/8" - 1/2"		200-300	25-28	3/8" - 3/4"			
COPPER HEAD	.035"	200-300	26-32	3/8" - 1/2"	Argon					60,000	32%
	.045"	225-325	26-32	3/8" - 1/2"							
EBONY	.035"	200-300	26-32	3/8" - 1/2"	75% Ar/25% He					55,000	30%
	.045"	225-325	26-32	3/8" - 1/2"							
COBRA	.035"	-	-	-		165-175	24-26	3/8" - 3/4"	75% Ar / 25% He	58,000	-
	.045"	-	-	-		200-250	26-28	3/8" - 3/4"			
SNOW(4) CAP	.030"	-	-	-		90-175	17-25	3/8" - 3/4"	Argon(4)	41,000	18%
	.035"	-	-	-		100-200	17-25	3/8" - 3/4"			
	.047" (3/64")	-	-	-		120-250	20-28	3/8" - 3/4"			
	.062" (1/16")	-	-	-		150-300	22-30	3/8" - 3/4"			
	.093" (3/32")	-	-	-		200-400	24-32	3/8" - 3/4"			
		-	-	-							

## FLUX CORED WIRES

PRODUCT	SIZE	Current (1)	Voltage (1)	Wire Stick-Out	Shielding Gas (2)	TYPICAL MECHANICAL PROPERTIES		
						Tensile (psi)	Elongation (%)	Hardness (Rc)
OLD FAITHFUL	.035"	120-210	25-30	1/2"	75% Ar-25% CO <sub>2</sub> @40CFH	125,000	35%	22-24 RC as Deposited 40-43 RC Work Hardness
	.045"	130-210	25-30	1/2"		125,000 (186,000)		
TRUE BLUE	.035"	125-250	20-25	3/8" - 5/8"	75% Ar-25% CO <sub>2</sub>	85,000	26%	
	.045"	180-280	22-28	1/2"-3/4"				
SAND DUNE	.035"	125-250	20-25	3/8" - 5/8"	75% Ar-25% CO <sub>2</sub>	120,000	23%	
	.045"	180-280	22-28	1/2" - 3/4"				
COOL COAT	.035"	120-180	25-30	1/2"	75% Ar-25% CO <sub>2</sub>	85,000	30%	
	.045"	130-190	26-31	1/2"				
HARD HAT	.045"	120-210	20-28	3/8" - 3/4"	75% Ar-25% CO <sub>2</sub> or Straight CO <sub>2</sub>	-	-	55-60 HRC
	.062" (1/16")	150-275	26-32	1/2" - 1"				
CRUSHER	.045"	120-210	20-28	3/8" - 3/4"	75% Ar-25% CO <sub>2</sub> or Straight CO <sub>2</sub>	100,000	35%	Build-Up Work Hardens to 40-45 HRC
	.062" (1/16")	150-275	26-32	1/2" - 1"				
	.093" (3/32")	225-350	26-32	1" - 1 1/2"				

## FLUX CORED WIRES - OPEN ARC (GASLESS)

PRODUCT	SIZE	Current	Voltage	Wire Stick-Out	Shielding Gas	Polarity	TYPICAL MECHANICAL PROPERTIES		
							Tensile (psi)	Elongation (%)	Hardness (Rc)
OLD FAITHFUL FCO	.035"	75-100	27-29	3/4"	NONE	DCSP	125,000 (186,000)	35%	22-24 RC as Deposited 40-43 RC Work Hardness
	.045"	150-200	25-27	1 1/4"					
	.062" (1/16")	180-250	27-29	1 1/2"					
TRUE BLUE FCO	.030"	60-190	12-17	3/8" - 5/8"	NONE	DCSP	85,000	26%	
	.035"	70-200	13-18	3/8" - 5/8"					
	.045"	80-225	14-19	3/8" - 5/8"					
	.062" (1/16")	110-275	14-20	1/2" - 3/4"					
COOL COAT FCO	.035"	150-300	17-22	5/8" - 1"	NONE	DCSP	85,000	30%	
	.035"	75-100	27-29	3/4"					
	.045"	150-200	25-27	1 1/4"					
	.062" (1/16")	180-250	27-29	1 1/2"					

- Notes: (1) DCRP Preferred  
 (2) Typical Gas Flow Rate 25-35 CFM  
 (3) Normal Starting Point will be Medium Range  
 (4) AC or ACHF required

YOUR SERVICE REPRESENTATIVE:



**TECHNICAL CONSULTANT**  
**JOE MORIN**  
**TECHNICAL HOT LINE: 800.980.2164**  
 MAIN OFFICE • CYPRESS, TX.  
 PHONE: 281.807.0757 • FAX: 281.469.4391  
 INTERNET: [www.freedomalloys.com](http://www.freedomalloys.com)  
 email: [sales@freedomalloys.com](mailto:sales@freedomalloys.com)