

## **CENTRASHIELD** (+ 1% Consistency)

NO.	APPLICATION	MIX
#1	GTAW (All Metals), GMAW (Al & Cu)	75 Ar 25 He
#2	GTAW - GMAW, Al. 3/4" - 1-1/4", Cu 1/2" - 3/4"	50 Ar 50 He
#3	GTAW - GMAW, Al. 1/4" - Up", Cu 3/4"q - 1-1/4"	25 Ar 75 He
#4	GMAW - Spray, Steel & Stainless Steel	98 Ar 2 O <sub>2</sub>
#5	GMAW - Spray, Steel & Stainless Steel	95 Ar 5 O <sub>2</sub>
#6	GMAW - FCAW, S.C.T./Spray	90 Ar 10 CO <sub>2</sub>
#7	GMAW - FCAW, S.C.T. & Mod. Globular	85 Ar 15 CO <sub>2</sub>
#8	GMAW - FCAW, S.C.T. & Mod. Globular	Ar 25 CO <sub>2</sub>
#9	GMAW - Stainless S.C.T./Spray	Tri-Mix/90 He, 7.5 Ar, 2.5 CO <sub>2</sub>
#11	GTAW - Stainless, Manual	97.5 AR 2.5 HY
#12	GTAW - Stainless, Automatic	95 AR 5 HY
#20	GMAW - Stainless S.C.T./Spray/Pulse	Tri-Mix 81 AR 18 HE 1 CO <sub>2</sub>
#23	GMAW - FCAW, Mild Steel	91 Ar, 4 O <sub>2</sub> , 5 CO <sub>2</sub>

Base Metal	Shielding Gas	Metal Transfer, GMAW	Remarks
Aluminum and Aluminum alloys (Al)	CentraShield 1 CentraShield 2 CentraShield 3 CentraShield 4	S.C.T. Modified Spray Modified Globular Globular	All position welding DCEP helps remove surface oxides Al. Mg 1/4" Al. Mg 1/2" - 1" thickness Al. Mg over 1" thickness
Copper and Copper Alloys All Bronze	CentraShield 1 CentraShield 2 CentraShield 3 CentraShield 4	S.C.T. Modified Spray Modified Globular Globular	Up to 1/8" thickness, good wettability. Good penetration, good wettability; to 1/4" Higher heat input; to 3/4" metal. Excellent heat spread; for 3/4" and over.
Magnesium and Magnesium Alloys (Mg)	CentraShield 1 CentraShield 2 CentraShield 3	Modified Spray Modified Globular Globular	Mg to 1/4" thickness; good wettability. Mg to 1" thickness; high heat input. Highest energy input to weld; min. porosity.
Nickel Monel Inconel	CentraShield 1 CentraShield 2	Modified Spray Modified Globular	Wider arc column; greater heat input. Greater heat input; more fluid weld pool; less porosity.
Low Alloy Steel	CentraShield 4 CentraShield 5 CentraShield 6 CentraShield 7 CentraShield 8 CentraShield 23	Spray Spray S.C.T./Modified Spray S.C.T./Modified Globular Short Circuit S.C.T./Spray Transfer	1/16" - 1/4" thickness; narrow HAZ; very good horizontal and flat fillet profiles.  Greater heat energy input to weld, very good wettability; no undercutting at toes.  Stable arc; excellent mechanical properties. Deeper penetration; good surface finish. Excellent weld pool control; all positions. Fast travel speeds in spray mode.
Mild Steels	CentraShield 5 CentraShield 6 CentraShield 7 CentraShield 8 CentraShield 23	Spray S.C.T./Modified Spray S.C.T./Modified Globular Short Circuit S.C.T./Spray Transfer	Fluid weld pool, good penetration, high physical properties; good wettability. Good arc stability; penetration very good; fast welding speeds. Minimum splatter; sounds weld quality; high mechanical properties. All position welding; excellent pool control; surface appearance very good. Advanced gas for semiautomatic and automatic GMAW of mild steel, in flat as well as in all position welding.
Stainless Steel	CentraShield 4 CentraShield 5 CentraShield 9  CentraShield 20	Spray Spray Modified Spray Short Circuit  S.C.T., Spray Pulse Spray	Very good welding flat, horizontal and overhead with electrode dia. 0.045" and less. For electrodes 1/16" dia. and larger, flat and horizontal fillets; flat groove welds. Excellent for flat and horizontal fillets, deep penetration, excellent appearance. Designed for short circuit transfer on 300 series stainless steels; no corrosion resistance problems; narrow HAZ; minimum undercutting and distortion, excellent for multipass stainless steel pipe welds. Designed for S.C.T., spray or pulsed spray to give high deposition and excellent color. Welding speeds average 4 IPM faster than Argon/Oxygen shielding.

# GUIDE FOR CENTRASHIELD MIXES GMAW FCAW GTAW

**CENTRAL**  
WELDING SUPPLY

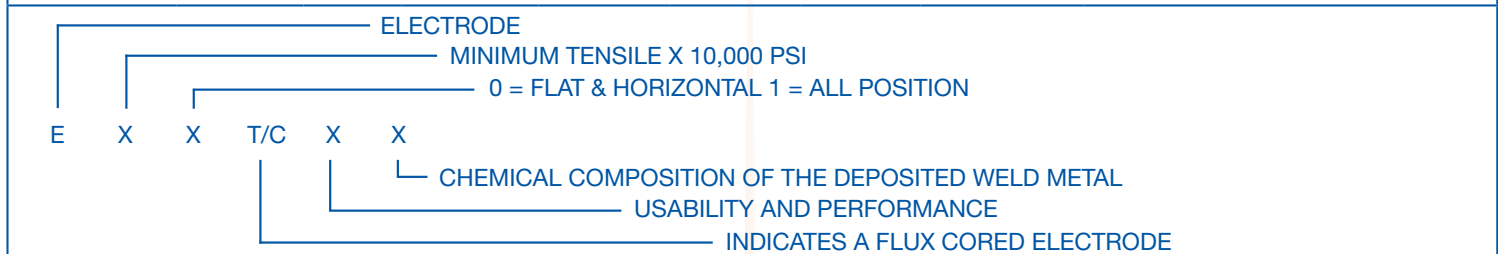
**CENTRASHIELD**

www.centralwelding.com

## FCAW WELD PARAMETERS

AWS Class	Mix No.	CFH	Wire Dia.	Current	Voltage	LBS/Hr.	% Efficiency	Uses
E71T - 1	6 & 8	30	.035	130-280	20 - 30	3 - 9	86	Mild & Med Carbon Steel
E71T - 1	6 & 8	30	.045	150-290	23 - 30	5 - 10	87	All position, can be used
E71T - 1	6 & 8	35	.052	180-310	24 - 32	5 - 10	87	Over Normal Rust and Mill Scale, No
E71T - 1	6 & 8	35	1/16	180-400	25 - 34	5 - 12	87	Porosity.
Metal Core	6 & 8	30	.035	130-280	23 - 29	4 - 9	92	No slag, Excellent Welding, Good
E70C-6m	6 & 8	30	.045	150-350	24 - 30	8 - 12	95	Bead Appearance, Spray Type
	6 & 8	35	.052	200-400	26 - 32	8 - 12	93	Transfer, All Position, Excellent for
	6 & 8	35	1/16	300-500	26 - 32	9 - 16	96	Robotic Welding.
E75T - 5	8	35	1/16	160-350	22 - 32	7 - 14	92	Good Impacts, Resists Cracking.
E91T1 - D1	8	35	1/16	180-300	21 - 28	5 - 12	92	For 100,000 LB. Tensile.
E80T1 - Ni2	8	35	5/64	200-400	23 - 27	5 - 10	87	Excellent for Position.

### GUIDE TO AWS CLASSIFICATION



FOLLOW MANUFACTURES RECOMMENDATIONS ON SHIELDING GASES.  
CHEMISTRY & MECHANICAL PROPERTIES CAN BE AFFECTED.

## GTAW WELD PARAMETERS

Material	Mix No.	Uses, Results	Current	Amperage	CFH	Elect. Dia.	Gas Cup dia.
Alum. 1/16	1	Manual, Good Arc Start	AC	55	15-20	1/16	3/8
Alum. 1/8	1 & 2	No. 2 Higher Speed	AC	110	20	3/32	3/8
Alum. 3/16	2 & 3	No. 3 Better Weld Quality	AC	150	25	1/8	7/16
Copper 3/16 & Less	2 & 3	Better Travel Speed	DCSP	180-250	20-30	3/32-1/8	3/8 & 7/16
Sil. Bronze 1/16	1	Penetration, Flat Bead	DCSP	60-90	10-15	1/16	3/8
Sil. Bronze 1/8	1 & 2	No. 2 Speed and Wetting	DCSP	100-140	10-15	1/16-3/32	3/8
Titanium*	1	Better Performance	DCSP	150-200	15-20	1/16-3/32	3/4
Magnesium	1	Good Penetration	AC	50-100	12	1/16-3/32	3/8
Magnesium	1 & 2	Shallow Penetration	DCRP	75-125	12	1/16-3/32	3/8
Magnesium	2	Deep Penetration	DCSP	75-160	15	1/16-3/32	3/8 & 7/16
Nickel Alloys	1 & 11	Hot Arc, Smooth Bead	DCSP	90-150	10-20	1/16-3/32	3/8
S. Steel 1/16	1	Fast Arc Start	DCSP	70-110	12	1/16	3/8
S. Steel 1/8	11	More Heat, Fast Speed	DCSP	65-105	12	1/16	3/8
S. Steel 3/32+	11 & 12	Speed Penetration, Color	DCSP	90-150	12-18	1/16-3/32	3/8 & 7/16

APPROXIMATE SETTINGS ONLY. TEST FOR YOUR REQUIREMENTS.  
\*TRAILING SHIELD OF ARGON REQUIRED. GAS LENS ON TORCH RECOMMENDED.