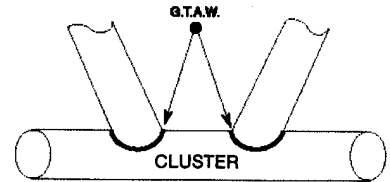


SAMPLE TIG WELD PROCEDURE
LINCOLN ELECTRIC
22801 St. Clair Ave. Cleveland, OH 44117
216-481-8100



WELDING APPLICATION: Aircraft, Motorsports and thin (<0.120") wall tubing

GENERAL INFORMATION

Remove all oxides and burrs within $\frac{1}{4}$ " of weld area.
Acetone wipe to remove all cutting oils.
Assemble and tack weld in joint in a minimum of four (4) places with TIG.
Tubing should be at minimum temperature of 70°F (room temperature).
TIG weld per parameters specified using Lincoln Square Wave TIG 175, 275 or 355.

WELD SCHEDULE INFORMATION

PARENT MATERIAL:	4130
MATERIAL CONDITION:	Condition (N)
MATERIAL THICKNESS:	.035" Wall Thickness
FILLER MATERIAL:	ER80S-D2 Diameter
JOINT TYPE:	90° Tube to Tube
JOINT PREP:	Abrasive Clean/Acetone Wipe
JOINT GAP:	.000-.010
CURRENT TYPE:	D.C.E.N. (DC Electrode Negative)
AMPERAGE:	20-40 Amps
VOLTAGE:	9-12 Volts
TORCH TYPE:	LA-9 or LW-20 Magnum
CUP SIZE:	Gas Lens 7/16" Orifice
CUP TYPE:	Ceramic
TUNGSTEN TYPE:	2% Thoriated
TUNGSTEN SIZE:	1/16" Diameter
TUNGSTEN SHAPE:	Pointed
SHIELDING GAS:	Argon
FLOW RATE:	15-25 C.F.H.
BACK-UP GAS (optional):	Argon
FLOW RATE:	5-10 C.F.H.
TACKING SEQUENCE:	4-Places (min.)

Filler material options:

Option #1	ER80S-D2
Option #2	ER70S-2
Option #3	ER70S-6

Customer Assistance Policy

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