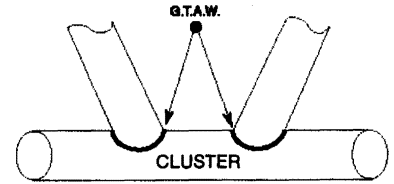


SAMPLE TIG WELD PROCEDURE
Hi-Tech Welding Services, Inc.

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

GENERAL INFORMATION

- Remove all oxides and burrs within 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