

# Willie Wonka's Widget Welding Works

## Welding Procedure Specification

WPS:	SMA/FCA-1F3F6	Rev.:	A	Date:	15-Oct-08				
Supporting PQR:	Susan 6	Rev.:	Original	Date:	12-Oct-08				
Process:	SMAW	MA	X	SA	-	ME	-	AU	-
Welder:	Miller D400								
Process:	FCAW	MA	-	SA	X	ME	-	AU	-
Welder:	Lincoln PowerWave 300								
<b>Base Metal</b>									
Specification:	ASTM A53	Welded To			ASTM A572				
Alloy/Grade:	B				Grade 55				
P No.:	1				1				
Product Form:	Pipe				Plate				
Thickness:	1/16 thru 1¼ inch				1/16 thru 1¼ inch				
Diameter:	1 inch or larger				NA				
Group No.:	1				2				
<b>Joint Details</b>									
Joint Type:	T and Corner	<p style="font-size: small;">TF1.0 CF1.0 LF1.0</p> <p style="font-size: small;">Single Fillet Weld: Suitable for Corner Joints, T-Joints, and Lap Joints.</p> <p style="font-size: small;">Unless otherwise specified, the minimum fillet size is equal to the thickness of the thinner member.</p> <p style="font-size: small;">BB1C.0 CB1C.0 TB1C.0</p> <p style="font-size: small;">CJP Single Bevel Groove w/ Backing, Suitable for Butt Joints, Corner Joints, &amp; T-Joints Optional reinforcing fillet weld required when specified by the welding symbol.</p> <p style="font-size: small;">Backing to fit tight to members. Max. gap - 1/16 in.</p> <p style="font-size: small;">Skewed Joint: Suitable for Skewed T-Joints</p> <p style="font-size: small;">Assumed Z Loss</p> <p style="font-size: small;">90° 1/8 in. 90° 3/32 in. 90° 3/16 in.</p>							
Groove Type:	Fillet and Bevel Grooves								
Groove Angle:	50° min.								
Root Face:	1/32 to 1/8 inch								
Root Radius:	NA								
Root Opening:	0 to 1/16 inch								
Backing:	Optional								
Back Gouge:	Req. if not back gouged								
BG Method	CAC-A / Grind								
<b>Filler Metal</b>									
Process:	SMAW	Welded To			FCAW				
Weld Layer:	Root and 2nd layer				All remaining (fill and cover)				
Specification:	SFA 5.1				SFA 5.20				
Classification:	E6010				E71T-1				
Diameter:	1/8 inch				0.045 inch				
F Number	3				6				
A No.:	1				1				
Max. Layer Thickness:	1/4 inch				3/8 inch				
Max. Deposit thickness	½ inch				¾ inch				
Consumable Insert;	None				NA				
Classification:	NA	NA							
Flux:	NA	NA							