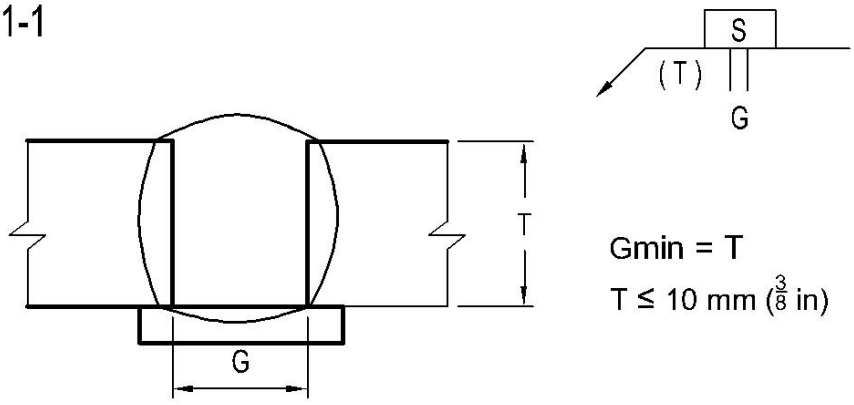
Prepared By: WeldCanada.com, Inc.	PREQUALIFIED WELDING PROCEDURE DATA SHEET			WPDS No.	DEMO-MCAW
				Ref. WPS	MCAW-CS
Company Name: *www.WeldCanada.com* Address: *info@WeldCanada.com, Toll Free: 1 (877) WPS-WELD*				Ref. Standards	CSA W47.1/ W59
Process	**MCAW**	**Process Mode**	**Semi-Automatic**	**Position**	**Flat**
Base Materials	Steels in Groups 1, 2 and 3 of Table 11.1/12.1 of CSA W59-03 (Excluding weathering steels)				
Wire Class. (CSA W48)	E491C-6M, E491C-6M-H4, E491C-6M-H8				
AWS Classification	A5.18, E70C-6M, E70C-6M H4, E70C-6M H8				
Shielding Gas **Flux (SAW)**	Ar+ 5 to 15% CO2 (Or) Ar+ 20 to 25% CO2			**Flow Rate**	40-50 CFH
				Nozzle Dia.	5/8 in
Weld Type	Complete Joint Penetration Groove Weld			**Current/ Polarity**	DCEP
Electrical Stick Out **ESO (in)**	1-1/8 to 1-1/4	**Preheat/** **Interpass Temperature, Min**			Up to 20 mm (3/4): 0 °C (32 °F); Table 5.3-CSA W59 for more

Joint Configuration/ Joint Details:

F1-1



Gmin = T

T ≤ 10 mm ($\frac{3}{8}$ in)

B-L1a-FC

Welding Parameters:

Thickness (T) mm (in)	Weld Size ETT (E)	Side	Weld Layers	Pass Numbers	Filler Dia. mm (in)	Current Amps	Volts V	Wire Feed Speed (IPM)	Travel Speed (IPM)
T<=10 mm (3/8)	T	1	Root, Fill, Cap	As Required, see notes	2.0 mm (5/64)	290-320	25-27	125-150	10 to 18
						350-380	27-29	160-180	

Notes or Code's rules:
-Transfer Mode: Spray
-Preferred shielding gases listed first.
-If using Ar+20-25% CO2, voltages may be increased by approximately 1 to 1-1/2 volts.
-Number of passes varies based on joint configuration, position, wire size, travel speed, and weld technique.
-First pass should be large enough to minimize the possibility of cracking.
-Maximum thickness of weld layers, except root and surface layers, shall not exceed 6 mm (1/4).
-The end of contact tube recommended to be recessed in the cup nozzle at least 6 mm (1/4).
-Any combination of shielding gas with wire needs to be CWB Certified.

John Smith, Welding Supervisor

CWB Acceptance

APPROVED

Caution Note: Use of prequalified joint is not intended as a substitute for engineering judgment in the suitability of application to a welded assembly or connection.