

Schnelldorfer CornerWelder



Quick Start Guide

Includes how to:

Start Up/Shut Down
Set Up Jobs
Solve Problems
Store Data

Perfect Welds Together







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- 1. Power Up & Shut Down
- 2. Maintenance Checklist
- 3. Job Set-Up
- 4. Problems & Solutions
- 5. CornerWeld Data Storage
- 6. Welding Parameters







CornerWelder Power Up Procedure

- Open gas supply 1 revolution, all bottles (Picture 1)
- Open compressed air valve (pg. 33 sec. 7.2) (Picture 2)
- Turn electric on at panel, wait for control to boot up (pg. 35 sec. 8.1.2)
 (Picture 3)
- Press Plant On button (pg. 37 sec. 8.2.1) (Picture 4)
- Press the Next button on the display screen (pg. 41 sec. 8.4.4) (Picture 5)
- Press the Home Position Travel button on display screen (pg. 41 sec. 8.4.5 step 1) (Picture 6)
- Press the Start button on the display screen (pg. 42 sec. 8.4.5 step 2)
 (Picture 7)
- Press the Home Icon button on the display screen (pg. 42 sec. 8.4.5 step 3)
 (Picture 7)
- Press the Gas Test button on the display screen (pgs. 44 & 45 sec. 8.4.2.1)
 (Picture 8)





CornerWelder Power Down Procedure

- Save any changes made to existing program (pg. 66 sec. 8.4.2.11.2)
- Press Plant Off button (pg. 37 sec. 8.2.2) (Picture 1)
- Clean welding blocks and clamping fingers (Picture 2)
- Close gas supply, all bottles (Picture 3)
- Close compressed air valve (pg. 33 sec. 7.2)
- Turn electric Off at panel (pg. 35 sec. 8.1.2) (Picture 4)



CornerWelder Power Up Procedures



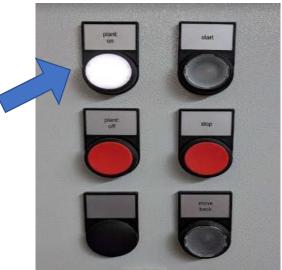




Picture 2







Picture 4

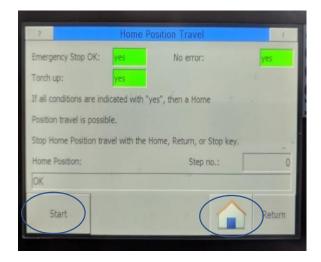


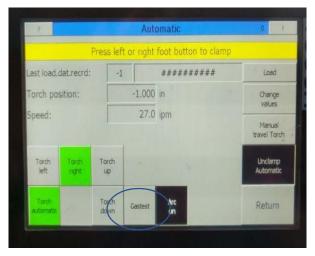
CornerWelder Power Up Procedures





Picture 5 Picture 6

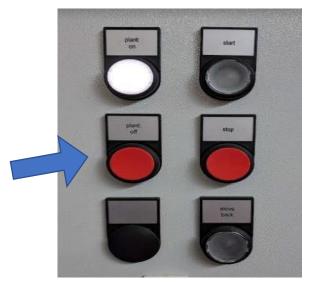




Picture 7 Picture 8



CornerWelder Power Down Procedures



Picture 1



Picture 3



Picture 2



Picture 4





Maintenance Checklist NimbleSafe 100-42

POST ON THE MACHINE CONTROL PANEL FOR DAILY VIEWING

DAILY MAINTENANCE:

Visual Inspection:

- 1. Nozzle
 - Remove, inspect for cracks, clean off burn marks
 - Replace, if cracked
- 2. Tungsten stick
 - Check height
 - Grind in tungsten grinder, if necessary
 - Replace, if necessary
- 3. Diffuser
 - Clean any residue
 - Look for clean path for welding gas
 - Replace if cleaning does not clear the debris
- 4. Gas bottles
 - Check gas volume remaining in each bottle
 - Check Liter pressure to the NimbleSafe match set-up instructions?
 - Gas test getting good gas pressure at all 4 locations?
- 5. Check air filter of compressed air input for excessive dirt or moisture
- 6. Copper
 - Pull copper, check gas holes to insure gas flow
 - If badly stained, clean copper with rag & acetone
 - use scotch brite gently if necessary
 - Inspect for good condition, replace as necessary

WEEKLY MAINTENANCE:

Daily Maintenance, plus Clean these devices at least once per week

- 1. Copper
- 2. Diffuser
- 3. Air Filter in air line
- 4. Filter on Chiller (some chillers do not have a filter)

MONTHLY MAINTENANCE:

Daily & Weekly Maintenance, plus

- 1. Check the air & gas lines for leaks
- 2. Replace the Air Filter for the incoming compressed air
- 3. Inspect the sliding surfaces of the torch axis
 - Clean & Spray with a Teflon grease, if necessary





Image 1 –
Incorrectly
ground
tungsten in
holder



Image 2 – Diffuser not cleaned regularly



Image 3 – Tungsten height not properly set







CornerWelder Job Set-Up Procedure

After Power Up procedure

- Press the Gas Test button on the display screen (Picture 1)
- Check for gas at Backing Blocks, Shield gas, and Clamp Fingers (Picture 2)
- Change out the backing blocks to match the part (Picture 3)
 - Use the closest possible combination
- Change out welding fingers to match the part (Picture 4)
 - Use the closest possible combination
- Insert part into the Nimble Safe (Picture 5)
- Set soft clamp (pgs. 35 & 36 sec. 8.1.4) (Picture 6)
 - Adjust the clamping fingers over the part
 - Adjust the part
- Set hard clamp (pgs. 35 & 36 sec. 8.1.4) (Picture 6)
- Manually raise the torch further, at least 2 revolutions using knurled knob (Picture 7)
- Remove the torch nozzle (Picture 8)
 - If the tip is dirty (see examples Pictures 9, 10, 11)
 - Remove electrode assembly
 - Grind the tip in a tungsten grinder
 - Set the length in the fixture
 - Re-install into the torch assembly
- Reposition back shielding nozzle for better sight of the torch tip (Picture 12)
- Set electrode height to part (see manual) (Picture 13)
- Press the Manual Torch Travel button on the display screen (pg. 44 sec. 8.4.2.1) (Picture 14)
 - Set Torch Travel distance to Max Travel (pg. 48 sec. 8.4.2.3) (*Picture* 15)
- Position electrode over part (Picture 16)
- Press Torch Down button on display screen (Picture 17)



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- Set electrode needle over the part manually to proper height (approx.
 1mm above part) by using a feeler gauge (Picture 18)
 - See manual (pg. 34 sec. 7.6)
- Press the Torch Up button (Picture 19)
- Reassemble the torch nozzle & ground (Picture 20)
- Press the Torch Down button (*Picture 21*)
- Manually lock the shield gas housing just above the part (Picture 22)
- Press the Torch Up button (Picture 23)
- Press Return to auto screen (Picture 24)
- Load a program material type & thickness (Possibly part number for special programs or tooling)
 - Press the Load button on the display screen (Picture 25)
 - Enter user name (Training level dependent) (Picture 26)
 - Enter password (Training level dependent) (Picture 26)
 - Press OK button on the display screen (Picture 27)
 - Press the Load button on the display screen (Picture 28)
 - Choose the correct program (Picture 29)
 - Press the Load button on the display screen (Picture 30)
 - Press the Yes button on the display screen (Picture 31)
- Press the Home Icon button (Picture 32)
- Push flashing Start button to start the weld (Picture 33)



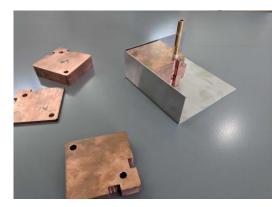
Job Set-Up Procedures



Picture 1



Picture 2



Picture 3



Picture 4



Picture 5



Picture 6





Picture 7



Picture 8



Picture 9



Picture 10



Picture 11





Picture 12



Picture 13

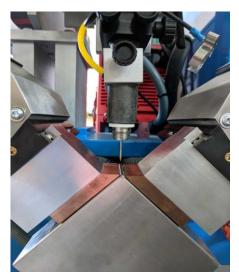


Picture 14



Picture 15





Picture 16



Picture 17



Picture 18



Picture 19





Picture 20



Picture 21



Picture 22

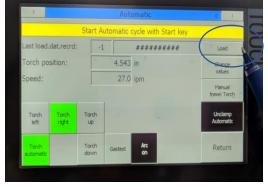


Picture 23





Picture 24



Picture 25



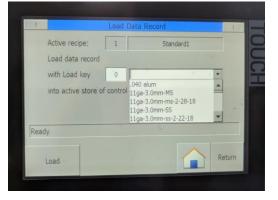
Picture 26



Picture 27



Picture 28

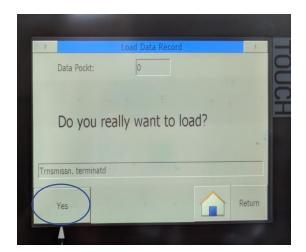


Picture 29





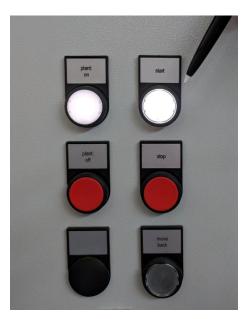
Picture 30



Picture 31



Picture 32



Picture 33





Set-Up Data Page for Each Program NimbleSafe 100-42

PLEASE KEEP THE SET-UP PAGE IN A BINDER NEAR THE MACHINE SO THE OPERATOR CAN USE THIS TO CORRECTLY SET UP & POSITION THE TOOLING FOR EACH PROGRAM BEING USED

PROGRAM NUMBER:	
Material Type:	Material Thickness:
Needle Type:	Needle Diameter:
Backing Block material:	Backing Block Size:(special tool or segment sizes, Back to Front)
Clamp Finger material:	Clamp Finger Size:
Clamp Finger Distance to Weld Bead:	{position copper after 1 st test weld}
Weld Gas setting:	
Trail Gas setting:	
Backing Gas setting:	
Clamping Gas setting:	





Problems and Solutions at Welding with the CornerWeld Machine

Problem: Coloration

Solution: - Switch gas on (flowmeter, machine parameter, valve)

- Adjust Carrie gas nozzle (direction, after torch)

- Gas flow-times before and after

- Adjust gas pressure

- Clean material in front of welding

Problem: Penetration too low

Solution: - More current I-O

Lower speedLess wire-filler

Problem: Penetration too high

Solution: - Less current

Higher speedMore wire-filler

Problem: Hole on the Start Point

Solution: - Less start current I-O

- Less pre-weld time

- Higher upslope

- Adjust start point more in material

Problem: Hole in Welding End

Solution: - Less end current I-E

Less post-weld timeLower downslope

- Higher downslope length

- Adjust welding-end more in material





Problem: Holes during welding

Solution: - Clamping without gap

- Adjust tungsten in the middle

- Clean material

Problem: No Arc

Solution: - Turn direction (Start point should be lower than welding end)

- Adjust the Tungsten high (Same distance as material thickness)

- Switch Arc on (Automatic menu)

Problem: Pores and bad welding

Solution: - Switch gas on

- Take care on Airflow (Fans, open windows and doors)

- Choose the right operation (DC- or AC for Aluminum)

- Change Tungsten (DC- = Blue 30°) (AC = green, point)

Problem: Wire fixed on the welding end

Solution: - Higher coldwire hold-time

- Lower coldwire lead-time

- Higher coldwire downslope length

Problem: Welding overlap on one side

Solution: - Adjust Tungsten in the middle

- Adjust Copper-Clamping-Finger parallel

- Check if bending is between 60-80% overlapping

Problem: Holes During the Welding

Solution: - Clamping without gap

- Adjust tungsten in the middle

- Clean material

Problem: Gap will not close

Solution: - Try to minimize the gap manually and weld with Filler-wire

- Higher coldwire speed





CornerWelder Data Storage

Data storage begins on automatic screen (Picture 1)

- Save changes made to an existing program name
 - Press Return button (Picture 1)
 - Press Data Storage (Picture 2)
 - Press Store Data Record (*Picture 3*)
 - Enter ID number (Picture 4)
 - Press Store (Picture 4)
 - Press Yes (Picture 5)
 - Question Do you want to override existing ID Number? (Picture 6)
 - Press Yes (Picture 6)
 - Press Home Icon button (Picture 6)



Perfect Welds Together

• Copy a program under a new name

- Press Return (Picture 1)
- Press Data Storage (Picture 2)
- Press Data Record Management (Picture 3)
- Select program using blue up or down arrow (Picture 4)
- Press Disc Icon (Picture 5)
- Save As pop up, Change ID number and name (Picture 6)
- Save As pop up, Press OK New name will appear on the program menu
- Press Home Icon (Picture 7)



Perfect Welds Together

• Change a program name

- Press Return (Picture 1)
- Press Data Storage (Picture 2)
- Press Data Record Management (Picture 3)
- Select program to be changed using the blue up or down arrow (Picture
 4)
- Press the B A Icon (Picture 5)
- Rename pop up, Change the ID number and name (Picture 6)
- Rename pop up, Press OK (Picture 6)
- Press the Home Icon (Picture 7)



Perfect Welds Together

- Load programs to and from a Flash Drive
 - Press Return (Picture 1)
 - Press Data Storage (Picture 2)
 - Press Data Record Management (Picture 3)
 - Press Flash Drive icon Blue for data from flash drive or Green for data to the flash drive (Password pop up Production management ID number and Password is required) (Picture 5)
 - Use a dedicated Flash Drive for NimbleSafe programs only
 - The NimbleSafe will only transfer entire content of Welder on Flash
 Drive
 - Press the Home Icon (Picture 6)



Save changes to an existing program name



Picture 1



Picture 3



Picture 5



Picture 2



Picture 4



Picture 6



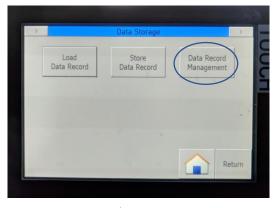
Copy a program under a new name



Picture 1



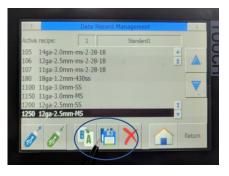
Picture 2



Picture 3



Picture 4



Active recipe: 1 Standard1

105 14ga-2.0mm-ms-2.08.18
106 12ga-2.5mm-ms-107 11ga-3.0mm-ms-180 18ga-1.2mm-430
1100 11ga-3.0mm-MS
1150 11ga-3.0mm-MS
1200 12ga-2.5mm-MS

Data Record Management

Active recipe: 1 Standard1

105 14ga-2.0mm-ms-2-28-18
106 12ga-2.5mm-ms-2-28-18
107 11ga-3.0mm-ms-2-28-18
180 18ga-1.2mm-430ss
1100 11ga-3.0mm-MS
1100 11ga-3.0mm-MS
1200 12ga-2.5mm-MS

1200 12ga-2.5mm-MS

Recom

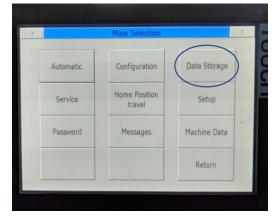
Picture 5 Picture 6 Picture 7



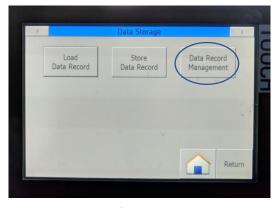
Change a program name



Picture 1



Picture 2



Picture 3



Picture 4



Data Record Management

Active recipe: 1 Standard1

105 14ga-2.0mm-ms-2-28-18

106 12ga-2.5mm-ms-2-28-18

107 11ga-3.0mm-ms-2-28-18

1100 11ga-3.0mm-MS

1150 11ga-3.0mm-MS

1150 11ga-2.5mm-MS

1200 12ga-2.5mm-MS

1200 12ga-2.5mm-MS

1200 12ga-2.5mm-MS

Picture 5 Picture 6 Picture 7



Load programs to and from a flash drive



Picture 1



Picture 3



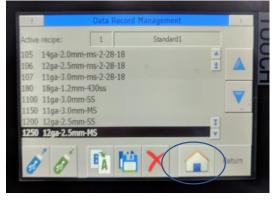
Picture 5



Picture 2



Picture 4



Picture 6

					Welding	g Parame	ters - Stai	nless Ste	el					
Parameter Name		316L 1.2mm Pulse	316L 1,2mm Re to Fr	316L 1,2 PUL Fr>Re	316L 1,5mm Argon	316L 1,5mm Re to fr	316L 2,0mm Pulse	316L 0,3mm	316L 0,5mm	316L 1,0mm	316L 1,5mm	316L 2,0mm	316L 2,5mm	316L 3,0mm
Parameter Number		12	13	14	15	16	20	103	105	110	115	120	125	130
Welding Parameter Unit														
No. of Segments	Segments	1	1	1	1	1	1	1	1	1	1	1	1	1
Start point 1	mm	25.7706	440	13.67929	8.785492	440	122.8486	5	356.5	439.3382	1	1	0	18
Welding length 1	mm	501.5795	506.4842	441.7457	74	506.4842	421.0594	295	502	506.4842	200	200	200	185
Welding Speed	cm/min	70	70	70	65	65	50	150	100	70	60	50	40	25
Gas pre-flowtime	sec	2	2	2	2	2	2	1	2	2	2	2	2	2
Gas after-flowtime	sec	2	2	2	2	2	2	2	2	2	4	4	4	4
Parkposition	mm	300	300	300	300	300	300	0	300	300	0	0	0	0
Gas pre-flowtime torch	sec	2	2	2	2	2	2	2	2	2	2	2	2	2
pre-weldtime	sec	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.2	0.2	0.2	0.2
Startcurrent I-S	Α	40	40	40	40	40	85	8	20	40	90	100	120	170
Upslope	sec	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.4	0.4	0.4	0.4
Maincurrent I-O	Α	100	95	100	100	100	120	25	65	85	105	130	170	240
No. Of Switch length		0	0	0	0	0	0	0	0	0	0	0	1	0
Downslope length	mm	2.5	2.5	2.5	2.5	2.5	2.5	3	3	3	5	5	5	5
Downslope Fact Comment L.E.	sec	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.5	0.2	0.2
End Current I-E post-weldtime	A sec	25 0.3	25 0.3	25 0.3	25 0.3	25 0.3	46 0.1	6	12 0.1	20 0.1	80 0.1	100 0.1	140 0.1	140 0.1
Gas after-flowtime torch	sec	8	8	8	8	8	8	2	8	8	2	2	2	2
das arter-nowthine torch	sec	0	0	0	0	0	0		0	0	2	2		
Welding Machine Parameter														
Type of Operation	DC- / AC	DC-	DC-	DC-	DC-	DC-	DC-	DC-	DC-	DC-	DC-	DC-	DC-	DC-
Second Current	%	70	70	70	70	70	70	0	70	70	90	90	90	90
Frequency	Hz	65	65	65	65	65	65	0.2	65	65	90	90	90	90
DC-Balance	%	20	20	20	20	20	20	10	10	20	10	10	10	20
AC-Balance	%	0	0	0	0	0	0	0	0	0	0	0	0	0
Pulse	on / off	on	off	on	off	off	off	off	on	on	off	off	on	on
Coldwire Parameter		1		1	1	1				1	1	1		
Coldwire	on / off	off	off	off	off	off	on	off						
Coldwire delay time	sec	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0	0	0
Speed Wirefiller	cm/min	50	50	50	50	50	50	1	50	50	1	1	1	1
No. Of switch length	No.	0	0	0	0	0	0	0	0	0	0	0	0	0
Downslope length	mm	0.2	0.2	0.2	0.2	0.2	0.3	0	0.2	0.2	0	0	0	0
Wire Holdtime Wire Leadtime	sec	0.2	0.2	0.2	0.2	0.2	0.5	0	0.2	0.2	0	0	0	0
Wife Leadtille	360	U		0	U	U	U	0	U	0	0	0		
Tack Parameter														
Tack	on / off	off	off	off	off	off	off	off	off	off	off	off	off	off
No. Of Tacks	No.	5	5	5	5	5	1	1	5	5	1	1	1	1
Tack position 1	mm	400	10	400	10	10	79.8	0	10	10	198	0	0	0
Tack position 2	mm	375	11	375	11	11	0	0	11	11	0	0	0	0
Tack position 3	mm	350	12	350	12	12	0	0	12	12	0	0	0	0
Tack position 4	mm	325	13	325	13	13	0	0	13	13	0	0	0	0
Tack position 5	mm	40	15	40	15	15	0	0	15	15	0	0	0	0
Tack Time	sec	1	1	1	1	1	2	0	1	1	2	0	0	0
Tack Current	Α	40	80	40	80	80	80	3	80	80	80	3	3	3
Gas after Flowtime	sec	1	0	1	0	0	0	0	0	0	2	0	0	0
Coldwire	on / off	off	off	off	off	off	off	off	off	off	off	off	off	off
Coldwire Delaytime	sec	0	0	0	0	0	0	0	0	0	0	0	0	0
Coldwire Speed	cm/min	1	1	1	1	1	1	1	1	1	1	1	1	1
Machine Parameter														
Parkposition	on / off	on	on	on	on	on	on	off	on	on	off	off 100	off	off
Partstop position	mm on / off	0	0	90	90	0	0	190	0	0	190	190	190	90 on
Back sheelding gas Carrie gas (sheelding nozzle)	on / off	on	on	on	on	on	on	on	on	on	on	on	on	on
	on / off	on ro>fr	on	on	on	on ro>fr	on fr>re	on	on ro>fr	on ro>fr	on	on frare	on	on franc
Direction	fr>re / re>fr	re>fr	re>fr	fr>re	fr>re	re>fr	ıı≯re	fr>re	re>fr	re>fr	fr>re	fr>re	fr>re	fr>re

		1	Welding Pa	arameters	- Carbon S	Steel			
Parameter Name Parameter Number		MS 1,0mm 210	MS 1,2mm 212	MS 1,5mm 215	MS 2,0mm 220	MS 2,0 mm 221	MS 2,0 + Wire 223	MS 2,5mm 225	MS 3,0mm 230
Welding Parameter	Unit								
				1	ı				
No. of Segments	Segments	1	1	1	1	1	1	1	1
Start point 1	mm	2	13.2135	1	1	13.2135	13.2135	1	1
Welding length 1	mm	201	317.451	201	201	317.451	277.7179	200	200
Welding Speed	cm/min	60	45	60	50	38	38	40	30
Gas pre-flowtime	sec	0	0	0	0	0	0	0	0
Gas after-flowtime	sec	0	0	0	0	0	0	0	0
Parkposition	mm	2	2	2	2	2	2	2	2
Gas pre-flowtime torch pre-weldtime	sec	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Startcurrent I-S	sec A	60	75	75	95	85	85	115	115
Upslope	sec	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
Maincurrent I-O	A	83	123	120	165	160	130	235	235
No. Of Switch length	^	0	0	0	0	0	0	0	0
Downslope length	mm	3	3	3	2	3	3	2	4
Downslope	sec	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.6
End Current I-E	A	30	50	50	60	65	65	60	100
post-weldtime	sec	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
Gas after-flowtime torch	sec	2	2	2	2	2	2	2	5
das arter-nowtime torch	sec		2	2	2	2	2		, ,
Welding Machine Parameter				ı	T		T		1
Type of Operation	DC- / AC	DC-	DC-	DC-	DC-	DC-	DC-	DC-	DC-
Second Current	%	90	90	90	90	90	90	90	90
Frequency	Hz	90	90	90	90	90	90	90	90
DC-Balance	%	10	10	10	10	10	10	10	10
AC-Balance	%	0	0	0	0	0	0	0	0
Pulse	on / off	off	off	off	off	off	off	off	off
Coldwire Parameter									
Coldwire	on / off	off	off	off	off	off	on	off	off
Coldwire delay time	sec	0	0	0	0	0	0.2	0	0
Speed Wirefiller	cm/min	1	1	1	1	1	60	1	1
No. Of switch length	No.	0	0	0	0	0	0	0	0
Downslope length	mm	0	0	0	0	0	3	0	0
Wire Holdtime	sec	0	0	0	0	0	0.3	0	0
Wire Leadtime	sec	0	0	0	0	0	0	0	0
Tack Parameter									
Tack	on / off	off	off	off	off	off	off	off	off
No. Of Tacks	No.	1	1	1	1	1	1	1	1
Tack position 1	mm	0	0	0	0	0	0	0	200
Tack position 2	mm	0	0	0	0	0	0	0	0
Tack position 3	mm	0	0	0	0	0	0	0	0
Tack position 4	mm	0	0	0	0	0	0	0	0
Tack position 5	mm	0	0	0	0	0	0	0	0
Tack Time	sec	0	0	0	0	0	0	0	3
Tack Current	A	3	3	3	3	3	3	3	150
Gas after Flowtime	sec	0	0	0	0	0	0	0	0
Coldwire	on / off	off	off	off	off	off	off	off	off
Coldwire Delaytime	sec	0	0	0	0	0	0	0	0
Coldwire Speed	cm/min	1	1	1	1	1	1	1	1
Machine Parameter									
Machine Parameter Parkposition	on / off	off	off	off	off	off	off	off	off
Partstop position	mm	190	90	190	190	90	90	190	190
Back sheelding gas	on / off	off	off	off	off	off	off	off	off
Carrie gas (sheelding nozzle)	on / off	off	off	off	off	off	off	off	off
Carrie Bas (Sinceralling HOZZIE)	Jii / Jii	OII	J 311	311	511	J 311	J11	011	UII

		Weldi	ng Paramet	ters - Alumi	num·Brass			
Parameter Name		ALMG3_1,0	ALMG3_1,5	ALMG3_2,0	ALMG_2,5	ALMG3_3,0	AL 1.2	BR 2,0mm
Parameter Number		310	315	320	325	330	512	720
Welding Parameter	Unit							
No. of Segments	Segments	1	1	1	1	1	1	1
Start point 1	mm	2	5	2	5	4	15	13.2135
Welding length 1	mm	295	295	295	295	510	280	182.6117
Welding Speed	cm/min	60	60	60 0	60	40	45 2	20
Gas pre-flowtime Gas after-flowtime	sec	0	0	0	0	0	2	0
Parkposition	sec	0	0	0	0	0	300	0
Gas pre-flowtime torch	mm	2	2	2	2	2	2	2
pre-weldtime	sec sec	0.3	0	0.5	1	1	0.1	0.2
Startcurrent I-S	A	40	40	60	40	180	65	75
Upslope	sec	0.2	0.4	0.4	0.4	2	0.2	0.4
Maincurrent I-O	A	100	150	220	200	250	115	170
No. Of Switch length		0	0	0	0	0	0	0
Downslope length	mm	5	5	5	5	10	2.5	3
Downslope	sec	0.5	1	1	1	1	0.3	0.3
End Current I-E	A	20	40	40	40	150	40	55
post-weldtime	sec	0	0	0	0	0.1	0.3	0.1
Gas after-flowtime torch	sec	2	2	2	2	8	8	2
Welding Machine Parameter	1 1		I			,		
Type of Operation	DC- / AC	AC	AC	AC	AC	AC	AC	DC-
Second Current	%	0	0	0	0	0	70	90
Frequency	Hz	0.2	0.2	0.2	0.2	0.2	65	90
DC-Balance	%	10	10	10	10	10	20	10
AC-Balance	%	2	2	2	2	-1	2	0
Pulse	on / off	off	off	off	off	off	off	off
Coldwire Parameter			l			<u>'</u>		
Coldwire	on / off	off	off	off	off	off	off	off
Coldwire delay time	sec	0	0	0	0	0	0.1	0
Speed Wirefiller	cm/min	1	1	1	1	1	50	1
No. Of switch length	No.	0	0	0	0	0	0	0
Downslope length	mm	0	0	0	0	0	0	0
Wire Holdtime	sec	0	0	0	0	0	0.2	0
Wire Leadtime	sec	0	0	0	0	0	0	0
Time Leadering	300	-				· ·		
Tack Parameter								
Tack	on / off	off	off	off	off	off	off	off
No. Of Tacks	No.	1	1	1	1	2	5	1
Tack position 1	mm	290	290	290	290	500	280	0
Tack position 2	mm	0	0	0	0	250	250	0
Tack position 3	mm	0	0	0	0	0	200	0
Tack position 4	mm	0	0	0	0	0	150	0
Tack position 5	mm	0	0	0	0	0	100	0
Tack Time	sec	2	2	2	2	3	2	0
Tack Current	A	70	70	70	70	200	60	3
Gas after Flowtime	sec	3	3	3	3	0	11	0
Coldwire	on / off	off	off	off	off	off	off	off
Coldwire Delaytime	sec	0	0	0	0	0	0	0
Coldwire Speed	cm/min	1	1	1	1	1	1	1
Machine Parameter				· ·				
Parkposition	on / off	off	off	off	off	off	on	off
Partstop position	mm	190	190	190	190	192	90	90
Back sheelding gas	on / off	off	off	off	off	off	off	off
Carrie gas (sheelding nozzle)	on / off	off	off	off	off	off	off	off
Direction	fr>re / re>fı	fr>re	fr>re	fr>re	fr>re	fr>re	fr>re	fr>re