ALUMINUM GASKET MAKING INSTRUCTIONS

1.) PREPARE FLUX; USE ALL STATE NO. 31 ALUMINUM BRAZING FLUX.* IF NOT AVAILABLE LOCALLY, CONTACT ARC PRODUCTS MANUFACTURING DIVISION, CHEMTRON CORPORATION, HANOVER, PA 17331. MIX A SMALL AMOUNT OF POWDER WITH WATER UNTIL A LOOSE PASTE CONSISTENCY IS OBTAINED.

2.) CUT THE ALUMINUM WIRE TO CIRCUMFERENTIAL LENGTH WITH A RAZOR BLADE OR SCISSORS. AN NEC GASKET LISTING IS MOST HELPFUL.

3.) MOUNT THE WIRE AS SHOWN FOR BUTT WELD (FIGURE A) WITH A SLIGHT "SPRING" SUCH THAT IF THE ENDS WERE DISPLACED, THEY WOULD OVERLAP BY 1/32"–1/16", OR IN CASE OF A LAP WELD (FIGURE B) THE LAP IS 1/32"–1/16".

4.) DAB A SMALL AMOUNT OF FLUX ON JOINT.

5.) ADJUST A LOW TEMPERATURE TORCH FOR A SMALL LOCAL FLAME AND HEAT THE JUNCTION WITH AN UNDULATORY MOTION. THE FLUX WILL SHRIVEL UP INITIALLY, WITH THE ALUMINUM ENDS SOON MELTING AND FUSING. FUSION USUALLY IS ACCOMPANIED BY A SUDDEN MOVEMENT OF THE ENDS WHICH WERE SPRUNG UNDER SLIGHT COMPRESSION.

6.) PROPERLY FUSED, THE JOINT CAN BE TESTED BY INSERTING ONE'S THUMBS WITHIN THE LOOP AND SNAPPING OUTWARDS. A POOR JOINT WILL FAIL AND PART IMMEDIATELY.

7.) A SMALL ALUMINUM LUMP AT THE JOINT WILL NOT AFFECT THE SEALING ABILITY OF THE COMPLETED GASKET.

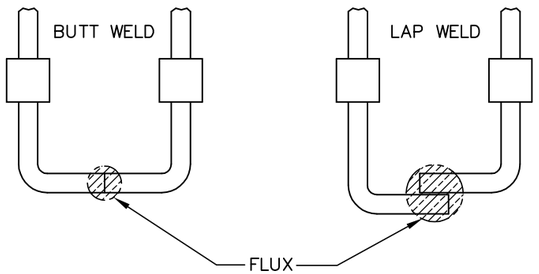
8.) WASH OFF FLUX RESIDUE WITH A RUBBING ACTION BETWEEN PLASTIC–GLOVED FINGERS UNDER WARM WATER.

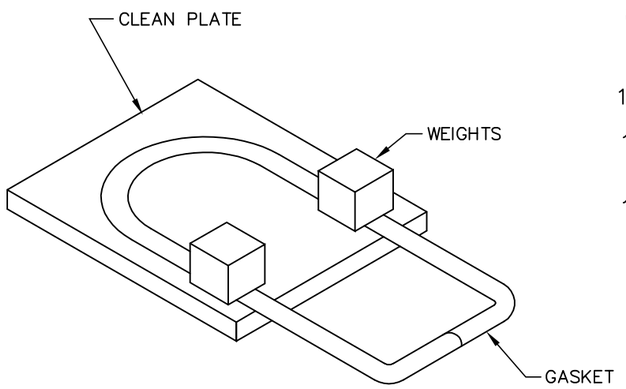
9.) SOAK JOINT IN HOT WATER FOR 15 MINUTES TO COMPLETELY REMOVE FLUX RESIDUE.

10.) FORM GASKET BY ROUNDING IT ABOUT A TAPERED FLASK OR OTHER SUITABLE OBJECT.

11.) POSSIBLE DIFFICULTIES: TOO MUCH OR TOO PROLONGED HEATING WILL CAUSE THE ENDS TO OVER–MELT AND SUBSEQUENTLY RECEDE, FORMING ACCUMULATED BALLS OF ALUMINUM.

12.) VARIATIONS IN TECHNIQUE: SOME INDIVIDUALS FIND THAT AN OVERLAP JOINT WORKS BETTER THAN THE BUTT JOINT. PREFERENCE FOR A LOCALIZED PENCIL POINT FLAME OR FOR A NON–LOCALIZED FLAME IS ALSO SPLIT ACCORDING TO WHICH SEEMS TO WORK BEST FOR THE INDIVIDUAL. A "BIC" LIGHTER HAS BEEN KNOW TO WORK IN EMERGENCIES.





* DUE TO SHIPPING REGULATIONS, WE ARE NO LONGER ABLE TO INCLUDE EVEN SMALL QUANTITIES OF THIS FLUX WITHOUT SPECIAL PACKAGING. CONTACT NEC FOR INFORMATION AND PRICES.

NO.	REVISION	BY	DATE	CKD	DATE
A	REVISED "*" NOTE	RKT	9/19/05	JTN	9/19/05

TOLERANCES AND FINISH UNLESS OTHERWISE SPECIFIED
FRACTIONAL ±1/64" | .XXX ±.005 | ANGLE ±.5° | MACH 125 | THIRD ANGLE PROJECTION
MATERIAL

DRAWN	NLP	4/19/04
CHECKED	JTN	
DESIGNED	DGH	
SCALE	1=1	

NATIONAL ELECTROSTATICS CORPORATION
MIDDLETON, WISCONSIN

WELDING INSTRUCTIONS FOR CREATING NEC ALUMINUM GASKETS

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