SAFETY-SILV®

The Harris Products Group manufactures its complete line of cadmium-free, high silver brazing alloys with the same attention to quality found in their phosphorus / copper products. Only the purest metals are used. Precision production procedures ensure consistency in product quality and performance. Safety-Silv® alloys are strongly recommended as replacements for all cadmium-bearing brazing filler metals.

SAFETY-SILV® 56

This high silver (56%) content alloy makes first-quality brazes. It is free-flowing with unequaled capillary attraction and deep penetration. Ductility is high and corrosion resistance is suitable for all but strong chemical applications. NSF 51 listed for use with food equipment materials. The silver color is an excellent match to stainless steel and silverware applications.

NSF RoHS COMPLIANT

SAFETY-SILV®45T

Performs like a 45% silver, cadmium-bearing alloy. Lower melting temperature than Safety-Silv® 45. Excellent fillet forming qualities. Produces high-strength, ductile joints. Listed with NSF 51 listed for use with food equipment materials.

NSF RoHS COMPLIANT

SAFETY-SILV®40

Ductile, free-flowing alloy offers economy, good penetration into tight connections, and medium temperature. Silver to light yellow color matches polished brass.

SAFETY-SILV®45

Excellent general purpose nontoxic brazing alloy. Good ductility and capillary flow. Color is silver to light yellow matches polished brass. RoHS COMPLIANT

ESTIMATING AMOUNTS OF BRAZING ALLOYS REQUIRED

1. Locate the tube diameter to be joined and the wire size to be used. Where the row and the column intersect is the approximate length in inches of alloy required per joint.
2. Multiply the length of the alloy needed per joint by the total number of joints.
3. To convert the total length to pounds or troy ounces, divide by the inches of alloy/lb. in row A or the inches of alloy/troy oz. in row B.

ESTIMATING BRAZING ALLOY AMOUNTS

TUBE DIAMETER	3/64" WIRE	1/16" WIRE	3/32" WIRE	.050"x 1/8" ROD	TIP SIZE	ESTIMATED ACETYLENE USE (C.F.H.)
1/4"	1 1/4"	3/4"			4	6-14
3/8"	1 1/2"	1"			4	6-14
1/2"	2"	1 1/2"	3/4"	7/8"	5	8-18
3/4"	3"	2"	1"	1 1/8"	5	8-18
1"		3"	1 1/2"	1 5/8"	6	10-20
1 1/4"		4"	2"	2 1/2"	6	10-20
1 1/2"			2 1/2"	2 3/4"	7	13-25
2"			3 3/4"	4 1/2"	8	16-32
2 1/2"			6"	7 1/2"	8	16-32
3"			10"	11 1/2"	9	20-37
3 1/2"			12"	13 3/4"	9	20-37
4"			14"	16"	10	24-42
6"			21"	23 3/4"	10	24-42
A	1900"	1068"	475"	513"	in. of alloy/lb.	
B	118"	67"	29"		in. of alloy/troy oz.	

A- Phos/copper/silver alloys. Dynaflow®, Harris® 15, etc.
B- Silver Brazing alloys, Safety-Silv® 40, 45, 45T, 56
The above figures are approximate and will vary depending on joint clearance, depth, and operator technique.