Fail 2

1/10

Vani — VG Pharis -
Titanium Hydride 100g ; 1000ps @ 1gm — 10ps @ 1g
Ceramic Hp oil 100g ; 100ps? @ 1ml — 10ps @ 1ml
Microbore 510 500ml 500ps @ 1ml ? — 500ps @ 1ml
or/ Copper / Silver eutectic 250g 500ps @ 5g — 50ps @ 5g

150p / 7 / 21 — Alpha Barrier Coating
Coating Metal 1500g 210ps @ 70g — 20ps @ 70g

MIG Brazing - (Not in core)
Al / Silicon braze 4500g ; 530ps @ 85g — 50ps @ 85g

4500

Manual Cleaning

85	Ethanol	1 Lb	100ps	@ 10ml
50	Acetone	1 Lb	1000ps	"
4250	Trichlor	2 Lb	200ps	"
250	MS56	0.5 Lb	500ps	"
	HFE 70	0.5	500ps	"
			500ps	

Densities
Be - 1.85g/cm³
Pu - 19.8g/cm³

500ps @ 10ml

LeakTest
'Max of 500ps/Yr.

Dual Core

27cm x 40cm
~27kg

Fizz 3

Open question x x x of Fail 2

1%	500	→ 50kg / B17
2%		25kg
3%		→ 17kg

Be thicker no more than core radius
rather

Aluminium density = 2.7 g/cm³
liquid " ≈ 2.375 g/cm³

∴ 85g → 35.4 cm³

Eutec
2.57
2.4?

Capillary gap 50
– 150

1mm = 1000µm

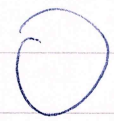
100µm = 0.1mm = 1cm/10,000

35.4 x 10,000   345000

= 587 x 587 cm

AlSil for TIG — 1–4mm x 1m
87% Al 12% Si + Density 2.65 g/cm³.

3.44
πr^2 → 12.56 mm² / 1000



4

1m = 100cm

It density = 1 — 100

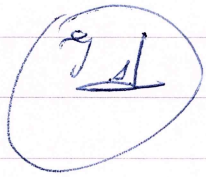
for 1cm³ of line — ~~area = 1/100 cm~~

0.   0.0004   1m of 4mm wire = 0.1256 cm³

Brazing

Solder brazing – 2/1000 – 7/1000 inch thick.

Capillary – Gap 50 – 150 μm (@ 2/1000 – 6/1000 inch)

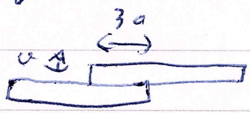
Braze welding  – 0.5 mm 20/1000 inch

– Cleaning before → important

Arc Vacuum Furnace Braze –
copper-silver eutectic or alloy braze

In welding the base material melts, & higher temperature

For braze with strength of weld – overlap – 3 (x) the thickness of piece being joined

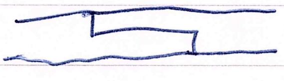


Facility 1
Vacuum Furnace → up to 1600 °C.

Facility 2 Vacuum Furnace → max temp 810 °C;

titanium hydride

Flame Braze → pre position filler

Also  – butt-lap joint

712 – beryllium oxide ceramic components

CAMC – Award for CTS – ending of a few components & eliminating beryllium

Fact 1

@ 10 warheads / year -

Per Warhead — 1/10

Facility 1	Tot	~~prods~~	prods
Be @ 25kg	—	~~2.5~~ 10 kg	2.5 kg
HFE 7100 cleaning	—	100 kg.	~~[illegible]~~
Lead / lead alloy	—	500 g	[illegible] g
Non-ferrous alloys (incl rubber)	—	25 kg	[illegible]
Ferrous metals	—	50 kg	-
Titanium Hydride VF Brazing (Total 100 ops at 5g)	—	50 ~~25~~ g	@ 5g/op → 10 operations/warhead.
Bonding - Glue 2kg @ Be (40 ops at 50g)		200 g	4 ops @ 50g.
- Silicone Rubber 2.5lb		2.5lb.	
~~Tool Bag~~ Manual Cleaning Ethanol 40 l (4000 ops @ 10ml)		4 l	→ 400 ops @ 10ml.

Margin: wipe/cloth andent? weekly basis — 200g, 50, 40, 40,000, 10

Etching → Water at 10% 75 ml ∴ amount per op = 50 ml

			1/10
- Nitric Acid 5L	=	100 ops	10 ops
- Sulphuric Acid 5L	=	100 ops	10 ops
Perchloric Acid 1lb	=	20 ops.	2 ops
Phosphoric Acid 5lbs	=	100 ops	10 ops
- Hydrochloric " 1lb	=	20 ops	2 ops
Acetic " 1lb	=	20 ops	2 ops
~~Aqueous Alkaline Sol 10lb~~ 18lb.		360 ops	1/10 36 ops.

Margin: 100, 500, 15, 3

PCD Test -

plotter band dye 5lb; 0.15lb per op → 33 ops → 3 ops.

Silica powder 5lb;

Finding 3

Bay 2 Handmopping –
Trichloroethene
→ 20-50ml per operation
→ up to 100 litres
~~50~~ → ie up to 2,000 – 5,000 cleaning operations

50×100 Bay 1 ethanol – 80 litres/year (mainly Pu)
Bay 2 CCl4 + CBe) – 60 kg/yr 50 lb ~~(mainly~~
– 500 ml per op)
20 → 1000 ops/yr → 100 ops 1/10 (2 types of ops)
– 2 ~~[illegible]~~ – 8 ops!

Bay 3 – 5 lb/yr
(up to 50 ops/yr)

MIG
~~85g~~ → 6.25 kg.

50

~~Degreasing Freon~~
~~Pent~~ 200 lb ~~4×50lb~~ /6 per yr. 1/10.

MIG Brazing
Al/Steel Braze 4250g; 50 ops @ 85g 5 ops

~~TIG~~
~~Tungsten~~ 8 kg.

Hand Cleaning

Trichloroethylene 100l 2,000-5,000 Ops/yr 200-500 ops
up to 2l.

31
60
18.60
30
5.58.

560g/30min

0.31g/s →

1.6
5 | 8.
30