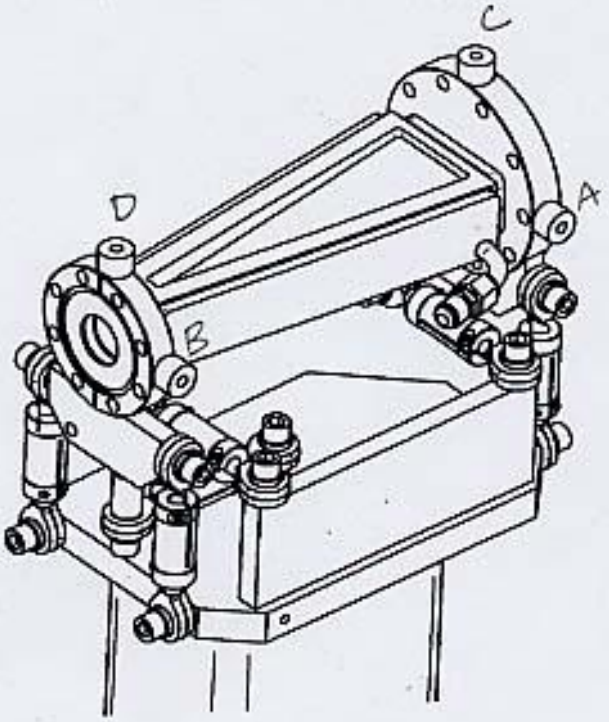
SSRL

4-06

# BL 12-2 2ND PIVOT MASK




VALUES FROM CENTER OF U/S & D/S APERTURES, Z=0 D/S HORIZ. APERTURE

| | X | Y | Z |
|---|---|---|---|
| A | +3.786 | -.063 | -8.703 |
| B | +3.169 | -.031 | +1.092 |
| C | -.087 | +3.782 | -8.683 |
| D | +.034 | +3.164 | +1.075 |

VALUES WITH D/S HORIZ. APERTURE OFFSET 1.361" IN "X" & "Z" @ 756.024". MASK AT +7.2MRAD YAW ANGLE.

| | X | Y | Z |
|---|---|---|---|
| A | +5.085 | -.063 | +747.293 |
| B | +4.538 | -.031 | +757.093 |
| C | +1.212 | +3.782 | +747.342 |
| D | +1.403 | +3.164 | +757.098 |

# BL 12-2 2ND PIVOT MASK LAB DATA

4-28-06
MR LG

Y)

34.178 READ @ BASE
41.——— DIM. FROM BOTTOM OF PLATE TO ℄ PIVOT
−6.822 H.I ✓
4.543 REF READ
11.365 BLADE ℄ ✓

3513
233513

D/S GAP
.344/2 .172 GAP VARIFIED
11.365 − .172 ✓ = 11.537 TOP GAP
11.365 − .172 ✓ = 11.193 ∅

U/S GAP
.871/2 = .436 GAP VARIFIED
11.365 − .436 ✓ = 11.801 TOP GAP
11.365 − .436 ✓ = 10.929 ∅

24.470 REF BLADE
11.365
13.105 H.I ✓

A) 12.168 / 1.——— / 13.168 − 13.105 = −0.063 ✓
B) 12.136 / 1.——— / 13.136 − 13.105 = −0.031 ✓
C) 8.323 / 1.——— / 9.323 − 13.105 = +3.782 ✓
D) 8.941 / 1.——— / 9.941 − 13.105 = +3.164 ✓

X) U/S FLANGE 4.608/2 = 2.304 ✓ D/S FLANGE 3.366/2 = 1.683 ✓

FV 2.304
NV 1.683
21.000
22.622
32.000
32.203
28.760
~~29.381~~ 29.386
~~31.064~~
28.798 ✓
29.419 ✓

A) 26.017 + 8.871 = 34.888 − 31.102 = +3.786 ✓
B) 25.400 + 8.871 = 34.271 − 31.102 = +3.169 ✓
C) 30.015 / 1.——— / 31.015 − 31.102 = −0.087 ✓
D) 30.136 / 1.——— / 31.136 − 31.102 = +0.034 ✓

LOS −31.102
1.000 REF
32.102 ℄ BLADE
.197 TO EDGE (−) SIDE
31.905 ✓ S/R (−) SIDE ∅

D/S WIDTH
.394/2 = .197
GAP VARIFIED ✓
32.299 S/R (+) SIDE ∅

2 PP
4/06

# BL12-2 2ND PIVOT MASK
## LAB DATA

4-28-06
MR LG

2) BLADE FROM D/S END COPPER

10.788
1.———
11.788
.750 TO D/S "X" APERTURE
12.538 LOS

A) 12.684
8.557
21.241
12.538
[-8.703] /

B) 10.446
1.———
11.446
12.538
[+1.092] /

C) 20.221
1.———
21.221
12.538
[-8.683] /

D) 10.463
1.———
11.463
12.538
[+1.075] /

SET X TO FRAME

-2.250
-2.250
29.011
28.797
24.000
24.237
26.633
26.633
-28.883

U/S FLANGE
28.883
2.304
26.579 /

D/S FLANGE
28.883
1.683
27.200 /

2D
4/06

4-28-06

12-2 2nd PIVOT MASK ( trans "x", rot 7.2, trans "z" 19203)

| | | | | |
|---|---|---|---|---|
| 122PMA | 129.15 | -1.6 | 18981.01 | |
| 122PMB | 115.27 | -0.79 | 19229.91 | |
| 122PMC | 30.78 | 96.06 | 18982.22 | MM |
| 122PMD | 35.64 | 80.37 | 19230.05 | |
| 122PMUS | 33.12 | 0 | 19000.75 | |
| 122PMDS | 34.58 | 0 | 19202.75 | |

| | | | | |
|---|---|---|---|---|
| 122PMA | 5.0846 | -0.063 | 747.2838 | |
| 122PMB | 4.5382 | -0.031 | 757.083 | |
| 122PMC | 1.2119 | 3.782 | 747.3317 | Inches |
| 122PMD | 1.4031 | 3.164 | 757.0885 | |
| 122PMUS | 1.3041 | 0 | 748.061 | |
| 122PMDS | 1.3614 | 0 | 756.0138 | |

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BL12-2 2nd Pivot Mask (rot.7.2, trans. "x" and "z")

| | | | | |
|---|---|---|---|---|
| 122PMA | 129.15 | -1.6 | 18981.26 | |
| 122PMB | 115.27 | -0.79 | 19230.16 | |
| 122PMC | 30.78 | 96.06 | 18982.47 | mm |
| 122PMD | 35.64 | 80.37 | 19230.3 | |
| 122PMUS | 33.13 | 0 | 19001 | |
| 122PMDS | 34.58 | 0 | 19203 | |

| | X | Y | Z | |
|---|---|---|---|---|
| 122PMA | 5.0847 | -0.063 | 747.2936 | |
| 122PMB | 4.5382 | -0.031 | 757.0928 | |
| 122PMC | 1.2119 | 3.782 | 747.3415 | inches |
| 122PMD | 1.4032 | 3.164 | 757.0983 | |
| 122PMUS | 1.3042 | 0 | 748.0708 | |
| 122PMDS | 1.3614 | 0 | 756.0236 | |

BL 12-2 2ND PIVOT MASK

Measure pressure drops at 3 flow rates:

Pressure drop at 2.0GPM 120 2.6GPM 200 3.0GPM .250

**Weld assembly SA-451-057-61, according to tree layout**

5_____ Weld parts and subassemblies. Respect dimensions and geometrical tolerances as per SA-451-057-61. The weld set up must be inspected by D Harrington or Jean Charles Castagna before proceeding.

6_____ Fiducialize US and DS apertures of the Mask (US aperture is understood as the biggest window on the glidcop body of the mask assy. DS aperture is understood as the smallest defining aperture on the glidcop body of the mask assy.)

**Installation on site: drawing ID-451-057-80**

Install mask on its pedestal according to ID-451-057-80
The mask is at a tilted yaw angle of 7.20mrad from beamline center.
X positive towards SSRL

Position of the center of US aperture relative to 12-2 beam line source
X=33.13 ± 0.5mm
Y=0 ± 0.5mm
Z=19001 ± 5 mm (Z position is dictated by DS aperture Z position)

Position of the center of DS aperture relative to 12-2 beam line source
X=34.58 ± 0.5mm
Y=0 ± 0.5mm
Z=19203 ± 5 mm

BL12-2 2ND PIVOT MASK



**Beverly Monda**

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**From:** "Castagna, Jean Charles" <castagna@slac.stanford.edu>
**To:** <bmonda@mon-tek.com>
**Cc:** "Rabedeau, Thomas" <rabedeau@slac.stanford.edu>; "Greer, Julie M." <greer@slac.stanford.edu>; "Harrington, Daniel" <harring@slac.stanford.edu>
**Sent:** Wednesday, March 29, 2006 3:23 PM
**Attach:** pf45105784.dft.tif
**Subject:** PF-451-057-69 MODIFICATION

To Herb's attention

Please find attached drawing PF-451-057-84 as a modification to corrrect the EDM error on PF-451-057-69.

-The dimensions in the horizontal aperture (section BB) should remain the same.

-The dimensions in the vertical aperture (section AA) have been modified to accommodate the EDM error and take into account the present dimensions you provided.
They change as follows:
.315 (8MM) ---> .344 (8.74MM)
.750 ---> 1.17
.472 ---> .550
(11.99°) ---> (10.1°)

Please respect tolerances as specified.

You can call me for any complementary information.

Jean-Charles Castagna

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1 408 250 9644

BL 12-2 2ND PIVOT MASK



**Beverly Monda**

**From:** "Castagna, Jean Charles" <castagna@slac.stanford.edu>
**To:** <bmonda@mon-tek.com>
**Sent:** Monday, March 27, 2006 3:03 PM
**Subject:** PF-451-057-69 mod

Chuck,

Sorry for the delayed delivery of this email, I had the wrong adress.
As I mentionned to Erb we should be able to save this part, here are the things we want you to be carefull about.
-The horizontal aperture dimensions on section BB are very critical and should not change: That's the .394(10mm ), .551, and .750 dimensions.
-The vertical aperture on section AA can accept the following modifications:
The .315 (8MM) dimension should stay as close to the 8MM value as possible, up to 9MM is still acceptable.
The .472 dimension is not as critical and we will accept the .530 value you have now.
The .750 dimension should remain the same. The 11.99° angle can be changed to accommodate for the other dimensions increase.

Please let us know the resulting dimensions you are expecting to get before proceeding.

Thanks
Jean-Charles Castagna

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