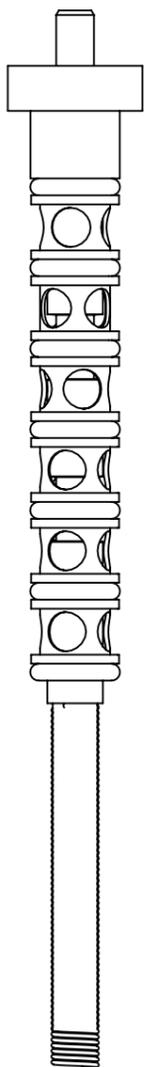


REVISIONS

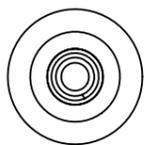
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

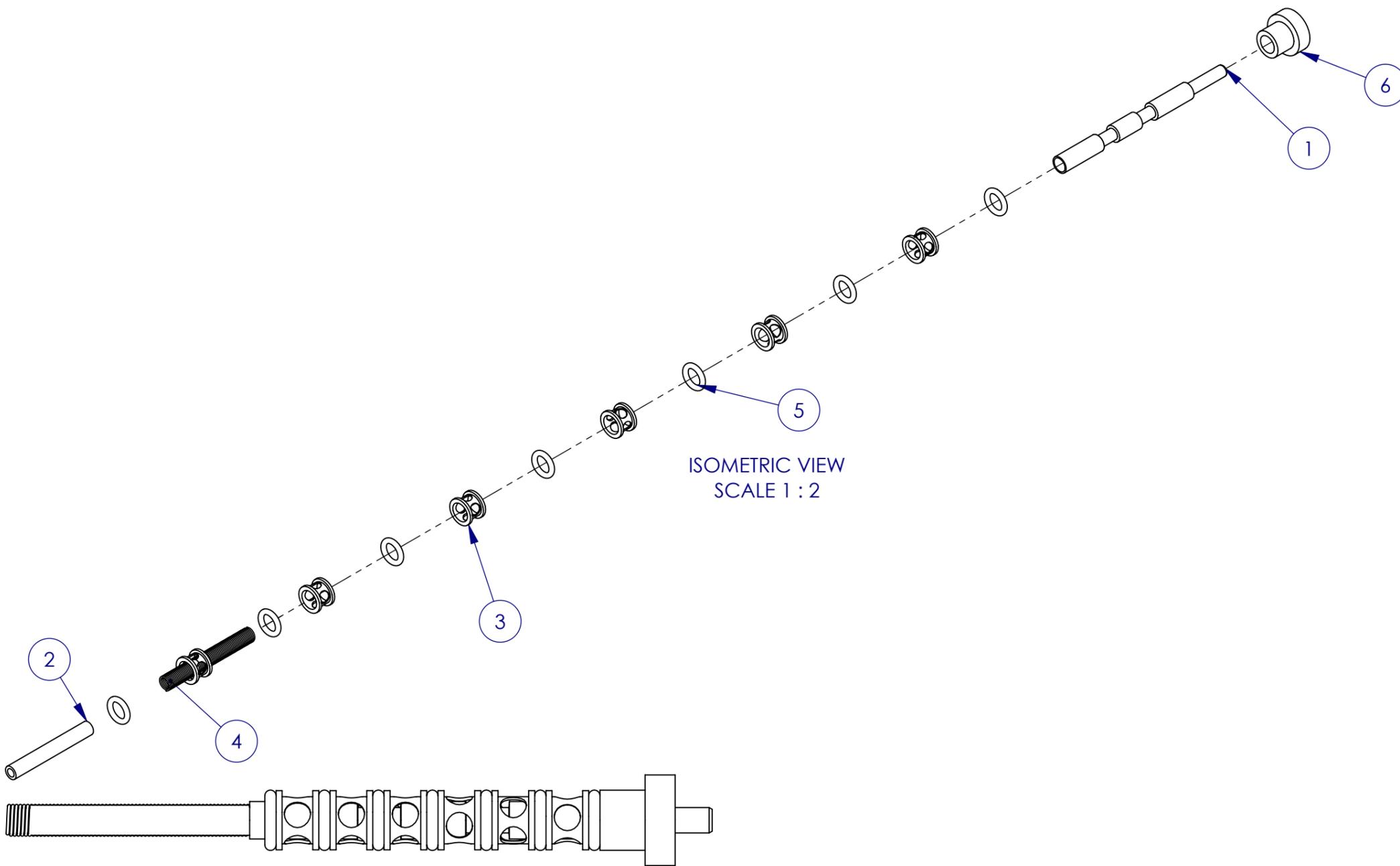
ITEM NO.	PART NO.	PART NAME	QTY
1	JA90-10	STEM	1
2	JA90-11	THROTTLE STOP PIN	1
3	JA90-13	CAGE	6
4	JA90-41	SPRING, RETURN, COMPRESSION	1
5	JA90-42	ORING, .50 OD X .312 ID BUNA	7
6	JA90-9	UPPER BUSHING	1



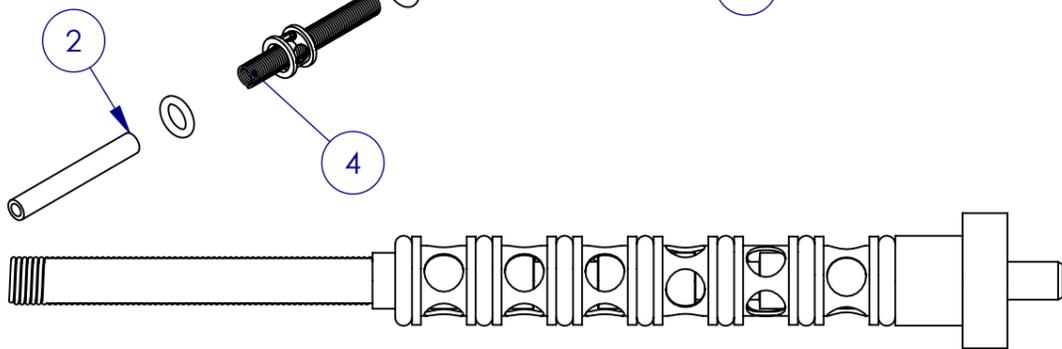
TOP VIEW



FRONT VIEW



ISOMETRIC VIEW  
SCALE 1 : 2



SIDE VIEW



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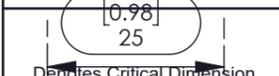
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-60

NOTES:

TITLE

AIR VALVE SUBASSY.

MATERIAL

SEE PARTS

REV: 000

DRN: XX

FINISH

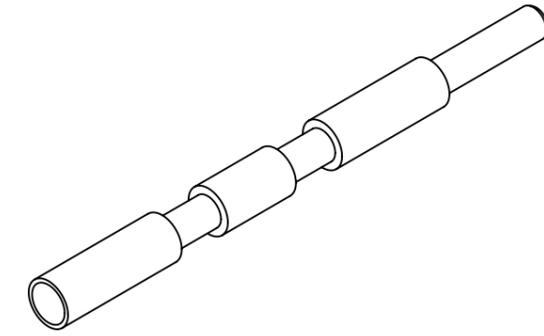
SEE PARTS

SHEET 1 OF 47

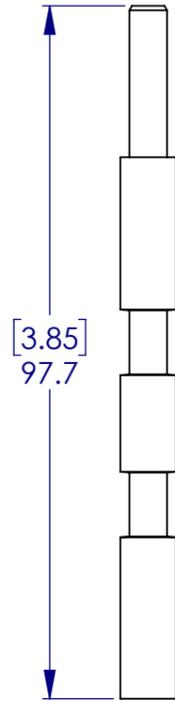
REVISIONS

REV.	DESCRIPTION	DATE
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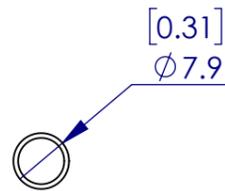
PRINT MAY BE REDUCED - DO NOT SCALE.



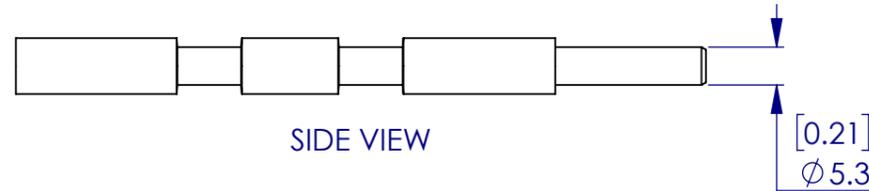
ISOMETRIC VIEW



TOP VIEW



FRONT VIEW



SIDE VIEW

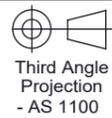
**MATCH**



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 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-10

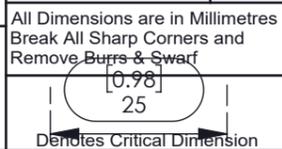
STEM

SS303

DRN: XX

<FINISH>

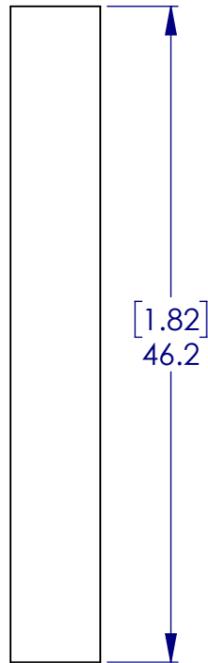
NOTES:



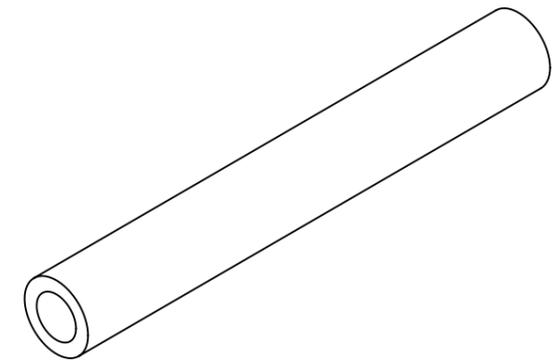
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

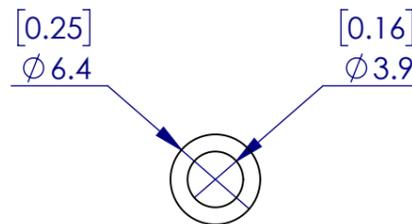


TOP VIEW



ISOMETRIC VIEW

**SLIGHTLY LONGER**



FRONT VIEW



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 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-11

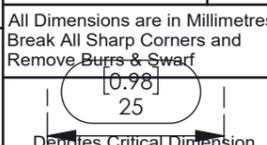
THROTTLE STOP PIN

3/16 DIAMETER BRASS  
 ROD, TYPE 360

DRN: XX

<FINISH>

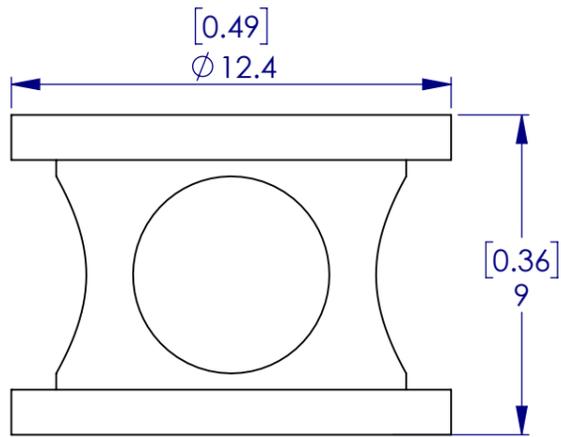
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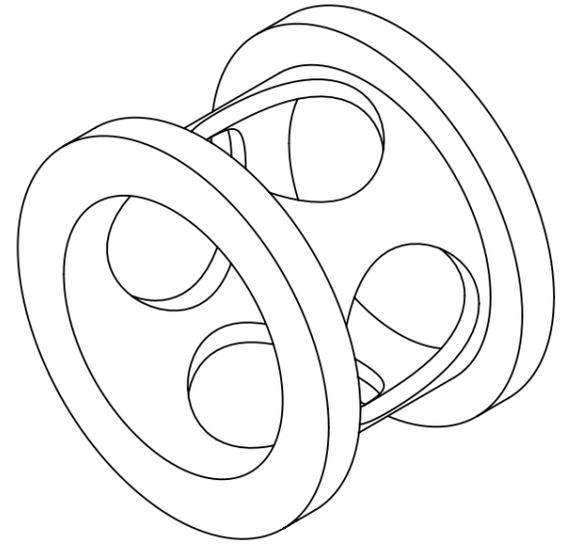
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

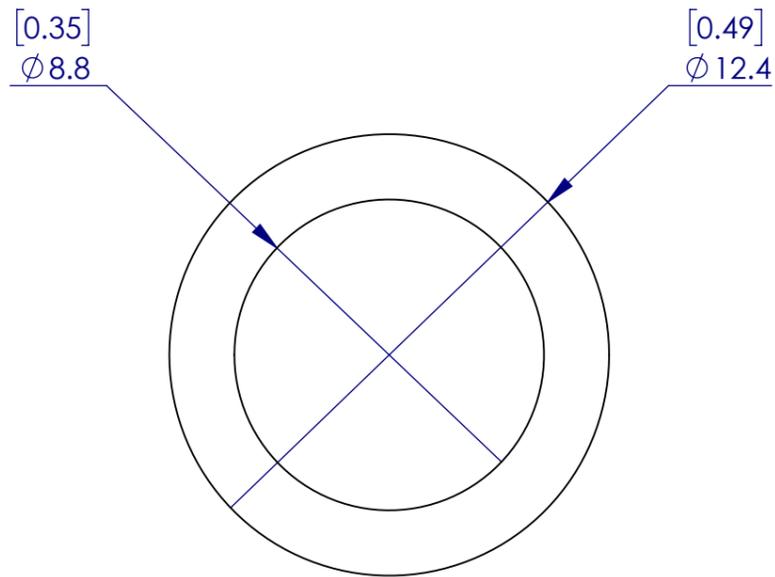


TOP VIEW

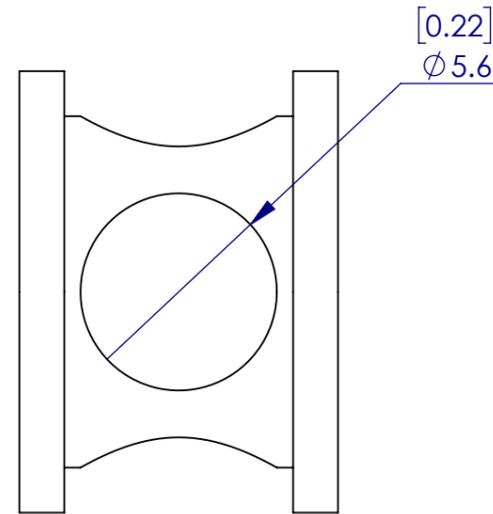


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



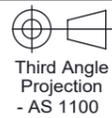
SIDE VIEW



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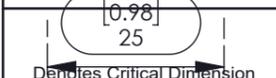
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 5:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-13

TITLE

CAGE

MATERIAL

ALUMINIUM  
 ALLOY, 6061-T651

REV: 000

DRN: XX

FINISH

<FINISH>

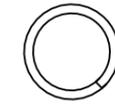
NOTES:

REVISIONS

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REV.	DESCRIPTION	DATE
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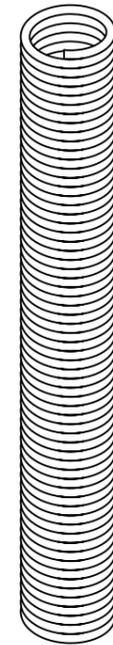
PARAMETER	VALUE
MATERIAL	MUSIC WIRE
WIRE DIAMETER	.037" DIAMETER
OUTSIDE DIAMETER	.245-.240 DIAMETER
NUMBER OF COILS	25 1/2
SPRING RATE	13 LBS/IN +/- .10%
SPRING ENDS	SQUARE AND GROUND
FREE LENGTH	1.80+/- .03"
MATERIAL CERTS	YES
COMPRESSION CERTS	YES



TOP VIEW



FRONT VIEW



ISOMETRIC VIEW



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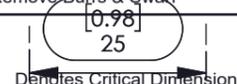
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-41

TITLE

SPRING, RETURN, COMPRESSION

MATERIAL

MUSIC WIRE

REV: 000

DRN: XX

FINISH

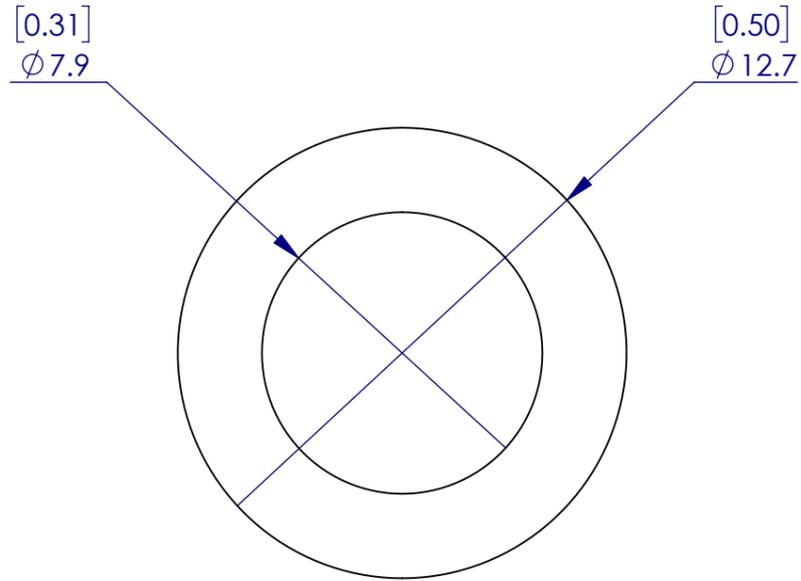
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REVISIONS

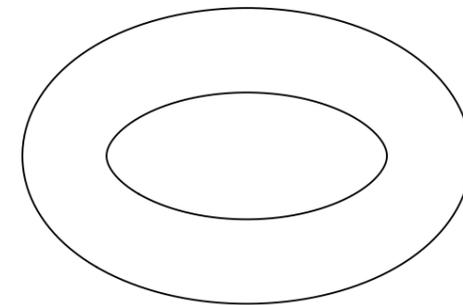
PRINT MAY BE REDUCED - DO NOT SCALE.

REV.	DESCRIPTION	DATE
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TOP VIEW

**MATCH**



ISOMETRIC VIEW



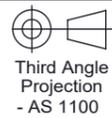
FRONT VIEW



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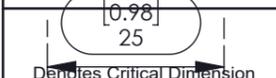
GENERAL TOLERANCES  
 (Unless otherwise noted)  
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 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 5:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-42

TITLE

ORING, .50 OD X .312 ID BUNA

MATERIAL

BUNA-70

REV: 000

DRN: XX

FINISH

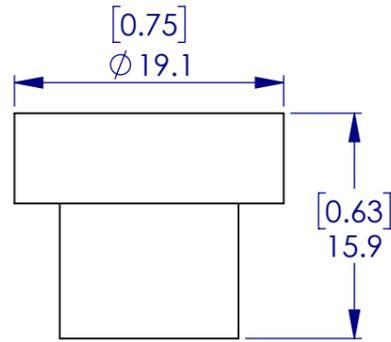
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NOTES:

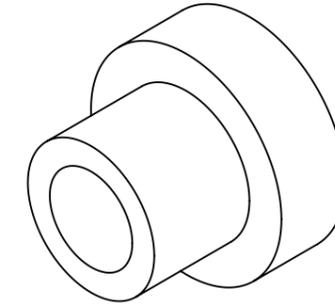
REVISIONS

REV.	DESCRIPTION	DATE
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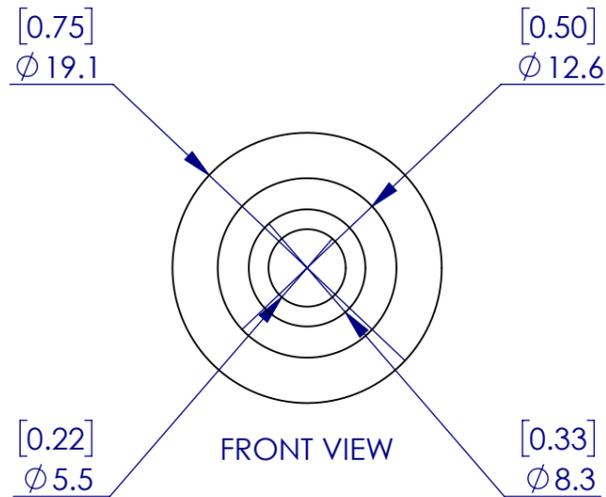


TOP VIEW

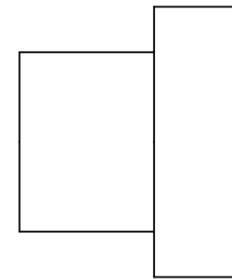


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



SIDE VIEW



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 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-9

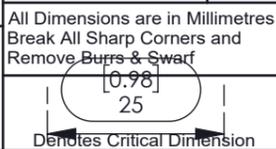
UPPER BUSHING

BRASS, 360

DRN: XX

DEBURR

NOTES:

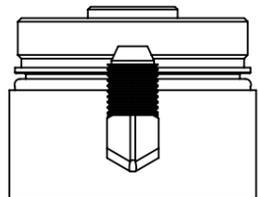


REVISIONS

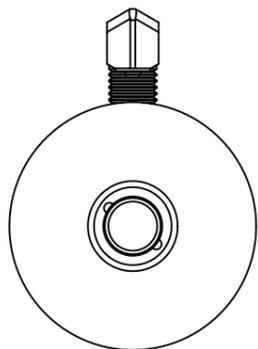
REV.	DESCRIPTION	DATE
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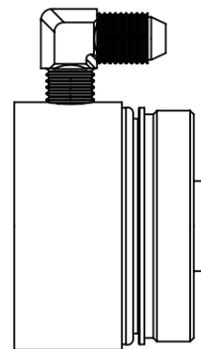
ITEM NO.	PART NO.	PART NAME	QTY
1	JA90-16	BUSHING, LOWER	1
2	JA90-2	BOTTOM CAP	1
3	JA90-49	O-RING, BUNA-70 2.50 OD X 2.25 ID	1
4	JA90-55	SMALL FITTING #6JIC X 1/4 NPT, 90 DEG	1
5	JA90-68	WIPER SEAL	1
6	JA90-51	SHAFT SEAL ASSEMBLY	1



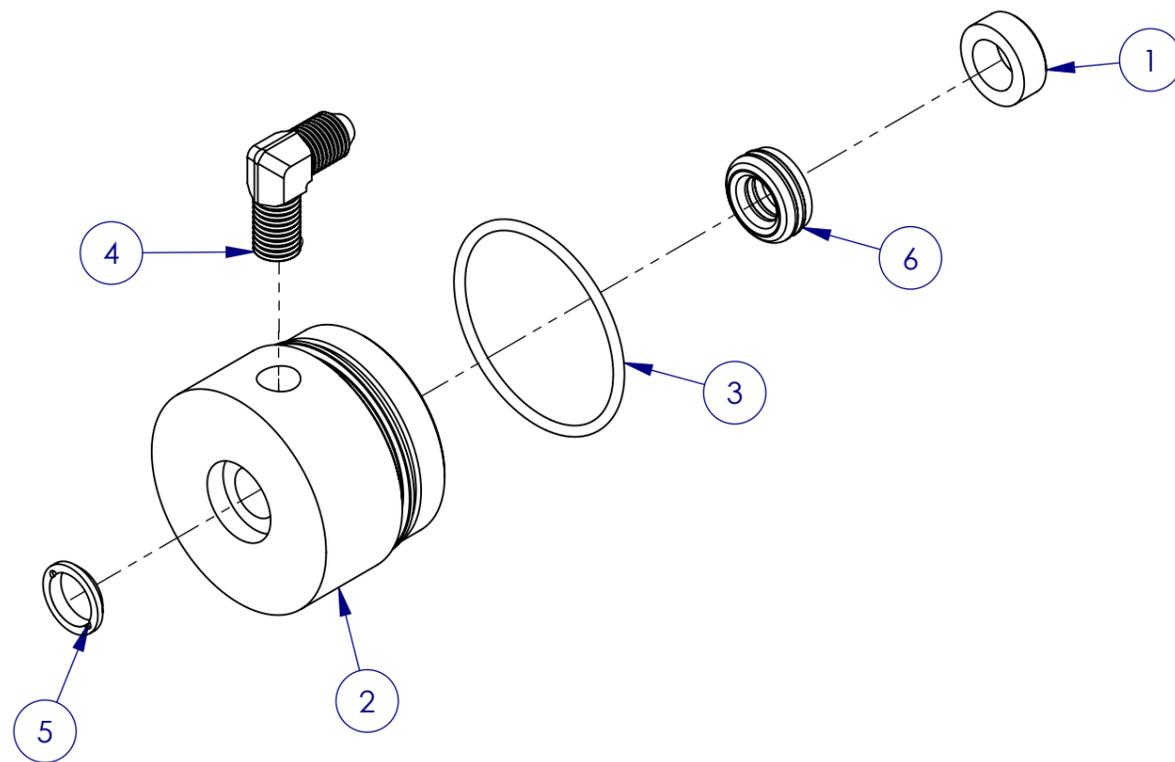
TOP VIEW



FRONT VIEW



SIDE VIEW



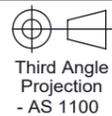
ISOMETRIC VIEW



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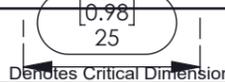
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:2 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-61

NOTES:

TITLE

BOTTOM HEAD SUBASSY.

MATERIAL

SEE PARTS

REV: 000

DRN: XX

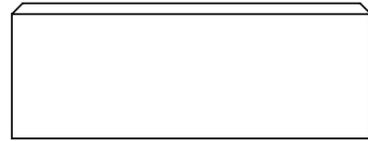
FINISH

SEE PARTS

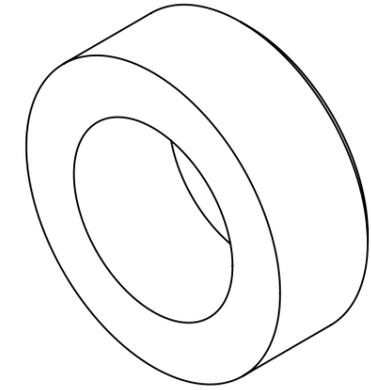
REVISIONS

REV.	DESCRIPTION	DATE
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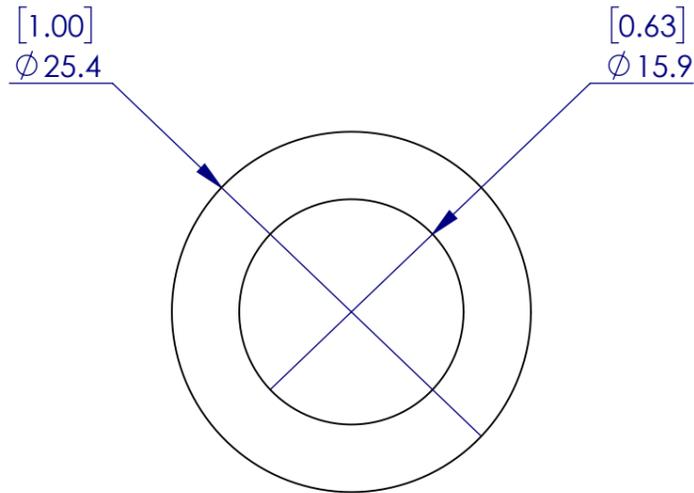


TOP VIEW

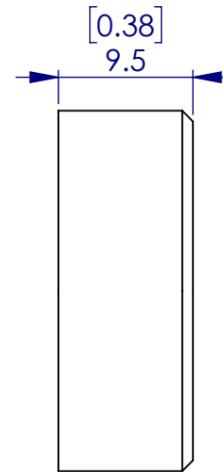


ISOMETRIC VIEW

**NOT AS DEEP**



FRONT VIEW



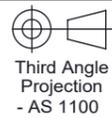
SIDE VIEW



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 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL  
 BRASS ROD,  
 TYPE 360

REV: 000

FINISH

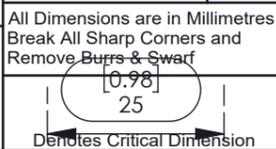
JA90-16

BUSHING, LOWER

DRN: XX

DEBURR

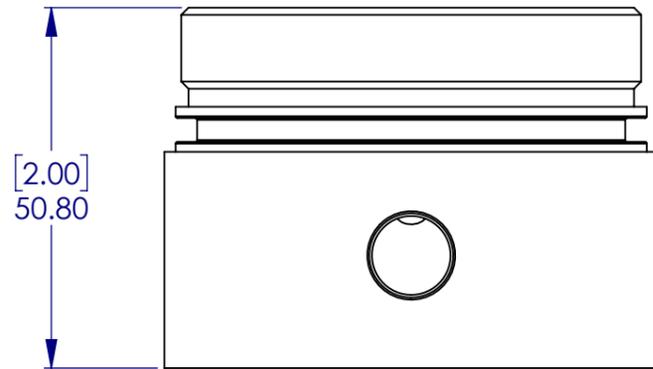
NOTES:



REVISIONS

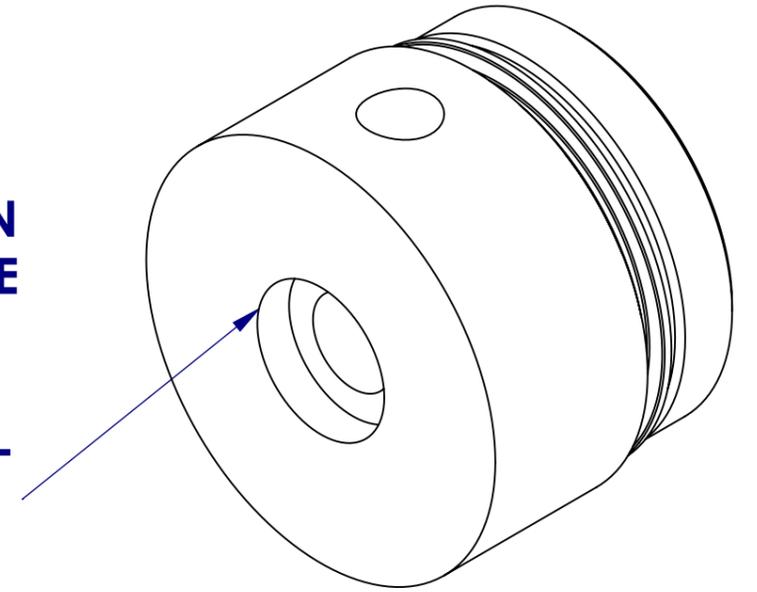
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.



TOP VIEW

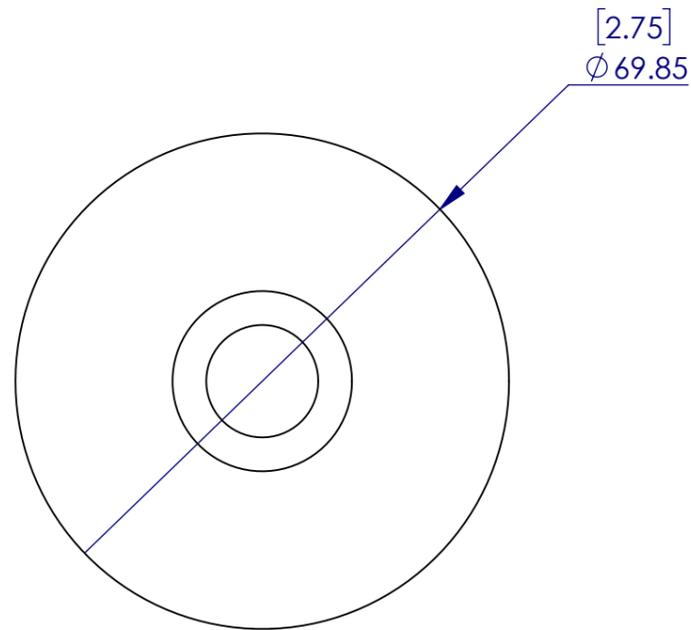
**THIS PART IS THE NEW VERSION - YOU MAY HAVE THE OLDER VERSION WHICH DOESN'T HAVE THE RECESSED CYLINDER MACHINED OUT. THIS WOULD MEAN THAT JA90-68 IS NOT NEEDED.**



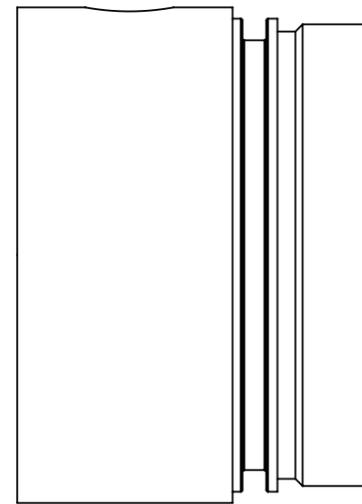
ISOMETRIC VIEW

**PHYSICALLY CHECKED**

**MATCH**



FRONT VIEW



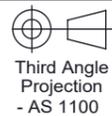
SIDE VIEW



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 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:1 A3

PROJECT: <PROJECT>

DWG NO.

JA90-2

TITLE

BOTTOM CAP

MATERIAL

ALUMINIUM ALLOY, 6061-T651

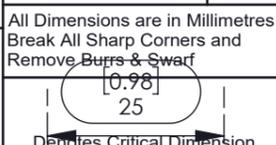
REV: 000

DRN: XX

FINISH

CLASS 2 BLACK ANNOIDIZE

NOTES:

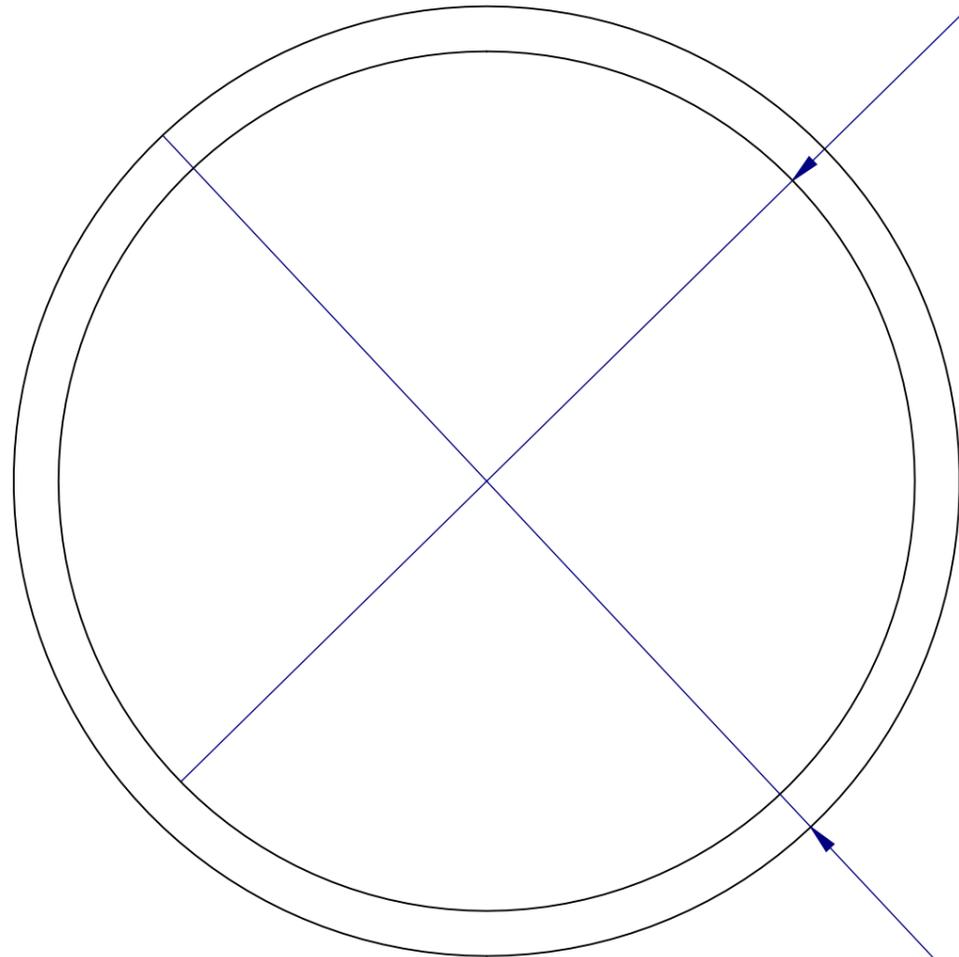


SHEET 10 OF 47

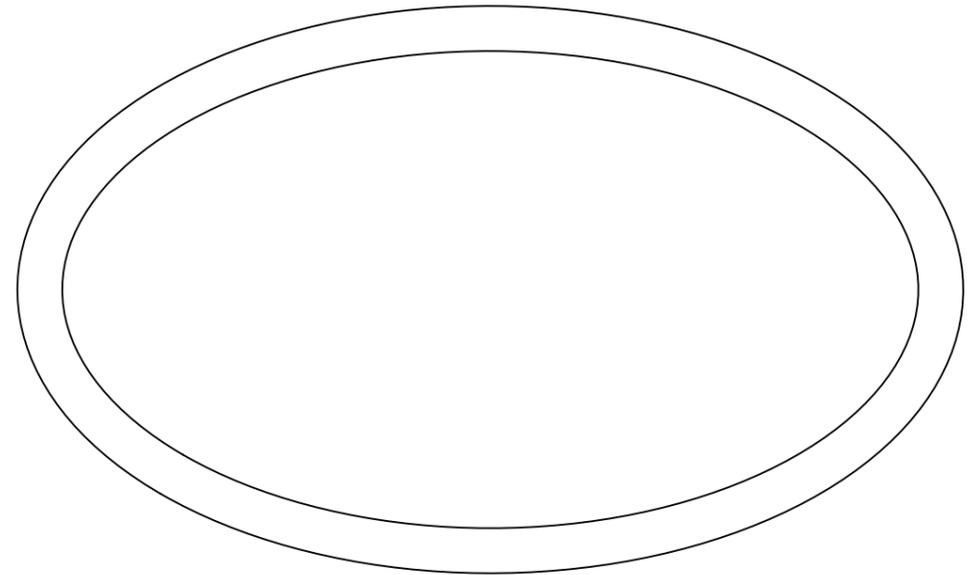
REVISIONS

REV.	DESCRIPTION	DATE

PRINT MAY BE REDUCED - DO NOT SCALE.

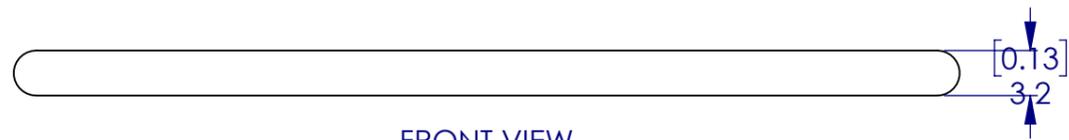


TOP VIEW



ISOMETRIC VIEW

**MATCH**



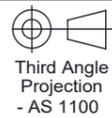
FRONT VIEW



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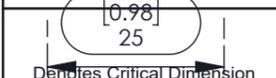
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 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-49

TITLE

O-RING, BUNA-70 2.50 OD X 2.25 ID

MATERIAL

BUNA-70

REV: 000

DRN: XX

FINISH

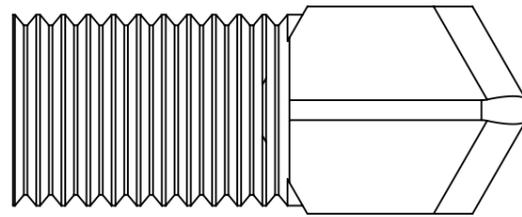
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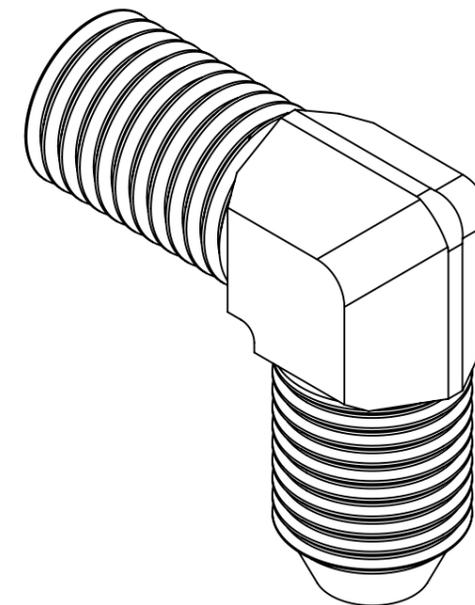
REVISIONS

REV.	DESCRIPTION	DATE
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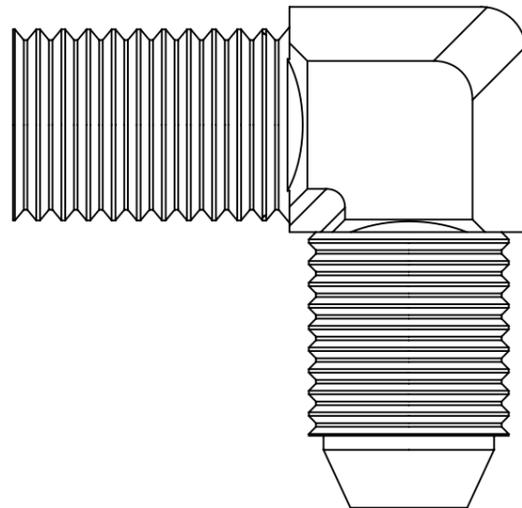


TOP VIEW



ISOMETRIC VIEW

**MATCH**



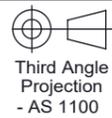
FRONT VIEW



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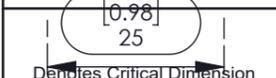
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 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-55

NOTES:

TITLE

SMALL FITTING #6JIC X 1/4 NPT, 90 DEG

MATERIAL

STEEL, ALLOY  
 OPTIONAL

REV: 000

DRN: XX

FINISH

ZINC PLATED

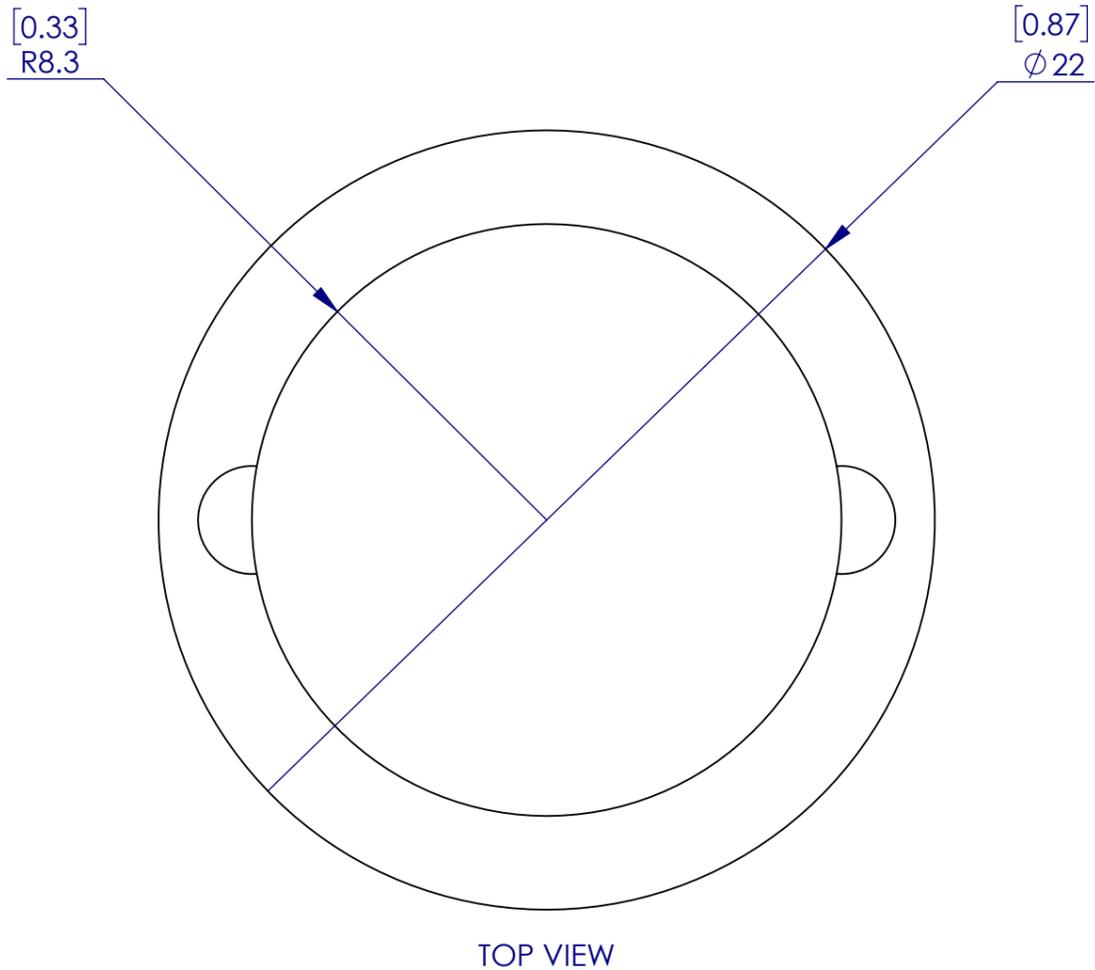
SHEET 12 OF 47

PRINTED: 19-May-21

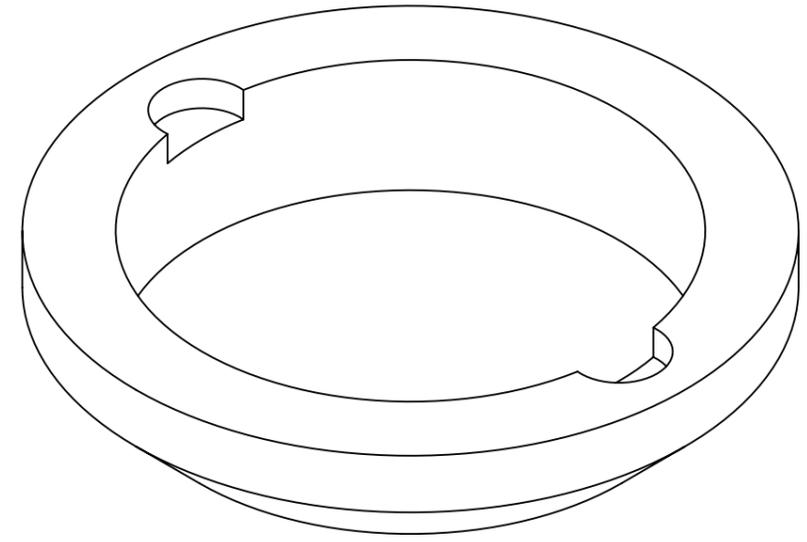
REVISIONS

REV.	DESCRIPTION	DATE
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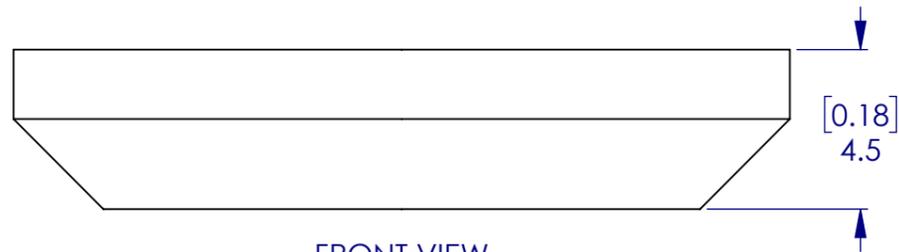


TOP VIEW



ISOMETRIC VIEW

**MATCH**



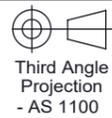
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 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 5:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

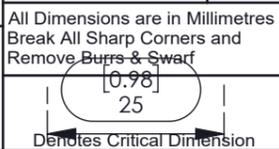
JA90-68

WIPER SEAL

UNKNOWN

DRN: XX

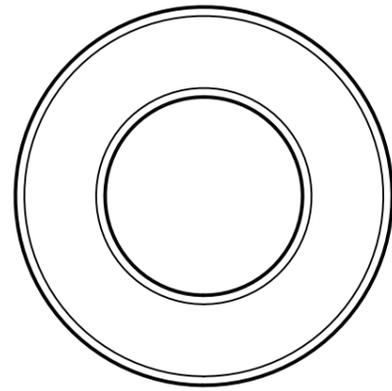
NOTES:



REVISIONS

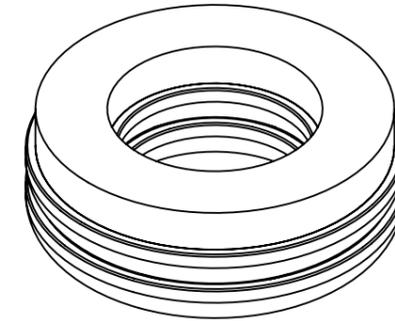
REV.	DESCRIPTION	DATE
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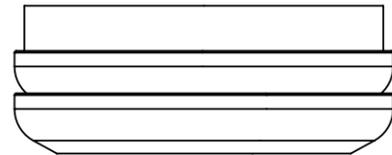


TOP VIEW

**MATCH**



ISOMETRIC VIEW



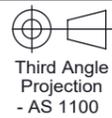
FRONT VIEW



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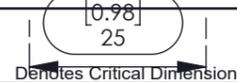
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT:

DWG NO.

JA90-51

NOTES:

TITLE

SHAFT SEAL ASSEMBLY

MATERIAL

SEE PARTS

REV: 000

DRN: XX

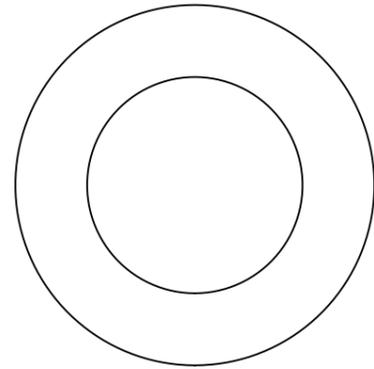
FINISH

SEE PARTS

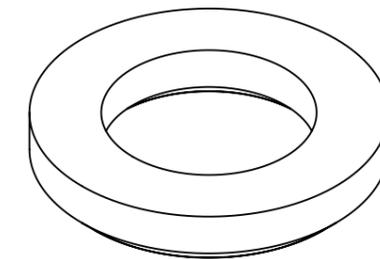
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

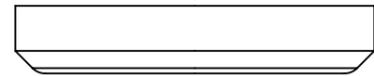


TOP VIEW



ISOMETRIC VIEW

**MATCH**



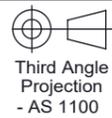
FRONT VIEW



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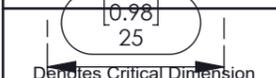
GENERAL TOLERANCES  
 (Unless otherwise noted)  
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 100mm - 500mm: ± 0.5 mm  
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 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-51A

TITLE

SHAFT SEAL, CHEVRON, MALE

MATERIAL

REV: 000

DRN: XX

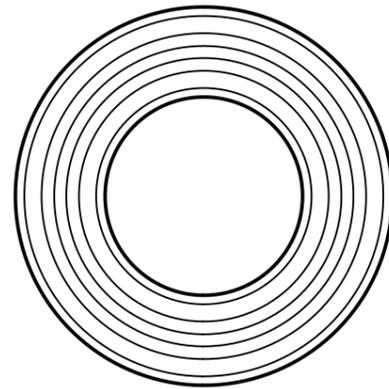
FINISH

NOTES:

REVISIONS

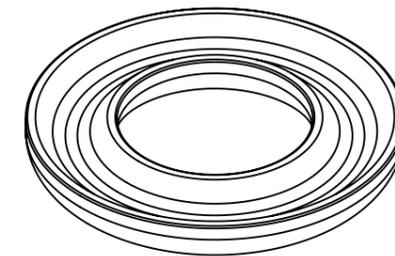
REV.	DESCRIPTION	DATE
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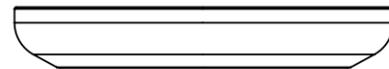


TOP VIEW

**MATCH**



ISOMETRIC VIEW



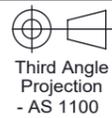
FRONT VIEW



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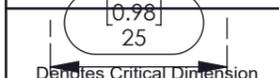
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
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 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-51B

TITLE

SHAFT SEAL, CHEVRON FEMALE

MATERIAL

REV: 000

DRN: XX

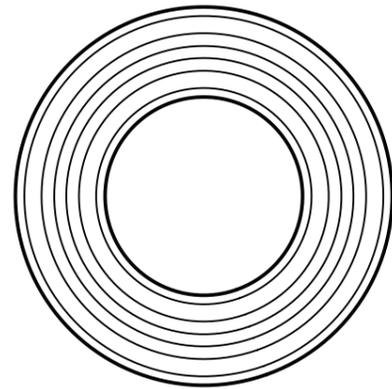
FINISH

NOTES:

REVISIONS

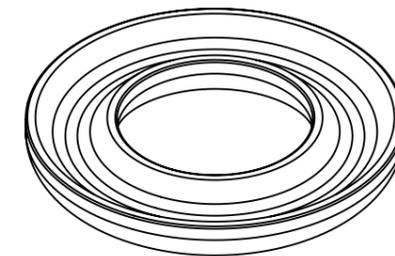
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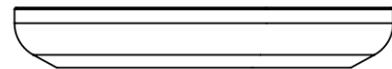


TOP VIEW

**MATCH**



ISOMETRIC VIEW



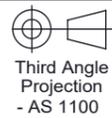
FRONT VIEW



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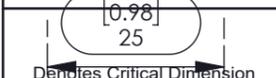
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
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 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-51C

TITLE

SHAFT SEAL, CHEVRON VEE

MATERIAL

REV: 000

DRN: XX

FINISH

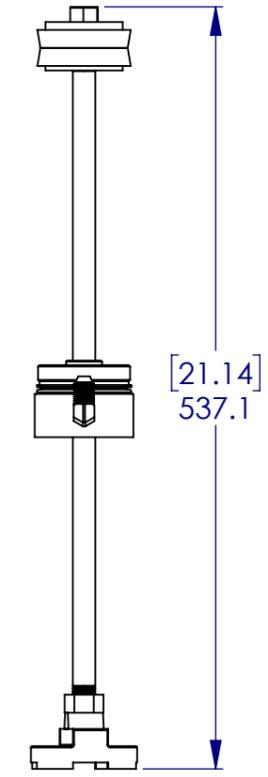
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REVISIONS

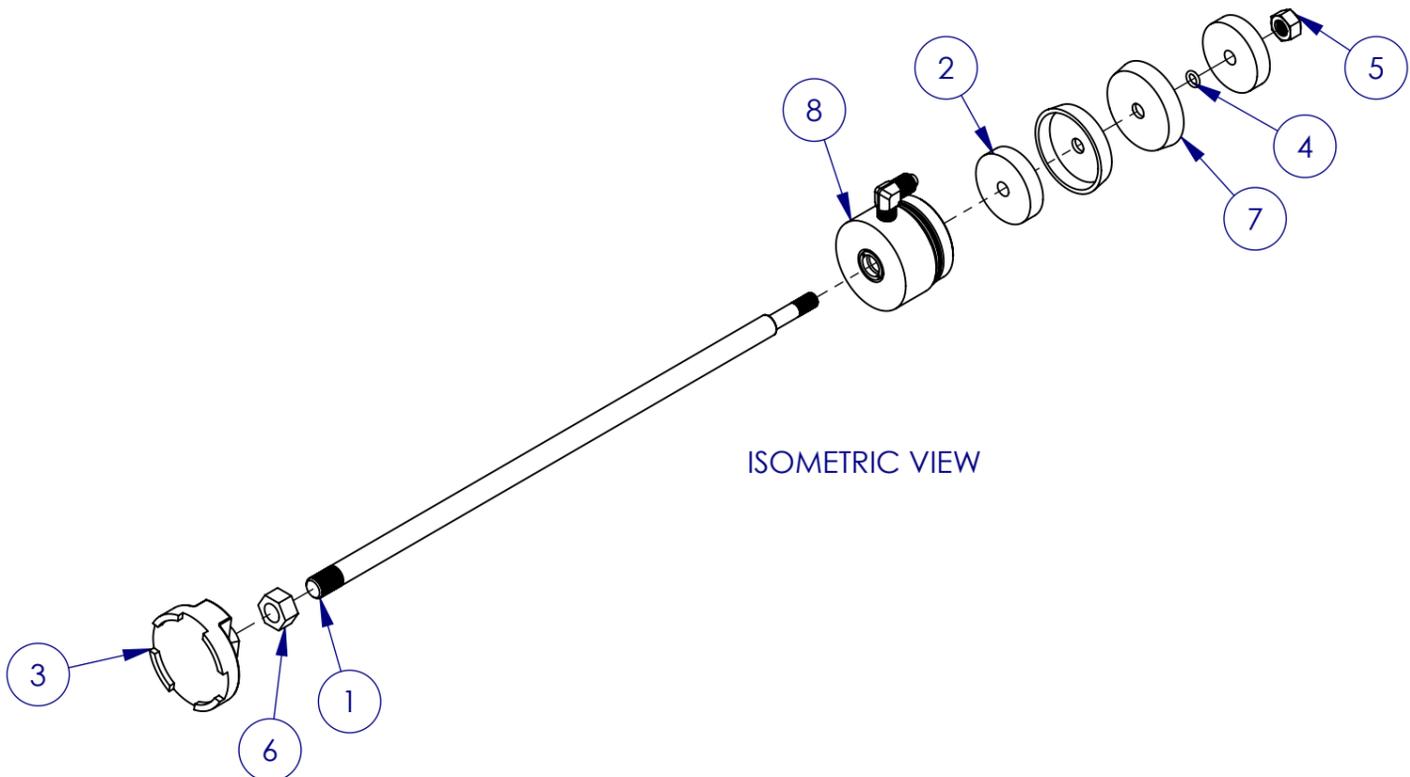
REV.	DESCRIPTION	DATE
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ITEM NO.	PART NO.	PART NAME	QTY
1	JA90-15	MAIN SHAFT	1
2	JA90-17	PLUNGER CUP SPACER	2
3	JA90-18	FOOT, STANDARD	1
4	JA90-42	ORING, .50 OD X .312 ID BUNA	1
5	JA90-45	NUT, 7/16-20 UNC LOCK NUT	1
6	JA90-47	NUT, 5/8-18 UNF-2B	1
7	JA90-50	PLUNGER CUP	2
8	JA90-61	BOTTOM HEAD SUBASSY.	1



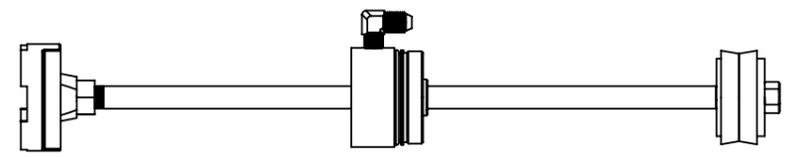
TOP VIEW



ISOMETRIC VIEW



FRONT VIEW



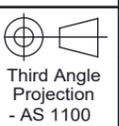
SIDE VIEW



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 Angular: ± 1 deg.



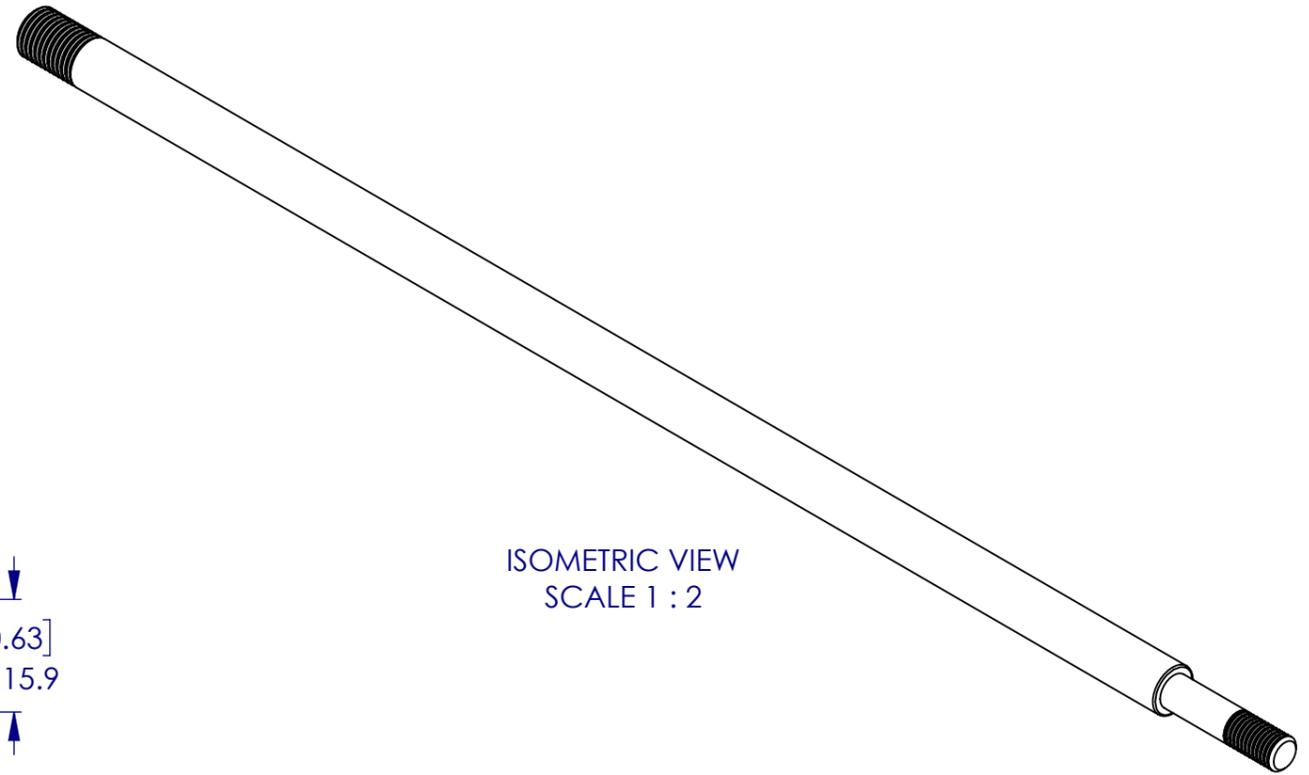
DATE: 19-May-21  
 SCALE: 1:5 A3  
 All Dimensions are in Millimetres  
 Break All Sharp Corners and Remove Burrs & Swarf  
 [0.78]  
 25  
 Denotes Critical Dimension

PROJECT: <PROJECT>		DWG NO. JA90-62		TITLE BOTTOM HEAD AND PISTON SUBASSY		MATERIAL SEE PARTS		REV: 000		FINISH SEE PARTS	
NOTES:											
SHEET 18 OF 47											

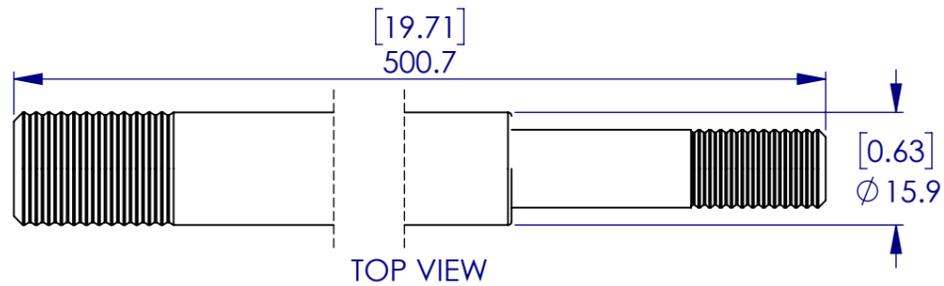
REVISIONS

REV.	DESCRIPTION	DATE
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ISOMETRIC VIEW  
SCALE 1 : 2



TOP VIEW

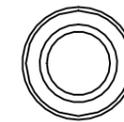
**MATCH**

5/18-18 UNF-2A

7/16-20 UNF-2A



FRONT VIEW



SIDE VIEW



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500mm+: ± 1.0 mm  
Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-15

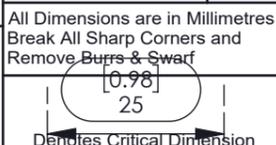
MAIN SHAFT

SS316L

DRN: XX

NONE

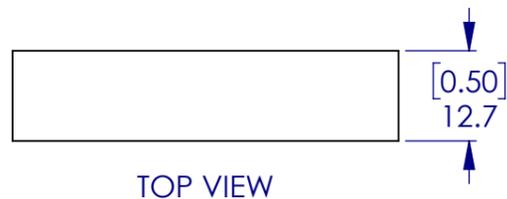
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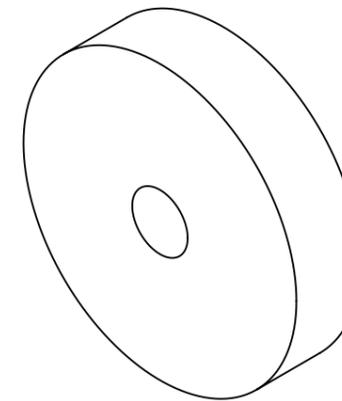
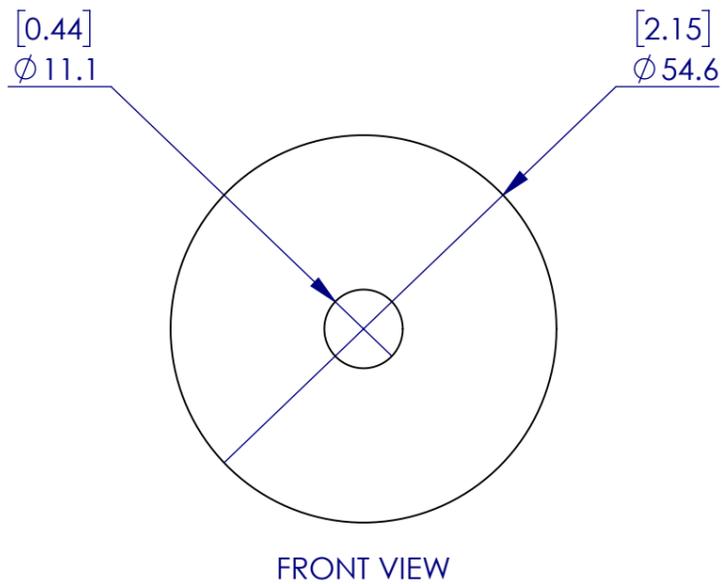
REVISIONS

REV.	DESCRIPTION	DATE
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**MATCH**



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GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-17

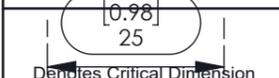
PLUNGER CUP SPACER

ALUMINIUM  
6061-T6

DRN: XX

DEBURR

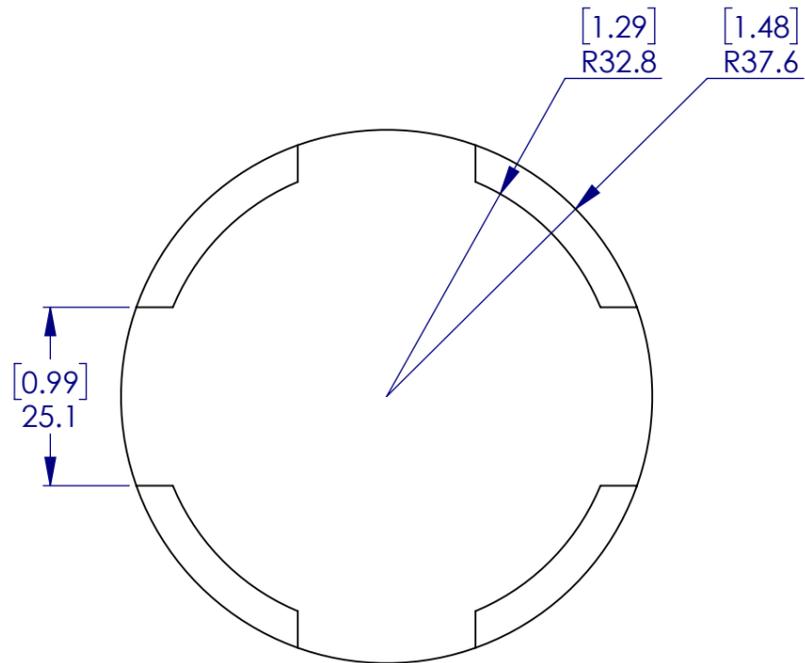
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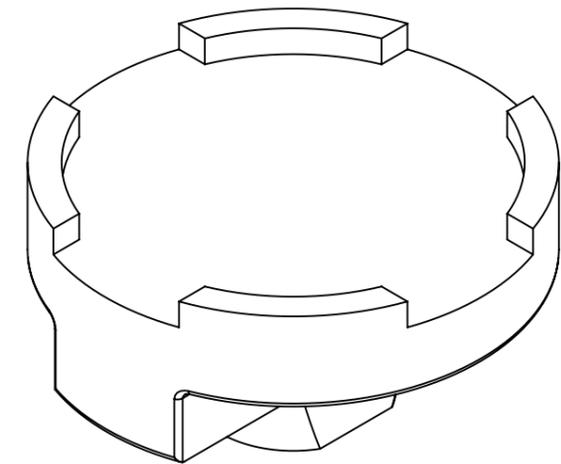
REVISIONS

PRINT MAY BE REDUCED - DO NOT SCALE.

REV.	DESCRIPTION	DATE
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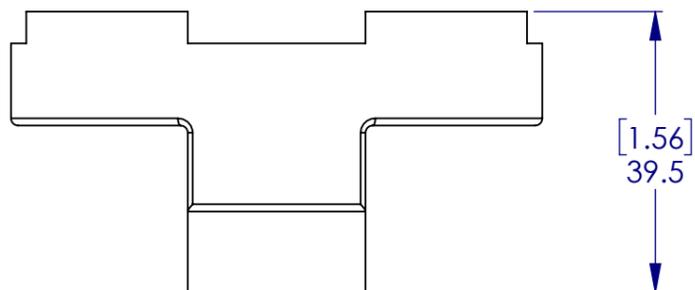


TOP VIEW

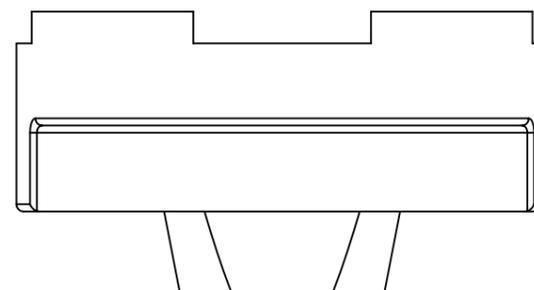


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



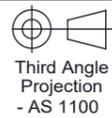
SIDE VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-18

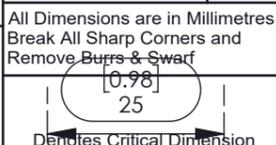
FOOT, STANDARD

INV. CAST SS304

DRN: XX

NONE

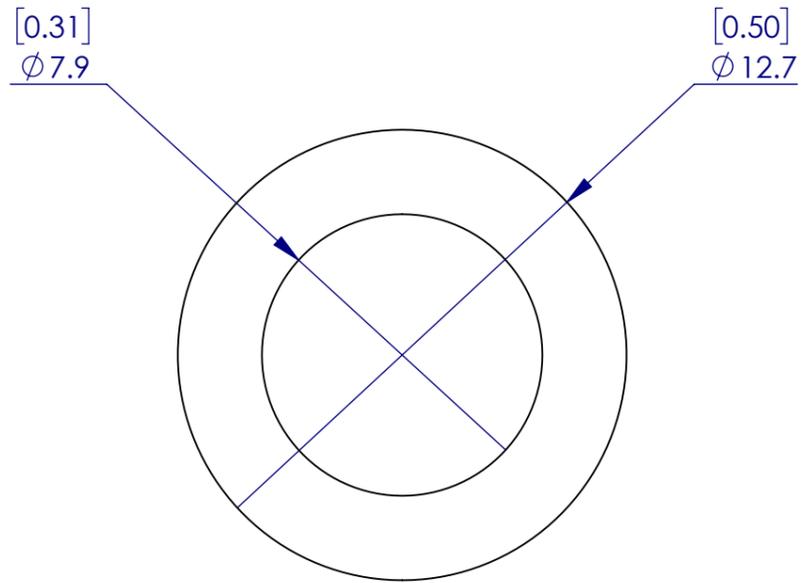
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REVISIONS

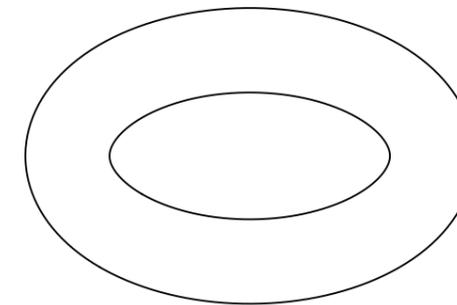
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REV.	DESCRIPTION	DATE
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TOP VIEW

**MATCH**



ISOMETRIC VIEW



FRONT VIEW



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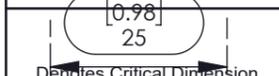
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 5:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-42

TITLE

ORING, .50 OD X .312 ID BUNA

MATERIAL

BUNA-70

REV: 000

DRN: XX

FINISH

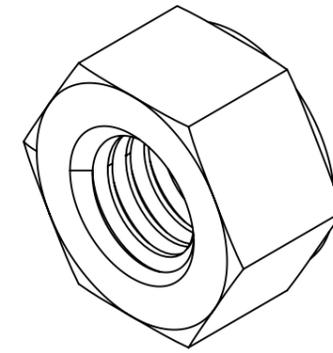
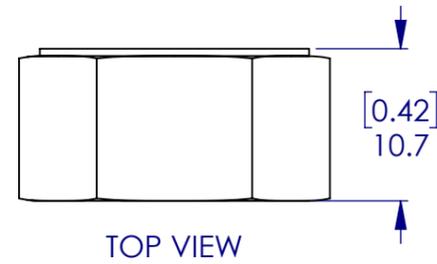
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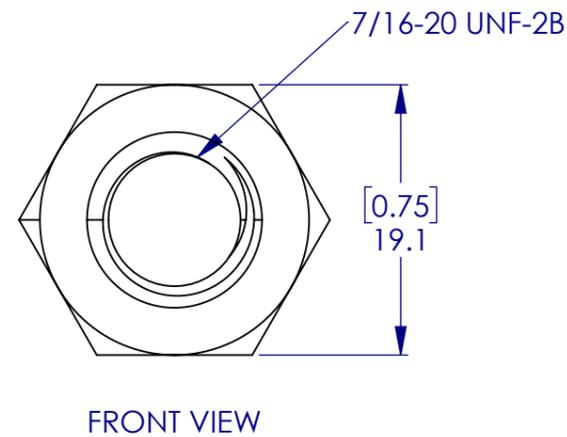
REVISIONS

REV.	DESCRIPTION	DATE
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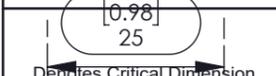
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-45

TITLE

NUT, 7/16-20 UNC LOCK NUT

MATERIAL

STEEL

REV: 000

DRN: XX

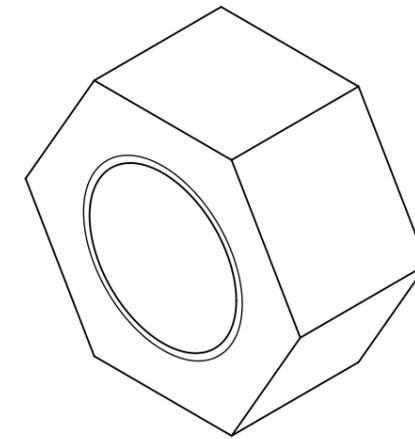
FINISH

NOTES:

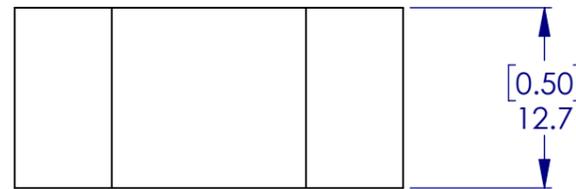
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

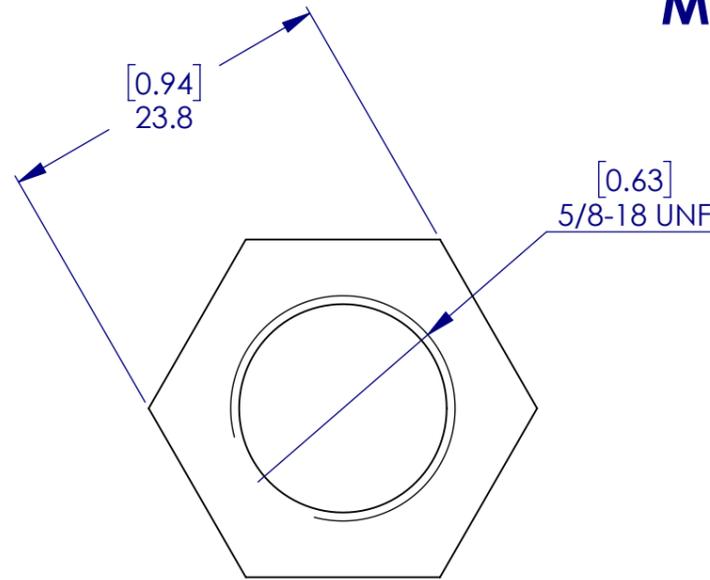


ISOMETRIC VIEW



TOP VIEW

**MATCH**



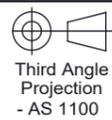
FRONT VIEW



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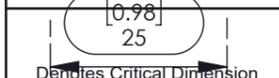
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-47

NOTES:

TITLE

NUT, 5/8-18 UNF-2B

MATERIAL

STEEL

REV: 000

DRN: XX

FINISH

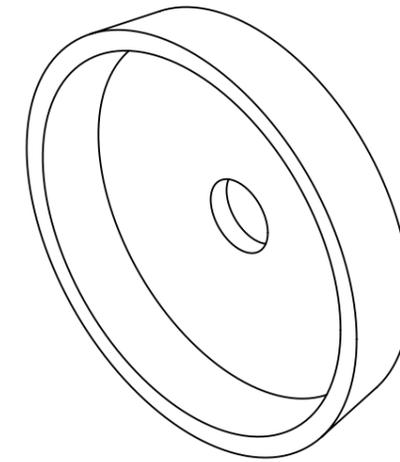
ZINC PLATED

SHEET 24 OF 47

REVISIONS

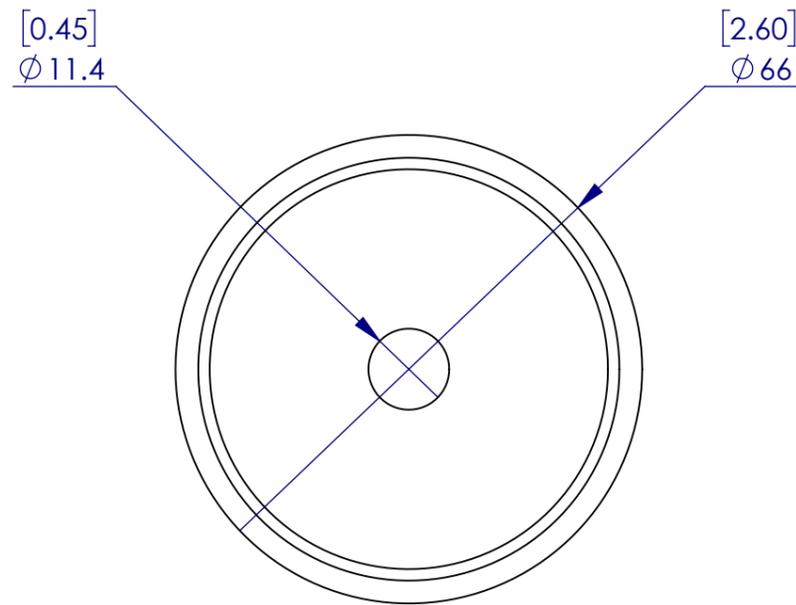
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

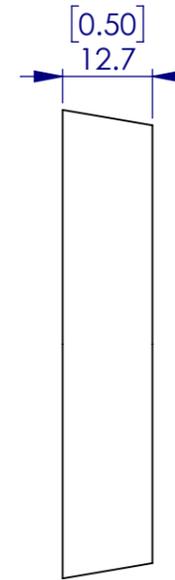


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



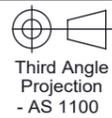
SIDE VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-50

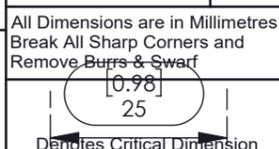
PLUNGER CUP

PVC 0.007  
 Plasticized

DRN: XX

<FINISH>

NOTES:

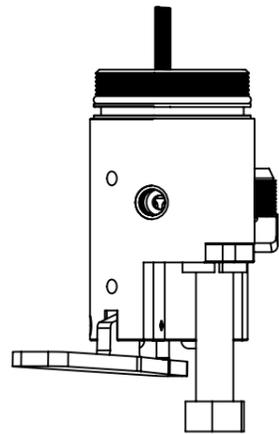


REVISIONS

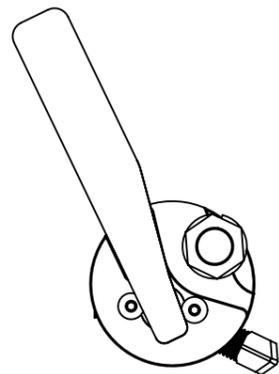
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

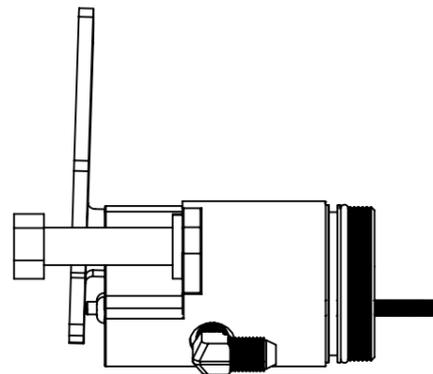
ITEM NO.	PART NO.	PART NAME	QTY
1	JA90-1	MAIN HEAD, STANDARD	1
2	JA90-25	HANDLE, FLAT	1
3	JA90-31	STUD, 5/8-18 X 3.75 LONG	1
4	JA90-43	SHOULDER BOLT, 3/16 DIA X 3/4 LONG	1
5	JA90-44	1/4-28 UNF-2A X 3/8" LONG BUTTON HEAD SCREW	2
6	JA90-46	5/16-18 UNF-2B X 5/16" LONG SET SCREW	1
7	JA90-47	NUT, 5/8-18 UNF-2B	1
8	JA90-48	WASHER, LOCK, SPLIT 5/8 ID X 1.06 O.D. X .16 THICK	1
9	JA90-49	O-RING, BUNA-70 2.50 OD X 2.25 ID	1
10	JA90-55	SMALL FITTING #6JIC X 1/4 NPT, 90 DEG	1
11	JA90-60	AIR VALVE SUBASSY.	1



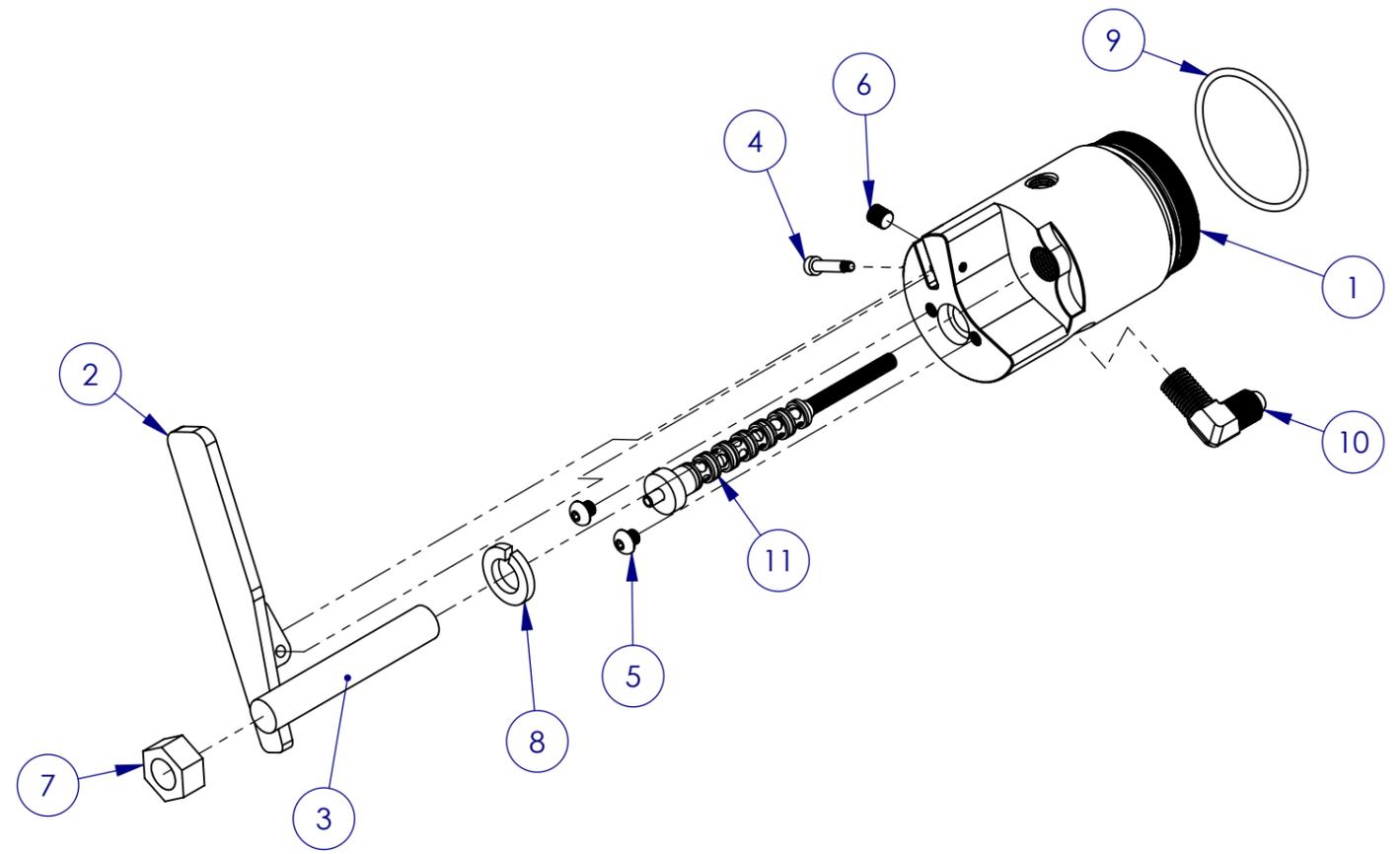
TOP VIEW



FRONT VIEW



SIDE VIEW



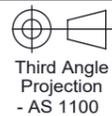
ISOMETRIC VIEW



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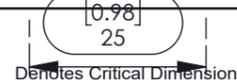
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:3 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-63

TITLE

MAIN HEAD SUBAASSY

MATERIAL

SEE PARTS

REV: 000

DRN: XX

FINISH

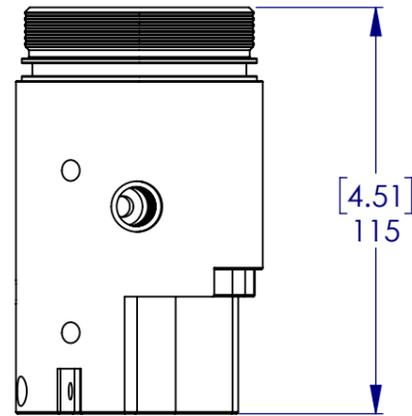
SEE PARTS

NOTES:

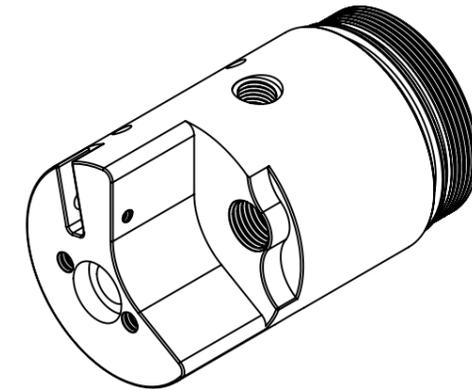
REVISIONS

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REV.	DESCRIPTION	DATE
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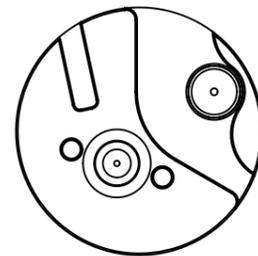


TOP VIEW

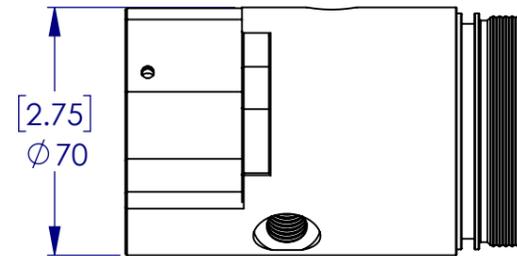


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



SIDE VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.

Third Angle Projection - AS 1100

DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:2 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-1

MAIN HEAD, STANDARD

ALUMINIUM,  
6061-T651

DRN: XX

<FINISH>

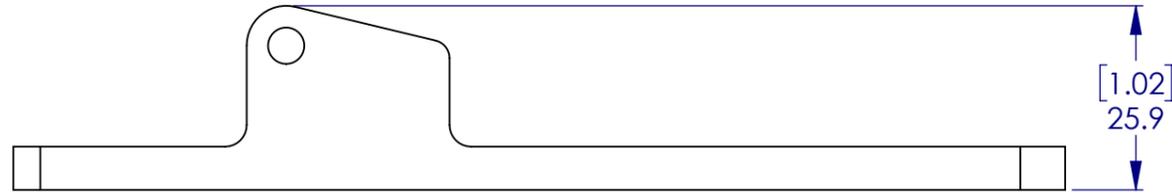
NOTES:

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf  
 [0.08]  
 25  
 Denotes Critical Dimension

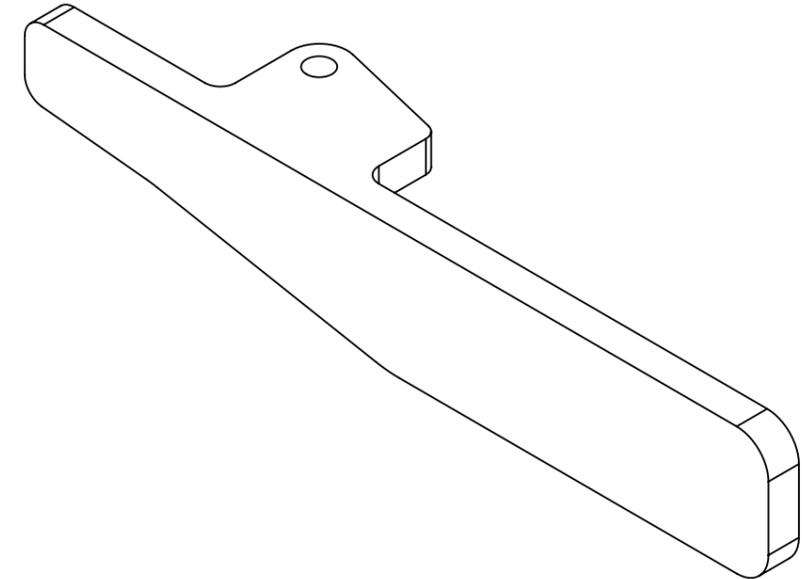
REVISIONS

REV.	DESCRIPTION	DATE
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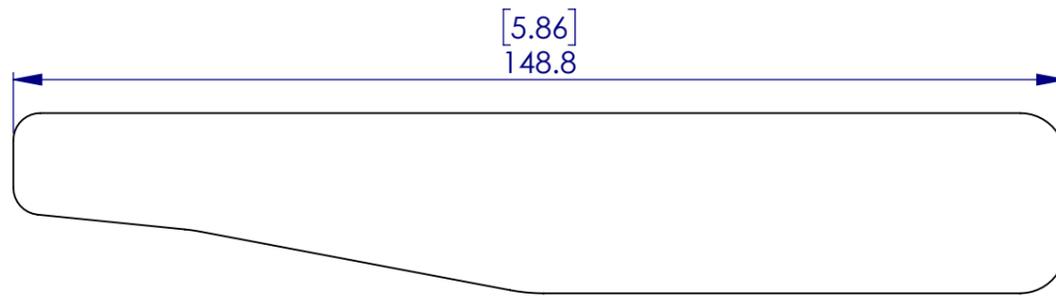


TOP VIEW

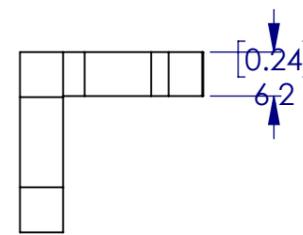


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



SIDE VIEW



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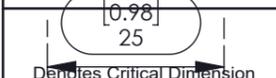
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-25

NOTES:

TITLE

HANDLE, FLAT

MATERIAL

INV. CAST SS304

REV: 000

DRN: XX

FINISH

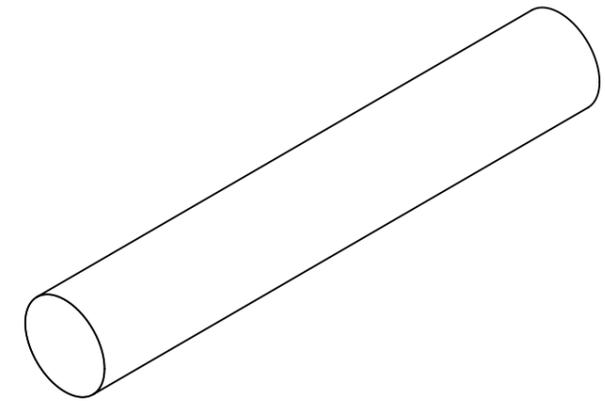
RUBBER LINING

SHEET 28 OF 47

REVISIONS

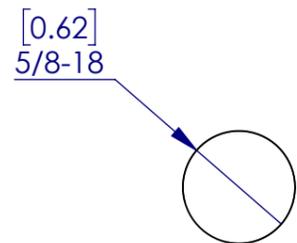
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

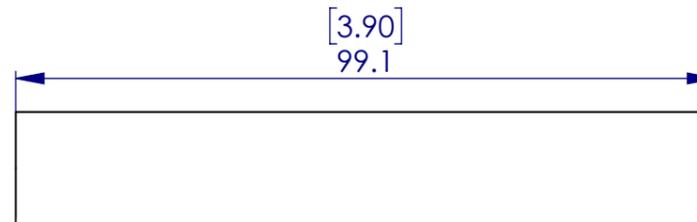


ISOMETRIC VIEW

**LENGTH SLIGHTLY LONGER BUT NOT CRITICAL**



FRONT VIEW



SIDE VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-31

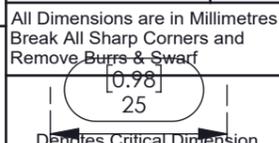
STUD, 5/8-18 X 3.75 LONG

STEEL

DRN: XX

ZINC PLATED

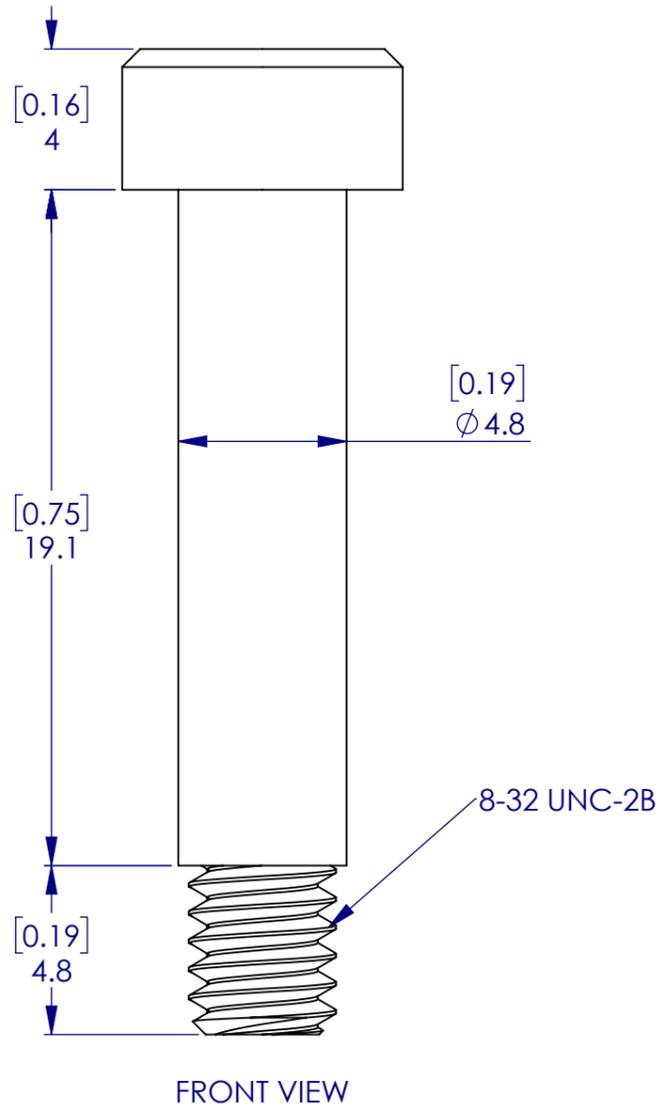
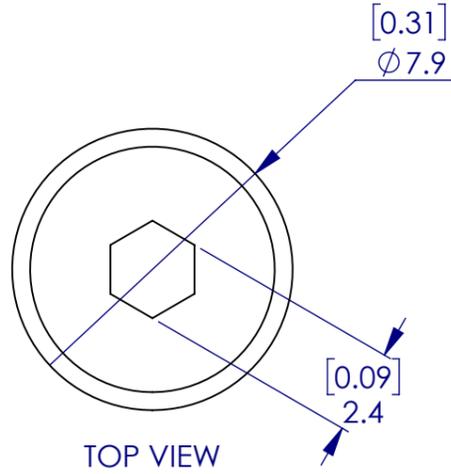
NOTES:



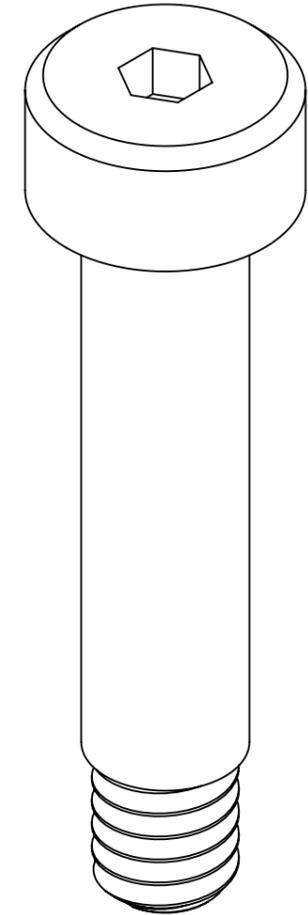
REVISIONS

REV.	DESCRIPTION	DATE

PRINT MAY BE REDUCED - DO NOT SCALE.



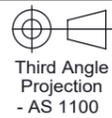
**MATCH**



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 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 5:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-43

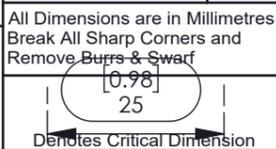
SHOULDER BOLT, 3/16 DIA X 3/4 LONG

SS316

DRN: XX

<FINISH>

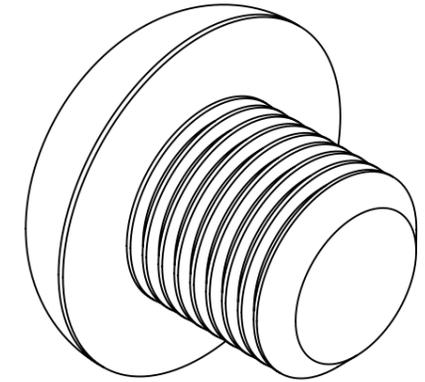
NOTES:



REVISIONS

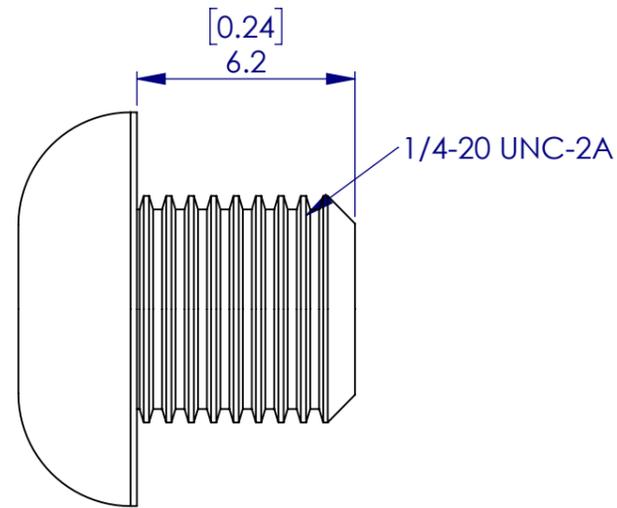
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

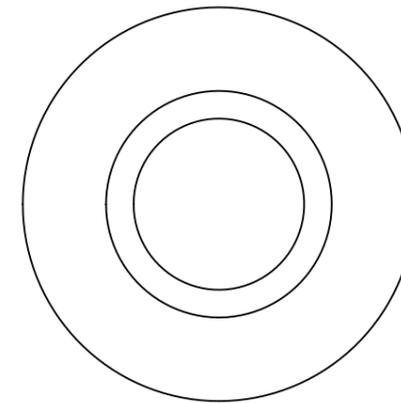


ISOMETRIC VIEW

# THREAD SHORTER



FRONT VIEW



SIDE VIEW



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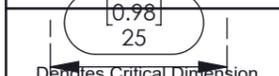
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 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



**DATE:** 19-May-21

**SCALE:** 5:1 **A3**

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



**PROJECT:** <PROJECT>

**DWG NO.**

JA90-44

**TITLE**

1/4-28 UNF-2A X 3/8" LONG BUTTON  
HEAD SCREW

**MATERIAL**

18.8 SS

**REV:** 000

**DRN:** XX

**FINISH**

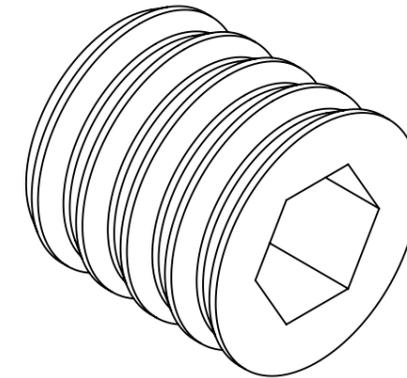
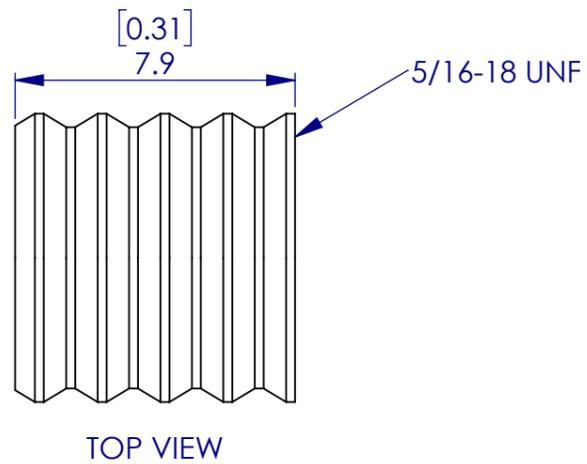
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**NOTES:**

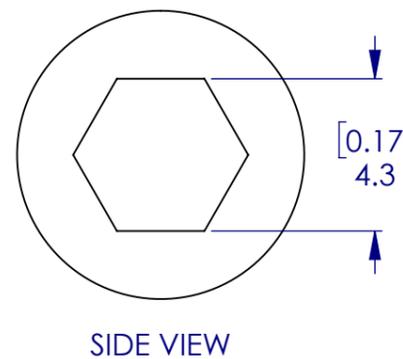
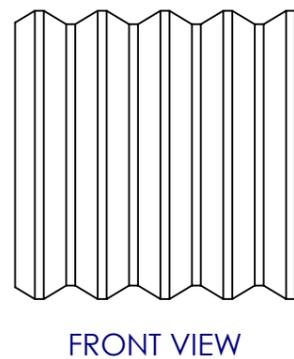
REVISIONS

REV.	DESCRIPTION	DATE
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100mm - 500mm: ± 0.5 mm  
500mm +: ± 1.0 mm  
Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 5:1 A3

DWG NO.

TITLE

MATERIAL  
STEEL, ALLOY  
OPTIONAL

REV: 000

FINISH

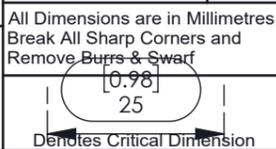
JA90-46

5/16-18 UNF-2B X 5/16" LONG SET SCREW

DRN: XX

<FINISH>

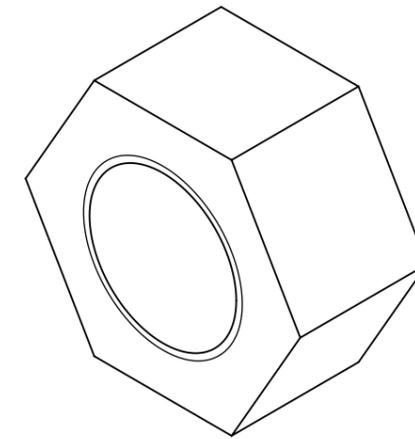
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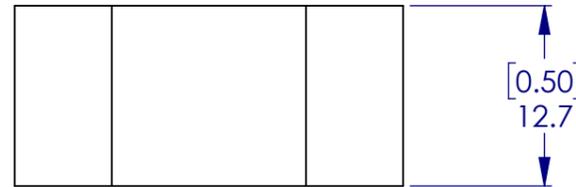
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

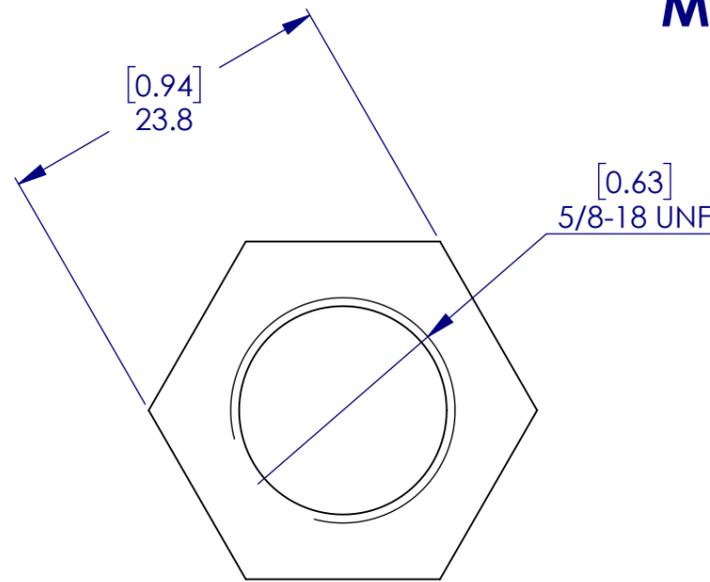


ISOMETRIC VIEW



TOP VIEW

**MATCH**



FRONT VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-47

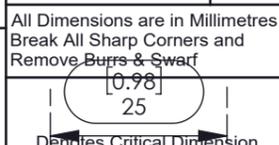
NUT, 5/8-18 UNF-2B

STEEL

DRN: XX

ZINC PLATED

NOTES:

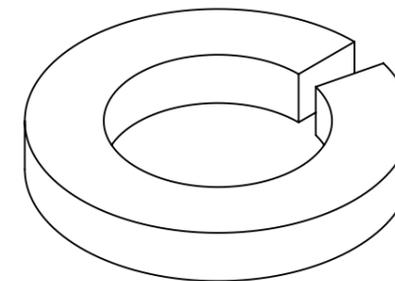
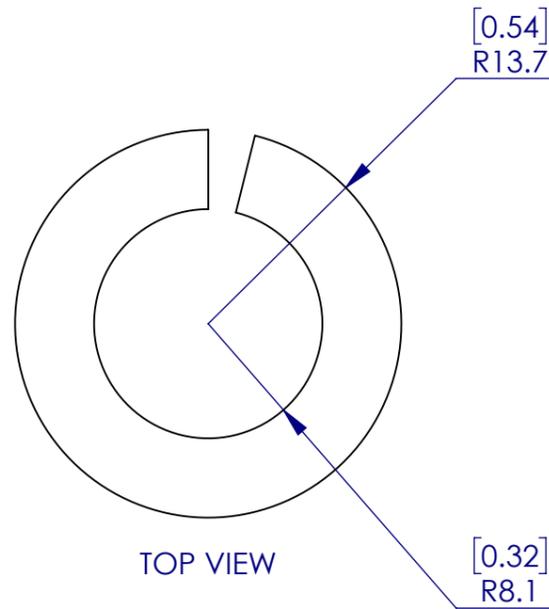


SHEET 33 OF 47

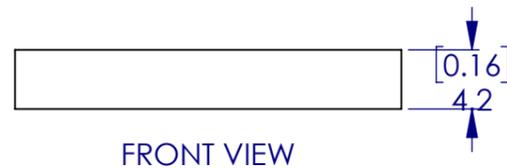
REVISIONS

REV.	DESCRIPTION	DATE
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 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL  
 STEEL, ALLOY  
 OPTIONAL

REV: 000

FINISH

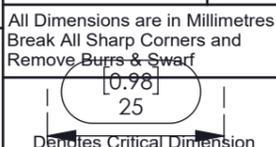
JA90-48

WASHER, LOCK, SPLIT 5/8 ID X  
 1.06 O.D. X .16 THICK

DRN: XX

XINC PLATED

NOTES:

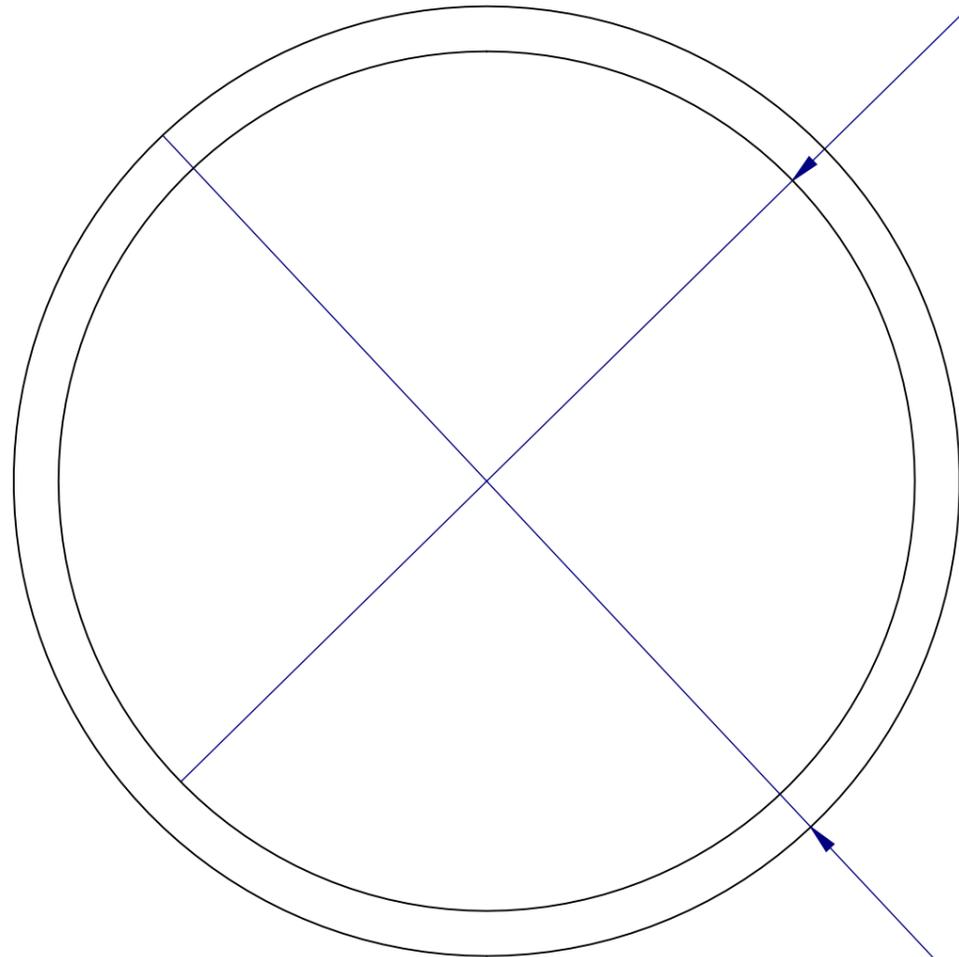


SHEET 34 OF 47

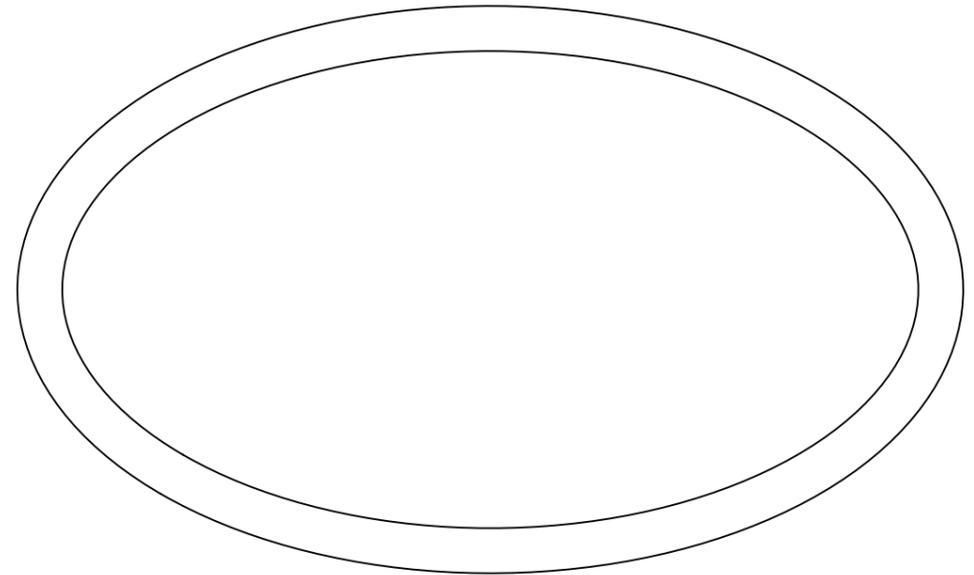
REVISIONS

REV.	DESCRIPTION	DATE

PRINT MAY BE REDUCED - DO NOT SCALE.

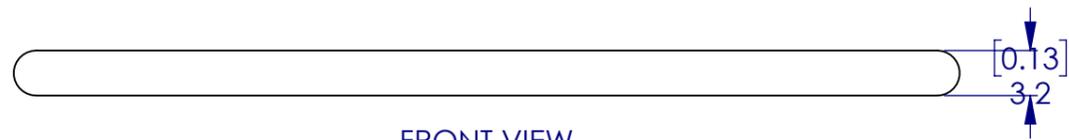


TOP VIEW



ISOMETRIC VIEW

**MATCH**



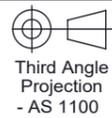
FRONT VIEW



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GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-49

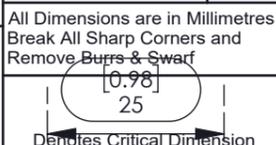
O-RING, BUNA-70 2.50 OD X 2.25 ID

BUNA-70

DRN: XX

<FINISH>

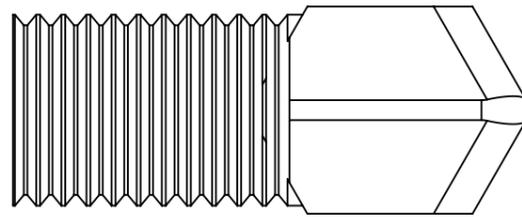
NOTES:



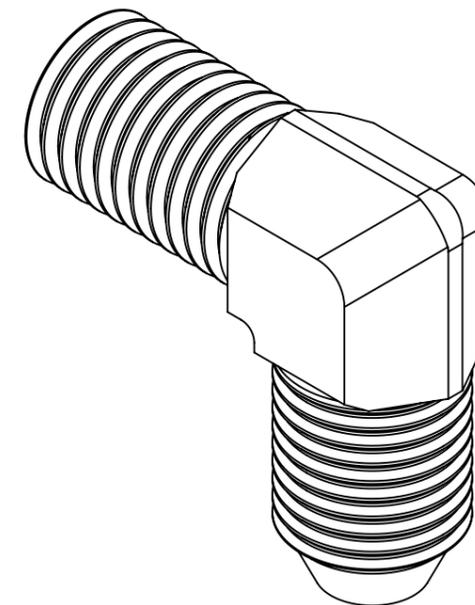
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

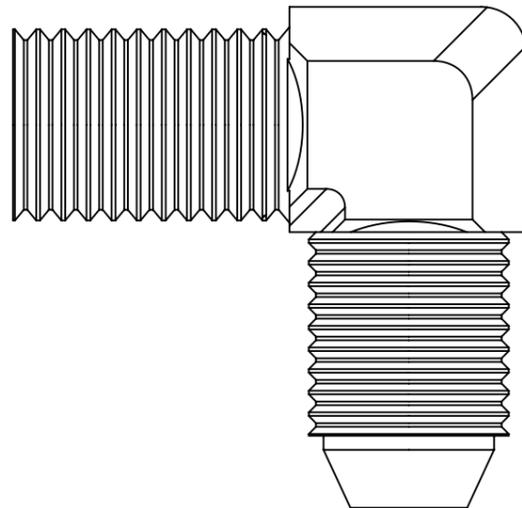


TOP VIEW



ISOMETRIC VIEW

**MATCH**



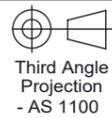
FRONT VIEW



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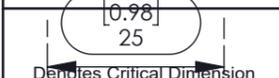
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-55

NOTES:

TITLE

SMALL FITTING #6JIC X 1/4 NPT, 90 DEG

MATERIAL

STEEL, ALLOY  
 OPTIONAL

REV: 000

DRN: XX

FINISH

ZINC PLATED

SHEET 36 OF 47

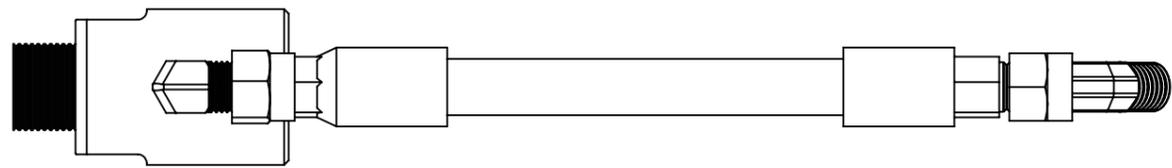
PRINTED: 19-May-21

REVISIONS

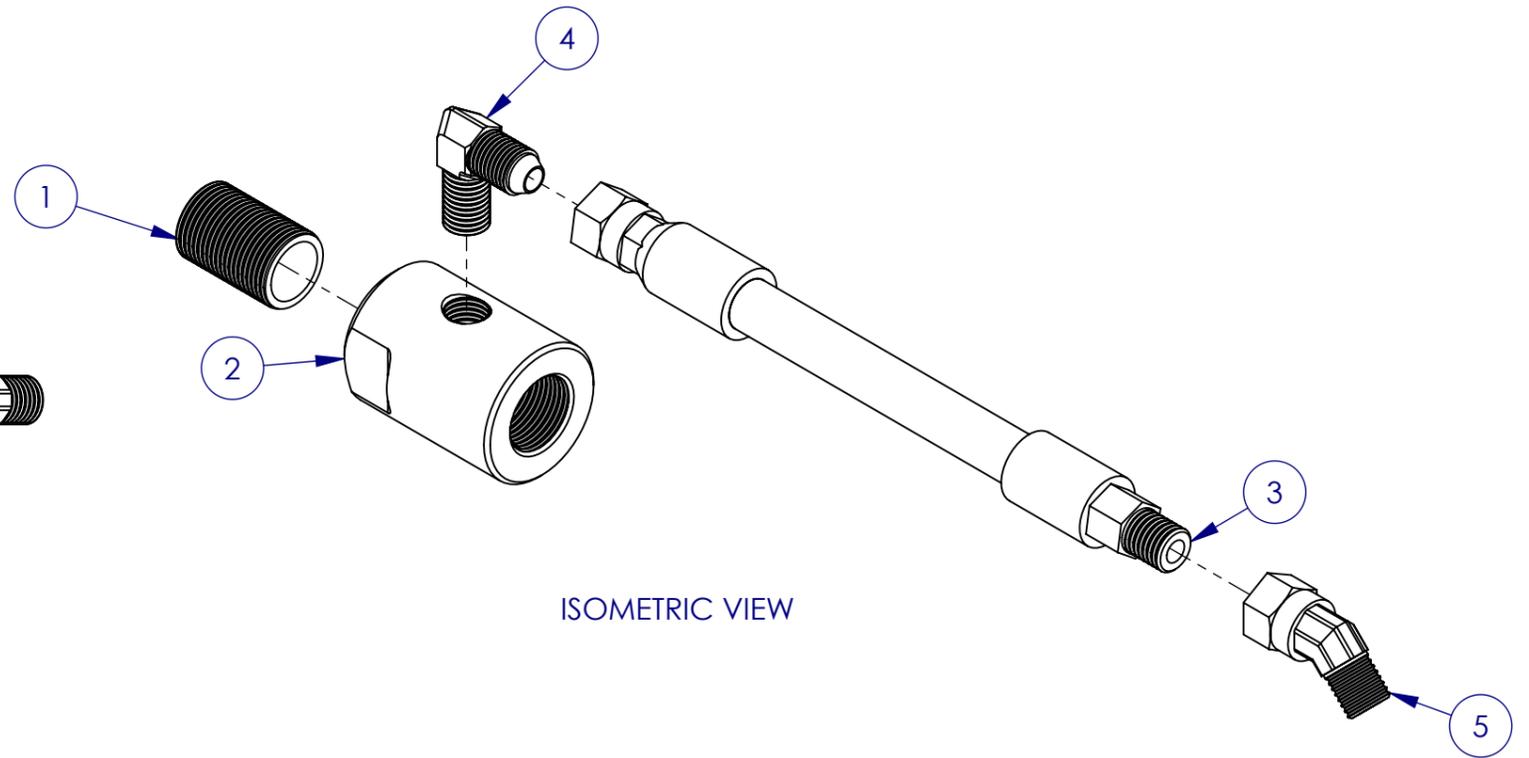
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

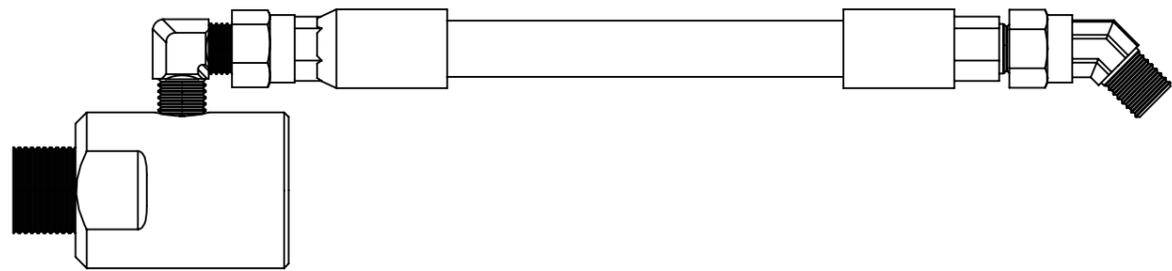
ITEM NO.	PART NO.	PART NAME	QTY
1	JA90-40	3/4 NPT CLOSE NIPPLE SCD. 40	1
2	JA90-5	AIR SUPPLY COUPLING	1
3	JA90-54A	SHORT HOSE	1
4	JA90-55	SMALL FITTING #6JIC X 1/4 NPT, 90 DEG	1
5	JA90-71	FITTING #6 X 1/4 NPT, 45 DEGREE	1



TOP VIEW



ISOMETRIC VIEW



FRONT VIEW



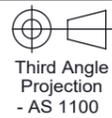
SIDE VIEW



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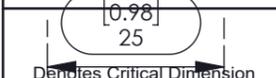
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:2 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-64

NOTES:

TITLE

COUPLING ASSEMBLY

MATERIAL

SEE PARTS

REV: 000

DRN: XX

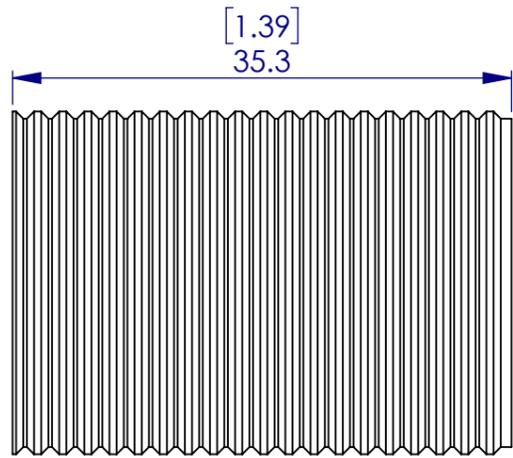
FINISH

SEE PARTS

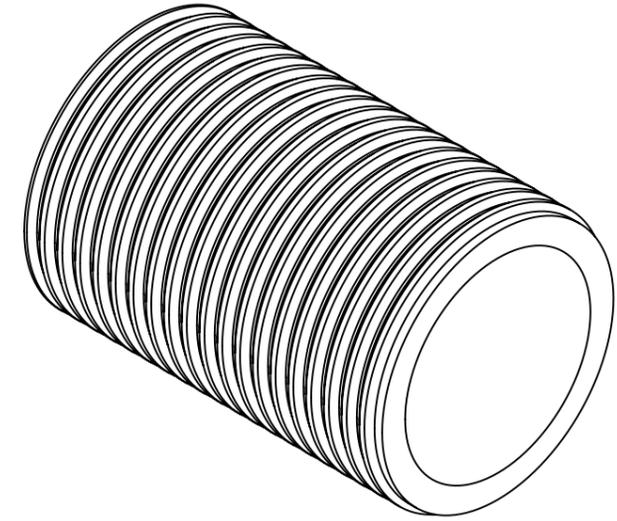
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

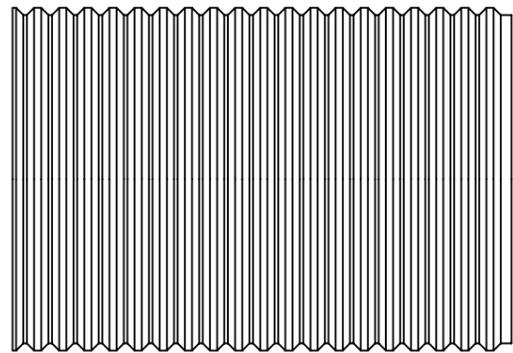


TOP VIEW

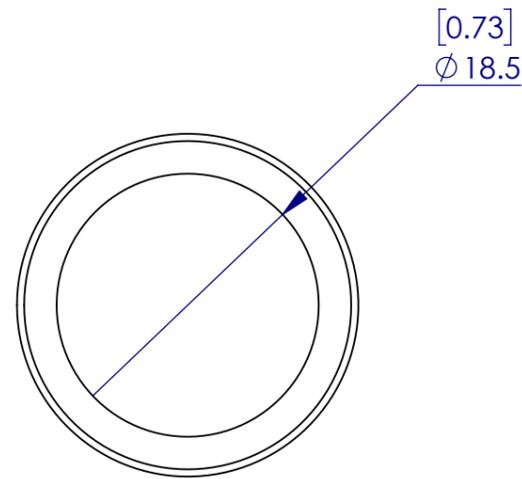


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



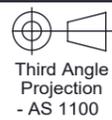
SIDE VIEW



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 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

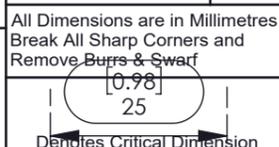
JA90-40

3/4 NPT CLOSE NIPPLE SCD. 40

STEEL, ALLOY  
 OPTIONAL

DRN: XX

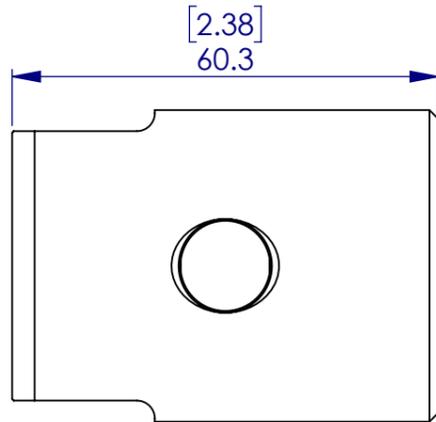
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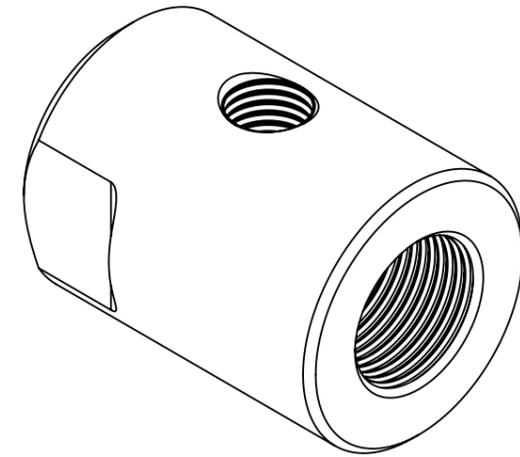
REVISIONS

REV.	DESCRIPTION	DATE
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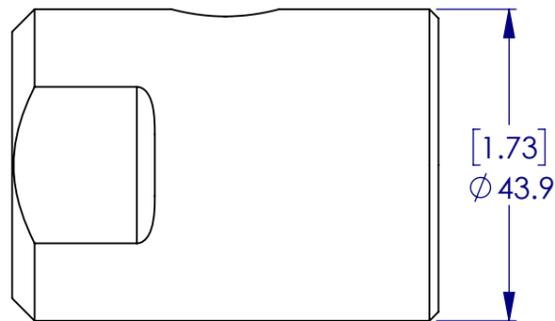


TOP VIEW

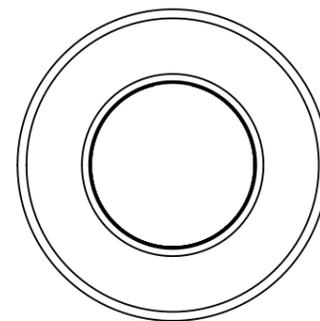


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



SIDE VIEW



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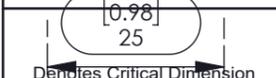
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-5

NOTES:

TITLE

AIR SUPPLY COUPLING

MATERIAL

ALUMINIUM  
 ALLOY, 6061-T651

REV: 000

DRN: XX

FINISH

CLASS 2, BLACK  
 ANNOIDIZED

SHEET 39 OF 47

REVISIONS

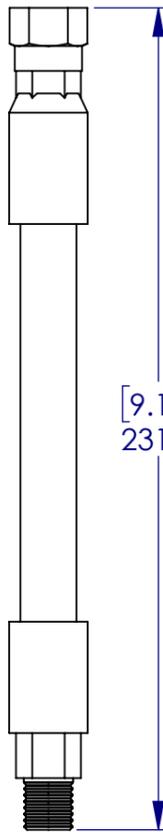
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.



TOP VIEW

**MATCH**



FRONT VIEW



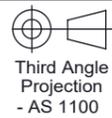
ISOMETRIC VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:2 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-54A

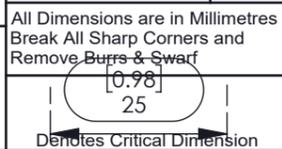
SHORT HOSE

SEE PARTS

DRN: XX

SEE PARTS

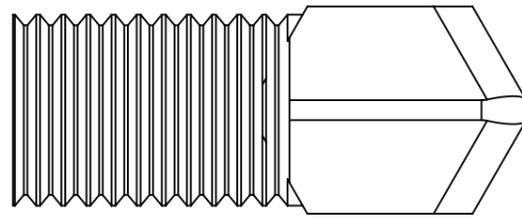
NOTES:



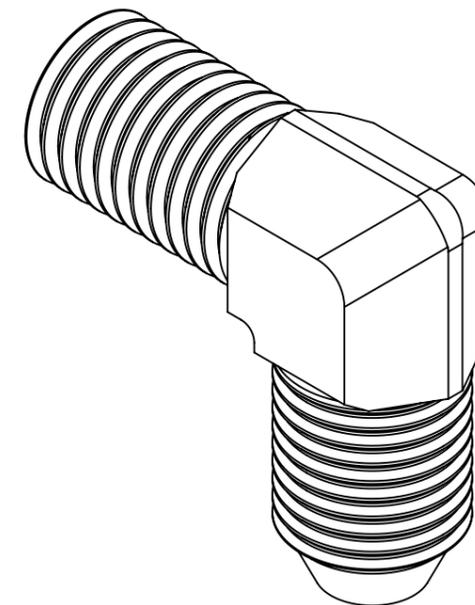
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

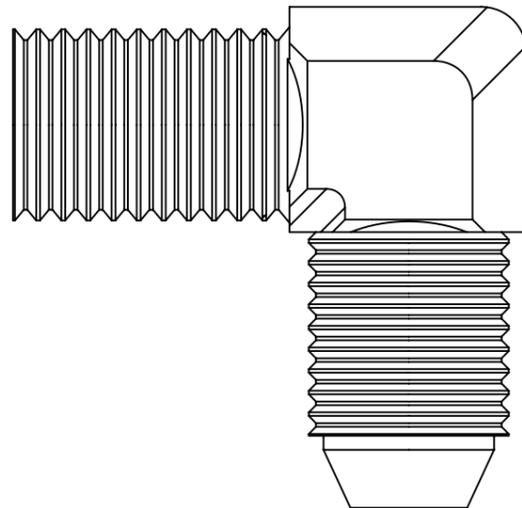


TOP VIEW



ISOMETRIC VIEW

**MATCH**



FRONT VIEW



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 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 2:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-55

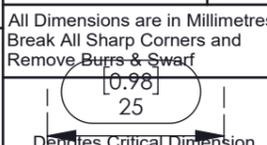
SMALL FITTING #6JIC X 1/4 NPT, 90 DEG

STEEL, ALLOY  
 OPTIONAL

DRN: XX

ZINC PLATED

NOTES:

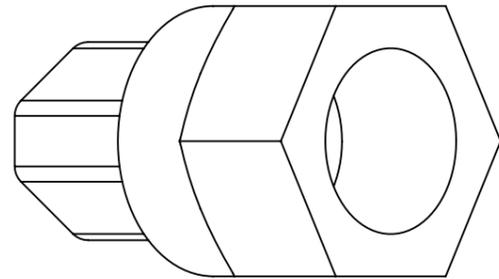


PRINTED: 19-May-21

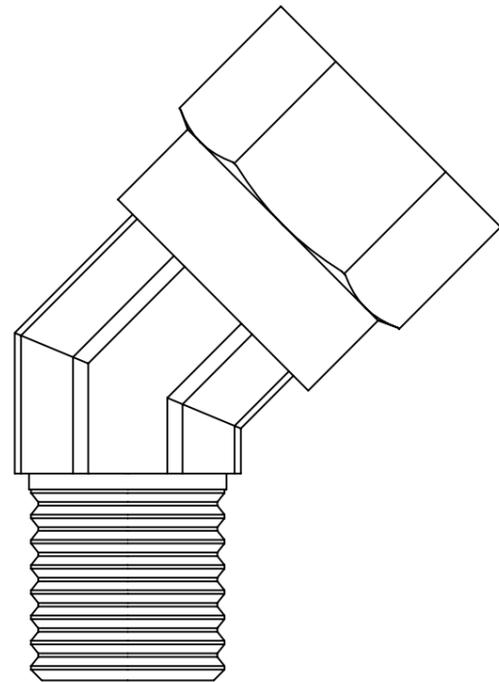
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

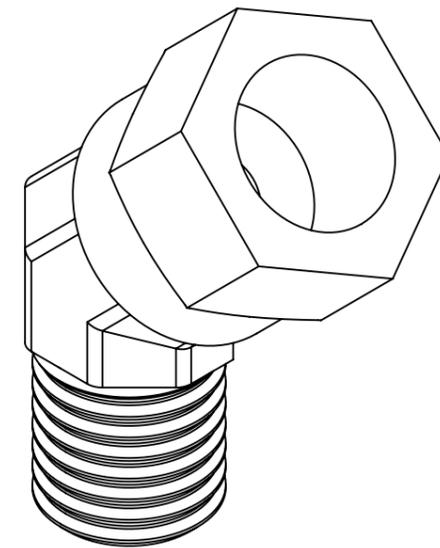


TOP VIEW



FRONT VIEW

**MATCH**



ISOMETRIC VIEW



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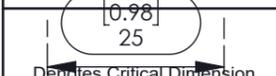
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 2:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-71

TITLE

FITTING #6 X 1/4 NPT, 45 DEGREE

MATERIAL  
 STEEL, ALLOY  
 OPTIONAL

REV: 000

DRN: XX

FINISH

NOTES:

REVISIONS

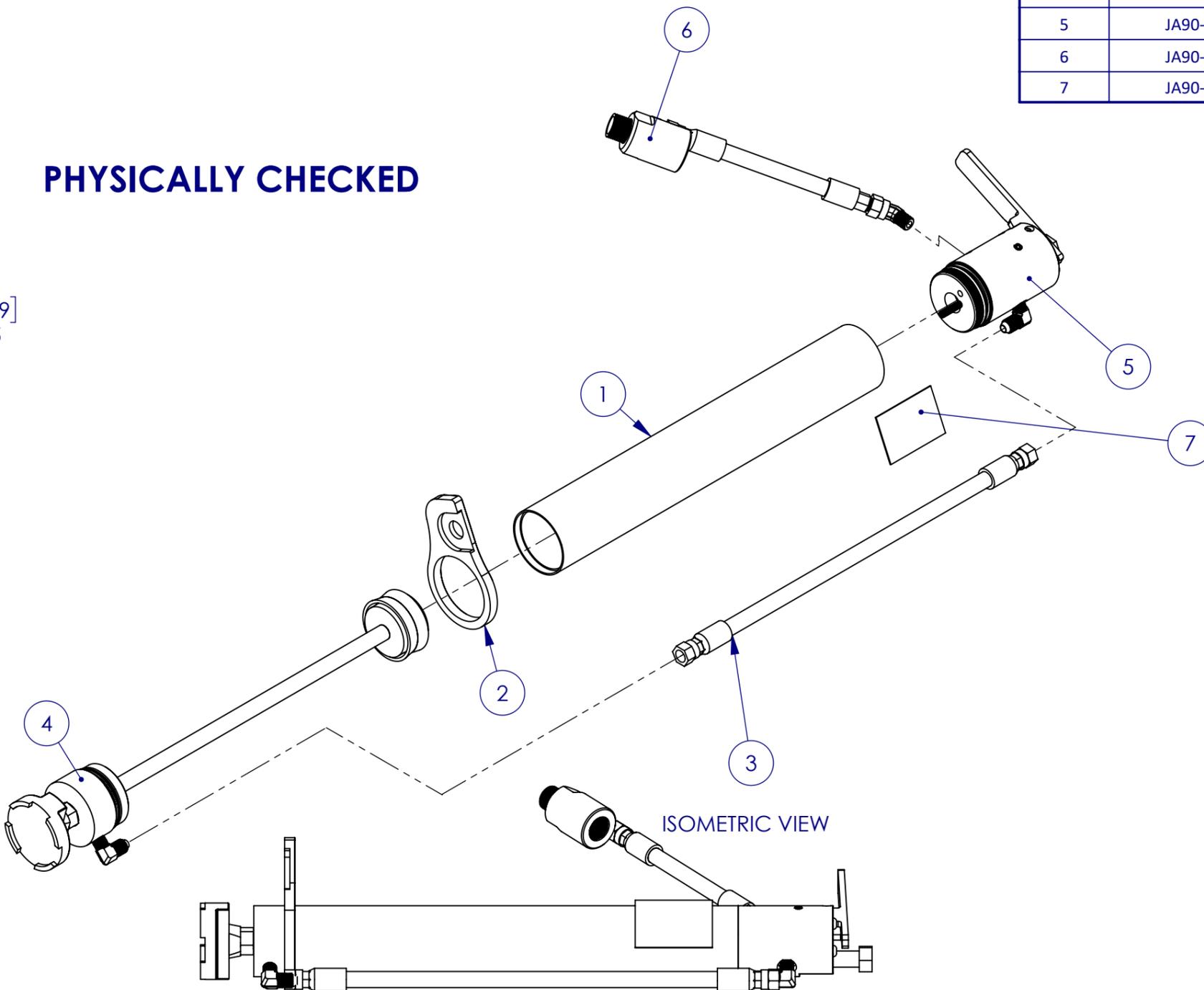
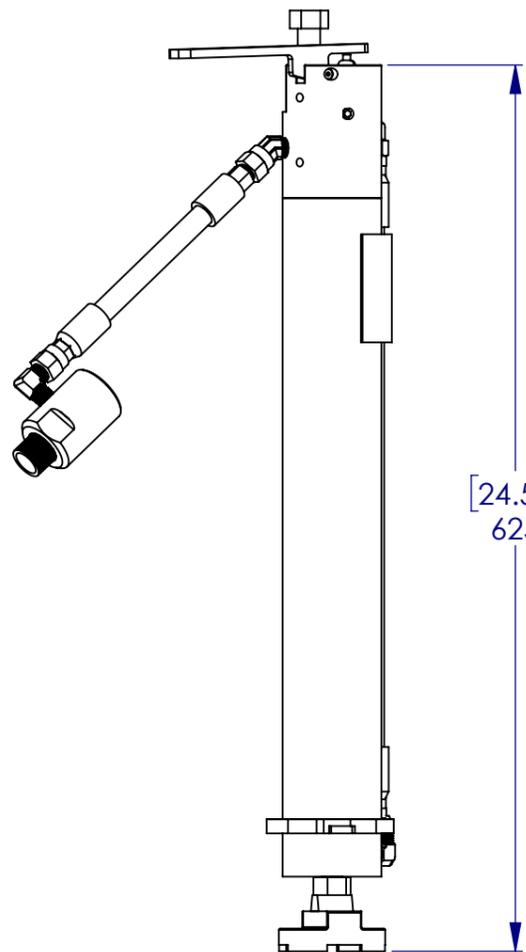
REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

ITEM NO.	PART NO.	PART NAME	QTY
1	JA90-3	TUBE, MAIN BODY	1
2	JA90-4	SPRING ARM BRACKET STANDARD	1
3	JA90-52	LONG HOSE, STANDARD	1
4	JA90-62	BOTTOM HEAD AND PISTON SUBASSY	1
5	JA90-63	MAIN HEAD SUBAASSY	1
6	JA90-64	COUPLING ASSEMBLY	1
7	JA90-74	STICKER	1

PHYSICALLY CHECKED

[24.59]  
625



ISOMETRIC VIEW

FRONT VIEW

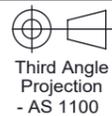
SIDE VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:5 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-65

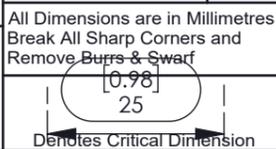
JACKHAMMER LIFT ASSIST COMPLETE ASSEMBLY

SEE PARTS

DRN: XX

SEE PARTS

NOTES:

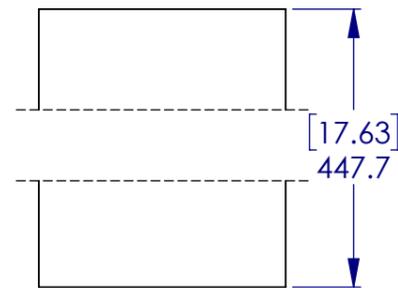


REVISIONS

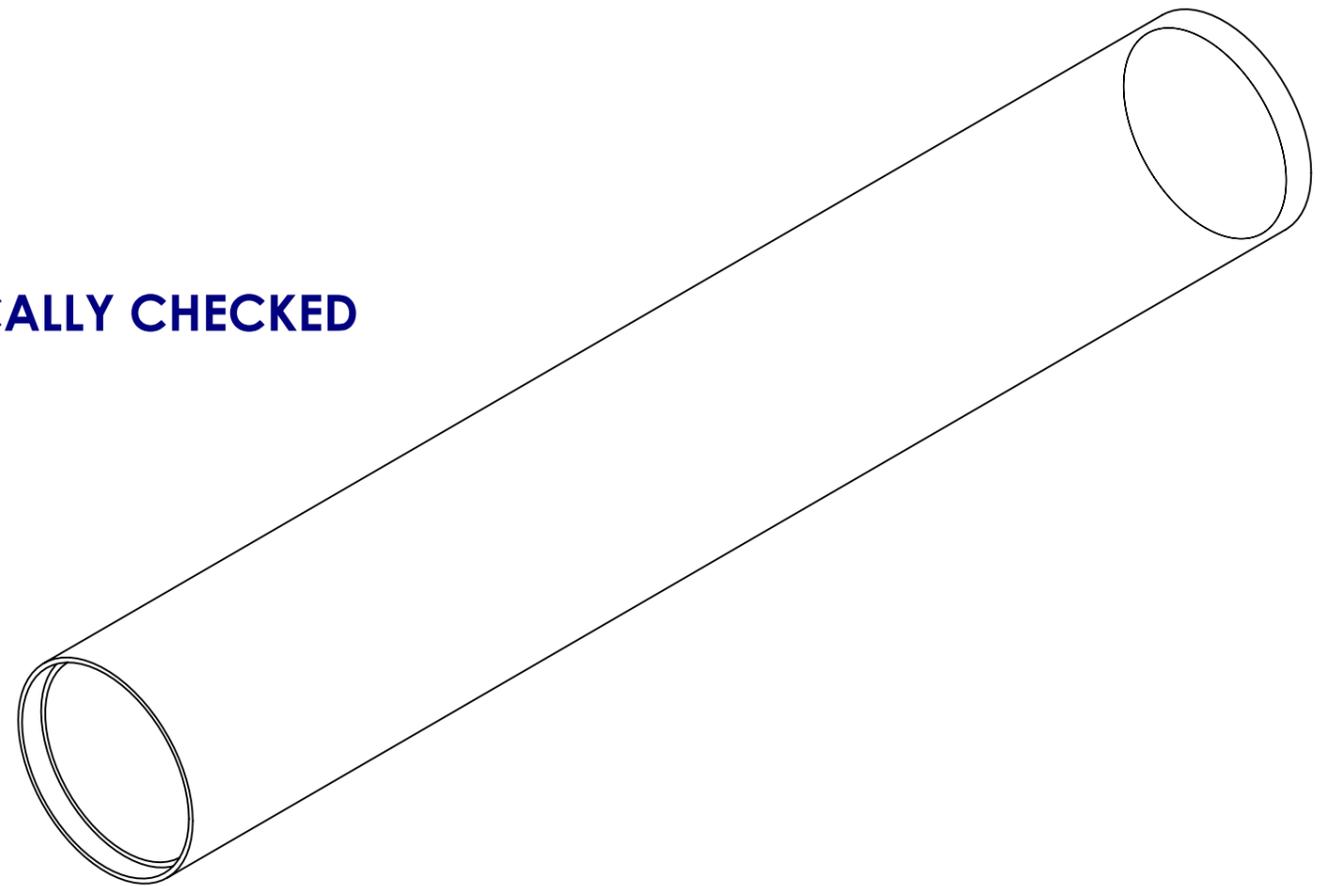
REV.	DESCRIPTION	DATE
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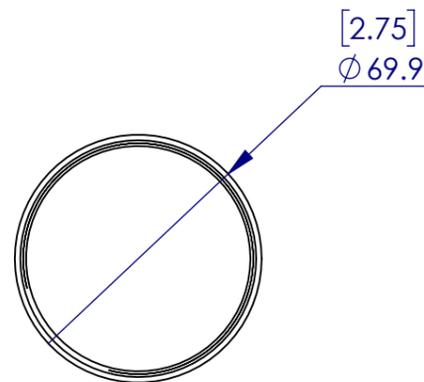
**PHYSICALLY CHECKED**



TOP VIEW



ISOMETRIC VIEW



FRONT VIEW

**MATCH**



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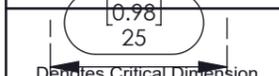
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

SCALE: 1:2 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT: <PROJECT>

DWG NO.

JA90-3

TITLE

TUBE, MAIN BODY

MATERIAL

ALUMINIUM TUBE,  
 2.75 OD X .188 WALL

REV: 000

DRN: XX

FINISH

CLASS 2 BLACK  
 ANNOIDIZE

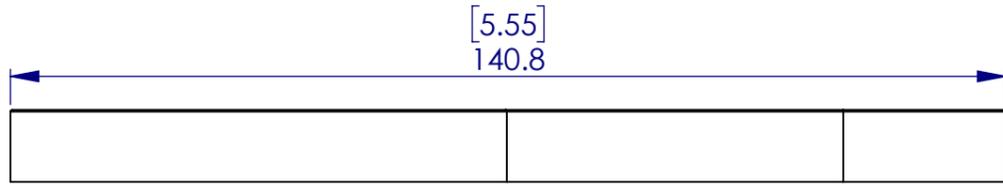
NOTES:

SHEET 44 OF 47

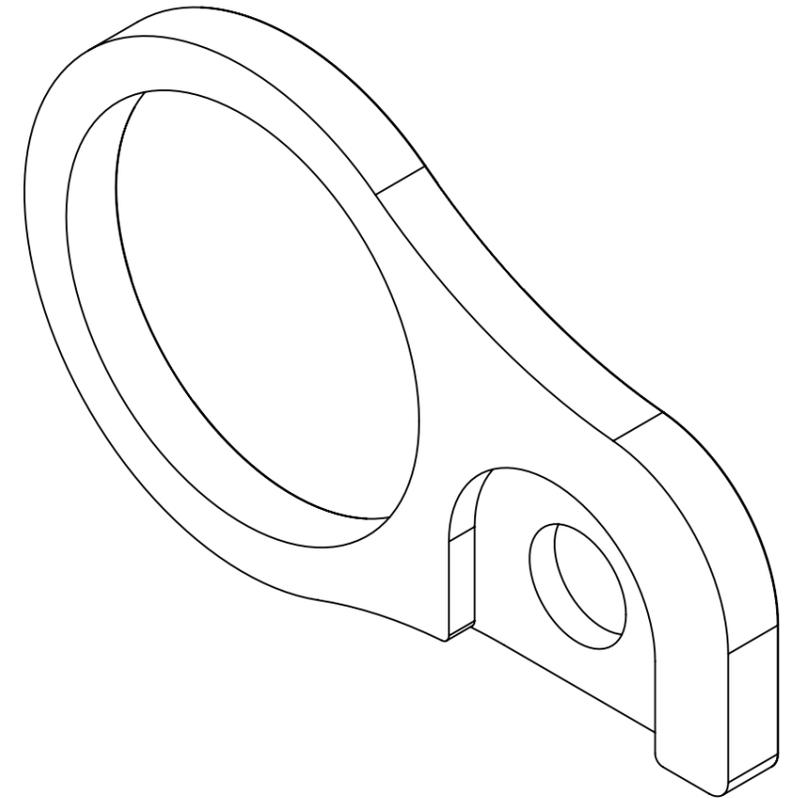
REVISIONS

REV.	DESCRIPTION	DATE
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PRINT MAY BE REDUCED - DO NOT SCALE.

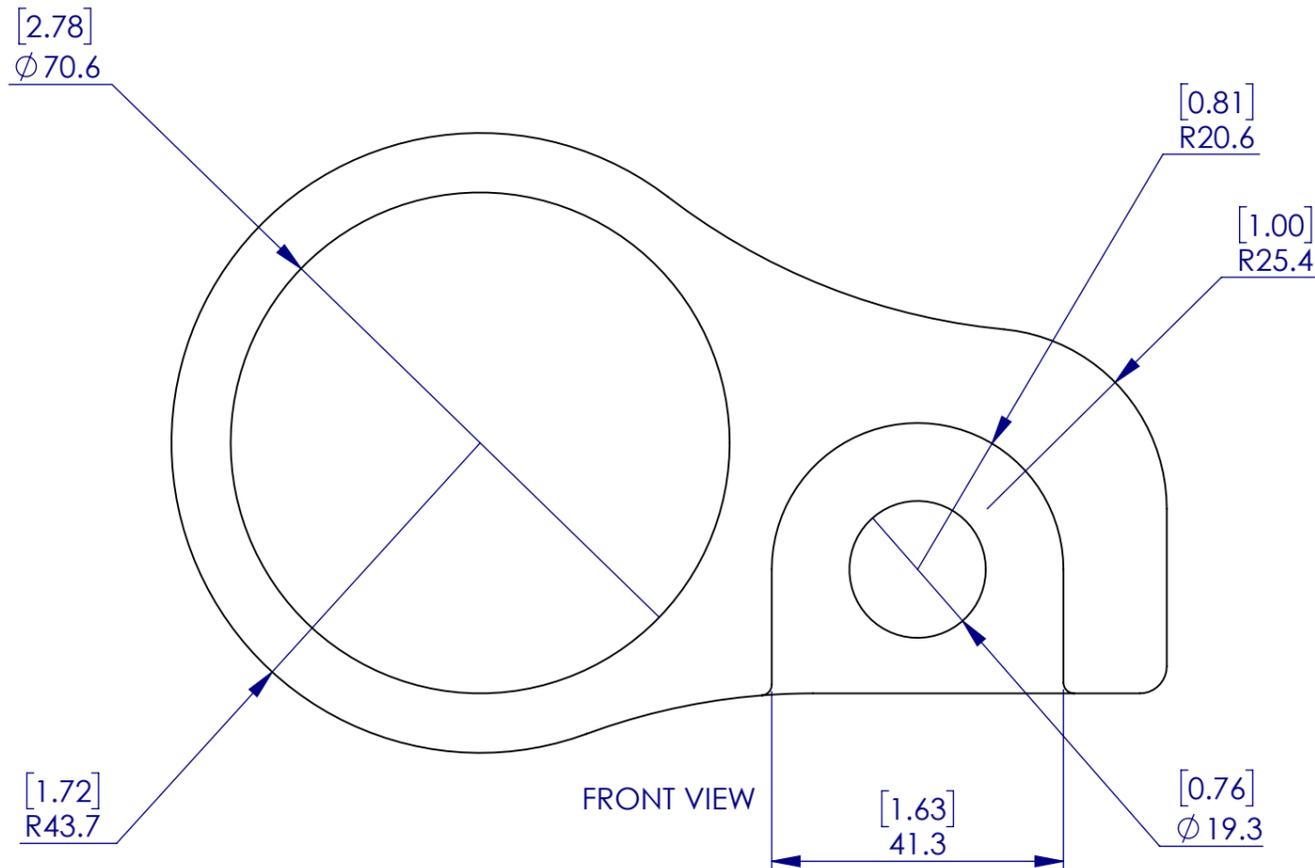


TOP VIEW

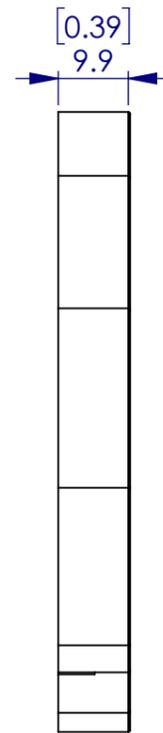


ISOMETRIC VIEW

**MATCH**



FRONT VIEW



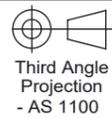
SIDE VIEW



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 0-100mm: ± 0.25 mm  
 100mm - 500mm: ± 0.5 mm  
 500mm+: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:1 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-4

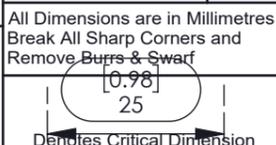
SPRING ARM BRACKET STANDARD

ALUMINIUM ALLOY, 6061-T651

DRN: XX

CLASS 2 BLACK ANNOIDIZE

NOTES:

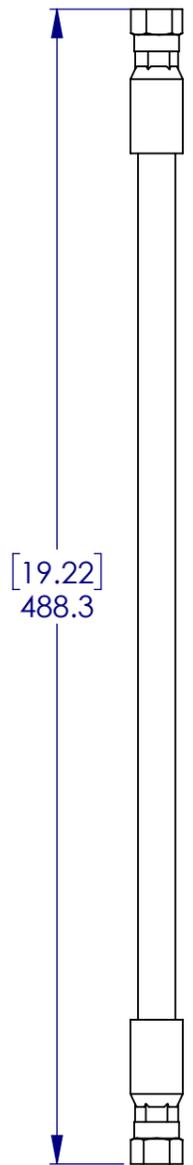


SHEET 45 OF 47

REVISIONS

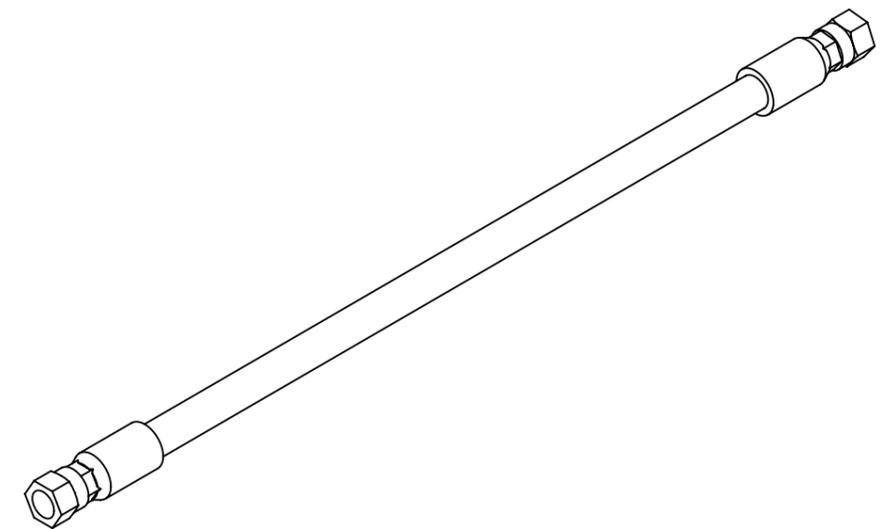
REV.	DESCRIPTION	DATE
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TOP VIEW

**MATCH**



ISOMETRIC VIEW



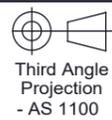
FRONT VIEW



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 100mm - 500mm: ± 0.5 mm  
 500mm +: ± 1.0 mm  
 Angular: ± 1 deg.



DATE: 19-May-21

PROJECT: <PROJECT>

SCALE: 1:3 A3

DWG NO.

TITLE

MATERIAL

REV: 000

FINISH

JA90-52

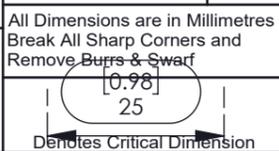
LONG HOSE, STANDARD

SEE PARTS

DRN: XX

SEE PARTS

NOTES:



REVISIONS

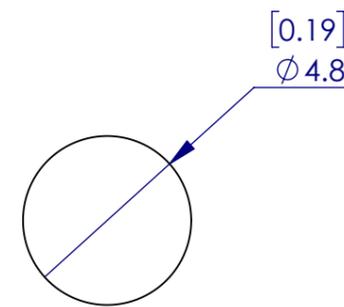
REV.	DESCRIPTION	DATE
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ISOMETRIC VIEW

**UNSURE IF NEEDED**



FRONT VIEW



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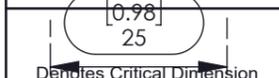
GENERAL TOLERANCES  
 (Unless otherwise noted)  
 0-100mm:  $\pm 0.25$  mm  
 100mm - 500mm:  $\pm 0.5$  mm  
 500mm+:  $\pm 1.0$  mm  
 Angular:  $\pm 1$  deg.



DATE: 19-May-21

SCALE: 5:1 A3

All Dimensions are in Millimetres  
 Break All Sharp Corners and  
 Remove Burrs & Swarf



PROJECT:

DWG NO.

TITLE

MATERIAL

REV:

FINISH

DRN:

NOTES: