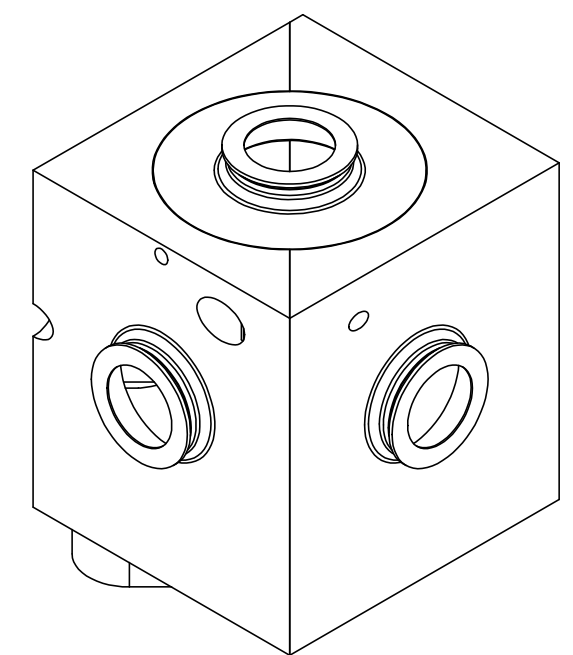
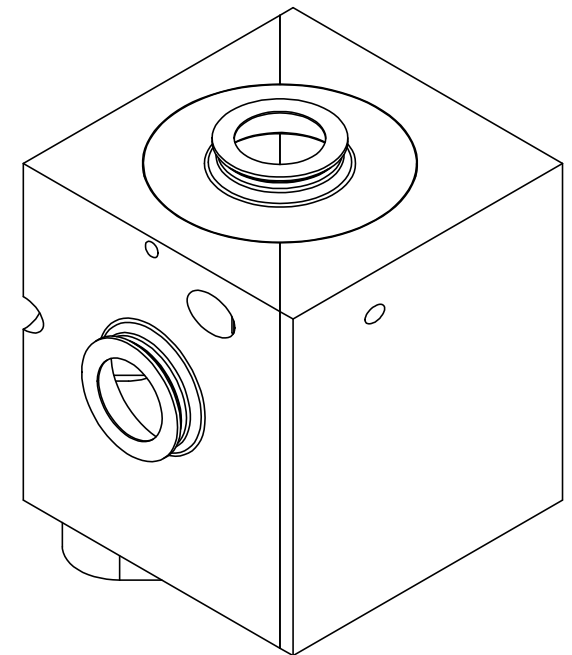
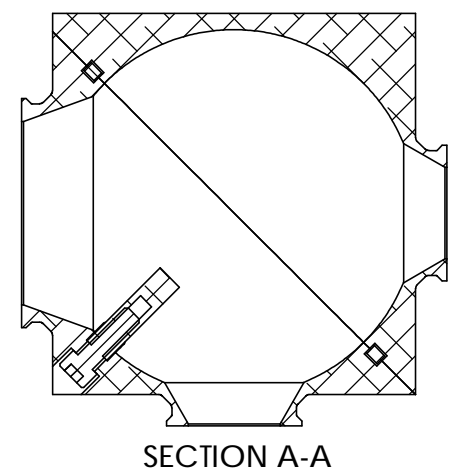
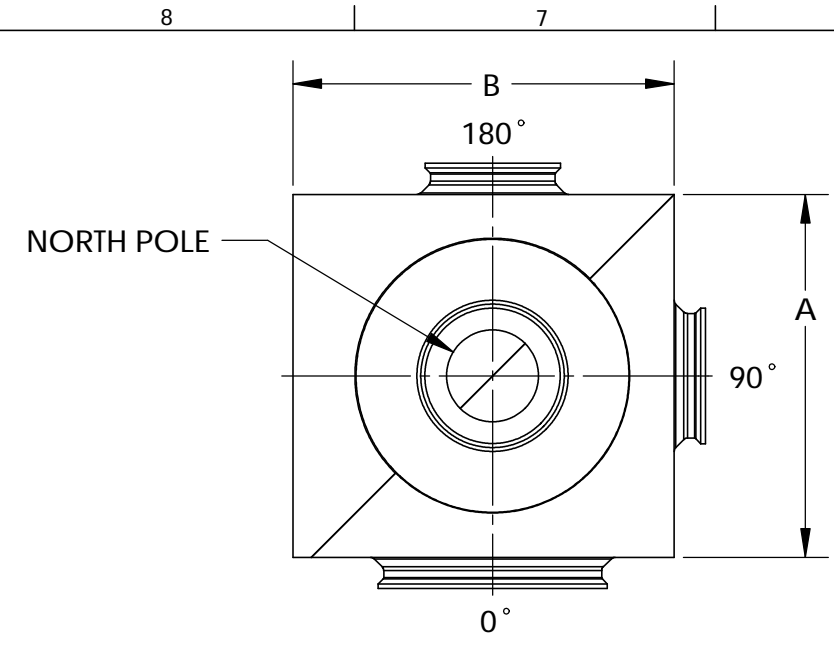
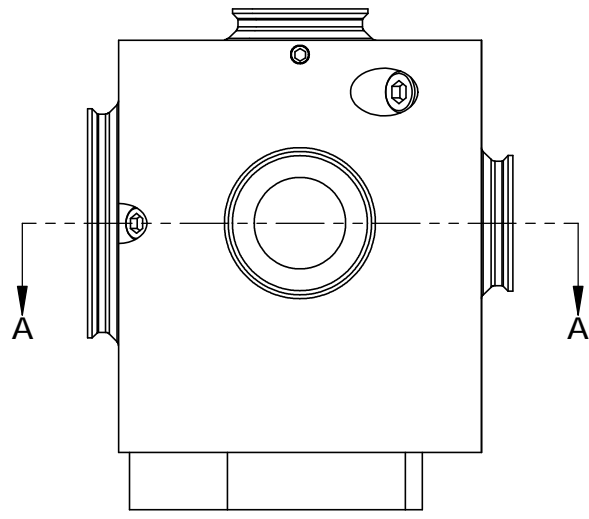
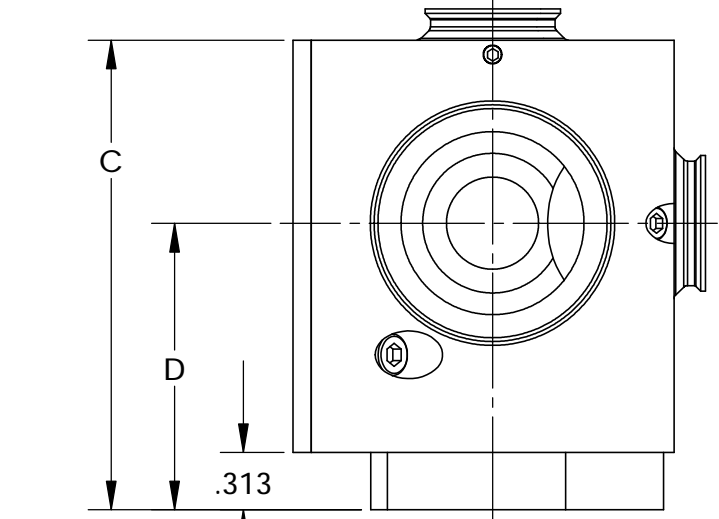


REVISION			
REV	DESCRIPTION	DATE	APVD
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3 PORT CONFIGURATION

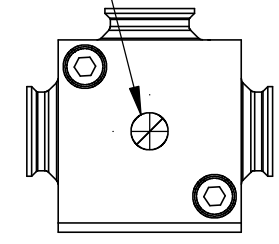
4 PORT CONFIGURATION



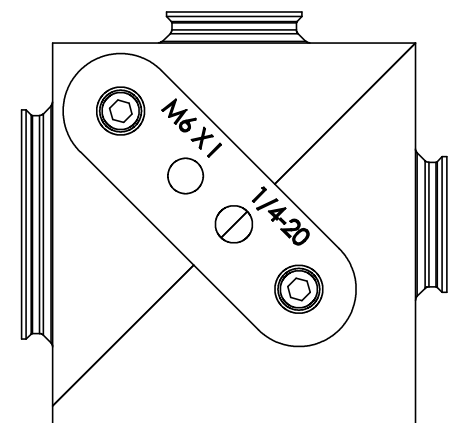
NOTE - DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Model	Part Number	Dimensions [inches]				Port Diameters [inches]			
		A	B	C	D	0 Deg.	90 Deg.	180 Deg.	North Pole
3P-GPS-010-SF	AS-02251-010	1.050	1.050	1.438	0.938	0.25	0.25	n/a	0.25
3P-GPS-010-IG	AS-02301-010	1.050	1.050	1.438	0.938	0.25	0.25	n/a	0.25
4P-GPS-010-SF	AS-02261-010	1.000	1.050	1.438	0.938	0.25	0.25	0.25	0.25
4P-GPS-010-IG	AS-02311-010	1.000	1.050	1.438	0.938	0.25	0.25	0.25	0.25
3P-GPS-020-SF	AS-02252-020	2.080	2.080	2.563	1.563	1.00	0.50	n/a	0.50
3P-GPS-020-IG	AS-02302-020	2.080	2.080	2.563	1.563	1.00	0.50	n/a	0.50
4P-GPS-020-SF	AS-02262-020	1.980	2.080	2.563	1.563	1.00	0.50	0.50	0.50
4P-GPS-020-IG	AS-02312-020	1.980	2.080	2.563	1.563	1.00	0.50	0.50	0.50

1/4-20 X 5/16



MOUNTING CONFIGURATION
1" SPHERE ONLY



MOUNTING CONFIGURATION
2" SPHERE ONLY

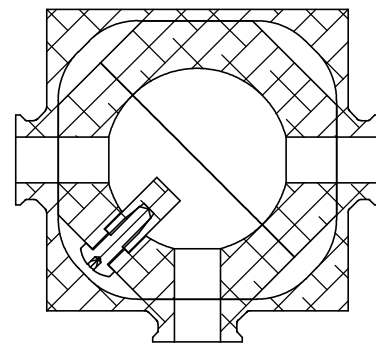
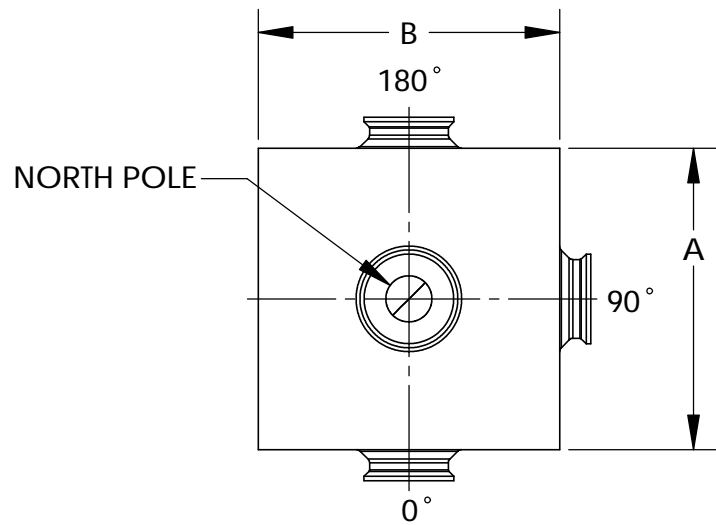
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TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
±1/64 .XX = ±.01 ±30'
.XXX = ±.005

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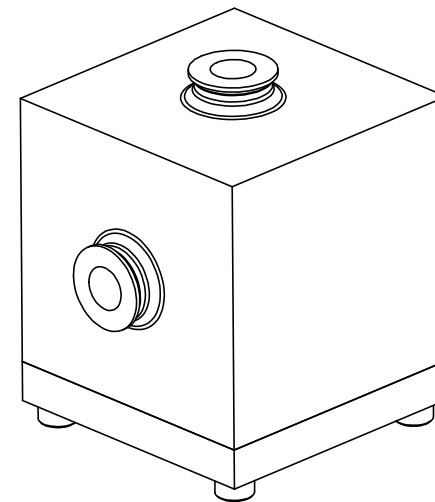
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MATERIAL		3P & 4P-GPS-CUBE-SF & IG	
FINISH	---	APPROVALS	DATE
DO NOT SCALE DRAWING		C. SHAFFER	10-3-03
		CHECKED/APPRVD	
		SIZE	B
		SCALE	n/a
		DWG. NO.	3P & 4P-GPS-CUBE-SF & IG
		SHEET 1 OF 1	REV. A

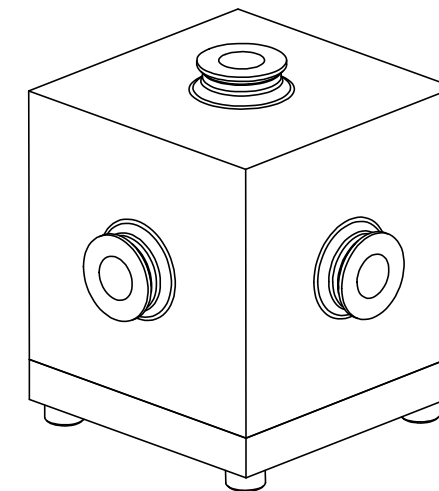
REVISION			
REV	DESCRIPTION	DATE	APVD
A	INITIAL RELEASE	10/7/03	CDS



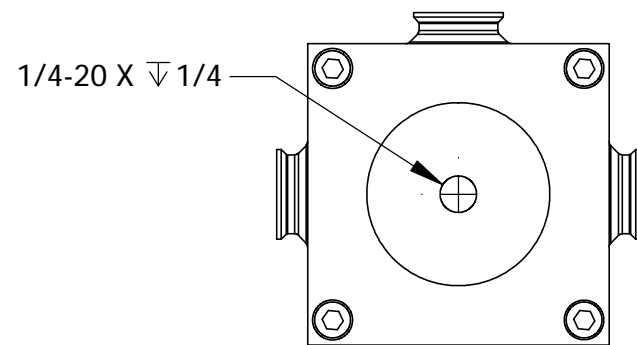
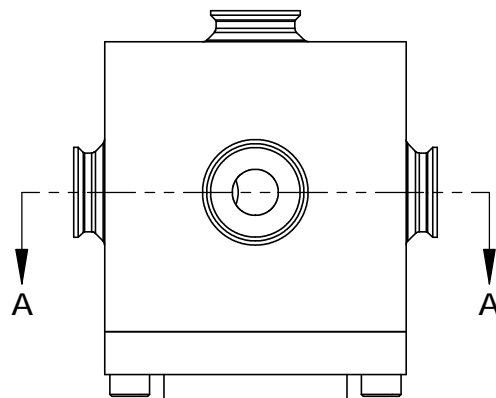
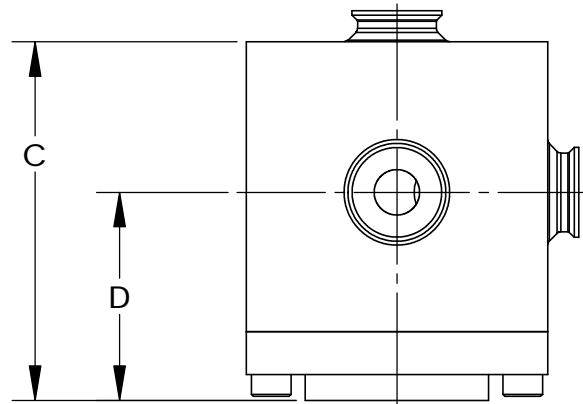
SECTION A-A



3 PORT CONFIGURATION



4 PORT CONFIGURATION



MOUNTING CONFIGURATION
1" & 2" SPHERES

NOTE - DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Model	Part Number	Dimensions [inches]				Port Diameters [inches]			
		A	B	C	D	0 Deg.	90 Deg.	180 Deg.	North Pole
3P-GPS-010-SL	AS-02281-010	1.644	1.644	1.957	1.135	0.25	0.25	n/a	0.25
4P-GPS-010-SL	AS-02291-010	1.644	1.644	1.957	1.135	0.25	0.25	0.25	0.25
3P-GPS-020-SL	AS-02282-020	2.613	2.613	2.925	1.619	1.00	0.50	n/a	0.50
4P-GPS-020-SL	AS-02292-020	2.613	2.613	2.925	1.619	1.00	0.50	0.50	0.50

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
±1/64 .XX = ±.01 ±30'
.XXX = ±0.005

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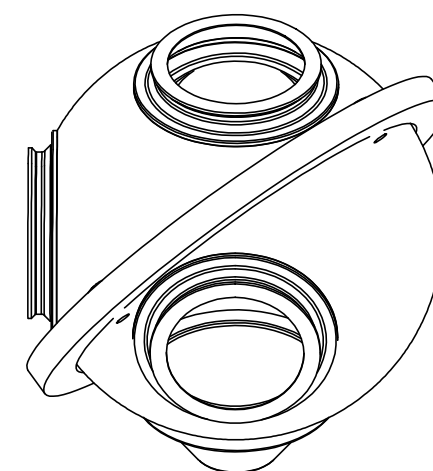
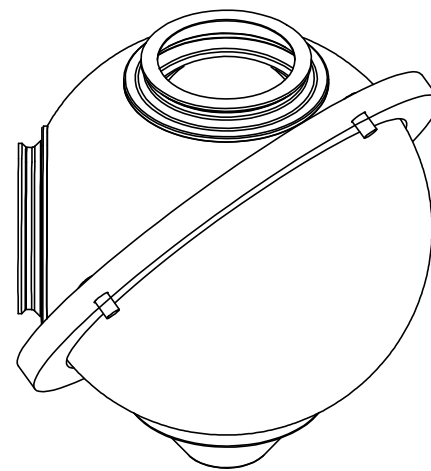
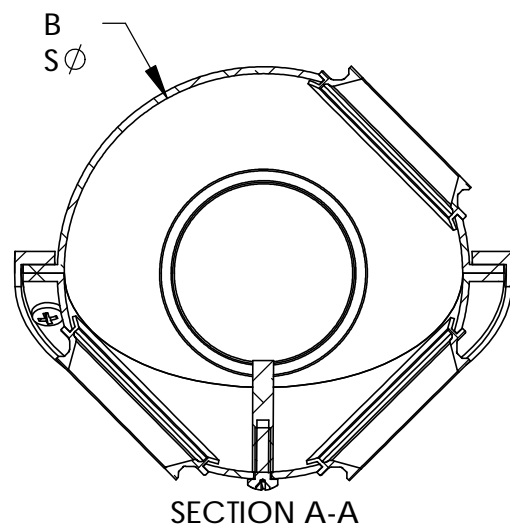
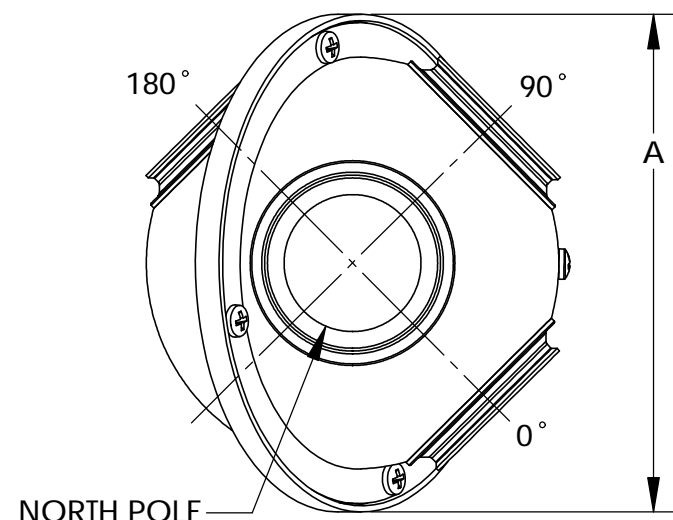
MATERIAL --

FINISH --

DO NOT SCALE DRAWING

APPROVALS		DATE	SIZE	SCALE	SHEET
C. SHAFFER		10-3-03	B	n/a	1 OF 1
DWG. NO.				REV.	
3P & 4P-GPS-CUBE-SL				A	

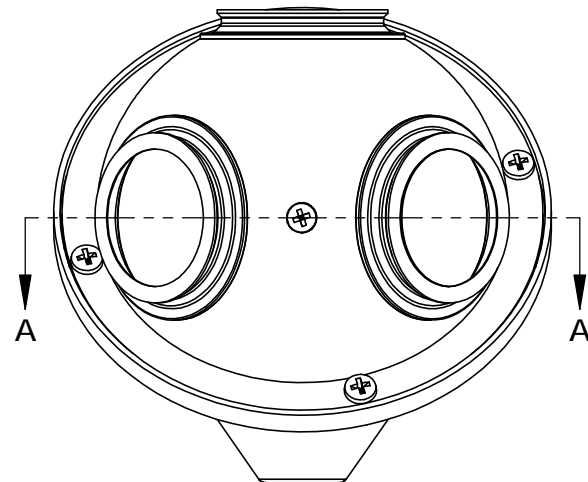
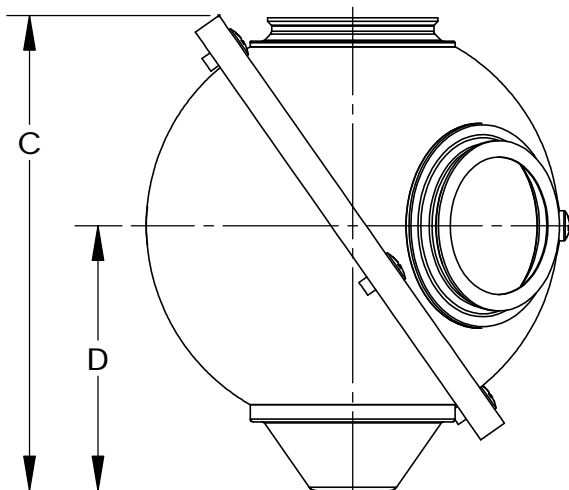
REVISION			
REV	DESCRIPTION	DATE	APVD
A	INITIAL RELEASE	10/7/03	CDS



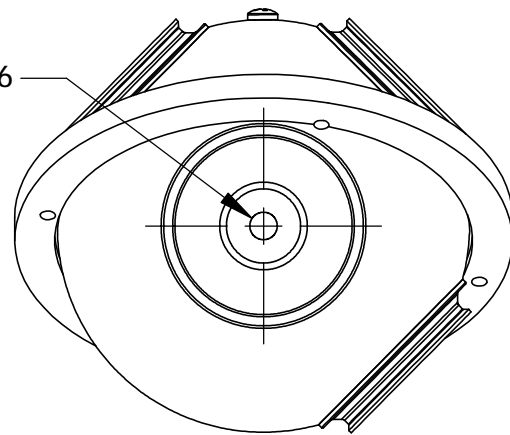
3 PORT CONFIGURATION

4 PORT CONFIGURATION

NOTE - DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.



1/4-20 X 5/16



MOUNTING CONFIGURATION
3", 4" & 6" SPHERES

Model	Part Number	Dimensions [inches]				Port Diameters [inches]			
		A	B	C	D	0 Deg.	90 Deg.	180 Deg.	North Pole
3P-GPS-030-SF	AS-02253-030	3.62	2.90	3.455	1.927	1.00	1.00	n/a	1.00
3P-GPS-030-IG	AS-02303-030	3.62	2.90	3.455	1.927	1.00	1.00	n/a	1.00
4P-GPS-030-SF	AS-02263-030	3.62	2.90	3.455	1.927	1.00	1.00	1.00	1.00
4P-GPS-030-IG	AS-02313-030	3.62	2.90	3.455	1.927	1.00	1.00	1.00	1.00
3P-GPS-040-SF	AS-02254-040	4.62	3.88	4.547	2.481	1.50	1.00	n/a	1.00
3P-GPS-040-IG	AS-02304-040	4.62	3.88	4.547	2.481	1.50	1.00	n/a	1.00
4P-GPS-040-SF	AS-02264-040	4.62	3.88	4.547	2.481	1.50	1.00	1.00	1.00
4P-GPS-040-IG	AS-02314-040	4.62	3.88	4.547	2.481	1.50	1.00	1.00	1.00
3P-GPS-060-SF	AS-02256-060	7.13	5.90	6.673	3.544	2.50	1.00	n/a	1.00
3P-GPS-060-IG	AS-02306-060	7.13	5.90	6.673	3.544	2.50	1.00	n/a	1.00
4P-GPS-060-SF	AS-02266-060	7.13	5.90	6.673	3.544	2.50	1.00	1.00	1.00
4P-GPS-060-IG	AS-02316-060	7.13	5.90	6.673	3.544	2.50	1.00	1.00	1.00

UNLESS OTHERWISE SPECIFIED
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TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
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.XXX = ±0.005

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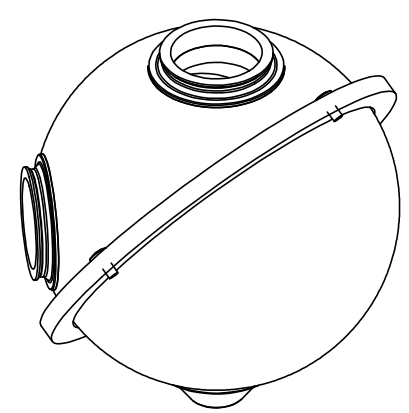
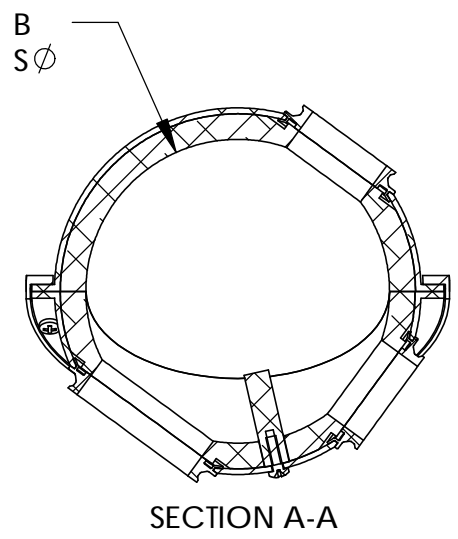
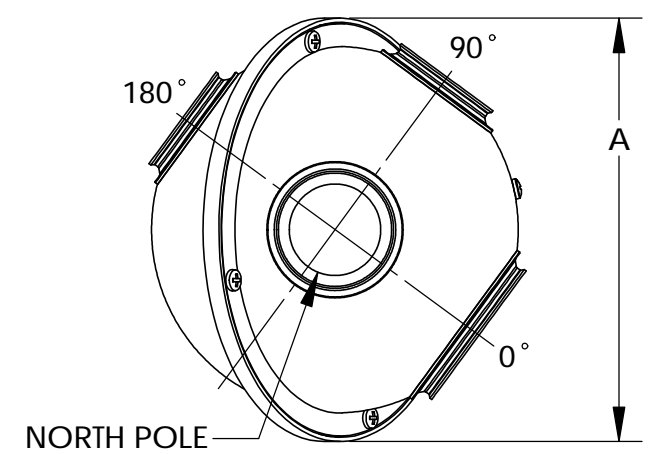
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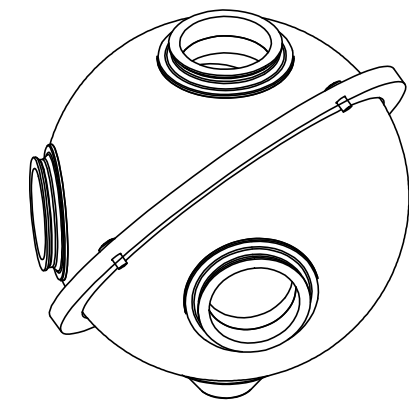
3P & 4P-GPS-SPHER-SF & IG

APPROVALS	DATE	SIZE	SCALE	SHEET
RESP ENG C. SHAFFER	10-3-03	B	n/a	1 OF 1
CHECKED/APPRVD		DWG. NO.		REV.
		3P & 4P-GPS-SPHER-SF & IG		A

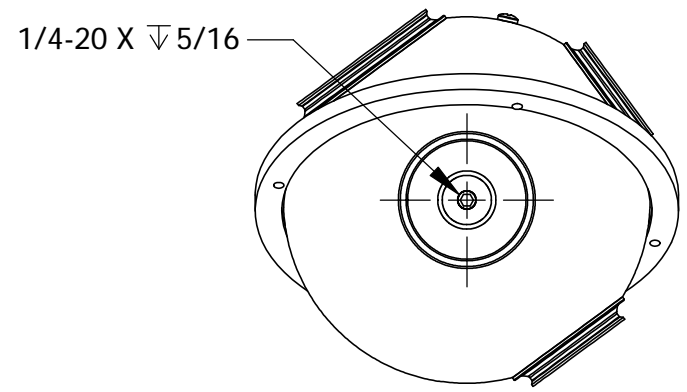
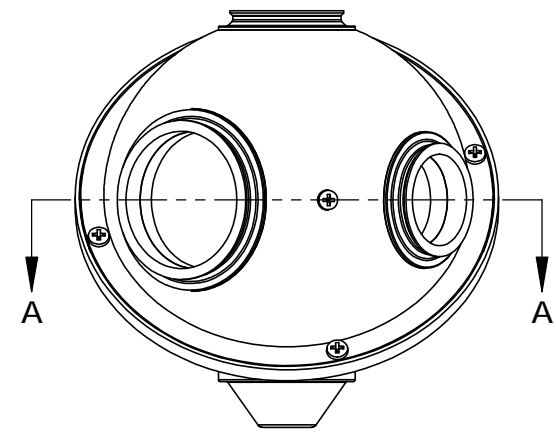
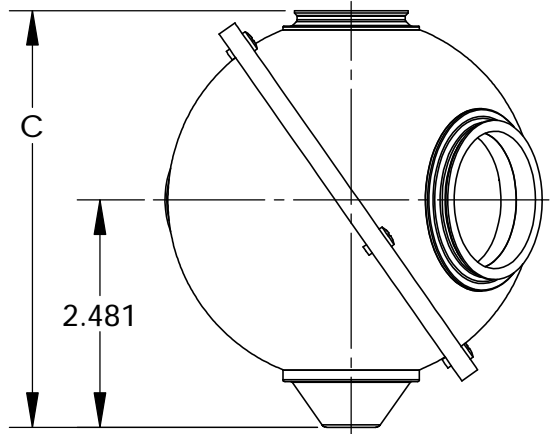
REVISION			
REV	DESCRIPTION	DATE	APVD
A	INITIAL RELEASE	10/7/03	CDS



3 PORT CONFIGURATION



4 PORT CONFIGURATION



MOUNTING CONFIGURATION
3.3" & 5.3" SPHERES

NOTE - DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Model	Part Number	Dimensions [inches]				Port Diameters [inches]			
		A	B	C	D	0 Deg.	90 Deg.	180 Deg.	North Pole
3P-GPS-033-SL	AS-02284-033	4.62	3.313	4.547	2.481	1.50	1.00	n/a	1.00
4P-GPS-033-SL	AS-02294-033	4.62	3.313	4.547	2.481	1.50	1.00	1.00	1.00
3P-GPS-053-SL	AS-02286-053	7.13	5.313	6.673	3.544	2.50	1.00	n/a	1.00
4P-GPS-053-SL	AS-02296-053	7.13	5.313	6.673	3.544	2.50	1.00	1.00	1.00

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.XXX = ±0.005

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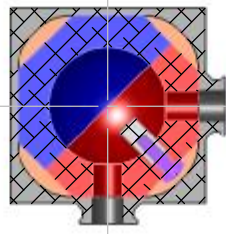
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MATERIAL --
FINISH --
DO NOT SCALE DRAWING

3P & 4P-GPS-SPHER-SL		SIZE	B	SCALE	n/a	SHEET 1 OF 1
APPROVALS	DATE					
RESP ENG C. SHAFFER	10-3-03					
CHECKED/APPRVD		DWG. NO.	3P & 4P-GPS-SPHER-SL		REV.	A

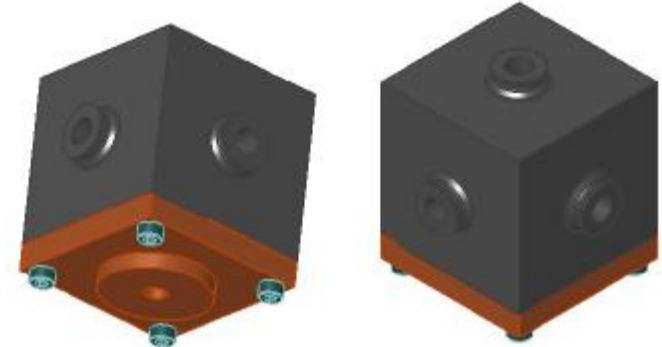
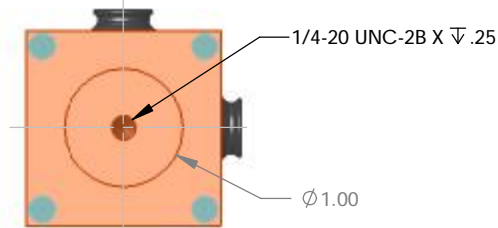
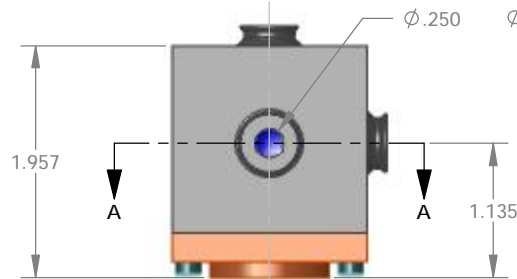
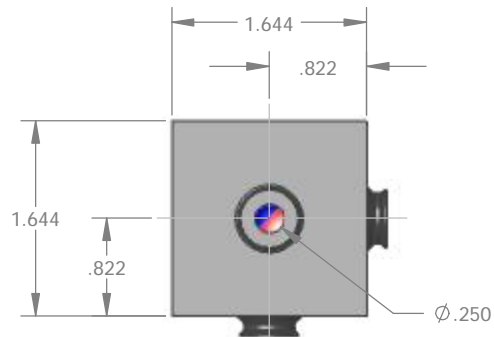
NOTE

1 - DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

REVISION			
REV	DESCRIPTION	DATE	APVD
1	INITIAL RELEASE	10/02/03	CDS



SECTION A-A



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FRACTIONS DECIMALS ANGLES
±1/64 .001 ±30'
.005 ±.005 ±.005

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APPROVALS
RESP. ENG.
C. SHAFFER
CHECKED/APPRVD

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3P-GPS-010-SL

DATE	10/02/03	SIZE	B	SCALE	1:1	SHEET 1 OF 1
DWG. NO.	AS-02281-010 CUD	REV.	2			

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