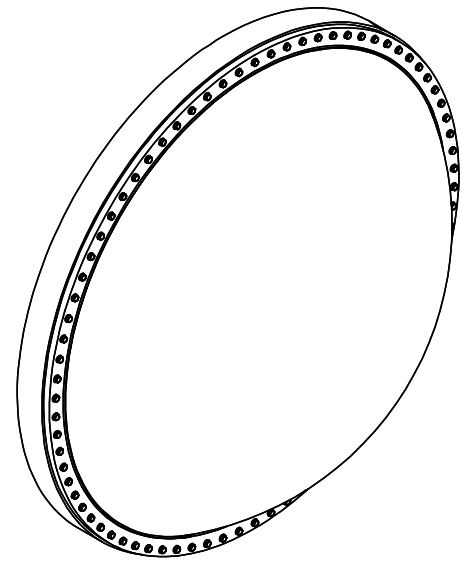
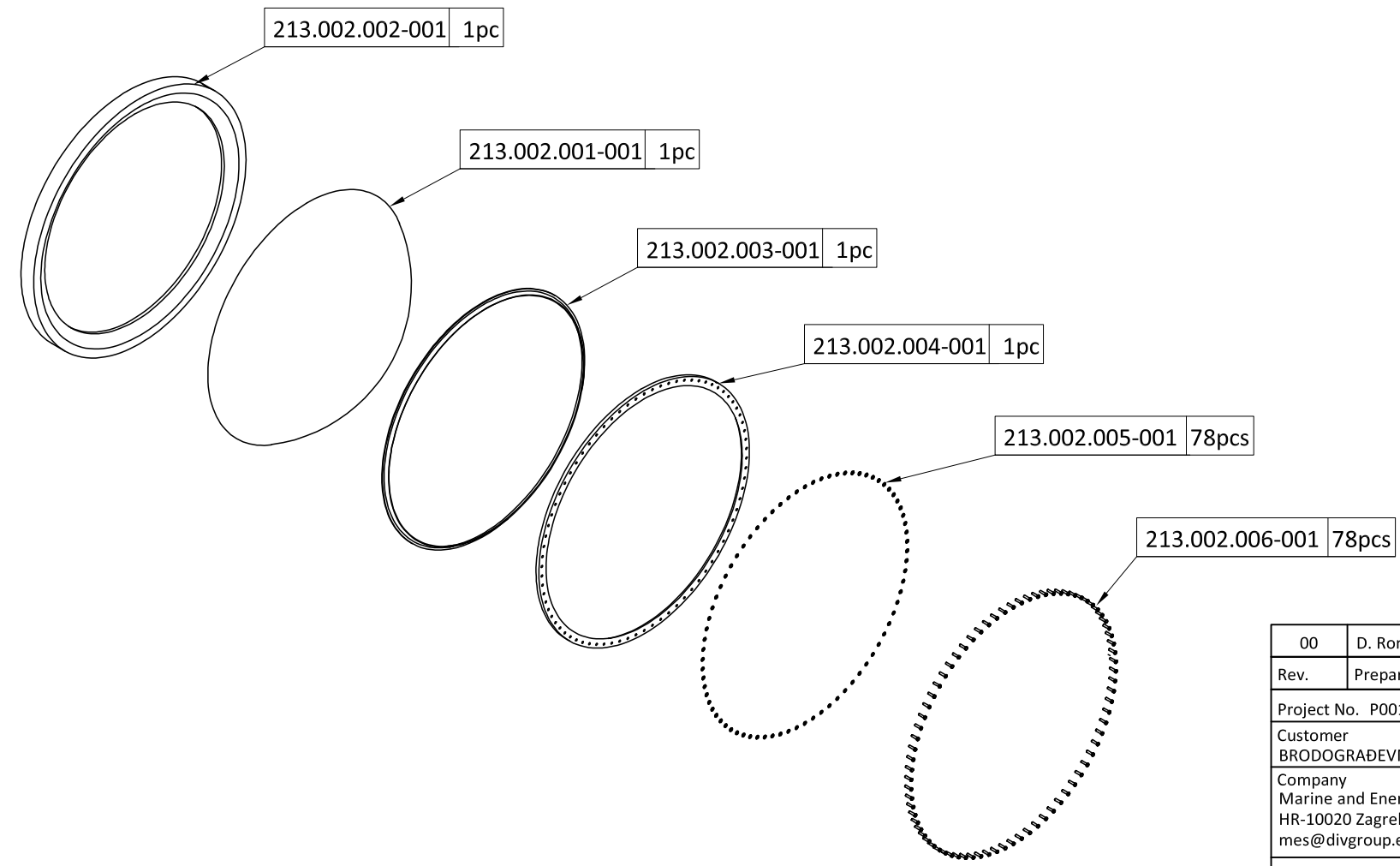


FORE DOME
3D VIEW

213.002



FORE DOME
3D ASSEMBLY VIEW



213.002 PILOT COMPARTMENT-FORE DOME ACRYLIC WINDOW WITH EQUIPMENT									
POSITION	DESCRIPTION	MATERIAL	PCS	UNIT MASS [kg]	MASS [kg]	CENTROID			
						X[m]	Y[m]	Z[m]	
213.002.001-001	FORE SPHERICAL VIEWPORT	ACRYLIC	1	513,83	513,83	19,827	0,000	2,070	
213.002.002-001	FORE SPHERICAL VIEWPORT FL.	ASTM A350 LF2	1	1.027,45	1.027,45	19,480	0,000	2,070	
213.002.003-001	SPHERICAL VIEWPORT SEAL	NEOPRENE	1	21,80	21,80	19,564	0,000	2,070	
213.002.004-001	SPHERICAL VIEWPORT RETAIN.RING	ASTM 516 Gr65	1	108,30	108,30	19,567	0,000	2,070	
213.002.005-001	SPHERICAL VIEWPORT BOLT M16	STEEL, Gr 8.8	78	0,14	10,84	19,566	0,000	2,070	
213.002.006-001	SPHERICAL VIEWPORT WASH. M16	STEEL, 140 HV	78	0,01	0,88	19,583	0,000	2,070	
					1.683,10	19,593	0,000	2,070	

NOTE:

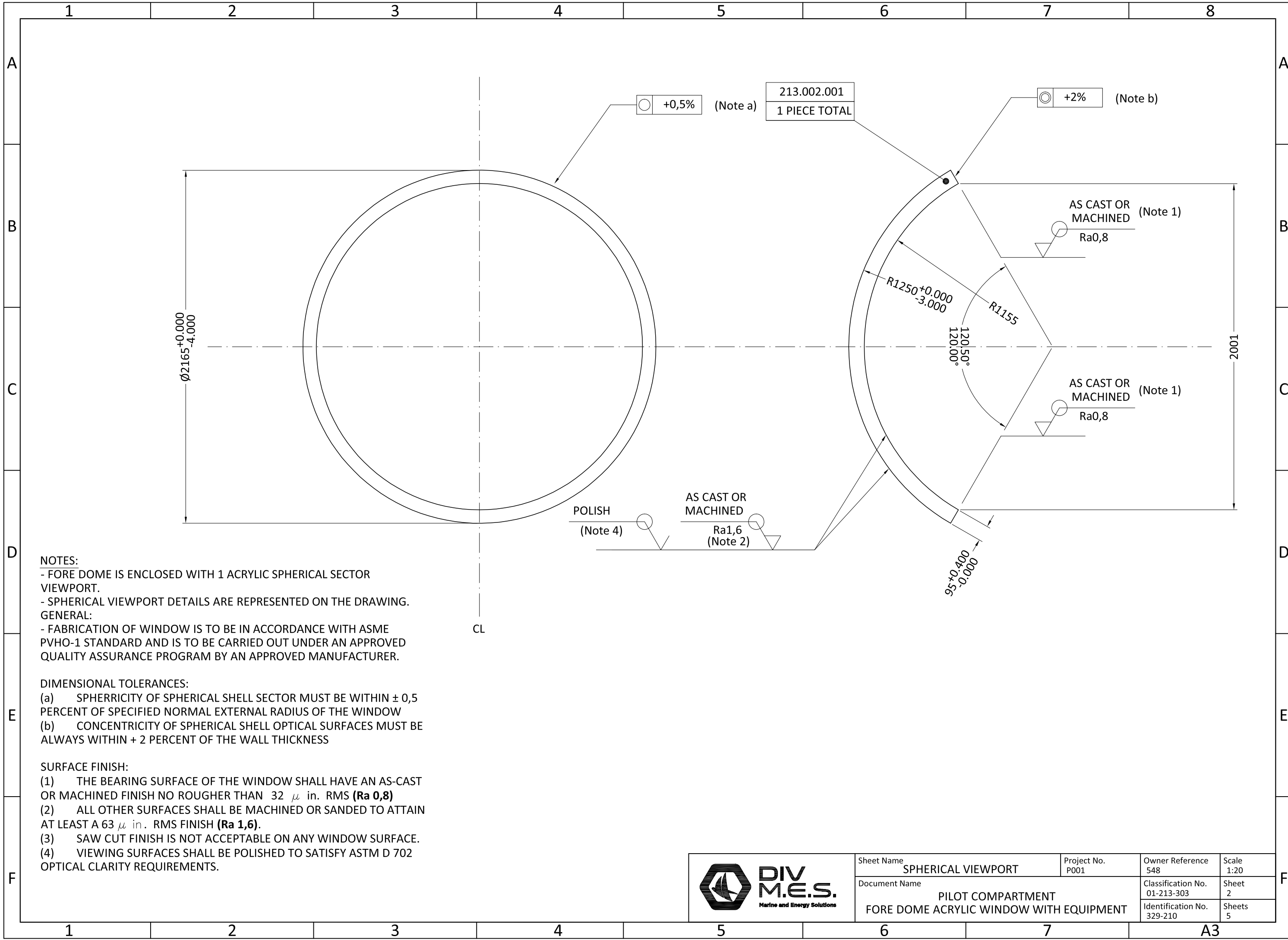
- REFERENCE POINT IS DEFINED IN DOCUMENTS:
P001-101-201 GENERAL ARRANGEMENT
P001-205-100-STRUCTURE-GENERAL ARRANGEMENT - ASSEMBLY
- ALL CENTROID COORDINATES IN RESPECT TO REFERENCE POINT
- ALL ASSEMBLIES IN DRAWINGS ARE SHOWN AFTER FORMATION AND MACHINING. FORMATION DETAILS SUCH AS EXCESS LENGTH OR THICKNESS BEFORE MACHINING ARE TO BE HANDLED IN WORKSHOP DOCUMENTATION.
- CORROSION ALLOWANCE: 1 mm

REFERENCE DRAWINGS:

- P001-101-201-GENERAL ARRANGEMENT
- P001-102-301-HULL STEEL MATERIAL SPECIFICATION
- P001-205-100-STRUCTURE - GENERAL ARRANGEMENT - ASSEMBLY
- P001-205-102-STRUCTURE - BUILDING STRATEGY
- P001-210-100-PRESSURE HULL - GENERAL ARRANGEMENT - ASSEMBLY
- P001-213-100-PRESSURE HULL - PILOT COMPARTMENT-FORE END STEEL SECTION

00	D. Romić	Issued for Class Approval	2022-04-27
Rev.	Prepared by	Description	Date
Project No. P001	File: P001-213-002-PRESSURE HULL-PILOT COMPARTMENT-FORE DOME ACRYLIC WINDOW WITH EQUIPMENT-329210-Rev00		
Customer BRODOGRAĐEVNA INDUSTRIJA SPLIT d.d.	Project TOURIST SUBMARINE CLASS DESIGN	Prepared by D. Romić, Nav.Arch.	Date 2022-04-27
Company Marine and Energy Solutions DIV d.o.o. HR-10020 Zagreb, Froudeova 5 mes@divgroup.eu	Checked by Z.Šperanda, Nav.Arch.		Date 2022-04-27
This drawing is the property of Marine and Energy Solutions DIV Ltd. and must neither be used, reproduced nor handed over to any third party without our written consent.		Approved by J. Čokić, Nav.Arch.	Date 2022-04-27
Sheet Name COVER SHEET		Yard No. 548	Scale 1:30
Document Name PILOT COMPARTMENT FORE DOME ACRYLIC WINDOW WITH EQUIPMENT		Classification No. 01-213-303	Sheet 1
		Identification No. 329-210	Sheets 5





213.002.001
1 PIECE TOTAL

○ +0,5% (Note a)

⊙ +2% (Note b)

∅2165^{+0.000}_{-4.000}

2002

R1250^{+0.000}_{-3.000}

R1155

120.50°

AS CAST OR MACHINED (Note 1)
Ra0,8

AS CAST OR MACHINED (Note 1)
Ra0,8

POLISH (Note 4)

AS CAST OR MACHINED (Note 2)
Ra1,6

95^{+0.400}_{-0.000}

CL

NOTES:

- FORE DOME IS ENCLOSED WITH 1 ACRYLIC SPHERICAL SECTOR VIEWPORT.
- SPHERICAL VIEWPORT DETAILS ARE REPRESENTED ON THE DRAWING.

GENERAL:

- FABRICATION OF WINDOW IS TO BE IN ACCORDANCE WITH ASME PVHO-1 STANDARD AND IS TO BE CARRIED OUT UNDER AN APPROVED QUALITY ASSURANCE PROGRAM BY AN APPROVED MANUFACTURER.

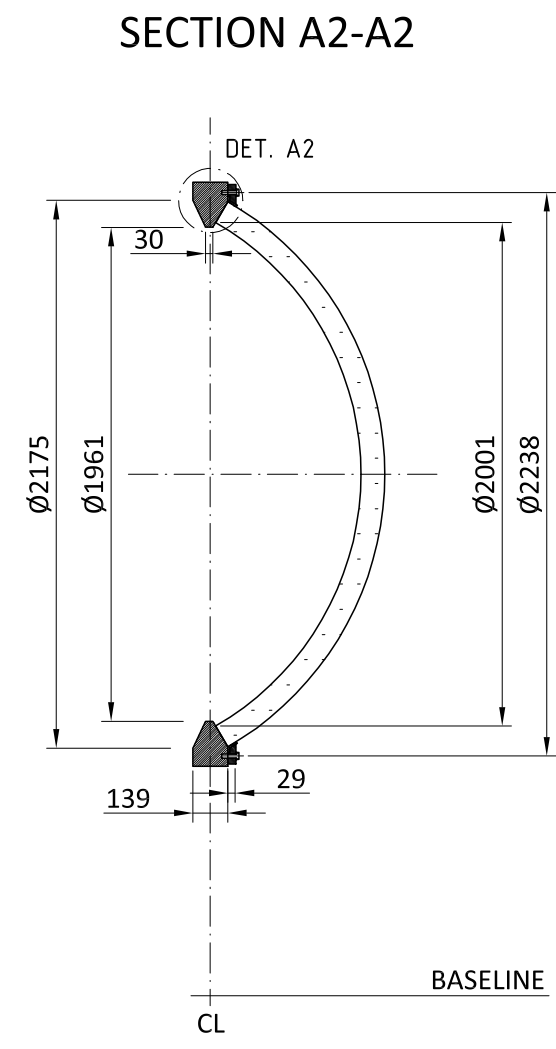
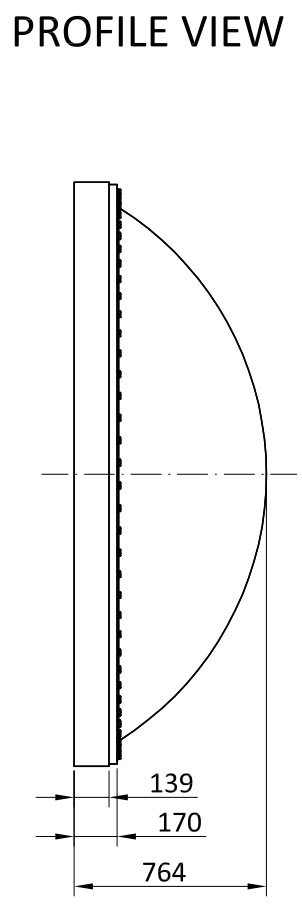
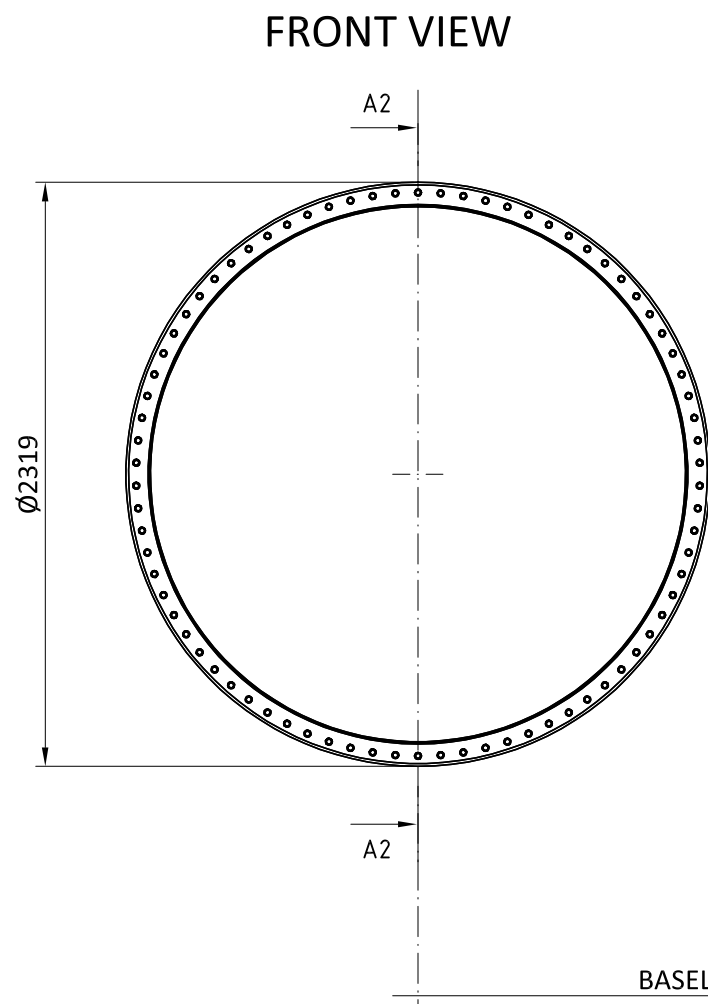
DIMENSIONAL TOLERANCES:

- (a) SPHERICITY OF SPHERICAL SHELL SECTOR MUST BE WITHIN ± 0,5 PERCENT OF SPECIFIED NORMAL EXTERNAL RADIUS OF THE WINDOW
- (b) CONCENTRICITY OF SPHERICAL SHELL OPTICAL SURFACES MUST BE ALWAYS WITHIN + 2 PERCENT OF THE WALL THICKNESS

SURFACE FINISH:

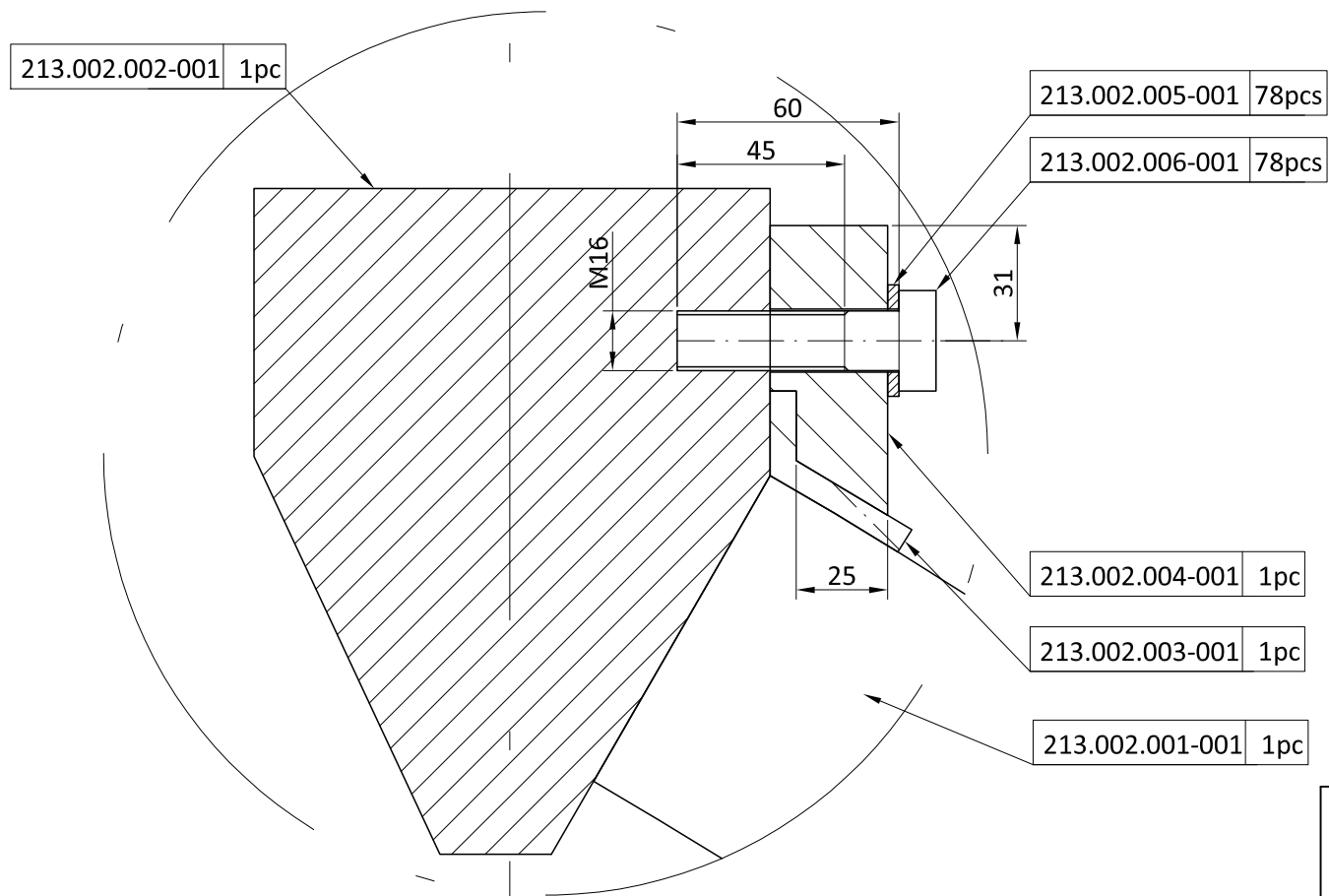
- (1) THE BEARING SURFACE OF THE WINDOW SHALL HAVE AN AS-CAST OR MACHINED FINISH NO ROUGHER THAN 32 μ in. RMS (**Ra 0,8**)
- (2) ALL OTHER SURFACES SHALL BE MACHINED OR SANDED TO ATTAIN AT LEAST A 63 μ in. RMS FINISH (**Ra 1,6**).
- (3) SAW CUT FINISH IS NOT ACCEPTABLE ON ANY WINDOW SURFACE.
- (4) VIEWING SURFACES SHALL BE POLISHED TO SATISFY ASTM D 702 OPTICAL CLARITY REQUIREMENTS.

	Sheet Name SPHERICAL VIEWPORT	Project No. P001	Owner Reference 548	Scale 1:20
	Document Name PILOT COMPARTMENT FORE DOME ACRYLIC WINDOW WITH EQUIPMENT		Classification No. 01-213-303	Sheet 2
			Identification No. 329-210	Sheets 5



POSITION	PCS	UNIT MASS[kg]	MASS[kg]
213.002.001-001	1	513,83	513,83
213.002.002-001	1	1.027,45	1.027,45
213.002.003-001	1	21,80	21,80
213.002.004-001	1	108,30	108,30
213.002.005-001	78	0,01	0,88
213.002.006-001	78	0,14	10,84
			1.683,10

DET. A2
SC. 1:2



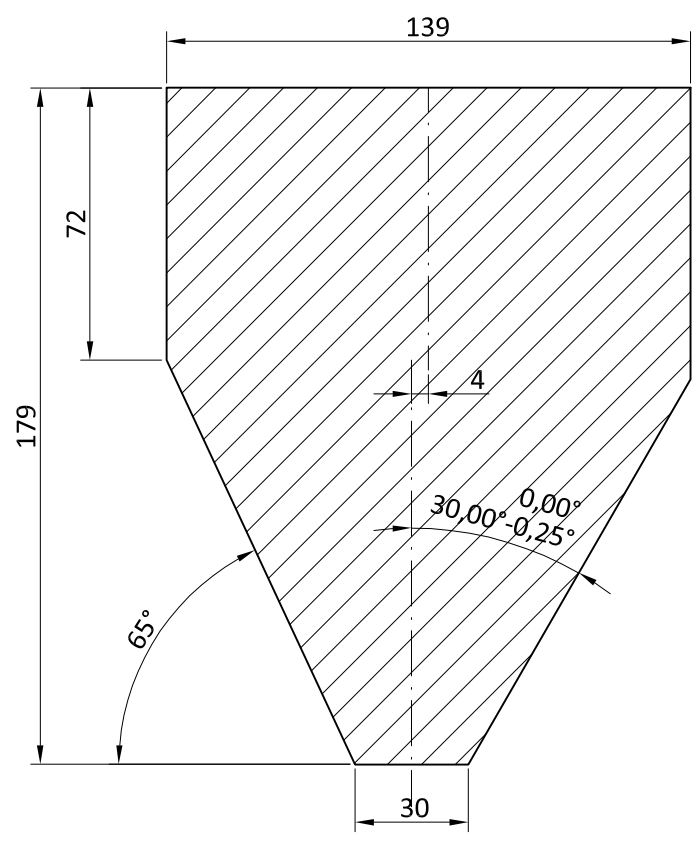
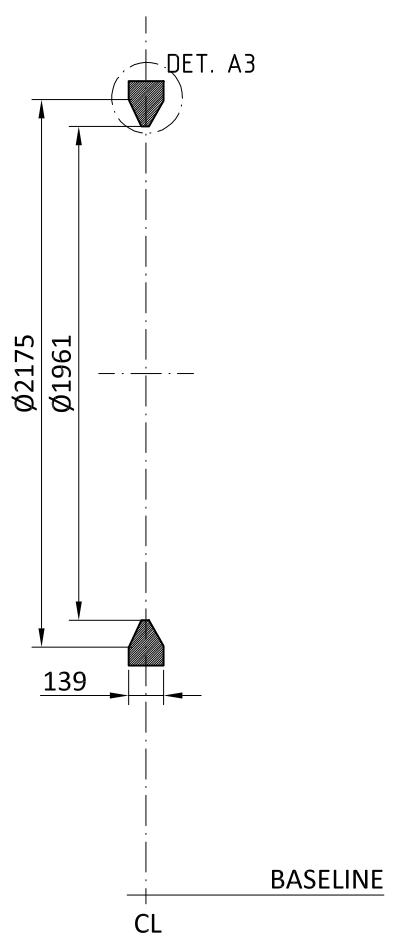
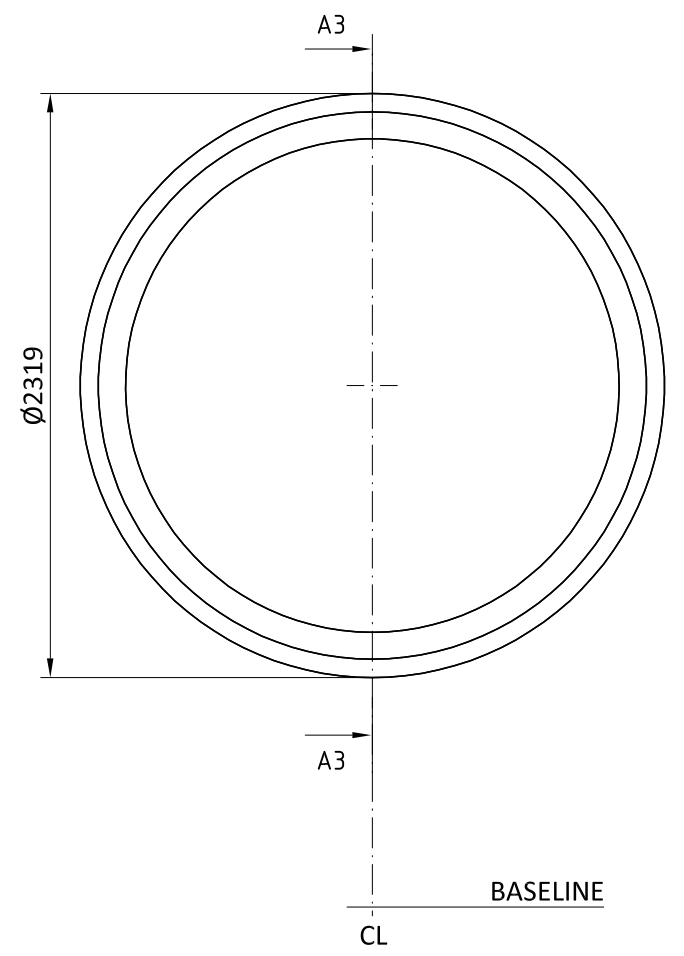
Sheet Name	STANDARD VIEWS	Project No.	P001	Owner Reference	548	Scale	1:30
Document Name	PILOT COMPARTMENT FORE DOME ACRYLIC WINDOW WITH EQUIPMENT			Classification No.	01-213-303	Sheet	3
				Identification No.	329-210	Sheets	5

213.002.002-001

DET. A3
SC. 1:2

FRONT VIEW

SECTION A3-A3

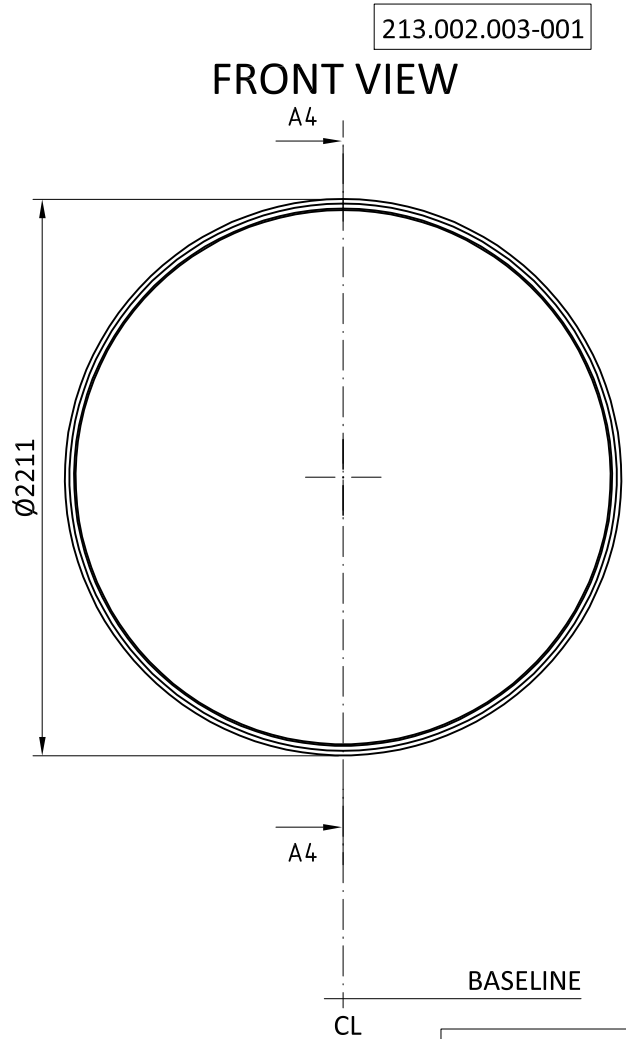


NOTE:

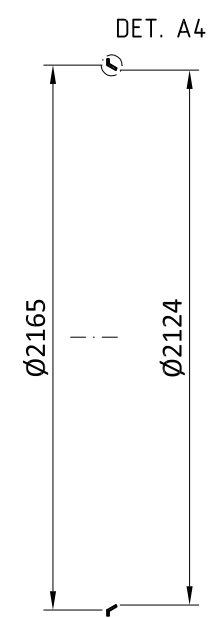
1. FLANGES TO BE FORGED AND MACHINED TO SPECIFIED TOLERANCES.
2. FORGING PROCESS AND HEAT TREATMENT TO BE ACCORDING TO ABS RULES FOR MATERIAL AND WELDING
3. ALL MATERIALS FOR SHELL SECTIONS AND FOR HEADS SHALL BE FORMED TO THE REQUIRED SHAPE BY ANY PROCESS THAT WILL NOT UNDULY IMPAIR THE MECHANICAL PROPERTIES OF THE MATERIAL.
4. THE FORMING PROCESSES WILL NOT REDUCE THE THICKNESS OF THE MATERIAL AT ANY POINT BELOW THE MINIMUM VALUE REQUIRED BY THE DESIGN COMPUTATION.
5. OUT OF ROUNDNESS TO BE CONTROLLED USING A METHOD APPROVED BY THE ABS. PRIOR TO THE PRODUCTION AND NOT TO EXCEED VALUE SPECIFIED IN THE RULES FOR BUILDING AND CLASSING-UNDERWATER VEHICLES, SYSTEMS AND HYPERBARIC FACILITIES.

	Sheet Name VIEWPORT FLANGE	Project No. P001	Owner Reference 548	Scale 1:30
	Document Name PILOT COMPARTMENT FORE DOME ACRYLIC WINDOW WITH EQUIPMENT		Classification No. 01-213-303	Sheet 4
			Identification No. 329-210	Sheets 5

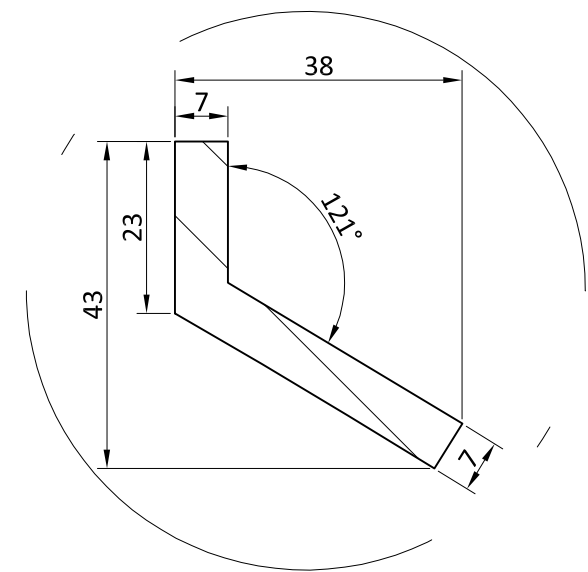
A3



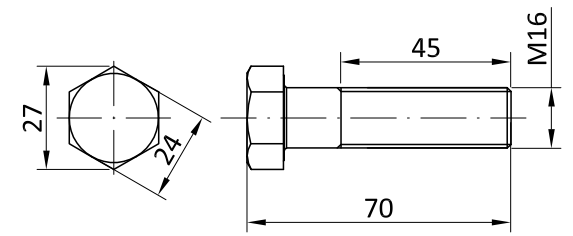
SECTION A4-A4



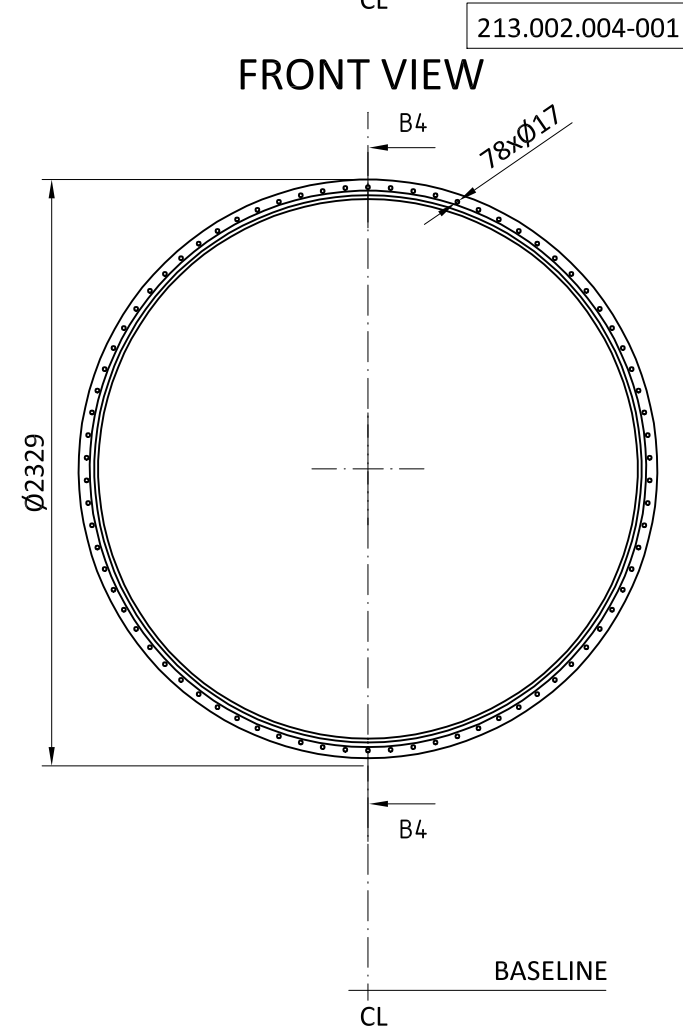
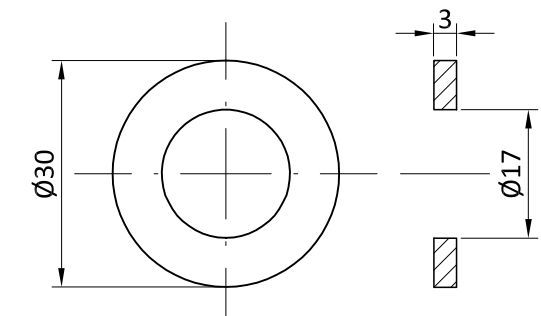
DET. A4
SC. 1:1



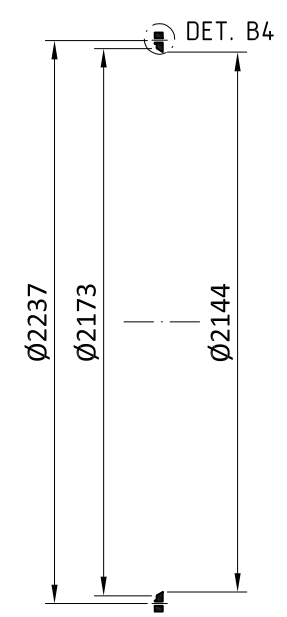
213.002.005-001
SC. 1:2



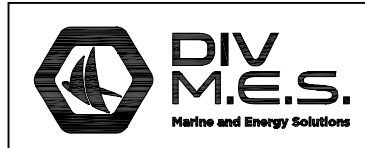
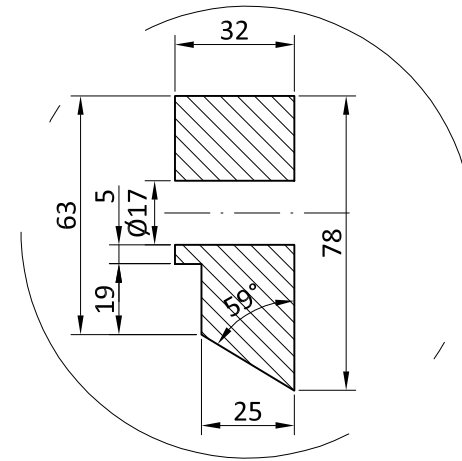
213.002.005-001
SC. 1:1



SECTION B4-B4



DET. B4
SC. 1:2



Sheet Name	DETAILS	Project No.	P001	Owner Reference	548	Scale	1:30
Document Name	PILOT COMPARTMENT FORE DOME ACRYLIC WINDOW WITH EQUIPMENT			Classification No.	01-213-303	Sheet	5
				Identification No.	329-210	Sheets	5