

**ACC:
PMT-Boxes,
Z- Clamps, Z+ Clamps,
Pressure Plates,
Springs,
Screws and Washers,
Glue**

1

2

3

4

Pre Assembly

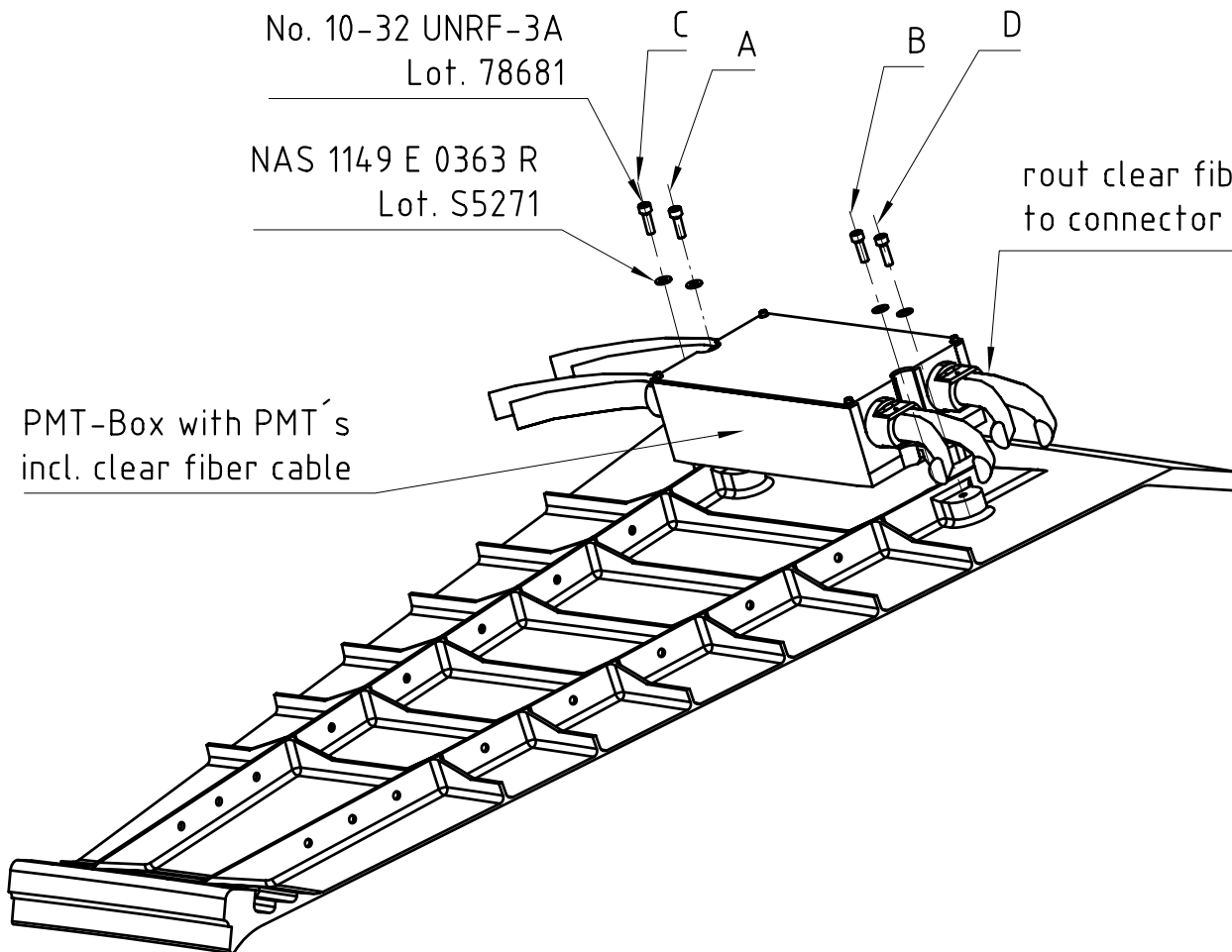
mount PMT Box to Sector
8 and 24 on Z+ and Z- Side

NAS 1351 N3 LB 10
No. 10-32 UNRF-3A
Lot. 78681

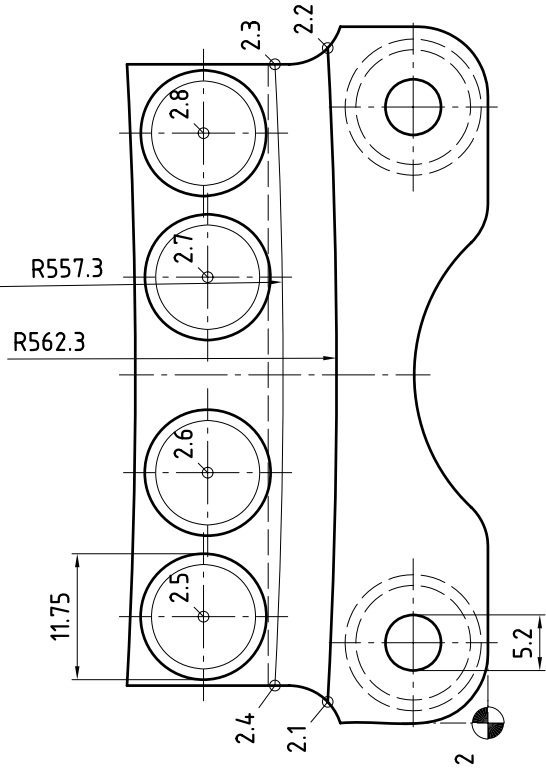
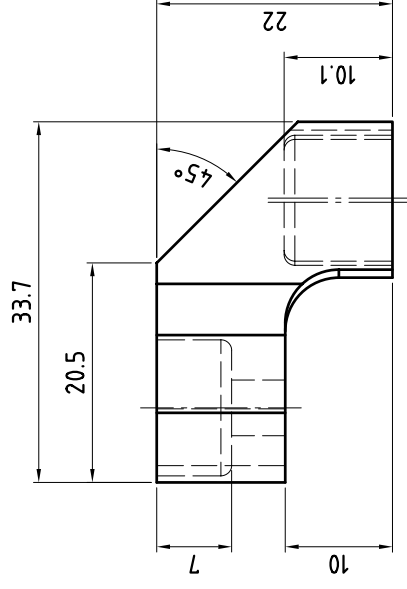
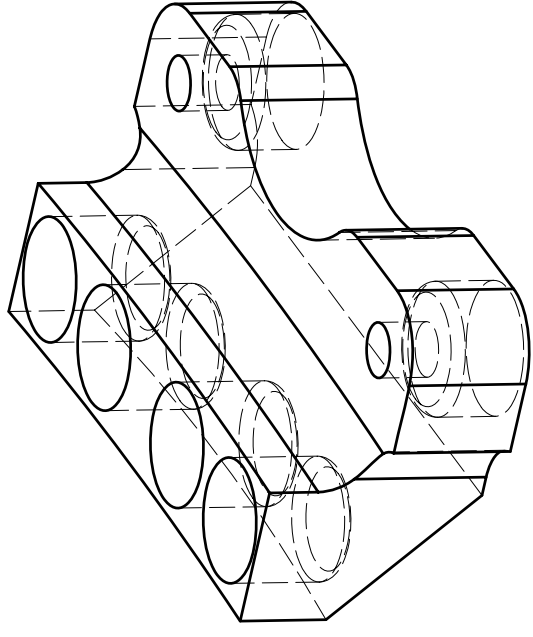
NAS 1149 E 0363 R
Lot. S5271

PMT-Box with PMT's
incl. clear fiber cable

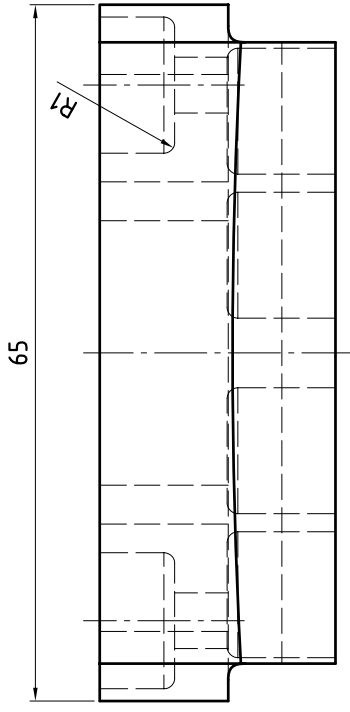
route clear fiber cables
to connector support



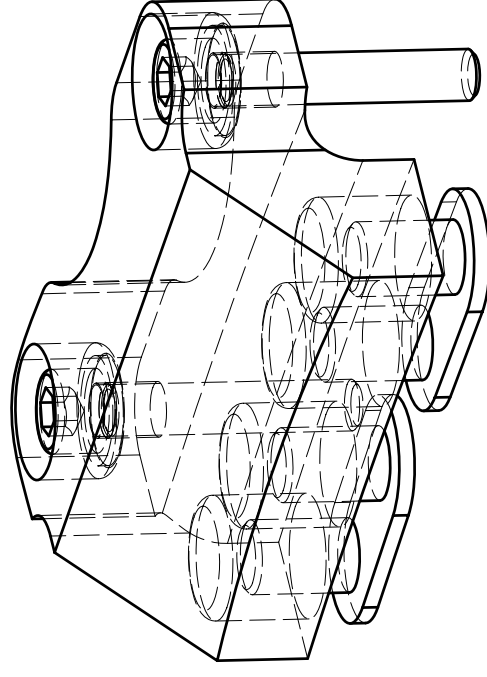
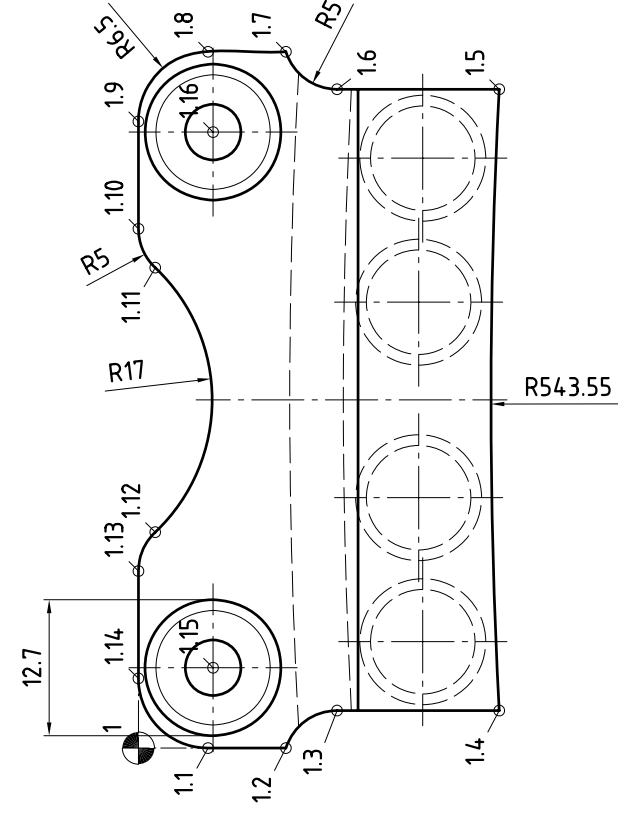
Verwendungsbereich AMS02		Zul. Abw. DIN ISO 2768 mittel	Oberfläche N10 ✓	Maßstab 1:5	Gewicht
				Werkstoff, Halbzeug	
		07 Bearb. 15.08. Gepr. Name	Datum Name Wlochal	Benennung PMT Box Mounting Scheme	
		 Physics AC-1		Zeichnungsnummer ams02-07-1032a	Blatt 1/1 A4 Bl.
Rev.	Änderung			Revision	Name
				Plot Datum:	



Koordinatenliste			
Pos.	X	Y	φ
2.1	1.98	14.96	φ1
2.2	63.01	14.96	φ1
2.3	61.5	19.88	φ1
2.4	3.5	19.88	φ1
2.5	9.93	26.55	φ1
2.6	23.37	26.16	φ1
2.7	41.62	26.16	φ1
2.8	55.06	26.55	φ1

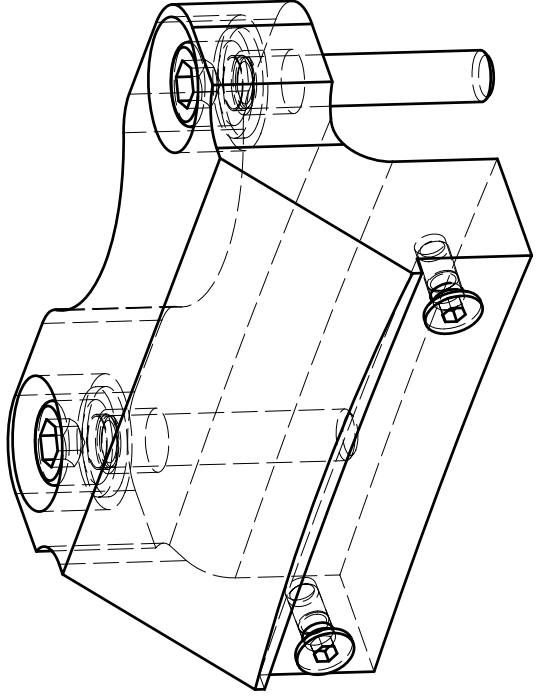
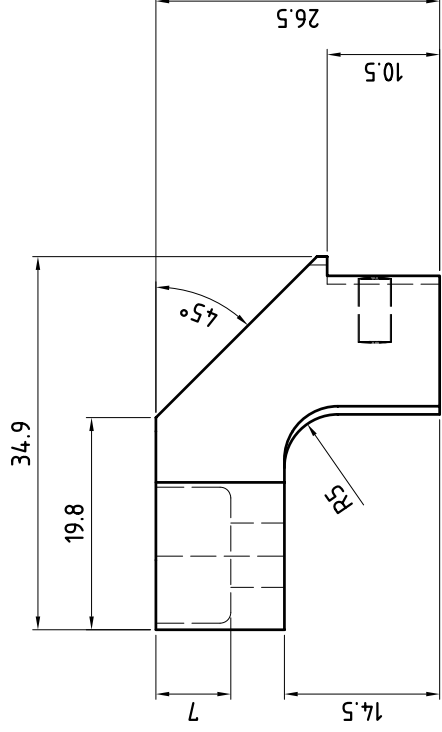
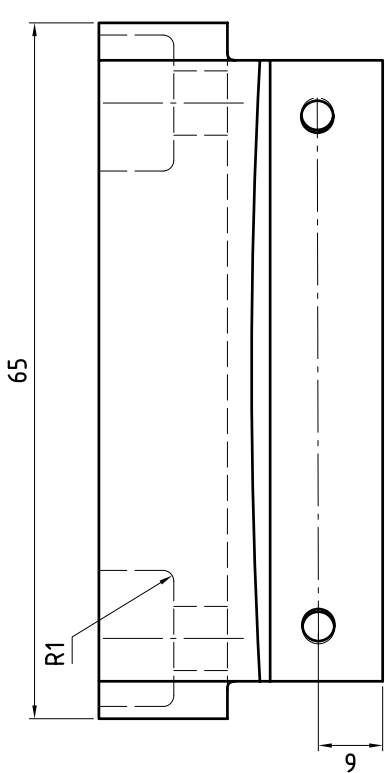
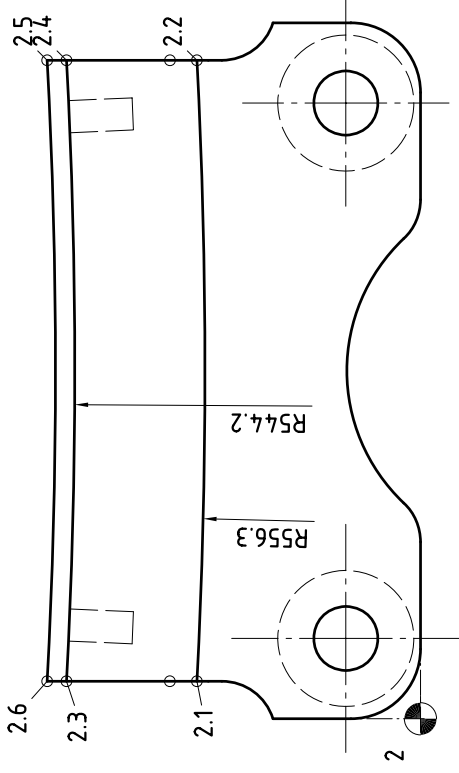


Koordinatenliste			
Pos.	X	Y	φ
1.1	-0	-6.5	φ1
1.2	-0	-13.77	φ1
1.3	3.5	-18.54	φ1
1.4	3.5	-33.68	φ1
1.5	61.5	-33.68	φ1
1.6	61.5	-18.54	φ1
1.7	65	-13.77	φ1
1.8	65	-6.5	φ1
1.9	58.5	-0	φ1
1.10	48.48	-0.01	φ1
1.11	44.85	-1.57	φ1
1.12	20.15	-1.57	φ1
1.13	16.52	-0.01	φ1
1.14	6.5	-0	φ1
1.15	7.5	-6.97	φ1
1.16	57.5	-6.97	φ1

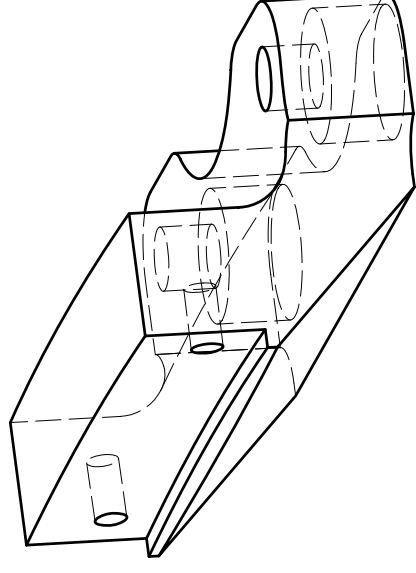
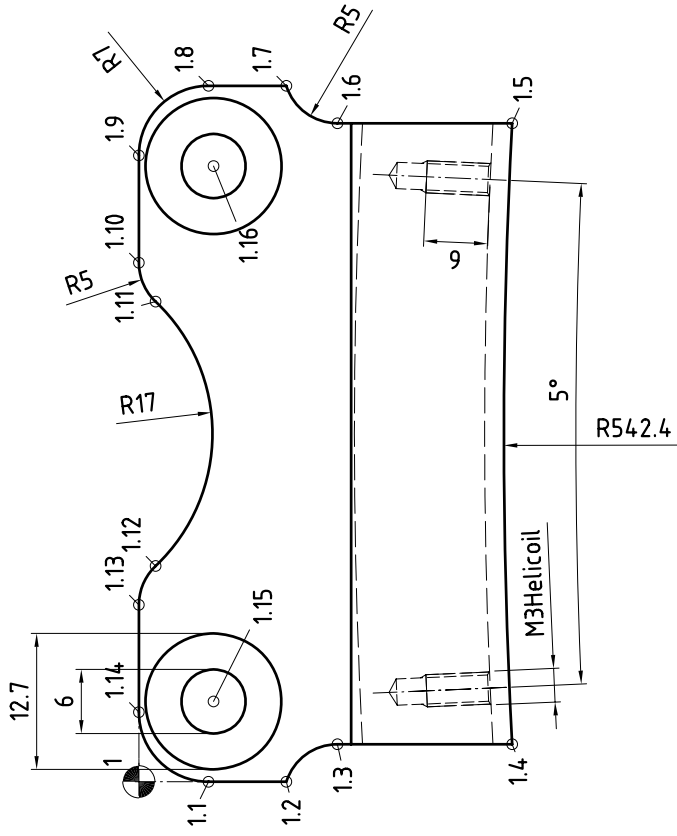


Verwendungsbereich AMS02	Zul. Abw. DIN ISO 2768 mittel	Oberfläche N10	Maßstab 2:1	Gewicht ENAW 7075 MIL-QQ-A-250-12
	04 Datum Bearb. 14.05.	Name Wechsel	Benennung ACC - Clamp Z+ ACC Support	
			Zeichnungsnummer ams02-03-1023a	
			Blatt 1/1	
			A3 Bl.	
			Plot Datum:	

Koordinatenliste			
Pos.	X	Y	φ
2.1	3.5	20.88	φ1
2.2	61.49	20.88	φ1
2.3	3.5	33.05	φ1
2.4	61.49	33.05	φ1
2.5	61.49	34.86	φ1
2.6	3.5	34.86	φ1



Koordinatenliste			
Pos.	X	Y	φ
1.1	0	-6.5	φ1
1.2	0	-13.77	φ1
1.3	3.5	-18.54	φ1
1.4	3.5	-34.86	φ1
1.5	61.49	-34.86	φ1
1.6	61.49	-18.54	φ1
1.7	64.99	-13.77	φ1
1.8	64.99	-6.5	φ1
1.9	58.49	0	φ1
1.10	48.47	0	φ1
1.11	44.84	-1.56	φ1
1.12	20.15	-1.56	φ1
1.13	16.52	0	φ1
1.14	6.5	0	φ1
1.15	7.5	-6.97	φ1
1.16	57.5	-6.97	φ1



Verwendungsbereich AMS02		Zul. Abw. DIN ISO 2768 mittel	Oberfläche N10	Maßstab 2:1	Gewicht EN-AW 7075 MIL-QQ-A-250-12
		07 Bearb. Name			
Rev. Änderung	Revision/Name	Benennung ACC Clamp Z- ACC-Support			
		Zeichnungsnummer ams02-03-1024c			
		Blatt 1/1			
		Ers. f.: Ers. d.: Plot Datum:			

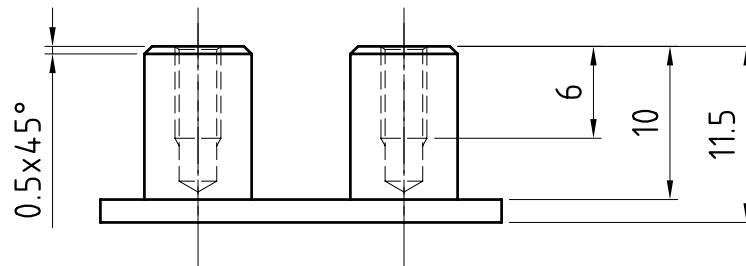
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2

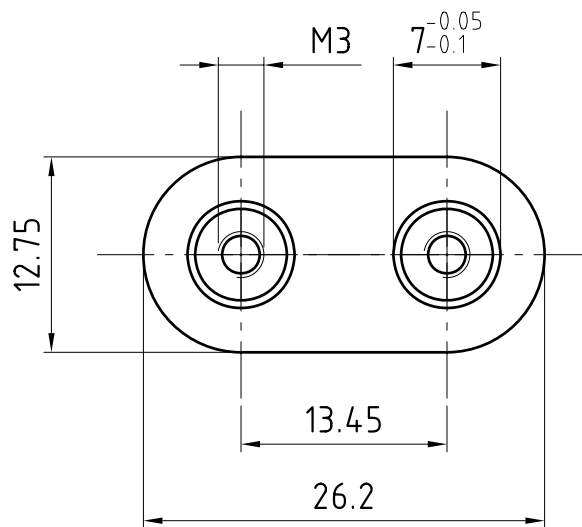
3

4

A



B



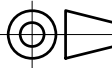

C

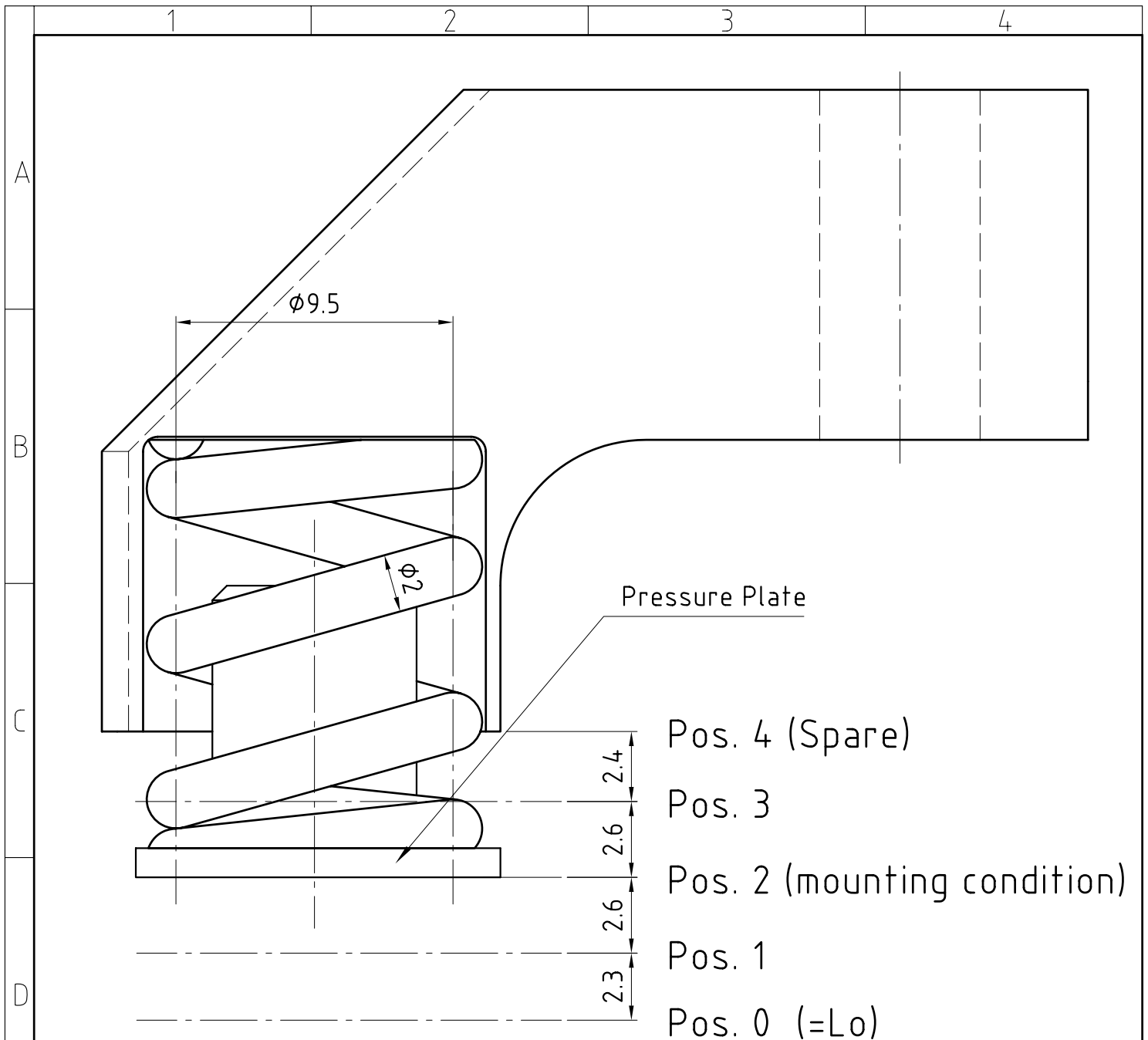
D

40 Stück

surface finish ALODINE 1200

spec.: MIL-C-5541 Class 3

Verwendungsbereich AMS02		 Zul. Abw. DIN ISO 2768 mittel	Oberfläche N10 ✓	Maßstab 2:1		Gewicht	
				Werkstoff, Halbzeug		Al EN AW 7075 MIL-QQ-A-250/12	
		07	Datum	Name	Benennung Pressure Plate ACC Clamps Z+		
		Bearb.	01.02.	Wlochal			
		Gepr.					
		Name					
		 Physics AC-1			Zeichnungsnummer		Blatt
					ams02-07-1000		1/1
							A4 Bl.
Rev.	Änderung	Revision	Name	Ers. f.:		Ers. d.:	Plot Datum:



ACC-Clamp

Spring DIN 17682 - Inconel X 750

$\phi 2 \times \phi 9.5 \times 20$

$R = 34.3 \text{ N/mm}$

@ BC414 = $7.8 \times 10^{-5} \text{ 1/}^\circ\text{C}$

RWTH

Physics AC-1

ams02-1768a

10.12.2002

PECHINEY ROLLED PRODUCTS

CERTIFIED TEST REPORT

RAVENSWOOD, WV 26164 USA

AMI METALS
10606 COMMERCE WAY
FONTANA CA

AMI METALS, INC.
ACCOUNTS PAYABLE
1738 GENERAL PATTON DRIVE
BRENTWOOD TN
37230

92337

AMI METALS 475101 1512

INCLUSION

SERIAL#: 20050830475101 1

CUSTOMER PURCHASE ORDER NO. & ITEM 7874-CA				PECHINEY ORDER NO. 050-498585	
ALLOY 7075	CLAD. 00	TEMPER T7351	GAUGE 4.00000	WIDTH 48.000	LENGTH 144.000
ITEM ORDERED DIST. AEROSPACE/MILITARY SPEC PLATE, SAWED MILL					
CUSTOMER SPECIFICATION AMS-QQ-A-250/12					
PART NUMBER		B/L NUMBER M5380		DATE SHIPPED 08/30/05	
WEIGHT SHIPPED 22,580	NO. OF PIECES 8		GOVT. CONTRACT NO.		

CERTIFICATION
"Pechiney Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Pechiney Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."
PECHINEY ROLLED PRODUCTS
P.O. BOX 68
RAVENSWOOD, WV 26164 USA
LaDonna B. Smith
LADONNA B. SMITH - LABORATORY MANAGER

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		COND % IAC										
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN	MAX									
433241	LT	2	69.2	69.5	57.7	58.2	11.5	11.5	40.3	40.5									
433242	LT	2	68.8	68.9	56.9	57.2	11.5	11.5	40.6	40.6									
<p>***** T7351 *****</p> <p>ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS</p> <p>BSS-7055A TECH#8905.0 100%SONIC MINUS DEADZONE CLASS A</p> <p>ALSO CONFORMS TO MMS 159N, AMS 4078F, ASTM B209-02</p> <p>ALSO CONFORMS TO AMS STD 2154, PS 21211J CL A SONIC</p>																			
CHEMICAL COMPOSITION	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS	
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH MAX.	TOTAL MAX.
	SEE ACTUAL CHEMICAL COMPOSITION																		
ALUMINUM REMAINDER																			

AMI
28

PECHINEY ROLLED PRODUCTS

CERTIFIED TEST REPORT

RAVENSWOOD, WV 26164 USA

AMI METALS
10606 COMMERCE WAY
FONTANA CA
92337

AMI METALS, INC.
ACCOUNTS PAYABLE
1738 GENERAL PATTON DRIVE
BRENTWOOD TN
37230

AMI METALS 475101 1512

INCLUSION

SERIAL#: 20050830475101 2

CUSTOMER PURCHASE ORDER NO. & ITEM 7874-CA				PECHINEY ORDER NO. 050-498585		CERTIFICATION	
ALLOY 7075	CLAD. 00	TEMPER T7351	GAUGE 4.00000	WIDTH 48.000	LENGTH 144.000	"Pechiney Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Pechiney Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."	
ITEM ORDERED DIST. AEROSPACE/MILITARY SPEC PLATE, SAWED MILL							
CUSTOMER SPECIFICATION AMS-QQ-A-250/12							
PART NUMBER		B/L NUMBER M5380		DATE SHIPPED 08/30/05			
WEIGHT SHIPPED 22,580		NO. OF PIECES 8		GOV'T. CONTRACT NO.			
<p style="text-align: center;">PECHINEY ROLLED PRODUCTS P.O. BOX 68 RAVENSWOOD, WV 26164 USA</p> <p style="text-align: center;"><i>Labonna B. Smith</i> LABONNA B. SMITH - LABORATORY MANAGER</p>							

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		COND % IAC										
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN	MAX									
ACTUAL CHEMICAL COMPOSITION																			
433241			SI=0.09 FE=0.17 CU= 1.5 MN=0.07 MG= 2.5 CR=0.20 ZN= 5.5 TI=0.03																
			OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																
433242			SI=0.09 FE=0.17 CU= 1.5 MN=0.07 MG= 2.5 CR=0.20 ZN= 5.5 TI=0.03																
			OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																
<p>THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTE APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.</p> <p style="text-align: center;">CHEMISTRY BY OES: ARKSPARK</p> <p>CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT.</p> <p>WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399.</p> <p>WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8, B567.</p> <p style="text-align: center;">"END OF CERTIFICATION"</p> <div style="text-align: right;"> <p>CERTIFIED COPY OF ORIGINAL</p> <p><i>Labonna B. Smith</i></p> <p>SIGNATURE</p> <p><i>Raewyn</i></p> <p>TITLE</p> </div>																			
CHEMICAL COMPOSITION	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS	
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH MAX.	TOTAL MAX.
SEE ACTUAL CHEMICAL COMPOSITION																			
ALUMINUM REMAINDER																			



86296
6

EA/AMS

JSC PROJECT PARTS TAG

1. PART NUMBER NASI351N3LB10		2. SN / LOT NUMBER 78681	
3. PART NAME SCREW		4. S/L EXP. NA	5. U/I EA

6. MFG. / SUPPLIER B+B	7. UNIT PRICE 4²⁵	8. QTY. REC. 100
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9. ACQ. DOCUMENT # N560855BDB-082	10. PROJECT CODE SA-AMS
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11. QUALITY CLASS I	12. ADP Y (N)	13. INSPECT (ESC PA 3)	14. DATE 3/7/6
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TRANSACTION DOCUMENTS #	QTY.	DATE	STAMP
	BAL.		
Release per RITF TEST	2 98	3/7/6	(ESC PA 3)
RITF TEST REPORT #060217 (PASS)	0 98	3/10/6	(ESC PA 3)
Release per 528 ESC0786	98 0	3/10/6	(ESC PA 3)
RECEIVED IN BONDED STORAGE 528/ESC0786	98	3/20/6	BONDED STORAGE 2 JSC
J6-132-014	98 0	5/12/06	BONDED STORAGE
J6-132-014	98 0	5/12/06	BONDED STORAGE

8G12B

JSC PROJECT PARTS TAG

1 PART NUMBER HTH1978-3-3	2 S/N / <u>LOT</u> NUMBER 10363
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3 PART NAME Bolt, 12PT Head	4 S/L EXP. NA	5 U/I EA
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6 MFG / SUPPLIER Hatch	7 UNIT PRICE 65 ⁰⁰	8 QTY REC. 59
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9 ACQ. DOCUMENT # N560855BDB-220	10 PROJECT CODE SA-AMS
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11 QUALITY CLASS I	12 ADP Y <input checked="" type="radio"/> N	13 INSPECT 	14 DATE 01/29/07
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TRANSACTION DOCUMENT#	QTY. BAL.	DATE	STAMP
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Release per RTTF TEST	2 57	01/29/07	
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RTTF TEST REPORT # 070083 (PASS)	0 57	01/30/07	
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Release per 528 ESC1445	57 0	01/30/07	
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528/ESC1445 <small>RECEIVED IN BOND</small>	57	2/6/07	
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RELEASED FROM BONDED STORAGE J7-088-010	57	3/29/07	
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

OK TO SHIP 52-088-010	57	2/2/07	
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85196

13

AMS

JSC PROJECT PARTS TAG


1. PART NUMBER NAS 1149 E0363R		2. SN (LOT NUMBER) S 5271	
3. PART NAME Washer, Flat #10		4. S/L EXP. —	5. U/I EA
6. MFG. / SUPPLIER Anillo	7. UNIT PRICE .25	8. QTY. REC. 300	
9. ACQ. DOCUMENT # N560855BDB-082		10. PROJECT CODE SA-AMS	
11. QUALITY CLASS I	12. ADP Y <input checked="" type="radio"/> N	13. INSPECT 	14. DATE 2/15/06
TRANSACTION DOCUMENTS #	QTY.	DATE	STAMP
	BAL.		
Release per 528 ESC0734	300 0	2/15/06	
RECEIVED IN BONDED STORAGE			
528/ESC0734	300	3/21/06	
J6-132-014	300	5/15/06	
J6-132-014	300	5/15/06	






16
8513H

AMS

JSC PROJECT PARTS TAG

1. PART NUMBER NAS1587-3C		2. S/N / LOT NUMBER 831-8/20/04	
3. PART NAME Washer, CSK #10		4. S/L EXP. ~	5. U/I EA
6. MFG. / SUPPLIER Moeller	7. UNIT PRICE .50	8. QTY. REC. 100	

9. ACQ. DOCUMENT # N560855BDB-082		10. PROJECT CODE SA-AMS	
11. QUALITY CLASS I	12. ADP Y <input checked="" type="radio"/> N	13. INSPECT 	14. DATE 2/15/06

TRANSACTION DOCUMENTS #	QTY.	DATE	STAMP
	BAL.		
Release per 528 ESCOT34	100	2/15/06	
RECEIVED IN BONDED STORAGE 528/ESCOT34	100	3/21/06	
J6-132-014	100	5/15/06	
J6-132-014	0	5/15/06	
OK TO SHIP	0	5/15/06	

JSC PROJECT PARTS TAG

PROJECT: AMSCF2



NAS1587-A3C



#.12

LOT NUMBER:

SERIAL NUMBER:

970-8/9/01

N/A

NOUN:

WASHER

LOCATION:

SHELF DATE:

QTY:

U/I:

N/A

125

EA

MANUFACTURER:

ALABAMA AEROSPACE

083L8

REQUISITION DOCUMENT:

GF71251J62

- 01/07/04

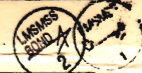
CLASS I

125	1/4/04
0	



RELEASED LMSO
PER LMS 3204

125	3/9/04
0	





**STANDARD MATERIAL CERTIFICATION
(SMC)**

Customer: **POLYTEC PT GMBH
POLYTEC-PLATZ 1-7
76337 WALDBRONN,
GERMANY**

Customer Purchase Order Number: **323798/937**

Nusil Technology Material No.: **CV-1142-2 CV SILICONE ADHESIVE**

Nusil Technology Lot No.: **44611**

Quantity Shipped: **1 x 3 OZ TUBE**

Warranted To: 15-Feb-09 when stored below 40°C in original, unopened containers.

Properties	Units	Test Method	Specification Limits	Test Results
UNCURED:				
Appearance Black. Visually free of particulates, lumps and gels.		TM002	Pass/Fail	Pass
Flow 0.020" plunger	inches	TM019	1.0 Maximum	0.0 (0.0 cm)
Tack-Free Time Method A	minutes	TM005	30 Maximum	10
Cure Time Method A	hours	TM075	24 Maximum	1.5
Extrusion Rate Method A	g/minute	TM033	15 - 55	23 (0.81 oz mass/minute)

**CURED: 7 days minimum @ ambient temperature and humidity.
Mix Ratio: 1-Part**

Appearance Elastomeric solid. Free of voids and defects.		TM002	Pass/Fail	Pass
Specific Gravity		TM003	1.10 - 1.14	1.13
Durometer Type "A" scale		TM006	30 Minimum	54
Tensile Properties of Elastomers Tensile Strength	psi	TM007	420 Minimum	541 (3,730.20 kPa)
Tensile Properties of Elastomers Elongation	%	TM007	150 Minimum	220



STANDARD MATERIAL CERTIFICATION (SMC)

Nusil Technology Material No.: CV-1142-2 CV SILICONE ADHESIVE

Nusil Technology Lot No.: 44611

Table with 5 columns: Properties, Units, Test Method, Specification Limits, Test Results. Rows include Tear Strength, Thermal Vacuum Outgassing (ASTM E 595) TML, Thermal Vacuum Outgassing (ASTM E 595) CVCM, and Lap Shear Strength.

CURED: 10 days -0 + 72 hours @ ambient temperature and humidity.

NuSil Technology has tested this lot of material only to determine if it is in compliance with current specification requirements. It is the sole responsibility of each purchaser to ensure that any use of these materials is safe and complies with all applicable laws and regulations.

Quality Assurance: Amada Cisnero

Date of Shipment: 15-Aug-08