

(U)

Workorder Part ID Drawing ID / Rev Engineer SE121 / A BLUE/DOUG MCCORKLE 64880/1 NSCX PROTOTYPE VACUUM VESSEL SEGMENT Drawing ID / Rev Sub ID Part ID 0 NSCX PROTOTYPE VACUUM VESSEL SEGMENT SE121 / A Operation Resource **QtyPer** StartQty EndQty Drawing ID / Rev Sub: 0 / Seq: 10 700-BLUE TEAM, ENGINEERING 1.00 1.00 1.00 SE121 / A (U) **ENGINEERING** Piece # Part ID Qty Drawing ID / Rev Vendor **Dimensions** 1.0 10 (U) WELD WIRE QtyPer Operation Resource StartOtv EndOty Drawing ID / Rev Sub: 0 / Seq: 20 825-FINAL INSPECTION - PLANTS 1 & 1.00 1.00 1.00 SE121 / A (U) FINAL VISUAL INSPECTION (ENGINEERING CONCURRENCE REQUIRED). VERIFY CLEANLINESS PER COMPILE ELECTRONIC DATA BOOK INFORMATION PER MTM QAP. TAKE SEVERAL PHOTOGRAPHS OF PART PREPARE C OF C AND REQUEST FOR SHIPPING RELEASE (CONTACT ENGINEERING (DOUG McCORKLE) FOR RELEASE FORM IF NOT AVAILABLE ELECTRONICALLY. Operation QtyPer EndQty Drawing ID / Rev Resource StartQty Sub: 0 / Seq: 30 425-SHIPPING - PLANTS 1 & 2 1.00 SE121 / A 1.00 1.00 (Ū) SHIP PER CUSTOMER RELEASE FORM (CONTAINER MANUFACTURED IN SUB I.D. 28) SPECIAL CRATE REQUIREMENTS: CONTAINER MUST BE CLEARLY MARKED WITH THE FOLLOWING INFORMATION: SUPPLIER: MAJOR TOOL & MACHINE, INC. 1458 E. 19TH ST. INDIANAPOLIS, IN 46218 CONTENTS: SE121 NCSX PVVS Operation **QtyPer** StartQty EndQty Drawing ID / Rev Service ID Resource Sub: 0 / Seq: 9999 600-DO NOT USE - PC AUTO PROJECT 1.00 1.00 1.00 TESTNG/MISC IDC N/A Drw N/A Sub ID Part ID Drawing ID / Rev SE121 PROTOTYPE VACUUM VESSEL SE121 / A Operation Resource QtyPer StartQty EndQty Drawing ID / Rev Sub: 1 / Seq: 10 230-FABRICATION - WEIDNER 1.00 1.00 1.00 SE121 / A * FABRICATION OPERATION # 1

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Part ID

ty Drawing ID / Rev SE121 / A Engineer BLUE/DOUG MCCORKLE

1. INSTALL THE DIE FORMED PANELS ONTO FABRICATION FIXTURE. TRIM, FIT, AND ALIGN EACH PANEL TO IT'S RESPECTIVE ADJACENT PANEL AND FIXTURE REST STOPS. NOTE THAT THE FIXTURE REST STOPS ARE POSITIONED AT NOMINAL (+.090") GEOMETRIC POSITION TO AVOID STARTING ANY LOWER THAN MID-TOLERANCE. GAPS BETWEEN THE PRODUCTION PANELS AND FIXTURE REST STOPS (UP TO .090") ARE PERMITTED.

ALIGN AND TACK WELD ALL FIVE PANELS TOGETHER.

ENSURE EACH PANEL IS ALIGNED SMOOTH AND CONTINUOUS TO ITS ADJACENT MEMBER AND MIS-MATCH IS MINIMIZED. CWI / ENGINEERING CONCURRENCE REQUIRED.

ASSIST Q/A WITH PROFILE VERIFICATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty 1	Drawing ID / Rev
Sub: 1 / Seq: 20	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A
(U)	INSPECTION OPERATION # 1				

AFTER PART IS COMPLETELY TACK WELDED, INSPECT / VERIFY POSITIONING, FITUP, AND PROFILE OF TACK WELDED PER THE FOLLOWING:

ENSURE THE PART PROFILE IS WITHIN THE UPPER HALF OF THE APPLIED BI-LATERAL TOLERANCE AS FOLLOWS: VARIFY THAT NO INSPECTION POINT IS ABOVE THE HIGH LIMIT OF TOLERANCE (OUTWARD) OR BELOW NOMINAL (INWARD).

RECORD ACTUAL (HIGH/LOW RANGE) ON MTM I.D.C.

REPORT ANY OUT OF TOLERANCE READINGS VIA MTM N.C.R.

NOTIFY ENGINEERING (DOUG McCORKLE) FOR EVALUATION OF RESULTS PRIOR TO RELEASING PART.

ENSURE THE FIXTURE DATUM TARGETS ARE ADEQUATELY POSITIONED FOR THE NEXT SEQUENTIAL INSPECTION

INSPECT AND RECORD THE MAGNETIC PERMEABILITY OF THE WELD ZONES.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty Drawing ID / Rev
Sub: 1 / Seq: 30	230-FABRICATION - WEIDNER	1.00	1.00	1.00 SE121 / A
(U)	FABRICATION OPERATION # 2			

INSTALL THE EXTERIOR STIFFENER (FIXTURING) TO THE TOP OF THE VESSEL. TACK WELD THE STIFFENER TO THE PART. NOTE THAT THE STIFFENER MATERIAL IS ALSO INCO 625, NO TABS REQUIRED.

BACK PURGE THE OUTSIDE WELD JOINT SURFACES. PURGE MATERIAL MUST BE MADE FROM EITHER 625 INCONEL OR 300 SERIES STAINLESS STEEL. WELD ROOT PASSES (INCREMENTALLY, USING BACK-STEPPING METHOD TO MINIMIZE SHRINKAGE) ON ALL FIVE WELD JOINTS.



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ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 1 / Seq: 40	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A
(Ū)	INSPECTION OPERATION # 2				

AFTER THE ROOT WELDS ARE COMPLETE (FABRICATION DEPT. WILL COORDINATE); RE-INSPECT / VERIFY PART PROFILE IS WITHIN APPLIED TOLERANCE AND RECORD WELDING SHRINKAGE / DISTORTION REALIZED TO THIS POINT.

RECORD ACTUAL (INDIVIDUAL) MEASUREMENTS ON INSPECTION FORM (SE121-2MTM). RECORD ACTUAL (HIGH/LOW RANGE) ON MTM I.D.C.

INSPECT AND RECORD MAGNETIC PERMEABILITY.

REPORT ANY OUT OF TOLERANCE READINGS VIA MTM NCR.

NOTIFY ENGINEERING (DOUG McCORKLE) FOR EVALUATION OF RESULTS PRIOR TO RELEASING PART.

ENSURE THE FIXTURE DATUM TARGETS ARE ADEQUATELY POSITIONED FOR THE NEXT SEQUENTIAL INSPECTION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty Drawing ID / Rev
Sub: 1 / Seq: 70	230-FABRICATION - WEIDNER	1.00	1.00	1.00 SE121 / A
(Ū)	FABRICATION OPERATION # 4			

AFTER OBTAINING ENGINEERING PROFILE ACCEPTANCE, WELD THE REMAINDER OF THE STRUCTURAL WELD JOINTS (SEQUENCE WELDING TO MINIMIZE DISTORTION AND NUMBER OF INTER-PASSES).

AFTER WELDING IS COMPLETE, REMOVE THE OUTSIDE STIFFENING PLUG. BLEND / TOUCH UP ATTACHMENT WELDS AS REQUIRED.

POSITION AND WELD THE PORT SUB-ASSEMBLY IN PLACE PER DRAWING.

FINISH POLISHING AND CLEANING THE INTERIOR SURFACES OF THE PORT SUB-ASSEMBLY. RESTORE TO A 32 MICRO-INCH SURFACE FINISH. REFER TO CLEANING PROCEDURE # ??????

INSTALL THE VACUUM TEST CAP TO THE CONFLAT FLANGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON

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Engineer
BLUE/DOUG MCCORKLE

FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Seq: 73

Resource 450-SUBLET QtyPer 1.00

StartQty EndQty Drawing ID / Rev 1.00 1.00 SE121 / A Service ID MISC/SUBLET

(U)

VACUUM TESTING OF PORT SUB-ASSEMBLY TO PER THE FOLLOWING:

THE PORT UNDER TEST SHALL BE EVACUATED USING A TURBO MOLECULAR PUMP TO AN INTERNAL PRESSURE OF LESS THAN OR EQUAL TO 1 X 10(-7) TORR. THE TOTAL HELIUM LEAK RATE FOR THE PORT EXTENSION SHALL BE LESS THAN OR EQUAL TO 1.7 X 10(-9) TORR-L/S.

Part Number: SE121-1

Part Description: PROTOTYPE VACUUM VESSEL SEG.

Customer: PPPL

Test Certification: VACUUM TEST CERTIFICATE Rev:

Operation Sub: 1 / Seq: 80 (U) Resource 805-INPROCESS INSPECTION - PLANT INSPECTION OPERATION # 3 QtyPer 1.00 StartQty End

EndQty Drawing ID / Rev 1.00 SE121 / A

AFTER THE STRUTURAL WELDS AND VACUUM TESTING ARE COMPLETE (FABRICATION DEPT. WILL COORDINATE); RE-INSPECT / VERIFY PART PROFILE IS WITHIN APPLIED TOLERANCE AND RECORD WELDING SHRINKAGE / DISTORTION.

RECORD ACTUAL (HIGH/LOW RANGE) ON MTM I.D.C.

REPORT ANY OUT OF TOLERANCE READINGS VIA MTM NCR.

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Seq: 90 (U) Resource 230-FABRICATION - WEIDNER FABRICATION OPERATION # 5 **QtyPer** 1.00

StartQty 1.00 EndQty Drawing ID / Rev 1.00 SE121-003P / 0

LAYOUT AND CUT THE PORT EXTENSION TUBE PER DRAWING. CUT THE PORT OPENING PER DRAWING. PREP EDGES OF TUBE FOR RE-INSTALLATION AND WELDING. POSITION AND WELD THE WELD BACKING RING (SE121-003P-4) IN PLACE PER DRAWING.

RE-INSTALL THE PORT EXTENSION TUBE AND WELD IN PLACE PER DRAWING.

GRIND AND POLISH THE INSIDE WELD PROFILE SMOOTH TO BASE MATERIAL (NOTE SURFACE FINISH REQUIREMENTS).

GRIND AND POLISH THE STIFFENING RING FILLET WELDS SMOOTH.

GRIND / POLISH THE PORT SUB-ASSEMBLY INTERIOR WELD SMOOTH AND CUT THE OPENING PER DRAWING.

ASSIST O/A WITH PROFILE VERIFICATION.

AFTER INSPECTION IS COMPLETE, REMOVE PART FROM FIXTURE.

PERFORM FINAL COSMETIC UPGRADE. PREPARE PART FOR FINAL BLAST AND FINAL VISUAL INSPECTION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO



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Engineer BLUE/DOUG MCCORKLE

AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Seq: 100 (U)

Resource 805-INPROCESS INSPECTION - PLANT FINAL PROFILE VERIFICATION. VERIFY MAGNETIC PERMEABILITY.

EndQty Drawing ID / Rev OtvPer StartOtv 1.00 1.00 1.00 SE121 / A

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Sea: 110

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Resource 260-SANDBLAST QtyPer StartOtv EndQty Drawing ID / Rev 1.00 1.00 1.00 SE121 / A

MASK THE INTERIOR SURFACES AND FLANGE FACE. BLAST THE OUTSIDE SURFACE 100% USING 220 GRIT VIRGIN ALUMINUM OXIDE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

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Operation Sub: 1 / Seq: 115

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(U)

Sub: 1 / Seq: 120

Resource 230-FABRICATION - WEIDNER OtvPer StartOtv 1.00 1.00

EndOty Drawing ID / Rev 1.00 SE121 / A

REMOVE MASKING AND PROTECTIVE PLASTIC CLEAN PART PER

Operation Resource

QtyPer

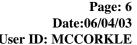
StartQty EndQty Drawing ID / Rev

1.00 SE121 / A 805-INPROCESS INSPECTION - PLANT 1.00 1.00 FINAL MAGNETIC PERMEABLITY VERIFICATION.

VERIFY MAGNETIC PERMEABILITY OF THE STRUCTURAL WELDS, VESSEL WALL, PORT EXTENSION TUBE, CONFLAT FLANGE, FLANGE TO TUBE WELD.

RECORD I.D.C. DATA

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:



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Sub ID Part ID Drawing ID / Rev 3 LEAVE UNRELEASED!!!! SE121-00

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev Sub: 3 / Seq: 10 410-BURNOUT TABLE 1.00 1.00 1.00 SE121 / A

NEST AND PROGRAM. (U) BURNOUT AND CLEANUP STIFFENER SEGMENTS PER NESTING / PROGRAM. ENSURE ALL DROSS IS REMOVED AND CORNERS ARE SLIGHTLY RADIUSED.

Piece # Part ID Drawing ID / Rev Vendor **Dimensions** 1.0 1810

INCONEL 625_6-PLATE, NICKEL ALLOY .5" THK

Vendor Part ID: INCONEL 625_6 INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

(U)

(U)

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MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REO'D WITH SHIPMENT.

Material Certification: Part Number: SE121-3 & -4

Part Description: PROTOTYPE RIB # 1 & 2

OtvPer StartOtv EndOty Drawing ID / Rev Operation Resource

Sub: 3 / Seq: 20 230-FABRICATION - WEIDNER 1.00 1.00 1.00 SE121 / A

ASSEMBLE AND WELD STIFFENER SUB-ASSEMBLIES COMPLETE PER DRAWING, MYLAR TEMPLATE, AND WPS.....

ENSURE ADEQUATE MACHINING STOCK EXISTS ON INSIDE AND OUTSIDE CONTOUR.

Operation Resource **QtyPer** StartOtv EndQty Drawing ID / Rev Sub: 3 / Seq: 30 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

(U) VERIFY / RECORD MAGNETIC PERMEABILITY OF STIFFENERS. RECORD I.D.C. DATA.

Part ID Sub ID Qty Drawing ID / Rev 14 SE121-001P-2 PANEL # 1

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 14 / Seq: 10 410-BURNOUT TABLE 1.00 1.00 1.00 SE121 / A

> 1. PRIOR TO BEGINNING WORK, CONTACT Q/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.

2. NEST AND PROGRAM PER PROVIDED GEOMETRY.

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.qrp



Workorder 64880/1

(U)

Part ID

Qty Drawing ID / Rev 1 SE121 / A

BLUE/DOUG MCCORKLE

Engineer

- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece #Part IDQtyDrawing ID / RevVendorDimensions10INCONEL 625_5-PLATE,NICKEL ALLOY .375" THK1.01810

Vendor Part ID: INCONEL 625_5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 14 / Seq: 15805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

Customer: PPPL Serial Number: SE121-1

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 14 / Seq: 20	341-PACIFIC 750	1.00	1.00	1.00	SE121 / A



Page: 8
Date:06/04/03
User ID: MCCORKLE

(U) FORM PANEL IN DIE # _____.
VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 14 / Seq: 25260-SANDBLAST1.001.001.003.001.00(U)SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev
Sub: 14 / Seq: 30 520-SUBLET, EXOTIC HEAT TREAT 1.00 1.00 1.00 SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING: EndQty Drawing ID / Rev
1.00 SE121 / A THRML TR/NA SA

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

Certification: H/T CERTIFICATE

Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

Customer: PPPL

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 14 / Seq: 35805-INPROCESS INSPECTION - PLANT1.001.001.005E121 / A(U)VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC.....



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Date:06/04/03
User ID: MCCORKLE

Workorder 64880/1

Part ID

Qty Drawing ID / Rev 1 SE121 / A

BLUE/DOUG MCCORKLE

Engineer

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation Sub: 14 / Seq: 40 (U)
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

RE-STRIKE PANEL

VERIFY PROFILE TO INSPECTION GAGE #______. GAP TOLERANCE: .08" MAX.

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 14 / Seq: 50

Resource QtyPer StartQty EndQty Drawing ID / Rev 260-SANDBLAST 1.00 1.00 1.00 SE121 / A

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation

Resource 230-FABRICATION - WEIDNER QtyPer StartQty EndQty Drawing ID / Rev 1.00 1.00 1.00 SE121 / A

Sub: 14 / Seq: 60 (U)

TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REQUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.



(U)

Page: 10 Date: 06/04/03

User ID: MCCORKLE

Workorder Part ID Otv Drawing ID / Rev Engineer SE121 / A BLUE/DOUG MCCORKLE 64880/1

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 14 / Seq: 70 805-INPROCESS INSPECTION - PLANT 1.00 SE121 / A 1.00 1.00

> GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER. VERIFY PROFILE TO INSPECTION GAGE #

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH.

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS. BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

Sub ID Part ID Drawing ID / Rev 15 SE121-001P-2 PANEL # 2

Operation Resource **QtyPer** StartOtv EndOty Drawing ID / Rev

Sub: 15 / Seq: 10 (U)

410-BURNOUT TABLE

1.00 1.00 1.00 SE121 / A

- 1. PRIOR TO BEGINNING WORK. CONTACT O/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.
- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Vendor Dimensions Part ID Drawing ID / Rev INCONEL 625_5-PLATE, NICKEL ALLOY .375" THK 1.0 1810 Vendor Part ID: INCONEL 625 5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REO'D WITH SHIPMENT.

Material Certification:



Page: 11 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Qty Drawing ID / Rev 1 SE121 / A

BLUE/DOUG MCCORKLE

Engineer

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Operation Sub: 15 / Seq: 15

(U)

ResourceQtyPerStartQtyEndQtyDrawing ID / Rev805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Customer: PPPL Serial Number: SE121-2

Operation Sub: 15 / Seq: 20

(U)

 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

FORM PANEL IN DIE #

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 15 / Seq: 25 ResourceQtyPerStartQtyEndQtyDrawing ID / Rev260-SANDBLAST1.001.001.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON



Page: 12 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

(U)

(U)

Part ID

Drawing ID / Rev Otv SE121 / A

Engineer BLUE/DOUG MCCORKLE

FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS. BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation **QtyPer** StartOtv EndOty Drawing ID / Rev Service ID Resource Sub: 15 / Seq: 30 520-SUBLET, EXOTIC HEAT TREAT 1.00 1.00 1.00 SE121 / A THRML TR/NA SA (U)

SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

Certification: H/T CERTIFICATE

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Customer: PPPL

Operation OtvPer StartOtv EndOty Drawing ID / Rev Sub: 15 / Seq: 35 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 15 / Seq: 40 1.00 1.00 SE121 / A 341-PACIFIC 750 1.00

RE-STRIKE PANEL

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX.

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation OtvPer StartOtv EndOty Drawing ID / Rev Resource Sub: 15 / Seq: 50 260-SANDBLAST 1.00 1.00 1.00 SE121 / A

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 15 / Seq: 60

(U)

Resource

QtyPer EndOty Drawing ID / Rev StartOtv

230-FABRICATION - WEIDNER

1.00 1.00 1.00 SE121 / A

TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REQUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation

(U)

Resource Sub: 15 / Seq: 70

805-INPROCESS INSPECTION - PLANT

StartOtv EndOty Drawing ID / Rev 1.00 1.00 SE121 / A

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

OtvPer

1.00

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Sub ID 16

Part ID

SE121-001P-2 PANEL # 3

Drawing ID / Rev

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.qrp

(U)

(U)

Date: 06/04/03 **User ID: MCCORKLE**

Workorder Part ID Drawing ID / Rev Engineer

SE121 / A BLUE/DOUG MCCORKLE 64880/1

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 16 / Seq: 10 410-BURNOUT TABLE 1.00 SE121 / A 1.00 1.00

> 1. PRIOR TO BEGINNING WORK, CONTACT Q/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.

- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT. CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Part ID Drawing ID / Rev Vendor Dimensions INCONEL 625_5-PLATE, NICKEL ALLOY .375" THK 1.0 1810

Vendor Part ID: INCONEL 625 5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REO'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 16 / Seq: 15 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

> VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

Customer: PPPL

Workorder Part ID Drawing ID / Rev Engineer SE121 / A BLUE/DOUG MCCORKLE 64880/1

Serial Number: SE121-3

EndQty Drawing ID / Rev Operation Resource **QtyPer** StartQty Sub: 16 / Seq: 20 341-PACIFIC 750 1.00 1.00 1.00 SE121 / A

FORM PANEL IN DIE # (U)

> VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 16 / Seq: 25 1.00 1.00 260-SANDBLAST 1.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Resource QtyPer StartOtv EndOty Drawing ID / Rev Service ID Operation Sub: 16 / Seq: 30 520-SUBLET, EXOTIC HEAT TREAT 1.00 1.00 1.00 SE121 / A THRML TR/NA SA (U)

SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

Certification: H/T CERTIFICATE

Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

Customer: PPPL



Workorder 64880/1

(U)

(U)

Part ID

Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

QtyPer StartOtv EndOty Drawing ID / Rev Operation Resource 1.00 1.00 SE121 / A Sub: 16 / Seq: 35 805-INPROCESS INSPECTION - PLANT 1.00

VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation Resource OtvPer StartOtv EndQty Drawing ID / Rev 1.00 1.00 SE121 / A Sub: 16 / Seq: 40 341-PACIFIC 750 1.00

RE-STRIKE PANEL

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX.

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Resource **QtyPer StartOty** EndOty Drawing ID / Rev Sub: 16 / Seq: 50 1.00 SE121 / A 260-SANDBLAST 1.00 1.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

QtyPer StartOtv EndQty Drawing ID / Rev Operation Resource

230-FABRICATION - WEIDNER 1.00 1.00 1.00 SE121 / A TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE

REOUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING

MTTRAVLR.arp W:64880/1-0 /Inc Matl /Inc Legs

Sub: 16 / Seq: 60

(U)



Workorder 64880/1

(U)

Part ID Drawing ID / Rev Otv SE121 / A

Engineer BLUE/DOUG MCCORKLE

CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

EndOty Drawing ID / Rev Operation OtvPer StartOtv Resource Sub: 16 / Seq: 70

805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH.

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

Drawing ID / Rev Sub ID Part ID Qty 17 SE121-001P-2 PANEL # 4

Operation Sub: 17 / Seq: 10

(U)

Resource

OtvPer StartOtv EndOty Drawing ID / Rev

410-BURNOUT TABLE 1.00 1.00 1.00 SE121 / A

- 1. PRIOR TO BEGINNING WORK, CONTACT Q/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.
- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Part ID Otv Drawing ID / Rev Vendor **Dimensions** INCONEL 625_5-PLATE, NICKEL ALLOY .375" THK 1.0 1810 10

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

Vendor Part ID: INCONEL 625 5

ANNEALED



Page: 18
Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

 Part ID
 Qty
 Drawing ID / Rev

 1
 SE121 / A

Engineer
BLUE/DOUG MCCORKLE

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4

Operation Sub: 17 / Seq: 15

Resource QtyPer StartQty EndQty Drawing ID / Rev

Seq: 15 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A
(U) VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATE

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4

Customer: PPPL Serial Number: SE121-4

Operation Sub: 17 / Seq: 20

 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

(U) FORM PANEL IN DIE # .

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 17 / Seq: 25260-SANDBLAST1.001.001.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.



Date: 06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

BLUE/DOUG MCCORKLE

Engineer

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING. SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev	Service ID
Sub: 17 / Seq: 30	520-SUBLET, EXOTIC HEAT TREAT	1.00	1.00	1.00	SE121 / A	THRML TR/NA SA
(U)	SOLUTION ANNEAL FORMED PANEL PER THE FOLL	OWING:				

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

Certification: H/T CERTIFICATE

Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4

Customer: PPPL

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Re
Sub: 17 / Seq: 35	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A
(U)	VISUAL INSPECT SURFACE FOR DAMAGE, PITT	ING, GOUGES,	SCRAPES E	TC	
	VEDIEV MA CNETIC DEDMEADH ITV AND DECC	DDIDG DATA			

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 17 / Seq: 40	341-PACIFIC 750	1.00	1.00	1.00	SE121 / A
(U)	RE-STRIKE PANEL				

VERIFY PROFILE TO INSPECTION GAGE # . GAP TOLERANCE: .08" MAX. LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING: THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO

IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.arp



Page: 20 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1 Part ID

Oty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 17 / Seq: 50260-SANDBLAST1.001.001.00SE121 / A

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 17 / Seq: 60 Resource

QtyPer StartQty EndQty Drawing ID / Rev

230-FABRICATION - WEIDNER

1.00 1.00 1.00 SE121 / A

(U)

TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REQUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation

Sub: 17 / Seq: 70

(U)

ResourceQtyPerStartQtyEndQtyDrawing ID / Rev805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

-INFROCESS INSPECTION - PLANT 1.00 1.00 SEIZI

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

 ${\tt INSPECT\ AND\ RECORD\ INTERIOR\ SIDE\ SURFACE\ FINISH.}$

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4



Page: 21 Date: 06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

Sub ID Part ID 18

SE121-001P-2 PANEL # 5

Drawing ID / Rev

Operation Sub: 18 / Seq: 10

(U)

Resource 410-BURNOUT TABLE

EndQty Drawing ID / Rev OtvPer StartOtv

1.00 1.00 1.00 SE121 / A

1. PRIOR TO BEGINNING WORK, CONTACT O/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.

- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Part ID Drawing ID / Rev INCONEL 625_5-PLATE, NICKEL ALLOY .375" THK 1.0 10 Vendor Part ID: INCONEL 625 5

1810

Vendor

Dimensions

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2E

Part Description: DIE FORMED PANEL # 5

Operation

(U)

Resource

QtyPer StartOtv EndOty Drawing ID / Rev

Sub: 18 / Seq: 15 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.arp



Part ID

Workorder

(U)

64880/1

Page: 22 Date:06/04/03

BLUE/DOUG MCCORKLE

Engineer

Tool & Machine, Inc.

User ID: MCCORKLE

Drawing ID / Rev

SE121 / A

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2E
Part Description: DIE FORMED PANEL # 5

Customer: PPPL Serial Number: SE121-5

 Operation
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 Sub: 18 / Seq: 20
 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

(U) FORM PANEL IN DIE #

VERIFY PROFILE TO INSPECTION GAGE #______. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 18 / Seq: 25260-SANDBLAST1.001.001.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

 Operation
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev
 Service ID

 Sub: 18 / Seq: 30
 520-SUBLET, EXOTIC HEAT TREAT
 1.00
 1.00
 1.00
 SE121 / A
 THRML TR/NA SA

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.



Page: 23 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

(U)

(U)

Part ID

D Qty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

Specification: TBD

Certification: H/T CERTIFICATE Part Number: SE121-2E

Part Description: DIE FORMED PANEL # 5

Customer: PPPL

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev

Sub: 18 / Seq: 35 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

 Operation
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 Sub: 18 / Seq: 40
 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

ECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

 Operation
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 Sub: 18 / Seq: 50
 260-SANDBLAST
 1.00
 1.00
 1.00
 SE121 / A

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 18 / Seq: 60230-FABRICATION - WEIDNER1.001.001.00SE121 / A

(U) TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REQUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:



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Workorder 64880/1

Part ID

Qty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev
Sub: 18 / Seq: 70 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 \$1.00 \$8121 / A

(U) VERIFY PROFILE TO INSPECTION GAGE #_____ GAP TO LERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH.
INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2E

Part Description: DIE FORMED PANEL # 5

Sub IDPart IDQtyDrawing ID / Rev24SURFACE FINISH TESTING TEST P1/

Operation Sub: 24 / Seq: 10 (C) ResourceQtyPerStartQtyEndQtyDrawing ID / Rev410-BURNOUT TABLE1.001.001.00SE121 / A

BURNOUT TEST PLATES PER MATERIAL CARD.

 $\label{thm:linear_problem} \textbf{DEBURR} \ \textbf{AND} \ \textbf{SAND} \ \textbf{EDGES} \ \textbf{SMOOTH} \ (\textbf{WITH} \ \textbf{UNCONTAMINATED} \ \textbf{GRINDING} \ \textbf{WHEEL} \ \textbf{ONLY}).$

FORWARD ONE PLATE TO ENGINEERING (DOUG McCORKLE) AND PROCESS THE OTHER PER THE FOLLOWING ROUTING STEPS.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece #Part IDQtyDrawing ID / RevVendorDimensions10INCONEL 625_670-SHEET,NICKEL ALLOY .25" THK480.0480.0480

(C) INCONEL 625 SHEET, .25" THICK PER



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Workorder Part ID
64880/1

Qty Drawing ID / Rev
1 SE121 / A
BLUE/DOUG MCCORKLE

AMS 5599.

CERT AND MILL TEST REPORT REO'D WITH SHIPMENT.

Material Certification: NONE REO'D TEST SAMPLE

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 24 / Seq: 20230-FABRICATION - WEIDNER1.001.001.00SE121 / A

(R) SAND AND POLISH THE TEST PIECE (ONE SIDE) TO A 32 MICRO SURFACE FINISH

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 24 / Seq: 25260-SANDBLAST1.001.001.008E121 / A(R)MASK THE POLISHED SIDE AND BLAST THE OTHER SIDE WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Drw N/A

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 24 / Seq: 28230-FABRICATION - WEIDNER1.001.001.00SE121 / A(R)CLEAN SAMPLE MATERIAL SURFACES PER THE FOLLOWING......(cleaning specification being developed)

CLEAN SAMPLE MATERIAL SURFACES PER THE FOLLOWING.....(cleaning specification being developed) WRAP THE PART IN PLASTIC FOAM.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Drw N/A

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev



(U)

Page: 26
Date:06/04/03

User ID: MCCORKLE

Workorder Part ID Qty Drawing ID / Rev Engineer

64880/1 SE121/A BLUE/DOUG MCCORKLE

Sub: 24 / Seq: 30 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

(R) VERIFY THE FOLLOWING TEST SAMPLE ATTIBUTES: SURFACE FINISH (PER ASME B46.1-1995)

CLEANLINESS (PER PROCEDURE ???? BEING DEVELOPED)

MAGNETIC PERMEABILITY (1.01 MAX)

REPORT RESULTS TO ENGINEERING (DOUG McCORKLE).

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub IDPart IDQtyDrawing ID / Rev26WELD DISTORTION TESTING1/

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 26 / Seq: 10410-BURNOUT TABLE1.001.001.00SE121 / A

NOTIFY O/A FOR PERMEABILITY TESTING PRIOR TO BURING

BURNOUT TEST BLANK PER PROVIDED GEOMETRY (PANEL BLANK NUMBER 5)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece #Part IDQtyDrawing ID / RevVendorDimensions10INCONEL 625 5-PLATE.NICKEL ALLOY .375" THK1.01810

INCONEL 625_5-PLATE,NICKEL ALLOY .375" THK Vendor Part ID: INCONEL 625_5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2E

Part Description: DIE FORMED PANEL

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 26 / Seq: 15805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

(U) VERIFY MAGNETIC PERMEABILITY OF PLATE MATERIAL PRIOR TO BURNING SHAPE AND AGAIN AFTERWARD. RECORD I.D.C. DATA



Page: 27 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Oty Drawing ID / Rev 1 SE121 / A

BLUE/DOUG MCCORKLE

Engineer

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 26 / Seq: 18	415-ROLLING/SHEAR/BRAKE PRESS	1.00	1.00	1.00	SE121 / A
(U)	ROLL CONE PER THE FOLLOWING:				

(INFORMATION BEING DEVELOPED, PENDING RECEIPT OF FINAL CUSTOMER ELECTRONIC MODEL DATA)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 26 / Seq: 19 (U)	Resource 805-INPROCESS INSPECTION - PLANT VERIFY MAGNETIC PERMEABILITY	QtyPer 1.00	StartQty 1.00		Drawing ID / Rev SE121 / A
Oneration	Resource	OtvPer	StartOty	EndOty	Drawing ID / Rev

Operation Resource QtyPer StartQty EndQty Drawing ID /
Sub: 26 / Seq: 20 341-PACIFIC 750 1.00 1.00 1.00 SE121 / A

(U) FORM WELD TEST PANEL WITH THE CORRESPONDING DIE FORMED DETAIL

FORM WELD TEST PANEL WITH THE CORRESPONDING DIE FORMED DETAIL (INFORMATION BEING DEVELOPED, DIE SET / PANEL # DECISION REQUIRED)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty Drawing ID / Rev	v
Sub: 26 / Seq: 30	230-FABRICATION - WEIDNER	1.00	1.00	1.00 SE121 / A	
(Π)	SPLIT THE PANEL TO SIMULATE PRODUCTION W	ELD IOINT(S	3		

PREP, FIT AND WELD JOINTS TO DEVELOP WELDING SEQUENCES AND MINIMIZE WELDING DISTORTION.



Date: 06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

BLUE/DOUG MCCORKLE

Engineer

REVIEW WITH ENGINEERING (DOUG McCORKLE)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 26 / Seq: 40

(U)

Resource 805-INPROCESS INSPECTION - PLANT **QtyPer**

StartOtv EndQty Drawing ID / Rev

1.00 1.00 1.00 SE121 / A

VERIFY MAGNETIC PERMEABILITY OF THE WELD JOINT(S) AND HEAT AFFECTED ZONES. RECORD I.D.C. DATA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub ID 19

Part ID SE121 PORT SUB-ASSEMBLY

230-FABRICATION - WEIDNER

Qty Drawing ID / Rev

Operation Sub: 19 / Seq: 10 Resource

OtvPer StartOtv EndOty Drawing ID / Rev 1.00

SE121 / A 1.00 1.00

(F)

INSTALL AND WELD CONFLAT FLANGE TO TUBE PER DRAWING AND WPS....

FIT AND TRIM THE LENGTH FOR INSTALLATION (USE REFERENCE SCRIBE LINES ON BUILD FIXTURE). PREP FOR WELDING IN PLACE.

GRIND / BLEND THE INTERIOR WELD SMOOTH.

POLISH THE ENTIRE INSIDE SURFACE SMOOTH TO ACHIEVE A 32 MICRO SURFACE FINISH. CLEAN THE INTERIOR SURFACES PER......

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 19 / Seq: 20

(U)

Resource 805-INPROCESS INSPECTION - PLANT

QtyPer StartQty **EndQty Drawing ID / Rev** 1.00 1.00 1.00 SE121 / A INSPECT INTERIOR SURFACE FINISH OF THE PORT SUB-ASSEMBLY. RECORD ACTUAL ON MTM IDC.

MTTRAVLR.qrp

W:64880/1-0 /Inc Matl /Inc Legs



Page: 29 Date:06/04/03 **User ID: MCCORKLE**

Workorder 64880/1

Part ID Qty Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

INSPECT THE MAGNETIC PERMEABILITY OF THE FLANGE TO TUBE WELD AND SURROUNDING AREA. RECORD ACTUAL RANGE ON I.D.C.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub ID 20	Part ID CONFLAT FLANGE		Qty 1	Drawing ID / Rev			
Operation Sub: 20 / Seq: 10 (R)	Resource 820-RECEIVING INSPECTION RECEIVING INSPECTION RECEIVE AND INSPECT THE FOLLOWING PARTS: (THEY SHOULD ALL ARRIVE TOGETHER) F10000000NC4 FG1000CI FG1000VU FB1000C12S GC0275S CONTACT ENGINEERING (DOUG McCORKLE) WHEN PARTS A	StartQty 1.00		Drawing ID / Rev SE121 / A	IDC N/A		
Piece # 10 (R)	Part ID F10000000NC4-FLANGE, CONFLAT, NON-ROTATE, 10.00" FLANGE, CONFLAT, NON-ROTATABLE 10.00 X BLANK X 0.97", CLEAR BOLT HOLES, 304L Material Certification:		Qty 1.0	Drawing ID / Rev	IDC N/A Vendor	Dimensions	
Piece #	Part ID		Qty	Drawing ID / Rev	Vendor	Dimensions	
20 (R)	FG1000CI-GASKET KIT (10/PK), COPPER, FOR 10" CFF GASKET KIT (10/PACK), COPPER, INDIVIDUAL SEAL, FOR 10" VARIAN VACUUM TECHNOLOGIES Material Certification:	CONFLAT F	1.0	Drawing ID / Nev	, cady	DANCASIONS	
Piece #	Part Number: FG1000CI Part ID		Qty	Drawing ID / Rev	Vendor	Dimensions	
30 (R)	FG1000VU-GASKET, VITON, FOR 10" CFF GASKET, VITON, FOR 10" CONFLAT FLANGE VARIAN VACUUM TECHNOLOGIES		1.0	Drawing ID / Rev	vendoi	Dimensions	
	Material Certification: Part Number: FG1000VU						



Page: 30 Date:06/04/03

User ID: MCCORKLE

Workorder Part ID Drawing ID / Rev Engineer BLUE/DOUG MCCORKLE 64880/1 SE121 / A Piece # Part ID Otv Drawing ID / Rev Vendor **Dimensions** 40 FB1000C12S-BOLT AND NUT KIT, 12 PT, SILVER PLATED 1.0 (R) BOLT AND NUT KIT (25/PACK), 12 POINT, ASTM A193 GR. B8 SILVER PLATED, FOR 10" CONFLAT FLANGE VARIAN VACUUM TECHNOLOGIES Material Certification: Part Number: FB1000C12S Drawing ID / Rev Piece # Part ID Otv Vendor **Dimensions** 50 GC0275S-GASKET CLIP KIT (10/PK), FOR 10" CFF 1.0 (R) GASKET CLIP KIT (10/PACK) FOR 10" CONFLAT FLANGE VARIAN VACUUM TECHNOLOGIES Material Certification: Part Number: GC0275S Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 20 / Seq: 20 108-TOOL ROOM - PLANT 1 1.00 1.00 1.00 (U) BORE THE I.D. PER SKETCH PROVIDED BY ENGINEERING. CONTACT DOUG McCORKLE IF UNCLEAR. ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING: THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR. Drw N/A IDC N/A Sub ID Part ID Qty Drawing ID / Rev 21 PORT EXTENSION TUBE Operation **QtyPer** StartQty EndQty Drawing ID / Rev Resource Sub: 21 / Seq: 10 820-RECEIVING INSPECTION 1.00 1.00 1.00 SE121 / A (R) RECEIVE AND INSPECT TUBE PER MTM P.O. NOTIFY ENGINEERING (DOUG McCORKLE) WHEN PART ARRIVES. VISUAL INSPECT SURFACE FINISH FOR PITS, NICKS, GOUGES, SCRAPES, SCRATCHES, ETC.... ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON

FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Part ID Qty Drawing ID / Rev Vendor Dimensions



(R)

Date:06/04/03 **User ID: MCCORKLE**

Workorder	Part ID	Qty	Drawing ID / Rev	Engineer
64880/1		1	SE121 / A	BLUE/DOUG MCCORKLE

10 SE121-001P-5-INCO 625 TUBE 8.0" OD X .12" WA. X 18.0" 1.0

5647

Vendor Part ID: SE121-001P-5

TUBE, ROUND, INCONEL 625, SEAMLESS OR WELDED. ASTM B444 OR ASTM B705

MTM AUTHORIZATION OF WELDING PROCEDURE REQUIRED PRIOR TO STARTING WORK.

NOTE THAT THE FOLLOWING REQUIREMENTS WILL BE PERFORMED / TESTED BY MAJOR TOOL & MACHINE AFTER DELIVERY. ALL EFFORTS TO ACCOMODATE / ENSURE SUCESS MUST BE MAINTAINED:

MAGNETIC PERMEABILITY REQUIREMENT: 1.01 MAX.

VACUUM INTEGRITY REQUIREMENT: TOTAL HELIUM LEAK RATE FOR THE TUBE SHALL BE LESS THAN OR EQUAL TO 1.7 X 10(-9) TORR-L/S

INTERIOR SURFACE FINISH REQUIREMENT: INTERIOR WELD BEADS WILL BE GROUND FLUSH. THE ENTIRE INTERIOR SURFACE WILL BE POLISHED TO A 32 MICRO

SURFACE FINISH AND VERIFIED PER ASME B46.1.

EXTERIOR SURFACE FINISH: MILL SURFACE ACCEPTABLE. NO PITS, SCRAPES OR GOUGES.

MATERIAL CERTIFICATION AND TEST REPORTS REO'D WITH SHIPMENT.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 21 / Seq: 20	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A
(U)	VERIFY MAGNETIC PERMEABILITY OF THE PORT F	EXTENTION	TUBE (AS	RECEIVE	D). RECORD ACTUAL I.D.C.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Drw N/A

Operation	Resource	QtyPer	StartQty	EndQty Drawing ID / Re
Sub: 21 / Seq: 30	405-SAWS- PLANT 2	1.00	1.00	1.00 SE121 / A
(U)	SAW ONE END SQUARE REM	IOVING NO MORE THAN 1/2" OF M	IATERIAL.	

DEBURR SAWED EDGE

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 21 / Seq: 40	230-FABRICATION - WEIDNER	1.00	1.00	1.00	SE121 / A
(U)	BLEND THE INSIDE WELD FLUSH.				

POLISH THE ENTIRE INTERIOR SURFACE TO A 32 MICRO-INCH SURFACE FINISH.

PREP FOR FLANGE INSTALLATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:



Page: 32 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Qty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub ID 23	Part ID VACUUM TEST CAP			Qty 1	Drawing ID / Rev		
Operation Sub: 23 / Seq: 10 (U)	Resource 410-BURNOUT TABLE BURNOUT A 10.0" DIAMETER DISK AND CLEANUP. SAND THE BURNED EDGES SMOOTH.	QtyPer 1.00	StartQty 1.00	EndQty 1.00	Drawing ID / Rev		
Piece # 10 (U)	Part ID 304L_8-PLATE,SST .75" THK Vendor Part ID: 304L_8 Mfg Part ID: 304L MATERIAL PLATE, 304L STAINLESS STEEL .75" THK CERTS & MILL TEST REPORT REQ'D WITH SHIPMEN	T.		Qty 100.0	Drawing ID / Rev	Vendor 1810	Dimensions 100
Operation Sub: 23 / Seq: 20 (U)	Resource 108-TOOL ROOM - PLANT 1 MACHINE PER DRAWING (DRAWING NEEDED!!!!) (GRIND ONE FACE AND DRILL BOLT CIRCLE, DRILL DRILL AND REAM A CENTER HOLE FOR TOOLING E VERIFY POSITION OF THE PORT. REF CONFLAT FLANGE DRAWING FOR BOLT CIRCL GRIND 32 SURFACE FINISH ON ONE SIDE APPLY A WOOD OR CARDBOARD PROTECTOR ONT	BALL (.2500 .E	O", TOLERA	1.00 (1/2" NPT NCE TBD		AS A TARGET FOR S	MX INSPECTION AFTER INSTALLATION TO
Sub ID 5	Part ID PORT EXTENSION WELD BACKING RI			Qty 1	Drawing ID / Rev		
Operation Sub: 25 / Seq: 10 (U)	Resource 415-ROLLING/SHEAR/BRAKE PRESS SHEAR STRIP PER MATERIAL CARD AND DEBURR. ROLL THE EASY WAY TO A 8.093" I.D. OBJ (0.031" W	QtyPer 1.00 ELD SHRIN	StartQty 1.00 NKAGE ALL	1.00	Drawing ID / Rev SE121-003P / 0		
Piece # 10 (U)	Part ID INCONEL 625_660-SHEET,NICKEL ALLOY .125" THK INCONEL 625 SHEET, .125" THICK PER AMS 5599 / ASTM B443 (UNS N06625).			Qty 72.0	Drawing ID / Rev	Vendor	Dimensions 2*36

MTTRAVLR.qrp
W:64880/1-0 /Inc Matl /Inc Legs

CERT AND MILL TEST REPORT REO'D WITH SHIPMENT.



Page: 33
Date:06/04/03

User ID: MCCORKLE

WorkorderPart IDQtyDrawing ID / RevEngineer64880/115E121/ABLUE/DOUG MCCORKLE

Material Certification: Part Number: SE121-003P-4

Part Description: WELD BACKING RING

	- m				
Operation Sub: 25 / Seq: 20 (U)	Resource 230-FABRICATION - WEIDNER PREP AND WELD PER DRAWING (SIZE TO EX BLEND WELD FLUSH TO BASE METAL	QtyPer 1.00 AISTING PORT TUI	StartQty 1.00 BE)	EndQty 1.00	Drawing ID / Rev SE121-003P / 0
Operation Sub: 25 / Seq: 30 (U)	Resource 415-ROLLING/SHEAR/BRAKE PRESS RE-ROLL / ROUND UP BAND	QtyPer 1.00	StartQty 1.00	EndQty 1.00	Drawing ID / Rev SE121 / A
Operation Sub: 25 / Seq: 40 (U)	Resource 805-INPROCESS INSPECTION - PLANT VERIFY MAGNETIC PERMEABILITY. RECOR	QtyPer 1.00 D I.D.C. DATA	StartQty 1.00		Drawing ID / Rev SE121 / A
Sub ID 28	Part ID STORAGE / SHIPPING CRATE			Qty 1	Drawing ID / Rev
Operation Sub: 28 / Seq: 10 (U)	Resource 425-SHIPPING - PLANTS 1 & 2 BUILD STORAGE / SHIPPING CRATE PER ENG	QtyPer 1.00 GINEERING DRAW	StartQty 1.00 /ING	EndQty 1.00	Drawing ID / Rev SE121 / A



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Customer: 8780 - PRINCETON PLASMA PHYSICS LAB

Customer P.O.: S-04344-F

Customer Part ID: SE121 - NSCX Vacuum Vessel Prototype

Item#				Document Description / Material Description / File Name / Heat Lot				
1				CERTIFICATE OF CONFORMANCE				
F10000	OOONC	4 - FI	ANG	GE, CONFLAT, NON-ROTATE, 10.00"				
Item#	Sub	_		Document Description / Material Description / File Name / Heat Lot				
2	20	10		Material Certification: /F10000000NC4 - FLANGE, CONFLAT, NON-ROTATE, 10.00" -				
SE121-0	SE121-001P-5 - PORT EXTENSION TUBE							
Item#	Item# Sub Op Pc Document Description / Material Description / File Name / Heat Lot							
3	21	10	10	Material Certification: / SE121-001P-5 - INCO 625 TUBE 8.0" OD X .12" WA. X 18.0" -				
SE121-0)03P-4	- WE	LD E	BACKING RING				
Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot				
4	25	10	10	Material Certification: / INCONEL 625_660 - SHEET,NICKEL ALLOY .125" THK -				
SE121-1	1 - PR(готс	TYPE	VACUUM VESSEL SEG. Qty: 1				
Item#	Sub	Op		Document Description / Material Description / File Name / Heat Lot				
5	1	73		Test Certification: VACUUM TEST CERTIFICATE -				
SE121-3	2A - D	Œ FŌ	RMF	ED PANEL # 1				
Item#	Sub	Ор		Document Description / Material Description / File Name / Heat Lot				
6	14	10	10	Material Certification: / INCONEL 625_5 - PLATE, NICKEL ALLOY .375" THK -				
7	14	15		Test Certification: MAG. PERMEABILITY CERT -				
8	14	30		Certification: H/T CERTIFICATE -				
9	14	70		Test Certification: MTM INSPECTION MAP -				
SE121-2	2B - D	E FO	RME	ED PANEL # 2				
Item#	Sub	Op		Document Description / Material Description / File Name / Heat Lot				
10	15	10	10	Material Certification: / INCONEL 625_5 - PLATE,NICKEL ALLOY .375" THK -				
11	15	15		Test Certification: MAG. PERMEABILITY CERT -				
12	15	30		Certification: H/T CERTIFICATE -				
13	15	70		Test Certification: MTM INSPECTION MAP -				
SE121-2	2C - D	E FO	RME	ED PANEL #3				
Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot				
14	16	10	10	Material Certification: /INCONEL 625_5 - PLATE,NICKEL ALLOY .375" THK -				
15	16	15		Test Certification: MAG. PERMEABILITY CERT -				
16	16	30		Certification: H/T CERTIFICATE -				
17	16	70		Test Certification: MTM INSPECTION MAP -				

SE121-2D - DIE FORMED PANEL #4



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Customer: 8780 - PRINCETON PLASMA PHYSICS LAB

Customer P.O.: S-04344-F

Customer Part ID: SE121 - NSCX Vacuum Vessel Prototype

	Customer Fart ID. SE121 - NSCA Vacuum Vesser Frototype									
Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot						
18	17	10	10	Material Certification: / INCONEL 625_5 - PLATE, NICKEL ALLOY .375" THK -						
19	17	15		Test Certification: MAG. PERMEABILITY CERT -						
20	17	30		Certification: H/T CERTIFICATE -						
21	17	70		Test Certification: MTM INSPECTION MAP -						
SE121-2E - DIE FORMED PANEL # 5										
SE121-2	2E - D	IE FO	RME	CD PANEL # 5						
Item#				D PANEL # 5 Document Description / Material Description / File Name / Heat Lot						
Item#	Sub	Ор	Pc	Document Description / Material Description / File Name / Heat Lot						
<u>Item#</u> 22	Sub 18	Op 10	Pc	Document Description / Material Description / File Name / Heat Lot Material Certification: / INCONEL 625_5 - PLATE, NICKEL ALLOY .375" THK -						
22 23	18 18	Op 10 15	Pc	Document Description / Material Description / File Name / Heat Lot Material Certification: / INCONEL 625_5 - PLATE, NICKEL ALLOY .375" THK - Test Certification: MAG. PERMEABILITY CERT -						

SE121-3 & -4 - PROTOTYPE RIB # 1 & 2

02121	33210 W 1 110101112 MB 1 W 2										
Item#	Item# Sub Op Pc Document Description / Material Description / File Name / Heat Lot										
26	3	10	10	Material Certification: / INCONEL 625_6 - PLATE,NICKEL ALLOY .5" THK -							



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PVVS PRELIMINARY INSPECTION PLAN

Workorder: 64880/1-0 Sub:1 Op:10

Part: - - SE121 PROTOTYPE VACUUM VESSEL SEGMENT

		Drawing ID: SE121 Rev: A	INSPECTION INSTRUCTIONS			F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
			VISUAL INSPECTIO	MFG						
		Verify Panel Joint Alignment (.02" Max)		CWI						
			FEELER GAGE	MFG						
		Verify Panel / Rest Stop Position								
		(009" Gap)		CWI						

Workorder: 64880/1-0 Sub:1 Op:20

Part: - - SE121 PROTOTYPE VACUUM VESSEL SEGMENT

Drawing ID: SE121 Rev: A			INSPECTION INSTRUCTIONS			F	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
		(g ,188")	SMX	QA						
		Upper Half Of Bilateral Tolerance								
				QA						
		Magnetic Permeability 1.01 Max.							<u> </u>	

Workorder: 64880/1-0 Sub:1 Op:40

Part: - - SE121 PROTOTYPE VACUUM VESSEL SEGMENT

		Drawing ID: SE121 Rev: A	INSPECTION INSTRUCTIONS			F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
		(g ,375")	SMX	QA						
		Preliminary Welding Under Stiffeners								
				QA						
		Magnetic Permeability (1.01 Max)								

Workorder: 64880/1-0 Sub:1 Op:60

Part: - - SE121 PROTOTYPE VACUUM VESSEL SEGMENT



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PVVS PRELIMINARY INSPECTION PLAN

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS		F	RESULTS	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
	ł		SMX	QA						
		After Welding Stiffeners								i l

Workorder: 64880/1-0 Sub:1 Op:120

Part: - - SE121 PROTOTYPE VACUUM VESSEL SEGMENT

		Drawing ID: SE121 Rev: A	INSPECTION INS	TRUC	CTIONS	F	RESULTS	INSPECTED BY		BY
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
	İ	Magnetic Permeability of Inconel 625 Materi								
		d Weld Zones (1.01 Max)								
				QA						
		Magnetic Permeability of Conflat Flange (1.0								
		x)								
				QA						
		Magnetic Permeability of Weld / Heat Affecte								
		ne (Flange to Tube) (1.2 Max)								

Workorder: 64880/1-0 Sub:3 Op:30

Part: - - LEAVE UNRELEASED!!!! SE121-001P-3 & -4 INTERIOR STIFFENERS

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	RESULTS	INSPECTED BY		BY
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability (1.01 Max)								

Workorder: 64880/1-0 Sub:14 Op:10

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS		F	INSPECTED BY		BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Mag. Permeability Of Raw Plate								



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PVVS PRELIMINARY INSPECTION PLAN

As Rec'D / Prior To Processing			
(Record Range)	ENG		
	QA		
Mag. Permeability Of Panel			
After Cutting And Cleanup			
(Record Range)	ENG		

Workorder: 64880/1-0 Sub:14 Op:15

Part: - - SE121-001P-2 PANEL # 1

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	RESULTS	INSPECTED BY		
SHEET	HEET ZONE CHARACTERISTIC		GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability 1.01 Max.								

Workorder: 64880/1-0 Sub:14 Op:20

Part: - - SE121-001P-2 PANEL # 1

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			R	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:14 Op:40

Part: - - SE121-001P-2 PANEL # 1

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			R	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
ĺ		.08" Max Gap (Part Surface To Standard)		ENG					ĺ	

Workorder: 64880/1-0 Sub:14 Op:60

Drawing ID: SE121 Rev: A	INSPECTION INSTRUCTIONS	RESULTS	INSPECTED BY
Diawing in Shirt Revent	I I I I I I I I I I I I I I I I I I I	RESCEID	I ISI ECTED DI



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PVVS PRELIMINARY INSPECTION PLAN

SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
			FEELER GAGE	QA						
		.08" Max Gap (Panel / Profile Gage)		ENG						

Workorder: 64880/1-0 Sub:14 Op:70

Part: - - SE121-001P-2 PANEL # 1

		Drawing ID: SE121 Rev: A	INSPECTION INS	INSPECTION INSTRUCTIONS			RESULTS			BY
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				MFG						
		Magnetic Permeability 1.01 Max								
			PROFILOMETER	QA						
	ł	32 MICRO-INCH SURFACE FINISH (INTERIOR (CONCAVE) SIDE)								

Workorder: 64880/1-0 Sub:15 Op:15

Part: - - SE121-001P-2 PANEL # 2

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	INSPECTED BY			
SHEET	SHEET ZONE CHARACTERISTIC GAGE/EQUIP B'		BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
				QA						
	Magnetic Permeability 1.01 Max.									

Workorder: 64880/1-0 Sub:15 Op:20

Part: - - SE121-001P-2 PANEL # 2

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:15 Op:40

Drawing ID: SE121 Rev: A	INSPECTION INSTRUCTIONS	RESULTS	INSPECTED BY
Diaving ID. DEIZI Rev. II	HIST ECTION HISTROCTIONS	KESCEIS	I INDIECTED DI



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PVVS PRELIMINARY INSPECTION PLAN

SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:15 Op:60

Part: - - SE121-001P-2 PANEL # 2

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS		F	INSPECTED BY		BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
			FEELER GAGE	QA						
		.08" Max Gap (Panel / Profile Gage)		ENG						

Workorder: 64880/1-0 Sub:15 Op:70

Part: - - SE121-001P-2 PANEL # 2

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				MFG						
		Magnetic Permeability 1.01 Max								
			PROFILOMETER	QA						
		32 MICRO-INCH SURFACE FINISH		İ						
		(INTERIOR (CONCAVE) SIDE)								

Workorder: 64880/1-0 Sub:16 Op:15

Part: - - SE121-001P-2 PANEL # 3

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			R	INSPECTED BY		BY	
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability 1.01 Max.								

Workorder: 64880/1-0 Sub:16 Op:20

Part: - - SE121-001P-2 PANEL # 3

QA003 (n:\mtmapps\mtinspct.qrp)

Drawing ID: SE121 Rev: A	INSPECTION INSTRUCTIONS	RESULTS	INSPECTED BY
Diaving ID. DEIZI Rev. II	midd Ection middle citons	RESCEIS	I INDIECTED DI



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PVVS PRELIMINARY INSPECTION PLAN

SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:16 Op:40

Part: - - SE121-001P-2 PANEL # 3

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:16 Op:60

Part: - - SE121-001P-2 PANEL # 3

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	INSPECTED BY		BY	
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
			FEELER GAGE	QA						
		.08" Max Gap (Panel / Profile Gage)		ENG						

Workorder: 64880/1-0 Sub:16 Op:70

Part: - - SE121-001P-2 PANEL # 3

	Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			P	INSPECTED BY		BY	
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				MFG						
		Magnetic Permeability 1.01 Max								
			PROFILOMETER	QA						
		32 MICRO-INCH SURFACE FINISH								ĺ ĺ
		(INTERIOR (CONCAVE) SIDE)								

Workorder: 64880/1-0 Sub:17 Op:15

Drawing ID: SE121 Rev: A	INSPECTION INSTRUCTIONS	RESULTS	INSPECTED BY
Diaving ID. DEIZI Rev. II	HIST ECTION HISTROCTIONS	KESCEIS	I INDIECTED DI



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PVVS PRELIMINARY INSPECTION PLAN

SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability 1.01 Max.								1

Workorder: 64880/1-0 Sub:17 Op:20

Part: - - SE121-001P-2 PANEL # 4

	Drawing ID: SE121 Rev: A		INSPECTION INS	TRUC	TIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:17 Op:40

Part: - - SE121-001P-2 PANEL # 4

	Drawing ID: SE121 Rev: A		INSPECTION INS	TRUC	TIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:17 Op:60

Part: - - SE121-001P-2 PANEL # 4

		Drawing ID: SE121 Rev: A	INSPECTION INS	STRUC	TIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
			FEELER GAGE	QA						
		.08" Max Gap (Panel / Profile Gage)		ENG						

Workorder: 64880/1-0 Sub:17 Op:70

		Drawing ID: SE121 Rev: A	INSPECTION INS	TRUC	CTIONS	R	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				MFG						
		Magnetic Permeability 1.01 Max								



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PVVS PRELIMINARY INSPECTION PLAN

		PROFILOMETER	QA			
32 MICRO-I	NCH SURFACE FINISH					
(INTERIOR	(CONCAVE) SIDE)					

Workorder: 64880/1-0 Sub:18 Op:15

Part: - - SE121-001P-2 PANEL # 5

	Drawing ID: SE121 Rev: A		INSPECTION INS	TRUC	TIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability 1.01 Max.								

Workorder: 64880/1-0 Sub:18 Op:20

Part: - - SE121-001P-2 PANEL # 5

	Drawing ID: SE121 Rev: A		INSPECTION INS	TRUC	CTIONS	F	RESULTS	INS	PECTED	BY
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
İ		.08" Max Gap (Part Surface To Standard)		ENG						

Workorder: 64880/1-0 Sub:18 Op:40

Part: - - SE121-001P-2 PANEL # 5

		Drawing ID: SE121 Rev: A	INSPECTION INS	TRUC	CTIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1			FEELER GAGE	MFG						
		.08" Max Gap (Part Surface To Standard)		ENG						ĺ

Workorder: 64880/1-0 Sub:18 Op:60

		Drawing ID: SE121 Rev: A	INSPECTION INS	TRUC	TIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
			FEELER GAGE	QA						
		.08" Max Gap (Panel / Profile Gage)		ENG						



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PVVS PRELIMINARY INSPECTION PLAN

Workorder: 64880/1-0 Sub:18 Op:70

Part: - - SE121-001P-2 PANEL # 5

		Drawing ID: SE121 Rev: A	INSPECTION INS	TRUC	TIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				MFG						
		Magnetic Permeability 1.01 Max								
			PROFILOMETER	QA						
		32 MICRO-INCH SURFACE FINISH								
		(INTERIOR (CONCAVE) SIDE)								

Workorder: 64880/1-0 Sub:19 Op:20

Part: - - SE121 PORT SUB-ASSEMBLY

		Drawing ID: SE121 Rev: A	INSPECTION INS	TRUC	CTIONS	F	RESULTS	INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
			PROFILOMETER	QA						
		32 Micro Surface Finish								
		(Interior)								
				QA						
		1.2 Max Magnetic Permeability								
		(Flange To Tube)								

Workorder: 64880/1-0 Sub:21 Op:20

Part: - - PORT EXTENSION TUBE

Drawing ID: SE121 Rev: A			INSPECTION INSTRUCTIONS			F	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability 1.02 Max								

Workorder: 64880/1-0 Sub:26 Op:15

Part: - - WELD DISTORTION TESTING



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PVVS PRELIMINARY INSPECTION PLAN

Drawing ID: SE121 Rev: A			INSPECTION INSTRUCTIONS			F	INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability Of Plate								
		Prior To Cutting (1.01 Max)								
				QA						
		Magnetic Permeability Of Plate								
		After Cutting (1.01 Max)								

Workorder: 64880/1-0 Sub:26 Op:40

Part: - - WELD DISTORTION TESTING

Drawing ID: SE121 Rev: A		INSPECTION INSTRUCTIONS			F	INSPECTED BY				
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
				QA						
		Magnetic Permeability Of Weld Zone (1.01								
				QA						
		Magnetic Permeability Of Heat Affected Zon								
		01 Max)								