



Wolf GmbH & Co.KG

57234 Wilnsdorf

Kom.Nr. 37106

**Air Liquide Purchase-no.:
4500023998**

Project: ASU Kosice No.9

Dokument No. :

Document: Inspection and Testing Plan

Description: Direct Contact After Cooler

Tag No.: W13001

Drawing No.: 11435- 0

0	first issue	24.11.2004		Strake	TB		
Status	Ausgabe	Datum	geänd.Seiten	erstellt	Abtlg.	geprüft	genehmigt

WOLF	Fabrication- and Testingplan DIRECT CONTACT AFTER COOLER W13001	Wolf-Dokument Nr: 11435-4-ITP Air Liquide-Dokument Nr:	Issue: 0 24.11.04	Sheet 2 of 6
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1 Scope

This Inspection and Test plan covers relevant inspections and tests of 1 Direct Contact After Cooler in an ASU-Unit.

2 Definitions/Abbreviations

SUPPLIER	= WOLF GmbH & Co. KG, Behälter- und Apparatebau, 57234 Wilnsdorf
CLIENT	= Client (Erection Place Kosice, Slowakia).
PURCHASER	= Air Liquide AGS GmbH, Füttingsweg 34,D-57234 Krefeld, Germany.
NB	= Notified Body = Kenn-Nr.: 0044, (RWTÜV Systems GmbH, Dienststelle Siegen, Leimbachstrasse 227, D-57074 Siegen).
PED	= Pressure Equipment Directive 97/23/EC.
WPS	= Welding procedure specification
WPAR	= Procedure qualification approval record
PWHT	= Postweld Heat Treatment
NDE	= Non-Destructive Examination
WPTC	= Weld Production Test Coupon
MDR	= Manufacturing Data Report (Final Documentation)
MTR	= Mill Test Report
LW	= Longitudinal welding seam
CW	= Circumferential welding seam
NW, NCW	= Nozzle welding seam
n.a.	= Not applicable

3 Key to Type of Inspection

A	= Approve
I	= Prepare / Compile and Issue
O	= Organize
P	= Participate
R	= Review of Documents / Evaluation of Radiographs
X	= Perform
H	= Full Witness (Hold Point)
	Advance notice for inspection: 5 working days. Supplier shall not proceed with the fabrication unless the concerned party waives their participation in writing
C	= Certificate / document required for MDR.
W	= Spot Witness
	Advance notice for inspection: 5 working days. Supplier may proceed with the fabrication or inspection activity even in the absence of concerned parties.

4 Signing-Off




When one operation has been completed to their satisfaction the various representatives shall sign and date their acceptance in the respective columns against the individual operations.

WOLF		Fabrication- and testingplan DIRECT CONTACT AFTER COOLER W13001				Wolf-Dokument Nr: 11435-4-ITP Air Liquide-Dokument Nr:		Issue: 0 24.11.04		Sheet 3 of 6	
SL. No.	Operation (Inspection / Test Activity)	Reference Document (Spec's, Drg's etc.)	Verification Document	Inspection / Test Mark-Up / Sign-off				Cert's Doc's for MDR			Remarks
				SUPPLIER	CLIENT	PURCHASE R	NB				

1	Pre-Fabrication Meeting		Minutes of meeting	P			O + P		
2	Fabrication Documents								
2.1	- Fabrication drawings - List of materials - Design calculation	Tag W13001	Approved documents	RJ W			R / A	R / A	C
2.2	- NDE procedures - Pressure test procedure - Painting procedure - Material traceability procedure	Supplier's documents	Approved documents	RJ W			R		
2.3	- WPS / WPAR - Welding and testing plan - Inspection and test plan	11435-4-WTP Supplier's documents	Approved documents	RJ W			R / A	R / A	C
2.4	- Welder's list - Welder's qualification records	Supplier's documents	Approved documents	I			R		
2.5	- Material specifications or suborders for material	n.A.	Approved documents	RJ W					
3	Materials								
3.1	Inspection of in-coming materials (visual checks; identification, dimensional checks etc.)	Material specifications or suborders for material		RJ W					
3.2	Mill Test Reports	part list	MTR's	X RJ W			R		C
3.3	Filler Metal Certificates	11435-4-WTP	Filler Metal Certificates	RJ W			R		
4	Templates & Anchor Bolts								
4.1	Dimensional & visual checks on templates	Fabrication drawings	Supplier's inspection report						

WOLF		Fabrication- and testingplan DIRECT CONTACT AFTER COOLER W13001				Wolf-Dokument Nr: 11435-4-ITP Air Liquide-Dokument Nr:		Issue: 0 24.11.04		Sheet 4 of 6	
SL. No.	Operation (Inspection / Test Activity)	Reference Document (Spec's, Drg's etc.)	Verification Document	Inspection / Test Mark-Up / Sign-off				Cert's Doc's for MDR		Remarks	
				SUPPLIER	CLIENT	PURCHASE R	NB				
4.2	Dimensional & visual checks on anchor bolts	Fabrication drawings	Supplier's inspection report, MTR	X			R				
5	Fabrication										
5.1	Material identification and transfer of markings	Material traceability procedure		RJ W			W				
5.2	Visual checks of surfaces of pressure envelope materials prior to start with fabrication	Welding and testing plan		RJ W							
5.3	Check of weld-edge preparation	Fabrication drawings		RJ W							
5.4	Fit-up, alignment and root-gap check	Fabrication drawings		X							
5.5	Adherence to specified welding data / parameters	n.A.		RJ W							
5.6	PT of LW, CW after backchipping	Welding and testing plan, Fabrication drawings		RJ W							
5.7	Visual examination of LW, CW, NW, NCW	Welding and testing plan, Fabrication drawings		RJ W			W				
5.8	Check of roof-topping (peaking) & flat-spotting (banding) on LW of shell stracks	n.A.									
5.9	Out-of roundness, ovality of shell stracks and ellipsoidal heads	acc. tolerances DIN28007	Supplier's inspection report	RJ W			W				
5.10	RT of LW, CW	Welding and testing plan 11435-4 WTP	Supplier's RT report & radiographs	RJ W			R	R	C		
5.11	n.a.										
5.12	MT of temporary weld locations after grinding	Welding and testing plan 11346-4 WTP		RJ W			R				

WOLF		Fabrication- and Testingplan DIRECT CONTACT AFTER COOLER W13001			Wolf-Dokument Nr: 11435-4-ITP Air Liquide-Dokument Nr:		Issue: 0 24.11.04		Sheet 5 of 6	
SL. No.	Operation (Inspection / Test Activity)	Reference Document (Spec's, Drg's etc.)	Verification Document	Inspection / Test Mark-Up / Sign-off			Cert's Doc's for MDR	Remarks		
				SUPPLIER	CLIENT	PURCHASE R			NB	
5.13	MT of arc strikes on inside wall after grinding	Welding and testing plan,		X			R			
5.14	n.a.									
6	Inspection & Pressure Test									
6.1	Visual inspection	Fabrication drawings	Supplier's inspection report	RJ W			H	H	C	
6.2	Dimensional inspection	Fabrication drawings DIN 28007	Supplier's inspection report	RJ W			H	H	C	
6.3	Approval of concession requests & non-conformance reports	n.A.	Approved concession requests & non-conformance reports	X			R / A			
6.4	Verification of MDR and release for pressure test	Fabrication drawings	See column Cert's, Doc's for MDR	RJ W			H		C	
6.5	Verification of pressure gauge calibration	Fabrication drawings	Calibration certificate	RJ W			R	W		
6.6	Pressure test	Fabrication drawings	Pressure test certificate	RJ W			H	H	C	
6.7	Leak test on reinforcing pad welds	Fabrication drawings	Supplier's leak test report	X			R		C	
7	Painting									
7.1	Surface preparation	Fabrication drawing	Painting certificate	RJ W			R		C	
7.2	Paint application	Fabrication drawing	Painting certificate	RJ W			R		C	
7.3	Check of dry film thickness	Fabrication drawing	Painting certificate	RJ W			W		C	
7.4	Adherence test, if any	Fabrication drawing	Painting certificate	X			R		C	

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				SUPPLIER	CLIENT	PURCHASE R				
8	Final Inspection									
8.1	Marking	Fabrication drawing,		X			W			
8.2	Packing (wooden saddles, desiccant, etc.)	Fabrication drawing,		X			W			
8.3	Cleanliness	Fabrication drawing,					W			
8.4	Assembly of internal stand pipes (orientation, spacing & size of bore holes)	Fabrication drawing								
8.5	Assembly of external attachments (e. g. lifting tunnions, davit for manhole cover, platform clips)	Fabrication drawing		X			H			
8.6	Check of name plate	Fabrication drawing	Name plate rubbing or photograph	X			H	H		
8.7	Review and approval of MDR		See column Cert's, Doc's for MDR	X			R/A			
9	Release									
9.1	Inspection release		Inspection release certificate				I	I		
9.2	Shipping Release		Shipping release note				I			