

Preis-Stückliste 0 80EG10001AA10C1 0 80 EG 10001.AA10C1 Revision:										
Teilenummer	NW1	NW2	Teilebezeichnung		Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws	5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	16,00				0,00
B0507	16	0	Hexagon nuts	5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	16,00				0,00
G0103	80	0	Flat packings	Graphite with CrNi-insert Standard 40002 142x2x90		2,00				0,00
GW16	80	0	girth weld		1.0254 ( St 37.0 ) 88,9x3,2	7,00				0,00
P0008	80	0	pipe, seamless	1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	2,18				0,00
P0207	80	0	Elbow 90° R=1,5 DA, seamless	1.0254 ( St 37.0 ) DIN 2609 88,9x3,2	1,21 kg	3,00				0,00
P2880	80	0	Welding neck flanges; PN 16	1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	2,00				0,00
SC6	80	0	Segment cut	88,9		5,00				0,00
SCP05	80	0	PIPE CLAMP, RB10A 89 W3	HESTERBERG		1,00				0,00
SPS414	0	0	SUPPORT PS-414, L 50, L=400		1,50 kg	1,00				0,00
			Summe: 0 80EG10001AA10C1 0		30,43 kg		0,00	0,00		0,00

LAGERSTATT

Liefersumme:	
Montagesumme:	
Gesamtsumme:	
Gesamtgewicht:	30,43 kg

Preis-Stückliste 0 80EG10001AA10C1 0 80 EG 10001 AA10C1 Revision:

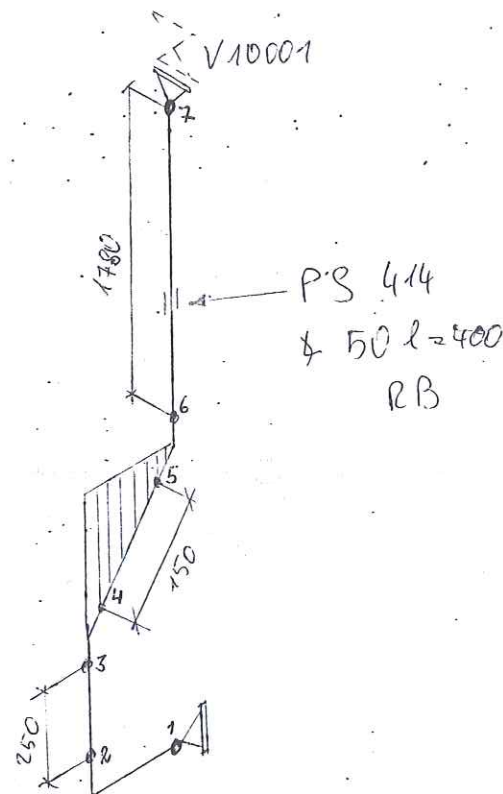
Teilenummer	NW1 NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
** Ende der Ausgabe								

LOTT





# As built



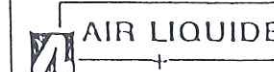
LEVELS:  
 TOP OF INTERNAL ROADS: 225.00m n.m.  
 TOP OF FOUNDATION: 225.10m  
 BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

## RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

## SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
 PD-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
 SS = SLIDING SUPPORT  
 PG = PIPE GUIDE  
 FP = FIX POINT



Air Liquide AGS GmbH

Replaces: 79\_-----  
 Replaced by: 79\_-----

Date:	23-JUN-2005	Name:	Lesum / HGH	Checked:	05-07-11	History file:	
Job Code: K70101				Scale:	---	Original format:	DIN A3
Reference: ASU No. 9. Kosice				Sheet:	1	Sheets:	1
Title:				Drawing No:		Rev.	
80 EG 1.000.1.11.1001				792		8782600	

Rev.	Revisions	Date	Name	checked
C				
B				
A				

**Preis-Stückliste 0 700A11001AA10C1-S 0 700 A 11001 AA10C1-S Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		1,00				0,00
GW37	700	0	girth weld 1.0254 ( St 37.0 ) 711x7,1		5,00				0,00
IEXP11003	700	0	EXP11003 supplied by AGS		1,00				0,00
IH13004H1	15	0	H13004H1 supplied by AGS		1,00				0,00
P0107	700	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 711x7,1	123,00 kg	2,90				0,00
P0263	700	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1	206,15 kg	1,00				0,00
P1652	700	600	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1x610x6,3	69,83 kg	1,00				0,00
PW125	700	15	PIPE WELD-IN 1.4541		1,00				0,00
SC17	700	0	Segment cut 711		4,00				0,00
XZB02	700	15	welding nozzle for pressure gauge, drawi 1.4541 22		1,00				0,00
Summe: 0 700A11001AA10C1-S 0				632,68 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:



Preis-Stückliste 0 700A11001AA10C1-S 0 700 A 11001 AA10C1-S Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
Gesamtgewicht:				632,68 kg					
** Ende der Ausgabe									

13.000





# As built

SEE ISO  
600 A 11001\_1  
Y 11129694  
X 3022744  
EL +229450

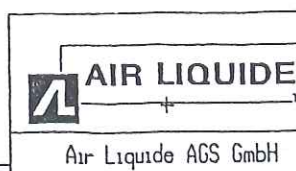
700X600NPD

## SUPPORTS:

PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT  
ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe  
courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free  
of oil and grease

Rev.	Revisions	Date	Name	checked
C				
B				
A				



Replaces: 79\_---  
Replaced by: 79\_---

Date:	Name:	Checked:	History file:
23-JUN-2005	Lesum / HGH	05-07-11	
Job Code: K70101	Reference: ASU No. 9, Kosice	Title:	Scale ---:---
			Original format DIN A3
			Sheet: 1
			Sheets: 1
			Drawing No: 700 A 11001 AA10C1S 792.8782600
			Rev.

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

12. Juli 2005

## FREIGABE FOR CONSTRUCTION

HYDRA TYP: LRK10.0700.052.0

EXP11003

CONN TO  
W13001/ N1  
Y 11134439  
X 3021360  
EL +229450

Y 11134226  
X 3021573  
EL +229995

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	615	700		SQ.CUT BEVEL	SQ.CUT BEVEL	RG
<2>	2310	700				

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X600	REDUCER, CONCENTRIC, WELDED 711*7.1/610*6.3, ST37.0, DIN 2616-1
2	1	700X15	WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55981
3	2925 MM	700	PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220
4	1	700	ELBOW, WELDED, 1,5D 711*7.1-45, B-ART 3,DIN 2605-1
5	1	15	H13004H1
6	1	700	EXP11003 EXP11003

## CUT PIPE LENGTH

## Preis-Stückliste 0 600A11001\_1AA10C1-S 0 600 A 11001\_1 AA10C1-S Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0049	27	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,56 kg	80,00				0,00
B0063	27	140	HEXAGON HEAD SCREWS 5.6 / DIN EN 24014 /		20,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	100,00				0,00
G0130	450	0	FLAT PACKINGS Graphite with CrNi-insert Standard 40002 455,6		1,00				0,00
G0140	600	0	Flat packings Graphite with CrNi-insert Standard 40002 695x2x620		6,00				0,00
GW34	400	0	girth weld 1.0254 ( St 37.0 ) 406,4x6,3		1,00				0,00
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		19,00				0,00
GW39	450	0	GRITH WELD 1.0254 ( St 37.0 ) 455,6x6,3		1,00				0,00
IEXP11001	600	0	EXP11001 supplied by AGS		1,00				0,00
IRV11070	600	0	RV11070 supplied by AGS		1,00				0,00
IX11040	600	0	X11040 supplied by AGS		1,00				0,00
P0105	600	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 610x6,3	93,80 kg	14,60				0,00



## Preis-Stückliste 0 600A11001\_1AA10C1-S 0 600 A 11001\_1 AA10C1-S Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0261	600	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 610x6,3	134,67 kg	3,00				0,00
P0911	600	400	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 610x12,5x406,4x8,8	176,48 kg	1,00				0,00
P2926	450	0	WELDING NECK FLANGES, PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 455,6		1,00				0,00
P2955	600	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 610	56,00 kg	8,00				0,00
P9999	600	450	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 610x6,3x455,6x6,3	44,00 kg	1,00				0,00
PW148	600	400	PIPE WELD-IN 1.0254		1,00				0,00
S0066	600	0	Web-support, SV 150G 610 W1 OZN LF 1.0 Hesterberg 610	173,30 kg	2,00				0,00
SC14	400	0	Segment cut 406,4		1,00				0,00
SC16	600	0	Segment cut 610		9,00				0,00
SPS001	400	0	Support PS-001, DN 400, FP pipe support	189,73 kg	1,00				0,00
SPS002	400	0	SUPPORT PS-002 pipe support	288,18 kg	1,00				0,00
SPS038	600	0	Support PS-038, DN 600, SS pipe support	13,60 kg	1,00				0,00
SPS165	600	0	SUPPORT PS-165 pipe support	288,18 kg	1,00				0,00

Preis-Stückliste 0 600A11001\_1AA10C1-S 0 600 A 11001\_1 AA10C1-S Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
			Summe: 0 600A11001_1AA10C1-S 0	3.630,06 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

3.630,06 kg





# As built

SEE ISO  
700 A 11001  
Y 11129694  
X 3022744  
EL +229450

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	600X400	TEE, WELDED 610*12.5/406.4*8.8, ST37.0, DIN 2615-1
2	8	600	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	5	600	FLAT GASKET
4	100	27	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG
5	14548 MM	600	PIPE, WELDED 610*6.3, ST37.0, DIN EN 10220
6	800 MM	400	PIPE, WELDED 406.4*6.3, ST37.0, DIN EN 10220
7	3	600	ELBOW, WELDED, 1,5D 610*6.3-90, B-ART 3,DIN 2605-1
8	1	600	EXP11001 EXP11001
9	1	600	RV11070 RV11070
10	1	600	X11040
11	2	600	SPRING SUPPORT PSUPPORT
12	1	600	SLIDE SUPPORT PSUPPORT
13	1	400	FIX POINT PSUPPORT
14	1	600/450	REDUCER, CONCENTRIC WELDED

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	2788	600	BEVEL	BEVEL	RG	RG
<2>	3600	500	BEVEL	BEVEL	RG	RG
<3>	6100	600	BEVEL	BEVEL	RG	RG
<4>	148	600	BEVEL	SQ.CUT	RG	RG
<5>	194	600	SQ.CUT	BEVEL	RG	RG
<6>	800	400	SHAPED	SQ.CUT	RG	RG
<7>	371	600	BEVEL	BEVEL	RG	RG
<8>	629	600	BEVEL	BEVEL	RG	RG
<9>	584	600	BEVEL	BEVEL	RG	RG
<10>	164	400	BEVEL	BEVEL	RG	RG

# FREIGABE FOR CONSTRUCTION

12. Juli 2005

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 07-JUL-2005	Name: Lesum/HGH	Checked: 05-07-12	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1		Sheets: 1
Title: 600 A 11001_1 AA10C1S		Drawing No: 792.8782600		Rev.

Rev.	Revisions	Date	Name	checked
C				
B				
A				

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

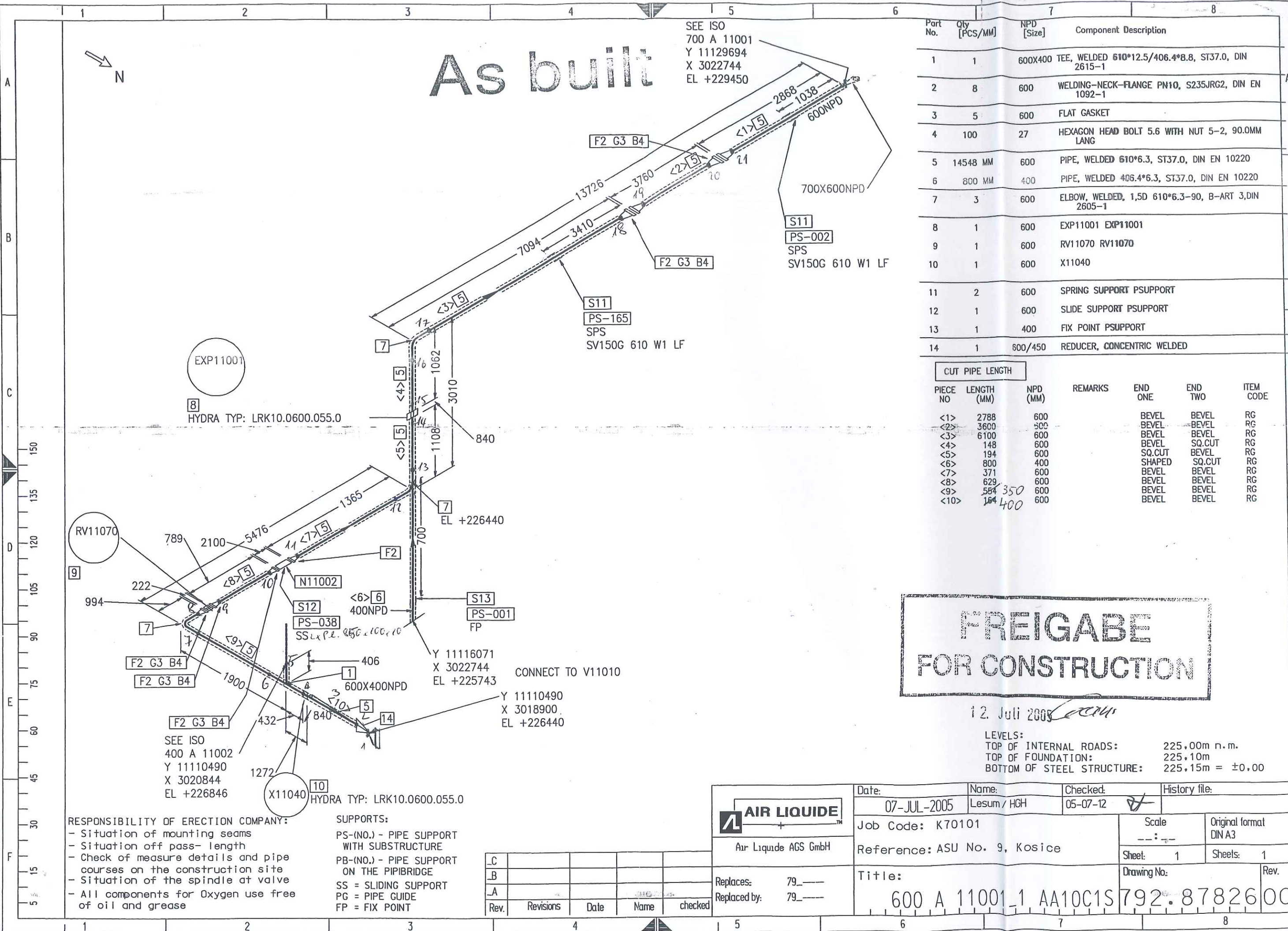
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT





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600-A-11001\_1-AA10C1-

As built

ADJUSTED AT SITE

Z= 226440

Z= 225150

X= 3022744

Y= 1115968

#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

#### RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 TS

a >= 0,7 x t  
a min= 4mm



Total Weight: 188.53 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PIPE	406 4x8.8, L=1730	RST37-2	149.276	
2	1	pcs	PLATE 500x500x20	PLATE 20x500x500	RST37-2	39.250	
3	4	pcs	ANCHOR BOLT HST(-R)M16/100	HST-(-R) 16-0-M16	1.4401	0.000	1,2
4	1	pcs	BASE	600x600x50	CONCRETE	0.000	189,73

**FREIGABE  
FOR CONSTRUCTION**

27. Juli 2005

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL. 2005	Zut	
Drawn checked by			



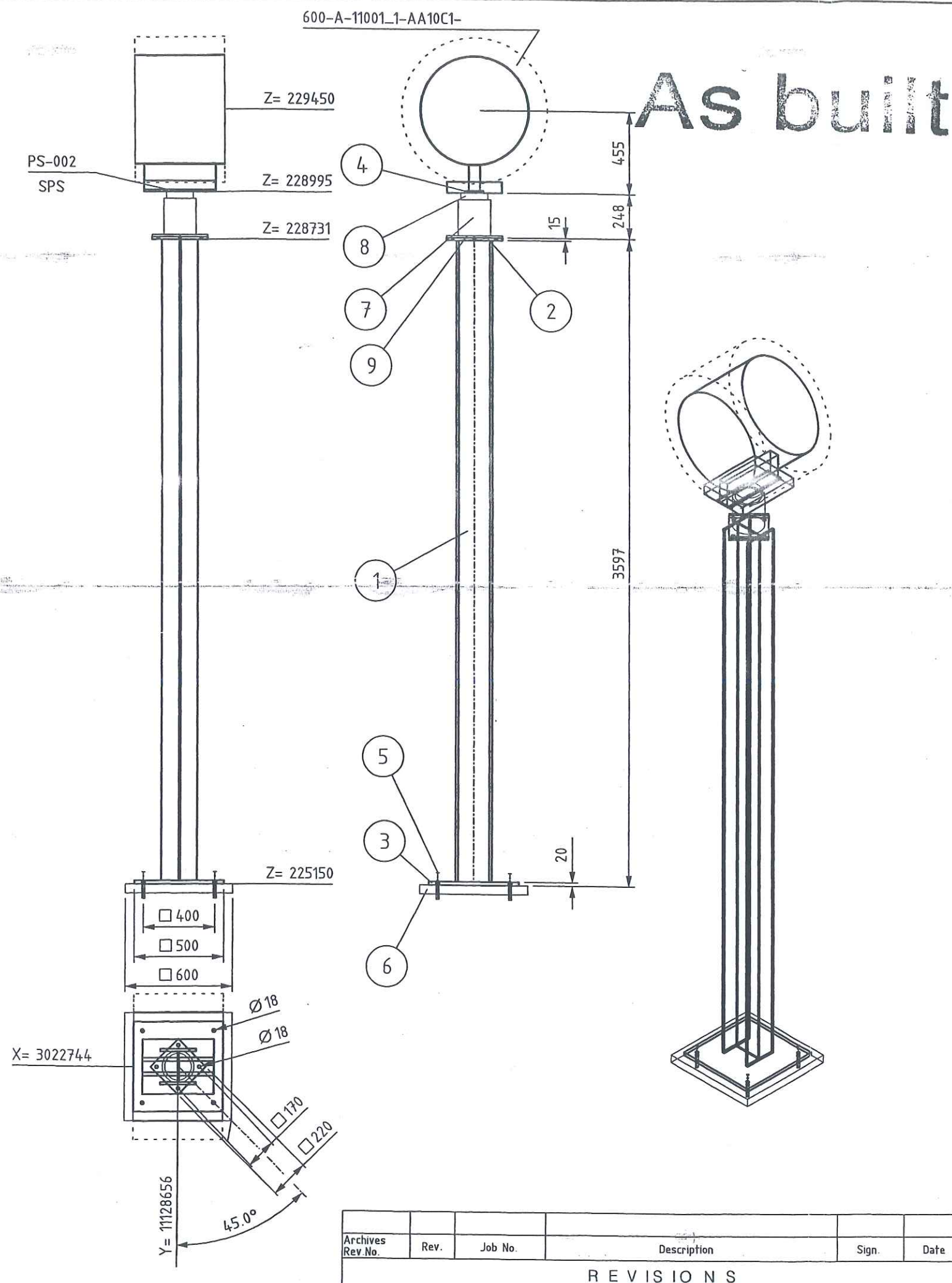
Air Liquide AGS GmbH

Date	Name	Check	History File
05.07.2005	SWA	Zut	
Job Code:	K70101 ASU No.9 Ksice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-001		
Scale:	1:20		Original Format DIN A3
Sheet:	1 of: 1		
Drawing-No.	792.87926		Rev. a

Archives Rev. No.	Rev.	Job No.	Description	Sign.	Date
REVISIONS					



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#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

RESPONSIBILITY OF ERECTION COMPANY

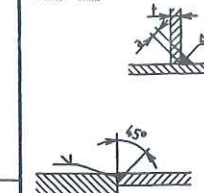
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 TS

a >= 0,7 x t  
a min= 4mm



Total Weight: 267.10 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE200B, L=3.562	RST37-2	218.379	
2	1	pcs	PLATE 220x220x15	PLATE 15x220x220	RST37-2	5.699	
3	1	pcs	PLATE 500x500x20	PLATE 20x500x500	RST37-2	39.250	
4	1	pcs	HESTERBERG SP12 W1 OZN	SLIDE PLATE SP12	RST37-2	3.768	
5	4	pcs	ANCHOR BOLT HST(-R)M16/100	HST-(-R) 16-0-M16	1.4401	0.000	1,2
6	1	pcs	BASE	600x600x50	CONCRETE	0.000	
7	1	pcs	SPRING SUPPORT	LISEGA TYP: 295118	NN	0.000	19,8
8	1	pcs	SPR. SUPP. PLATE	LISEGA TYP: 705916	NN	0.000	
9	1	pcs	SET OF 4 BOLTS + NUTS	M16x50, M16	NN	0.000	218,18

27. Juli 2005

**FREIGABE**  
**FOR CONSTRUCTION**

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25. JUL. 2005	Zut	
Drawn checked by			

**HGH**  
**HEGMANN'S**

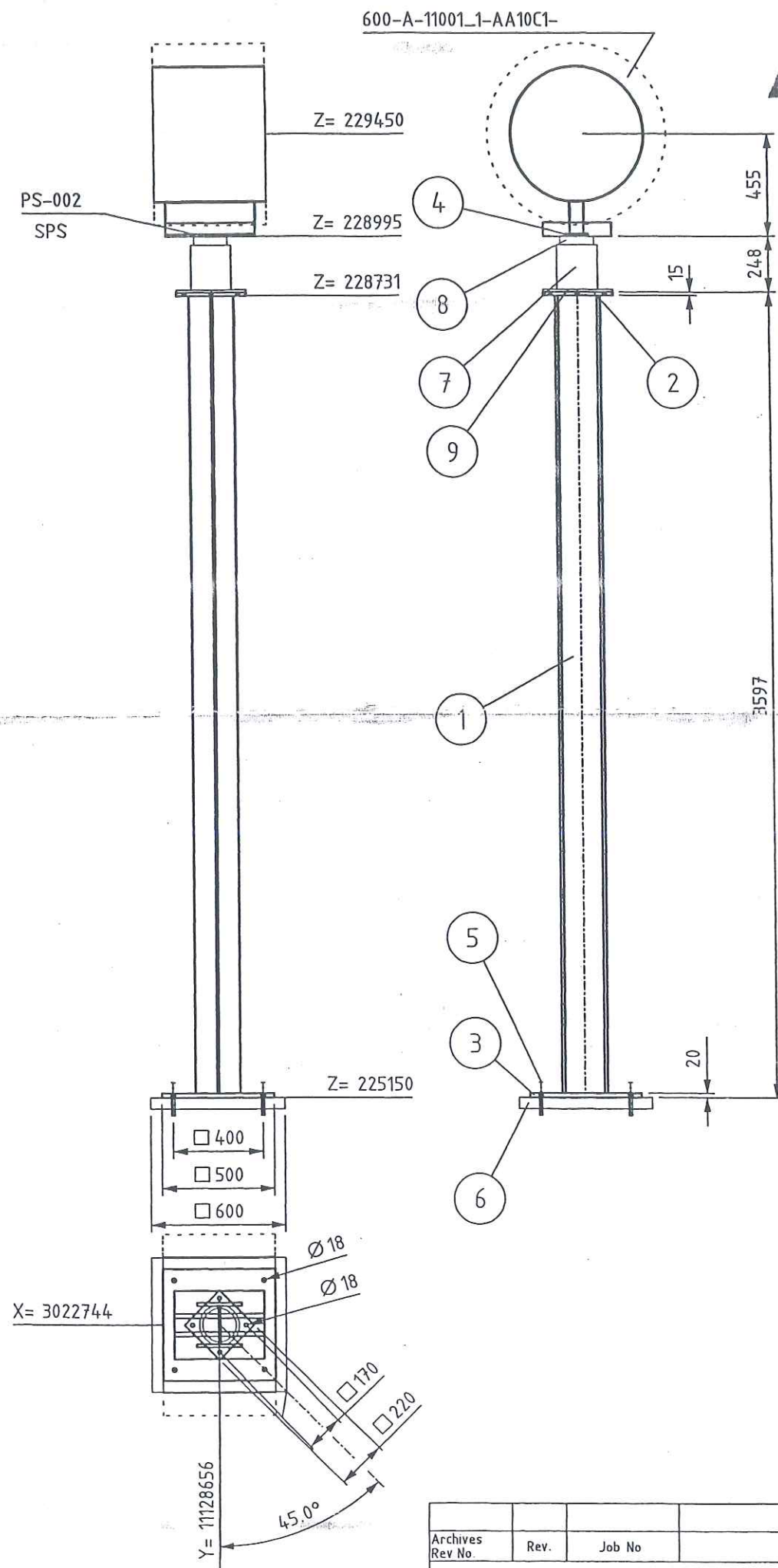
**AIR LIQUIDE**

Air Liquide AGS GmbH

Date	Name	Check	History File
30.06.2005	GU	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-002		
Scale:	1:25	Original Format	DIN A3
Sheet:	1 of:		1
Drawing-No.	792.87926	Rev.	a



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As built

LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

RESPONSIBILITY OF ERECTION COMPANY

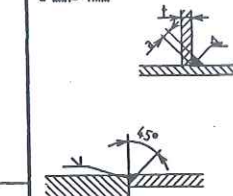
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 TS

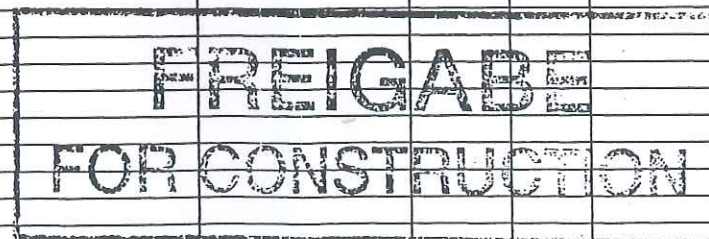
a >= 0,7 x t  
a min= 4mm



Total Weight: 267.10 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	✓	pcs	PROFILE	HE200B, L=3.562	RST37-2	218.379	
2	✓	pcs	PLATE 220x220x15	PLATE 15x220x220	RST37-2	5.699	
3	✓	pcs	PLATE 500x500x20	PLATE 20x500x500	RST37-2	39.250	
4	✓	pcs	HESTERBERG SP12 W1 OZN	SLIDE PLATE SP12	RST37-2	3.768	
5	✓	pcs	ANCHOR BOLT HST(-R)M16/100	HST-(-R) 16-0-M16	1.4401	0.000	1,2
6	✓	pcs	BASE	600x600x50	CONCRETE	0.000	79,8
7	✓	pcs	SPRING SUPPORT	LISEGA TYP. 29511R	NN	0.000	
8	✓	pcs	SPR. SUPP. PLATE	LISEGA TYP. 705916	NN	0.000	
9	✓	pcs	SET OF 4 BOLTS + NUTS	M16x50, M16	NN	0.000	216,18

27. Juli 2005



Date	Name	Signature
Approved by		
Checked by	Gans	
Checked by	Zuf	
Drawn checked by		

HEGMANN'S



Air Liquide AGS GmbH

Date	Name	Check	History File
30.06.2005	GU	Zuf	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-165		
Scale:	1:25	Original Format	DIN A3
Sheet:	1 of:	1	
Drawing-No.	792.87926	Rev.	a

Archives	Rev.	Job No	Description	Sign.	Date
Rev No.					
REVISIONS					



## Preis-Stückliste 0 400A11002AA10C1-S 0 400 A 11002 AA10C1-S Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0019	20	90	HEXAGON HEAD SCREWS		12,00				0,00
B0035	24	100	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,48 kg	32,00				0,00
B0044	24	190	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,78 kg	16,00				0,00
B0518	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	12,00				0,00
B0519	24	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,11 kg	48,00				0,00
G0118	300	0	Flat packings Graphite with CrNi-insert Standard 40002 378x2x325		1,00				0,00
G0129	400	0	FLAT PACKINGS Graphite with CrNi-insert Standard 40002 490x2x420		4,00				0,00
GW31	300	0	girth weld 1.0254 ( St 37.0 ) 323,9x5,6		3,00				0,00
GW34	400	0	girth weld 1.0254 ( St 37.0 ) 406,4x6,3		12,00				0,00
IEXP11002	400	0	EXP11002 supplied by AGS		1,00				0,00
IFK11074	400	0	FK11074 supplied by AGS		1,00				0,00
IZ11031	400	300	Z11031 supplied by AGS 300		1,00				0,00
P0097	300	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 323,9x5,6	44,00 kg	1,40				0,00



**Preis-Stückliste 0 400A11002AA10C1-S 0 400 A 11002 AA10C1-S Revision:**

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0101	400	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 406,4x6,3	62,20 kg	4,10				0,00
P0253	300	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 323,9x5,6	31,59 kg	1,00				0,00
P0257	400	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 406,4x6,3	59,60 kg	2,00				0,00
P0897	400	300	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 406,4x8,8x323,9x7,1	60,03 kg	1,00				0,00
P2949	300	0	WELDING NECK FLANGES; PN 25 1.0038 (S235JRG2) DIN EN 1092-1		1,00				0,00
P2953	400	0	WELDING NECK FLANGES; PN 16 C22.8 /DIN 2633/		4,00				0,00
S0052	400	0	Web-support, SV 150B 407 W1 OZN 1.0 Hesterberg 407	48,00 kg	1,00				0,00
S0170	300	0	Web-support, SV 150G 324 W1 OZN LF 1.0 Hesterberg 324	52,30 kg	1,00				0,00
S0171	400	0	Web-support, SV 150G 407 W1 OZN LF 1.0 Hesterberg 407	90,30 kg	1,00				0,00
SC12	300	0	Segment cut 323,9		1,00				0,00
SC14	400	0	Segment cut 406,4		6,00				0,00
SPS031	400	0	SUPPORT PS-031 pipe support	610,47 kg	1,00				0,00

Preis-Stückliste 0 400A11002AA10C1-S 0 400 A 11002 AA10C1-S. Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPS036	400	0	Support PS-036, DN 400, PG pipe support	13,60 kg	1,00				0,00
Summe: 0 400A11002AA10C1-S 0				1.375,95 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht: 1.375,95 kg

\*\* Ende der Ausgabe

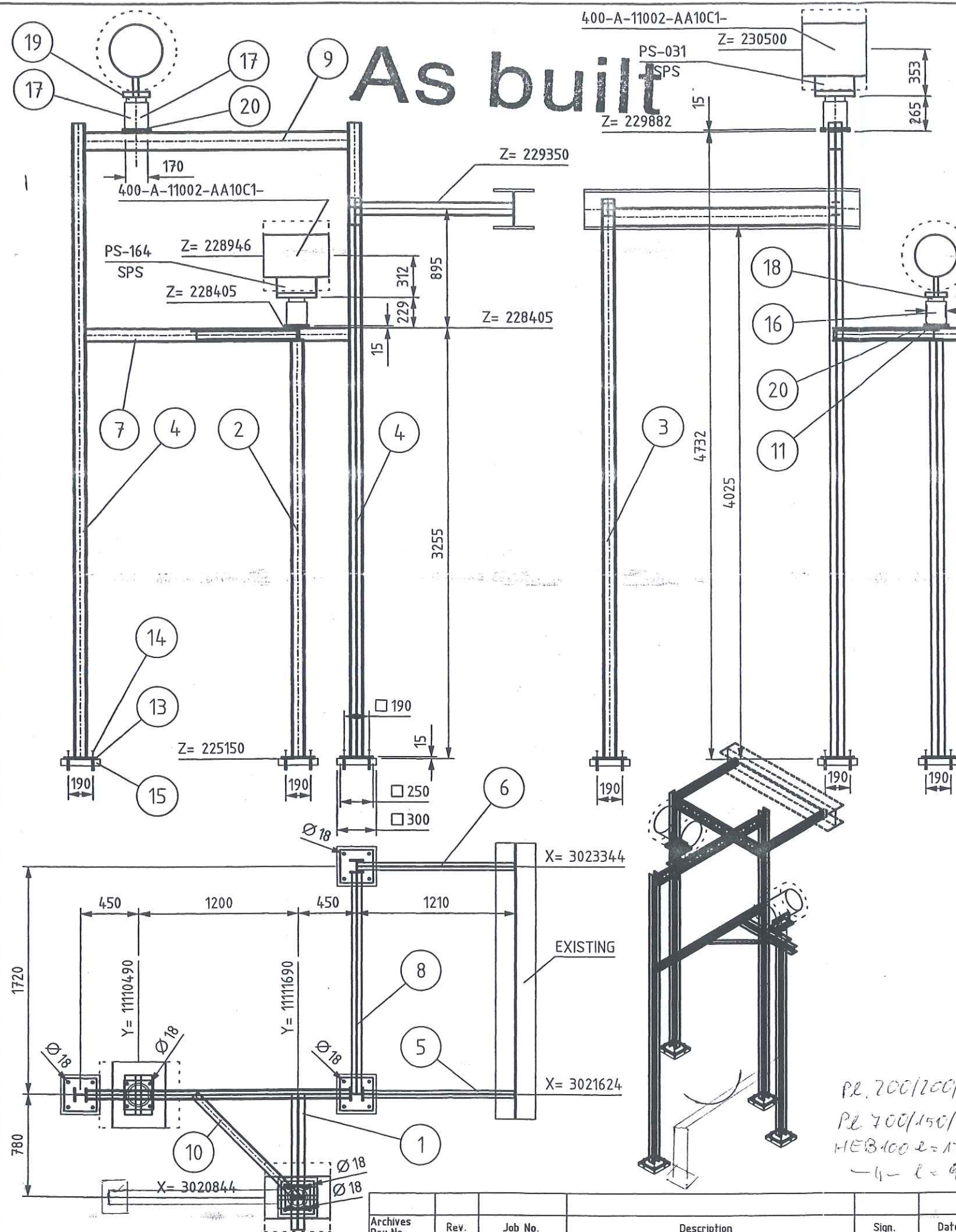








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#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

#### RESPONSIBILITY OF ERECTION COMPANY

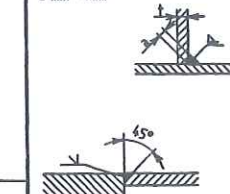
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

#### WELDING DATA ACC. TO DIN 1912 T5

a >= 0,7 x t  
a min = 4mm



Total Weight: 492.37 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE100B, L=1.025	RST37-2	20.919	
2	1	pcs	PROFILE	HE100B, L=3.155	RST37-2	64.394	
3	1	pcs	PROFILE	HE100B, L=4.215 + 0,2	RST37-2	86.028	+ 4,08
4	2	pcs	PROFILE	HE100B, L=4.782 + 0,2	RST37-2	195.202	+ 4,08
5	1	pcs	PROFILE	IPE100, L=1.154	RST37-2	9.332	
6	1	pcs	PROFILE	IPE100, L=1.201	RST37-2	9.712	
7	1	pcs	PROFILE	IPE100, L=2.000	RST37-2	16.171	
8	1	pcs	PROFILE	IPE140, L=1.667	RST37-2	21.461	
9	1	pcs	PROFILE	IPE140, L=2.000	RST37-2	25.748	
10	1	pcs	PROFILE	L60X60X4, L=1.103	RST37-2	4.019	
11	1	pcs	PLATE 15x190x190	PLATE 15x190x190	RST37-2	4.251	
12	1	pcs	PLATE 220x220x15	PLATE 15x220x220	RST37-2	5.699	
13	4	pcs	PLATE 250	PLATE 250x250x15	RST37-2	29.436	
14	2/16	pcs	ANCHOR BOLT HST(-R)M16/100	HST(-R) 16-0-M16	1.4401	0.000	60
15	4	pcs	BASE	300x300x50	CONCRETE	0.000	
16	1	pcs	SPRING SUPPORT	LISEGA TYP: 294118	NN	0.000	11,1
17	1	pcs	SPRING SUPPORT	LISEGA TYP: 295118	NN	0.000	11,8
18	1	pcs	SPR. SUPP. PLATE	LISEGA TYP: 704916	NN	0.000	
19	1	pcs	SPR. SUPP. PLATE	LISEGA TYP: 705916	NN	0.000	
20	2	pcs	SET OF 4 BOLTS + NUTS	M16x50, M16	NN	0.000	610,47

27. Juli 2005

**FREIGABE**  
**FOR CONSTRUCTION**

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL 2005	Zut	
Drawn checked by			



Air Liquide AGS GmbH

Date	Name	Check	History File
27.06.2005	SWA	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-031		
Scale:	1:33.3	Original Format	DIN A3
Sheet:	1 of 1	Drawing-No.	792.87926
Rev.	a		



## Preis-Stückliste 0 300WC11003AA10C2 0 300 WC 11003 AA10C2 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0026	20	160	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,45 kg	12,00				0,00
B0508	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	12,00				0,00
G0163	300	0	Fibrous packings asbestos-free laminate made of aramide f 378x2x325		2,00				0,00
G0164	400	0	FIBROUS PACKING asbestos-free laminate made of aramide f		1,00				0,00
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		1,00				0,00
GW31	300	0	girth weld 1.0254 ( St 37.0 ) 323,9x5,6		9,00				0,00
GW34	400	0	girth weld 1.0254 ( St 37.0 ) 406,4x6,3		1,00				0,00
IK11590	300	0	K11590 supplied by AGS		1,00				0,00
P0071	300	0	PIPE, WELDED St37.0 /DIN 2458/ 323,9x5,6	44,00 kg	6,30				0,00
P0227	300	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 323,9x5,6	31,59 kg	2,00				0,00
P0530	300	150	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 323,9x7,1x168,3x4,5	30,65 kg	1,00				0,00
P1621	400	300	REDUCER, CONCENTRIC, WELDED 1.0254 ( St 37.0 ) DIN 2609 406,4x6,3/323,9x5,6		1,00				0,00

## Preis-Stückliste 0 300WC11003AA10C2 0 300 WC 11003 AA10C2 .Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P2883	150	0	WELDING NECK FLANGES; PN 16 C22.8 /DIN 2633/ 168,3	7,75 kg	1,00				0,00
P2886	300	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 323,9	18,00 kg	2,00				0,00
P2953	400	0	WELDING NECK FLANGES; PN 16 C22.8 /DIN 2633/		1,00				0,00
S0062	300	0	Web-support, SV 150G 324 W1 OZN 1.0 Hesterberg 324	52,10 kg	1,00				0,00
SC12	300	0	Segment cut 323,9		4,00				0,00
SPS091	300	0	SUPPORT PS-091 pipe support	402,90 kg	1,00				0,00
Summe: 0 300WC11003AA10C2 0				875,90 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

875,90 kg



**Jop Code:** K70101 ASU No. 9, Kosice

Title: 300 WC 11003

**Drawing No.:**

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft

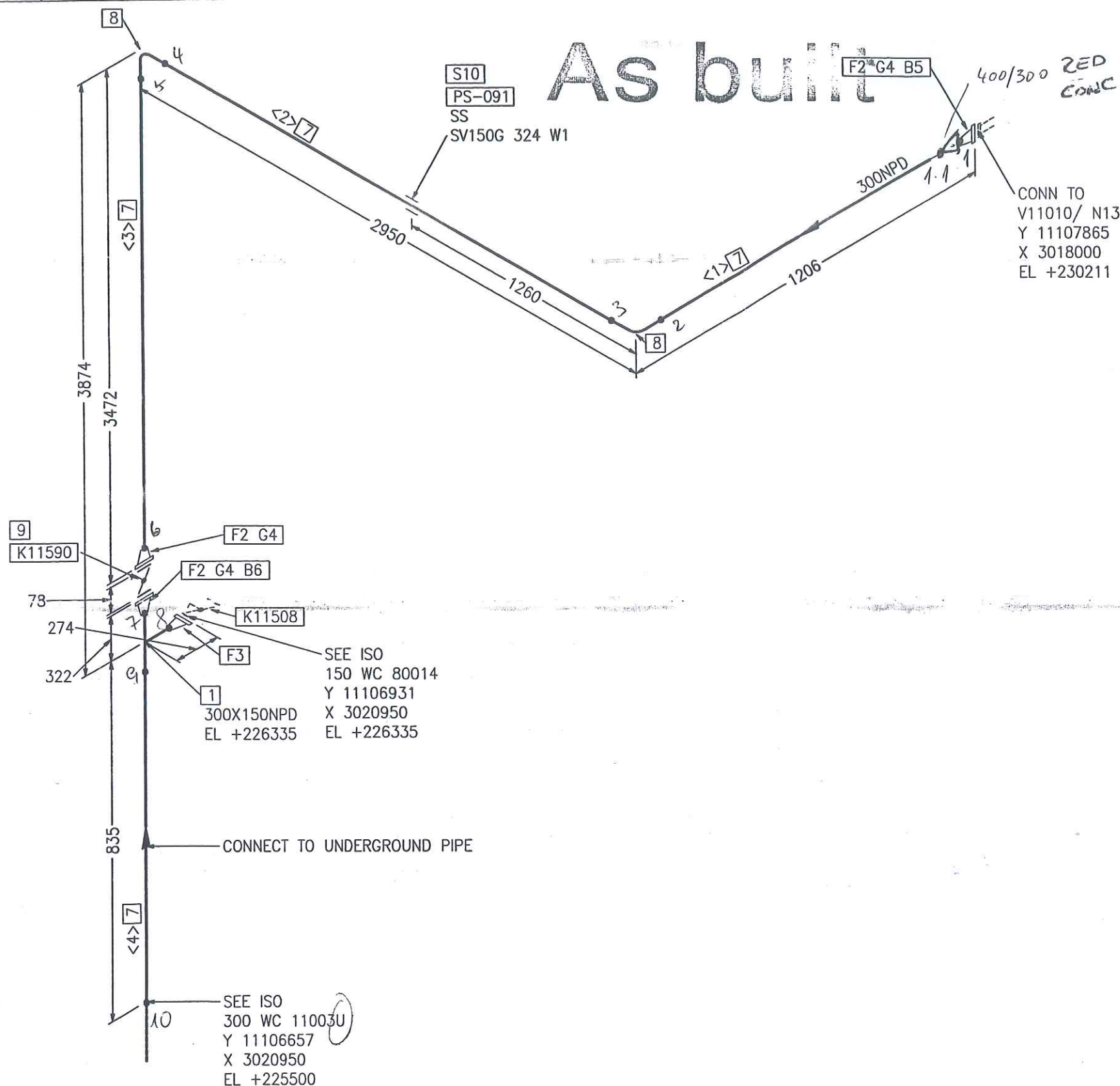
22.03.06 Roll  
Pelzeder Erich

Schweisstechnologie VAM  
Datum / Unterschrift

[illegible]



As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1		300X150 TEE, SEAMLESS 323.9*7.1/168.3*4.5, ST37.0, DIN 2615-1
2	3	300	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	1	150	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	3	300	FIBROUS PACKINGS
5	12	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 80.0MM LANG
6	12	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 160.0MM LANG
7	6244 MM	300	PIPE, WELDED 323.9*5.6, ST37.0, DIN EN 10220
8	2	300	ELBOW, WELDED, 1,5D 323.9*5.6-90, B-ART 3,DIN 2605-1
9	1	300	K11590
10	1	300	SLIDE SUPPORT PSUPPORT

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	681	300		BEVEL	BEVEL	RG
<2>	2035	300		BEVEL	BEVEL	RG
<3>	2947	300		BEVEL	BEVEL	RG
<4>	581	300		BEVEL	BEVEL	RG

FREIGABE  
FOR CONSTRUCTION

12. Juli 2005

LEVELS:  
TOP OF INTERNAL ROADS: 225,00m n.m.  
TOP OF FOUNDATION: 225,10m  
BOTTOM OF STEEL STRUCTURE: 225,15m = ±0,00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

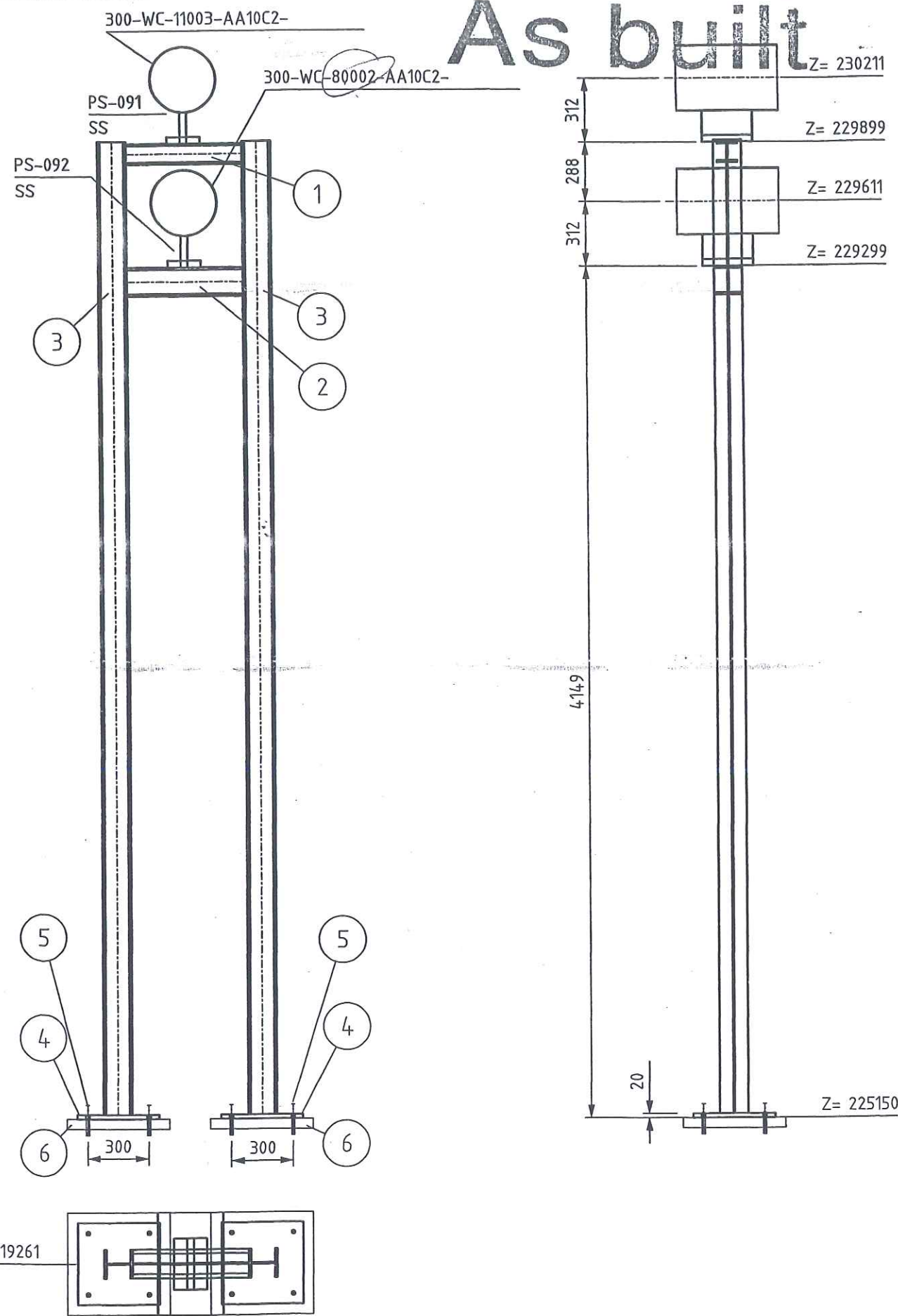


Replaces: 79\_----  
Replaced by: 79\_----

Date: 01-JUL-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
Job Code: K70101	Reference: ASU No. 9, Kosice	Scale: ---:--	Original format: DIN A3
Title: 300 WC 11003-AA10C2		Sheet: 1	Sheets: 1
Drawing No: 792.8782600		Rev.	



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#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

#### RESPONSIBILITY OF ERECTION COMPANY

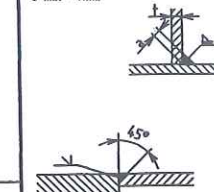
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 TS

a >= 0,7 x t  
a min= 4mm



Total Weight: 400.51 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE100B, L=0.560	RST37-2	11.430	
2	1	pcs	PROFILE	HE140B, L=0.560	RST37-2	18.903	
3	2	pcs	PROFILE	HE140B, L=4.739	RST37-2	319.934	
4	2	pcs	PLATE 400x400x20	PLATE 20x400x400	RST37-2	50.240	
5	8	pcs	ANCHOR BOLT HST(-R)M16/100	HST-(-R) 16-0-M16	1.4401	0.000	2,4
6	2	pcs	BASE	500x500x50	CONCRETE	0.000	402,90
27. Juli 2005							

Date	Name	Signature
02.06.2005	GU	Zut
05. JUL. 2005	Gans	
	Zut	

H G H  
HEGMANN

AIR LIQUIDE

Air Liquide AGS GmbH

Date	Name	Check	History File
02.06.2005	GU	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-091		
Scale:	1:25	Original Format	DIN A3
Sheet:	1 of 1	Rev.	a
Drawing-No.	792.87926		

Archives	Rev.	Job No.	Description	Sign.	Date
REVISIONS					



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 25LV11590AA16C1 0 25 LV 11590 AA16C1 Revision:

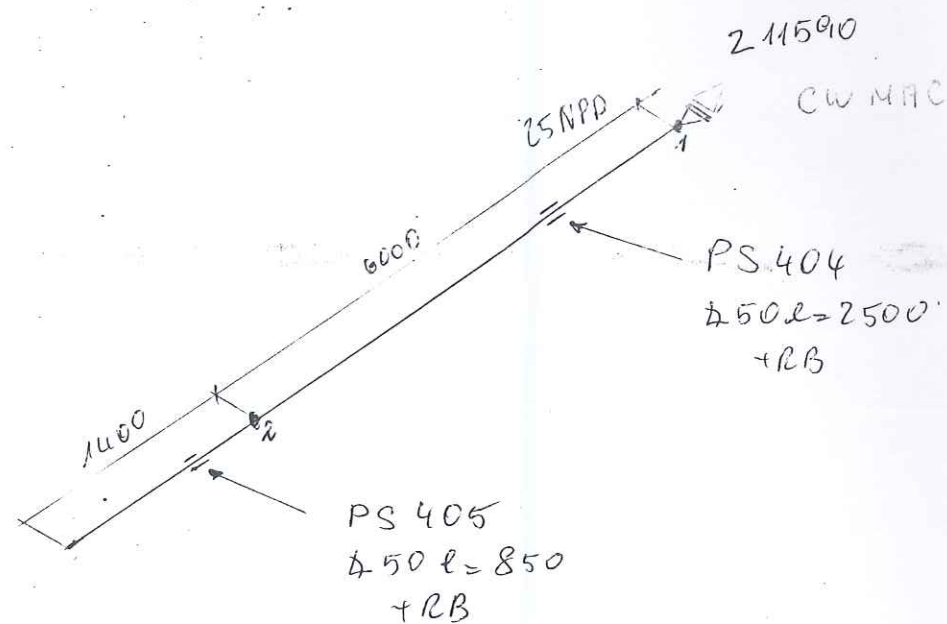
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0002	12	55	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,06 kg	4,00				0,00
B0506	12	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,02 kg	4,00				0,00
G0097	25	0	Flat packings Graphite with CrNi-insert Standard 40002 70x2x35		1,00				0,00
GW5	25	0	girth weld 1.0254 ( St 37.0 ) 33,7x2,6		2,00				0,00
P0014	25	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 33,7x2,6	1,99 kg	7,40				0,00
P2935	25	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 33,7	1,00 kg	1,00				0,00
SC3	25	0	Segment cut 33,7		1,00				0,00
SCP03	25	0	PIPE CLAMP, RB10A 34 W3 HESTERBERG 33,7		2,00				0,00
SPS404	0	0	SUPPORT PS-404, L 50, L=2500	9,42 kg	1,00				0,00
SPS405	0	0	SUPPORT PS-405, L 50, L=850	3,20 kg	1,00				0,00
			Summe: 0 25LV11590AA16C1 0	28,67 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	28,67 kg
Gesamtgewicht:	
** Ende der Ausgabe	





# As built



## RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting soams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

## SUPPORTS:

- PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE
- PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE
- SS = SLIDING SUPPORT
- PG = PIPE GUIDE
- FP = FIX POINT

Rev.	Revisory	Date	Name	checked
C				
B				
A				

 Air Liquide AGS GmbH	Date:	23-JUN-2005	Name:	Lesum / HGH	Checked:	05-07-11	History file:
	Job Code:	K70101		Reference:	ASU No. 9, Kosice		Scale
Replaces:	79_	Replaced by:	79_	Title:		Drawing No:	
				254U.11590.11.1651		792.8782600	
						Rev.	

LEVELS:  
 TOP OF INTERNAL ROADS: 225.00m n.m.  
 TOP OF FOUNDATION: 225.10m  
 BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

**Preis-Stückliste 0 150LV11802AA10C1 0 150 LV 11802 AA10C1 Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	4,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	4,00				0,00
G0100	50	0	Flat packings Graphite with CrNi-insert Standard 40002 107x2x61		1,00				0,00
GW12	50	0	girth weld 1.0254 ( St 37.0 ) 60,3x2,9		3,00				0,00
P0006	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	3,10				0,00
P0205	50	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9	0,49 kg	1,00				0,00
P2878	50	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 60,3	3,00 kg	1,00				0,00
SC5	50	0	Segment cut 60,3		2,00				0,00
SCP02	50	0	PIPE CLAMP, RB10A 61 W3 HESTERBERG 60,3		1,00				0,00
SPS266	0	0	SUPPORT PS-266, PL. 120X60X10 pipe support	0,57 kg	1,00				0,00
Summe: 0 150LV11802AA10C1 0				17,44 kg		0,00	0,00		0,00

Liefersumme:  
Montagesumme:  
Gesamtsumme:

AC 2004



Preis-Stückliste 0 150LV11802AA10C1 0 150 LV 11802 AA10C1 Revision:						
Teilenummer	NW1 NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage
Gesamtgewicht:			17,44 kg			
** Ende der Ausgabe						
					L + M	Gesamt

150LV11802AA10C1

# VAM

## SCHWEISSDOKUMENTATION WELDING DOCUMENTATION

Prot. Nr.

Jop Code: K70101 ASU No. 9, Kosice Order No.: 150 LV 11802

Client: AIR LIQUIDE Title:

Sheet 1

Drawing No.:

Project No.: 9050300

Maker's No.:

erstellt:

01.03.06

RL  
Pelzeder Erich

Datum / Unterschrift

geprüft

Schweisstechnologie VAM

Datum / Unterschrift

(Kunde / TÜV, ...)



Seam No.:

Welder  
No.:

Material

Dimension

Wärme-  
behandlung

RT

UT

MT/PT

SP

Remerk

1

V1

ST37.0

60,3\*2,9

2

V1

ST37.0

60,3\*2,9

3

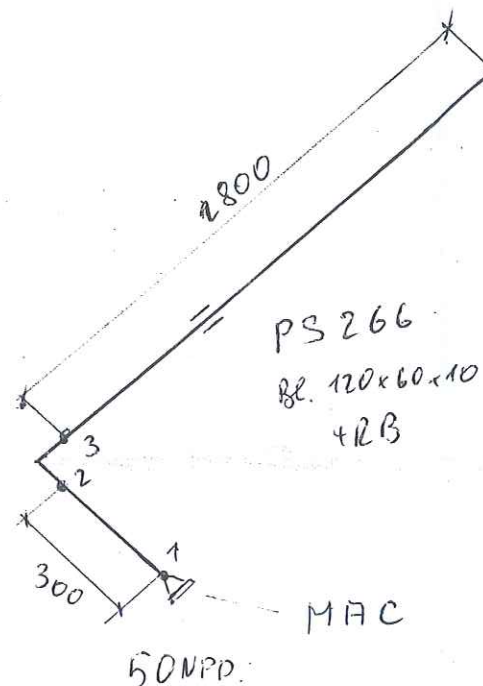
V1

ST37.0

60,3\*2,9



# As built



LEVELS:  
 TOP OF INTERNAL ROADS: 225.00m n.m.  
 TOP OF FOUNDATION: 225.10m  
 BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
 - Situation of mounting seams  
 - Situation off pass- length  
 - Check of measure details and pipe courses on the construction site  
 - Situation of the spindle at valve  
 - All components for Oxygen use free of oil and grease

SUPPORTS:  
 PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
 PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
 SS = SLIDING SUPPORT  
 PG = PIPE GUIDE  
 FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101		Scale: ---:---	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 1	Rev.
Title: 150 LV 11802, AF 10C1		Drawing No: 792.8782600		

**Preis-Stückliste 0 80WC12003AA10C2 0 80 WC 12003 AA10C2 Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0007	16	60	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,12 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0155	50	0	Fibrous packings asbestos-free laminate made of aramide f 107x2x61		2,00				0,00
GW12	50	0	girth weld 1.0254 ( St 37.0 ) 60,3x2,9		2,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		16,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		13,00				0,00
IFV12005	50	0	FV12005 supplied by AGS		1,00				0,00
IH12003	15	0	H12003 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	3,20				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	10,20				0,00
P0159	15	0	ELBOW 90° R=1,5 DA, SEAMLESS 1.0254 ( St 37.0 ) DIN 2609 21,3x2	0,04 kg	5,00				0,00
P0166	80	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 88,9x3,2	1,21 kg	7,00				0,00



## Preis-Stückliste 0 80WC12003AA10C2 0 80 WC 12003 AA10C2 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P1292	80	50	Reducer, concentric, seamless 1.0254 ( St 37.0 ) DIN 2609 88,9x3,2x60,3x2,9	0,51 kg	2,00				0,00
P2878	50	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 60,3	3,00 kg	2,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00
SC1	15	0	Segment cut 21,3		7,00				0,00
SC6	80	0	Segment cut 88,9		8,00				0,00
SCP01	15	0	PIPE CLAMP, RB10A 22 W3 HESTERBERG 21,3		2,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		3,00				0,00
SPS044	80	0	SUPPORT PS-044 pipe support	20,90 kg	1,00				0,00
SPS045	80	0	SUPPORT PS-045 pipe support	22,46 kg	1,00				0,00
SPS046	80	0	SUPPORT PS-046 pipe support	23,54 kg	1,00				0,00
SPS354	0	0	SUPPORT PS-354, L 50, L=150	0,56 kg	2,00				0,00
XZB06	15	0	HOLENDER 1.4404 21,3	0,35 kg	1,00				0,00
XZB10	15	0	THREAD END 5.6 21,3		2,00				0,00
Summe: 0 80WC12003AA10C2 0				157,25 kg		0,00	0,00		0,00

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Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
-------------	-----	-----	------------------	------------	-------	-----------	---------	-------	--------

Liefersumme:	
Montagesumme:	
Gesamtsumme:	
Gesamtgewicht:	157,25 kg
** Ende der Ausgabe	





Prot Nr.

Jop Code:	K70101 ASU No. 9, Kosice	Order No.:
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Client: AIR LIQUIDE

Title: 80 WC 12003

Sheet 1

Drawing No.:

**Maker's No.:**

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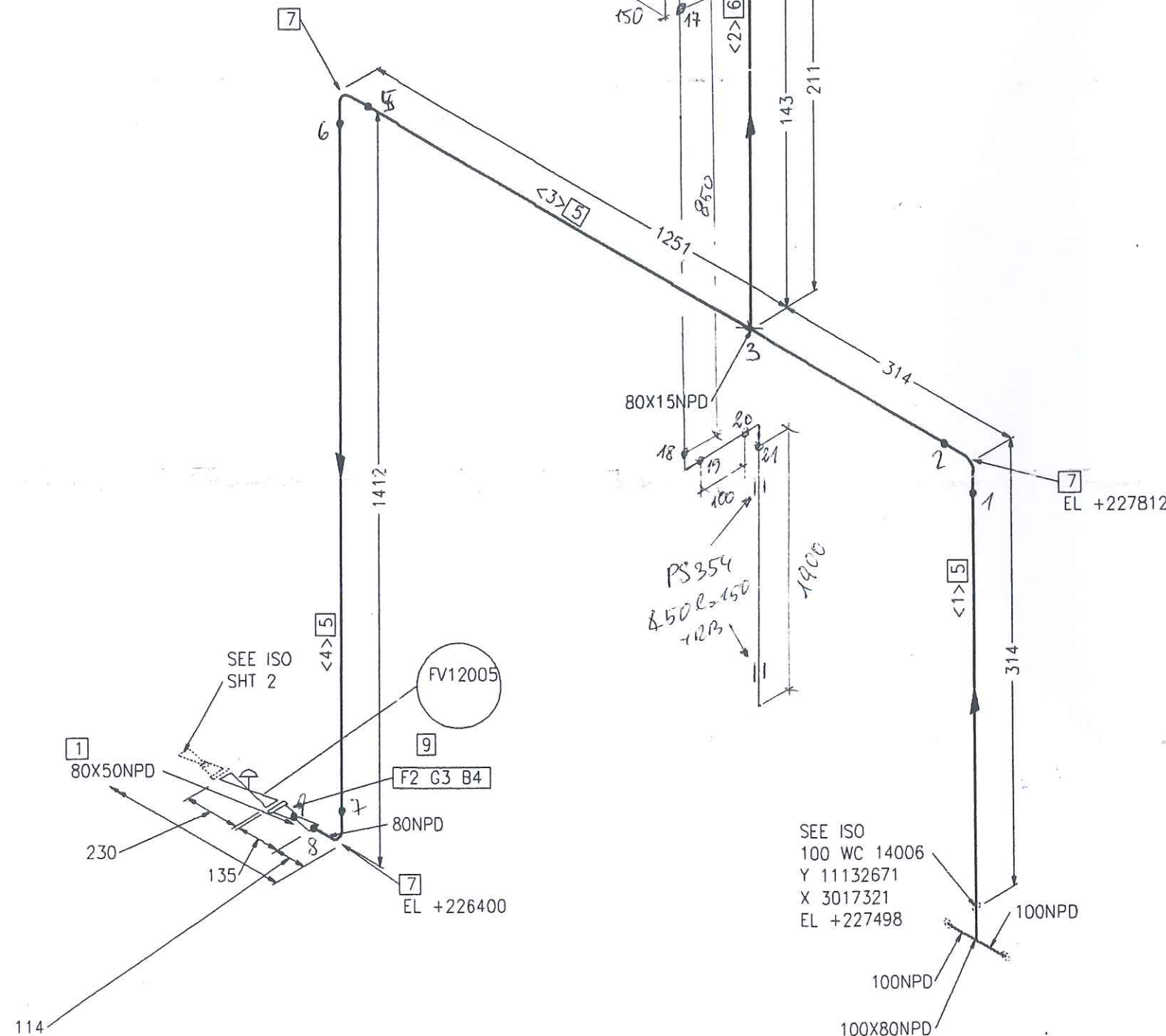
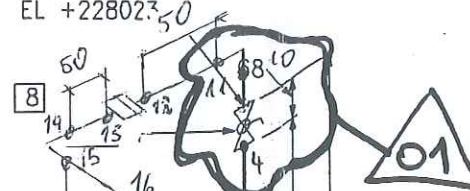
**Protocol No.:**

[illegible]

# As built



Y 11132671  
X 3017635  
EL +22802.50



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	80X50	REDUCER, CONCENTRIC, SEAMLESS 88.9*3.2/60.3*2.9, ST37.0, DIN 2616-1
2	1	50	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	1	50	FIBROUS PACKINGS
4	4	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 60.0MM LANG
5	2721 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
6	100 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
7	3	80	ELBOW, SEAMLESS, 1.5D 88.9*3.2-90, B-ART 3, DIN 2605-1
8	1	15	H12003
9	1	50	FV12005 FV12005

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	200	80		BEVEL	BEVEL	RN
<2>	100	15		SHAPED	BEVEL	RN
<3>	1337	80		BEVEL	BEVEL	RN
<4>	1184	80		BEVEL	BEVEL	RN

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

Rev.	General	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

		Date:	16-SEP-2005	Name:	Lesum / HGH	Checked:	05-09-15	History file:
		Job Code: K70101				Scale	Original format	
Reference: ASU No. 9, Kosice				Sheet: 1	Sheets: 2			
Title:				Drawing No.			Rev.	
80 WC 12003 AA10C2				792.87826			01	

LEVELS:

TOP OF INTERNAL ROADS: 225.00m n.m.

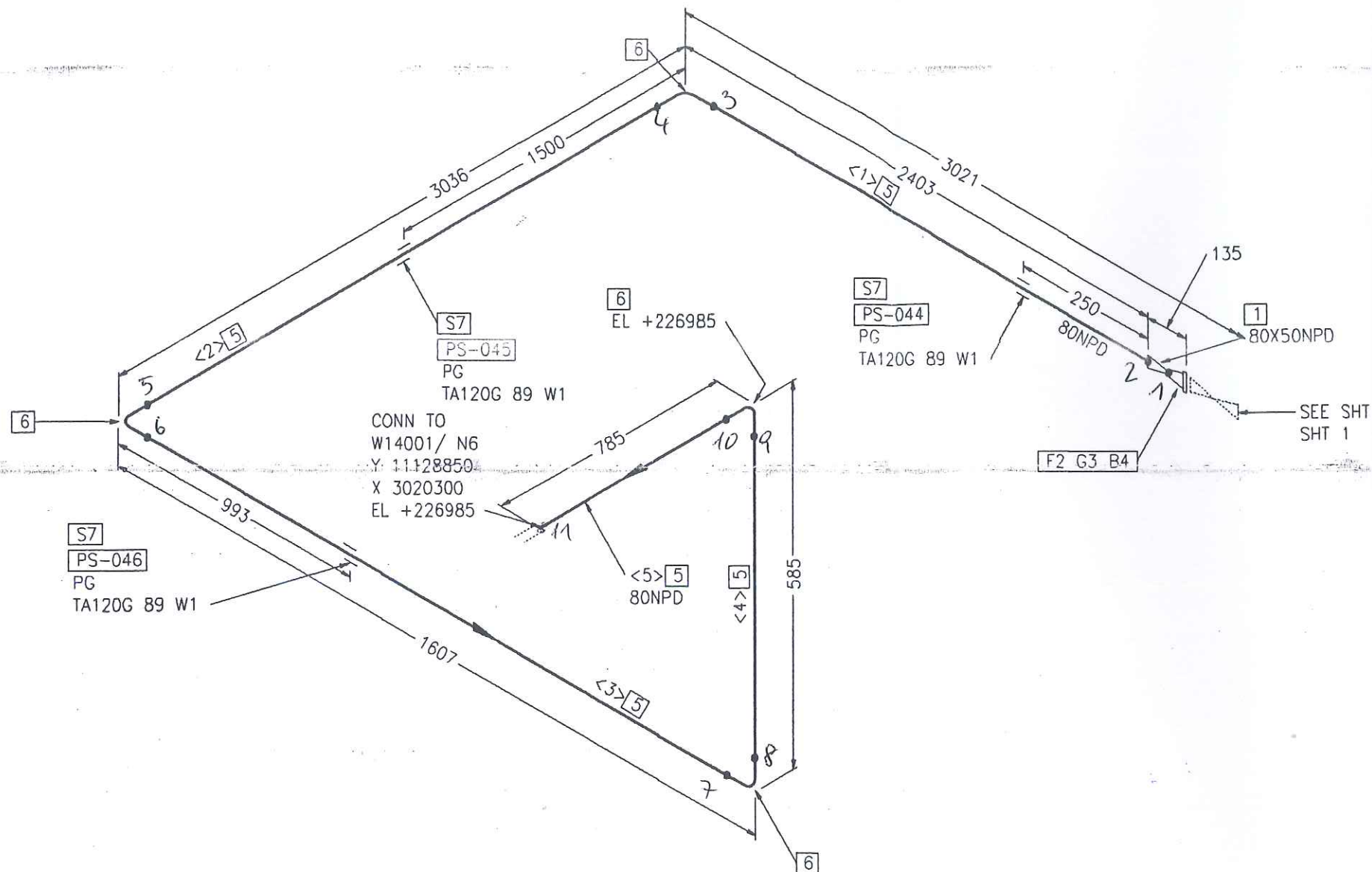
TOP OF FOUNDATION: 225.10m

BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00





# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	80X50	REDUCER, CONCENTRIC, SEAMLESS 88.9*3.2/60.3*2.9, ST37.0, DIN 2616-1
2	1	50	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	1	50	FIBROUS PACKINGS
4	4	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 60.0MM LANG
5	7503 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
6	4	80	ELBOW, SEAMLESS, 1.5D 88.9*3.2-90, B-ART 3, DIN 2605-1
7	3	80	PIPE GUIDE PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	2289	80		BEVEL	BEVEL	RN
<2>	2808	80		BEVEL	BEVEL	RN
<3>	1378	80		BEVEL	BEVEL	RN
<4>	357	80		BEVEL	BEVEL	RN
<5>	671	80		BEVEL	SO.CUT	RN

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

 Air Liquide AGS GmbH	Date:	16-SEP-2005	Name:	Lesum / HGH	Checked:	05-09-15	History file:
	Job Code: K70101				Scale:	Original format DIN A3	
	Reference: ASU No. g. Kosice				Sheet:	2	Sheets: 2
	Title:				Drawing No.		
Replaces: 79_----- Replaced by: 79_-----				80 WC 12003 AA10C2 792.8782601			

LEVELS:

TOP OF INTERNAL ROADS: 225.00m n.m.

TOP OF FOUNDATION: 225.10m

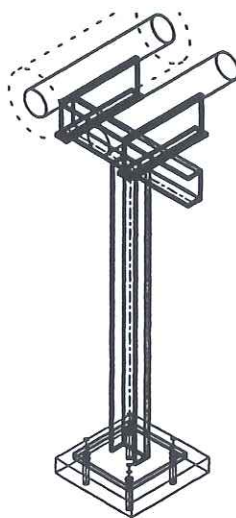
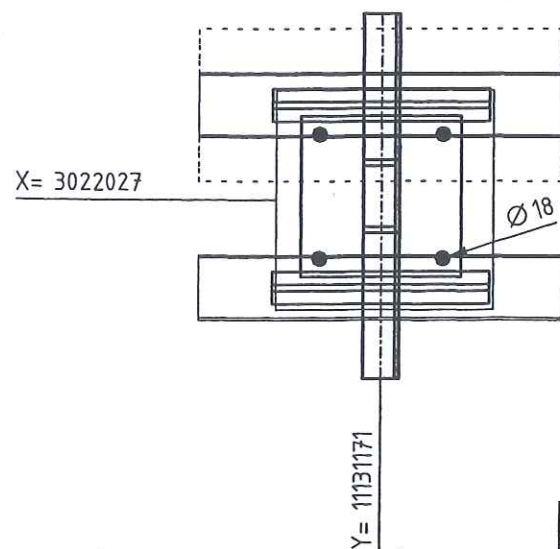
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00







THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE COPIED OR TRANSFERRED TO THIRD PARTIES WITHOUT PERMISSION OF THE PROPRIETOR.



Replaces:	Title PS-045	Drawing-No. 792.87926	Rev. a
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Archives Rev. No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					







Preis-Stückliste 0 700A13001AA10C1-S 0 700 A 13001 AA10C1-S Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0050	27	100	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,60 kg	48,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	48,00				0,00
G0142	700	0	Flat packings Graphite with CrNi-insert Standard 40002 810x2x720		2,00				0,00
GW12	50	0	girth weld 1.0254 ( St 37.0 ) 60,3x2,9		1,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		3,00				0,00
GW37	700	0	girth weld 1.0254 ( St 37.0 ) 711x7,1		21,00				0,00
IH13004L1	15	0	H13004L1 supplied by AGS		1,00				0,00
IPT15010	15	0	PT15010 supplied by AGS		1,00				0,00
ITE13005	15	0	TE13005 supplied by AGS		1,00				0,00
ITE15001	15	0	TE15001 supplied by AGS		1,00				0,00
IUK15011	700	0	UK15011 supplied by AGS		1,00				0,00
IV15010H1	15	0	V15010H1 supplied by AGS		1,00				0,00
P0044	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	0,10				0,00



## Preis-Stückliste 0 700A13001AA10C1-S 0 700 A 13001 AA10C1-S Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0107	700	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 711x7,1	123,00 kg	31,90				0,00
P0263	700	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1	206,15 kg	5,00				0,00
P0922	700	700	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 711x12,5x711x12,5	259,61 kg	2,00				0,00
P2957	700	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 711	65,00 kg	2,00				0,00
PW118	700	50	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x60,3x2,9		1,00				0,00
PW119	700	100	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x114,3x3,6		3,00				0,00
PW125	700	15	PIPE WELD-IN 1.4541		4,00				0,00
S0067	700	0	Web-support, SV 150G 712 W1 OZN LF 1.0 Hesterberg 712	187,80 kg	1,00				0,00
S0202	700	0	SLIDING PLATE 1.0 HESTERBERG		2,00				0,00
SC17	700	0	Segment cut 711		9,00				0,00
SC5	50	0	Segment cut 60,3		1,00				0,00
SPS003	700	0	SUPPORT PS-003 pipe support	475,43 kg	1,00				0,00

Preis-Stückliste 0 700A13001AA10C1-S 0 700 A 13001 AA10C1-S Revision:									
(Fortsetzung)									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPS004	700	0	SUPPORT PS-004 pipe support	445,97 kg	1,00				0,00
SPS005	700	0	SUPPORT PS-005 pipe support	445,97 kg	1,00				0,00
SPS006	700	0	SUPPORT PS-006 pipe support	66,24 kg	1,00				0,00
WOL002	700	100	Weldolet 1.0254 ( St 37.0 ) DIN 17100/17243/AD-W1 711x7,1x114,3x3,6	2,90 kg	3,00				0,00
XZB02	700	15	welding nozzle for pressure gauge, drawi 1.4541 22		2,00				0,00
XZB04	700	15	welding nozzle for thermowell, drawing N 1.4541 22		2,00				0,00
Summe: 0 700A13001AA10C1-S 0				7.271,15 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	7.271,15 kg
Gesamtgewicht:	
** Ende der Ausgabe	





<b>Jop Code:</b>	<b>K70101 ASU No. 9, Kosice</b>	<b>Order No.:</b>
------------------	---------------------------------	-------------------

**Title:** 700 A 13001

**Drawing No.:**

**792.87826 - 01**

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft

Schweisstechnologie VAM

**Datum / Unterschrift**

24.02.06 Pelzeder Erich  
Datum / Unterschrift

[illegible]

# As built



CONN TO  
A15001/ N4  
Y 11138500  
X 3030500  
EL +227781

Y 11139642  
X 3030500  
EL +226626

DRAIN NOZZLE, CONNECT TO 25-C-15020

SEE ISO  
100 N 15011  
Y 11140146  
X 3030500  
EL +226501

SEE ISO  
600 N 15010  
Y 11141100  
X 3031021  
EL +226150

SEE ISO  
100 A 13003  
Y 11139767  
X 3030149  
EL +226150

SEE ISO  
100 A 13003  
Y 11140749  
X 3028815  
EL +226150

Y 11139667  
X 3030500  
EL +225696

## SUPPORTS:

PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT  
ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

## RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

Rev.	Revisions	Date	Name	checked
01	General Rev.	15.09.2005	Les	Zul



Air Liquide AGS GmbH

Replaces: 79\_-----  
Replaced by: 79\_-----

Date:	07-JUL-2005	Name:	Lesum / HGH	Checked:	05-09-15	History file:	
Job Code:	K70101	Reference:	ASU No. 9, Kosice	Scale:	1:1	Original format:	DIN A3
Title:	700 A 13001 AA10C1W	Drawing No.:	792.87826	Rev.:	01		

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X700	TEE, WELDED 711*12.5/711*12.5, ST37.0, DIN 2615-1
2	1	700X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
3	2	700	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	2	700	FLAT GASKET
5	48	27	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 100.0MM LANG
6	3190 MM	700	PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220
7	100 MM	50	PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220
8	1	700	ELBOW, WELDED, 1.5D 711*7.1-90, B-ART 3,DIN 2605-1
9	1	700	UK15011
10	1	15	TE15001 TE15001
11	1	700	SLIDE SUPPORT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	100	50		SHAPED BEVEL	SO.CUT BEVEL	RN
<2>	1012	700		BEVEL	BEVEL	RG
<3>	564	700		BEVEL	SO.CUT BEVEL	RG
<4>	1614	700		BEVEL	BEVEL	RG

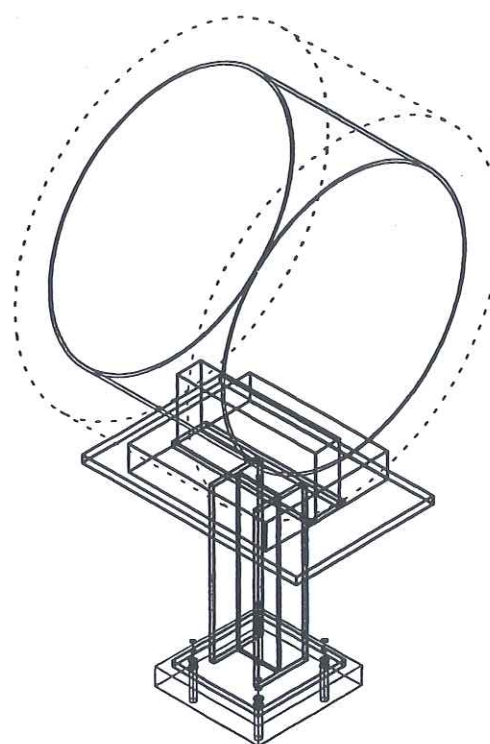
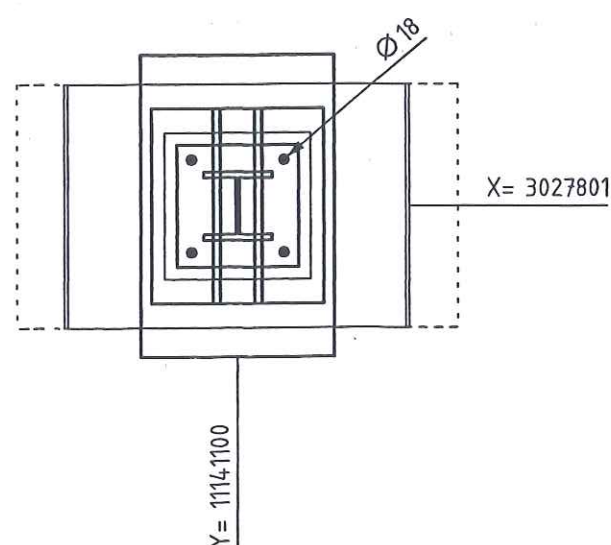
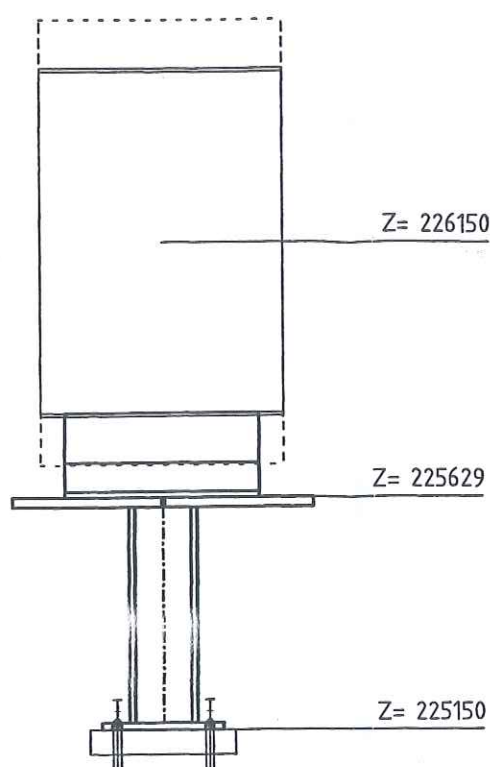
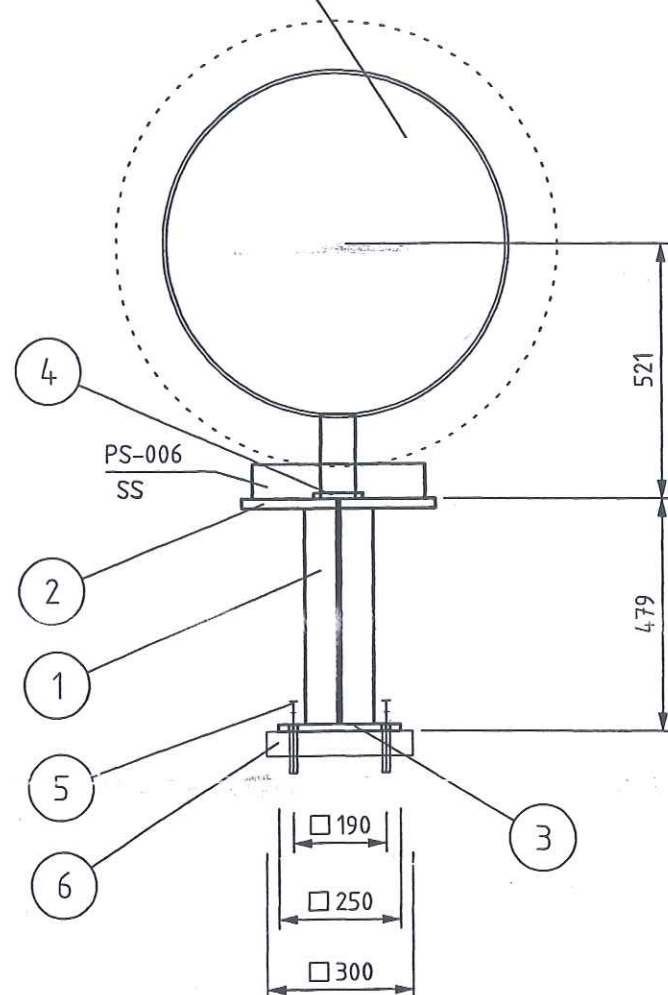
S11  
PS-006  
SS  
SV150G 712 W1 LF

SEE ISO  
SHT 2



700-A-13001-AA10C1-

# As built



LEGEND:

- |        |                                |
|--------|--------------------------------|
| -PG-   | PIPE GUIDE                     |
| -FP-   | FIX POINT                      |
| -SS-   | SLIDE SUPPORT                  |
| -HN-   | HANGER                         |
| -SSAX- | SLIDE SUPPORT WITH AXIAL STOP  |
| -AXLS- | AXIAL STOP WITH LIFTING STOP   |
| -SPS-  | SPRING SUPPORT                 |
| -SPGS- | SPRING SUPPORT GUIDED          |
| -GSAX- | GUIDE SUPPORT WITH AXIAL STOP  |
| -SPAX- | SPRING SUPPORT WITH AXIAL STOP |
| -SH-   | SPRING HANGER                  |
| -AX-   | AXIAL STOP                     |

-ALL SHARP EDGES REMOVED

-MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M

-FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP  
INSIDE WITH PTFE-BAND

-NOT MARKING WELDED SEAMS a=4mm ROUND

**MARKING:**

MARKING:  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER  
RESISTANT PAINT AND WHITE COLOR

RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED


WELDING DATA ACC. TO DIN 1912 TS


a >= 0,7 x t  
a min = 4mm



Total Weight:	65.03 kg
---------------	----------

[illegible]

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25. JUL. 2005	Zut	
Drawn checked by			




**AIR LIQUIDE**™

Air Liquide AGS GmbH

	Date	Name	Check.	History File	
	11.07.2005	SWA	Zut		
	Job Code: K70101 ASU No.9 Kosice			Scale: 1:15	Original Format DIN A3
	Reference: PIPING SUPPORT			Sheet: 1 of:	
Replaces:	Title PS-006			Drawing-No. 792.87926	R







# As built

SEE ISO  
700 A 13002  
Y 11134979  
X 3026434  
EL +226150

Y 11135500  
X 3025613  
EL +226696

Y 11135500  
X 3023901  
EL +226695

Y 11135500  
X 3024101  
EL +226626

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b>		Date: 07-JUL-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
Air Liquide AGS GmbH		Job Code: K70101		Scale: 1:1	Original format DIN A3
Replaces: 79----		Reference: ASU No. 9, Kosice		Sheet: 2	Sheets: 2
Replaced by: 79----		Title: 700 A 13001 AA10C1W 792.8782600		Drawing No:	Rev.

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X700	TEE, WELDED 711*12.5/711*12.5, ST37.0, DIN 2615-1
2	2	700X15	WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55861
3	1	700X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
4	28735 MM	700	PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220
5	4	700	ELBOW, WELDED, 1,5D 711*7.1-90, B-ART 3,DIN 2605-1
6	1	15	V15010H1
7	1	15	H13004L1
8	1	15	PT15010 PT15010
9	1	15	TE13005 TE13005
10	2	700	PIPE GUIDE PSUPPORT
11	1	700	FIX POINT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	4012	700		BEVEL	BEVEL	RG
<2>	2212	700		BEVEL	BEVEL	RG
<3>	22311	700		BEVEL	BEVEL	RG
<4>	200	700		BEVEL	BEVEL	RG

**FREIGABE  
FOR CONSTRUCTION**

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

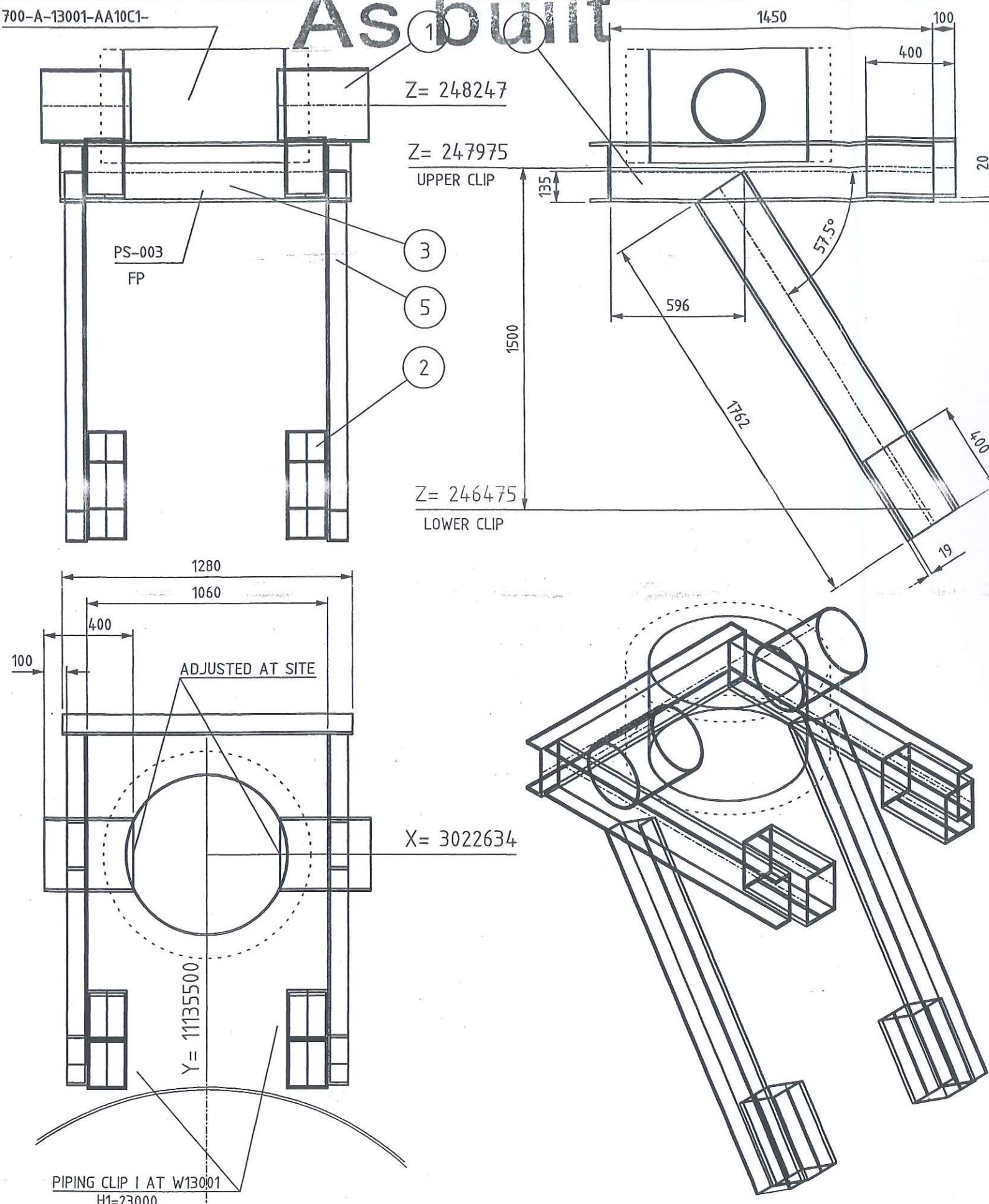


REC. 100804 MFL

700-A-13001-AA10C1-

As built

THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE COPIED OR TRANSFERRED TO THIRD PARTIES WITHOUT PERMISSION OF THE PROPRIETOR.



- LEGEND:
- PG- PIPE GUIDE
  - FP- FIX POINT
  - SS- SLIDE SUPPORT
  - HN- HANGER
  - SSAX- SLIDE SUPPORT WITH AXIAL STOP
  - AXLS- AXIAL STOP WITH LIFTING STOP
  - SPS- SPRING SUPPORT
  - SPGS- SPRING SUPPORT GUIDED
  - GSAX- GUIDE SUPPORT WITH AXIAL STOP
  - SPAX- SPRING SUPPORT WITH AXIAL STOP
  - SH- SPRING HANGER
  - AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

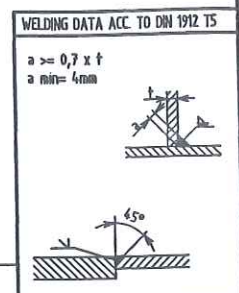
MARKING:  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED



Total Weight: 475.39 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	2	pcs		0323.9X10, L=0.400	RST37-2	61.858	
2	8	pcs		U260, L=0.400	RST37-2	121.400	
3	1	pcs		U260, L=1.280	RST37-2	48.532	
4	2	pcs		U260, L=1.450	RST37-2	109.954	
5	2	pcs		U260, L=1.762	RST37-2	133.647	

475,43

27. Juli 2005

**FREIGABE  
FOR CONSTRUCTION**

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL. 2005	Zut	
Drawn checked by			

*Crow*

**H G H  
HEGMANN**

**AIR LIQUIDE**

Air Liquide AGS GmbH

Date	Name	Check	History File
06.07.2005	SWA	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-003		
Scale:	1:20	Original Format	DIN A3
Sheet:	1 of 1	Drawing-No.	792.87926
Rev.	a		

Archives	Rev.	Job No.	Description	Sign.	Date
Rev No.					
R E V I S I O N S					



THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE COPIED OR TRANSFERRED TO THIRD PARTIES WITHOUT PERMISSION OF THE PROPRIETOR.

700-A-13001-AA10C1-

Z= 239955

As built

1450

100

400

20

Z= 239975

UPPER CLIP

1500

Z= 238475

LOWER CLIP

PS-004  
PG

1

3

5

2

596

1762

400

19

1280

1060

210

ADJUSTED AT SITE

X= 3022634

Y= 11135500

PIPING CLIP II AT W13001  
H2=15000

Archives Rev. No.	Rev.	Job No.	Description	Sign.	Date
REVISIONS					

#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

#### RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 TS

a >= 0,7 x t  
a min= 4mm



Total Weight: 445.98 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	2	pcs		0323.9X10, L=0.210	RST37-2	32.442	
2	8	pcs		U260, L=0.400	RST37-2	121.400	
3	1	pcs		U260, L=1.280	RST37-2	48.532	
4	2	pcs		U260, L=1.450	RST37-2	109.954	
5	2	pcs		U260, L=1.762	RST37-2	133.647	

445,98

PRELIMINARY  
FOR CONSTRUCTION

27. Juli 2005

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL. 2005	Zut	
Drawn checked by			

HKG  
HEGMANN

AIR LIQUIDE  
Air Liquide AGS GmbH

Date	Name	Check.	History File
06.07.2005	SWA	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title		
	PS-004		
Scale:	1:20		
Original Format	DIN A3		
Sheet:	1 of:		
Drawing-No.	792.87926		
Rev.	a		



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700-A-13001-AA10C1-

As built

1450

Z= 232435

Z= 232475  
UPPER CLIP

Z= 230975  
LOWER CLIP

X= 3022634

Y= 11135500

PIPING CLIP III AT W13001  
H1=7500

Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

RESPONSIBILITY OF ERECTION COMPANY  
-LOCATION OF FIELD WELDS  
-FITTING LENGTHS  
-DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 T5

a >= 0,7 x t  
a min= 4mm



Total Weight: 445.98 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	2	pcs		0323.9X10, L=0.210	RST37-2	32.442	
2	8	pcs	PROFILE	U260, L=0.400	RST37-2	121.400	
3	1	pcs	PROFILE	U260, L=1.280	RST37-2	48.532	
4	2	pcs	PROFILE	U260, L=1.450	RST37-2	109.954	
5	2	pcs	PROFILE	U260, L=1.762	RST37-2	133.647	
							445.97
FREIGABE							
FOR CONSTRUCTION							
27. Juli 2005							

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL 2005	Zut	
Drawn checked by			

HGH  
HEGMANN

AIR LIQUIDE

Air Liquide AGS GmbH

Date	Name	Check	History File
08.07.2005	SWA	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title	PS-005	
Scale:	1:20	Original Format	DIN A3
Sheet:	1 of:	1	1
Drawing-No.	792.87926	Rev.	a



## Preis-Stückliste 0 700A13002AA10C1-W 0 700 A 13002 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0050	27	100	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,60 kg	48,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	48,00				0,00
G0142	700	0	Flat packings Graphite with CrNi-insert Standard 40002 810x2x720		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		3,00				0,00
GW37	700	0	girth weld 1.0254 ( St 37.0 ) 711x7,1		9,00				0,00
ITE15021	15	0	TE15021 supplied by AGS		1,00				0,00
IUK15021	700	0	UK15021 supplied by AGS		1,00				0,00
P0044	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	0,10				0,00
P0107	700	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 711x7,1	123,00 kg	7,20				0,00
P0263	700	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1	206,15 kg	2,00				0,00
P0922	700	700	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 711x12,5x711x12,5	259,61 kg	1,00				0,00
P2957	700	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 711	65,00 kg	2,00				0,00

**Preis-Stückliste 0 700A13002AA10C1-W 0 700 A 13002 AA10C1-W Revision:**

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
PWI20	700	50	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x60,3x2,9		1,00				0,00
PWI21	700	100	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x114,3x3,6		3,00				0,00
PWI25	700	15	PIPE WELD-IN 1.4541		1,00				0,00
S0067	700	0	Web-support, SV 150G 712 W1 OZN LF 1.0 Hesterberg 712	187,80 kg	1,00				0,00
S0202	700	0	SLIDING PLATE 1.0 HESTERBERG		2,00				0,00
SC17	700	0	Segment cut 711		5,00				0,00
SC5	50	0	Segment cut 60,3		1,00				0,00
SPS007	700	0	SUPPORT PS-007 pipe support	66,24 kg	1,00				0,00
WOL002	700	100	Weldolet 1.0254 ( St 37.0 ) DIN 17100/17243/AD-W1 711x7,1x114,3x3,6	2,90 kg	3,00				0,00
XZB04	700	15	welding nozzle for thermowell, drawing N 1.4541 22		1,00				0,00
Summe: 0 700A13002AA10C1-W 0				1.987,62 kg		0,00	0,00		0,00

Liefersumme:  
Montagesumme:  
Gesamtsumme:



Preis-Stückliste 0 700A13002AA10C1-W 0 700 A 13002 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
Gesamtgewicht:				1.987,62 kg					
** Ende der Ausgabe									

AC BUCH



Prot Nr.

Order No.:	K70101 ASU No. 9, Kosice
Jop Code:	

<b>Client:</b>	<b>AIR LIQUIDE</b>	<b>Title:</b>	<b>700 A 13002</b>
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**Title:**

700 A 13002

Sheet 1

**Drawing No.:**

792.87826 - 00

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft



24.02.06 DL  
Pelzeder Erich

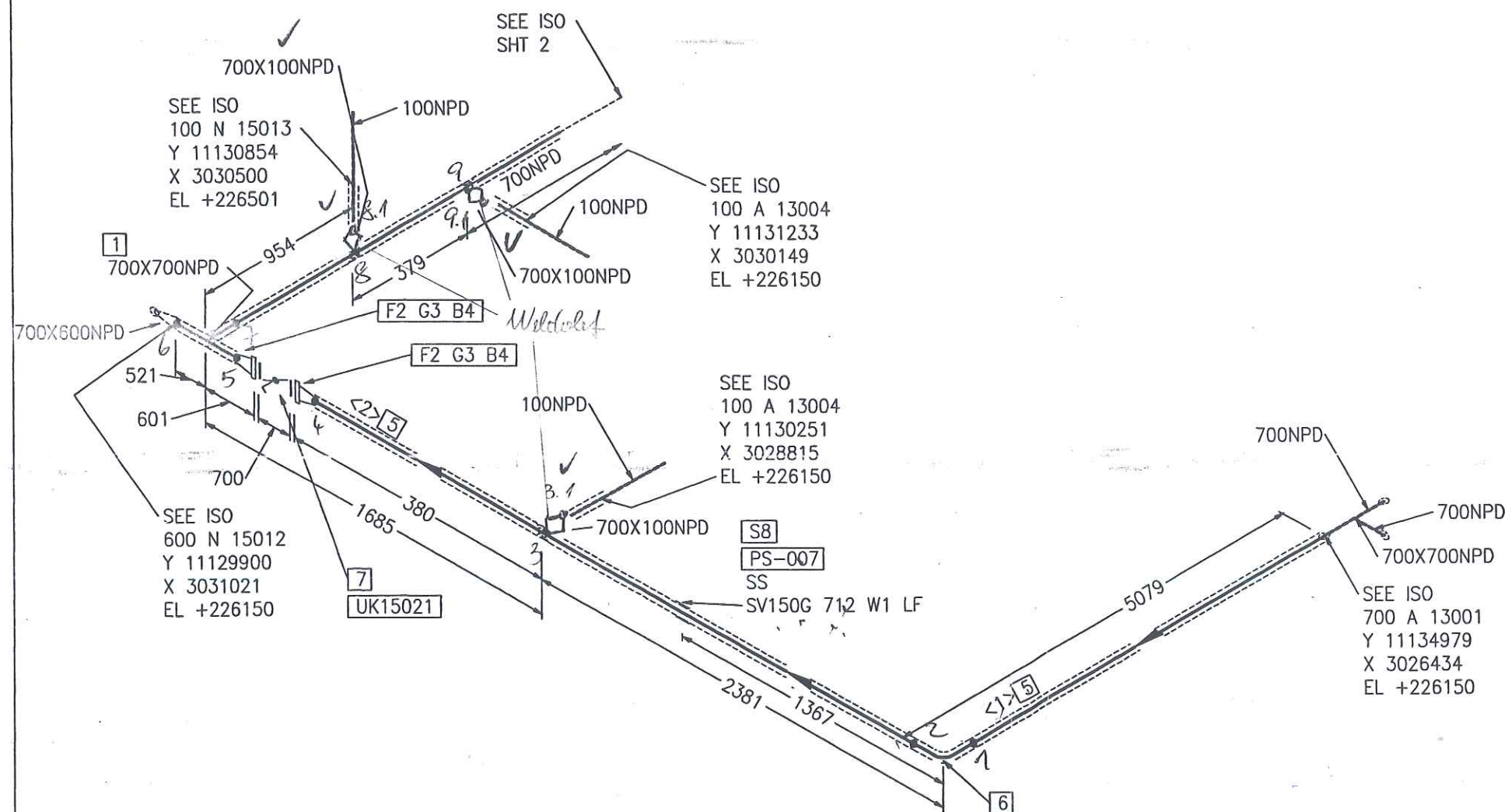
**Schweisstechnologie VAM**  
**Datum / Unterschrift**

**Datum / Unterschrift**

[illegible]



# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X700	TEE, WELDED 711*12.5/711*12.5, ST37.0, DIN 2615-1
2	2	700	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	2	700	FLAT GASKET
4	48	27	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 100.0MM LANG
5	6488-MM	700	PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220
6	1	700	ELBOW, WELDED, 1,5D 711*7.1-90, B-ART 3,DIN 2605-1
7	1	700	UK15021
8	1	700	SLIDE SUPPORT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	4012	700		BEVEL	BEVEL	RG
<2>	1614	700		BEVEL	BEVEL	RG

**FREIGABE  
FOR CONSTRUCTION**

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

### RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

### SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT



Air Liquide AGS GmbH

Rev.	Revisions	Date	Name	checked
.C				
.B				
.A				

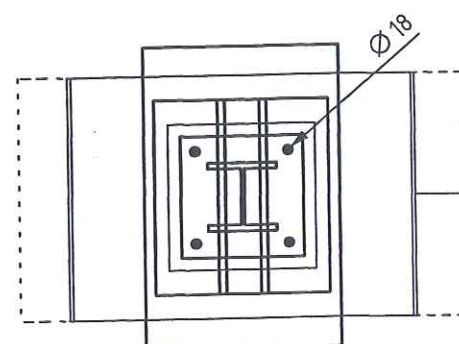
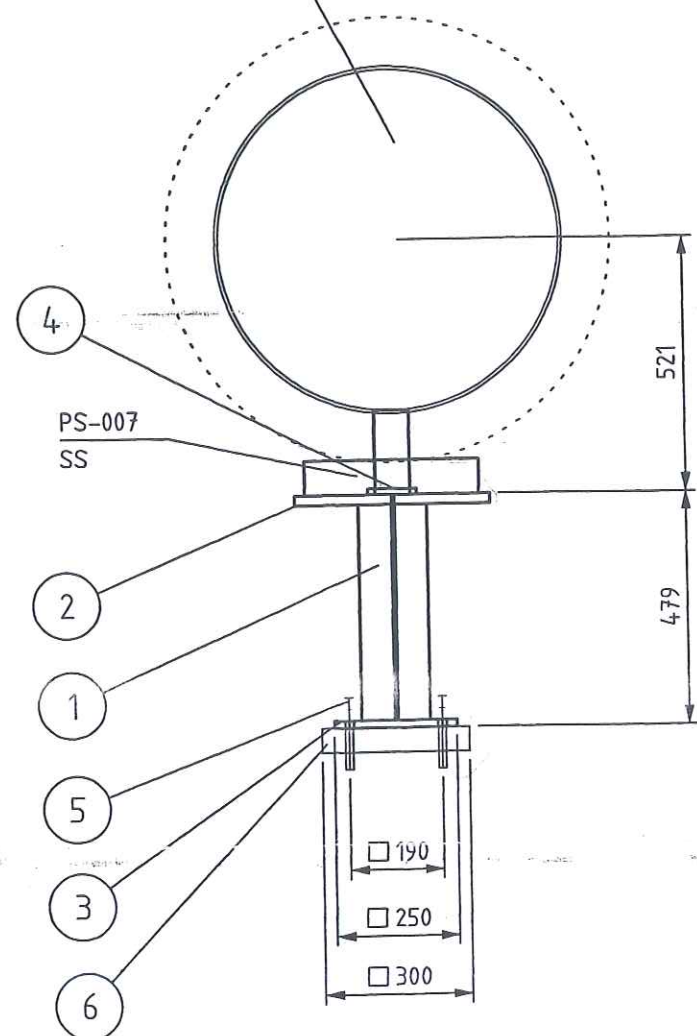
Replaces: 79\_—  
Replaced by: 79\_—

Date: 07-JUL-2005	Name: Lesum / HGH	Checked: 05-07-12	History file:
Job Code: K70101	Reference: ASU No. 9, Kosice	Scale: ---:---	Original format: DIN A3
Title: 700 A 13002 AA10C1W		Sheet: 1	Sheets: 2
792.8782600		Drawing No:	Rev.

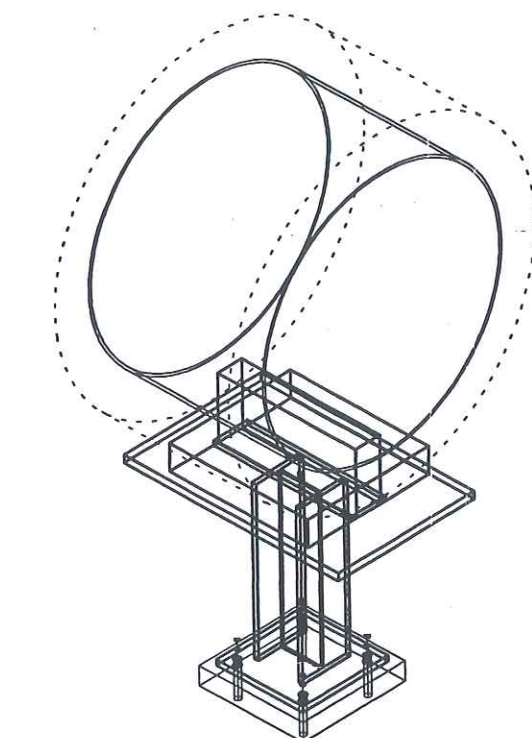


700-A-13002-AA10C1-

# As built



X= 3027801

$$Y = 11129900$$


Z= 226150

Z= 225629

Z= 225150

LEGEND:

- LEGEND:
- |        |                                |
|--------|--------------------------------|
| -PG-   | PIPE GUIDE                     |
| -FP-   | FIX POINT                      |
| -SS-   | SLIDE SUPPORT                  |
| -HN-   | HANGER                         |
| -SSAX- | SLIDE SUPPORT WITH AXIAL STOP  |
| -AXLS- | AXIAL STOP WITH LIFTING STOP   |
| -SPS-  | SPRING SUPPORT                 |
| -SPGS- | SPRING SUPPORT GUIDED          |
| -GSAX- | GUIDE SUPPORT WITH AXIAL STOP  |
| -SPAX- | SPRING SUPPORT WITH AXIAL STOP |
| -SH-   | SPRING HANGER                  |
| -AX-   | AXIAL STOP                     |

-ALL SHARP EDGES REMOVED

- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:

- MARKING:  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER  
RESISTANT PAINT AND WHITE COLOR

RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- COATING:
- ALL SURFACES FOR COATING **MUST** BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
  - THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
  - THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 T5


a  $\geq 0,7 \times t$   
a min = 4mm



Total Weight:	65.03 kg
---------------	----------

[illegible]

27. Juli 2005

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25 JUL 2005	Zut	
Drawn checked by			



**AIR LIQUIDE**™

Air Liquide AGS GmbH

	Date	Name	Check	History File	
	11.07.2005	SWA	Zut		
	Job Code: K70101 ASU No.9 Kosice			Scale: 1:15	Original Format DIN A3
	Reference: PIPING SUPPORT			Sheet: 1	of:
Replaces:	Title PS-007			Drawing-No. 792.87926	Rev a

Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

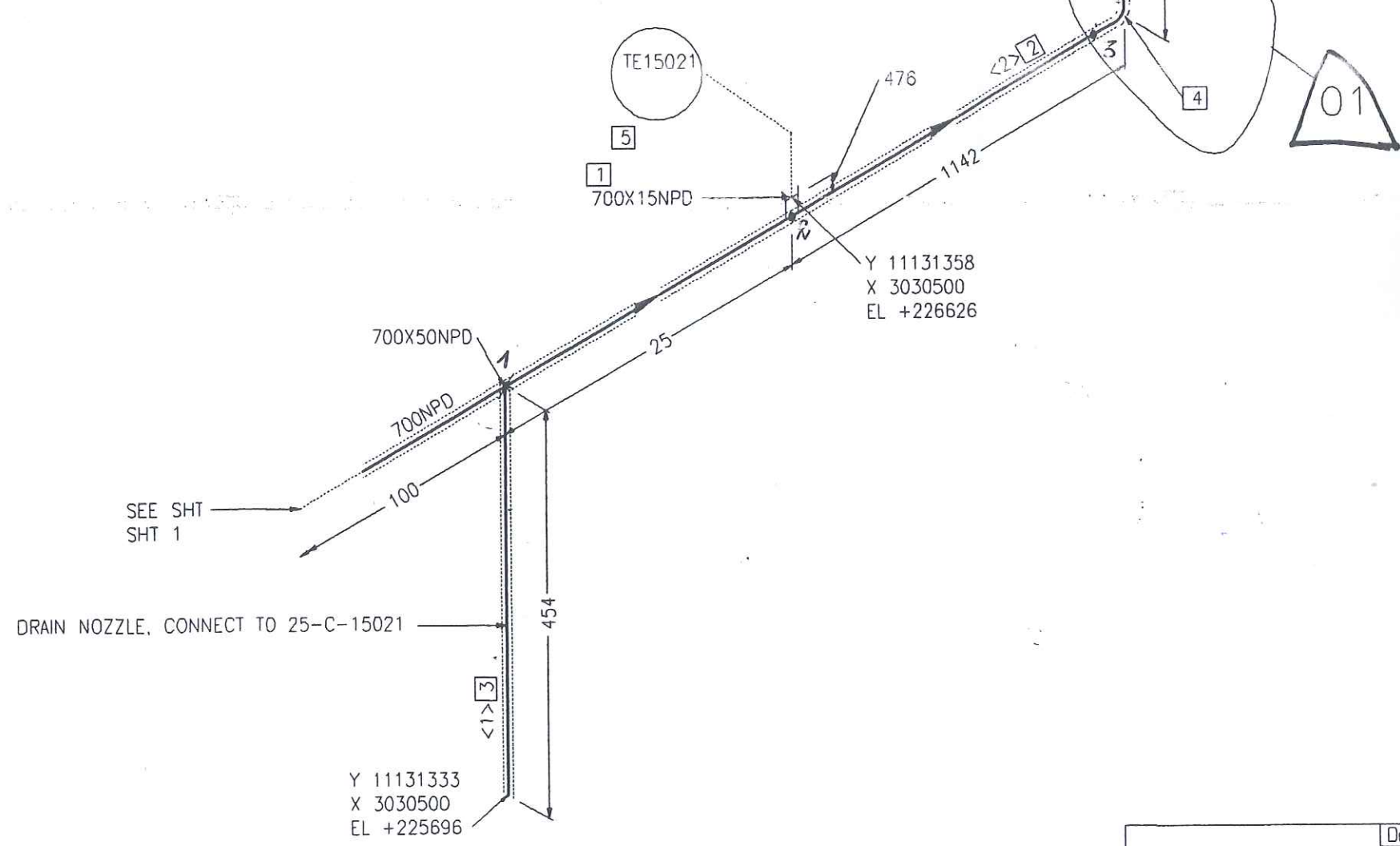






As built

CONN TO  
A15002/ N4  
Y 11132500  
X 3030500  
EL +227781



Port No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
2	714	700	PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220
3	100	50	PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220
4	1	700	ELBOW, WELDED, 1,5D 711*7.1-90, B-ART 3,DIN 2605-1
5	1	15	TE15021 TE15021

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	100	50		SHAPED BEVEL	SQ.CUT BEVEL	RN RG
<2>	1012	700				
<3>	564	700				

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:


PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

 Air Liquide AGS GmbH	Date:	07-JUL-2005	Name:	Lesum / HGH	Checked:	05-09-15	History file:
	Job Code: K70101				Scale: ---:---		Original format: DIN A3
	Reference: ASU No. 9, Kosice				Sheet: 2		Sheets: 2
	Title: 700 A 13002 AA10C1W 792.87826 01				Drawing No.		Rev.

01	General Rev	15.09.2005	Les	Zul
Rev.	Revisions	Date	Name	checked

LEVELS:

TOP OF INTERNAL ROADS: 225.00m n.m.

TOP OF FOUNDATION: 225.10m

BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00



Preis-Stückliste 0 100A13003AA10C1-W 0 100 A 13003 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0014	16	120	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0104	100	0	Flat packings Graphite with CrNi-insert Standard 40002 162x2x115		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		3,00				0,00
IUK15018	100	0	UK15018 supplied by AGS		1,00				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	1,80				0,00
P0208	100	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6	2,35 kg	1,00				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	2,00				0,00
PW18	100	25	Pipe weld-in 1.0305 ( St 35.8 I ) 114,3x3,6x33,7x2,6		1,00				0,00
SC7	100	0	Segment cut 114,3		2,00				0,00
Summe: 0 100A13003AA10C1-W 0				30,88 kg		0,00	0,00		0,00

Liefersumme:  
Montagesumme:  
Gesamtsumme:

Preis-Stückliste 0 100A13003AA10C1-W 0 100 A 13003 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
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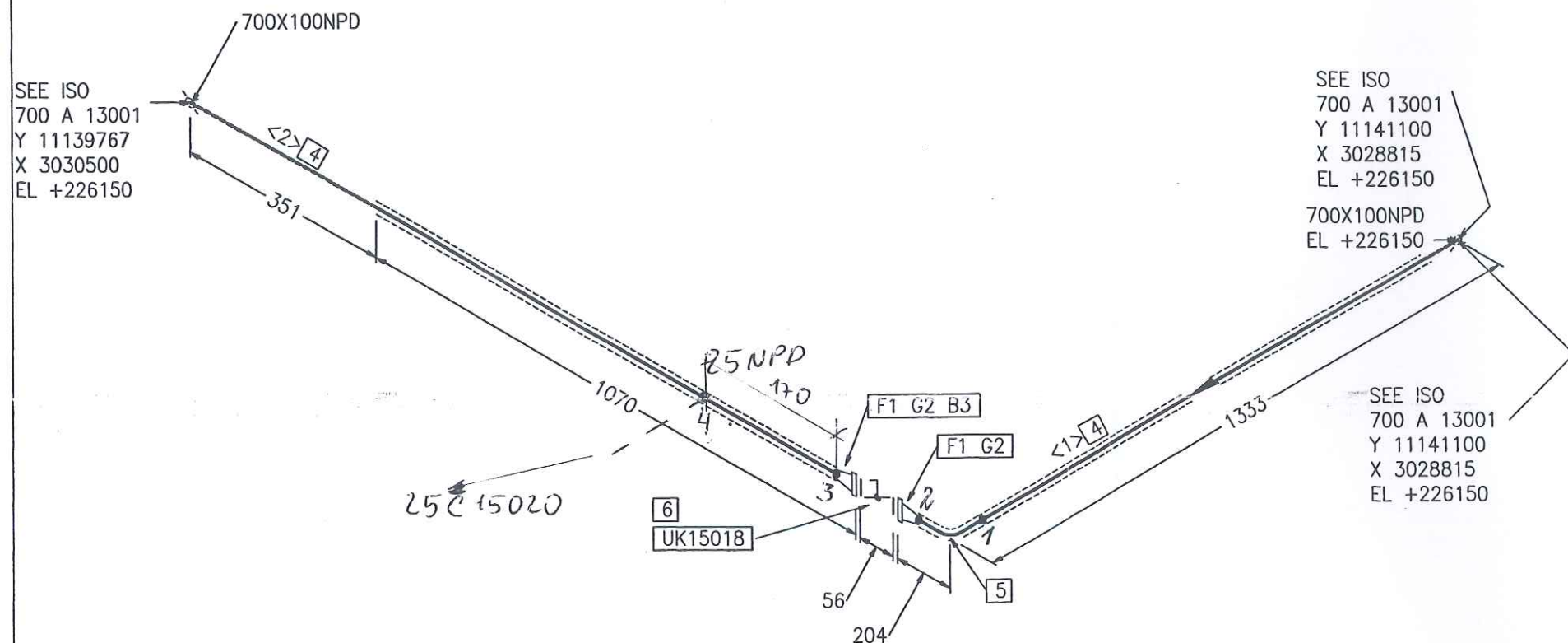
Gesamtgewicht: 30,88 kg  
\*\* Ende der Ausgabe

20060930





As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	2	100	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	2	100	FLAT GASKET
3	8	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 120.0MM LANG
4	1848 MM	100	PIPE, SEAMLESS 114.3*3.6, ST37.0, DIN EN 10220
5	1	100	ELBOW, SEAMLESS, 1,5D 114.3*3.6-90, B-ART 3,DIN 2605-1
6	1	100	UK15018

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	830	100		SHAPED BEVEL	BEVEL SHAPED	RN
<2>	1018	100				RN

FREIGABE  
FOR CONSTRUCTION

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

 Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:	
	Job Code: K70101			Scale: 1:1	Original format: DIN A3
	Reference: ASU No. 9, Kosice			Sheet: 1	Sheets: 1
	Title: 100 A 13003 AA10C1W			Drawing No: 792.8782600	Rev.



Preis-Stückliste 0 100A13004AA10C1-W 0 100 A 13004 AA10C1-W Revision:									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0014	16	120	Hexagon head screws 5,6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0104	100	0	Flat packings Graphite with CrNi-insert Standard 40002 162x2x115		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		3,00				0,00
IUK15028	100	0	UK15028 supplied by AGS		1,00				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	1,80				0,00
P0208	100	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6	2,35 kg	1,00				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	2,00				0,00
PW18	100	25	Pipe weld-in 1.0305 ( St 35.8 I ) 114,3x3,6x33,7x2,6		1,00				0,00
SC7	100	0	Segment cut 114,3		2,00				0,00
Summe: 0 100A13004AA10C1-W 0				30,88 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Preis-Stückliste 0 100A13004AA10C1-W 0. 100 A 13004 AA10C1-W Revision:									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
Gesamtgewicht:				30,88 kg					
** Ende der Ausgabe									





SEE ISO  
700 A 13002  
Y 11131233  
X 3030500  
EL +226150

700X100NPD  
EL +226150

SEE ISO  
700 A 13002  
Y 11131233  
X 3030500  
EL +226150


700X100NPD

SEE ISO  
700 A 13002  
Y 11129900  
X 3028815  
EL +226150

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe  
courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free  
of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT  
ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

 AIR LIQUIDE AGS GmbH	Date:	23-JUN-2005	Name:	Lesum / HGH	Checked:	05-07-11	History file:	
	Job Code:	K70101			Scale:	1:1		
	Reference:	ASU No. 9, Kosice			Original format:	DIN A3		
	Title:	100 A 13004 AA10C1W			Sheet:	1	Sheets:	1
Replaces:	79_	Replaced by:			79_	Drawing No:	792.8782600	

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

As built

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	2	100	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	2	100	FLAT GASKET
3	8	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 120.0MM LANG
4	1848 MM	100	PIPE, SEAMLESS 114.3*3.6, ST37.0, DIN EN 10220
5	1	100	ELBOW, SEAMLESS, 1,SD 114.3*3.6-90, B-ART 3,DIN 2605-1
6	1	100	UK15028

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	1018	100		SHAPED BEVEL	BEVEL SHAPED	RN
<2>	830	100				RN

FREIGABE  
FOR CONSTRUCTION

Clear



**Preis-Stückliste 0 200WC13020\_1AA10C2-W 0 200 WC 13020\_1 AA10C2-WE Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0007	16	60	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,12 kg	8,00				0,00
B0025	20	150	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,45 kg	8,00				0,00
B0032	20	220	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,63 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
B0508	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	16,00				0,00
G0155	50	0	Fibrous packings asbestos-free laminate made of aramide f 107x2x61		2,00				0,00
G0161	200	0	Fibrous packings asbestos-free laminate made of aramide f 273x2x220		4,00				0,00
GW12	50	0	girth weld 1.0254 ( St 37.0 ) 60,3x2,9		5,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		1,00				0,00
GW26	200	0	girth weld 1.0254 ( St 37.0 ) 219,1x4,5		16,00				0,00
IH13005H1	50	0	H13005H1 supplied by AGS		1,00				0,00
ILK13008	200	0	LK13008 supplied by AGS		1,00				0,00
IR13003	200	0	R13003 supplied by AGS		1,00				0,00

Preis-Stückliste 0 200WC13020\_1AA10C2-W 0 200 WC 13020\_1 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0006	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	0,30				0,00
P0069	200	0	PIPE, WELDED 1.0254 ( St 37.0 ) DIN 1626 219,1x4,5	23,80 kg	7,70				0,00
P0164	50	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9	0,49 kg	2,00				0,00
P0225	200	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 219,1x4,5	11,40 kg	5,00				0,00
P0519	200	80	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 219,1x6,3x88,9x3,2	12,51 kg	1,00				0,00
P2878	50	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 60,3	3,00 kg	2,00				0,00
P2884	200	0	WELDING NECK FLANGES; PN 10 C22.8 /DIN 2632/ 219,1	11,30 kg	4,00				0,00
PW111	200	50	Pipe weld-in 1.0254 ( St 37.0 ) 219,1x4,5x60,3x2,9		1,00				0,00
S0024	200	0	T-support TA 120G 220 W1 OZN 1.0 Hesterberg 220	12,70 kg	1,00				0,00
SC10	200	0	Segment cut 219,1		9,00				0,00
SC5	50	0	Segment cut 60,3		3,00				0,00



Preis-Stückliste 0 200WC13020\_1AA10C2-W 0 200 WC 13020\_1 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPS068	200	0	SUPPORT PS-068 pipe support	19,96 kg	1,00				0,00
Summe: 0 200WC13020_1AA10C2-W 0				349,64 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

349,64 kg

	<b>SCHWEISSDOKUMENTATION</b> WELDING DOCUMENTATION		erstellt: <div style="display: flex; align-items: center;"> <div style="text-align: left; font-size: small;">             Pelzeder Erich              Datum / Unterschrift           </div> </div>	geprüft <div style="display: flex; align-items: center;"> <div style="text-align: left; font-size: small;">             Pelzeder Erich              Datum / Unterschrift           </div> </div>	(Kunde / TÜV, ...) 
Jop Code: K70101 ASU No. 9, Kosice		Order No.:		Project No.: 9050300	
Client: AIR LIQUIDE		Title: 200 WC 13020-1		Drawing No.: 792.87826 - 01	
		Sheet 1		Maker's No.:	

Seam No.:	Welder No.:	Material	Dimension	Protocol No.:				Remerk
				Wärme- behandlung	RT	UT	MT/PT	
1	V10	ST37.0	219,1*4,5		R0060			
2	V3	St37.0	219,1*4,5					
3	V3	St37.0	219,1*4,5					
4	V3	St37.0	88,9*3,2					
5	V3	St37.0	219,1*4,5					
6	V3	St37.0	NPD 50				46/ 2006	
7	V3	St37.0	60,3*2,9					
8	V3	St37.0	60,3*2,9					
9	V3	St37.0	60,3*2,9					
10	V3	St37.0	60,3*2,9					
10,1	V2	ST37.0	60,3*2,9					
11	V3	St37.0	219,1*4,5					
12	V3	St37.0	219,1*4,5					
13	V3	St37.0	219,1*4,5					
14	V3	St37.0	219,1*4,5					
15	V3	St37.0	219,1*4,5					
16	V3	St37.0	219,1*4,5					
17	V3	St37.0	219,1*4,5					
18	V3	St37.0	219,1*4,5					
19	V3	St37.0	219,1*4,5		R0024			
20	V3	St37.0	219,1*4,5		R0025			
21	V3	St37.0	219,1*4,5		R0026			
22	V3	St37.0	219,1*4,5		R0027			



CONN TO  
W13001/ N5  
Y 11134431  
X 3018231  
EL +225550

# As built

SEE ISO  
80 WC 13021  
Y 11134086  
X 3018581  
EL +225802

Y 11134086  
X 3018753  
EL +225369

CONNECT TO UNDERGROUND PIPE

SEE ISO  
200 WC 13020U  
Y 11133150  
X 3013000  
EL +225345

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

Date: 16-SEP-2005		Name: Lesum / HGH		Checked: 05-09-15		History file.	
Job Code: K70101				Scale: 1:1		Original format DIN A3	
Reference: ASU No. g. Kosice				Sheet: 1		Sheets: 1	
Title: 200 WC 13020-1 AA10C2WE				Drawing No. 792.87826		Rev. 01	

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	200X80	TEE, SEAMLESS 219.1*6.3/88.9*3.2, ST37.0, DIN 2615-1
2	4	200	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	2	50	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	4	200	FIBROUS PACKINGS
5	2	50	FIBROUS PACKINGS
6	8	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 150.0MM LANG
7	8	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 170.0MM LANG
8	8	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 60.0MM LANG
9	5371 MM	200	PIPE, WELDED 219.1*4.5, ST37.0, DIN EN 10220
10	200 MM	50	PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220
11	1	200	ELBOW, WELDED, 1,5D 219.1*4.5-45, B-ART 3,DIN 2605-1
12	2	200	ELBOW, WELDED, 1,5D 219.1*4.5-90, B-ART 3,DIN 2605-1
13	1	50	ELBOW, SEAMLESS, 1,5D 60.3*2.9-90, B-ART 3,DIN 2605-1
14	1	200	LK13008
15	1	50	H13005H1
16	1	200	R13003 R13003
17	1	200	SLIDE SUPPORT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	362	200	SO.CUT	BEVEL	BEVEL	RG
<2>	100	50	SHAPED	BEVEL	BEVEL	RN
<3>	100	50	BEVEL	BEVEL	BEVEL	RN
<4>	500	200	BEVEL	BEVEL	BEVEL	RG
<5>	400	200	BEVEL	BEVEL	BEVEL	RG
<6>	3783	200	BEVEL	BEVEL	BEVEL	RG
<7>	326	200	BEVEL	BEVEL	BEVEL	RG
<8>	1300	200				
<9>	1100	200				

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00



Replaces:	Title PS-068	Drawing-No. 792.87926	Rev a
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**Preis-Stückliste 0 150WC13020\_2AA10C2-W 0 150 WC 13020\_2 AA10C2-WE Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0001	12	50	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,06 kg	8,00				0,00
B0025	20	150	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,45 kg	8,00				0,00
B0506	12	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,02 kg	8,00				0,00
B0508	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	8,00				0,00
G0150	15	0	Fibrous packings asbestos-free laminate made of aramide f 50x2x22		2,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		1,00				0,00
G0160	150	0	Fibrous packings asbestos-free laminate made of aramide f 218x2x169		2,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		1,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		10,00				0,00
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		12,00				0,00
GW26	200	0	girth weld 1.0254 ( St 37.0 ) 219,1x4,5		5,00				0,00
IK12072	150	0	K12072 supplied by AGS		1,00				0,00

Preis-Stückliste 0 150WC13020\_2AA10C2-W 0 150 WC 13020\_2 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
IT112072	15	0	TI12072 supplied by AGS		1,00				0,00
IV12071	15	0	V12071 supplied by AGS		1,00				0,00
IZ12071	15	0	Z12071 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	1,90				0,00
P0011	150	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 168,3x4,5	18,20 kg	5,00				0,00
P0064	200	0	PIPE, SEAMLESS 1.0305 ( St 35.8 l ) DIN 17175 219,1 x 8,0	47,50 kg	0,55				0,00
P0159	15	0	ELBOW 90° R=1,5 DA, SEAMLESS 1.0254 ( St 37.0 ) DIN 2609 21,3x2	0,04 kg	4,00				0,00
P0169	150	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5	6,55 kg	4,00				0,00
P0225	200	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 219,1x4,5	11,40 kg	2,00				0,00
P0515	150	80	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x88,9x3,2	5,74 kg	1,00				0,00
P1309	200	150	Reducer, concentric, seamless 1.0254 ( St 37.0 ) DIN 2609 219,1x4,5x168,3x4,5	3,19 kg	2,00				0,00



Preis-Stückliste 0 150WC13020\_2AA10C2-W 0 150 WC 13020\_2 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P2873	15	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 21,3	1,00 kg	1,00				0,00
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	1,00				0,00
P2883	150	0	WELDING NECK FLANGES; PN 16 C22.8 /DIN 2633/ 168,3	7,75 kg	2,00				0,00
P3035	15	0	Blind flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1	1,00 kg	1,00				0,00
PWI10	150	15	Pipe weld-in 1.0254 ( St 37.0 ) 168,3x4,5x21,3x2		2,00				0,00
PWI27	150	15	PIPE WELD-IN 1.4541		1,00				0,00
S0011	150	0	T-support TA 120B 169 W1 OZN 1.0 Hesterberg 169	5,00 kg	1,00				0,00
SC1	15	0	Segment cut 21,3		6,00				0,00
SC10	200	0	Segment cut 219,1		4,00				0,00
SC9	150	0	Segment cut 168,3		5,00				0,00
XZB04	150	15	welding nozzle for thermowell, drawing N 1.4541 22		1,00				0,00
XZB06	15	0	HOLENDER 1.4404 21,3	0,35 kg	1,00				0,00

Preis-Stückliste 0 150WC13020\_2AA10C2-W 0 150 WC 13020\_2 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
XZB10	15	0	THREAD END 5.6 21,3		2,00				0,00
Summe: 0 150WC13020_2AA10C2-W 0				211,78 kg		0,00	0,00		0,00

Liefersumme:  
Montagesumme:  
Gesamtsumme:  
Gesamtgewicht:  
\*\* Ende der Ausgabe

211,78 kg

1000000







# As built



Y 11130863  
X 3017297  
EL +227805

G5 B6

V12071  
HOLD..ENTLEERUNG ODER ENTLÜFTU

10  
EL +227400

150NPD  
SEE ISO  
80 WC 13026  
Y 11131167  
X 3017121  
EL +226563

150X80NPD  
EL +226563  
150X15NPD  
Y 11131167  
X 3017297  
EL +226420

K12074

F2 G4

10  
EL +225674

S13  
PS-064  
FP  
TA120B 169 W1

10  
CONNECT TO UNDERGROUND PIPE

SEE ISO  
150 WC 13020U  
Y 11130200  
X 3014500  
EL +225445

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	150X80	TEE, SEAMLESS 168.3*4.5/88.9*3.2, ST37.0, DIN 2615-1
2	1	80	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	1	15	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	1	80	FIBROUS PACKINGS
5	2	15	FIBROUS PACKINGS
6	8	12	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 50.0MM LANG
7	1	15	BLIND FLANGE Ø*NREOD, S235JRG2, DIN EN 1092-1
8	5260 MM	150	PIPE, SEAMLESS 168.3*4.5, ST37.0, DIN EN 10220
9	150 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
10	4	150	ELBOW, SEAMLESS, 1,5D 168.3*4.5-90, B-ART 3,DIN 2605-1
11	1	150	ELBOW, SEAMLESS, 1,5D 168.3*4.5-45, B-ART 3,DIN 2605-1
12	1	15	V12071
13	1	150	FIX POINT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	465	150		BEVEL	BEVEL	RN
<2>	150	15		SHAPED	BEVEL	RN
<3>	1124	150		BEVEL	BEVEL	RN
<4>	1268	150		BEVEL	BEVEL	RN
<5>	1858	150		BEVEL	BEVEL	RN
<6>	545	150		BEVEL	BEVEL	RN

## KOMPLETT ÜBERARBEITET

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT



Air Liquide AGS GmbH

Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file:
Job Code: K70101		Scale: 1:1	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 2
Title: 150 WC 13020_2 AA10C2WE		Drawing No. 792.87826	Rev. 01

Rev.	General Rev	Date	Name	Zul checked
01	General Rev	15.09.2005	Les	Zul





Jop Code: K70101 ASU No. 9, Kosice Order No.:

Title: 150 WC 13020-2

**Drawing No.:**

Project No.: 9050300

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft

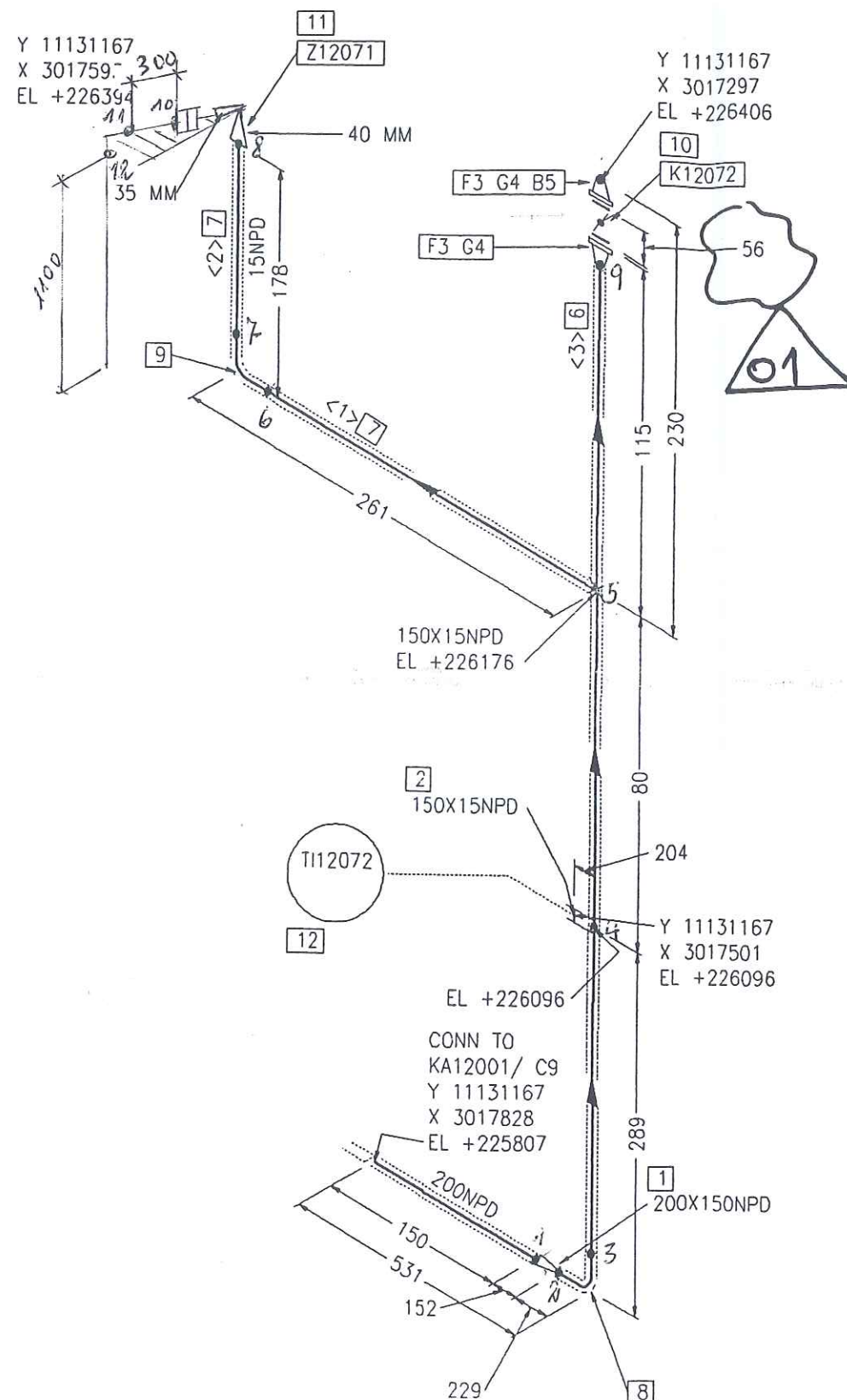
**erstellt:**

Schweisstechnologie VAM

**Datum / Unterschrift**

[illegible]

# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	200X150	REDUCER, CONCENTRIC, SEAMLESS 219.1*4.5/168.3*4.5, ST37.0, DIN 2616-1
2	1	150X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
3	2	150	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	2	150	FIBROUS PACKINGS
5	8	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 130.0MM LANG
6	200 MM	150	PIPE, SEAMLESS 168.3*4.5, ST37.0, DIN EN 10220
7	300 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
8	1	150	ELBOW, SEAMLESS, 1.5D 168.3*4.5-90, B-ART 3, DIN 2605-1
9	1	15	ELBOW, SEAMLESS, 1.5D 21.3*2.0-90, B-ART 3, DIN 2605-1
10	1	150	K12072
11	1	15	Z12071
12	1	15	TI12072 TI12072

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	15		SHAPED BEVEL	BEVEL	RN
<2>	150	15		BEVEL	BEVEL	RN
<3>	200	150		BEVEL	BEVEL	RN

LEVELS:  
 TOP OF INTERNAL ROADS: 225.00m n.m.  
 TOP OF FOUNDATION: 225.10m  
 BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

## RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

## SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
 PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
 SS - SLIDING SUPPORT  
 PG = PIPE GUIDE  
 FP = FIX POINT

Rev.	General Rev	Revisions	Date	Les	Name	Zul	checked
01			15.09.2005				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file.	
	Job Code: K70101		Reference: ASU No. g. Kosice		
Replaces: 79_-----		Replaced by: 79_-----		Title: 150 WC 13020_2 AA10C2WE 792.8782601	
		Scale: ---:---	Original format: DIN A3	Sheet: 2	Sheets: 2
		Drawing No.		Rev.	



Preis-Stückliste 0 80WC13021AA10C2-WE 0 80 WC 13021 AA10C2-WE Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	32,00				0,00
B0013	16	110	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	40,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		6,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		22,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		2,00				0,00
IF14010	80	0	F14010 supplied by AGS		1,00				0,00
IH14012	15	0	H14012 supplied by AGS		1,00				0,00
IK14010	80	0	K14010 supplied by AGS		1,00				0,00
ITV14010	80	0	TV14010 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	1,05				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	12,50				0,00
P0166	80	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 88,9x3,2	1,21 kg	8,00				0,00

Preis-Stückliste 0 80WC13021AA10C2-WE 0 80 WC 13021 AA10C2-WE Revision:

(Fortsetzung)

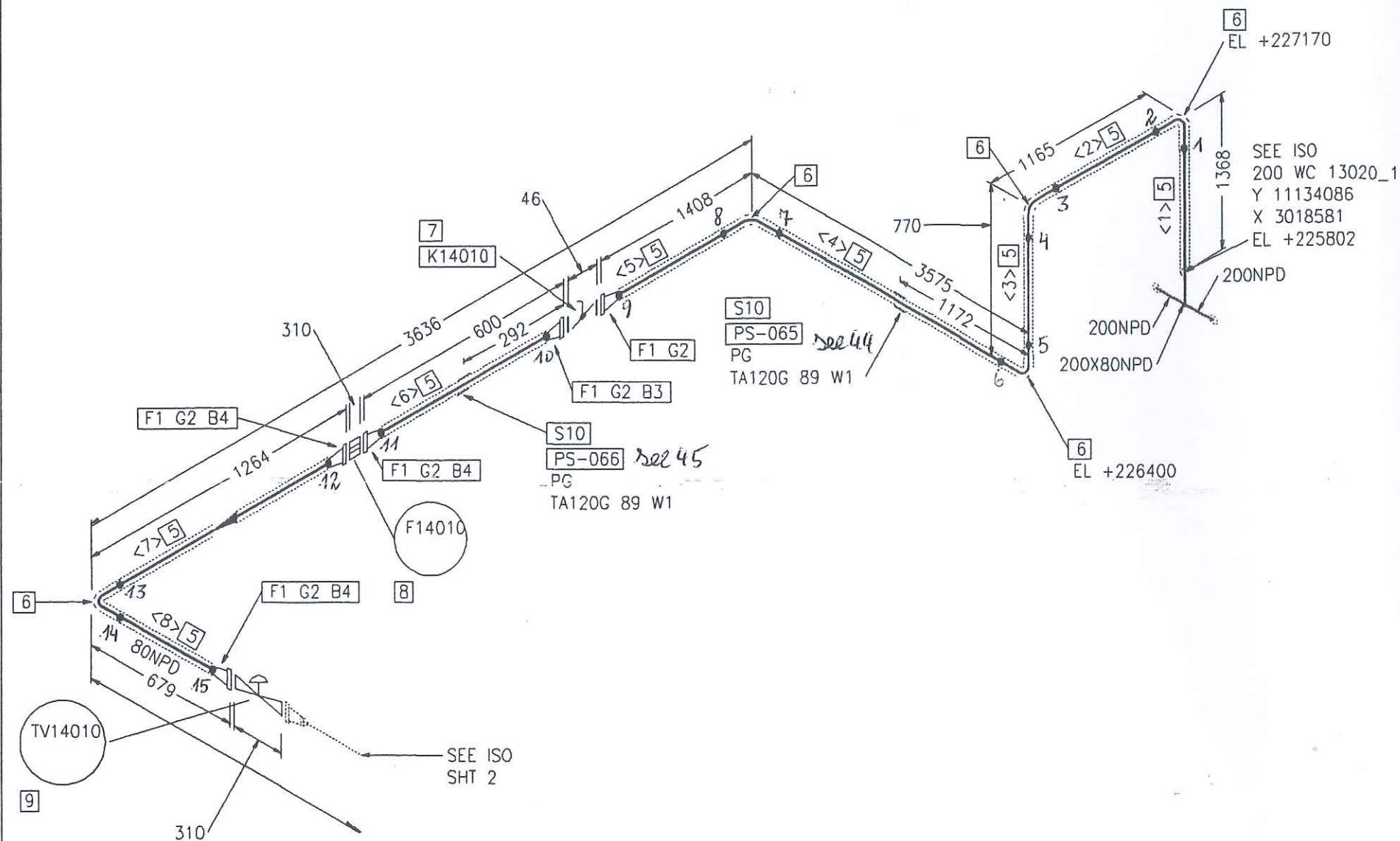
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	6,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00
SC1	15	0	Segment cut 21,3		2,00				0,00
SC6	80	0	Segment cut 88,9		12,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		3,00				0,00
XZB10	15	0	THREAD END 5.6 21,3		2,00				0,00
Summe: 0 80WC13021AA10C2-WE 0				126,14 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	126,14 kg
Gesamtgewicht:	
** Ende der Ausgabe	





 N



CUT PIPE LENGTH


PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	1254	80		BEVEL	BEVEL	RN
<2>	937	80		BEVEL	BEVEL	RN
<3>	542	80		BEVEL	BEVEL	RN
<4>	3347	80		BEVEL	BEVEL	RN
<5>	1244	80		BEVEL	BEVEL	RN
<6>	500	80		BEVEL	BEVEL	RN
<7>	1100	80		BEVEL	BEVEL	RN
<8>	515	80		BEVEL	BEVEL	RN

LEVELS:

TOP OF INTERNAL ROADS:	225,00m n.m.
TOP OF FOUNDATION:	225,10m
BOTTOM OF STEEL STRUCTURE:	225,15m = $\pm 0,00$

**SUPPORTS:**  
PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT  
ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

01	General Rev	15.09.2005	Les	Zul
Rev	Revisions	Dale	Name	checke

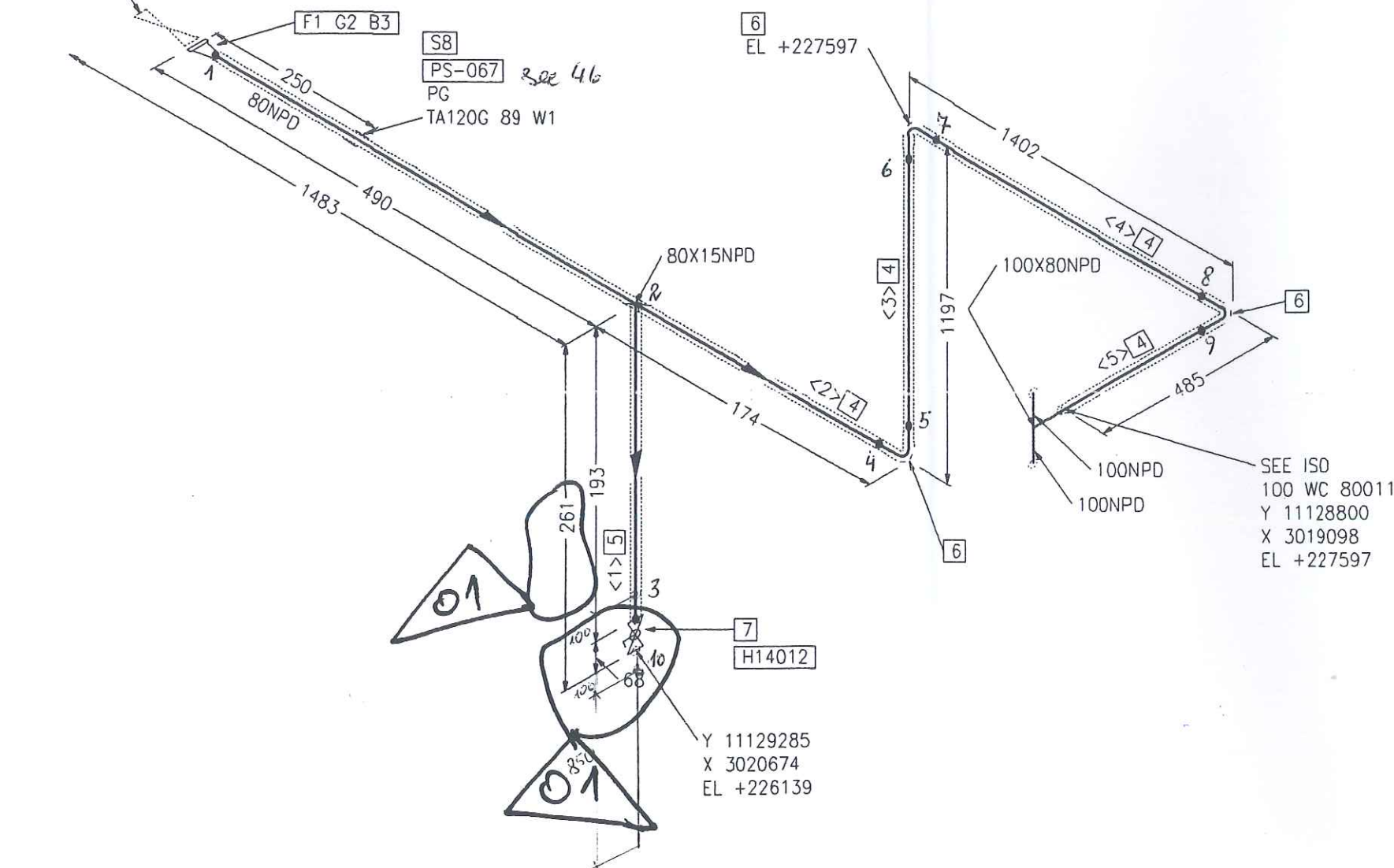
 <b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date:	Name:	Checked:	History file.	
	16-SEP-2005	Lesum / HGH	05-09-15		
	Job Code:	Reference:		Scale	Original format
	K70101	ASU No. 9, Kosice		---	DIN A3
			Sheet:	1	Sheets: 2
Replaces: 79_-----	Title:			Drawing No.	Rev.
Replaced by: 79_-----	80 WC 13021 AA10C2WE			792.87826	01





# As built

SEE SHT  
SHT 1



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	80	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	1	80	FIBROUS PACKINGS
3	8	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 65.0MM LANG
4	3014 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
5	150 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
6	3	80	ELBOW, SEAMLESS, 1,5D 88.9*3.2-90, B-ART 3, DIN 2605-1
7	1	15	H14012
8	1	80	PIPE GUIDE PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	15		SHAPED	BEVEL	RN
<2>	500	80		BEVEL	BEVEL	RN
<3>	969	80		BEVEL	BEVEL	RN
<4>	1174	80		BEVEL	BEVEL	RN
<5>	371	80		BEVEL	BEVEL	RN

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

 Air Liquide AGS GmbH	Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file.	
	Job Code: K70101			Scale: ---:---	Original format: DIN A3
	Reference: ASU No. 9, Kosice			Sheet: 2	Sheets: 2
	Title: 80 WC 13021 AA10C2WE			Drawing No. 792.87826	Rev. 01

LEVELS:

TOP OF INTERNAL ROADS: 225.00m n.m.

TOP OF FOUNDATION: 225.10m

BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00



Preis-Stückliste 0 80WC13026AA10C2 0 80 WC 13026 AA10C2 Revision:									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0013	16	110	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		2,00				0,00
IK12074	80	0	K12074 supplied by AGS		1,00				0,00
Summe: 0 80WC13026AA10C2 0				1,84 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	1,84 kg
Gesamtgewicht:	
** Ende der Ausgabe	

As built

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	80	FIBROUS PACKINGS
2	8	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, A1 LANG
3	1	80	K12074

SEE ISO  
150 WC 80010  
Y 11131167  
X 3017073  
EL +226563

SEE ISO  
150 WC 13020\_2  
Y 11131167  
X 3017121  
EL +226563

3  
K12074

G1 B2

46

**FREIGABE**  
**FÜR CONSTRUCTION**

LEVELS:  
TOP OF INTERNAL ROADS: 225,00m n.m.  
TOP OF FOUNDATION: 225,10m  
BOTTOM OF STEEL STRUCTURE: 225,15m = ±0,00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1		Sheets: 1
Title: 80 WC 13026 AA10C2WE		Drawing No: 792.87826		Rev. 00



**Preis-Stückliste 0 80WC13030AA10C2 0 80 WC 13030 AA10C2 Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	24,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	24,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		3,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		3,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		1,00				0,00
IH13013H1	80	0	H13013H1 supplied by AGS		1,00				0,00
IH13013H2	15	0	H13013H2 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,20				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	0,20				0,00
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	3,00				0,00
P3042	80	0	Blind flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1	4,50 kg	1,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00

Preis-Stückliste 0 80WC13030AA10C2 0 80 WC 13030 AA10C2 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC1	15	0	Segment cut 21,3		1,00				0,00
SC6	80	0	Segment cut 88,9		2,00				0,00
XZB10	15	0	THREAD END 5,6 21,3		1,00				0,00
Summe: 0 80WC13030AA10C2 0				21,88 kg		0,00	0,00		0,00

Liefersumme:  
Montagesumme:  
Gesamtsumme:  
Gesamtgewicht:  
\*\* Ende der Ausgabe

21,88 kg

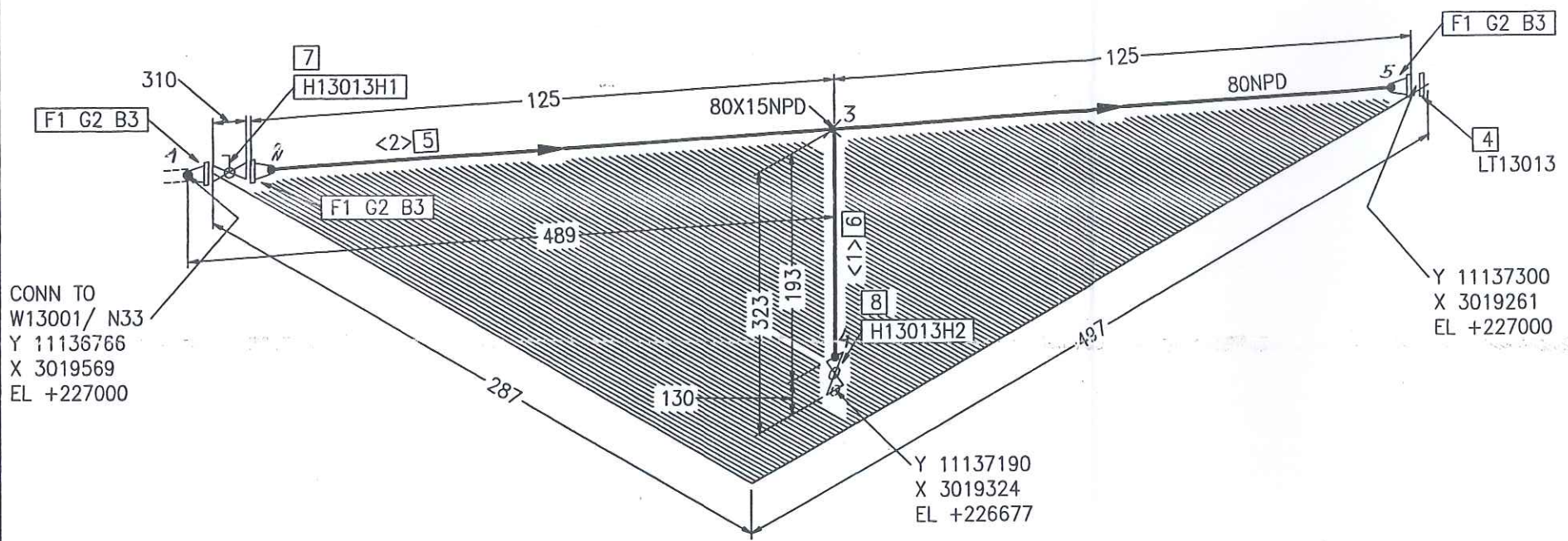
2006







# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	3	80	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	3	80	FIBROUS PACKINGS
3	24	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 65.0MM LANG
4	1	80	BLIND FLANGE Ø*NREQD, S235JRG2, DIN EN 1092-1
5	150 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
6	150 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
7	1	80	H13013H1
8	1	15	H13013H2

### CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	15		SHAPED BEVEL	BEVEL	RN
<2>	150	80		SHAPED BEVEL	BEVEL	RN

**FREIGABE**  
**FOR CONSTRUCTION**

12. Juli 2005 *Crau*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

	Date: 27-JUN-2005	Name: Lesum/HGH	Checked: 05-07-11	History file:
	Job Code: K70101		Scale: ---:---	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 1	
Title: 80 WC 13030 AA10C2		Drawing No: 792.8782600		Rev.
Replaces: 79_	Replaced by: 79_			

Rev.	Revisions	Date	Name	checked
C				
B				
A				



Preis-Stückliste 0 80WC13031AA10C2 0 80 WC 13031 AA10C2 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	24,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	24,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		3,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		3,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		1,00				0,00
IH13013L1	80	0	H13013L1 supplied by AGS		1,00				0,00
IH13013L2	15	0	H13013L2 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,20				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	0,20				0,00
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	3,00				0,00
P3042	80	0	Blind flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1	4,50 kg	1,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00

Preis-Stückliste 0 80WC13031AA10C2 0 80 WC 13031 AA10C2 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC1	15	0	Segment cut 21,3		1,00				0,00
SC6	80	0	Segment cut 88,9		2,00				0,00
XZB10	15	0	THREAD END 5.6 21,3		1,00				0,00
Summe: 0 80WC13031AA10C2 0				21,88 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

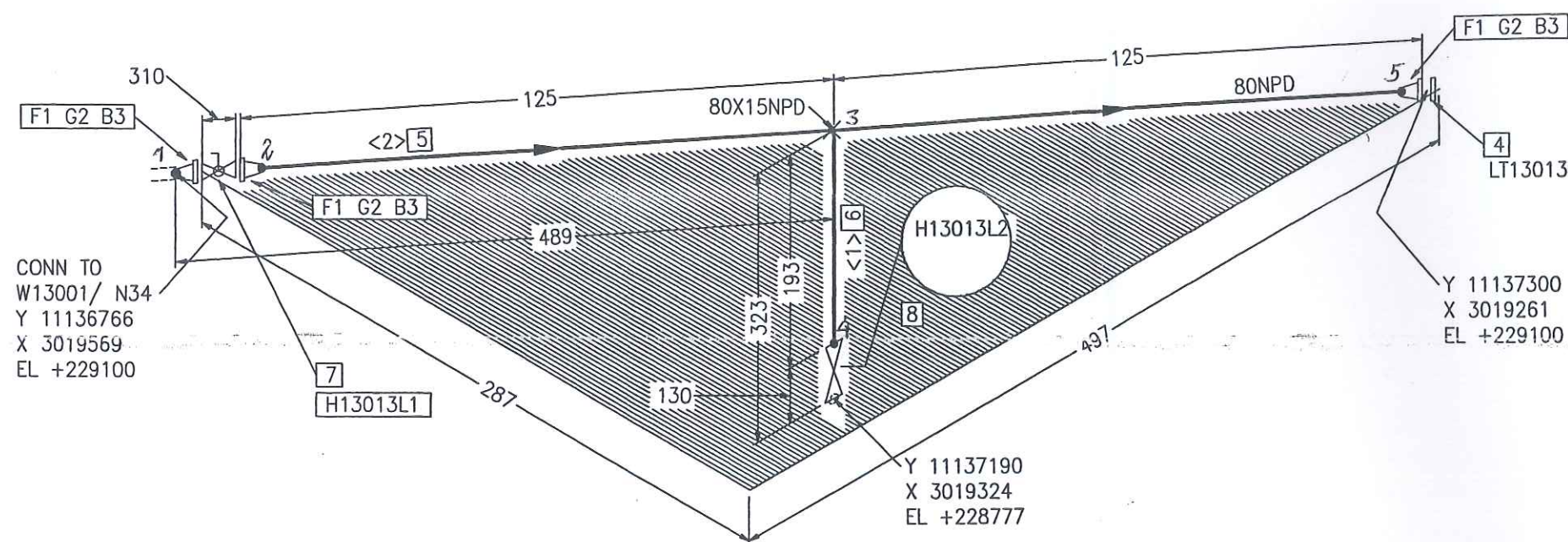
21,88 kg







 N

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	15		SHAPED	BEVEL	RN
<2>	150	80		BEVEL	BEVEL	RN

# FREIGABE FÜR CONSTRUCTION

12. Juli 2005 *Caen*

LEVELS:	
TOP OF INTERNAL ROADS:	225,00m n.m.
TOP OF FOUNDATION:	225,10m
BOTTOM OF STEEL STRUCTURE:	225,15m = $\pm 0,00$

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE

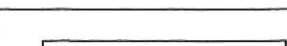
PB-(NO.) - PIPE SUPPORT  
ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

_C				
_B				
_A				
Rev.	Revisions	Date	Name	checked

	Date:	Name:	Checked:	History file:
	27-JUN-2005	Lesum / HGH	05-07-11	
Air Liquide AGS GmbH	Job Code: K70101	Scale __ : __		Original format DIN A3
	Reference: ASU No. 9, Kosice	Sheet: 1		Sheets: 1
Replaces: 79____ Replaced by: 79____	Title: 80 WC 13031 AA10C2		Drawing No: 792.87826	
			Rev. 00	



Preis-Stückliste 0 80WC13032AA10C2 0 80 WC 13032 AA10C2 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	24,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	24,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		3,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		3,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		1,00				0,00
IH13003H1	80	0	H13003H1 supplied by AGS		1,00				0,00
IH13003H2	15	0	H13003H2 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,20				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	0,20				0,00
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	3,00				0,00
P3042	80	0	Blind flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1	4,50 kg	1,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00

Preis-Stückliste 0 80WC13032AA10C2 0 80 WC 13032 AA10C2 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC1	15	0	Segment cut 21,3		1,00				0,00
SC6	80	0	Segment cut 88,9		2,00				0,00
XZB10	15	0	THREAD END 5,6 21,3		1,00				0,00
Summe: 0 80WC13032AA10C2 0				21,88 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

21,88 kg





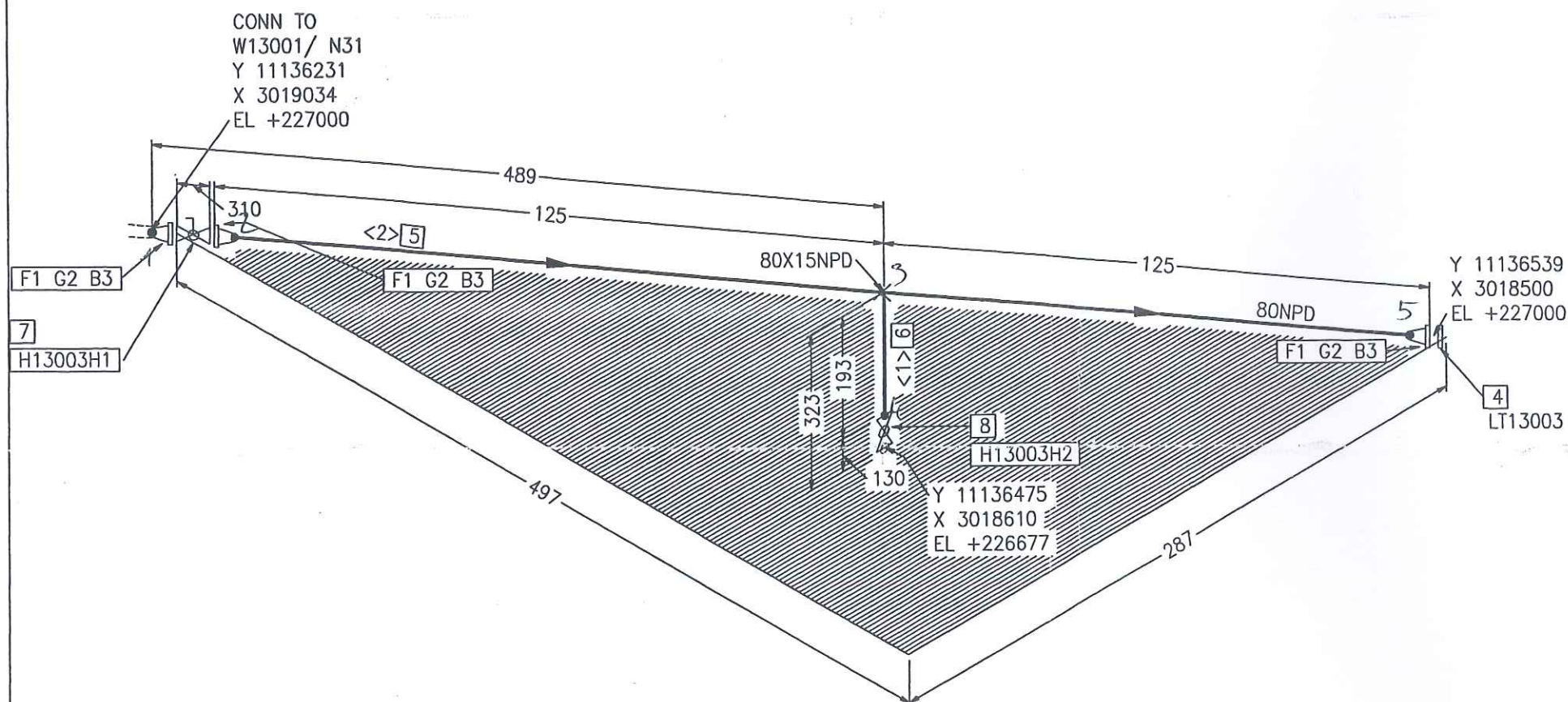


# As built

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	3	80	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	3	80	FIBROUS PACKINGS
3	24	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 65.0MM LANG
4	1	80	BLIND FLANGE 0*NREQD, S235JRG2, DIN EN 1092-1
5	150 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
6	150 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
7	1	80	H13003H1
8	1	15	H13003H2

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	15		SHAPED BEVEL	BEVEL	RN
<2>	150	80				



**FREIGABE  
FOR CONSTRUCTION**

12. Juli 2005 *Cian*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 27-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11 <i>HL</i>	History file:
	Job Code: K70101		Reference: ASU No. 9, Kosice	Scale: ---:--- Original format: DIN A3
Replaces: 79_--- Replaced by: 79_---		Title: 80 WC 13032 AA10C2		Sheet: 1 Drawing No: 792.8782600 Rev. 1



Preis-Stückliste 0 80WC13033AA10C2 0 80 WC 13033 AA10C2 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	24,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	24,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		3,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		3,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		1,00				0,00
IH13003L1	80	0	H13003L1 supplied by AGS		1,00				0,00
IH13003L2	15	0	H13003L2 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,20				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	0,20				0,00
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	3,00				0,00
P3042	80	0	Blind flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1	4,50 kg	1,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00

Preis-Stückliste 0 80WC13033AA10C2 0 80 WC 13033 AA10C2 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC1	15	0	Segment cut 21,3		1,00				0,00
SC6	80	0	Segment cut 88,9		2,00				0,00
XZB10	15	0	THREAD END 5,6 21,3		1,00				0,00
Summe: 0 80WC13033AA10C2 0				21,88 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	21,88 kg
Gesamtgewicht:	
** Ende der Ausgabe	







As built

CONN TO  
W13001/ N32  
Y 11136231  
X 3019034  
EL +229100

F1 G2 B3

7  
H13003L1

F1 G2 B3

80X15NPD

80NPD

F1 G2 B3

Y 11136539  
X 3018500  
EL +229100

4  
LT13003

8  
H13003L2  
Y 11136475  
X 3018610  
EL +228777

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	3	80	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	3	80	FIBROUS PACKINGS
3	24	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 65.0MM LANG
4	1	80	BLIND FLANGE 0*NREQD, S235JRG2, DIN EN 1092-1
5	150 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
6	150 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
7	1	80	H13003L1
8	1	15	H13003L2

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	15		SHAPED BEVEL	BEVEL BEVEL	RN
<2>	150	80				RN

FREIGABE  
FOR CONSTRUCTION

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

AIR LIQUIDE

Air Liquide AGS GmbH

Replaces: 79\_\_\_\_  
Replaced by: 79\_\_\_\_

Date: 27-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
Job Code: K70101	Reference: ASU No. 9, Kosice	Scale: 1:1	Original format: DIN A3
Title: 80 WC 13033 AA10C2	Drawing No: 792.87826	Rev. 00	



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 150WC14001AA10C2-WE 0 150 WC 14001 AA10C2-WE Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0007	16	60	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,12 kg	4,00				0,00
B0017	20	70	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,23 kg	16,00				0,00
B0023	20	130	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,39 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	4,00				0,00
B0508	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	24,00				0,00
G0156	65	0	Fibrous packings asbestos-free laminate made of aramide f 127x2x77		1,00				0,00
G0160	150	0	Fibrous packings asbestos-free laminate made of aramide f 218x2x169		4,00				0,00
GW14	65	0	girth weld 1.0254 ( St 37.0 ) 76,1x2,9		1,00				0,00
GW19	100	0	girth weld 1.0305 ( St 35.8 l ) 114,3x3,6		1,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		10,00				0,00
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		10,00				0,00
IF14110	150	0	F14110 supplied by AGS		1,00				0,00
IH14080	15	0	H14080 supplied by AGS		1,00				0,00

## Preis-Stückliste 0 150WC14001AA10C2-WE 0 150 WC 14001 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
IH14180	15	0	H14180 supplied by AGS		1,00				0,00
IK14130	150	0	K14130 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,70				0,00
P0011	150	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 168,3x4,5	18,20 kg	1,70				0,00
P0159	15	0	ELBOW 90° R=1,5 DA, SEAMLESS 1.0254 ( St 37.0 ) DIN 2609 21,3x2	0,04 kg	4,00				0,00
P0169	150	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5	6,55 kg	1,00				0,00
P0518	150	150	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x168,3x4,5	6,28 kg	1,00				0,00
P1943	150	65	REDUCER, ECCENTRIC, SEAMLESS 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x76,1x2,9	1,84 kg	1,00				0,00
P2124	150	100	Reducer, eccentric, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x114,3x3,6	2,13 kg	1,00				0,00
P2879	65	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 76,1	3,50 kg	1,00				0,00
P2883	150	0	WELDING NECK FLANGES; PN 16 C22.8 /DIN 2633/ 168,3	7,75 kg	4,00				0,00



Preis-Stückliste 0 150WC14001AA10C2-WE 0 150 WC 14001 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
PWI10	150	15	Pipe weld-in 1.0254 ( St 37.0 ) 168,3x4,5x21,3x2		2,00				0,00
SC1	15	0	Segment cut 21,3		6,00				0,00
SC9	150	0	Segment cut 168,3		5,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		1,00				0,00
SPS042	150	0	SUPPORT PS-042 pipe support	19,53 kg	1,00				0,00
XZB10	15	0	THREAD END 5,6 21,3		4,00				0,00
Summe: 0 150WC14001AA10C2-WE 0				111,44 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

111,44 kg





# As built

CONN TO  
W14001/ N4  
Y 11127500  
X 3018960  
EL +225585

SEE ISO  
150 WC 14003  
Y 11127643  
X 3018517  
EL +225585

Y 11127257  
X 3018271  
EL +225394

Y 11126876  
X 3016647  
EL +225393

CONN TO  
P14100/ N2  
Y 11126700  
X 3016399  
EL +225630

Port No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	150X150	TEE, SEAMLESS 168.3*4.5/168.3*4.5, ST37.0, DIN 2615-1
2	1	150X65	REDUCER, ECCENTRIC, SEAMLESS 168.3*4.5/76.1*2.9, ST37.0, DIN 2616-1
3	4	150	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	1	65	WELDING-NECK-FLANGE PN16, S235JRG2, DIN EN 1092-1
5	4	150	FIBROUS PACKINGS
6	1	65	FIBROUS PACKINGS
7	8	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 130.0MM LANG
8	16	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 70.0MM LANG
9	4	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 60.0MM LANG
10	1666 MM	150	PIPE, SEAMLESS 168.3*4.5, ST37.0, DIN EN 10220
11	391 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
12	1	150	ELBOW, SEAMLESS, 1.5D 168.3*4.5-90, B-ART 3, DIN 2605-1
13	2	15	ELBOW, SEAMLESS, 1.5D 21.3*2.0-90, B-ART 3, DIN 2605-1
14	1	150	K14130
15	1	15	H14080
16	1	15	H14180
17	1	150	F14110 F14110
18	1	150	PIPE GUIDE PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	300	150		BEVEL	SQ.CUT	RN
<2>	81	15		SHAPED	BEVEL	RN
<3>	150	15		BEVEL	BEVEL	RN
<4>	258	150		BEVEL	BEVEL	RN
<5>	608	150		BEVEL	BEVEL	RN
<6>	80	15		SHAPED	BEVEL	RN
<7>	80	15		BEVEL	BEVEL	RN
<8>	500	150		BEVEL	BEVEL	RN

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

**AIR LIQUIDE**

Air Liquide AGS GmbH

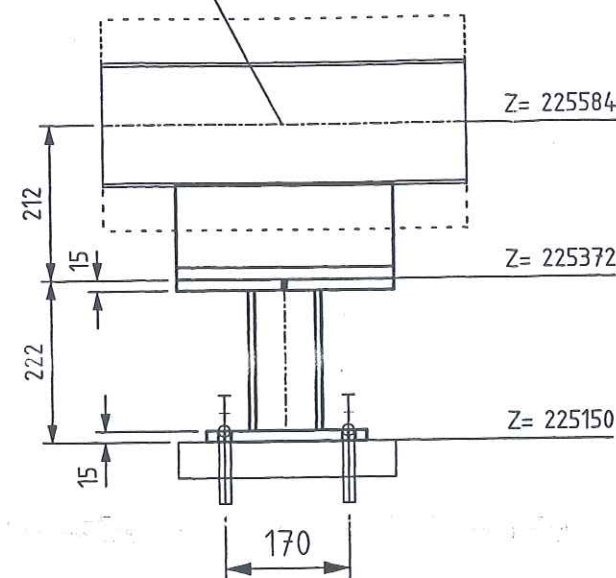
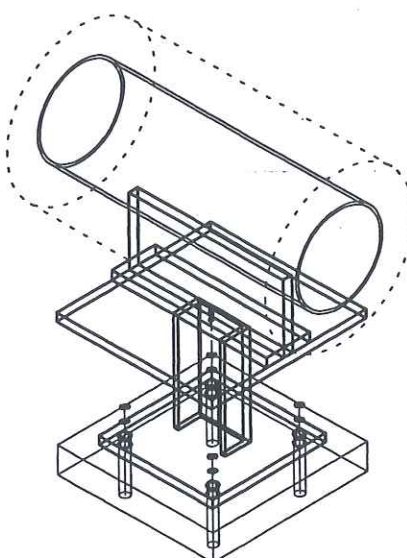
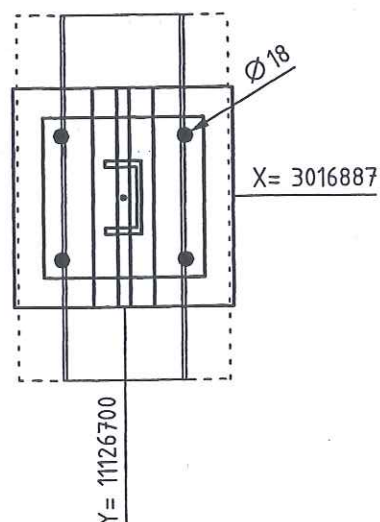
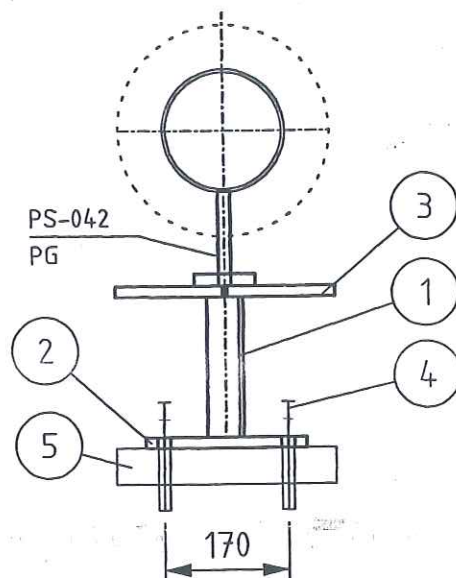
Replaces: 79\_-----  
Replaced by: 79\_-----

Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file:
Job Code: K70101	Reference: ASU No. 9, Kosice	Title: 150 WC 14001 AA10C2WE	Drawing No. 792.8782601
Scale: ---	Original format: DIN A3	Sheet: 1	Sheets: 1
		Rev.	



# As built

150-WC-14001-AA10C2-



LEGEND:

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-PIPE- PIPE GUIDE
-FP- FIX POINT
-SS- SLIDE SUPPORT
-HN- HANGER
-SSAX- SLIDE SUPPORT WITH AXIAL STOP
-AXLS- AXIAL STOP WITH LIFTING STOP
-SPS- SPRING SUPPORT
-SPGS- SPRING SUPPORT GUIDED
-GSAX- GUIDE SUPPORT WITH AXIAL STOP
-SPAX- SPRING SUPPORT WITH AXIAL STOP
-SH- SPRING HANGER
-AX- AXIAL STOP

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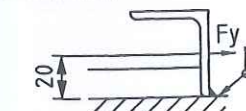
## RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGHTS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

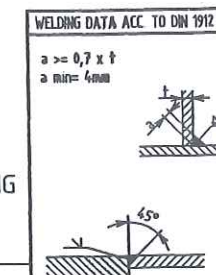
COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

TA 120 G DN 100-200



ANGLE STEEL: L60x10x100LENGTH  
ANGLE STEEL AND PLATE ACCORDING  
TO ORDER NO. PIPE SHOE



MARKING:

MARKING:  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER  
RESISTANT PAINT AND WHITE COLOR

Total Weight:	18.33 kg
---------------	----------

[illegible]

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25 JUL 2005	Zut	<i>[Signature]</i>
Drawn checked by			



**HEGMANN'S**



**AIR LIQUIDE**<sup>TM</sup>

Air Liquide AGS GmbH

	Date	Name	Check	History File			
	18.05.2005	GU	Zut				
	Job Code:	K70101 ASU No.9 Kosice			Scale:	1:10	Original Format
	Reference:	PIPING SUPPORT			Sheet:	1	of:
Replaces:	Title	PS-042			Drawing-No.	792.87926	Re

Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDERVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 100WC14002AA10C2-WE 0 100 WC 14002 AA10C2-WE Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0002	12	55	HEXAGON HEAD SCREWS 5,6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,06 kg	8,00				0,00
B0008	16	65	Hexagon head screws 5,6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	12,00				0,00
B0014	16	120	Hexagon head screws 5,6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	16,00				0,00
B0015	16	130	Hexagon head screws 5,6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0506	12	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,02 kg	8,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	36,00				0,00
G0092	15	0	Flat packings Graphite with CrNi-insert Standard 40002 50x2x22		2,00				0,00
G0099	40	0	Flat packings Graphite with CrNi-insert Standard 40002 92x2x49		1,00				0,00
G0104	100	0	Flat packings Graphite with CrNi-insert Standard 40002 162x2x115		9,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		20,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		28,00				0,00
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		1,00				0,00

Preis-Stückliste 0 100WC14002AA10C2-WE 0 100 WC 14002 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
GW9	40	0	girth weld 1.0254 ( St 37.0 ) 48,3x2,6		1,00				0,00
IH14081	15	0	H14081 supplied by AGS		1,00				0,00
IH14088	15	0	H14088 supplied by AGS		1,00				0,00
IH14120H1	15	0	H14120H1 supplied by AGS		1,00				0,00
IH14181	15	0	H14181 supplied by AGS		1,00				0,00
IK12011	100	0	K12011 supplied by AGS		1,00				0,00
IK14141	100	0	K14141 supplied by AGS		1,00				0,00
IP114120	15	0	PI14120 supplied by AGS		1,00				0,00
IR14140	100	0	R14140 supplied by AGS		1,00				0,00
ITIC12003	15	0	TIC12003 supplied by AGS		1,00				0,00
IV12001	15	0	V12001 supplied by AGS		1,00				0,00
IZ12002	15	0	Z12002 supplied by AGS		1,00				0,00
P0034	15	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	7,74				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	5,80				0,00



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 100WC14002AA10C2-WE 0 100 WC 14002 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0200	15	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 21,3x2	0,04 kg	11,00				0,00
P0208	100	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6	2,35 kg	3,00				0,00
P0736	100	100	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6x114,3x3,6	2,54 kg	2,00				0,00
P1455	100	40	Reducer, concentric, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6x48,3x2,6	0,69 kg	1,00				0,00
P1475	150	100	Reducer, concentric, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x114,3x3,6	2,13 kg	1,00				0,00
P2933	15	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 21,3	1,00 kg	1,00				0,00
P2937	40	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 48,3	2,00 kg	1,00				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	9,00				0,00
P3090	15	0	Blind flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1	1,00 kg	1,00				0,00
PW135	100	15	PIPE WELD-IN 1.4541		2,00				0,00
PW17	100	15	Pipe weld-in 1.0254 ( St 37.0 ) 114,3x3,6x21,3x2		5,00				0,00

VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 100WC14002AA10C2-WE 0 100 WC 14002 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
S0021	100	0	T-support TA 120G 115 W1 OZN 1.0 Hesterberg 115	10,70 kg	1,00				0,00
SC1	15	0	Segment cut 21,3		16,00				0,00
SC7	100	0	Segment cut 114,3		8,00				0,00
SCP01	15	0	PIPE CLAMP, RB10A 22 W3 HESTERBERG 21,3		3,00				0,00
SPS047	100	0	SUPPORT PS-047 pipe support	66,77 kg	1,00				0,00
SPS200	100	0	SUPPORT PS-200, L 50, L=250 114,3	0,94 kg	1,00				0,00
SPS355	0	0	SUPPORT PS-355, L 50, L=150	0,56 kg	1,00				0,00
XZB02	100	15	welding nozzle for pressure gauge, drawi 1.4541 22		1,00				0,00
XZB04	100	15	welding nozzle for thermowell, drawing N 1.4541 22		1,00				0,00
XZB06	15	0	HOLENDER 1.4404 21,3	0,35 kg	4,00				0,00
XZB10	15	0	THREAD END 5.6 21,3		7,00				0,00
Summe: 0 100WC14002AA10C2-WE 0				212,71 kg		0,00	0,00		0,00

Liefersumme:



Preis-Stückliste 0 100WC14002AA10C2-WE 0 100 WC 14002 AA10C2-WE Revision:									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
Montagesumme:									
Gesamtsumme:									
Gesamtgewicht:									212,71 kg
** Ende der Ausgabe									



**Jop Code:** K70101 ASU No. 9, Kosice **Order No.:**

**Title:** 100 WC 14002

**Drawing No.:**

**Maker's No.:**

\_\_\_\_\_

Dimension

111 2\*3 6

114,3\*3,6

11A 3\*3 C

114,3\*3,6

CC	CC
CC	CC

21,3\*2

114,030

114.3\*3.6

114,53,6

21 3\*2

33,1\*2,6

23 7\*2 6

114,3\*3,6

2,000

---

100

---

---

24.02.06

1

Kosice



# As built

CONN TO  
KA12001/ E11  
Y 11130367  
X 3017423  
EL +225536

Y 11130327  
X 3017083  
EL +225732

SEE ISO  
100 WC 14005  
Y 11130367  
X 3016768  
EL +225693

SEE ISO  
SHT 2

Y 11130367  
X 3016122  
EL +226627

Y 11130367  
X 3016350  
EL +225372

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	150X100	REDUCER, CONCENTRIC, SEAMLESS 168.3*4.5/114.3*3.6, ST37.0, DIN 2616-1
2	1	100X100	TEE, SEAMLESS 114.3*3.6/114.3*3.6, ST37.0, DIN 2615-1
3	1	100X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
4	4	100	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
5	1	15	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
6	2	15	FLAT GASKET
7	1	15	BLIND FLANGE O*NREOD, S235JRG2, DIN EN 1092-1
8	1871 MM	100	PIPE, SEAMLESS 114.3*3.6, ST37.0, DIN EN 10220
9	180 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
10	2	100	ELBOW, SEAMLESS, 1.5D 114.3*3.6-90, B-ART 3,DIN 2605-1
11	1	15	ELBOW, SEAMLESS, 1.5D 21.3*2.0-90, B-ART 3,DIN 2605-1
12	1	100	K12011
13	1	15	Z12002
14	1	15	V12001 V12001
15	1	15	TIC12003 TIC12003

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	100	15		SHAPED BEVEL	BEVEL	RN
<2>	100	100		SHAPED BEVEL	BEVEL	RN
<3>	80	15		SHAPED BEVEL	BEVEL	RN
<4>	211	100		BEVEL	BEVEL	RN
<5>	1560	100		BEVEL	BEVEL	RN

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH Replaces: 79_----- Replaced by: 79_-----	Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file.
	Job Code: K70101			Scale: ---:---
	Reference: ASU No. 9, Kosice			Original format: DIN A3
	Title: 100 WC 14002 AA16C1WE			Sheet: 1 of 3
Drawing No. 792.8782601				Rev.





**Jop Code:** K70101 ASU No. 9, Kosice **Order No.:**

Jop Code:	K70101	ASU No. 9, Kosice	Order No.:
Client:	AIR LIQUIDE	Title:	100 WC 14002

Sheet 2

**Drawing No.:**

792.87826 - 01	Maker's No.:
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(Kunde / TÜV, ...)

geprüft

erstellt:

12.01.06 DL  
Pelzeder Erich

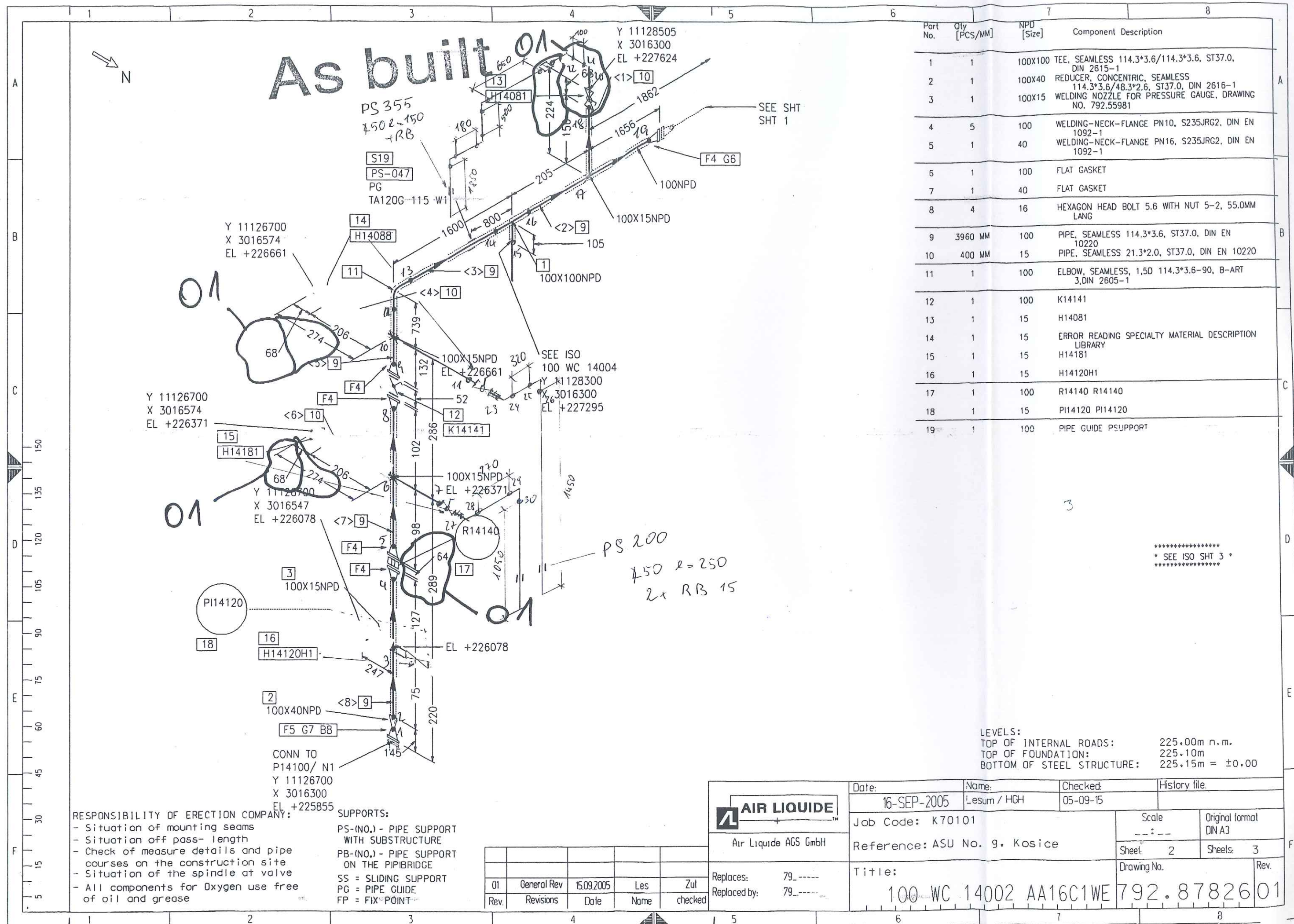
Schweisstechnologie VAM  
Datum / Unterschrift



**Datum / Unterschrift**

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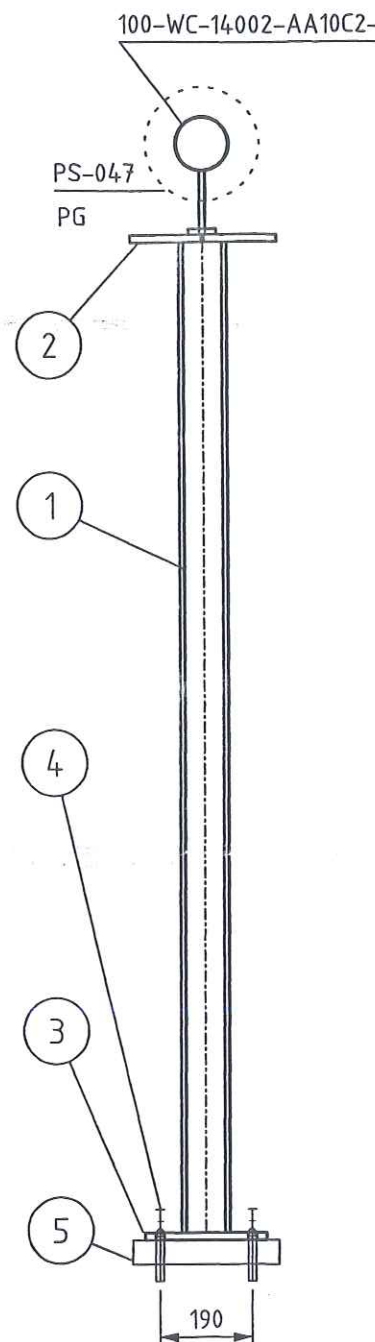
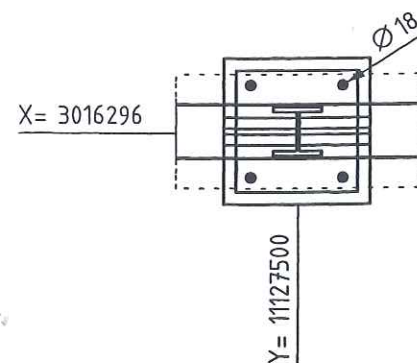
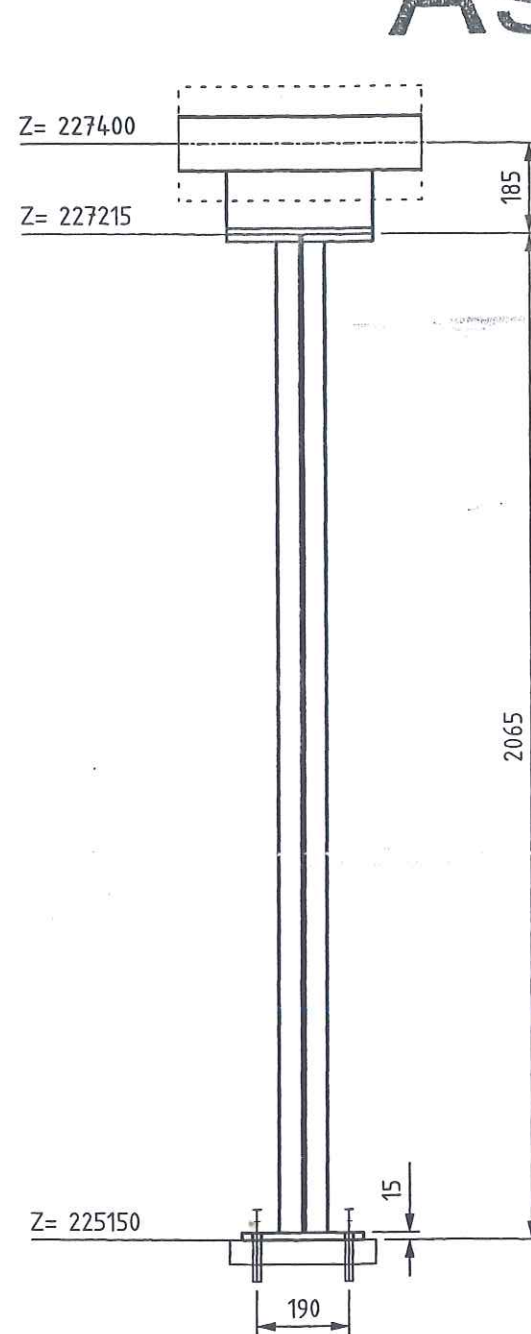






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As built



Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

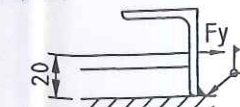
RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

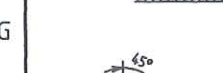
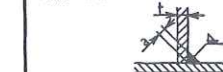
TA 120 G DN 100-200



ANGLE STEEL: L60x10x100LENGTH  
ANGLE STEEL AND PLATE ACCORDING  
TO ORDER NO. PIPE SHOE

WELDING DATA ACC. TO DIN 1912 TS

a >= 0,7 x t  
a min= 4mm



Total Weight: 59.49 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE100B, L=2.035	RST37-2	41.531	
2	1	pcs	PLATE 300x300x15	PLATE 15x300x300	RST37-2	10.598	
3	1	pcs	PLATE 250	PLATE 250x250x15	RST37-2	7.359	
4	4	pcs	ANCHOR BOLT HSTI-R1M16/100	HST-(-R) 16-0-M16	1.4401	0.000	
5	1	pcs	BASE	300x300x50	CONCRETE	0.000	
27. Juli 2005							

Approved by	Date	Name	Signature
Checked by	5. JUL 2005	Gans	
Checked by		Zut	
Drawn checked by			

HGCH  
HEGMANN'S

AIR LIQUIDE

Air Liquide AGS GmbH

Date	Name	Check	History File
01.06.2005	GU	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-047		
Scale:	1:15	Original Format	DIN A3
Sheet:	1 of 1	Drawing-No.	792.87926
Rev.	a		





As built

Part No. Qty [PCS/MM] NPD [Size] Component Description

\*\*\*\*\*  
\* SEE SHT SHT 2 \*  
\*\*\*\*\*


CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	100	15		SHAPED	BEVEL	RN
<2>	1704	100		BEVEL	BEVEL	RN
<3>	1343	100		BEVEL	BEVEL	RN
<4>	150	15		SHAPED	BEVEL	RN
<5>	667	100		BEVEL	BEVEL	RN
<6>	150	15		SHAPED	BEVEL	RN
<7>	96	100		BEVEL	BEVEL	RN
<8>	150	100		BEVEL	BEVEL	RN

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

 AIR LIQUIDE Air Liquide AGS GmbH	Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file.	
	Job Code: K70101		Scale: ---:---	Original format: DIN A3	
Reference: ASU No. 9, Kosice		Sheet: 3		Sheets: 3	
Title: 100 WC 14002 AA16C1WE		Drawing No. 792.87826		Rev. 01	
Replaces: 79_-----	Replaced by: 79_-----				

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

**Preis-Stückliste 0 150WC14003AA10C2-WE 0 150 WC 14003 AA10C2-WE Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0007	16	60	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,12 kg	4,00				0,00
B0017	20	70	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,23 kg	16,00				0,00
B0023	20	130	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,39 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	4,00				0,00
B0508	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	24,00				0,00
G0156	65	0	Fibrous packings asbestos-free laminate made of aramide f 127x2x77		1,00				0,00
G0160	150	0	Fibrous packings asbestos-free laminate made of aramide f 218x2x169		4,00				0,00
GW14	65	0	girth weld 1.0254 ( St 37.0 ) 76,1x2,9		1,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		1,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		4,00				0,00
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		6,00				0,00
IF14120	150	0	F14120 supplied by AGS		1,00				0,00
IH14280	15	0	H14280 supplied by AGS		1,00				0,00



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 150WC14003AA10C2-WE 0 150 WC 14003 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
IK14230	150	0	K14230 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,35				0,00
P0011	150	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 168,3x4,5	18,20 kg	1,40				0,00
P0159	15	0	ELBOW 90° R=1,5 DA, SEAMLESS 1.0254 ( St 37.0 ) DIN 2609 21,3x2	0,04 kg	2,00				0,00
P0169	150	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5	6,55 kg	1,00				0,00
P1943	150	65	REDUCER, ECCENTRIC, SEAMLESS 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x76,1x2,9	1,84 kg	1,00				0,00
P2124	150	100	Reducer, eccentric, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x114,3x3,6	2,13 kg	1,00				0,00
P2879	65	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 76,1	3,50 kg	1,00				0,00
P2883	150	0	WELDING NECK FLANGES; PN 16 C22.8 /DIN 2633/ 168,3	7,75 kg	4,00				0,00
PW110	150	15	Pipe weld-in 1.0254 ( St 37.0 ) 168,3x4,5x21,3x2		1,00				0,00
S0023	150	0	T-support TA 120G 169 W1 OZN 1.0 Hesterberg 169	11,60 kg	1,00				0,00

Preis-Stückliste 0 150WC14003AA10C2-WE 0 150 WC 14003 AA10C2-WE Revision:

(Fortsetzung)									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC1	15	0	Segment cut 21,3		3,00				0,00
SC9	150	0	Segment cut 168,3		3,00				0,00
SPS043	150	0	SUPPORT PS-043 pipe support	18,56 kg	1,00				0,00
XZB10	15	0	THREAD END 5.6 21,3		2,00				0,00
Summe: 0 150WC14003AA10C2-WE 0				109,91 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

109,91 kg







 N

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	80	15		SHAPED	BEVEL	RN
<2>	80	15		BEVEL	BEVEL	RN
<3>	500	150		BEVEL	BEVEL	RN
<4>	608	150		BEVEL	BEVEL	RN
<5>	258	150		BEVEL	BEVEL	RN

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT  
ON THE PIPIBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

01	General Rev	15.09.2005	Les	Zul
Rev.	Revisions	Date	Name	checked

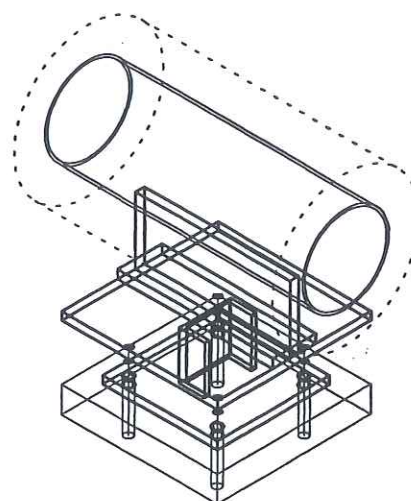
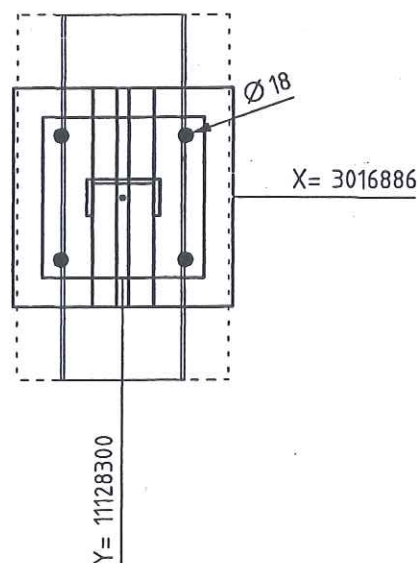
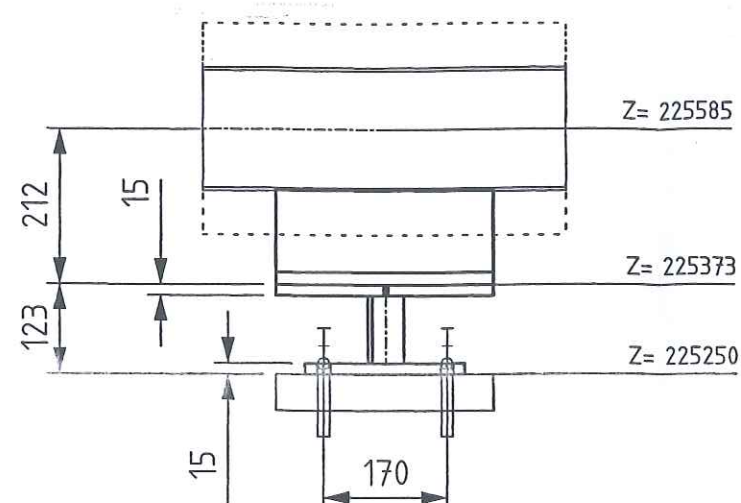
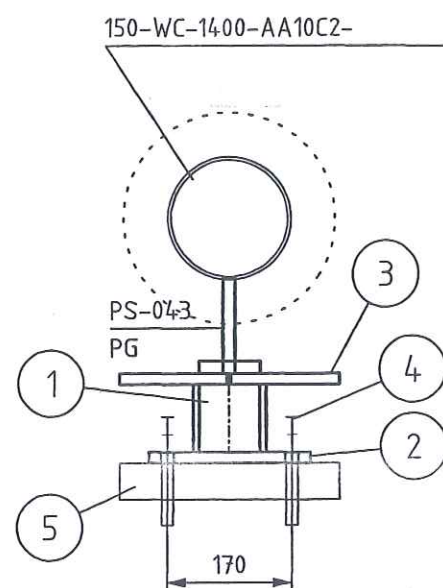


Replaces: 79\_-----  
Replaced by: 79\_-----

Date:	Name:	Checked:	History file.	
16-SEP-2005	Lesum / HGH	05-09-15		
Job Code: K70101			Scale	Original format
Reference: ASU No. 9. Kosice			--- --	DIN A3
			Sheet: 1	Sheets: 1
Title:			Drawing No.	Rev.
150 WC 14003 AA10C2WE			792.878260	



# As built



Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

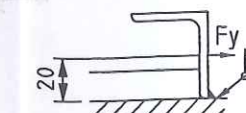
- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP  
INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

- ALL SURFACES FOR COATING **MUST** BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE **REMOVED**
- THE SUPPORT NEEDS TO BE PRIME COATED


TA 120 G DN 100-200



ANGLE STEEL: L60x10x100LENGTH  
ANGLE STEEL AND PLATE ACCORDING  
TO ORDER NO. PIPE SHOE

Total Weight:	17.28 kg
---------------	----------

[illegible]

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by 2	5 JUL 2005	Zut	
Drawn checked by			


**AIR LIQUIDE**™

Air Liquide AGS GmbH

	Date	Name	Check	History File		
	31.05.2005	GU	Zut			
	Job Code: K70101 ASU No.9 Kosice Reference: PIPING SUPPORT				Scale: 1:10 Sheet: 1 of:	Original Format DIN A3
Replaces:	Title PS-043			Drawing-No. 792.87926		Re



Preis-Stückliste 0 100WC14004AA10C2-WE 0 100 WC 14004 AA10C2-WE Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	4,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	4,00				0,00
G0099	40	0	Flat packings Graphite with CrNi-insert Standard 40002 92x2x49		1,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		5,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		5,00				0,00
GW9	40	0	girth weld 1.0254 ( St 37.0 ) 48,3x2,6		1,00				0,00
IH14220H1	15	0	H14220H1 supplied by AGS		1,00				0,00
IH14281	15	0	H14281 supplied by AGS		1,00				0,00
IK14241	100	0	K14241 supplied by AGS		1,00				0,00
IP14220	15	0	PI14220 supplied by AGS		1,00				0,00
IR14240	100	0	R14240 supplied by AGS		1,00				0,00
P0034	15	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	1,58				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	1,00				0,00



## Preis-Stückliste 0 100WC14004AA10C2-WE 0 100 WC 14004 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0159	15	0	ELBOW 90° R=1,5 DA, SEAMLESS 1.0254 ( St 37.0 ) DIN 2609 21,3x2	0,04 kg	2,00				0,00
P1455	100	40	Reducer, concentric, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6x48,3x2,6	0,69 kg	1,00				0,00
P2937	40	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 48,3	2,00 kg	1,00				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	4,00				0,00
PW11	50	15	Pipe weld-in 1.4541 ( X 6 CrNiTi 18 10 ) 60,3x2x21,3x1,6		1,00				0,00
PW17	100	15	Pipe weld-in 1.0254 ( St 37.0 ) 114,3x3,6x21,3x2		1,00				0,00
SC1	15	0	Segment cut 21,3		3,00				0,00
SC7	100	0	Segment cut 114,3		3,00				0,00
SCP01	15	0	PIPE CLAMP, RB10A 22 W3 HESTERBERG 21,3		1,00				0,00
SPS201	100	0	SUPPORT PS-201 L 50, L=160 114,3	0,60 kg	1,00				0,00
XZB02	100	15	welding nozzle for pressure gauge, drawi 1.4541 22		1,00				0,00

Preis-Stückliste 0 100WC14004AA10C2-WE 0 100 WC 14004 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
XZB06	15	0	HOLENDER 1.4404 21,3	0,35 kg	1,00				0,00
XZB10	15	0	THREAD END 5.6 21,3		2,00				0,00
Summe: 0 100WC14004AA10C2-WE 0				33,69 kg		0,00	0,00		0,00

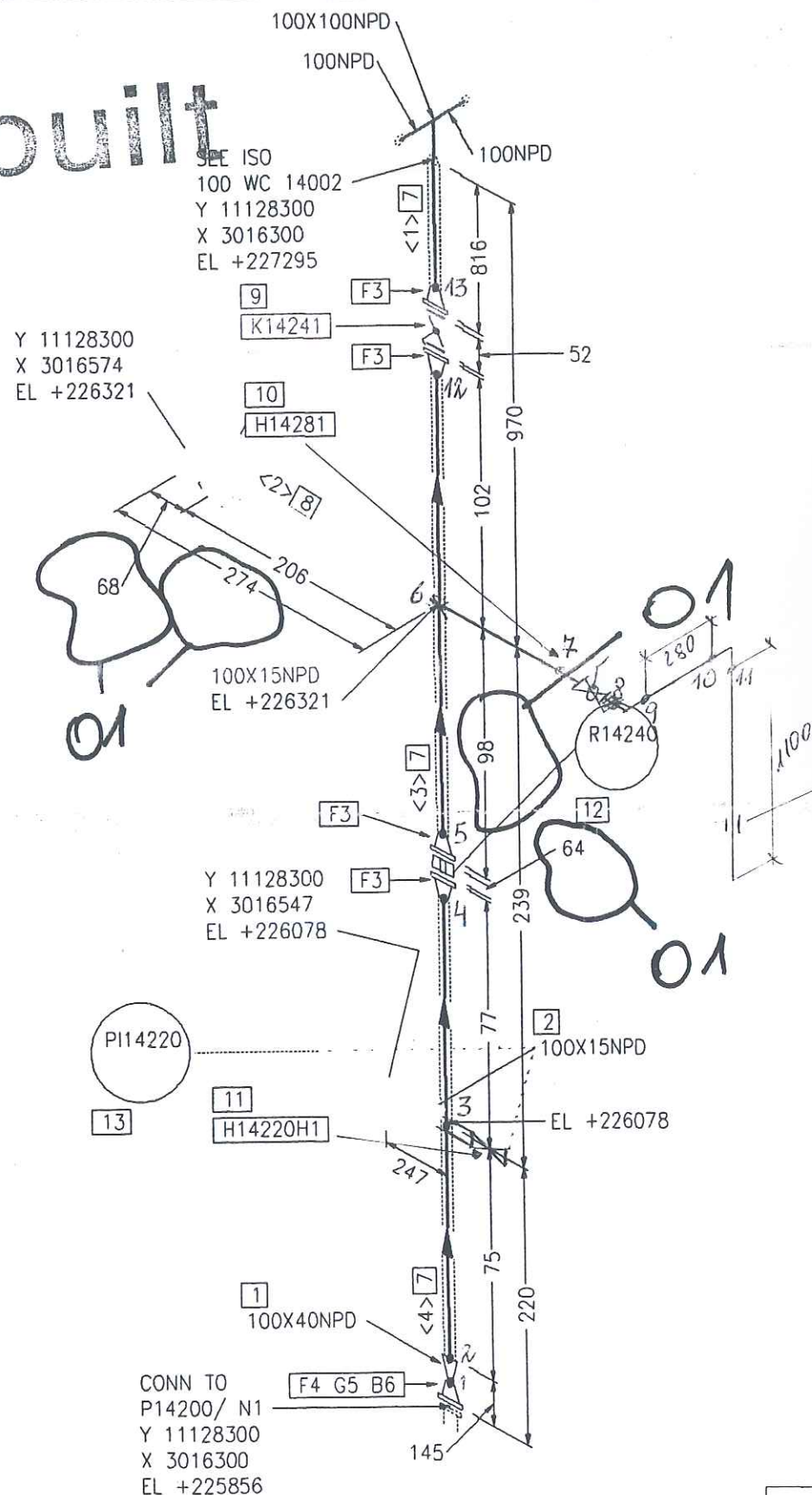
Liefersumme:  
Montagesumme:  
Gesamtsumme:  
Gesamtgewicht:  
\*\* Ende der Ausgabe

33,69 kg





# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	100X40	REDUCER, CONCENTRIC, SEAMLESS 114.3*3.6/48.3*2.6, ST37.0, DIN 2616-1
2	1	100X15	WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55981
3	4	100	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	1	40	WELDING-NECK-FLANGE PN16, S235JRG2, DIN EN 1092-1
5	1	40	FLAT GASKET
6	4	16	HEXAGON HEAD BOLT 5.8 WITH NUT 5-2, 55.0MM LANG
7	960 MM	100	PIPE, SEAMLESS 114.3*3.6, ST37.0, DIN EN 10220
8	150 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
9	1	100	K14241
10	1	15	H14281
11	1	15	H14220H1
12	1	100	R14240 R14240
13	1	15	PI14220 PI14220

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	764	100		BEVEL	BEVEL	RN
<2>	150	15		SHAPED	BEVEL	RN
<3>	96	100		BEVEL	BEVEL	RN
<4>	100	100		BEVEL	BEVEL	RN

LEVELS:  
 TOP OF INTERNAL ROADS: 225.00m n.m.  
 TOP OF FOUNDATION: 225.10m  
 BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
 - Situation of mounting seams  
 - Situation off pass- length  
 - Check of measure details and pipe courses on the construction site  
 - Situation of the spindle at valve  
 - All components for Oxygen use free of oil and grease

SUPPORTS:  
 PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
 PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
 SS = SLIDING SUPPORT  
 PG = PIPE GUIDE  
 FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file.
	Job Code: K70101		Scale: ---:---	Original format DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 1	
Title: 100 WC 14004 AA16C1WE 792.8782601		Drawing No. 792.8782601		



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

**Preis-Stückliste 0 100WC14005AA10C2-WE 0 100 WC 14005 AA10C2-WE Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0014	16	120	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0105	100	0	Flat packings Graphite with CrNi-insert Standard 40002 168x2x115		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		1,00				0,00
IK12008	100	0	K12008 supplied by AGS		1,00				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	0,10				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	1,00				0,00
SC7	100	0	Segment cut 114,3		1,00				0,00
Summe: 0 100WC14005AA10C2-WE 0				7,32 kg		0,00	0,00		0,00

Liefersumme:  
Montagesumme:  
Gesamtsumme:  
Gesamtgewicht: 7,32 kg  
\*\* Ende der Ausgabe



(Kunde / TÜV, ...)

geprüft

**Datum / Unterschrift** *Pelzeder Enich*

Schweisstechnologie VAM  
Datum / Unterschrift

**Datum / Unterschrift**

Project No.: 9050300

792.87826 - 00	Maker's No.:
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Sheet 1	Drawing No.:
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**Maker's Name**

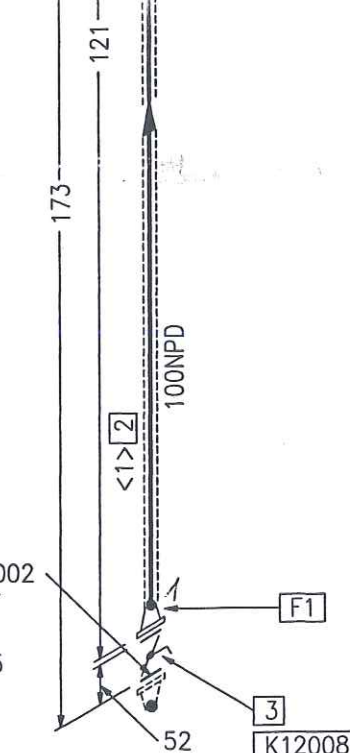
[illegible]



# As built

100X100NPD  
100NPD  
100NPD  
SEE ISO  
100 WC 14006  
Y 11130367  
X 3016768  
EL +225870

SEE ISO  
100 WC 14002  
Y 11130367  
X 3016768  
EL +225695



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	100	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	69 MM	100	PIPE, SEAMLESS 114.3*3.6, ST37.0, DIN EN 10220
3	1	100	K12008

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	69	100		BEVEL	BEVEL	RN

**FREIGABE  
FOR CONSTRUCTION**

*Coan*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 1	
Title: 100 WC 14005 AA16C1WE		Drawing No: 792.8782600		Rev.

Rev.	Revisions	Date	Name	checked
1				
2				
3				
4				
5				

VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 100WC14006AA10C2-WE 0 100 WC 14006 AA10C2-WE Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	32,00				0,00
B0014	16	120	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	16,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	48,00				0,00
G0104	100	0	Flat packings Graphite with CrNi-insert Standard 40002 162x2x115		8,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		1,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		32,00				0,00
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		1,00				0,00
IFK13006	100	0	FK13006 supplied by AGS		1,00				0,00
IFT12005	100	0	FT12005 supplied by AGS		1,00				0,00
IFT13006	100	0	FT13006 supplied by AGS		1,00				0,00
IK12006	100	0	K12006 supplied by AGS		1,00				0,00
ITE13026	15	0	TE13026 supplied by AGS		1,00				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	24,30				0,00



## Preis-Stückliste 0 100WC14006AA10C2-WE 0 100 WC 14006 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0208	100	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6	2,35 kg	9,00				0,00
P0735	100	80	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6x88,9x3,2	2,43 kg	1,00				0,00
P0736	100	100	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6x114,3x3,6	2,54 kg	1,00				0,00
P2124	150	100	Reducer, eccentric, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5x114,3x3,6	2,13 kg	1,00				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	8,00				0,00
PW11	50	15	Pipe weld-in 1.4541 ( X 6 CrNiTi 18 10 ) 60,3x2x21,3x1,6		1,00				0,00
S0009	100	0	T-support TA 120B 115 W1 OZN 1.0 Hesterberg 115	4,50 kg	2,00				0,00
S0168	100	0	T-support TA 120G 115 W1 OZN LF 1.0 Hesterberg 115	10,90 kg	6,00				0,00
SC7	100	0	Segment cut 114,3		13,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		6,00				0,00
SPS048	100	0	SUPPORT PS-048 pipe support	50,50 kg	1,00				0,00
SPS049	100	0	SUPPORT PS-049 pipe support	60,77 kg	1,00				0,00

## Preis-Stückliste 0 100WC14006AA10C2-WE 0 100 WC 14006 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPS050	100	0	SUPPORT PS-050 pipe support	7,77 kg	1,00				0,00
SPS051	100	0	SUPPORT PS-051 pipe support	7,77 kg	1,00				0,00
SPS052	100	0	SUPPORT PS-052 pipe support	7,77 kg	1,00				0,00
SPS053	100	0	SUPPORT PS-053 pipe support	7,77 kg	1,00				0,00
SPS202	100	0	SUPPORT PS-202,U 100, L=400	4,24 kg	1,00				0,00
SPS203	100	0	SUPPORT PS-203, U 100, L=400	4,24 kg	1,00				0,00
XZB04	100	15	welding nozzle for thermowell, drawing N 1.4541 22		1,00				0,00
Summe: 0 100WC14006AA10C2-WE 0				537,15 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

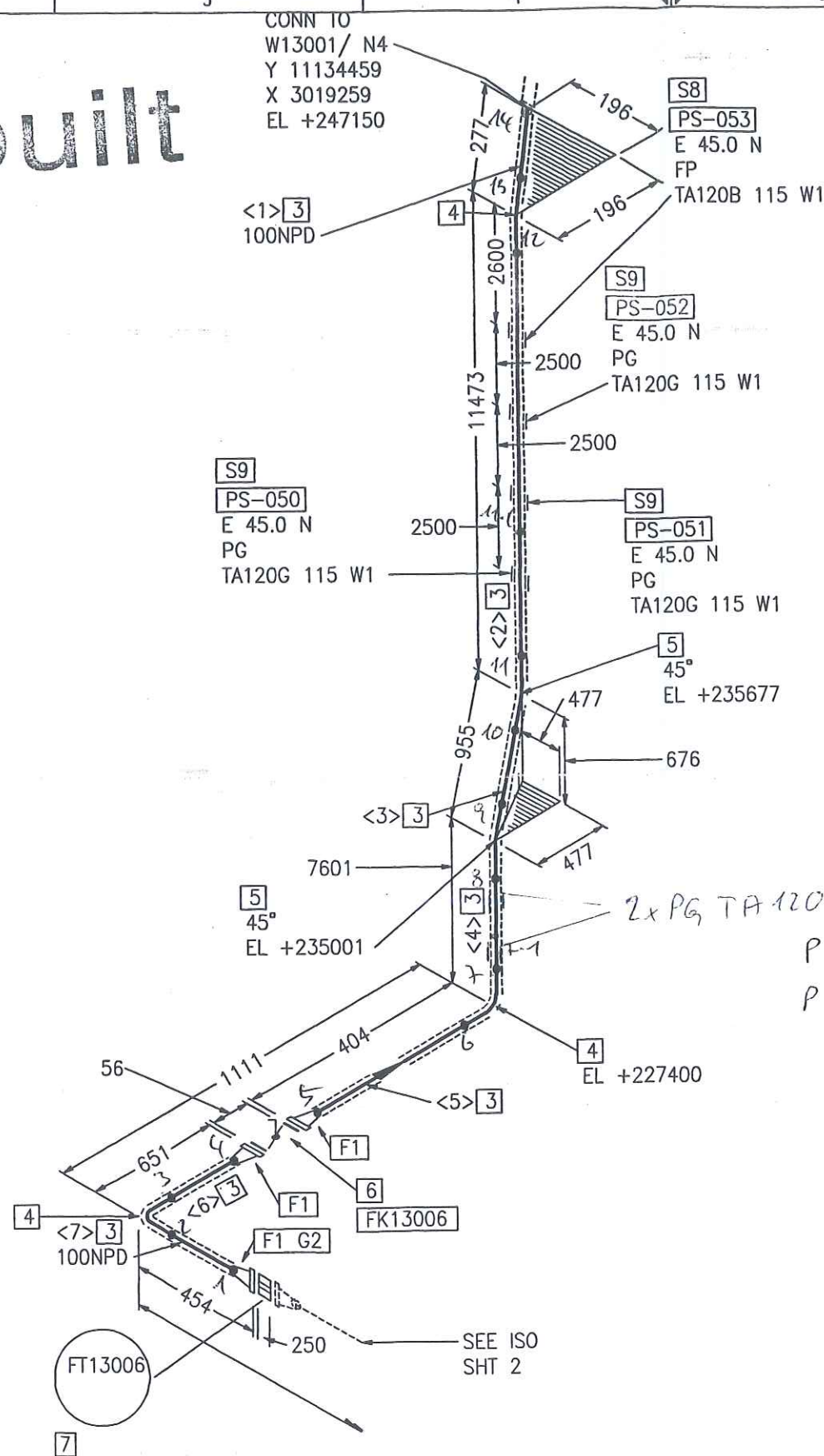
537,15 kg







# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	3	100	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	1	100	FLAT GASKET
3	20495 MM	100	PIPE, SEAMLESS 114.3*3.6, ST37.0, DIN EN 10220
4	3	100	ELBOW, SEAMLESS, 1,5D 114.3*3.6-90, B-ART 3,DIN 2605-1
5	2	100	ELBOW, SEAMLESS, 1,5D 114.3*3.6-45, B-ART 3,DIN 2605-1
6	1	100	FK13006
7	1	100	FT13006 FT13006
8	1	100	FIX POINT PSUPPORT
9	3	100	PIPE GUIDE PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	125	100	SQ.CUT	BEVEL	BEVEL	RN
<2>	11258	100	BEVEL	BEVEL	BEVEL	RN
<3>	829	100	BEVEL	BEVEL	BEVEL	RN
<4>	7386	100	BEVEL	BEVEL	BEVEL	RN
<5>	200	100	BEVEL	BEVEL	BEVEL	RN
<6>	447	100	BEVEL	BEVEL	BEVEL	RN
<7>	250	100	BEVEL	BEVEL	BEVEL	RN

**FREIGABE**  
**FOR CONSTRUCTION**

12. Juli 2005 *Law*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

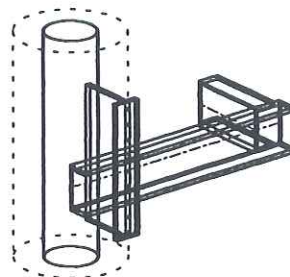
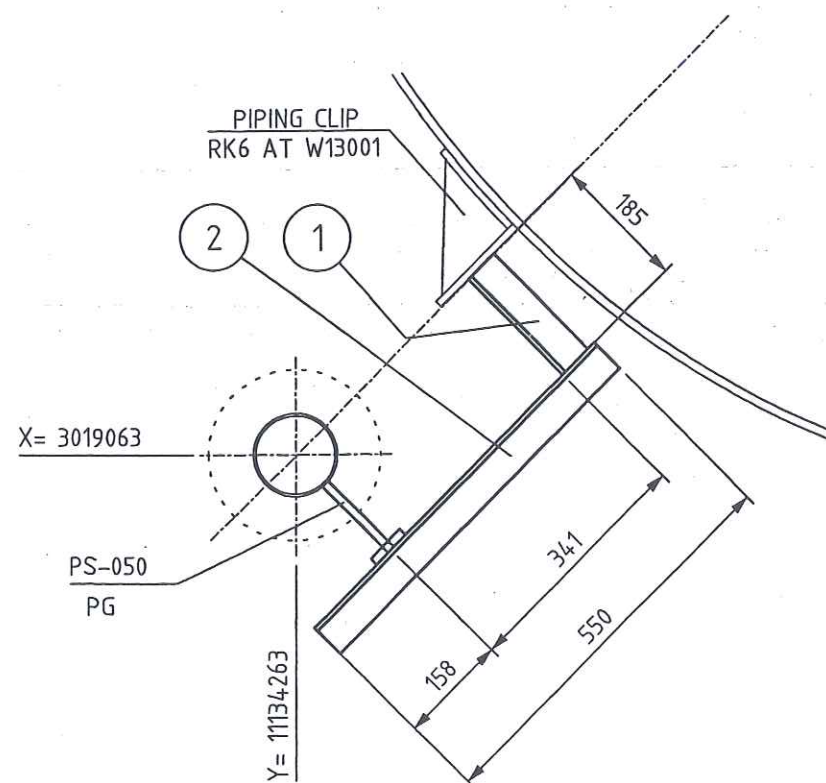
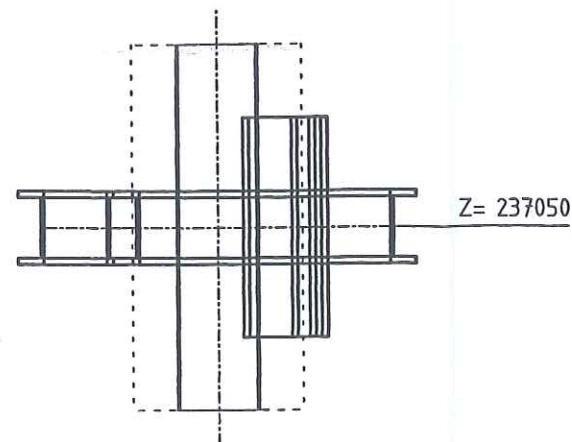
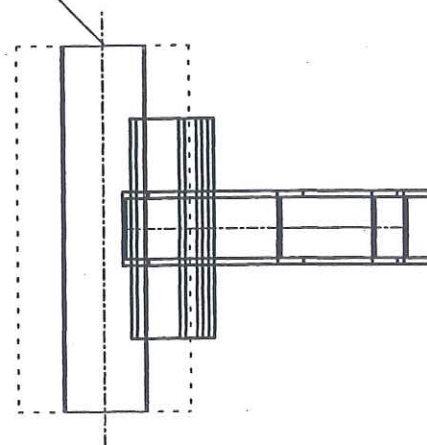
SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
1				
2				
3				
4				
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7				
8				
9				
10				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1		Sheets: 2
Title: 100 WC 14006 AA16C1WE		Drawing No: 792.87826		Rev: 00



# As built



Archives Rev.No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

A diagram showing a horizontal beam with a vertical line extending upwards from its center. A curved arrow indicates a 45-degree angle between the vertical line and the beam.

	Date	Name	Check	History File		
	29.06.2005	GU	Zut			
	Job Code:	K70101 ASU No.9 Kosice			Scale:	Original Format
	Reference:	PIPING SUPPORT			1:10	DIN A3
Replaces:				Sheet:	1 of:	
	Title	PS-050			Drawing-No.	Re
				792.87926		



# As built

PIPING CLIP RK7 AT W13001

1

2

185

337

550

152

Y= 11134263

PS-051  
PG

$$Y = 11134263$$

R E V I S I O N S

a  $\geq 0,7 \times t$   
a min = 4mm

A diagram showing a corner joint between two plates. A fillet weld is applied to the outer corner, with an arrow indicating the weld direction and a 45-degree angle marked between the weld face and the plate surfaces.

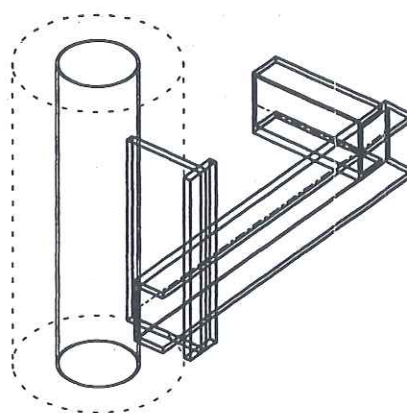
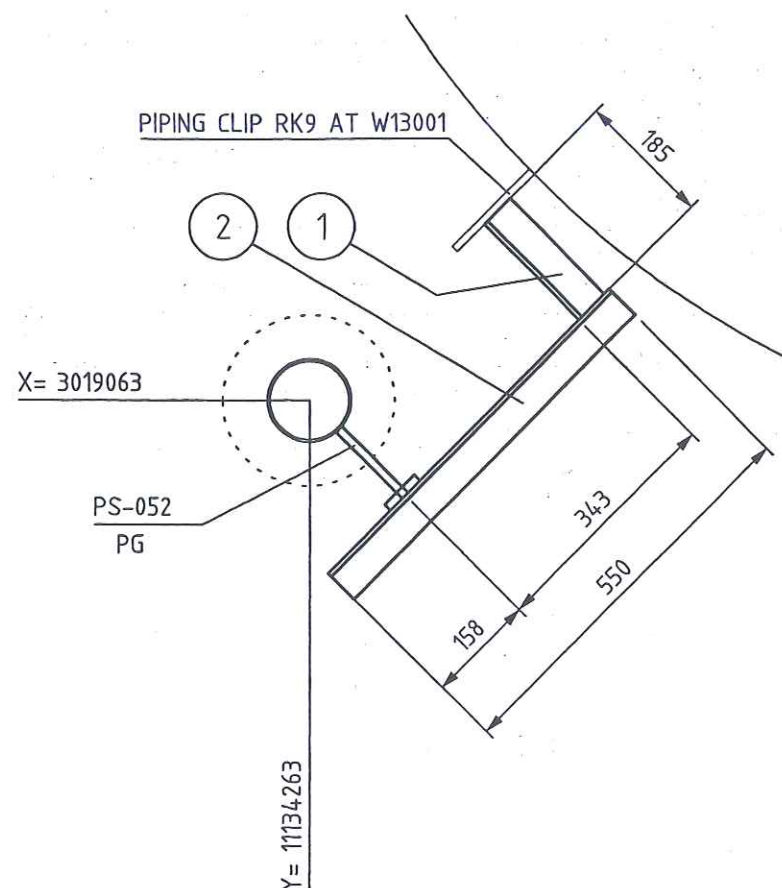
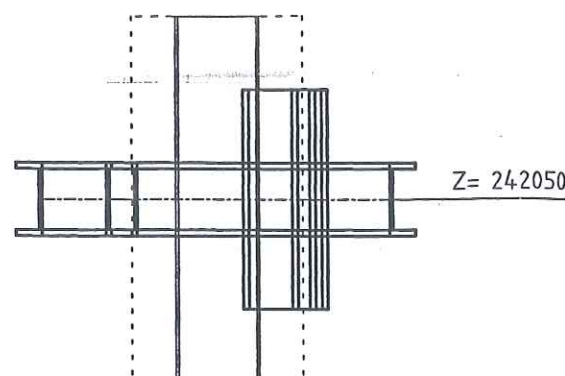
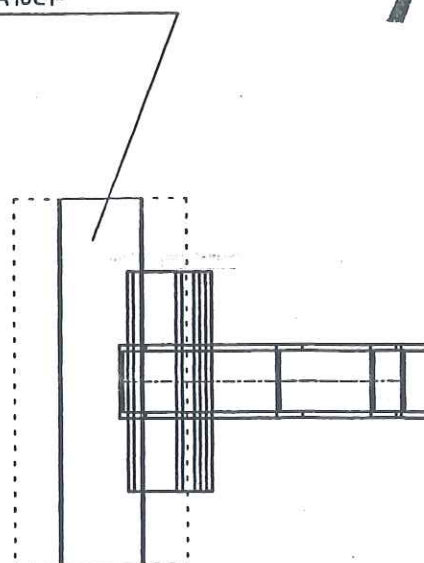


	Date	Name	Check	History File	
	04.07.2005	SWA		Zut	
	Job Code: K70101 ASU No.9 Kosice				Scale: 1:10
	Reference: PIPING SUPPORT				Original Format DIN A3
					Sheet: 1 of:
Replaces:	Title PS-051				Drawing-No. 792.87926



100-WC-14006-AA16C1-

# As built



Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

A diagram of a beam with a vertical force  $F_y$  applied at a distance of 20 units from the support.

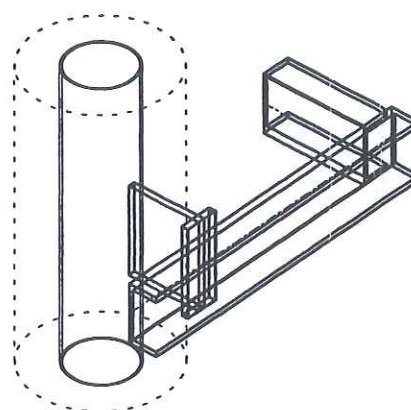
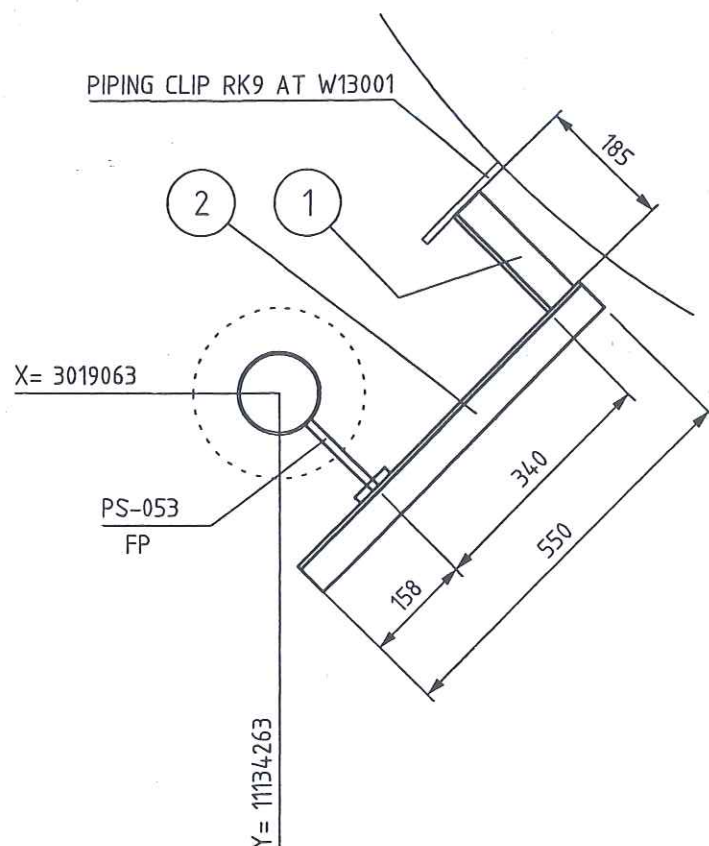
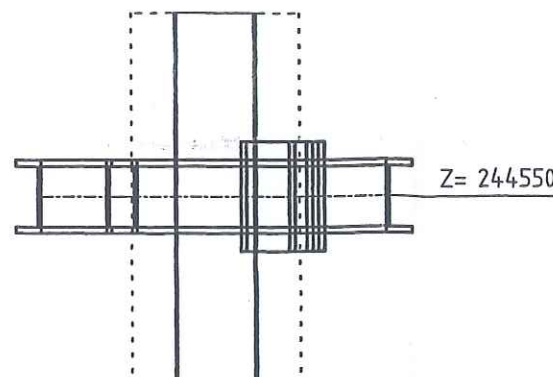
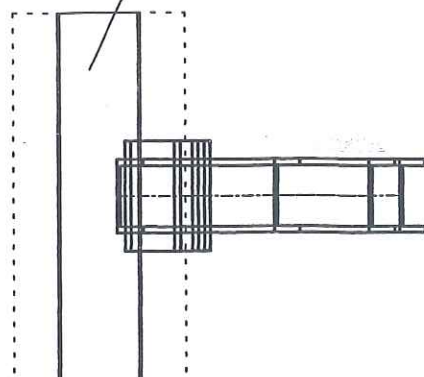


Drawing-No.	792.87926	Rev
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100-WC-14006-AA16C1-

# As built



LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

WELDING DATA ACC. TO DIN 1912 TS

$a \geq 0,7 \times t$   
 $a_{\min} = 4 \text{ mm}$



Total Weight:	7.78 kg
---------------	---------

[illegible]

27. Juli 2005

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	21.5. JUL. 2005	Zut	
Drawn checked by			


  
**HEGMANN**



Air Liquide AGS GmbH

	Date	Name	Check	History File
	05.07.2005	SWA	Zut	
	Job Code: K70101 ASU No.9 Kosice Reference: PIPING SUPPORT			Scale: 1:10 Original Format DIN A3
Replaces:	Title PS-053			Sheet: 1 of: Drawing-No. 792.87926

Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					







As built

CONN TO  
KA12001/ E10  
Y 11130367  
X 3017423  
EL +225948

1  
150X100NPD  
27MM OFFSET  
FLAT SIDE U

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe  
courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free  
of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT  
ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

SEE ISO  
100 WC 14005  
Y 11130367  
X 3016768  
EL +225870

Rev.	Revisions	Date	Name	checked
C				
B				
A				



Replaces: 79\_-----  
Replaced by: 79\_-----

Date:	23-JUN-2005	Name:	Lesum / HGH	Checked:	05-07-11	History file:	
Job Code:	K70101	Reference:	ASU No. 9, Kosice	Scale:	1:100	Original format:	DIN A3
Title:	100 WC 14006 AA16C1WE	Drawing No:	792.87826	Rev:	00	Sheets:	2

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	150X100	REDUCER, ECCENTRIC, SEAMLESS 168.3*4.5/114.3*3.6, ST37.0, DIN 2616-1
2	1	100X100	TEE, SEAMLESS 114.3*3.6/114.3*3.6, ST37.0, DIN 2615-1
3	1	100X80	TEE, SEAMLESS 114.3*3.6/88.9*3.2, ST37.0, DIN 2615-1
4	1	100X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
5	5	100	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
6	3	100	FLAT GASKET
7	3817-MM	100	PIPE, SEAMLESS 114.3*3.6, ST37.0, DIN EN 10220
8	3	100	ELBOW, SEAMLESS, 1,5D 114.3*3.6-90, B-ART 3, DIN 2605-1
9	1	100	K12006
10	1	100	FT12005 FT12005
11	1	15	TE13026 TE13026
12	1	100	PIPE GUIDE PSUPPORT
13	1	100	FIX POINT PSUPPORT

#### CUT PIPE LENGTH

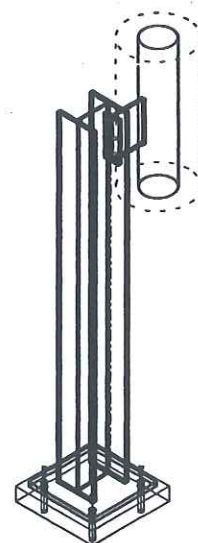
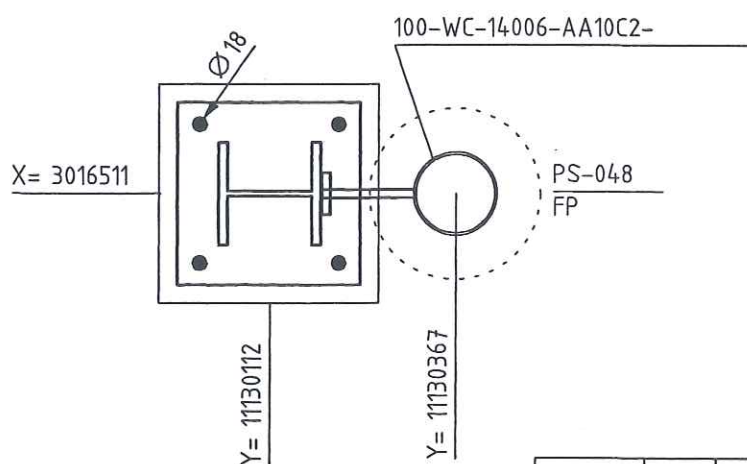
PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	400	100		BEVEL	BEVEL	RN
<2>	554	100		BEVEL	BEVEL	RN
<3>	1042	100		BEVEL	BEVEL	RN
<4>	600	100		BEVEL	BEVEL	RN
<5>	1121	100		BEVEL	BEVEL	RN
<6>	100	100		BEVEL	BEVEL	RN

FREIGABE  
FOR CONSTRUCTION

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00



# As built



Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

	Date	Name	Check	History File			
	01.06.2005	GU	Zut				
	Job Code:	K70101 ASU No.9 Kosice			Scale:	1:10	Original Format
	Reference:	PIPING SUPPORT			Sheet:	1 of	DIN A3
Replaces:	Title	PS-048			Drawing-No.	792.87926	Re







**Preis-Stückliste 0 150WC14007AA10C2 0 150 WC 14007 AA10C2 Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		2,00				0,00
P0011	150	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 168,3x4,5	18,20 kg	1,70				0,00
P0169	150	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5	6,55 kg	1,00				0,00
S0023	150	0	T-support TA 120G 169 W1 OZN 1.0 Hesterberg 169	11,60 kg	1,00				0,00
SC9	150	0	Segment cut 168,3		2,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		1,00				0,00
SPS054	150	0	SUPPORT PS-054 pipe support	30,07 kg	1,00				0,00
Summe: 0 150WC14007AA10C2 0				79,16 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	79,16 kg
Gesamtgewicht:	
** Ende der Ausgabe	



(Kunde / TÜV, ...)

geprüft

**Datum / Unterschrift**

Schweisstechnologie VAM  
Datum / Unterschrift

**Datum / Unterschrift**

Project No.: 9050300

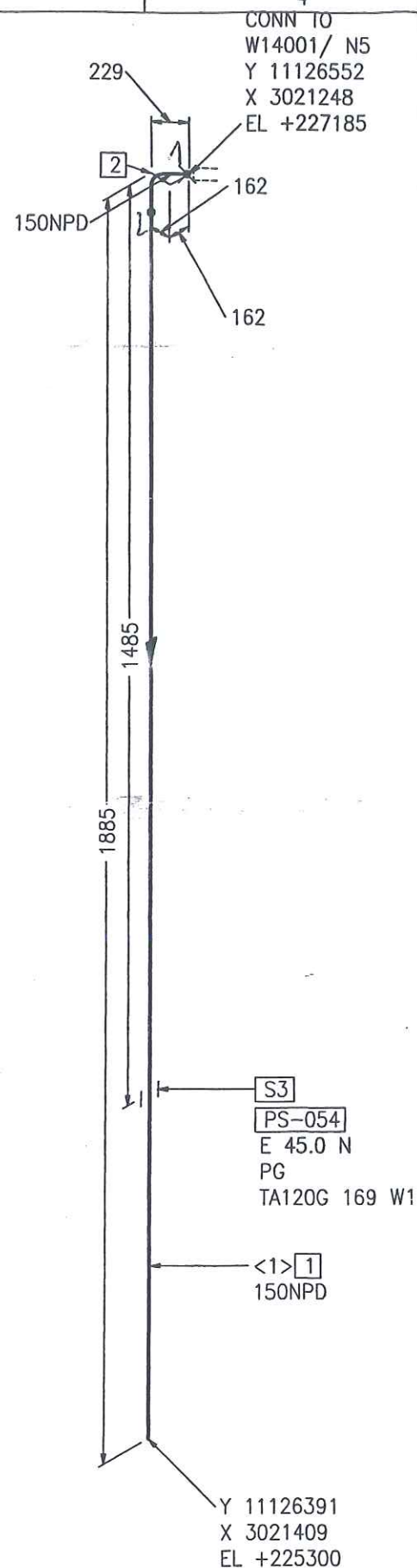
**792.87826 - 00**

**Maker's No.:**

[illegible]



# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1656 MM	150	PIPE, SEAMLESS 168.3*4.5, ST37.0, DIN EN 10220
2	1	150	ELBOW, SEAMLESS, 1,5D 168.3*4.5-90, B-ART 3,DIN 2605-1
3	1	150	PIPE GUIDE PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	1656	150		BEVEL	SQ.CUT	RN

**FREIGABE  
FOR CONSTRUCTION**

12. Juli 2005 *Liqu*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11 <i>zh</i>	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1		Sheets: 1
Title: 150 WC 14007 AA10C2		Drawing No: 792.87826		Rev. 00







Preis-Stückliste 0 80WC14030AA10C2-WE 0 80 WC 14030 AA10C2-WE Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	24,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	24,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		3,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		3,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		1,00				0,00
IH14003H1	80	0	H14003H1 supplied by AGS		1,00				0,00
IH14003H2	15	0	H14003H2 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,20				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	0,20				0,00
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	3,00				0,00
P3042	80	0	Blind flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1	4,50 kg	1,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00

Preis-Stückliste 0 80WC14030AA10C2-WE 0 80 WC 14030 AA10C2-WE Revision:									
(Fortsetzung)									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC1	15	0	Segment cut 21,3		1,00				0,00
SC6	80	0	Segment cut 88,9		2,00				0,00
XZB10	15	0	THREAD END 5,6 21,3		1,00				0,00
Summe: 0 80WC14030AA10C2-WE 0				21,88 kg		0,00	0,00		0,00

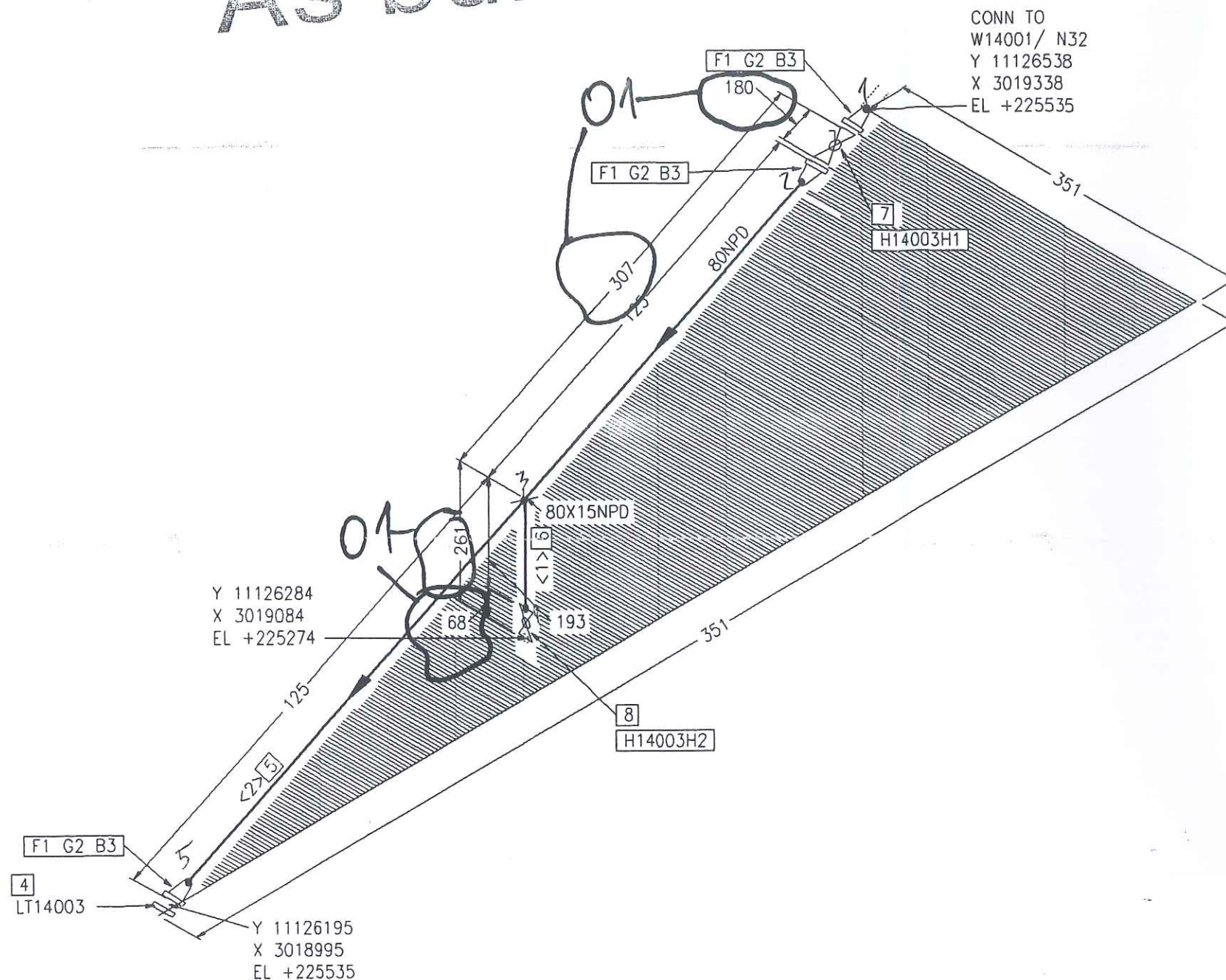
Liefersumme:	
Montagesumme:	
Gesamtsumme:	21,88 kg
Gesamtgewicht:	
** Ende der Ausgabe	







# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	3	80	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	3	80	FIBROUS PACKINGS
3	24	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 65.0MM LANG
4	1	80	BLIND FLANGE 0*NREQD, S235JRG2, DIN EN 1092-1
5	150 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
6	150 MM	15	PIPE, SEAMLESS 21.3*2.0, ST37.0, DIN EN 10220
7	1	80	H14003H1
8	1	15	H14003H2

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	15		SHAPED BEVEL	BEVEL	RN
<2>	150	80				

LEVELS:  
 TOP OF INTERNAL ROADS: 225.00m n.m.  
 TOP OF FOUNDATION: 225.10m  
 BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
 - Situation of mounting seams  
 - Situation off pass- length  
 - Check of measure details and pipe courses on the construction site  
 - Situation of the spindle at valve  
 - All components for Oxygen use free of oil and grease

SUPPORTS:  
 PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
 PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
 SS = SLIDING SUPPORT  
 PG = PIPE GUIDE  
 FP = FIX POINT

		Date:	Name:	Checked:	History file:
		16-SEP-2005	Lesum / HGH	05-09-15	
Air Liquide AGS GmbH		Job Code: K70101		Scale	Original format
		Reference: ASU No. 9. Kosice		Sheet: 1	Sheets: 1
Replaces: 79_----- Replaced by: 79_-----		Title:		Drawing No.	Rev.
		80 WC 14030 AA10C2		792.8782601	

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul



## Preis-Stückliste 0 80WC14031AA10C2-WE 0 80 WC 14031 AA10C2-WE Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	24,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	24,00				0,00
G0157	80	0	Fibrous packings asbestos-free laminate made of aramide f 142x2x90		3,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		3,00				0,00
GW2	15	0	girth weld 1.0254 ( St 37.0 ) 21,3x2		1,00				0,00
IH14003L1	80	0	H14003L1 supplied by AGS		1,00				0,00
IH14003L2	15	0	H14003L2 supplied by AGS		1,00				0,00
P0001	15	0	PIPE, SEAMLESS 1.0254 ( St 37.0 ) DIN 1629 21,3x2	0,95 kg	0,20				0,00
P0008	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	0,20				0,00
P2880	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	3,00				0,00
P3042	80	0	Blind flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1	4,50 kg	1,00				0,00
PW14	80	15	Pipe weld-in 1.0254 ( St 37.0 ) 88,9x3,2x21,3x2		1,00				0,00

Preis-Stückliste 0 80WC14031AA10C2-WE 0 80 WC 14031 AA10C2-WE Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC1	15	0	Segment cut 21,3		1,00				0,00
SC6	80	0	Segment cut 88,9		2,00				0,00
XZB10	15	0	THREAD END 5.6 21,3		1,00				0,00
Summe: 0 80WC14031AA10C2-WE 0				21,88 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

21,88 kg





Prot Nr.

**Jop Code:** K70101 ASU No. 9, Kosice

<b>Client:</b>	<b>AIR LIQUIDE</b>	<b>Title:</b>	<b>80 WC 13031</b>
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Title: 80 WC 13031 Sheet 1

Sheet 1

**Drawing No.:**

792.87826 - 00	Maker's No.:
----------------	--------------

**Maker's No.:**

geprüft	(Kunde / TÜV, ...)
---------	--------------------

(Kunde / TÜV, ...)

24.02.06

**Pelzeder Erich**  
**Datum / Unterschrift**

Schweisstechnologie VAM  
Datum / Unterschrift

[illegible]



As built



CONN TO  
W14001/ N31  
Y 11126538  
X 3019338  
EL +227635

F1 G2 B3

180

7

H14003L1

STEM E 45.0 S

F1 G2 B3

8

H14003L2

STEM E 45.0 N

80X15NPD

<1>6

193

Y 11126284  
X 3019084  
EL +227374

F1 G2 B3

4

LT14003

Y 11126195  
X 3018995  
EL +227635

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

01	General Rev	15.09.2005	Les	Zul
Rev.	Revisions	Date	Name	checked

 AIR LIQUIDE Air Liquide AGS GmbH	Date: 16-SEP-2005	Name: Lesum / HGH	Checked: 05-09-15	History file.	
	Job Code: K70101			Scale: 1:1	Original format: DIN A3
	Reference: ASU No. 9, Kosice			Sheet: 1	Sheets: 1
	Title: 80 WC 14031 AA10C2			Drawing No. 792.8782601	
Replaces: 79_-----	Replaced by: 79_-----				



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 700A15001AA10C1-W 0 700 A 15001 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0049	27	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,56 kg	20,00				0,00
B0050	27	100	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,60 kg	48,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	68,00				0,00
G0140	600	0	Flat packings Graphite with CrNi-insert Standard 40002 695x2x620		1,00				0,00
G0142	700	0	Flat packings Graphite with CrNi-insert Standard 40002 810x2x720		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		1,00				0,00
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		1,00				0,00
GW37	700	0	girth weld 1.0254 ( St 37.0 ) 711x7,1		11,00				0,00
IEXP15001	700	0	EXP15001 supplied by AGS		1,00				0,00
IPT15012	15	0	PT15012 supplied by AGS		1,00				0,00
IUK15016	700	0	UK15016 supplied by AGS		1,00				0,00
IV15021H1	15	0	V15021H1 supplied by AGS		1,00				0,00
P0107	700	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 711x7,1	123,00 kg	2,70				0,00

Preis-Stückliste 0 700A15001AA10C1-W 0 700 A 15001 AA10C1-W Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0263	700	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1	206,15 kg	1,00				0,00
P0922	700	700	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 711x12,5x711x12,5	259,61 kg	2,00				0,00
P1652	700	600	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1x610x6,3	69,83 kg	1,00				0,00
P2955	600	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 610	56,00 kg	1,00				0,00
P2957	700	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 711	65,00 kg	2,00				0,00
PWI21	700	100	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x114,3x3,6		1,00				0,00
PWI25	700	15	PIPE WELD-IN 1.4541		1,00				0,00
S0067	700	0	Web-support, SV 150G 712 W1 OZN LF 1.0 Hesterberg 712	187,80 kg	2,00				0,00
SC17	700	0	Segment cut 711		5,00				0,00
SPS008	150	0	SUPPORT PS-008 pipe support	32,77 kg	1,00				0,00
SPS009	150	0	SUPPORT PS-009 pipe support	32,34 kg	1,00				0,00
WOL002	700	100	Weldolet 1.0254 ( St 37.0 ) DIN 17100/17243/AD-W1 711x7,1x114,3x3,6	2,90 kg	1,00				0,00



Preis-Stückliste 0 700A15001AA10C1-W 0 700 A 15001 AA10C1-W Revision:

(Fortsetzung)

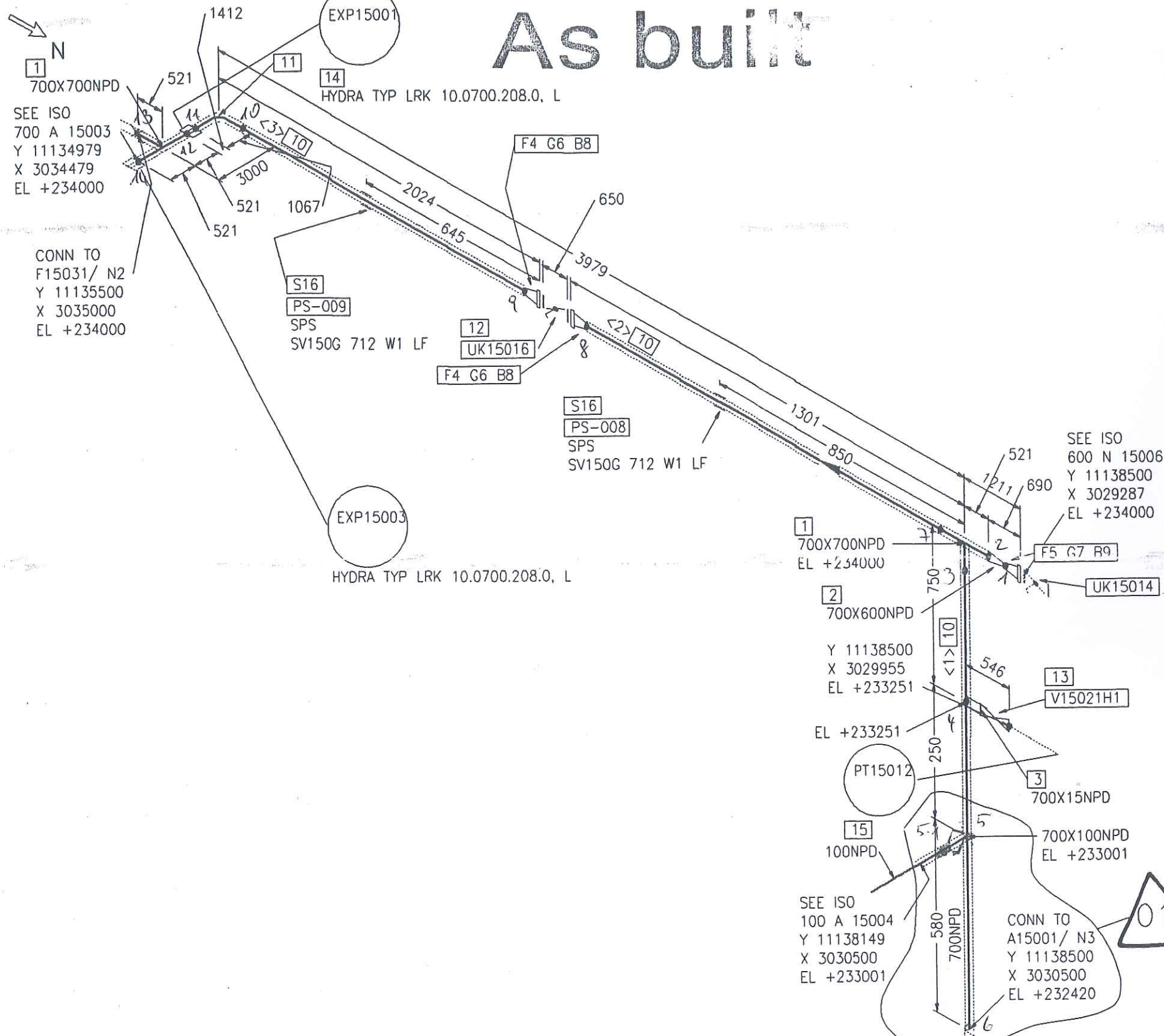
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
XZB02	700	15	welding nozzle for pressure gauge, drawi 1.4541 22		1,00				0,00
Summe: 0 700A15001AA10C1-W 0				1.808,47 kg		0,00	0,00		0,00

Liefersumme:  
Montagesumme:  
Gesamtsumme: 1.808,47 kg  
Gesamtgewicht:  
\*\* Ende der Ausgabe





# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	2	700X700 TEE, WELDED 711*12.5/711*12.5, ST37.0, DIN 2615-1	
2	1	700X600 REDUCER, CONCENTRIC, WELDED 711*7.1/610*6.3, ST37.0, DIN 2616-1	
3	1	700X15 WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55981	
4	2	700 WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1	
5	1	600 WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1	
6	2	700 FLAT GASKET	
7	1	600 FLAT GASKET	
8	48	27 HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 100.0MM LANG	
9	20	27 HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG	
10	2636 MM	700 PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220	
11	1	700 ELBOW, WELDED, 1.5D 711*7.1-90, B-ART 3, DIN 2605-1	
12	1	700 UK15016	
13	1	15 V15021H1	
14	1	700 EXP15001 EXP15001	
15	1	15 PT15012 PT15012	
16	2	700 SPRING SUPPORT PSUPPORT	

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	1059	700		SO.CUT	BEVEL	RG
<2>	700	700		BEVEL	BEVEL	RG
<3>	877	700		BEVEL	BEVEL	RG

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul



Air Liquide AGS GmbH

Replaces: 79\_-----

Replaced by: 79\_-----

Date:	Name:	Checked:	History file:
	Lesum / HGH	05-09-15	
Job Code: K70101		Scale: ---:---	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 1
Title:		Drawing No.	Rev.
700 A 15001 AA10C1W		792.87826	01

LEVELS:

TOP OF INTERNAL ROADS: 225.00m n.m.

TOP OF FOUNDATION: 225.10m

BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00







# As built

Technical drawing showing a top view of a mechanical part. The drawing includes concentric rectangles and a central circular feature with a cross. A dimension line indicates a diameter of  $\varnothing 18$ . The drawing is labeled with coordinates  $X = 3033100$  and  $Y = 11138500$ .

Technical drawing of a vertical structure, likely a chimney or stack, showing dimensions and labels. The drawing includes a cross-section view of the structure, which is a square with a smaller square inside. The outer square is labeled "PS-009" and the inner square is labeled "SPS". The structure is mounted on a base. Dimensions are indicated by arrows and numbers: a total height of 1000, a height of 495 from the base to the top of the SPS section, a height of 154 from the base to the top of the PS-009 section, and a width of 15 for the base. The drawing also shows two horizontal reference lines: one at the top labeled "Z = 234000" and one at the base labeled "Z = 233000".

A technical drawing of a mechanical assembly. It features a large cylindrical component with a grid-like structure inside, mounted on a base. The drawing uses solid and dashed lines to represent different parts and their assembly.

```

LEGEND:
-PG-    PIPE GUIDE
-FP-    FIX POINT
-SS-    SLIDE SUPPORT
-HN-    HANGER
-GSAX-  SLIDE SUPPORT WITH AXIAL STOP
-AXLS-  AXIAL STOP WITH LIFTING STOP
-SPS-   SPRING SUPPORT
-SPGS-  SPRING SUPPORT GUIDED
-GSAX-  GUIDE SUPPORT WITH AXIAL STOP
-SPAX-  SPRING SUPPORT WITH AXIAL STOP
-SH-    SPRING HANGER
-AX-    AXIAL STOP

```

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP  
INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

Total Weight:	8.54 kg
---------------	---------

[illegible]

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25 JUL 2005	Zut	<i>Zut</i>
Drawn checked by			



**AIR LIQUIDE**<sup>TM</sup>

Air Liquide AGS GmbH

	Date	Name	Check.	History File		
	12.05.2005	MG	Zut			
	Job Code:	K70101 ASU No.9 Kosice			Scale:	Original Format
	Reference:	PIPING SUPPORT			1:15	DIN A3
Replaces:	Title PS-009			Sheet:	1	of:
				Drawing-No. 792.87926		Rev a

## Preis-Stückliste 0 700A15002AA10C1 0 700 A 15002 AA10C1 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0007	16	60	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,12 kg	8,00				0,00
B0507	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0099	40	0	Flat packings Graphite with CrNi-insert Standard 40002 92x2x49		1,00				0,00
G0100	50	0	Flat packings Graphite with CrNi-insert Standard 40002 107x2x61		1,00				0,00
G0103	80	0	Flat packings Graphite with CrNi-insert Standard 40002 142x2x90		2,00				0,00
GW10	40	0	girth weld 1.0254 ( St 37.0 ) 48,3x4		1,00				0,00
GW26	200	0	girth weld 1.0254 ( St 37.0 ) 219,1x4,5		1,00				0,00
GW35	500	0	GIRTH WELD 1.0254 ( St 37.0 ) 508x6,3		3,00				0,00
GW37	700	0	girth weld 1.0254 ( St 37.0 ) 711x7,1		5,00				0,00
IF15035	40	0	F15035 supplied by AGS		1,00				0,00
IP15035	15	0	PT15035 supplied by AGS		1,00				0,00
IQ15035	15	0	Q15035 supplied by AGS		1,00				0,00



## Preis-Stückliste 0 700A15002AA10C1 0 700 A 15002 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
IQ15038	15	0	Q15038 supplied by AGS		1,00				0,00
ITE15035	15	0	TE15035 supplied by AGS		1,00				0,00
IV15031H1	15	0	V15031H1		1,00				0,00
IV15031L1	15	0	V15031L1		1,00				0,00
IV15035H1	15	0	V15035H1 supplied by AGS		1,00				0,00
IV15035H3	15	0	V15035H3 supplied by AGS		1,00				0,00
IV15038H2	15	0	V15038H2 supplied by AGS		1,00				0,00
P0044	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	0,10				0,00
P0103	500	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 508x6,3	77,90 kg	0,20				0,00
P0107	700	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 711x7,1	123,00 kg	10,30				0,00
P0263	700	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1	206,15 kg	1,00				0,00
P0920	700	500	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 711x12,5x508x11	254,95 kg	1,00				0,00
P1651	700	500	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1x508x6,3	64,38 kg	1,00				0,00

Preis-Stückliste 0 700A15002AA10C1 0 700 A 15002 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P2878	50	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 60,3	3,00 kg	1,00				0,00
P2937	40	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 48,3	2,00 kg	1,00				0,00
P2954	500	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 508	39,50 kg	1,00				0,00
P3036	50	0	BLIND FLANGES, PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 60,3		1,00				0,00
PWI18	700	50	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x60,3x2,9		1,00				0,00
PWI22	700	200	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x219,1x4,5		1,00				0,00
PWI25	700	15	PIPE WELD-IN 1.4541		6,00				0,00
PWI49	700	40	PIPE WELD-IN 1.0254		1,00				0,00
SC15	500	0	Segment cut 508		1,00				0,00
SC17	700	0	Segment cut 711		2,00				0,00
SC5	50	0	Segment cut 60,3		1,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		2,00				0,00



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 700A15002AA10C1 0 700 A 15002 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
WOL003	700	200	Weldolet 1.0254 ( St 37.0 ) DIN 17100/17243/AD-W1 711x7,1x219,1x4,5	11,80 kg	1,00				0,00
XZB01	700	40	welding nozzle for flowmeter, supplied b acc. to Mfr. supplied by Mfr. 40		1,00				0,00
XZB02	700	15	welding nozzle for pressure gauge, drawi 1.4541 22		3,00				0,00
XZB03	700	15	welding nozzle for sample line, drawing 1.4541 22		2,00				0,00
XZB04	700	15	welding nozzle for thermowell, drawing N 1.4541 22		1,00				0,00
Summe: 0 700A15002AA10C1 0				1.865,87 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	1.865,87 kg
Gesamtgewicht:	
** Ende der Ausgabe	



**Jop Code:** K70101 ASU No. 9, Kosice

Title: 700 A 15002

**792.87826 - 00**

**Maker's No.:**

\_\_\_\_\_

[illegible]

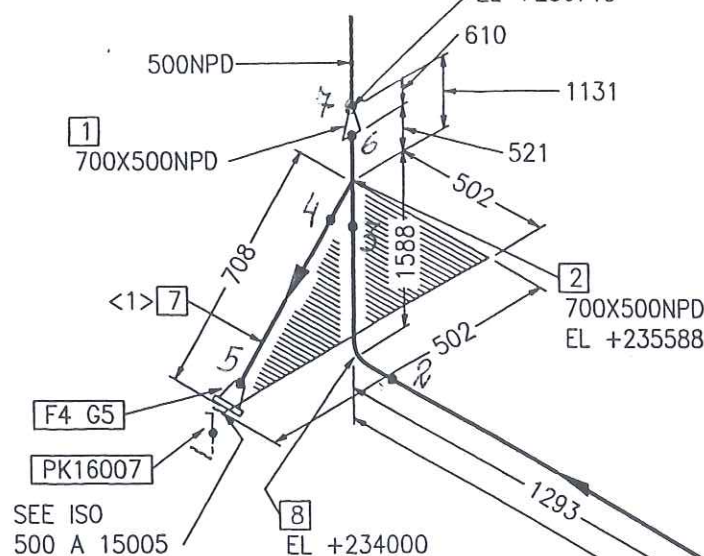




# As built



SEE ISO  
500 A 15002\_1  
Y 11135500  
X 3050345  
EL +236719



SEE ISO  
500 A 15005  
Y 11134998  
X 3049843  
EL +235588

Y 11135500  
X 3046978  
EL +234475

S10  
PS-013  
PG  
SV150G 712 W1 LF

F15035

700X40NPD

S10  
PS-012  
PG  
SV150G 712 W1 LF

SEE ISO  
SHT 2

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X500	REDUCER, CONCENTRIC, WELDED 711*7.1/508*6.3, ST37.0, DIN 2616-1
2	1	700X500	TEE, WELDED 711*12.5/508*11.0, ST37.0, DIN 2615-1
3	1	700X40	WELDING NOZZLE FOR FLOWMETER, SUPPLIED BY MFR.
4	1	500	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
5	1	500	FLAT GASKET
6	6731 MM	700	PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220
7	150 MM	500	PIPE, WELDED 508*6.3, ST37.0, DIN EN 10220
8	1	700	ELBOW, WELDED, 1.5D 711*7.1-90, B-ART 3, DIN 2605-1
9	1	40	F15035 F15035
10	2	700	PIPE GUIDE PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	500		BEVEL	BEVEL	RG
<2>	100	50				

**FREIGABE  
FOR CONSTRUCTION**

12. Juli 2005 *Coqu*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT



Air Liquide AGS GmbH

Rev.	Revisions	Date	Name	checked
LC				
B				
A				

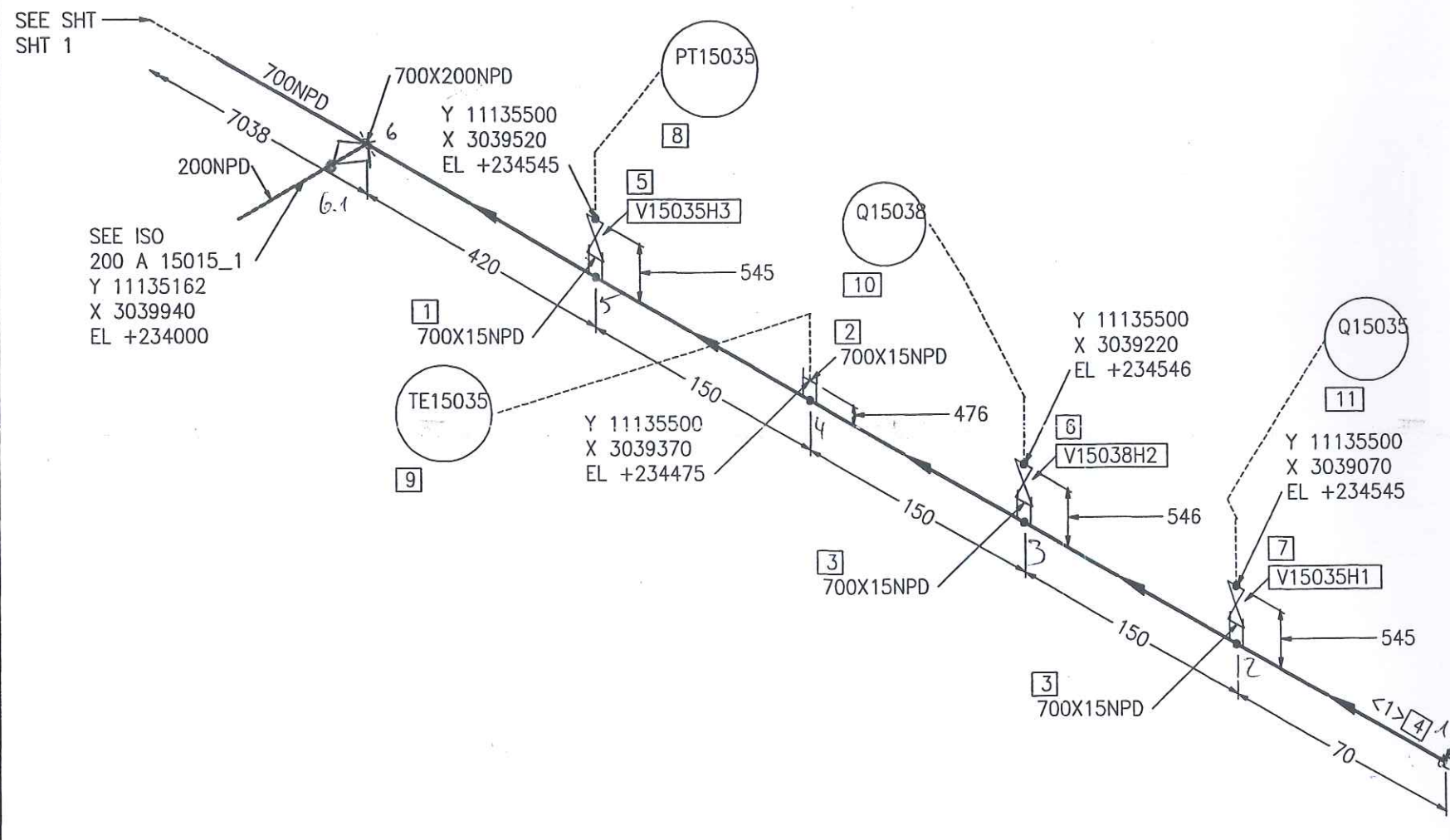
Replaces: 79\_---  
Replaced by: 79\_---

Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-12	History file:
Job Code: K70101	Reference: ASU No. 9, Kosice	Title: 700 A 15002 AA10C1	Scale: ---:--- Sheet: 1 Drawing No: 1792.87826
			Original format DIN A3 Sheets: 2 Rev. 00





# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X15	WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55981
2	1	700X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
3	2	700X15	WELDING NOZZLE FOR SAMPLE LINE, DRAWING NO. 792.55981
4	3547 MM	700	PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220
5	1	15	V15035H3
6	1	15	V15038H2
7	1	15	V15035H1
8	1	15	PT15035 PT15035
9	1	15	TE15035
10	1	15	Q15038 Q15038
11	1	15	Q15035 Q15035

CUT PIPE LENGTH						
PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	10278	700		BEVEL	SQ.CUT	RG

**FREIGABE  
FOR CONSTRUCTION**

LEVELS:  
 TOP OF INTERNAL ROADS: 225,00m n.m.  
 TOP OF FOUNDATION: 225,10m  
 BOTTOM OF STEEL STRUCTURE: 225,15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
 - Situation of mounting seams  
 - Situation off pass- length  
 - Check of measure details and pipe courses on the construction site  
 - Situation of the spindle at valve  
 - All components for Oxygen use free of oil and grease

SUPPORTS:  
 PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
 PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
 SS = SLIDING SUPPORT  
 PG = PIPE GUIDE  
 FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101			Scale: 1:100
	Reference: ASU No. 9, Kosice			Original format: DIN A3
	Title: 700 A 15002 AA10C1			Drawing No: 792.8782600 Rev.



Preis-Stückliste 0 500A15002\_1AA10C1 0 500 A 15002\_1 AA10C1 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0047	24	220	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,90 kg	20,00				0,00
B0519	24	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,11 kg	20,00				0,00
G0136	500	0	Flat packings Graphite with CrNi-insert Standard 40002 595x2x520		3,00				0,00
GW35	500	0	GIRTH WELD 1.0254 ( St 37.0 ) 508x6,3		5,00				0,00
IUK20026	500	0	UK20026 supplied by AGS		1,00				0,00
P0103	500	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 508x6,3	77,90 kg	1,90				0,00
P0259	500	0	ELBOW 90° R=1,5 DA, WELDED St35.8I /DIN 2605-1/ 508x6,3	93,24 kg	1,00				0,00
P2954	500	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 508	39,50 kg	2,00				0,00
P2954_A	500	0	WELDING NECK FLANGES, PN 10 1.0038 508	39,50 kg	1,00				0,00
PWI15	500	150	Pipe weld-in 1.0254 ( St 37.0 ) 508x6,3x168,3x4,5		2,00				0,00
S0065	500	0	Web-support, SV 150G 508 W1 OZN LF 1.0 Hesterberg 508	99,50 kg	1,00				0,00
SC15	500	0	Segment cut 508		3,00				0,00

Preis-Stückliste 0 500A15002\_1AA10C1 0 500 A 15002\_1 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		1,00				0,00
Summe: 0 500A15002_1AA10C1 0				479,45 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

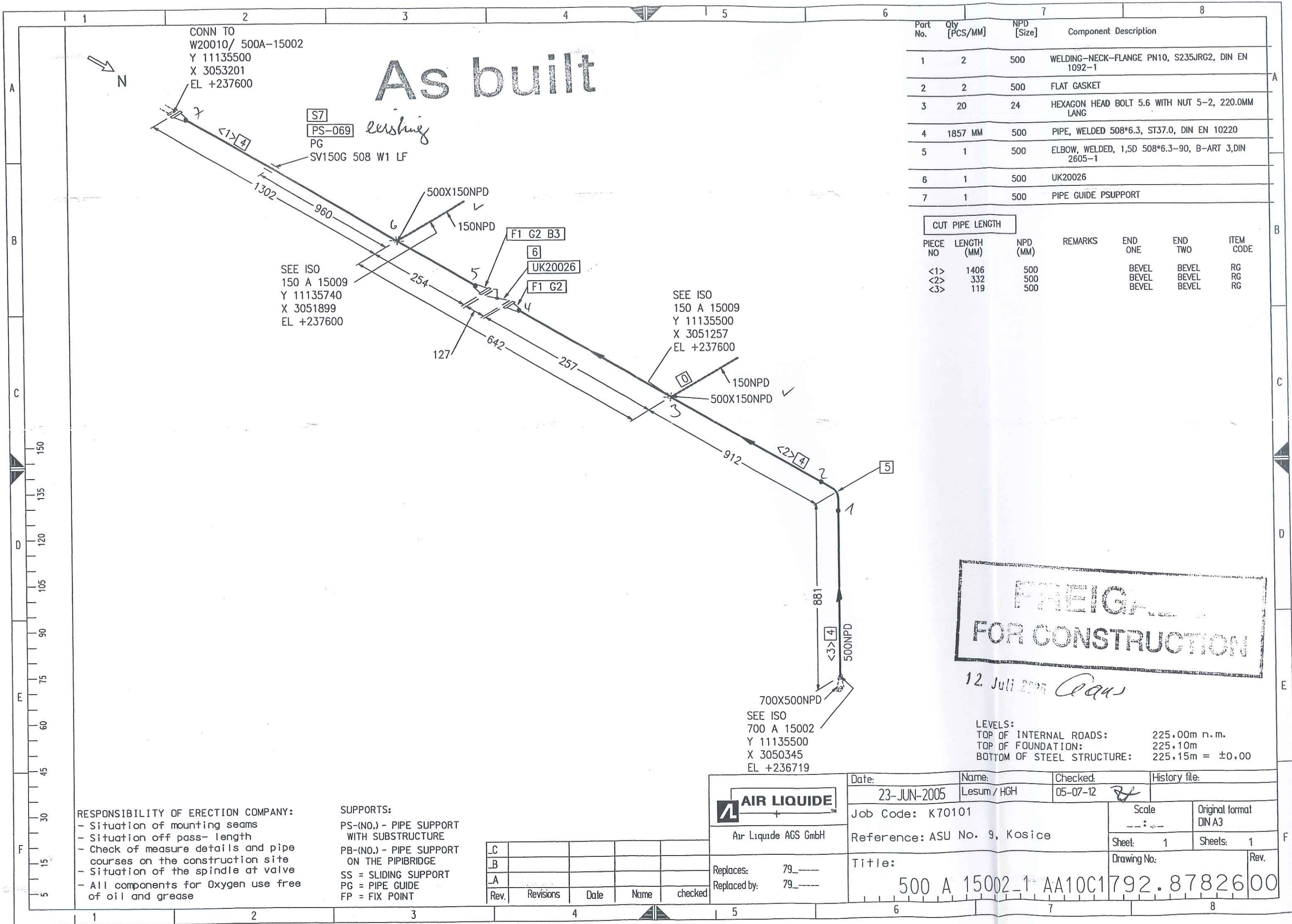
Gesamtsumme:

Gesamtgewicht: 479,45 kg

\*\* Ende der Ausgabe









## Preis-Stückliste 0 700A15003AA10C1-W 0 700 A 15003 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0049	27	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,56 kg	20,00				0,00
B0050	27	100	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,60 kg	48,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	68,00				0,00
G0140	600	0	Flat packings Graphite with CrNi-insert Standard 40002 695x2x620		1,00				0,00
G0142	700	0	Flat packings Graphite with CrNi-insert Standard 40002 810x2x720		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		1,00				0,00
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		1,00				0,00
GW37	700	0	girth weld 1.0254 ( St 37.0 ) 711x7,1		8,00				0,00
IEXP15003	700	0	EXP15003 supplied by AGS		1,00				0,00
IPT15022	15	0	PT15022 supplied by AGS		1,00				0,00
IUK15026	700	0	UK15026 supplied by AGS		1,00				0,00
IV15022H1	15	0	V15022H1 supplied by AGS		1,00				0,00
P0107	700	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 711x7,1	123,00 kg	2,60				0,00

VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 700A15003AA10C1-W 0 700 A 15003 AA10C1-W Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0263	700	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1	206,15 kg	1,00				0,00
P0922	700	700	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 711x12,5x711x12,5	259,61 kg	1,00				0,00
P1652	700	600	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1x610x6,3	69,83 kg	1,00				0,00
P2955	600	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 610	56,00 kg	1,00				0,00
P2957	700	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 711	65,00 kg	2,00				0,00
PW11	50	15	Pipe weld-in 1.4541 ( X 6 CrNiTi 18 10 ) 60,3x2x21,3x1,6		1,00				0,00
PW123	700	100	Pipe weld-in 1.0254 ( St 37.0 ) 711x7,1x114,3x3,6		1,00				0,00
S0067	700	0	Web-support, SV 150G 712 W1 OZN LF 1.0 Hesterberg 712	187,80 kg	2,00				0,00
SC17	700	0	Segment cut 711		4,00				0,00
SPS010	700	0	SUPPORT PS-010 pipe support	32,73 kg	1,00				0,00
SPS011	700	0	SUPPORT PS-011 pipe support	32,34 kg	1,00				0,00



Preis-Stückliste 0 700A15003AA10C1-W 0 700 A 15003 AA10C1-W Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
WOL002	700	100	Weidolet 1.0254 ( St 37.0 ) DIN 17100/17243/AD-W1 711x7,1x114,3x3,6	2,90 kg	1,00				0,00
XZB02	700	15	welding nozzle for pressure gauge, drawi 1.4541 22		1,00				0,00
Summe: 0 700A15003AA10C1-W 0				1.536,52 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	1.536,52 kg
Gesamtgewicht:	
** Ende der Ausgabe	





# As built

1412  
1067  
N  
SEE ISO  
700 A 15001  
Y 11134979  
X 3034479  
EL +234000

S16  
PS-011  
SPS  
SV150G 712 W1 LF

F4 G6 B8

12  
UK15026

F4 G6 B8

14  
HYDRA TYP LRK 10.0700.208.0, L  
S16  
PS-010  
SPS  
SV150G 712 W1 LF

SEE ISO  
600 N 15008  
Y 11132500  
X 3029287  
EL +234000

2  
700X600NPD

F5 G7 B9

UK15024

13  
V15022H1

PT15022

15  
Y 11132500  
X 3029955  
EL +233251  
700X15NPD

SEE ISO  
100 A 15004  
Y 11132851  
X 3030500  
EL +233001

5-1  
100NPD  
700X100NPD  
EL +233001

CONN TO  
A15002/ N3  
Y 11132500  
X 3030500  
EL +232420

**AIR LIQUIDE**

Air Liquide AGS GmbH

Replaces: 79\_-----  
Replaced by: 79\_-----

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease.

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

Date:	Name:	Checked:	History file.
23-JUN-2005	Lesum / HGH	05-09-15	
Job Code: K70101	Reference: ASU No. 9, Kosice	Scale	Original format
		1	DIN A3
Title:	Drawing No.	Rev.	
700 A 15003 AA10C1W	792.8782601		

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X700 TEE, WELDED 711*12.5/711*12.5, ST37.0, DIN 2615-1	
2	1	700X600 REDUCER, CONCENTRIC, WELDED 711*7.1/610*6.3, ST37.0, DIN 2616-1	
3	1	700X15 WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55981	
4	2	700 WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1	
5	1	600 WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1	
6	2	700 FLAT GASKET	
7	1	600 FLAT GASKET	
8	48	27 HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 100.0MM LANG	
9	20	27 HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG	
10	2587 MM	700 PIPE, WELDED 711*7.1, ST37.0, DIN EN 10220	
11	1	700 ELBOW, WELDED, 1.5D 711*7.1-90, B-ART 3,DIN 2605-1	
12	1	700 UK15026	
13	1	15 V15022H1	
14	1	700 EXP15003 EXP15003	
15	1	15 PT15022 PT15022	
16	2	700 SPRING SUPPORT PSUPPORT	

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	827	700		BEVEL	BEVEL	RG
<2>	700	700		BEVEL	BEVEL	RG
<3>	1060	700		BEVEL	SQ.CUT	RG











**Preis-Stückliste 0 100A15004AA10C1-W 0 100 A 15004 AA10C1-W Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0014	16	120	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0018	20	80	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,26 kg	16,00				0,00
B0502	20	0	Hexagon head nuts Ck 35 ( 1.1181 ) DIN 267-13	0,06 kg	16,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0104	100	0	Flat packings Graphite with CrNi-insert Standard 40002 162x2x115		4,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		10,00				0,00
IUK15017	100	0	UK15017 supplied by AGS		1,00				0,00
IV15017	100	0	V15017 supplied by AGS		1,00				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	8,00				0,00
P0208	100	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6	2,35 kg	4,00				0,00
P2912	100	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	6,50 kg	2,00				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	2,00				0,00



Preis-Stückliste 0 100A15004AA10C1-W 0 100 A 15004 AA10C1-W Revision:									
(Fortsetzung)									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
S0021	100	0	T-support TA 120G 115 W1 OZN 1.0 Hesterberg 115	10,70 kg	4,00				0,00
S0168	100	0	T-support TA 120G 115 W1 OZN LF 1.0 Hesterberg 115	10,90 kg	1,00				0,00
SC7	100	0	Segment cut 114,3		5,00				0,00
SPS099	100	0	SUPPORT PS-099 pipe support	188,94 kg	1,00				0,00
Summe: 0 100A15004AA10C1-W 0				359,64 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	359,64 kg
Gesamtgewicht:	
** Ende der Ausgabe	



**Jop Code:** K70101 ASU No. 9, Kosice **Order No.:**

**Title:** 100 A 15004

Sheet 1

**Drawing No.:**

792.87826 - 01	Maker's No.:
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Maker's No.:

(Kunde / TÜV, ...)

geprüft

erstellt:

05.11.05  
Pelzeder Erich

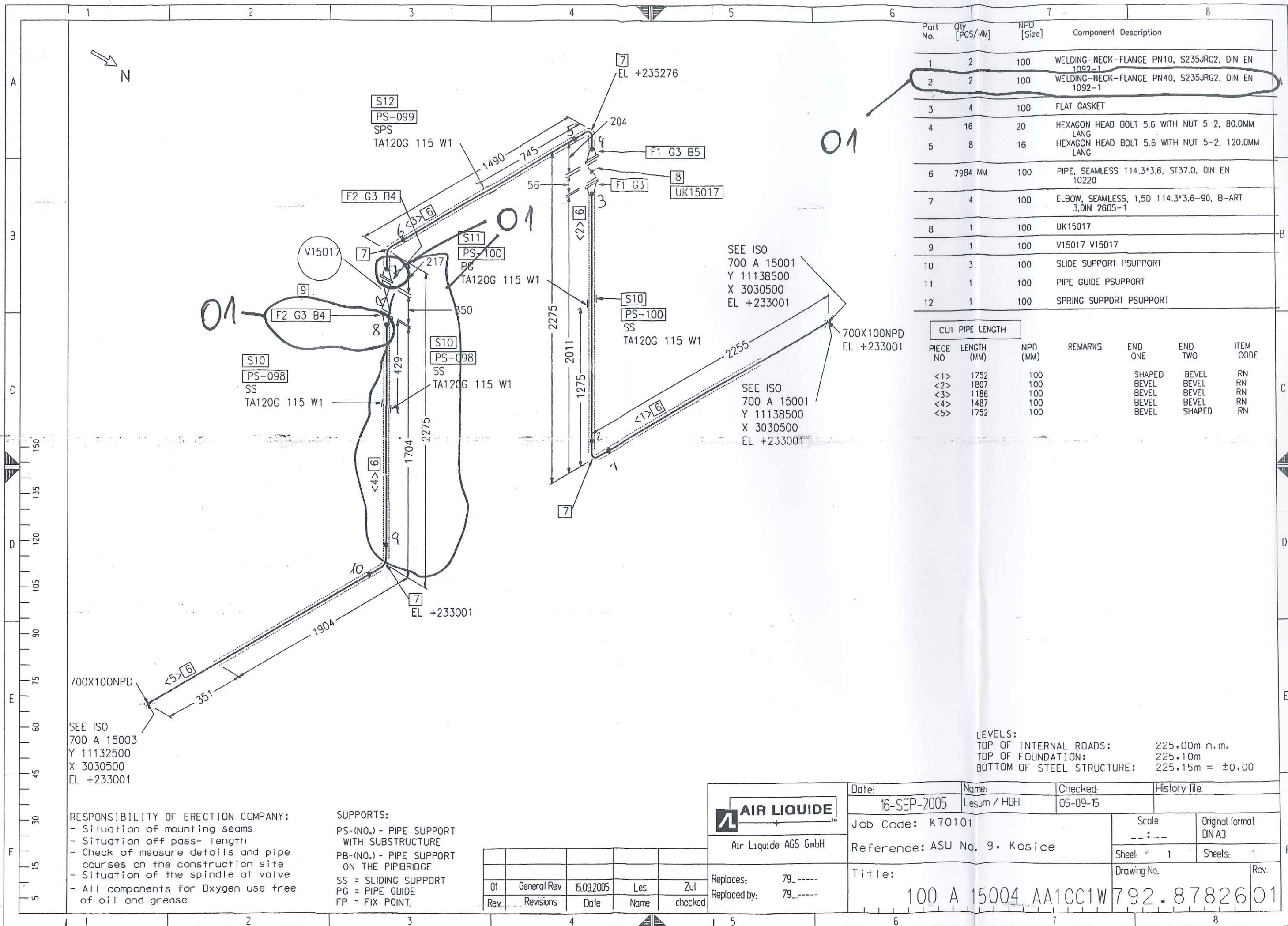
Schweisstechnologie VAM  
Datum / Unterschrift



(Kunde / TÜV, ...)

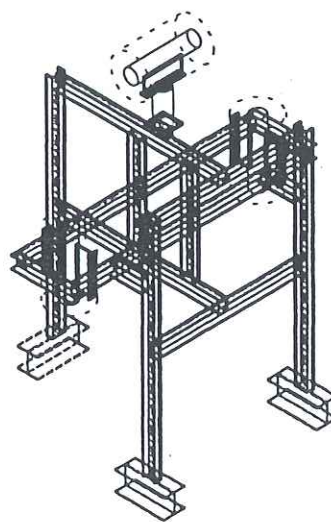
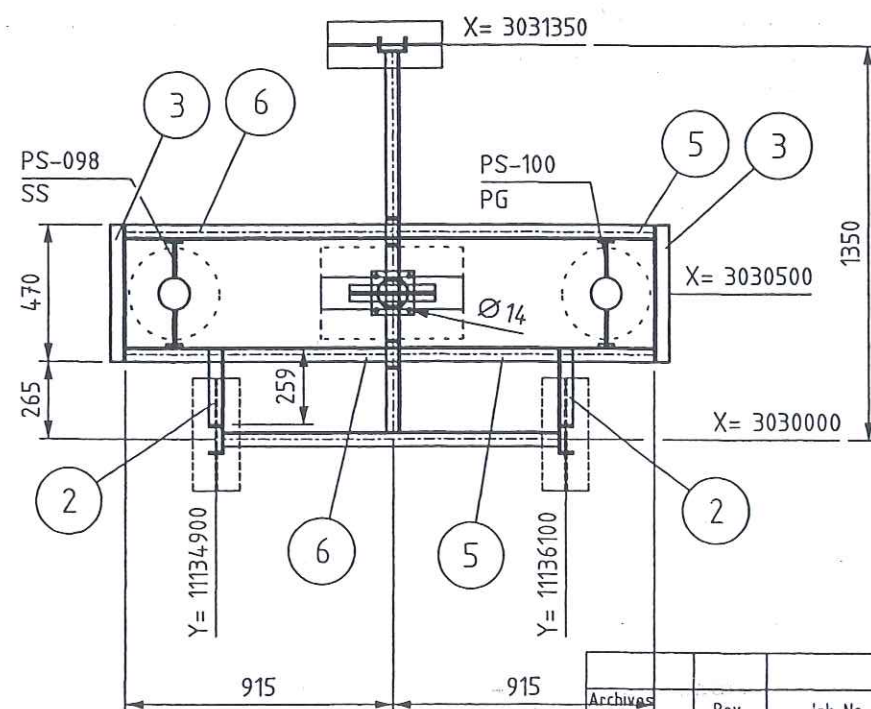
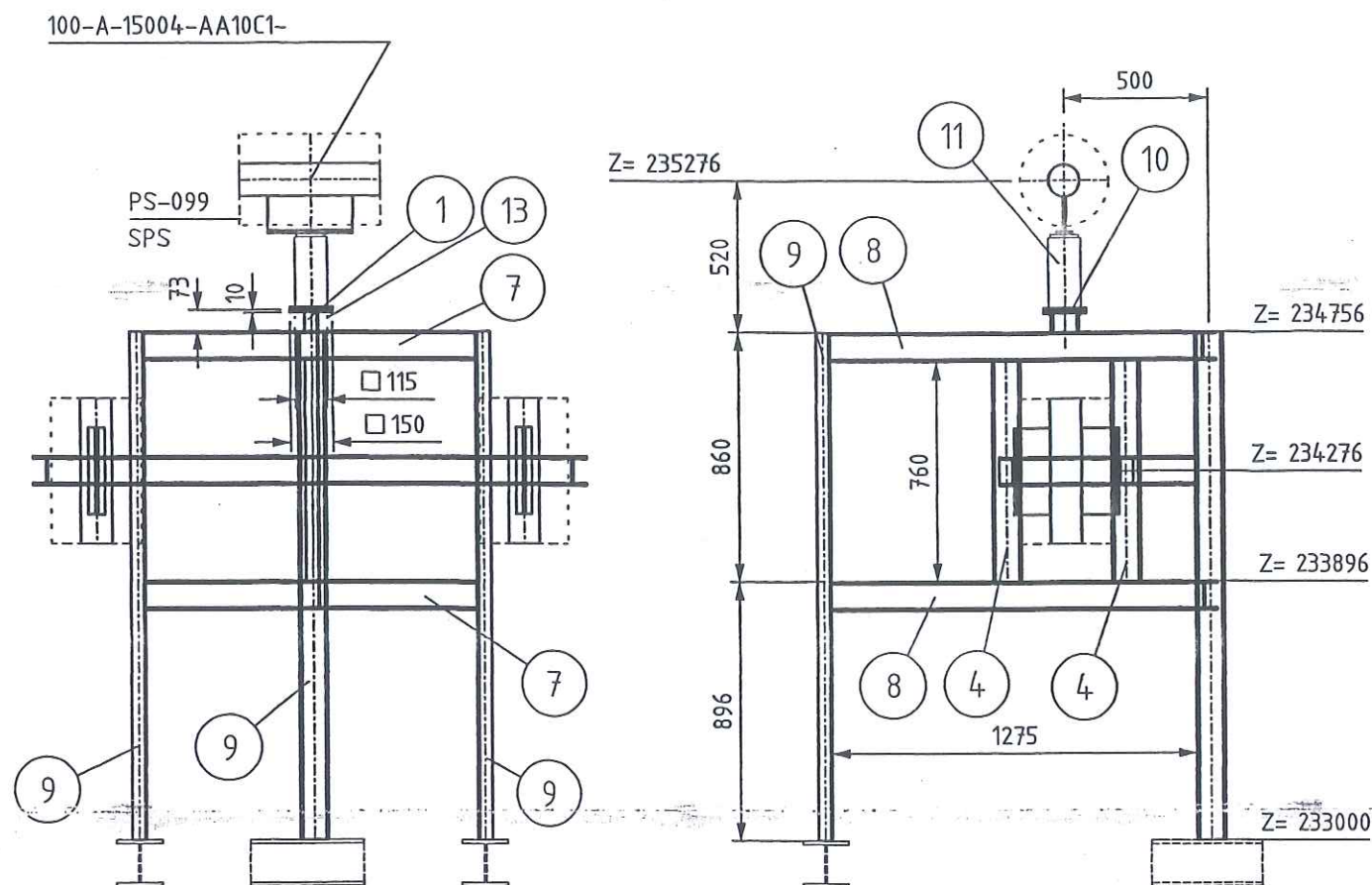
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THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE COPIED OR TRANSFERRED TO THIRD PARTIES WITHOUT PERMISSION OF THE PROPRIETOR.



#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

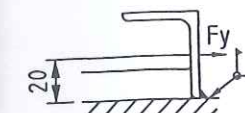
RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

TA 120 G DN 100-200



ANGLE STEEL: L60x10x100LENGTH  
ANGLE STEEL AND PLATE ACCORDING  
TO ORDER NO. PIPE SHOE

WELDING DATA ACC. TO DIN 1912 TS

a >= 0,7 x t  
a min= 4mm



Total Weight: 180.13 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	U100, L=0.063	RST37-2	0.667	
2	2	pcs	PROFILE	U100, L=0.259	RST37-2	5.482	
3	2	pcs	PROFILE	U100, L=0.470	RST37-2	9.946	
4	2	pcs	PROFILE	U100, L=0.760	RST37-2	16.084	
5	2	pcs	PROFILE	U100, L=0.890	RST37-2	18.836	
6	2	pcs	PROFILE	U100, L=0.934	RST37-2	19.768	
7	2	pcs	PROFILE	U100, L=1.150	RST37-2	24.338	
8	2	pcs	PROFILE	U100, L=1.300	RST37-2	27.512	
9	3	pcs	PROFILE	U100, L=1.756	RST37-2	55.734	
10	1	pcs	PLATE 150x150x10	PLATE 10x150x150	RST37-2	1.766	
11	1	pcs	SPRING SUPPORT	LISEGA TYP. 292218	NN	0.000	8.7
12	1	pcs	SPR. SUPP. PLATE	LISEGA TYP. 703916	NN	0.000	
13	1	pcs	SET OF 4 BOLTS + NUTS	M12x50, M12	NN	0.000	18894

Date	Name	Signature
27. Juli 2005	Gans	Zut
25. JUL. 2005	Zut	

HGM  
HEGMANN'S

AIR LIQUIDE

Air Liquide AGS GmbH

Date	Name	Check	History File
17.05.2005	MG	Zut	
Job Code:	K70101 ASU No.9 Kosice	Scale:	1:25
Reference:	PIPING SUPPORT	Original Format	DIN A3
Replaces:	Title	Sheet:	1 of: 1
	PS-099	Drawing-No.	792.87926
		Rev.	a

Archives	Rev. No	Rev.	Job No.	Description	Sign.	Date
				REVISIONS		



Preis-Stückliste 0 500A15005AA10C1 0 500 A 15005 AA10C1 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0034	24	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,43 kg	84,00				0,00
B0047	24	220	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,90 kg	20,00				0,00
B0519	24	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,11 kg	104,00				0,00
G0110	200	0	Flat packings Graphite with CrNi-insert Standard 40002 273x2x220		1,00				0,00
G0118	300	0	Flat packings Graphite with CrNi-insert Standard 40002 378x2x325		1,00				0,00
G0136	500	0	Flat packings Graphite with CrNi-insert Standard 40002 595x2x520		5,00				0,00
GW26	200	0	girth weld 1.0254 ( St 37.0 ) 219,1x4,5		1,00				0,00
GW31	300	0	girth weld 1.0254 ( St 37.0 ) 323,9x5,6		2,00				0,00
GW35	500	0	GIRTH WELD 1.0254 ( St 37.0 ) 508x6,3		25,00				0,00
IPK16007	500	0	PK16007 supplied by AGS		1,00				0,00
IZ16007	300	200	Z16007 supplied by AGS 200		1,00				0,00
P0097	300	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 323,9x5,6	44,00 kg	0,80				0,00

Preis-Stückliste 0 500A15005AA10C1 0 500 A 15005 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0103	500	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 508x6,3	77,90 kg	40,20				0,00
P0259	500	0	ELBOW 90° R=1,5 DA, WELDED St35.8l /DIN 2605-1/ 508x6,3	93,24 kg	8,00				0,00
P0902	500	200	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 508x11x219,1x6,3	109,97 kg	1,00				0,00
P2916	200	0	WELDING NECK FLANGE, PN25 C22.8 /DIN2634/		1,00				0,00
P2951	300	0	WELDING NECK FLANGES, PN 16 C22.8 /DIN 2633/		1,00				0,00
P2954	500	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 508	39,50 kg	4,00				0,00
S0050	300	0	Web-support, SV 150B 324 W1 OZN 1.0 Hesterberg 324	31,80 kg	1,00				0,00
S0054	500	0	Web-support, SV 150B 508 W1 OZN 1.0 Hesterberg 508	51,70 kg	2,00				0,00
S0054420	500	0	Web-support, SV 150B 508 W1 OZN, H2 = 42 1.0 Hesterberg	51,70 kg	1,00				0,00
S0065	500	0	Web-support, SV 150G 508 W1 OZN LF 1.0 Hesterberg 508	99,50 kg	3,00				0,00
S0128	500	0	Web-support, SV 150H 508 W1 OZN LF 1.0 Hesterberg 508	99,50 kg	1,00				0,00
S0201	500	0	SLIDING PLATE 1.0 HESTERBERG		4,00				0,00



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 500A15005AA10C1 0 500 A 15005 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC12	300	0	Segment cut 323,9		3,00				0,00
SC15	500	0	Segment cut 508		9,00				0,00
SPS103	500	0	SUPPORT PS-103 pipe support	411,52 kg	1,00				0,00
SPS104	500	0	SUPPORT PS-104 pipe support	219,38 kg	1,00				0,00
SPS105	500	0	SUPPORT PS-105 pipe support	219,38 kg	1,00				0,00
SPS161	500	0	SUPPORT PS-161 pipe support	33,47 kg	1,00				0,00
Summe: 0 500A15005AA10C1 0				5.714,88 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	5.714,88 kg
Gesamtgewicht:	
** Ende der Ausgabe	

**SCHWEISSDOKUMENTATION**  
*WELDING DOCUMENTATION*

Prot Nr.

Job Code: K70101 ASU No. 9, Kosice Order No.:

<b>Cient:</b>	<b>AIR LIQUIDE</b>	<b>Title:</b>	<b>500 A 15005</b>
---------------	--------------------	---------------	--------------------

Sheet 1

**Drawing No.:**

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft

Schweisstechnologie VAM  
Datum / Unterschrift

**Datum / Unterschrift**

**erstellt:**

07.02.06 PL  
Pelzeder Erich

Datum / Unterschrift

Project No.: 9050300

**792.87826 - 01**

[illegible]



# As built

SEE ISO  
700 A 15002  
Y 11134998  
X 3049843  
EL +235588

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1		500X200 TEE, WELDED 508*11.0/219.1*6.3, ST37.0, DIN 2615-1
2	1	500	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	1	300	WELDING-NECK-FLANGE PN16, S235JRG2, DIN EN 1092-1
4	1	200	WELDING-NECK-FLANGE PN25, S235JRG2, DIN EN 1092-1
5	1	500	FLAT GASKET
6	1	300	FLAT GASKET
7	1	200	FLAT GASKET
8	20	24	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 220.0MM LANG
9	24	24	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG
10	5478 MM	500	PIPE, WELDED 508*6.3, ST37.0, DIN EN 10220
11	490 MM	300	PIPE, WELDED 323.9*5.6, ST37.0, DIN EN 10220
12	1	500	ELBOW, WELDED, 1.5D 508*6.3-45, B-ART 3,DIN 2605-1
13	2	500	ELBOW, WELDED, 1.5D 508*6.3-90, B-ART 3,DIN 2605-1
14	1	500	PK16007
15	1	300X200	Z16007
16	1	300	FIX POINT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	531	500		BEVEL	BEVEL	RG
<2>	490	300		BEVEL	SO.CUT	RG
<3>	2603	500		BEVEL	BEVEL	RG
<4>	2344	500		BEVEL	BEVEL	RG

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT



Air Liquide AGS GmbH

Rev.	Revisions	Date	Name	checked
01	General Rev	15.09.2005	Les	Zul

Replaces: 79\_-----  
Replaced by: 79\_-----

Date:	06-SEP-2005	Name:	Lesum / HGH	Checked:	05-09-15	History file:	
Job Code:	K70101	Reference:	ASU No. 9, Kosice	Scale:	1	Original format:	DIN A3
Title:	500 A 15005 AA10C1792.8782601	Drawing No.		Sheets:	2	Rev.	



500-A-15005-AA10C1-

Z= 236284

PS-161

FP

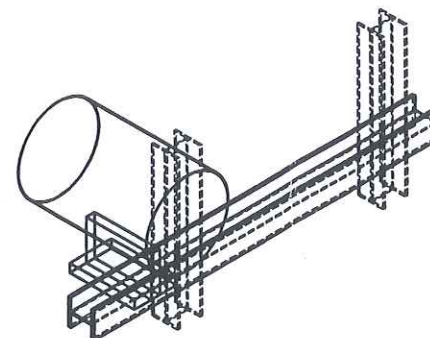
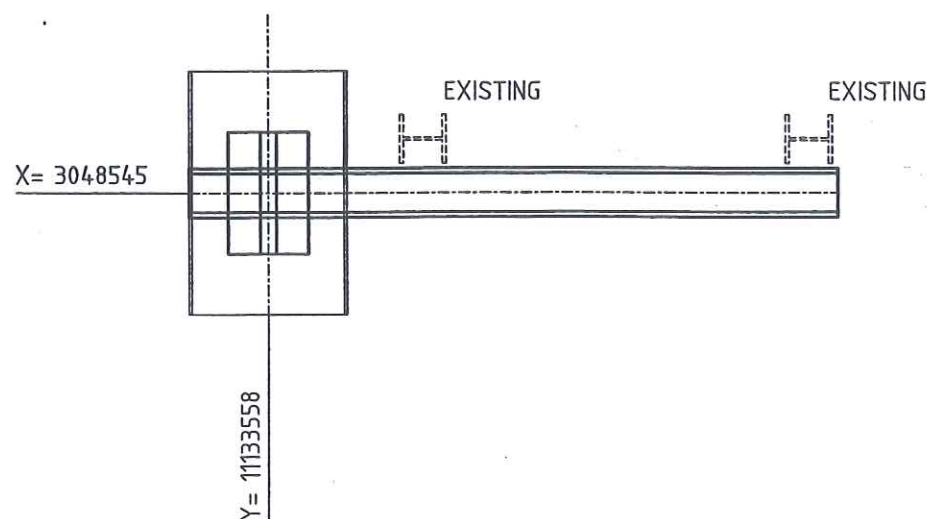
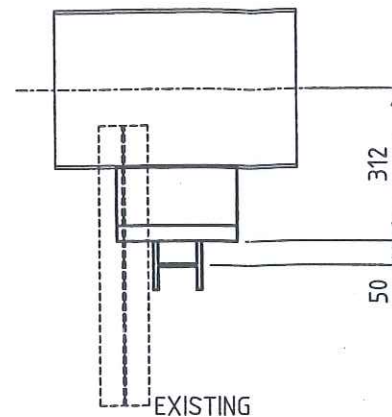
Z= 235972

EXISTING

1

162 319 800 59

1640



- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

COATING:

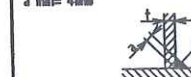
- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER  
RESISTANT PAINT AND WHITE COLOR

WELDING DATA ACC. TO DIN 1912 TS

a >= 0,7 x f  
a min = 4 mm



Total Weight:	27.35 kg
---------------	----------


Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE100B, L=1340	RST37-2	27.349	
				L = 1640			33,47

**FREIGABE**  
**FOR CONSTRUCTION**  
*(Signature)*

27. Juli 2005

**FREIGABE  
FÜR CONSTRUCTION**

27. JUL 200

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	27 JUL. 2005	Zut	
Drawn checked by			



Air Liquide AGS GmbH

	Date	Name	Check.	History File	
	26.07.2005	GU	Zut		
	Job Code: K70101 ASU No.9 Kosice			Scale: 1:15	Original Format DIN A3
	Reference: PIPING SUPPORT			Sheet: 1	of:
Replaces:	Title PS-161			Drawing-No. 792.87926	Re

Archives Rev No	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					





Job Code: K70101 ASU No. 9, Kosice Order No.:

Title: 500 A 15005

**Drawing No.:**

**792.87826 - 01**

**Maker's No.:**

(Kunde / TÜV, ...)


geprüft

erstellt:

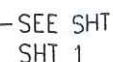
Schweisstechnologie VAM

**Datum / Unterschrift**

[illegible]



N

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	12587	500		BEVEL	BEVEL	RG
<2>	13876	500		BEVEL	BEVEL	RG
<3>	1797	500		BEVEL	BEVEL	RG
<4>	2000	500		BEVEL	BEVEL	RG
<5>	6044	500		BEVEL	BEVEL	RG
<6>	3830	500		BEVEL	BEVEL	RG

SUPPORTS:

PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE

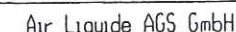
PB-(NO.) - PIPE SUPPORT  
ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

01	General Rev	15.09.2005	Les	Zul
Rev.	Revisions	Date	Name	checke



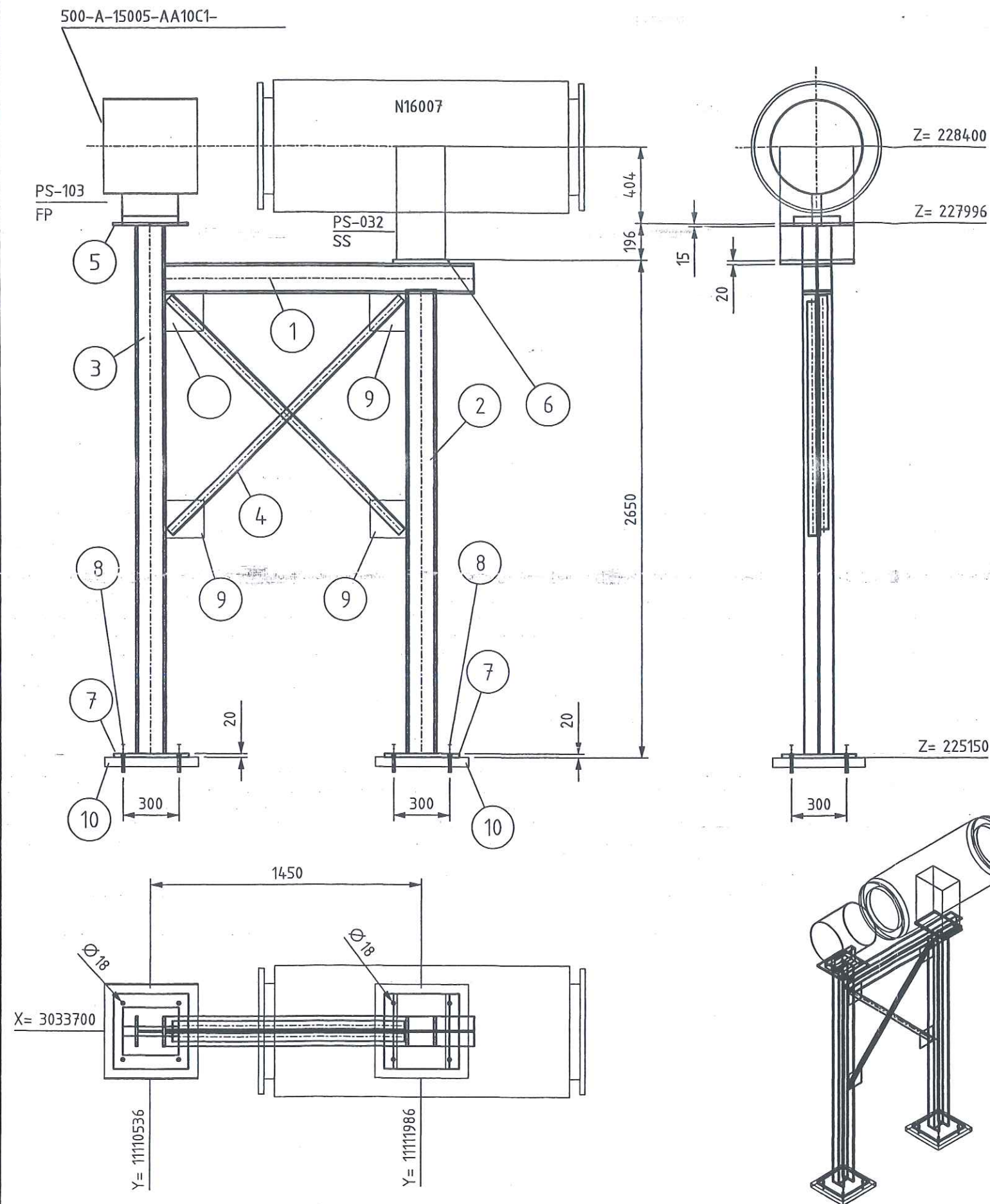
Replaces: 79\_-----  
Replaced by: 79\_-----

Date:	Name:	Checked:	History file.	
06-SEP-2005	Lesum / HGH	05-09-15		
Job Code: K70101			Scale	Original format
			--:--	DIN A3
Reference: ASU No. 9, Kosice			Sheet: 2	Sheets: 2
Title:			Drawing No.	Rev.
500 A 15005 AA10C1			792.87826	01

LEVELS:	
TOP OF INTERNAL ROADS:	225.00m n.m.
TOP OF FOUNDATION:	225.10m
BOTTOM OF STEEL STRUCTURE:	225.15m = $\pm 0.00$



THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE COPIED OR TRANSFERRED TO THIRD PARTIES WITHOUT PERMISSION OF THE PROPRIETOR.



#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

#### RESPONSIBILITY OF ERECTION COMPANY

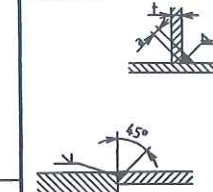
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

#### WELDING DATA ACC. TO DIN 1912 T5

a >= 0,7 x t  
a min= 4mm



Total Weight: 409.00 kg

Item	No. off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE160B, L=1.650	RST37-2	70.332	
2	1	pcs	PROFILE	HE160B, L=2.470	RST37-2	105.264	
3	1	pcs	PROFILE	HE160B, L=2.810	RST37-2	119.797	
4	2	pcs	PROFILE	L50X50X5, L=1.760	RST37-2	13.126	
5	1	pcs	PLATE 400x400x15	PLATE 15x400x400	RST37-2	18.840	
6	1	pcs	PLATE 400x300x20	PLATE 20x300x400	RST37-2	18.840	
7	2	pcs	PLATE 400x400x20	PLATE 20x400x400	RST37-2	50.240	
8	8	pcs	ANCHOR BOLT HST(-R)M16/100	HST(-R) 16-C-M16	1.4401	0.000	2.4
9	4	pcs	JOINT PLATE	200x200x10	RST37-2	12.560	
10	2	pcs	BASE	500x500x50	CONCRETE	0.000	411,52
							27. Juli 2005

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by		Zut	
Drawn checked by			

**H G H**  
HEGMANN'S

**AIR LIQUIDE**  
TM

Air Liquide AGS GmbH

Date	Name	Check	History File
18.07.2005	GU	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title	PS-103	
Scale:	1:25	Original Format	DIN A3
Sheet:	1 of:	1	
Drawing-No.	792.87926	Rev.	a

Archives	Rev.	Job No.	Description	Sign.	Date
Rev No.					
REVISIONS					



[illegible]

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

**MARKING:**  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER  
RESISTANT PAINT AND WHITE COLOR

**COATING:**  
 -ALL SURFACES FOR COATING MUST BE FREE OF  
 CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST  
 -THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED  
 SUPPORT NEEDS TO BE REMOVED  
 -THE SUPPORT NEEDS TO BE PRIME COATED


a  $\geq 0,7 \times t$   
a min = 4mm



Total Weight:	218.11 kg
---------------	-----------

[illegible]

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25. JUL 2005	Zut	<i>[Signature]</i>
Drawn checked by			


  
**HEGMANN**



Air Liquide AGS GmbH

	Date	Name	Check.	History File			
	18.07.2005	GU	Zut				
	Job Code:	K70101 ASU No.9 Kosice			Scale:	1:20	Original Format
	Reference:	PIPING SUPPORT			Sheet:	1 of	1
	Replaces:	Title	PS-104		Drawing-No.	792.87926	Rev. a



500-A-15005-AA10C1-

420

PS-105

SS

15

2830

20

300

Z= 228400

Z= 227980

4

2

1

5

3

6

300

Z= 225150



Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

	Date	Name	Check.	History File		
	18.07.2005	GU	Zut			
	Job Code: K70101 ASU No.9 Kosice Reference: PIPING SUPPORT			Scale: 1:20	Original Format DIN A3	
Replaces:	Title PS-105			Sheet: 1 of:	1	
				Drawing-No. 792.87926	Rev. a	

VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 600N15006AA10C1-W 0 600 N 15006 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0013	16	110	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	4,00				0,00
B0049	27	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,56 kg	20,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	4,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	20,00				0,00
G0100	50	0	Flat packings Graphite with CrNi-insert Standard 40002 107x2x61		2,00				0,00
G0140	600	0	Flat packings Graphite with CrNi-insert Standard 40002 695x2x620		2,00				0,00
GW12	50	0	girth weld 1.0254 ( St 37.0 ) 60,3x2,9		5,00				0,00
GW35	500	0	GIRTH WELD 1.0254 ( St 37.0 ) 508x6,3		1,00				0,00
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		15,00				0,00
IBD15043	50	0	BD15043 supplied by AGS		1,00				0,00
IEXP15006	600	0	EXP15006 supplied by AGS		1,00				0,00
IQ15043	15	0	Q15043 supplied by AGS		1,00				0,00
ITE15040	15	0	TE15040 supplied by AGS		1,00				0,00



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 600N15006AA10C1-W 0 600 N 15006 AA10C1-W Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
ITE15043	15	0	TE15043 supplied by AGS		1,00				0,00
IUK15014	600	0	UK15014 supplied by AGS		1,00				0,00
IV15043H1	15	0	V15043H1 supplied by AGS		1,00				0,00
P0044	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	0,60				0,00
P0105	600	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 610x6,3	93,80 kg	14,60				0,00
P0205	50	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9	0,49 kg	2,00				0,00
P0261	600	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 610x6,3	134,67 kg	3,00				0,00
P0913	600	500	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 610x12,5x508x11	183,01 kg	1,00				0,00
P0915	600	600	Tee made of welded pipe 1.0254 ( St 37.0 ) DIN 2609 610x12,5x610x12,5	182,34 kg	1,00				0,00
P2938	50	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 60,3	3,00 kg	2,00				0,00
P2955	600	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 610	56,00 kg	1,00				0,00

## Preis-Stückliste 0 600N15006AA10C1-W 0 600 N 15006 AA10C1-W Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P2955_A	600	0	WELDING NECK FLANGES, PN 10 1.0038 610	56,00 kg	1,00				0,00
PW116	600	50	Pipe weld-in 1.0254 ( St 37.0 ) 610x6,3x60,3x2,9		1,00				0,00
PW126	600	15	PIPE WELD-IN 1.4541		3,00				0,00
S0066	600	0	Web-support, SV 150G 610 W1 OZN LF 1.0 Hesterberg 610	173,30 kg	2,00				0,00
S0066520	600	0	Web-support, SV 150G 610 W1 OZN LF, H2 = 1.0 Hesterberg	173,30 kg	2,00				0,00
SC16	600	0	Segment cut 610		6,00				0,00
SC5	50	0	Segment cut 60,3		3,00				0,00
SPS024	600	0	SUPPORT PS-024 pipe support	215,51 kg	1,00				0,00
SPS025	600	0	SUPPORT PS-025 pipe support	33,83 kg	1,00				0,00
SPS097	600	0	SUPPORT PS-097 pipe support	12,80 kg	1,00				0,00
XZB03	600	15	welding nozzle for sample line, drawing 1.4541 22		1,00				0,00
XZB04	600	15	welding nozzle for thermowell, drawing N 1.4541 22		2,00				0,00
Summe: 0 600N15006AA10C1-W 0				3.231,15 kg		0,00	0,00		0,00



VAM Anlagentechnik und Montagen  
01 - 5.6948 FELDVERROHRUNG KOSICE AIR LIQUIDE

Preis-Stückliste 0 600N15006AA10C1-W 0 600 N 15006 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
-------------	-----	-----	------------------	------------	-------	-----------	---------	-------	--------

Liefersumme:	
Montagesumme:	
Gesamtsumme:	3.231,15 kg
Gesamtgewicht:	
** Ende der Ausgabe	









# As built

SEE ISO  
700 A 15001  
Y 11138500  
X 3029287  
EL +234000

SEE ISO  
600 N 15008  
Y 11135068  
X 3025300  
EL +237000

S13  
PS-097  
SS  
SV150G 610 W1 LF H2=520

EXP15006

10  
HYDRA TYP LRK 10.600.207.0

S14  
PS-024  
PG  
SV150G 610 W1 LF

TE15043

2  
600X500NPD

SEE ISO  
SHT 2

SEE ISO  
500 N 20016  
Y 11131540  
X 3025300  
EL +227617

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				



Replaces: 79\_---  
Replaced by: 79\_---

Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-12	History file:
Job Code: K70101		Scale: ---	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 2
Title: 600 N 15006 AA10C1W		Drawing No: 792.87826	Rev. 00

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	600X600	TEE, WELDED 610*12.5/610*12.5, ST37.0, DIN 2615-1
2	1	600X500	TEE, WELDED 610*12.5/508*11.0, ST37.0, DIN 2615-1
3	1	600X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
4	1	600	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
5	1	600	FLAT GASKET
6	20	27	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG
7	14081 MM	600	PIPE, WELDED 610*6.3, ST37.0, DIN EN 10220
8	3	600	ELBOW, WELDED, 1.5D 610*6.3-90, B-ART 3, DIN 2605-1
9	1	600	UK15014
10	1	600	EXP15006 EXP15006
11	1	15	TE15043 TE15043
12	1	600	SPRING SUPPORT PSUPPORT
13	2	600	SLIDE SUPPORT PSUPPORT
14	1	600	PIPE GUIDE PSUPPORT

### CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	2391	600		BEVEL	BEVEL	RG
<2>	1172	600		BEVEL	BEVEL	RG
<3>	1654	600		BEVEL	BEVEL	RG
<4>	6250	600		BEVEL	SQ.CUT	RG
<5>	2614	600		BEVEL	BEVEL	RG

PREIGABE  
FOR CONSTRUCTION

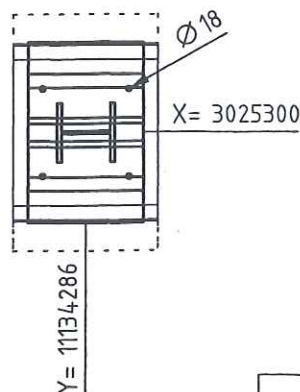
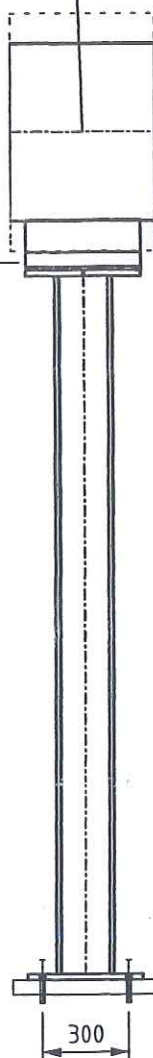
LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00



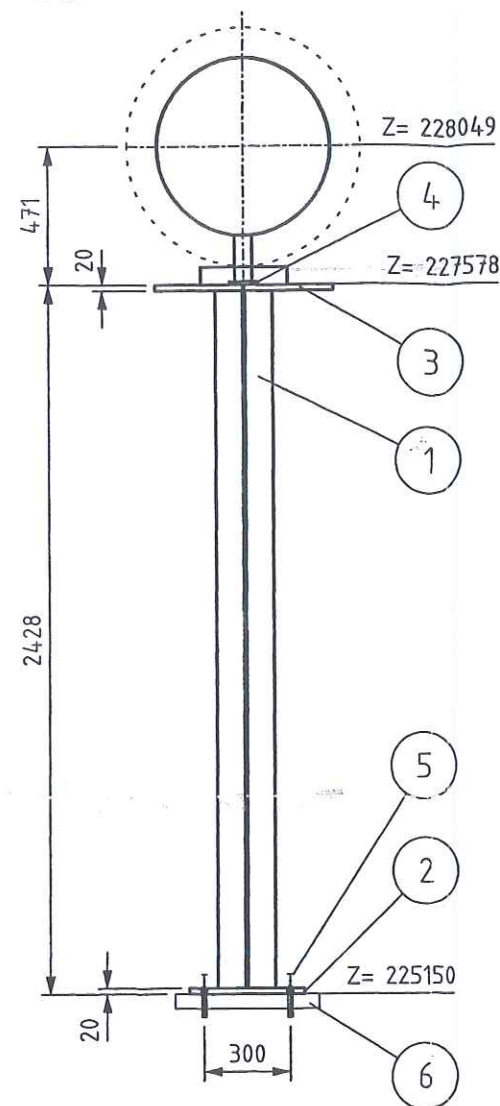
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600-N-15006-AA10C1-

PG  
PS-024



# As built



## LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

-ALL SHARP EDGES REMOVED

-MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M

-FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND

-NOT MARKING WELDED SEAMS a=4mm ROUND

## MARKING:

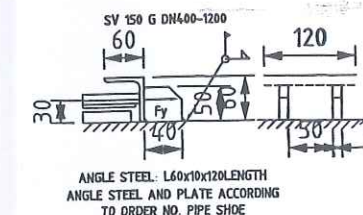
- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

## RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

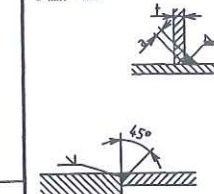
## COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED



WELDING DATA ACC. TO DIN 1912 T5

a >= 0,7 x t  
a min= 4mm



Total Weight: 214.23 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE200B, L=2.388	RST37-2	146.403	
2	1	pcs	PLATE 400x400x20	PLATE 20x400x400	RST37-2	25.120	
3	1	pcs	PLATE 620x400x20	PLATE 20x400x620	RST37-2	38.936	
4	1	pcs	HESTERBERG SP12 W1 OZN	SLIDE PLATE SP12	RST37-2	3.768	
5	4	pcs	ANCHOR BOLT HST(-R)M16/100	HST-(-R) 16-0-M16	1.4401	0.000	1,2
6	1	pcs	BASE	500x500x50	CONCRETE	0.000	215,51
FREIGABE							
FOR CONSTRUCTION							
27. Juli 2005							

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL 2005	Zut	
Drawn checked by			

HGM  
HEGMANN'S

AIR LIQUIDE

Air Liquide AGS GmbH

Date	Name	Check	History File
17.05.2005	MG	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-024		
Scale:	1:25	Original Format	DIN A3
Sheet:	1 of:	1	
Drawing-No.	792.87926	Rev.	a

Archives	Rev.	Job No.	Description	Sign.	Date
Rev.No.					
REVISIONS					

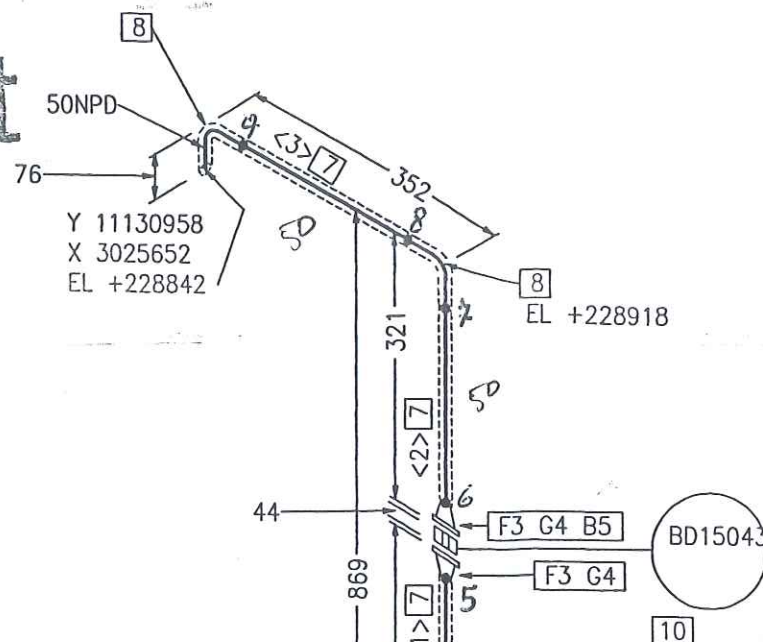








# As built



CONN TO  
W15001/ N4  
Y 11130513  
X 3025300  
EL +228049

Y 11130708  
X 3025300  
EL +228544  
[9]  
V15043H1

[1]  
600X15NPD  
425  
[2]  
600X15NPD  
100

Y 11130808  
X 3025300  
EL +228474

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked



Replaces: 79\_---  
Replaced by: 79\_---

Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
Job Code: K70101		Scale: 1:100	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 2	Sheets: 2
Title: 600 N 15006 AA10C1W		Drawing No: 792.87826	Rev. 00

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	600X15	WELDING NOZZLE FOR THERMOWELL, DRAWING NO. 792.61076
2	1	600X15	WELDING NOZZLE FOR SAMPLE LINE, DRAWING NO. 792.55981
3	2	50	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	2	50	FLAT GASKET
5	4	16	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 110.0MM LANG
6	500 MM	600	PIPE, WELDED 610*6.3, ST37.0, DIN EN 10220
7	551 MM	50	PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220
8	2	50	ELBOW, SEAMLESS, 1,5D 60.3*2.9-90, B-ART 3,DIN 2605-1
9	1	15	V15043H1
10	1	50	BD15043 BD15043
11	1	15	TE15040 TE15040
12	1	15	Q15043 Q15043

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	151	50		SHAPED	BEVEL	RN
<2>	200	50		BEVEL	BEVEL	RN
<3>	200	50		BEVEL	BEVEL	RN
<4>	500	600		BEVEL	BEVEL	RG

REIGABE  
FOR CONSTRUCTION

12. Juli 2005 *Ciaa*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00



## Preis-Stückliste 0 600N15008AA10C1-W 0 600 N 15008 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0049	27	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,56 kg	20,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	20,00				0,00
G0140	600	0	Flat packings Graphite with CrNi-insert Standard 40002 695x2x620		1,00				0,00
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		5,00				0,00
IUK15024	600	0	UK15024 supplied by AGS		1,00				0,00
P0105	600	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 610x6,3	93,80 kg	5,20				0,00
P0261	600	0	Elbow 90° R=1.5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 610x6,3	134,67 kg	2,00				0,00
P2955	600	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 610	56,00 kg	1,00				0,00
S0066	600	0	Web-support, SV 150G 610 W1 OZN LF 1.0 Hesterberg 610	173,30 kg	1,00				0,00
SC16	600	0	Segment cut 610		3,00				0,00
SPS026	600	0	SUPPORT PS-026 pipe support	33,83 kg	1,00				0,00
Summe: 0 600N15008AA10C1-W 0				1.034,83 kg		0,00	0,00		0,00

Liefersumme:

Preis-Stückliste 0 600N15008AA10C1-W 0 600 N 15008 AA10C1-W Revision:									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
Montagesumme:			1.034,83 kg						
Gesamtsumme:									
Gesamtgewicht:									
** Ende der Ausgabe									

1.034,83 kg





Job Code: K70101 ASU No. 9, Kosice Order No.:

Order No.:

600 N 15008

Drawing No.:

**Maker's No.:**

1

Dimension

610\*6,3

610\*6,3

610\*6,3

610\*6,3

1131

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100

1

10

1

1

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---

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10

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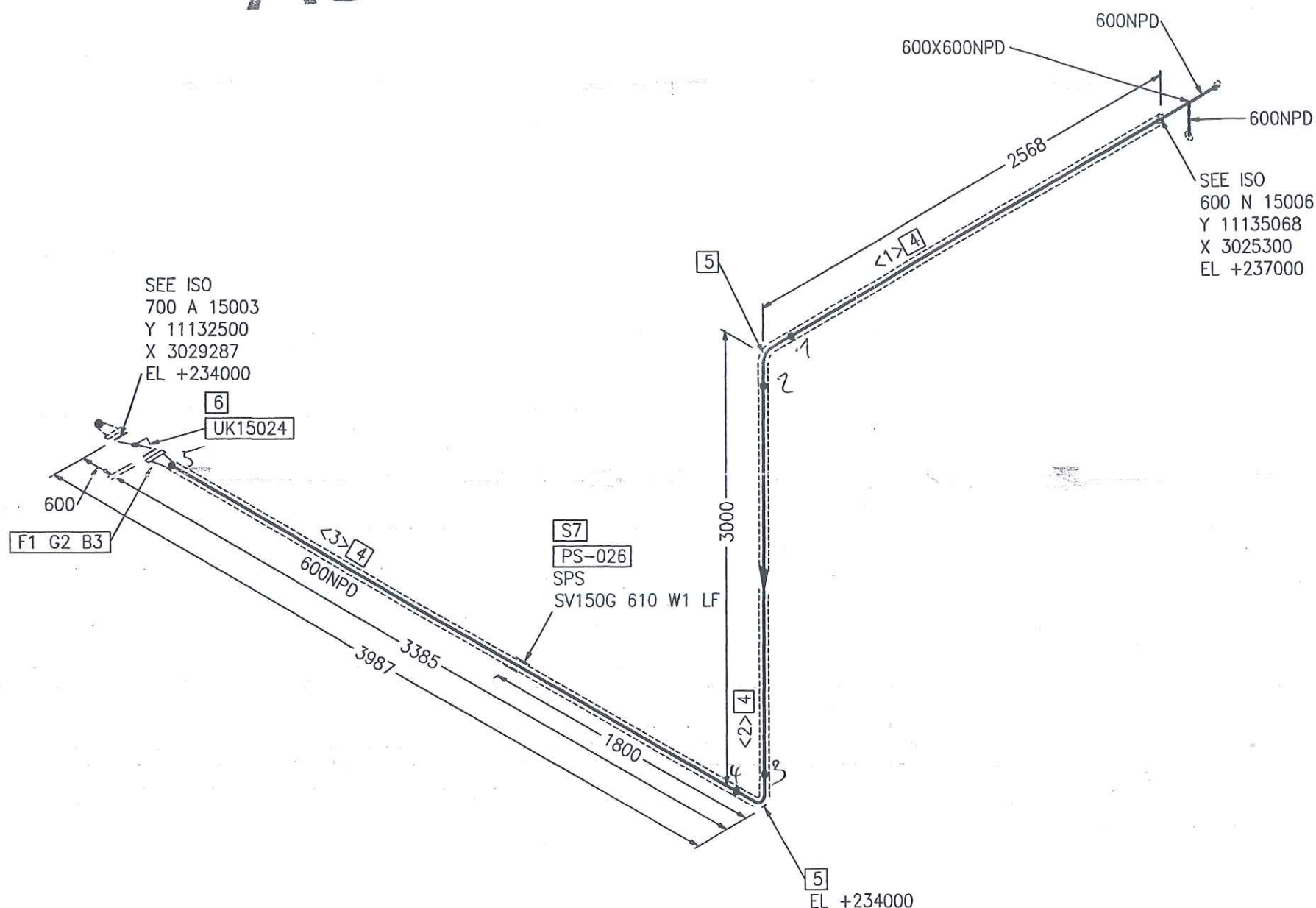
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11

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As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	600	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	1	600	FLAT GASKET
3	20	27	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG
4	5217 MM	600	PIPE, WELDED 610*6.3, ST37.0, DIN EN 10220
5	2	600	ELBOW, WELDED, 1,5D 610*6.3-90, B-ART 3,DIN 2605-1
6	1	600	UK15024
7	1	600	SPRING SUPPORT PSUPPORT

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	1654	600		BEVEL	BEVEL	RG
<2>	1172	600		BEVEL	BEVEL	RG
<3>	2391	600		BEVEL	BEVEL	RG

FOR CONSTRUCTION

12. JUN 2005 *Cean*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-12 <i>JK</i>	History file:	
	Job Code: K70101		Scale: 1:1	Original format DIN A3	
Reference: ASU No. 9, Kosice		Sheet: 1		Sheets: 1	
Replaces: 79_		Title: 600 N 15008 AA10C1W		Drawing No: 792.8782600	
Replaced by: 79_				Rev.	



600-N-15008-AA10C1-

5

4

3

2

1

EXISTING

170

220

1000

545

227

15

SPS PS-026

Z= 234000

Z= 233000

Ø 18

X= 3027100

Y= 11132500

Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

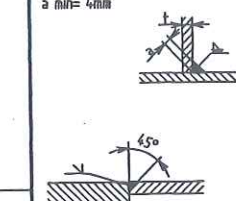
- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER  
RESISTANT PAINT AND WHITE COLOR

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED


$a \geq 0,7 \times t$   
 $a_{\min} = 4 \text{ mm}$



Total Weight:	10.03 kg
---------------	----------

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE100B, L=0.212	RST37-2	4.327	
2	1	pcs	PLATE 220x220x15	PLATE 15x220x220	RST37-2	5.699	
3	1	pcs	SPRING SUPPORT	LISEGA TYP: 295218	NN	0.000	23.8
4	1	pcs	SPR. SUPP. PLATE	LISEGA TYP: 705916	NN	0.000	
5	1	pcs	SET OF 4 BOLTS AND NUTS	M16x50, M16	NN	0.000	33.83

27. Juli 2005

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25 JUL 2005	Zut	
Drawn checked by			



**AIR LIQUIDE**™

Air Liquide AGS GmbH

	Date	Name	Check	History File	
	13.05.2005	MG	Zut		
	Job Code: K70101 ASU No.9 Kosice			Scale: 1:15	Original Format DIN A3
	Reference: PIPING SUPPORT			Sheet: 1	of: 1
Replaces:	Title PS-026			Drawing-No. 792.87926	Re

**Preis-Stückliste 0 150A15009AA10C1 0 150 A 15009 AA10C1 Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0025	20	150	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,45 kg	8,00				0,00
B0518	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	8,00				0,00
G0108	150	0	Flat packings Graphite with CrNi-insert Standard 40002 218x2x169		2,00				0,00
GW22	150	0	girth weld 1.0254 ( St 37.0 ) 168,3x4,5		4,00				0,00
IUK20027	150	0	UK20027 supplied by AGS		1,00				0,00
P0054	150	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 168,3x4,5	18,20 kg	0,70				0,00
P0210	150	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 168,3x4,5	6,55 kg	2,00				0,00
P2943	150	0	WELDING NECK FLANGES; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 168,3	7,50 kg	2,00				0,00
SC9	150	0	Segment cut 168,3		2,00				0,00
Summe: 0 150A15009AA10C1 0				44,92 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	44,92 kg
Gesamtgewicht:	
** Ende der Ausgabe	



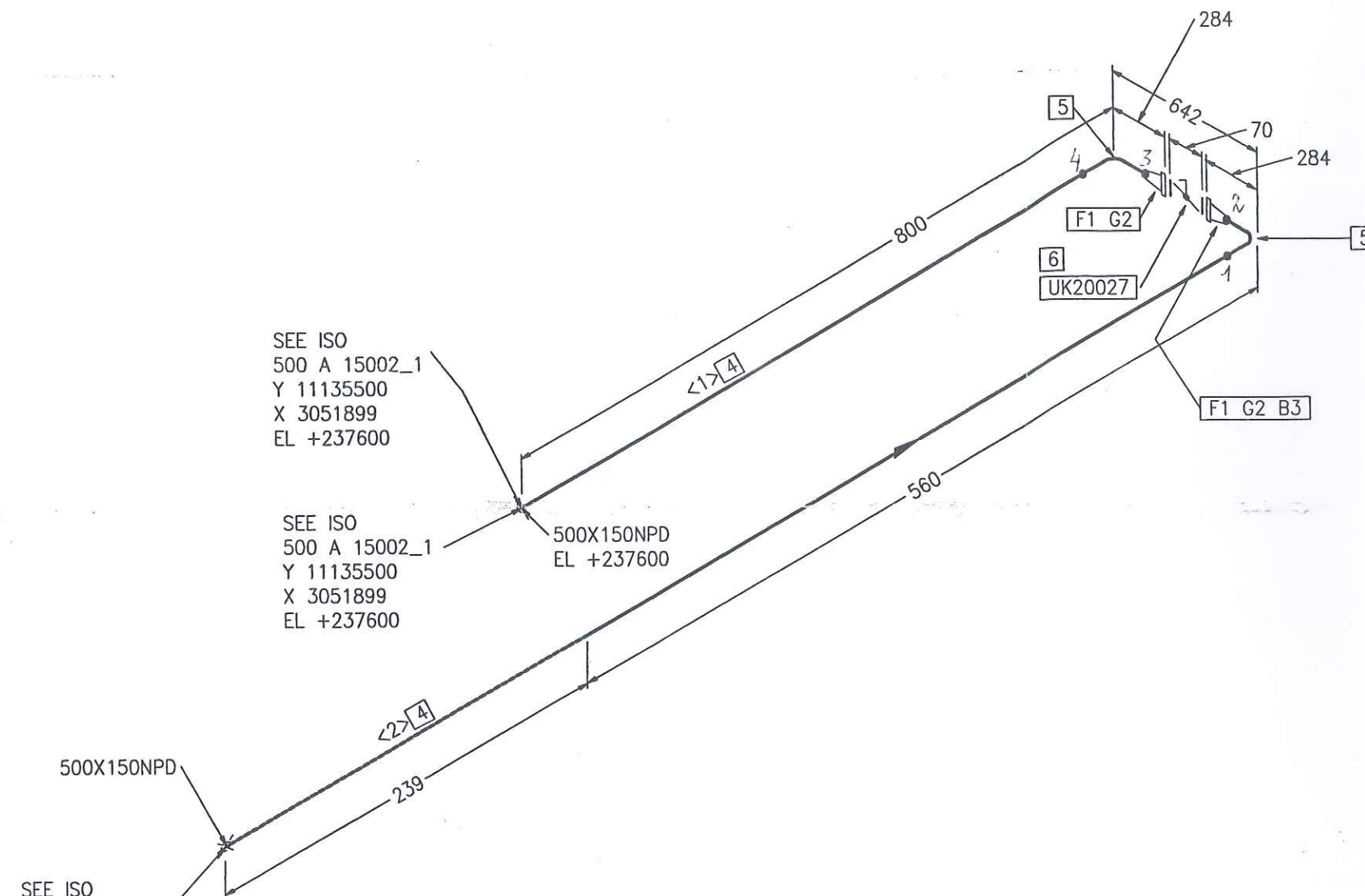


As built

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	2	150	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
2	2	150	FLAT GASKET
3	8	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 150.0MM LANG
4	662 MM	150	PIPE, SEAMLESS 168.3*4.5, ST37.0, DIN EN 10220
5	2	150	ELBOW, SEAMLESS, 1,5D 168.3*4.5-90, B-ART 3,DIN 2605-1
6	1	150	UK20027

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	331	150		SHAPED BEVEL	BEVEL SHAPED	RN
<2>	330	150				RN



SEE ISO  
500 A 15002\_1  
Y 11135500  
X 3051899  
EL +237600

SEE ISO  
500 A 15002\_1  
Y 11135500  
X 3051899  
EL +237600

500X150NPD  
EL +237600

500X150NPD

SEE ISO  
500 A 15002\_1  
Y 11135500  
X 3051257  
EL +237600

PREIGABE  
FOR CONSTRUCTION

12. Juli 2005

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
1				
2				
3				
4				
5				

	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
	Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 1
	Title: 150 A 15009 AA10C1		Drawing No: 1792.8782600	



## Preis-Stückliste 0 600N15010AA10C1-W 0 600 N 15010 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0049	27	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,56 kg	40,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	40,00				0,00
G0140	600	0	Flat packings Graphite with CrNi-insert Standard 40002 695x2x620		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		1,00				0,00
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		7,00				0,00
IUK15012	600	0	UK15012 supplied by AGS		1,00				0,00
P0105	600	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 610x6,3	93,80 kg	4,70				0,00
P0261	600	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 610x6,3	134,67 kg	2,00				0,00
P1652	700	600	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1x610x6,3	69,83 kg	1,00				0,00
P2955	600	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 610	56,00 kg	2,00				0,00
PW117	600	100	Pipe weld-in 1.0254 ( St 37.0 ) 610x6,3x114,3x3,6		1,00				0,00
S0066	600	0	Web-support, SV 150G 610 W1 OZN LF 1.0 Hesterberg 610	173,30 kg	1,00				0,00

**Preis-Stückliste 0 600N15010AA10C1-W 0 600 N 15010 AA10C1-W Revision:**

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC16	600	0	Segment cut 610		3,00				0,00
SPS027	600	0	SUPPORT PS-027 pipe supoprt	58,51 kg	1,00				0,00
WOL001	600	100	Weldolet 1.0254 ( St 37.0 ) DIN 17100/17243/AD-W1 610x6,3x114,3x3,6	2,90 kg	1,00				0,00
Summe: 0 600N15010AA10C1-W 0				1.155,94 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

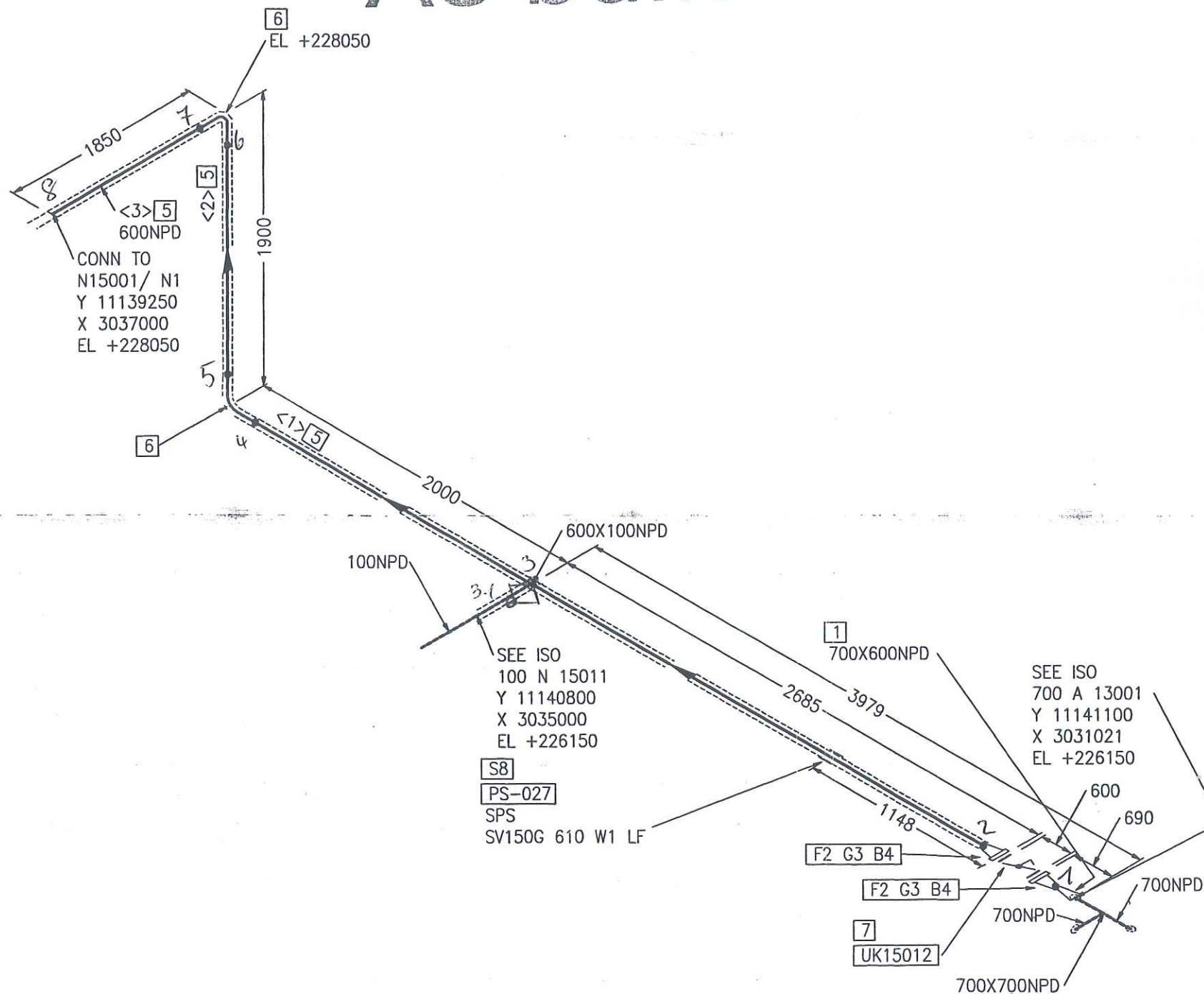
\*\* Ende der Ausgabe

1.155,94 kg





# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X600	REDUCER, CONCENTRIC, WELDED 711*7.1/610*6.3, ST37.0, DIN 2616-1
2	2	600	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	2	600	FLAT GASKET
4	40	27	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG
5	4699 MM	600	PIPE, WELDED 610*6.3, ST37.0, DIN EN 10220
6	2	600	ELBOW, WELDED, 1,5D 610*6.3-90, B-ART 3,DIN 2605-1
7	1	600	UK15012
8	1	600	SPRING SUPPORT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	3691	600		BEVEL	BEVEL	RG
<2>	72	600		BEVEL	BEVEL	RG
<3>	936	600		BEVEL	SQ.CUT	RG

**PREIGABE**  
**FOR CONSTRUCTION**

12 JUL 2005 *Cequ*

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

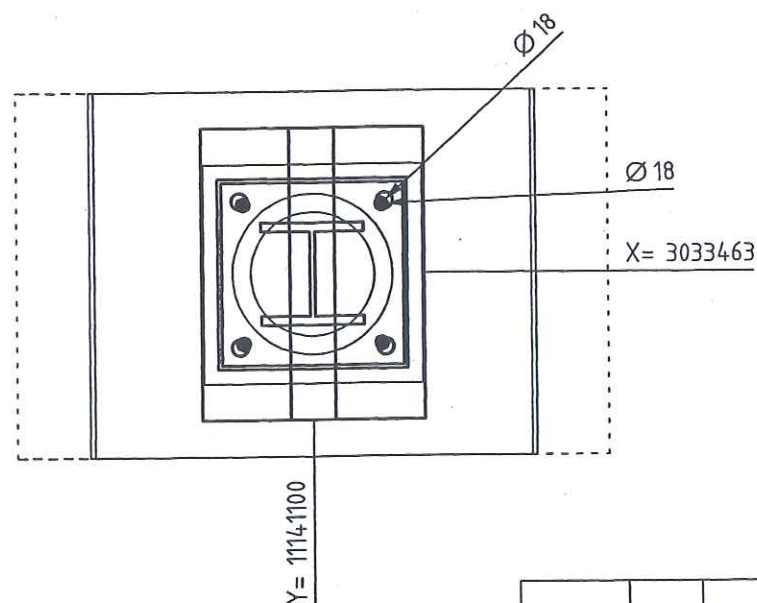
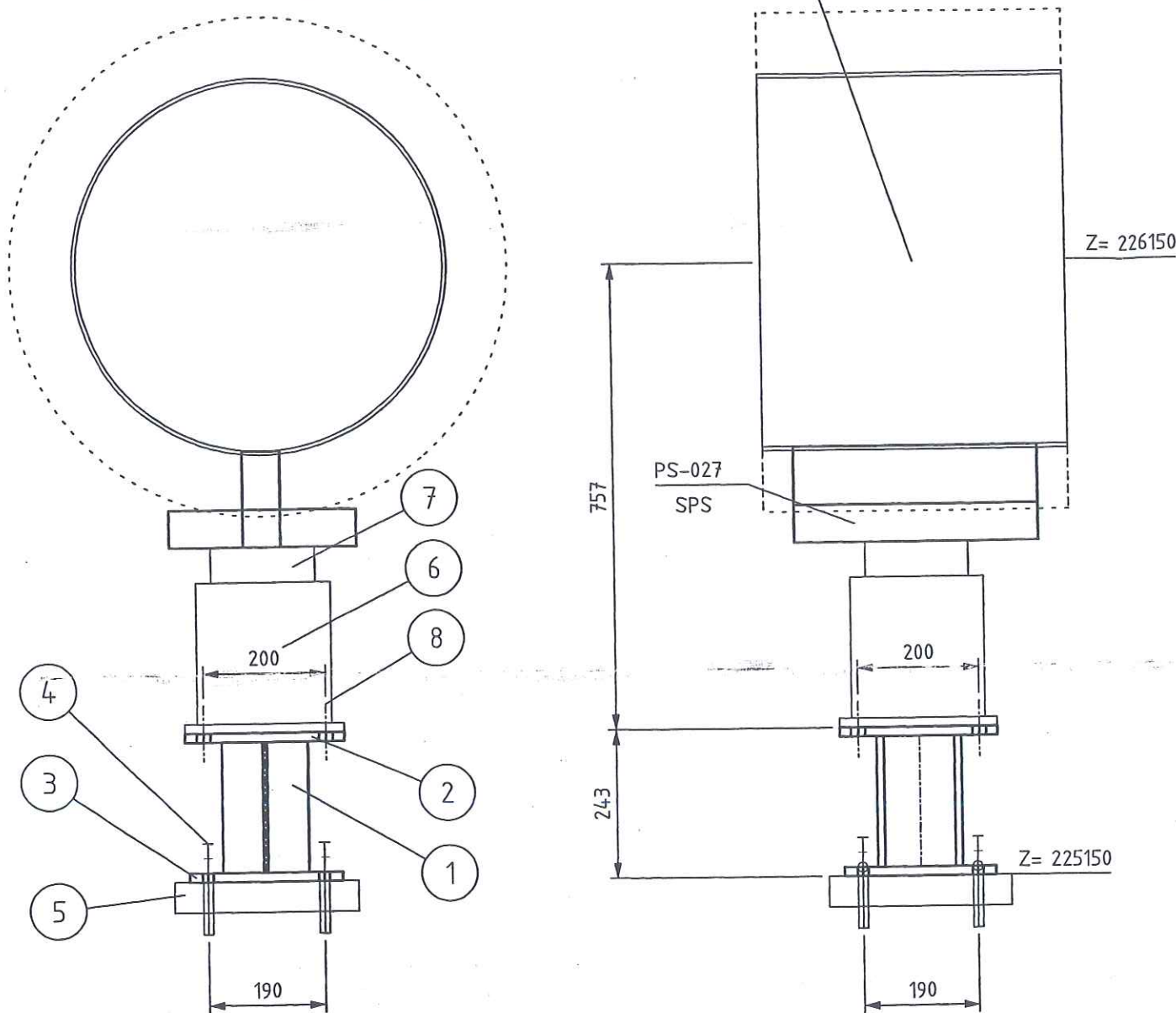
 Air Liquide AGS GmbH	Date:	23-JUN-2005	Name:	Lesum / HGH	Checked:	05-07-12	History file:
	Job Code: K70101				Scale:	1	Original format DIN A3
	Reference: ASU No. 9, Kosice				Sheet:	1	Sheets: 1
	Title:				Drawing No:		
Replaces: 79_--- Replaced by: 79_---				600 N 15010 AA10C1W 792.8782600			



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As built

600-N-15010-AA10C1-



Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

RESPONSIBILITY OF ERECTION COMPANY

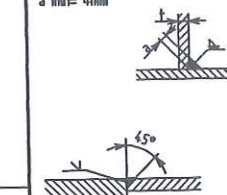
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 T5

a >= 0,7 x t  
a min= 4mm



Total Weight: 22.51 kg

Item	No. off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE140B, L=0 213	RST37-2	7.190	
2	1	pcs	PLATE SPS 6	PLATE 15x260x260	RST37-2	7.960	
3	1	pcs	PLATE 250	PLATE 250x250x15	RST37-2	7.359	
4	4	pcs	ANCHOR BOLT HST(-R)M16/100	HST-(-R) 16-0-M16	1.4401	0.000	1,2
5	1	pcs	BASE	300x300x50	CONCRETE	0.000	34,8
6	1	pcs	SPRING SUPPORT	LISEGA TYP: 296118	NN	0.000	
7	1	pcs	SPR. SUPP. PLATE	LISEGA TYP: 706916	NN	0.000	
8	1	pcs	SET OF 4 BOLTS + NUTS	M20x60, M20	NN	0.000	
							58,51
FREIGABE							
FOR CONSTRUCTION							
27. Juli 2005							

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL 2005	Zut	
Drawn checked by			

H G H  
HEGMANN S

AIR LIQUIDE

Air Liquide AGS GmbH

Date	Name	Check	History File
11.05.2005	MG	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-027		
Scale:	1:10	Original Format	DIN A3
Sheet:	1 of:	1	
Drawing-No.	792.87926	Rev.	a



## Preis-Stückliste 0 100N15011AA10C1-W 0 100 N 15011 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0014	16	120	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0018	20	80	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,26 kg	16,00				0,00
B0502	20	0	Hexagon head nuts Ck 35 ( 1.1181 ) DIN 267-13	0,06 kg	16,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0104	100	0	Flat packings Graphite with CrNi-insert Standard 40002 162x2x115		4,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		16,00				0,00
IUK15013	100	0	UK15013 supplied by AGS		1,00				0,00
IV15013	100	0	V15013 supplied by AGS		1,00				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	6,00				0,00
P0208	100	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6	2,35 kg	5,00				0,00
P0736	100	100	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6x114,3x3,6	2,54 kg	1,00				0,00
P2912	100	0	Welding neck flanges; PN 40 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	6,50 kg	2,00				0,00



## Preis-Stückliste 0 100N15011AA10C1-W 0 100 N 15011 AA10C1-W .Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	2,00				0,00
S0021	100	0	T-support TA 120G 115 W1 OZN 1.0 Hesterberg 115	10,70 kg	1,00				0,00
SC7	100	0	Segment cut 114,3		8,00				0,00
SPS095	100	0	SUPPORT PS-095 pipe support	7,59 kg	1,00				0,00
Summe: 0 100N15011AA10C1-W 0				120,52 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

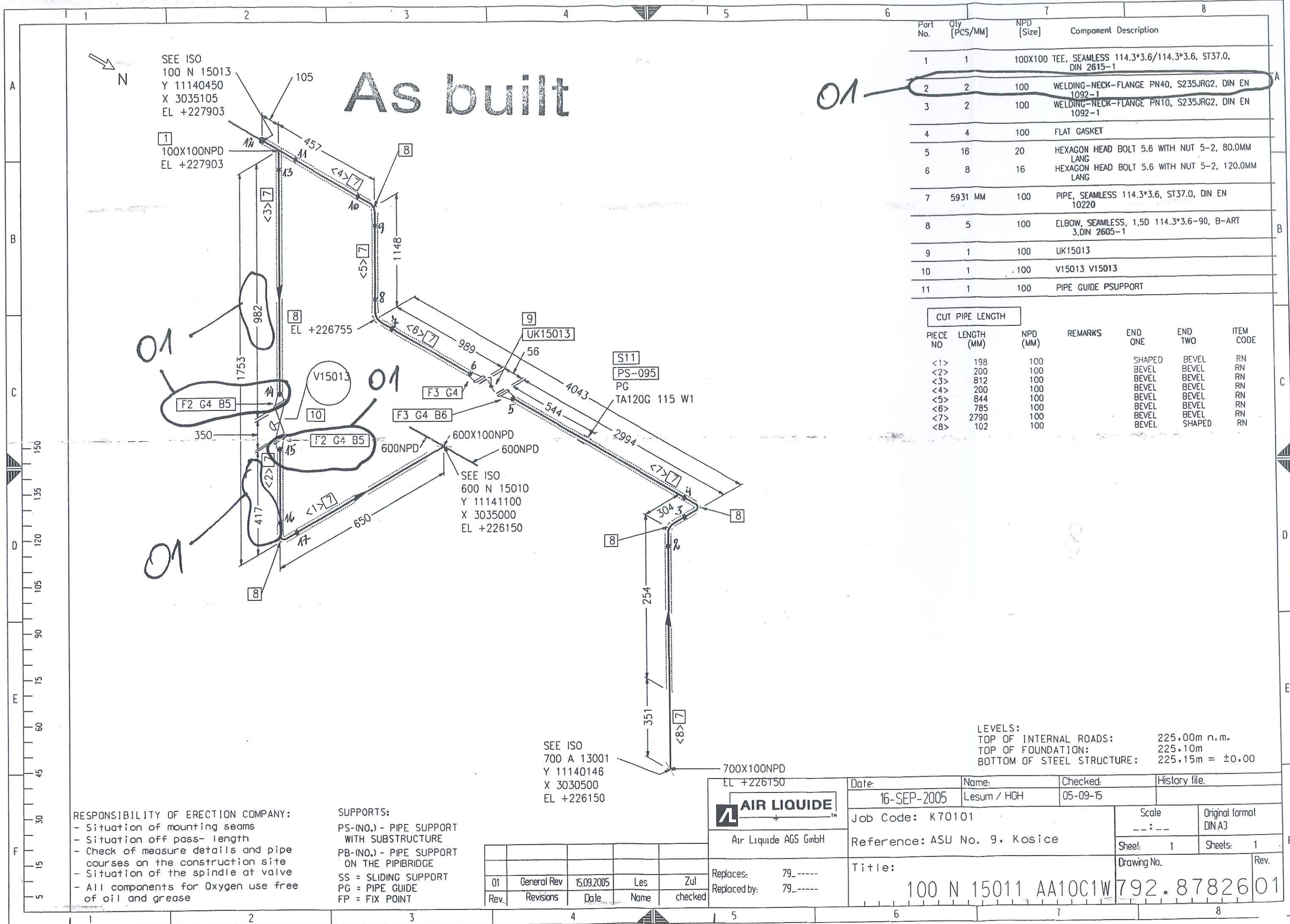
Gesamtgewicht:

\*\* Ende der Ausgabe

120,52 kg













## Preis-Stückliste 0 600N15012AA10C1-W 0 600 N 15012 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0049	27	90	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,56 kg	40,00				0,00
B0520	27	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,17 kg	40,00				0,00
G0140	600	0	Flat packings Graphite with CrNi-insert Standard 40002 695x2x620		2,00				0,00
GW36	600	0	girth weld 1.0254 ( St 37.0 ) 610x6,3		7,00				0,00
IUK15022	600	0	UK15022 supplied by AGS		1,00				0,00
P0105	600	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 610x6,3	93,80 kg	10,70				0,00
P0261	600	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 610x6,3	134,67 kg	2,00				0,00
P1652	700	600	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 711x7,1x610x6,3	69,83 kg	1,00				0,00
P2955	600	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 610	56,00 kg	2,00				0,00
S0066	600	0	Web-support, SV 150G 610 W1 OZN LF 1.0 Hesterberg 610	173,30 kg	2,00				0,00
SC16	600	0	Segment cut 610		3,00				0,00
SPS028	600	0	SUPPORT PS-028 pipe support	58,45 kg	1,00				0,00

Preis-Stückliste 0 600N15012AA10C1-W 0 600 N 15012 AA10C1-W Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPS029	600	0	SUPPORT PS-029 pipe support	314,09 kg	1,00				0,00
Summe: 0 600N15012AA10C1-W 0				2.203,17 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	
Gesamtgewicht:	2.203,17 kg
** Ende der Ausgabe	

AS BUILT





Prot Nr.

Job Code: K70101 ASU No. 9, Kosice Order No.:

**Client:** AIR LIQUIDE

**Title: 600 N 15012**

Sheet 1

**Drawing: No.:**

Project No.: 9050300

**Maker's No.:**

(Kunde / TÜV, ...)

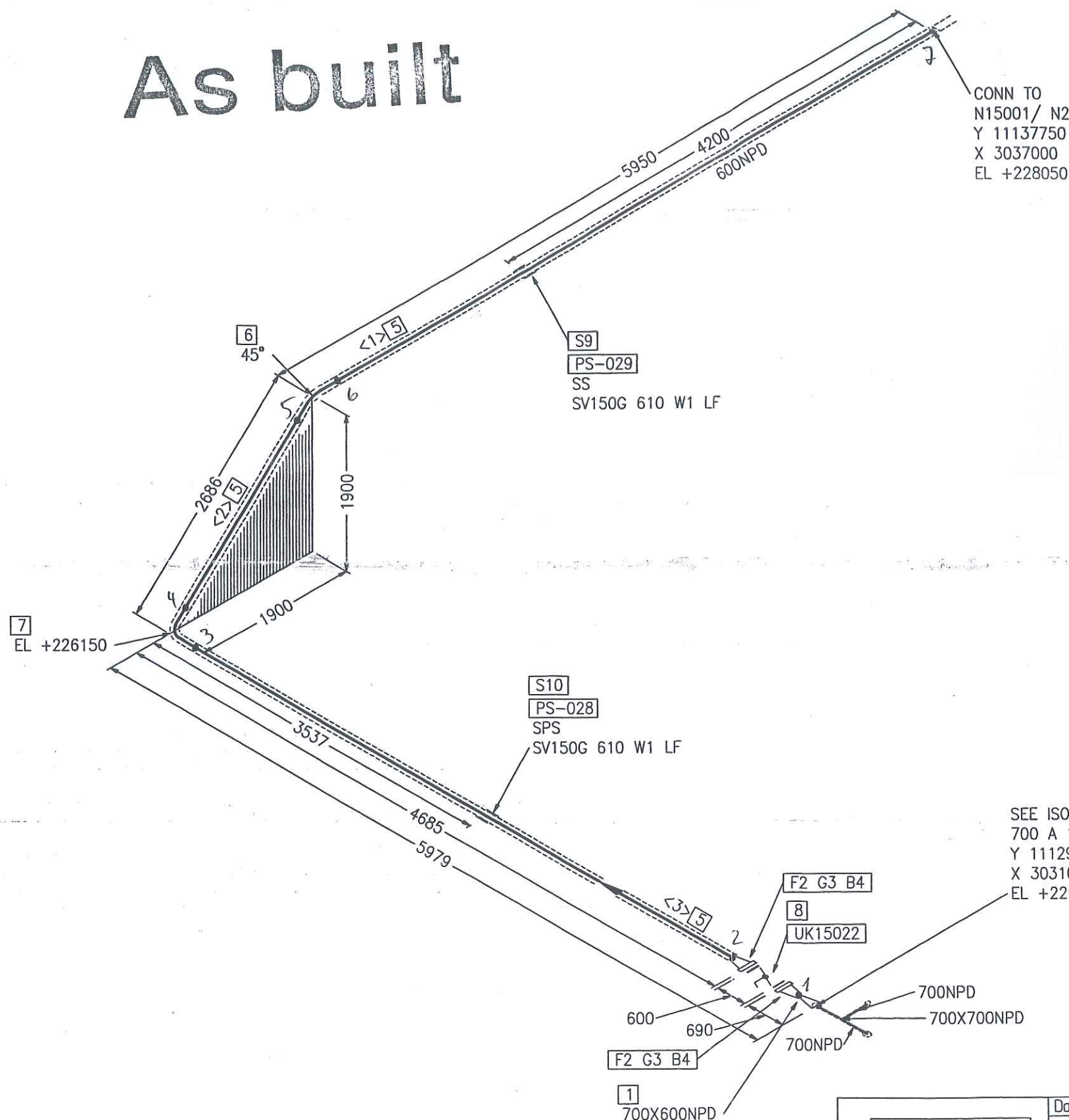
geprüft

Schweisstechnologie VAM

**Datum / Unterschrift**

[illegible]

# As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	700X600	REDUCER, CONCENTRIC, WELDED 711*7.1/610*6.3, ST37.0, DIN 2616-1
2	2	600	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
3	2	600	FLAT GASKET
4	40	27	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 90.0MM LANG
5	10656	MM	PIPE, WELDED 610*6.3, ST37.0, DIN EN 10220
6	1	600	ELBOW, WELDED, 1,5D 610*6.3-45, B-ART 3,DIN 2605-1
7	1	600	ELBOW, WELDED, 1,5D 610*6.3-90, B-ART 3,DIN 2605-1
8	1	600	UK15022
9	1	600	SLIDE SUPPORT PSUPPORT
10	1	600	SPRING SUPPORT PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	5572	600		SQ.CUT	BEVEL	RG
<2>	1393	600		BEVEL	BEVEL	RG
<3>	3691	600		BEVEL	BEVEL	RG

**FOR CONSTRUCTION**

12 Jul 2005 *Alan*

LEVELS:  
 TOP OF INTERNAL ROADS: 225.00m n.m.  
 TOP OF FOUNDATION: 225.10m  
 BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

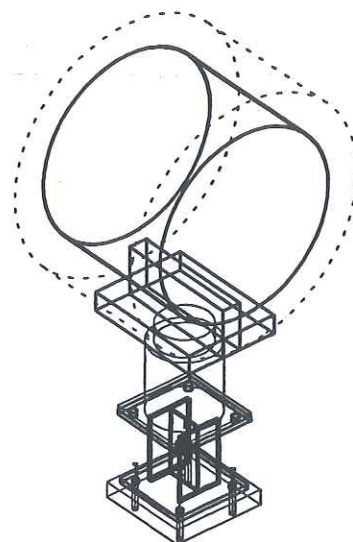
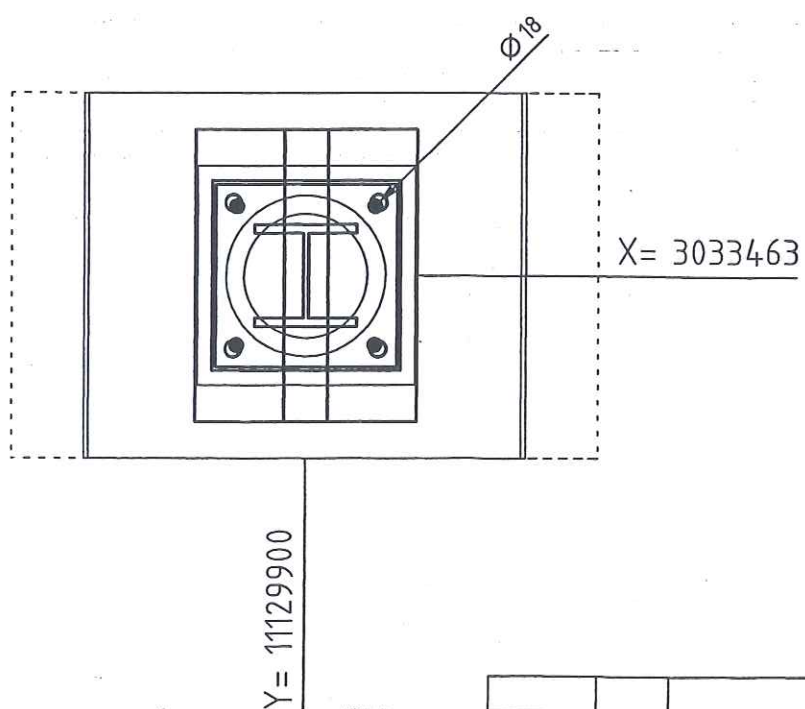
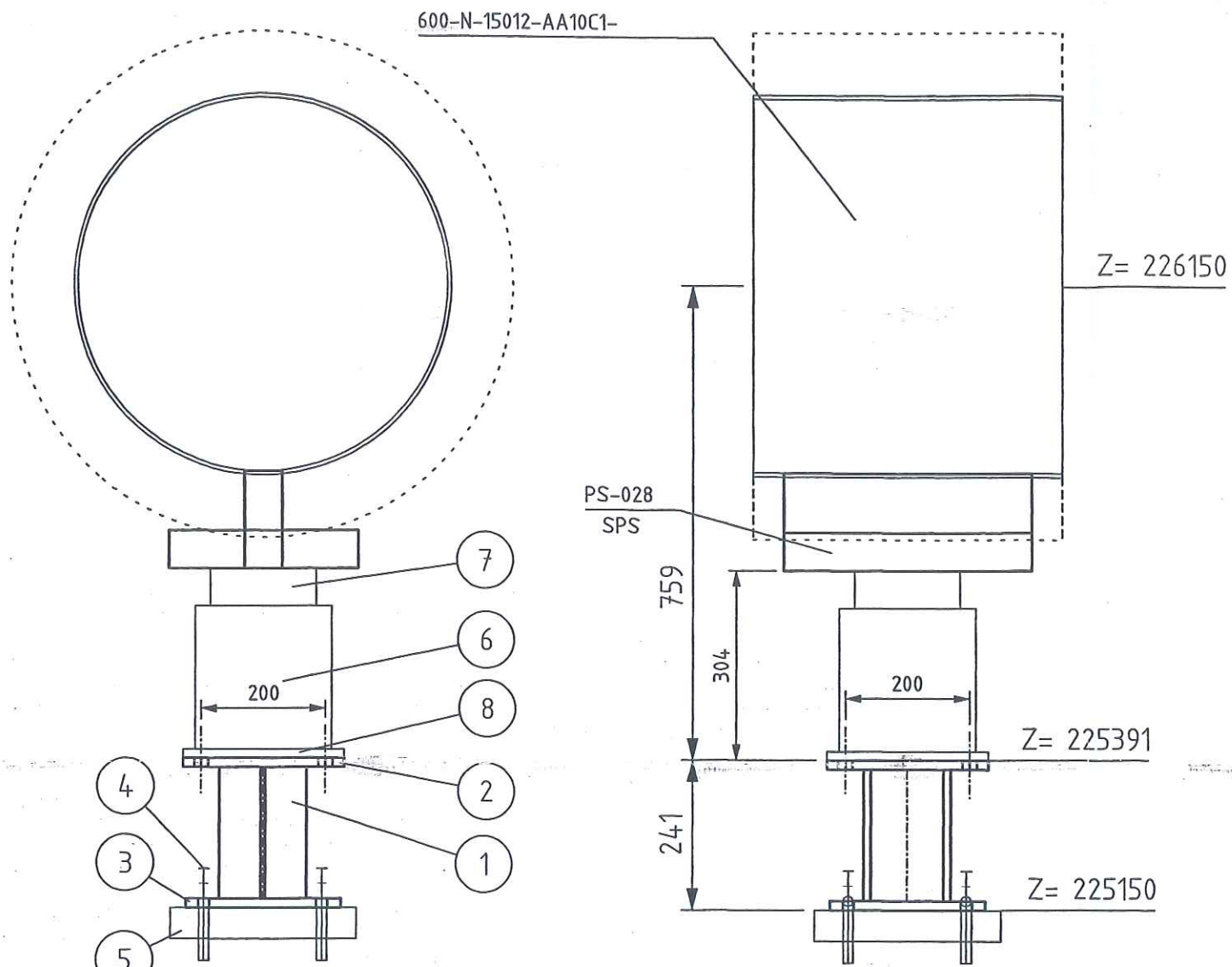
RESPONSIBILITY OF ERECTION COMPANY:  
 - Situation of mounting seams  
 - Situation off pass- length  
 - Check of measure details and pipe courses on the construction site  
 - Situation of the spindle at valve  
 - All components for Oxygen use free of oil and grease

SUPPORTS:  
 PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
 PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
 SS = SLIDING SUPPORT  
 PG = PIPE GUIDE  
 FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-12	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
Replaces: 79_	Reference: ASU No. 9, Kosice		Sheet: 1	Sheets: 1
Replaced by: 79_	Title: 600 N 15012 AA10C1W		Drawing No: 792.87826	Rev. 00





LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS  $a=4\text{mm}$  ROUND

**MARKING:**

-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

## RESPONSIBILITY OF ERECTION COMPANY

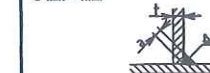
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED


WELDING DATA ACC. TO DIN 1912 T5

a  $\geq 0,7 \times t$   
a min = 4mm



Total Weight:	22.45 kg
---------------	----------

[illegible]

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	25 JUL 2005	Zut	
Drawn checked by			



**AIR LIQUIDE**

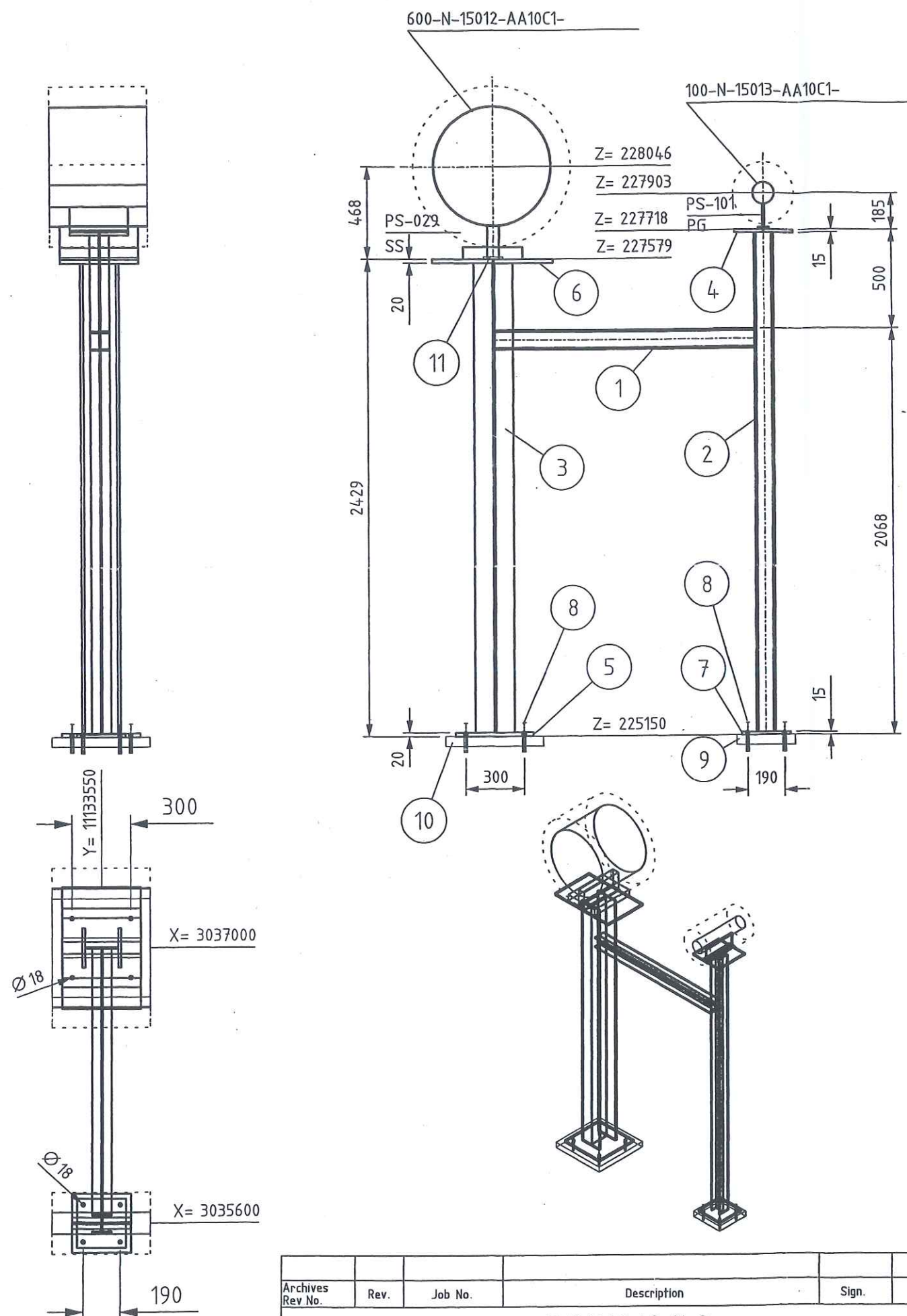
Air Liquide AGS GmbH

Date	Name	Check.	History File
28.06.2005	SWA	Zut	
Job Code:	K70101 ASU No.9 Kosice		Scale: 1:10
Reference:	PIPING SUPPORT		Original Format DIN A3
Replaces:	Title	Sheet: 1 of:	Drawing-No.
	PS-028		792.87926

Archives Rev No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					



THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE COPIED OR TRANSFERRED TO THIRD PARTIES WITHOUT PERMISSION OF THE PROPRIETOR.



#### LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

#### MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

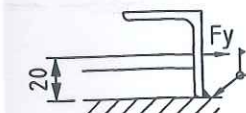
#### RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

#### COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

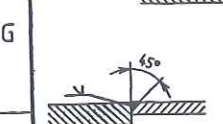
TA 120 G DN 100-200



ANGLE STEEL: L60x10x100LENGTH  
ANGLE STEEL AND PLATE ACCORDING  
TO ORDER NO. PIPE SHOE

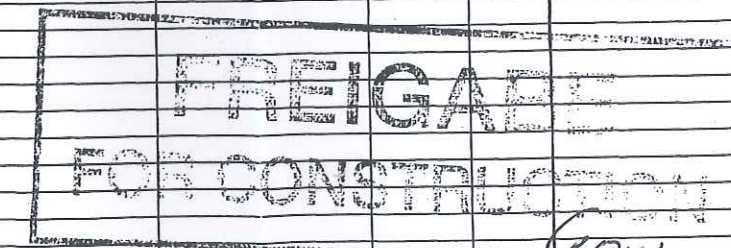
WELDING DATA ACC. TO DIN 1912 TS

a = 0,7 x t  
a min = 4mm



Total Weight: 311.51 kg

Item	No. Off	Unit	Description	Dimension	Material	Weight kg	Remark
1	1	pcs	PROFILE	HE100B, L=1346	RST37-2	27.462	
2	1	pcs	PROFILE	HE100B, L=2.538	RST37-2	51.806	
3	1	pcs	PROFILE	HE200B, L=2.389	RST37-2	146.466	
4	1	pcs	PLATE 300x300x15	PLATE 15x300x300	RST37-2	10.598	
5	1	pcs	PLATE 400x400x20	PLATE 20x400x400	RST37-2	25.120	
6	1	pcs	PLATE 620x400x20	PLATE 20x400x620	ST33	38.936	
7	1	pcs	PLATE 250	PLATE 250x250x15	RST37-2	7.359	
8	8	pcs	ANCHOR BOLT HST(-R)M16/100	HST-(-R) 16-0-M16	1.4401	0.000	2,4
9	1	pcs	BASE	300x300x50	CONCRETE	0.000	
10	1	pcs	BASE	500x500x50	CONCRETE	0.000	
11	1	pcs	HESTERBERG SP12 W1 OZN	SLIDE PLATE SP12	RST37-2	3.768	3/4 09



27. Juli 2005

Approved by	Date	Name	Signature
Checked by		Gans	
Checked by	25. JUL 2005	Zut	
Drawn checked by			



Air Liquide AGS GmbH

Date	Name	Check	History File
13.05.2005	MG	Zut	
Job Code:	K70101 ASU No.9 Kosice		
Reference:	PIPING SUPPORT		
Replaces:	Title PS-029		
Scale:	1:25	Original Format	DIN A3
Sheet:	1 of:	1	
Drawing-No.	792.87926	Rev.	a

Archives	Rev.	Job No.	Description	Sign.	Date
REVISIONS					



Preis-Stückliste 0 100N15013AA10C1-W 0 100 N 15013 AA10C1-W Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0014	16	120	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,20 kg	8,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	8,00				0,00
G0104	100	0	Flat packings Graphite with CrNi-insert Standard 40002 162x2x115		2,00				0,00
GW18	100	0	girth weld 1.0254 ( St 37.0 ) 114,3x3,6		13,00				0,00
IUK15023	100	0	UK15023 supplied by AGS		1,00				0,00
P0050	100	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 114,3x3,6	9,83 kg	15,50				0,00
P0208	100	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 114,3x3,6	2,35 kg	5,00				0,00
P2941	100	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 114,3	4,50 kg	2,00				0,00
S0009	100	0	T-support TA 120B 115 W1 OZN 1.0 Hesterberg 115	4,50 kg	1,00				0,00
S0021	100	0	T-support TA 120G 115 W1 OZN 1.0 Hesterberg 115	10,70 kg	3,00				0,00
SC7	100	0	Segment cut 114,3		6,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		3,00				0,00

Preis-Stückliste 0 100N15013AA10C1-W 0 100 N 15013 AA10C1-W Revision:									
(Fortsetzung)									
Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPS017	100	0	SUPPORT PS-017 pipe support	6,58 kg	1,00				0,00
SPS096	100	0	SUPPORT PS-096 pipe support	9,19 kg	1,00				0,00
SPS102	100	0	SUPPORT PS-102 pipe support	130,66 kg	1,00				0,00
Summe: 0 100N15013AA10C1-W 0				357,99 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	357,99 kg
Gesamtgewicht:	
** Ende der Ausgabe	

AS BUILT





Job Code: K70101 ASU No. 9, Kosice Order No.:

**Title:** 100 N-15013

**Drawing No.:**

792.87826 - 00

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft

# WELDING DOCUMENTATION

29.02.06  
Pelzeder Erich

Schweisstechnologie VAM



Datum / Unterschrift

[illegible]

















**Preis-Stückliste 0 400A15015AA10C1 0 400 A 15015 AA10C1 Revision:**

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
GW34	400	0	girth weld 1.0254 ( St 37.0 ) 406,4x6,3		4,00				0,00
IPT15037	15	0	PT15037 supplied by AGS		1,00				0,00
IV15037H1	15	0	V15037H1 supplied by AGS		1,00				0,00
P0101	400	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 406,4x6,3	62,20 kg	7,10				0,00
P0257	400	0	Elbow 90° R=1,5 DA, welded 1.0254 ( St 37.0 ) DIN 2609 406,4x6,3	59,60 kg	2,00				0,00
PWI24	400	15	PIPE WELD-IN 1.4541		1,00				0,00
S0064	400	0	Web-support, SV 150G 407 W1 OZN 1.0 Hesterberg 407	90,10 kg	1,00				0,00
SC14	400	0	Segment cut 406,4		4,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		1,00				0,00
SPS204	400	0	SUPPORT PS-204, H 160, L=2600	120,76 kg	1,00				0,00
XZB02	400	15	welding nozzle for pressure gauge, drawi 1.4541 22		1,00				0,00
Summe: 0 400A15015AA10C1 0				771,68 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:



Preis-Stückliste 0 400A15015AA10C1 0 400 A 15015 AA10C1 Revision:						
Teilenummer	NW1 NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage
Gesamtsumme:					L + M	Gesamt
Gesamtgewicht:						
** Ende der Ausgabe						

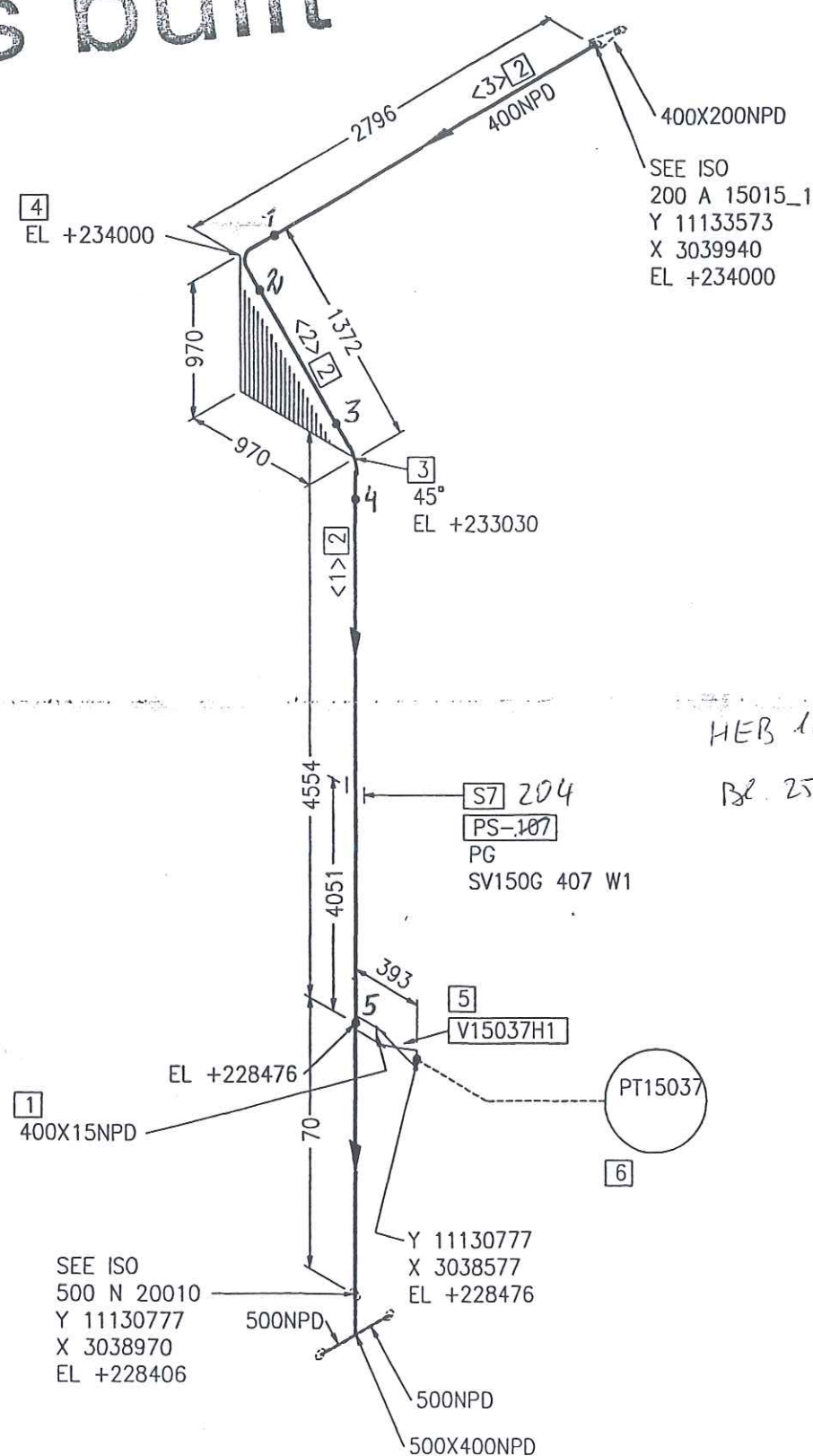
771,68 kg

AS BUILT





As built



Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	400X15	WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55981
2	7066 MM	400	PIPE, WELDED 406.4*6.3, ST37.0, DIN EN 10220
3	1	400	ELBOW, WELDED, 1,5D 406.4*6.3-45, B-ART 3,DIN 2605-1
4	1	400	ELBOW, WELDED, 1,5D 406.4*6.3-90, B-ART 3,DIN 2605-1
5	1	15	V15037H1
6	1	15	PT15037 PT15037
7	1	400	PIPE GUIDE PSUPPORT

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	4371	400		BEVEL	BEVEL	RG
<2>	509	400		BEVEL	BEVEL	RG
<3>	2186	400		BEVEL	BEVEL	RG

FREIGABE  
FOR CONSTRUCTION

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
.C				
.B				
.A				

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101		Scale: 1:1	Original format: DIN A3
Reference: ASU No. 9. Kosice		Sheet: 1		Sheets: 1
Replaces: 79_		Title: 400 A 15015 AA10C1		Drawing No: 792.87826
Replaced by: 79_				Rev. 00

Preis-Stückliste 0 200A15015\_1AA10C1 0 200 A 15015\_1 AA10C1 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0018	20	80	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,26 kg	16,00				0,00
B0518	20	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,06 kg	16,00				0,00
G0110	200	0	Flat packings Graphite with CrNi-insert Standard 40002 273x2x220		2,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		2,00				0,00
GW26	200	0	girth weld 1.0254 ( St 37.0 ) 219,1x4,5		3,00				0,00
GW34	400	0	girth weld 1.0254 ( St 37.0 ) 406,4x6,3		1,00				0,00
IPV15037	200	0	PV15037 supplied by AGS		1,00				0,00
P0048	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	0,20				0,00
P0093	200	0	pipe, welded 1.0254 ( St 37.0 ) DIN 1626 219,1x4,5	23,80 kg	0,20				0,00
P0748	200	80	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 219,1x6,3x88,9x3,2	12,51 kg	1,00				0,00
P1620	400	200	Reducer, concentric, welded 1.0254 ( St 37.0 ) DIN 2609 406,4x6,3x219,1x4,5	16,95 kg	1,00				0,00
P2944	200	0	Welding neck flanges; PN 10 1.0038 ( S235JRG2 ) DIN EN 1092-1 219,1	11,50 kg	2,00				0,00



Preis-Stückliste 0 200A15015\_1AA10C1 0 200 A 15015\_1 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SC10	200	0	Segment cut 219,1		1,00				0,00
SC6	80	0	Segment cut 88,9		1,00				0,00
Summe: 0 200A15015_1AA10C1 0				63,69 kg		0,00	0,00		0,00

Liefersumme:	
Montagesumme:	
Gesamtsumme:	63,69 kg
Gesamtgewicht:	
** Ende der Ausgabe	

AS BUILT



(Kunde / TÜV, ...)

geprüft

erstellt:

**Schweisstechnologie VAM**  
**Datum / Unterschrift**

Datum / Unterschrift

**Jop Code:** K70101 ASU No. 9, Kosice

**K70101 ASU No. 9, Kosice**

**Order No.:**

<b>Client:</b>	<b>AIR LIQUIDE</b>	<b>Title:</b>	<b>200 A 15015-1</b>
----------------	--------------------	---------------	----------------------

Sheet 1

**Drawing No.:**

**Maker's No.:**

1000

[illegible]



As built

SEE ISO  
50 A 15016  
Y 11134834  
X 3040352  
EL +234000

700X200NPD  
EL +234000

SEE ISO  
700 A 15002  
Y 11135500  
X 3039940  
EL +234000

SEE ISO  
700 A 15002  
Y 11135500  
X 3039940  
EL +234000

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	400X200	REDUCER, CONCENTRIC, WELDED 406.4*6.3/219.1*4.5, ST37.0, DIN 2616-1
2	1	200X80	TEE, SEAMLESS 219.1*6.3/88.9*3.2, ST37.0, DIN 2615-1
3	2	200	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
4	1	80	WELDING-NECK-FLANGE PN10, S235JRG2, DIN EN 1092-1
5	2	200	FLAT GASKET
6	16	20	HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 80.0MM LANG
7	150 MM	200	PIPE, WELDED 219.1*4.5, ST37.0, DIN EN 10220
8	210 MM	80	PIPE, SEAMLESS 88.9*3.2, ST37.0, DIN EN 10220
9	1	200	PV15037 PV15037

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	150	200		SHAPED BEVEL	BEVEL	RG RN
<2>	210	80				

PREIGABE  
FOR CONSTRUCTION

12. Juli 2005 G. G. G.

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

Rev.	Revisions	Date	Name	checked
C				
B				
A				

<b>AIR LIQUIDE</b> AIR LIQUIDE AGS GmbH	Date: 23-JUN-2005	Name: Lesum / HGH	Checked: 05-07-11	History file:
	Job Code: K70101			Scale: 1:1
	Reference: ASU No. 9, Kosice			Original format: DIN A3
	Title: 200 A 15015_1 AA10C1			Sheet: 1
Replaces: 79_			Drawing No: 1792.8782600	
Replaced by: 79_			Rev. 1	

## Preis-Stückliste 0 50A15016AA10C1 0 50 A 15016 AA10C1 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
GW12	50	0	girth weld 1.0254 ( St 37.0 ) 60,3x2,9		41,00				0,00
GW5	25	0	girth weld 1.0254 ( St 37.0 ) 33,7x2,6		4,00				0,00
IAD01	25	0	AIR DISTRIBUTOR, DN 25		1,00				0,00
IP82010	15	0	PT82010 supplied by AGS		1,00				0,00
IV82005	50	0	V82005 supplied by AGS		1,00				0,00
IV82010H1	15	0	V82010H1 supplied by AGS		1,00				0,00
P0006	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	48,01				0,00
P0014	25	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 33,7x2,6	1,99 kg	5,55				0,00
P0174	25	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 33,7x2,6	0,12 kg	1,00				0,00
P0205	50	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9	0,49 kg	11,00				0,00
P0718	50	25	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9x33,7x2,6	0,59 kg	1,00				0,00
P0721	50	50	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9x60,3x2,9	0,67 kg	4,00				0,00



## Preis-Stückliste 0 50A15016AA10C1 0 50 A 15016 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
PW11	50	15	Pipe weld-in 1.4541 ( X 6 CrNiTi 18 10 ) 60,3x2x21,3x1,6		1,00				0,00
S0018	50	0	T-support TA 120G 61 W1 OZN 1.0 Hesterberg 61	8,30 kg	11,00				0,00
SAS01	25	0	DISTRIBUTOR SUPPORT, DN 25		1,00				0,00
SC3	25	0	Segment cut 33,7		2,00				0,00
SC5	50	0	Segment cut 60,3		16,00				0,00
SCP02	50	0	PIPE CLAMP, RB10A 61 W3 HESTERBERG 60,3		2,00				0,00
SCP03	25	0	PIPE CLAMP, RB10A 34 W3 HESTERBERG 33,7		1,00				0,00
SPG01	0	0	PIPE GUIDE 1.0 HESTERBERG		6,00				0,00
SPS089	50	0	SUPPORT PS-089 pipe support	34,14 kg	1,00				0,00
SPS205	50	0	SUPPORT PS-205, L 80, L=1300	9,54 kg	1,00				0,00
SPS206	50	0	SUPPORT PS-206, L 80, L=300	2,20 kg	1,00				0,00
SPS207	50	0	SUPPORT PS-207, L 30, L=350	0,62 kg	1,00				0,00
SPS208	50	0	SUPPORT PS-208, L 80, L=300	2,20 kg	1,00				0,00
SPS209	50	0	SUPPORT PS-209, L 80, L=250	1,83 kg	1,00				0,00
SPS210	50	0	SUPPORT PS-210, L 80, L=1700	12,47 kg	1,00				0,00
SPS211	50	0	SUPPORT PS-211, L 80, L=1700	12,47 kg	1,00				0,00
SPS212	50	0	SUPPORT PS-212, L 80, L=1700	12,47 kg	1,00				0,00
SPS213	50	0	SUPPORT PS-213, U 100, L=1500	15,90 kg	1,00				0,00

## Preis-Stückliste 0 50A15016AA10C1 0 50 A 15016 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
SPS214	50	0	SUPPORT PS-214, U 100, L=900	9,54 kg	1,00				0,00
SPS215	50	0	SUPPORT PS-215, U 100, L=1500	15,90 kg	1,00				0,00
SPS216	50	0	SUPPORT PS-216, U 100, L=90	9,54 kg	1,00				0,00
SPS217	50	0	SUPPORT PS-217, U 100, L=1500	15,90 kg	1,00				0,00
SPS218	50	0	SUPPORT PS-218, L 50, L=500	1,88 kg	1,00				0,00
SPS219	50	0	SUPPORT PS-219, L 14, L=450	1,08 kg	1,00				0,00
XZB02	50	15	welding nozzle for pressure gauge, drawi 1.4541 22		1,00				0,00
XZB09	25	0	HOLLÄNDER 5.6		1,00				0,00
Summe: 0 50A15016AA10C1 0				466,13 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

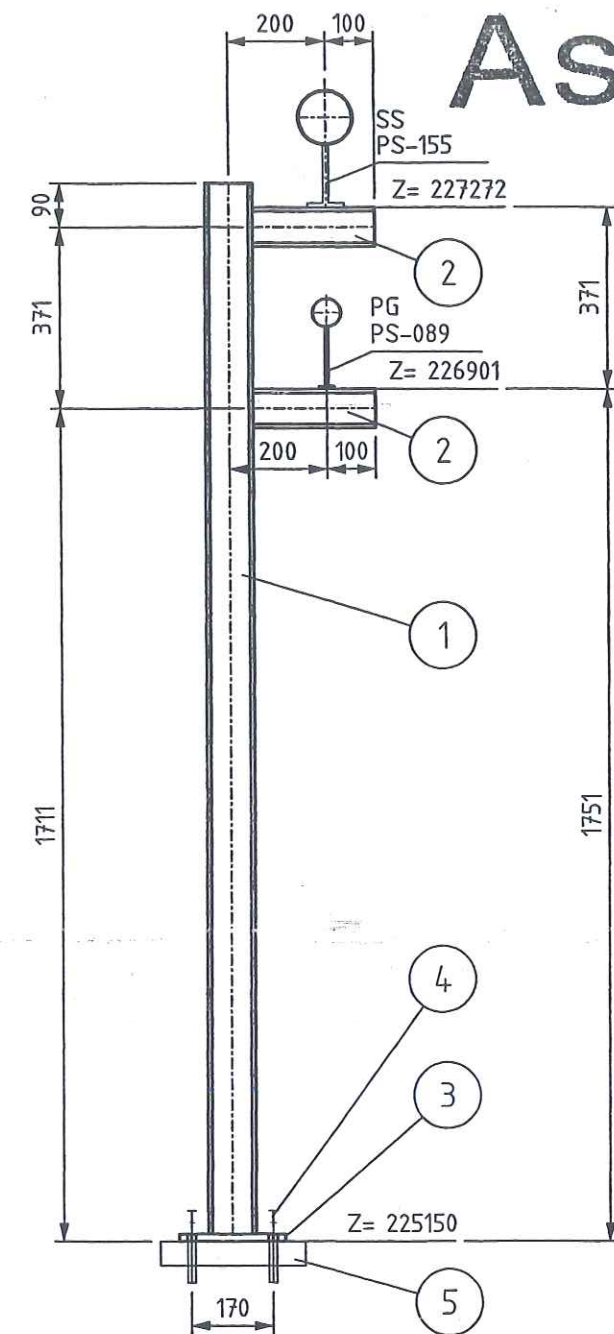
466,13 kg

AS BUILT



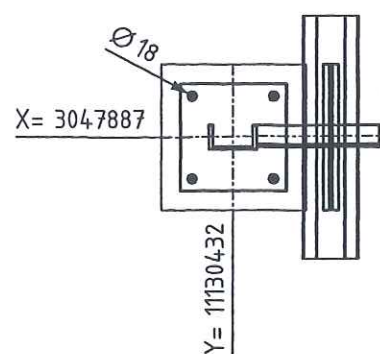
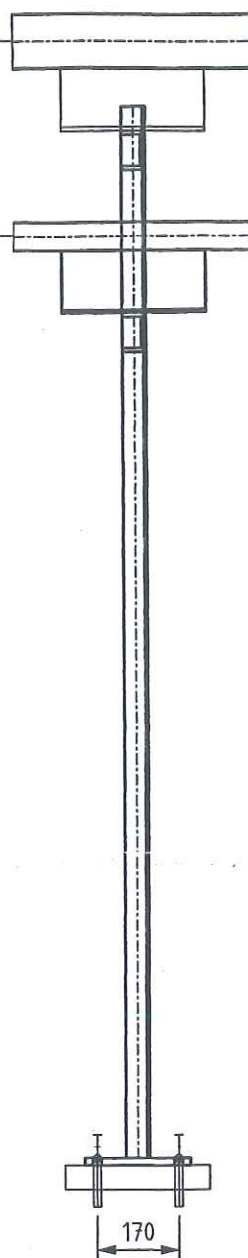






# As built

50-A-15016-AA10C1-



Archives Rev. No.	Rev.	Job No.	Description	Sign.	Date
R E V I S I O N S					

LEGEND:

- PG- PIPE GUIDE
- FP- FIX POINT
- SS- SLIDE SUPPORT
- HN- HANGER
- SSAX- SLIDE SUPPORT WITH AXIAL STOP
- AXLS- AXIAL STOP WITH LIFTING STOP
- SPS- SPRING SUPPORT
- SPGS- SPRING SUPPORT GUIDED
- GSAX- GUIDE SUPPORT WITH AXIAL STOP
- SPAX- SPRING SUPPORT WITH AXIAL STOP
- SH- SPRING HANGER
- AX- AXIAL STOP

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:

- THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER RESISTANT PAINT AND WHITE COLOR

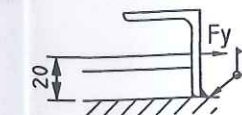
### RESPONSIBILITY OF ERECTION COMPANY

- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING **MUST** BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE **REMOVED**
- THE SUPPORT NEEDS TO BE **PRIME COATED**


TA 120 G DN 15-80



ANGLE STEEL: L40x8x80LENGTH  
ANGLE STEEL AND PLATE ACCORDING  
TO ORDER NO. PIPE SHOE

Total Weight:	32.86 kg
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[illegible]

	Date	Name	Signature
Approved by			
Checked by		Gans	
Checked by	5. JUL 2005	Zuf	
Drawn checked by			


**AIR LIQUIDE**™

Air Liquide AGS GmbH

	Date 23.05.2005	Name MG	Check Zut	History File
	Job Code: K70101 ASU No.9 Kosice Reference: PIPING SUPPORT			Scale: 1:15 Original Format DIN A3 Sheet: 1 of:
Replaces:	Title PS-089			Drawing-No. 792.87926



# As built

Port No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	1	50X50	TEE, SEAMLESS 60.3*2.9/60.3*2.9, ST37.0, DIN 2615-1
2	1	50X15	WELDING NOZZLE FOR PRESSURE GAUGE, DRAWING NO. 792.55981
3	12980 MM	50	PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220
4	4	50	ELBOW, SEAMLESS, 1,5D 60.3*2.9-90, B-ART 3,DIN 2605-1
5	1	50	ELBOW, SEAMLESS, 1,5D 60.3*2.9-45, B-ART 3,DIN 2605-1
6	1	15	V82010H1
7	1	50	V82005 V82005
8	1	15	PT82010 PT82010
9	2	50	PIPE GUIDE PSUPPORT

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	200	50		BEVEL	BEVEL	RN
<2>	372	50		BEVEL	BEVEL	RN
<3>	178	50		BEVEL	BEVEL	RN
<4>	3611	50		BEVEL	BEVEL	RN
<5>	3645	50		BEVEL	BEVEL	RN
<6>	4180	50		BEVEL	BEVEL	RN
<7>	794	50		BEVEL	BEVEL	RN

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

Rev.	General Rev.	Date	Les	Zul
01	General Rev.	15.09.2005	Les	Zul



Air Liquide AGS GmbH

Replaces: 79\_-----  
Replaced by: 79\_-----

Date:	19-SEP-2005	Name:	Lesum / HGH	Checked:	05-09-15	History file:	
Job Code:	K70101	Reference:	ASU No. 9, Kosice	Title:	50 A 15016 AA10C1792.8782601		
Scale:	---	Original format:	DIN A3	Sheet:	1	Sheets:	2
Drawing No:				Rev.			

## GANZE ISO ÜBERARBEITET

LEVELS:

TOP OF INTERNAL ROADS: 225.00m n.m.

TOP OF FOUNDATION: 225.10m

BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00









## Preis-Stückliste 0 80A15018AA10C1 0 80 A 15018 AA10C1 Revision:

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
B0008	16	65	Hexagon head screws 5.6 DIN EN ISO 898-1 / DIN EN ISO 4014	0,13 kg	24,00				0,00
B0016	16	140	HEXAGON HEAD SCREWS 5.6 DIN EN ISO 898-1/ DIN EN ISO 4041		8,00				0,00
B0517	16	0	Hexagon nuts 5-2 DIN EN ISO 898-2 / DIN EN ISO 4032	0,03 kg	32,00				0,00
G0103	80	0	Flat packings Graphite with CrNi-insert Standard 40002 142x2x90		5,00				0,00
GW10	40	0	girth weld 1.0254 ( St 37.0 ) 48,3x4		2,00				0,00
GW12	50	0	girth weld 1.0254 ( St 37.0 ) 60,3x2,9		27,00				0,00
GW16	80	0	girth weld 1.0254 ( St 37.0 ) 88,9x3,2		20,00				0,00
GW5	25	0	girth weld 1.0254 ( St 37.0 ) 33,7x2,6		4,00				0,00
IR15092	80	0	R15092 supplied by AGS		1,00				0,00
IV15092	80	0	V15092 supplied by AGS		1,00				0,00
IV15094	80	0	V15094 supplied by AGS		1,00				0,00
P0044	50	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 60,3x2,9	4,11 kg	21,28				0,00



## Preis-Stückliste 0 80A15018AA10C1 0 80 A 15018 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
P0048	80	0	pipe, seamless 1.0254 ( St 37.0 ) DIN 1629 88,9x3,2	6,76 kg	22,20				0,00
P0205	50	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9	0,49 kg	8,00				0,00
P0207	80	0	Elbow 90° R=1,5 DA, seamless 1.0254 ( St 37.0 ) DIN 2609 88,9x3,2	1,21 kg	7,00				0,00
P0718	50	25	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9x33,7x2,6	0,59 kg	3,00				0,00
P0720	50	40	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9x48,3x2,6	0,63 kg	1,00				0,00
P0729	80	50	Tee made of seamless pipe 1.0254 ( St 37.0 ) DIN 2609 88,9x3,2x60,3x2,9	1,35 kg	1,00				0,00
P1285	50	40	Reducer, concentric, seamless 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9x48,3x2,6	0,28 kg	1,00				0,00
P1433	50	25	Reducer, concentric, seamless 1.0254 ( St 37.0 ) DIN 2609 60,3x2,9x33,7x2,6	0,24 kg	1,00				0,00
P2940	80	0	Welding neck flanges; PN 16 1.0038 ( S235JRG2 ) DIN EN 1092-1 88,9	4,00 kg	4,00				0,00
S0008	80	0	T-support TA 120B 89 W1 OZN 1.0 Hesterberg 89	4,10 kg	3,00				0,00

## Preis-Stückliste 0 80A15018AA10C1 0 80 A 15018 AA10C1 Revision:

(Fortsetzung)

Teilenummer	NW1	NW2	Teilebezeichnung	Einzelgew.	Menge	Lieferung	Montage	L + M	Gesamt
S0018	50	0	T-support TA 120G 61 W1 OZN 1.0 Hesterberg 61	8,30 kg	4,00				0,00
SC5	50	0	Segment cut 60,3		13,00				0,00
SC6	80	0	Segment cut 88,9		7,00				0,00
SCP02	50	0	PIPE CLAMP, RB10A 61 W3 HESTERBERG 60,3		2,00				0,00
SPS087	0	0	SUPPORT PS-87	3,39 kg	1,00				0,00
SPS088	0	0	SUPPORT PS-88	26,29 kg	1,00				0,00
SPS220	80	0	SUPPORT PS-220, L 50, L=300	1,13 kg	1,00				0,00
SPS221	80	0	SUPPORT PS-2221, L 50, L=400	3,94 kg	1,00				0,00
SPS222	80	0	SUPPORT PS-222, L 90, L=200	1,92 kg	1,00				0,00
SPS415	0	0	SUPPORT PS-415, U 100, L=950	10,67 kg	1,00				0,00
Summe: 0 80A15018AA10C1 0				367,11 kg		0,00	0,00		0,00

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

367,11 kg

AS BUILT





Job Code: K70101 ASU No. 9, Kosice Order No.:

Job Code: K70101 ASU No. 9, Kosice Order No.:

Client: AIR LIQUIDE

<b>Client:</b>	<b>AIR LIQUIDE</b>	<b>Title:</b>	<b>80 A 15018</b>
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<b>Client:</b>	<b>AIR LIQUIDE</b>	<b>Title: 80 A 15018</b>	<b>Sheet 1</b>
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<b>Client:</b>	<b>AIR LIQUIDE</b>	<b>Title:</b>	<b>80 A 15018</b>	<b>Sheet 1</b>	<b>Drawing 'No.:</b>
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Job Code: K70101 ASU No. 9, Kosice

Client:	AIR LIQUIDE	Title:	80 A 15018	Sheet 1	Drawing 'No.:	792.87826 - 02	Maker's No.:
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erstellt:	geprüft	(Kunde / TÜV, ...)
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geprüft

29.02.06. DL  
Pelzeder Erich

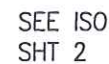
**Schweisstechnologie VAM**  
**Datum / Unterschrift**

Datum / Unterschrift

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 N



SUPPORTS:

PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT  
ON THE PIPIBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

**AIR LIQUIDE**  
Air Liquide AGS GmbH

Date:	Name:	Checked:	History file:	
18-OCT-2005	Lesum / HGH	05-10-20		
Job Code: K70101			Scale	Original format
Reference: ASU No. 9, Kosice			---:---	DIN A3
			Sheet: 1	Sheets: 3
Title:			Drawing No:	Rev.
80 A 15018 AA10C1			792.87826	02

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	700	50		BEVEL	BEVEL	RN
<2>	4630	50		BEVEL	BEVEL	RN
<3>	38	50		BEVEL	BEVEL	RN
<4>	5296	80		BEVEL	BEVEL	RN

RECEIVED

21 OCT. 2005

LEVELS:	
TOP OF INTERNAL ROADS:	225,00m n.m.
TOP OF FOUNDATION:	225,10m
BOTTOM OF STEEL STRUCTURE:	225,15m = ±0,00





# As built

Part No.	Qty [PCS/MM]	NPD [Size]	Component Description
1	2	50X25	TEE, SEAMLESS 60.3*2.9/33.7*2.6, ST37.0, DIN 2615-1
2	1	50X25	REDUCER, CONCENTRIC, SEAMLESS 60.3*2.9/33.7*2.6, ST37.0, DIN 2616-1
3	6506 MM	50	PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220
4	1	50	ELBOW, SEAMLESS, 1,5D 60.3*2.9-45, B-ART 3,DIN 2605-1
5	1	50	ELBOW, SEAMLESS, 1,5D 60.3*2.9-90, B-ART 3,DIN 2605-1

## CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	810	50		BEVEL	BEVEL	RN
<2>	4386	50		BEVEL	BEVEL	RN
<3>	1310	50		BEVEL	BEVEL	RN

SEE ISO  
25 15038  
Y 11129895  
X 3058841  
EL +225440

25NPD

2  
50X25NPD

1  
50X25NPD  
EL +225440

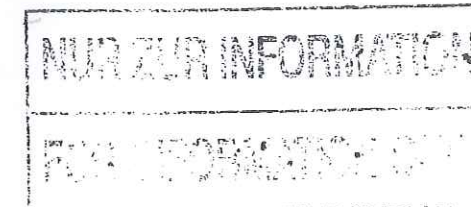
SEE ISO  
25 A 15036  
Y 11129895  
X 3058790  
EL +225580

SEE ISO  
25 A 15033  
Y 11129895  
X 3057340  
EL +225351

1  
50X25NPD

PS 222  
d 90 l=200

SEE SHT  
SHT 1



21 OCT. 2005

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPIBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT


Rev.	Revisions	Date	Name	checked
02	General Rev.	20.10.2005	Les	Zut
01	General Rev.	15.09.2005	Les	Zut

<b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date: 18-OCT-2005	Name: Lesum / HGH	Checked: 05-10-20	History file:
	Job Code: K70101		Scale: ---:---	Original format: DIN A3
Reference: ASU No. 9, Kosice		Sheet: 2	Sheets: 3	
Title: 80 A 15018 AA10C1792.8782602		Drawing No: Rev.		







 N



SUPPORTS:

PS-(NO.) - PIPE SUPPORT  
WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT  
ON THE PIPIBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

 <b>AIR LIQUIDE</b> Air Liquide AGS GmbH	Date:	Name:	Checked:	History file:
	18-OCT-2005	Lesum / HGH	05-10-20	27
	Job Code: K70101	Scale	Original format	
	Reference: ASU No. 9, Kosice	---	DIN A3	
		Sheet: 3	Sheets: 3	
Replaces: 79_	Title:		Drawing No:	Rev.
Replaced by: 79_	80 A 15018 AA10C1		792.87826	02

CUT PIPE LENGTH

PIECE NO	LENGTH (MM)	NPD (MM)	REMARKS	END ONE	END TWO	ITEM CODE
<1>	119	80		BEVEL	BEVEL	RN
<2>	400	80	3.1	BEVEL	BEVEL	RN
<3>	7635 7000	80	100	BEVEL	BEVEL	RN
<4>	4175	80		BEVEL	BEVEL	RN
<5>	4529	80		BEVEL	BEVEL	RN
	5250					

# DECLASSIFICATION

LEVELS:

TOP OF INTERNAL ROADS:	225,00m n.m.
TOP OF FOUNDATION:	225,10m
BOTTOM OF STEEL STRUCTURE:	225,15m = $\pm 0,00$

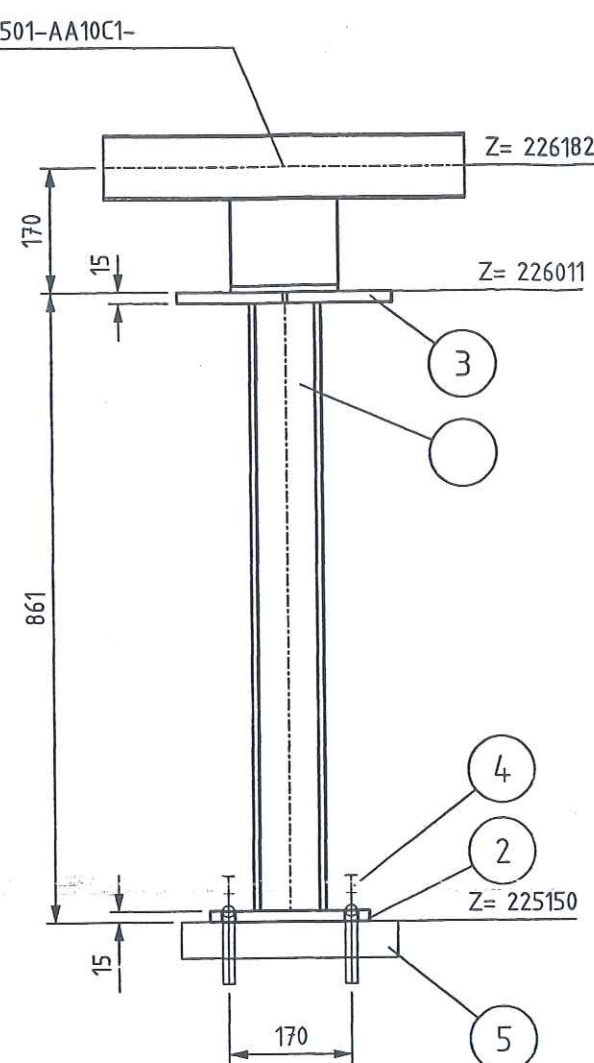
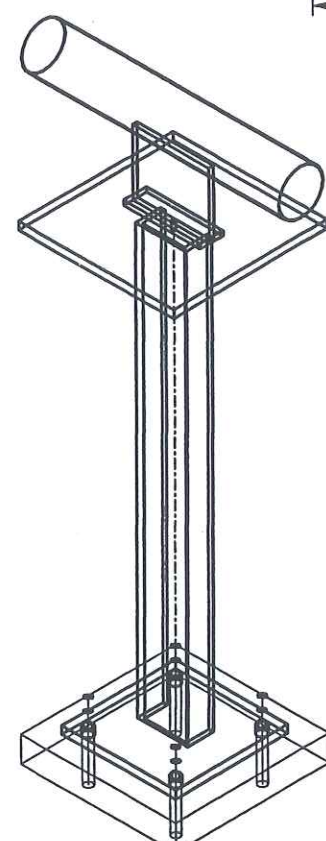
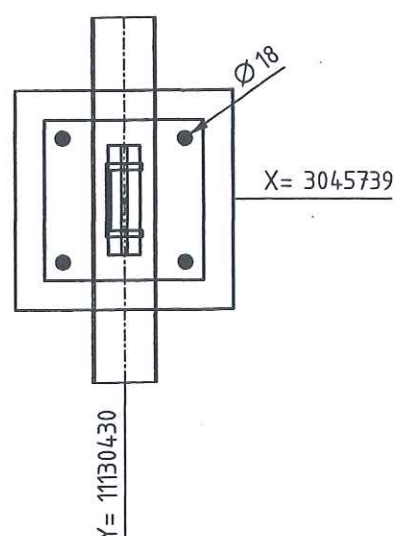
21. OKT. 2005







# As built



LEGEND:

- ```

LEGEND:
-PG-      PIPE GUIDE
-FP-      FIX POINT
-SS-      SLIDE SUPPORT
-HN-      HANGER
-SSAX-    SLIDE SUPPORT WITH AXIAL STOP
-AXLS-    AXIAL STOP WITH LIFTING STOP
-SPS-     SPRING SUPPORT
-SPGS-    SPRING SUPPORT GUIDED
-GSAX-    GUIDE SUPPORT WITH AXIAL STOP
-SPAX-    SPRING SUPPORT WITH AXIAL STOP
-SH-      SPRING HANGER
-AX-      AXIAL STOP

```

- ALL SHARP EDGES REMOVED
- MANUFACTURING ALLOWANCE ACC. TO DIN ISO 2766-M
- FOR STAINLESS STEEL PIPES (SS) PIPE SHOE WRAP INSIDE WITH PTFE-BAND
- NOT MARKING WELDED SEAMS a=4mm ROUND

MARKING:

- MARKING:  
-THE SUPPORT ID-NO. IS TO BE WRITTEN WITH WEATHER  
RESISTANT PAINT AND WHITE COLOR

## RESPONSIBILITY OF ERECTION COMPANY

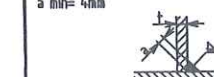
- LOCATION OF FIELD WELDS
- FITTING LENGTHS
- DIMENSIONAL CHECK AT SITE BEFORE STARTING SPOOL MANUFACTURE

COATING:

- ALL SURFACES FOR COATING MUST BE FREE OF CONTAMINANTS ALL OIL, GREASE AND ALL LOOSE DUST
- THE RUST, WELDING FLUX AND DIRT FROM THE COMPLETED SUPPORT NEEDS TO BE REMOVED
- THE SUPPORT NEEDS TO BE PRIME COATED

WELDING DATA ACC. TO DIN 1912 T5


$a \geq 0,7 \times t$   
 $a_{\min} = 4 \text{ mm}$



|               |          |
|---------------|----------|
| Total Weight: | 25.09 kg |
|---------------|----------|

[illegible]

|                  |              |      |                    |
|------------------|--------------|------|--------------------|
|                  | Date         | Name | Signature          |
| Approved by      |              |      |                    |
| Checked by       |              | Gans |                    |
| Checked by       | 25 JUL. 2005 | Zut  | <i>[Signature]</i> |
| Drawn checked by |              |      |                    |





**AIR LIQUIDE**

Air Liquide AGS GmbH

|           |                                  |      |        |                       |                        |
|-----------|----------------------------------|------|--------|-----------------------|------------------------|
|           | Date                             | Name | Check. | History File          |                        |
|           | 23.05.2005                       | MG   | Zuf    |                       |                        |
|           | Job Code: K70101 ASU No.9 Kosice |      |        | Scale: 1:10           | Original Format DIN A3 |
|           | Reference: PIPING SUPPORT        |      |        | Sheet: 1              | of:                    |
| Replaces: | Title PS-088                     |      |        | Drawing-No. 792.87926 | Rev a                  |

|                     |      |         |             |       |      |
|---------------------|------|---------|-------------|-------|------|
|                     |      |         |             |       |      |
| Archives<br>Rev No. | Rev. | Job No. | Description | Sign. | Date |
| R E V I S I O N S   |      |         |             |       |      |



Preis-Stückliste 0 25C15020AA10C1 0 25 C 15020 AA10C1 Revision:

| Teilenummer | NW1 | NW2 | Teilebezeichnung                                                     | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|-------------|-----|-----|----------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| B0002       | 12  | 55  | HEXAGON HEAD SCREWS<br>5.6 DIN EN ISO 898-1 / DIN EN ISO 4014        | 0,06 kg    | 8,00  |           |         |       | 0,00   |
| B0007       | 16  | 60  | Hexagon head screws<br>5.6 DIN EN ISO 898-1 / DIN EN ISO 4014        | 0,12 kg    | 8,00  |           |         |       | 0,00   |
| B0516       | 12  | 0   | Hexagon nuts<br>5-2 DIN EN ISO 898-2 / DIN EN ISO 4032               | 0,02 kg    | 8,00  |           |         |       | 0,00   |
| B0517       | 16  | 0   | Hexagon nuts<br>5-2 DIN EN ISO 898-2 / DIN EN ISO 4032               | 0,03 kg    | 8,00  |           |         |       | 0,00   |
| G0097       | 25  | 0   | Flat packings<br>Graphite with CrNi-insert Standard 40002<br>70x2x35 |            | 2,00  |           |         |       | 0,00   |
| GW2         | 15  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>21,3x2                           |            | 4,00  |           |         |       | 0,00   |
| GW41        | 20  | 0   | GRITH WELD<br>1.0254                                                 |            | 1,00  |           |         |       | 0,00   |
| GW5         | 25  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>33,7x2,6                         |            | 28,00 |           |         |       | 0,00   |
| IA15011     | 25  | 0   | A15011<br>supplied by AGS<br>33,7                                    |            | 1,00  |           |         |       | 0,00   |
| IH15082     | 25  | 0   | H15082<br>supplied by AGS<br>33,7                                    |            | 2,00  |           |         |       | 0,00   |
| IH15085H1   | 25  | 0   | H15085H1                                                             |            | 1,00  |           |         |       | 0,00   |
| IV15088     | 25  | 0   | V15088<br>supplied by AGS<br>33,7                                    |            | 1,00  |           |         |       | 0,00   |
| P0001       | 15  | 0   | PIPE, SEAMLESS<br>1.0254 ( St 37.0 ) DIN 1629<br>21,3x2              | 0,95 kg    | 1,05  |           |         |       | 0,00   |

## Preis-Stückliste 0 25C15020AA10C1 0 25 C 15020 AA10C1 Revision:

(Fortsetzung)

| Teilenummer | NW1 | NW2 | Teilebezeichnung                                                                | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|-------------|-----|-----|---------------------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| P0038       | 25  | 0   | pipe, seamless<br>1.0254 ( St 37.0 ) DIN 1629<br>33,7x2,6                       | 1,99 kg    | 9,20  |           |         |       | 0,00   |
| P0159       | 15  | 0   | ELBOW 90° R=1,5 DA, SEAMLESS<br>1.0254 ( St 37.0 ) DIN 2609<br>21,3x2           | 0,04 kg    | 2,00  |           |         |       | 0,00   |
| P0202       | 25  | 0   | Elbow 90° R=1,5 DA, seamless<br>1.0254 ( St 37.0 ) DIN 2609<br>33,7x2,6         | 0,12 kg    | 7,00  |           |         |       | 0,00   |
| P0708       | 25  | 25  | Tee made of seamless pipe<br>1.0254 ( St 37.0 ) DIN 2609<br>33,7x2,6x33,7x2,6   | 0,19 kg    | 3,00  |           |         |       | 0,00   |
| P1417       | 25  | 15  | Reducer, concentric, seamless<br>1.0254 ( St 37.0 ) DIN 2609<br>33,7x2,6x21,3x2 | 0,08 kg    | 1,00  |           |         |       | 0,00   |
| P2935       | 25  | 0   | Welding neck flanges; PN 40<br>1.0038 ( S235JRG2 ) DIN EN 1092-1<br>33,7        | 1,00 kg    | 2,00  |           |         |       | 0,00   |
| S0015       | 25  | 0   | T-support TA 120G 34 W1 OZN<br>1.0 Hesterberg<br>34                             | 7,60 kg    | 1,00  |           |         |       | 0,00   |
| SC1         | 15  | 0   | Segment cut<br>21,3                                                             |            | 4,00  |           |         |       | 0,00   |
| SC2         | 20  | 0   | Segment cut<br>26,9                                                             |            | 1,00  |           |         |       | 0,00   |
| SC3         | 25  | 0   | Segment cut<br>33,7                                                             |            | 19,00 |           |         |       | 0,00   |
| SPG01       | 0   | 0   | PIPE GUIDE<br>1.0 HESTERBERG                                                    |            | 1,00  |           |         |       | 0,00   |
| SPS223      | 25  | 0   | SUPPORT PS-223, H 100, L=300                                                    | 26,88 kg   | 1,00  |           |         |       | 0,00   |
| XZB09       | 25  | 0   | HOLLÄNDER<br>5.6                                                                |            | 2,00  |           |         |       | 0,00   |



## Preis-Stückliste 0 25C15020AA10C1 0 25 C 15020 AA10C1 Revision:

(Fortsetzung)

| Teilenummer               | NW1 | NW2 | Teilebezeichnung                 | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|---------------------------|-----|-----|----------------------------------|------------|-------|-----------|---------|-------|--------|
| XZB10                     | 15  | 0   | THREAD END<br>5,6<br>21,3        |            | 2,00  |           |         |       | 0,00   |
| XZB11                     | 20  | 0   | THREAD END<br>5,6<br>26,9        |            | 1,00  |           |         |       | 0,00   |
| XZB12                     | 25  | 0   | THREAD END<br>5,6<br>33,7        |            | 5,00  |           |         |       | 0,00   |
| XZB13                     | 25  | 0   | DOUBLE THREAD END<br>5,6<br>33,7 |            | 1,00  |           |         |       | 0,00   |
| Summe: 0 25C15020AA10C1 0 |     |     |                                  | 59,20 kg   |       | 0,00      | 0,00    |       | 0,00   |

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

59,20 kg

AS BUILT



Prot Nr.

Jop Code: K70101 ASU No. 9, Kosice Order No.:

Client: AIR LIQUIDE

**Title:**

25 C 15020

Sheet 1

**Drawing No.:**

**792.87826 - 00**

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft

10.02.2015 Pelzeder Erich  
Datum / Unterschrift

**Schweisstechnologie VAM**  
**Datum / Unterschrift**

**Datum / Unterschrift**

[illegible]

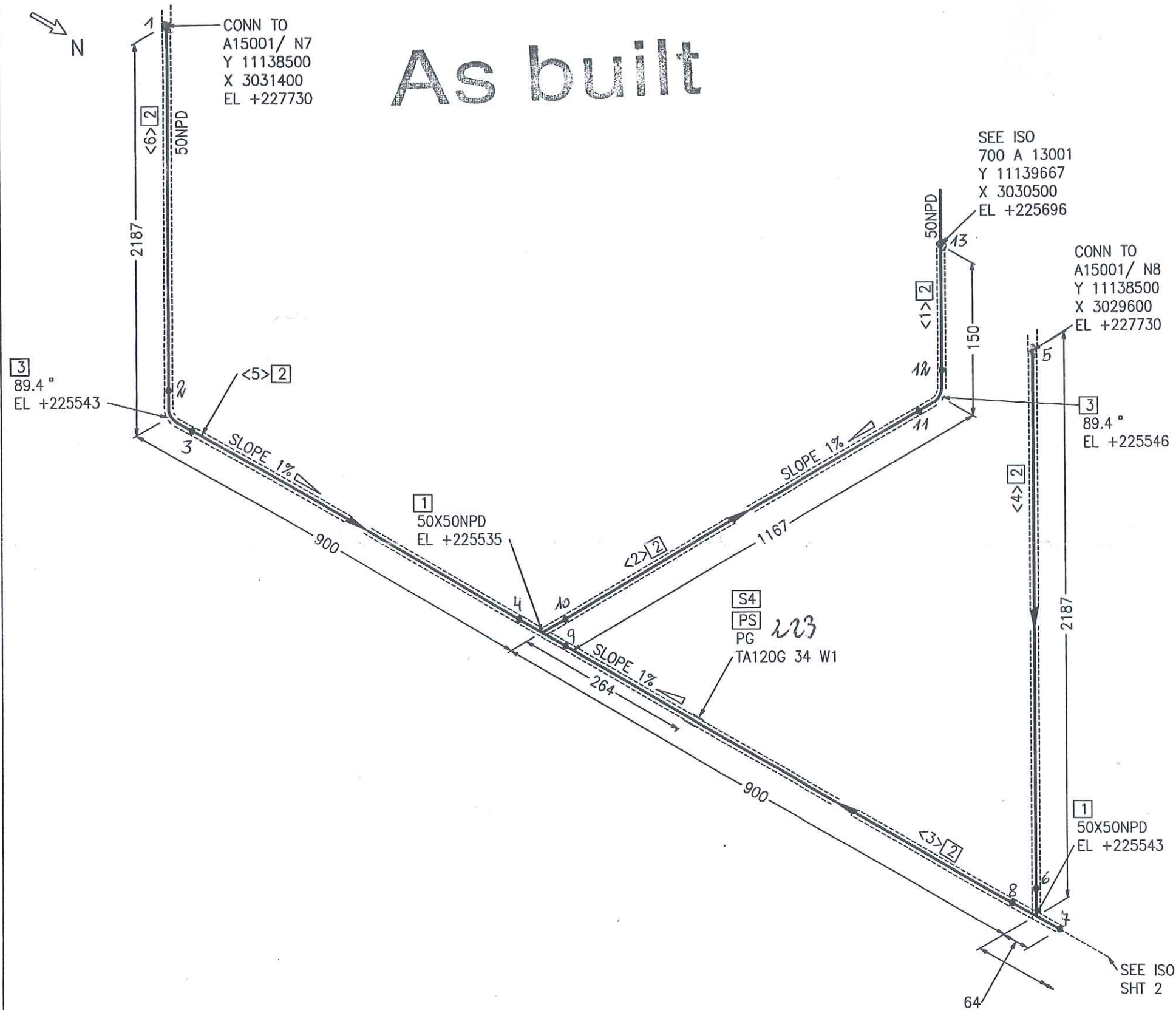


# As built

| Part No. | Qty [PCS/MM] | NPD [Size] | Component Description                                   |
|----------|--------------|------------|---------------------------------------------------------|
| 1        | 2            | 50X50      | TEE, SEAMLESS 60.3*2.9/60.3*2.9, ST37.0, DIN 2615-1     |
| 2        | 6871 MM      | 50         | PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220           |
| 3        | 2            | 50         | ELBOW, SEAMLESS, 1,5D 60.3*2.9-89.4, B-ART 3,DIN 2605-1 |
| 4        | 1            | 50         | PIPE GUIDE PSUPPORT                                     |

## CUT PIPE LENGTH

| PIECE NO | LENGTH (MM) | NPD (MM) | REMARKS | END ONE | END TWO | ITEM CODE |
|----------|-------------|----------|---------|---------|---------|-----------|
| <1>      | 75          | 50       |         |         | BEVEL   | RN        |
| <2>      | 1028        | 50       |         | BEVEL   | BEVEL   | RN        |
| <3>      | 772         | 50       |         | BEVEL   | BEVEL   | RN        |
| <4>      | 2123        | 50       |         | BEVEL   | SQ.CUT  | RN        |
| <5>      | 761         | 50       |         | BEVEL   | BEVEL   | RN        |
| <6>      | 2112        | 50       |         | BEVEL   | SQ.CUT  | RN        |



FOR INFORMATION ONLY

2 1 OCT 2005

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

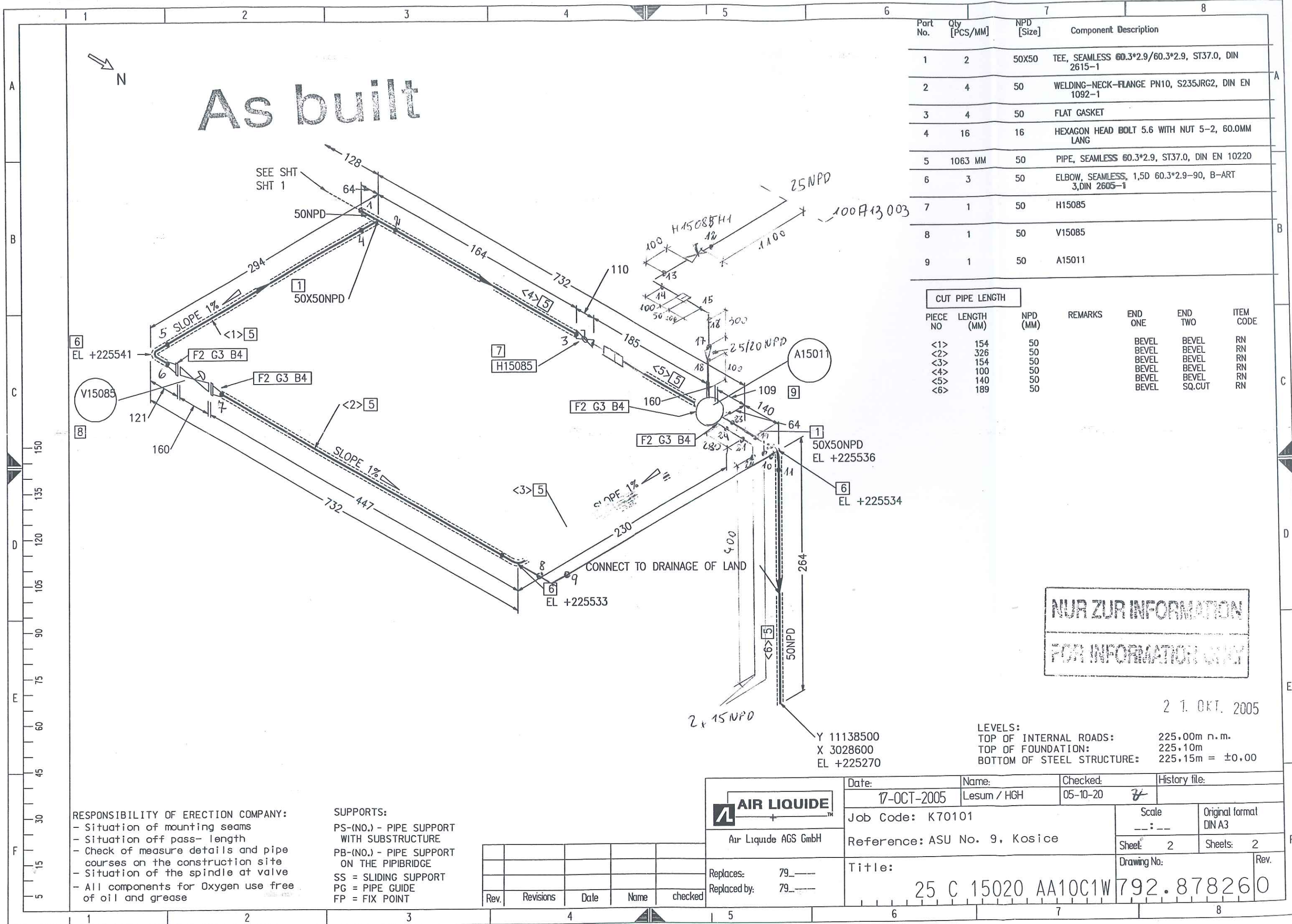
RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

|                          |            |                    |       |             |                  |            |               |
|--------------------------|------------|--------------------|-------|-------------|------------------|------------|---------------|
| <br>Air Liquide AGS GmbH | Date:      | 17-OCT-2005        | Name: | Lesum / HGH | Checked:         | 05-10-20   | History file: |
|                          | Job Code:  | K70101             |       |             | Scale:           | 1 : ---    |               |
|                          | Reference: | ASU No. 9, Kosice  |       |             | Original format: | DIN A3     |               |
|                          | Title:     | 25 C 15020 AA10C1W |       |             | Sheet:           | 1          | Sheets:       |
| Replaces:                | 79_---     | Drawing No:        |       |             |                  |            |               |
| Replaced by:             | 79_---     | Rev.               |       |             |                  |            |               |
| Rev.                     |            | Revisions          | Date  | Name        | checked          | 792.878260 |               |







Preis-Stückliste 0 25C15021AA10C1 0 25 C 15021 AA10C1 Revision:

| Teilenummer | NW1 | NW2 | Teilebezeichnung                                                     | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|-------------|-----|-----|----------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| B0002       | 12  | 55  | HEXAGON HEAD SCREWS<br>5.6 DIN EN ISO 898-1 / DIN EN ISO 4014        | 0,06 kg    | 8,00  |           |         |       | 0,00   |
| B0516       | 12  | 0   | Hexagon nuts<br>5-2 DIN EN ISO 898-2 / DIN EN ISO 4032               | 0,02 kg    | 8,00  |           |         |       | 0,00   |
| G0097       | 25  | 0   | Flat packings<br>Graphite with CrNi-insert Standard 40002<br>70x2x35 |            | 2,00  |           |         |       | 0,00   |
| GW2         | 15  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>21,3x2                           |            | 6,00  |           |         |       | 0,00   |
| GW41        | 20  | 0   | GRITH WELD<br>1.0254                                                 |            | 1,00  |           |         |       | 0,00   |
| GW5         | 25  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>33,7x2,6                         |            | 30,00 |           |         |       | 0,00   |
| IA15021     | 25  | 0   | A15021<br>supplied by AGS<br>33,7                                    |            | 1,00  |           |         |       | 0,00   |
| IH15087     | 25  | 0   | H15087<br>supplied by AGS<br>33,7                                    |            | 2,00  |           |         |       | 0,00   |
| IH15087H1   | 25  | 0   | 15087H1                                                              |            | 1,00  |           |         |       | 0,00   |
| IV15088     | 25  | 0   | V15088<br>supplied by AGS<br>33,7                                    |            | 1,00  |           |         |       | 0,00   |
| P0001       | 15  | 0   | PIPE, SEAMLESS<br>1.0254 ( St 37.0 ) DIN 1629<br>21,3x2              | 0,95 kg    | 1,05  |           |         |       | 0,00   |
| P0038       | 25  | 0   | pipe, seamless<br>1.0254 ( St 37.0 ) DIN 1629<br>33,7x2,6            | 1,99 kg    | 9,20  |           |         |       | 0,00   |



## Preis-Stückliste 0 25C15021AA10C1 0. 25 C 15021 AA10C1 Revision:

(Fortsetzung)

| Teilenummer | NW1 | NW2 | Teilebezeichnung                                                              | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|-------------|-----|-----|-------------------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| P0159       | 15  | 0   | ELBOW 90° R=1,5 DA, SEAMLESS<br>1.0254 ( St 37.0 ) DIN 2609<br>21,3x2         | 0,04 kg    | 2,00  |           |         |       | 0,00   |
| P0174       | 25  | 0   | Elbow 90° R=1,5 DA, seamless<br>1.0254 ( St 37.0 ) DIN 2609<br>33,7x2,6       | 0,12 kg    | 7,00  |           |         |       | 0,00   |
| P0708       | 25  | 25  | Tee made of seamless pipe<br>1.0254 ( St 37.0 ) DIN 2609<br>33,7x2,6x33,7x2,6 | 0,19 kg    | 3,00  |           |         |       | 0,00   |
| P1283       | 25  | 20  | REDUCER, CONCENTRIC, SEAMLESS<br>S35.81/DIN 2616-1/<br>33,7x26,9              | 0,21 kg    | 1,00  |           |         |       | 0,00   |
| P2935       | 25  | 0   | Welding neck flanges; PN 40<br>1.0038 ( S235JRG2 ) DIN EN 1092-1<br>33,7      | 1,00 kg    | 2,00  |           |         |       | 0,00   |
| S0015       | 25  | 0   | T-support TA 120G 34 W1 OZN<br>1.0 Hesterberg<br>34                           | 7,60 kg    | 1,00  |           |         |       | 0,00   |
| SPG01       | 0   | 0   | PIPE GUIDE<br>1.0 HESTERBERG                                                  |            | 1,00  |           |         |       | 0,00   |
| SPS224      | 50  | 0   | SUPPORT PS-224, H 100, L=300                                                  | 26,88 kg   | 1,00  |           |         |       | 0,00   |
| XZB09       | 25  | 0   | HOLLÄNDER<br>5,6                                                              |            | 2,00  |           |         |       | 0,00   |
| XZB10       | 15  | 0   | THREAD END<br>5,6<br>21,3                                                     |            | 2,00  |           |         |       | 0,00   |
| XZB11       | 20  | 0   | THREAD END<br>5,6<br>26,9                                                     |            | 1,00  |           |         |       | 0,00   |
| XZB12       | 25  | 0   | THREAD END<br>5,6<br>33,7                                                     |            | 5,00  |           |         |       | 0,00   |

Preis-Stückliste 0 25C15021AA10C1 0 25 C 15021 AA10C1 Revision:

(Fortsetzung)

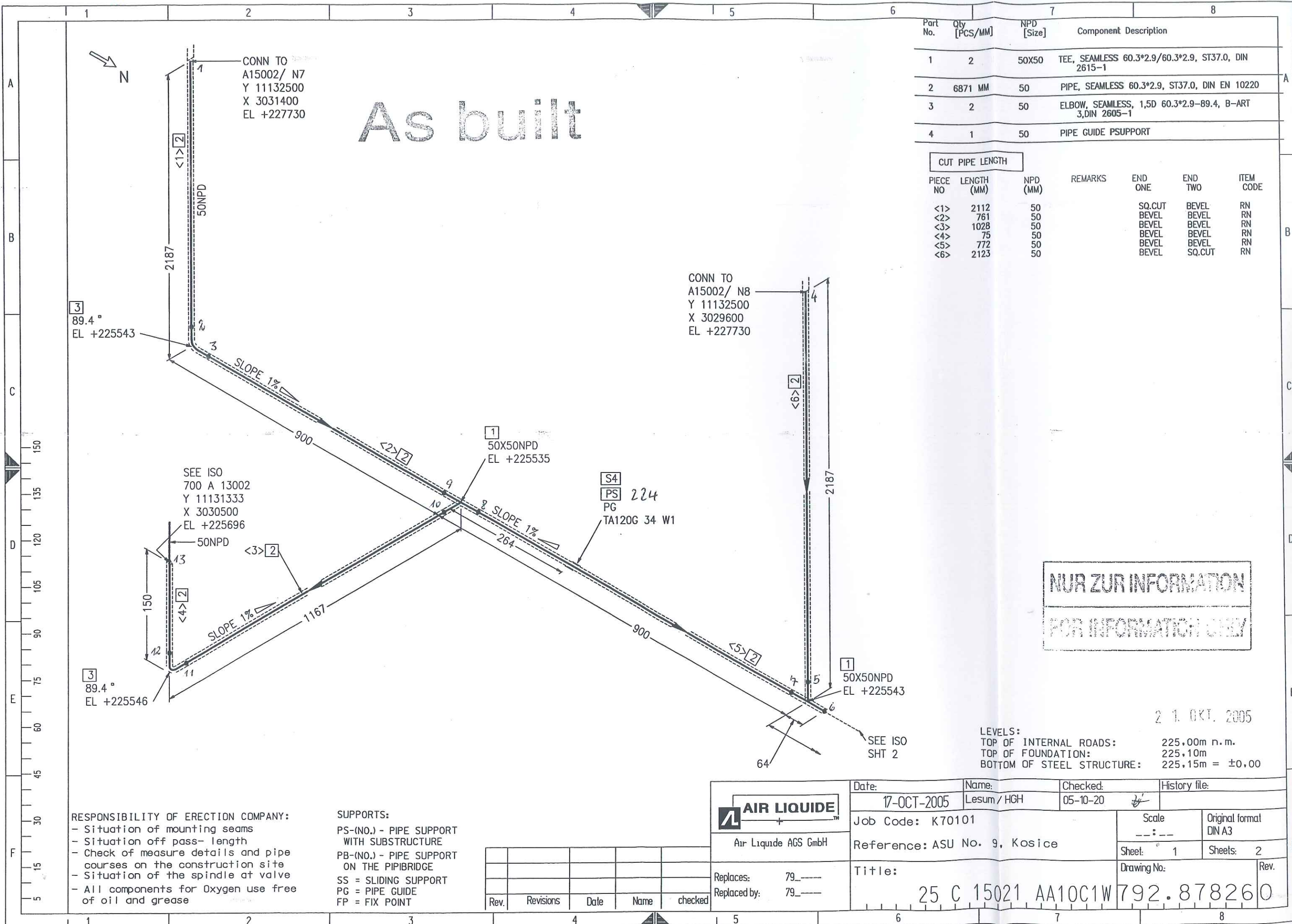
| Teilenummer               | NW1 | NW2 | Teilebezeichnung                  | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|---------------------------|-----|-----|-----------------------------------|------------|-------|-----------|---------|-------|--------|
| XZB13                     | 25  | 0   | DOUBLLE THREAD END<br>5.6<br>33,7 |            | 1,00  |           |         |       | 0,00   |
| Summe: 0 25C15021AA10C1 0 |     |     |                                   | 58,13 kg   |       | 0,00      | 0,00    |       | 0,00   |

Liefersumme:  
Montagesumme:  
Gesamtsumme:  
Gesamtgewicht: 58,13 kg  
\*\* Ende der Ausgabe

AS BUILT







| Part No. | Qty [PCS/MM] | NPD [Size] | Component Description                                   |
|----------|--------------|------------|---------------------------------------------------------|
| 1        | 2            | 50X50      | TEE, SEAMLESS 60.3*2.9/60.3*2.9, ST37.0, DIN 2615-1     |
| 2        | 6871 MM      | 50         | PIPE, SEAMLESS 60.3*2.9, ST37.0, DIN EN 10220           |
| 3        | 2            | 50         | ELBOW, SEAMLESS, 1,5D 60.3*2.9-89.4, B-ART 3,DIN 2605-1 |
| 4        | 1            | 50         | PIPE GUIDE PSUPPORT                                     |

| CUT PIPE LENGTH |             |          |         |         |         |
|-----------------|-------------|----------|---------|---------|---------|
| PIECE NO        | LENGTH (MM) | NPD (MM) | REMARKS | END ONE | END TWO |
| <1>             | 2112        | 50       |         | SQ.CUT  | BEVEL   |
| <2>             | 761         | 50       |         | BEVEL   | BEVEL   |
| <3>             | 1028        | 50       |         | BEVEL   | BEVEL   |
| <4>             | 75          | 50       |         | BEVEL   | BEVEL   |
| <5>             | 772         | 50       |         | BEVEL   | BEVEL   |
| <6>             | 2123        | 50       |         | BEVEL   | SQ.CUT  |

NUR ZUR INFORMATION  
FOR INFORMATION ONLY

2 1. OKT. 2005  
LEVELS:  
TOP OF INTERNAL ROADS: 225,00m n.m.  
TOP OF FOUNDATION: 225,10m  
BOTTOM OF STEEL STRUCTURE: 225,15m = ±0,00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

|  |            |                    |       |             |                  |            |               |
|--|------------|--------------------|-------|-------------|------------------|------------|---------------|
|  | Date:      | 17-OCT-2005        | Name: | Lesum / HGH | Checked:         | 05-10-20   | History file: |
|  | Job Code:  | K70101             |       |             | Scale:           | 1          |               |
|  | Reference: | ASU No. 9, Kosice  |       |             | Original format: | DIN A3     |               |
|  | Title:     | 25 C 15021 AA10C1W |       |             | Sheet:           | 2          |               |
|  | Replaces:  | 79_                |       |             | Drawing No:      | 792.878260 |               |

| Rev. | Revisions | Date | Name | checked |
|------|-----------|------|------|---------|
|      |           |      |      |         |
|      |           |      |      |         |
|      |           |      |      |         |





Prot Nr.

|           |                          |            |
|-----------|--------------------------|------------|
| Jop Code: | K70101 ASU No. 9, Kosice | Order No.: |
|-----------|--------------------------|------------|

Client: AIR LIQUIDE

**Title:** 25 C 15021

Sheet 2

**Drawing No.:**

**Maker's No.:**

(Kunde / TÜV, ...)

geprüft

erstellt:

10.07.06 Pell  
Pelzeder Erich  
Datum / Unterschrift

Schweisstechnologie VAM  
Datum / Unterschrift

Datum / Unterschrift

[illegible]







Preis-Stückliste 0 25C15022BA25C1-W 0 25 C 15022 BA25C1-W Revision:

| Teilenummer | NW1 | NW2 | Teilebezeichnung                                                      | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|-------------|-----|-----|-----------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| B0160       | 12  | 70  | Screw bolts<br>24 CrMo 5 ( 1.7258 ) DIN 267-13                        | 0,05 kg    | 24,00 |           |         |       | 0,00   |
| B0500       | 12  | 0   | HEXAGON HEAD NUTS<br>Ck 35 ( 1.1181 ) DIN 267-13                      | 0,02 kg    | 48,00 |           |         |       | 0,00   |
| G0097       | 25  | 0   | Flat packings<br>Graphite with CrNi-insert Standard 40002<br>70x2x35  |            | 6,00  |           |         |       | 0,00   |
| G0100       | 50  | 0   | Flat packings<br>Graphite with CrNi-insert Standard 40002<br>107x2x61 |            | 1,00  |           |         |       | 0,00   |
| GW12        | 50  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>60,3x2,9                          |            | 1,00  |           |         |       | 0,00   |
| GW20        | 100 | 0   | girth weld<br>1.0254 ( St 37.0 )<br>114,3x3,6                         |            | 4,00  |           |         |       | 0,00   |
| GW5         | 25  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>33,7x2,6                          |            | 24,00 |           |         |       | 0,00   |
| IH15086     | 25  | 0   | H15086<br>supplied by AGS<br>33,7                                     |            | 1,00  |           |         |       | 0,00   |
| ITV15043    | 25  | 0   | TV15043<br>supplied by AGS<br>33,7                                    |            | 1,00  |           |         |       | 0,00   |
| IV15046     | 25  | 0   | V15046<br>supplied by AGS<br>33,7                                     |            | 1,00  |           |         |       | 0,00   |
| IV15083     | 25  | 0   | V15083<br>supplied by AGS<br>33,7                                     |            | 1,00  |           |         |       | 0,00   |

## Preis-Stückliste 0 25C15022BA25C1-W 0 25 C 15022 BA25C1-W Revision:

(Fortsetzung)

| Teilenummer | NW1 | NW2 | Teilebezeichnung                                                                  | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|-------------|-----|-----|-----------------------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| P0025       | 100 | 0   | pipe, seamless<br>1.0254 ( St 37.0 ) DIN 1629<br>114,3x3,6                        | 9,83 kg    | 0,70  |           |         |       | 0,00   |
| P0057       | 25  | 0   | pipe, seamless<br>1.0305 ( St 35.8 I ) DIN 17175<br>33,7x2,6                      | 1,99 kg    | 6,30  |           |         |       | 0,00   |
| P0167       | 100 | 0   | Elbow 90° R=1,5 DA, seamless<br>1.0254 ( St 37.0 ) DIN 2609<br>114,3x3,6          | 2,35 kg    | 1,00  |           |         |       | 0,00   |
| P0213       | 25  | 0   | Elbow 90° R=1,5 DA, seamless<br>1.0305 ( St 35.8 I ) DIN 2609<br>33,7x2,6         | 0,12 kg    | 6,00  |           |         |       | 0,00   |
| P0788       | 25  | 25  | Tee made of seamless pipe<br>1.0305 ( St 35.8 I ) DIN 2609<br>33,7x2,6x33,7x2,6   | 0,23 kg    | 2,00  |           |         |       | 0,00   |
| P1433       | 50  | 25  | Reducer, concentric, seamless<br>1.0254 ( St 37.0 ) DIN 2609<br>60,3x2,9x33,7x2,6 | 0,24 kg    | 1,00  |           |         |       | 0,00   |
| P1456       | 100 | 80  | REDUCER, CONCENTRIC, SEAMLESS<br>1.0254 ( St 37.0 ) DIN 2609<br>114,3x88,9        | 0,92 kg    | 1,00  |           |         |       | 0,00   |
| P2619       | 100 | 0   | CAPS<br>1.0254 ( St 37.0 ) DIN 2609<br>114,3                                      |            | 1,00  |           |         |       | 0,00   |
| P2878       | 50  | 0   | Welding neck flanges; PN 16<br>1.0038 ( S235JRG2 ) DIN EN 1092-1<br>60,3          | 3,00 kg    | 1,00  |           |         |       | 0,00   |
| P2967       | 25  | 0   | Welding neck flanges; PN 40<br>C22.8 ( 1.0460 ) DIN 2519<br>33,7                  | 1,00 kg    | 6,00  |           |         |       | 0,00   |



| Preis-Stückliste 0 25C15022BA25C1-W 0 25 C 15022 BA25C1-W Revision: |     |     |                                                         |  |            |       |           |         |       |        |
|---------------------------------------------------------------------|-----|-----|---------------------------------------------------------|--|------------|-------|-----------|---------|-------|--------|
| (Fortsetzung)                                                       |     |     |                                                         |  |            |       |           |         |       |        |
| Teilenummer                                                         | NW1 | NW2 | Teilebezeichnung                                        |  | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
| PWI5                                                                | 80  | 25  | Pipe weld-in<br>1.0254 ( St 37.0 )<br>88,9x3,2x33,7x2,6 |  |            | 3,00  |           |         |       | 0,00   |
| S0015                                                               | 25  | 0   | T-support TA 120G 34 W1 OZN<br>1.0 Hesterberg<br>34     |  | 7,60 kg    | 1,00  |           |         |       | 0,00   |
| SC3                                                                 | 25  | 0   | Segment cut<br>33,7                                     |  |            | 13,00 |           |         |       | 0,00   |
| SC7                                                                 | 100 | 0   | Segment cut<br>114,3                                    |  |            | 2,00  |           |         |       | 0,00   |
| SPC01                                                               | 25  | 0   | PIPE CLAMP, DN 25<br>33,7                               |  |            | 2,00  |           |         |       | 0,00   |
| SPS225                                                              | 25  | 0   | SUPPORT PS-225, L 50, L=500                             |  | 0,20 kg    | 1,00  |           |         |       | 0,00   |
| SPS226                                                              | 25  | 0   | SUPPORT PS-226, H 100, L=300                            |  | 9,32 kg    | 1,00  |           |         |       | 0,00   |
| XZB12                                                               | 25  | 0   | THREAD END<br>5,6<br>33,7                               |  |            | 2,00  |           |         |       | 0,00   |
| Summe: 0 25C15022BA25C1-W 0                                         |     |     |                                                         |  | 52,39 kg   |       | 0,00      | 0,00    |       | 0,00   |

Liefersumme:

Montagesumme:

Gesamtsumme:

Gesamtgewicht:

\*\* Ende der Ausgabe

52,39 kg

AS BUILT

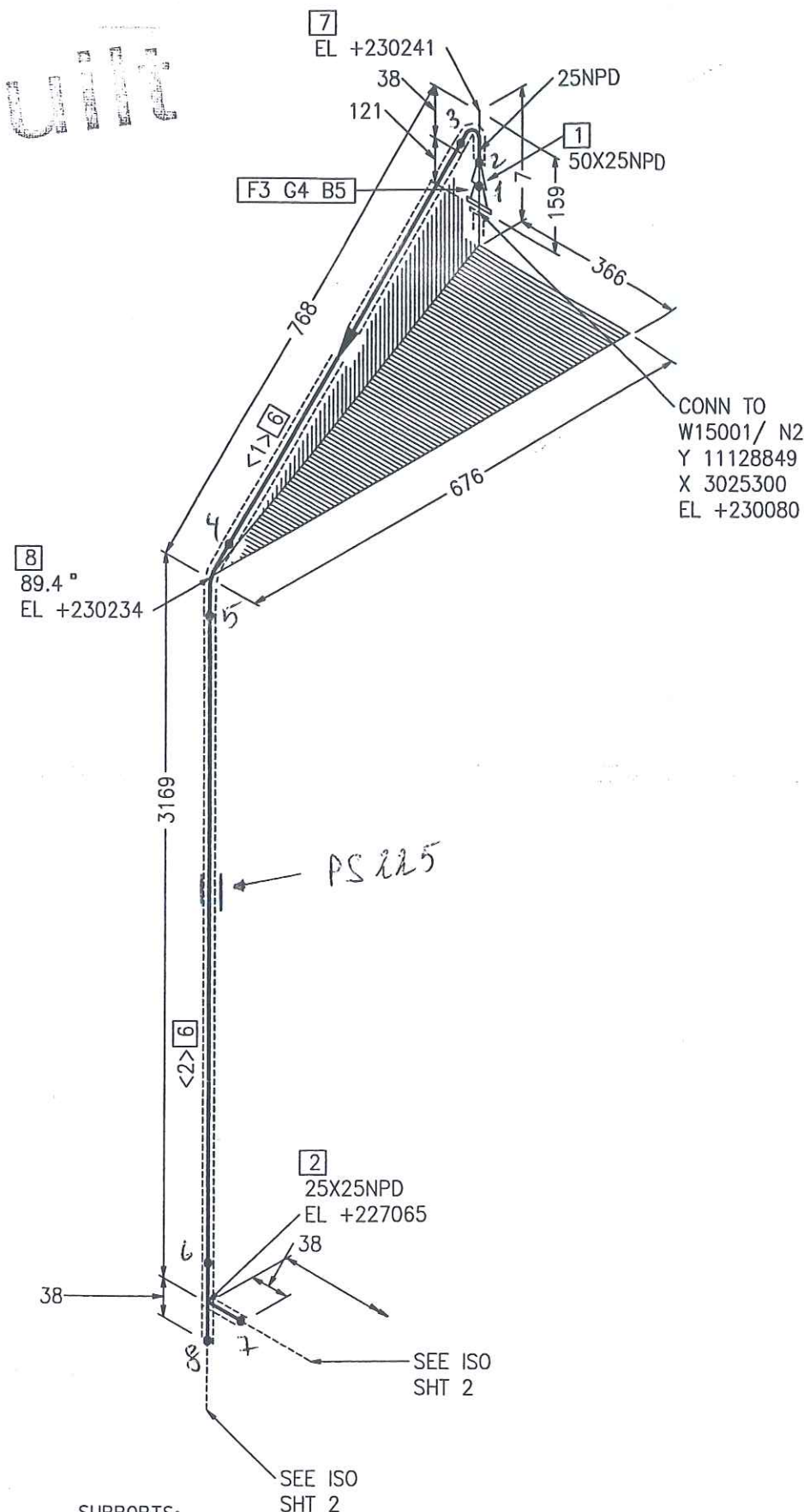




1 2 3 4 5 6 7 8



As built



| Part No. | Qty [PCS/MM] | NPD [Size] | Component Description                                                 |
|----------|--------------|------------|-----------------------------------------------------------------------|
| 1        | 1            | 50X25      | REDUCER, CONCENTRIC, SEAMLESS 60.3*2.9/33.7*2.6, ST35.8 I, DIN 2616-1 |
| 2        | 1            | 25X25      | TEE, SEAMLESS 33.7*2.6/33.7*2.6, ST35.8 I, DIN 2615-1                 |
| 3        | 1            | 50         | WELDING-NECK-FLANGE PN40, C22.8, DIN EN 1092-1                        |
| 4        | 1            | 50         | FLAT GASKET                                                           |
| 5        | 4            | 16         | HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 65.0MM LANG                       |
| 6        | 3786 MM      | 25         | PIPE, SEAMLESS 33.7*2.6, ST35.8 I, DIN EN 10220                       |
| 7        | 1            | 25         | ELBOW, SEAMLESS, 1,5D 33.7*2.6-90, B-ART 3,DIN 2605-1                 |
| 8        | 1            | 25         | ELBOW, SEAMLESS, 1,5D 33.7*2.6-89.4, B-ART 3,DIN 2605-1               |

CUT PIPE LENGTH

| PIECE NO | LENGTH (MM) | NPD (MM) | REMARKS | END ONE | END TWO | ITEM CODE |
|----------|-------------|----------|---------|---------|---------|-----------|
| <1>      | 693         | 25       |         | BEVEL   | BEVEL   | RN        |
| <2>      | 3093        | 25       |         | BEVEL   | BEVEL   | RN        |

NUR ZUR INFORMATION

FOR INFORMATION ONLY

21.01.2005

LEVELS:  
TOP OF INTERNAL ROADS: 225.00m n.m.  
TOP OF FOUNDATION: 225.10m  
BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

RESPONSIBILITY OF ERECTION COMPANY:  
- Situation of mounting seams  
- Situation off pass- length  
- Check of measure details and pipe courses on the construction site  
- Situation of the spindle at valve  
- All components for Oxygen use free of oil and grease

SUPPORTS:  
PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT



Air Liquide AGS GmbH

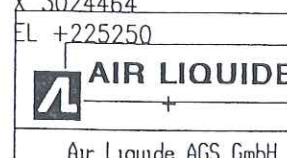
Replaces: 79\_---  
Replaced by: 79\_---

| Rev. | Revisions | Date | Name | checked |
|------|-----------|------|------|---------|
|      |           |      |      |         |
|      |           |      |      |         |
|      |           |      |      |         |

|                           |                              |                   |                         |
|---------------------------|------------------------------|-------------------|-------------------------|
| Date: 19-OCT-2005         | Name: Lesum / HGH            | Checked: 05-10-20 | History file:           |
| Job Code: K70101          | Reference: ASU No. 9, Kosice | Scale: ---:---    | Original format: DIN A3 |
| Title: 25 C 15022 BA25C1W | Drawing No: 792.878260       | Sheet: 1          | Sheets: 3               |
| Replaces: 79_---          | Replaced by: 79_---          | Rev.              |                         |







**SECRET**

21. OKT. 2005

|      |           |      |      |         |
|------|-----------|------|------|---------|
|      |           |      |      |         |
|      |           |      |      |         |
|      |           |      |      |         |
| Rev. | Revisions | Date | Name | checked |

Replaces: 79\_-----  
Replaced by: 79\_-----

|                              |             |                |                           |
|------------------------------|-------------|----------------|---------------------------|
| Date:                        | Name:       | Checked:       | History file:             |
| 19-OCT-2005                  | Lesum / HGH | 05-10-20       |                           |
| Job Code: K70101             |             | Scale<br>--:-- | Original format<br>DIN A3 |
| Reference: ASU No. 9, Kosice |             | Sheet: 2       | Sheets: 3                 |
| Title:                       |             | Drawing No:    | Rev.                      |
| 25 C 15022 BA25C1W           |             | 792.878260     | 0                         |



As built

Part No. Qty [PCS/MM] NPD [Size] Component Description

\*\*\*\*\*  
\* SEE SHT SHT 2 \*  
\*\*\*\*\*

CUT PIPE LENGTH

| PIECE NO | LENGTH (MM) | NPD (MM) | REMARKS | END ONE | END TWO | ITEM CODE |
|----------|-------------|----------|---------|---------|---------|-----------|
| <1>      | 394         | 25       |         | BEVEL   | BEVEL   | RN        |
| <2>      | 224         | 25       |         | BEVEL   | BEVEL   | RN        |
| <3>      | 976         | 25       |         | BEVEL   | BEVEL   | RN        |
| <4>      | 100         | 25       |         | BEVEL   | SHAPED  | RN        |
| <5>      | 100         | 25       |         | SHAPED  | BEVEL   | RN        |
| <6>      | 74          | 25       |         | BEVEL   | BEVEL   | RN        |
| <7>      | 100         | 25       |         | BEVEL   | BEVEL   | RN        |
| <8>      | 800         | 25       |         | BEVEL   | BEVEL   | RN        |
| <9>      | 100         | 25       |         | BEVEL   | BEVEL   | RN        |
| <10>     | 450         | 100      |         | BEVEL   | BEVEL   | RN        |
| <11>     | 100         | 25       |         | SHAPED  | BEVEL   | RN        |
| <12>     | 250         | 100      |         | BEVEL   | BEVEL   | RN        |

NUR ZUR INFORMATION

FÜR INFORMATION ONLY

2 1. OKT. 2005

LEVELS:  
TOP OF INTERNAL ROADS: 225,00m n.m.  
TOP OF FOUNDATION: 225,10m  
BOTTOM OF STEEL STRUCTURE: 225,15m = ±0,00

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE  
PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE  
SS = SLIDING SUPPORT  
PG = PIPE GUIDE  
FP = FIX POINT

**AIR LIQUIDE**

Air Liquide AGS GmbH

Replaces: 79\_---  
Replaced by: 79\_---

| Rev. | Revisions | Date | Name | checked |
|------|-----------|------|------|---------|
|      |           |      |      |         |
|      |           |      |      |         |
|      |           |      |      |         |

|            |                    |       |             |             |            |                  |        |
|------------|--------------------|-------|-------------|-------------|------------|------------------|--------|
| Date:      | 19-OCT-2005        | Name: | Lesum / HGH | Checked:    | 05-10-20   | History file:    |        |
| Job Code:  | K70101             |       |             | Scale:      | ---        | Original format: | DIN A3 |
| Reference: | ASU No. 9, Kosice  |       |             | Sheet:      | 3          | Sheets:          | 3      |
| Title:     | 25 C 15022 BA25C1W |       |             | Drawing No: | 792.878260 | Rev.             |        |



## Preis-Stückliste 0 25C15024BA25C1-W 0 25 C 15024 BA25C1-W Revision:

| Teilenummer | NW1 | NW2 | Teilebezeichnung                                                                  | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
|-------------|-----|-----|-----------------------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| B0160       | 12  | 70  | Screw bolts<br>24 CrMo 5 ( 1.7258 ) DIN 267-13                                    | 0,05 kg    | 16,00 |           |         |       | 0,00   |
| B0500       | 12  | 0   | HEXAGON HEAD NUTS<br>Ck 35 ( 1.1181 ) DIN 267-13                                  | 0,02 kg    | 32,00 |           |         |       | 0,00   |
| G0097       | 25  | 0   | Flat packings<br>Graphite with CrNi-insert Standard 40002<br>70x2x35              |            | 4,00  |           |         |       | 0,00   |
| G0100       | 50  | 0   | Flat packings<br>Graphite with CrNi-insert Standard 40002<br>107x2x61             |            | 1,00  |           |         |       | 0,00   |
| GW12        | 50  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>60,3x2,9                                      |            | 1,00  |           |         |       | 0,00   |
| GW5         | 25  | 0   | girth weld<br>1.0254 ( St 37.0 )<br>33,7x2,6                                      |            | 3,00  |           |         |       | 0,00   |
| IV15081     | 25  | 0   | V15081<br>supplied by AGS<br>33,7                                                 |            | 1,00  |           |         |       | 0,00   |
| IV15082     | 25  | 0   | V15082<br>supplied by AGS<br>33,7                                                 |            | 1,00  |           |         |       | 0,00   |
| P0057       | 25  | 0   | pipe, seamless<br>1.0305 ( St 35.8 I ) DIN 17175<br>33,7x2,6                      | 1,99 kg    | 0,20  |           |         |       | 0,00   |
| P0213       | 25  | 0   | Elbow 90° R=1,5 DA, seamless<br>1.0305 ( St 35.8 I ) DIN 2609<br>33,7x2,6         | 0,12 kg    | 1,00  |           |         |       | 0,00   |
| P1433       | 50  | 25  | Reducer, concentric, seamless<br>1.0254 ( St 37.0 ) DIN 2609<br>60,3x2,9x33,7x2,6 | 0,24 kg    | 1,00  |           |         |       | 0,00   |

| Preis-Stückliste 0 25C15024BA25C1-W 0 25 C 15024 BA25C1-W Revision: |     |     |                                                                          |            |       |           |         |       |        |
|---------------------------------------------------------------------|-----|-----|--------------------------------------------------------------------------|------------|-------|-----------|---------|-------|--------|
| (Fortsetzung)                                                       |     |     |                                                                          |            |       |           |         |       |        |
| Teilenummer                                                         | NW1 | NW2 | Teilebezeichnung                                                         | Einzelgew. | Menge | Lieferung | Montage | L + M | Gesamt |
| P2932                                                               | 50  | 0   | WELDING NECK FLANGES, PN 40<br>1.0038 ( S235JRG2 ) DIN EN 1092-1<br>60,3 |            | 1,00  |           |         |       | 0,00   |
| P2967                                                               | 25  | 0   | Welding neck flanges; PN 40<br>C22.8 ( 1.0460 ) DIN 2519<br>33,7         | 1,00 kg    | 2,00  |           |         |       | 0,00   |
| Summe: 0 25C15024BA25C1-W 0                                         |     |     |                                                                          | 4,20 kg    |       | 0,00      | 0,00    |       | 0,00   |

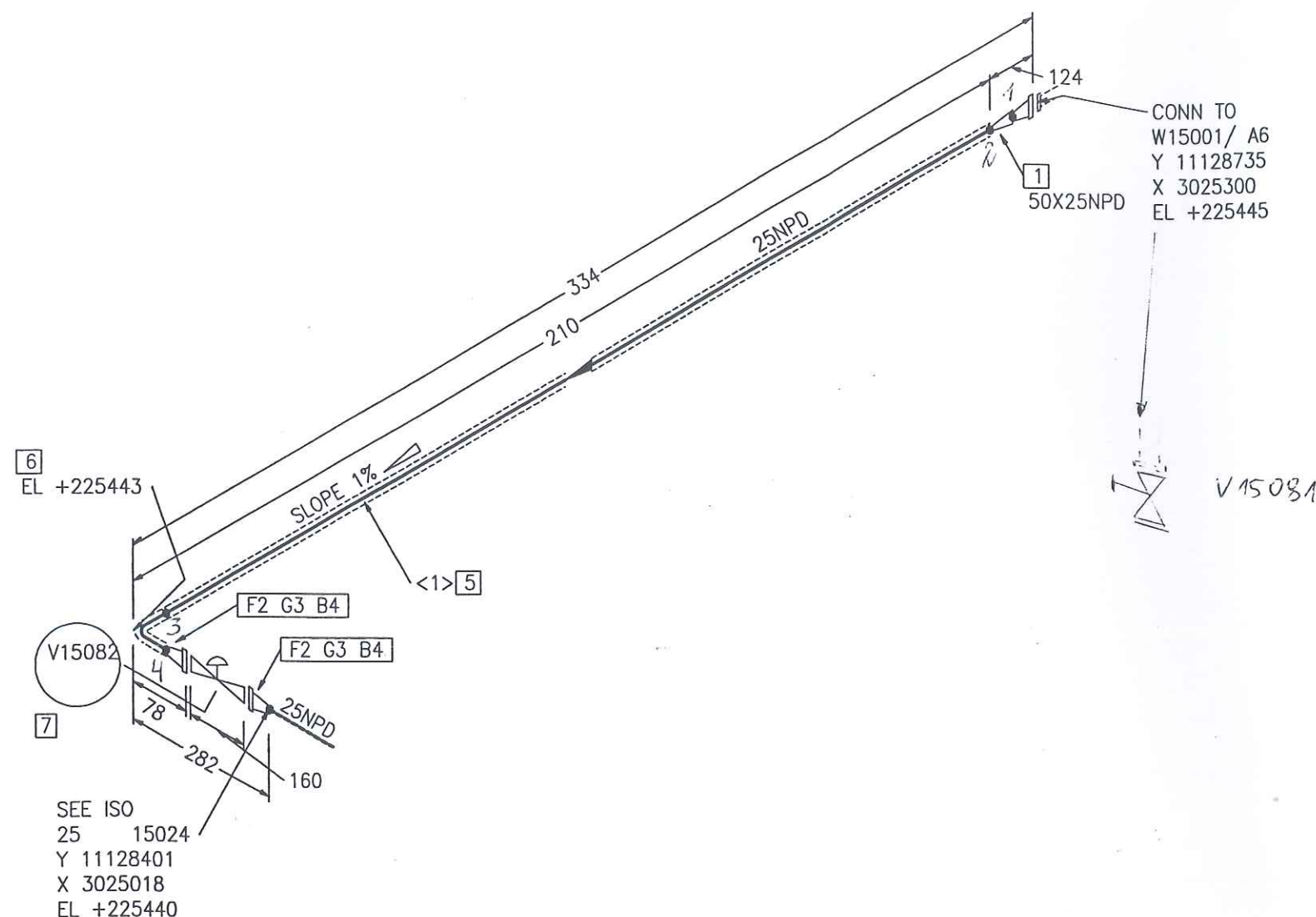
|                     |         |
|---------------------|---------|
| Liefersumme:        |         |
| Montagesumme:       |         |
| Gesamtsumme:        |         |
| Gesamtgewicht:      | 4,20 kg |
| ** Ende der Ausgabe |         |

AS BUILT





# As built



| Part No. | Qty [PCS/MM] | NPD [Size] | Component Description                                               |
|----------|--------------|------------|---------------------------------------------------------------------|
| 1        | 1            | 50X25      | REDUCER, CONCENTRIC, SEAMLESS 60.3*2.9/33.7*2.6, ST37.0, DIN 2616-1 |
| 2        | 2            | 25         | WELDING-NECK-FLANGE PN40, C22.8, DIN EN 1092-1                      |
| 3        | 2            | 25         | FLAT GASKET                                                         |
| 4        | 8            | 12         | HEXAGON HEAD BOLT 5.6 WITH NUT 5-2, 55.0MM LANG                     |
| 5        | 172 MM       | 25         | PIPE, SEAMLESS 33.7*2.6, ST35.8 I, DIN EN 10220                     |
| 6        | 1            | 25         | ELBOW, SEAMLESS, 1,5D 33.7*2.6-90, B-ART 3, DIN 2605-1              |
| 7        | 1            | 25         | V15082                                                              |

## CUT PIPE LENGTH

| PIECE NO | LENGTH (MM) | NPD (MM) | REMARKS | END ONE | END TWO | ITEM CODE |
|----------|-------------|----------|---------|---------|---------|-----------|
| <1>      | 172         | 25       |         | BEVEL   | BEVEL   | RN        |

RESPONSIBILITY OF ERECTION COMPANY:

- Situation of mounting seams
- Situation off pass- length
- Check of measure details and pipe courses on the construction site
- Situation of the spindle at valve
- All components for Oxygen use free of oil and grease

SUPPORTS:

PS-(NO.) - PIPE SUPPORT WITH SUBSTRUCTURE

PB-(NO.) - PIPE SUPPORT ON THE PIPEBRIDGE

SS = SLIDING SUPPORT

PG = PIPE GUIDE

FP = FIX POINT

| Rev. | Revisions | Date | Name | checked |
|------|-----------|------|------|---------|
|      |           |      |      |         |

|                          |                              |                   |                   |                       |                         |
|--------------------------|------------------------------|-------------------|-------------------|-----------------------|-------------------------|
| <br>Air Liquide AGS GmbH | Date: 17-OCT-2005            | Name: Lesum / HGH | Checked: 05-10-20 | History file:         |                         |
|                          | Job Code: K70101             |                   |                   | Scale: ---:---        | Original format: DIN A3 |
|                          | Reference: ASU No. 9, Kosice |                   |                   | Sheet: 1              | Sheets: 1               |
|                          | Title: 25 C 15024 AA10C1W    |                   |                   | Drawing No: 792.87826 | Rev. 0                  |

NUR ZUR INFORMATION

FÜR INFORMATION ONLY

LEVELS:

TOP OF INTERNAL ROADS: 225.00m n.m.

TOP OF FOUNDATION: 225.10m

BOTTOM OF STEEL STRUCTURE: 225.15m = ±0.00

21.01.2005