

Dossier CMP Arles : 783

Page/Sheet 1/16

Client / Customer : AIR LIQUIDE AGS GmbH

Engineered System N° :


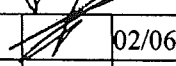

1 RESERVOIR DE STOCKAGE LOX 1800MT

1 x 1800MT LOX STORAGE TANK

ITEM B 62001

TABLEAU CONTROLE AZOTE

NITROGEN CONTROL BOARD

2		02/06/05	HONNONS		02/06/05	HULIN		02/06/05	LEBOUCQ		
1		20/01/05	NANTIER		20/01/05	HULIN		20/01/05	LEBOUCQ		
EDITION EDITION N°	REFERENCE CLIENT REF.	DATE	NOM NAME	SIGN.	DATE	NOM NAME	SIGN.	DATE	NOM NAME	SIGN.	ETAT D'AVANC. STATUS
REDACTEUR				VERIFICATEUR				APPROBATEUR			
DRAWN UP BY				CHECKED BY				APPROVED BY			

Projet : **ASU No.9 KOSICE**
ProjectClassement CMP Arles :
CMP Arles document N°**783-09**

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Client / Customer : AIR LIQUIDE AGS GmbH

Plan N° : 783-09

INDICE DE REVISION: 0/A/ / / / /

revision number

Page	DESIGNATION <i>description</i>	INDICE DE REVISION									
		<i>revision number</i>									
		0	A	B	C	D	E	F	G	H	
1	Front page	1	2								
2	List of current revisions / subject of modifications	1	2								
3	Elevation view (general assembly)	1									
4	View F	1	2								
5	View F	1									
6	View F	1									
7	View G	1									
8	Details	1									
9	Details	1									
10	Details	1									
11	Details	1	2								
12	WPS table	1									
13	Part list / packing list	1	2								
14	Part list / packing list	1									
15	Part list / packing list	1	2								
16	Part list / packing list	1									

OBJET DES MODIFICATIONS*Subject of modifications*

INDICE DE L'EDITION	OBJET DE LA MODIFICATION
<i>Edition N°</i>	<i>Subject of the modification</i>
1	Première diffusion / <i>First issue</i>
2	<i>Modified items 7c, 8c and 9b</i>

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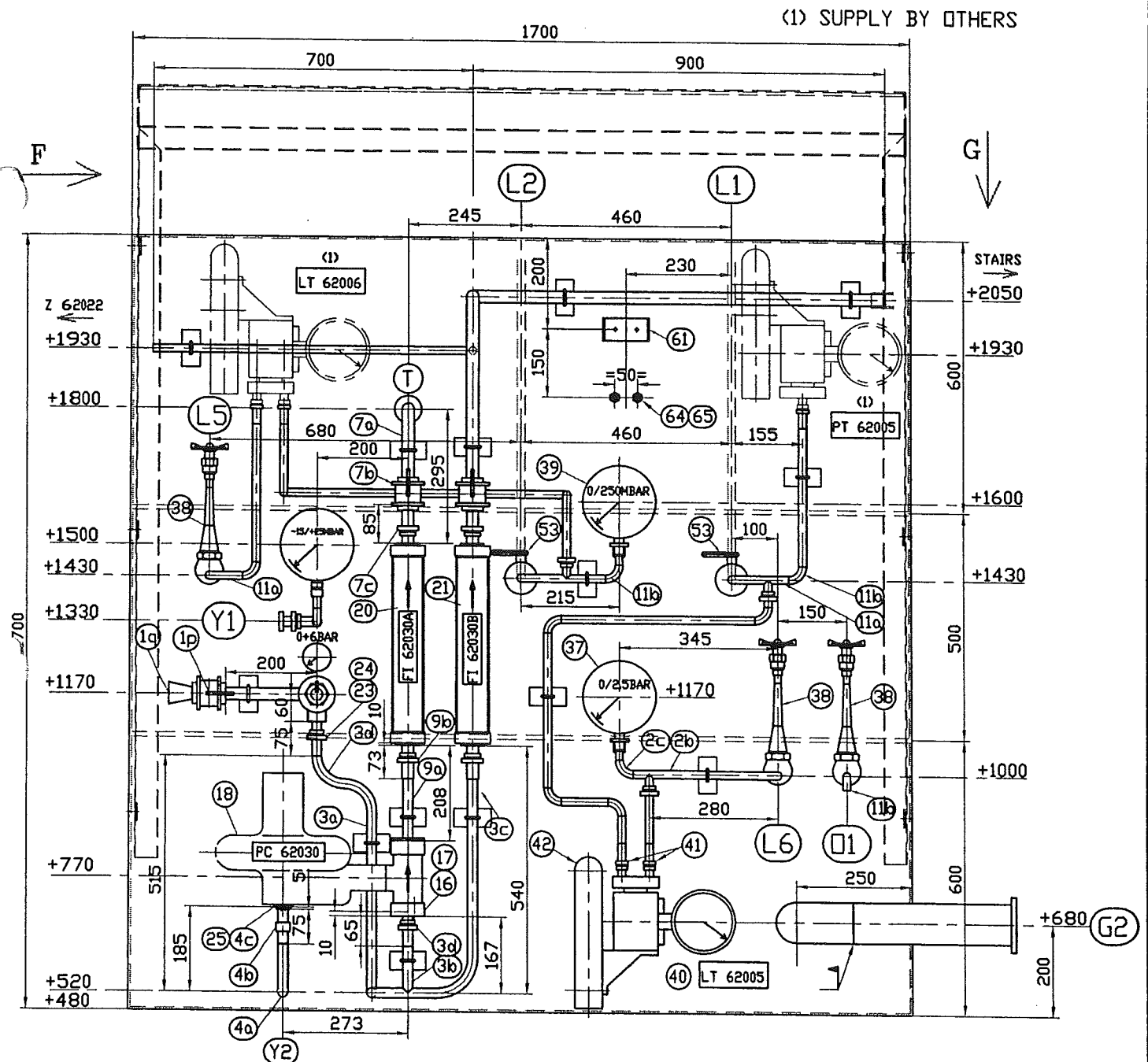
Client / Customer : AIR LIQUIDE AGS GmbH

Engineered System N° :

Rev 0

Plan N° : 783-09**ELEVATION VIEW (GENERAL ASSEMBLY)**Echelle/Scale
/

For partlists see pages 13 to 16



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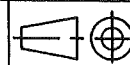
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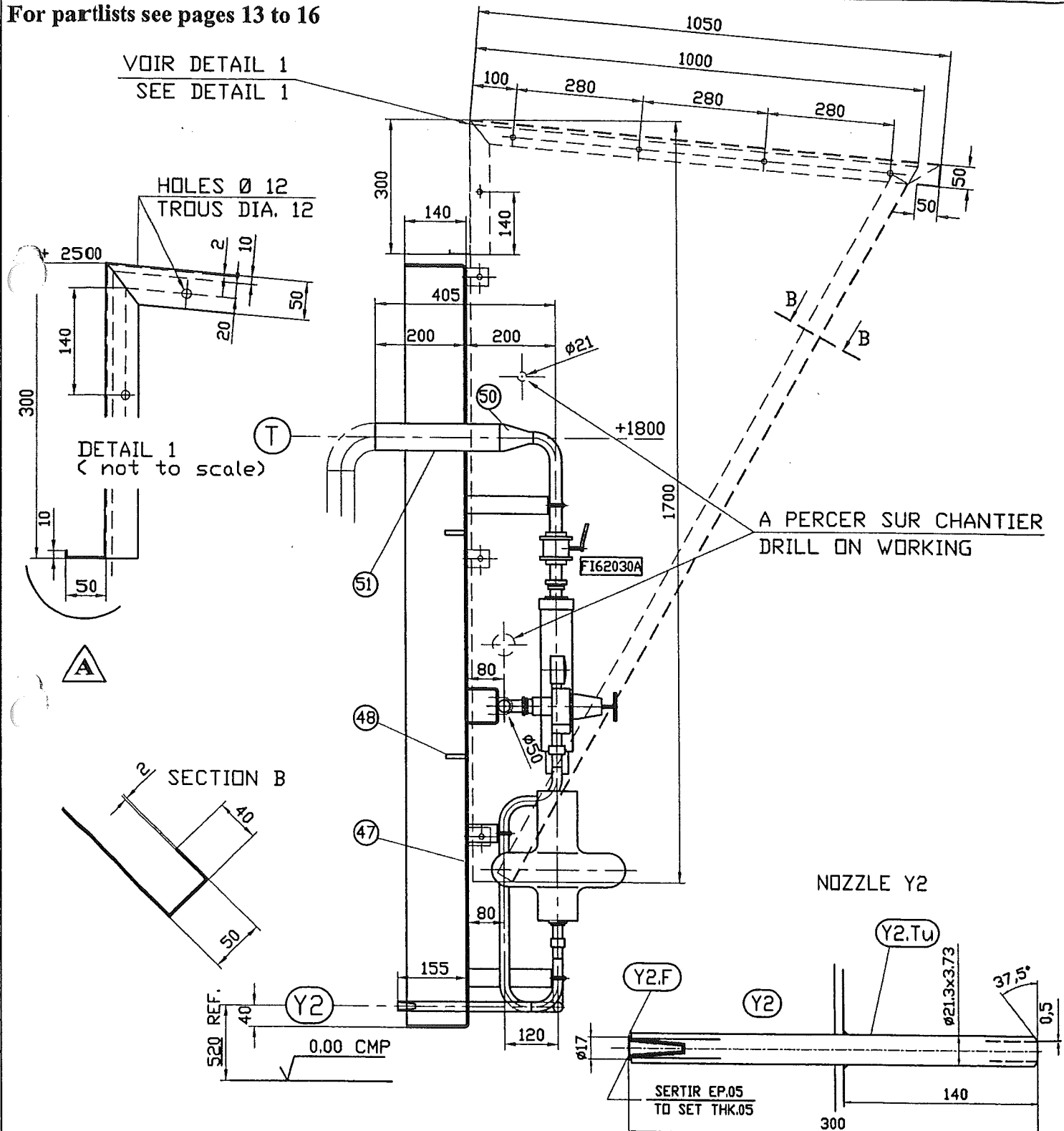
Rev A

Plan N° : 783-09

VIEW F

Echelle/Scale
1/12

For partlists see pages 13 to 16



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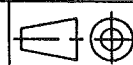
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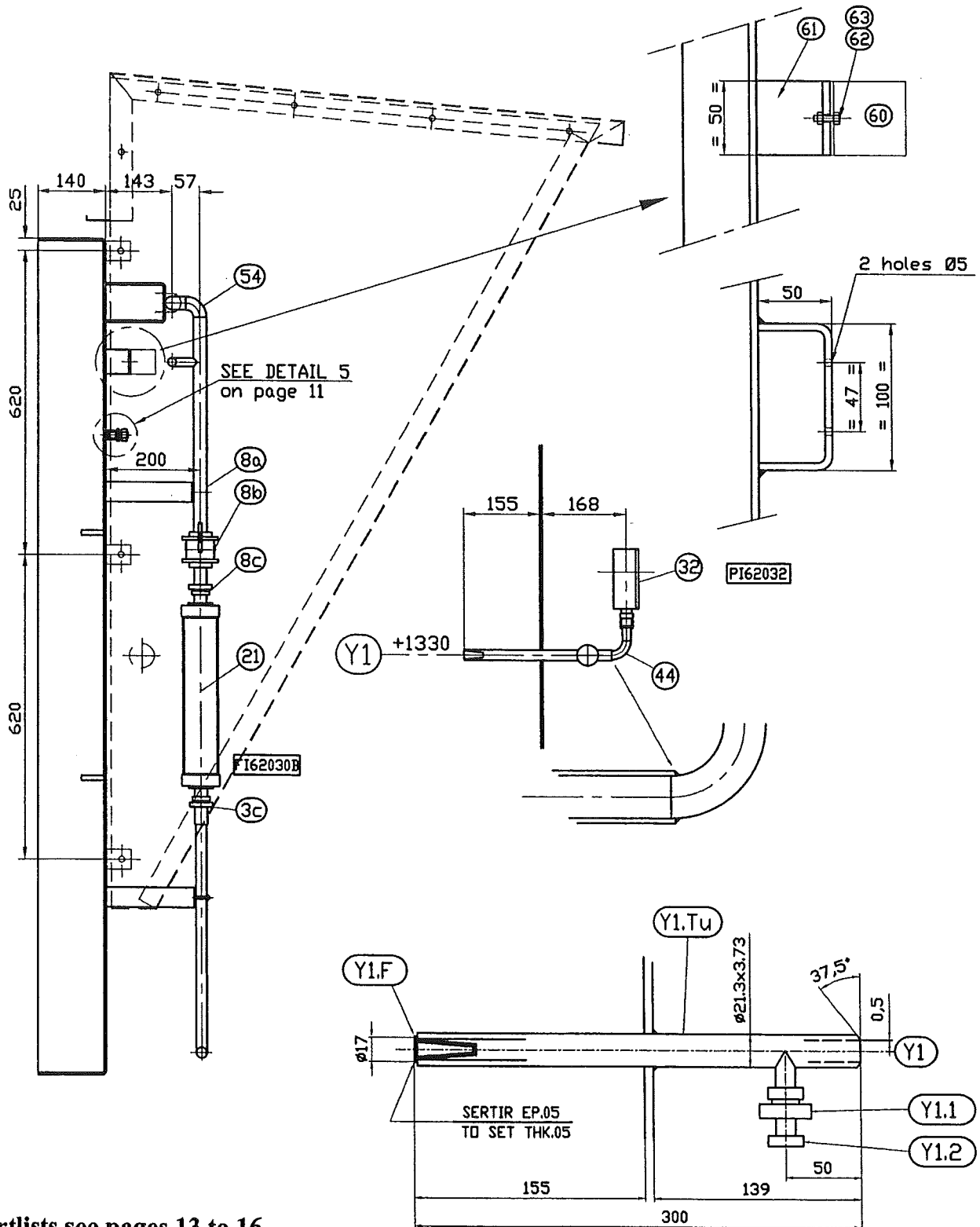
Rev 0

Plan N° : 783-09

VIEW F



Echelle/Scale
1/12



For partlists see pages 13 to 16

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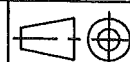
Dossier CMP Arles : 783

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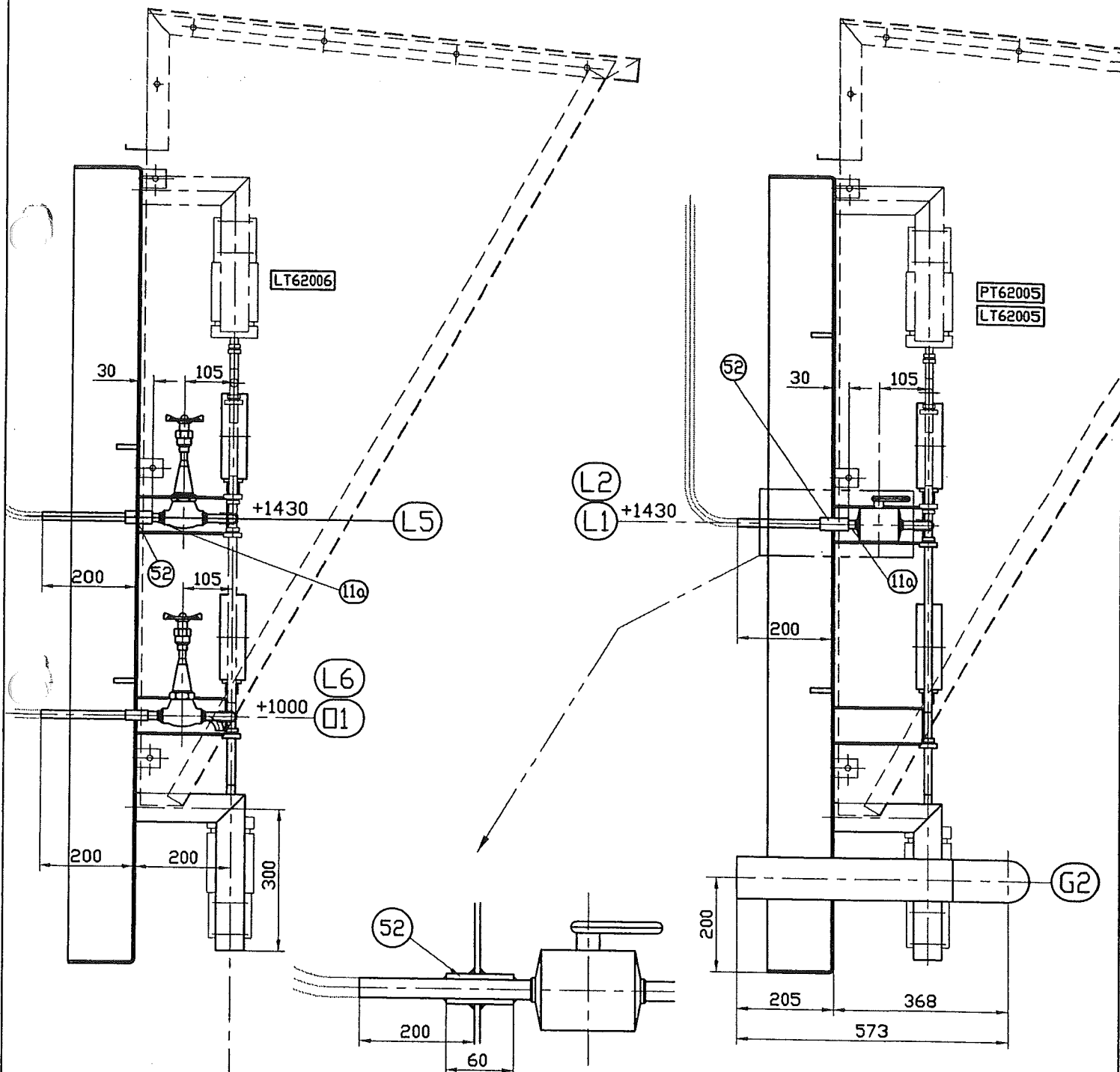
Engineered System N° :

Rev 0

Plan N° : 783-09**VIEW F**

Echelle/Scale

1/12

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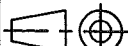
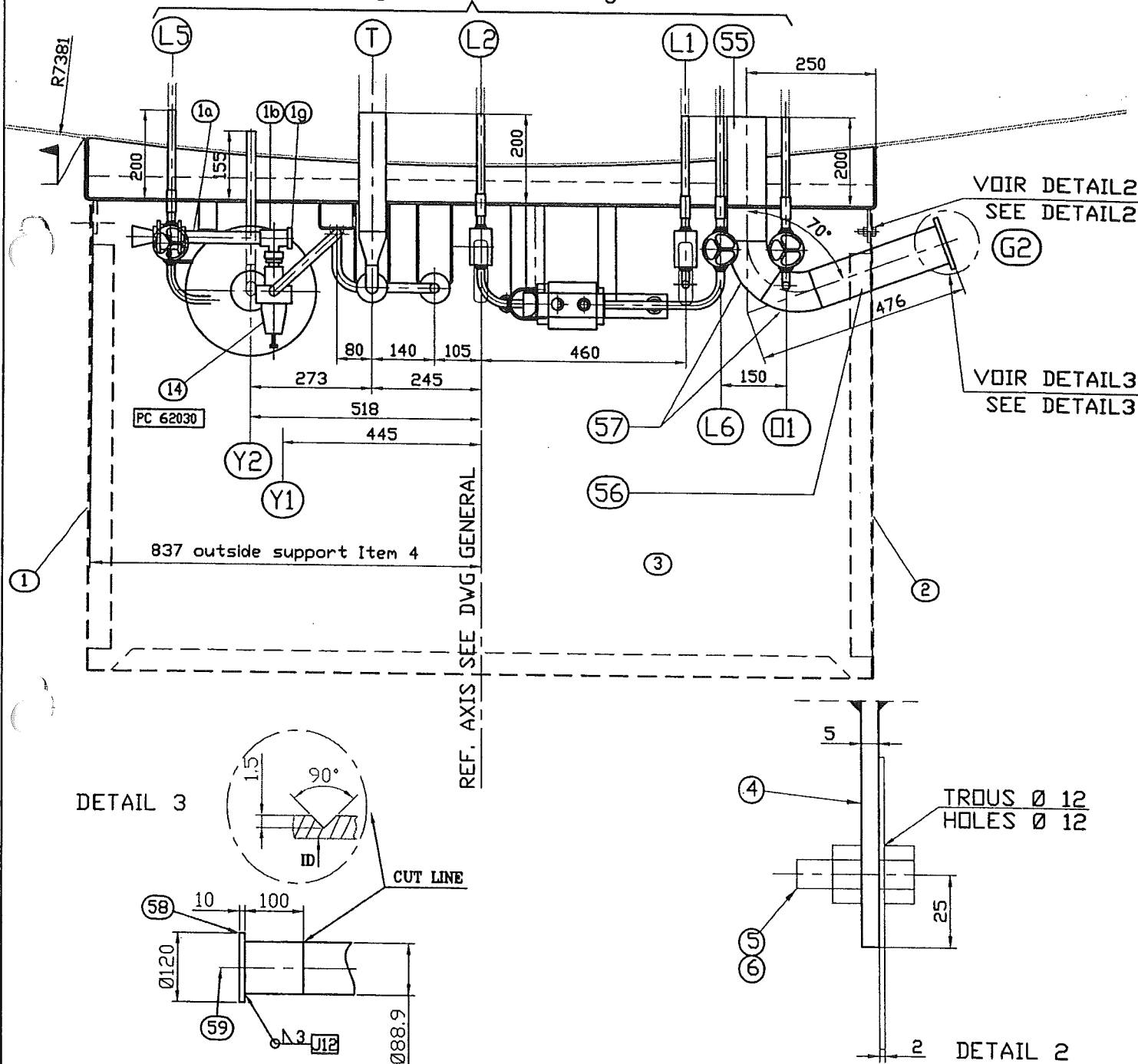
Client / Customer : AIR LIQUIDE AGS GmbH

Engineered System N° :

Rev 0

Plan N° : 783-09

VIEW G

 Echelle/Scale
/See dwg. 783-15 for drilling
through the outer casing

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Dossier CMP Arles : 783

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Client / Customer : AIR LIQUIDE AGS GmbH

Engineered System N° :

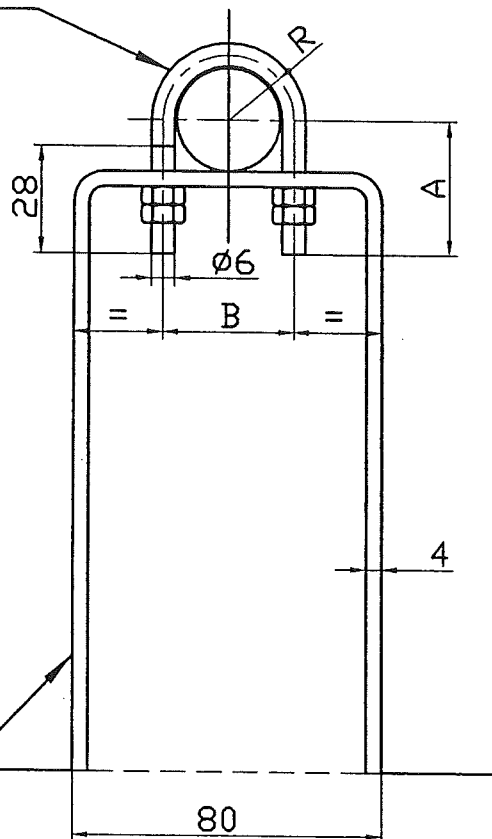
Rev 0

Plan N° : 783-09

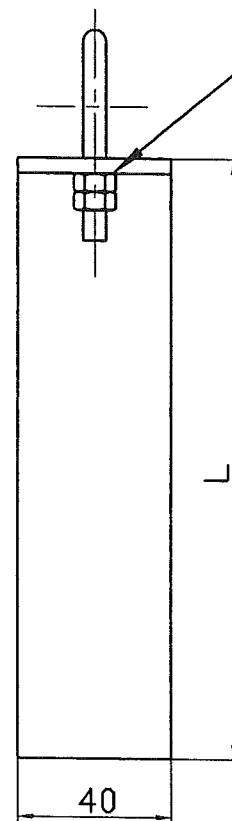
DETAILS

Echelle/Scale

ITEM SEE
TABLEAU



NUTS HM6
HOLES Ø8



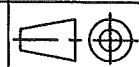
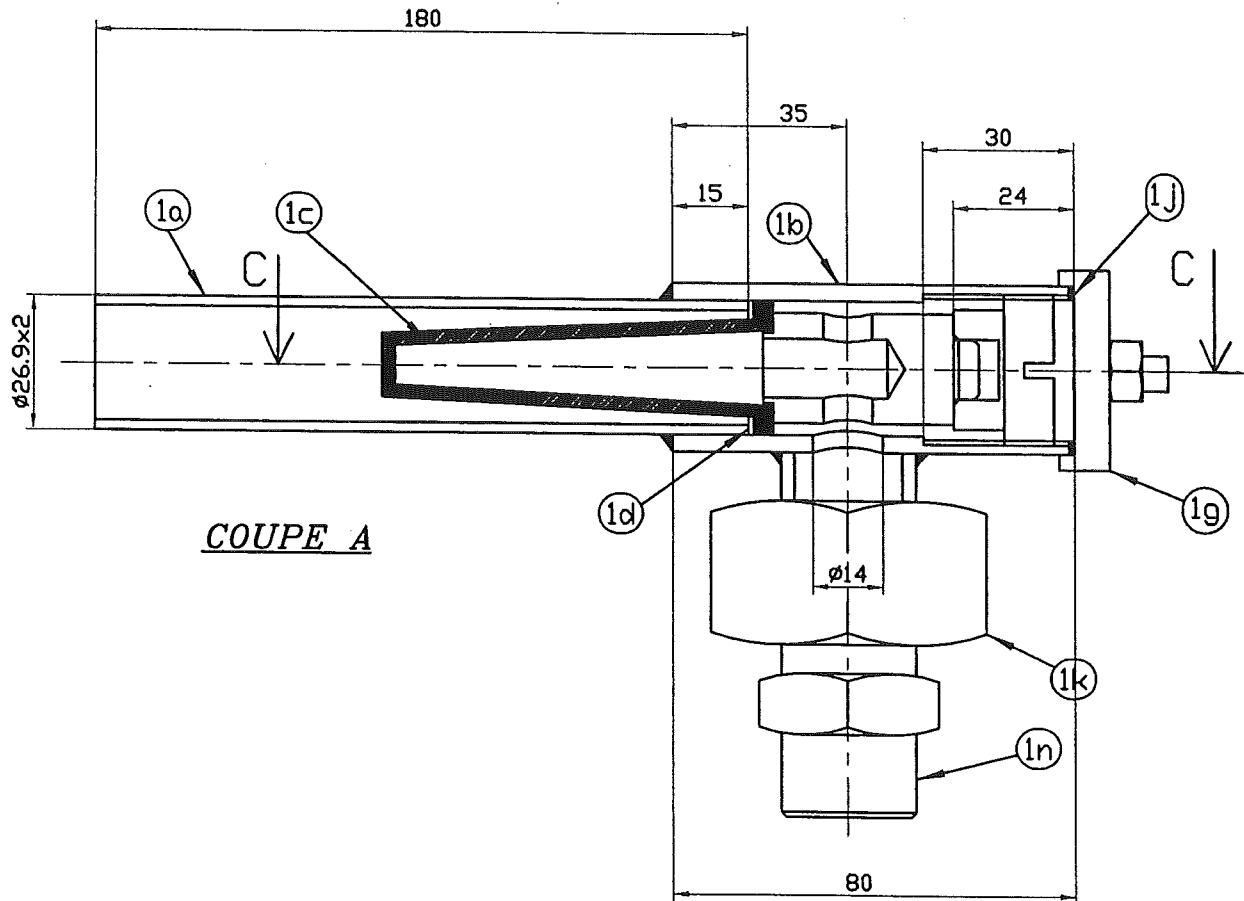
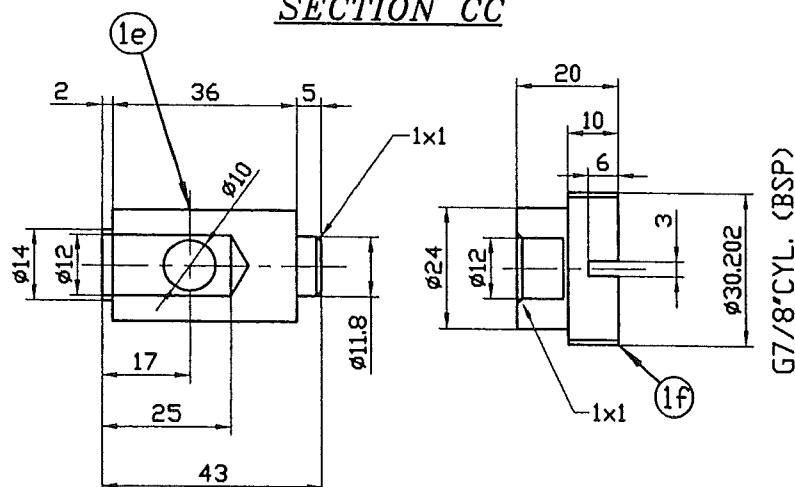
31	36	Ø17.3	25	24	9	190
30	35	Ø26.9	38	34	14	185
29	34	Ø21.3	35	28	11	190
ITEM SUPPORT	ITEM COLLARD	Ø PIPE	A	B	R	L

SUPPORTS DETAIL

For partlists see pages 13 to 16

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Dossier CMP Arles : 783**Client / Customer : AIR LIQUIDE AGS GmbH****Engineered System N° :****Plan N° : 783-09****DETAILS****Page/Sheet 9/16****Rev 0****Echelle/Scale****1/1.5****COUPE A****SECTION CC****For partlists see pages 13 to 16**

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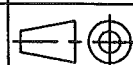
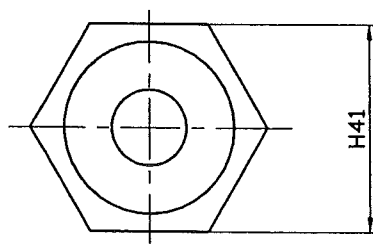
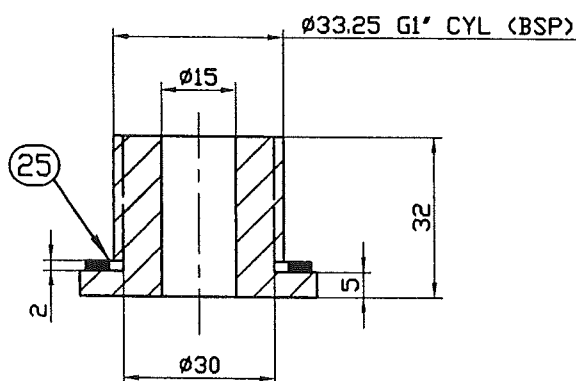
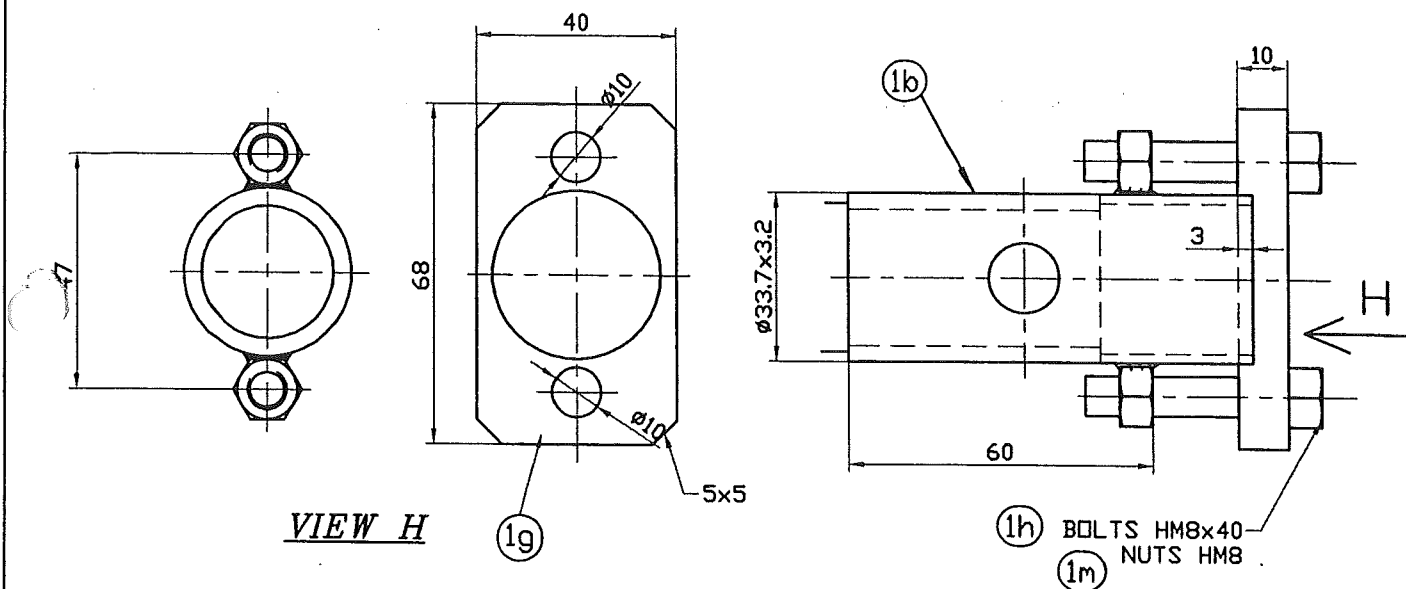
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Client / Customer : AIR LIQUIDE AGS GmbH

Engineered System N° :

Rev 0

Plan N° : 783-09**DETAILS**Echelle/Scale
1/1.5**For partlists see pages 13 to 16****DETAIL ITEM 4c**

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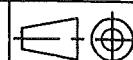
Engineered System N° :

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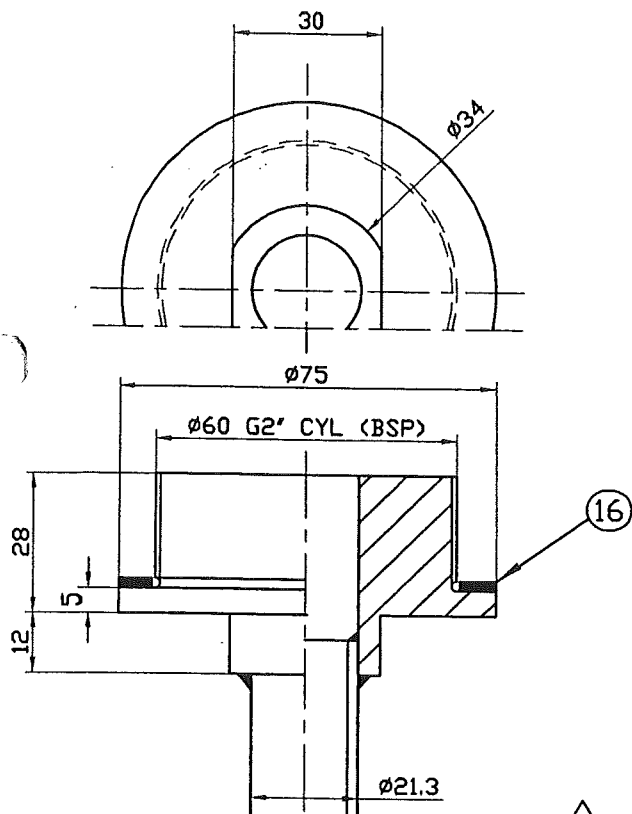
DETAILS

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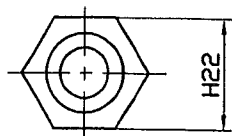
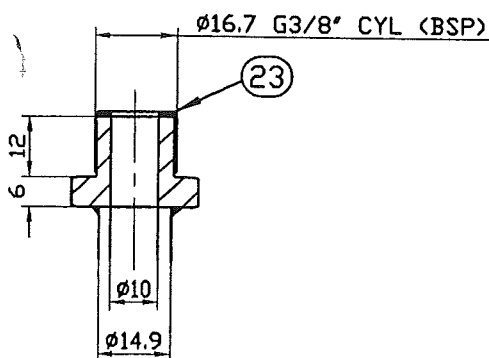
Rev A



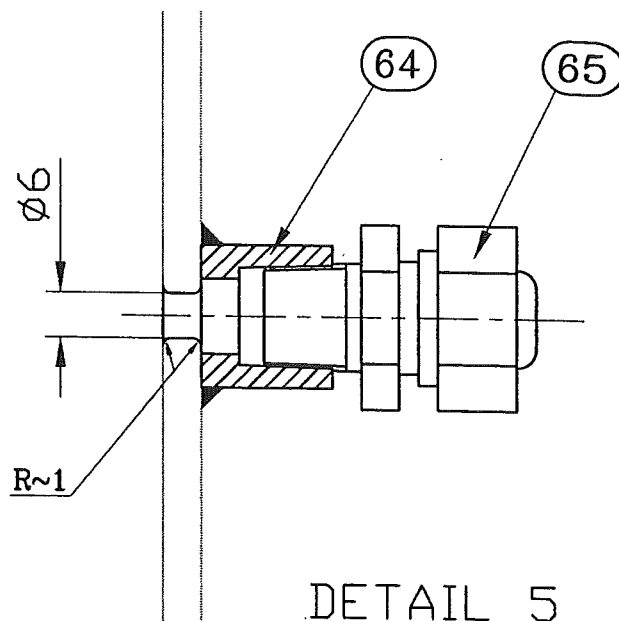
Echelle/Scale
1/1.5



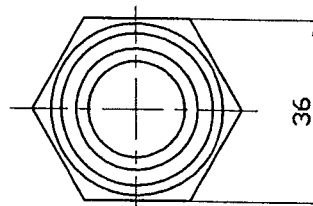
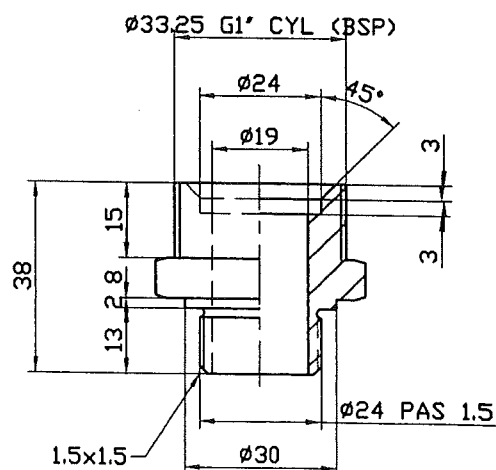
DETAIL REP.17



DETAIL REP.24



DETAIL 5



DETAIL REP.1n

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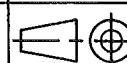
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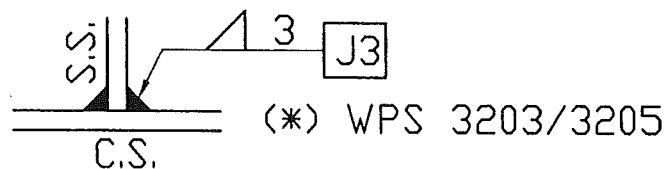
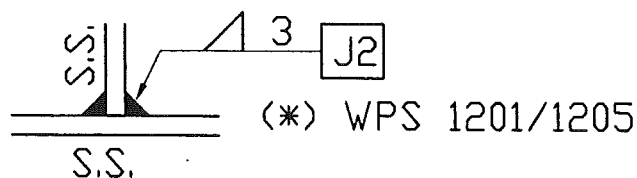
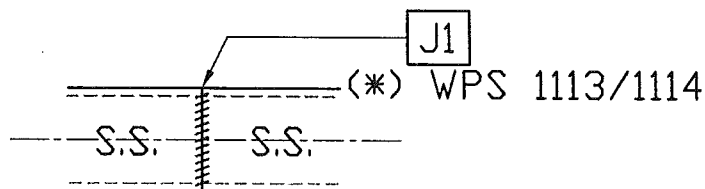
Engineered System N° :

Rev 0

Plan N° : 783-09**WPS Table**

Echelle/Scale

1) TYPICAL FILLET WELD

2)  = SITE WELDING**TYPICAL WELDED JOINT**

* see list on CRYO-CS1

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Client / Customer : AIR LIQUIDE AGS GmbH Engineered System N° :

Rev 0

Plan N° : 783-09**PART LIST / PACKING LIST**

Echelle/Scale

CONTROL BOARD INCLUDING ITEMS:					
1a	1	TUBE Ø26.9x2 (pipe Ø26.9x2)	A312 TP304L	/	
1b	1	TUBE Ø33.7x3.2 (pipe Ø33.7x3.2)	A312 TP304L	/	
1c	1	ELEMENT FILTRANT BCN 21/10 C1.10 (cone filter)	PORAL-BRONZE	/	
1d	1	JOINT Ø26x21x2 (gasket Ø26x21x2)	NEOPRENE	/	
1e	1	PRESSE FILTRE Ø25 Lg: 43 (stop filter)	A479 304L*	/	
1f	1	GUIDE Ø 32 Lg: 20 (rod)	A479 304L*	/	
1g	1	BOUCHON 40x10 Lg: 68 (plate)	S.S.	/	
1h	2	VIS HM8x40 (screw HM8x40)	ISO3506-1 A2*	/	
1m	2	ECROU HM8 (nut HM8)	ISO3506-2 A4*	/	
1j	1	JOINT Ø33x27x2 (gasket Ø33x27x2)	NEOPRENE	/	
1k	1	RACCORD LISSE/MALE 3/4" GAZ (lisse / male nipple)	316L*	/	
1n	1	ELEMENT DE RACCORD (fitting)	316L*	/	
1p	1	ROBINET A BOISSEAU SPHERIQUE DN 20 (ball valve)	316L*	/	
1q	1	REDUCTION 1"1/2x3/4" xsch 10S (reducer)	A403 WP304L	/	
2a	1	RACCORD LISSE/LISSE 3/8" (3 pieces fitting 3/8")	316L*	/	
2b	1	TUBE Ø17.2x2.3 (pipe Ø17.2x2.3)	A312 TP304L	/	
2c	1	COUDE Ø17.2x2.3 R25 90° (elbow Ø17.2x2.3 R25 90°)	A403 WP304L	/	
3a	1	TUBE Ø21.3x1.6 (pipe Ø21.3x1.6)	A312 TP304L	/	
3b	1	TUBE Ø21.3x1.6 (pipe Ø21.3x1.6)	A312 TP304L	/	
3c	1	RACCORD LISSE/MALE 3/4" G (3 pieces fitting)	316L*	/	
3d	2	RACCORD LISSE/LISSE 1/2" (3 pieces fitting)	316L*	/	
4a	1	TUBE CINTRE Ø21.3x1.6 (bending pipe Ø21.3x1.6)	A312 TP304L	/	
4b	2	RACCORD LISSE/LISSE 1/2" (3 pieces fitting)	316L*	/	
5a	1	REDUCTION G 1" (reducer)	A479 304L	/	
6a	1	TUBE Ø26.9x2 (pipe Ø26.9x2)	A312 TP304L	/	
7b	1	ROBINET A BOISSEAU SPHERIQUE DN 20 (ball valve)	316L*	/	
7c	1	RACCORD LISSE/MALE 3/4" G (3 pieces fitting 3/4")	A 316L*	/	
8a	1	TUBE Ø26.9x2 (pipe Ø26.9x2)	A312 TP304L	/	
8b	1	ROBINET A BOISSEAU SPHERIQUE DN 20 (ball valve)	316L*	/	
8c	1	RACCORD LISSE/MALE 3/4" G (3 pieces fitting 3/4")	A 316L*	/	
8d	1	TUBE Ø26.9x2 (pipe Ø26.9x2)	A312 TP304L	/	
9a	1	TUBE Ø21.3x1.6 (pipe Ø21.3x1.6)	A312 TP304L	/	
9b	1	RACCORD LISSE/MALE 3/4" G (3 pieces fitting 3/4")	A 316L*	/	
			*or equivalent		
RDP	Q16	DESIGNATION	rev	NORME/NOM	EN10203
ITEM	Q16	DESIGNATION	rev	NORME/MATERIAL	CERTIF

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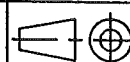
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Client / Customer : AIR LIQUIDE AGS GmbH

Engineered System N° :

Rev 0

Plan N° : 783-09**PART LIST / PACKING LIST**

Echelle/Scale

CONTROL BOARD INCLUDING ITEMS:					
11a		TUBE Ø17.15x1.65 (pipe 3/8" sch 10S)	A312 TP304L	/	
		Delivered of 3 tubes length 1500 for this items			
11b	10+1	COUDE Ø17.15x1.65 (elbow 3/8" sch 10S)	A403 WP304L	/	
11d	3	RACCORD 3 PIECES 3/8" LISSE/LISSE 3/8" (3 pieces fitting)	316L*	/	
14	1	MANO DETENDEUR (SAF REF:2937-0101) (pressure reducer)			
16	2	JOINT Ø75x60x2 (gasket)	NEOPRENE	/	
17	2	REDUCTION G2" (reducer)	A479 304L*	/	
	1	REGULATEUR "CHARLEDAVE SERIE PMT TYPE A101 (pressure reducer regulator)	/	/	
20	1	GYROMETRE 20MBAR (TYPE 115T3) (flowmeter)	/	/	
21	1	GYROMETRE 1BAR (TYPE 115T3) (flowmeter)	/	/	
23	1	JOINT Ø15x10x2 (gasket)	NEOPRENE	/	
24	1	REDUCTION G3/8" (reducer)	304/304L*	/	
25	1	JOINT Ø40x33x2 (gasket)	NEOPRENE	/	
29	4	SUPPORT Ep:4 (plate thk 4)	A240 304/304L	/	
30	4	SUPPORT Ep:4 (plate thk 4)	A240 304/304L	/	
31	6	SUPPORT Ep:4 (plate thk 4)	A240 304/304L	/	
32	1	MANOMETRE A CAPSULE AVEC TUBULURE + ECROU 1/2" GAZ (pressure gauge)	/	/	
34	4	ETRIER + 2 ECROUS HM6 (collard + 2 nuts HM6)	304/316L*	/	
35	4	ETRIER + 2 ECROUS HM6 (collard + 2 nuts HM6)	304/316L*	/	
36	6	ETRIER + 2 ECROUS HM6 (collard + 2 nuts HM6)	304/316L*	/	
NOZZLE Y1					
Tu	1	TUBE SS Ø21.3x3.73 (pipe 1/2" sch 80S) Seamless	A312 TP304L	/	
F	1	ELEMENT FILTRANT CONIQUE A COLLERETTE (cone filter) BC N 12 Classe 10	PORAL BRONZE	/	
Y1.1	1	RACCORD LISSE / LISSE 1/4" (3 pieces fitting)	316L*	/	
Y1.2	1	PASTILLE Ep: 3 (plate thk 3)	A240 304L	/	
NOZZLE Y2					
Y2.Tu	1	TUBE SS Ø21.3x3.73 (pipe 1/2" sch 80S) Seamless	A312 TP304L	/	
Y2.F	1	ELEMENT FILTRANT CONIQUE A COLLERETTE (cone filter) BC N 12 Classe 10	PORAL BRONZE	/	
			*or equivalent		
REF	QTY	DESIGNATION	NORM/REFERENCE	EN10204	POIDS NET kg
ITEM	Qty	DESIGNATION	NORM/MATERIAL	CERTIF	NET WEIGHT

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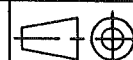
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Client / Customer : AIR LIQUIDE AGS GmbH Engineered System N° :

Rev A

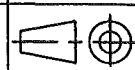
Plan N° : 783-09**PART LIST / PACKING LIST**

Echelle/Scale

CONTROL BOARD INCLUDING ITEMS:							
37	1	MANOMETRE A TUBE AVEC TUBULURE + ECROU 1/2" GAZ (pressure gauge Ø160)		INOX SS	/		
38	3	ROBINET A SOUPAPE DN 15 PN50 Type:110 (block valve DN15 PN50 type:110 for pipe Ø17,2x2,3		304L*	/		
39	1	MANOMETRE A CAPSULE AVEC TUBULURE + ECROU 1/2" GAZ (pressure gauge)		INOX SS	/		
	1	LEVEL INDICATOR / DIFFERENTIAL PRESSURE "YOKOGAWA" EJA 110A with MANIFOLD		/			
41	2	RACCORD 3 PIECES 1/4" LISSE/FILETE 1/4" NPT (3 pieces fitting)		316L*	/		
42	1	TUBE (pipe) RS 2" sch 10S lg: 700 (1)		A312TP304L	/		
44	1	COUDE 90° (elbow) 1" sch 10S		A403 WP304L	/		
47	1	TOLE PLIEE (bending plate) thk:5		A240 304L*	/		
48	2	PLAT 50x10 Lg: 1690 (flat 45x10)	A	304/316L*	/		
4	6	PLAT 75x40x5 (flat)		304/316L*	/		
50	1	REDUCTION (reducer) 2"-3/4" sch 10S		A312TP304L	/		
51	1	TUBE (pipe) RS 2" sch 10S lg: 390		A312TP304L	/		
52	4	TUBE (pipe) RS 1/2" sch 80S lg: 60		A312TP304L	/		
53	2	ROBINET A BOISSEAU SPHERIQUE DN 15 3/8" Ø17,2x2,3 (block valve DN15 PN50 3/8" pipe Ø17,2x2,3		316L*	/		
54	2	COUDE 90° (elbow) 3/4" sch 10S		A403 WP304L	/		
NOZZLE G2							
55	1	TUBE (pipe) RS 3" sch 10S lg: 460		A312TP304L	/		
57	2	COUDE 90° (elbow) 3" sch 10S		A403 WP304L	/		
SUB-ASSEMBLY INCLUDING ITEMS:							
56	1	TUBE (pipe) RS 3" sch 10S lg: 500 (1)		A312TP304L	/		
58	1	TOLE Ep: 10 (plate thk.10) Ø120		A240 304L	/		
59	1	BOUCHON TETE H (hex. Head plug) 3000# 1/4" NPT		304/316L*	/		
(1) including overlength of 200 mini				*or equivalent		282	
REF	QTY	DESIGNATION	REV	NORM/REFERENCE	FINISH	POIDS NET (kg)	CERTIF
ITEM	QTY	DESIGNATION	REV	NORM/MATERIAL	CERTIF	NET WEIGHT	WARRANTY
SUPPLY BY CMP Arles							

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Dossier CMP Arles : 783**Page/Sheet 16/16****Client / Customer : AIR LIQUIDE AGS GmbH** *Engineered System N° :***Rev 0****Plan N° : 783-09****PART LIST / PACKING LIST****Echelle/Scale****PIECES LIVREES NON ASSEMBLEES
ITEMS DELIVERED IN SEPARATES PARTS**

1	1	TOLE Ep2a3 (plate thk 2 to 3)	S.S.	/	45
2	1	TOLE Ep2a3 (plate thk 2 to 3)	S.S.	/	30
3	1	TOLE Ep2a3 (plate thk 2 to 3)	S.S.	/	30
5	14	VIS HM10x30 (bolt)	EN ISO 3506-1/A2	/	
			équiv.304/316L		
6	14	ECROU HM10 (nut)	EN ISO 3506-2/A4	/	
			équiv.304/316L		
60	1	BOITE DE CONNECTION (connexion box for PT 100 ohms)	/		
61	1	PONTET (support) Thk.4	A240 304L*	/	
62	2	VIS HM4x16 (screw)	EN ISO 3506-1/A2	/	
			équiv.304/316L		
63	2	ECROU HM4 (nut)	EN ISO 3506-2/A4	/	
			équiv.304/316L		
64	2	DEMI-MANCHON (half coupling) 1/4 NPT	316L*	/	
65	2	TRAVERSEE ETANCHE 1/4 NPT	LAITON	/	

105

*or equivalent

REF	QTY	DESIGNATION	NORME/MATERIAL	ENI0204	POIDS NET kg	CERTIF
ITEM	QTY	DESIGNATION	NORM/MATERIAL	CERTIF	NET WEIGHT	VISA EXE

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