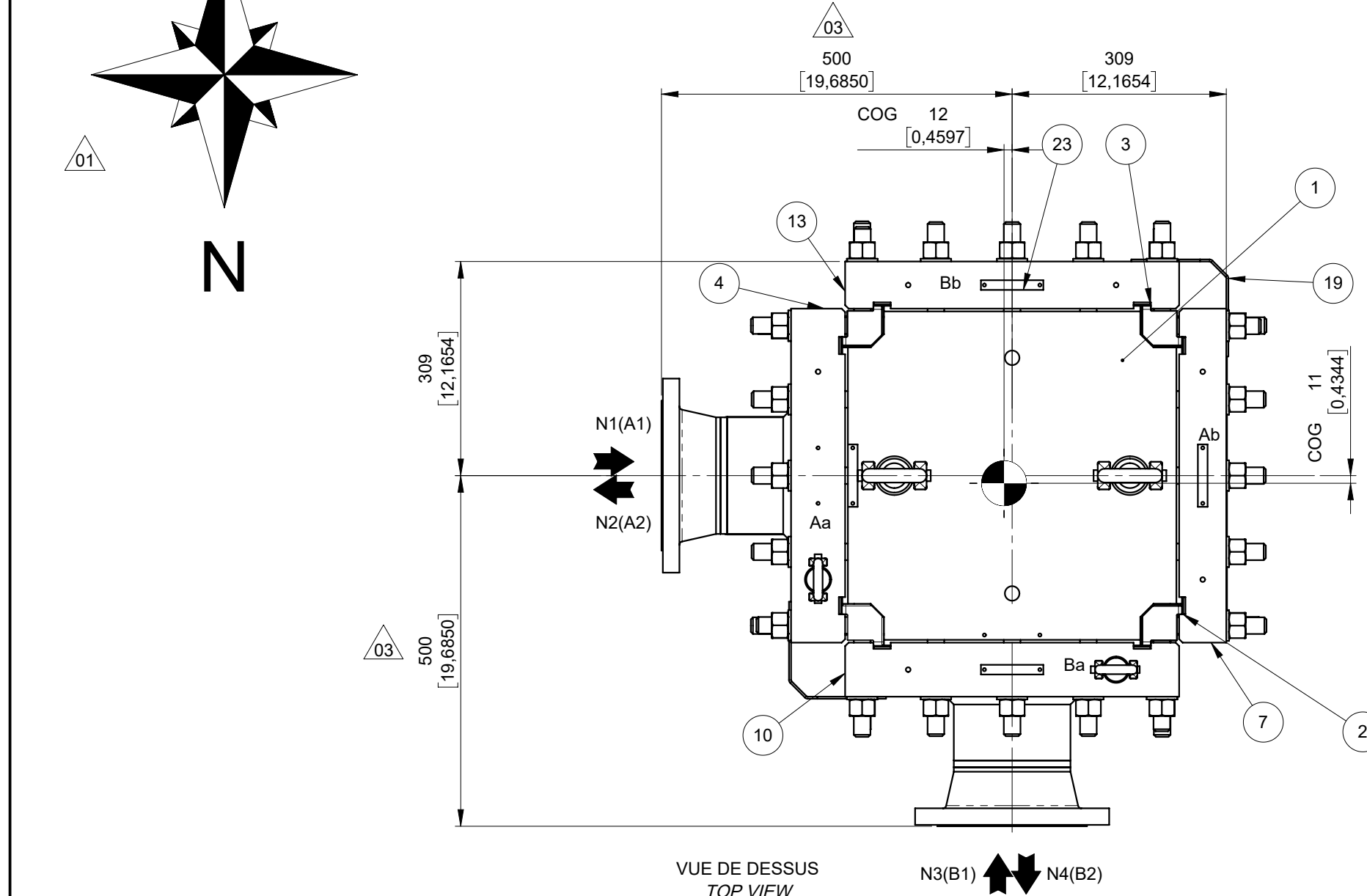
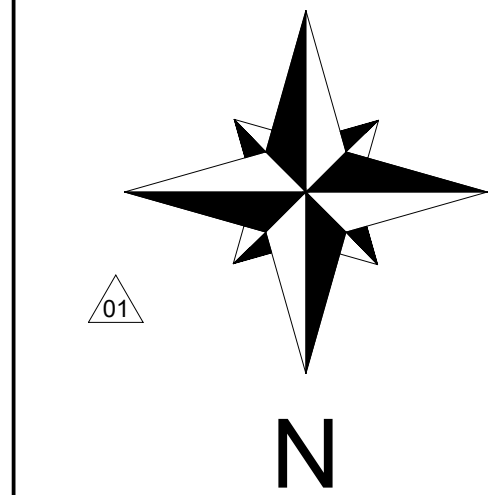
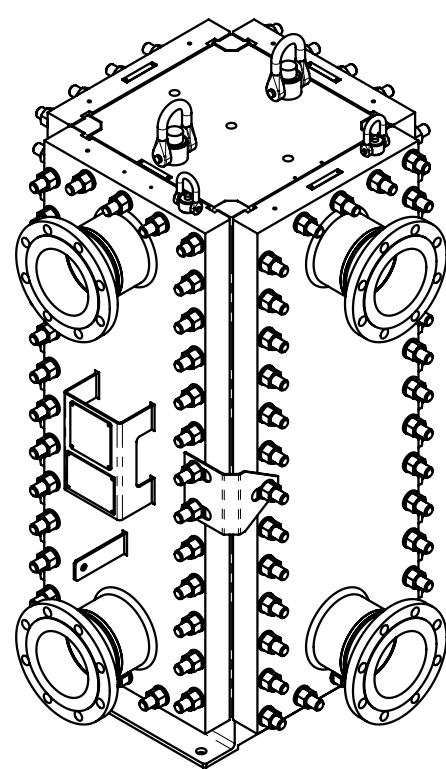
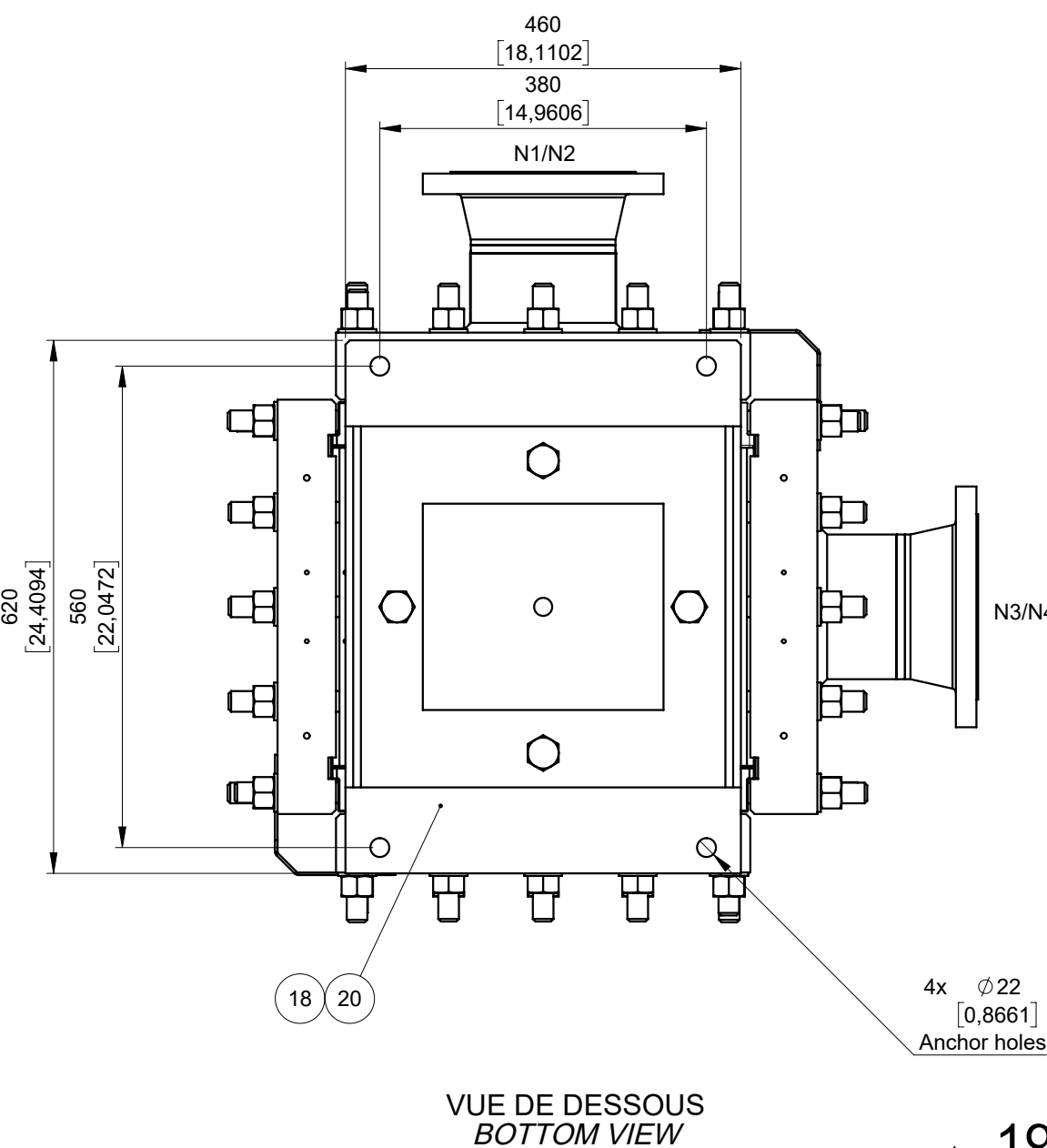
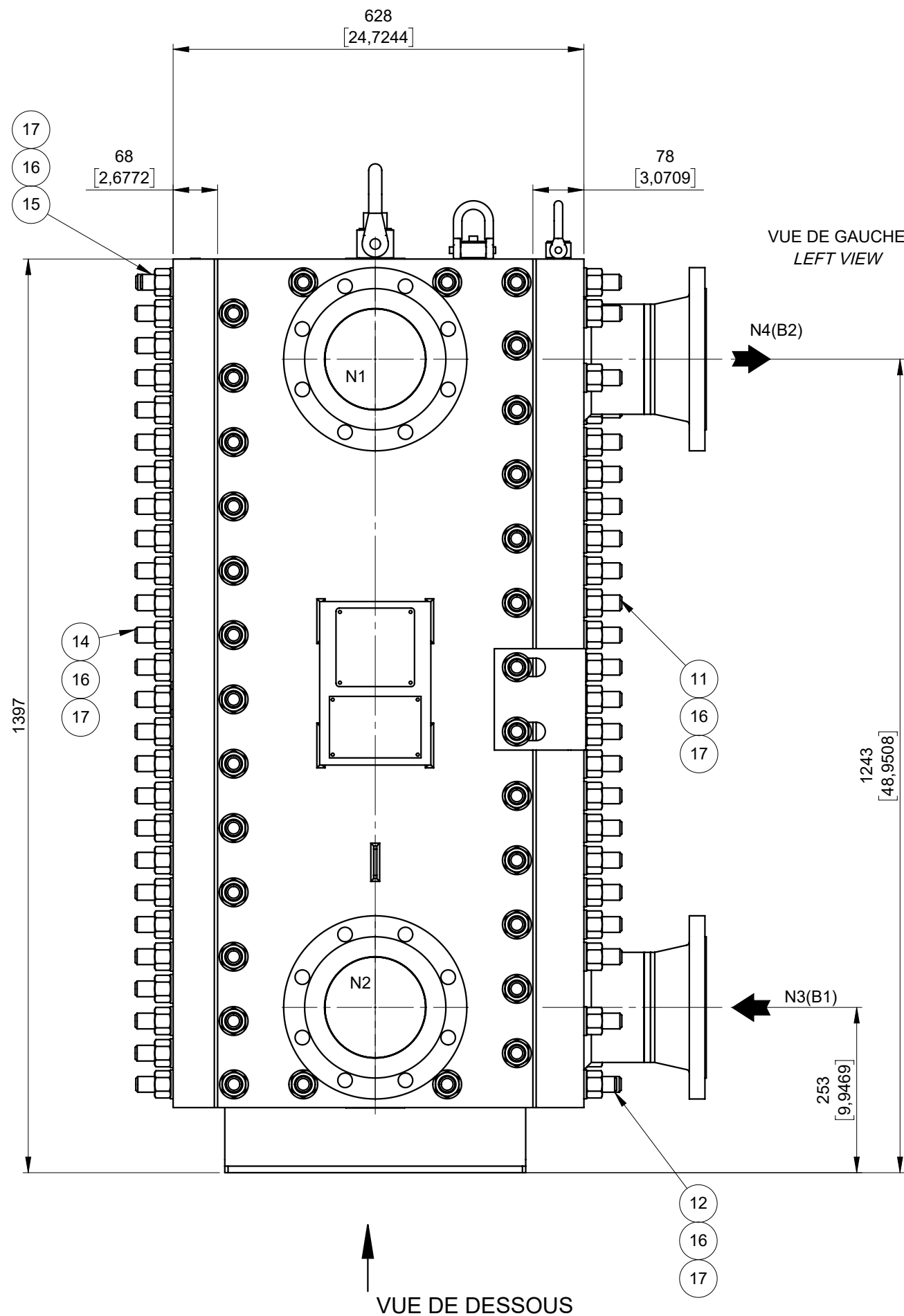
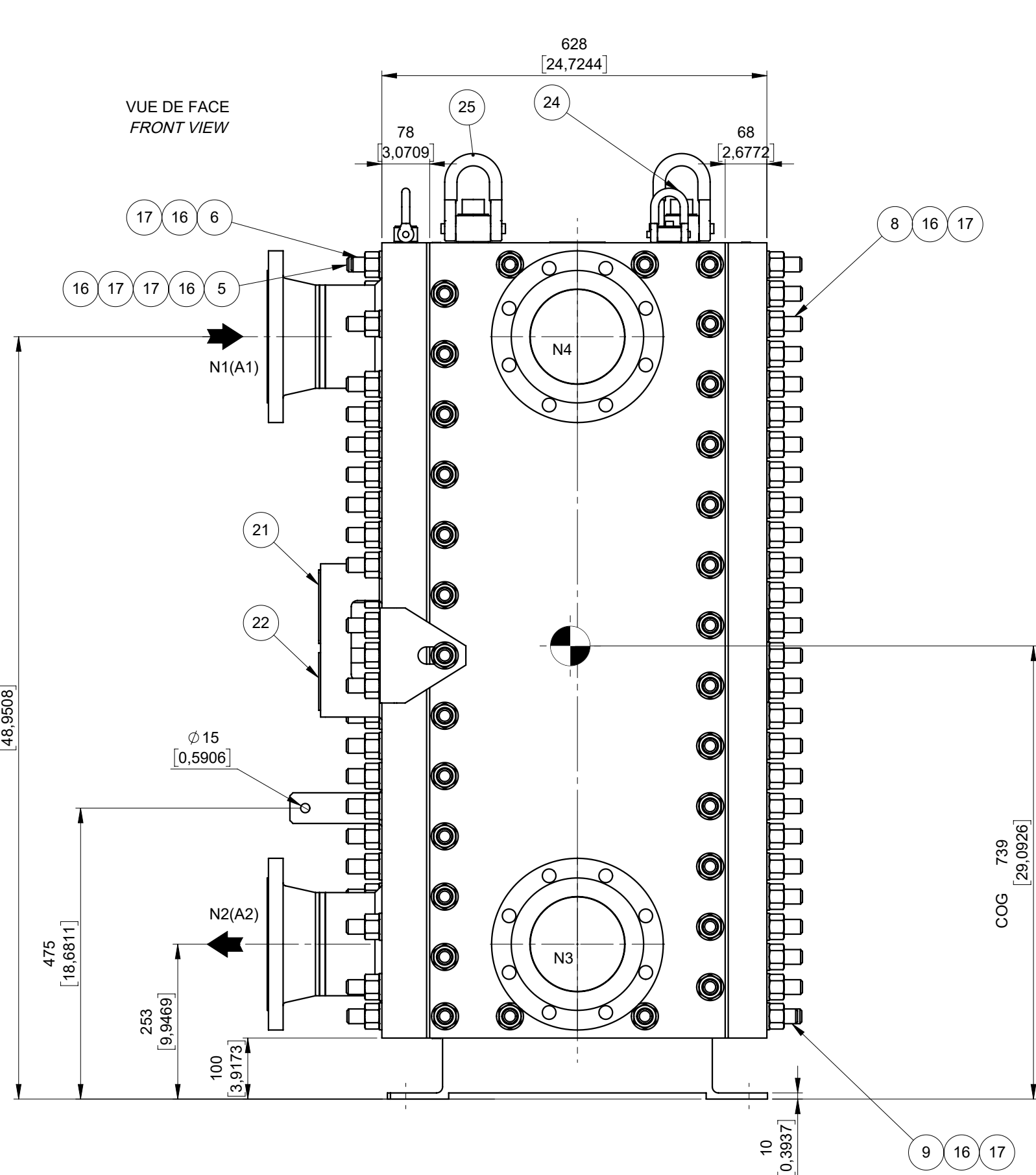
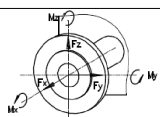


DONNEES D'ETUDE	DESIGN DATA	CIRCUISE	A	COTE PROCEDE PROCESS SIDE	CIRCUISE	B	COTE SERVICE SERVICE SIDE
FLUIDE VEHICULE	FLUID			Product 1+BE			Water
PRESSION DE SERVICE	WORKING PRESSURE			0.69		4.14	60
PRESSION D'ETUDE INTERNE	INTERNAL DESIGN PRESSURE MAWP (UG-21 UG-98)	bar	psi	10.4	161	10.4	151
PRESSION D'ETUDE EXTERNE	EXTERNAL DESIGN PRESSURE	bar	psi	1.03(FV)	16(FV)	1.03(FV)	15(FV)
PRESSION D'PREUVE	TEST PRESSURE (UG-99)	bar	psi	13.6	197	13.6	197
TEMPERATURE DE SERVICE	WORKING TEMPERATURE	°C	°F	77.9 -> 65	172 -> 149	30 -> 67.8	86 -> 154
TEMPERATURE D'ETUDE	DESIGN TEMPERATURE (UG-20)	°C	°F	120	248	120	248
TEMPERATURE D'ETUDE MINI	MDMT (UG-20)	°C	°F	0	32	0	32
NOMBRE DE PASSES	NUMBER OF PASSES			6		6	
SURFACE HEAT	HEAT TRANSFER SURFACE	m² (ft²)			32.8 (353)		
POIDS A VIDE	WEIGHT EMPTY	kg (lbs)			2080 (4585)		
POIDS TEST	TEST WEIGHT	kg (lbs)			2317.2 (5108)		
VOLUME	CAPACITY	L	gal	118	31.2	119.2	31.5
COEUR D'ECHANGE	HEAT TRANSFER PLATE PACK						
CHARGES EXTERNES	EXTERNAL LOADS (UG-22)				Yes, Nozzle loads		
CODE DE CONSTRUCTION	CONSTRUCTION CODE				ASME Sect. VIII Div. 1 Ed.2019		
COEFF. DE SOUDURE	JOINT EFFICIENCY (UW-12)				0.7		
SERVICE DANGEREUX	LETHAL SERVICE (UW-2 UG-120d)				No		
SUREP. DE CORROSION	CORROSION ALLOWANCE				No		
TRAITEMENT THERMIQUE	HEAT TREATMENT - PWHT (UCS-56)				No		
CONTROLE RADIO	RADIOGRAPHY RT (UW-11)				See Notes		
AUTRE CONTROLE	OTHER TEST						
FINITION INTERNE	FINISH INTERNAL	REVETEMENT / LINING		SA240type316L	SA240type316L		
FINITION EXTERNE	FINISH EXTERNAL	PEINTURE / PAINTING		ALV STD System 2			
CONTROLE EXTERNE	EXTERNAL INSPECTION			ASME authorized inspector			
CAHIER DE SOUDAGE	WELDING PROGRAM			CDS-CP21-24561-01			
NOTE DE CALCUL	CALCULATION SHEET			NDC-CP21-24561-01			
L.O.F.C.	I.T.P.			ITP-CP21-24561-01			
RESILIENCE	IMPACT TESTED			No, exempted Acc. to UG20 (f), UCS66 and UHA-51			

TABLEAU DES TUBULURES / NOZZLES TABLE										
CUSTOMER ITEM	REP ITEM	NB QTY	DN	NPS	PIPE THK mm/in	LONGUEUR L SHOP LENGTH L mm/in	PN / GLASS	FACE DE JOINT / FLANGE FACING	NORME SPECIFICATION	SERVICE
N1	A1	1	150	6	7.11	0.2799	256	10.0787	Cl.150	Raised Face
N2	A2	1	150	6	7.11	0.2799	256	10.0787	Cl.150	Raised Face
N3	B1	1	150	6	7.11	0.2799	256	10.0787	Cl.150	Raised Face
N4	B2	1	150	6	7.11	0.2799	256	10.0787	Cl.150	Raised Face

EFFORTS TUBULURES						NOZZLE LOADS	
Acc. to API 662 API Table 1							
(N)			(N.m)				
Fx	Fy	Fz	Mx	My	Mz		
776	776	776	750	750	750	DN150 Cl.150 > A1	
776	776	776	750	750	750	DN150 Cl.150 > A2	
776	776	776	750	750	750	DN150 Cl.150 > B1	
776	776	776	750	750	750	DN150 Cl.150 > B2	



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19-X-753A OIL/WATER HEAT EXCHANGER

ITEM NO.	QTY	PART NO	DESIGNATION	DESCRIPTION	MATERIAL	CERT.
1	1	DWG-CP21-24561-03	ASSEMBLAGE DU BLOC - CPK40 200 PLAQUES	BLOCK ASSEMBLY - CPK40 200 PLATES	-	
1.1	1	-	COEUR D'ECHANGE 200 PLAQUES (1)	HEAT TRANSFER PLATE PACK 200 PLATES (1)	SA240type316L	3.1
1.2	2	34502147-01	FOND USINE CP40 Ep.nominale=70mm, mini=68mm	MACHINED HEAD CP40 Th.nominal=2.7559in, mini=2.6712in	SA516gr60N	3.1
1.3	4	34502145-03	LONGERON 200 PLAQUES Ep.=70mm Ep.usi=59.5mm Lg.=1297mm	COLUMN 200 PLATES Th.=2.7559in Th.mach=2.3425in Lgth.=51.0630in	SA516gr60N	3.1
1.4	1	-	CHICANAGE EMBOUTI 6 PASSES (CIRCUIT A) (1)	STAMPED BAFFLE 6 PASSES (SIDE A) (1)	SA240type316L	
1.5	1	-	CHICANAGE EMBOUTI 6 PASSES (CIRCUIT B) (1)	STAMPED BAFFLE 6 PASSES (SIDE B) (1)	SA240type316L	
2	2	C2JAF	JOINT DE PANNEAU Ep.=2mm m=2 y=26 MPa CIRCUIT B	PANEL GASKET Th.=0.0787in m=2 y=26 MPa SIDE A	Graphite PSM	
3	2	C2JAF	JOINT DE PANNEAU Ep.=2mm m=2 y=26 MPa CIRCUIT B	PANEL GASKET Th.=0.0787in m=2 y=26 MPa SIDE B	Graphite PSM	
4	1	DWG-CP21-24561-04	PANNEAU ASSEMBLE Aa - CPK40 200 PLAQUES	PANEL ASSEMBLY Aa - CPK40 200 PLATES	-	
4.1	1	DWG-CP21-24561-01-41	PANNEAU USINE Ep.nominale=80mm mini=64mm	MACHINED PANEL Th.nominal=3.1496in mini=2.5197in	SA516gr60N	3.1
4.2	1	DWG-CP21-24561-01-51	REVETEMENT DE PANNEAU Ep.=3mm	PANEL LINING Th.=0.1181in	SA240type316L	3.1
4.3	2	34503718-07	BRIDE A COLLERETTE DN150 Cl150 SCH40S	WELDING NECK FLANGE NPS6" Cl150 SCH40S	SA182F316L	3.1
4.4	2	34503731-20	TUBE DN150 SCH40S Ep.=7.11mm Ep.mini=6.6mm Lg.=165mm	PIPE NPS 6" SCH40S Th.=0.2799in Th.mini=0.2598in Lg.=6.4960in	SA312TP316L	3.1
4.5	36	34501987-01	INSERT	THREAD INSERT	SA479type316L	
4.6	1	CCD01	PATTE DE TERRE (2)	EARTHING LUG (2)	SA240type304L	3.1
4.7	1	DWG-37522	\$PRP\$MODEL:(DescriptionLO)	\$PRP\$MODEL:(DescriptionEN)	SA516 gr60	3.1
5	30	3350023061	TIGE FILETEE M24x175mm ZINGUEE	THREAD ROD M24x175mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
6	2	3350023057	TIGE FILETEE M24x220mm ZINGUEE	THREAD ROD M24x220mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
7	1	DWG-CP21-24561-05	PANNEAU ASSEMBLE Ab - CPK40 200 PLAQUES	PANEL ASSEMBLY Ab - CPK40 200 PLATES	-	
7.1	1	DWG-CP21-24561-01-42	PANNEAU USINE Ep.nominale=70mm mini=54mm	MACHINED PANEL Th.nominal=2.7559in mini=2.126in	SA516gr60N	3.1
7.2	1	DWG-CP21-24561-01-52	REVETEMENT DE PANNEAU Ep.=3mm	PANEL LINING Th.=0.1181in	SA240type316L	3.1
7.3	44	34501987-01	INSERT	THREAD INSERT	SA479type316L	
8	30	3350023060	TIGE FILETEE M24x165mm ZINGUEE	THREAD ROD M24x165mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
9	2	3350011958	TIGE FILETEE M24x210mm ZINGUEE	THREAD ROD M24x210mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
10	1	DWG-CP21-24561-06	PANNEAU ASSEMBLE Ba - CPK40 200 PLAQUES	PANEL ASSEMBLY Ba - CPK40 200 PLATES	-	
10.1	1	DWG-CP21-24561-01-43	PANNEAU USINE Ep.nominale=80mm mini=64mm	MACHINED PANEL Th.nominal=3.1496in mini=2.5197in	SA516gr60N	3.1
10.2	1	DWG-CP21-24561-01-53	REVETEMENT DE PANNEAU Ep.=3mm	PANEL LINING Th.=0.1181in	SA240type316L	3.1
10.3	2	34503718-07	BRIDE A COLLERETTE DN150 Cl150 SCH40S	WELDING NECK FLANGE NPS6" Cl150 SCH40S	SA182F316L	3.1
10.4	2	34503731-20	TUBE DN150 SCH40S Ep.=7.11mm Ep.mini=6.6mm Lg.=165mm	PIPE NPS 6" SCH40S Th.=0.2799in Th.mini=0.2598in Lg.=6.4960in	SA312TP316L	3.1
10.5	36	34501987-01	INSERT	THREAD INSERT	SA479type316L	
11	30	3350023061	TIGE FILETEE M24x175mm ZINGUEE	THREAD ROD M24x175mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
12	2	3350023057	TIGE FILETEE M24x220mm ZINGUEE	THREAD ROD M24x220mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
13	1	DWG-CP21-24561-07	PANNEAU ASSEMBLE Bb - CPK40 200 PLAQUES	PANEL ASSEMBLY Bb - CPK40 200 PLATES	-	
13.1	1	DWG-CP21-24561-01-44	PANNEAU USINE Ep.nominale=70mm mini=54mm	MACHINED PANEL Th.nominal=2.7559in mini=2.126in	SA516gr60N	3.1
13.2	1	DWG-CP21-24561-01-54	REVETEMENT DE PANNEAU Ep.=3mm	PANEL LINING Th.=0.1181in	SA240type316L	3.1
13.3	44	34501987-01	INSERT	THREAD INSERT	SA479type316L	
14	30	3350023060	TIGE FILETEE M24x165mm ZINGUEE	THREAD ROD M24x165mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
15	2	3350011958	TIGE FILETEE M24x210mm ZINGUEE	THREAD ROD M24x210mm ZINC COATED ROOT AREA 317mm²	SA193grB7	3.1
16	128	3350012009	ECROU Hh, M24 ZINGUEE	NUT Hh, M24 ZINC COATED	SA194gr7	3.1
17	128	3350012015	RONDELLE M24 N ZINGUEE	WASHER M24 N ZINC COATED	STEEL C45	
18	4	C2221	VIS H M24x40mm ZINGUEE (2)	SCREW H M24x40mm ZINC COATED (2)	Class 8.8	
19	2	DWG-36160	CORNIERE PORTE ETIQUETTE (2)	LABEL BEARER (2)	S235 JR	
20	1	34502151-01	SUPPORT VERTICAL CP40	VERTICAL FEET CP40	S235JR	
21	1	DWG-CP21-24561-02	PLAQUE DE FIRME ALFA LAVAL (2)	ALFA LAVAL NAME PLATE (2)	A240type304	
22	1	DWG-CP21-24561-02	PLAQUE DE FIRME ASME U (2)	ASME U NAME PLATE (2)	A240type304	
23	5	DWG-CP21-24561-02	PLAQUE D'IDENTIFICATION (2)	IDENTIFICATION PLATE (2)	A240type304	
24	2	CCA02	ANNEAU ARTICULE M8 (2)	SWIVEL RING M8 (2)	CMU 0.4t	
25	2	C1LEVM24-01	ANNEAU ARTICULE M24 (2)	SWIVEL RING M24 (2)	CMU 4t	

PROJECT - WORPAR
ITEM NBR - 681B1.1
TYPE - ASSY
eB NBR - 100207380.003
DATE - 31.01.2022

(1) NON CODE PART
(2) NON PRESSURE COMPONENT

COMPABLOC welded plate type heat exchanger composed of a non Code pack of welded square exchange plates enclosed in a bolted Code symbol stamped rectangular shell with encased carbon steel square flat heads.
Les cotes sont en millimètres et en pouces entre ["] pour information.
Dimensions are in millimeters and in inches into ["] for information only.
Le(s) trou(s) M6 pour la protection argon doit (doivent) être en position basse.
M6 Hole(s) for gas backing protection must be at the bottom of the pipe.

Boulonnerie de serrage panneaux graissée avec Molydal Graisse Thermolub SP (R) à l'exception de la boulonnerie revêtue PTFE.
Tightening bolts of panels greased with Molydal Graisse Thermolub SP (R) except of bolting is PTFE coated.

NOTES: 1. Position of nozzles : ±5mm [±0.197in] 2. Anchoring : ±5mm [±0.197in] 100% Dye penetrant test: on plate pack, on linings, on pipe/panel welds, on pipe/flange welds and on inserts welds. PMI control: 100% on plate pack, 100% on linings, linings welds and 10% on insert welds	QCM. Review:				AI. Review:				Approved by D.E.:				
	As Built : Adjustment of Nozzle A1 & B1												
	Nozzle lenght and th. (in) updated												
	Customer and Design Engineer comments Updated												
	First Issue												
03 26/01/2022		MWD		TSZ	ABEA								
02 01/12/2021		AML		TSZ	ABEA								
01 29/10/2021		LRT		TSZ	SBU								
00 19/07/2020		NRL		TSZ	SBU								
INDICE REVIEW		DATE DATE		NOM AUTHOR		VERIFIE CHECKED		APPROUVE APPROVED		W.E. APPROVAL		OBJET DE LA REVISION REVIEW SUBJECT	
ECHANGEUR TYPE COMPABLOC CPK40-V-200 Plaques													
HEAT EXCHANGER TYPE COMPABLOC CPK40-V-200 Plates													
CLIENT DESMET CUSTOMER CUSTOMER ORDER													
Cds CLIENT CUSTOMER ORDER													
Cds ALFA LAVAL CP2021-24561 ALFA LAVAL ORDER													
1-9 RUE DU RIF TRONCHARD 39120 LE FONTAINEIL CORNILLON - FRANCE TEL: (33) 04 76 56 50 50 - FAX: (33) 04 76 78 78 09													
NO SERIE CP40-2823 SERIAL NO CP40-2823 ECHELLE SCALE 1:8													
REPERE 681B1.1 / 19-X-753A ITEM or TAG ITEM or TAG													
DWG-CP21-24561-01													
A1													
03													