

Data Sheet Vessel

**1B4700 Buffer Hold Vessel 14 (C4 Equil.+ Flush + Elution)
1 (rVIII-SC) / 1UB47 Buffer Hold Chroma 4**

Version 03

Status: As Built


This datasheet does also apply to:
1B4140


Total number: 2

History:


Vers. Date

03.0	10/23/2017
02.0	12/19/2016
01.0	12/8/2016

Function	Company	Name	Date	Signature
Author	M+W	<i>S.M.</i>	10/23/2017	<i>[Signature]</i>
Review	<i>M+W</i>	<i>A.K.</i>	<i>10/23/2017</i>	
Approval				
CSL Behring		M+W		
<p>CSL Behring Biotherapies for Life™</p> <p>CSL Behring Recombinant Facility AG Wankdorfstrasse 10 CH-3000 Bern 22 Switzerland</p>		<p> M + W GROUP</p> <p>M+W Central Europe GmbH Lotterbergstr. 30 D-70499 Stuttgart Germany</p>		
Project Number CSL Behring 16004		Project Number M+W 2304996		
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Project RCF Project Lengnau		Document Type / Description Data Sheet		Page 1

Project-No.		2304996		Data Sheet									
Code		NRCFF		Vessel									
Tag-No.		1B4700											
PFD-No.		PVF_B_01_0068		Building-No.		B		Process		1 (rVIII-SC) / 1UB47 Buffer Hold Chroma 4			
P&ID -No.		PRI_B_01_0081		Level		10		Name		Buffer Hold Vessel 14 (C4 Equil.+ Flush + Elution)			
Drawing-No.		E11078		Room-No.		B_10_2027		Type		Vessel			
01		General								Design Data			
02	v	Inquiry No. / Date		N/A /		0		Pressure Vessel Code		AD2000; PED			
03	v	Bid No. / Date		0103705004 / 4/7/2017		0	v	Inside Diameter		800	mm		
04	v	Order No. / Date		4500971482 / 4/27/2017		3	v	Length w/o Support		980	mm		
05	v	Standard / Regulation		RS.00042 / RS.00043 / RS.00044		3	v	Bottom Outlet Height		N/A	mm		
06	v	Inspection		RS.00042 / RS.00043 / RS.00044		0		Nominal volume		500	l		
07	v	Manufacturer / Supplier		KASAG / KASAG		3	v	Total volume		655	l		
08	v	Necessary Certificates		RS.00042 / RS.00043 / RS.00044			v	Design Temperature					
09	v	Documentation		RS.00042 / RS.00043 / RS.00044		2	v	Inside		-10-150	°C		
10						2	v	Jacket (Heating / Cooling)		-10-150	°C		
11								Design Pressure²					
12		Operating Data						0	v	Inside		-1 / 6	bar
13	v	Medium		Process Media		0	v	Jacket (Heating / Cooling)		-1 / 10	bar		
14	v	Characteristics		aqueous solution		0	v	Type of bottom		dished end DIN 28011			
15	v	Working Volume min./max.		59.2	500	l	0	v	Type of top		DIN 28011, removeable		
16	v	Operating Temp. Min./max.		19	-	23	°C	Wall Thickness					
17	v	Op. Pressure min./max.²		0	-	2.1	bar	3	Top / Bottom / Cylinder		6 / 6 / 5	mm	
18	v	Filling Rate min./max.		N/A		m ³ /h	3	Heating-/ Cooling Jacket		3	mm		
19	v	Draining Rate min./max.		N/A		m ³ /h	3	Inliner		N/A	mm		
20	v	Density / Bulk Density at [T]		1200	20	kg/m ³ °C	3	Insulation / Insulation Jacket		3	mm		
21	v	Specific Heat Capacity		~4.2		kJ/kg K	0	Corrosion Allowance		0	mm		
22		Dynamic Viscosity at [T]		0.002	20	Pa s °C	3	Welding Factor		acc. PED			
23	v	pH-Value min./max.		1	-	14		0	Vessel Orientation		vertical		
24	v	Flash Point		N/A		°C	3	Reinforcing Sheet(s)		no			
25	v	Inertisation ²		N/A		mbar	3	Test press. in-/outside²		8.8 / 16.2	bar		
26	v	Cleaning in Place		Yes			3	Gaskets / Type		acc. pipe class			
27		Medium		0.5M NaOH, 0.1M HNO3			3	Heat Ex. Surface / Content		N/A	m ² / l		
28		Temperature		<=80		°C		Weight of Vessel					
29	v	Sterilisation in Place		Yes			3	Empty / Disaster		515 / 1200	kg		
30		Medium		pyrogen free steam				Construction Details					
31		Temperature		<135		°C	0	Heating / Cooling		cylinder			
32	v	Heating-/Cooling Medium		Tempering Media			3	Type		coil			
33		Inlet Temperature		14		°C		Support					
34		Outlet Temperature		20		°C	3	Type / No. / Norm		brackets / 4 /			
35		Operating Pressure ²		~3		bar		Fixing					
36		Density at [T]		1000	25	kg/m ³ °C	3	Type / No. / Norm		lifting lugs / 3 /			
37		Specific Heat Capacity		4,182		kJ/kg K	3			name plate / 1 /			
38		Dyn. Viscosity at [T]		0,001	25	Pa s °C	0			Earthing Connector/ 1 /			
39	v	Thermal Output (max)		N/A		kW	0			/ /			
40	v	Thermal Input (max)		N/A		kW	0	Accessories		/ /			
41	v	Heating-/ Cooling Rate		N/A /	N/A	°C/min	0	Type / No. / Norm		/ /			
42	v	Insulation		yes			0			/ /			
43		Materials						0		/ /			
44	v	Product Contacted Parts		1.4539			0	Agitator seal					
45		d-Ferrite Content		Fe <3%			0	Arrangement		none			
46	v	Gaskets		EPDM peroxid cured			0	Aseptic Design		yes			
47		Sight Glasses		DIN 7080			0						
48		Inliner		N/A				Surface Treatment					
49	v	Non Prod. Contacted Parts / Insulation Jacket		coil:1.4404 / 1.4435 rest:1.4301 / 1.4404			3	Outer surface					
50	v						3	Surface finish		grinded			
51	v	Gaskets		N/A			0	Surface Roughness		RA <=1.2µm			
52	v	Supports		1.4301 / 1.4404			3	Welding Seam		grinded			
53	v	Insulation		Fabr. ISOVER, AGI Q 132			v	Inner surface					
54	v	Screws, Nuts, Bolts		A4-70; A4			2	Surface finish		grinded			
55	v	Exterior coating					0	Surface properties		RA <=0.6µm			
56	v	Primer		N/A			0	Welding Seam		grinded			
57	v	Final Coating		N/A			0						
58													
59		Remarks											
60		1. Lines marked with "v" contain process information											
61		2. Overpressure. Vacuum is marked with a negative sign.											
62													
63	v												
64	v												
65	v												


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Project-No.	2304996	Data Sheet				
Code	NRCFF					
Tag-No.	1B4700					
PFD-No.	PVF_B_01_0068	Building-No.	B	Process	1 (rVIII-SC) / 1UB47 Buffer Hold Chroma 4	
P&ID -No.	PRI_B_01_0081	Level	10	Name	Buffer Hold Vessel 14 (C4 Equil.+ Flush + Elution)	
Drawing-No.	E11078	Room-No.	B_1O_2027	Type	Vessel	

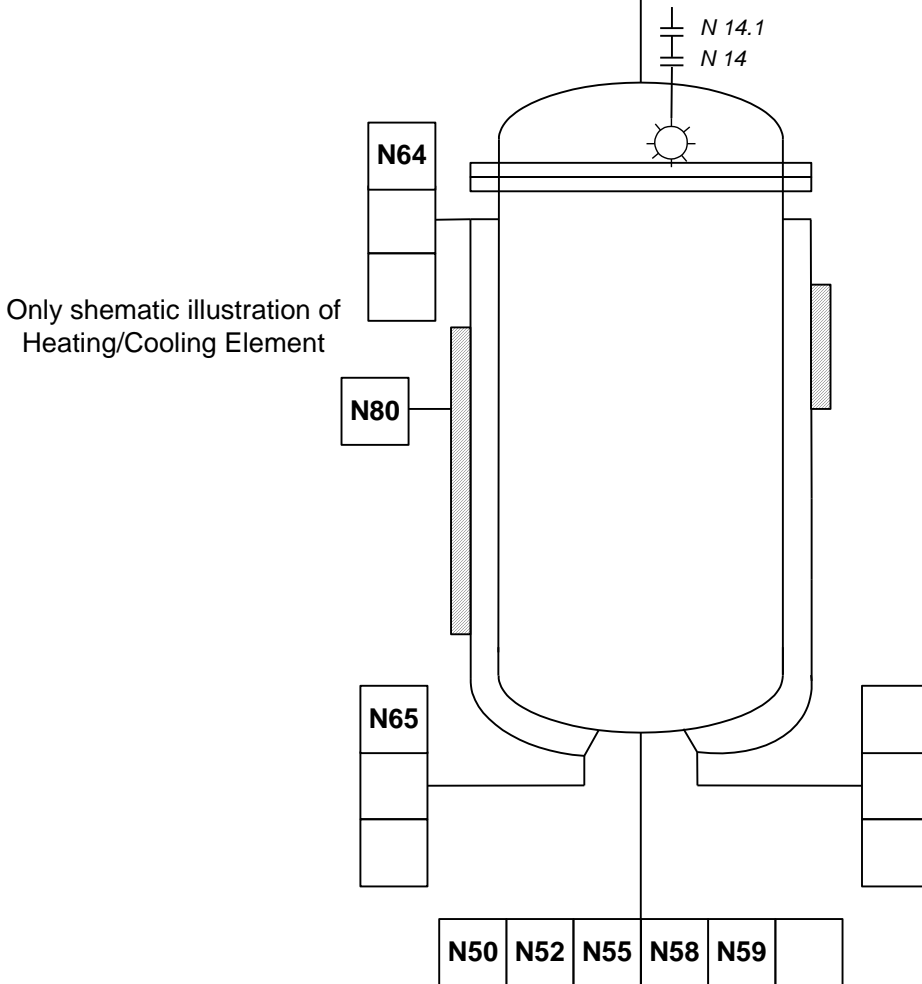
Rev	Table of Nozzles							
	Ident.	No.	DN	PN	Norm	Flange-/Nozzletype	Sealing Face	Service
3	N03	1	100		similar DIN 28117	block flange, radial	O-ring	0106 - Sight glass
3	N04	1	50		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0348 - Sight glass with light
3	N05	1	32		Dim. DIN 11866-B	Na-connect	Flat	0125 - Rupture disc
3	N07	1	B25			Neumo BioControl	O-ring	0142 - Pressure gauge
3	N08	1	B25			Neumo BioControl	O-ring	0142 - Pressure probe
3	N09	1	40		DIN 32676	Dim. DIN 11866-B	Flat	Filling level
3	N11	1	B25			Neumo BioControl	O-ring	0142 - Level switch
3	N12	1	15		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0351 - Ventilation
3	N13	1	50		Dim. DIN 11866-B	Na-connect	Flat	spare port
3	N14	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP 1 (vessel-connection)
3	N14.1	1	25		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP inlet 1
3	N15	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP 2 (vessel-connection)
3	N15.1	1	25		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP inlet 2
3	N19	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0316 - Inlet pipe (vessel-connection)
3	N19.1	1	20		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0316 - Inlet pipe (J-tube)
1	N50	1	25		Südmo block flang	Type Südmo SVP	O-ring	0318 - Bottom outlet
3	N52	1	G 3/8"			Thermowell		0352 - Temperature measurement
3	N55	1	40		Dim. DIN 11866-B	Na-connect	Flat	0304 - Sampling (9 port)
1	N58	1	G 1 1/4"		Ingold	25H7	O-ring	0330 - Spare (pH)
3	N59	1	B50			Neumo Biocontrol	O-ring	0142 - Spare (conductivity)
3	N64	1	20	40	DIN EN 1092-1 11,	welding neck flange	Form B1	Outlet Tempering Media
3	N65	1	20	40	DIN EN 1092-1 11,	welding neck flange	Form B1	Inlet Tempering Media
1	N80	1	1/4"		supplier standard	socket with thread		0149 - Testsocket insulation

Rev	Remarks Nozzles
0	Nozzle typical number: S-E-AT-XXXX(number in Service column)
0	
0	
0	
0	
0	

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		Vessel				
PFD-No.	PVF_B_01_0068	Building-No.	B	Process	1 (rVIII-SC) / 1UB47 Buffer Hold Chroma 4	
P&ID -No.	PRI_B_01_0081	Level	10	Name	Buffer Hold Vessel 14 (C4 Equil.+ Flush + Elution)	
Drawing-No.	E11078	Room-No.	B_10_2027	Type	Vessel	
Sketch						


											N 14.1	N 15.1	N 19.1
N03	N04	N05	N07	N08	N09	N11	N12	N13	N14	N15	N19		



Drawing Rev. 01

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Code	NRCFF					
Tag-No.	1B4700					
Vessel						
PFD-No.	PVF_B_01_0068	Building-No.	B	Process	1 (rVIII-SC) / 1UB47 Buffer Hold Chroma 4	
P&ID -No.	PRI_B_01_0081	Level	1O	Name	Buffer Hold Vessel 14 (C4 Equil.+ Flush + Elution)	
Drawing-No.	E11078	Room-No.	B_1O_2027	Type	Vessel	
Additional Information for Equivalent Equipment						

Tag-No.	Description	Process	PFD-No./PID-No./ Drawing-No.	Building-No./ Level/Room-No.
1B4140	Buffer Hold Vessel 5 (C1/C2 HETP 1)	1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1	PVF_B_01_0062 PRI_B_01_0074 E11078	B 1O B_1O_2027