

# Data Sheet Vessel

**1B4100 Buffer Hold Vessel 1 (C1 Wash 2)  
1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1  
Version 08**

**Status: As Built**

This datasheet does also apply to:  
3B4550                      2B4800


Total number:                      3

History:


Vers.    Date

08.0	21.11.2017
07.0	26.10.2017
06.0	19.12.2016
05.0	08.12.2016
04.0	25.07.2016

Function	Company	Name	Date	Signature
Author	M+W	<i>Aku</i>	21.11.2017	<i>A. Fahl</i>
Review	<i>M+W</i>	<i>S. Ull</i>	<i>21.11.2017</i>	<i>[Signature]</i>
Approval				
<b>CSL Behring</b>			<b>M+W</b>	
<p><b>CSL Behring</b> Biotherapies for Life™</p> <p>CSL Behring Recombinant Facility AG Wankdorfstrasse 10 CH-3000 Bern 22 Switzerland</p>			 <b>M+W GROUP</b>  M+W Central Europe GmbH Lotterbergstr. 30 D-70499 Stuttgart Germany	
Project Number CSL Behring <b>16004</b>			Project Number M+W <b>2304996</b>	
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Project <b>RCF Project Lengnau</b>			Document Type / Description <b>Data Sheet</b>	
			Page <b>1</b>	

Project-No.		2304996		Data Sheet								
Code		NRCFF		Vessel								
Tag-No.		1B4100										
PFD-No.		PVF_B_01_0060		Building-No.		B		Process		1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1		
P&ID -No.		PRI_B_01_0070		Level		10		Name		Buffer Hold Vessel 1 (C1 Wash 2)		
Drawing-No.		6722-05 001/002		Room-No.		B_10_2027		Type		Vessel		
01		<b>General</b>								<b>Design Data</b>		
02	7	<b>Inquiry No. / Date</b>	N/A /		0		<b>Pressure Vessel Code</b>	AD2000; PED				
03	7	<b>Bid No. / Date</b>	11198/17E / 02.03.2017		5	v	<b>Inside Diameter</b>	1000	mm			
04	7	<b>Order No. / Date</b>	4500971526 / 27.04.2017		7	v	<b>Length w/o Support</b>	1760	mm			
05	7	<b>Standard / Regulation</b>	RS.000 - 36/37/39/40/41		7	v	<b>Bottom Outlet Height</b>	N/A mm				
06	7	<b>Inspection</b>	RS.000 - 36/37/39/40/41		5		<b>Nominal volume</b>	1000	l			
07	7	<b>Manufacturer / Supplier</b>	Hinke Tankbau / Hinke Tankbau		7	v	<b>Total volume</b>	1270	l			
08	7	<b>Necessary Certificates</b>	RS.000 - 36/37/39/40/41			v	<b>Design Temperature</b>					
09	7	<b>Documentation</b>	RS.000 - 36/37/39/40/41		6	v	<b>Inside</b>	-10-150	°C			
10	0				6	v	<b>Jacket (Heating / Cooling)</b>	-10-150	°C			
11	0					v	<b>Design Pressure<sup>2</sup></b>					
12		<b>Operating Data</b>						2	v	<b>Inside</b>	-1 / 6	bar
13	4	<b>Medium</b>	Process Media		0	v	<b>Jacket (Heating / Cooling)</b>	-1 / 10	bar			
14	4	<b>Characteristics</b>	aqueous solution		0	v	<b>Type of bottom</b>	dished end DIN 28011				
15	7	<b>Working Volume min./max.</b>	115,5	- 1040	l	0	v	<b>Type of top</b>	dished end DIN 28011			
16	7	<b>Operating Temp. Min./max.</b>	19	- 23	°C			<b>Wall Thickness</b>				
17	7	<b>Op. Pressure min./max.<sup>2</sup></b>	0	- 2,1	bar	7		<b>Top / Bottom / Cylinder</b>	8 / 6 / 5	mm		
18	7	<b>Filling Rate min./max.</b>	N/A		m <sup>3</sup> /h	7		<b>Heating-/ Cooling Jacket</b>	3	mm		
19	7	<b>Draining Rate min./max.</b>	N/A		m <sup>3</sup> /h	7		<b>Inliner</b>	N/A mm			
20	4	<b>Density / Bulk Density at [T]</b>	1200	20	kg/m <sup>3</sup> °C	7		<b>Insulation / Insulation Jacket</b>	5	mm		
21	7	<b>Specific Heat Capacity</b>	~4.2		kJ/kg K	0		<b>Corrosion Allowance</b>	0	mm		
22	4	<b>Dynamic Viscosity at [T]</b>	0.002	20	Pa s °C	7		<b>Welding Factor</b>	acc. PED			
23	4	<b>pH-Value min./max.</b>	1	- 14		0	v	<b>Vessel Orientation</b>	vertical			
24	4	<b>Flash Point</b>	N/A		°C	7		<b>Reinforcing Sheet(s)</b>	no			
25	4	<b>Inertisation <sup>2</sup></b>	N/A		mbar	7		<b>Test press. in-/outside<sup>2</sup></b>	11.3 / 18.1	bar		
26	0	<b>Cleaning in Place</b>	Yes			7		<b>Gaskets / Type</b>	acc. pipe class			
27	0	<b>Medium</b>	0.5M NaOH, 0.1M HNO <sub>3</sub>			7		<b>Heat Ex. Surface / Content</b>	N/A	m <sup>2</sup> / l		
28	0	<b>Temperature</b>	<=80		°C			<b>Weight of Vessel</b>				
29	0	<b>Sterilisation in Place</b>	Yes			7		<b>Empty / Disaster</b>	950 / 2262	kg		
30	0	<b>Medium</b>	pyrogen free steam					<b>Construction Details</b>				
31	0	<b>Temperature</b>	<135		°C	2		<b>Heating / Cooling</b>	cylinder			
32	0	<b>Heating-/Cooling Medium</b>	Tempering Media			7		<b>Type</b>	coil			
33	0	<b>Inlet Temperature</b>	14		°C			<b>Support</b>				
34	0	<b>Outlet Temperature</b>	20		°C	7		<b>Type / No. / Norm</b>	brackets / 4 /			
35	0	<b>Operating Pressure <sup>2</sup></b>	~3		bar			<b>Fixing</b>				
36	0	<b>Density at [T]</b>	1000	25	kg/m <sup>3</sup> °C	7		<b>Type / No. / Norm</b>	lifting lugs / 3 /			
37	0	<b>Specific Heat Capacity</b>	4,182		kJ/kg K	7			name plate / 1 /			
38	0	<b>Dyn. Viscosity at [T]</b>	0,001	25	Pa s °C	0			Earthing Connector/ 1 /			
39	7	<b>Thermal Output (max)</b>	N/A		kW	0			/ /			
40	7	<b>Thermal Input (max)</b>	N/A		kW	0		<b>Accessories</b>	/ /			
41	7	<b>Heating-/ Cooling Rate</b>	N/A	/	N/A °C/min	0		<b>Type / No. / Norm</b>	/ /			
42	0	<b>Insulation</b>	yes			0			/ /			
43		<b>Materials</b>						0		/ /		
44	0	<b>Product Contacted Parts</b>	1.4435			0	v	<b>Agitator seal</b>				
45	5	<b>d-Ferrite Content</b>	Fe <3%			0	v	<b>Arrangement</b>	none			
46	7	<b>Gaskets</b>	EPDM peroxid cured			0	v	<b>Aseptic Design</b>	yes			
47	0	<b>Sight Glasses</b>	DIN 7080			0						
48	0	<b>Inliner</b>	N/A					<b>Surface Treatment</b>				
49	7	<b>Non Prod. Contacted Parts / Insulation Jacket</b>	coil:1.4571 rest:1.4301					<b>Outer surface</b>				
50						7		<b>Surface finish</b>	grinded			
51	0	<b>Gaskets</b>	Gylon			2		<b>Surface Roughness</b>	RA <=1.2µm			
52	7	<b>Supports</b>	1.4301			6		<b>Welding Seam</b>	polished eg. Scotch bride			
53	7	<b>Insulation</b>	Fabr. ISOVER, AGI Q132				v	<b>Inner surface</b>				
54	2	<b>Screws, Nuts, Bolts</b>	A2-70; A4			6	v	<b>Surface finish</b>	grinded			
55		<b>Exterior coating</b>				2	v	<b>Surface properties</b>	RA <=0.6µm			
56	7	<b>Primer</b>	N/A			2		<b>Welding Seam</b>	grinded			
57	7	<b>Final Coating</b>	N/A			0						
58	0											
59		<b>Remarks</b>										
60		1. Lines marked with "v" contain process information										
61		2. Overpressure. Vacuum is marked with a negative sign.										
62												
63	7											
64	7											
65	7											


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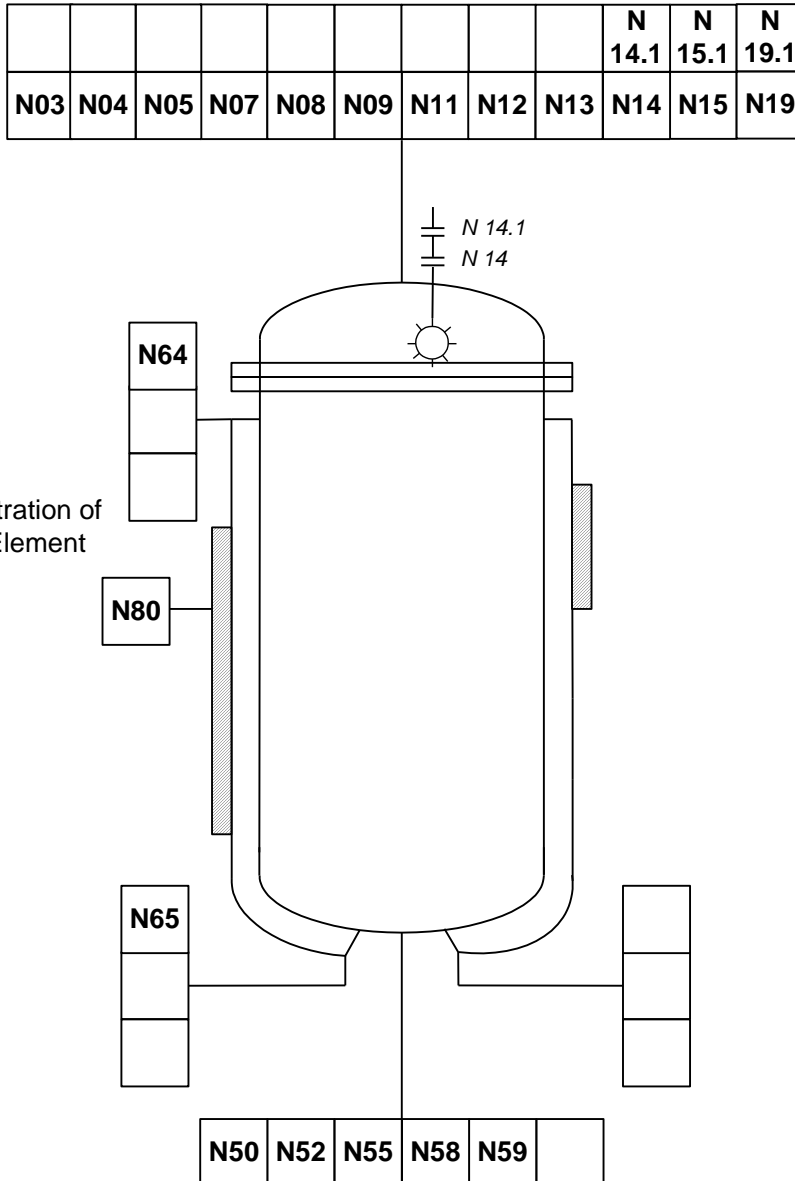
Project-No.	2304996	<b>Data Sheet</b>				
Code	NRCFF					
Tag-No.	1B4100					
PFD-No.	PVF_B_01_0060	Building-No.	B	Process	1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1	
P&ID -No.	PRI_B_01_0070	Level	10	Name	Buffer Hold Vessel 1 (C1 Wash 2)	
Drawing-No.	6722-05 001/002	Room-No.	B_1O_2027	Type	Vessel	

Rev	Table of Nozzles							
	Ident.	No.	DN	PN	Norm	Flange-/Nozzletype	Sealing Face	Service
7	N03	1	150		similar DIN 26117	Block flange, radial	O-ring	0106 - Sight glass
7	N04	1	50		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0348 - Sight glass with light
7	N05	1	32		Dim. DIN 11866-B	Na-connect	Flat	0125 - Rupture disc
7	N07	1	B25			Neumo BioControl	O-ring	0142 - Pressure gauge
7	N08	1	B25			Neumo BioControl	O-ring	0142 - Pressure probe
8	N09	1	40		DIN 32676	Dim. DIN 11866-B	Flat	0344 - Filling level
7	N11	1	B25			Neumo BioControl	O-ring	0142 - Level switch
7	N12	1	15		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0351 - Ventilation
8	N13	1	50		Dim. DIN 11866-B	Na-connect	Flat	0304- Sampling (spare port)
7	N14	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP 1 (vessel-connection)
7	N14.1	1	25		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350- CIP inlet 1
7	N15	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP 2 (vessel-connection)
7	N15.1	1	25		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP inlet 2
7	N19	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0349 - Inlet pipe (vessel-connection)
7	N19.1	1	20"		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0349 - Inlet pipe (J-tube)
2	N50	1	25		Südmo block flang	Type Südmo SVP	O-ring	0318 - Bottom outlet
7	N52	1	G 3/8"			Thermowell		0352 - Temperature measurement
7	N55	1	40		Dim. DIN 11866-B	Na-connect, Nova septum	Flat	0304 - Sampling
5	N58	1	G 1 1/4"		Ingold	25H7	O-ring	0330 - Spare (pH)
7	N59	1	B50			Neumo Biocontrol	O-ring	0143 - Spare (conductivity)
7	N64	1	20		DIN EN 1092-1 11	welding neck flange	Form B1	Outlet Tempering Media
7	N65	1	20		DIN EN 1092-1 11	welding neck flange	Form B1	Inlet Tempering Media
2	N80	1	1/4"		supplier standard	socket with thread		0149 - Testsocket insulation

Rev	Remarks Nozzles
2	Nozzle typical number: S-E-AT-XXXX(number in Service column)
7	*Bei Faktor IX Behältern DN25
0	
0	
0	
0	

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Code	NRCFF					
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		<b>Vessel</b>				
PFD-No.	PVF_B_01_0060	Building-No.	B	Process	1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1	
P&ID -No.	PRI_B_01_0070	Level	10	Name	Buffer Hold Vessel 1 (C1 Wash 2)	
Drawing-No.	6722-05 001/002	Room-No.	B_10_2027	Type	Vessel	
<b>Sketch</b>						




Only schematic illustration of Heating/Cooling Element

**Drawing Rev. 01**

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Tag-No.	1B4100					
<b>Vessel</b>						
PFD-No.	PVF_B_01_0060	Building-No.	B	Process	1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1	
P&ID -No.	PRI_B_01_0070	Level	10	Name	Buffer Hold Vessel 1 (C1 Wash 2)	
Drawing-No.	6722-05 001/002	Room-No.	B_10_2027	Type	Vessel	
<b>Additional Information for Equivalent Equipment</b>						

Tag-No.	Description	Process	PFD-No./PID-No./ Drawing-No.	Building-No./ Level/Room-No.
2B4800	Buffer Hold Vessel 25 (DF Eq+Recirc.+Filter Flush)	2 (rIX-FP) / 2UB48 Buffer Hold UF/DF 2	PVF_B_02_0069 PRI_B_02_0093 6722-05 003/004	B 10 B_10_2020
3B4550	Buffer Hold Vessel 14 (C2 Regeneration)	3 (rVIIa-FP) / 3UB45 Buffer Hold Chroma 2	PVF_B_03_0063 PRI_B_03_0083	B 10 B_10_1033