

# Data Sheet Vessel

## 1B4110 Buffer Hold Vessel 2 (C1 Eq. + Pre/Post Load Wash) 1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1

Version 06

Status: As Built

This datasheet does also apply to:

2B4750

2B4700

Total number:

8

1B4910

1B4610

1B4600


1B4500

1B4300

History:

Vers. Date

06.0	22.11.2017
05.0	23.10.2017
04.0	19.12.2016
03.0	08.12.2016
02.0	07.07.2016

Function	Company	Name	Date	Signature
Author	M+W	<i>Aku</i>	22.11.2017	<i>A. Fuchs</i>
Review	<i>M+W</i>	<i>S.M.</i>	<i>22.11.2017</i>	<i>[Signature]</i>
Approval	<i>CSL</i>	<i>Doi</i>	<i>14.12.17</i>	<i>Druga</i>
<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>		<p> <b>M+W GROUP</b></p> <p>M+W Central Europe GmbH Lotterbergstr. 30 D-70499 Stuttgart Germany</p>		
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			M+W GROUP			
Code		NRCFF		Vessel						
Tag-No.		1B4110								
PFD-No.		PVF_B_01_0060		Building-No.	B	Process	1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1			
P&ID -No.		PRI_B_01_0071		Level	10	Name	Buffer Hold Vessel 2 (C1 Eq. + Pre/Post Load Wash)			
Drawing-No.		E11047		Room-No.	B 10 2027	Type	Vessel			
01	v	General				v	Design Data			
02	5	Inquiry No. / Date		NA /		0	Pressure Vessel Code		AD2000; PED	
03	5	Bid No. / Date		0103705004 / 07.04.2017		3	Inside Diameter		1000 mm	
04	5	Order No. / Date		4500971482 / 27.04.2017		5	Length w/o Support		1807 mm	
05	5	Standard / Regulation		RS.00042 / RS.00043 / Rs.00044		5	Bottom Outlet Height		N/A mm	
06	5	Inspection		RS.00042 / RS.00043 / Rs.00044		0	Nominal volume		1000 l	
07	5	Manufacturer / Supplier		KASAG / KASAG		5	Total volume		1295 l	
08	5	Necessary Certificates		RS.00042 / RS.00043 / Rs.00044		v	Design Temperature			
09	5	Documentation		RS.00042 / RS.00043 / Rs.00044		4	Inside		-10-150 °C	
10	0					4	Jacket (Heating / Cooling)		-10-150 °C	
11	0					v	Design Pressure <sup>2</sup>			
12		Operating Data				0	Inside			-1 / 6 bar
13	3	Medium		Process Media		0	Jacket (Heating / Cooling)		-1 / 10 bar	
14	3	Characteristics		aqueous solution		0	Type of bottom		dished end DIN 28011	
15	5	Working Volume min./max.		78,2 - 1008 l		5	Type of top		removeable, DIN 28011	
16	5	Operating Temp. Min./max.		19 - 23 °C			Wall Thickness			
17	5	Op. Pressure min./max. <sup>2</sup>		0 - 2,1 bar		5	Top / Bottom / Cylinder		6 / 6 / 5 mm	
18	5	Filling Rate min./max.		N/A m <sup>3</sup> /h		5	Heating-/ Cooling Jacket		3 mm	
19	5	Draining Rate min./max.		N/A m <sup>3</sup> /h		5	Inliner		N/A mm	
20	3	Density / Bulk Density at [T]		1200 20 kg/m <sup>3</sup> °C		5	Insulation / Insulation Jacket		3 mm	
21	5	Specific Heat Capacity		~4.2 kJ/kg K		0	Corrosion Allowance		0 mm	
22	3	Dynamic Viscosity at [T]		0.002 20 Pa s °C		5	Welding Factor		acc. PED	
23	0	pH-Value min./max.		1 - 13,6		0	Vessel Orientation		vertical	
24	5	Flash Point		N/A °C		5	Reinforcing Sheet(s)		no	
25	5	Inertisation <sup>2</sup>		N/A mbar		5	Test press. in-/outside <sup>2</sup>		8,9 / 16,2 bar	
26	0	Cleaning in Place		Yes		5	Gaskets / Type		acc. Pipe class	
27	0	Medium		0.5M NaOH, 0.1M HNO3		5	Heat Ex. Surface / Content		N/A m <sup>2</sup> / l	
28	0	Temperature		<=80 °C			Weight of Vessel			
29	0	Sterilisation in Place		Yes		5	Empty / Disaster		720 / 2075 kg	
30	0	Medium		pyrogen free steam			Construction Details			
31	0	Temperature		<135 °C		0	Heating / Cooling		cylinder	
32	0	Heating-/Cooling Medium		Tempering Media		5	Type		coil	
33	0	Inlet Temperature		14 °C			Support			
34	0	Outlet Temperature		20 °C		5	Type / No. / Norm		brackets / 4 /	
35	0	Operating Pressure <sup>2</sup>		~3 bar			Fixing			
36	0	Density at [T]		1000 25 kg/m <sup>3</sup> °C		5	Type / No. / Norm		lifting lugs / 3 /	
37	0	Specific Heat Capacity		4,182 kJ/kg K		5			name plate / 1 /	
38	0	Dyn. Viscosity at [T]		0.001 25 Pa s °C		0			earthing Connector/ 1 /	
39	5	Thermal Output (max)		N/A kW		0			/ /	
40	5	Thermal Input (max)		N/A kW		0	Accessories		/ / /	
41	5	Heating-/ Cooling Rate		N/A / N/A °C/min		0	Type / No. / Norm		/ / /	
42	0	Insulation		yes		0			/ / /	
43		Materials				0				
44	0	Product Contacted Parts		1.4539		0	Agitator seal			
45	3	d-Ferrite Content		Fe <3%		0	Arrangement		none	
46	5	Gaskets		EPDM peroxid cured		0	Aseptic Design		yes	
47	0	Sight Glasses		DIN 7080		0				
48	0	Inliner		N/A			Surface Treatment			
49	5	Non Prod. Contacted Parts / Insulation Jacket		coil: 1.4404 / 1.4435 rest: 1.4301 / 1.4404		5	Outer surface			
50	5	Gaskets		N/A		0	Surface finish		grinded	
51	5	Supports		1.4301 / 1.4404		5	Surface Roughness		RA <=1.2µm	
52	5	Insulation		Fabr. ISOVER, AGI Q132		v	Welding Seam		grinded	
53	5	Screws, Nuts, Bolts		A4-70; A4		4	Inner surface			
54	5	Exterior coating				0	Surface finish		grinded	
55	5	Primer		N/A		0	Surface properties		RA <=0.6µm	
56	5	Final Coating		N/A		0	Welding Seam		grinded	
57	5					0				
58	0									
59		Remarks								
60		1. Lines marked with "v" contain process information								
61		2. Overpressure. Vacuum is marked with a negative sign.								
62										
63	5									
64	5									
65	5									

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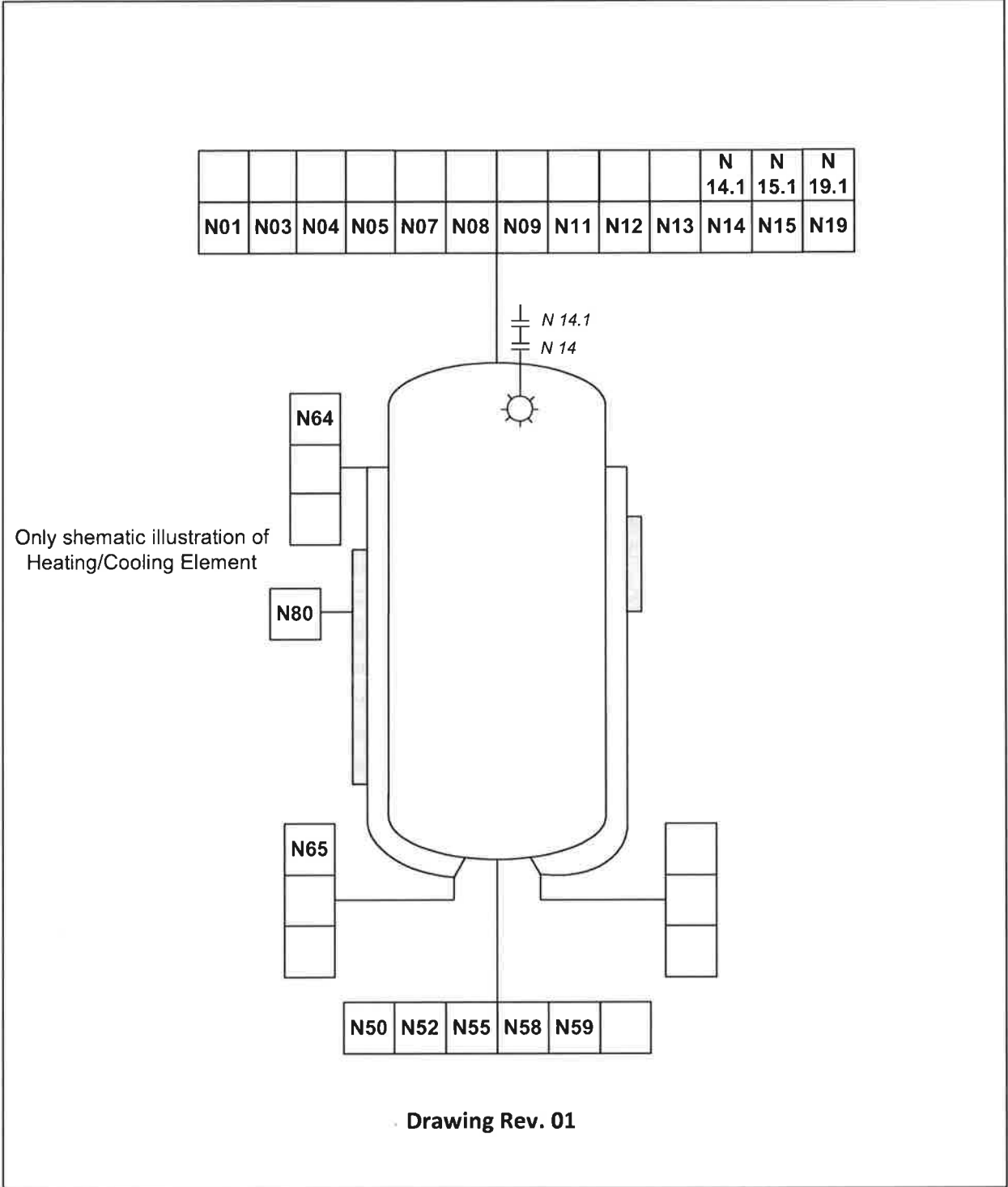
Project-No.	2304996	<b>Data Sheet</b>				M+W GROUP
Code	NRCFF					
Tag-No.	1B4110					
<b>Vessel</b>		Building-No.	B	Process	1 (rVIII-SC) / 1UB41 Buffer Hold Chroma 1	
PFD-No.	PVF_B_01_0060	Level	10	Name	Buffer Hold Vessel 2 (C1 Eq. + Pre/Post Load Wash)	
Drawing-No.	E11047	Room-No.	B_10_2027	Type	Vessel	

Rev	Table of Nozzles							
	Ident.	No.	DN	PN	Norm	Flange-/Nozzletype	Sealing Face	Service
5	N03	1	150		similar DIN 28117	aseptic block flange, radial	O-ring	0106 - Sight glass
5	N04	1	50		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0348 - Sight glass with light
5	N05	1	32		Dim. DIN 11866-B	Na-connect	Flat	0125 - Rupture disc
5	N07	1	B25			NeumoBioControl	O-ring	0142 - Pressure gauge
5	N08	1	B25			NeumoBioControl	O-ring	0142 - Pressure probe
6	N09	1	40		DIN 32676	Dim. DIN 11866-B	Flat	0344 - Filling level
5	N11	1	B25			NeumoBioControl	O-ring	0142 - Level switch
5	N12	1	15		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0351 - Ventilation
6	N13	1	50		Dim. DIN 11866-B	Na-connect	Flat	0304 - Sampling (Spare port)
5	N14	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP 1 (vessel-connection)
5	N14.1	1	25		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP inlet 1
5	N15	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP 2 (vessel-connection)
5	N15.1	1	25		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0350 - CIP inlet 2
5	N19	1	65		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0316 - Inlet pipe (J-tube)
5	N19.1	1	20*		DIN 11864-3 BKS	Dim. DIN 11866-B	O-ring; Form A	0316 - inlet pipe
1	N50	1	25		Südmo block flang	Type Südmo SVP	O-ring	0318 - Bottom outlet
5	N52	1	3/8"			Thermowell		0352 - Temperature measurement
5	N55	1	40		Dim. DIN 11866-B	Na-connect; Nova Septum	Flat	0304 - Sampling (5 port)
3	N58	1	G 1 1/4"		Ingold	25H7	O-ring	0330 - Spare (pH)
5	N59	1	B50			NeumoBiocontrol	O-ring	0142 - Spare (conductivity)
5	N64	1	20	40	DIN EN 1092-1 11	welding neck flange	Form B1	Outlet Tempering Media
5	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

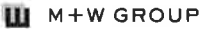
Rev	Remarks Nozzles
0	Nozzle typical number: S-E-AT-XXXX(number in Service column)
5	*DN25 for factor IX/VII vessels
0	
0	
0	
0	
0	

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Code	NRCFF					
Tag-No.	1B4110					
<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_0071	Level	10	Name	Buffer Hold Vessel 2 (C1 Eq. + Pre/Post Load Wash)	
Drawing-No.	E11047	Room-No.	B_10_2027	Type	Vessel	
<b>Sketch</b>						



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Code	NRCFF				
Tag-No.	1B4110	<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_0071	Level	10	Name	Buffer Hold Vessel 2 (C1 Eq. + Pre/Post Load Wash)
Drawing-No.	E11047	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.
1B4300	Buffer Hold Vessel 6 (Filter Eq+Displacem.+C2 El.)	1 (rVIII-SC) / 1UB43 Buffer Hold BDI Pooling	PVF_B_01_0063 PRI_B_01_0075 E11048	B 10 B_10_2027
1B4500	Buffer Hold Vessel 7 (C2 Equilibration)	1 (rVIII-SC) / 1UB45 Buffer Hold Chroma 2	PVF_B_01_0064 PRI_B_01_0076 E11050	B 10 B_10_2027
1B4600	Buffer Hold Vessel 10 (C3/C4 Flush + HETP 1)	1 (rVIII-SC) / 1UB46 Buffer Hold Chroma 3	PVF_B_01_0066 PRI_B_01_0077 E11048	B 10 B_10_2027
1B4610	Buffer Hold Vessel 11 (C3/C4 Eq+Post Load Wash)	1 (rVIII-SC) / 1UB46 Buffer Hold Chroma 3	PVF_B_01_0066 PRI_B_01_0078 E11050	B 10 B_10_2027
1B4910	Buffer Hold Vessel 13 (C5 Equilibration + Elution)	1 (rVIII-SC) / 1UB49 Buffer Hold Chroma 5	PVF_B_01_0067 PRI_B_01_0080 E11048	B 10 B_10_2027
2B4700	Buffer Hold Vessel 19 (C3 Eluate 2. Dilution)	2 (rIX-FP) / 2UB47 Buffer Hold Chroma 4	PVF_B_02_0066 PRI_B_02_0087 E11049	B 10 B_10_2020
2B4750	Buffer Hold Vessel 24 (C4 Sanitization)	2 (rIX-FP) / 2UB47 Buffer Hold Chroma 4	PVF_B_02_0068 PRI_B_02_0092 E11049	B 10 B_10_2020

