

General Data / Site Conditions

1	Pump#	1	Environmental Conditions	Indoors
2	Product Family	Metering Pump	Environmental Conditions add.	Moderate
3	Kind of Machine	Bran+Luebbe ProCam	Ambient Temperature min / max	° C 0.0 / 35.0
4	Type	DS100-4DS50	Mains Supply Frequency	50Hz
5	Tag #	---	Area Classification	Safe
6	Quantity	1	Zone / Expl. Group / Temp. Class	
7	GA Drawing	TBA	Design	B+L Standard
8			Application	Industrial

Stream Data

9	Stream / Fluid Name	1 / Additive	2 / Additive	3 / Additive
10	Concentration			
11	Flow rate, max. required / rated to API	l/h 100.0 / N/A	50.0 / N/A	50.0 / N/A
12	Discharge pressure	bar g 0.5	0.5	0.5
13	Suction pressure	bar g 0.0	0.0	0.0
14	Set pressure of external safety valve	bar g 1.0	1.0	1.0
15	Fluid temperature min / max	° C 0.0 / 40.0	0.0 / 40.0	0.0 / 40.0
16	Fluid density	g/cm³ 1.0	1.0	1.0
17	Fluid viscosity	mPas 1.0	1.0	1.0
18	Fluid compressibility	10exp-6*1/bar 43.0	43.0	43.0
19	Fluid vapor pressure	bara UNKNOWN	UNKNOWN	UNKNOWN
20	NPSH available	m WC ample (*)	ample (*)	ample (*)
21	Fluid type	Clean	Clean	Clean

Pump Data
Pumphead

22	Type of pumphead	DPM - Double Diaphragm	DPM - Double Diaphragm	DPM - Double Diaphragm
23	Plunger diameter	mm N/A	N/A	N/A
24	Flow rate (design)	l/h 100.00	50.00	50.00
25	Volumetric efficiency (design)	% 95.0	95.0	95.0
26	Stroking speed (design)	1/min 144.0	144.0	144.0
27	Set pressure of internal relief valve	bar g N/A	N/A	N/A
28	Test pressure, hydrostatic	bar g N/A	N/A	N/A
29	NPSH required	m WC 2.5	3.2	3.2
30	Diaphragm condition indication	Hose Nipple	Hose Nipple	Hose Nipple
31	Instrument manufacturer	European Standard	European Standard	European Standard
32	Instrument execution	N/A	N/A	N/A
33	Unit of Instrument scale	N/A	N/A	N/A
34	Instrument connection	G1/4	G1/4	G1/4
35	Lantern ring	N/A	N/A	N/A
36	Heating jacket	N/A	N/A	N/A
37	Heating jacket design	N/A	N/A	N/A
38	Process connection heating media	NA	NA	NA
39	Air bleed valve	N/A	N/A	N/A
40	Pumphead Drawing	PM2-026	PM2-026	PM2-026

Pumphead Valves

41	Valve design (discharge)	Single Ball	Double Ball	Double Ball
42	Valve housing material (discharge)	1.4581	CF3M	CF3M
43	Valve seat material (discharge)	1.4571	316/316L	316/316L
44	Valve body material (discharge)	1.4401	1.4401	1.4401
45	Valve gasket material (discharge)	FD15	316L	316L
46	Valve opening pressure (discharge)	bar g 0	0	0
47	Valve design (suction)	Single Ball	Double Ball	Double Ball
48	Valve housing material (suction)	1.4581	CF3M	CF3M
49	Valve seat material (suction)	1.4571	316/316L	316/316L
50	Valve body material (suction)	1.4401	1.4401	1.4401
51	Valve gasket material (suction)	FD15	316L	316L
52	Valve opening pressure (suction)	bar g 0	0	0

Pumphead Connections

53	Connection type (discharge)	Thread - Female	Thread - Female	Thread - Female
54	Connection standard (discharge)	DIN ISO 228-1	DIN ISO 228-1	DIN ISO 228-1
55	Connection size (discharge)	G1/2	G3/8	G3/8
56	Connection rating (discharge)	N/A	N/A	N/A
57	Connection facing (discharge)	N/A	N/A	N/A
58	Connection orientation (discharge)	straight	straight	straight
59	Connection material (discharge)	1.4571	316/316L	316/316L
60	Connection type (suction)	Thread - Female	Thread - Female	Thread - Female
61	Connection standard (suction)	DIN ISO 228-1	DIN ISO 228-1	DIN ISO 228-1
62	Connection size (suction)	G1/2	G3/8	G3/8
63	Connection rating (suction)	N/A	N/A	N/A
64	Connection facing (suction)	N/A	N/A	N/A
65	Connection orientation (suction)	straight	straight	straight
66	Connection material (suction)	1.4571	316/316L	316/316L

Pumphead Materials of Constructions

67	Pumphead fluid housing material	1.4408	1.4581	1.4581
68	Diaphragm	PTFE	PTFE	PTFE
69	Plunger	N/A	N/A	N/A
70	Plunger packing	N/A	N/A	N/A
71	Hydraulic housing material	N/A	N/A	N/A

Pump Gear / Power End

72	Type / Reduction ratio	G1 / 39 / 2	G1 / 39 / 2	G1 / 39 / 2
73	Stroke length max.	mm 3	3	3
74	Crank phasing	° 0	72	144
75	Stroke adjustment type	manual	manual	manual
76	Actuator source	Supplied by SPXFLOW	Supplied by SPXFLOW	Supplied by SPXFLOW
77	Actuator supplier	Bran + Luebbe	Bran + Luebbe	Bran + Luebbe
78	Actuator specification	B+L Standard	B+L Standard	B+L Standard
79	Stroke adjustment execution	vernier	vernier	vernier
80	Actuator Power Supply	N/A	N/A	N/A
81	Input signal	N/A	N/A	N/A
82	Output signal	N/A	N/A	N/A
83	Stroke length indication	0-3mm	0-3mm	0-3mm
84	Emergency manual override			

Additional Specifications for Gear

85	Pulse generator, inductive sensor	N/A	N/A	N/A
----	-----------------------------------	-----	-----	-----

General Data / Site Conditions

1	Pump#	1	Environmental Conditions	Indoors
2	Product Family	Metering Pump	Environmental Conditions add.	Moderate
3	Kind of Machine	Bran+Luebbe ProCam	Ambient Temperature min / max	0.0 / 35.0
4	Type	DS100-4DS50	Mains Supply Frequency	50Hz
5	Tag #	---	Area Classification	Safe
6	Quantity	1	Zone / Expl. Group / Temp. Class	
7	GA Drawing	TBA	Design	B+L Standard
8			Application	Industrial

Stream Data

9	Stream / Fluid Name		4 / Additive	5 / Additive	6 /
10	Concentration				
11	Flow rate, max. required / rated to API	l/h	50.0 / N/A	50.0 / N/A	
12	Discharge pressure		0.5	0.5	
13	Suction pressure		0.0	0.0	
14	Set pressure of external safety valve		1.0	1.0	
15	Fluid temperature min / max	° C	0.0 / 40.0	0.0 / 40.0	
16	Fluid density	g/cm ³	1.0	1.0	
17	Fluid viscosity	mPas	1.0	1.0	
18	Fluid compressibility	10exp-6*1/bar	43.0	43.0	
19	Fluid vapor pressure	bara	UNKNOWN	UNKNOWN	
20	NPSH available	m WC	ample (*)	ample (*)	ample (*)
21	Fluid type		Clean	Clean	

Pump Data
Pumphead

22	Type of pumphead		DPM - Double Diaphragm	DPM - Double Diaphragm	
23	Plunger diameter	mm	N/A	N/A	
24	Flow rate (design)	l/h	50.00	50.00	
25	Volumetric efficiency (design)	%	95.0	95.0	
26	Stroking speed (design)	1/min	144.0	144.0	
27	Set pressure of internal relief valve		N/A	N/A	
28	Test pressure, hydrostatic		N/A	N/A	
29	NPSH required	m WC	3.2	3.2	
30	Diaphragm condition indication		Hose Nipple	Hose Nipple	
31	Instrument manufacturer		European Standard	European Standard	
32	Instrument execution		N/A	N/A	
33	Unit of Instrument scale		N/A	N/A	
34	Instrument connection		G1/4	G1/4	
35	Lantern ring		N/A	N/A	
36	Heating jacket		N/A	N/A	
37	Heating jacket design		N/A	N/A	
38	Process connection heating media		NA	NA	
39	Air bleed valve		N/A	N/A	
40	Pumphead Drawing		PM2-026	PM2-026	

Pumphead Valves

41	Valve design (discharge)		Double Ball	Double Ball	
42	Valve housing material (discharge)		CF3M	CF3M	
43	Valve seat material (discharge)		316/316L	316/316L	
44	Valve body material (discharge)		1.4401	1.4401	
45	Valve gasket material (discharge)		316L	316L	
46	Valve opening pressure (discharge)	bar g	0	0	
47	Valve design (suction)		Double Ball	Double Ball	
48	Valve housing material (suction)		CF3M	CF3M	
49	Valve seat material (suction)		316/316L	316/316L	
50	Valve body material (suction)		1.4401	1.4401	
51	Valve gasket material (suction)		316L	316L	
52	Valve opening pressure (suction)	bar g	0	0	

Pumphead Connections

53	Connection type (discharge)		Thread - Female	Thread - Female	
54	Connection standard (discharge)		DIN ISO 228-1	DIN ISO 228-1	
55	Connection size (discharge)		G3/8	G3/8	
56	Connection rating (discharge)		N/A	N/A	
57	Connection facing (discharge)		N/A	N/A	
58	Connection orientation (discharge)		straight	straight	
59	Connection material (discharge)		316/316L	316/316L	
60	Connection type (suction)		Thread - Female	Thread - Female	
61	Connection standard (suction)		DIN ISO 228-1	DIN ISO 228-1	
62	Connection size (suction)		G3/8	G3/8	
63	Connection rating (suction)		N/A	N/A	
64	Connection facing (suction)		N/A	N/A	
65	Connection orientation (suction)		straight	straight	
66	Connection material (suction)		316/316L	316/316L	

Pumphead Materials of Constructions

67	Pumphead fluid housing material		1.4581	1.4581	
68	Diaphragm		PTFE	PTFE	
69	Plunger		N/A	N/A	
70	Plunger packing		N/A	N/A	
71	Hydraulic housing material		N/A	N/A	

Pump Gear / Power End

72	Type / Reduction ratio		G1 / 39 / 2	G1 / 39 / 2	
73	Stroke length max.	mm	3	3	
74	Crank phasing		216	288	
75	Stroke adjustment type		manual	manual	
76	Actuator source		Supplied by SPXFLOW	Supplied by SPXFLOW	
77	Actuator supplier		Bran + Luebbe	Bran + Luebbe	
78	Actuator specification		B+L Standard	B+L Standard	
79	Stroke adjustment execution		vernier	vernier	
80	Actuator Power Supply		N/A	N/A	
81	Input signal		N/A	N/A	
82	Output signal		N/A	N/A	
83	Stroke length indication		0-3mm	0-3mm	
84	Emergency manual override				

Additional Specifications for Gear

85	Pulse generator, inductive sensor		N/A		
----	-----------------------------------	--	-----	--	--

Motor

86	Motor source	Electrical Motor
87	Motor specification	Special
88	Motor manufacturer	ABB
89	Motor type	IEC
90	Power Supply	KW 0.37
91	Mains Phase/Voltage/Frequency	Ph /V /Hz 3 / 230/400 / 50
92	Motor sizing	Starting Voltage 100 %
93	Nominal speed	1/min 2800
94	Speed variation	1:5
95	Type of protection	Safe
96	Ingress protection	IP55
97	Mounting arrangement	V18
98	Frame size	71
99	Flange OD	mm 105
100	Mounting side on gear	C
101	Installation altitude	up to 1000 m
102	Motor thermistors	PTC-3
103	Motor anti-condensations heating	N/A
104	Motor efficiency	N/A

Baseframe

105	Base frame execution	N/A
106	Base frame material	N/A
107	Lifting lugs	N/A
108	Baseframe with integrated drip pan	N/A
109	Extension under entire pump unit	N/A
110	Levelling screws	N/A
111	Preparation for epoxy grouting	N/A

Paint Systems Specification

112	Pump gear - System	6 (Industrial Std RAL5010)
113	Pump gear - Color	RAL 5010 - Gentian Blue
114	Pumphead - System	N/A
115	Pumphead - Color	N/A
116	Motor - System	Supplier Standard
117	Motor - Color	RAL 5010 - Gentian Blue
118	Base frame - System	N/A
119	Base frame - Color	N/A

Miscellaneous

120	Additional items	
121	Remark	

Notes

* Details were unknown when quoted. The specified data must be confirmed by customer.

** Description of abbreviations: SS - Stainless Steel (e.g. 1.4571; 1.4581; 1.4408; SS316Ti); SS LC - Stainless Steel Low Carbon (e.g. 1.4404; SS316L); DS - Duplex Steel (e.g. 1.4462).