

Desuperheater Type 3

1	Customer:	Standardkessel Baumgarte GmbH				ARTES-ref.-no.:	5504578		
2	Plant:	Oldhall				Pos.:	7		
3	Location:	spray attemperator 1 left / right				Qty.:	2		
4	TAG No.:	DH-4C001A / DH-4C001B				S/N:	3178390.1 & 3178390.2		
5	Pipedesign								
6	Steam Pipe	Ø D [mm] x s [mm]	219,10	x	14,20				
7	Thermoshock Pipe	Ø D [mm] x s [mm]	177,80	x	5,00				
8	Cooling Water Pipe	Ø D [mm] x s [mm]	33,70	x	3,20				
9	Valve Design								
10			steamside			position of cooling water connection C			
11			EN 1092-1/B						
12	Nominal Size	DN DN	80			Flow direction			
13	Nominal Pressure	PN PN	160			Steam			
14	Pressure	[bar(g)]	78						
15	Temperature	[°C]	405						
16						position of cooling water connection			
17	Operation Data		Loading Case 1	Loading Case 2	Loading Case 3	Loading Case 4	Loading Case 5	Loading Case 6	
18	Medium:		steam	water	steam	water	steam	water	
19	Flow Rate	[t/h]	28,70	0,37	39,30	1,96	40,30	3,92	
20	Temp. Inlet	[°C]	347,50	130,00	367,00	130,00	390,00	130,00	
21	Temp. Outlet	[°C]	337,50		328,00		315,00		
22	Pressure	[bar(a)]	68,30	75,90	68,30	75,90	68,30	75,90	
23	Flow Speed	[m/s]	12,78	0,19	17,60	0,99	18,02	1,98	
24	K _v - Value	[m³/h]		0,14		0,74		1,47	
25	Type Of Valve Desuperheater metallic sealing								
26									
27	Material								
28	Body:	1.7380 (10CrMo9-10)						Schematic drawing - location of cooling-water-flange differs	
29	Cooling Water Flange:	1.5415 (16Mo3, 15Mo3)							
30	Stem:	1.4122 (X39CrMo17-1), hardened							
31	Nozzle Stem:	1.4301 (X5CrNi18-10), hardened							
32	Seating:	1.4122 (X39CrMo17-1), hardened							
33	Nozzle:	1.4122 (X39CrMo17-1), hardened							
34	Seal:	Graphite							
35									
36	Valveparameter								
37	Seat Diameter:	[mm]	25						
38	Pressure Reduction Steps:		<input checked="" type="radio"/> single-stage	<input type="radio"/> double-stage	<input type="radio"/> three-stage				
39	Number Of Nozzles:		9						
40	K _{vS} Valve / Stage2 / Stage3 / Nozzles:	[m³/h]	1,76	--	--	1,79			
41	Characteristic Curve:		modified						
42	x-Length:	[mm]	290,0						
43	Offset Δx:	[mm]	3,0						
44	LL-Length:	[mm]	363,0						
45	max. Δp for actuator:	[bar]	135,0						
46	Lance Diameter:	[mm]	71						
47	Inspection acc. to	Pressure Equipment (Safety) Regulations 2016 & Preussure					Final Inspection		
48	Requirements acc. to:	EN 12952					Confirmation Acc. To DIN		
49	Leakage Rate:	0,01% of K _{vS} -Value					EN 10204		
50	Mounting Instruction	Length of straight outflow pipe			6,0 m		3.1		
51		Min-Distance to the temperature sensor			8,0 m				
52	Actuator	pneumatic						3178389	
53	Type:	ProtACT PR134D, double-acting "rack&pinion"; signal/air failure: Fail-in-Place; Manual gear box							
54		MOG.088...134, handwheel Ø350; Positioner Siemens Sipart PS2 6DR5120-0NG31-0AF0, 2-wire connection &							
55		HART-interface, Iy-module (6DR4004-8J) for position feedback (4...20mA), Iy-module (6DR4004-8K)							
56		mechanic limit switches; Filter/Regulator G1/4" Norgren B82G-2GK-AD3-RMG; Positioning Time: ≤ 30 sec/90°							
57		min. air supply pressure: 4,5 bar(g)							
58	Remarks								
59									
60									
61									
62	We recommend the use of a strainer!								
63	Revision	0	1	2	3	4	5	6	
64	Date:	12.12.2022	22.12.2022						
65	Prepared:	H. Roßmann	P. Schüler						
66	Checked:	P. Schüler	R. Feldmann						