

# Steam Conditioning Station



ARTES Valve & Service GmbH  
Parkallee 7 16727 Velten  
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	Richard Kablitz GmbH		ARTES-Ref.-No.:	5505294							
2	Plant:	Nysa		Pos.:	1							
3	Location:	HDU1		Qty.:	1							
4	TAG No.:	10 LBA50 AA103		S/N:	3198010.1							
5	<b>Pipe - Connection Data</b>		<b>Inlet</b>		<b>Outlet</b>		<b>Cooling Water</b>					
6	Dimensions	Ø D [mm] x s [mm]		88,9	x	4	219,1	x	6,3	33,7	x	3,2
7	Material											
8	Buttwelds	Ø D [mm] x s [mm]		88,9	x	4	219,1	x	6,3	33,7	x	3,2
9	Flange Connection			--			--			--		
10	<b>Valve-Design</b>		<b>Inlet</b>		<b>Outlet</b>		<b>Cooling Water</b>					
11	Nominal Size	DN / NPS		80		200		25				
12	Nominal Pressure	PN / class										
13	Design Pressure	bar(g)		44		5		60				
14	Design Temp.	°C		440		340		120				
15	Material			1.5415 (16Mo3, 15Mo3)		1.5415 (16Mo3, 15Mo3)		1.5415 (16Mo3, 15Mo3)				
16	<b>Operation Data</b>		Case	Case	Case	Case	Case	Case				
17	Medium:	Water/Steam										
18	Phase	steam										
19	Flowrate	t/h	8,1									
20	Temp. Inlet	°C	380									
21	Pressure Inlet	barA	33,00									
22	Pressure Outlet	barA	4,00									
23	Σ-kv	m³/h	20,90									
24	Temp. cooled	°C	175,0									
25	t-sat. p2	°C	144									
26	Water Temp.	°C	110									
27	Water-Press.	barA	56,0									
28	Water-Flow	t/h	1,42	--	--	--	--	--				
29	Water-Velocity	m/s	0,68	--	--	--	--	--				
30	Steam-Velocity	m/s Inlet	38,0	--	--	--	--	--				
31	Steam-Velocity	m/s Outlet	39,7	--	--	--	--	--				
32	Sound Level	dB(A)	79	--	--	--	--	--				
33	Min. straight-run distance:	5,0 m		Min. distance to temperature sensor:	8,0 m							
34	<b>Type of Valve</b>		<b>Angle-Form With Integrated Motive Steam Nozzle</b>									
35	<b>Valve Parameter</b>		<b>Material</b>			<b>Add. Equipment</b>						
36	Seat Diameter	50	mm	Body	1.5415 (16Mo3, 15Mo3)			Dirt Strainer	without			
37	Pressure Reduction Steps, controlled	3		Seat	1.5415 (16Mo3), stellited			Drainage Port	with			
38	Pressure Reduction Steps, fix	1		Perforated Cone	1.4122 (X39CrMo17-1), plasma nitrided			Valve Support	without			
39	Σ-kvs	25	m³/h	Motive Steam Nozzle	1.4122 (X39CrMo17-1)							
40	Control Characteristic	linear		Seals	Graphite							
41	max. dp for actuator	44	bar					<b>Installation Dimensions</b>				
42	Stroke	45	mm					Leg Length, Inlet	240 mm			
43	<b>- Piston Released (Balanced) Design -</b>							Leg Length, Outlet	310 mm			
44	<b>Design / Inspection</b>					<b>Final Inspection Confirmation</b>						
45	Pressure Equipment Directive 2014/68/EU					<b>EN 10204</b>						
46	Requirements acc. to: EN 12952					<b>3.1</b>						
47	Leakage Class: 0,5% of kvs-Value											
48												
49	<b>Actuator</b>	pneumatic						3198153				
50	Type	ARCA - UMA III 811-3063D-Ö BH, stroke 60mm / function ATO										
51		Positioner: Siemens Sipart PS2 - 6DR5011-0NG21-0AA1, incl. Iy-Module for position feedback (4 ... 20mA)										
52		filter regulator Type: Festo LFR-1/4-D-5M-O-MIDI-A										
53		stainless steel piping, min air pressure: 6bar(ü)										
54												
55	<b>Actuator Adaptation:</b>											
56	<b>Remarks</b>											
57	- Sound insulation > 150mm											
58												
59												
60												
61												
62	Revision	0	1	2	3	4	5	6				
63	Datum	17.10.2025										
64	Bearbeitet	H. Jäkel										
65	Geprüft	H. Roßmann										

# Control Valve



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1	Customer:	Richard Kablitz GmbH	ARTES-ref.-no.:		5505294		
2	Plant:	Nysa	Pos.:		2		
3	Location:	HDU1 Kühlwasser-RV	Qty.:		1		
4	TAG No.:	10 LAE21 AA201	S/N:		3198013.1		
5	<b>Pipe - Connection Data</b>		<b>Inlet</b>			<b>Outlet</b>	
6	Dimensions	Ø D [mm] x s [mm]	33,7	x	3,2	33,7	x 3,2
7	Material		1.0345 (P235GH)			1.0345 (P235GH)	
8	Welding Connection	Ø D [mm] x s [mm]	33,7	x	3,2	33,7	x 3,2
9	Flange Connection		--			--	
10	<b>Valve - Design</b>		<b>Inlet</b>			<b>Outlet</b>	
11	Nominal Size	DN / NPS	25			25	
12	Nominal Pressure	PN / class	--			--	
13	Design Pressure	bar(g)	60			60	
14	Design Temperature	°C	120			120	
15	Material		1.0460 (P250GH, C22.8)			1.0460 (P250GH, C22.8)	
16	<b>Operation Data</b>		<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>
17	Medium :	Water/Steam	1	2	3	4	5
18	Phase		water				
19	Flowrate	t/h	1,42				
20	Temperature, Inlet	°C	110				
21	Pressure, Inlet	barA	56,00				
22	Pressure, Outlet	barA	19,00				
23	Σ-kv	m³/h	0,24				
24	Flow Speed, Outlet	m/s	0,71				
25	<b>Type Of Valve Control Ball Valve Type GW</b>						
26	<b>Valve Parameter</b>				<b>Material</b>		
27	Seat Diameter:	25 mm			Body: 1.5415 (16Mo3, 15Mo3)		
28	Pressure Reduction Steps, controlled:	2			Seating: 1.4122 (X39CrMo17-1), metal sealing		
29	Pressure Reduction Steps, fix:				Ball: 1.4122 (X39CrMo17-1), metal sealing		
30	Σ-kvs	0,3 m³/h			Control disc: 1.4122 (X39CrMo17-1), hardened		
31	Control Characteristic:	equal perc. mod.			Seals: O-Rings, EPDM perox.		
32	max. Dp für Actuator:	60 bar					
33	Installation Length:	190 mm					
34							
35	<b>Design / Inspection</b>				<b>Final Inspection</b>		
36	Preussure Equipment Directive 2014/68/EU				<b>Confirmation acc. to DIN 3.1</b>		
37	Requirements acc. to: EN 12952				<b>EN 10204</b>		
38	Leakage Class: 0,01% of kvs-Value						
39							
40	<b>Actuator</b>	pneumatic					3198015
41	Type:	Protact PR216S.PRH; single acting - FC , fail to close, air to open, spring to close					
42		Positioner: Siemens Sipart PS2 6DR5013-0NG01-0AA1					
43		incl. ly-Module for Feedback signal (4...20mA) (IY-Modul 6DR4004-8J)					
44		Air filter regulator SMC AW30-F02G-B - G1/4"					
45		stainless steel piping, min air pressure: 6,0 bar(g)					
46	Actuatoradaption:	EN ISO 5211 - F14					
47	<b>Remarks</b>						
48							
49							
50							
51							
52							
53	Revision	0	1	2	3	4	5
54	Date:	08.10.2025	03.12.2025				
55	Prepared:	H. Roßmann	R. Feldmann				
56	Checked:	R. Feldmann	T. Langanke				