

Control Valve



ARTES Valve & Service GmbH
Parkallee 7 - 16727 Velten
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	Standardkessel Baumgarte GmbH			ARTES-ref.-no.:	5504578	
2	Plant:	Oldhall			Pos.:	3	
3	Location:	Control Valve - Drum Steam			Qty.:	1	
4	TAG No.:	TCV 4B004			S/N:	3177843.1	
5	Pipe - Connection Data			Inlet		Outlet	
6	Dimensions	Ø D [mm] x s [mm]		60,3	x	4,0	60,3 x 4,0
7	Material			1.5415 (16Mo3)		1.5415 (16Mo3)	
8	Welding Connection	Ø D [mm] x s [mm]		60,3	x	4,0	60,3 x 4,0
9	Flange Connection			--		--	
10	Valve - Design			Inlet		Outlet	
11	Nominal Size	DN / NPS		50		50	
12	Nominal Pressure	PN / class		--		--	
13	Design Pressure	bar(g)		78		78	
14	Design Temperature	°C		294		294	
15	Material			1.5415 (16Mo3, 15Mo3)		1.5415 (16Mo3, 15Mo3)	
16	Operation Data		Loading Case	Loading Case	Loading Case	Loading Case	Loading Case
17	Medium :	Water/Steam		1	2	3	4
18	Phase			water	water	water	
19	Flowrate	t/h		2,74	2,30	4,70	
20	Temperature, Inlet	°C		279,00	284,00	284,00	
21	Pressure, Inlet	barA		64,70	69,20	69,00	
22	Pressure, Outlet	barA		64,20	68,70	68,50	
23	t-sat. p1	°C		280,55	285,05	284,86	
24	t-sat. p2	°C		280,04	284,56	284,37	
25	k _v	m ³ /h		4,47	3,78	7,73	
26	Flow Speed, Outlet	m/s		0,47	0,40	0,82	
27	Type Of Valve Control Ball Valve Type W						
28	Valve Parameter			Material			
29	Seat Diameter:	40 mm		Body:	1.0460 (P250GH, C22.8)		
30	Pressure Reduction Steps, controlled:	1		Seating:	1.4122 (X39CrMo17-1), metal sealing		
31	Pressure Reduction Steps, fix:			Ball:	1.4122 (X39CrMo17-1), metal sealing		
32	k _{vs}	10 m ³ /h		Control disc:	1.4122 (X39CrMo17-1), hardened		
33	Control Characteristic:	equal perc. mod.		Seals:	Graphite		
34	max. Dp for Actuator:	78 bar					
35	Installation Length:	230 mm					
36							
37	Design / Inspection				Final Inspection		
38	Pressure Equipment (Safety) Regulations 2016 & Preussure Equipment Directive 2014/68/EU				Confirmation acc. to DIN 3.1		
39	Requirements acc. to: EN 12952				EN 10204		
40	Leakage Class: 0,01% of kvs-Value						
41							
42	Actuator	pneumatic					3177806
43	Type:	ProtACT PR216S, single-acting "rack&pinion"; air to open, spring to close, signal/air failure: close; Manual gear box					
44		MOG.216...263, handwheel Ø400; Positioner Siemens Sipart PS2 6DR5110-ONG31-0AA0, 2-wire connection & HART-interface,					
45		ly-module (6DR4004-8J) for position feedback (4...20mA), ly-module (6DR4004-8K) mechanic limit switches					
46		Filter/Regulator G1/4" Norgren B82G-2GK-AD3-RMG; Positioning Time: ≤ 60 sec/90°					
47		min. air supply pressure: 4,5 bar(g), Breakaway Torque ML = 500 Nm, Control Torque MR = 300 Nm					
48	Actuatoradaption:	EN ISO 5211 - F14, square 36 mm					
49	Remarks						
50							
51							
52							
53							
54	Control-disc(s) - perforated disc						
55	Revision	0	1	2	3	4	5
56	Date:	01.11.2022	09.11.2022				
57	Prepared:	H. Roßmann	P. Schüler				
58	Checked:	H. Jäkel	R. Feldmann				