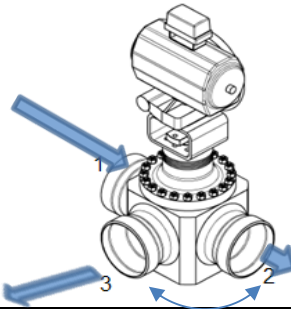


# Three-Way Valve



ARTES Valve & Service GmbH  
Parkallee 7 - 16727 Velten  
Germany

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	Arvos GmbH	ARTES-Ref.:	5505094					
2	Plant:	Ammonium Nitrate Plant	Pos.:	1					
3	Service:		Qty.:	1					
4	TAG No.:	TV-12401	S/N:	3192634.1					
5	<b>Pipeline</b>		<b>Connection 1</b>	<b>Connection 2</b>	<b>Connection 3</b>				
6	Dimensions	Ø D [mm] x s [mm]	219,1x12,7	219,1x12,7	219,1x12,7				
7	Material								
8	Weld ends	Ø D [mm] x s [mm]	--	--	--				
9	Flange ends		ASME B16.5/RF	ASME B16.5/RF	ASME B16.5/RF				
10	<b>Valve Design</b>		<b>Connection 1</b>	<b>Connection 2</b>	<b>Connection 3</b>				
11	Nom. pipe size	DN / NPS	8"	8"	8"				
12	Nom. pressure	PN / class	Cl600	Cl600	Cl600				
13	Design Pressure	[bar(g)]	60	60	60				
14	Design Temp.	[°C]	480	480	480				
15	Material		SA182 F11 Cl.2	SA182 F11 Cl.2	SA182 F11 Cl.2				
16	<b>Hydraulic Test Pressure</b>								
17	<b>Operational conditions</b>		Load Case	Load Case	Load Case	Load Case			
18	Medium:	steam	1	2	3	4			
19	Flow	[t/h]	20,000	32,294	35,106				
20	Temperature	[°C]	455	480	480				
21	p inlet	[kg/cm²(g)]	49,456	52,006	50,170				
22	p outlet	[kg/cm²(g)]	49,048	51,598	49,762				
23	Cvs value	[mGpm]	294,00	473,33	524,21				
24	Velocity	[m/s]	12,27	19,58	22,09				
25									
26	<b>Valve type</b> DWA-W								
27	<b>Material:</b>					<b>Valve Parameters</b>			
28						Ø seat		125	mm
29	Body:	SA182 F11 Cl.2				Cvs Value:		max. 750	Gpm
30	Stem:	1.4122				delta p actuator		2	bar
31	Plug:	SA182 F11 Cl.2				Control characteristic:		linear	
32						Dimensions:		685,0 mm	
33	Gaskets:	Graphite			343,0 mm				
34									
35									
36									
37	<b>Design &amp; Tests acc. to:</b>		ASME BPVC Sec.VIII, Div.1						
38			Requirements acc. to: ASME BPVC Sec.VIII, Div.1+IBR						
39			Leakage: 1,5% of Cvs-value						
40			Factory Acceptance Test Certificate acc. to EN 10204-3.1						
41	<b>Installation requirements:</b>								
42									
43	<b>Actuator type:</b>	pneumatic				3192637			
44	<b>Model:</b>	ProtACT PR263D, double-acting, air/signal-failure locked.							
45		Positioner Sipart PS2 6DR5126-0EN21-0AF9 R2D, 2-wire connection, HART; input 4...20mA,							
46		ly-module (6DR4004-6J) for position feedback (4...20mA); Filter regulator set 342A8407GMB NPT1/2";							
47		4/2-way NAMUR short-circuit valve BHN 420 701; Manual emergency gearbox MOG.216...263.							
48		piping SST; min. air supply pressure: 5 bar(g)							
49	<b>Actuator adaption:</b>	acc. ISO 5211							
50	<b>Remarks:</b>								
51									
52									
53	Port A (1) always open, Port B (2) and Port C (3) controlled.								
54									
55	Revision:	0	1	2	3	4			
56	Date:	07.01.2025	29.01.2025						
57	Prepared:	H. Roßmann	M. Bechly						
58	Checked:	T. Langanke	H. Roßmann						