Control Valve

ARTES Valve & Service GmbH
Parkallee 7 - 16727 Velten
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	Richard Kablitz GmbH	ARTES-ref.-no.:	5504246
2	Plant:	Bihov	Pos.:	10.1
3	Location:	HDU	Qty.:	1
4	TAG No.:	1 MAN10 AA101	S/N:	3168071.1

			Inlet			Outlet		
5	**Pipe - Connection Data**							
6	Dimensions	ØD [mm] x s [mm]	139,7	x	14,2	508,0	x	11,0
7	Material		1.7380 (10CrMo9-10)			1.7335 (13CrMo4-5)		
8	Welding Connection	ØD [mm] x s [mm]	139,7	x	14,2	508,0	x	11,0
9	Flange Connection		--			--		

			Inlet	Outlet
10	**Valve - Design**			
11	Nominal Size	DN / NPS	125	500
12	Nominal Pressure	PN / class	--	--
13	Design Pressure	*bar(g)*	102	15
14	Design Temperature	*°C*	530	250
15	Material		1.7380/1.7383 (10CrMo9-10/11CrMo9-10)	1.7335 (13CrMo4-5)

	Operation Data		Loading Case	Loading Case	Loading Case	Loading Case	Loading Case	Loading Case
17	Medium :	Water/Steam	**1**	**2**	**3**	**4**	**5**	**6**
18	Phase		steam	steam				
19	Flowrate [1]	*t/h*	28,98	1,65				
20	Temperature, Inlet	*°C*	495,00	495,00				
21	Pressure, Inlet	*barA*	85,00	85,00				
22	Pressure, Outlet [2]	*barA*	2,50	0,41				
23	kv	*m³/h*	39,48	2,34				
24								
25	Sound Pressure Level [3]	*db(A)*	86	-				

26 **Type Of Valve** **Angle Valve**

	Valve Parameter			**Material**	
28	Seat Diameter:	65	mm	Body:	1.7380/1.7383 (10CrMo9-10/11CrMo9-10)
29	Pressure Reduction Steps, controlled:	5		Seat:	1.7380/1.7383 (10CrMo9-10/11CrMo9-10), stellited
30	Pressure Reduction Steps, fix:	1		Stem with	
31	K_{VS}-value	52	m³/h	Holecage:	1.4923 (X22CrMoV12-1), nitrided
32	Control Characteristic:	linear			
33	Stroke:	40	mm	Seals:	Graphite
34	max. Dp for Actuator:	85	bar	Packing:	Graphite K80/K80S
35	Installation Length:	650/325	mm		

36 **Design / Inspection**

38 Requirements acc. to: EN 12952

39 Leakage Class: 0,5% of K_{VS}-value

Final Inspection Confirmation acc. to DIN EN 10204 **3.1**

41 **Actuator** pneumatic 3168051

42 Type: ARCA - diaphragm actuator UMA III 811-3063D-Ö BH, single acting, air opens, spring closes, Fail-Safe - closed

43 Positioner: Siemens Sipart PS2 - 6DR5011-0NG21-0AA1, incl. Iy-Module for position feedback (4 ... 20mA)

44 2 inductive limit switches; gauge block; solenoid valve Bückert 24VDC 3/2 way, filter regulator Festo

45 Type: LFR-N1/2-D-5M-O-MIDI-T3-EX4, volume booster YTC YT-320-N1 with 2 one-way flow control valves for

46 a positioning time of approx. 2 sec. in both directions

48 **Remarks**

49 [1] - total flow rate including water injection => *39,0 t/h*

50 [2] - pressure reduction to *0,4 bar(a)* via downstream perforated disc, K_{VS} = *1290,0 m³/h*

51 [3] - sound insulation at least *150,0 mm* thick, without rigid spacers

52 Installation position - stem with holecage horizontal, flow from above, drainage at 6:00 o'clock position

53 "Piston Release Design"

54	Revision	0	1	2	3	4	5	6
55	Date:	11.06.2021	11.10.2021					
56	Prepared:	F. Lange	P. Schüler					
57	Checked:	P. Schüler	R. Feldmann					