

3-way valve



1	Customer: Ethos Energy (Woodgroup)	ARTES-Ref.-N°: 5502411	
2	Installation place: Turbine, air turbo-compressor	Pos. 1	
3	Location:	Qty: 1	
4	TAG N°: VA14	Serial-N°: 3111407.1	
5	Pipe	connection A1	connection A2
6	Pipe Ø D x s mm	88,9x3,2	88,9x3,2
7	Pipe material		
8	Weld ends Ø D x s mm		
9	Flange ends ASME B16.5	3"150lbs/RF	3"150lbs/RF
10	Valve Design	connection A1	connection A2
11	Nom. pipe size NPS	3"	3"
12	Nom. pressure class	150	150
13	Design Pressure bar(g)	14	14
14	Design Temp. °C	200	200
15	Material	1.0460	1.0460
16	Body shell test pressure		
17	Operation conditions	Loading Case	Loading Case
18	Medium: Air	1	2
19	Flow Nm³/h	5.000	
20	Temperature °C	200	
21	Inlet pressure bar(g)	10,00	
22	Outlet pressure bar(g)	9,86	
23	Kv-value m³/h	195,00	
24			
25			
26	Valve type	3-way valve type GW (Mixer)	
27	Material:	Valve parameters	
28			
29	Body: 1.0460	Ø seat	65 mm
30	Stem: 1.4122	Ø stem	- mm
31	Plug: 1.0460	Kvs-value:	195 m³/h
32			
33	Gaskets / Seals: FKM	delta p actuator	14 bar
34		installation length	294 / 222 mm
35			
36			
37	Tests:	Pressure Equipment Directive PED 97/23/EC	
38		Requirements acc. to AD2000	
39		Leakage: max. 1,5% of Kvs-value	
40	Installation requirements:		
41			
42	Actuator: pneumatic	ARTES-Ident-N°: 3111406	
43	Type: bar 90°part-turn actuator GTE210, single acting rack&pinion type, air fail position: closed,		
44	high temperature design; limit switches P&F, 24V		
45	air supply pressure 2...5bar(g).		
46	Air supply temperature (from turbo-compressor): max 200°C.		
47			
48			
55	Remarks:		
56	connection A1: valve inlet from compressor stage 5		
57	connection A3: valve inlet from compressor stage 11		
58	connection A2: valve outlet to compressor labyrinth		
59	actuator spring opens way A3-->A2		
60	actuator air supply pressure opens A1-->A2		
61			
62	Revision	0	1
63	Date:	04.07.2014	14.08.2014
64	Prepared:	S.Haftenberger	S.Haftenberger
65	Checked:	J.Gerhardt	J.Gerhardt

