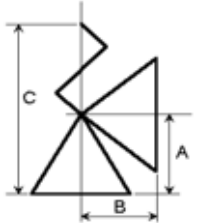
 <p>EMERSON edgardovicente.chiari@emerson.com</p> <p>Madrid, Spain +34 911 111 320 edgardovicente.chiari@emerson.com</p>				Pressure Relief Valve Sizing & Selection Report							
				0	EVC			7-mar.-2022	New valve on the scope.		
Quote Number: 093-093				No	Prpd.	Chk.	Appr.	Date	Revision		
Client: TECHNIP ENERGIES				End-User Ref. No.: 201754C001							
Location: CARTAGENA, SPAIN				Project Ref. No.: U-608 Hydrogen Unit							
Project: C43 "New Bios 2G Hydrotreatment Unit"											
1	Valve ID				41	SIZING DATA					
2	Tag No.	608-TSV-1139			42	Design Code	ASME VIII/XIII - UV		Sizing Std.	API 520	
3	Service	E-121 CW side			43	Sizing Basis	Thermal Expansion				
4	PID No.	P-C43-A-110990 H43			44	Fluid State at Inlet	Liquid				
5	Line No.	3/4"CWR-3231-B1		Quantity	45	Relieving Case	Pressure Relief				
6				1	46	Fluid Properties					
7	GENERAL				47	Fluid Name		Cooling water			
8	Valve Type	Conventional, Direct Spring-Op			48	Sp. Gravity, G		0.980			
9	Safety / Relief	Safety Relief	Balanced	No	49	Viscosity		0.43825 cSt			
10	Nozzle	Full	Bonnet	Closed	50	Reynolds No.					
11	CONNECTIONS				51	Reynolds No. (max)		508429.05			
12	Inlet	3/4"	Thrd.	MNPT	Standard	52					
13	Outlet	1"	Thrd.	FNPT	ASME B1.20.1	53					
14	MATERIALS OF CONSTRUCTION				54						
15	Body Cylinder	CS SA216-WCB			55						
16	Body Base	316 SST			56						
17	Connections	N/A			57						
18	Disc	316 SST			58						
19	Seat	Metal			59	Sizing Coefficients				Unit	-
20	Seals	N/A			60	Effective K, Liquid		0.65			
21	Spindle	416 SST			61	Kw	Kc	1.0	1		
22	Guide	316 SST			62	Kv	Kv (max)	1.0			
23	Spring	17-7 PH SST			63						
24					64	Required Capacity				Unit	
25	Cap Type	Screwed & Test Rod			65	Total					
26	NACE MR0175/ISO 15156:2015	No			66						
27	Accessories				67	Pressures				Unit	kg/cm² g
28					68	MAWP	Operating	6.5	4		
29					69	Set	CDTP	6.5	5.850		
30					70	Over Pressure		0.65	10%		
31	SIZING / SELECTION SUMMARY				71	Built-Up		0			
32	Valve Model No.	961101MFB-P			72	Back Pressure	Constant Superimposed		0.65		
33	Brand	Crosby®			73		Variable Superimposed		0		
34	Area	Calculated	Selected	0.710	74		Total		0.65		
35	(cm²)	Data Set	Orifice	API	6	Inlet Loss		0	0%		
36	Flow	Unit	Required	kg/hr		Atmospheric (Barometric)		1.033 kg/cm² a			
37			Maximum	5873.816	77	Temperatures				Unit	°C
38					78	Normal System					
39	Reaction Force, Open Discharge		5.4 N		79	Operating	Relieving	39	65.6		
40	Noise Level (db), Open Discharge		N/A		80	Design Min	Design Max	100			
Tag Notes	1. Standard C4M acc. ISO 12944 2. Opening Adjustment 5% 3. ASME "UV" Stamp required.				Valve Dimensions	mm	A				
							79.38				
							B				
							49.21				
							C				
							307.98				
kg	Weight										
	4.54										