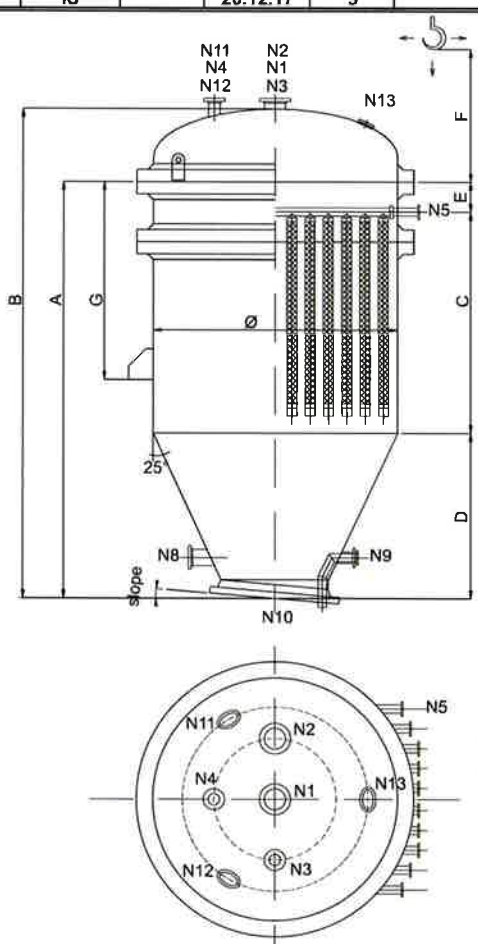


			FUNDABAC®- CONTIBAC®- FILTER				SHEET 1 OF 2		
			DESIGN	CHECK	DATE	REVISION	CLIENT Venator Pori		
			IS		16.11.17	1	QUOTATION NO. / PO NO.		
			IS		30.11.17	2	PROJECT	ITEM NO.	
			IS		15.12.17	3	Anatase Production		
			IS		15.12.17	4	SPEC NO.		
			IS		20.12.17	5		Pre- and Post-Leach filtration	
FILTER	1	Type	FUNDABAC®						
	2	Model	R-080-106-2900T155Z						
	3	Area (m2)	79.9						
	4	Cake thickness max. (mm)	30						
	5	Cake volume/m2 max. (liter)	42						
	6	Cake volume max. (liter)	3355.8						
VESSEL	7	Quantity	3						
	8	Code	PED / EN 13445						
	9	Inspection	Authorized Inspector						
	10	Code stamp required	CE-Stamp						
	11	Diameter outside (mm)	1900						
	12	Total height approx. (mm)	5800						
	13	Operating pressure vessel / jacket (bar g)	5						
	14	Design pressure vessel / jacket (bar g)	-1/+7						
	15	Test pressure vessel / jacket (bar g)	As per code						
	16	Operating temperature vessel / jacket (°C)	40 - 70						
	17	Design temperature vessel / jacket (°C)	100						
	18	Material	H11 / Zr 702						
	19	Corrosion allowance vessel / jacket (mm)	0						
	20	Volume approx. vessel / jacket (liter)	12500						
	21	Weight empty with internals approx. (kg)	5800						
	22	Operating weight approx. (kg)	24550						
	23	Surface treatment inside	Lining	Grit Blasted SA 2 1/2				Main vessel Carbon steel with 4mm hard rubber lining, spool piece 1.4562 (Alloy31) with Carbon Steel flanges clad with 1.4562 clad according to attached example drawing No. 846540.	
	24	Surface treatment outside		Grit Blasted SA 2 1/2					
	25	Painting		Primer+Intermediate+Top Coat					
	26	Flanges		DIN / EN					
	27	Bolts	Nuts	5.6	5.2				
	28	Gaskets		EPDM					
	29	Supports		four brackets					
	30	Lifting lugs		three on lid					
	31	Transport lugs		-					
	32	Insulation supports		NA					
	33	Insulation		NA					
	34	Earthing boss		one on bracket					
	35	Radiograph	Dye penetration	As per code	As per code				
	36	PWHT	Charpy	As per code	As per code				
	37	Seismic factor	Wind load (kN/m2)	client to advise	client to advise				
	FILTER INTERNALS	38	Registers no.	Material	12	1.4562 (Alloy 31)			
		39	Register sealing	Material	O-Ring	EPDM			
		40	Filter candles no.	Material	106	PP			
		41	Length (mm)	Spacing (mm)	2900	155			
		42	Filter candle pins no.	Material	NA	NA			
		43	Filter media no.	Type	106	M 11 U 002			
44		Length (mm)	Material	3030	PP / FCR				
45		Air permeability (l/dm2 min. at 20 mm WC)	Pore size (µm)	1 - 3	1.5				
46		Filter media fix. no.	Material	212	wire clamps Hastelloy C 276				
ACCESSORIES		47	Spray adapter	Spray ring	-	PVDF DN 50 Ø950	Hexagonal construction		
	48	Spray nozzles no.	Spray nozzle type	tbd	tbd				
	49	Heel vol. plates no.	Material	-	----				
	50	Soliphant							
	51								
	52								
OPTIONS	53	Headers no. / size	Material	-	-	-			
	54	Manifold no. / size	Material	-	-	-			
	55	Head lifting device	Material	-	-	-			
	56								
	57								
	58								
PROCESS INFORMATION	59	Application	TiO2 Pre- & Post-Leach				-		
	60	Group	Dyes & Pigments						
	61	Liquid phase	Sulfuric acid						
	62	Solid phase	Titanium Hydrate						
	63	Solids (w/w)	Solids (vol/vol)	-----	-----				
	64	Density (kg/dm3)	pH	1.5	< 1				
	65	Viscosity (cps)	at temperature (°C)	-	-				
	66	Flow rate (l/m2h)	Capacity (m3/h)	-	-	-			
	67	Precoat	Body feed	-	-				

				FUNDABAC®- CONTIBAC®- FILTER				SHEET 2 OF 2
				DESIGN	CHECK	DATE	REVISION	CLIENT Venator Pori
				IS		16.11.17	1	QUOTATION NO. / PO NO. 2170321-1-80
				IS		30.11.17	2	PROJECT Anatase
				IS		15.12.17	3	SPEC NO. Pre- and Post-Leach
				IS		15.12.17	4	
				IS		20.12.17	5	



For actual number of filtrate pipes see No.86(Qty) below

Nota : All figures are approximate and not binding for the final execution

DIMENSIONS	68	Ø (mm)	1900						
	69	A (mm)	5050						
	70	B (mm)	5650						
	71	C (mm)	3450						
	72	D (mm)	1350						
	73	E (mm)	250						
	74	F (mm)	4300						
	75	G (mm)	tbd						
	76								
	77	Cone Angle	25°						
	78	Slope angle	5°						
	79								
	80								

CONNECTIONS, NOZZLES AND COUPLINGS	81	MARK	QTY.	SIZE	RATING	SPEC	TYPE	SERVICE	LOCATION
	82	N1	1	DN80	PN16	DIN 28117	Pad	Spray ring	Head
	83	N2	1	DN100	PN16	EN 1092-1	RFWN	Overflow/Vent	Head
	84	N3	1	DN50	PN16	EN 1092-1	RFWN	Instrument	Head
	85	N4	1	DN50	PN16	EN 1092-1	RFWN	Instrument	Head
	86	N5	12	DN50	PN16	EN 1092-1	RFWN	Filtrate outlet	Cylinder
	87	N6							
	88	N7							
	89	N8	1	DN150	PN16	EN 1092-1	RFWN	Feed Inlet	Cone
	90	N9	1	DN80	PN16	EN 1092-1	RFWN	Heel volume outlet with 1.4562 insert	Cone
	91	N10	1	DN800	PN10	EN 1092-1	RFWN	Discharge Outlet	Cone
	92	N11	1	DN100	PN16	DIN 28117	Pad	Sight glass	Head
	93	N12	1	DN100	PN16	DIN 28117	Pad	Sight glass	Head
	94	N13	1	DN100	PN16	DIN 28117	Pad	Sight glass	Head
	95	N14							
	96	N15							
	97	N16							
	98	N17							
	99	N18							

NOTES	100	1. All figures on this sheet are approximate and not binding for the final execution.							
	101	2. Nozzle load calculations are not included but can be performed according to WRC 107 at extra cost.							
	102	3. All Internals are prefabricated stock parts and no restriction in regard of sourcing origin can be accepted							
	103								
	104								
	105								
	106								
	107								