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Data Sheet for Regrind Hydro Cyclones (CC) 3/4-33-2710-01~02

01	08/28/2024	Issued For Approval				
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	00	01	02	03	04	05		00	01	02	03	04	05	
1	X	X					31							
2	X	X					32							
3	X	X					33							
4	X	X					34							
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6	X	X					36							
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Regrind Cyclone Cluster Mill.....

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1.

REGRIND CYCLONE CLUSTER MILL

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No.	Description	Units	Value
General data			
1	Quantity of cyclone cluster	#	1 Operational & 1 Standby (Each phase)
2	Tag No. / Location (indoors/ outdoors)	-	CC 3/4-33-2710-01 ~ 02/Indoor
3	Application Description	-	Regrind Cyclone Cluster
4	Service	-	Continuous
5	Site Condition	-	3-12002-D-PR-DOC-303-GNL-001
Process / Operating Conditions			
Material Processed			
6	Ore Type	-	Copper ore
7	specific gravity	t/m ³	2.9
8	slurry density	t/m ³	1.38
9	Feed top size (F100)	micron	150
10	Feed F80	micron	90
Operating conditions			
11	Cyclone cut-size, d50	micron	VTs
12	Operating pressure	kPa	90-120 (VTs)
Feed			
13	solids feed rate per cluster (design)	dtph	1628.11
14	solid feed rate per cluster (nominal)	dtph	1411.03
15	Solid's content	%(m/m)	43.00
16	slurry density	t/m ³	1.38
17	Slurry flowrate per cluster (design)	m ³ /h	2739.66
18	Slurry flowrate per cluster (nominal)	m ³ /h	2374.38
19	Ball mill circulating load	%	300

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No.	Description	Units	Value
20	Feed slurry temperature	°C	5-60
Overflow			
21	solids feed rate per cluster (design)	dtph	406.83
22	solid feed rate per cluster (nominal)	dtph	352.58
23	Solid contents	%(m/m)	21.00
24	slurry density	t/m ³	1.16
25	Slurry flowrate per cluster (design)	m ³ /h	1675.73
26	Slurry flowrate per cluster (nominal)	m ³ /h	1452.3
27	water flowrate per cluster (design)	m ³ /h	1530.40
28	water flowrate per cluster (nominal)	m ³ /h	1326.38
29	P80	micron	38
Underflow			
30	solids feed rate per cluster (design)	dtph	1220.48
31	solid feed rate per cluster (nominal)	dtph	1057.75
32	Solid contents	%(m/m)	66.03
33	slurry density	t/m ³	1.74
34	Slurry flowrate per cluster (design)	m ³ /h	1063.64
35	Slurry flowrate per cluster (nominal)	m ³ /h	921.82
36	Water flowrate per cluster (design)	m ³ /h	627.76
37	Water flowrate per cluster (nominal)	m ³ /h	544.06
Mechanical Information			
Technical specs			
38	Number of cyclone clusters	#	2 clusters (for each phase)

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No.	Description	Units	Value
39	Number of cyclones per cluster	#	20 (VTC)
40	Number of operating cyclones per cluster	#	16 (VTC)
41	Number of standby cyclones per cluster	#	4 (VTC)
42	Number of blank outlets per cluster	#	2 (VTC)
43	Manufacturer	-	VTs
44	Model	-	VTs
45	Model number	-	VTs
46	Diameter	inch	15 (VTC)
47	Cyclone size (D x L)	mm*mm	VTs
48	Housing	-	VTs
49	Liner type	-	VTs
50	Lining thickness of Cyclone	mm	12 Natural Rubber (VTC)
51	Lining thickness of Distributer	mm	25 Natural Rubber (VTC)
52	Isolation Valve	-	Automated On/Off (VTC)
53	Isolation Valve Type	-	Knife gate (VTC)
54	Actuator	-	Pneumatic (VTC)
55	Spigot outlet (ID)	mm (inch)	VTs
56	Vortex finder diameter	mm (inch)	VTs
57	Cone angle	°	VTs
58	Head type	-	VTs
59	Inlet size	mm	VTs
60	Overflow pipe diameter	mm	VTs
61	Manifold overflow launder pipe diameter	mm	VTs

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No.	Description	Units	Value
62	Manifold underflow launder pipe diameter	mm	VTs
Materials of construction / wear protection			
63	Manifold	-	VTs
64	Connections	-	VTs
65	Overflow launder	-	VTs
66	Overflow pipes	-	VTs
67	Barring gear bedplate	-	VTs
68	Underflow launder	-	VTs
69	Inlet head	-	VTs
70	Vortex finder	-	VTs
71	Overflow	-	VTs
72	Upper cone	-	VTs
73	Lower cone	-	VTs
74	Corrosion allowance	-	VTs
Masses			
75	Refer to Drawing Number	#	VTs
76	Empty mass (complete HC manifold)	kg	VTs
77	Operating mass (complete HC manifold)	kg	VTs
78	Flooded mass (complete HC manifold)	kg	VTs
I&C information			
instruments			
79	Mechanical Pressure gauge	-	Yes (VTC)
80	Pressure Transmitter	-	Yes (VTC)

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Notes:

1. VTS: Vendor to Specify
2. VTC: Vendor to Confirm
3. Vendor shall provide and issue the important data required to design the related structure / foundation.
4. Consider the mounting standard and working pressure class of the flanges connected to the equipment according to the ASME B16.5/16.47 standard.