

COLUMNS WITH CAVITATION SPARGING SYSTEMS					Cavitation(p/Col.)		Pump		Piping
Item	Plant	Mineral	Dimensions	Quant.	Model	Quant.	Size	Motor	Rubber Lined
Brasil									
1	Fosfertil-Catalão	Phosphate-fines	3.0 x 6.0 x 12.0	2	CT-500	16	12" x 10"	200 Hp	Yes
2	Fosfertil-Catalão	Phosphate-fines	3.0 x 5.0 x 12.0	1	CT-500	12	10" x 8"	100 Hp	Yes
3	Fosfertil-Catalão	Phosphate-Ultrafines	3.0 x 4.5 x 12.0	1	CT-350	12	10" x 8"	100 Hp	Yes
4	Fosfertil-Araxá	Phosphate-fines	3.0 x 6.0 x 14.0	2	CT-500	16	12" x 10"	250 Hp	No
5	Fosfertil-Araxá	Phosphate-fines	3.0 x 5.0 x 14.0	1	CT-500	12	10" x 8"	200 Hp	No
6	Fosfertil-Araxá	Phosphate-Ultrafines	4.3 x 14.0	1	CT-500	10	12" x 10"	200 Hp	No
7	Fosfertil-Araxá	Phosphate-Ultrafines	3.66 x 14.0	1	CT-350	8	10" x 8"	175 Hp	No
8	Bunge - Araxá	Phosphate	3.0 x 4.5 x 14.5	3	CT-350	8	10" x 8"	250 Hp	Yes
9	Bunge - Araxá	Phosphate	5.0 x 14.5	1	CT-350	12	12" x 10"	250 Hp	Yes
10	Bunge - Araxá	Phosphate-Coarse	4.3 x 14.5	3	CT-350	10	12" x 10"	200 Hp	Yes
11	Bunge - Araxá	Phosphate-fines	3.66 x 14.5	3	CT-350	8	10" x 8"	150 Hp	Yes
12	CBMM - Araxá	Niobium	5.0 x 14.5	2	CT-350	12	12" x 10"	200 Hp	Yes
13	CBMM - Araxá	Niobium	5.0 x 14.5	1	CT-350	12	10" x 8"	150 Hp	Yes
14	CBMM - Araxá	Niobium	3.66 x 12.0	1	CT-350	8	10" x 8"	150 Hp	Yes
15	CBMM - Araxá	Niobium	3.66 x 12.0	1	CT-350	8	10" x 8"	150 Hp	Yes
16	MNSC - Criciúma	Fluorite	3.05 x 12.0	1	CT-350	4	8" x 6"	75 Hp	No
17	Bunge - Araxá	Barite	3.66 x 14.5	1	CT-350	8	10" x 8"	150 Hp	Yes
18	Bunge - Araxá	Barite	4.3 x 14.5	1	CT-350	10	10" x 8"	250 Hp	Yes
19	Magnesita-Brumado	Magnesite	2.0 x 8.0	1	CT-350	4	6" x 4"	60 Hp	No
20	Vale - Salobo	Copper	6.0 x 14.0	8	CT-350	12	12" x 10"	250 Hp	Yes
21	Feldspar - Curitiba	Feldspar	1.83 x 12.0	3	CT-350	4	6" x 4"	40 Hp	No
22	Galvani Industria Ltd.	Phosphate	3.05 x 12.0	1	CT-350	6	8" x 6"	100 Hp	No
China									
23	Yuntianhua	Phosphatite	0.91x 6.0	4	CT-200	2	2" x 2"	10 Hp	No
Canada									
24	PCS Cory	Potash Centrate	3.66 x 7.3	1	CT-350	6			
25	PCS Cory	Potash Fines	3.05 x 8.5	1	CT-350	6			
26	PCS Cory	Potash Scavenger	3.66 x 7.30	1	CT-500	5			
27	PCS Penobscuis	Potash	3.05 x 8.5	1	CT-600	4			
28	PCS Picadilly	Potash Cleaner	4.3 x 8.5	4	CT-600	8			
29	PCS Picadilly	Potash Re grind Rougher	3.66 x 8.5	4	CT-600	6			
30	PCS Picadilly	Potash Re grind Cleaner	3.05 x 6.1	1	CT-600	4			
31	PCS Picadilly	Potash Rougher Scav	3.66 x 8.5	1	CT-600	6			
32	PCS Picadilly	Potash Cleaner Scav	3.05 x 6.1	1	CT-600	4			
33	Sonic Environmental	Kerosene / Soil	0.91 x 6.0	2	CT-200	2	3" x 2"	10 Hp	No
34	Cantung	Tungsten	0.5 x 6.0	1	CT-200	1	2" x 1.5"	3 Hp	No
35	Cantung	Tungsten	1.83 x 6.9	1	CT-350	2			
USA									
36	Intrepid - Carlsbad (East Plant)	Potash Fines Recovery	3.05 x 8.5	1	CT-350	6	8" x 6"	150 Hp	No
37	Intrepid - Carlsbad (West Plant)	Potash Fines Cleaner	3.05 x 10	1	CT-350	6	8" x 6"	150 Hp	No
38	Thiele Kaolin	Kaolin		1	CT-200	6	6" x 6"	75 hp	
39	Penn West Buffalo Coulie	Oil / Water Sep	1.52 x 7.6	1	CT-200	4	3" x 2"	10 Hp	No
40	Unimin	Quartz	0.91 x 5.0	1	CT-200	1	2" x 2"	10 Hp	No
Vietnam									
41	Nui Phao	Fluorite 1st Cleaner	3.05 x 12	1	CT-350	6	8" x 6"	150 Hp	
42	Nui Phao	Fluorite 2nd Cleaner	3.05 x 10	1	CT-350	6	8" x 6"	150 Hp	
Dominican Repr.									
43	Min. Sierra de Mamón	Copper	3.05 x 8.0	1	CT-350	6	8" x 6"	60 Hp	No
Russia									
44	Matrasova	Sulphides (gold)	0.5 x 6.0	1	CT-200	1	2" x 2"	10 Hp	No
45	Matrasova	Sulphides (gold)	0.3 x 6.0	1	CT-200	1	2" x 2"	10 Hp	No
46	Polius	Sulphides (gold)	0.5 x 6.0	1	CT-200	1	2" x 1.5"	3 Hp	No
47	Mikhailovsky	Iron Ore	4.3 x 12.0	2	CT-350	8	10" x 8"	200 Hp	No
TOTAL				76	566				