

Table calculation

Pressure conveying

Client:

Filepath: c:\Vdtata\flyash.txt

Product: Fly ash

Altitude: 0 m

Convey distance horizontal: 42.7 m

Convey distance vertical: 12.2 m-up 0 m-down

Total conveying length: 54.9 m

Number of Bends: 3

Pipe diameter begin: 250 mm

Pipe diameter end: 250 mm

Mass displ. pump: 0.95 kg/sec (Piston compr/Sonic choke / Turbo)

Booster displacement: 0 m3/sec

Gas volume end: 0.8105 m3/sec

Two vessel installation

MM-DD-YY
09-02-2009

Table

Pressure bar	pipe line capacity tons/hr	system capacity tons/hr	Number of kettles/hr	< Kettle range >	Solid Loading Ratio SLR	gas velocity begin m/sec	gas velocity end m/sec	System energy consumption kWh/Ton	residence time seconds	Sediment
1	136.2	121.7	41.8	>capacity	39.8	9.8	19.8	1.43	5.13	No sedimentation
0.96	133.8	119.7	41.1	>capacity	39.1	10	19.7	1.45	5.07	No sedimentation
0.92	131.2	117.7	40.4	>capacity	38.3	10.2	19.6	1.48	5.01	No sedimentation
0.88	128.7	115.6	39.7	>capacity	37.6	10.4	19.6	1.51	4.95	No sedimentation
0.84	126.1	113.5	39	>capacity	36.8	10.6	19.5	1.54	4.89	No sedimentation
0.8	123.4	111.3	38.2	>capacity	36	10.8	19.4	1.58	4.82	No sedimentation
0.76	120.6	109	37.4	>capacity	35.2	11	19.3	1.61	4.76	No sedimentation
0.72	117.7	106.6	36.6	>capacity	34.4	11.3	19.2	1.65	4.7	No sedimentation
0.68	114.8	104.2	35.8	>capacity	33.5	11.5	19.1	1.69	4.64	No sedimentation
0.64	111.7	101.6	34.9	>capacity	32.6	11.8	19	1.74	4.57	No sedimentation
0.6	108.5	99	34	>capacity	31.7	12	18.8	1.79	4.51	No sedimentation
0.56	105.1	96.2	33	>capacity	30.7	12.3	18.7	1.85	4.45	No sedimentation
0.52	101.6	93.2	32	>capacity	29.7	12.6	18.6	1.91	4.38	No sedimentation
0.48	97.9	90	30.9	>capacity	28.6	12.9	18.5	1.99	4.32	No sedimentation
0.44	93.9	86.7	29.8	>capacity	27.4	13.2	18.4	2.07	4.26	No sedimentation
0.4	89.7	83	28.5	>capacity	26.2	13.5	18.2	2.17	4.19	No sedimentation
0.36	85.1	79.1	27.1	>capacity	24.8	13.9	18.1	2.28	4.13	No sedimentation
0.32	80	74.7	25.6	>capacity	23.4	14.2	17.9	2.43	4.07	No sedimentation
0.28	74.4	69.7	23.9	>capacity	21.7	14.6	17.7	2.61	4.01	No sedimentation
0.24	67.9	64	21.9	>capacity	19.8	14.9	17.5	2.86	3.95	No sedimentation
0.2	60.2	57.1	19.6	>capacity	17.6	15.2	17.3	3.22	3.89	No sedimentation
Empty pipeline system pressure drop			246	mmWC						

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