

**Table calculation**

**Pressure conveying**

Client:

Filepath: Quick modeling

Product: Fly ash

Altitude: 0 m

Convey distance horizontal: 427 m

Convey distance vertical: 122 m-up 0 m-down

Total conveying length: 549 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: 0.8021 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
1.5	61.8	60.8	7.8	>capacity	18	7.3	38	2.89	68.21	No sedimentation
1.435	60.4	59.4	7.6	>capacity	17.6	7.5	38	2.97	67.02	No sedimentation
1.37	59	58	7.4	>capacity	17.2	7.6	37.9	3.05	65.82	No sedimentation
1.305	57.5	56.5	7.2	>capacity	16.8	7.8	37.9	3.14	64.61	No sedimentation
1.24	55.9	54.9	7	>capacity	16.3	8	37.9	3.24	63.37	No sedimentation
1.175	54.2	53.3	6.8	>capacity	15.8	8.2	37.9	3.35	62.13	No sedimentation
1.11	52.4	51.6	6.6	>capacity	15.3	8.5	37.9	3.47	60.86	No sedimentation
1.045	50.6	49.7	6.4	>capacity	14.8	8.7	37.8	3.62	59.58	No sedimentation
0.98	48.6	47.8	6.1	>capacity	14.2	8.9	37.8	3.77	58.28	No sedimentation
0.915	46.5	45.8	5.9	>capacity	13.6	9.2	37.8	3.95	56.96	No sedimentation
0.85	44.3	43.6	5.6	>capacity	12.9	9.4	37.8	4.17	55.62	No sedimentation
0.785	41.9	41.2	5.3	>capacity	12.2	9.7	37.7	4.43	54.26	No sedimentation
0.72	39.3	38.7	4.9	>capacity	11.5	10	37.7	4.73	52.87	No sedimentation
0.655	36.5	36	4.6	>capacity	10.6	10.3	37.5	5.11	51.45	No sedimentation
0.59	33.5	33	4.2	>capacity	9.8	10.5	37.6	5.6	50.01	No sedimentation
0.525	30.1	29.7	3.8	>capacity	8.8	10.8	37.4	6.25	48.53	No sedimentation
0.46	26.4	26.1	3.3	>capacity	7.7	11	37.5	7.15	47.02	No sedimentation
0.395	22.4	22.1	2.8	>capacity	6.5	11.1	37.4	8.48	45.48	No sedimentation
0.33	17.9	17.7	2.2	>capacity	5.2	11	37.7	10.65	43.91	No sedimentation
0.265	12.9	12.8	1.6	>capacity	3.7	10.4	37.4	14.81	42.32	No sedimentation
0.2	7.4	7.4	0.9	>capacity	2.1	8.4	37.7	25.77	40.72	No sedimentation

Empty pipeline system pressure drop: 1552 mmWC

Buttons: Back to start menu, Print table, New Calculation