

Deister Feed Distributors

Engineering data for Deister motorized revolving distributors

OUTLET PIPE	MODEL 309-T			MODEL 308-T			MODEL 1008-T			MODEL 7500-T			MODEL 10000-T		
	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY G.P.M.
1½"	20	24	480	30	26	780	—	—	—	—	—	—	—	—	—
2"	18	40	720	30	43	1290	—	—	—	—	—	—	—	—	—
2½"	16	57	912	22	62	1364	—	—	—	—	—	—	—	—	—
3"	12	89	1000	20	96	1920	20	109	2180	28	129	3612	30	132	3960
4"	8	154	1000	17	167	2500	17	191	3247	24	224	5376	24	230	5520
6"	4	349	1000	7	379	2500	11	432	4752	12	508	6096	16	522	8352
8"	3	611	1000	4	664	2500	6	757	4542	8	891	7128	10	915	9150
10"	—	—	—	3	1085	2500	4	1237	4948	5	1456	7280	6	1496	8976
12"	—	—	—	—	—	—	3	1797	5000	4	2115	7500	5	2173	10000
14"	—	—	—	—	—	—	—	—	—	—	—	—	4	2659	10000

Engineering data for Deister stationary distributors

OUTLET PIPE	MODEL 204			MODEL 408			MODEL 708			MODEL 508			MODEL 15000			MODEL 20000		
	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED G.P.M.	MAXIMUM NO. SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED G.P.M.
2"	14	45	630	28	42	1204	—	—	—	—	—	—	—	—	—	—	—	—
½"	12	65	780	26	62	1612	32	73	2336	—	—	—	—	—	—	—	—	—
3"	11	101	800	22	96	2112	28	114	3192	34	122	4148	—	—	—	—	—	—
4"	10	175	800	20	167	3000	24	198	4752	30	211	6330	—	—	—	—	—	—
6"	8	397	800	14	379	3000	18	448	7500	24	479	10000	24	536	12864	—	—	—
8"	6	696	800	12	664	3000	16	785	7500	18	840	10000	22	939	15000	—	—	—
10"	—	—	—	10	1085	3000	12	1284	7500	16	1373	10000	18	1535	15000	20	1535	20000
12"	—	—	—	—	—	—	10	1865	7500	14	1994	10000	16	2229	15000	18	2229	20000
14"	—	—	—	—	—	—	8	2283	7500	12	2440	10000	12	2728	15000	14	2728	20000
20"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	5828	20000	—



Self-Propelled Revolving Feed Distributors

Models 309-SP, 308-SP, 1008-SP

Deister's three models of self-propelled revolving feed distributors are designed to handle capacities ranging from 500 GPM through 9800 GPM,

Deister Self-propelled Revolving Feed Distributors

Deister self-propelled distributors provide equal distribution of slurry particles, both quantitatively and qualitatively, without requiring a motor.

In special cases, distributors can be supplied to produce distributions that are qualitatively equal but quantitatively unequal. For example, a 3-way distributor can be supplied that would split its feed into proportions of 65%, 20%, and 15%.

The self-propelled revolving distributor usually can fit easily into the same space requirements of an existing distributor. If needed, however, custom-designed models can be produced.

Construction

One of the most important advantages of Deister's self-propelled revolving distributor is the unique bearing assembly, which combines the use of a thrust bearing and radial bearing.

A variation of a design that has been used

for over 40 years in our motorized distributors, the assembly offers outstanding longevity- it is designed for a B-10 life of 16.38 (more than 100,000 hours). All the bearings are protected by double grease seals, castings, flingers and a secondary productive outer wall. When service is necessary, the assembly is designed for quick removal and reinstallation.

The stationary splitting tank forms the base structure, to which the bearing assembly and revolving tank are mounted. The splitting tank is divided into a predetermined number of compartments of equal size, each with a plain pipe outlet which connects to the line running to the unit served. Splitting tanks are interchangeable and can be readily removed and replaced with a new tank. Optional ceramic linings are available for both the revolving and splitting tanks for improved wear resistance.

The revolving tank rotational speed is adjustable by simply rotating the elbow outlets. Optimum rotation is 20-22 RPM.

Engineering data for Deister self-propelled revolving distributors

OUTLET PIPE SIZE	MODEL 309SP			MODEL 308SP			MODEL 1008SP		
	MAXIMUM NUMBER OF SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY GPM	MAXIMUM NUMBER OF SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY GPM	MAXIMUM NUMBER OF SPLITS	MAX. DISCH. GPM/OUTLET	MAX. FEED CAPACITY GPM
1½"	20	24	480	—	—	—	—	—	—
2"	18	40	720	28	42	1176	—	—	—
2½"	16	57	912	26	62	1612	—	—	—
3"	12	89	1000	22	96	2112	34	122	4148
4"	8	154	1000	20	167	3340	30	211	6330
6"	4	349	1000	14	379	4400	24	479	9800
8"	3	611	1000	12	664	4400	18	840	9800
10"	—	—	—	10	1085	4400	16	1373	9800
12"	—	—	—	—	—	—	14	1994	9800
14"	—	—	—	—	—	—	12	2440	9800

Revolving Feed Distributors

Models 308-T, 309-T, 1,008-T, 7,500-T and 10,000-T

DEISTER revolving feed distributors are designed to divide accurately a stream of pulp into a predetermined number of flows which are quantitative and qualitative equals. Ideal for feeding a battery of Deister coal washing tables, ore concentrating tables, or other process equipment.

Construction

Each model consists of: 1) stationary splitting tank; 2) revolving tank to distribute pulp to splitting tank; 3) motor drive; 4) optional splash covers to make entire unit splash-proof.

The stationary splitting tank forms the base structure to which the bearing assembly, drive and revolving tank are mounted. The splitting tank is divided into a predetermined number of compartments of equal size, each with a plain end pipe outlet which connects to the line running to the unit served.

In special cases distributors can be supplied to produce distributions that are qualitatively

equal but quantitatively unequal. For example, a 3-way distributor can be supplied that would split its feed into proportions of 65%, 20%, and 15%.

The revolving tank rotates at about 20 rpm by means of 1 or 1 ½ HP motor and torque-arm reducer combination. The feed well of the revolving tank is baffled to prevent short circuits and to give additional mixing of the pulp stream. The revolving tank is mounted on a vertical shaft and supported by antifriction bearings, which are grease packed and sealed. Easy access simplifies lubrication of the bearings when necessary.

Optional splash covers are removable on both revolving and splitting tanks. Also provided is a splash ring for mounting to customer-provided, vertically-centered feed pipe. Both tanks may be equipped with rubber or ceramic lining at additional cost.

It sometimes becomes necessary to cut off the pulp to a unit being fed. This is easily achieved by lifting the tank and plugging the outlet in question.



Stationary Feed Distributors

Models 204, 408, 508, 708, 15,000 and 20,000

DEISTER's stationary feed distributors are made in six sizes that handle up to 20,000 GPM of liquid pulp feed or 1450 TPH of solids. They require no power to operate, no lubrication, and minimal operational attention.

They are intended for use in situations where equality of distribution is not highly critical. Instead, they provide a practical, simple and inexpensive means of dividing a primary stream of liquid or pulp into a predetermined number of portions which feed a battery of tables or other devices. When desired, the distributor can be supplied to produce non-equal divisions of predetermined proportions.

Construction

All models consist of a stationary cylindrical splitting tank of heavy steel plate, with an extra-heavy walled center feed well and a predetermined number of compartments. The feed stream is fed vertically down through a pipe sleeve into the center well where it reverses direction to flow up around the sleeve to overflow the well. The adjustable pressure plate attached to the feed sleeve constricts the overflowing weir to produce a uniform discharge into the splitting tank compartments. The bottom of the splitting tank is field lined with concrete for wear-resistance. Optional ceramic lining is also available.

