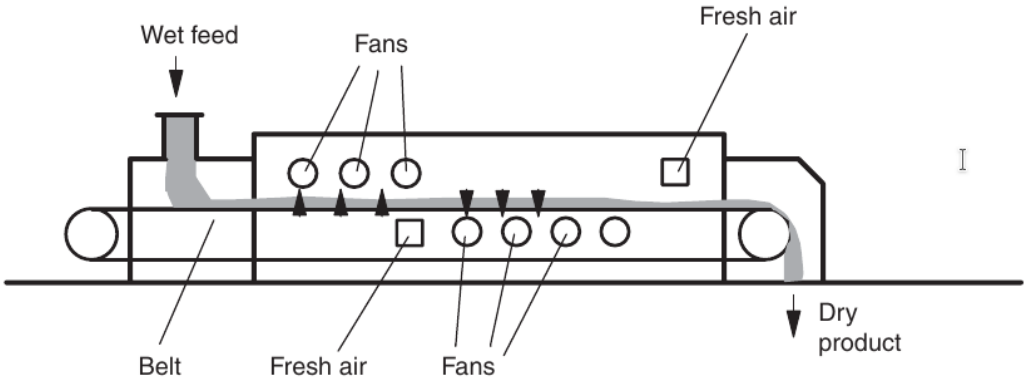

FIG. 12-51 Longitudinal view of a continuous through-circulation conveyor dryer with intermediate airflow reversal.

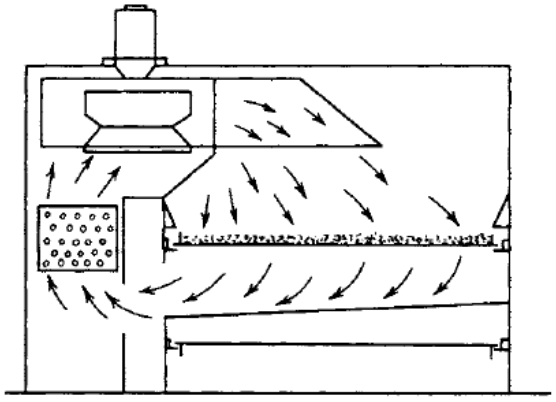

FIG. 12-50 Section view of a continuous through-circulation conveyor dryer. *(Proctor & Schwartz, Inc.)*

TABLE 12-21 Experimental Through-Circulation Drying Data for Miscellaneous Materials

Material	Physical form	Moisture contents, kg/kg dry solid			Inlet-air temperature, K	Depth of bed, cm	Loading, kg product/m^2	Air velocity, m/s × 10^1	Experimental drying time, s × 10^{-2}
		Initial	Critical	Final					
Alumina hydrate	Briquettes	0.105	0.06	0.00	453	6.4	60.0	6.0	18.0
Alumina hydrate	Scored filter cake	9.60	4.50	1.15	333	3.8	1.6	11.0	90.0
Alumina hydrate	Scored filter cake	5.56	2.25	0.42	333	7.0	4.6	11.0	108.0
Aluminum stearate	0.7-cm extrusions	4.20	2.60	0.003	350	7.6	6.5	13.0	36.0
Asbestos fiber	Flakes from squeeze rolls	0.47	0.11	0.008	410	7.6	13.6	9.0	5.6
Asbestos fiber	Flakes from squeeze rolls	0.46	0.10	0.0	410	5.1	6.3	9.0	3.6
Asbestos fiber	Flakes from squeeze rolls	0.46	0.075	0.0	410	3.8	4.5	11.0	2.7
Calcium carbonate	Preformed on finned drum	0.85	0.30	0.003	410	3.8	16.0	11.5	12.0
Calcium carbonate	Preformed on finned drum	0.84	0.35	0.0	410	8.9	25.7	11.7	18.0

TABLE 12-23 Conveyor-Screen-Dryer Costs*

Length	2.4-m-wide conveyor	3.0-m-wide conveyor
7.5 m	$8600/m^2	$7110/m^2
15 m	$6700/m^2	$5600/m^2
22.5 m	$6200/m^2	$5150/m^2
30 m	$5900/m^2	$4950/m^2

*National Drying Machinery Company, 1996.