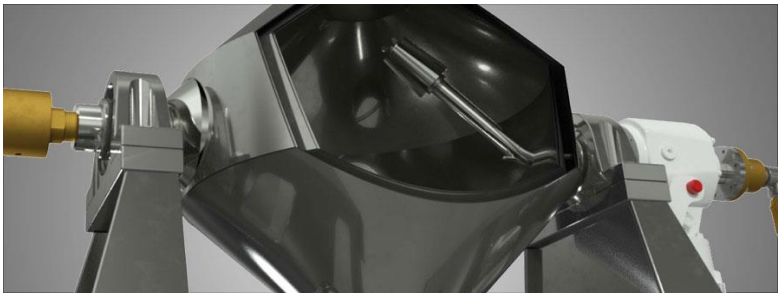
CONE TUMBLE DRYER



With a smooth internal finish, complete discharge and elimination of cross batch contamination are realized. Orbis Machinery Cone Tumble Dryers (CTD) can be designed for up to 500º F jacket temperatures and high vacuum. For superior drying, mixing and ease of cleaning the Orbis Machinery CTD is the dryer of choice.

Process

Tumble drying of materials is accomplished by heating the walls of a jacketed, slow rotating double cone shaped vessel while applying vacuum. By applying Vacuum, the boiling point of the liquid component(s) is lowered, while constant particle contact with the vessel walls provides uniform drying action. Revolving Dryers rotate at low speeds (3 to 12 RPM, depending on the capacity of the Dryer).

The heating jackets can be supplied for operation at 100° to 500° F. As a standard, all our hot oil or steam jackets include high temperature insulation covered by a watertight insulation shroud. Heating of the jacket is commonly accomplished using hot oil, but other heating sources such as steam or electric blankets, may also be used. Using oil as the heating medium, allows for faster cooling of the product after the material has been dried, for faster and safer unloading and handling.

Design

Two cones are welded to a cylindrical center section providing a gentle, low shear, tumble action of the product. Orbis's Cone Tumbling Dryer (CTD) design results in a high degree of particle mobility without the use of internal baffles. 45° and 60°cones are available. Cone Tumbling Dryers have been proven in a wide variety of industries, offering greater overall volume and high efficiency.

Options

Orbis offers a wide variety of options. Each machine is tailored to your specifications and applications. Orbis dryers handle a variety of material densities and are easily adaptable to meet standard material handling systems. Whichever your dryer requirements are, Orbis has a solution to fit your process.

Standard Features

Standard Designs for Material Densities up to 250 lbs. 0.25 to 400 Cubic Foot Working Capacities.
304 or 316 stainless steel or Carbon Steel construction.

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Design Options

- Operator/Control Panels
- Pneumatic Valve Operation and Interlocks
- Sampling
- Internal and external finishes ranging from Mill to Mirror.
- Various vessel interior coatings
- Indexing Systems
- Load Cells
- Metallurgy
  - Hastelloy C276 or C22
  - Inconnel
- (CIP) Clean In Place
- Drum Loading System to accommodate any Drum Size and weight.
- Pneumatically Operated Drum Roller Tray Lift Assembly, Pre-Wired with Safety Interlocks.

MODELS	Working Volume	Total Volume	Diameter	Jacket Surface Area	Rotational Speed	HP	Hatch Diameter	Discharge Diameter
	65% of Total Volume (CUFT)	Cubic Feet	Center Ban Inches	Square Feet	RPM	Based on 60 LBS/CUFT	Inches	Inches
CTD025-11	0.25	0.39	11	2.1	12	1/4	4	4
CTD05-14	0.5	0.77	14	3.4	10	1/4	4	4
CTD1-17	1	1.54	17	5.5	8	1/4	8	6
CTD3-25	3	4.66	25	12.8	7	1/4	8	6
CTD6-31	6	9.26	31	20.9	7	1/2	8	6
CTD10-37	10	15.34	37	29.2	6	3/4	10	8
CTD15-43	15	23.14	43	38.2	6	3/4	14	8
CTD20-47	20	30.82	47	46.4	5	1	16	8
CTD30-53	30	46.25	53	61.5	5	1 1/2	16	8
CTD40-59	40	61.62	59	75.3	4	2	16	8
CTD50-63	50	76.69	63	87.5	4	2	16	10
CTD75-73	75	115.47	73	115.8	4	3	16	10
CTD100-80	100	153.85	80	140.5	4	5	16	12
CTD125-86	125	192.44	86	163.2	3	5	18	12
CTD150-92	150	230.89	92	184.9	3	5	18	12
CTD200-101	200	308.53	101	225.2	3	7 1/2	18	12
CTD250-109	250	384.63	109	261.7	3	10	18	12
CTD300-115	300	462.77	115	296.4	3	15	18	12
CTD350-121	350	538.39	121	326.4	3	15	24	12
CTD400-127	400	616.88	127	357.2	3	20	24	12

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