

Vacuum Filtration

Rotary Vacuum Disc and Drum Filters



WESTECH[®]

Rotary Vacuum Drum Filters

For nearly half a century, WesTech has supplied liquid/solids separation equipment to customers throughout the world. During this time, WesTech has designed reliable vacuum filtration equipment that has exceeded customer expectations.

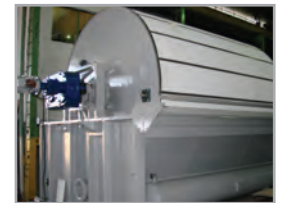
WesTech Rotary Vacuum Drum Filters provide a wide range of liquid/solids separation for many types of industrial processing flow sheets. They offer the operating flexibility to handle dewatering, washing, and clarification applications. WesTech drum filters are available with drums up to 13.5 ft in diameter and 36 ft in length and are built to customer specifications.



Unique Process, Custom Solutions

With different methods of cake discharge, WesTech can handle all types of municipal, industrial, and mineral dewatering applications. WesTech offers standard scraper, continuous belt, roll, and precoat systems to fit your process requirements. Contact WesTech to find the right equipment for your applications.

- **Metal Hydroxide Waste**
- **Gypsum**
- **Municipal Waste**
- **Lime Softening Sludge**
- **Potato Waste**
- **Corn Gluten**
- **Aluminum**
- **Mineral Concentrates**
- **Mineral Tailings**
- **Starch Recovery**



Small Footprint Benefit

The Rotary Vacuum Drum Filter provides a smaller footprint for dewatering, washing, and filtration applications

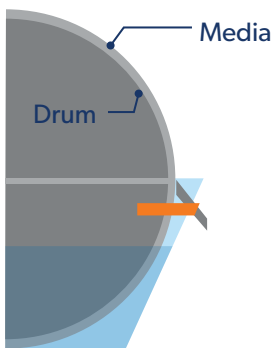
- **More cost effective per unit area**
- **Smaller footprint**
- **Less throughput capacity**
- **Materials that dewater easily**

Large Internal Piping Design

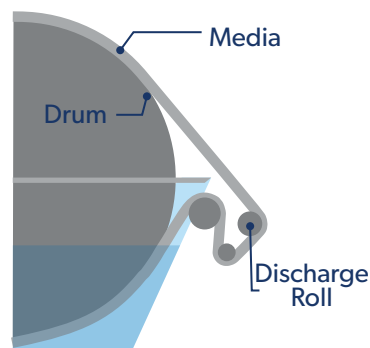
WesTech provides larger internal piping and a larger filter valve, minimizing the headloss that diminishes performance of the drum filter.

- **Low velocity for less wear**
- **Longer service life**
- **Better dewatering performance**
- **Higher throughput**

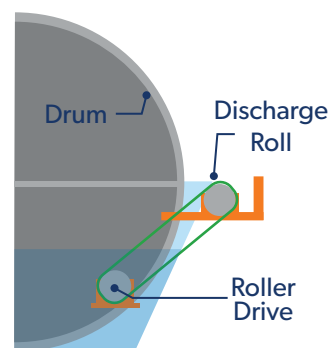
Scraper Discharge



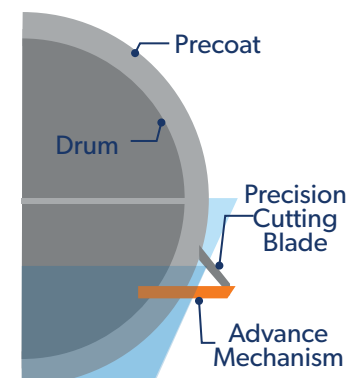
Belt Discharge



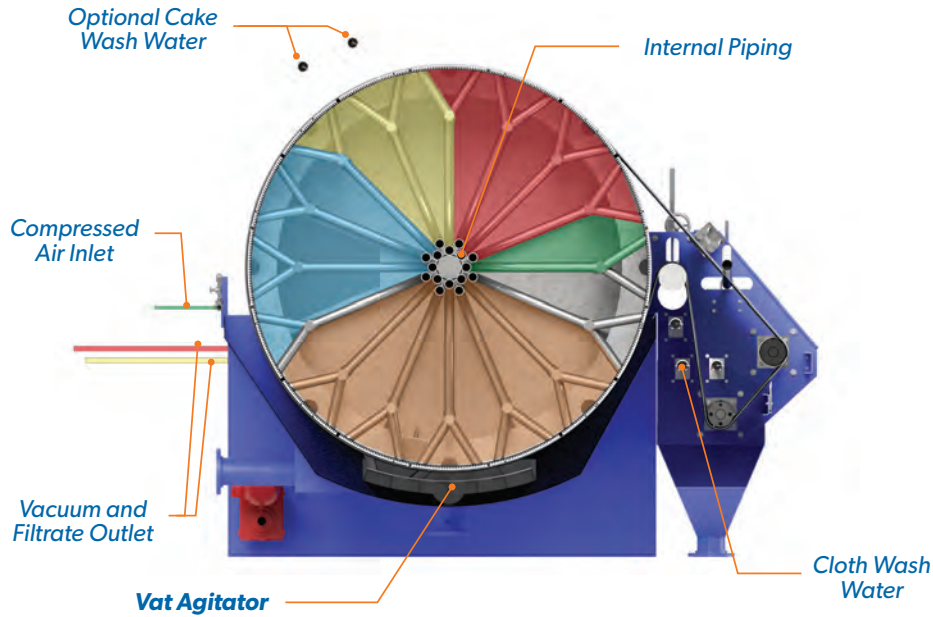
Roller Discharge



Precoat Discharge



Vacuum Drum Filter Zones

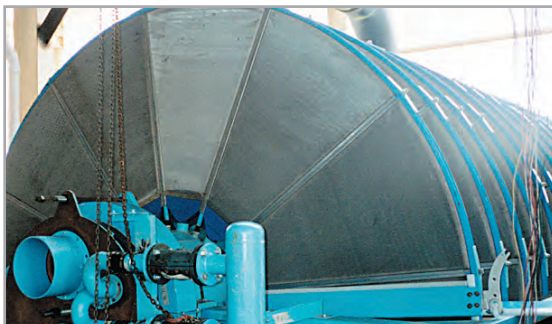


- 1 **Cake Form Zone**
Slurry forms into a cake on the drum. Cake form zones can be varied depending on application requirements.
- 2 **Primary Cake Dry Zone**
Ongoing moisture removal from the cake.
- 3 **Optional Cake Wash**
Up to one wash ratio for certain applications (displacement wash).
- 4 **Secondary Cake Dry Zone**
Continuous filtrate and cake wash removal from cake.
- 5 **Optional Blow-Back Zone**
Compressed air lifts cake off the drum (specific to scraper discharge drum).

Vacuum Disc Filters

The WesTech high capacity Vacuum Disc Filter offers exceptionally large filtration area per square foot of floor space and provides the latest innovations in disc filter center barrel design. The split center barrel design with offset flow tubes allows WesTech Vacuum Disc Filter systems to increase filtrate removal, reduce wear in each flow tube, and provide a stronger, more efficient snap-blow.

- **Common for coal and mineral applications**
- **Most filter area for the smallest footprint**



Snap-Blow System

As each disc rotates around to discharge, a solenoid valve opens and blows air into the disc sector just as it is rotating toward discharge. WesTech's disc filter design offers a "staggered" snap-blow system option that will smooth out your discharge process. It lowers your air consumption and will not jar your conveyor belt system.

Vacuum Disc Applications

- **Iron Ash**
- **Potash**
- **Steel Mills**
- **Paste Backfill**
- **Mineral Concentrates**

Benefits and Design Features

- **Small footprint, large filter area**
- **Split center barrel design**
- **Requires a cake that discharges easily**
- **Ideal for coal and mineral applications**



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