

EMERSON'S NEWLY ENHANCED DRUM DECANTING UNITS

Maximize Material Usage, Ensure Completeness of Transfers, and Improve Dosing Accuracy

Emerson's Drum Decanting Units (DDUs) ease and expedite the addition of components stored in drums or totes into blending batches by automatically weighing (via load cells) and transferring the exact amount of small volume additives required into the blend vessel or a pre-mix tank. In addition, the units feature Clean-In-Place (CIP) technologies that reduce downtime and the manual labor required to clean the units.

How It Works

A typical DDU uses roller conveyors to feed and discharge the drums or totes – one at a time – onto the drum-weighing platform. The proper drum is selected and fed in sequence onto the platform by the operator. The platform is mounted on compression load cells that weigh the amount of each material and a tilting device is included to ensure maximum product recovery and removal. In addition, a suction lance and swivel arm are inserted into the drum to withdraw liquid. The operator initiates production using the Supervisory Control System which pulls and verifies the component recipe and line up. The controller ensures the continuous addition of the required recipe amount of each component through the lance. When the set amount of material has been withdrawn from each drum, the lance is removed, cleaned in a rinse tube and restored for the next drum in sequence. A rinse tank equipped with a heating system is included. It flushes the lance to remove any remaining material for maximum product recovery and minimum waste or cross-contamination. Additionally, each empty drum is rinsed with a low viscosity component to minimize any residual material in the drum or tote.

Applications

On-spec, efficient performance for extracting components from totes and drums in industrial applications such as:

- Chemicals, Specialty Chemical, and Additive Blending
- Food and Beverage Blending
- Lubricant and Grease Blending

Key Specifications

Scale Capacity	250 kg or 550 lbs
Rinse Capacity	550 L or 145 gallons
Maximum Pumping Temperature	80° C or 176° F
Normal Viscosity Range	Up to 10,000 cp
Heating Options	Steam, Hot Oil, or Electric
Expandable Inlet Manifold	Up to 16 Inlets
Controls	PLC or DCS Integration



Emerson's Drum Decanting Units can automatically discharge components from drums and totes into a blender. Photo courtesy of Copton.



Emerson's Drum Decanting Units feature CIP technologies and can connect to piggyback lines to reduce cross-contamination between transfers. Photo courtesy of Copton.

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Features and Benefits

- Eliminate manual dosing, cleaning, and overtreating for safer, efficient operations with fully automated system including Clean-In-Place technologies
- Maximize product recovery and removal with tilting devices to empty drums
- Increase flexibility by accommodating additives with a wide viscosity range or by adding components manually if required by the recipe
- Verify system performance with Emerson's performance guarantees
- Avoid over-treating through accurate dosing measurement of components
- Improve HSE through automation of the decanting operation
- Directly blend components packaged in drums or totes
- Reduce footprint with a newly enhanced, more compact unit
- Increase operational efficiency by selecting up to 9 different control phases based on recipe requirements



Emerson's newly enhanced Drum Decanting Unit is a compact solution with increased performance to decant the most viscous additives efficiently.

Consult your Emerson representative for more details on ordering a Drum Decant Unit.

www.emerson.com/integratedblendingsolutions

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