Series 32-215 Volumetric Belt Feeder

The Series 32-215 is a simple, high-capacity volumetric belt feeder. It gives reliable long-term feeding and requires little maintenance. It easily handles lime from fine powder to pebbles. Its design and operation is simple and uncomplicated and provides reliable feeding at minimum cost. This volumetric feeder is ideal for industrial and municipal water and wastewater treatment systems or for systems treating industrial-process water.

Features

Manual or Automatic Control
Feed rate is controlled by varying the height of a manually positioned vertical gate at the feeder inlet and by varying belt speed. The variable speed belt provides a 20:1 standard operating range. Belt speed can be controlled manually or automatically from a remote 4-20 mA control signal.

Simple and Straightforward Volumetric Feeding Up to 133 ft3 /hr
With gate adjustment and different gearboxes and driven sprockets, the feeder will provide a wide range of capacity selection and flexibility. Maximum rates cover virtually all water and wastewater lime feed requirements.

Simple, Automatic Belt Tension and Tracking
Constant and uniform tensioning of the feed belt is achieved by the use of counterweights acting on the moveable front (discharge) roll. An adjustable manual tensioning roller includes a belt tracking guide which, in conjunction with the movable front roller, directs the belt along a straight path. Both of these mechanisms function together to provide accurate and reliable feeder operation.

Easy to Install and Maintain
All feeders are factory calibrated and tested prior to shipment. The feeder housing is dust-tight. Side and top covers are gasketed and easily removed. The product zone is easily accessible and can be air cleaned. Sealed bearings are used throughout. Six scrapers, spaced on both sides of the belt and on the rollers, keep the belt transport free of product build up. The belt transport system is cantilevered for easy belt removal without tools.

Operation

Lime is supplied to the belt feeder by gravity from an overhead storage bin or hopper. The lime is introduced to the belt through the inlet chute. As the belt moves, the lime is sheared by a manually adjusted vertical gate which sets the lime bed depth. Gate position is adjustable over a 10 to 1 range. Belt speed is adjusted over a 20 to 1 range by a manual potentiometer or automatic milliamp control signal sent to the VFD.

Key Benefits

- Manual or automatic control
- Simple and straightforward volumetric feeding to 133 cu ft/hr
- Easy to install and maintain
- Self-adjusting belt tracking

Technical Data

Feeder Accuracy
With uniform free flowing lime, an accuracy of 5% of full scale can be achieved over a 20:1 range.

Temperature Limits
Ambient: 14 to 122° F (-10 to 50° C)

Lime: 14 to 195° F (-10 to 90° C) standard 0 to 338° F (-18 to 170° C) optional.

Feed Rates and Operating Ranges
Maximum volumetric rate: Up to 133 cubic feet per hour

Maximum operating range: Belt speed of 20:1

Lime characteristics: Per AWWA Standard B202-07 Quicklime and Hydrated Lime

Electrical
Power Requirements: 115 volts ±10%, 15 amps, single phase, 60 Hz

Belt Drive Motor: ½ hp, AC TE controlled by VFD

Electrical Enclosures: Rated NEMA® 4X (IP65)

Maximum Distance from Controls to Feeder: 100 feet (30 meters)

Inputs/Outputs
Digital Inputs: Remote start/stop from a customer supplied contact closure.

Digital Outputs: A relay provides unpowered NO & NC contacts for external indication of Feeder Running. A second relay provides one NO contact as a composite alarm for motor overload (standard), belt motion fault (optional) and material flood (optional). Relay contacts are rated 10 amps at 28 VDC or 120 VAC with 80% power factor, or 6.7 amps at 240 VAC with 80% power factor.

Analog Inputs: Remote control input via 4-20 mA.

Materials of Construction
Materials in contact with the product flow include 304ss, nickel plated steel, neoprene, Hypalon® inlet seals, and feed belt of polyester substrate with a polyurethane topcoat. The feeder enclosure is unpainted 304 stainless steel.

Dimensions and Shipping Weight

	Height	Width	Length
Feeder	21”* (533mm)	21”* (533mm)	21”* (533mm)
		lbs	**kgs**
Weight		260	118
Shipping Weight		300	136

** (181/4 inches inlet to discharge) Dimensions: See WT.320.215.100.UA.CN*

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