PRE-ENGINEERED

HYDRATED LIME SYSTEM (CAN)

CARMEUSE SYSTEMS

DATA SHEET

INTEGRATED SILO, FEED, AND DUST COLLECTION SYSTEM IN A CAN

The pre-engineered Hydrated Lime Feed System in a Can provides an integrated solution for receiving, storing, feeding, and delivering over 1100 lbs/h of hydrated lime from truck to the point of application. The three-piece modular design includes a 14 ft. storage silo with a bin vent filter and a skidded module with storage tank, mixer, pump, and feeder.

Carmeuse Systems assembles, installs, pipes, wires, and integrates all components/equipment through an automated control panel prior to shipment. The modularized skid is shipped upright and fits on a conventional truck minimizing shipping costs. The upper storage silo module is shipped separately for simple connection at site.

APPLICATIONS & USE

Typical Applications

- Water Treatment
- Chemical Processing
- Mining
- Oil and Gas
- Pulp and Paper / Precipitated Calcium Carbonate (PCC)

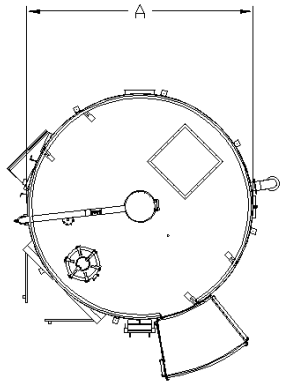
Applicability can vary by system make and model. For an evaluation, contact us: salesinquiries@carmeuse.com

FEATURES	BENEFITS
"System-in-a-can" design	Saves money and decreases equipment footprint enhancing plant utilization
Fully engineered and integrated silo, feed, and dust collection system	Receives, stores, feeds, and delivers dry chemicals to application point, optimizing material handling
Pre-assembled, piped, wired and factory tested	Reduces installation costs and time ensuring a seamless start-up
14' round (can) footprint	Provides a strong foundation improving durability
Single-piece welded silo construction (14'-0" diameter)	Ships preassembled limiting the amount of onsite construction needed
Low-profile, top access, bin vent filter mounted on roof	Minimizes dust emissions improving air quality and employee safety
Skirted interior lighting, ventilation, and heating	Provides a safe work environment enhancing employee safety
Complete automatic control system with PLC	Improves productivity limiting downtime adding value to the bottom line
Storage tank, mixer, pump, and feeder	Combines dry chemical and water, storing solutions at the desired concentration
Equipment module shipped up-right	Reduces the chance for damage during shipment for faster installation and start-up

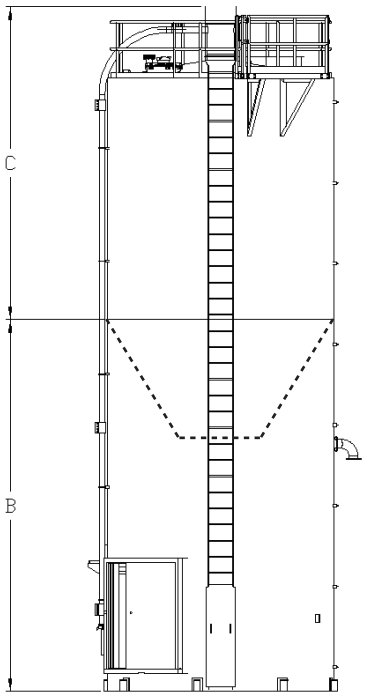
AVAILABILITY

	A (in. [mm])		B (in. [mm])		C (in. [mm])	
Hydrated Lime Feed System in a Can	168	[4268]	276 1/2	[7024]	203 1/2	[5169]

PLAN VIEW



ELEVATION VIEW



BASIC SILO COMPONENTS

- Storage Silo c/w Truck Fill Line and Pressure/Vacuum Relief Manway
- OSHA Ladder c/w Safety Climbing Protection System
- Bin Vent Filter
- Fluidization System

SILO SKIRT INTERIOR

- Bin Activator
- Pneumatically Operated Knife Gate
- Volumetric Feeder
- Mixing Tank
- Mixing Tank Agitator
- Forced Draft Wet Scrubber Blower
- Slurry Transfer Pumps or Solution Dosing Pumps
- Piping Spools for Air, Water and Slurry Tie-Ins
- Lighting, Ventilation, and Heating
- Main Operator Panel

NOTE: Information / dimensions shown are for reference only and is subject to change based on final design and applications.

SPECIFICATIONS

HYDRATED LIME SYSTEM

- **Storage Silo Capacity:** 2,611 ft³ [73.9 m³]
- **Lime Throughput:** 1152 lb/h [36 ft³/h @ 32 lb/ft³]
- **Slurry Concentration:** Up to 20%
- **Feeder:** Operates at fixed speed for batch operation
- **Mixing Tank:** 587 USgal [2.2 m³]
- **Dust Suppression System:** 222 CFM [6.3 m³/min] at 1.1 in [28 mm] w.c.
- **Transfer Pumps:** 50 USgpm [11.4 m³/h] at 50 ft [15.2 m] TDH
- **Electrical and Instrumentation Approval:** CSA, FM, $_{C}UL_{US}$, CE Marking
- **Process / Utility Requirements**
  - Mixing Water: 19.7 USgpm [4.5 m³/h] at 40 psig [276 kPag]
  - Electrical Load: 21 kW (3Ø) and 2 kW (1Ø)
  - Instrument Air: Dry, oil-free, 67 CFM [114 m³/h] at 100 psig [690 kPag]

OPTIONS

- Aeration piping manifold in Galvanized Carbon Steel
- Upgrade primary equipment's and piping material of construction to 304 or 316 Stainless Steel

MATERIAL OF CONSTRUCTION / PAINT SPEC

- **Storage Silo:**
  - Material: Carbon Steel
  - Surface Preparation: SSPC SP6
  - Interior:
    - (Product area) Finish: Sherwin Williams High Solids Catalyzed Epoxy, 4-6 mils DFT
    - (Product area) Finish Color: Tint Grey
    - (Skirt area) Finish: Sherwin Williams High Solids Catalyzed Epoxy, 4-6 mils DFT
    - (Skirt area) Finish Color: White
  - Exterior:
    - Primer: Sherwin Williams 2.8 V.O.C. Catalyzed Epoxy, 1.8-2.2 mils DFT, White
    - Finish: Sherwin Williams Polane H.S. Plus Polyurethane Enamel, 1.25-1.5 mils DFT
    - Finish Color: Gloss White
- **Mixing Tank and Skid:**
  - Material: Carbon Steel
  - Surface Preparation: SSPC SP6
  - Exterior:
    - Primer: Carboline Carboguard 635 VOC, 3-5 mils DFT
    - Finish: Carboline Carboxane 2000, 5-7 mils DFT
    - Finish Color: RAL 7012 Basalt Grey or RAL 9003 White
- **Tank Mixer:**
  - Material (shaft and impellers): 304 Stainless Steel
- **Piping:**
  - Instrument Air: Galvanized Carbon Steel
  - Water: PVC
  - Slurry: Chlorinated Polyvinyl Chloride (CPVC)
  - Solution: Polyvinyl Chloride (PVC)

CARMEUSE
SYSTEMS

YOUR **LIME HANDLING** EXPERTS™

Carmeuse Systems is your trusted partner for designing, integrating, and upgrading lime handling systems. As part of the Carmeuse Group, our teams have unrivaled expertise in understanding the role of lime handling equipment within your operation. From selecting the appropriate raw material, to system engineering, enhancements, and maintenance, our teams provide End-2-End support and guidance. We make complex projects seem simple and help our customers every step of the way. Let's start a conversation, contact us at:

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