

1721 Eastern Avenue, Suite 15, Sacramento, CA 95864
P (916) 481-9017 C (916) 798-4176 www.slurryengineering.com

Slurry Engineering (DSS) 60 Ton Vertical Silo

Capacity – 1400 cu. ft. (will hold two loads of Portland)

Auger Feeder Motor 10 HP, 13 FLA at 460V 3-Phase; Auger Diameter – 10-inches

Auger Feeder Motor 20 HP, 26 FLA at 460V 3-Phase; Auger Diameter – 12-inches

Tank Diameter: 8'6"

Silo Height: 37'

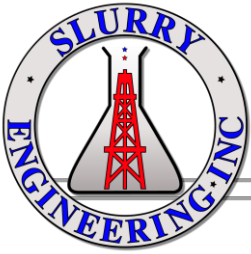
Silo Description

Portable Silos– specially designed portable vertical storage system for bulk powder products.

From **1200cf** to **4800cf**

Featured Options

- Dual Feed Positive Drive
- 7", 10" or 12" Diameter Auger
- 7.5hp to 25hp 3 Phase Motor & Gear Box Drive
- 150sq. ft to 400sq. ft. Dust Collector
- Starter Panel
- Upper & Lower Level Indicator with light and Horn Alarm
- Cone Fluidizers
- Caged Ladder & Rail Package
- Heavy Duty Axle Trailer with light Package
- Other Custom Options Available to Fit Your Needs



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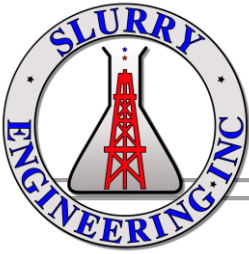
Portable 1400c.f. Silo

The Standard DSS 1400c.f. Portable Silo is equipped with all the necessary equipment for operation. Electrical power to the panel and an air supply is all that is needed. The unique feature of this silo is its versatility. A crane is required to set up this unit in the field.

Be sure to keep the silo as moisture free as possible. Foreign objects or hardened cement will cause the auger system to jam. Clean out holes are installed in the auger to free jammed material. If the silo is not to be used for an extended length of time it should be cleaned out completely, as not to have hardened material dislodge into the auger system upon resumption of use. The auger system is designed to start under a full load, if some problem occurs clean out gates are installed at the auger inlet points so material can be cleared out from the auger in emergency situations. Keep the bearings greased (do not over grease) and check the lubricant level in the gear box, as it is not to run dry. Running dry will cause major damage to power transmission unit. Keep the auger discharge free of cement build up. Remove the end of the discharge spout occasionally and free any hardened materials. Neglect causes the drive to be over worked and could cause the motor to burn out.

The silo is equipped with a dust collector. Be sure to check the dust socks for excess build up of cement. The socks need to be checked to make sure they stay on the holders. Neglect may cause damage to the dust socks or possible damage to the silo. Care of these units depends on how much they are used.

The silo is equipped with an emergency pop-off valve. If the socks or air transfer system would plug, the valve would lift up relieving the pressure. The valve is adjusted by DSS but may need further adjusting on site. **DO NOT OVERTIGHTEN.** Do not over fill the silo. Over filling of this unit could cause a hazardous situation. The air transfer system will plug and the pop-off valve may also be rendered unable to function, causing the dust collector to break loose or the top to be forced open or possibly off. **BE CAREFUL NOT TO OVERFILL**



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These instructions are a guideline to standing up a Diversified Storage System 1400c.f. (350Brrl) vertical silo.

Equipment Required:

1. Crane - 35 ton is typical.
2. Spreader bar with leads - 8'-6" spreader bar with 10' leads is typical.
3. Concrete pad or suitable foundation.
4. Anchor bolts.

Crane - The size of the crane depends on the size of the silo and proximity of the crane to the silo. The crane company should have the final say in the size of the crane. The information the crane company will need.

1. The size of the silo - the 1400c.f. silo weights 12,000lbs empty , it is 8'-6" dia. It is 37' tall.
2. There are two lifting eyelets on top.
3. How close can the crane get to where it will pick-up and set down the silo.

Foundation - The silo needs a suitable foundation able to withstand the weight of the silo fully loaded, that can be up to 180,000 lbs, depending on the product. It can be a concrete foundation or compacted dirt with steel freeway plates over top. Local building codes and soil condition need to be followed when deciding on the foundation. **It is the customers responsibility to determine the proper foundation.**

Anchor Silo - Once the silo is set up it should be anchored down to the foundation. The silo has predrilled holes in each base plate for this. The size of the anchors does depend on local building codes.

Silo Prep To Be Moved—The silo **MUST** be **100% EMPTY** before you move the silo. Run the air fluidizers to help empty silo out. To make sure your auger is empty take off side plate. Make sure your bag house bags are cleaned out by vibrating them. Look inside silo man-way to verify silo is empty before taking silo down.



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It is best to place the lifting Straps on the outside of the Railing when standing up the silo so as to not damage the hand railings.



The crane operator will pull up the silo. The legs and base of the silo are strong enough to support the silo being lifted. Once the silo is vertical the crane will set it down in the desired location.



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Collector Specifications

| | |
|--|--------------|
| Total Filtration Area | 225 Sq. Ft. |
| Air to Cloth Ratio (ACFM/Sq.') | 2.5 |
| Pressure Drop (in. H ₂ O) | 6" |
| Air Capacity | 675 C.F.M. |
| Outlet Area (Sq.') | .58 |
| Cleaning Method | Shaker Plate |
| Vibrator (Air or Electric) | Rotary Style |
| Vibrator Air Consumption (High Press.) | 8 CFM (Max) |
| Vibrator Power | 120 V/ 1 ph |
| Duty Cycle | 1.5 hours |
| Normal Operating Pressure on Truck | 8 - 13 PSI * |
| Filter Servicing Pressure on Truck | 15 PSI * |
| Over-pressure relief settings on Truck | 18 PSI * |

** Dust Collector performance is measured by the back pressure gauge on truck product line. Truck line pressure gauge is acceptable for determining operating pressures. (See *† Below)*

Filter Bag Specifications

| | |
|--------------------------------|--------------------|
| Filter Bag Count | 18 hung style |
| Replacement Filter Bag Model # | DC 225S |
| Dimensions | 8" OD X 72" Height |
| Filter Area (Per) | 8.33 Sq. ' |
| Material Weight | 9 oz. / Sq. Yd. |
| Fiber | 100% Polyester |
| Construction | Spun/Spun |
| Permeability | 25 c.f.m. |
| Mullen Burst Dry | 500 PSI |
| Temperature Limit | 275 Deg. F. |
| Efficiency (PM-10) | 99.99% |

Vibrator Specifications

| | |
|--------------------------|--------------|
| Air Vibrator | Model V-190 |
| VPM @ 60 PSI | 4200 |
| CFM @ 60 PSI | 7.5 CFM |
| Noise @ 60 PSI | 70 db |
| Control | Manual |
| Electric Vibrator | Model 2P-75 |
| Voltage/amps | 115v/0.5 amp |
| VPM | 3600 |
| Noise | 60 db. |
| Control | Auto/Manual |

Collector Performance (PM-Reg.)**

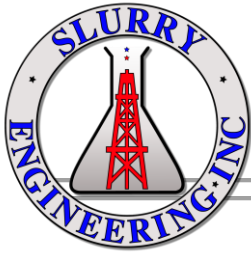
| | | |
|-------------------|----------------|------------------|
| 0.5 - 1.0 Micron | 99.9 % Passing | 0.10 % Retained |
| 1.0 - 20.0 Micron | 0.02 % Passing | 99.98 % Retained |
| > 20.0 Micron | 0.01% Passing | 99.99 % Retained |

** Typical Portland Cement is 44 Micron

Mounting Options

- Bin Vent Mount (Silo Top)
- Base Mount (Optional Base Needed)
- Trailer Mount (Portable Applications)

*† Dust Collector performance can be reduced or fail if silo is overfilled. Warranty is voided if there are no silo overfill or overpressure preventing systems installed. Standard one year warranty for all actuating parts and timers (not filters). Magnehelic gauge is optional if needed.



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Collector Specifications

| | |
|--|--------------|
| Total Filtration Area | 150 Sq. Ft. |
| Air to Cloth Ratio (ACFM/Sq.') | 2.5 |
| Pressure Drop (in. H 2O) | 6" |
| Air Capacity | 375 C.F.M. |
| Outlet Area (Sq.') | .58 |
| Cleaning Method | Shaker Plate |
| Vibrator (Air or Electric) | Rotary Style |
| Vibrator Air Consumption (High Press.) | 8 CFM (Max) |
| Vibrator Power | 120 V/ 1 ph |
| Duty Cycle | 1.5 hours |
| Normal Operating Pressure | 8 - 15 PSI * |
| Max Operating Pressure | 20 PSI * |
| Over pressure relief settings | 18 PSI * |

Filter Bag Specifications

| | |
|--------------------------------|--------------------|
| Filter Bag Count | 18 hung style |
| Replacement Filter Bag Model # | DC150S |
| Dimensions | 8" OD X 48" Height |
| Filter Area (Per) | 8.33 Sq. ' |
| Material Weight | 9 oz. / Sq. Yd. |
| Fiber | 100% Polyester |
| Construction | Spun/Spun |
| Permeability | 25 c.f.m. |
| Mullen Burst Dry | 500 PSI |
| Temperature Limit | 275 Deg. F. |
| Efficiency (PM-10) | 99.99% |

Vibrator Specifications

| | |
|--------------------------|--------------|
| Air Vibrator | Model V-190 |
| VPM @ 60 PSI | 4200 |
| CFM @ 60 PSI | 7.5 CFM |
| Noise @ 60 PSI | 70 db |
| Control | Manual |
| Electric Vibrator | Model 2P-75 |
| Voltage/amps | 115v/0.5 amp |
| VPM | 3600 |
| Noise | 60 db. |
| Control | Auto/Manual |

Collector Performance (PM-Reg.)**

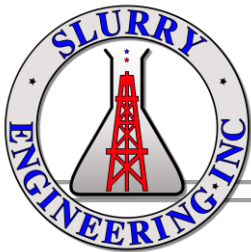
| | |
|-------------------|----------------|
| 0.0 - 0.5 Micron | 99.98% Passing |
| 0.5- 1.0 Micron | 0.02 % Passing |
| 1.0 - 20.0 Micron | 0.0% Passing |

** Typical Portland Cement is 44 Micron

Mounting Options

- Bin Vent Mount (Silo Top)
- Base Mount (Optional Base Needed)
- Trailer Mount (Portable Applications)

* This style unit does not use magnahelic gauge. Dust Collector performance is measured by back pressure at load line.



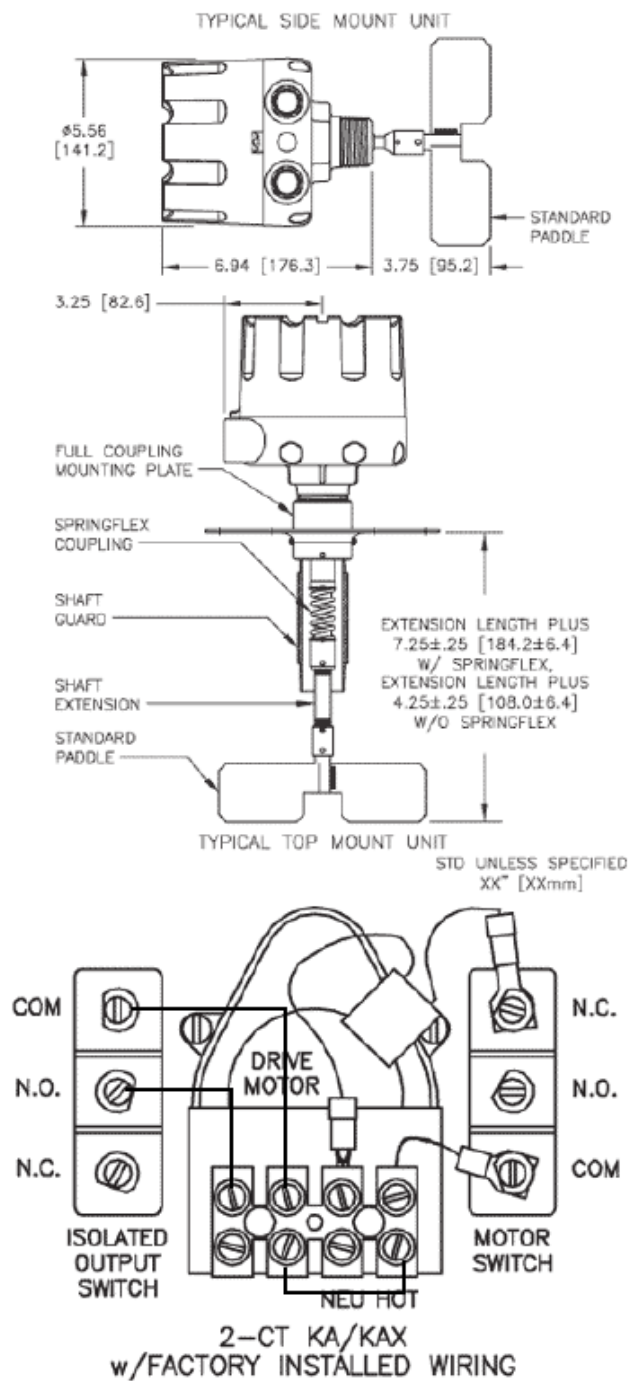
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High Level Indicator

Monitor's line of rotary paddle bin monitors consists of the most reliable, rugged and economical point level control sensors available for detection of dry bulk materials. These easy to install units are proven performers in a wide variety of bulk materials. Monitor's paddle units can be used to eliminate bin overflow, maintain a predetermined material level, indicate plugging of conveyors and pneumatic lines or provide any of a number of level control functions. Unlike many other available paddle units, Monitor's paddle level indicators incorporate a feature that automatically shuts off the motor of the unit when the paddle is in a stalled position, which both extends the life of the motor and minimizes maintenance.

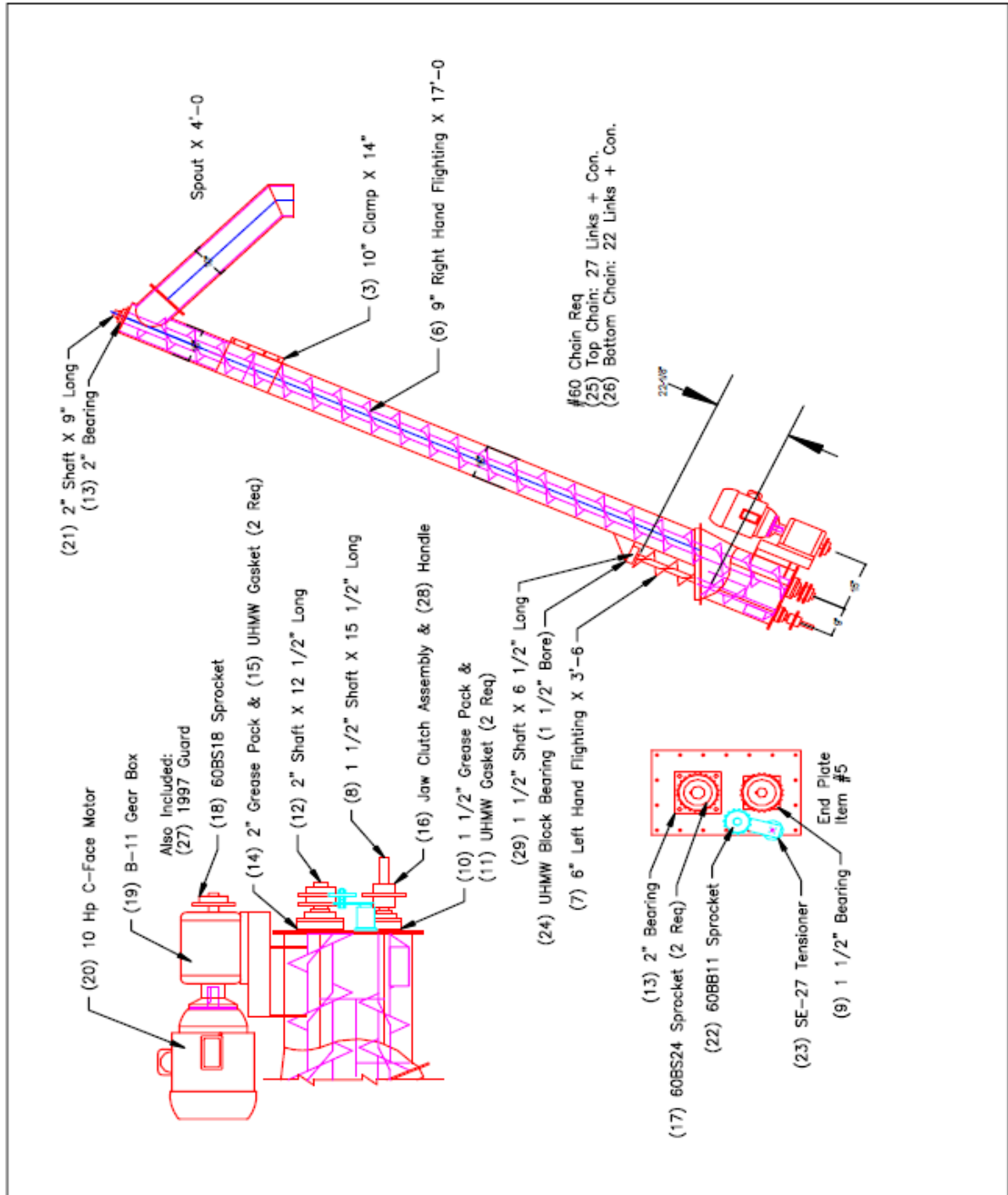
The operation of Monitor's paddle level control products is quite simple. The unit is installed through the wall of the vessel, so that the paddle protrudes inside the vessel. A small electric motor drives a paddle which rotates freely in the absence of material.

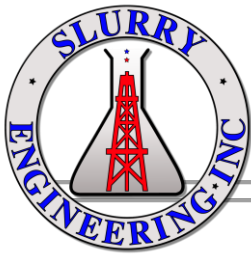
When the paddle is impeded by material, the motor rotates within the housing which triggers two switches. The first switch is a "dry" electrical contact closure that is available to control a process function or alarm circuit. The second switch cuts the power to the motor, preventing a locked rotor condition, thus extending motor life. This also activates the signaling device which is wired through that same motor switch. When the material level drops, the loaded stretched tension spring returns the motor to its original running position and the unit is reactivated.



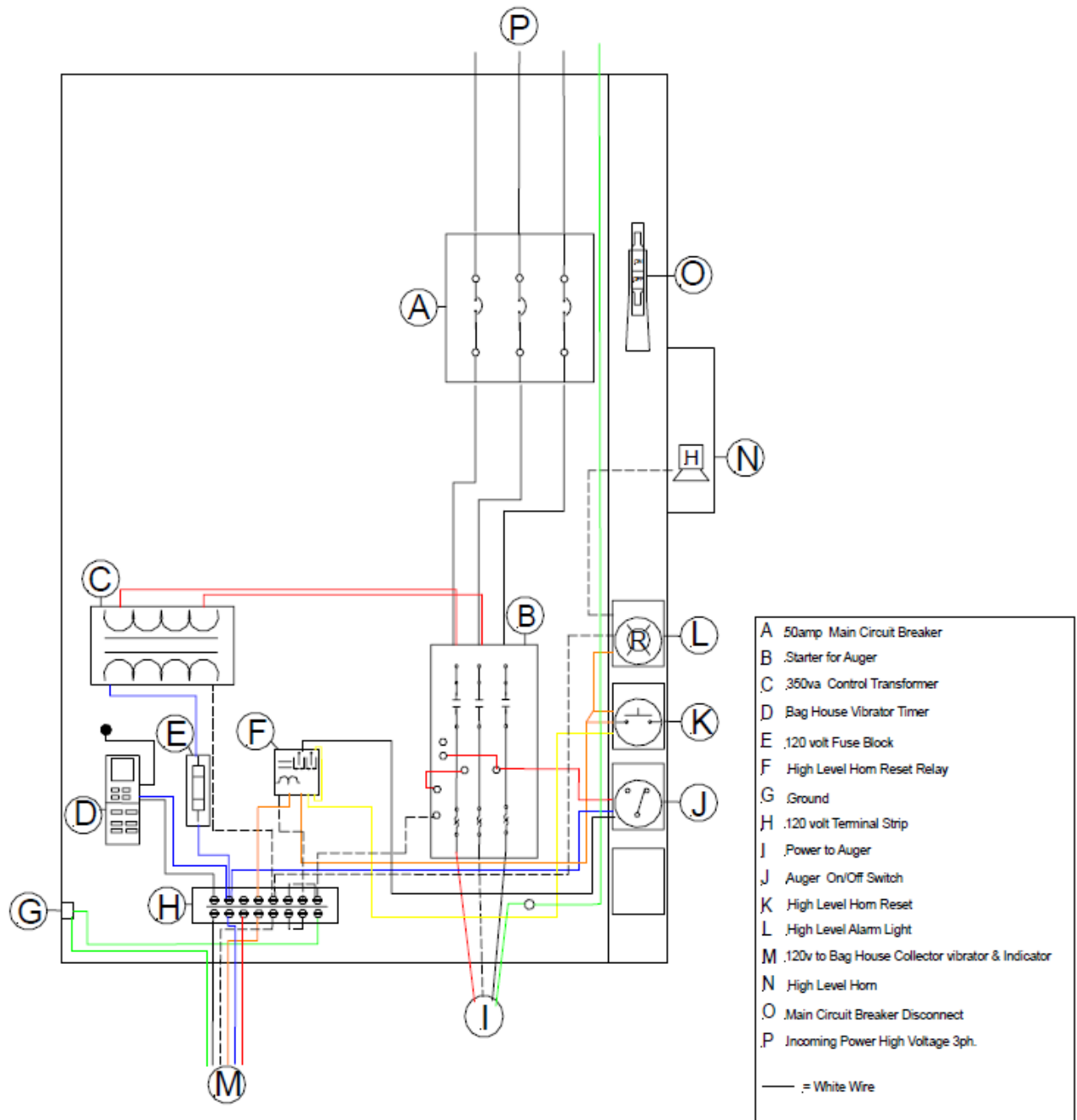


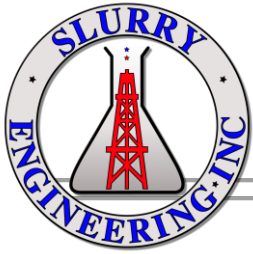
Auger Details





ELECTRICAL PANEL





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