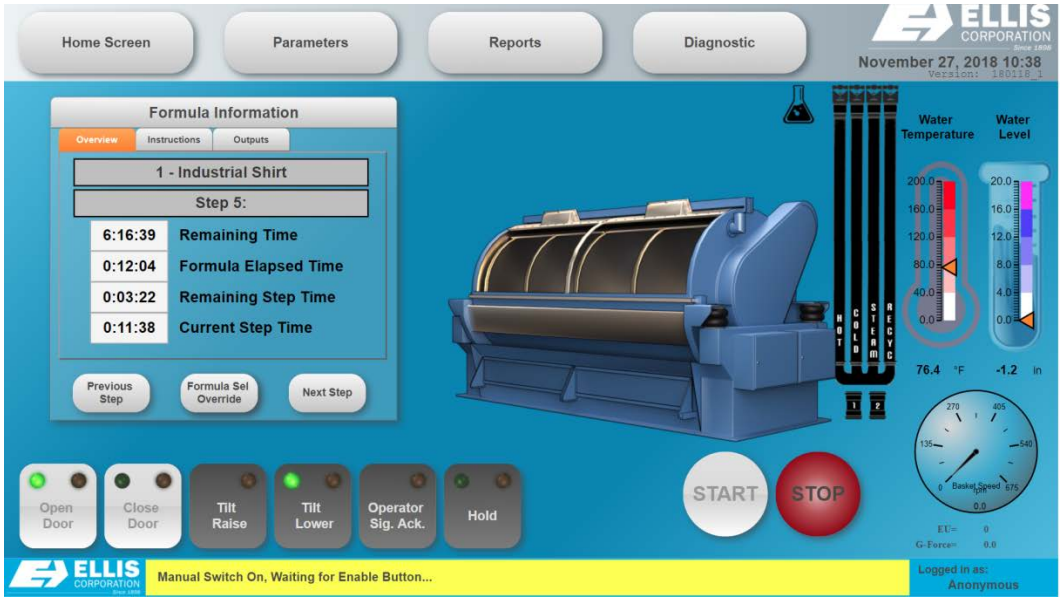
ELLIS CORPORATION
Since 1898

Washer Extractor

Z452, Z462, Z472

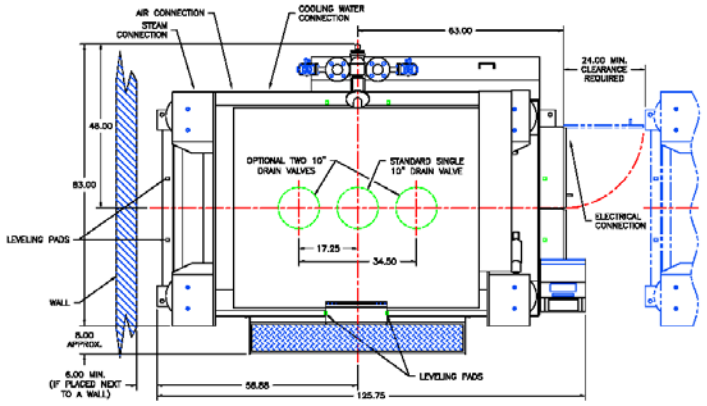
uptime™
Intelligent Machine Management System

Sideloader Installation Instructions.

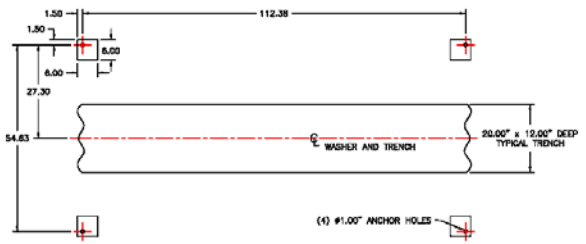


Installation Models Z452 Z462 Z472

Elevation Z452



PLAN VIEW



MACHINE MOUNTING PLAN VIEW

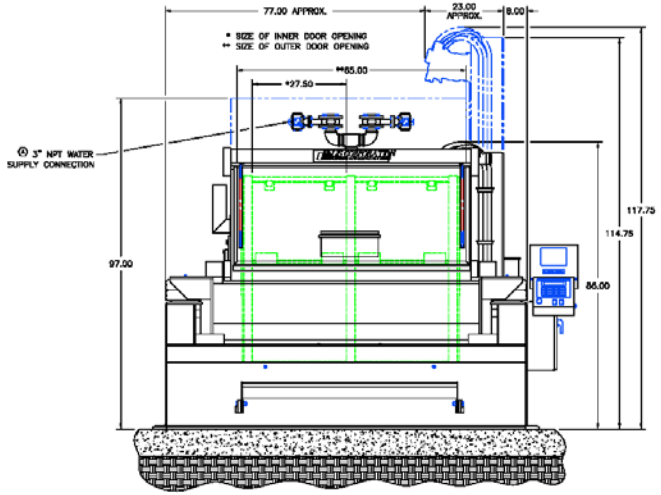
NOTE: LOCATE MOUNTING HOLES DIRECTLY FROM MACHINE AFTER INSTALLATION

ELECTRICAL SUPPLY REQUIREMENTS

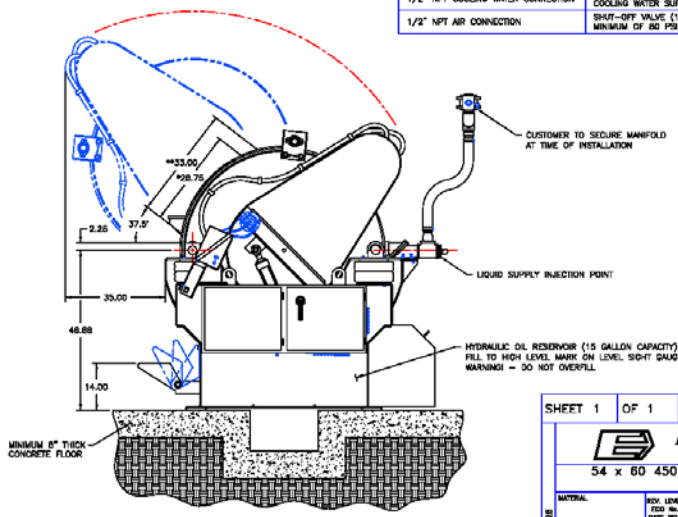
VOLTAGE	DISCONNECT SIZE	CLASS RK5 TIME DELAY FUSE, AMPS	MINIMUM WIRE SIZE	20 HP MOTOR FULL LOAD AMPS
200/208	100	90	#3	62.1
220/230/240	100	90	#3	54
460/480	60	40	#8	27
575	60	30	#10	22

		CUSTOMER SUPPLIED MATERIAL	QTY.
	ø1.00" ANCHOR HOLES	ANCHOR BOLTS – ø0.75" x 8-1/2" LONG MINIMUM	4
	HYDRAULIC OIL	MINERAL BASED WITH A MINIMUM VISCOSITY OF 300 SUS (ISOGRL #ISTC-28)	15 GAL.
	1-1/4" NPT STEAM CONNECTION	SHUT-OFF VALVE (1-1/4" NPT) WITH LOCKOUT, FOR STEAM SUPPLY	1
Ⓐ	3" NPT WATER CONNECTION	SHUT-OFF VALVES (3" NPT) WITH LOCKOUT, FOR HOT AND COLD WATER SUPPLY	2
	1/2" NPT COOLING WATER CONNECTION	SHUT-OFF VALVE (1/2" NPT) FOR HYDRAULIC OIL COOLING WATER SUPPLY	1
	1/2" NPT AIR CONNECTION	SHUT-OFF VALVE (1/2" NPT) FOR AIR SUPPLY – MINIMUM OF 80 PSI AIR SUPPLY	1

WARNING! WHEN WASHING ARTICLES THAT GENERATE VOLATILE FUMES, THIS MACHINE MUST BE CONNECTED TO A POWER VENT SYSTEM TO REMOVE THOSE FUMES.



FRONT ELEVATION VIEW



SIDE ELEVATION VIEW

SHEET 1 OF 1 PART #:

ELLIS CORPORATION
ENGINEERS AND MANUFACTURERS

54 x 60 450 LB. HI-SPEED WASHER EXTRACTOR
INSTALLATION DRAWING

MATERIAL: REV. LEVEL A 3/7/19

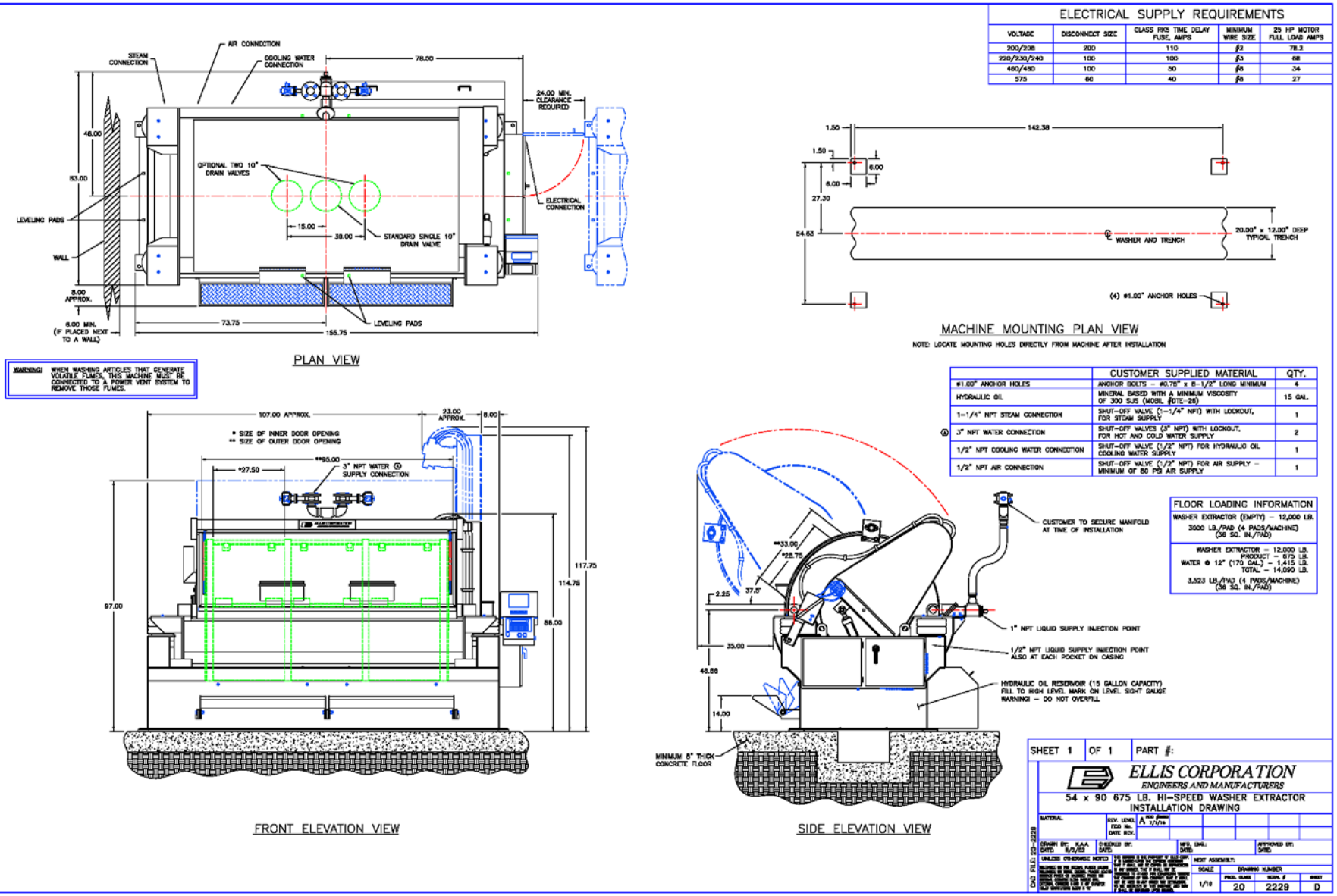
DRAWN BY: K.A.A. DATE: 8/23/02 CHECKED BY: DATE: MFG. ENG.: DATE: APPROVED BY: DATE:

UNLESS OTHERWISE NOTED NEXT ASSEMBLY:

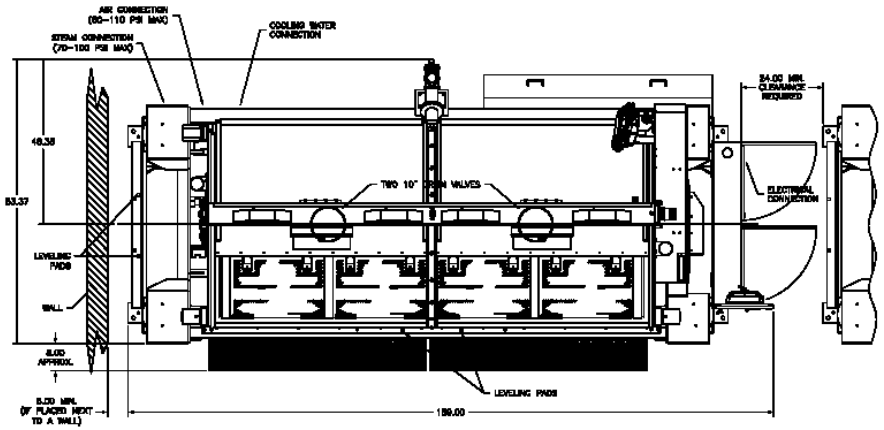
SCALE 1/10 DRAWING NUMBER: PROG. CLASS 20 TOOL # 2228 SHEET D

CAD FILE: 20-2228

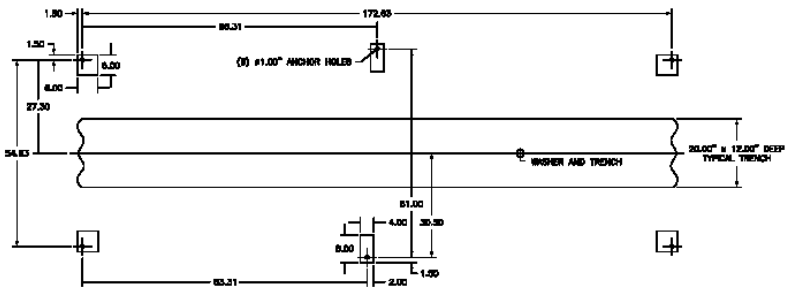
Elevation Z462



Elevation Z472



PLAN VIEW



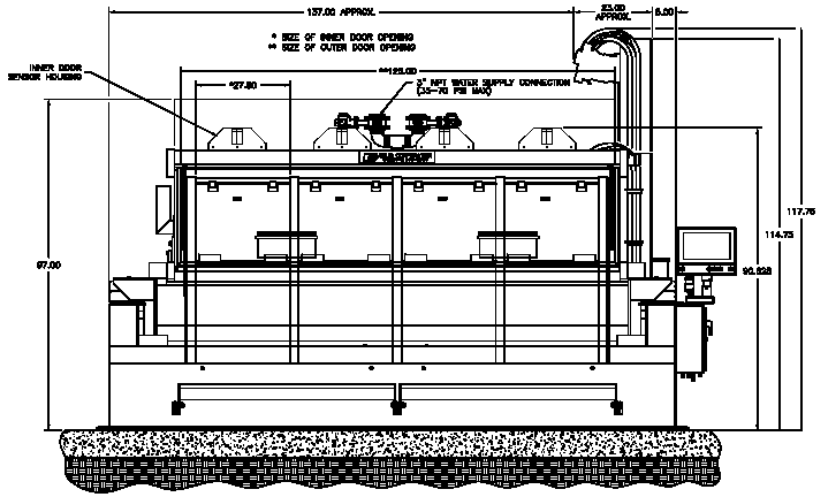
MACHINE MOUNTING PLAN VIEW

NOTE: LOCATE MOUNTING HOLES DIRECTLY FROM MACHINE AFTER INSTALLATION

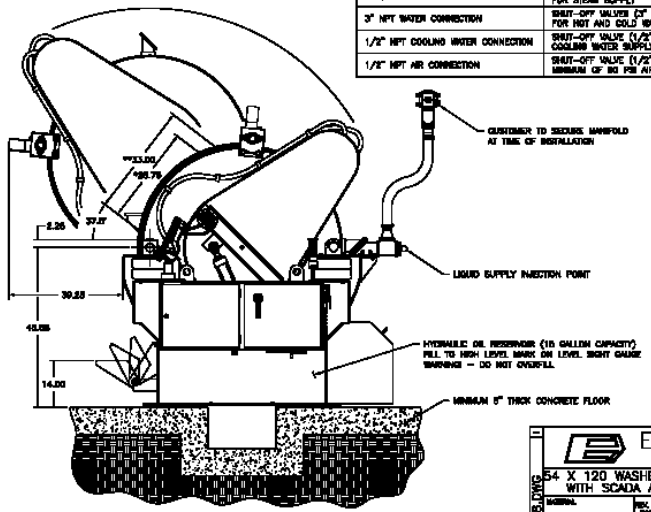
ELECTRICAL SUPPLY REQUIREMENTS

VOLTAGE	DISCONNECT SIZE	CLASS RK5 TIME DELAY FUSE, AMPS	MINIMUM WIRE SIZE	30 HP MOTOR FULL LOAD AMPS
200/208	200	125	#1	82
220/230/240	200	110	#2	80
460/480	100	60	#6	40
575	80	50	#8	32

	CUSTOMER SUPPLIED MATERIAL	QTY.
ø1.00" ANCHOR HOLES	ANCHOR BOLTS – ø0.75" x 8–1/2" LONG MINIMUM	8
HYDRAULIC OIL	MINERAL BASED WITH A MINIMUM VISCOSITY OF 300 SUS (MODEL NOTE–26)	15 GAL.
1–1/4" NPT STEAM CONNECTION	SHUT–OFF VALVE (1–1/4" NPT) WITH LOCKOUT, FOR STEAM SUPPLY	1
3" NPT WATER CONNECTION	SHUT–OFF VALVES (3" NPT) WITH LOCKOUT, FOR HOT AND COLD WATER SUPPLY	2
1/2" NPT COOLING WATER CONNECTION	SHUT–OFF VALVE (1/2" NPT) FOR HYDRAULIC OIL COOLING WATER SUPPLY	1
1/2" NPT AIR CONNECTION	SHUT–OFF VALVE (1/2" NPT) FOR AIR SUPPLY – MINIMUM OF 80 PSI AIR SUPPLY	1



FRONT ELEVATION VIEW



SIDE ELEVATION VIEW

FLOOR LOADING INFORMATION

WASHER EXTRACTOR (EMPTY) – 14,000 LB.
2,333 LB./PAD (6 PADS/MACHINE)
66 LB./SQ. IN. (36 SQ. IN./PAD)

WASHER EXTRACTOR – 14,000 LB.
PRODUCT – 900 LB.
WATER @ 12" (57.5 GAL.) – 2,275 LB.
TOTAL – 17,175 LB.
2,863 LB./PAD (6 PADS/MACHINE)
79.5 LB./SQ. IN. (36 SQ. IN./PAD)

ELLIS CORPORATION
ENGINEERS AND MANUFACTURERS
54 X 120 WASHER EXTRACTOR INSTALLATION DRAWING WITH SCADA AND INNER DOOR SENSOR OPTION

DWG FILE 2V2708.DWG

SCALE	DRAWING NUMBER	
NTS	20 2708	D

Drain Diverter Pans

- Drain diverter pans are available in the event you are not able to center the new machine over the trench. One will be required for each machine drain.
- Once properly positioned, they can be anchored to the floor.
- We offer many different drain pan options available to our customers.
- Please inquire with your sales representative or Customer support dpt.

Receiving the New Machine

When the truck arrives at your plant remove the plastic tarp from the machine while it is still on the truck. Inspect the machine for any shipping damage. If any damage is seen it must be noted on the drivers documents before you sign for the machine. Notify the Ellis Customer Support Team of the damage at 1-800-611-6806.

Unload the truck. Remove the shipping skids and move the machine into its final position.

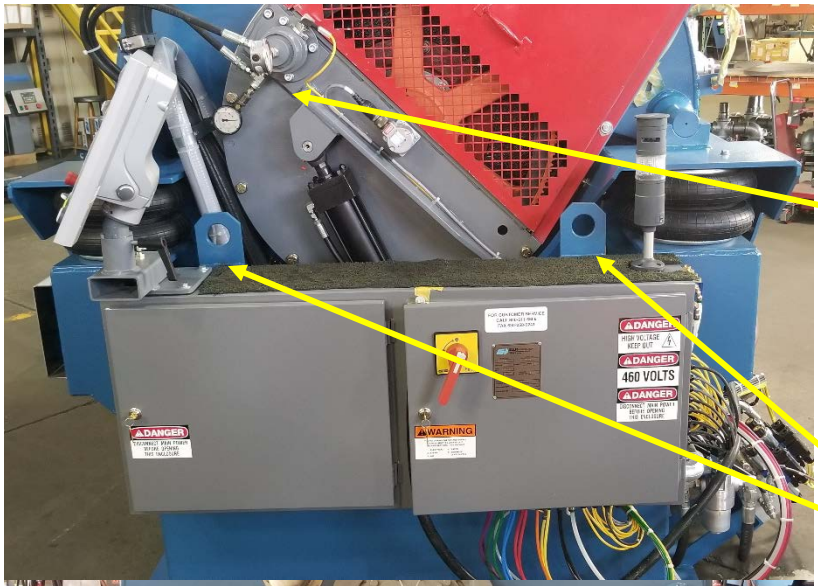
Shipping Weights:

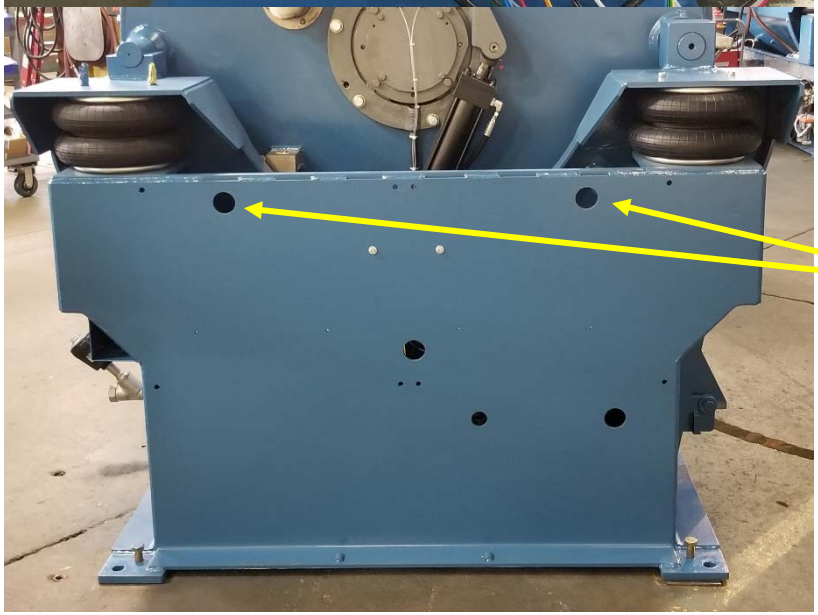
Z452 = 10,500 lbs (4,762Kg)
Z462 = 12,500 lbs (5,670 Kg)
Z472 = 14,500 lbs (6,575 Kg)

Note:

If lifting with a cherry picker a spreader bar will be required.

Lifting Points





Notes:

1) A spreader bar is required to prevent damage to the machine.

2) The spotting cylinder hose fitting may be damaged by the lifting sling if the spreader bar is not long enough.

3) You may need to disconnect the outer most cylinder lock hose.

Drive End Lifting Eyes

Non-Drive End Lifting Eyes

Installing Control Interface Screen

Unpacking the Uptime control

The Uptime controller will be crated and shipped with the machine. Carefully remove the controller from the crate and inspect the controller for any possible shipping damage.

All mounting hardware will be in a package inside the control/PLC cabinet.

Make sure the ¼" water level sensing tubing is installed to the Uptime controller mount.

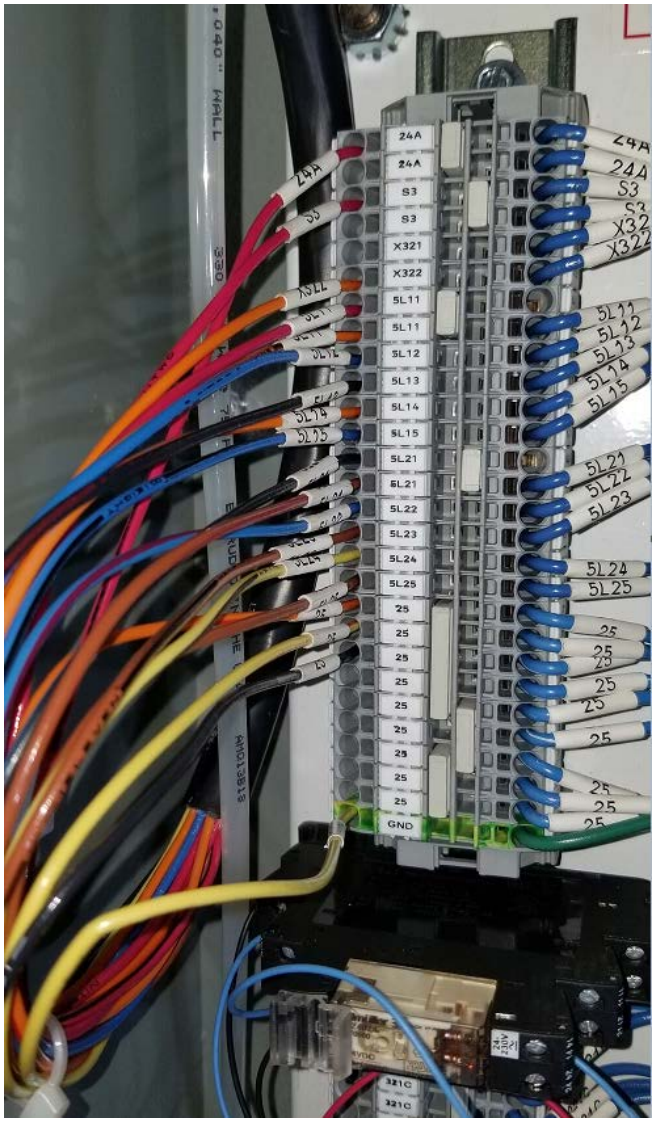
Installing the Uptime Control

Insert the 19 conductor and Ethernet cables through the mount, into the cabinet. You may need to run the cable threw the round mount and then out of the rectangle opening before getting the cables into the cabinet.

The ratchet style quick lever is for easy screen position changes.
The set screw should be installed to the front of the mount.

After the cables are in the control cabinet, remove the vertical wire raceway cover to install the Ethernet cable to the Ewon port 1 or 3 (whichever is open). You can now put the wire raceway cover back on.
Next the 19 conductor cable can be zip tied to the adhesive backed mount on the left side cabinet wall.

Terminating the 19 Conductor Cable



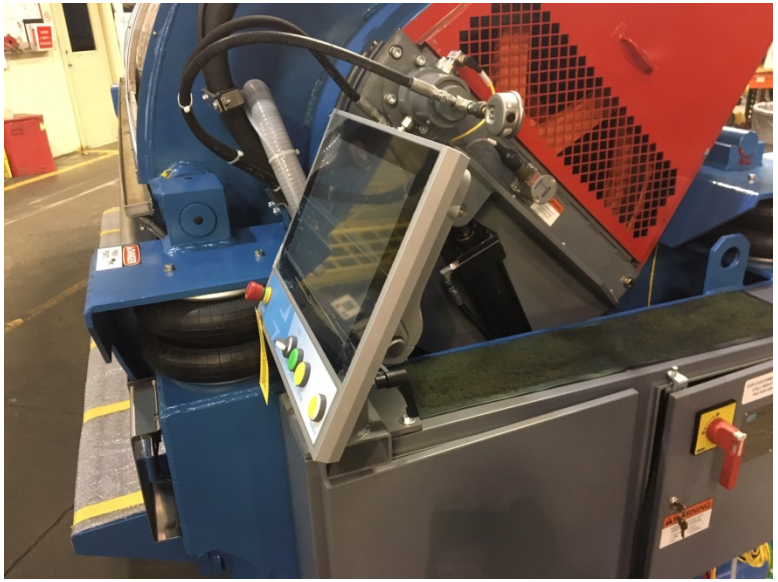
The 19 conductor cable is labelled and should be terminated to the vertical terminal strip. An 1/8” Terminal screwdriver will be needed to terminate the 19 conductors. You will need to complete this task to perform the phase 2 leveling. The machine SHOULD NOT be grouted until the phase 2 leveling is set.

The black mount cap can now be installed. It is a snug fit and a hammer might be needed for the installation. Keep in mind it is plastic.

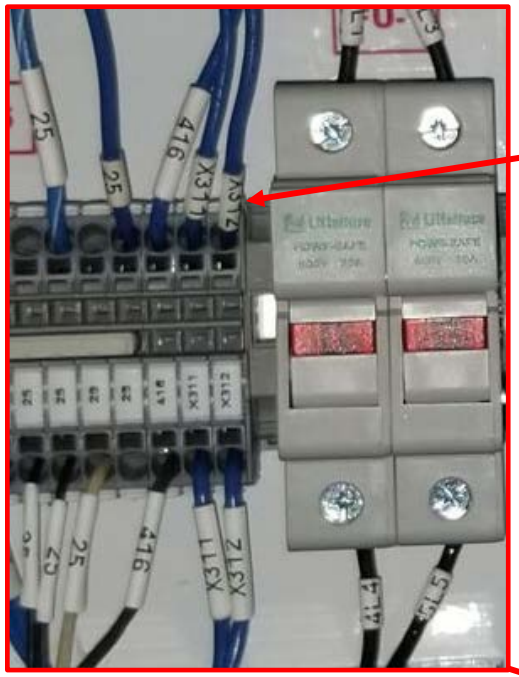
Uptime Finished Product

The swivel mount has stops to prevent damage to the controller. The position locking device requires the handle to be pressed in before the handle will rotate to loosen or tighten the mount. After you achieve the desired position you can then secure the position of the controller.

The controllers display can face forward or to the side. The final position of the display is open to your liking or requirements.



Installation of the Safety Beacon/Siren

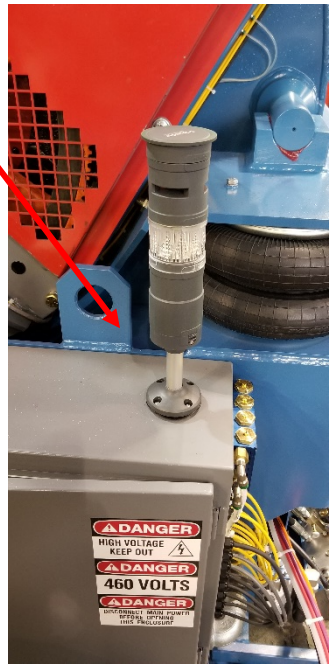


The safety beacon/siren is installed with 4 small fasteners.

The wires are labelled as shown (X311, X312, and 25)

The 3 phase power should not be energized while installing the device. (check the incoming power at the disconnect inside the high voltage cabinet)

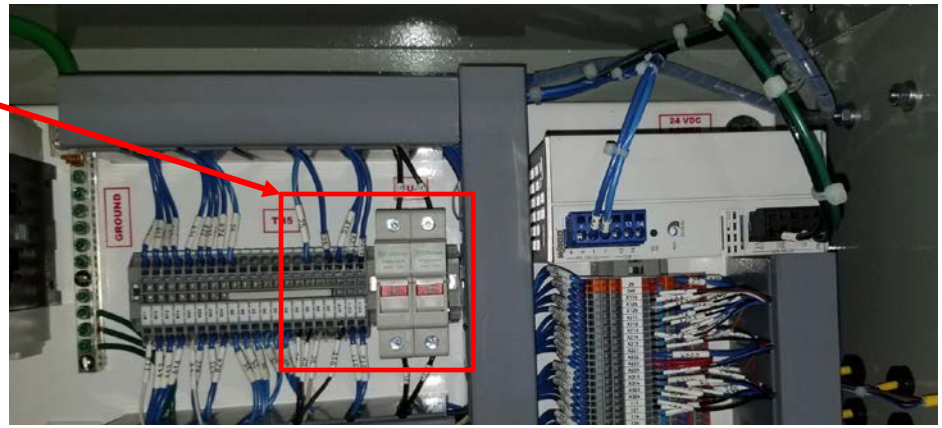
A small 1/8” terminal strip screwdriver will be needed for wire terminations.



The 24vdc power supply may need to be removed for the installation.

The power supply is din rail mounted, a pull tab is located on the right side of the power supply in the rear (towards the back board).

The wires do not need to be removed from the power supply.



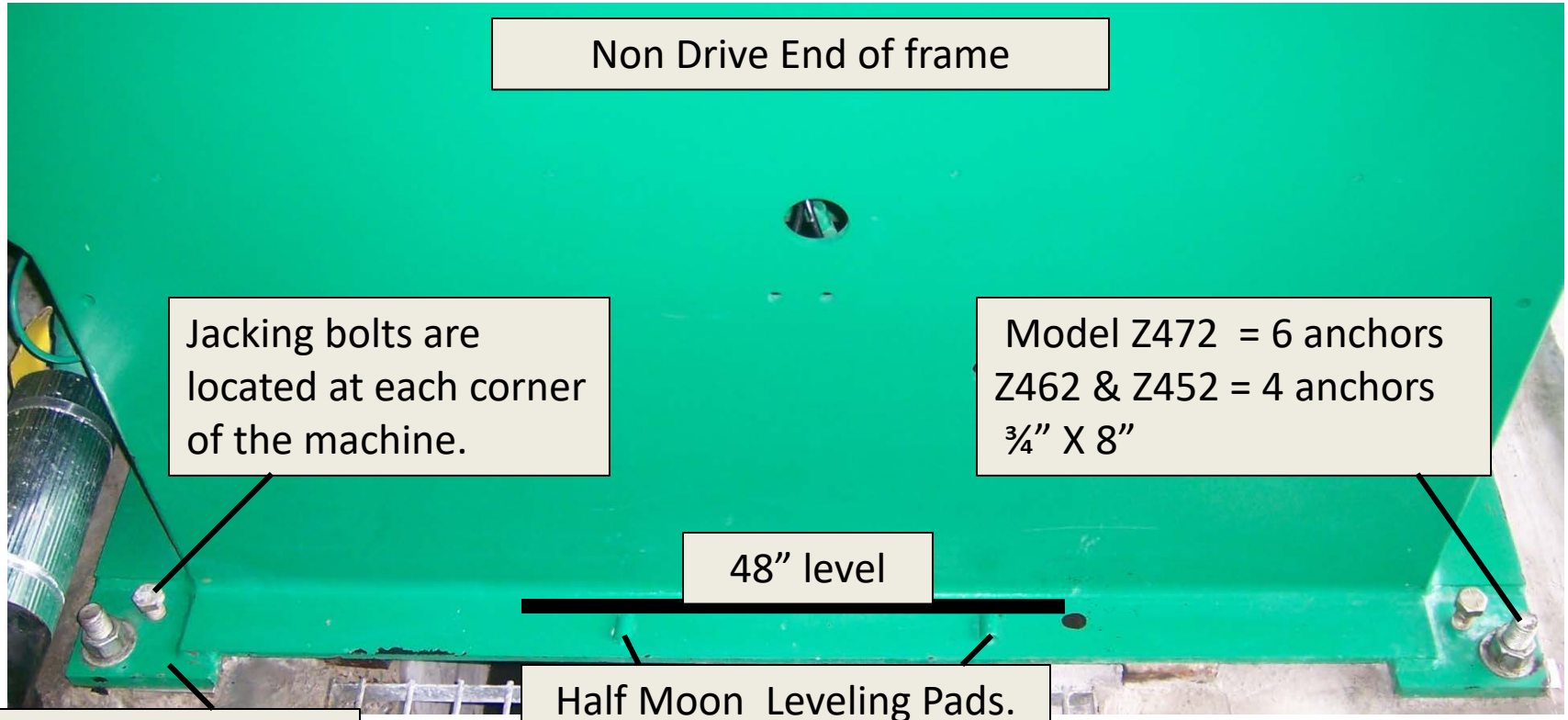
Leveling & Anchoring

Phase One Leveling

Note:

The more accurately you do on phase one leveling the easier phase two leveling will be. DO NOT grout the machine until the Ellis Technician is onsite, and phase 2 has been confirmed.

Phase One Leveling



Note:

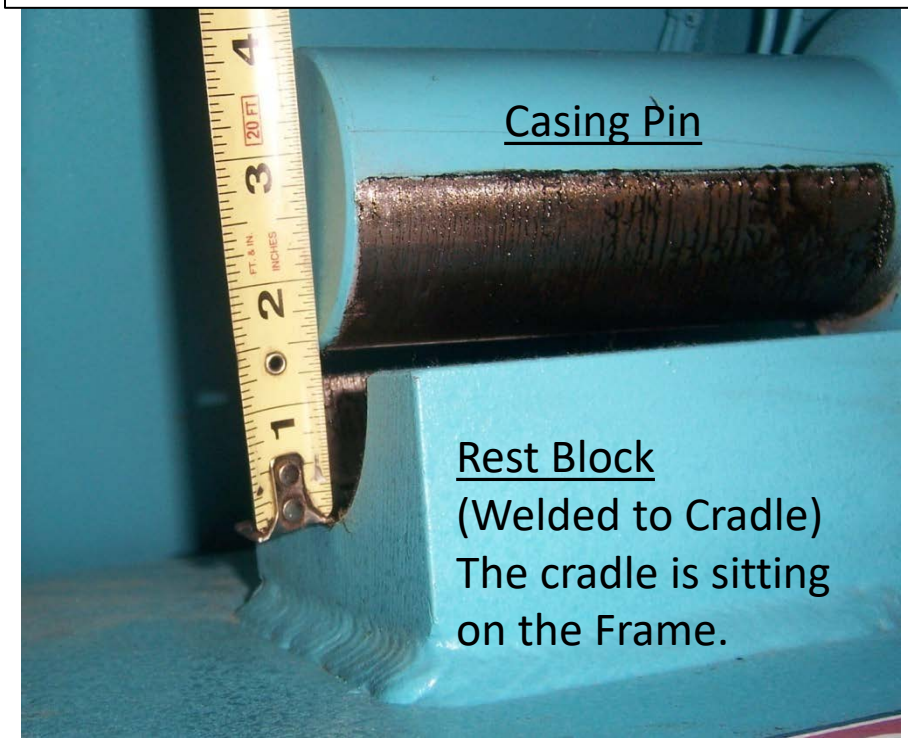
Use the jacking bolts to raise the corners. Place ¼" plates under the jacking bolts for raising corners. Insert shims as required and lower the frame on the shims. Use stainless steel shims if possible. **DO NOT GROUT** the machine until phase two leveling is completed. Phase two leveling should be done with an Ellis Field Service Technician.

Phase Two Leveling

Goal:

Phase two leveling is important to eliminate casing twist. This is done by ensuring both casing pins make contact with the rest blocks at the same time when the casing is lowered.

Note: Complete this task after the oil reservoir is filled and the control is powered.



Measure:

Raise the casing an inch or two out of the rest blocks. Measure the air gap under both casing pins to the resting blocks. If they are exactly the same gap, you are done.

Adjustment:

If the measurement proves the two sides are different, adjust rear jacking bolts accordingly.

Example:

The gap is 1/8” bigger on the non- drive end. Adjust the jacking bolt an 1/8” on the non-drive end rear pad. Measure the gaps again.

Note:

The casing pin remains stationary during this process. When the jacking bolt is adjusted, the cradle and frame are moving up or down with each adjustment.

Phase Two Leveling

In order to get the casing to raise the following steps will need to be completed.

1) The phase 1 leveling must be complete.
2) The machine will need incoming machine power, check rotation of the electric motor, incoming air supply, and hydraulic oil reservoir filled.
3) The Uptime control screen installed.
4) Ensure the selector switch is in the manual position.
5) Press and hold the enable button.
6) The tilt/raise button should change to a darker shade of grey, once that takes place you can now raise the casing.

Grout the six anchoring / leveling pads as required.

Hydraulic Oil

Use The Right Oil
Keep It Clean

Note:
The funnels, hoses and pumps you use to fill the machine reservoir must be perfectly clean. Anything bigger than 10 microns entering the hydraulic system is too big.

It is recommended oil purchases be made as close to the needed volume as possible. This will prevent future system contamination. For this installation Purchase four 5 gallons pails.

Filtered Oil Transfer Pump

- One of our pumps at the Ellis Manufacturing Facility.

- When we transfer oil, we put it through 10 Micron filters. Sorry, we cannot ship machines with oil in the reservoir.

- The oil filter installed on your machine has a 10 Micron element.

- When you buy new oil it is typically 100 microns. In the first hour of running your machine with new oil you have filtered your oil to 10 Microns.

Ellis Corporation
LAUNDRY MACHINERY, WATER POLLUTION CONTROL SYSTEMS
1400 WEST BRYN MAWR AVENUE, ITASCA, ILLINOIS 60143 U.S.A.
(630) 250-9222 FAX (630) 250-9241

Recommended Hydraulic Oil List

Use mineral-based hydraulic oil with a minimum viscosity of 300 SUS. **Use extreme cleanliness when working on hydraulics.** Do not use dirty oil or funnel and keep the container closed to keep out contaminants.

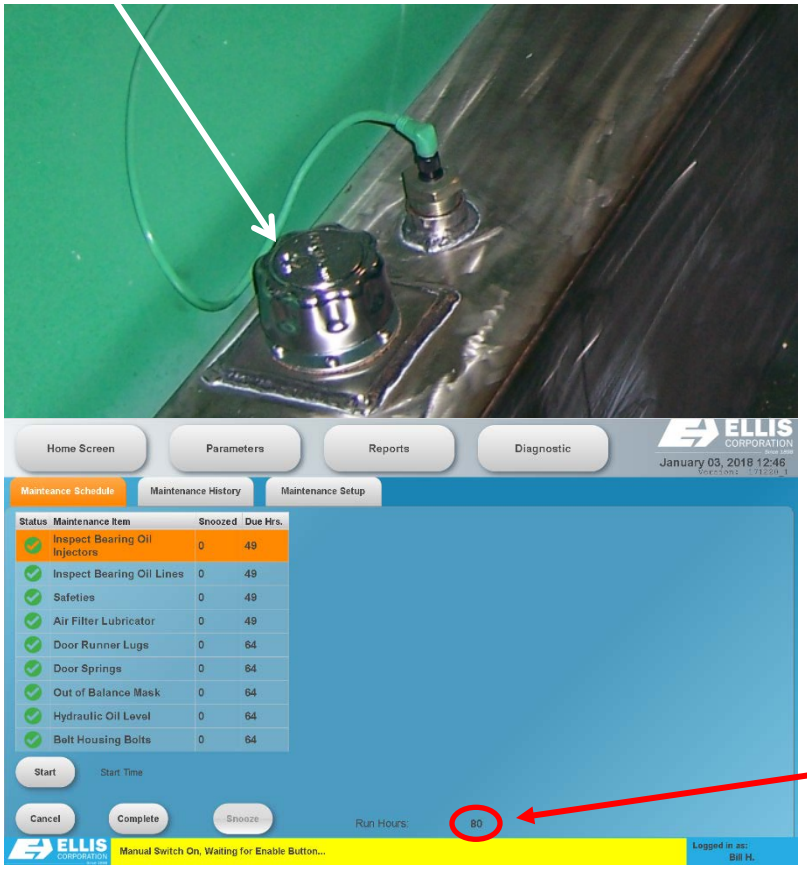
MANUFACTURER	HYDRAULIC OIL SPECIFICATION
Mobil Oil Corp. Edison, NJ	#DTE-26
Amoco Oil Co. Chicago, IL	#Amoco AW 68 or Rykon Oil #68
Bel-Ray Co., Inc. Framingdale, NJ	Raylene AW Hydraulic Fluid 2
Castrol Industrial Inc. Downers Grove, IL	HYSPIN AW68
Chevron, U.S.A. Inc. San Francisco, CA	# AW Hydraulic Oil 68
Citgo Petroleum Corp. Tulsa, OK	# AW Hydraulic Oil 68
Conoco Inc. Houston TX	Super Hydraulic Oil 68
Exxon Co. U.S.A. Houston, TX	Nuto H 68
Pennwalt, Corp. Keystone Industrial Lubricants King of Prussia, PA	KLC 10/30
Pennzoil Products Co. Houston, TX	Prennzebell AW 68 or AW Hydraulic 68
Shell Oil Co. Houston, TX	Tellus 68
Texas Lubricants Co. Houston, TX	Rando Oil HD 68

Note:

These are all the same specification. Just different oil companies.

Hydraulic Reservoir

Caution:
Fill the reservoir before you attempt to bump the electric motor for rotation.

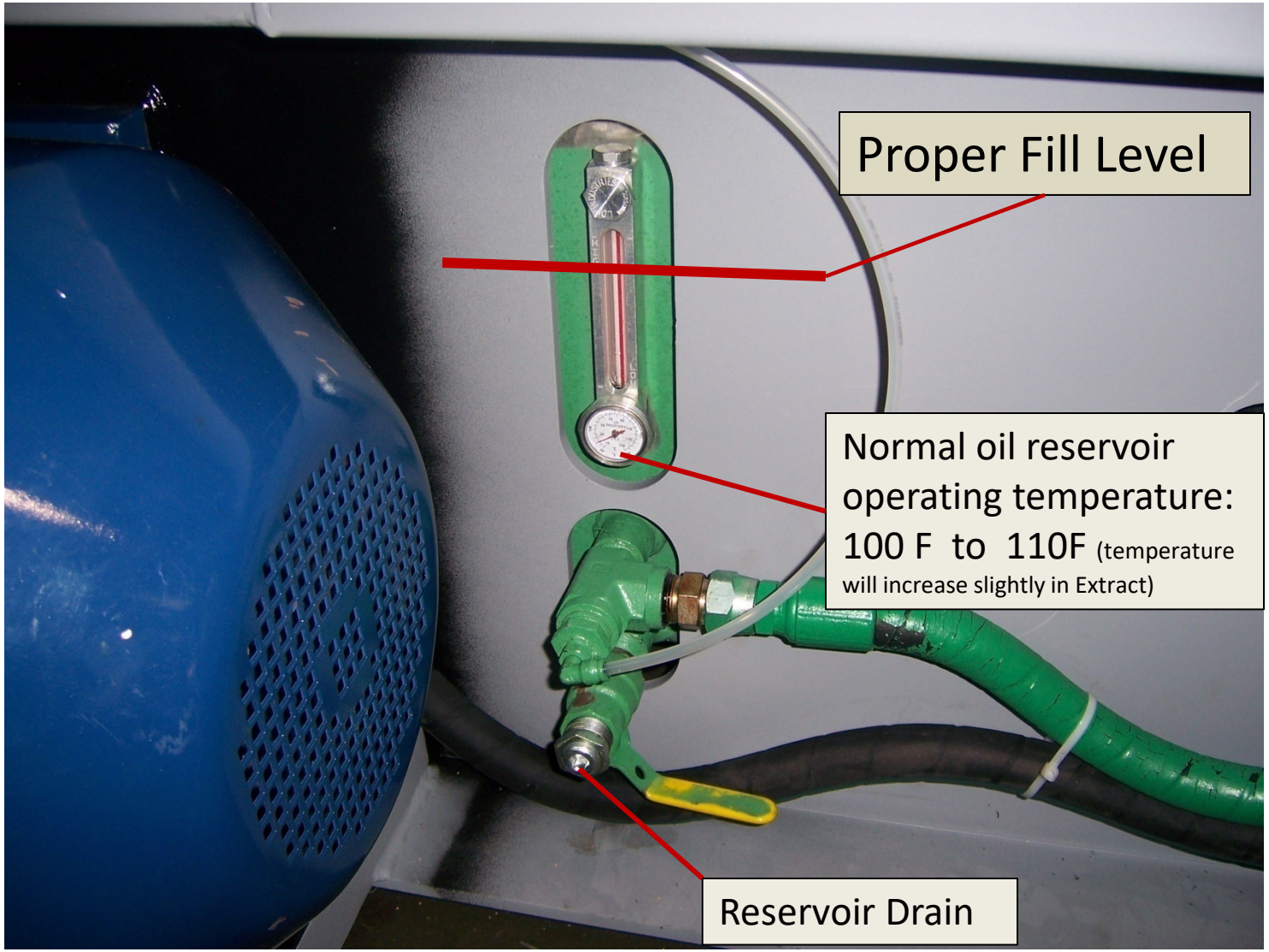


Oil Required:
16 Gallons
Check the recommended oil list to be sure you are buying the right one.
DO NOT be sold on synthetic oil. The pump and motor will be destroyed very quickly.

Reminder:
The first oil filter change needs to be done at 500 hours. Then the oil and filter again every 2,000 hours for the life of the machine. The first replacement oil filter was provided with the machine.

Hour Meter Location:
Diagnostics/Maintenance Schedule menu.

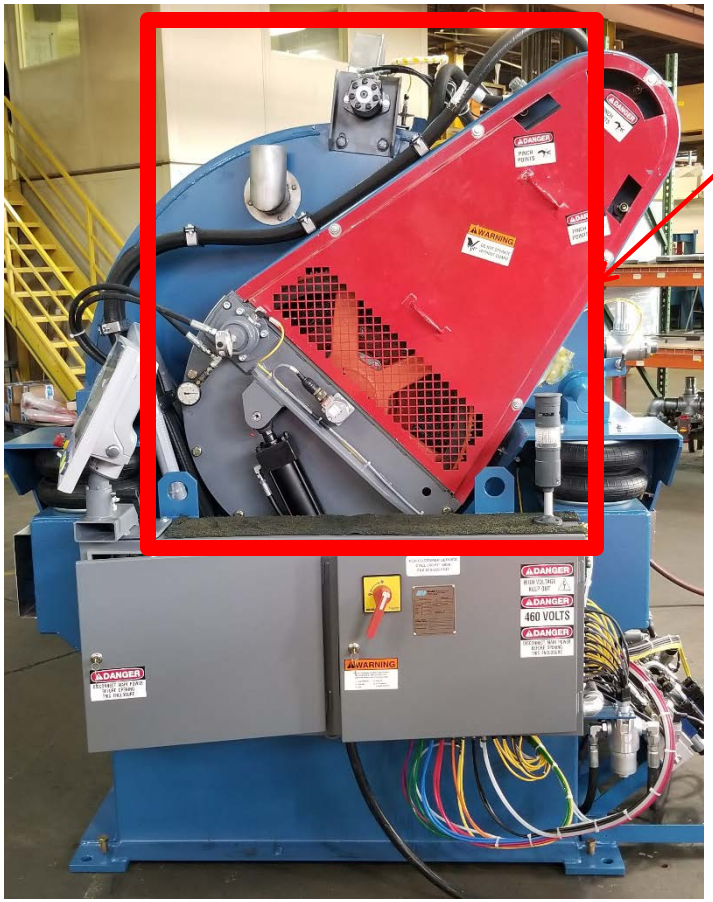
Hydraulic Reservoir



Three Phase Power
&
Control Power

No Obstructions

Consider this while making your installation plan.

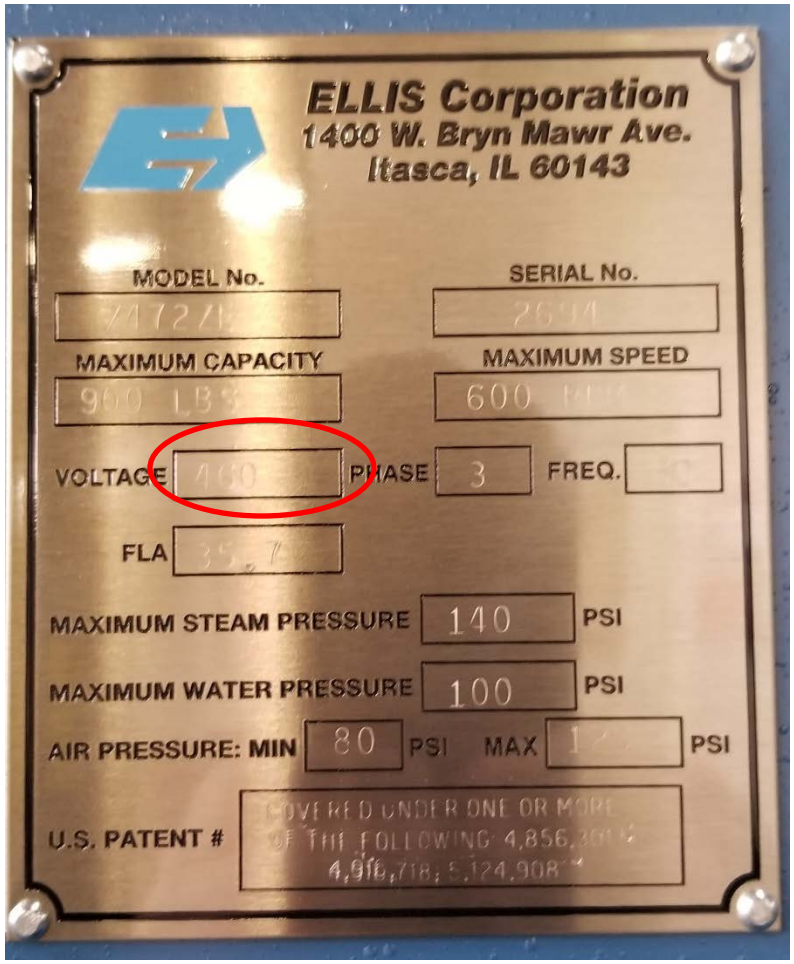


This area needs to be free of any and all boxes, disconnects, and conduits.

A long list of maintenance tasks will be made more difficult, if not impossible, if this area is blocked.

Please, no penetrations in the top of the control boxes or anywhere on the formula controller.

Engraved Specifications



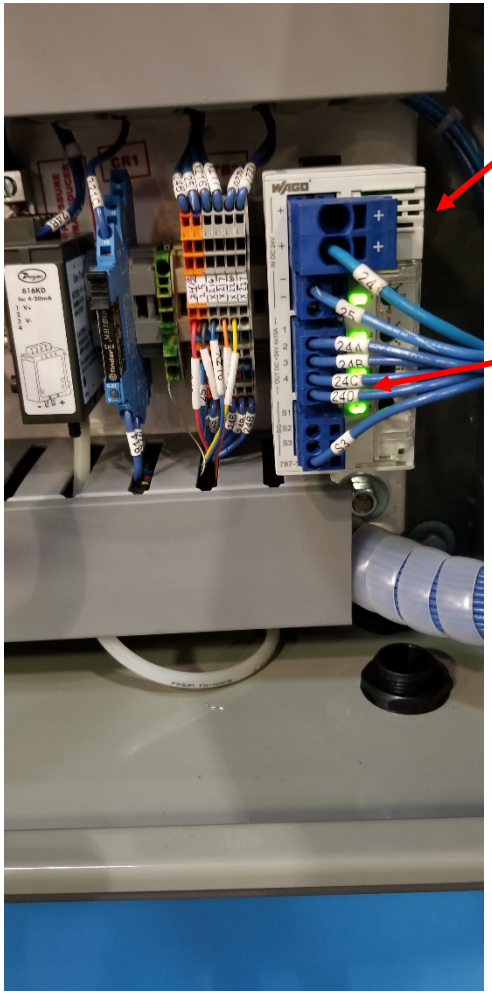
Voltage Supply

This nameplate designates the voltage the machine was built to accept.
If your new machine tag conflicts with what you have available at your facility consult with our Technical Support Manager before proceeding.

Note:

The FLA seen here is not the overload setting. Overloads are typically set at FLA of the motor at the voltage supplied. Check the engraved tag on the electric motor.

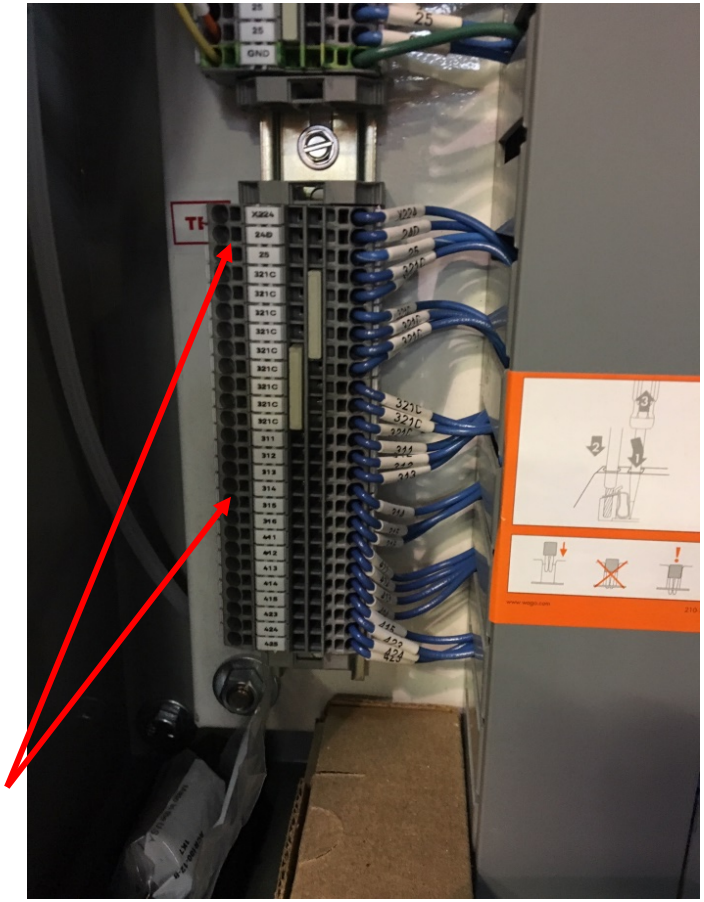
Chemical Connections



We have a 24VDC 4 channel Circuit breaker on the Uptime machine that the Chemical rep can use if they need to.

That would be Wire 24D, in reference to Wire 25, will have 24VDC (2 amps available) . If you need any other voltage you will have to provide your own.

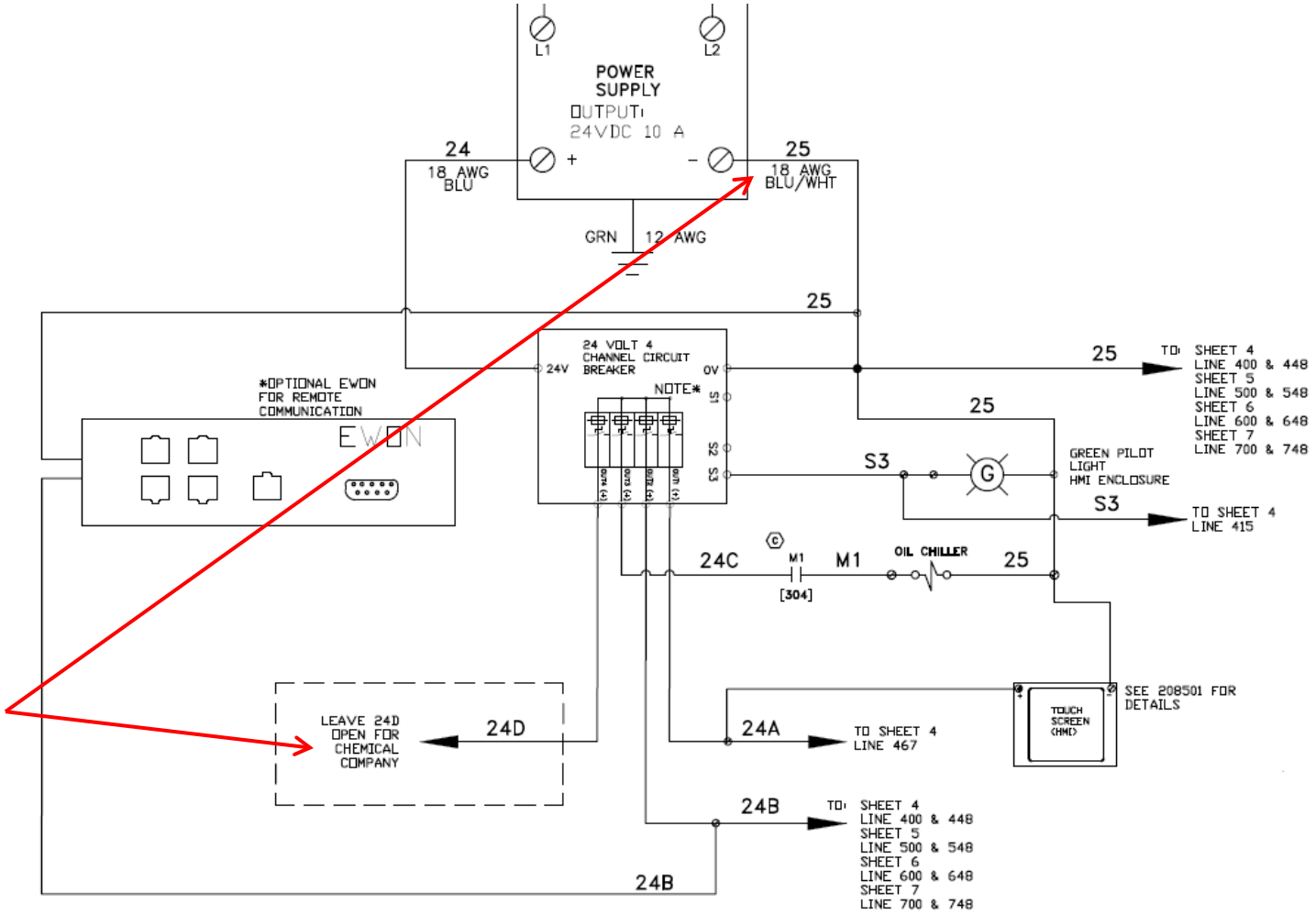
We have 8 chemical outputs available (dry contacts) you can use our 24D & 25 wire there for signal to your own device or provide your own power.



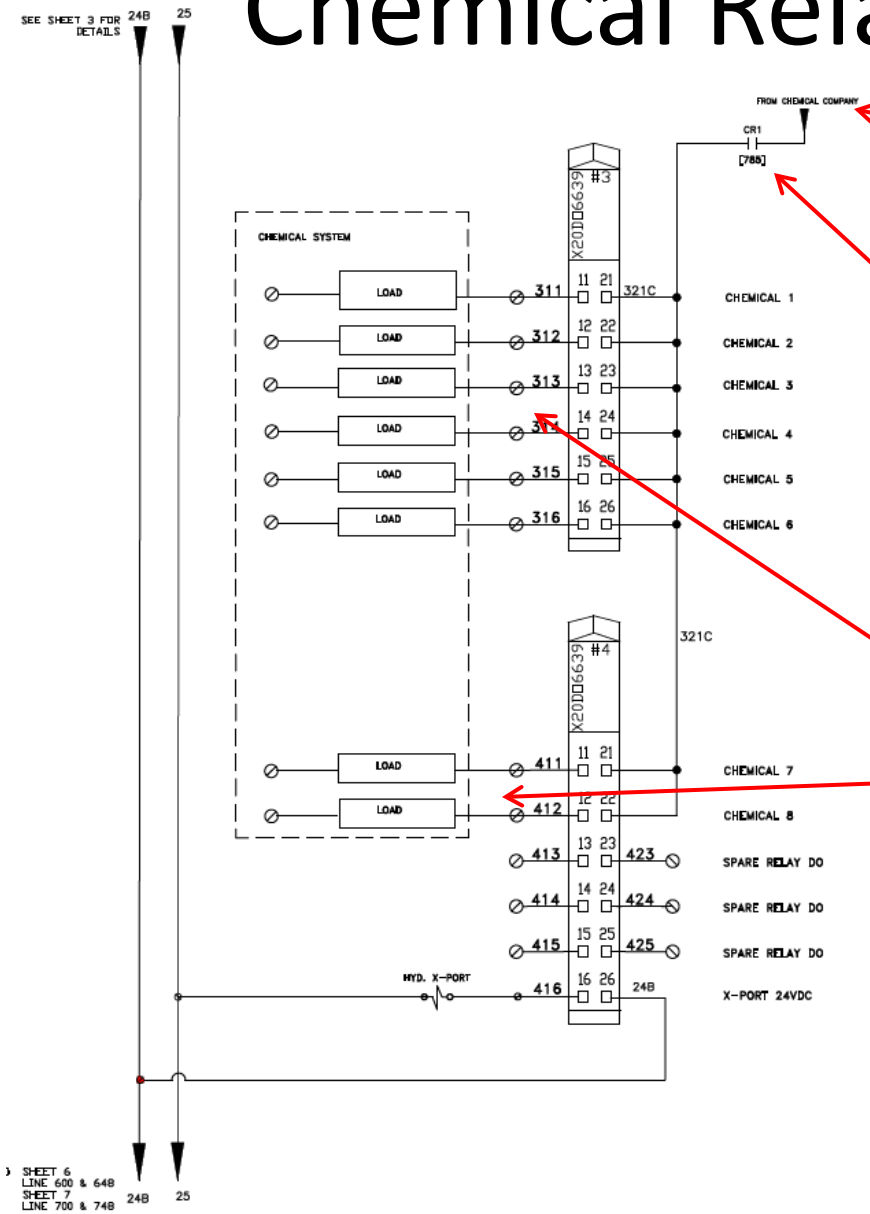
We have all of the terminals for the hookup in one convenient terminal strip.

24VDC Power Supply (24D)

24 VDC Available for Chem. Co. on wire 24D. Wire 25 is 0 VDC potential



Chemical Relay Dry Contacts

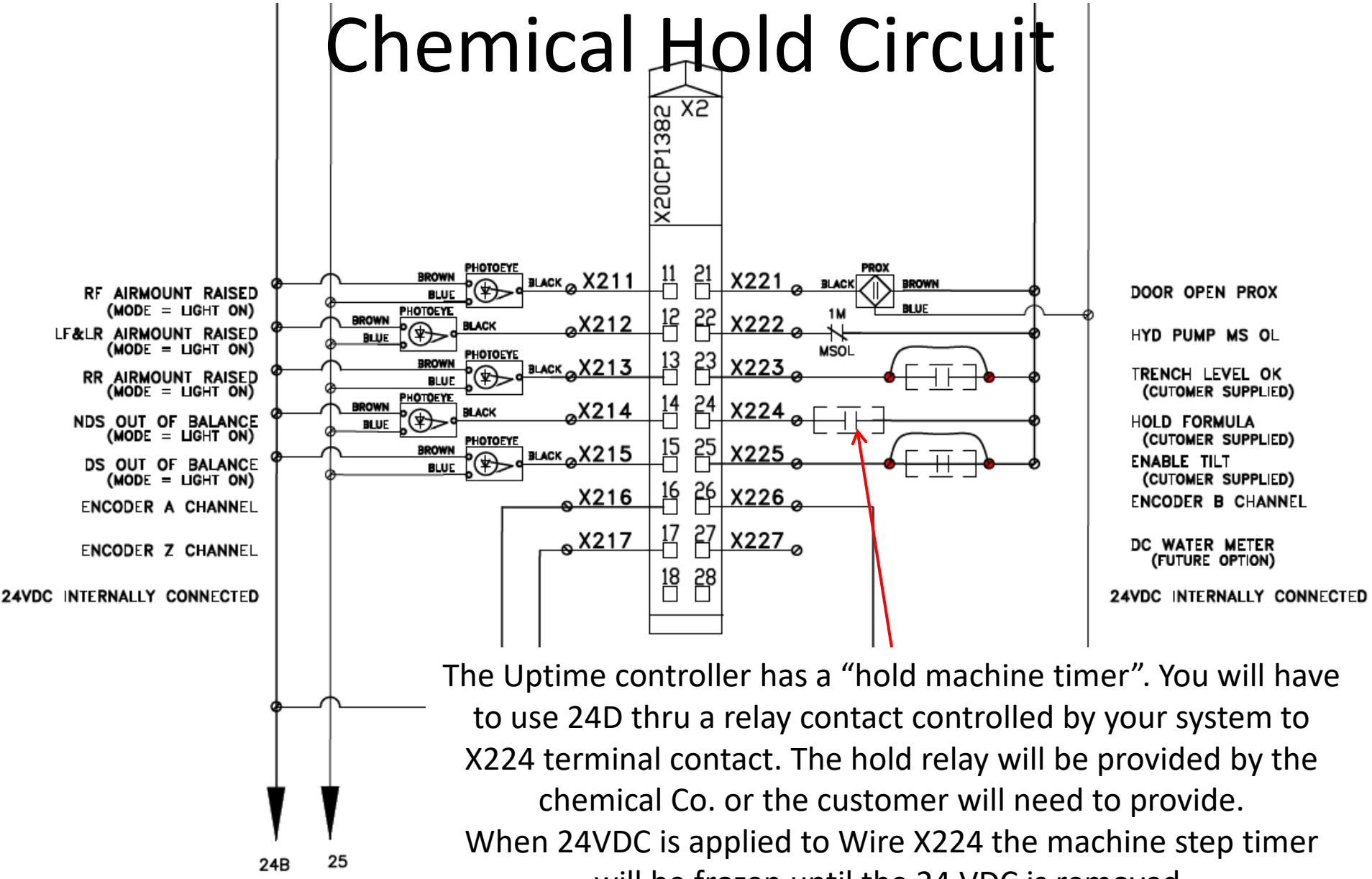


Incoming power for chemical output signal

CR-1 is the "Enable Chemical" release from the PLC. This is a safety device, chemical power will be cut off if safety issue occurs.

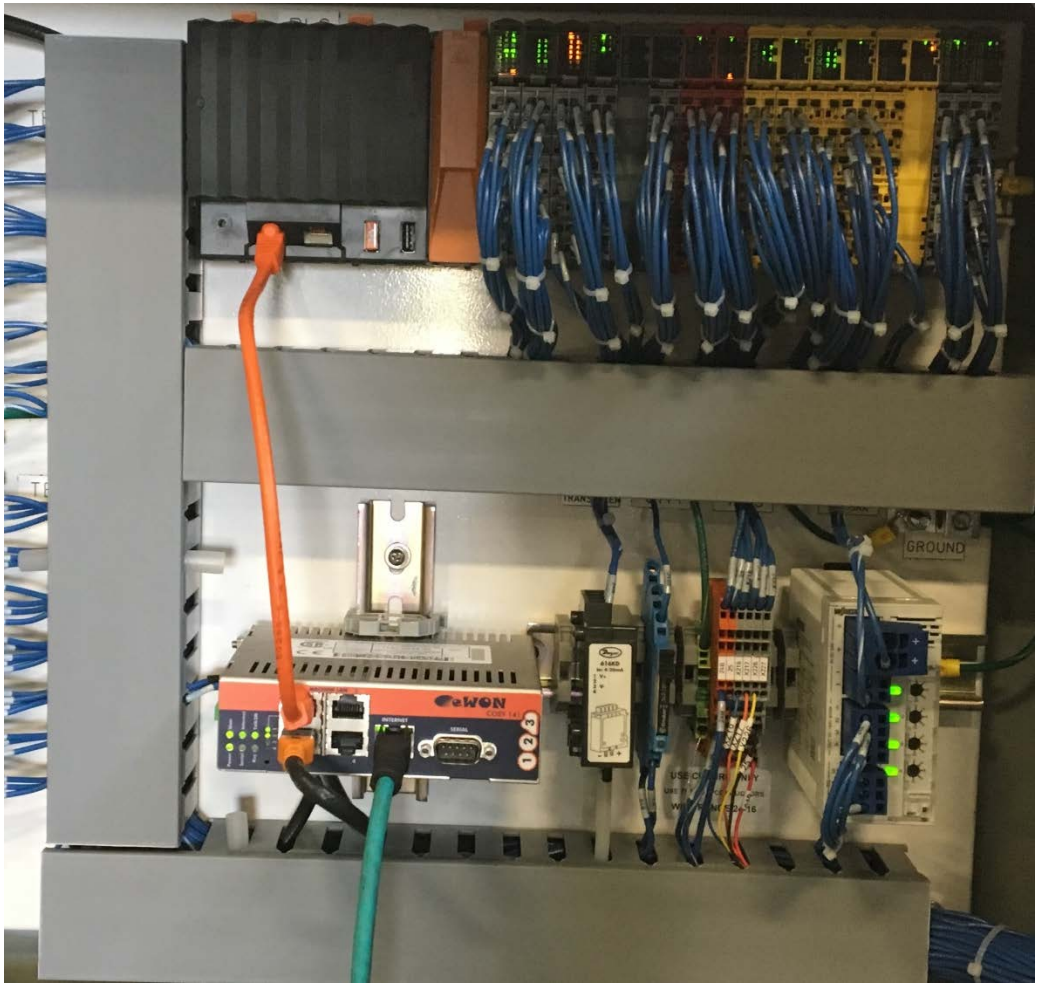
Output of dry contact for chemical company. 8 channels available. Wire 311, …, 316 and wire 411, and 412.

Chemical Hold Circuit



The Uptime controller has a “hold machine timer”. You will have to use 24D thru a relay contact controlled by your system to X224 terminal contact. The hold relay will be provided by the chemical Co. or the customer will need to provide.
When 24VDC is applied to Wire X224 the machine step timer will be frozen until the 24 VDC is removed.

Ewon Set up



Ewon Set up (option)

The Ewon is installed for communication purposes, it allows Ellis personnel to remotely log into your machine to help with diagnostics as well as apply updates to your machine.

1. A shielded Cat5 or Cat6 cable ran to the machine from the customer's switch/router. If possible verify that cable is functioning properly (connect a laptop or use tester).

If the customer has an IT company handling their networking and they want us to be on a static IP.
The requirements for remote assistance are as followed:

1. IPv4 Address
2. IPv4 Subnet Mask
3. IPv4 Default Gateway
4. IPv4 DNS Server

The Ellis personnel performing the start up will be able to set up the communications if the above information is provided.

If no information is provided for static IP the Ewon will be set using DHCP protocol.

Additional Items Needed

1. A complete formula list (for the chemical rep)
   a) If you already have an uptime machine the formulas can be copied.
   b) If you have machines with Ellis One Touch Controller, the formula can be converted but will need to be reviewed and adjusted by the Chemical Rep.
2. A list of users with job positions (IE; John Doe Operator, John Anderson Production). All users will also need a password.
3. Schedule adequate training time for operators, managers, and maintenance staff.
4. Test loads, Please have 2 or more loads ready for machine testing. These loads should not be urgent loads.
5. The ¼" air tubing (blue, red, and optional purple) should be installed from the machine to the water inlet valves. Before opening the main water valves, apply compressed air to the water inlet valves for proper orientation. The water inlet valves should be in the closed position when the machine is at idle.
6. Make sure all utilities (water, air, steam, and cooling water) are present to the machine. All overhead valves should be in the open position.