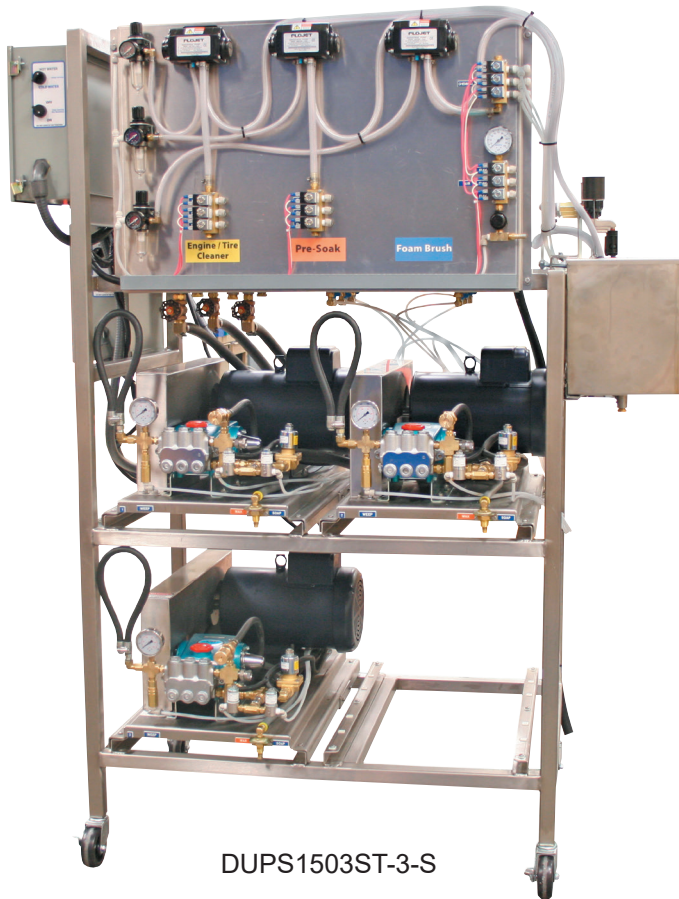




Stacked Pump Stations

DUPS53-()FTP
DUPS1501ST(-) & DUPS1503ST(-)



DUPS1503ST-3-S

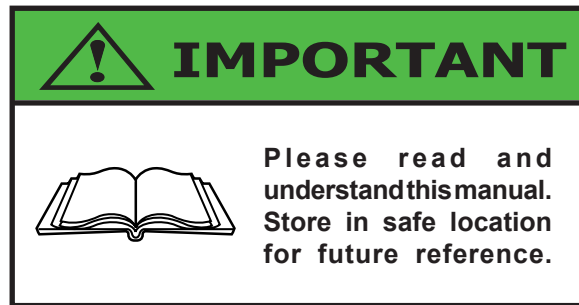
DUPS53-6FTP



Owner's Manual #0804 111615

Serial Number:

Installation Date:



Everyone who operates this unit should understand basic operations and safety precautions!
The time you take to fully understand the proper installation, maintenance and use of the machine will prolong its service life, and assure you of trouble free operation.

When unpacking, check to make sure all the parts shown on the Parts Breakdown near the end of this manual are included. If any parts are missing or broken, please call Dultmeier Sales as soon as possible.

Consumers should notice that this manual may differ slightly from the actual product as more improvements are made to our products. Some of the pictures in this manual may differ slightly from the actual product as well. Dultmeier Sales reserves the right to update designs and / or change the specifications at any time without incurring any obligation to install them on units previously sold.

If you have any questions or suggestions about this manual, please contact us at:

800-228-9666
dultmeier@dultmeier.com
www.dultmeier.com

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To avoid serious or fatal personal injury or major property damage, read and follow all safety and operation instructions in the manual.



This is a **Safety Alert Symbol** -

When you see this symbol in the manual, look for the following signal words & be alert to the potential for personal injury or property damage.



Warns of potential hazards that **WILL** cause serious personal injury, death or property damage.



Warns of potential hazards that **CAN** cause serious personal injury, death or property damage.



Warns of potential hazards that **WILL** or **CAN** cause minor personal injury, death or property damage.



Indicates special instructions that **MUST** be followed but not related to hazards.

**This manual is intended to assist in the installation and operation of this unit.
Do not attempt to operate this unit without reading and understanding this manual.**

General Safety

To avoid the risk of serious bodily injury and property damage, read safety instructions carefully before installing this system. Follow all local and/or national plumbing and electrical codes when installing.



Do Not Allow System or Components to Freeze.

To do so may damage the system and will void the warranty.



Never Run the System Dry.

Running the unit dry (without fluid) can damage internal parts, overheat pump (which can cause burns to people handling or servicing the pump), and will void the warranty.



Risk of Electric Shock.

Keep the unit dry at all times -

Do not wash the motor or electrical panel or allow the unit to sit in standing water.

Use only Ground Fault Circuit Interrupter (GFCI) protected grounded outlet for the cord plug.

If you must use an extension cord, use only UL approved indoor/outdoor, 3-wire, grounding type cords.

The cord must be rated to support amp draw. Do not allow any part of cord or receptacle ends to sit in water.

To avoid fatal shocks, proceed as follows if service is needed:

- Turn off water to the system.
- Disconnect the power at main electrical service before unplugging the unit.
- Ground the electrical outlet box.
- Take extreme care when changing fuses.



Do not run the unit with discharge shut off, as hose may burst or damage may occur.



Modern motors can operate at high temperatures. To avoid burns when servicing pump, allow it to cool for 20 minutes after shutdown before handling.

Stacked Pump Station Specifications

Model(s) **DUPS1503ST(-_)**
Style..... Stacked Pump Station
Capacity..... 4 GPM
PSI..... 1800
Maximum Inlet Pressure..... 60 PSI
Maximum Inlet Temperature 160° F

*See Included CAT PUMPS® Service Manual for Higher Temperatures

Motor	CEEM3615T	5 HP, 3 PH	
	Volts:	208 - 230	460
	Amps:	13.9 - 13.4	6.7

Pump CC 310B
Crankcase Capacity 18 oz.
Pump Drive..... Belt
Dimensions..... 73" L x 79" H x 52" W
Shipping Weight Approx. 1200 - 1850 lbs. (dependent on # of bays)
Pump Inlet 1/2
Pump Discharge 3/8"

System Features & Options

CAT PUMPS® Plunger Pump
5 HP, 3PH Motor
UL Listed Electrical Panels
Stainless Steel Supply Tanks
Tank Heater
Stainless Steel Solenoid Valves
Pressure Gauges
Hour Meter
Balanced Pressure Relief Valve
Stainless Steel Frame
All Units are Pre-Plumbed, Pre-Wired, and Tested

Stacked Pump Station Specifications

Model(s) **DU PS53-(_)FTP**
Style..... Stacked Pump Station
Capacity..... 4 GPM
PSI..... 2000
Maximum Inlet Pressure..... 125 PSI
Maximum Inlet Temperature 185° F

Motor	CEEM3615T	5 HP, 3 PH	
	Volts:	208 - 230	460
	Amps:	13.9 - 13.4	6.7

Pump CC310B
..... *IP HTX1812S*
Crankcase Capacity 14 oz.
Pump Drive..... Belt
Dimensions..... 73" L x 79" H x 52" W
Shipping Weight Approx. 1300 - 1950 lbs. (dependent on # of bays)
Pump Inlet 1/2"
Pump Discharge 3/8"

System Features & Options

Emperor Plunger Pumps
5 HP, 3PH Motor
UL Listed Electrical Panels
Stainless Steel Supply Tanks
Tank Heater
Stainless Steel Solenoid Valves
Pressure Gauges
Hour Meter
Balanced Pressure Relief Valve
Stainless Steel Frame
All Units are Pre-Plumbed, Pre-Wired, and Tested

Typical Plumbing Specifications & Requirements

Plumber is responsible for the following components and labor as noted: Assume 4 GPM per Bay x number of bays for water line sizing.

Hard water supply to water softener(s) 3/4", 1" or 2" as specified. Hard plumb water softeners.

Water Heaters. From softener(s) with soft/cold water line to water heaters.

Instantaneous heaters are normally located above pumping stations. Water heaters have 3/4" MPT inlet ports. A 3/4" ball valve should be in-line between soft water supply and water heater inlet, (supplied by plumber). Required x number of bays.

Connect cold water supply line with hose from ball valve on soft water Copper run line to to the solenoid at the pump inlet. Connect hot water supply line from ball valve on discharge side of water heater to the inlet of the water supply tank.

From water heater outlet port (3/4" MPT) to Hot Water Solenoid on pumping station (3/4" MGHT or 3/4" FPT port). Note: City plumbing code may require thermal relief valve to be located in this discharge line, (supplied by plumber). Required x number of bays.

Tank type water heaters will be for one central water heater source. Size and dimensions will vary with particular job. Plumbing into and out of heater to pump stations and/or automatic. See quote for model, call for specifications.

From soft/cold water line, 3/4" ball valve and supply line to Cold Water Solenoid on pumping station for each pump, 3/4" MGHT or 3/4" FPT port. (Supplied by plumber).

From soft/cold water line, 3/4" ball valve and supply line to Tire Cleaner System supply tank (if required), 3/4" FGHT port. (Supplied by plumber).

From soft/cold water line, 3/4" ball valve and supply line to Foam Brush System supply tank (if required), 3/4" FGHT port. (Supplied by plumber).

From soft/cold water line, 3/4" ball valve and supply line to Spot-Free Rinse System (if required), port size may vary. (Supplied by plumber).

From soft/cold water line, 3/4" ball valve and supply line to Automatic Soap Tank (if required), 3/4" FPT port. (Supplied by plumber).

Continued on Page 5

Typical Plumbing Specifications & Requirements

From soft/cold water line, 3/4" ball valve and supply line to Automatic Wax Tank (if required), 3/4" FGHT port. (Supplied by plumber).

From hard/cold water line prior to water softener, 1/2" or 3/8" ball valve is needed to supply weep system.

From Weep Solenoid, 1/2" or 3/8" copper line to all pumping stations, this is the weep supply line. (This line may run right along Soft/Cold water supply line). One connection from this line will run to one connection on first pump station. From Weep Supply Line, (one) 3/8" ball valve and hard copper to back of first pump station. (Supplied by plumber), to weep check valve on pumping stations. (Supplied). Connection from 3/8" ball stop will be supplied.

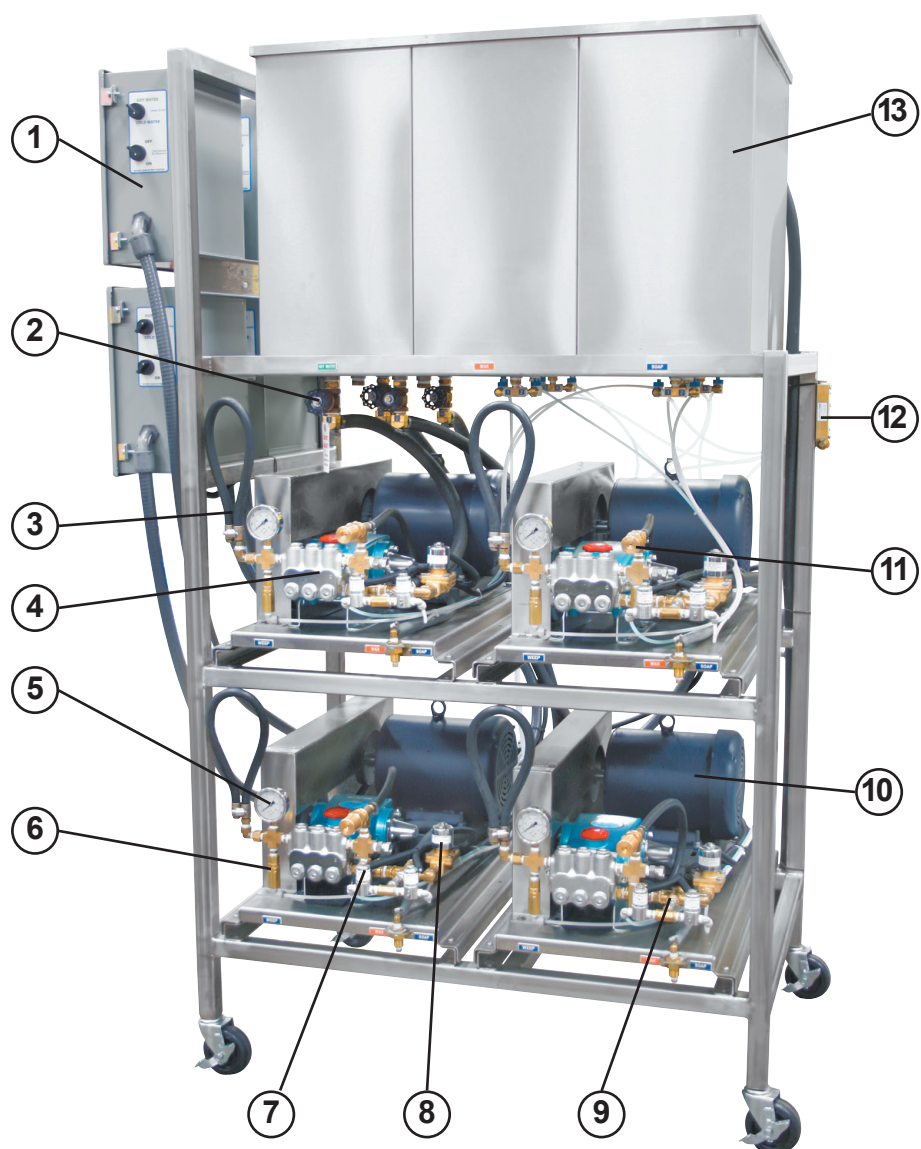
Setup Instructions for Stacked Pump Station

1. Ensure that pump motor electrical lines and low voltage lines not pre-wired are properly run. These instructions are included separately in instruction package.
2. Connect cold water supply line with hose from ball valve on soft water Copper run line to to the solenoid at the pump inlet. Connect hot water supply line from ball valve on discharge side of water heater to the inlet of the water supply tank.
3. Fit discharge hose to swivel connector on discharge of pump, and remove nozzle from gun assembly. Place rotary switch in bay on rinse position with the rinse changeover switch on panel in the cold water position. Activate the system and run for a few moments to purge any foreign material from lines. Replace the nozzle and restart system. Pressure is preset when tested, prior to shipment. Open and close trigger gun slowly to insure that pressure is balanced properly. Make adjustments at balanced relief valve if required. Move rinse changeover switch to the hot water position and assure water heater is operating properly.
4. Start system and place bay switch on soap position (*See Note Below). Adjust metering screw on Kip solenoid on soap suction line until desired strength of soap appears in bay (you may have to experiment with concentration in soap supply tank). Place bay switch to wax position and repeat above steps.
5. Test secondary systems on rotary switch as necessary. Consult package for each system for set-up and operating instructions.



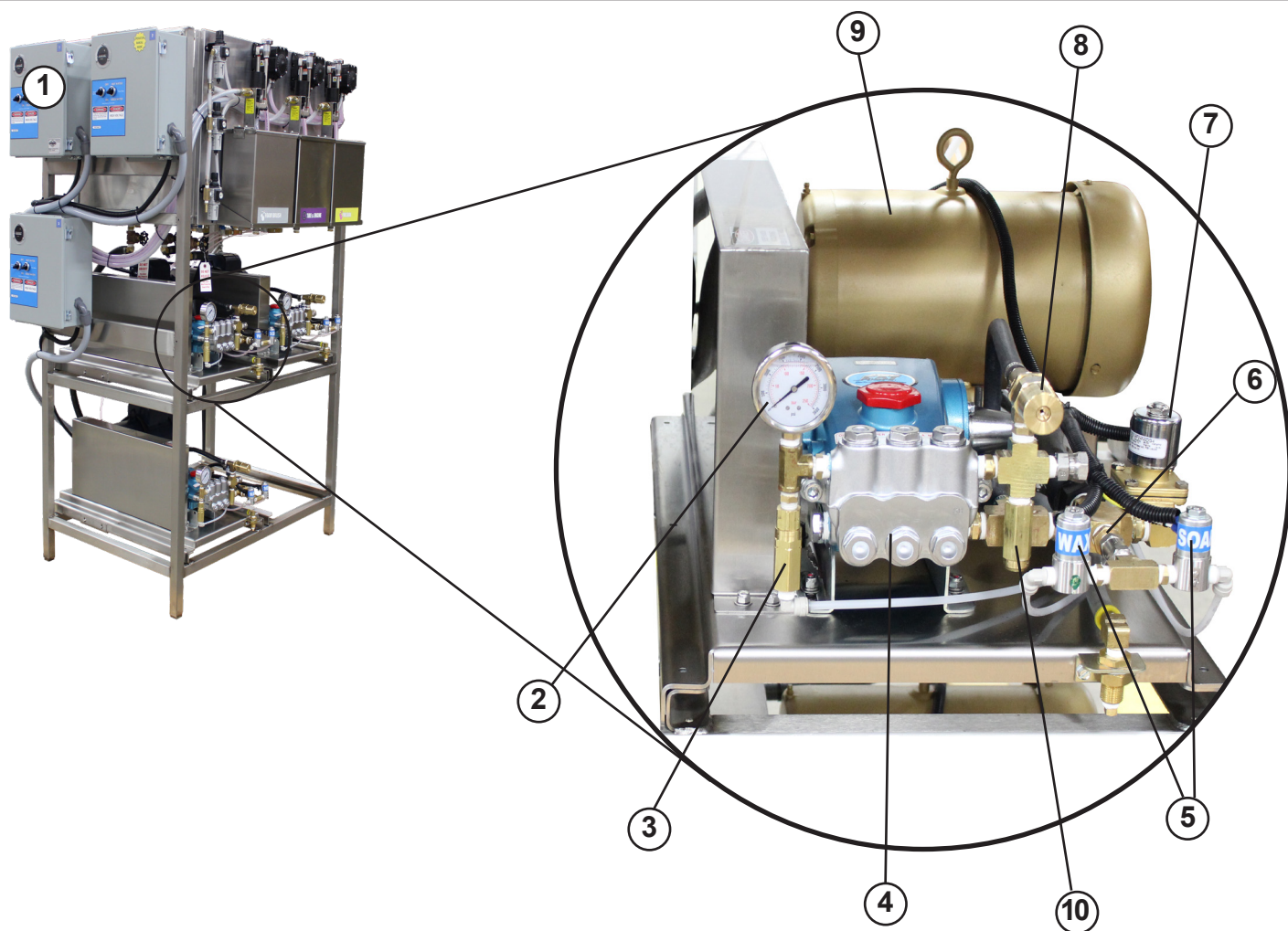
Soap & wax adjustments have already been done for you. This adjustment is done at the gate valve located at the float tank below the pump. If you are not able to achieve soap or wax, close the gate valve slowly until you hear a slight rattle coming from the head of the pump. Then open the gate valve until the pump stops rattling.

Parts Breakdown: DU PS1503ST-()

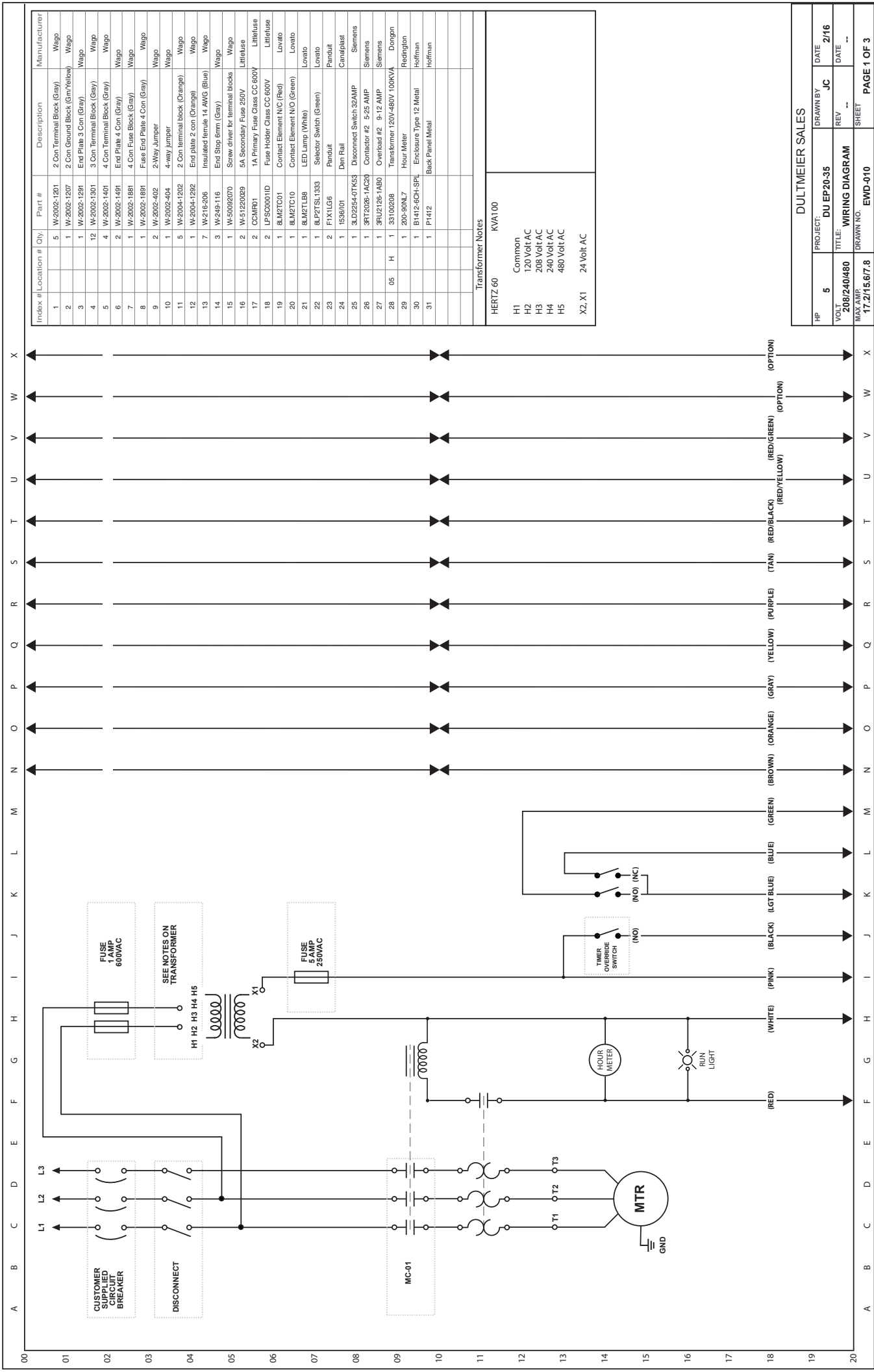


Item	Part Number	Description
1	DUEP20-35	5 HP 3 PH Electrical Panel
2	TWGV-3/4	Gate Valve, 3/4"
3	HY3375-8	Pulse Hose
4	CC310B	Cat Pump
5	AH2750-4	3600# Liquid Filled Pressure Gauge
6	IP100534	Safety Pop Off Valve
7	KI3X293	Solenoid w Meter, 24volt
8	GCS203-24	Solenoid, 1/2", 24volt
9	AA7450	Stainless Steel Check Valve
10	CEEM3615T	5HP 3PH Baldor Motor
11	NPST230	Balanced Relief Valve
12	GC93-000-21M	Weep Manifold
13	DD4275	3 Compartment Stainless Steel Tank
	HR507	Hydrominder (Not Shown)
	JS12BC-S2	Tank Heater w Thermostat (Not Shown)

Parts Breakdown: DUPS53-()FTP



Item	Part Number	Description
1	DUEP20-35	5 HP 3 PH Electrical Panel
2	AH2750-4	2.5" Lm Liquid Gauge
3	SM470-4F4F	Check Valve
4	CC310B	Cat Pump
5	KI3X293	Solenoid w Meter, 24volt
6	AA7450	Stainless Steel Check Valve
7	GCS203-24	Solenoid, 1/2", 24volt
8	NPST230	Balanced Relief Valve
9	CEEM3615T	5HP 3PH Baldor Motor
10	IP100534	Pop-off Relief Valve



Index #	Location #	Qty.	Part #	Description	Manufacturer
1		5	W-2002-1201	2 Con Terminal Block (Gray)	Wago
2		1	W-2002-1207	2 Con Ground Block (Grn/Yellow)	Wago
3		1	W-2002-1291	End Plate 3 Con (Gray)	Wago
4		12	W-2002-1301	3 Con Terminal Block (Gray)	Wago
5		4	W-2002-1401	4 Con Terminal Block (Gray)	Wago
6		2	W-2002-1491	End Plate 4 Con (Gray)	Wago
7		1	W-2002-1891	4 Con Fuse Block (Gray)	Wago
8		1	W-2002-1891	4 Con Fuse Block (Gray)	Wago
9		2	W-2002-402	2-Way Jumper	Wago
10		1	W-2002-404	4-way Jumper	Wago
11		5	W-2004-1202	2 Con terminal block (Orange)	Wago
12		1	W-2004-1292	End plate 2 con (Orange)	Wago
13		7	W-216-206	Insulated ferrule 14 AWG (Blue)	Wago
14		3	W-249-116	End Stop 6mm (Gray)	Wago
15		1	W-50092070	Screw driver for terminal blocks	Wago
16		2	W-51220209	5A Secondary Fuse 250V	Littlefuse
17		2	CCMR01	1A Primary Fuse Class CC 600V	Littlefuse
18		2	LFSC0001ID	Fuse Holder Class CC 600V	Littlefuse
19		1	8LM2TC01	Contact Element N/C (Red)	Lovalto
20		1	8LM2TC10	Contact Element N/O (Green)	Lovalto
21		1	8LM2TLB8	LED Lamp (White)	Lovalto
22		1	8LP2TSL1333	Selector Switch (Green)	Lovalto
23		2	FIX1LG6	Panduit	Panduit
24		1	1536/01	Din Rail	Canalplast
25		1	3LD2254-07K53	Disconnect Switch 32AMP	Siemens
26		1	3RT2026-1AC20	Contactor #2 5-25 AMP	Siemens
27		1	3RU2126-1AB0	Overload #2 9-12 AMP	Siemens
28	05	1	33100208	Transformer 120V-480V 100KVA	Dongan
29		1	200-90NL7	Hour Meter	Redington
30		1	B1412-6CH-SPL	Enclosure Type 12 Metal	Hoffman
31		1	P1412	Back Panel Metal	Hoffman

Transformer Notes

HERTZ 60	KVA100
H1	Common
H2	120 Volt AC
H3	208 Volt AC
H4	240 Volt AC
H5	480 Volt AC
X2, X1	24 Volt AC

DULTMEIER SALES

HP	5	PROJECT:	DU EP20-35	DRAWN BY	JC	DATE	2/16
VOLT	208/240/480	TITLE:	WIRING DIAGRAM	REV	--	DATE	--
MAX AMPS	17.2/15.6/7.8	DRAWN NO.	EWD-010	SHEET			PAGE 1 OF 3



Notice Regarding Manufacturer's Limited Warranty

Dultmeier Sales Limited Liability Company (hereinafter Dultmeier), notifies you that component part(s) carry a manufacturer's limited warranty provided by the manufacturer of said component part(s). These warranties do not pertain to normal wear of component part(s) that may occur within any specified period. While Dultmeier is not the manufacturer of any of the component part(s), Dultmeier will assist you in processing any and all manufacturer's warranty claim if applicable and available. Any and all manufacturer's claims must be submitted in writing to the manufacturer within the warranty periods provided by the manufacturer.

Defective component part(s) that are to be considered for manufacturer's limited warranty must be returned to the manufacturer by prepaid shipment with the applicable manufacturer's limited warranty period. If the component part(s) are deemed to be defective under the manufacturer's warranty, Dultmeier will assist in obtaining a replacement or repair of the component part(s). Said component part(s) will be returned F.O.B. Omaha, Nebraska. Replacement or repair shall be the exclusive remedy for any breach of warranty. Labor for installation, either with respect to original or replacement part or components, is not covered under the manufacturer's limited warranty.

Neither the manufacturer nor Dultmeier warrants loss of income or consequential damages for injury or commercial loss resulting from any breach of warranty or warranties stated above.

The manufacturer's limited warranty as stated does not apply to component part(s) which have been improperly installed, misused, altered, neglected, abused or not installed, adjusted, maintained, or used in accordance with applicable codes and ordinances and in accordance with the manufacturer's specifications as to such factors.

Notwithstanding Dultmeier's willingness to assist in the processing of the manufacturer's limited warranty, Dultmeier makes no warranty against infringement of the like, makes no warranty of merchantability, makes no warranty of fitness for a particular purpose, and makes no other warranty, express or implied, including implied warranty arising from the course of dealing or usage of trade.

Compliance with all local, state and federal codes regarding the installation and operation of said equipment, parts and components shall be the responsibility of the purchaser. The rights and obligations of the parties shall be governed by the laws of the State of Nebraska.

Dultmeier Sales • 1-800-228-9666 Omaha, NE • 1-800-553-6975 Davenport, IA

Production Checklist

- ☐ ☐ Oil Level
☐ ☐ Clamps Tight
☐ ☐ Bolts Tight & Anti-Seized
☐ ☐ Belts Tight
☐ ☐ Pulleys Aligned & Torqued to Specifications
☐ ☐ Fittings Straight
☐ ☐ Check Valves ☐ Weep
☐ ☐ Soap/Wax
☐ ☐ Solenoids ☐ Soap
☐ ☐ Wax
☐ ☐ Hot Water
☐ ☐ Cold Water

- ☐ ☐ Tested
☐ ☐ Winterized
☐ ☐ _____
☐ ☐ _____
☐ ☐ _____
☐ ☐ _____

- ☐ ☐ Pop-Off Valve Set _____ PSI
☐ ☐ Unloader Valve Locked
☐ ☐ PSI _____
☐ ☐ Pump RPM _____
☐ ☐ Motor Amps _____
☐ ☐ Bay 1 _____
☐ ☐ Bay 2 _____
☐ ☐ Bay 3 _____
☐ ☐ Bay 4 _____
☐ ☐ Bay 5 _____
☐ ☐ Bay 6 _____
☐ ☐ Motor Wired For _____

Accessories

- ☐ ☐ Electrical Drawing
☐ ☐ UL Inspected & Tagged
☐ ☐ EP1 Selector Switch
☐ ☐ TF 1 Chemical Hose/Tubing
☐ ☐ Weights & Strainers
☐ ☐ Leveling Feet

Additional Parts Shipped in Container

- ☐ ☐ _____
☐ ☐ _____
☐ ☐ _____

Built By _____

Checked By _____

Customer Checklist

- ☐ ☐ Oil Level To Manufacturer's Specifications
☐ ☐ Accessories Included
☐ ☐ Shipping Container Was In Good Shape
☐ ☐ Overall Condition

If you have any questions or concerns about condition of this unit, please contact us before operating.