CUSTOM® CRIMP

CC4-50 CRIMPER OPERATORS MANUAL

SAFETY PRECAUTIONS

READ INSTRUCTIONS AND IDENTIFY ALL COMPONENT PARTS BEFORE USING CRIMPER

KEEP HANDS AWAY FROM PINCH POINTS

CONSULT HOSE AND FITTING MANUFACTURER'S SPECIFICATIONS FOR CORRECT MACHINE SETTINGS AND CRIMP MEASUREMENTS

ALWAYS WEAR EYE PROTECTION

For Parts and Service, Contact:
Custom Machining Services, Inc.
Valparaiso, In 46383
(219) 462-6128

CRIMPER COMPONENT PARTS

CRIMPER HEAD

AccuCrimp CONTROL PANEL -SEE SEPARATE PAGE

OIL FILLER CAP

MASTER POWER SWITCH

OIL LEVEL SIGHT GLASS

FOOT SWITCH PLUG IN PORT

FOOT SWITCH

TANK DRAIN AND OIL COOLER PORTS

CRIMPER SPECIFICATIONS & SET UP

SPECIFICATIONS:

MAX HEAD OPENING W/O DIES.....168 MM (6.62 IN)

MASTER DIE INSIDE DIAMETER.....130 MM (5.11 IN)

MAXIMUM SWAGING RANGE.....130 MM (5.11 IN)

MAXIMUM DIE OPENING .....DIE CLOSED DIAMETER + 38 MM

CRIMPER SIZE.....29 IN LONG X 20 IN DEEP X 32 IN HIGH

WEIGHT.....573 LB (269 KG)

ELECTRICAL REQUIREMENTS.....220 VOLT 3 PHASE (STANDARD)

..... 440 VOLT 3 PHASE (OPTIONAL)

MOTOR.....7.5 HP

RESERVIOR CAPACITY.....8 US GAL

OIL TYPE.....ISO 46 HYDRAULIC OIL

MASTER DIES.....145MM I.D. MASTER DIE STANDARD

ADAPTER DIES.....99 MM I.D. ADAPTER DIES INCLUDED

HOSE CAPACITY.....2 INCH 6 SPIRAL

.....2-1/2 INCH INDUSTRIAL

INITIAL CRIMPER SET UP

CHECK RESERVIOR OIL LEVEL WITH SIGHT GLASS AT REAR OF TANK

CHECK ELECTRICAL CIRCUIT TO BE CERTAIN THAT IT MATCHES THE CRIMPER REQUIREMENTS SHOWN ON THE TAG ATTACHED TO THE CRIMPER CORD.

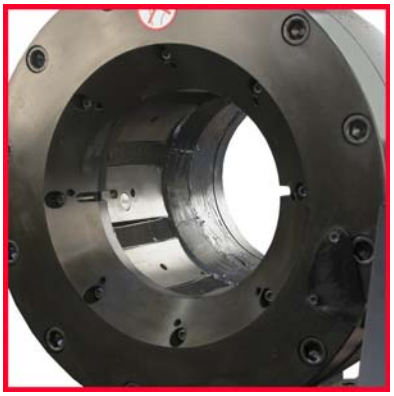
MAKE CERTAIN THAT MOTOR ROTATES IN THE DIRECTION OF THE ARROW SHOWN ON THE MOTOR HOUSING.

IF MOTOR ROTATION IS INCORRECT REVERSE ANY TWO HOT WIRES IN THE CRIMPER PLUG.

DIE SET UP AND INSTALLATION

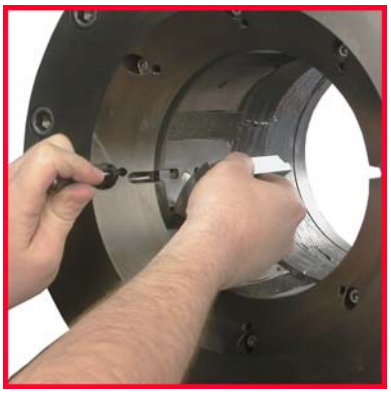
Industrial and Hydraulic hose dies are available for this crimper. Industrial Dies are inserted directly into the Master Dies and hydraulic dies require an intermediate die. Hydraulic Dies are available with an 80mm, 84mm, 99mm and 130mm O.D.

The I.D. of the intermediate die must match the O.D. of the hydraulic die or accurate crimps are not possible.



INDUSTRIAL DIE INSTALLATION
INTERMEDIATE ADAPTER DIE INSTALLATION

Turn on the crimper at the master power switch (See AccuCrimp Controller Instructions) and go to Manual mode.



Insert the die removal tool in the release hole to release the retaining spring and attach either an Intermediate Adapter Die or a Hydraulic Die to the Master Die. the numbers stamped on the face of the die should face the operator.

Mount all 8 dies in a similar manner.

If Industrial Dies are being used, proceed to the AccuCrimp Operating instructions and set up the crimper for the correct crimp diameter.

If Hydraulic Dies are being used, see Hydraulic Die Installation instructions.

AccuCrimp CONTROL PANEL FUNCTIONS

INCH/MM TOGGLE

TEXT PANEL

MOTOR ON/OFF

"esc" ESCAPE

MANUAL MODE TOGGLE

CURSOR SCROLL BUTTONS

CYCLE COUNTER RESET

AUTO MODE TOGGLE

EMERGENCY STOP

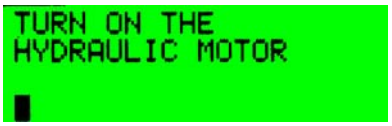
MANUAL MODE FUNCTION: OPEN DIES
AUTO MODE FUNCTION: CYCLE STOP

MANUAL MODE FUNCTION: CLOSE DIES
AUTO MODE FUNCTION: CYCLE START

NOTE:
IF THE CRIMPER IS IN *MANUAL MODE*, THE GREEN OPEN/CLOSE BUTTONS WILL OPEN AND CLOSE THE CRIMPER HEAD.
IF THE CRIMPER IS IN *AUTO MODE* THE BUTTONS FUNCTION AS CYCLE START AND CYCLE STOP BUTTONS

Turn on the crimper Master Power switch. Crimper will go through a "self test" cycle. At the completion of the self test cycle, the logo and the "Press ESC" instruction will appear.

Press "ESC" button on control panel, and the "TURN ON THE HYDRAULIC MOTOR" screen will appear. Press the red "MOTOR ON/OFF" button.

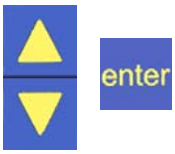


Machine Set up

Press the blue "MAN" button to go into manual mode

Note: Adjustments can only be made when the machine is set in "MAN" mode

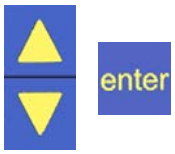
Press the yellow "IN/MM" BUTTON to toggle between "IN" or "MM" setting.



Scroll up to "CRIMP POSITION" with the yellow scroll buttons and press "enter".

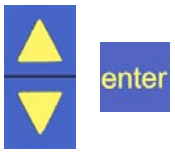
Note that at the completion of each step you must press "enter". Cursor will move to the number to be changed or adjusted

"CRIMP POSITION" is the dimension (in inches or mm depending upon the machine setting) that the finished crimp diameter will be above the closed diameter stamped on the dies. For example: a setting of "047" will result in a finished crimp diameter of .547 inches with a .500 die set. The permissible range for each die set is shown below crimp position.

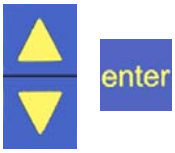


With the yellow scroll buttons, adjust "CRIMP POSITION" number to the amount above the closed diameter of the die in the machine that is required for the finished crimp diameter.

Press "enter" to complete the setting



Scroll down to "DWELL TIME (AUTO)" and press "enter"



With the yellow scroll buttons, adjust the amount of dwell, in seconds, that the machine will dwell after reaching the correct crimp diameter.

Press "enter" to complete the setting

The example screen shown at the left is set up with a .500 die and is set to crimp at a finished diameter of .547 inches with a dwell time of 0.2 seconds at the end of the crimp cycle before the dies open.

While still in the "MAN" mode move the dies to the open position with the green "OPEN" (STOP/ OPEN) button that the dies will return to after completion of the crimp cycle.

Crimper Operation

Go to "AUTO" and press "CYCLE START" (START/CLOSE). *No adjustments can be changed while the control in the "AUTO" mode. To change any settings the control must be in "MAN" mode.*

The cycle counter can be reset at any point to maintain a running count of crimp cycles.

To operate the machine in "MAN" mode, make the appropriate settings and press the "OPEN DIES" (STOP/OPEN) or "CLOSE DIES" (START/CLOSE) buttons

HYDRAULIC DIE INSTALLATION

Install Intermediate Adapter Dies as shown previously making certain that the Intermediate Adapter Die I.D. matches the Hydraulic Die O.D.

Remove the Hydraulic Dies from their holder with the magnetic die insertion tool as shown.

The die size stamped on the face of the die should face toward the operator

Align the studs of the Hydraulic Dies with the holes in the Adapter Dies and with the crimper in manual mode SLOWLY close the crimper head on the die set.

Bring the crimper head to a fully closed position and remove the die insertion tool.

The dies may also be inserted manually with the crimper head in the fully open position.

Proceed to the AccuCrimp operating instructions to set up the crimper for the hose and fitting being crimped.

For Hydraulic Die removal, place the crimper in manual mode and bring the crimper head to the fully closed position. Insert the die removal tool and open the crimper head releasing the Hydraulic Dies form their spring retention holes.

Quick Tip: When working with metric settings, leave the inch settings set at "0". When a die change is required, switch the crimper to inch and press the close button to quickly bring the head to a fully closed position. When working with inch settings, leave the metric setting at "0".

Do not lift the machine by the crimper head. Lift with a fork lift under the tank.

Mount the crimper on a sturdy surface

Electrical Requirements:

220 Volt 3 Phase Current (Standard)
440 Volt 3 Phase Current (Optional)

Check to be certain that the motor rotates in the direction of the arrow shown on the motor housing. If motor rotation is opposite of the direction of the arrow, reverse any two hot wires in the electrical plug.

Damage to the pump can result if the motor does not rotate in the correct direction.

Check the oil level in the sight glass on the rear of the crimper. 8 U.S, gallons of ISO 46 hydraulic oil are required to completely refill the tank.

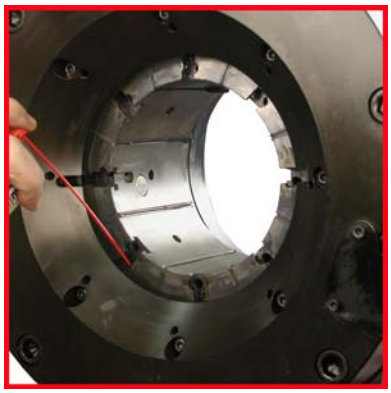
Oil can be drained from either of the two ports at the bottom of the tank.

An additional oil cooler, while not normally required, can be plumbed into the two ports at the rear of the crimper

Front Flange Bolts

Front Flange Bolts: Periodically, every 6-12 months depending upon useage, the front flange bolt torque should be checked. The correct torque is 330NM (243 Ft Lbs)

Proper lubrication is essential to prevent damage to the machine and to assure accurate crimping.



Lubricate the crimping head after each 100 crimping cycles.

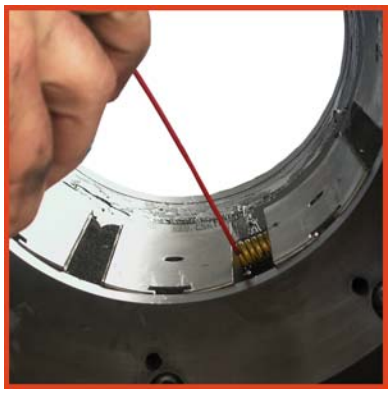
A lubricant containing 60% molybdenum di-sulphide must be used. A can of lubricant (P/N DMA-12) is furnished with the machine. The can must be shaken for a minute in order to assure that the thick lubricant at the bottom of the can is thoroughly mixed with the propellant.

Close the Master Dies until the face of the die is approximately 17mm (.65 in) above the flange as shown.

Spray the lubricant into the front and rear of the dies as well as into the diffuser hole in the center of the die.

Every 400 crimp cycles, remove the soft protective pads from between the Master Dies and spray lubricant into the spring cavity area.

Be certain to replace the protective pads as dirt and chips can cause permanent damage to the crimping head



PROBLEM: CRIMPER WILL NOT RUN AT ALL

- **Check the E-Stop switch to be certain that it is not depressed. A slight twist is required to release switch after it has been depressed.**
- **PLC (Programmable Logic Control) must be reset.**

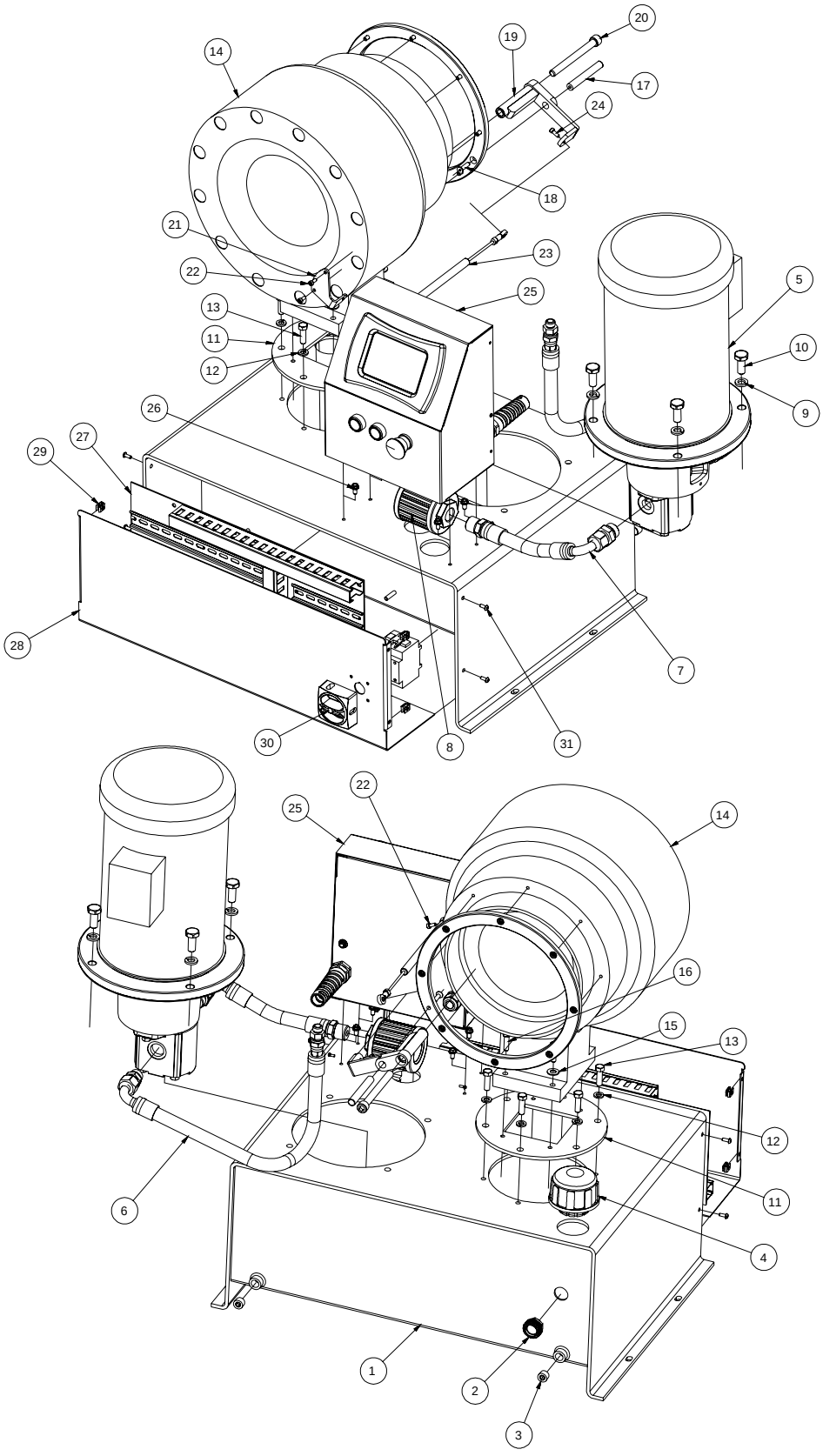
PROBLEM: CRIMPER RUNS BUT IS SLOW OR NON-FUNCTIONAL

- **Check supply voltage to see that it matches the voltage specified on the tag attached to the crimper.**
- **Check motor rotation and be certain that the motor rotates in the direction of the arrow on the motor housing. For three phase units rotation can be reversed by switching any two wires in the plug.**

PROBLEM: CRIMPER WILL CLOSE ON FITTING BUT DOES NOT DEVELOP POWER TO COMPLETE THE CRIMP

- **Fitting is to large for selected crimp die. Select a crimp die that is closer to final crimp diameter. Machine has built-in safety by-pass to protect internal components from damage due to incorrect die selection.**
- **Check oil level. Position dies to the fully open position and check oil sight gage in rear of machine. Be sure the oil level is in the middle of the sight glass. Use ISO 32 or 46 weight hydraulic oil.**

If problem(s) persist contact Customer Service for additional troubleshooting assistance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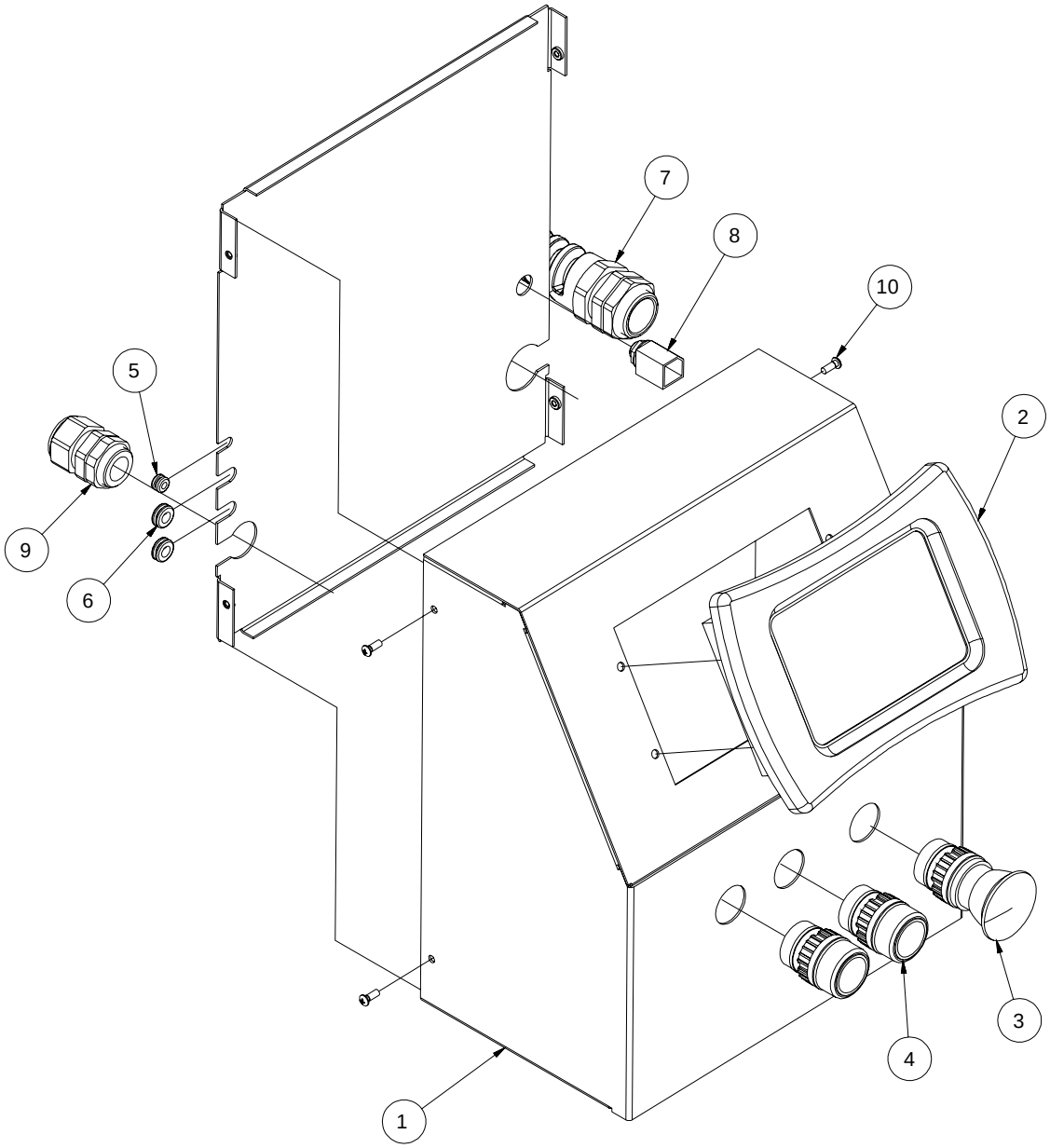
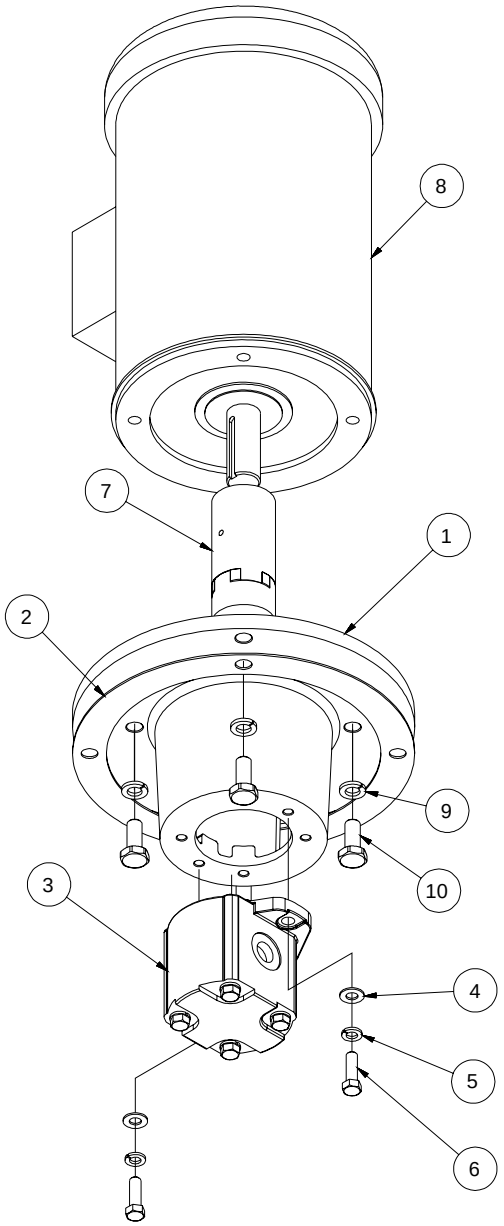
CC38 (101547) / CC60 (101551) / CC4-50 (101832) Crimper Assembly			
Item	Part Number	Description	Qty
1	101537	CC Crimper Reservoir	1
2	1116K22	Sight Glass Assembly	1
3	4534K43	3/8-18 NPTF Hex Socket Pipe Plug	2
4	ABS-40FillerAssy	Vented Cap Filler Neck	1
5	101715	CC38 Pump/Motor Assembly	1
5	101714	CC60/CC4-50 Pump/Motor Assembly	1
6	101734	Output Hose Assembly	1
7	101733	Suction Strainer Hose Assembly	1
8	SS-008P012	Suction Strainer	1
9	91102A033	1/2 Lock Washer	4
10	92865A714	1/2-13 X 1 1/4 Hex Bolt	4
11	101537-04	CC38 Intermediate Plate	1
11	101537-05	CC60/CC4-50 Intermediate Plate	1
12	91102A031	3/8 Lock Washer	6
13	92865A626	3/8-16 X 1 1/4 Hex Bolt	6
14	101548	CC38 Head/Manifold Assembly	1
14	101550	CC60 Head/Manifold Assembly	1
14	101833	CC4-50 Head/Manifold Assembly	1
15	90126A031	3/8 Flat Washer	4
16	91310A536	M8-1.25 X 40mm Hex Bolt - Class 10.9	4
17	101689	Anti-Rotation Guide Pin	1
18	91253A542	1/4-20 X 1 HSFHS	1
19	101790	CC38 Potentiometer Bracket	1
19	101688	CC60 Potentiometer Bracket	1
19	101836	CC4-50 Potentiometer Bracket	1
20	M10-1.5 X 120	CC38 M10-1.5 X 120mm SHCS	1
20	91290A643	CC60/CC4-50 M12-1.75 X 120mm SHCS	1
21	101687	Potentiometer Mounting Plate	1
22	91290A228	M5-0.8 X 12mm SHCS - Class 12.9	3
23	101719	Linear Position Sensor	1
24	91290A230	M5-0.8 X 14mm SHCS - Class 12.9	1
25	101732	PLC Housing Assembly	1
26	92323A512	1/4-20 X 1/2 SHFCS	4
27	101599	Electrical Panel	1
28	101537-03	Reservoir Front Cover	1
29	98065A135	10-32UNF Spring Clip Nut	4
30	6759K23 (Yel/Red)	Main Disconnect Switch	1
31	91255A265	10-32 X 1/2 BHCS	4

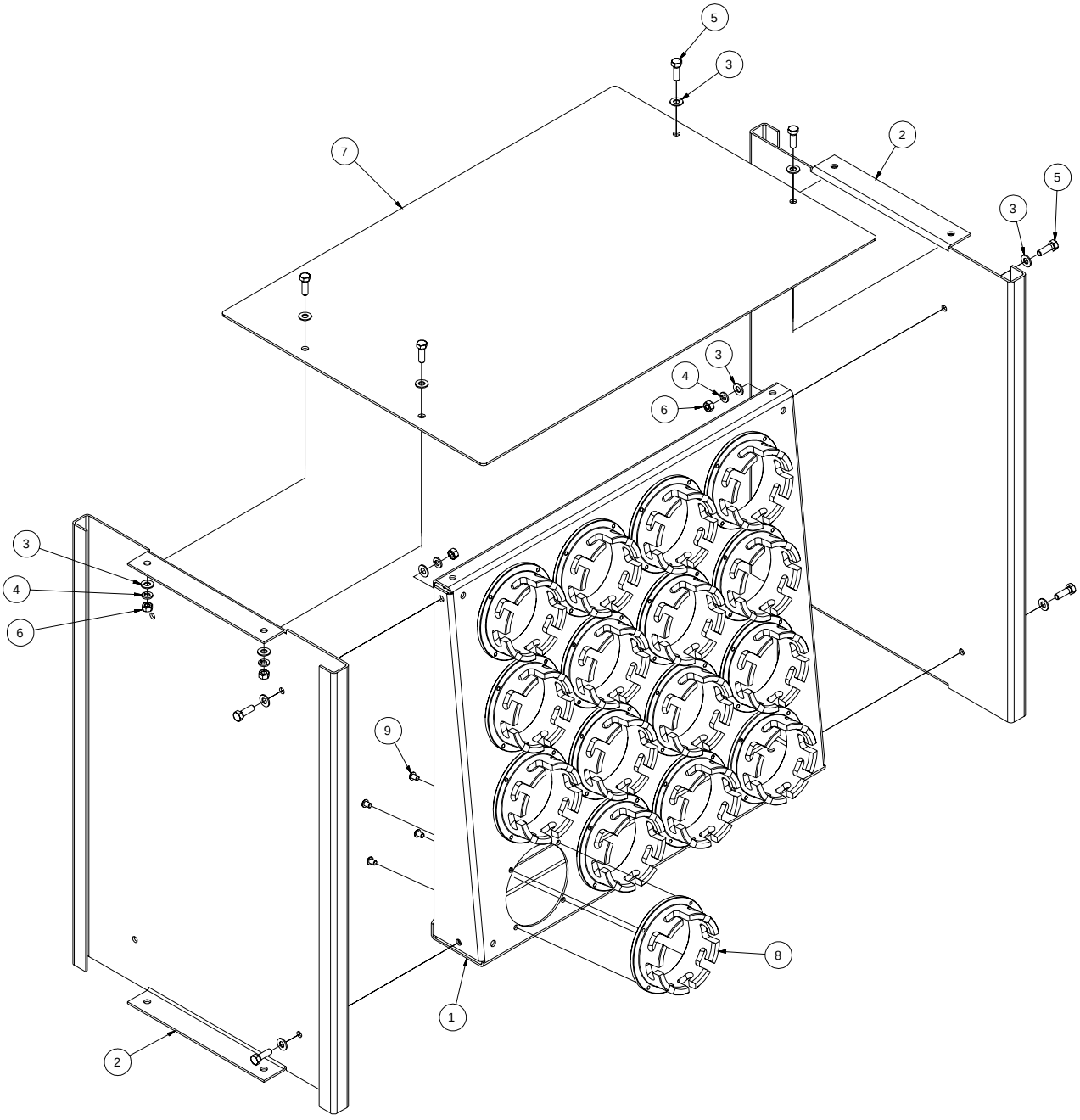


PLC Housing Assembly (101732)			
Item	Part Number	Description	Qty
1	101538	PLC Housing	1
2	EZ-420	PLC Display	1
3	E22LLB2B/E22B1	Emergency Stop Switch	1
4	E22PB3A	Pushbutton Switch	2
5	9600K11	Grommet - 1/8"	1
6	9600K24	Grommet - 1/4 "	2
7	69915K65	Cable Strain Relief	1
8	502-N-111	Foot Pedal Jack W/Nut	1
9	69915K57	Cable Strain Relief	1
10	92949A144	6-32 X 1/4 BHCS	4



	CC38 (101715) / CC60 & CC4-50 (101714) Pump/Motor Assembly			
	Item	Part Number	Description	Qty
	1	101539	Mounting Flange	1
	2	101539-01	Flange Gasket	1
	3	101713	8cc Gear Pump	1
*	3	101542	11cc Gear Pump	1
	4	90126A031	3/8 Flat Washer	2
	5	91102A031	3/8 Lock Washer	2
	6	92865A626	3/8-16 X 1 1/4 Hex. Bolt	2
	7	101543	Shaft Coupling	1
	8	101541	5 HP - 220V Motor	1
*	8	101540	7.5 HP - 220V Motor	1
	9	91102A033	1/2 Lock Washer	4
	10	92865A714	1/2-13 X 1 1/4 Hex. Bolt	4

* Substitute These Components On CC60/CC4-50 Assembly



CC Crimper Table Assembly (101755)			
Item	Part Number	Description	Qty
1	101244	Die Panel	1
2	101246	End Panel	2
3	90108A030	5/16 Flat Washer	16
4	91102A030	5/16 Lock Washer	8
5	92865A581	5/16-18 X 1 Hex Bolt	8
6	95462A030	5/16-18 Hex Nut	8
7	101754	CC Crimper Table Top	1
8	101242	99MM Die Holder	16
8	101243	84MM Die Holder	16
9	91255A535	1/4-20 X 3/8 BHCS	64