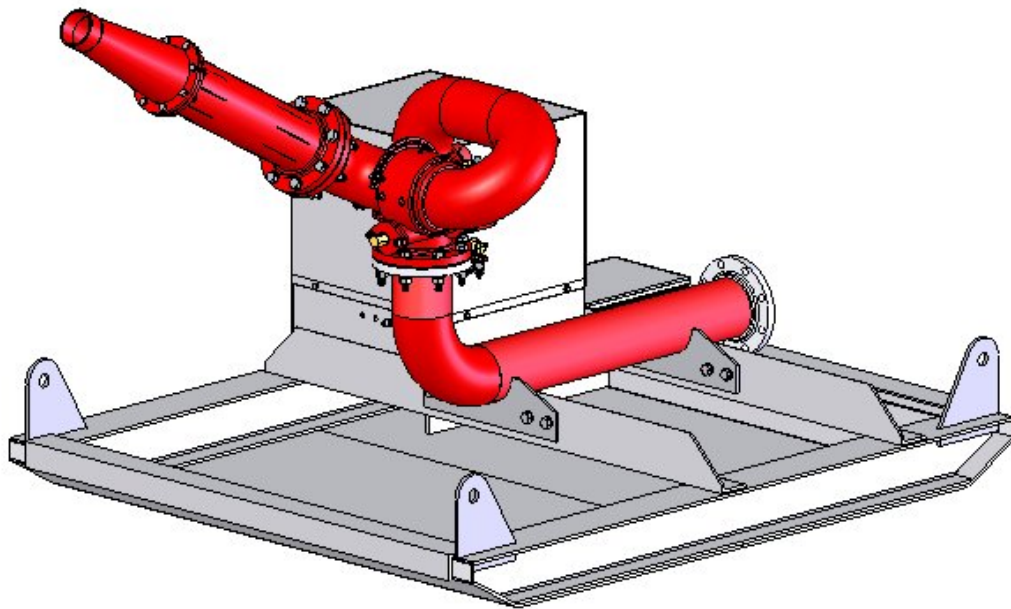




Stang Industrial Products

Operation and Maintenance & Installation Manual



**SKID PACKAGE, 6.00" W/MONITOR,
HPU, SHAPER TIP 220/240VAC
Model # 964150-1**

1250 Railroad St.
Corona, Ca 92882 USA
www.stangindustrial.com

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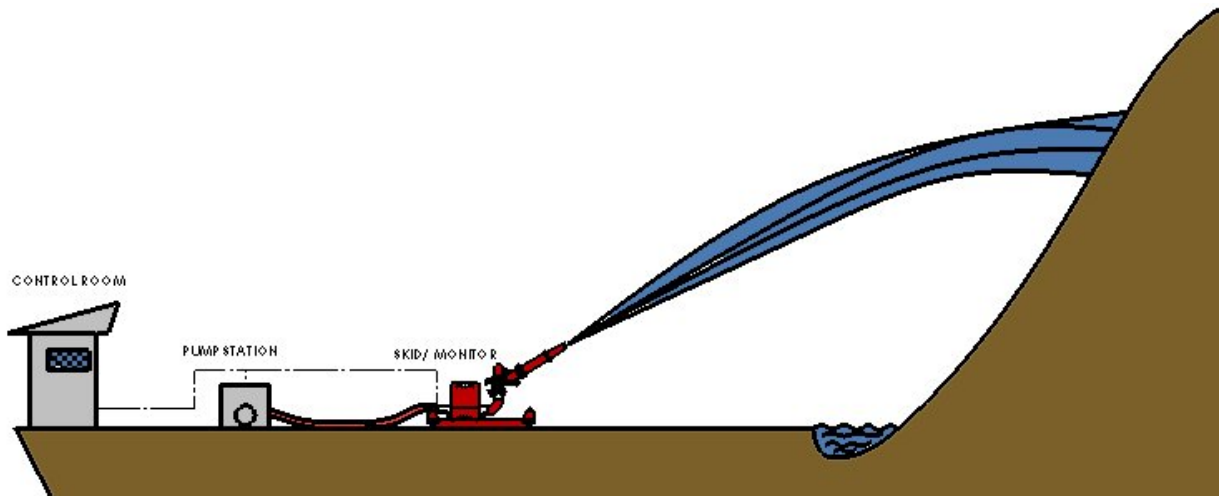
1. Introduction

The Stang 6.00" Skid Package is a stand alone monitor & HPU that can dragged & placed in any location for operation. The unit needs to be supplied with a water source & electrical input for operation. These units are generally designed for hydraulic mining systems but can also be used for dust abatement, waste management systems and fire suppression.

The monitor is a worm gear driven design that is operated by HPU driven hydraulic motors. Both the vertical & horizontal travel limits are adjusted via hard stop bolts on adjustment plates.

This skid needs to have ballast added prior to operation.

Recommended ballast is 3" of concrete added to the bottom of skid and after concrete has cured add sand bags as shown on drawing.



2. General Information

- | | |
|--|----------------------------|
| a. Input Water Way Size: | 6.00" |
| b. Input Waterway Flange: | 6.00" 150lb. Flange |
| c. Empty Weight W/O Ballast Approx: | 2100lbs |
| d. General Dimensions W/O Nozzle: | 54h x 86l x 72w |
| e. Vertical & Horizontal Travel Approx: | +90°/ -10°
L 45°/ R 45° |
| f. Unit must have recommended ballast: | |
| i. Concrete as shown | |
| ii. 1500lbs of sand bags with concentration towards the front of skid. | |

3. Electrical Information

- a. Input Power
 - i. HPU Motor 220/240vac
 - ii. Motor Starter 220/240vac
 - iii. Relay Coils 220/240vac
 - iv. Hydraulic Valves 220/240vac
- b. Wiring Schematic: 105208-421

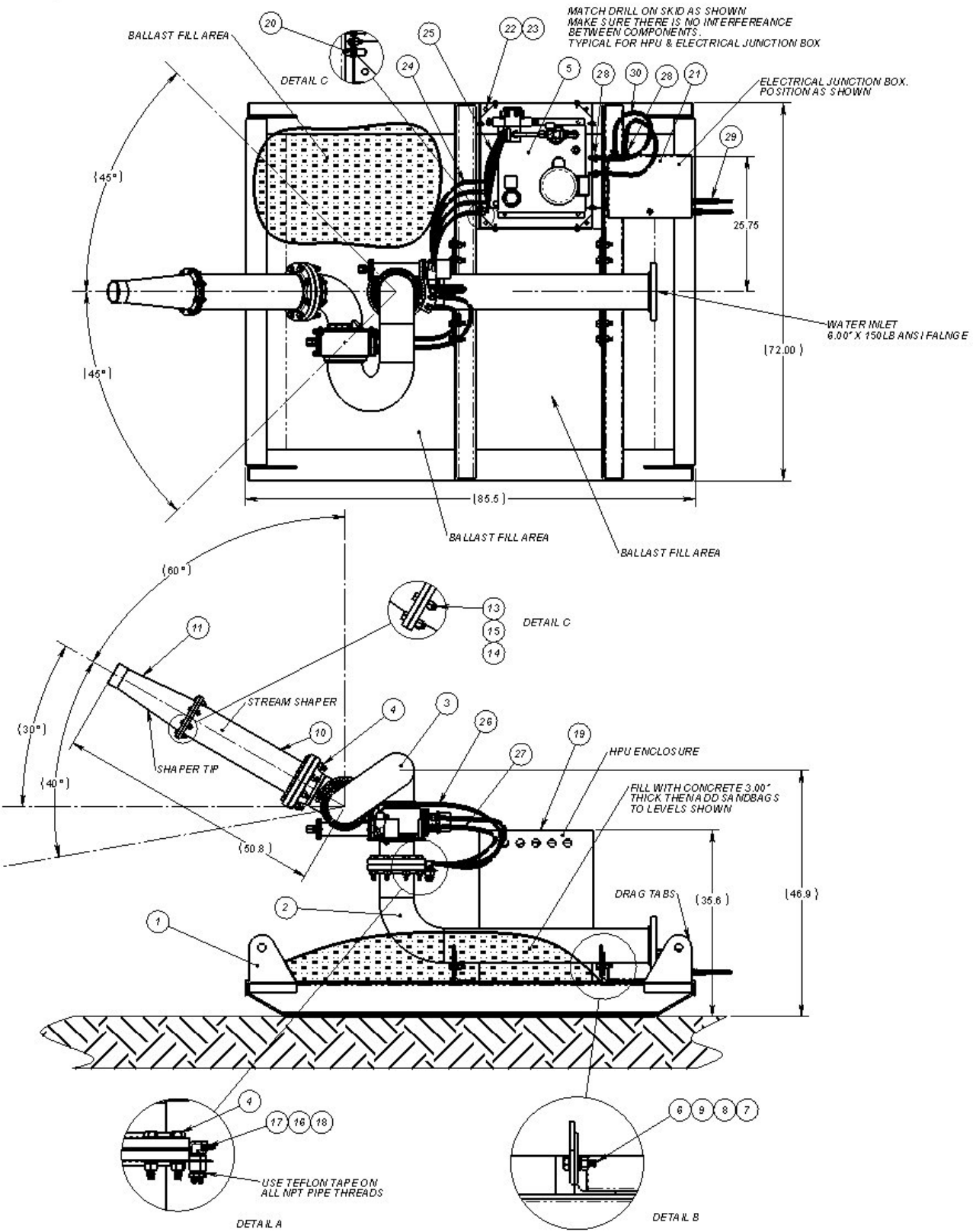
4. Hydraulic Information

- a. Hydraulic Connections: 9/16 JIC
- b. Hydraulic Oil Type: Shell Tellus plus 32 or similar
- c. Tank Volume: 10 Gallon
- d. Flow Rate: 3.0-3.2 GPM
- e. Motor Voltage: 220/240vac
- f. Hydraulic Valves Voltage: 220/240vac
- g. Hydraulic Schematic: 105206-11

Hydraulic operation: recommended working pressure-250-400psi, max pressure is 500psi.

5. Overview Drawing

1	30	783005-144	CORD, SJO, 14AWG X 4WIRE X 72.00L-BLACK
2	29	752758-4	CORD GRIP W/MESH-52-73 X 3/4NPT-ALUM
4	28	105692-2	STRAIN RELIEF, 1/2-5/8 CORD
2	27	105920-1-1-35	HOSE ASSY, 3/8 X 35.00L, 9/16JIC(F)STR X 9/16JIC(F)STR-HP
2	26	105920-1-1-50	HOSE ASSY, 3/8 X 50.00L, 9/16JIC(F)STR X 9/16JIC(F)STR-HP
4	25	105920-2-2-23	HOSE ASSY, 3/8 X XXL, 9/16JIC(F) X 9/16JIC(F)-HP
4	24	105920-1-1-32	HOSE ASSY, 3/8 X 32.00L, 9/16JIC(F)STR X 9/16JIC(F)STR-HP
8	23	100249-11C	NUT, NYLOCK, 3/8-16UNC, 18-8
8	22	102473-125C	BOLT, HH, 3/8-16UNC X 1.25L, 18-8
1	21	105088-61	MODULE, SINGLE STATION-STARTER/RELAY 220/240VAC
4	20	121655-6S	FITTING, BULKHEAD, 9/16JIC(M) X 9/16JIC(M)-STL
1	19	315025-1	ENCLOSURE, 6.00" SKID HPU-STL
4	18	101816-39	FITTING, STR, 1/2NPT(M) X 9/16-18JIC(M)-STL
4	17	101822-37	ADAPTER, 90°, 1/2-14(M)NPT X 9/16-18 (M)JIC
1	16	317550-601504	MANIFOLD, HYDRAULIC, 6.00" X 150# X 4 STATION-STL
8	15	100249-15C	NUT, NYLOCK, 1/2-13UNC, 18-8
8	14	101715-50C	WASHER, FLAT, .515ID X.88OD X.063T, 18-8
8	13	102475-200C	BOLT, HH, 1/2-13UNC X 2.00L, 18-8
1	12	125010-1	GASKET, CUSTOM FLANGE, 9.00 OD X 6.655 ID FULL FACE
1	11	260800-38	SHAPER TIP, 3.88 DIA ORIFICE, 304SS
1	10	260825-71	FLOW STRAIGHTENER, 6.00" NOM. X 24.50LG., 304SS
8	9	102962-8C	NUT, HEX, 3/4-10UNC, 18-8
8	8	103109-4C	WASHER, LOCK, SPLIT, 3/4" NOM, 18-8
16	7	101715-75C	WASHER, FLAT, .765ID X1.31 OD X.063T, 18-8
8	6	102478-250C	BOLT, HH, 3/4-10UNC X 2.50L, 18-8
1	5	104433-1	HPU, 10 GAL, 3.2GPM, 1.0HP, W/ C. V.
2	4	968400-6.00-150	KIT, 6.00"X150# FLANGE INSTALL
1	3	960165-31	MONITOR, 6.00" SLP HYD, W/6.0-150#RF, STL-AB
1	2	100645-121	SKID INTAKE, 6.00" W/6.0-150#RF X 6.0-150#RF, STL
1	1	103317-111	SKID, 6.00" MONITOR, 84.00 X 72.00, STL
QTY.	ITEM NO.	PART NUMBER	DESCRIPTION



6. Operation

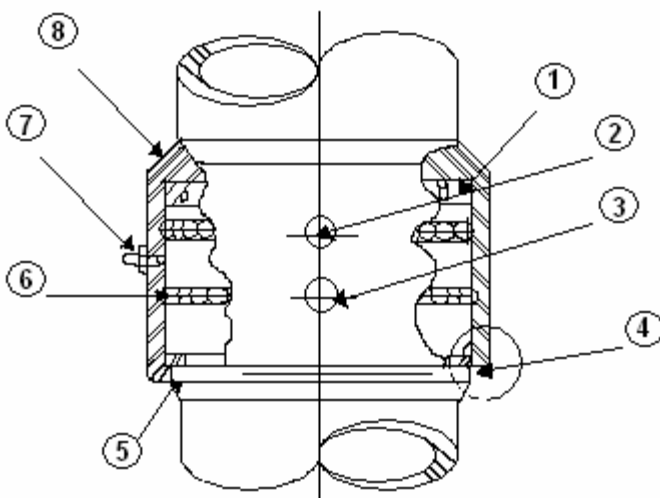
**Prior To Operation

- Unit is properly wired?
 - The travel limits are set properly?
 - Unit has the proper ballast in place?
 - HPU & hydraulic system operates properly?
 - There are no humans, animals, structures, items etc. in the line of fire from the monitor?
 - Everything is clear around the skid/monitor?
1. With all the above conditions met, turn on the master power switch on control panel.
 2. Turn on the HPU power switch.
 3. Make sure all movements are working.
 4. Slowly turn on water. This will avoid water hammer and shock.
 5. Apply the reverse for shutdown.

7. Maintenance

- a. Keep swivel joints well greased as per swivel grease maintenance instructions.
- b. Make sure all moving parts are clean & operable and well lubed.
- c. HPU must have the proper amount of hydraulic fluid.
- d. Electrical system must be kept free from dust, dirt & grease.

8. Swivel Joint Service Instructions



Parts

1. Pressure Seal
2. Ball Retainer Plug
3. Retaining Ring (For Plug)
4. Dirt Seal
5. Inner Race
6. Steel Balls
7. Grease Zerk
8. Outer Race

Equipment Needed

1. Retaining ring pliers (Truarc or equal: #1 internal rings on joints up to 4", and #3 for 6" joints and larger)
2. Sharp pointed tool (Example: alignment punch or ice pick).
3. Solvent to soften grease in ball races.
4. Cleaning material-rags.
5. Lubricant: All purpose grease, grade #2.
6. New Seals.

Maintenance

1. Lubricate swivel joint through grease zerk (7) after each 24 hours of accumulated use.

CAUTION: Excessive grease pressure can cause packing displacement and consequent leakage.

2. Inspect swivel joint at regular intervals for water leakage. If leakage is detected, replace packing as described in the repair procedure.

Repair

1. Disassembly:
 - A. With retaining ring pliers, remove the two retaining rings (3).
 - B. Insert sharp pointed tool into middle of the ball retainer plug (2) and lift at slight angle. The ball retainer plug has a metal plate on top with a small hole in the middle of the plate to aid in removal.
 - C. Rotate swivel joint to allow balls (6) to roll out of races. If grease is thick and heavy, balls may not fall free. Use solvent to clean. Balls will always roll out if races are clean. Parts will disassemble when all the balls have been removed, and the seals will be exposed. A flexible polyethylene rod or similar tool may be used to push balls from race.
2. Cleaning:
 - A. Remove old seals (1 & 4) and replace with new parts.
 - B. Thoroughly clean all parts and apply a thin coat of lubricant around the packing.

Reassembly

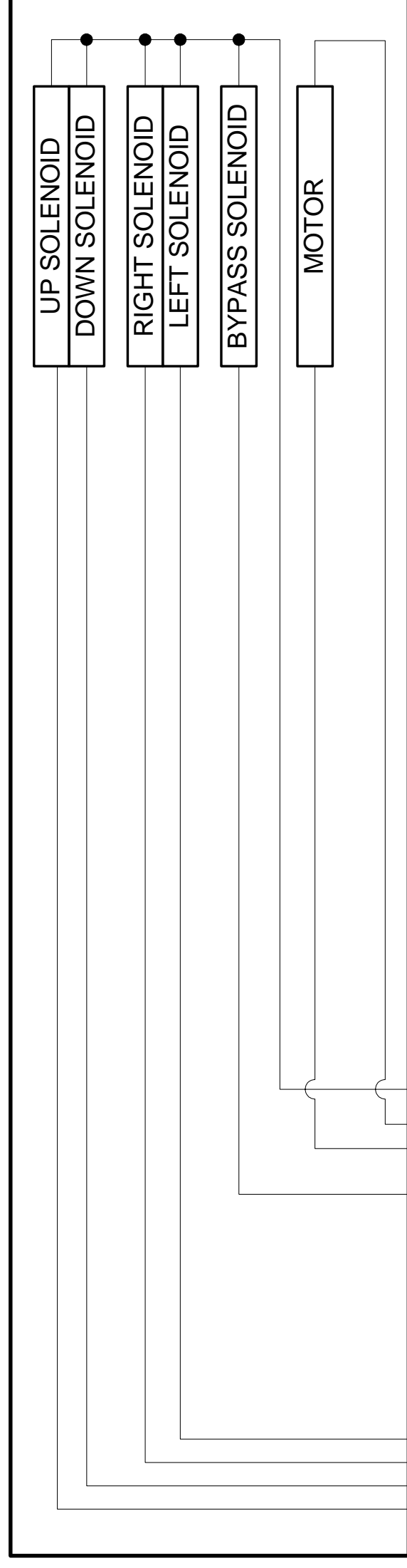
1. Replace pressure seal with new part if necessary. Lips must face away from ball grooves. Put small amount of grease on seal to ease reassembly.
3. Replace dirt seal. (Item 4)
4. Press the separate swivel joint races together and drop in the balls until the races are filled.
5. Replace the ball retainer plugs (2).
6. Replace retainer rings (3) with retaining ring pliers.
7. Lubricate the ball race area by using a small hand grease gun to force a small amount of the lubricant through grease zerk (7). Then rotate one portion of the 90° and regrease. Repeat 2 more times.

CAUTION: Do not over grease. Excessive grease pressure can cause leakage and/or difficult rotation.

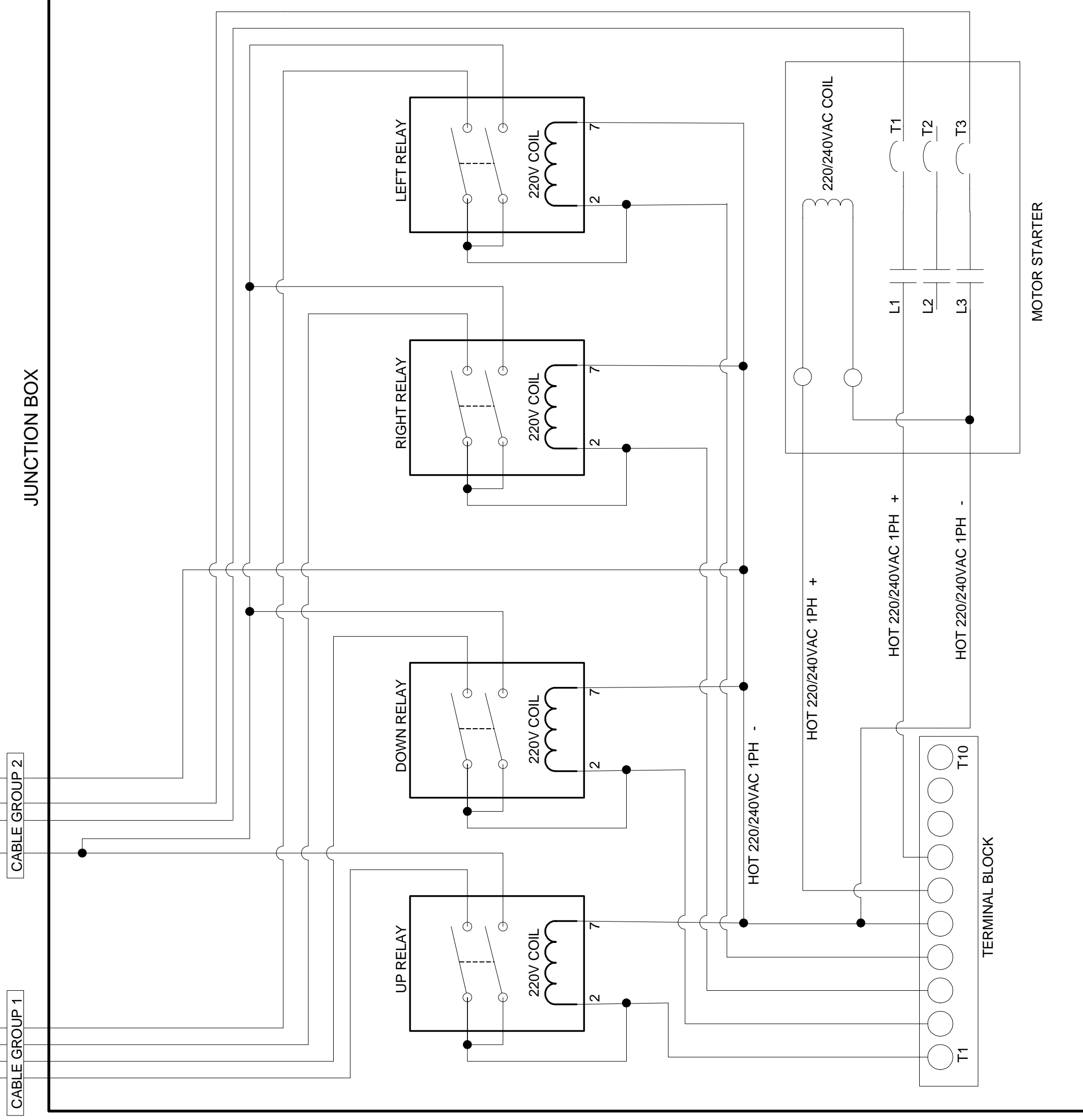
REV. A		DESCRIPTION		DATE		BY	
A		INITIAL RELEASE		11/06/06		EK	

REVISIONS

HPU MOTOR & VALVES



JUNCTION BOX



GENERAL NOTES:

1. SYSTEM VOLTAGE: 220/240VAC 1 PHASE
2. USE MINIMUM 14 AWG WIRE



STANG INDUSTRIES INC.

1250 RAILROAD ST.
CORONA, CA 92882

ELECTRICAL SCHEMATIC

HPU-VALVES W/RELAYS & BYPASS

DRAWING/ PART NO. 105208-421

CAGE#	55822	DRAWN	EK	CHECK	REVISION	A
DATE	11/06/06	DESIGN		SCALE	1:1	SHEET

SCHEMATIC # 105208-421

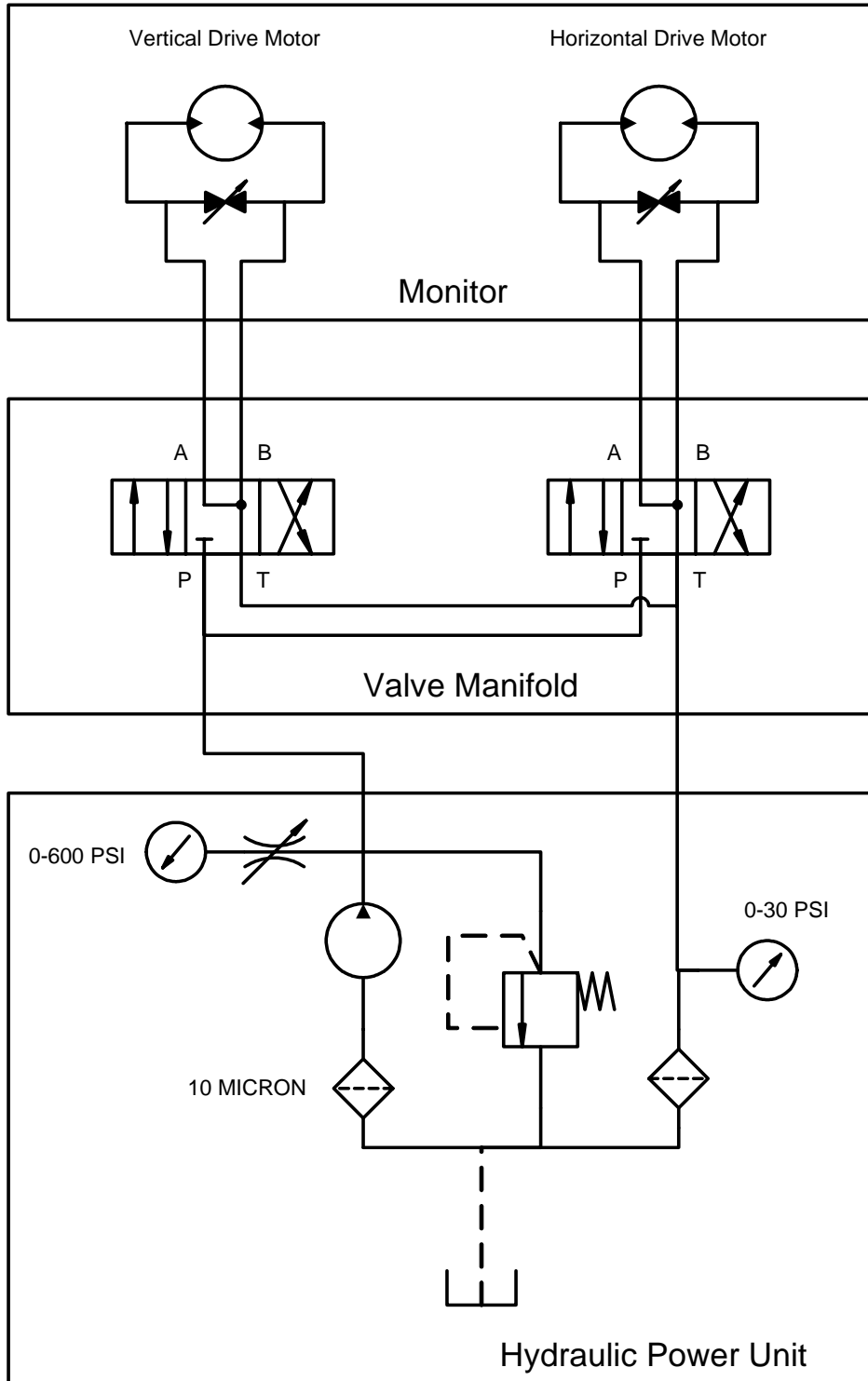
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SHEET SIZE
C

1 OF 1

NOTES:

- 1) DO NOT SCALE THIS DRAWING
- 2) BREAK ALL SHARP EDGES
- 3) ALL DIMENSIONS DISPLAYED IN PARENTHESES ARE FOR REFERENCE ONLY



DO NOT SCALE DRAWING
 UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES
 TOLERANCES
 DECIMALS ANGULAR
 .XX ±.03 ±2°
 .XXX ±.010

MATERIAL
 FINISH
 DRAWN



STANG INDUSTRIAL PRODUCTS

DIV. OF GST INDUSTRIES

16692 BURKE LN.

HUNTINGTON BEACH, CA 92647

SCHEMATIC, HYDRAULIC

1 MONITOR, 1 HPU, NO FOG NOZZLE

DESIGN
 DATE

PART NUMBER **105206-11**
 SCALE:1:8 SHEET 1 OF 1 REV.

SIZE
A

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