
COX

Research and Technology, Inc.

SIMPLEX PUMP
CONTROL PANEL
MT. VERNON, TX

Cox Research and Technology, Inc.
14697 S. Harrells Ferry Road
Baton Rouge, LA. 70816
(225) 756-3271 Fax (225) 755-1030

CP-2144

VOLTAGE	120/240V	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	3/60	
NO. MOTORS	1	
HP	3	
FLA	9.6 (EST)	
TYPE OF PUMP	Self Priming	(Self-Priming, Submersible)
MANUFACTURER	Gorman Rupp	
CATALOG NUMBER		

CONTROL VOLTAGE	120V	(120V, Other)
ENCLOSURE	NEMA 4X	(NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)
ENCLOSURE MATERIAL	Stainless Steel	(Painted Steel, Stainless Steel, Fiberglass)
CONTROL SENSOR	Off-On	(Floats, Bubbler, Other)
CAPACITORS	No	(Yes, No)
CAPACITOR WIRING FIGURE	N/A	
THERM. & SEAL FAIL WIRING FIGURE		

OPTIONS:

SEAL FAIL LIGHTS		(Submersible Only)
SEAL FAIL RELAYS		(Submersible Only)
SEAL FAIL PUMP SHUTDOWN		(Submersible Only)
HT PUMP SHUTDOWN	X	(Self-Primer, Submersible)
ALARM HORN		
ALARM LIGHT	X	
LIGHT PANEL MTD	X	
LIGHT REMOTE MTD		
LIGHT FLASHER		
LIGHTNING ARRESTER		
ELAPSED TIME METER		
PHASE MONITOR		
NEMA RATED STARTERS		
GROUND FAULT RECPT.		
GREEN RUN LIGHTS VS. RED		
POLE, BOX, SEAL		
INTRINSICALLY SAFE RELAYS		
HIGH TEMP. LOCKOUT, MANUAL RESET		
ECONOMY VERSION		

SOLD TO: CF Engineered Equipment

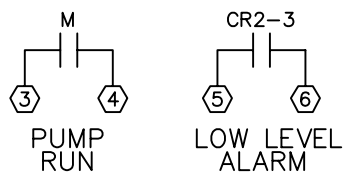
TAG : MT. VERNON, TX

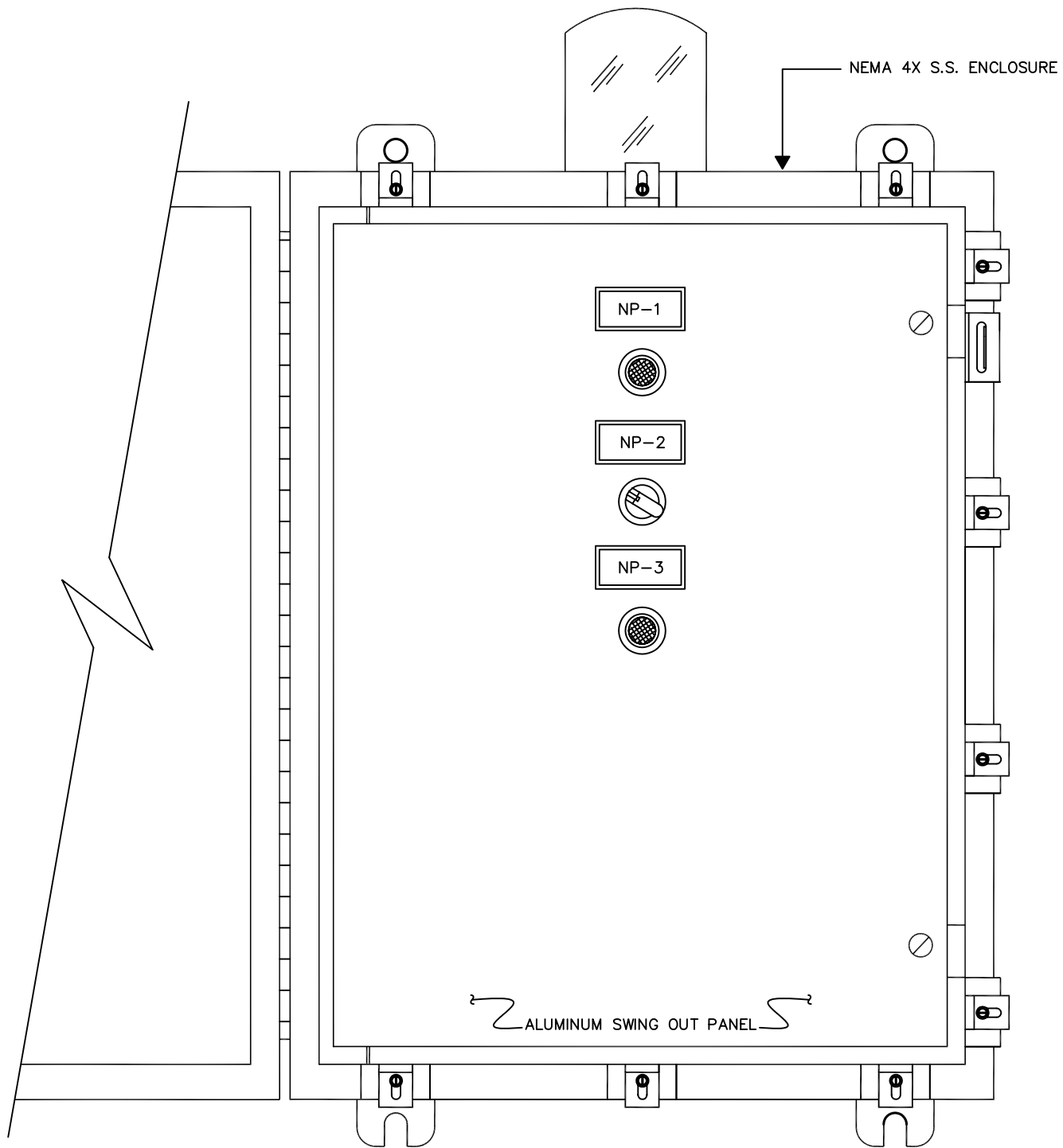
SHIP TO: _____

	Drawing Title							
	PANEL DESCRIPTION							
DATE 9/07/05			REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE
	Project Title	<div style="text-align: center;"> COX Research and Technology, Inc. </div>			P.O. Box 77808 Baton Rouge, LA 70809		PURCHASE ORDER NUMBER	
	SIMPLEX PUMP CONTROL PANEL				Ph. (225)756-3271 Fax (225)755-1030		DRAWING NUMBER CP-2144	
					SHEET NUMBER 1			

The diagram illustrates a 3-phase motor control system for a pump. The main components and their connections are as follows:

- Power Source:** A 3-phase supply (L1, L2, L3) with a ground (G) and neutral (N) connection.
- Circuit Breaker:** A 20A 3P circuit breaker (CB1) is connected to the supply.
- Distribution Block:** The circuit breaker feeds three phases to a distribution block.
- Motor (M):** A 3HP, 230V, 3Ø motor is connected to the distribution block through three thermal relays (T1, T2, T3) and three fuses (F1, F2, F3).
- Control Circuit:**
 - A manual stop button (T.S.) is connected to the motor.
 - A low level float switch (normally closed) is connected to the motor.
 - A low level lockout (CR2) is connected to the motor.
 - A low level alarm light (R) is connected to the motor.
 - A seal minder relay (CR1) is connected to the motor.
- Interlocks:** The motor is interlocked with the pump run light (R) and the pump motor starter (M1).
- High Temperature (H) Sensor:** A high temperature sensor is connected to the motor.

[illegible]



NOTE:
SEWER GASSES WILL DESTROY COMPONENTS IN PANEL.
PROPER SEALS MUST BE INSTALLED EXTERNAL TO THE
PANEL TO PREVENT ENTRY OF GASSES.

NAMEPLATE SCHEDULE

NP-1	PUMP 1 RUN
NP-2	OFF-ON
NP-3	HIGH TEMP

	Drawing Title
--	---

BILL OF MATERIALS

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	EBE	S16128N4X	ENCLOSURE
1a	1	EBE	A1612P	BACKPLATE
1b	1	EBE	A1612SP	DEAD FRONT
2	1	ABB	A16-30-10-84	MOTOR STARTER
3	1	ABB	TA25DU11	OVERLOAD (7.5-11A)
4	2	ACI	JR22FR	RED PILOT LIGHT
5	1	ACI	JR22P2M11B	OFF-ON SWITCH
6	1	MARATHON	1321570	NEUTRAL BLOCK
7	1	MARATHON	1323580	DISTRIBUTION BLOCK
8	1	MAGNECRAFT	W388AMLCPX-9	CR1
9	1	IDEC	RU4SA110	CR2
10	1	SQUARE D	QOU320	CB1
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

	Drawing Title						
	<h2 style="margin: 0;">BILL OF MATERIALS</h2>						
DATE 9/07/05		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN	DATE	BY
		DRAWN BY C. RACHAL		APPROVED BY		DATE	
	Project Title	<div style="border-top: 3px double black; border-bottom: 3px double black; padding: 5px 0;"> <h1 style="margin: 0;">COX</h1> </div> <div style="font-size: small; margin-top: 5px;">Research and Technology, Inc.</div>			P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030		PURCHASE ORDER NUMBER DRAWING NUMBER <div style="text-align: right;">CP-2144</div> SHEET NUMBER
	<h2 style="margin: 0;">SIMPLEX PUMP CONTROL PANEL</h2>						
		4					