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# COX

Research and Technology, Inc.

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## DUPLEX BLOWER CONTROL PANEL BOLLINGER

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

CP-1878

|                                  |                   |  |
|----------------------------------|-------------------|--|
| VOLTAGE                          | <u>277/480V</u>   | (480V, 277/480V, 240V, 120/240V, 208V, 120/208V) |
| PHASE/HZ                         | <u>3/60</u>       |  |
| NO. MOTORS                       | <u>2</u>          |  |
| HP                               | <u>3</u>          |  |
| FLA                              | <u>4.8</u>        |  |
| TYPE OF PUMP                     | <u>Blower</u>     | (Self-Priming, Submersible)                      |
| MANUFACTURER                     |                   |  |
| CATALOG NUMBER                   |                   |  |
| CONTROL VOLTAGE                  | <u>120V</u>       | (120V, Other)                                    |
| ENCLOSURE                        | <u>NEMA 4X</u>    | (NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)               |
| ENCLOSURE MATERIAL               | <u>Fiberglass</u> | (Painted Steel, Stainless Steel, Fiberglass)     |
| CONTROL SENSOR                   |                   | (Floats, Bubbler, Other)                         |
| CAPACITORS                       |                   | (Yes, No)  |
| CAPACITOR WIRING FIGURE          |                   |  |
| THERM. & SEAL FAIL WIRING FIGURE |                   |  |

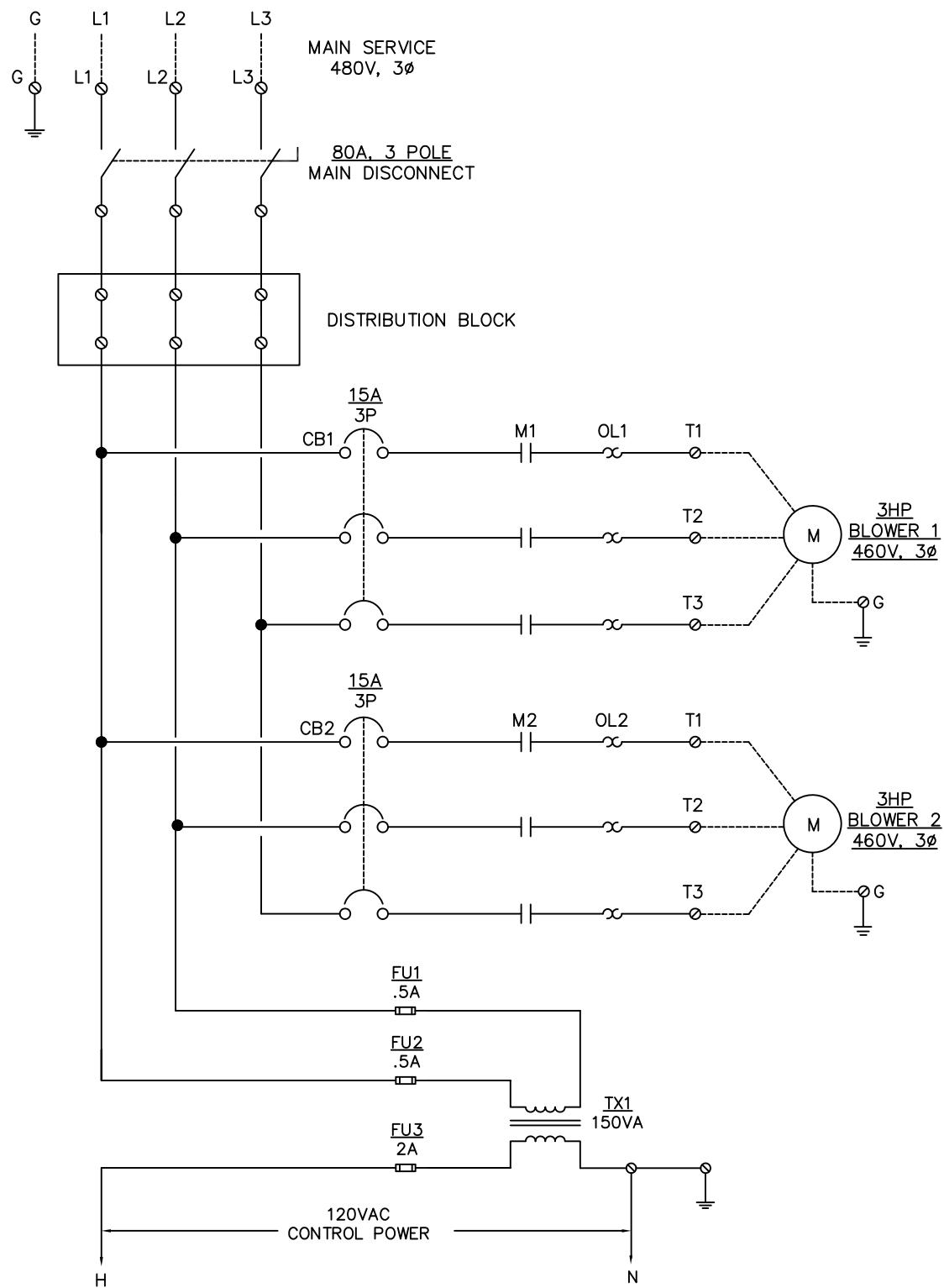
OPTIONS:

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

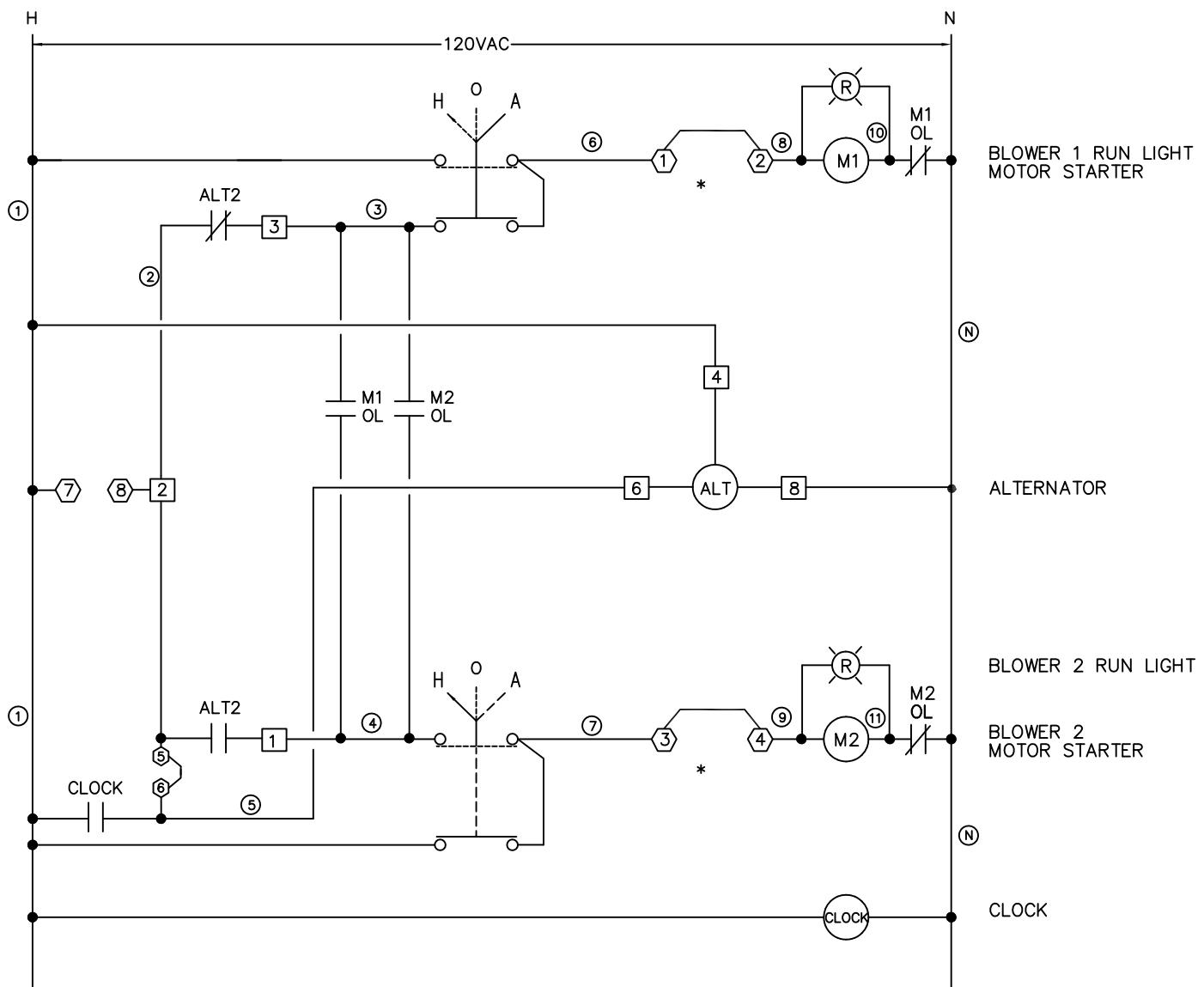
SOLD TO: Delta Process  
TAG : BOLLINGER

SHIP TO: Delta Process - Denham Springs, LA

|                 |                                |   |                |                      |                        |          |      |
|-----------------|--------------------------------|---|----------------|----------------------|------------------------|----------|------|
|                 | Drawing Title                  |   |                |                      |                        |          |      |
|                 | PANEL DESCRIPTION              |   |                |                      |                        |          |      |
|                 |                                | REFERENCE DRAWING                           | NO.            | REVISION-LOCATION    | ECN                    | DATE     | BY   |
| DATE<br>8/26/04 |                                | S/N   | Sales Engineer | Application Engineer | DRAWN                  | APPROVED |      |
|                 |                                |   | C.C.           | R.C.                 | BY C. RACHAL           | BY       | DATE |
|                 | Project Title                  | <u>COX</u><br>Research and Technology, Inc. |                |                      | PURCHASE ORDER NUMBER  |          |      |
|                 | DUPLEX BLOWER<br>CONTROL PANEL |   |                |                      | DRAWING NUMBER CP-1878 |          |      |
|                 |                                |   |                |                      | SHEET NUMBER 1         |          |      |



|                 |   |   |  |                           |                        |
|-----------------|---|---|--|---------------------------|------------------------|
|                 | Drawing Title<br><br><b>POWER DIAGRAM</b>                   |   |  |                           |                        |
|                 |   |   |  |                           |                        |
|                 |   |   |  |                           |                        |
| DATE<br>8/26/04 | REFERENCE DRAWING<br>S/N                                    | NO.<br>Sales Engineer<br>C.C.               | REVISION-LOCATION<br>DRAWN<br>Application Engineer<br>R.C.                               | ECN                       | DATE<br>APPROVED<br>BY |
|                 |   |   | BY C. RACHAL   | BY                        | DATE                   |
|                 | Project Title<br><br><b>DUPLEX BLOWER<br/>CONTROL PANEL</b> | <b>COX</b><br>Research and Technology, Inc. | P.O. Box 77808<br>Baton Rouge, LA<br>70809<br><br>Ph. (225)756-3271<br>Fax (225)756-1030 | PURCHASE ORDER NUMBER     |                        |
|                 |   |   |  | DRAWING NUMBER<br>CP-1878 |                        |
|                 |   |   |  | SHEET NUMBER<br>2         |                        |

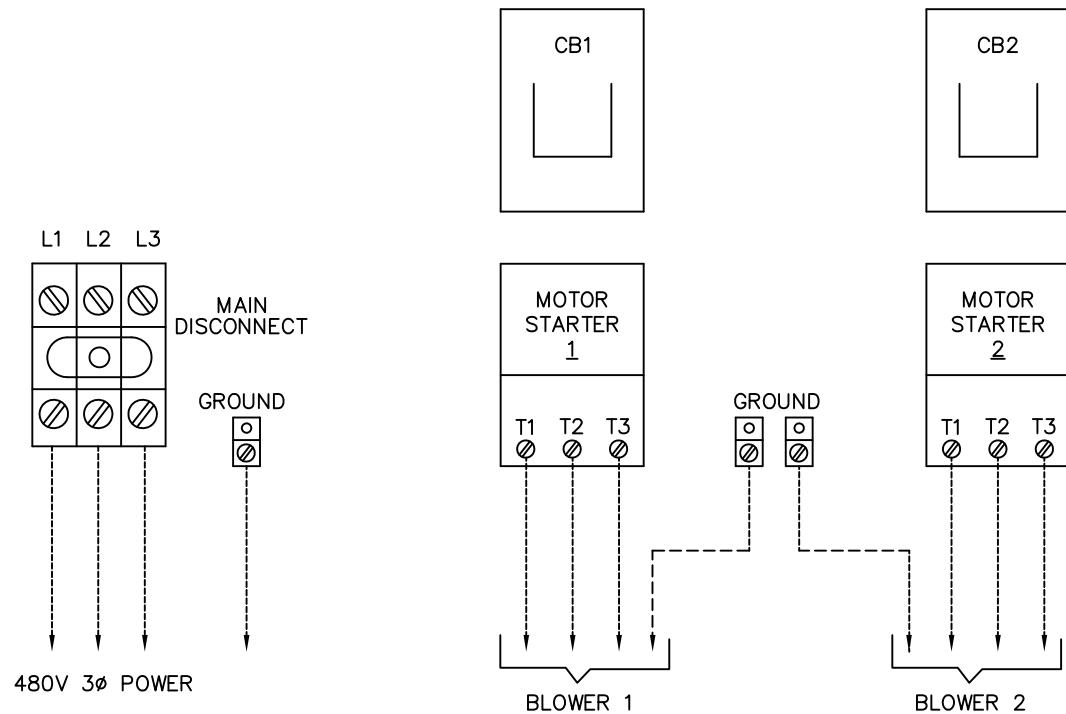


PANEL IS DESIGNED TO RUN AERATORS WITH A MINIMUM OF 15 MINUTES OF OFF TIME BETWEEN ALTERNATION. PINS PUSHED OUT ON CLOCK INDICATE RUN TIME. PINS PUSHED IN INDICATE OFF TIME. EACH PIN IS EQUAL TO 15 MINUTES.

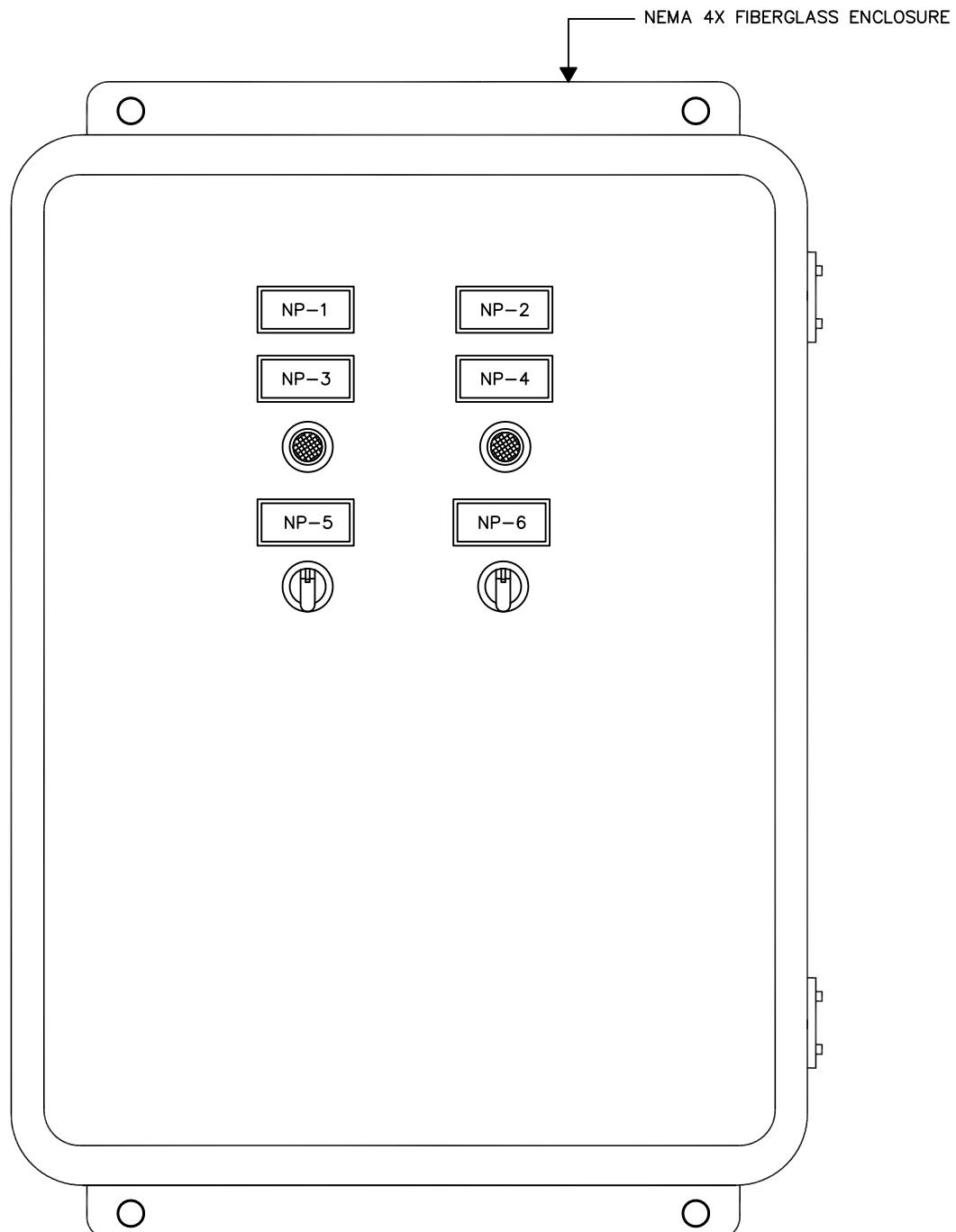
IF NO OFF TIME IS REQUIRED BETWEEN ALTERNATION, REMOVE JUMPER FROM TERMINALS ⑤ AND ⑥. PLACE JUMPER ACROSS TERMINALS ⑦ AND ⑧. NOW AERATORS WILL RUN CONTINUOUSLY. SET 1 PIN IN AT THE TIME YOU WISH THE AERATORS TO ALTERNATE. ALL REMAINING PINS SHOULD BE PUSHED OUT.

\* REMOVE JUMPERS AND INSTALL LOCKOUT DEVICES IF REQUIRED

|                 | Drawing Title                  |                        |  |                       |  |                     |                       |      |
|-----------------|--------------------------------|------------------------|--|-----------------------|--|---------------------|-----------------------|------|
|                 | CONTROL DIAGRAM                |                        |  |                       |  |                     |                       |      |
| DATE<br>8/26/04 | REFERENCE DRAWING              |                        | NO.  |                       | REVISION-LOCATION                          |                     | ECN                   | DATE |
|                 | S/N                            | Sales Engineer<br>C.C. | Application Engineer<br>R.C.                               | DRAWN<br>BY C. RACHAL |  | APPROVED<br>BY DATE |                       |      |
|                 | Project Title                  |                        | <hr/> <b>COX</b> <hr/> Research and Technology, Inc. <hr/> |                       | P.O. Box 77808<br>Baton Rouge, LA<br>70809 |                     | PURCHASE ORDER NUMBER |      |
|                 | DUPLEX BLOWER<br>CONTROL PANEL |                        |  |                       | DRAWING NUMBER<br>CP-1878                  |                     |                       |      |
|                 |                                |                        | SHEET NUMBER<br>3  |                       |  |                     |                       |      |



|                 |                                |                                      |  |                           |          |    |
|-----------------|--------------------------------|--------------------------------------|--|---------------------------|----------|----|
|                 | Drawing Title                  |                                      |  |                           |          |    |
|                 | EXTERNAL CONNECTIONS           |                                      |  |                           |          |    |
| DATE<br>8/26/04 | REFERENCE DRAWING<br>S/N       | NO.<br>C.C.                          | REVISION-LOCATION<br>DRAWN<br>BY C. RACHAL | ECN                       | DATE     | BY |
|                 | Sales Engineer                 | Application Engineer<br>R.C.         |  |                           | APPROVED |    |
|                 |                                |                                      |  |                           |          |    |
|                 | Project Title                  |                                      | P.O. Box 77808<br>Baton Rouge, LA<br>70809 | PURCHASE ORDER NUMBER     |          |    |
|                 | DUPLEX BLOWER<br>CONTROL PANEL | COX<br>Research and Technology, Inc. | Ph. (225)756-3271<br>Fax (225)756-1030     | DRAWING NUMBER<br>CP-1878 |          |    |
|                 |                                |                                      |  | SHEET NUMBER<br>4         |          |    |



VIEW OF FRONT COVER

NAMEPLATE SCHEDULE

|      |          |
|------|----------|
| NP-1 | BLOWER 1 |
| NP-2 | BLOWER 2 |
| NP-3 | RUN      |
| NP-4 | RUN      |
| NP-5 | HOA      |
| NP-6 | HOA      |

NOTE:

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

|                 | Drawing Title<br><br>ENCLOSURE                      |  |             |  |  |                       |    |  |  |
|-----------------|---|--|-------------|--|--|-----------------------|----|--|--|
|                 |   | REFERENCE DRAWING<br>S/N   | NO.<br>C.C. | REVISION-LOCATION<br>DRAWN<br>BY C. RACHAL | ECN  | DATE                  | BY |  |  |
| DATE<br>8/26/04 | Project Title<br><br>DUPLEX BLOWER<br>CONTROL PANEL | <hr/> <hr/> <b>COX</b> <hr/> <hr/> Research and Technology, Inc. <hr/> <hr/> |             |  | P.O. Box 77808<br>Baton Rouge, LA<br>70809 | PURCHASE ORDER NUMBER |    |  |  |
|                 |   |  |             |  | DRAWING NUMBER<br>CP-1878                  |                       |    |  |  |
|                 |   |  |             |  | SHEET NUMBER<br>5                          |                       |    |  |  |

## BILL OF MATERIAL

| ITEM | QTY | MANUFACTURER | PART NO.     | DESCRIPTION         |
|------|-----|--------------|--------------|---------------------|
| 1    | 1   | VYNCKIER     | VJ1816HWPL   | ENCLOSURE           |
| 2    | 1   | VYNCKIER     | MP1816A      | BACKPLATE           |
| 3    | 2   | ABB          | A16-30-10-84 | STARTER             |
| 4    | 2   | ABB          | TA25DU5.0    | O.L. (3.5-5.0A)     |
| 5    | 2   | ABB          | S1N015TL     | CIRCUIT BREAKER 1,2 |
| 6    | 2   | ACI          | JR22P3M20B   | H.O.A. SWITCH       |
| 7    | 1   | TIMEMARK     | 261DT120     | ALTERNATING RELAY   |
| 8    | 1   | GRASSLIN     | FM/1 STUZH-L | TIMER               |
| 9    | 2   | ACI          | JR22FR       | RED PILOT LIGHT     |
| 10   | 1   | SQUARE D     | 9070TF150D1  | TRANSFORMER         |
| 11   | 1   | ABB          | OT63E3       | DISCONNECT SWITCH   |

|                 |                                |                |                               |                   |  |                        |         |
|-----------------|--------------------------------|----------------|-------------------------------|-------------------|--|------------------------|---------|
|                 | Drawing Title                  |                |                               |                   |  |                        |         |
|                 | BILL OF MATERIALS              |                |                               |                   |  |                        |         |
|                 |                                |                |                               |                   |  |                        |         |
|                 |                                |                |                               |                   |  |                        |         |
|                 |                                |                |                               |                   |  |                        |         |
| DATE<br>8/26/04 | REFERENCE DRAWING              |                | NO.                           | REVISION-LOCATION |  | ECN                    | DATE BY |
|                 | S/N                            | Sales Engineer | Application Engineer          | DRAWN             |  | APPROVED               |         |
|                 |                                |                | C.C.                          | R.C.              | BY C. RACHAL                               | BY DATE                |         |
|                 | Project Title                  |                | COX                           |                   | P.O. Box 77808<br>Baton Rouge, LA<br>70809 | PURCHASE ORDER NUMBER  |         |
|                 | DUPLEX BLOWER<br>CONTROL PANEL |                | Research and Technology, Inc. |                   | Ph. (225)756-3271<br>Fax (225)756-1030     | DRAWING NUMBER CP-1878 |         |
|                 |                                |                |                               |                   |  | SHEET NUMBER 6         |         |