CertiSafe™ ADVANCED CONTROL PANEL

CS-150
For use with mixer models 2400C61, 3400C61 & 4400C61

The model CS-150 is a 120Vac, 60hz, single phase UL listed control panel engineered to operate Kasco C61 CertiSafeTM tank mixers. Designed for easy installation and operation with included GFCI circuit breaker, H-O-A control switch, indicator LEDs, Low water inhibit, and SCADA I/O for remote operation and monitoring.

REQUIRED

- 20amp feed breaker required and disconnect switch if required (supplied by others)
- Auxiliary interlock input: if utilized, the terminal jumper is replaced with a dry contact relay closure
- Remote SCADA start/stop input requires a dry contact relay closure

OPTIONAL

- 316 Stainless steel enclosure (non-stocked, built per order)

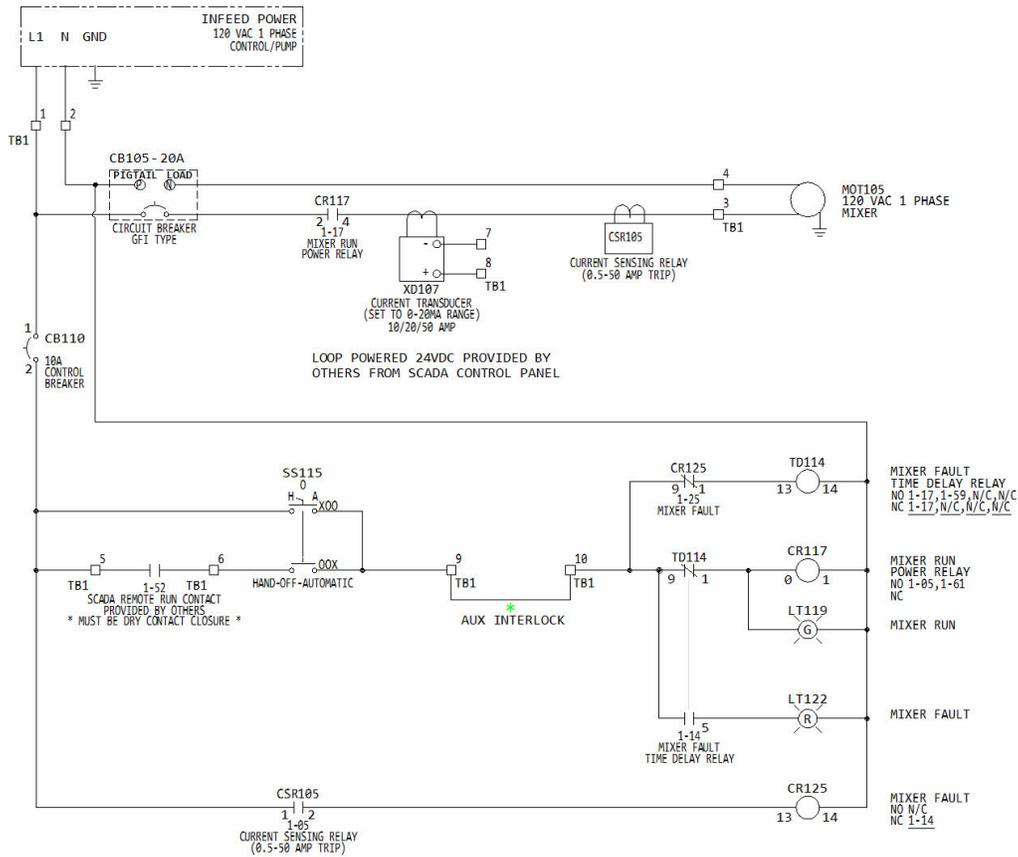
INCLUDED

- 20amp, single pole, GFCI 6ma trip circuit breaker
- Motor contactor: 1hp, 120Vac motor load rated
- Green LED running pilot light
- Red LED Fault pilot light
- H-O-A switch (Hand-Off-Auto)
    - Hand mode operates the mixer continuously (local control)
    - Auto mode operates the mixer from remote SCADA input
- Interface for remote SCADA mixer start/stop control signal (H-O-A Auto mode)
- Low water inhibit: Inhibit mixer operation if tank level drops below operating level
- Low water inhibit sensor adjustment tool
- 4-20ma motor current output (to SCADA) for monitoring motor status and fault condition
- Dry contacts (to SCADA) for: H-O-A in Hand, H-O-A in Auto, Mixer Running, & Mixer Fault
- Auxiliary interlock input for local low tank level inhibit
- UL508A listed control panel for US and Canada
- UL type rated 4X/3R nonmetallic enclosure with pad lockable latch, and integral mounting feet.
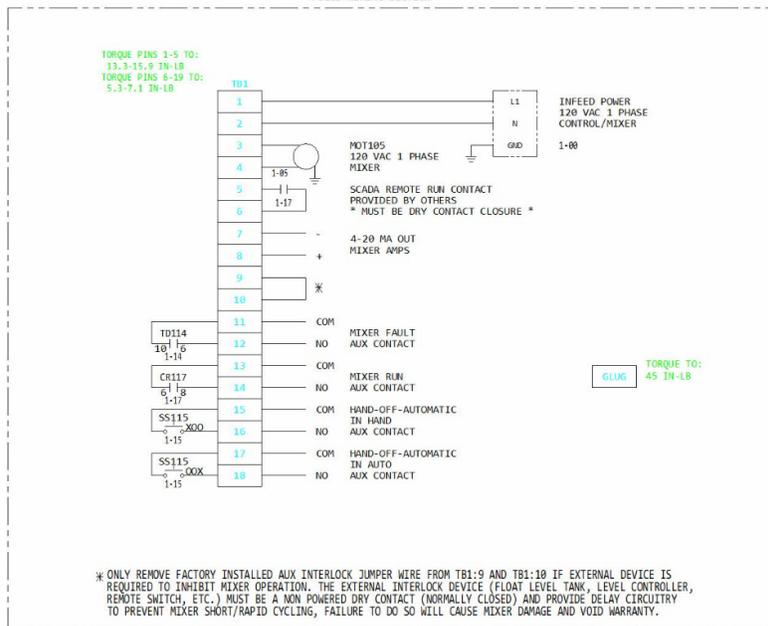- Detailed wiring schematic with field terminal identification.
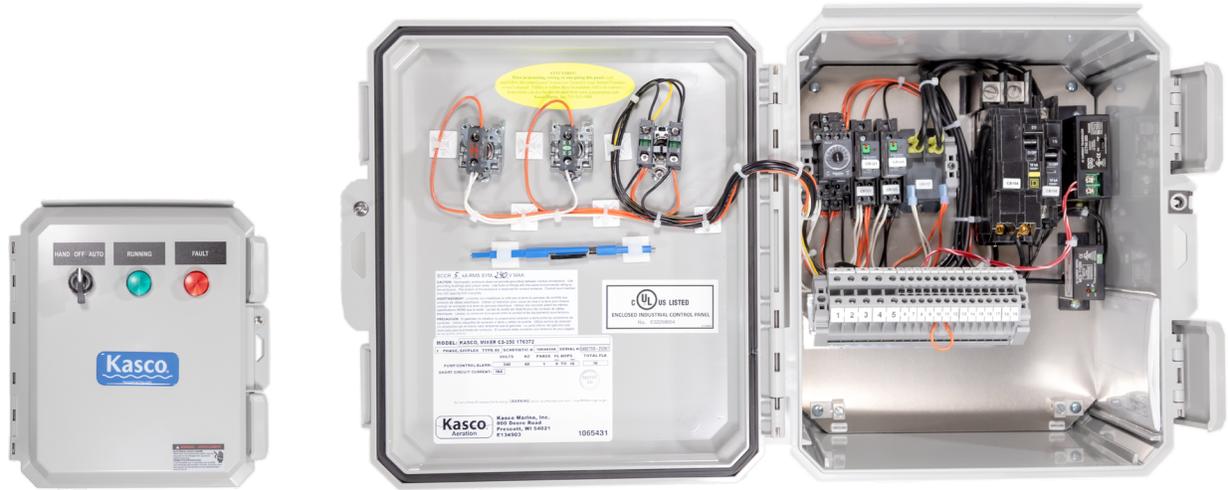
CertiSafe™ ADVANCED CONTROL PANEL
CS-150 Schematic

Schematic labels (top section):

INFEED POWER
120 VAC 1 PHASE
CONTROL/PUMP

L1 N GND

TB1 1 2

CB105-20A
PIGTAIL LOAD
CIRCUIT BREAKER
GFI TYPE

CR117
2 4
1-17
MIXER RUN
POWER RELAY

XD107
CURRENT TRANSDUCER
(SET TO 0-20MA RANGE)
10/20/50 AMP

CSR105
CURRENT SENSING RELAY
(0.5-50 AMP TRIP)

MOT105
120 VAC 1 PHASE
MIXER

CB110
1 2
10A
CONTROL
BREAKER

LOOP POWERED 24VDC PROVIDED BY
OTHERS FROM SCADA CONTROL PANEL

SS115
H A X00
0
00X
HAND-OFF-AUTOMATIC

TB1 5 1-52 TB1 6
SCADA REMOTE RUN CONTACT
PROVIDED BY OTHERS
* MUST BE DRY CONTACT CLOSURE *

TB1 9   TB1 10
AUX INTERLOCK

CR125
9 1
1-25
MIXER FAULT

TD114
13 14

TD114
9 1

CR117
0 1

LT119
G

LT122
R

CR125
13 14

MIXER FAULT
TIME DELAY RELAY
NO 1-17,1-59,N/C,N/C
NC 1-17,N/C,N/C,N/C

MIXER RUN
POWER RELAY
NO 1-05,1-61
NC

MIXER RUN

1-14
MIXER FAULT
TIME DELAY RELAY

MIXER FAULT

MIXER FAULT
NO N/C
NC 1-14

CSR105
1 2
1-05
CURRENT SENSING RELAY
(0.5-50 AMP TRIP)

FIELD WIRING SECTION

TORQUE PINS 1-5 TO:
13.3-15.9 IN-LB
TORQUE PINS 6-19 TO:
5.3-7.1 IN-LB

TB1

1 — L1) INFEED POWER
2 — N) 120 VAC 1 PHASE
3 — GND) CONTROL/MIXER 1-00
4 — MOT105 120 VAC 1 PHASE MIXER 1-05
5 — 1-17 SCADA REMOTE RUN CONTACT
6 — PROVIDED BY OTHERS
      * MUST BE DRY CONTACT CLOSURE *
7 — -) 4-20 MA OUT
8 — +) MIXER AMPS
9 — *
10 —
11 — COM) MIXER FAULT   TD114 10 1-14
12 — NO) AUX CONTACT
13 — COM) MIXER RUN   CR117 6 1-17
14 — NO) AUX CONTACT
15 — COM) HAND-OFF-AUTOMATIC SS115 X00 1-15
           IN HAND
16 — NO) AUX CONTACT
17 — COM) HAND-OFF-AUTOMATIC SS115 00X 1-15
           IN AUTO
18 — NO) AUX CONTACT

GLUG
TORQUE TO:
45 IN-LB

※ ONLY REMOVE FACTORY INSTALLED AUX INTERLOCK JUMPER WIRE FROM TB1:9 AND TB1:10 IF EXTERNAL DEVICE IS
REQUIRED TO INHIBIT MIXER OPERATION. THE EXTERNAL INTERLOCK DEVICE (FLOAT LEVEL TANK, LEVEL CONTROLLER,
REMOTE SWITCH, ETC.) MUST BE A NON POWERED DRY CONTACT (NORMALLY CLOSED) AND PROVIDE DELAY CIRCUITRY
TO PREVENT MIXER SHORT/RAPID CYCLING, FAILURE TO DO SO WILL CAUSE MIXER DAMAGE AND VOID WARRANTY.

CertiSafe™ ADVANCED CONTROL PANEL

CS-250
For use with mixer models 3400HC61, 4400HC61, 8400C61 & 5.1C61

The model CS-250 is a 240Vac, 60hz, single phase UL listed control panel engineered to operate Kasco C61 CertisafeTM tank mixers. Designed for easy installation and operation with included GFCI circuit breaker H-O-A control switch, indicator LEDs, low water inhibit, and SCADA I/O for remote operation and monitoring.

REQUIRED

- 40amp feed breaker required and disconnect switch if required (supplied by others)
- Auxiliary interlock input: if utilized, the terminal jumper is replaced with a dry contact relay closure
- Remote SCADA start/stop input requires a dry contact relay closure

OPTIONAL

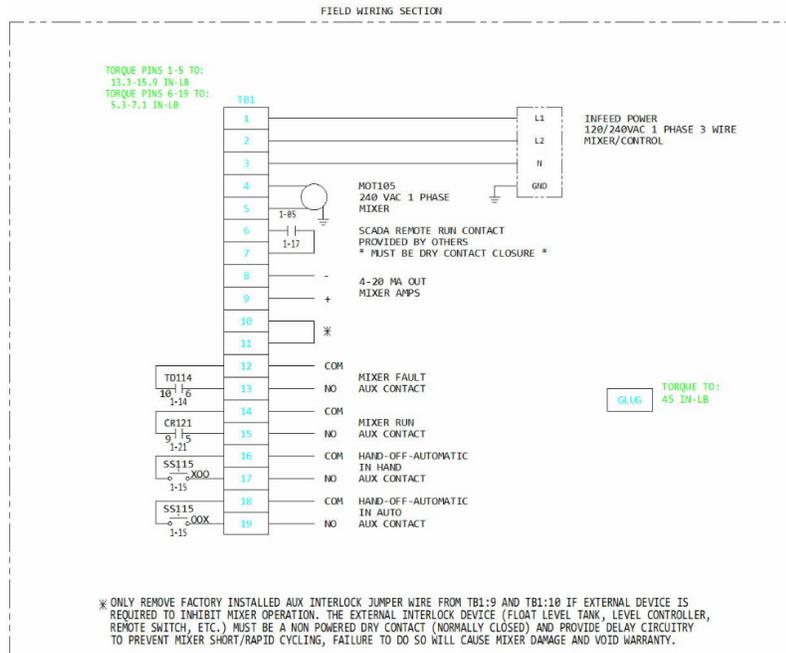- 316 Stainless steel enclosure (non-stocked, built per order)

INCLUDED

- 30amp, 2pole, GFCI 6ma trip circuit breaker
- Motor contactor: 5hp, 240Vac motor load
- Green LED running pilot light
- Red LED Fault pilot light
- H-O-A switch (Hand-Off-Auto)
    - Hand mode operates the mixer continuously (local control)
    - Auto mode operates the mixer from remote SCADA input
- Interface for remote SCADA mixer start/stop control signal (H-O-A Auto mode)
- Low water inhibit: Inhibit mixer operation if tank level drops below operating level
- Low water inhibit sensor adjustment tool
- 4-20ma motor current output (to SCADA) for monitoring motor status and fault condition
- Dry contacts (to SCADA) for: H-O-A in Hand, H-O-A in Auto, Mixer Running, & Mixer Fault
- Auxiliary interlock input for local low tank level inhibit
- UL508A listed control panel for US and Canada
- UL type rated 4X/3R nonmetallic enclosure with pad lockable latch, and integral mounting feet
- Detailed wiring schematic with field terminal identification

CertiSafe™ ADVANCED CONTROL PANEL
CS-250 Schematic

INFEED POWER
120/240VAC 1 PHASE 3 WIRE
MIXER/CONTROL

L1 L2 N GND

1 2 3
TB1 TB1 TB1

CB104 - 20A
PIGTAIL LOAD
GFI CIRCUIT BREAKER

CR117
6 8
2 4
MIXER RUN
POWER RELAY

XD107
CURRENT TRANSDUCER
(SET TO 0-20MA RANGE)
10/20/50 AMP

8
9
TB1

CSR105
CURRENT SENSING RELAY
(0.5-50 AMP TRIP)

5
4 TB1

MOT105
240 VAC 1 PHASE
MIXER

CB110
10A
CONTROL
BREAKER

LOOP POWERED 24VDC PROVIDED BY
OTHERS FROM SCADA CONTROL PANEL

SS115
0 A
H X00
00X
HAND-OFF-AUTOMATIC

6 1-52 7
TB1 TB1
SCADA REMOTE RUN CONTACT
PROVIDED BY OTHERS
* MUST BE DRY CONTACT CLOSURE *

10
TB1
AUX INTERLOCK

11
TB1

CR125
9 1
1-25
MIXER FAULT

TD114
13 14
MIXER FAULT
TIME DELAY RELAY
NO 1-17,1-59,N/C,N/C
NC 1-17,N/C,N/C,N/C

TD114
9 1
CR117
0 1
MIXER RUN
POWER RELAY
NO 1-05,1-04
NC

LT119
G
MIXER RUN

CR121
13 14
MIXER RUN
NO 1-62
NC N/C

LT123
R
MIXER FAULT

1-14
MIXER FAULT
TIME DELAY RELAY

5

CR125
13 14
MIXER FAULT
NO N/C
NC 1-14

CSR105
1 2
1-05
CURRENT SENSING RELAY
(0.5-50 AMP TRIP)

FIELD WIRING SECTION

TORQUE PINS 1-5 TO:
13.3-15.9 IN-LB
TORQUE PINS 6-19 TO:
5.3-7.1 IN-LB

TB1
1
2
3
4
5 1-05
6 1-17
7
8 -
9 +
10 *
11
12 COM
13 NO
14 COM
15 NO
16 COM
17 NO
18 COM
19 NO

INFEED POWER
120/240VAC 1 PHASE 3 WIRE
MIXER/CONTROL

L1
L2
N
GND

MOT105
240 VAC 1 PHASE
MIXER

SCADA REMOTE RUN CONTACT
PROVIDED BY OTHERS
* MUST BE DRY CONTACT CLOSURE *

4-20 MA OUT
MIXER AMPS

TD114
10 6
1-14
MIXER FAULT
AUX CONTACT

CR121
9 5
1-21
MIXER RUN
AUX CONTACT

SS115
X00
1-15
HAND-OFF-AUTOMATIC
IN HAND
AUX CONTACT

SS115
00X
1-15
HAND-OFF-AUTOMATIC
IN AUTO
AUX CONTACT

GLUG TORQUE TO:
45 IN-LB

* ONLY REMOVE FACTORY INSTALLED AUX INTERLOCK JUMPER WIRE FROM TB1:9 AND TB1:10 IF EXTERNAL DEVICE IS
REQUIRED TO INHIBIT MIXER OPERATION. THE EXTERNAL INTERLOCK DEVICE (FLOAT LEVEL TANK, LEVEL CONTROLLER,
REMOTE SWITCH, ETC.) MUST BE A NON POWERED DRY CONTACT (NORMALLY CLOSED) AND PROVIDE DELAY CIRCUITRY
TO PREVENT MIXER SHORT/RAPID CYCLING, FAILURE TO DO SO WILL CAUSE MIXER DAMAGE AND VOID WARRANTY.

CertiSafe™ ADVANCED CONTROL PANEL
CS-150 / CS-250 Enclosure Dimensions

14.5

12

8

Clearance
of 3" or
Greater Required

13.5

(4) Ø .3
Mounting
Holes

5.4

7.25