Simple Precision™

KAM® CSM™
CIRCULATING SAMPLE MIXER

PER API 8.2, ASTM D4177
AND ISO 3171

User Manual

CSMMANUAL0222

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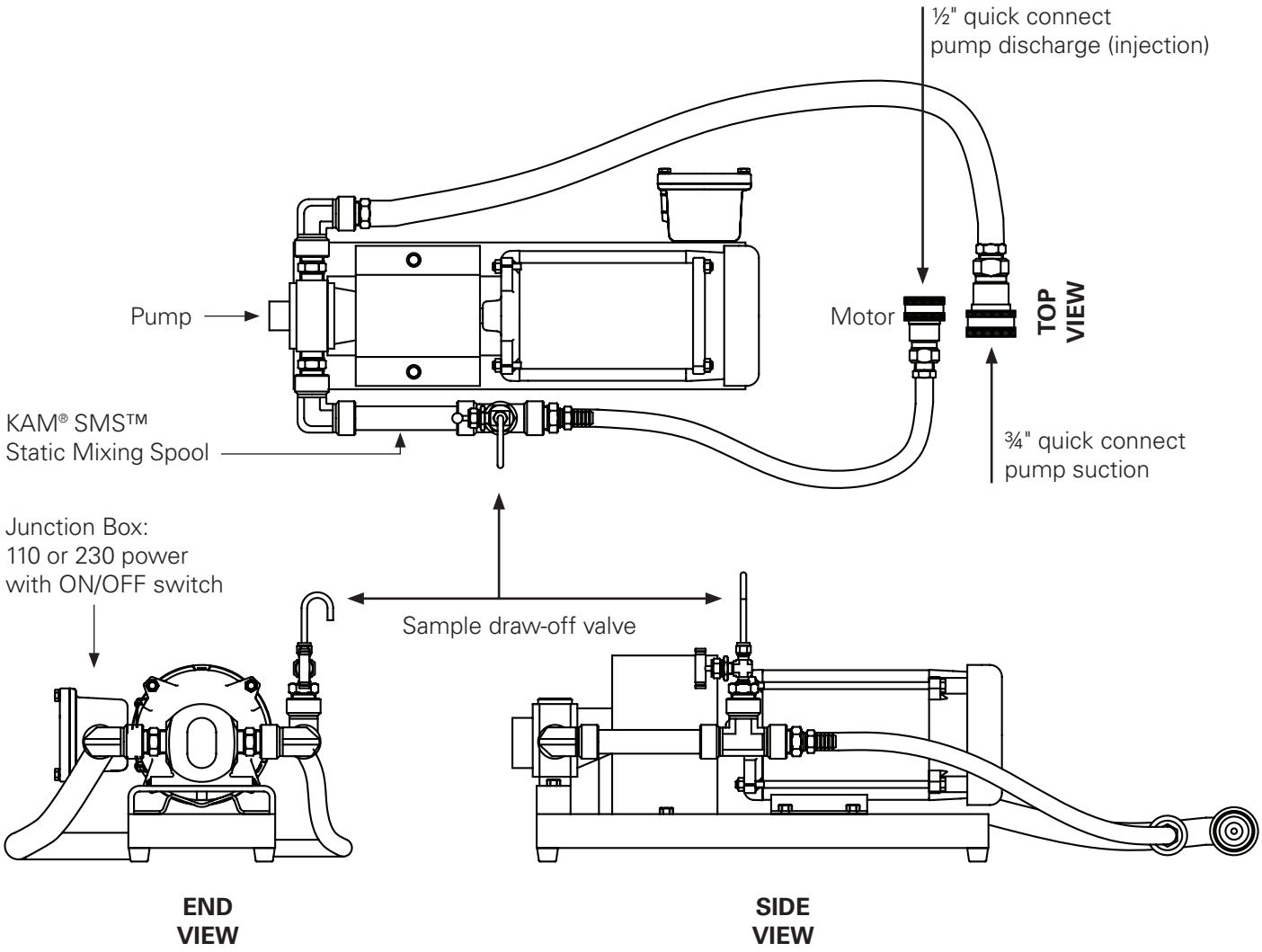
SPECIFICATIONS AND GUIDELINE



NOTES:

Observe all electrical codes

Do not run pump dry

Do not turn pump on unless both suction and discharge lines are connected to a KAM® SR™ Sample Receiver via quick connects

Make sure KAM® SR™ lid is closed and sealed prior to switching on the KAM® CSM™ pump

Wear safety glasses at all times when using the sample draw off valve

¾" quick connect
pump suction

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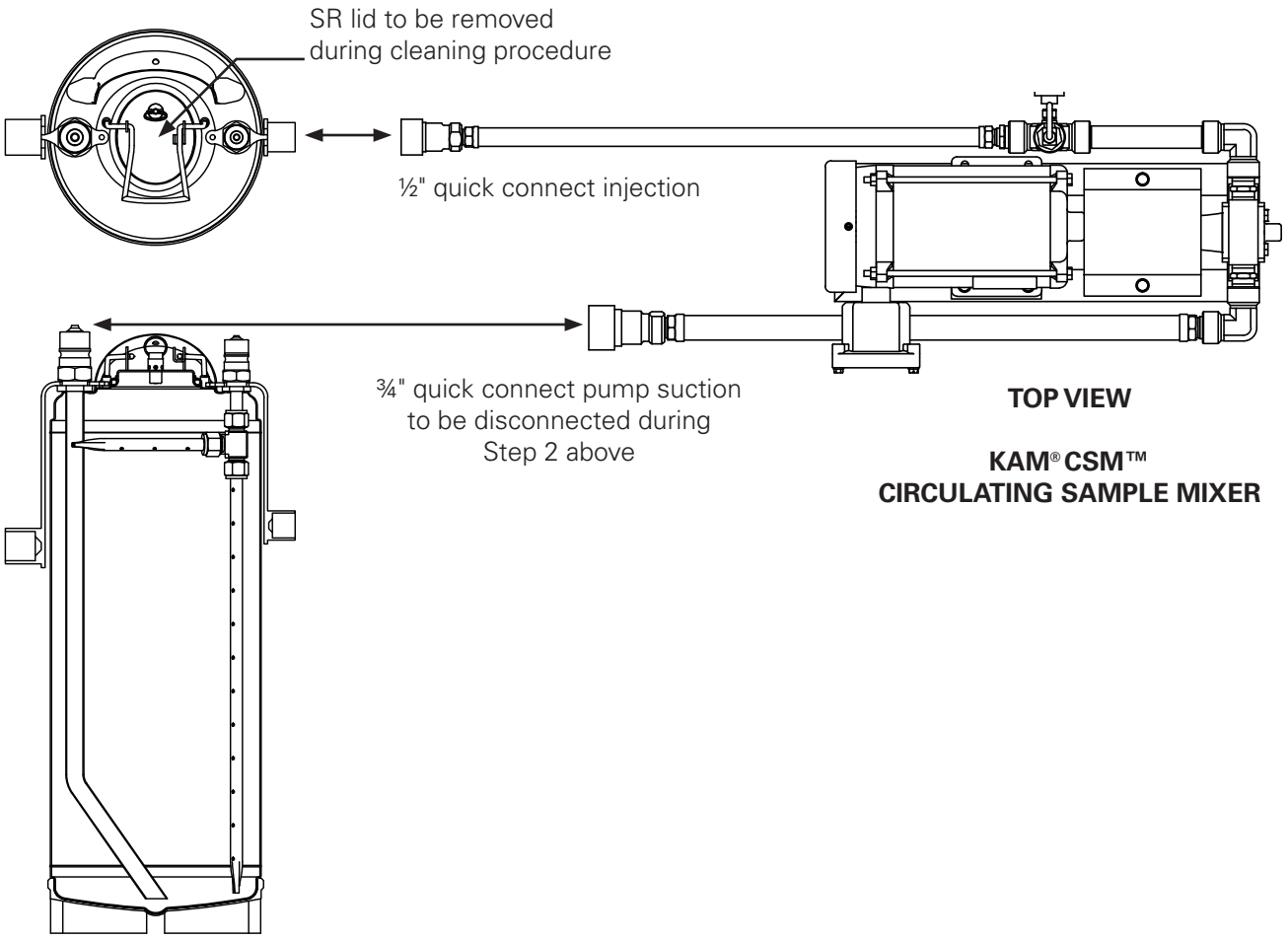
CLEANING PROCEDURE

Procedure should be followed whenever changing receivers for a new batch.

1. Connect suction and injection quick connects to a KAM SR Sample Receiver containing diesel and circulate for 1-2 minutes while visually monitoring the fuel in the receiver. Turn off the motor, disconnect CSM, and dispose of the diesel. Repeat the process with clean diesel. This process should be repeated until the diesel in the receiver remains clear (or nearly clear) as observed from the opening in the top of the receiver after circulation. This could take up to 3 times depending on the gravity and viscosity of the crude samples.

2. Remove diesel from receiver and reconnect the injection hose only to the empty receiver. Use an adapter or manually depress the quick connect on the suction line so that it remains open (see figure below). This will allow you to pull air into the system, displacing remaining fluid in the lines. Briefly turn on the pump to suck air into the lines and force remaining line fill from the CSM into the receiver. Do not run the pump dry for more than one or two seconds. To remove any remaining liquid trapped in the CSM lines, tilt the CSM base to allow for gravity drainage with the pump turned off.

3. It is very important to remove all remnants of previous samples or diesel from the CSM lines prior to processing a new sample. Excess/leftover hydrocarbon in the system will skew the results of the new sample.



TOP VIEW

KAM® CSM™
CIRCULATING SAMPLE MIXER

KAM® SR™
SAMPLE RECEIVER