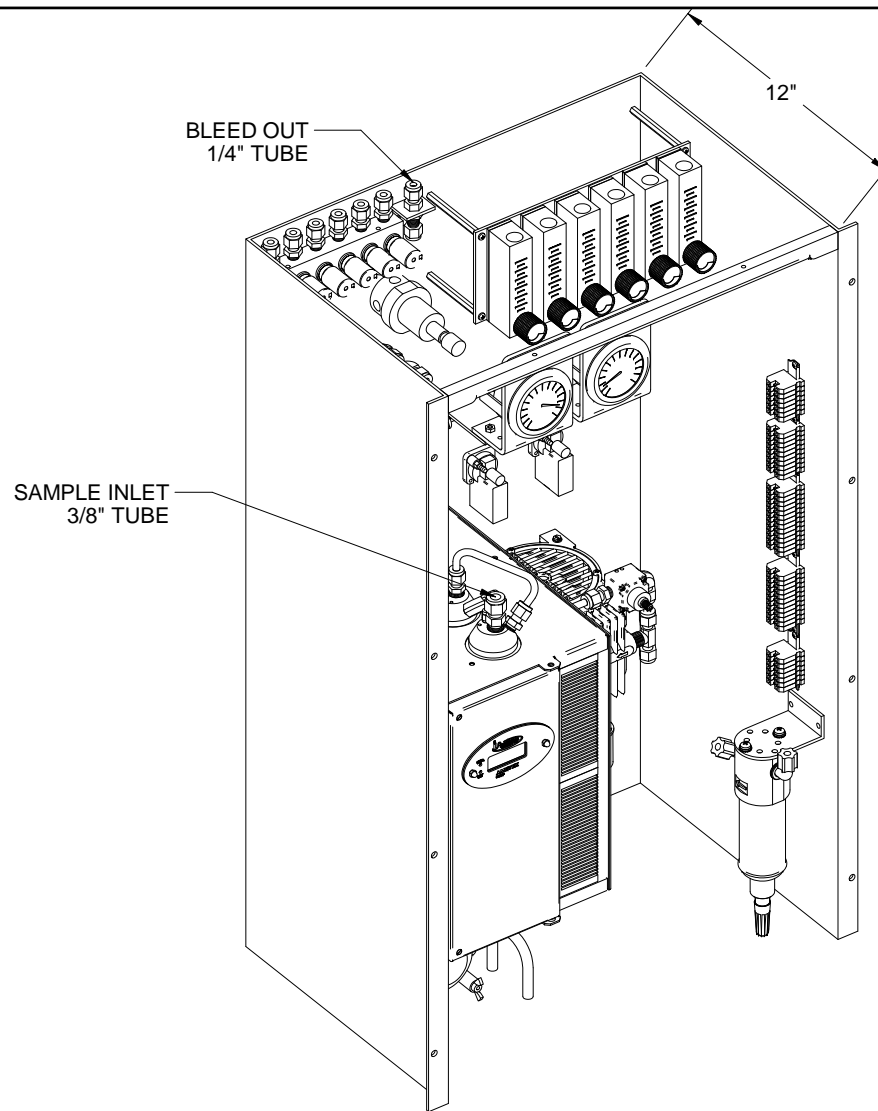


DRAIN
TUBE ↓



FRONT VIEW

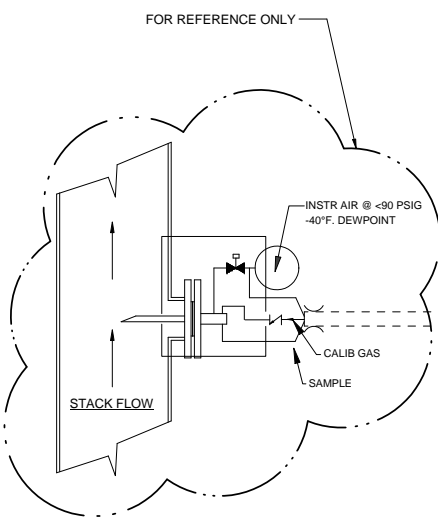
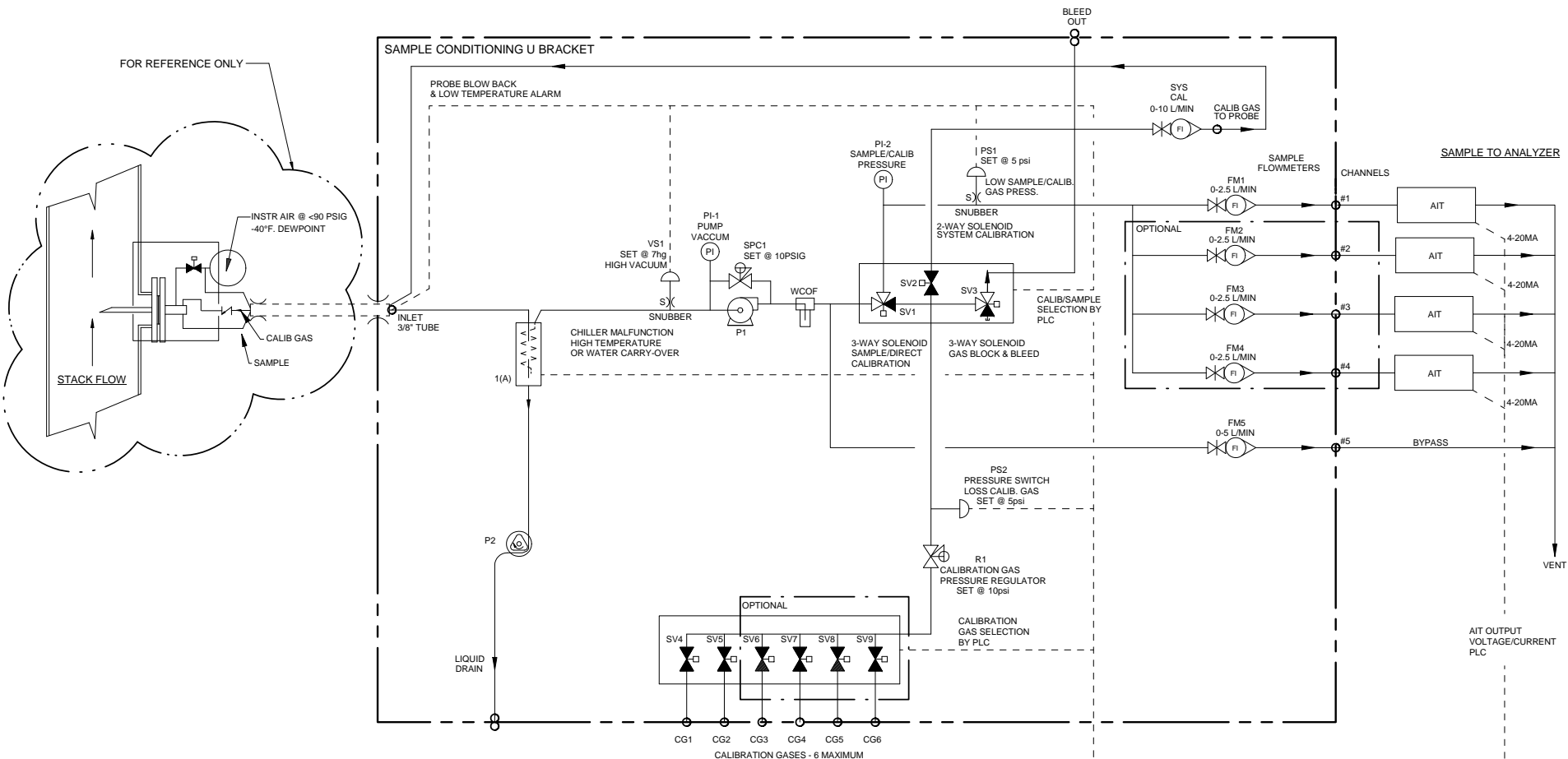
NOTES:

- 1). ARRANGEMENT MAY VARY ACCORDING TO BEST ENGINEERING PRACTICES.
- 2). SEE SHEET 2, 3, & 4 FOR P&ID.
- 3). SEE SHEET 5 FOR WIRING SCHEMATICS.

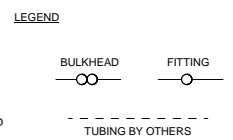


ISOMETRIC VIEW

 		- 08/12/14 Initial Release		MV	MW
REV	DATE	DESCRIPTION		DWN/APVD	
REVISIONS					
DATE	SCALE	SIZE	SHEET		
08/12/2014	NTS	D	1 OF 5		
DRAWN BY M. Walser		ECCO#	DRAWING NO.		
APVD BY M. Withrow		2089	P2133		
3000 SERIES ARRANGEMENT & LAYOUT DIMENSIONS					
PART NO.	FOR				
3000-SCU-INT	3000 Series				



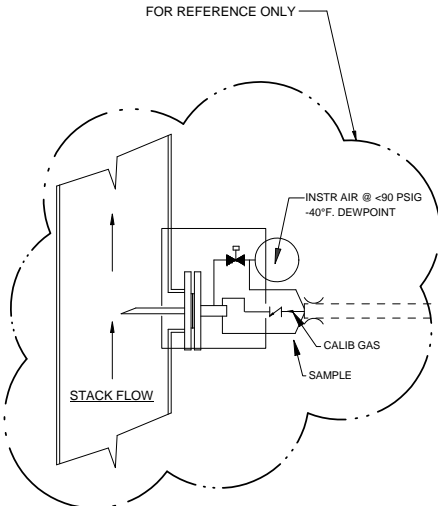
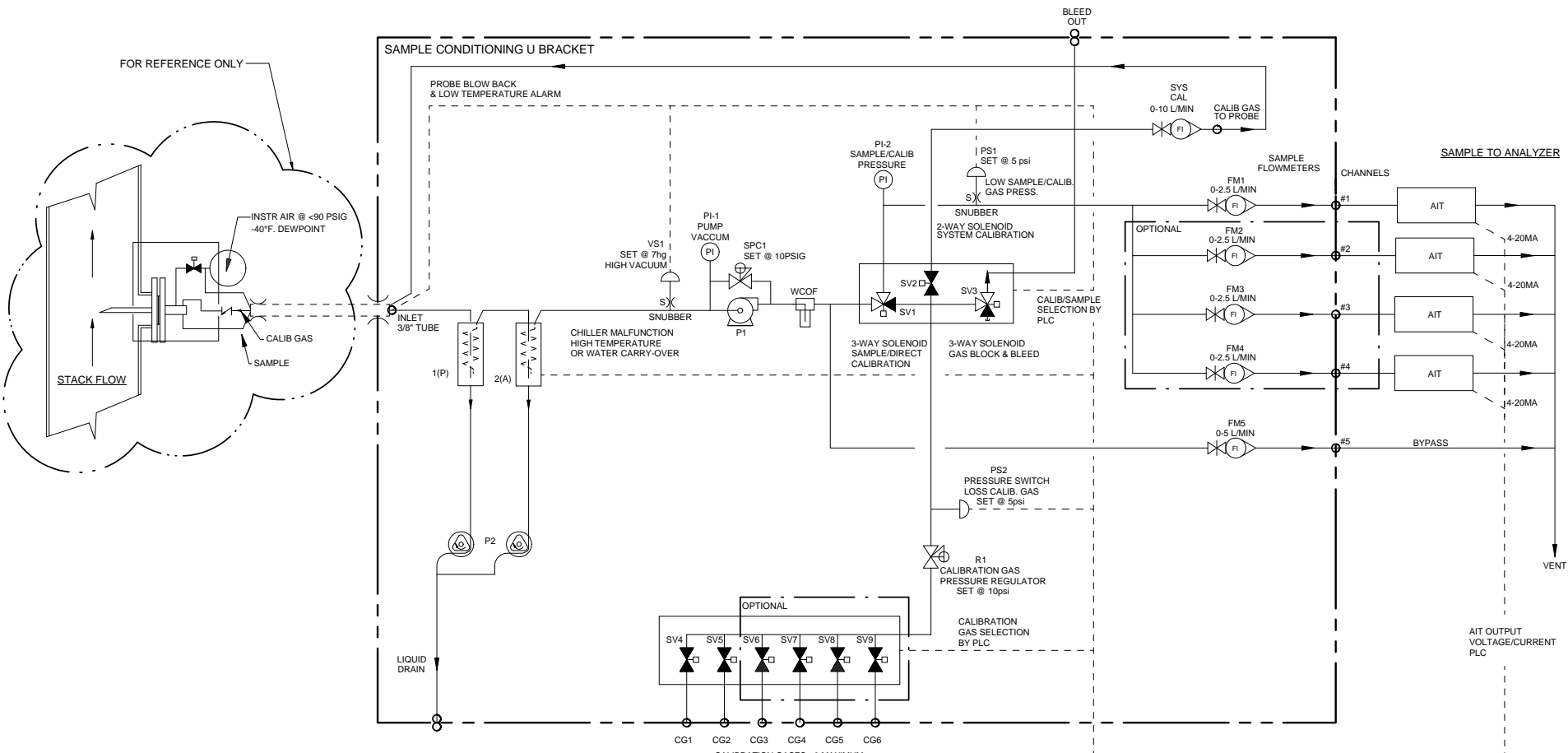
Item	Qty	Description	UAI Part No.
VS1	1	Vacuum Switch Air-Logic 0-29"hg	3103-0017
WCOF	1	Water Carry Over Moisture Sensor	WCOF-4980-0007
PI-1	1	Gauge - Vacuum 0-30"Hg Liquid Filled S.S.	3019-0009
SPC1	1	Sample Pressure Controller	4955-0246
P1	1	Pump - Sample 115Vac Single Head	4958-0025
P1	1	Pump - Sample 230Vac Single Head	4958-0015
PS1-2	2	Pressure Switch Air-Logic F-5100-15 15psig	3103-0018
SV1,3	2	Solenoid Valve - Burkert 6012SER	4955-0041
SV2	1	Solenoid Valve - Burkert 6011SER 85psig	4955-0040
SV4-9	2-6	Solenoid Valve - 2 Way	4955-0247
PI-2	1	Gauge - Pressure 0-15psig Liquid Filled S.S.	3019-0008
SYS CAL	1	Flowmeter W/Needle Valve 0-10 l/m	4965-0007
FM1-4	4	Flowmeter W/Needle Valve 0-2.5 l/m	4965-0018
FM5	1	Flowmeter W/Needle Valve 0-5 l/m	4965-0008
CHILLER	1	Universal Analyzers Model 3040	3040 - 115Vac
CHILLER	1	Universal Analyzers Model 3040	3040 - 230Vac
R1	1	Regulator - Porter Model #8268 0-30psig	8200-0008
S1	1	Snubber - #6-32	0000-0000
P2	1	Pump - Peristaltic Drain 115Vac	4958-0028
P2	1	Pump - Peristaltic Drain 230Vac	4958-0045



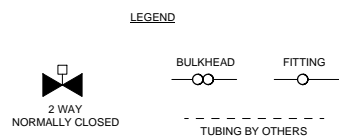
- PLC OR DATA LOGGER**
- 1) CALIBRATION/SAMPLE SELECT
 - 2) CALIBRATION GAS SELECT
 - 3) SYSTEM/DIRECT CALIBRATION SELECT-SYSTEM BIAS CALCULATION
 - 4) PROBE BLOW BACK
 - 5) PROBE LOW TEMPERATURE ALARM
 - 6) CHILLER MALFUNCTION-HIGH TEMPERATURE OR WATER CARRY-OVER
 - 7) HIGH INLET VACUUM - PROBE FILTER INITIATE BLOWBACK OR MAINTENANCE
 - 8) SAMPLE/CALIB. GAS PRESS LOW-ALARM FOR MAINTENANCE

NOTES:
1. ALL FITTINGS 1/4" TUBE (UNLESS OTHERWISE NOTED).

		08/12/14	Initial Release	MY	MW
3000 SERIES P&ID		REV	DATE	DESCRIPTION	
PART NO. 3000-SCU-INT		DATE 08/12/2014		SCALE NTS	SHEET 2 OF 5
FOR 3000 Series		DRAWN BY M. Walser		SIZE D	DRAWING NO. P2133
		APVD BY M. Withrow		ECCO# 2089	



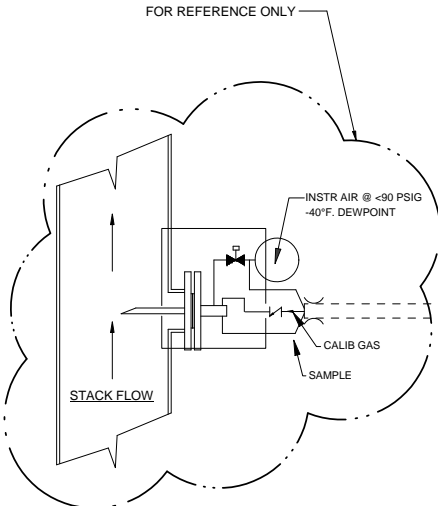
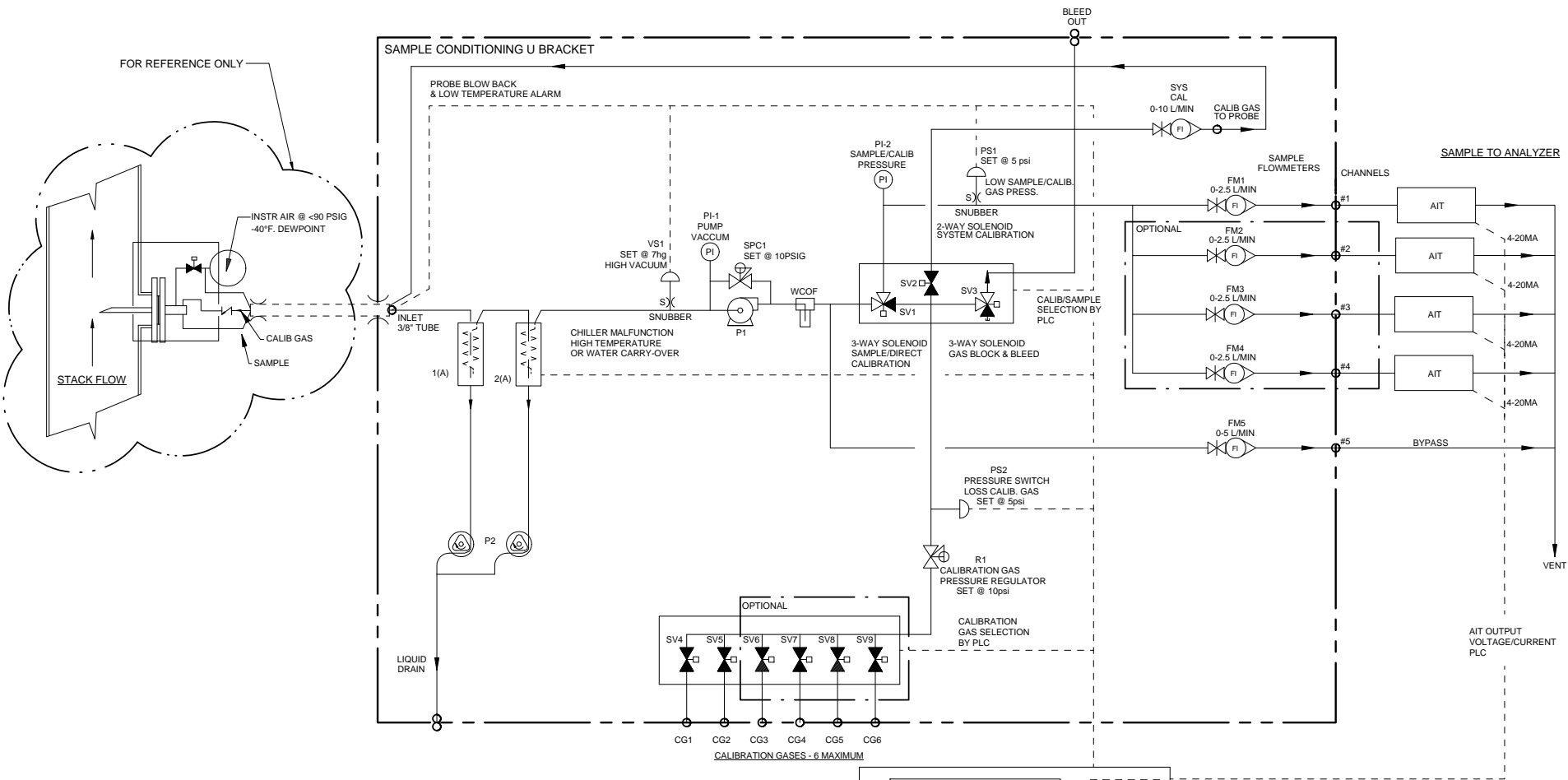
Item	Qty	Description	UAI Part No.
VS1	1	Vacuum Switch Air-Logic 0-29"hg	3103-0017
WCOF	1	Water Carry Over Moisture Sensor	WCOF-4980-0007
PI-1	1	Gauge - Vacuum 0-30"Hg Liquid Filled S.S.	3019-0009
SPC1	1	Sample Pressure Controller	4955-0246
P1	1	Pump - Sample 115Vac Single Head	4958-0025
P1	1	Pump - Sample 230Vac Single Head	4958-0015
PS1,2	2	Pressure Switch Air-Logic F-5100-15 15psig	3103-0018
SV1,3	2	Solenoid Valve - Burkert 6012SER	4955-0041
SV2	1	Solenoid Valve - Burkert 6011SER 85psig	4955-0040
SV4-9	2-6	Solenoid Valve 2 Way	4955-0247
PI-2	1	Gauge - Pressure 0-15psig Liquid Filled S.S.	3019-0008
SYS CAL	1	Flowmeter W/Needle Valve 0-10 l/m	4965-0007
FM1-4	4	Flowmeter W/Needle Valve 0-2.5 l/m	4965-0018
FM5	1	Flowmeter W/Needle Valve 0-5 l/m	4965-0008
CHILLER	1	Universal Analyzers Model 3050	3050 - 115Vac
CHILLER	1	Universal Analyzers Model 3050	3050 - 230Vac
R1	1	Regulator - Porter Model #8268 0-30psig	8200-0008
S1	1	Snubber - #6-32	0000-0000
P2	1	Pump - Peristaltic Drain 115Vac	4958-0028
P2	1	Pump - Peristaltic Drain 230Vac	4958-0045



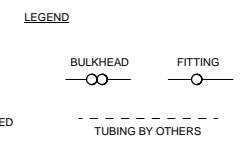
- PLC OR DATA LOGGER**
- 1) CALIBRATION/SAMPLE SELECT
 - 2) CALIBRATION GAS SELECT
 - 3) SYSTEM/DIRECT CALIBRATION SELECT-SYSTEM BIAS CALCULATION
 - 4) PROBE BLOW BACK
 - 5) PROBE LOW TEMPERATURE ALARM
 - 6) CHILLER MALFUNCTION-HIGH TEMPERATURE OR WATER CARRY-OVER
 - 7) HIGH INLET VACUUM - PROBE FILTER INITIATE BLOWBACK OR MAINTENANCE
 - 8) SAMPLE/CALIB. GAS PRESS LOW-ALARM FOR MAINTENANCE

NOTES:
1. ALL FITTINGS 1/4" TUBE (UNLESS OTHERWISE NOTED).

		08/12/14	Initial Release	MY	MW
3000 SERIES P&ID		REV. DATE	DESCRIPTION	DWG/APVD	
PART NO. 3000-SCU-INT FOR 3000 Series		REVISIONS DATE: 08/12/2014 SCALE: NTS SIZE: D SHEET: 3 OF 5 DRAWN BY: M. Walser ECHO: M. Walser 2089 DRAWING NO. P2133			



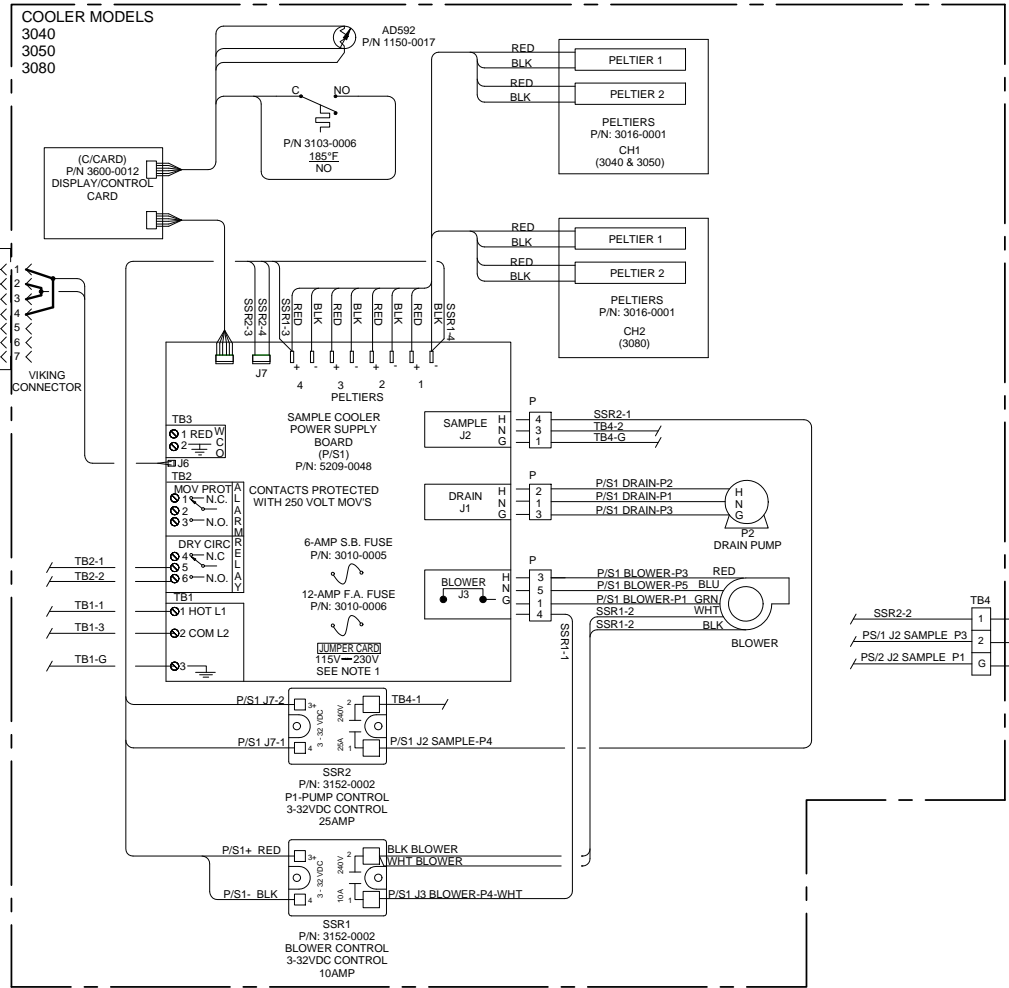
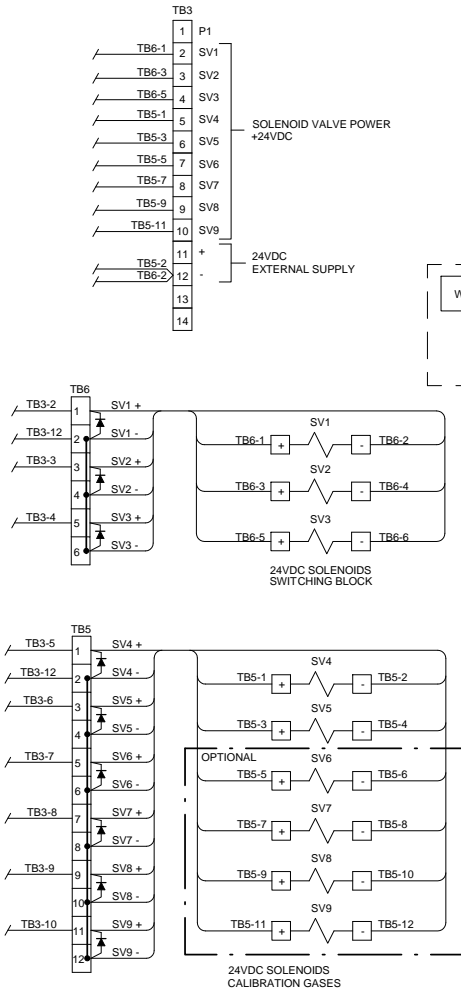
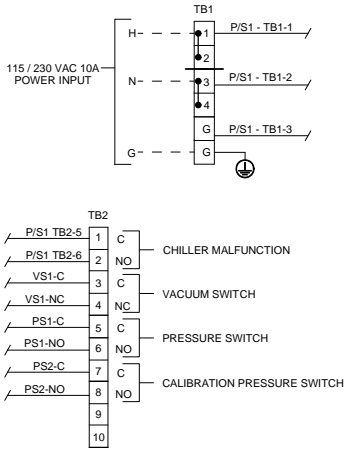
Item	Qty	Description	UAI Part No.
VS1	1	Vacuum Switch Air-Logic 0-29"hg	3103-0017
WCOF	1	Water Carry Over Moisture Sensor	WCOF-4980-0007
PI-1	1	Gauge - Vacuum 0-30"Hg Liquid Filled S.S.	3019-0009
SPC1	1	Sample Pressure Controller	4955-0246
P1	1	Pump - Sample 115Vac Single Head	4958-0025
P1	1	Pump - Sample 230Vac Single Head	4958-0015
PS1,2	2	Pressure Switch Air-Logic F-5100-15 15psig	3103-0018
SV1,3	2	Solenoid Valve - Burkert 6012SER	4955-0041
SV2	1	Solenoid Valve - Burkert 6011SER 85psig	4955-0040
SV4-9	2-6	Solenoid Valve - 2 Way	4955-0247
PI-2	1	Gauge - Pressure 0-15psig Liquid Filled S.S.	3019-0008
SYS CAL	1	Flowmeter W/Needle Valve 0-10 l/m	4965-0007
FM1-4	4	Flowmeter W/Needle Valve 0-2.5 l/m	4965-0018
FM5	1	Flowmeter W/Needle Valve 0-5 l/m	4965-0008
CHILLER	1	Universal Analyzers Model 3080	3080 - 115Vac
CHILLER	1	Universal Analyzers Model 3080	3080 - 230Vac
R1	1	Regulator - Porter Model #8268 0-30psig	8200-0008
S1	1	Snubber - #6-32	0000-0000
P2	1	Pump - Peristaltic Drain 115Vac	4958-0028
P2	1	Pump - Peristaltic Drain 230Vac	4958-0045



- PLC OR DATA LOGGER**
- 1) CALIBRATION/SAMPLE SELECT
 - 2) CALIBRATION GAS SELECT
 - 3) SYSTEM/DIRECT CALIBRATION SELECT-SYSTEM BIAS CALCULATION
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 - 7) HIGH INLET VACUUM - PROBE FILTER INITIATE BLOWBACK OR MAINTENANCE
 - 8) SAMPLE/CALIB. GAS PRESS LOW-ALARM FOR MAINTENANCE

NOTES:
 1. ALL FITTINGS 1/4" TUBE (UNLESS OTHERWISE NOTED).

		08/12/14	Initial Release	MY	MW
3000 SERIES P&ID		REV. DATE	DESCRIPTION	DWG/APVD	
PART NO. 3000-SCU-INT FOR 3000 Series		REVISIONS			
		DATE	SCALE	SIZE	SHEET
		08/12/2014	NTS	D	4 OF 5
		DRAWN BY M. Walser	ECCO#	DRAWING NO.	
		APVD BY M. Withrow	2089	P2133	



CONDUIT AND WIRING NOTES

1. ELECTRICAL CLASSIFICATION : INSIDE - GENERAL PURPOSE SYSTEM IS CONFIGURED AT THE FACTORY FOR REQUIRED VOLTAGE. CONTACT FACTORY FOR VOLTAGE CHANGE REQUIREMENTS.

2. AC WIRING SHALL BE INDIVIDUAL CONDUCTORS OF STRANDED TINNED COPPER WITH 300V, TYPE TFE INSULATION. MINIMUM WIRE SIZE SHALL BE 18 AWG UNLESS OTHERWISE SPECIFIED. COLOR CODE SHALL BE AS FOLLOWS:

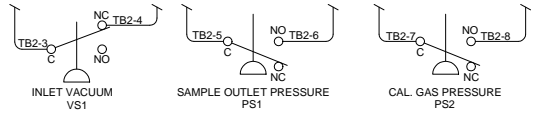
115VAC		230VAC	
HOT	- BLACK	L1	- BROWN
NEUTRAL	- WHITE	L2	- BLUE
GROUND	- GREEN	G	- GREEN

3. DC WIRING SHALL BE INDIVIDUAL CONDUCTORS OF STRANDED TINNED COPPER WITH 300V, TYPE TFE INSULATION. MINIMUM WIRE SIZE SHALL BE 22 AWG UNLESS OTHERWISE SPECIFIED.

115VAC		230VAC	
+VDC	- RED	+VDC	- RED
0V	- BLUE	-VDC	- BLACK

COLOR CODE SHALL BE AS FOLLOWS: +V - RED +VDC - RED
0V - BLUE -VDC - BLACK

FIELD TO WIRE



		08/12/14	Initial Release	MY	MW
REV	DATE	DESCRIPTION		DWN/APVD	
REVISIONS					
DATE	SCALE	NTS	SIZE	SHEET	
08/12/2014			D	5 OF 5	
DRAWN BY M. Walser		ECCOF	DRAWING NO. P2133		
APVD BY M. Withrow		2089			
3000-SCU-INT		3000 Series			