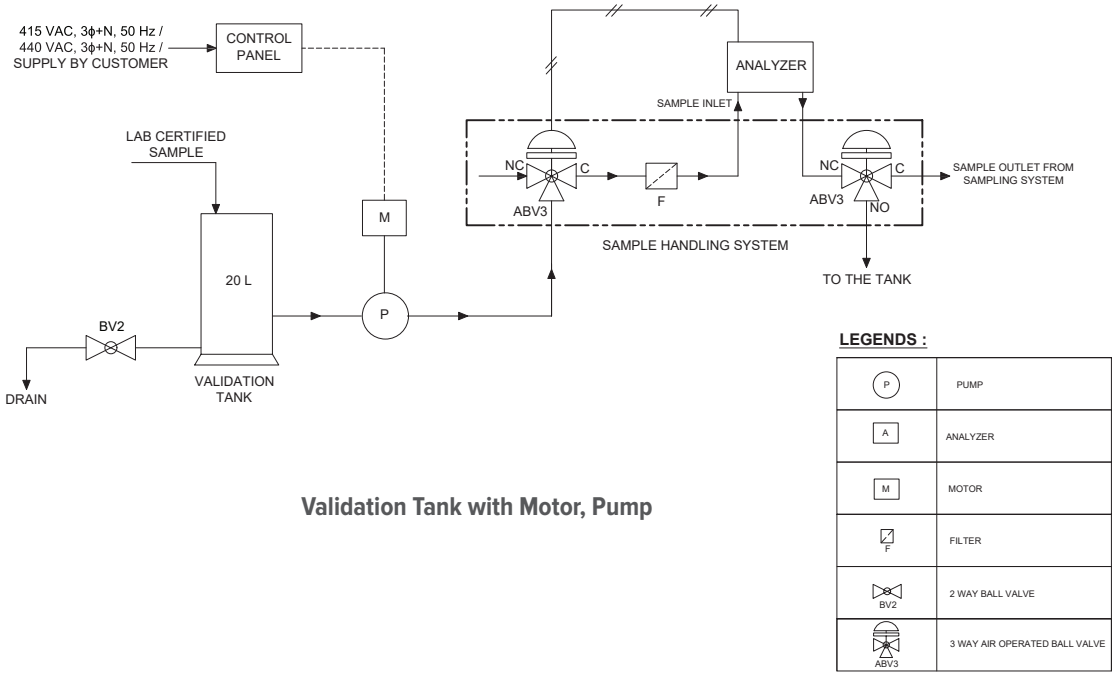
Validation system for HC liquid

VS1



Validation Tank with Motor, Pump

FEATURES

- Electrical Equipment certified for use in Zone 1 IIA IIB and IIC
- Also it is certified for Zone 2 IIA IIB and IIC Hazardous areas
- Increased accuracy
- Reduced uncertainty and maintenance cost
- Heated validation tank can be provided as an optional.

DESIGN BASIS

The validation system consists of:

1) Validation tank
2) Pump with Motor or piston

There are two types of designs available of validation system.

1) Validation tank with motor, pump
2) Cylinder piston type design

DESCRIPTION

The Axis validation system is easy to use to validate online analyzers.

Pressurized Process sample can be taken in the validation tank then get it certified with refinery lab or certified sample can be filled in the validation tank.

Then certified sample can be passed through analyzer using pump or piston arrangement for validation of analyzer system.

Axis is providing system solutions for high availability, reliable, accurate with sampling system design where analytical measurement demands it.

OPERATING NOTES FOR PUMP OPERATED VALIDATION TANK

IN SAMPLING MODE

- No Pneumatic command from analyzer to ABV-1 & ABV-2, No validation pump ON,
- Sample will pass from ABV-1(NO-C) to analyser and then AOV-2 (C-No) to sample return.

IN VALIDATION MODE

- Pneumatic command from analyzer to ABV-1 & ABV-2.
- Electric command will come from analyzer to validation pump control panel, and then pump will ON.
- Validation sample from tank will recirculate from ABV-1 (NC-C) to analyzer and then ABV-2 (C-NC) to validation tank.

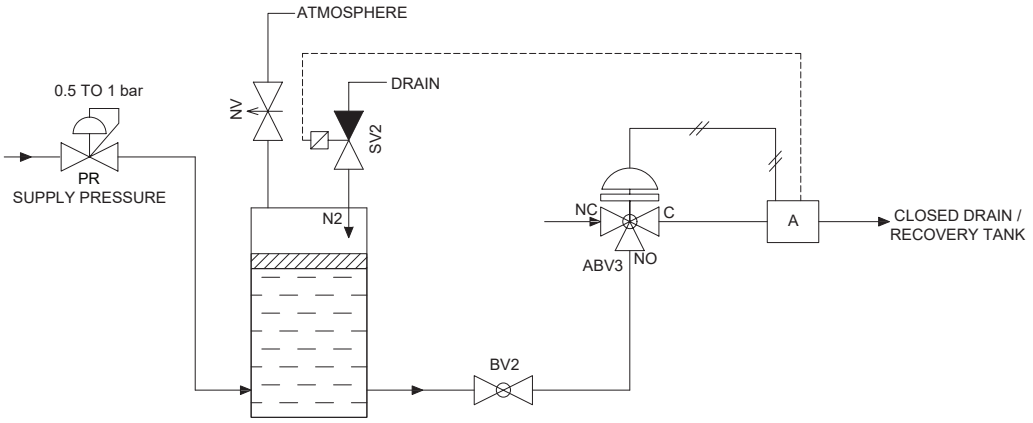
OPERATING NOTES FOR PISTON OPERATED VALIDATION TANK

IN SAMPLING MODE

- No Pneumatic command from analyzer to ABV
- Sample will pass from ABV - (NO-C) to analyzer then sample recovery tank/closed drain

IN VALIDATION MODE

- Pneumatic command from analyzer to ABV-1 & SV-1 for N2.
- Electric command will come from analyzer to SV-1 to initiate supply of N2 gas at 0.5 barg to piston operated validation tank to push piston to supply validation sample to analyzer .
- Validation sample from tank will pass from ABV-1 (NC-C) to analyzer and then sample recovery tank / closed drain.



LEGENDS :

PR	PRESSURE REGULATOR VALVE
A	ANALYZER
BV2	2 WAY BALL VALVE
NV	NEEDLE VALVE
ABV3	3 WAY AIR OPERATED BALL VALVE
SV2	2 WAY SOLENOID VALVE

Validation System with Cylinder Piston Design

ORDERING INFORMATION

Validation System						**9**	
	Validation System						
	0						With Pump
	1						With Piston
		Area Classification					
		0					Zone 1 & 2 IIA IIB
		1					Zone 1 IIC
			Validation Tank MOC				
			0				MS painted
			1				SS 304
			2				SS 316
				Validation Tank capacity			
				0			20 Liter
				1			30 Liter
				2			Custom specific
					Electric supply in case of pump		
					0		N2 Gas at 1 barg
					1		230 VAC
					2		415 VAC

ADDITIONAL ACCESSORIES

VALIDATION SYSTEM WITH PUMP

Description	Part No.	Qty.
Sample Pump, Sealess, Positive displacement, diaphragm pump*		2 No.
Sample pump , Internal Gear type		2 No.
Motor, Power supply : 415 VAC 50 HZ,* Area class : Zone 1, IIA / IIB/IIB+H2, CCOE/ATEX certified		2 No.
3 way air operated ball valve*		1 No.

Note : (*) As per Installation

TECHNICAL SPECIFICATIONS

Pump Operated Validation system	
Sample pressure in tank	Atmospheric
Discharge Pressure	0.5 to 1 barg as per the system requirement
Flow	30 to 40 LPH as per the system requirement
Pump	Sealess, positive displacement, diaphragm pump, 60LPH. Make : Hydra cell
Motor	ATEX Certified CCOE certified
Power Supply	415 VAC 230 VAC Make : Bharat Bijle / Crompton
Piston operated Validation System	
	Nitrogen gas required at 1 barg to operate piston to push the sample from validation tank to the analyzer.

VALIDATION SYSTEM WITH PISTON

Description	Part No.	Qty.
Piston 'O' ring*		1 No.
2 Way solenoid valve		1 No.

Designs Input require from customer:

1) Viscosity of fluid.
2) Fuel type diesel, gasoline, etc.
3) Ambient condition