

VPR Tester facilitates the implementation of a STM (Standard Test Method) for resistance of materials used in Protective Clothing to Penetration by bacteriophage. This STM developed by ASTM/ISO helps assess the effectiveness of materials used in protective clothing for protecting the wearer against contact from body fluids that potentially contain blood borne pathogens. This VPR tester has been designed as per ASTM F903 and ISO 13994 standard test methods.

This test method is normally used to evaluate specimens from individual finished items including gloves, arm shields aprons, gowns, coveralls, hoods and boots and individual samples of materials that are used as material for protective clothing.

Performance

- Touch key operation for selection of test standards and classifications
- Programmable Controller based operation for precision timings as per STM
- Two stage Precision air pressure controls for graded pressurisation of Test-Cell
- Each Independent Test-Cell can test simultaneously different Standards
- High precision sensors with desired accuracy to achieve the STM parameters
- Test-Cell with Slide-in-Slide-out easy mount options
- Test-Cell quick release coupling and Hose for trouble free operation
- SITRA Performance Validation certification for the Tester

Features

- Apart from all the above tests, future test standards upgrade possible
- Test Pass/Fail recording on touch screen to record timing of failure with time stamp
- Test-CELL and spill handling tray Material of Construction SS 3304
- PLC/Micro Control with Touch Screen Display for menu driven operations including SCADA Monitoring and Iot functionality
- Provision for ease of calibration of the equipment through a menu option

Reliability

- Rugged structure capable of several cycles of test for long hours
- 3 Years warranty for the components as an option
- High precision valves with SS piping for long years of operation



Standards Adopted for testing in VPR Tester

ASTM F 1671:2013 *
IS 16545:2016 *
ISO 16604:2004 *

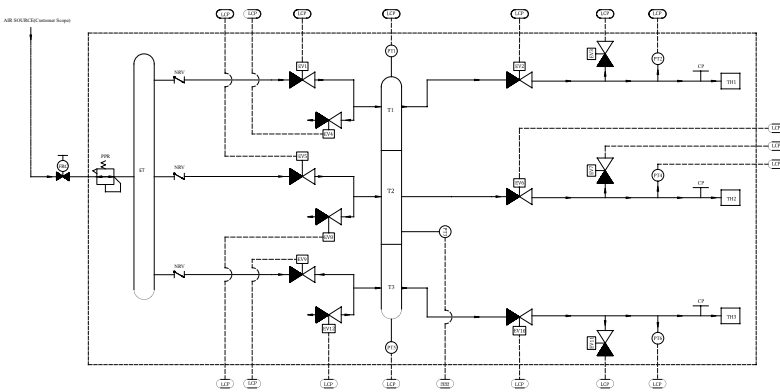


Control System with HMI



Test Cells

VPR - 3 Tester Schematic



SL NO	ID NAME	DESCRIPTION
1	FRC	Filter Regulator
2	PPR	Precision Pressure Regulator
3	ET	External Reservoir Tank
4	NRV	Non Return Valve
5	PT1, PT3, PT5	Pressure Transmitter
6	T1, T2, T3	Air Reservoir Tank
7	EV1, EV5, EV9	Reservoir Inlet Solenoid Valve
8	EV4, EV8, EV12	Reservoir Drain/Exhaust Solenoid Valve
9	EV2, EV6, EV10	Test Cell Feed Solenoid Valve
10	EV3, EV7, EV11	Test Cell Drain/Exhaust Solenoid Valve
11	PT2, PT4, PT6	Pressure Transmitter
12	CP	Calibration Port
13	TH1, TH2, TH3	Test Head
14	LCP	Local Control Panel

Technical Specifications with selection Choice

SL No	Particulars	VPRT-3	VPRT-1
1	Testing Standards		
	ASTM	ASTM 1671	ASTM 1671
	ISO	ISO 16604:2004	ISO 16604:2004
	IS	IS 16545:2016	IS 16545:2016
2	Air Supply	Inlet Air Supply minimum 1 Bar	Inlet Air Supply minimum 1 Bar
	Power Supply	220V single Phase, 250 Watts	220V single Phase, 250 Watts
4	Test-Cell		
	No of test Heads	3 Designed as per ASTM F-903, ISO 13994	1 Designed as per ASTM F-903, ISO 13994
	Mounting	Easy Slide -in Slide-Out & Lock	Easy Slide -in Slide-Out & Lock
	Material	SS 304	SS 304
	Standards	As per ASTM F903	As per ASTM F903
	Gaskets	As per Standard	As per Standard
	Retaining Mesh	Nylon	Nylon
	Lighting for Viewing	3 Nos Once for each Cell	1 Nos Once for each Cell
	Valves	Ball Valve SS	Ball Valve SS
	Pressurising Port	SS 304 Quick release	SS 304 Quick release
	Pressurising hose	Flexible Hose with QR End Connector	Flexible Hose with QR End Connector
Fixing Torque	13.6 Nm	13.6 Nm	
5	Control System		
	Electronics	PLC Controller	Micro Controller
	Display	7 inch Touch screen	4.3 Inch Touch Screen
	Pressure Sensor For Test Cell	Accuracy 0.5 Kpa	Accuracy 0.5 Kpa
	Valves	High Response Pneumatic	High Response Pneumatic
	STM Operation	Simultaneously different STM on Each Test-Cell	-NA-
	Menu Options	Scada display for Test Monitoring	Scada display for Test Monitoring
		Operating Mode	Operating Mode
	Engineer Mode for Custom settings	Engineer Mode for Custom settings	
	Mode for Calibration of Time & Pressure	Mode for Calibration of time & pressure	
6	Equipment Dimension & Weight		
	Dimension & Weight	1000 x 400 x 1100, 85 Kg	350 x 300 x 1100 mm, 40 Kg
	Packed Dimension	1100x 500 x 1200 mm, 95 Kg	450 x 400 x 1200 mm, 45 Kg
7	Accessories (Optional)		
	Torque Wrench	1-20 Nm configurable	1-20 Nm configurable
	Spare Gaskets	12 Nos	4 Nos
	Spare Test Heads	3 Test-Cell with Stand	1 Test-Cell
	Floor Mount Tested Stand	Yes	No – only Table Mount Option
	Air Compressor	25 PSI Diaphragm Compressor	25 PSI Diaphragm Compressor

* Reference ASTM, ISO, IS Standards documents
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 ** Product Specifications subject to change without notice due to continuous improvements



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