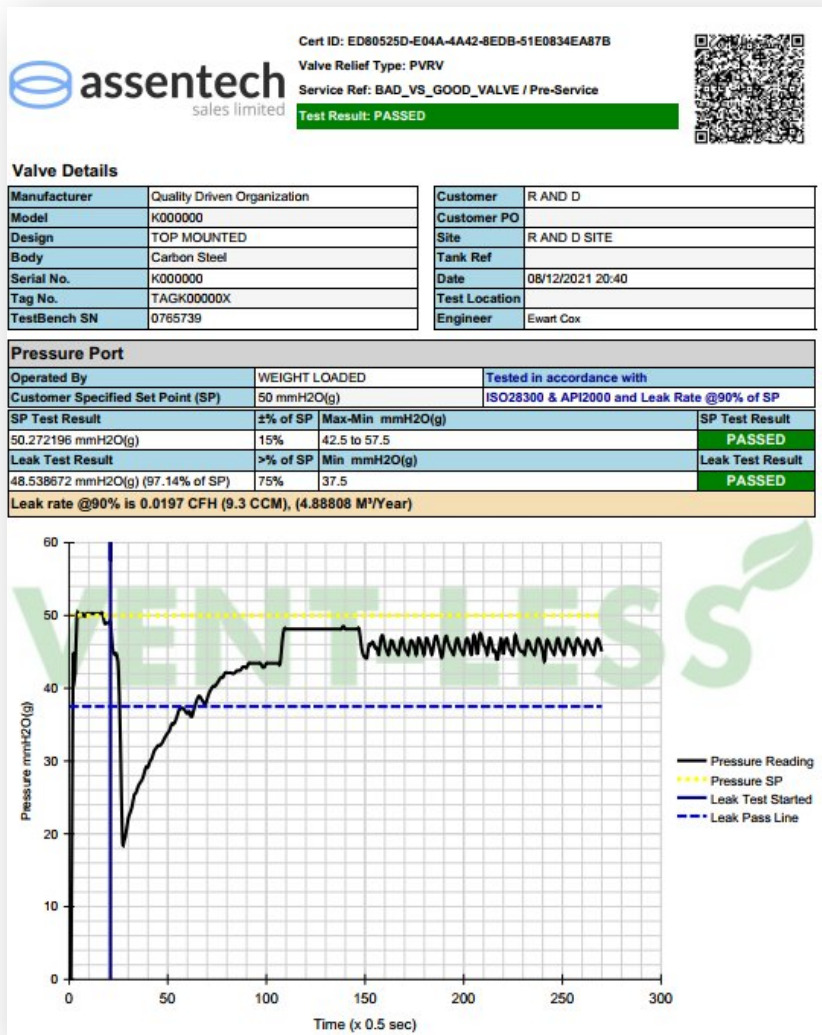
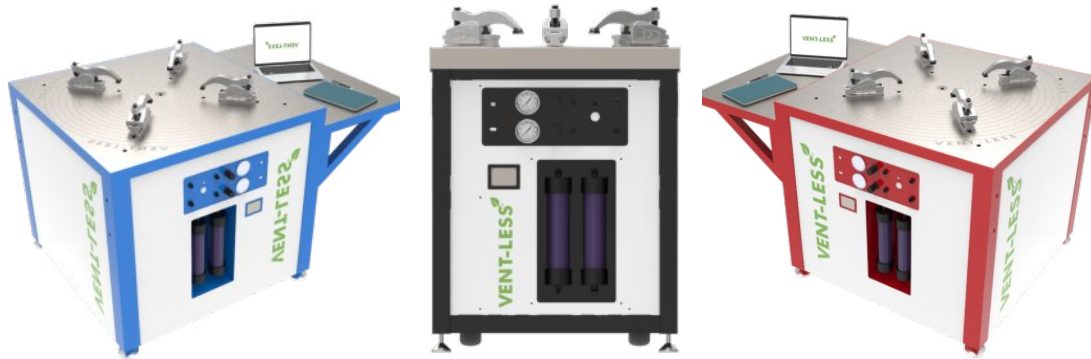


VENT-LESS®

Revolutionising Breather Vent Functional Testing



Example Test Report for Pressure Port

www.assentech.co.uk

T: +44 1726 844707

E: info@assentech.co.uk

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VENT-LESS[®]

A patented design, owned and supplied by Assentech Sales Limited

 **assentech**
sales limited

The only fully automatic and lightweight breather vent test in the world. Can be taken to a customer's site in a small van. State of the art technology runs through a full API2000 test procedure. Irrefutable evidence of breather vent leakage and calibration evidencing Corporate Social Responsibility and duty of care, as well as providing accurate data for ESG and environmental reporting



Mobile (MTB02)



Fixed (FTB02)

With over 90% of new valve manufacturers not conducting functional testing of new breather vents to international standards API2000 and ISO28300, it has never been more important for Operators to test new vents prior to commissioning and then keeping test records for ageing plant to satisfy requirements of the Regulators and document a path to net-zero.

Manual test benches have existed for many years, but results are variable because vents are modulating devices that open incrementally with rising flow. So, determining where set point occurs and leak rate volumes at 75%, 90% or whatever pressure is desired is difficult to calculate and almost impossible to replicate.

In 2021 Assentech launched the revolutionary Vent-Less automatic test bench range which enables manufacturers, regulators, end users, service companies and suppliers to measure the functionality, accuracy and leak tightness of their tank breather vents to ensure they are safe and compliant.

Breather vents are critical safety devices that protect people and the environment from exposure to volatile organic compounds and flammable atmospheres. Far too many tank storage incidents are caused by lack of knowledge of tank breather vent functionality or inadequate maintenance practices.

The Vent-Less test bench is aligned to the test protocol of the industry standards, API2000 and ISO 28300. After the 2-minute functional test, switching automatically from pressure to vacuum, an instantaneous Test Report details leakage rate, set point checks and confirms full vent functionality to evidence due diligence and duty of care which satisfies the regulators, keeps the workforce safe and provides vital data for ESG and ISO 14001 reporting. The Vent-Less software references complex algorithms using artificial intelligence which ensures results cannot be falsified and the high quality and calibrated instrumentation provides accuracy and reliable results.

Vent-Less enables the operator to test and document both new and used breather vents for functional efficiency.

There has never been a more important time than now to test tank breather vents and document the reduction in fugitive emissions. This demonstrates responsible corporate governance of tank storage facilities.

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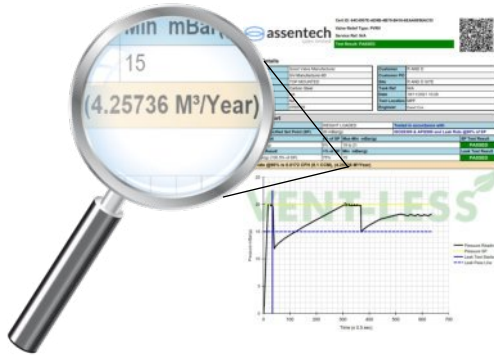
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VENT-LESS



Helping operators
achieve Net Zero

When a storage tank contains valuable, toxic and flammable media, how can you evidence best practice with your breather vent functionality, leakage and odour abatement?



- ✓ Verified Pressure Profile
- ✓ Set point check
- ✓ Breather vent leakage rate
- ✓ Evidences Compliance and Corporate Responsibility
- ✓ Testing on both vacuum and pressure ports



With breather vent procurement and maintenance, it's important you know the full facts so you can evidence your Corporate Social Responsibility (CSR) and duty of care to your site, workforce and the environment, as well as gathering crucial data for your ESG Reporting

World's First Ground Breaking Technology for the Tank Storage Industry Providing Test Certification on Breather Vent Performance and Functionality

- Demonstrate to the world that you are leading the way to net zero by reducing emissions from the biggest leak source on site
- Knowledge is power! It can save £thousands in lost revenue through reduced vapour losses
- Pre-programmed and aligned to Industry Standards API 2000 and ISO 28300
- The only independent method to verify true vent performance
- Documentary proof of dramatic reductions in fugitive emissions using best available techniques
- 100% consistent and repeatable test results using complex algorithms
- Evidential Test Report with option to attach photographs and comments
- Test report instantly available upon completion of the test
- Transferable to anywhere in the world using QR code technology
- The ultimate tool in ESG reporting
- Self-calibrating ensures accurate results every time
- Worlds first fully mobile unit can now be taken to customers site
- Remote technical support available as required
- Test for full DSEAR compliance
- Documents best practice to prove you are protecting your staff, neighbours and the environment
- Measures leak volumes to calculate cost of vapour losses
- Reduce toxic and flammable vapours



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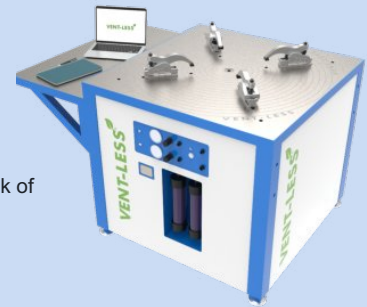
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State of the art technology for the tank storage industry providing evidential test certification on breather vent performance and functionality allowing YOU to make decisions

Why Choose Vent-Less?

- Demonstrate to the world that you are leading the way to net zero by reducing emissions from the biggest leak source on site
- Pre-install check which confirms the breather vent is safe and is operating according to the specification
- Knowledge is power! It can save £thousands in lost revenue through reduced vapour losses
- Pre-programmed to test to Industry Standards API 2000 and ISO 28300
- The only independent method to verify true vent performance
- Documentary proof of dramatic reductions in fugitive emissions using best available techniques
- 100% consistent and repeatable test results using complex algorithms
- Evidential Test Report with option to attach photographs and comments
- Test report instantly available upon completion of the test
- Transferable to anywhere in the world using QR code technology
- The ultimate tool in ESG reporting
- Self-calibrating ensures accurate results every time
- Worlds first fully mobile and compact unit that can be lifted by two people and transported in the back of a small van
- Remote technical support available as required
- Test for full DSEAR compliance
- Documents best practice to prove you are protecting your staff, neighbours and the environment
- Measures leak volumes to calculate cost of vapour losses
- Reduce toxic and flammable vapours



Key Features of the Vent-Less Range

- Aligned to Production test criteria of ISO28300 Section 6.4 and API2000 Section 5.4
- Screen performance pressure profile evidences true test results
- Same technician can service and test a valve due to independence of test results - Saving on labour costs
- Can be programmed to connect with manufacturer ERP system for improved test verification and documentation
- Leak rate volume calculator to analyse environmental and financial impact
- Fast test cycle de-bottle necks production
- Fully customizable test tolerances
- Fully automatic and repeatable breather vent functional testing
- Calibration and set-point checks
- Complete API 2000 test in less than 3 minutes per vent
- Leakage testing on both vacuum and pressure ports
- Instantaneous certification with QR Code technology
- Mobile and static options are available
- Your independent assessor



Benefits and Objectives

- Accurate and automatic calibration and testing in only 3 minutes by one operator
- Revolutionary software aligned to the test protocol defined in the industry standards
- Reduces the risk of explosive atmospheres for DSEAR compliance
- Identifies leakage rate to reduce fugitive emissions
- Your 'independent assessor'
- Identifies inefficient and non-compliant equipment
- Evidence tank venting due diligence and duty of care
- Instant functional test certificate for each valve including pressure profile
- Evidence adjusted set point for informed procurement and maintenance due diligence
- Empowers the operator to prove best practices in accordance with the standards
- Ensures compliance to industry standards/recommendations, i.e. API2000, ISO28300 and EEMUA231
- Improves production efficiency and quality of media through improved sealing
- Extends longevity of storage tank and surrounding equipment



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SPECIFICATION



Specification	Mobile	Fixed
Size	W700mm x D790mm x H840mm	W1320mm X D820mm X H800mm
Lightweight Aluminium Frame	80kg total weight can be lifted into the back of a vehicle by two people	200kg with sturdy frame and side shelf
Pressure Range	-300mbarg < +1000mbarg	
Size Range	2" (DN50) < 12" (DN300) Extension plate available for <24" (DN600)	2" (DN50) < 24" (DN600)
Calibrated	Flow and pressure are controlled and measured by accurate and precise instrumentation	
Self-Calibration	Options include a self calibration unit. The test bench automatically detects when connected and opens the option to run a calibration test. Compares pre-determined multiple flow and pressure data from the bench with its own internal calibrated instrumentation. Produces a full pdf test certificate to demonstrate test bench accuracy. Designed with pin-out instructions for local calibration testing	
Levelling Top Plate	Our mobile test bench includes a patented levelling top plate that achieves the optimum level position to achieve the best test results from an ergonomic standing position while viewing the top mounted 'bulls eye' inclinometer. Fast and easy set-up is an essential feature of a mobile test bench which could be set up on uneven ground. After the feet are adjusted to stop the unit rocking, final balancing of the pallet can be done from the standing position	
Fast and Easy Operation	No more bouncing rotameters to read. Just enter the valve data at the prompts and hit go! The results are produced in a fraction of the time taken on a manual device. Because this bench is automatic the operator has no opportunity to influence the results. Best practice dictates that the engineer who services a valve cannot test it on a manual test bench. Because this bench is automatic the same engineer can test after servicing. A significant saving for valve service companies and time saving for the operator	
Future Proof Intelligence	Embraces ground breaking AI functionality. Full internet connectivity enables our team to support the service technician from a remote location anywhere in the world	
Upgradeable	As time goes by, standards evolve. A key benefit of this test bench is that we can offer upgrades to keep your bench up to date	

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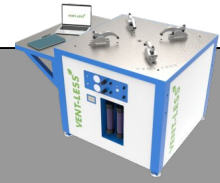
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SPECIFICATION cont.



Specification	Mobile	Fixed
Easy To Read Certificate	A comprehensive functional test certificate with visual performance profile showing the vent performance against target with highlighted tolerances	
Photographic Record	The program accesses the laptop camera and facilitates titled photographic record of the device and any aspects that need visually recording	
Corporate Branding	We understand the importance of your brand so we have included an option to upload a brand onto the Certificate template	
Service Database	Every asset is saved to the database with a full history of all test activity	
Back-up to the cloud	All test results can be uploaded to the Cloud or sent to the customers server to prevent the risk of lost test results	
Traceability	The test technician logs in to operate the bench. This gives full traceability of all tests made by that person. This registration process also records technician competence and creates a gateway to refresher training	
De-Mounted Control Box	In the event that the instrumentation needs refurbishment or repair the control box can be de-mounted in less than 5 minutes and returned complete to the factory without the need to transport the whole bench	
Replaceable Desiccant Filters	In order to make this unit as flexible and reliable as possible, it is fitted with two high capacity quick release desiccant filters which enables the test bench to be connected to any process air connection. The filters are mounted on front of the control box and change colour when saturated. Change over takes 10 seconds. Media can be regenerated in an oven	
Ergonomic Manoevrability	On arrival at site just extend the handle and click the wheels into place to move. Tilt and retract when in the desired location	Not applicable
Retractable Handlebar	In order to make the unit both compact for transportation and ergonomically comfortable to steer and manoeuvre, we have incorporated locking handlebar that latches in either extended or pack-away mode	Not applicable
Pilot Valve Calibration	Pilot valves are tested in the same way as weight or spring loaded vents when they are set up. However, following a full strip down the pilot valve needs to be set separately from the main valve. Again, we have used our many years' experience to develop the software assist with the pilot set finding function	
External Gauge Calibration Connections	The test bench can be fitted with up to two air supply control regulators. These are manually controlled with analogue pressure indication. This is a basic function that is remote from vent functional test procedures, however all gauges need to be inspected so we have integrated and external quick release connections for each gauge so they can be periodically checked for accuracy	

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VENT-LESS PART NUMBERS AND CODES

Item	Part Number	Description
Mobile Test Bench	MTB02	Portable unit which can easily fit into a small van. Ideal for companies with multiple sites, and maintenance companies operating nationwide
Fixed Test Bench	FTB02	Ideally suited for workshop use, where fixed in a single location
Options		
Customer Specified Frame Colour	PNT02	RAL colour customisation. Bespoke tailoring packages available
Extension Plate (MTB only)	MTBEP02	Extension Plate (MTB Only) for mounting valves 16" (DN400)<24" (DN600). Includes additional clamp arm and seals
Calibration Unit	UTBCU01	Compatible with both mobile and fixed test benches. Confirms the accuracy of instrumentation
Calibration Unit Carry Case	UTBCC01	Poly Plastic Case. Hinged lid with draw bolt locks
Side Mount Option - Mobile Test Bench	USMM01	For testing side mounted vents. Includes 2 additional clamps
Side Mount Option - Fixed Test Bench	USMF01	For testing side mounted vents. Includes 1 additional clamp
Factory Adaption Package	FAP02	Bespoke software customisation and tailoring packages to suit customer requirement
Spares		
Clamp (each)	UCLP02	Adjustable clamp to secure vent to top plate
Allen Key	KEY02	Carbon steel allen key to adjust clamps
Donuts - 2" to 12"	UDON02-12	Range of multiple rubber donuts to improve sealing during testing (standard)
XL Donuts - 16" to 24"	UDON02-24	Range of multiple donuts to improve sealing during testing (large)
Replacement Dessicant Filter Assy	UDES02	Blue dryer beads in tubular fitting and used to remove moisture from Bench
Dessicant Filter Media	UDESB02	Blue dryer beads loose in bag
Dust Cover - Mobile Bench	CVRM02	Vinyl cover for mobile bench to provide protection when not in use
Dust Cover - Fixed Bench	CVRF02	Vinyl cover for fixed bench to provide protection when not in use
Expedited Delivery <12 weeks	EXP02	Expedited delivery to be authorised and accepted by Assentech at quote stage
Mobile Bench or Side Mount Packing	PKGM02	Wooden (export ISPM-15 compliant) packaging crate for mobile bench or side mount accessory
Fixed Test Bench Packing Crate	PKGF02	Wooden (export ISPM-15 compliant) packaging crate for fixed bench
Power Lead 110V	FLX110	16A 2P&E Industrial Plug on yellow 3 core flex
Power Lead 240V	FLX240	13A Domestic UK Plug on black 3 core flex
USB Data Cable	USBL	Main USB Data Cable for test bench to laptop
DP9 Calibration Data Cable	DB9L	Calibration Unit data cable - 3m long DB9 both ends

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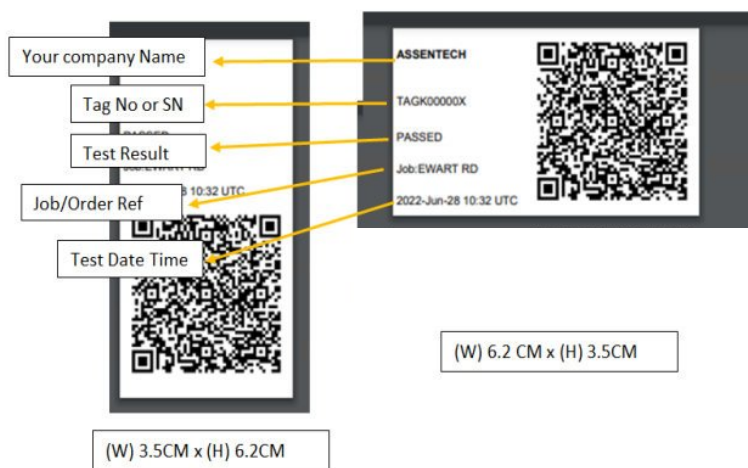
Vent-Less Printer and Label Package (Product number: PRT01)

A perfect “add-on” to the standard Vent-Less package. A convenient and useful tool for asset management, quality control and audit purposes. This is an industry first and is aimed at empowering operators to track and monitor key assets easily and effectively.

The label facility is a standard feature of the software and allows the user to print a label, in a choice of 2 sizes, configured in the Vent-Less software ‘settings’ section. The label consists of a QR code which can be scanned to download the Vent-Less Test Certificate. The label also clearly shows the Company Name, TAG or Serial Number, Test Result (PASS or FAIL), Job/Order No and Test Date/Time.

Optional label materials can be sourced including weather/UV resistant.

Further information, including pricing and compatible printer models is available on request. Please quote product number: PRT01



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Can you evidence best practice for

procurement and management of aging assets?

Is your breather vent safe and compliant?
Does your breather vent leak?
Does your breather vent meet the set point?
Could you be held accountable in a litigation claim?
What harm could you be doing to your workforce, environment, facility and your profits?



Ensure tank storage breather vents are tested and maintained according to the International Standards (API2000 / ISO28300).

Evidence and prove your innocence with understanding the risks and evidencing Best Practice.



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