

VENTIL[⊕]

TEST BENCH MODEL: CT800-T4

Technical specification



Universal test bench for Tank Relief Valves

Range: 2 - 24" / DN50 - 600 mm.



Ventil - NL

Polakweg 6 - 2288 GE
Rijswijk – The Netherlands
T.: +31 88 113 0900
E.: info@ventil.nl
I.: www.ventil.nl

Ventil - USA

906 Gemini Street
Houston TX 77058 – USA
T.: +1 281 280 0141
E.: info@ventil-usa.com
I.: www.ventil-usa.com

Ventil – Middle East

SAIF Zone – Unit Q4-267
Sharjah – United Arab Emirates
T.: +971 506 260 955
E.: info@ventil-me.com
I.: www.ventil.nl

Ventil Russia - Central Asia

Moscow
T.: +7 916 806 5800
E.: info@ventil-rus.ru
I.: www.ventil-rus.ru

TESTING TANK RELIEF VALVES

Acting as a 'last resort', Tank Relief Valves are installed on storage tanks to release excess pressure or vacuum due to faulty operations, external fires and other hazards. Their primary purpose is to protect the storage tank against rupture or implosion by allowing the tank to breathe or vent, when pressure changes due to abnormal operations, exposure to an external fire or flashes within the tank. Tank Relief Valves should be given the right treatment and be correctly tested to ensure that they will fulfil this so important role when needed.

TEST BENCH CT800-T4

The Ventil **CT800-T4** is an universal and versatile test bench for testing and setting of all common types of Tank Relief Valves, such as pressure – vacuum ('breather') valves, pressure vents and vacuum emergency relief valves in the range 2 - 24" / DN50 - 600 mm. Main features and unique characteristics of this test bench are;

- ⊕ Dual range (Pressure - Vacuum) test system for testing and accurately verify the settings and leak rates according to clean air and emission control acts and international test standards, like for example API 2000.
- ⊕ Quick – clamping system for clamping all types and sizes.
- ⊕ Design and configuration based on many years of experience in valve testing and repair.
- ⊕ Standard completed with the unique, fully integrated, Windows 10 Ventil Computer Registration System.
- ⊕ Delivered 'ready for use', including all necessary safety features, globally used by numerous manufacturers, end-users and valve repairers.



Test systems	
Vacuum (air) / pressure test system	-500 mbar... 7 bar / -7 ... 100 psi
Seat leakage detection and measuring system	0 - 10 nl/min / 20 SCFH

The dual range test system is specially designed for easily testing and accurately measuring the settings and performance of these delicate valves, in both vacuum and pressure conditions. The test is easily operated from the Stainless Steel panel by only (4) controls. While accurately adjusting the test data is shown on the computer screen.

The exotic shape of Tank Relief Valves doesn't allow leak detection / measuring via the outlet connection. Therefore the seat leakage (flow) measuring instruments are mounted on the upstream side of the test system. This allows seat leakage measuring of any type and shape of valve and it prevents that the leakage measuring instruments can be damaged by pollution coming from the test object. The range of the test system is in accordance to the API 2000 test standard.

Safe design approach

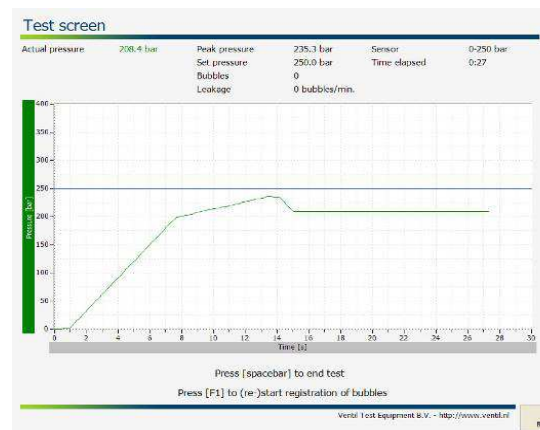
With over 5000 test benches installed and a zero accident track record, we can conclude and emphasize that we 'deliver safety'. A long, reliable, and most of all, safe working effect starts with a safe design approach. Within the design each particular part and system is subject to a thorough risk assessments and only first class components are used.

Computer Registration System

The Windows 10 operated 'CRS', exists of a 'rugged' industrial DELL laptop computer, a set of accurate - calibrated pressure transducers, A/D conversion unit and fully in-house developed test software.

Besides digital reading of the test data (pressure, time and leakage), the CRS system includes a variety of unique functions to help the operator with achieving accurate and reliable test results, for example; automatic verification of the found set pressure and leakage against your standards.

- ⊕ Accurate digital reading of vacuum/ pressure, time and leakage.
- ⊕ Automatically storing a complete test certificate, with a fully customized lay-out, showing company logo's, texts and in the preferred language.
- ⊕ CRS test program is available in a variety of languages or can be converted into your native language by using the text translation function.
- ⊕ Rugged, industrial laptop computer.
- ⊕ Prepared for installation on your LAN network.



Need help, an upgrade or an additional function..? The Ventil IT service team is available for answering questions, remote access and support over internet, anytime, anywhere.

CT800-T4 maintenance

The Ventil **CT800-T4** requires minimum maintenance. Generally the test unit only has to be kept clean to ensure a safe and reliable performance. Periodical maintenance, testing and calibration instructions are described in the test unit manual.

Certification

At Ventil we only use first class instruments to ensure that the best possible and reliable test results are achieved. The following documents are included to ensure the machine meets the highest levels of accuracy and compliance;

- ⊕ Test- and calibration certificates for all installed test pressure gauges, sensors and flow meters (if applicable).
- ⊕ Factory acceptance test (FAT) report and a test-and safety report of acceptance according to EN 10204:2004.
- ⊕ EC Declaration of Conformity acc. to Directive 2006/42/EC for test units.

SPECIFICATION CT800-T4

Range	2 – 24" / DN50 - 600 mm	
Clamping system operation	(4) Manual operated clamps	
Test system range	-500 ... 7,000 mbar / -7 ... 100 psi	
System controls	Accurate pressure / flow controlling valves, manually operated	
Digital reading	CRS computer system with valve test software	
Computer hardware	Modern ruggedized laptop computer, Windows 10 Pro	
Digital pressure measurement	Pressure transmitter 1) -500 - 1000 mbar / -7 - 14.5 psi.	
	Pressure transmitter 2) 0 - 10 bar / 0 - 150 psi.	
Digital leakage measurement	Flow transmitter 1) 0.01 - 0.5 nl / min / 0.02- 1 SCFH	
	Flow transmitter 2) 0.2 - 10 nl / min / 0.4 - 21 SCFH	
Test procedures according to common test standards	Set pressure testing in both vacuum as well as pressure conditions	
	Seat leakage in accordance to API 2000 in both vacuum as well as pressure conditions	
Sealing plates	Universal, flat sealing plates, material Vulkolan	
Clamping force (maximum)	10 Metric tons	
Clamping table dimensions / material	790 x 790 mm / 31.1 x 31.1 Inch	
Clamping table material	Carbon steel	
Dimensions / weight	1.23 x 0.8 x 1 meter - 600 kg (floor load: ca. 600 kg/m ²)	
	48.4 x 31.5 x 40 Inch - 1,325 lbs (floor load: ca. 1,325 lbs/m ²)	
Required connections	Electricity	220-240 V 50-60 Hz 110 V 60 Hz
	Utility air	7 bar / 100 psi
Delivery	Ready for use	

