

VENTIL[⊕]

TEST BENCH MODEL: VC10-CC

Technical specification



Transportable test bench for Pressure Relief Valves
Range: ¼ - 4" / DN6 - 100 mm.



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TESTING PRESSURE RELIEF VALVES

Acting as a 'last resort', Pressure Relief Valves are installed on process equipment to release excess pressure due to faulty process operations, external fires and other hazards. Or simply said; the Pressure Relief Valve serves to protect 'life and property'. Pressure 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 VC10-CC

The Ventil **VC10-CC** is a compact, transportable test bench for pressure testing and setting of Pressure Relief Valves in the range ¼ - 4" / DN6 - 100 mm. Main features and unique characteristics of this test bench are;

- ⊕ Gas testing of all kinds of Pressure Relief Valves with flange and thread connections, according to all common international test standards, such as; API 526, API 527, ANSI / API RP 576.
- ⊕ Easy-to-use, transportable performance, in-shop or on-site.
- ⊕ Hand operated 3-Claw clamping system, no electricity or shop/utility air needed for full operation and control.
- ⊕ Design and configuration based on many years of experience in valve testing and repair.
- ⊕ Fully built in-house, only first class components are used.
- ⊕ Delivered ready for use, including all necessary safety features.



Test systems		
Gas test system	0 - 200 bar / 2,900 psi.	Compressed air or Nitrogen gas
Seat tightness test system	according to API 527	

Range and application		
VALVE SIZE		MAXIMUM GAS / LIQUID TEST PRESSURE*
Inch	mm	
¼ - 2	15 - 50	200 bar / 2,900 psi
2½ - 3	65 - 80	120 bar / 1,740 psi
4	150	75 bar / 1,080 psi

*Contact us for smaller or larger test benches and custom build solutions

Rugged, transportable design

The **VC10-CC** base structure exists of a heavy constructed frame on wheels, allowing easy transport in-house or on-site. Above the compact and rugged design, this test bench also features a 10 metric ton strong 3-claw clamping system and specially configured volumetric test system for achieving accurate and reliable test results.

Test bench control panel

Compact, but ergonomically designed control panel with all parts and systems needed for easily operating the gas test system.

Smart design has led to a minimum amount of operating components, allowing very easy and intuitive operation. The **VC10-CC** is optionally completed with a range of high quality, fully calibrated pressure gauges and/or the unique Ventil Computer Registration system. Both can be safely stored in the trolley and easily connected prior to use. The Control panel will be completed with text plates in your native language.



VC10-CC control panel with optional Computer registration System

Quick clamping system

10 ton strong 3-Claw clamping system for quick and easy clamping of the complete range of Pressure Relief Valves. These can be somewhat unstable and may need to be supported. Therefore the **VC10-CC** clamping system works with a fixed clamping table and vertically moving claws. After positioning of the valve onto the Stainless Steel clamping table with corresponding sealing plate, the operator uses the hand lever to move the claws simultaneously to the center, until they overlap the flange. The large diameter hand wheel is used to move the claws downwards and clamp the valve on the inlet flange.

- ⊕ 0 - 10 Metric ton, fully adjustable, range: ¼ - 4" / DN6 - 100 mm.
- ⊕ ¾" full bore test connection to the 4 liter test vessel to ensure sufficient dynamic lift reaction!
- ⊕ Manual control with slip-clutch for correct setting of force.
- ⊕ Sliding adapters for extended range and exotic types.
- ⊕ One hand lever for simultaneously moving claws to the center.



Parts and components

The delivery includes one Vulcolan rubber plate and 4 pcs. O-ring sealing plates for clamping all ANSI and DIN RF flanges. The galvanized steel O-ring sealing plates are easily positioned, while the grooves help the operator to correctly center the valve. The plates ensure the highest level tightness for high pressure gas service. To enhance safety and prevent premature wear of the O-rings, the rings are stored in the integrated storage box. The test bench is completed with a bubble counter for easy and accurate testing / measuring of the gas seat leakage, according to the API 527 standard. This set includes an easy to mount, spring loaded clamp with adapters for outlet flanges up to 5".

Safe design approach

With the design of the **VC10-CC** we consider the position and role of the operator and, character of tests executed. Good work - design, extended testing and ergonomics helps to achieve reliable and consequent test results, while keeping the operator safe at work.

The heavy constructed safety screen is completed with 12 mm thick Polycarbonate can be folded horizontally to ensure easy transport.

SPECIFICATION VC10-CC

Range	¼ - 4" / DN6 - 100 mm
Test station operation	Manual operated, completed with slip-clutch for correct force adjustment
Gas / air test system	200 bar / 2,900 psi (Compressed air or Nitrogen)
Liquid (gas-over-liquid) test system	n/a
System	Accurate regulator with two SS needle valves, 4L test vessel (accumulator)
Digital reading	Optional CRS computer system with valve test software
Pressure Gauge Ø160 mm / 6.2"	See options for selecting the correct gauges for your application
Bubble counter	0 - 50 bubbles per minute
Test procedures according to common test standards	Set Pressure testing with gas Seat tightness testing according to API 527
O-ring sealing plates	RF connection (DIN/ANSI) up to maximum pressure level 4 pcs. for ¼ - 4 / DN6 - 100 mm.
Universal, flat sealing plate	Vulcolan (rubber) for testing up to max 35 bar / 500 psi
Clamping force (maximum)	10 Metric tons
Height under the Claws	0 - 75 mm / 3"
Flange outline diameter	Ø80 mm - 250 mm / 3 - 10"
Clamping table diameter	Ø180 mm / 7"
Clamping table material	Stainless Steel
Safety feature (standard)	Safety screen 12 mm thick Polycarbonate, foldable for transport
Dimensions / weight	1.34 x 0.8 x 1. meter - 195 kg 52 x 31.5 x 40 Inch - 430 lbs
Required connection(s)	Test gas 200 bar / 2,900 psi Compressed air / Nitrogen (see options)
Delivery	Ready for use



Additional parts and systems

The Ventil **VC10-CC** is delivered ready for use, including sealing plates, leak detection system and set of consumables. However, a variety of optional parts, systems and tools are available to possibly increase the performance and efficiency for your specific range and application.

Please see the **VC10-CC** options sheet with detailed description and feel free to contact us for assistance..!

OVERVIEW

TEST BENCH VC10-CC

