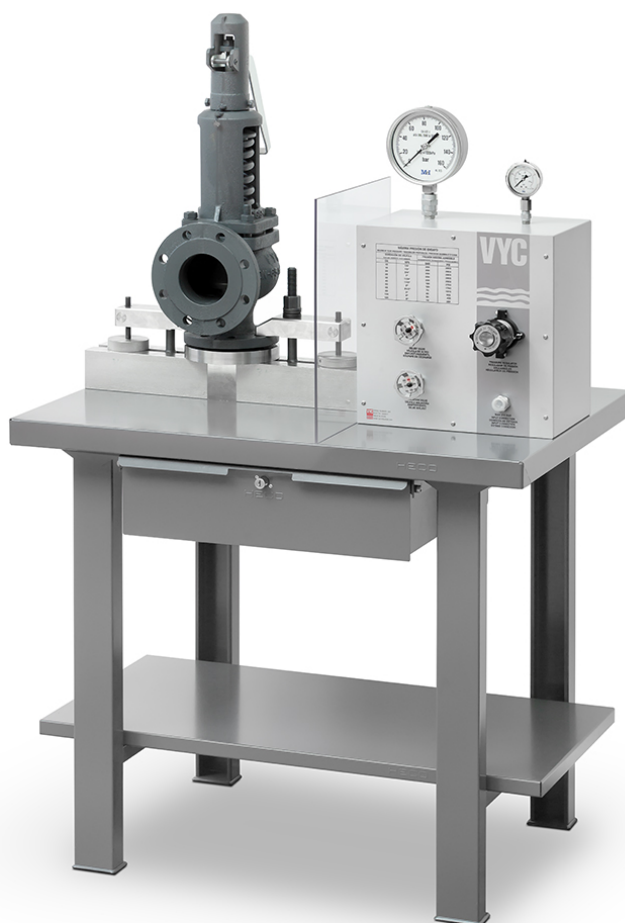


TEST BENCH SAFETY VALVES $\frac{1}{4}$ " - 5" DN10 – DN125



Model: VC-40-VYC

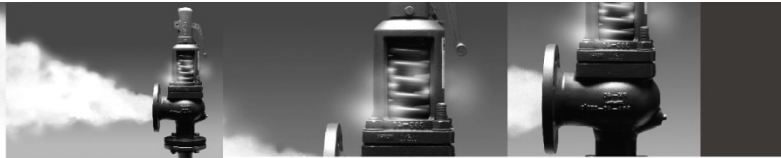


Table of contents

1. - Installing the test bench

- 1.1.1- Connecting the compressed air / nitrogen source
- 1.1.2- Maximum test pressure according to the size of the valve
- 1.2- Conditions of the test area
 - 1.2.1- Test area
- 1.3- Safety notes
 - 1.3.1- Authorized use
 - 1.3.2- Organizational measures

2. - Description and characteristics of the portable test bench VC-40-VYC

3. - Test Procedure

- 3.1- Before the test
- 3.2- Clamping procedure
- 3.3- Testing a high-pressure safety valve

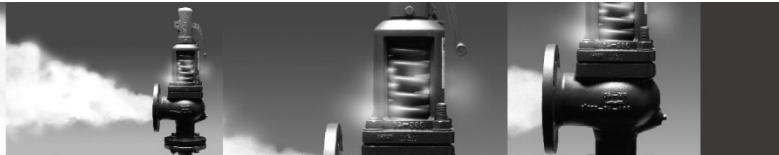
4. - Maintenance

- 4.1- Once launched
- 4.2- Periodic reviews
- 4.3- Circuit pressure test
- 4.4- Gauge Calibration

5. - Risk analysis

6. - Declaration of conformity

7.- Photos



1- Installing the test bench.

1.1.1- Connecting the compressed air / nitrogen source

The test stand is equipped with a threaded connector which enables the connection of a source of compressed air or nitrogen at high pressure. The bench test VC-40-VYC needs to be connected to a power supply. **For HP-air / N2 maximum pressure must not exceed 210 bar / 3045 psi.**



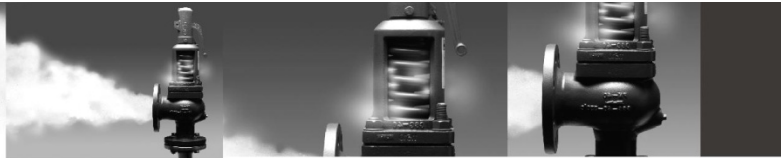
1.1.2- Maximum test pressure according to the size of the valve.

VC 40 VYC			
MÁXIMA PRESIÓN DE ENSAYO			
MAXIMUM TEST PRESSURE / MAXIMALER PRÜFDRUCK / PRESSION MAXIMALE D'ESSAI			
DIMENSIÓN DE VÁLVULA VALVE SIZE / NENNWEITE / VALVE DIMENSION		PRESIÓN MÁXIMA ADMISIBLE MAXIMUM PRESSURE / MAXIMALER DRUCK / PRESSION MAXIMALE	
DN	NPS	BAR	PSI
10	1/4"	200	2900
15	1/2"	200	2900
20	3/4"	200	2900
25	1"	200	2900
32	1 1/4"	200	2900
40	1 1/2"	190	2755
50	2"	120	1740
65	2 1/2"	70	1015
80	3"	45	653
100	4"	30	435
125	5"	18	261

DO NOT UNTIGHTEN THE FLANGES WHILE THERE IS PRESSURE IN THE CIRCUIT!

1.2- Conditions of the test area.

The test area must be clean, free of dust, dry and avoid direct exposure to sunlight, especially when testing with nitrogen. Ensure adequate ventilation. The temperature of the test area must range between 5 and 40 ° C.



1.2.1- Test area.

The test area must be an exclusive testing area. During high pressure tests, all unauthorized personnel should not be allowed to enter. During high pressure tests and / or whilst handling the test bench, operators have to use the appropriate PPE (Individual Protection Equipment);



1.3- Safety notes.

1.3.1- Authorized use.

The test bench is built according to the latest technology and current technical safety regulations. However, its misuse can cause injury to the operator or to third parties and equipment and authorised personnel surrounding the test area.

The test should only be operated under perfectly safe conditions in accordance with current safety regulations, warnings of the dangers must be outlined around the testing area according to the instruction manual. In particular, any malfunction or damage sustained by the test bench could affect the safety of the equipment.

Authorized use must be in accordance with the inspection and maintenance criteria mentioned in the manual.

1.3.2- Organizational measures.

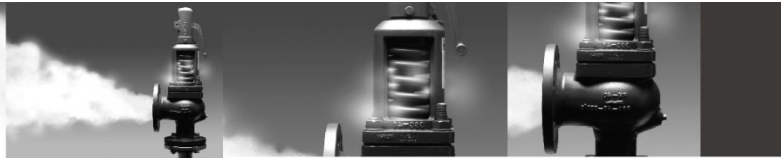
Store the instruction manual near the test bench.

In addition to the instruction manual, verify and confirm that all current legal and other mandatory regulations regarding accident prevention and the environment are met.

In addition to the manual, make a supplemental working instruction for all staff so they know how to operate it, list of authorized workers and maintenance record. Authorized personnel must have read the instruction manual before they start using the equipment, especially the chapter that refers to safety.

According to current legislation, all necessary protective equipment must be provided to ensure safety. Especially when high pressure tests are made, workers must use hearing protection.

Even if no malfunction is detected, a thorough visual inspection of the equipment must be carried out. These inspections should be performed regularly, even if there is no sign of malfunction.



2.- Description and characteristics of the portable test bench VC40-VYC.

Fastening method:	By two manual flanges.
Maximum clamping size:	DN 125 / 5"
Fluid allowed test:	Air / Nitrogen
Pressure regulating valve:	1.6-276 bar / 23-4000 PSI
Neeall valve:	PN 250 bar / 3625 PSI
Maximum allowable pressure:	200 bar / 2900 PSI
Pressure gauges:	0-250 bar / 3625 PSI cl 1.6 0-16 bar / 232 PSI cl 0.5 0-160 bar / 2320 PSI cl 0.5
Weight:	120 Kg

The dimensions of the test bench VC-40-VYC are: 100x75x140 cm



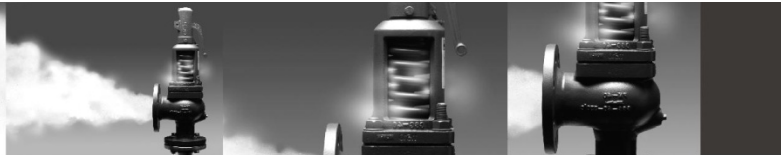
The test is designed to test the safety valves with flanges up to a nominal diameter of DN 125/5".

Hold the valve by means of the two clamping jaws. This can be adjusted in height and separation according to the size of flange.

The clamping force is applied by a very comfortable hand multiplier.

The medium used for the test can either be pressurized gas from the compressed gas cylinders or external compressors. The pressure control test is performed by precision valves.

The connection is equal to or greater value than 250 bar to increase the security.



3. - Test procedure.

3.1. - Before the test.

The portable test bench can be used in any enabled area that meets the requirements specified in paragraph 1.3.1.

Before testing, you must be connected to a suitable source of pressure.

3.2. - Clamping procedure.

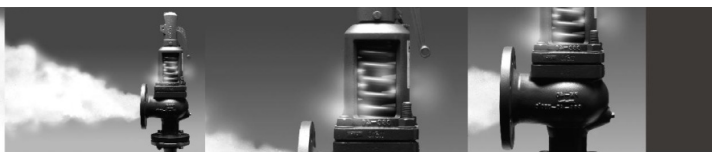
Slide the two clamps and tighten the valve flange ensuring the correct positioning.

3.3. - Testing a high-pressure safety valve.

Check that there is no pressure in the circuit, close the discharge valve and slowly open the inlet valve, use the regulator and blocking valve until the desired pressure is achieved.

If any leaks are detected in the circuit, close the inlet valve and contact VYC Industrial,S.A.

After the test, close the inlet valve and open the relief valve until the gauge pressure is zero. Then release the clamps. Never loosen the clamps without ensuring that there is no pressure in the circuit.



4. - Maintenance

Read the "safety principles" before handling the test bench. Before handling the test bench VC-40-VYC, make sure the equipment the pressure input source is disconnected and ensure that there is no pressure in the circuit.

4.1. - Once launched.

Check that the equipment does not leak after its first use and repeat the inspection within **24 hours**.

Visual inspections every **72 operating hours**.

4.2. - Periodic reviews.

Clean the equipment and check all the sealing elements after each test.

4.3. - Circuit test pressure.

Screw a blanking plug in the outlet, tighten the clamps and pressurize the equipment. The pressure must remain constant in the time interval of one hour. Consider the influence of temperature in the possible pressure fluctuations.

4.4. - Calibration gauge.

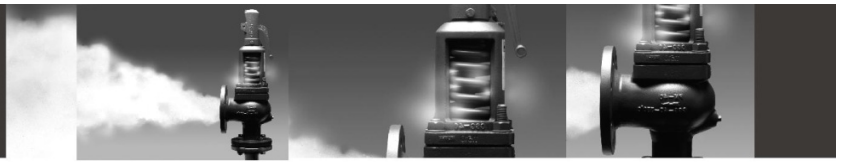
All pressure gauges Ø150mm EN 837-1 CL 0.5 must be calibrated at intervals not exceeding one year. Contact VYC Industrial, S.A. to perform the calibration.

In case of failure: before taking any action, stop the equipment and contact VYC Industrial, S.A.



5. - Risk analysis

Description of risk	Measures applicable
Explosion or rupture of pressurized parts	<ul style="list-style-type: none"> · Never exceed the maximum test pressure · Perform the maintenance indicated in the manual without exception · Keep the test bench clean and dry · Personnel must be properly trained before any test · Use your common sense
Injury to the feet caused by falling heavy items	<ul style="list-style-type: none"> · Do not store material on the workbench · Use the PPE indicated in the manual · Use your common sense
Physical or equipment injury due to overturning and/or dropping of the test bench	<ul style="list-style-type: none"> · Do not position the test bench in slopes higher than 5% · Use your common sense
Physical injury due to overexertion	<ul style="list-style-type: none"> · Use lifting equipment for heavy material · Keep the work area in an orderly and ergonomic manner · Use your common sense
Generalized physical injuries	<ul style="list-style-type: none"> · Use the PPE indicated in the manual · Use your common sense



6. - Declaration of conformity

The VC-40-VYC test bench has been designed to meet the health and safety requirements by applying the following directives:

(2006/42/EC) Machinery directive

(2014/68/EU) Pressure equipment

Any modification made to the VC-40-VYC test bench without the corresponding authorization by VYC Industrial will invalidate this declaration of conformity.

7.- Photos



VYC industrial

Founded in 1914

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