

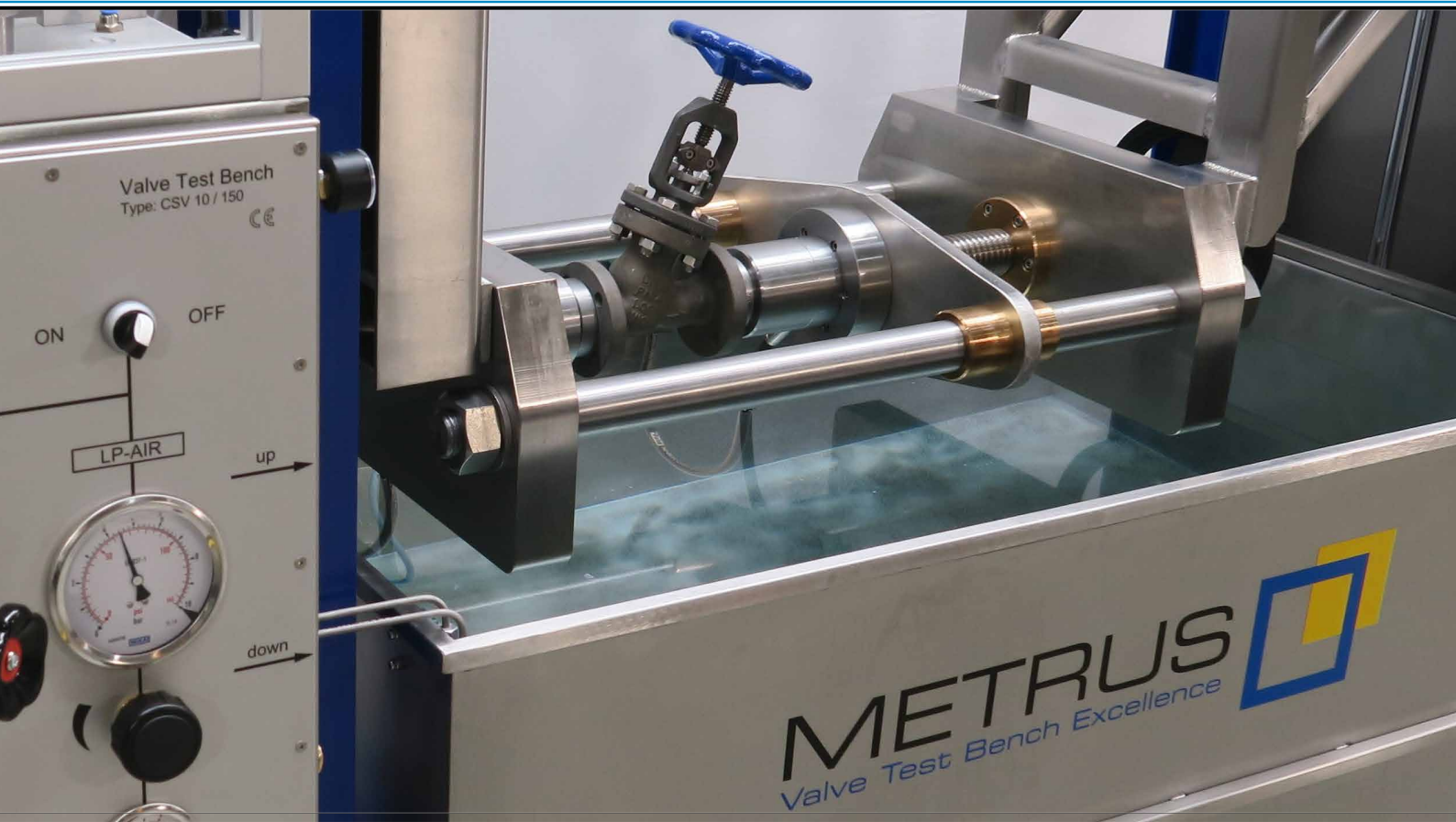
The Brand for Valve Test Benches and On-Line Test Equipment!

# METRUS

Valve Test Bench Excellence  
since 1970



## Product Overview



Valve Test Bench Excellence

## CSV - Control and Shutt-off Valve Test Benches

### CSV 50/200

The bestseller among our test benches for control and shut-off valves is the CSV 50/200! This test stand is characterized by the fact that it offers the ideal basis for beginners as well as professionals. With a clamping force of 50 tons, it is possible, for example, to carry out shell tests with water at nominal diameters of DN10 - DN200 with up to 600bar. For even larger test specimens, an external test adaptor can be purchased. Optional modifications are available upon request. We are happy to meet your challenges.

#### Basics

Clamping:	Automatic Sealing Heads
Max. Valve Size:	DN200 / 8"
Max. clamping force:	50 Tons
Test fluid:	Air / Gas / Water
Max. test pressure:	up to 600 bar (Water)
Tests:	Shell test / Leak test and Function test



### Common CSV-Models



CSV 10/150 UW



CSV 100/400



CSV 280/600

Clamping:	Automatic Sealing Heads	Automatic Sealing Heads	Automatic Sealing Heads
Max. Valve size:	DN150 / 6"	DN400 / 16"	DN600 / 24"
External testing adaptor:	yes	yes	yes
Max. clamping force:	10 Tons	100 Tons	280 Tons
Test fluid:	Air and Gas	Air / Gas / Water	Air / Gas / Water
Max. test pressure:	40 bar	600 bar (Water)	600 bar (Water)
Tests:	Shell test / Leak test and Function test	Shell test / Leak test and Function test	Shell test / Leak test and Function test



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## SVM - Mobile Safety Valve Test Benches

### SVM 20/200



The safety valve test benches of the METRUS SVM series are primarily designed for mobile use. The compact SVM 4 is particularly well suited for use in service vans. The SVM 20, on the other hand, is perfectly for use in mobile workshops, or as a „terminal“ in connection with a central pressure supply for several test stands.

Our SVM 20/200 as well as SVM 20/400 can also be purchased as WEB-EDITION. There the delivery time is only 4 weeks\*.

\*applies only to the test bench with basic equipment

#### Basics

Clamping:	Manual fast clamping
Max. Valve Size:	DN200 / 8"
Max. clamping force:	20 Tons
Test fluid:	Air / Gas / optional Water
Max. test pressure:	up to 600 bar
Tests:	Set pressure test / Leak test

### Common SVM-Models



SVM 4/100  
SVM 4/250



SVM 4/100 C



SVM 20/200  
SVM 20/400

Clamping:	Manual fast clamping	Manual fast clamping	Manual fast clamping
Max. Valve size:	DN100 / 4" DN250 / 10"	DN100 / 4"	DN200 / 8" DN400 / 16"
External testing adaptor:	yes	yes	yes
Max. clamping force:	4 Tons	4 Tons	20 Tons
Test fluid:	Air / Gas / optional Water	Air and Gas	Air / Gas / optional Water
Max. test pressure:	600 bar	600 bar	600 bar
Tests:	Set pressure test and Leak test	Set pressure test and Leak test	Set pressure test and Leak test

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## SV - Safety Valve Test Benches

### SV 50/200

The SV series safety valve test stands are designed for use as stationary test benches for the production or maintenance area. Choose from a wide range of options to create the test stand that perfectly suits your needs.



#### Basics

Clamping:	Hydraulic
Max. Valve Size:	DN200 / 8"
Max. clamping force:	50 Tons
Test fluid:	Air / Gas / optional Water
Max. test pressure:	up to 600 bar
Tests:	Set pressure test Leak test

### Common SV-Models



SV 20/200  
SV 20/400



SV 50/200  
SV 50/400



SV 36/150 Lift



SV 20/200 PA

Clamping:	Manual fast clamping	Hydraulic clamping	Automatic Sealing Heads	Manual fast clamping
Max. Valve size:	DN200 / 8" DN400 / 16"	DN200 / 8" DN400 / 16"	DN150 / 6"	DN200 / 8"
External testing adaptor:	yes	yes	yes	yes
Max. clamping force:	20 Tons	50 Tons	36 Tons	20 Tons
Test fluid:	Air / Gas / optional Water	Air / Gas / optional Water	Air / Gas	Air and Gas
Max. test pressure:	600 bar	600 bar	600 bar	300 bar
Tests:	Set pressure and Leak test	Set pressure and Leak test	Set pressure and Leak test	Set pressure and Leak test



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## SV - Safety Valve and Universal Test Benches

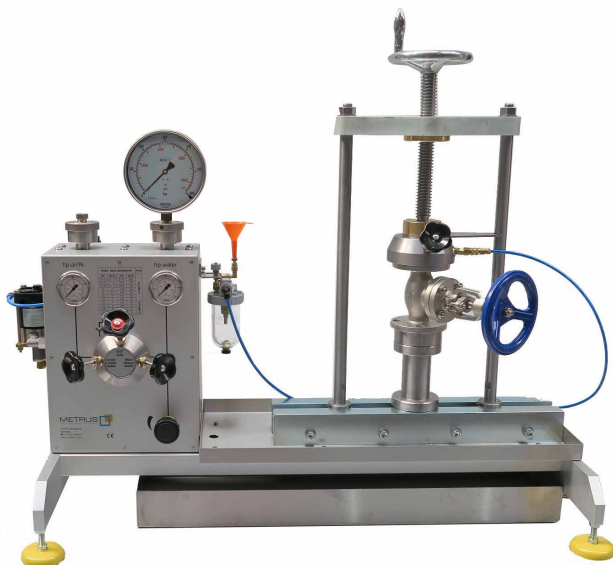


### SV 50/400 E

The ideal partner for valve service is our SV 50/400 E universal test bench. The basis for this is our SV 50/400 supplemented by a swiveling upper beam, which enables the clamping of shut-off and control valves in straight-through form. Whether set pressure, body or seat leakage test; this test stand offers test possibilities for almost all types of valves. Whether high-pressure gas or water is required for the test, everything is possible with this test stand. And if the clamping table, which can accommodate valves up to DN400, is still too small, the external test adaptor for testing with blind flanges can be used. With this test bench, (almost) everything is possible!

#### Basics

Clamping:	Hydraulic /Automatic Sealing Heads (optional)
Max. Valve Size:	DN400 / 16"
Max. clamping force:	50 Tons
Test fluid:	Air / Gas / optional Water
Max. test pressure:	up to 600 bar
Tests:	Set pressure test Leak test



### SVM 4/100 E

We also use a safety valve test bench as the basis for this smart solution. In this case, however, it is a mobile solution, mounted on one of our smallest test stands SVM 4/100. In addition to the safety valve test, the use of the removable top beam also allows the seat leakage test with low-pressure air on shut-off or control valves as well as the shell test with water (optionally available). The top rail can be mounted or dismounted in less than 3 minutes. An all-round mobile solution for valves up to DN100.

#### Basics

Clamping:	Manual fast clamping
Max. Valve Size:	DN100 / 8"
Max. clamping force:	4 Tons
Test fluid:	Air / Gas / Water
Max. test pressure:	up to 600 bar
Tests:	Set pressure test / Leak test

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# BV - Butterfly Test Benches

In the context of maintenance and repair, butterfly valves and gate valves are mainly tested on universal or shut-off valve test rigs. However, such solutions are not efficient in the production of butterfly valves. For maximum efficiency, METRUS offers the BV series as the optimal solution for manufacturers.

## BV 36/500 und BV 80/500

### Basics

Clamping:	Hydraulic
Max. Valve Size:	DN500 / 20"
Max. clamping force:	36 Tons / 80 Tons
Test fluid:	Air / Gas / Water
Max. test pressure:	up to 60 bar
Tests:	Shell test / Leak test and Visual seat leakage test



## BV 150/800

### Basics

Clamping:	Hydraulic
Max. Valve Size:	DN800 / 32"
Max. clamping force:	150 Tons
Test fluid:	Air / Gas / Water
Max. test pressure:	up to 60 bar
Tests:	Shell test / Leak test and Visual seat leakage test





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## ATB - Automatic Test Benches

METRUS fully automatic test benches are the perfect complement for valve manufacturers who need to test large quantities of identical test specimens on a daily basis. For this purpose, depending on the number of pieces, test stands with double or multiple clamping tables can also be designed. The operator only has to insert the test specimen into the clamping table and start the test via a pushbutton. Almost everything is possible with the METRUS automatic testing machines. Just let our automation engineers know your requirements.

### Model examples:

#### ATB 15/100

##### Basics

Clamping:	Automatic Sealing Heads
Max. Valve Size:	DN100 / 4"
Max. clamping force:	15 Tons
Test fluid:	Air / Gas / Water
Max. test pressure:	up to 600 bar
Tests:	Shell test / Leak test and Function test



#### ATB 85/150

##### Basics

Clamping:	Automatic Sealing Heads
Max. Valve Size:	DN150 / 6"
Max. clamping force:	85 Tons
Test fluid:	Air / Gas / Wasser
Max. test pressure:	up to 600 bar
Tests:	Shell test / Leak test and Function test



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# Further Test Units

### VTM - Vacuum Tester Mobile

With our VTM you get a mobile test stand for vacuum / venting and bleeding valves.

The electrically driven vacuum pump allows a test pressure up to -900 mbar and the electrically driven compressor up to 500 mbar. Vacuum sealing plates up to DN600 are available for this purpose. The compact lightweight construction, the anodized as well as chemical resistant front panel and the stainless steel housing offer the usual easy to clean handling of METRUS products.



### MPU - Mobile Pressure Generator

From time to time there are requirements to perform high-pressure tests on valves, fittings, pipelines or pressure vessels of any design that cannot be easily clamped into a test rig. Especially when the test bodies have to be tested on site.

For this reason we have developed our mobile pressure generator MPU. With this easily transportable and compact device you have the possibility to perform tests with high pressure water via the integrated pump, or high pressure gas via an external pressure source almost at any place. The robust stainless steel housing with the proven METRUS valve technology guarantees easy and safe use at any location. Depending on the model variant, test pressures of up to 1,000 bar are possible.





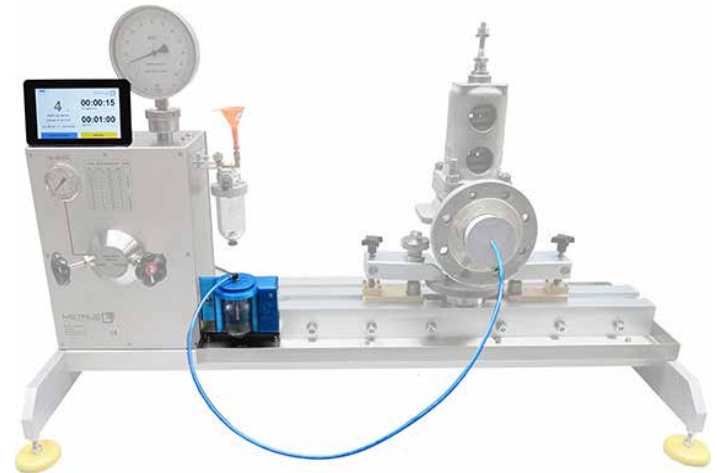


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## Further Devices As Accessories

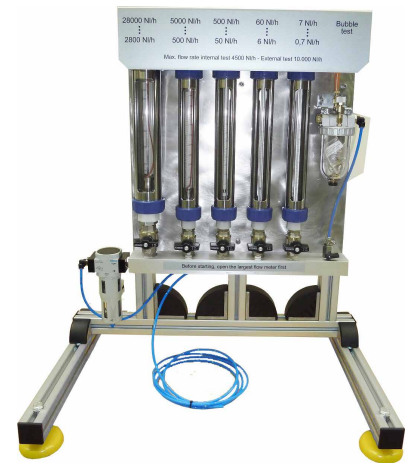
### LBC - Laser Bubble Counter

Our laser bubble counter allows you to easily determine the leakage of a valve. The operation is very easy via the touch screen display. The measurements can be made according to the common standards DIN3230, DIN60534-4:2006 as well as API527. This accessory can be purchased as an integrated solution for new test benches, but also as a stand-alone solution for existing test stands.



### Flow Meter Cascade (stand alone)

This measuring cascade, available as an accessory, is usually also used on our CSV test benches for control valves. The installed variable area flowmeters offer you 5 different measuring ranges from 0 up to max. 28,000 NI/h. The advantages are a simple, cost-effective measuring principle without auxiliary energy and a direct visualisation of the flow rate on the scale of the device used. The measuring ranges can be switched over via ball valves on the cascade. The robust construction on aluminum profiles allows easy transport and thus use on several test benches.



### Setpoint Adjuster

Do you need setpoints for your electric valve actuators? These can be continuously adjusted for voltage 0-24 V as well as current 4-20 mA, via separate potentiometers. Our electrical setpoint adjuster is equipped for use on ATEX actuators.

It is optionally integrated with a swiveling support arm on the test bench or also available as a stand-alone unit.



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# TESON III - Safety Valve On-Line Test

## TESON III

Unlike a test on the safety valve test bench, an online safety valve test involves testing the valve while it is installed and the system is running. Whenever a safety valve „only“ needs to be tested and not overhauled, an online safety valve test is the most economical solution.

The standard system includes the components we recommend to get you started with TESON online safety valve testing. Many service providers cover 90% of the tests that occur with this. This package can of course be customized.

Another component of the TESON standard set:

### TESON Software

In an online safety valve testing system, both the hardware and the software determine how efficiently and safely you can work.

This way you create the test reports for special purposes or different languages that exactly meet your requirements. You generate the test report as a pdf document directly from the TESON software.

As a special purpose machine builder, we are proud to have two top programmers in our team - since 1998. They make sure that our software applications are permanently improved and that we are always on par with the Windows world, despite the high pace of change.





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## Software

### CRS - Computer Registration Software

Our CRS - (computer registration software) can be purchased with each test bench.

You have the choice:

#### FreeCRS

You need a new test bench with a software or you want to extend your old METRUS test stand with one? Basically you just want or need to print a test report with a pressure curve from time to time? Then our FreeCRS is the perfect solution for you. This software contains everything you need for digital testing. If you purchase a new METRUS test bench, we provide you this product free of charge.



#### Full CRS

This offers you the following possibilities:

Leakage calculation and testing according to EN60534-4 and EN12266 with a high measuring accuracy by own METRUS analog-digital converter (PC-Box). Separate testing of the body, seat leakage and set pressure for safety valves is possible. Safety valve testing can be individually differentiated between leakage point, pop pressure, opening pressure and closing pressure. The measured value recording and diagram display take place on an industrial panel PC with touch screen. The test reports can be provided with your company logo and address. The report can be freely designed. There is also the possibility of a direct PDF export of test reports to a predefined network path. The evaluation whether the test was passed or not is done automatically. Optionally, a higher-level ERP system can also be connected.



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