

Manual DP3 Report

1. Conditions

- ecom-DP3
- PC with card reader and operation system Win2000 and higher
- SD card or MM card from ecom
- Card size: min. 32 MB - max. 2 GB
- Card formatted on 16 bit FAT

2. Install software

- Install software from product USB stick
- Download software from www.ecom.de and install.

Please notice that:

- depending on the operating system you have to be logged on as an administrator
- depending on the operating system you have to unpack the installation files (zip program) before installation

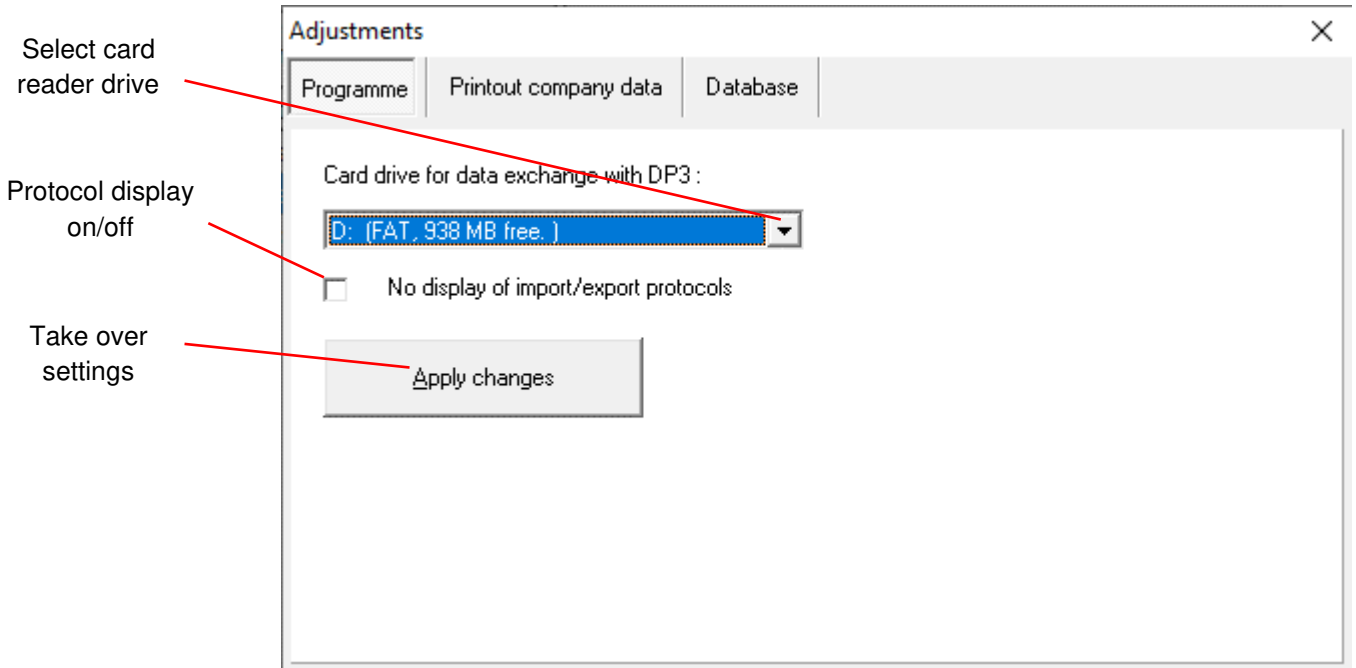
3. Start software

- Start by calling up „Start“ / „Program >“ / „DP3 Report“

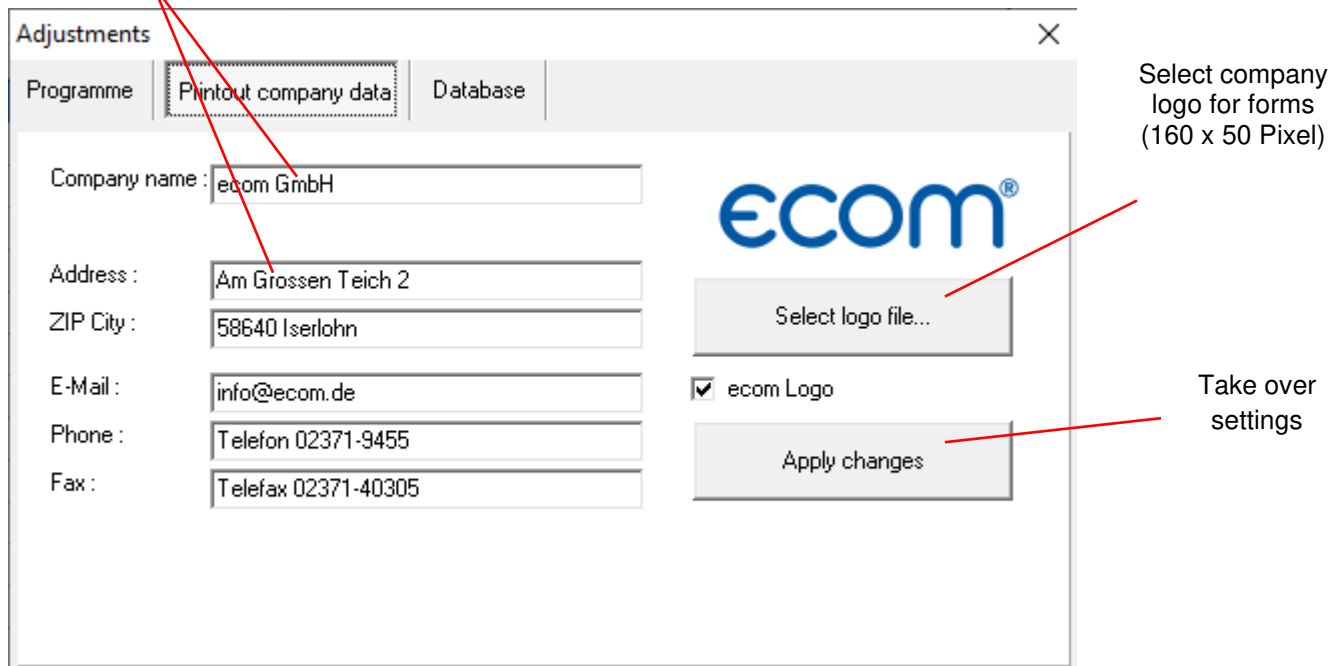
Kundennummer	Name	Straße	PLZ / Ort	Telefon
MT1	Name 1	Strasse 1	10000 Ort 1	02371-9455
MT5	Name 10	Strasse 10	10000 Ort 10	02371-9455
MT6	Name 11	Strasse 11	10000 Ort 11	02371-9455
MT7	Name 12	Strasse 12	10000 Ort 12	02371-9455
MT8	Name 13	Strasse 13	10000 Ort 13	02371-9455
MT9	Name 14	Strasse 14	10000 Ort 14	02371-9455
MT10	Name 2	Strasse 2	10000 Ort 2	02371-9455
MT11	Name 3	Strasse 3	10000 Ort 3	02371-9455
MT12	Name 4	Strasse 4	10000 Ort 4	02371-9455
MT13	Name 5	Strasse 5	10000 Ort 5	02371-9455
MT14	Name 6	Strasse 6	10000 Ort 6	02371-9455
MT2	Name 7	Strasse 7	10000 Ort 7	02371-9455
MT3	Name 8	Strasse 8	10000 Ort 8	02371-9455

4. Parameters

- Select „Settings“ / „Program“



Enter company data for forms



Import customer data in the format:
**Customer number;Name;Street;ZIP/City;
Phone;Others<CR/LF>**

Export customer data:
**Customer number;Name;Street;ZIP/City;
Phone;Others<CR/LF>**
as csv file

Try to correct errors in the database

Storage of the data gets minimized

Caution: all data removed from the database



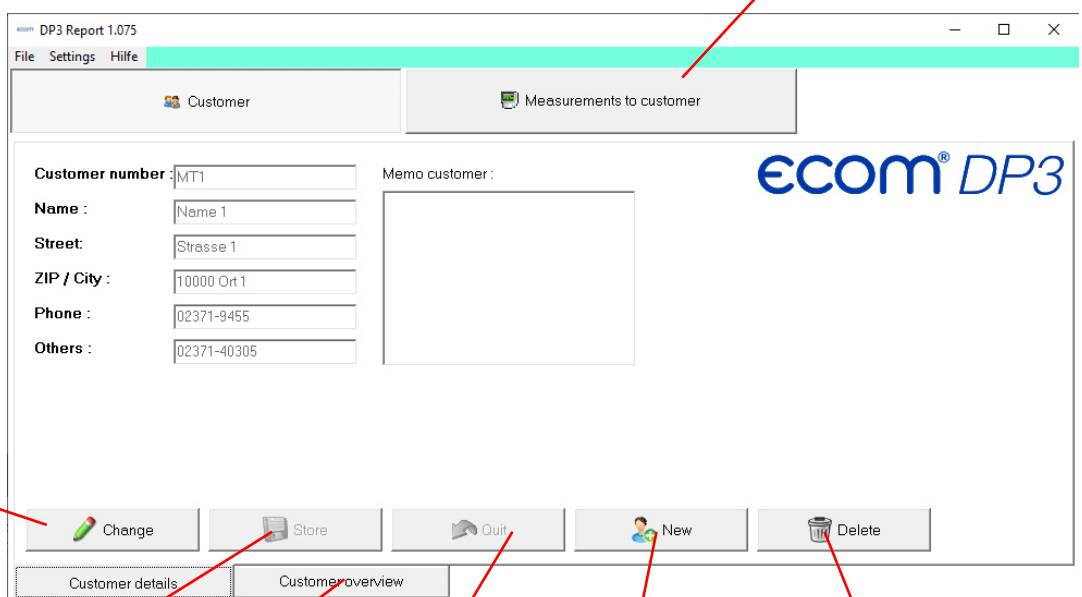
5. Create customer data

- Select tab „Customer“ / „Customer details“
- Press button „New“
- Type in customer number
- Activate field „Name“ with left mouse button
- Type in customer name
- Activate and fill out the other fields
- Store customer data with button "Save"

Create a demo record on the SD or MMC for each type of form

Stored measurements of the customer

Change customer data



Store customer data

List of all customers

Quit entry

Create new customer

Delete customer data

6. Customer selection

- Select tab „Customer“ / „Customer overview“
- Select desired customer with left mouse button
- To select multiple customers press <CTRL> and hold button (select all customers with <CTRL> <A>)
- To store selected customers to SD or MMC press "Store selected customers to card"

Stored measurements of the customer

Kundennummer	Name	Straße	PLZ / Ort	Telefon
MT1	Name 1	Straße 1	10000 Ort 1	02371-9455
MT5	Name 10	Straße 10	10000 Ort 10	02371-9455
MT6	Name 11	Straße 11	10000 Ort 11	02371-9455
MT7	Name 12	Straße 12	10000 Ort 12	02371-9455
MT8	Name 13	Straße 13	10000 Ort 13	02371-9455
MT9	Name 14	Straße 14	10000 Ort 14	02371-9455
MT10	Name 2	Straße 2	10000 Ort 2	02371-9455
MT11	Name 3	Straße 3	10000 Ort 3	02371-9455
MT12	Name 4	Straße 4	10000 Ort 4	02371-9455
MT13	Name 5	Straße 5	10000 Ort 5	02371-9455
MT14	Name 6	Straße 6	10000 Ort 6	02371-9455
MT2	Name 7	Straße 7	10000 Ort 7	02371-9455
MT3	Name 8	Straße 8	10000 Ort 8	02371-9455

Enter search term

Search customer

Create customer data

Delete selected customers

Selected customers will be written to SD or MMC

7. Take over measurements of SD or MMC

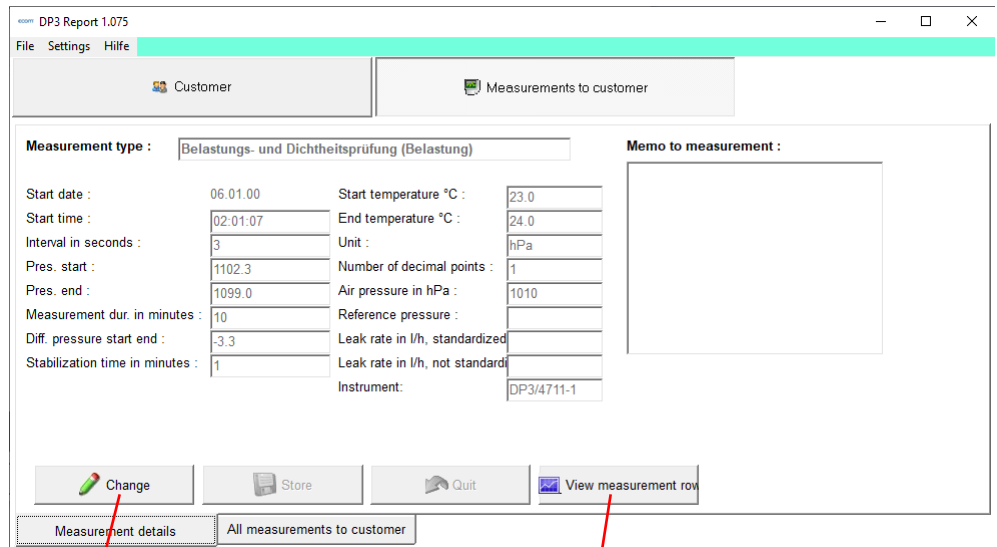
- Select tab "Measurements to customer" / "All measurements to customer"
- Insert SD or MMC in the card drive of the PC
- Press Button "Load from card" to take over the measurements
- Measurements are automatically mapped to the stored customer numbers (new customer numbers will be created newly)

Take measurements from SD or MMC

Datum	Uhrzeit	Messungstyp	Messdauer (Minute)
06.01.00	02:01:07	Belastungs- und Dichtheitsprüfung (Belastung)	10
06.01.00	02:19:25	Belastungs- und Dichtheitsprüfung (Dichtheit)	9
06.01.00	02:54:59	Gebrauchsfähigkeitsprüfung (Leckmenge)	299

8. Details of the measuring

- Select tab "Measurements to customer" / "Measurement details"
- Press button "Change" to create or change a memo field to the measurement
- Make entries/changes and save with button "Save"



Create or modify memo to measure

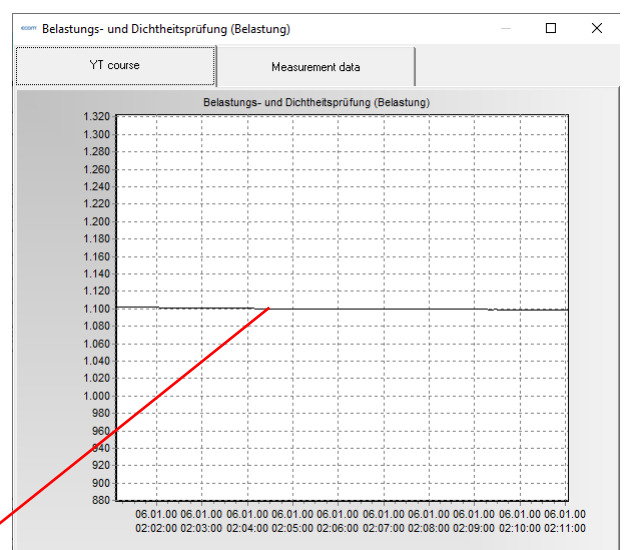
View measurement data / graphic

- Press button "View measurement row" to display the measurement history
- Press button "Data export" to store the data in Excel format (as xls or csv file)

Export to Excel

The screenshot shows the 'Measurement data' table with the following data:

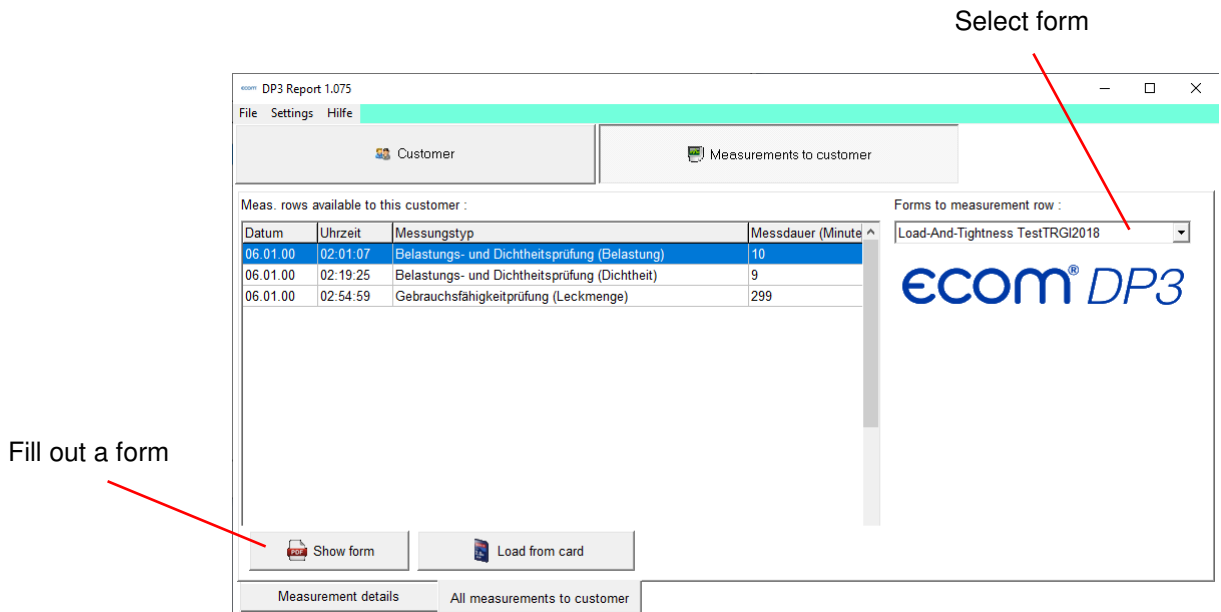
Date	Time	Measurement
06.01.00	02:01:10	1102.2
06.01.00	02:01:13	1102.2
06.01.00	02:01:16	1102.1
06.01.00	02:01:19	1102.1
06.01.00	02:01:22	1102.0
06.01.00	02:01:25	1101.9
06.01.00	02:01:28	1101.9
06.01.00	02:01:31	1101.9
06.01.00	02:01:34	1101.8
06.01.00	02:01:37	1101.8
06.01.00	02:01:40	1101.8
06.01.00	02:01:43	1101.8
06.01.00	02:01:46	1101.7
06.01.00	02:01:49	1101.7
06.01.00	02:01:52	1101.6
06.01.00	02:01:55	1101.6
06.01.00	02:01:58	1101.5



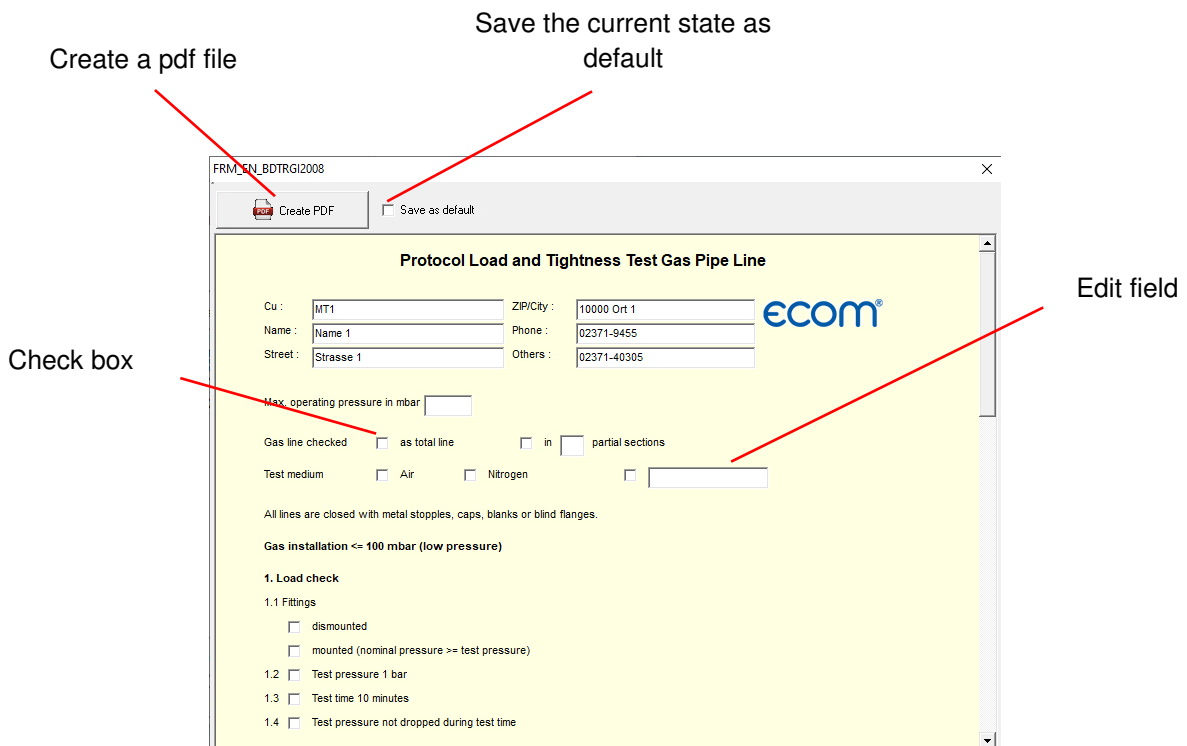
Value history during the measurement

9. Fill out a form to the measurement

- Select tab "Measurements to customer" / "All measurements to customer"
- To fill out the form press button "Show form"



- Check boxes can be changed with the left mouse button
- Edit fields can be enabled with the left mouse button and then filled out
- If necessary save the current state of the form as default for all measurements of this type with "Save as default"



- Take over the graphic of selected measurement (e.g. load test) with left mouse button
- If necessary select second measurement (e.g. tightness test) and take over the graphic with left mouse button
- Press "Create PDF" button to open the form as a PDF file
(the PDF Reader installed on your PC is used - if necessary save or print file)

The screenshot shows the software interface with two measurement sections: 'Load Test' and 'Tightness Test'. Each section has a 'Click to take over current measurement' button. A red arrow points from the text 'Take over the graphic of selected measurement' to the button in the Load Test section. Another red arrow points from the text 'Select measurement and take over the graphic of selected measurement' to the button in the Tightness Test section.

Below the measurement sections is a table titled 'Meas. rows available to this customer':

Datum	Uhrzeit	Messungstyp	Messdauer (Minute)
06.01.00	02:01:07	Belastungs- und Dichtheitsprüfung (Belastung)	10
06.01.00	02:19:25	Belastungs- und Dichtheitsprüfung (Dichtheit)	9
06.01.00	02:54:59	Gebrauchsfähigkeitprüfung (Leckmenge)	299

Below the table are buttons for 'Show form' and 'Load from card'. The 'Show form' button is highlighted with a red arrow pointing from the text 'Select measurement and take over the graphic of selected measurement'.

The bottom part of the screenshot shows the 'Load Test' and 'Tightness Test' sections with their respective graphs. The 'Load Test' graph shows pressure (hPa) over time (06.01.00 02:05:00 to 06.01.00 02:10:00). The 'Tightness Test' graph shows pressure (hPa) over time (06.01.00 02:20:00 to 06.01.00 02:25:00).

Protocol Load and Tightness Test Gas Pipe Line

Cu : ZIP/City :
 Name : Phone :
 Street : Others :

Max. operating pressure in mbar :

Gas line checked as total line in partial sections
 Test medium Air Nitrogen

All lines are closed with metal stopples, caps, blanks or blind flanges.

Gas installation <= 100 mbar (low pressure)

1. Load check

1.1 Fittings

- dismantled
- mounted (nominal pressure >= test pressure)
- 1.2 Test pressure 1 bar
- 1.3 Test time 10 minutes
- 1.4 Test pressure not dropped during test time

2. Tightness Test

- 2.1 Fittings are installed
- 2.2 Test pressure 150 mbar
- 2.3 Test time acc. to table
- 2.4 Test pressure not dropped during test time
- 2.5 System is tight

	Line volume	Adaptation time	Min. test duration
<input type="checkbox"/>	< 100 l	10 min	10 min
<input type="checkbox"/>	>= 100 l < 200 l	30 min	20 min
<input type="checkbox"/>	>= 200 l	60 min	30 min

Load Test

Test pressure / mbar

Start press. :

End press. :

Start temp. :

End temp. :

Click to take over current measurement

Tightness Test

Test pressure / mbar

Start press. :

End press. :

Start temp. :

End temp. :

Click to take over current measurement

Measurement performed with DP3/4711-1

Place / Date :

Signature inspector

Signature client

: :
: :

Test Protocol Usability of Gas Installations

acc. to DVGW - worksheet G 600

Cu : ZIP/City :
 Name : Phone :
 Street : Others :

Reason for control (tick appropriate)

- Recurring control (rota acc. to DVGW TRGI 2018)
- Re-commissioning of a plant temporarily shut down

A tightness test is compulsory for re-commissioning a decommissioned line system (TRGI points 5.7.1.2) !!

Checked pipe section (description acc. to TRGI) :

Evaluation of the gas installation (acc.to TRGI points 5.6.4.3.1)

Evaluation of externally recognizable stand :

Evaluation of components operatability :

Determination of leakage volume

Leakage volume determination by means of leakage meter with natural gas under operation pressure

The indicated leakage volume amounts : litre(s) per hour.

Overall assessment / Degree of Usability / Measures (tick)

Evaluation	<input type="checkbox"/> Unlimitedly usable	<input type="checkbox"/> Reduced usable	<input type="checkbox"/> not usable
Leakage vol.	< 1 l/h	>= 1 l/h and < 5 l/h	>= 5 l/h
Necessary measure	Provided no additional defect is given and under consideration of BGR 500 chap. 2.31, gas can immediately be conveyed again thru the line.	The pipe must be sealed or changed, proof of tightness according to TRGI point 5.6.4.2 is to be produced within 4 weeks after the present check.	Do not recommission this line ! No gas in this line ! New pipe installation is compulsory !

Leakage Volume Measurement

Leakage volume l/h

Start temp. :

End temp. :

[Click to take over current measurement](#)

Defect :

Measurement performed by ecom DP3/4711-1

Place / Date : _____ Signature inspector _____ Signature client _____

: :
: :

Protocol Load and Tightness Test Liquid Gas Pipe Line

Cu : ZIP/City :
Name : Phone :
Street : Others :

Max. operating pressure in bar :

Gas line checked as total line in partial sections

Test Medium Air Nitrogen

1. Pressure Test

1.1 Fittings

- dismantled
 mounted (nominal pressure \geq test pressure)

1.2 Test pressure bar (1.1 times of operation pressure / min. 1 bar)

1.3 Test time minutes (min. 10 minutes / by partially earth-embedded lines 30 minutes)

1.4 Test pressure not dropped during test time

2. Tightness Check

- 2.1 Fittings are installed
2.2 Test pressure 150 mbar
2.3 Test time 10 minutes
2.4 Test pressure not dropped during test time
2.5 System is tight

Load Test

Test pressure / bar

Start press. :

End press. :

Start temp. :

End temp.. :

[Click to take over current measurement](#)

Tightness Test

Test pressure / mbar

Start press. :

End press. :

Start temp. :

End temp.. :

[Click to take over current measurement](#)

Measurement performed with DP3/4711-1

Place / date :

Signature inspector

Signature client

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Pressure Sample Protocol for Drinking Water Plants, Wet Test Method

Cu : ZIP/City :
Name : Phone :
Street : Others :

Piping system material :

Connection type :

System pressure : bar Ambient temperature : ° C Water temperature : ° C

- Drinking water plant was checked as total system in partial sections
- All containers, devices, fittings non suitable for the pressure to be build up are disconnected from the plant / the partial section to be checked during the pressure test.
- The plant / partial section to be checked is filled up with filtered water and completely vented.

Function Test

- A waiting time of 30 minutes for temperature compensation has been observed by higher temperature differences (approx. 10 K) between ambient temperature and filling water temperature.
- Pressure corresponds to supply pressure of bar, though max. 6 bar (or manufacturer specification).
- Visual check of line system has been performed.
- No pressure drop and no leakage have been found during function test (15 minutes)

Pressure Test

- The pressure test has been performed with a minimal test pressure of 11 bar.
- Test time 30 minutes
- No pressure drop and no leakage have been found during function test (15 minutes)

Extended Pressure Test by combined installation

- Pressure has been sunk down to 5.5 bar.
- Test time 120 minutes
- No pressure drop and no leakage have been found during extended pressure test.

Remarks :

Function Test

Test pressure / bar

Click to take over current measuremen

Pressure Test

Test pressure / bar

Click to take over current measuremen

Extended Pressure Test

Test pressure / bar

Click to take over current measuremen

Start press. Start temp. Label71 Start press. Start temp. Label73 Start press. Start press. Label75
End press. End temp. Label72 End press. End temp. Label74 End press. End press. Label76

The plant check has been performed properly !

Measurement performed with ecom DP3/4711-1

Place / Date :

Signature inspector

Signature client

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Pressure Sample Protocol for Drinking Water Plants, Dry Test Method

Cu : ZIP/City :
Name : Phone :
Street : Others :

Piping system material :

Connection type :

System pressure : bar Ambient temperature : ° C Test medium temperature : ° C

Test medium : oil-free compressed air Nitrogen Carbone dioxide

Drinking water plant checked as total system in partial sections

- All pipes are closed with metal stopples, caps, blanks or blind flanges.
- Apparatus, pressure vessels or drinking water heaters are disconnected from the lines.
- A visual check of all pipe connections on professional execution has been performed.

Tightness Test - Test Pressure 150 mbar

Test time min. 120 minutes up to 100 l line volume
Test time is to be increased of 20 minutes per each supplementary 100 l
Temperature compensation and permanency of plastics to be awaited, then test time starts.

Line volume : litres Test time : minutes

- No pressure drop found during test time.

Load test with increased pressure

Temperature compensation and permanency of plastics to be awaited, then test time starts.

- Test pressure <= 50 DN max. 3 bar
- Test pressure > 50 DN max. 1 bar
- Test time 10 minutes
- No pressure drop found during test time.

Remarks :

Tightness test

Test pressure / mbar

Load Test

Test pressure / bar

Click to take over current measurement

Click to take over current measurement

Start press. : Start temp. : Start press. : Start temp. :
End press. : End temp. : End press. : End temp. :

The plant check has been performed properly !

Measurement performed with ecom DP3/4711-1

Place / Date : _____ Signature inspector Signature client

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Pressure Sample Protocol for Heating Plants acc. to DIN 18380

Cu : ZIP/City :
Name : Phone :
Street : Others :

Piping system material :

Tolerated max. operation pressure (related to system deepest point) : bar

Plant height : m

Estimated parameters Water flow-in temperature : ° C
Water flow-out temperature : ° C

Start Date :
Time :
Test pressure : bar

End Date :
Time :
Pressure drop : bar (max. 0,2 bar !)

On ____ the above named plant has been heated up to the estimated temperatures and no leakage could be detected. After cool down no leakage could be found as well. A visual check reg. the correct compression of the junction parts has been performed.

By possible freezing risk, suitable measures (e.g. use of antifreeze, tempering of building) have to be taken. As soon as no antifreeze is necessary for the scheduled plant use anymore, antifreeze has to be removed while emptying and purging the plant with at least 3-fold water change.

Antifreeze added to water Yes No

Procedure as explained above Yes No

Remarks :

Pressure Test Heating Plant

Test pressure / bar

Start press. :

End press. :

Start temp. :

End temp. :

[Click to take over current measurement](#)

The plant test has been performed properly !

Measurement performed by ecom DP3/4711-1

Place / Date :

Signature inspector

Signature client

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Protocol Tightness Check acc. to DIN EN 1610

Cu : ZIP/City :
Name : Phone :
Street : Others :

Test object :

From shaft : to shaft :

Pipe material :

Diameter :

Length (appr.) : Capacity volume :

Test method : Test pressure :

Test time : by pressure value :

Fill-in start : by pressure value :

Test start : by pressure value :

Test end after : by pressure value :

Test result : Pressure drop :

Tester :

Remarks :

Canal Pressure Sample

Test pressure / mbar

Start press. :

End press. :

Start temp. :

End temp. :

[Click to take over current measurement](#)

Check performed properly !

Measurement made by DP3/4711-1

Place / Date :

Signature inspector

Signature client

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