



testo 565i EX Vacuum Pump

Instruction manual










Contents

| | | |
|-----------|--|-----------|
| 1 | About this document | 3 |
| 2 | Safety and disposal | 3 |
| 2.1 | Product-specific information | 4 |
| 2.2 | Disposal | 8 |
| 3 | Intended use | 8 |
| 3.1 | Explosion Protection Scope and Hazardous Area Classification..... | 9 |
| 3.1.1 | Equipment Explosion Protection Rating and Applicable Areas | 9 |
| 3.1.2 | Definition of Temporary Hazardous Zones | 9 |
| 3.1.3 | Operational Restrictions for Temporary Hazardous Areas (Zone 2)..... | 10 |
| 4 | Product description | 11 |
| 4.1 | Overview | 11 |
| 4.2 | LED status..... | 13 |
| 5 | First steps | 14 |
| 5.1 | Preparations before operation..... | 14 |
| 5.2 | Start Evacuation manually..... | 14 |
| 5.3 | Direct Evacuation | 16 |
| 5.4 | End evacuation..... | 21 |
| 6 | Maintenance | 22 |
| 6.1 | Cleaning instruments..... | 22 |
| 6.2 | Daily Maintenance | 22 |
| 6.3 | Changing pump oil | 23 |
| 6.4 | Replacing the exhaust port..... | 23 |
| 7 | Technical data | 24 |
| 8 | Tips and assistance | 24 |
| 8.1 | Accessories | 24 |
| 9 | Support | 25 |
| 9.1 | Trouble shooting..... | 25 |
| 9.2 | Error codes..... | 26 |
| 10 | ATEX certification information | 28 |

1 About this document

- The instruction manual is an integral part of the instrument.
- Pay particular attention to the safety instructions and warning advice in order to prevent injury and damage to the product.
- Please read this instruction manual through carefully and familiarize yourself with the product before putting it to use.

Symbols and writing standards

| Display | Explanation |
|---|---|
|  | Note: basic or further information |
|  | Warning advice, risk level according to the signal word: <div style="background-color: red; color: white; text-align: center; padding: 2px;"> DANGER</div> Danger to life! <hr/> <div style="background-color: yellow; text-align: center; padding: 2px;"> WARNING</div> Serious physical injury may occur. <hr/> <div style="background-color: yellow; text-align: center; padding: 2px;"> CAUTION</div> Minor physical injury or damage to the equipment may occur. <hr/> <div style="background-color: blue; color: white; text-align: center; padding: 2px;">CAUTION</div> Possible damage to equipment. <hr/> - Implement the specified precautionary measures. |
| 1 2 ... | Action: several steps, the sequence must be followed |
|  | Result of an action |
|  | Requirement |
| Menu | Elements of the instrument, the instrument display or the program interface. |
| [OK] | Control keys of the instrument or buttons of the program interface. |

2 Safety and disposal

General safety instructions

- Always operate the product properly, for its intended purpose and within the parameters specified in the technical data. Do not use any force.
- Do not commission the instrument if there are signs of damage on the housing.

- Dangers may also arise from the systems being measured or the measuring environment: Make sure you comply with the locally valid safety regulations when carrying out measurements.
- Do not expose the product to temperatures above 50 °C (122 °F).
- Do not store the product together with solvents. Do not use any desiccants.
- Only maintenance and repair work that is described in the documentation may be carried out on this instrument. Follow the prescribed steps exactly when doing the work. Only use original spare parts from Testo.

2.1 Product-specific information

To prevent personal injury, please read the operating manual carefully.

- The testo 565i EX vacuum pump may only be used by qualified personnel with the appropriate qualifications and in accordance with local regulations.
- Wear goggles when working with refrigerants.
- Do not touch refrigerants without protection.
- To avoid electrical shock, confirm that all associated devices are grounded correctly before connecting the power.
- Do not touch the pump housing or motor during operation.
- Do not use on pressurized systems.
- Do not use to extract refrigerants. Before evacuation, the refrigerant must be removed from the system using a suction station.
- If not used, close connections to protect against contamination.
- Do not use with ammonia.
- Use with A2L / A3 refrigerants (according to chapter 3 "Intended use")

The testo 565i vacuum pump can be used in compliance with the prescribed laws, standards, directives and safety regulations for refrigeration systems and refrigerants as well as regulations of the manufacturers of refrigerants of safety group A2L / A3 as per ISO 817.

Regional standardization and interpretation must always be observed.

For example, DIN EN 378-Part 1-4 applies to the scope of the EN standards.

During maintenance work, the employer must ensure that a hazardous explosive atmosphere is prevented (see also TRBS1112, TRBS2152 VDMA 24020-3).

A hazardous and potentially explosive atmosphere must be anticipated during maintenance and repair work on refrigeration systems with flammable refrigerants (e.g. those in category A2L and A3).

Maintenance, repairs, removal of refrigerants and commissioning of systems may only be carried out by qualified personnel.

Before operating

- Check the voltage and frequency matching the specifications on the pump motor nameplate.
- All motors are designed for operating voltages plus or minus 10% of the normal rating. Power socket must be grounded.
- Before connect to A/C-R system, please pump the refrigerants with reliable way from the system with the help of a suction station.

WARNING



ELECTRICITY SHOCK HAZARD

- If the power cable is damaged pull the plug from the mains before examining.
- If the supply cord is damaged, it must be replaced.
- Do not use an extension cord.

In case of using the testo 565i EX vacuum pump in potentially explosive atmospheres:

WARNING



EXPLOSION HAZARD due to electrical voltage

- When handling A3 or A2L refrigerants, only plug/unplug the device outside of the Temporary Hazard Zone.
- Use a properly grounded main power receptacle only.
- Do not connect or disconnect when energized.
- For battery powered devices, recharge or replace batteries outside of the Temporary Hazard Zone.
- Do not open the housing in the Temporary Hazard Zone.

WARNING



EXPLOSION HAZARD due to use of non-ATEX-certified devices

- Non-ATEX certified equipment is not allowed in the Temporary Hazard Zone and must also not be connected via hose even if the Non-ATEX device is outside of Temporary Hazard Zone.

WARNING



EXPLOSION HAZARD due to static electricity

- Before entering Temporary Hazard Zone, first eliminate static electricity in human body.
- When handling A3 or A2L refrigerants, take all appropriate measures to avoid electrostatic discharge (ESD) to the machine or to other grounded objects within the Temporary Hazard Zone.
- When handling A3 or A2L refrigerants, only use ESD compliant hoses for connection.

WARNING



EXPLOSION HAZARD

- Ensure that the area surrounding the machine is free from any debris that could enter the air vents and fan, potentially causing accidental sparking.

WARNING



EXPLOSION HAZARD

- Maintain the oil level above the required level unless power has been removed from the equipment.

WARNING



Risk of burns from hot surfaces

To reduce the risk of burns:

- do not touch the oil tank.
- wait for the unit to cool down sufficiently before performing oil change or disconnecting the hoses after operation.

Grounding instructions

- This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ WARNING

Risk of electric shock due to Improper installation of the grounding plug.

- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.

- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded. Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.

Oilfilling

- Remove the oil fill cap and add oil until oil level showed in the middle between the Min and Max mark. Please refer to technical data in manual for the correct oil capacity.

⚠ CAUTION

Danger of oil spillage in case of fast filling.

- Fill in the oil slowly.

During operation

⚠ WARNING

Risk of electric shock.

- Do not expose to rain and store indoors.

- As long as the vacuum pump is not connected to the refrigeration circuit, it should not be running more than 3 minutes.
- The ambient temperature affects the viscosity of the oil and therefore also the pump performance. Therefore the pump should be operated only at ambient temperature between 5-40°C.
- It is recommended to pre-flush the system with nitrogen to speed up the drying process. This step can also be repeated during evacuation to ensure the best possible drying.
- The use of shorter hoses or the removal of the Schrader valve can significantly speed up evacuation.
- Use vacuum-compatible refrigerant hoses, otherwise leaks may occur or you may not achieve the desired vacuum target.
- To prevent overheat and oil spill out from oil filter: The inlet fitting can't expose to the atmosphere over 5 minutes while the pump is running.
- Please pay attention to the smooth air outlet, if found clogged please clean the filter.
- Clean/replace the catcher after using more than 3 months to avoid problems caused by a blocked pump.

2.2 Disposal

- At the end of its useful life, deliver the product to the separate collection point for electric and electronic devices (observe local regulations) or return the product to Testo for disposal.



WEEE Reg. No. DE 75334352

3 Intended use

The testo 565i EX vacuum pump is intended to be used in the refrigeration service including CFC, HCFC, and HFC refrigerants such as:

| | | | | | | |
|-------------------------|--------|------------|--------|-------|-------|---------|
| R508A | R508B | R503 | R23 | R32 | R410A | R125 |
| R402A | R507A | R407B | R422A | R404A | R402B | R442A |
| R421B | R422C | R407F | R434A | R448A | R449A | R407A |
| R408A | R502 | R407H | R407C | R422D | R427A | R22 |
| R438A | R453A | R422B | R421A | R417A | R411A | R290 |
| R424A | R407D | R458A | R412A | R417C | R500 | R401B |
| R437A | R413A | R401A | R409A | R513A | R426A | R1234yf |
| R134a | R414B | R12 | R406A | R420A | R401C | R152a |
| R450A | R416A | R1234ze(E) | R227ea | R600a | R600 | R245fa |
| R718 (H ₂ O) | FX80 | I12A | R11 | R114 | R1150 | R123 |
| R1233zd(E) | R124 | R1270 | R13 | R13B1 | R14 | R142b |
| R170 | R236fa | R417B | R444B | R452A | R452B | R454A |
| R454B | R454C | R455A | R744 | RIS89 | SP22 | R466A |
| R469A | R463A | | | | | |

The testo 565i EX vacuum pump must NOT be used for the following refrigerants:

- R-702 (H₂)
- R-717 (NH₃)

CAUTION

When using the pump to evacuate the system of refrigerant H₂O, the pump may be corroded by H₂O after long time use. This will impact the evacuation function and the pump reliability.

- After using the pump to evacuate the system of refrigerant H₂O, pull out some pump oil for judgement.
- If the pump oil is milky white, change the pump oil at once.
- If the pump has big noise when running, even if the pump oil is not milky white, also change the pump oil at once.

The testo 565i EX vacuum pump should only be used for evacuation of refrigerant systems after refrigerant has been removed from the system and the

system has been opened to atmosphere. It is not to be used as a transfer pump for liquids or any other media; doing so can damage the product.

The testo 565i EX vacuum pump complies to the standard 61000-6-4 and 61000-6-2 for EMC. Accordingly the intended use is in industrial environment only.

The testo 565i EX vacuum pump must not be used by children and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the device.

3.1 Explosion Protection Scope and Hazardous Area Classification

3.1.1 Equipment Explosion Protection Rating and Applicable Areas

This equipment (hereinafter referred to as "the equipment") has been designed and certified in accordance with the EU Directive 2014/34/EU. Please refer to session "10 ATEX certification information" for more details.

3.1.2 Definition of Temporary Hazardous Zones

The testo 565i EX vacuum pump is used in potentially explosive atmospheres (Zone 2). In refrigeration or chemical maintenance operations, when this equipment is used to handle flammable fluids (such as R290, R600a, propane, etc.), the area classification of the worksite will undergo dynamic changes.

- **Normal State:**
During regular storage conditions when no charging, recovery, or venting operations are being performed, the worksite is typically classified as a Non-Hazardous Area (Safe Area).
- **Temporary State (during operation):**
When the equipment is in operation or when system piping is being connected/disconnected, due to the potential risk of minor leaks, the space within a radius of 3 meters from the leak source (such as valves, fittings, compressor seals), or the distance calculated according to EN 60079-10-1 standard, shall be considered a "Temporary Zone 2".



3.1.3 Operational Restrictions for Temporary Hazardous Areas (Zone 2)

As this equipment is only certified for Zone 2, users must comply with the following mandatory requirements when handling flammable media:

1. **Ventilation Requirements:**

All recovery, vacuum pumping, or charging operations must be conducted in well-ventilated areas. For indoor operations, the ventilation rate must ensure minimum 6-12 times air changes per hour (Recommend to Use a ATEX certified fan to provide mechanical ventilation within this zone) to prevent flammable gas accumulation exceeding to 10% of the Lower Explosive Limit (LEL).

2. **Ignition Source Control:**

Within the defined "Temporary Hazard Zone 2" area, the following non-explosion-proof ignition sources are strictly prohibited:

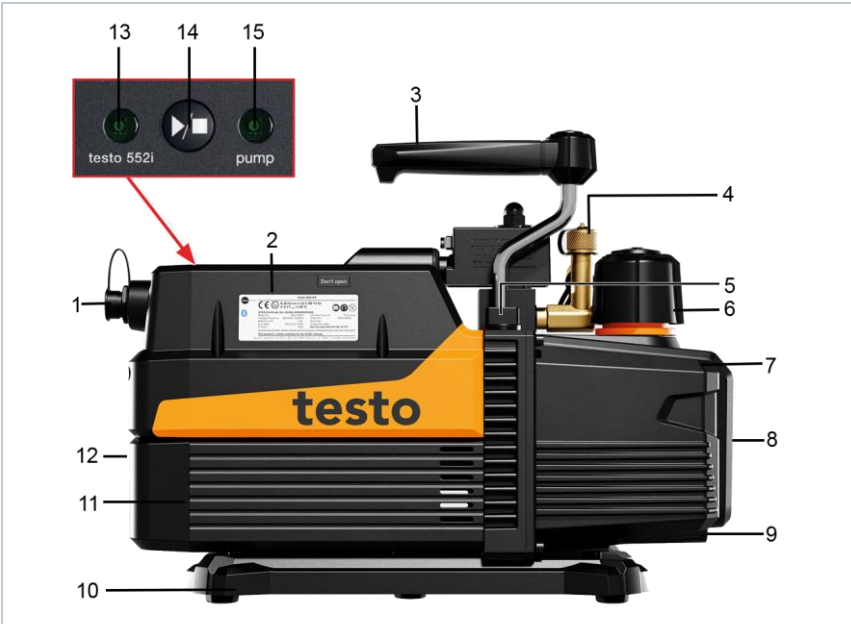
- Open flames (welding, cutting, smoking)
- No hot surfaces temperatures exceeding 135°C.
- Non-explosion-proof electrical equipment (such as ordinary mobile phones, non-explosion-proof flashlights, metal tools without grounding that could cause impact sparks)

3. **Abnormal Conditions Handling:**

If flammable gas concentration exceeds 10% of the Lower Explosive Limit (LEL) (recommend to use the an ATEX certified leak detector) , operations must be immediately stopped, power disconnected (only at non-hazardous area switches), and forced ventilation initiated until concentrations return to safe levels.

4 Product description

4.1 Overview



| | | | |
|----|--|----|----------------------------|
| 1 | Power connector | 2 | Nameplate |
| 3 | Handle | 4 | Inlet fitting |
| 5 | Oil fill cap | 6 | Exhaust port |
| 7 | Oil housing | 8 | Sight glass |
| 9 | Oil drain plug | 10 | Base |
| 11 | Motor | 12 | Fan cover |
| 13 | Connection status LED for ATEX-certified Bluetooth pressure sensor | 14 | Start/stop the vacuum pump |
| 15 | Vacuum pump status LED | | |

Symbol explanation

| | |
|---|---|
|  | <p>Observe operating instructions</p> |
|  | <p style="text-align: center;">ATTENTION</p> <p>Magnetic field Damage to other devices!</p> <ul style="list-style-type: none"> - Keep a safe distance from products that can be damaged by magnetism (e.g. monitors, computers, credit cards). |
|  | <p style="text-align: center;">WARNING</p> <p>Magnetic field May be hazardous to the health of pacemaker wearers.</p> <ul style="list-style-type: none"> - Keep a minimum distance of 15 cm between the pacemaker and the device. |
|  | <p style="text-align: center;">WARNING</p> <p>Risk of burns from hot surfaces</p> <ul style="list-style-type: none"> - Do not touch the pump housing or motor during operation. - Allow it to cool down first after operation. |
|  | <p>Hearing protection must be worn</p> |
|  | <p>Do not use in rain or wet conditions</p> |
|  | <p>Device may be used in potentially explosive atmospheres.</p> |
|  | <p>Declaration of conformity: Products marked with this symbol comply with all applicable Community regulations of the European Economic Area.</p> |
|  | <p>Symbol of the Bluetooth® Special Interest Group (SIG)</p> |
|  | <p>Do not dispose of old devices with household waste</p> |

4.2 LED status



| | | | |
|----------|--|----------|----------------------------|
| 1 | Connection status LED for ATEX-certified Bluetooth pressure sensor | 2 | Start/stop the vacuum pump |
| 3 | Vacuum pump status LED | | |

| LED | Behaviour | Explanation |
|--|---|--|
| Vacuum pump status LED | Green LED is blinking for each 1s | t565i EX is connected with Manifold or App via BLE (Bluetooth Low Energy) |
| | Orange LED is blinking for each 1s | t565i EX is waiting for connection with Manifold or App via BLE (Bluetooth Low Energy) |
| | Red LED is blinking for each 0.25s | t565i EX error like communication error/ initialization error |
| | Red LED is constant on (red LED will not be eliminated until the fault is resolved and the pump is restarted) | t565i EX Motor error like over-heat, out of voltage, over-current, out of step, etc. |
| | Yellow LED is blinking each 0.5s | t565i EX is working at bootloader mode (like OTA updating) |
| | Green LED is constant on for 3s | Firmware update to t565i EX is successful. |
| | Red LED is constant on for 3s | Firmware update to t565i EX failed. |
| Connection status LED for ATEX-certified Bluetooth pressure sensor | Green LED is blinking each 1s | ATEX-certified Bluetooth pressure sensor is connected with t565i EX. |
| | Orange LED is blinking each 1s | t565i EX is waiting for connection with ATEX-certified Bluetooth pressure sensor. |

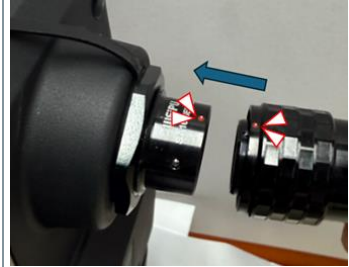
5 First steps

5.1 Preparations before operation

- 1 Check the voltage and frequency matching the specifications on the pump motor nameplate.

- 2 Connect the power cord to the pump before turning it on.

An audible click indicates that the plug is fully inserted.



- 3 Remove the Oil Fill Gap and add oil until oil level showed in the middle between the “Min” and “Max” mark.

⚠ CAUTION

Danger of oil spillage in case of fast filling.

- Fill in the oil slowly.

5.2 Start Evacuation manually

Preparing the evacuation

- 1 Remove one of the protection caps (please refer the right figure).

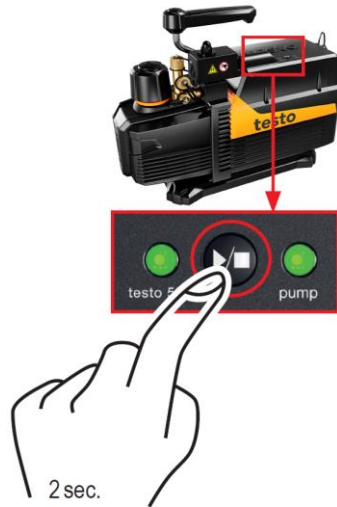


- 2 Connect a hose between the refrigerant circuit and the pump or between the pump and the manifold and also between the manifold and the pump.

- 3 Check the tightness of all connected hoses and check that the other protective caps and all connections are tight before starting the evacuation.

Switching on testo 565i EX and starting it manually

- 1 Connect the vacuum pump to the power supply.
- 2 Press the start/stop button for 2 seconds to start the vacuum pump manually.



- ▶ This may takes 2 to 30 seconds depend on the ambient temperature.

- 3 After the pump operates for approximately one minute, check the sight glass for proper oil level, which should always be visible in the middle between Max and Min mark



- ▶ Refill oil if necessary.
- 4 Place back the cap on the inlet fitting when the pump runs smoothly.



The oil level should always be visible in the middle between Max and Min mark when the pump is running. Insufficient oil filled will result in poor vacuum performance. Excessive of oil can result in overflowing of oil from the exhaust fitting.

5.3 Direct Evacuation

⚠ WARNING



EXPLOSION HAZARD due to use of non-ATEX-certified devices

- Non-ATEX certified equipment is not allowed in the Temporary Hazard Zone and must also not be connected via hose even if the Non-ATEX device is outside of Temporary Hazard Zone.

Preparing the evacuation

- 1 Remove one of the protection caps (please refer the right figure).



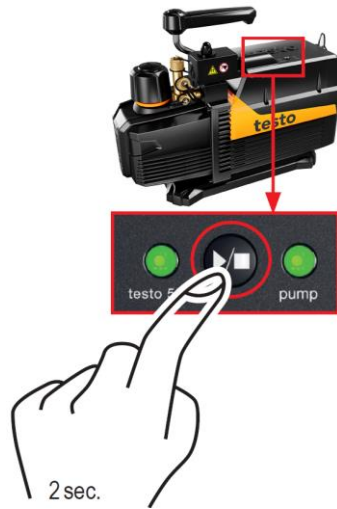
- 2 Connect testo 565i EX via hose and an ATEX-certified Bluetooth pressure sensor directly to the refrigeration circuit.



- 3 Check the tightness of all connected hoses and check that the other protective caps and all connections are tight before starting the evacuation.

Switching on testo 565i EX and establish Bluetooth connections

- 1 Connect the vacuum pump to the power supply.
- 2 Press the start/stop button for 2 seconds to start the vacuum pump manually.



- ▶ This may takes 2 to 30 seconds depend on the ambient temperature.

- 3 After the pump operates for approximately one minute, check the sight glass for proper oil level, which should always be visible in the middle between Max and Min mark



- ▶ Refill oil if necessary.
- 4 Place back the cap on the inlet fitting when the pump runs smoothly.



The oil level should always be visible in the middle between Max and Min mark when the pump is running. Insufficient oil filled will result in poor vacuum performance. Excessive of oil can result in overflowing of oil from the exhaust fitting.

- 5 Establish a Bluetooth connection between an ATEX-certified Bluetooth pressure sensor and testo 565i EX.
- 6 Establish a Bluetooth connection between testo 565i EX and testo Smart App.

Make settings and start evacuation

- 4 Enter the desired vacuum target values in the testo Smart App.

Activate/deactivate the **Auto Re-Start** function to repeat the evacuation and vacuum hold test after the target value has been reached. By entering the maximum number of repetitions, you determine the number of automatic evacuations/vacuum hold tests.



Auto Re-Start function:

Once the target value has been reached, the pump is reactivated and the vacuum hold test is performed. The auto restart is repeated according to the input.

12:30

← Configuration of Evacuation

Start
Manual

Stop
Manual

Measurement cycle
1 sec ⓘ

Pressure type
Absolute

Ambient pressure
1.013 Unit hPa

Ambient temperature
Manual input 20,0 Unit °C

Evacuation target
On

Evacuation target value ⓘ Unit mbar

Maximum decay target ⓘ Unit mbar

Vacuum pump auto-restart ⓘ

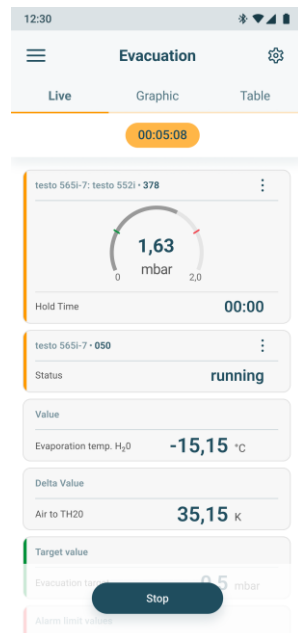
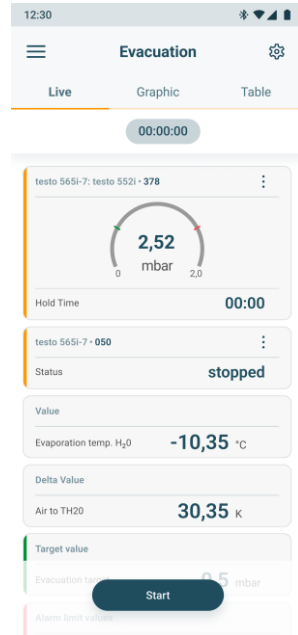
Auto-restart cycles
1

Use vibration alarm
Off

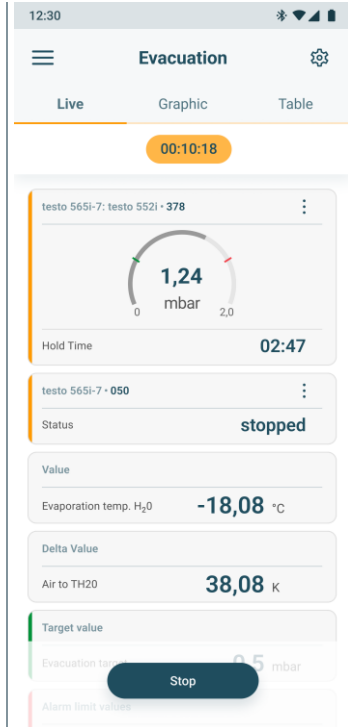
Accept configuration

- 5 Start evacuation with **Start**.
The pump starts automatically and the measurement begins.

- ▶ The measurement is running, the vacuum holding test has not yet started.

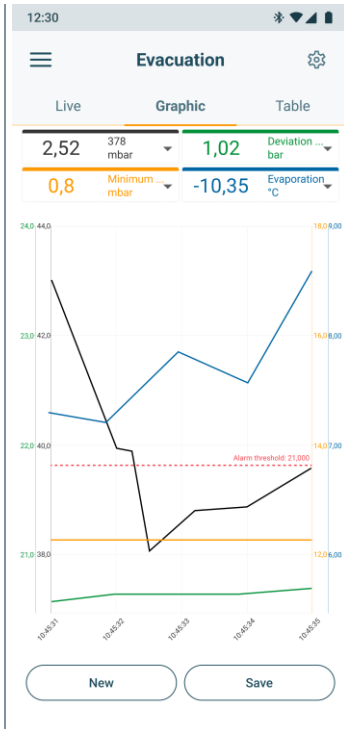


- ▶ When the target values are reached, the evacuation and therefore also the pump are stopped automatically. The vacuum hold test begins. The vacuum hold test can be ended via **Stop**.



- ▶ If the **Auto Re-Start** function has been activated, evacuation is restarted in order to restart the vacuum hold test once the target value has been reached.

- ▶ The measurement data is transferred to the testo Smart App and evaluated there.



5.4 End evacuation

- 1 Once the refrigeration circuit has been successfully evacuated, close all valves.
- 2 Turn off the power.
- 3 Remove the hose/ hoses.
- 4 Screw the protection cap to avoid the granule into the pump.

6 Maintenance

WARNING

To maintain ATEX compliance, please contact Testo for assistance with any maintenance service.

Do not disassemble or repair the device by yourself.



To maintain ATEX compliance, testo 565i EX requires maintenance service for oil seal every 2000 continuous operating hours or discontinuous operating (exceed 2000 hours).

For this maintenance service and if the oil level drops abnormally, please contact Testo for assistance.

6.1 Cleaning instruments



Do not use any corrosive cleaners or solvents!

Mild detergents can be used.

The equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces.

- > The equipment shall only be cleaned with a damp cloth. For external material information, please contact Testo.

6.2 Daily Maintenance

- > Check the oil level daily. If the oil level is below MIN, please add oil to reach the normal level.
- > Check the sound of the pump daily. If there are any abnormal noises, please contact the manufacturer for repair.
- > Check the color of the oil daily. If the oil appears emulsified, cloudy, or has turned black, please replace the vacuum pump oil.
Only use the original testo high-performance vacuum pump oil 0564 1002.
- > Clean the fan cover every six months to prevent dust accumulation that may affect usage.

6.3 Changing pump oil

- 1 | Ensure the pump is warmed up.
- 2 | Remove the oil drain below the oil sight glass using an hex key (5mm).
- 3 | Drain off contaminated oil into a container and dispose it according to local environmental regulations.
- 4 | While the pump is running, open the intake for 5-10 seconds to drain oil from the pump. When the drainage of oil completed, tilt the pump forward to remove the residual oil.
- 5 | Place back the oil drain plug.
- 6 | Remove the oil fill cap and fill the oil reservoir with new vacuum pump oil until oil level is seen in the middle between "Max" and "Min" mark.
- 7 | Close the oil fill cap.

6.4 Replacing the exhaust port



If there is significant oil spraying, please replace the exhaust port promptly. The exhaust port must be replaced as a complete unit and cannot be replaced by individual components (only use the exhaust port from testo).

- 1 | Rotate the exhaust port counterclockwise until it is completely unscrewed.
- 2 | Replace it with a new exhaust port and slowly rotate it clockwise until the base surface is nearly in contact with the oil tank.
It cannot be violently screwed in if the threads are not aligned, otherwise it could cause damage to the base threads.
No unauthorized repairs other than the operations described above are permitted. Otherwise, the warranty and compliance will be invalidated.

7 Technical data

| Feature | Value |
|---|--|
| Model no. | 0564 5654 |
| Voltage | 220 ... 240 V~ / 50/60 Hz |
| Rated current | 1.9 A |
| Storage and transport temperature | -10 ... +50 °C / +14 ... +122 °F |
| Operating temperature | +5 ... +40 °C / +41 ... 104 °F |
| Flow rate | 198 l/min / 7 CFM |
| Ultimate Vacuum | 15 micron |
| Dimension | 427 x 158 x 228 mm / 16.8 x 6.2 x 9 in |
| Weight | 14 kg / 30.9 lb |
| Intake Ports | 1/4" & 3/8" & 1/2" SAE |
| Noise tested acc. to EN ISO 2151:2008 as following: | |
| Sound pressure level at working station | 51.87 dB(A), K = 3 dB(A) |
| Sound power level | 60.89dB(A), K = 3 dB(A) |
| Protection class | IP20 |

8 Tips and assistance

8.1 Accessories

| Description | Order no. |
|------------------------|-----------|
| Vacuum pump oil 330 ml | 0564 1002 |

For a complete list of all accessories and spare parts, please refer to the product catalogues and brochures or visit our website: www.testo.com

9 Support

You can find up-to-date information on products, downloads and links to contact addresses for support queries on the testo website at: www.testo.com

9.1 Trouble shooting

| Problem | Possible reason | Actions |
|----------------------------|--|--|
| Fail to attain good vacuum | <ul style="list-style-type: none"> - Intake port cap loosen - O ring inside the spare intake port cap damaged - Insufficient oil - Pump oil emulsification or pump oil dirty - Oil inlet channel is clogged or insufficient oil - Pumping system in leaking - Not suitable pump - Pump spare parts are worn out after long use | <ul style="list-style-type: none"> - Fasten the intake port cap - Change the O ring - Add oil - Change oil - Clean the oil inlet channel. dean the filter screen - Contact testo service. - Contact testo service. - Contact testo service. |
| Oil leakage | <ul style="list-style-type: none"> - Oil seal damage - Oil housing assy. Connections loosen or damage. | <ul style="list-style-type: none"> - Contact testo service - Fasten the screw, if the fault is not cleared, contact testo service. |
| Oil injection | <ul style="list-style-type: none"> - Excessive oil in the pump - Continuous operation under high pressure in the inlet port | <ul style="list-style-type: none"> - Drain oil - Contact testo service |
| Hard to start | <ul style="list-style-type: none"> - Oil temperature is too low - Malfunction of motor or power supply - Foreign matters entered into the pump chamber - The voltage is too low or too high - Over load protection | <ul style="list-style-type: none"> - Start the pump repeatedly and remove the oil filter - Contact testo service - Contact testo service - Check the operating voltage - Keep the power switch on, remove the plug and wait 30 seconds. find the reason of over load protection, then re- run the pump. If the reason of over load protection cannot be found, contact testo service. |

9.2 Error codes

| Code | Error | Description |
|------|-----------------------------------|--|
| E76 | Error in vacuum pump motor | The vacuum pump has stopped evacuation because an error has occurred. Please restart the vacuum pump. If the error continues to occur, please contact Testo Service. |
| E77 | Vacuum pump overheats | The vacuum pump has stopped evacuation because the motor overheated. As soon as the motor has cooled down, you can restart the evacuation via the vacuum pump. |
| E78 | Temperature sensor in pump failed | The vacuum pump has stopped evacuation because the internal temperature sensor has implausible values. Please contact Testo Service to replace the sensor. |
| E79 | Impermissible operating voltage | The vacuum pump has stopped evacuation because the operating voltage is outside the range. Please check the power supply. |
| E80 | Motor does not work | The vacuum pump has stopped evacuation because the motor can't start. Please disconnect and try again. |
| E81 | Battery no longer charged | The internal battery of the digital manifold is no longer being charged because the ambient temperature is too high. The charging process is resumed as soon as the temperature has dropped. |
| E84 | Communication error | An error has occurred in the vacuum pump. The pump is currently not working. Please contact Testo Service for repair. |
| E85 | Error in vacuum pump motor | The vacuum pump has stopped evacuation because an error has occurred. Please restart the vacuum pump. If the error continues to occur, please contact Testo Service. |
| E86 | Error | An error has occurred. Please contact Testo Service. |
| E88 | Error | An error has occurred. Please contact Testo Service. |

| Code | Error | Description |
|------|---|---|
| E89 | The ATEX-certified Bluetooth pressure sensor is not available | <p>The ATEX-certified Bluetooth pressure sensor has lost the Bluetooth connection to the vacuum pump.</p> <ul style="list-style-type: none">- restart the ATEX-certified Bluetooth pressure sensor and ensure that it is connected to the pump.- check whether the ATEX-certified Bluetooth pressure sensor has sufficient battery capacity. If not, please replace the batteries. |

If you have any questions please contact your local dealer or the Testo Customer Service. You can find contact details on the back of this document or online at **www.testo.com/service-contact**.

10 ATEX certification information



| | |
|------------|---|
| CE | Denotes that this product complies with ATEX directive Certificate No. is: CSANe 26ATEX1095X |
| Ex | Specific marking for explosion protection |
| II | Equipment group: surface industry |
| 3 | Zone 2 |
| G | Gas |
| Ex | Denotes explosion protection |
| ec | Increased safety |
| h | Constructional safety |
| ic | Intrinsic safety |
| mc | Encapsulation |
| nC | Sealed device |
| IIB | Typical gas – R1150 |
| T4 | 135°C |
| Gc | EPL – Equipment Protection Level |

Complies with ATEX: EN IEC 60079-0:2018, EN 60079-11:2012, EN IEC 60079-7:2015+A1:2018, EN 60079-18:2015+A1:2017, EN IEC 60079-15:2019, EN ISO 80079-36:2016, EN ISO 80079-37:2016

For EU Doc

The full text of the EU declaration of conformity is available at the following internet address: www.testo.com/eu-conformity

Specific conditions of use

1. The equipment shall be installed such that the supply cable is protected from mechanical damage. The cable shall not be subjected to tension or torque. The power cable shall be terminated within an un-explosive atmosphere.
2. End user shall pay attention to the running speed of the vacuum pump, installation angle and suitable location in order to avoid excessive vibration.
3. End user shall do maintenance regularly and ensure that the vacuum pump oil level shall be maintained between minimum and maximum position. If client want to change other non-specified vacuum pump oil, please contact testo for consultation.



Testo SE & Co. KGaA
Celciusstrasse 2
79822 Titisee-Neustadt
Germany
Phone: +49 (0)7653 681-0
E-mail: info@testo.de
Internet: www.testo.com

0972 5651 en 02 – 06.2026