



Technology for Vacuum Systems

Instructions for use



Exhaust waste vapor condenser Peltronic®




After sales service:

Contact your local dealer or call +49 9342 808-5500.


Trademark index:

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DE

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EN

Attention: This manual is not available in all languages of the EU. The user must not operate the device if he does not understand this manual. In this case a technically correct translation of the complete manual has to be available. The manual must be completely read and understood before operation of the device and all required measures must be applied.  "Safety instructions for vacuum equipment"

FR

Attention: Le mode d'emploi présent n'est pas disponible dans toutes les langues d'Union Européenne. L'utilisateur ne doit mettre le dispositif en marche que s'il comprend le mode d'emploi présent ou si une traduction complète et correcte du mode d'emploi est sous ses yeux. Le dispositif ne doit pas être mis en marche avant que le mode d'emploi ait été lu et compris complètement et seulement si le mode d'emploi est observé et tous les mesures demandées sont prises.

 «Avis de sécurité pour des dispositifs à vide»

BG

Внимание: Тези инструкции не са преведени на всички езици от ЕО. Потребителят не бива да работи с уреда, ако не разбира инструкциите за ползване. В този случай е необходимо да бъде предоставен пълен технически превод на инструкциите за ползване. Преди работа с уреда е задължително потребителят да прочете изцяло инструкциите за работа.


 "Указания за безопасност за вакуумни уреди"

CN

注意：该操作手册不提供所有的语言版本。操作者在没有理解手册之前，不能操作该设备。在这种情况下，需要有一个整个操作手册技术上正确的翻译。在操作该设备前，必须完全阅读并理解该操作手册，必须实施所有需要的测量。

 真空设备的安全信息

CZ


Upozornění :Tento návod k použití není k dispozici ve všech jazycích Evropské unie. Uživatel není oprávněn požit přístroj pokud nerozumí tomuto návodu. V takovém případě je nutno zajistit technicky korektní překlad manuálu do češtiny. Návod musí být uživatelem prostudován a uživatel mu musí plně porozumět před tím než začne přístroj používat. Uživatel musí dodržet všechna příslušná a požadovaná opatření.  "Bezpečnostní upozornění pro vakuové přístroje".

DA


Bemærk: Denne manual foreligger ikke på alle EU sprog. Brugeren må ikke betjene apparatet hvis manualen ikke er forstået. I det tilfælde skal en teknisk korrekt oversættelse af hele manual stilles til rådighed. Manual skal være gennemlæst og forstået før apparatet betjenes og alle nødvendige forholdsregler skal tages.

 »Sikkerhedsregler for vakuumdstyr«


EE

Tähelepanu! Käesolev kasutusjuhend ei ole kõigis EL keeltes saadaval. Kasutaja ei tohi seadet käsitseda, kui ta ei saa kasutusjuhendist aru. Sel juhul peab saadaval olema kogu kasutusjuhendi tehniliselt korrektne tõlge. Enne seadme kasutamist tuleb kogu juhend läbi lugeda, see peab olema arusaadav ning kõik nõutud meetmed peavad olema rakendatud.  "Ohutusnõuded vaakumseadmetele"


ES

Atención: Este manual no está disponible en todos los idiomas de UE. El usuario no debe manejar el instrumento si no entiende este manual. En este caso se debe disponer de una traducción técnicamente correcta del manual completo. El manual debe ser leído y entendido completamente y deben aplicarse todas las medidas de seguridad antes de manejar el instrumento.  "Notas sobre la seguridad para equipos de vacío"

FI

Huomio: Tämä käyttöohje ei ole saatavilla kaikilla EU: n kielillä. Käyttäjä ei saa käyttää laitetta, jos hän ei ymmärrä tätä ohjekirjaa. Tässä tapauksessa on saatavilla oltava teknisesti oikein tehty ja täydellinen ohjekirjan käännös. Ennen laitteen käyttöä on ohjekirja luettava ja ymmärrettävä kokonaan sekä suoritettava kaikki tarvittavat valmistelut ja muut toimenpiteet.  "Vakuumlaitteen turvallisuustiedot"

GR


Προσοχή! : Οι οδηγίες αυτές δεν είναι διαθέσιμες σε όλες τις γλώσσες της Ευρωπαϊκής Ένωσης. Ο χρήστης δεν πρέπει να θέσει σε λειτουργία την συσκευή αν δεν κατανοήσει πλήρως τις οδηγίες αυτές. Σε τέτοια περίπτωση ο χρήστης πρέπει να προμηθευτεί ακριβή μετάφραση του βιβλίου οδηγιών. Ο χρήστης πρέπει να διαβάσει και να κατανοήσει πλήρως τις οδηγίες χρήσης και να λάβει όλα τα απαραίτητα μέτρα πριν θέσει σε λειτουργία την συσκευή.  "Υποδείξεις ασφάλειας για αντλίες κενού"

HR


Pažnja: ove upute ne postoje na svim jezicima Europske Unije. Korisnik nemora raditi sa aparatom ako ne razumije ove upute. U tom slučaju tehnicki ispravni prijevod cijelih uputstava mora biti na raspolaganju. Uputstva moraju biti cijela procitana i razumljiva prije rada sa aparatom i sve zahtijevane mjere moraju biti primjenjene.

 "Sigurnosne napomene za vakuumske uređaje"

HU


Figyelem! Ez a kezelési utasítás nem áll rendelkezésre az EU összes nyelvén. Ha a felhasználó nem érti jelen használati utasítás szövegét, nem üzemeltetheti a készüléket. Ez esetben a teljes gépkönyv fordításáról gondoskodni kell. Üzembe helyezés előtt a kezelőnek végig kell olvasnia, meg kell értenie azt, továbbá az üzemeltetéshez szükséges összes mérést el kell végeznie.  "A vákuum-készülékekkel kapcsolatos biztonsági tudnivalók"

IT

Attenzione: Questo manuale non è disponibile in tutte le lingue della Comunità Europea (CE). L'utilizzatore non deve operare con lo strumento se non comprende questo manuale. In questo caso deve essere resa disponibile una traduzione tecnicamente corretta del manuale completo. Il manuale deve essere completamente letto e compreso prima di operare con lo strumento e devono essere applicati tutti gli accorgimenti richiesti.  "Istruzioni di sicurezza per apparecchi a vuoto"


JP

注意：この取扱説明書はすべての言語で利用可能ではありません。もしこの取扱説明書を理解できないならば、ユーザーは装置を操作してはなりません。この場合、技術的に正しい翻訳がなされた完全なマニュアルを用意しなければなりません。装置を作動する前にマニュアルを完全に読み、そして理解されなくてはなりません。そして、すべての要求される対策を講じなければなりません。


 真空装置を安全に取り扱うために

KR


주의: 이 매뉴얼은 모든 언어로 번역되지 않습니다. 만약 이 매뉴얼의 내용을 충분히 인지하지 못했다면 기기를 작동하지 마십시오. 매뉴얼의 내용을 기술적으로 정확하게 번역한 경우에 이용하십시오. 기기를 사용하기 전에 이 매뉴얼을 충분히 읽고 이해하고 모든 요구되는 사항들을 적용해야 합니다.

 진공 장비에 대한 안전 정보


LT

Dėmesio: šis vadovas nėra pateikiamas visomis ES kalbomis. Naudotojui draudžiama eksploatuoti įtaisą, jeigu jis nesupranta šio vadovo. Tokiu atveju reikia turėti viso vadovo techniškai taisyklingą vertimą. Vadovą būtina visą perskaityti ir suprasti pateikiamas instrukcijas prieš pradėdant eksploatuoti įtaisą, bei imtis visų reikiamų priemonių.  "Vakuuminės įrangos saugos informacija"

LV

Uzmanību: Lietotāja instrukcija nav pieejama visās ES valodās. Lietotājs nedrīkst lietot iekārtu, ja viņš nesaprot lietotāja instrukcijā rakstīto. Šādā gadījumā, ir nepieciešams nodrošināt tehniski pareizu visas lietotāja instrukcijas tulkojumu. Pirms sākt lietot iekārtu, un, lai izpildītu visas nepieciešamās prasības, iekārtas lietotāja instrukcija ir pilnībā jāizlasa un jāsaprot.  "Vakuuma iekārtu drošības noteikumi"

NL


Attentie: Deze gebruiksaanwijzing is niet in alle talen van de EU verkrijgbaar. De gebruiker moet niet met dit apparaat gaan werken als voor hem/haar de gebruiksaanwijzing niet voldoende duidelijk is. Bij gebruik van deze apparatuur is het noodzakelijk een technisch correcte vertaling van de complete gebruiksaanwijzing te hebben. Voor het in gebruik nemen van het apparaat moet de gebruiksaanwijzing volledig gelezen en duidelijk zijn en dienen alle benodigde maatregelen te zijn genomen.  "Veiligheidsvoorschriften voor vacuümapparaten"

PL

Uwaga!! Ta instrukcja nie jest dostępna we wszystkich językach Unii Europejskiej. Użytkownik nie może rozpocząć pracy z urządzeniem dopóki nie przeczytał instrukcji i nie jest pewien wszystkich informacji w niej zawartych. Instrukcja musi być w całości przeczytana i zrozumiana przed podjęciem pracy z urządzeniem oraz należy podjąć wszystkie niezbędne kroki związane z prawidłowym użytkowaniem.

 "Wskazówki bezpieczeństwa do urządzeń próżniowych"

PT


Atenção: Este manual não está disponível em todas as línguas da UE. O usuário não deve utilizar o dispositivo, se não entender este manual. Neste caso, uma tradução tecnicamente correta do manual completo tem de estar disponível. O manual deve ser lido e entendido completamente antes da utilização do equipamento e todas as medidas necessárias devem ser aplicadas.  "Informação de Segurança para Equipamento que funciona a Vácuo"

RO

Atentie: Acest manual nu este disponibil in toate limbile EU. Utilizatorul nu trebuie sa lucreze cu aparatul daca nu intelege manualul. Astfel, va fi disponibile o traducere corecta si completa a manualului. Manualul trebuie citit si inteles in intregime inainte de a lucra cu aparatul si a luat toate masurile care se impun.

 "Instrucțiuni de siguranță pentru aparatele de vidare"

RU

Внимание: Эта инструкция по эксплуатации не имеется на всех языках. Потребителю не дозволено эксплуатировать данный прибор, если он не понимает эту инструкцию. В этом случае нужен технически правильный перевод полной инструкции. Прежде чем использовать этот прибор, необходимо полностью прочитать и понять эту инструкцию и принять все необходимые меры.  "Указания по технике безопасности при работе с вакуумными устройствами"

SE

Varning: Denna instruktion är inte tillgänglig på alla språk inom EU. Användaren får inte starta utrustningen om hon/han inte förstår denna instruktion. Om så är fallet måste en tekniskt korrekt instruktion göras tillgänglig. Instruktionen måste läsas och förstås helt före utrustningen tas i drift och nödvändiga åtgärder göres.


 "Säkerhetsinformation för vakuumutrustning"

SI


Pozor: Ta navodila niso na voljo v vseh jezikih EU. Uporabnik ne sme upravljati z napravo, če ne razume teh navodil. V primeru nerazumljivosti mora biti na voljo tehnično pravilen prevod. Navodila se morajo prebrati in razumeti pred uporaba naprave, opravljene pa moraja biti tudi vse potrebne meritve.

 "Varnostni nasveti za vakuumske naprave"

SK

Upozornenie: Tento manuál nie je k dispozícii vo všetkých jazykoch EÚ. Užívateľ nesmie obsluhovať zariadenie, pokiaľ nerozumie tomuto manuálu. V takomto prípade musí byť k dispozícii technicky správny preklad celého manuálu. Pred obsluhou zariadenia je potrebné si prečítať celý manuál a porozumieť mu, a musia byť prijaté všetky opatrenia.  "Bezpečnostné pokyny pre vákuové zariadenia"

TR

Dikkat : Bu kullanım kitabı, tüm dillerde mevcut değildir. Kullanıcı, bu kullanım kitabını anlayamadıysa cihazı çalıştırmamalıdır. Bu durumda, komple kullanım kitabının, teknik olarak düzgün çevirisinin bulunması gerekir. Cihazın çalıştırılmasından önce kullanım kitabının komple okunması ve anlaşılması ve tüm gerekli ölçümlerin uygulanması gerekir.  "Vakumlu cihazlar için güvenlik uyarıları"

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Safety information!

Important information!

WARNING

- ☞ Keep this manual complete and accessible to personnel at all times!
- ☞ Read this manual carefully before installing or operating the equipment. Observe the instructions contained in this manual.
- ☞ Do not modify the equipment without authorization.

NOTICE

This manual is an integral part of the equipment described therein. It describes the safe and proper use of the exhaust waste vapor condenser Peltronic®. Make operating personnel aware of dangers arising from the exhaust waste vapor condenser Peltronic® and the processed substances. VACUUBRAND disclaims any liability for inappropriate use of the exhaust waste vapor condenser Peltronic® and for damage from failure to follow instructions contained in this manual.

This manual is only to be used and distributed in its complete and original form. It is strictly the users' responsibility to check carefully the validity of this manual with respect to his product.

Manual-no.: 20901076

The following signal word panels and safety symbols are used throughout this manual:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury and death.



➡ DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



☞ WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



• CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury.



Caution! Hot surface!



Disconnect equipment from AC power.



Dispose of electronic equipment according to regulations.



Formatting used in this manual:

Note: The signal word panels in all sections of this manual always refer to all paragraphs of the same format (➡ / ☞ / • / plain text) following each signal word panel.

The document "Safety information for vacuum equipment" is part of this manual! Read the "Safety information for vacuum equipment" and observe the instructions contained therein!

General information

NOTICE

Remove all packing material from the packing box. Remove the product from its packing-box and retain all packaging until the equipment is inspected and tested. Remove the protective caps from the inlet and outlet ports and retain for future use. Inspect the equipment promptly and carefully.

If the equipment is damaged, notify the supplier and the carrier in writing within three days. Retain all packing material for inspection. State the item number of the product together with the order number and the supplier's invoice number. Failure to check and give notice of damage will void any and all warranty claims for those deficiencies.

Replace the protective caps if the equipment is not used immediately. Store the equipment in dry and non-corrosive conditions.

WARNING

☞ **Do not use any damaged equipment.**

Intended use

WARNING

☞ Do not use any system parts on humans or animals.

☞ Ensure that the individual components are only connected, combined and operated according to their design and as indicated in the instructions for use. Use only **original manufacturer's spare parts and accessories**. Otherwise the safety and performance of the equipment, as well as the electromagnetic compatibility of the equipment might be reduced.

The CE mark may be voided if not using original manufacturer's spare parts.

☞ Comply with all notes on correct vacuum and electrical connections; see section „Use and operation“, pg. 25”.

☞ The exhaust waste vapor condenser Peltronic® is designed for **ambient temperatures** during operation

between +50°F and +104°F (+10°C and +40°C). Periodically check maximum temperatures if installing the equipment in a cabinet or a housing. Make sure ventilation is adequate to maintain recommended operating temperature. Install an external automatic ventilation system if necessary.

If pumping hot process gases, make sure that the maximum permitted gas inlet temperature is not exceeded.

CAUTION

- Ensure that the exhaust waste vapor condenser Peltronic[®], and any accessories in the flow path are chemically resistant to the processed substances prior to operation.

NOTICE

Use the equipment **only as intended**, that is, for condensation of emitted vapors at the outlet of vacuum systems and pumps (i.e. at atmospheric pressure). Any other use will automatically invalidate all warranty and liability claims. Remain aware of safety and risks.

Setting up and installing the equipment

DANGER

- ➔ Equipment must be connected only to a **suitable electrical supply** and a suitable ground point. As such, the plug must be plugged into an outlet that is properly grounded. Failure to connect the motor to ground may result in deadly electrical shock.

The supply cable may be fitted with a molded European IEC plug or a plug suitable for your local electrical supply. The cable contains wires color coded as follows: green or green and yellow: ground; blue or white: neutral; brown or black: hot.

WARNING

- ☞ Do not permit any **uncontrolled pressurizing**. Make sure that the exhaust pipeline cannot become blocked. If there is an exhaust isolation valve, make sure that you cannot operate the equipment with the valve closed to avoid a **risk of bursting!**

- ☞ Keep the electrical power cord away from heated surfaces.

CAUTION

- Provide a firm, level platform for the equipment. Ensure a stable position of the exhaust waste vapor condenser Peltronic[®]. Check that all fittings are secure.
- Comply with **maximum permissible pressures** at inlet and outlet and with **maximum permissible pressure differences** between inlet and outlet. See section „Technical data“, pg. 22. Do not operate the exhaust waste vapor condenser Peltronic[®] with overpressure at the inlet.
- Check the power source and the condenser's rating plate to be sure that the power source and the equipment match in voltage, phase, and frequency.
- Make sure the fan's air supply is adequate, especially if the exhaust waste vapor condenser Peltronic[®] is installed in an enclosure. Do not block ventilation slots.
- Connect hoses gas tight at inlet and outlet of the exhaust waste vapor condenser Peltronic[®].
- **Note:** Flexible elements will shrink when evacuated.

NOTICE

Make sure ventilation is adequate to maintain recommended operating temperature. Keep a minimum distance of 2 in (5 cm) between the cooling fan and surrounding items (e.g., housing, walls, etc.), or else install an external automatic ventilation system.

Check ventilation slots regularly for dust/dirt. Clean ventilation slots if necessary to avoid a reduction of ventilation.

Allow the equipment to equilibrate to ambient temperature if you bring it from cold environment into a room prior to operation. Notice if there is water condensation on cold surfaces.

Use only hoses at the inlet and outlet of the condenser with an inner diameter at least as large as the diameter of the condenser's connections (to avoid overpressure, and reduction of throughput).

Comply with all **applicable and relevant safety requirements** (regulations and guidelines). **Implement the required actions and adopt suitable safety measures.**

Ambient conditions

! DANGER

- ➔ Do not reach for this product if it has fallen into liquid. There is a risk of deadly electrical shock. Unplug the system immediately.

! WARNING

- ☞ Do not use this product in an area where it can fall or be pulled into water or other liquids.

! CAUTION

- Adopt suitable measures in case of differences from recommended conditions, e.g., using the equipment outdoors, installation in higher altitudes, conductive pollution or external condensation on the exhaust waste vapor condenser Peltronic®.
- Do not operate this product near flames.

NOTICE

To the best of our knowledge the equipment is in compliance with the requirements of the applicable EC-directives and harmonized standards (see "Declaration of Conformity") with regard to design, type and model. Directive EN 61010-1 gives in detail the conditions under which the equipment can be operated safely (see also IP degree of protection, „Technical data“, pg. 22).

Operating conditions

! DANGER

- ➔ The exhaust waste vapor condenser Peltronic® is not approved for operation in potentially explosive atmo-

spheres. **Do not operate the exhaust waste vapor condenser Peltronic® in potentially explosive atmospheres.**

- ➔ Equipment **without the "Ex" mark on the rating plate is not approved for the condensation of potentially explosive atmospheres. Do not condense potentially explosive atmospheres with this equipment.**
- ➔ Equipment **bearing the "Ex" mark on its rating plate is approved for the condensation of potentially explosive atmospheres** according to their ATEX classification imprinted on their rating plate, but it is **not approved for operation in potentially explosive atmospheres** (see section "Ex Important information: Equipment marking (ATEX)", pg. 20).



- **Do not condense** substances which may form **deposits** inside the exhaust waste vapor condenser Peltronic®. The exhaust waste vapor condenser Peltronic® is not suitable for condensing substances which may form deposits inside the condenser. Deposits and condensate in the condenser may lead to increased temperatures even to the point of exceeding the maximum permitted temperatures.
- Check the inlet and outlet of the exhaust waste vapor condenser Peltronic®, if there is a danger of forming **deposits** inside the condenser. Inspect the exhaust waste vapor condenser Peltronic® regularly and clean if necessary. See section „Shutdown & storage“, pg. 34).
- **Consider interactions and chemical reactions of the condensing media.** Ensure that the materials of the condenser's wetted parts are compatible with the processed substances, see section „Technical data“, pg. 22.
When changing the substances processed, we recommend purging the exhaust waste vapor condenser

Peltronic® with air or inert gas prior to changing the processed media. Purging the exhaust waste vapor condenser Peltronic® will clean it from residues and it will reduce the possibility of reactions of the processed substances with each other and with the condenser's materials.

Safety during operation

! DANGER

- ➔ Adopt suitable measures to prevent the release of dangerous, toxic, explosive, corrosive, noxious or polluting fluids, vapors and gases. To prevent any emission of such substances from the condenser outlet, install an appropriate collecting and disposal system and take protective action for exhaust waste vapor condenser Peltronic® and environment.
- ➔ You must take suitable precautions to prevent any formation of explosive mixtures in the condenser or at its outlet. In case, hot surfaces or static electricity may ignite these mixtures.
- ➔ Drain appropriately or otherwise remove any potentially explosive mixtures at the outlet of the condenser, or dilute them to non-explosive concentrations.
- ➔ Never operate this equipment if it has a damaged cord or plug.

! WARNING

- ☞ If the condenser is not working properly, has been dropped or has fallen into water, contact your service provider.
- ☞ Make sure that the exhaust pipeline cannot become blocked.
- ☞ Comply with applicable regulations when disposing of chemicals. Take into consideration that chemicals may be contaminated. Take adequate precautions to protect people from the effects of dangerous substances

(chemicals, thermal decomposition products of fluoro-elastomers). Use appropriate protective clothing and safety goggles.

- ☞ Interruption of the equipment (e.g., due to power failure), failure of connected components or of parts of the supply, or change in parameters must not be allowed to lead to dangerous conditions. In case of a leak in the manifold, processed substances might be released into the environment.

Comply with all notes regarding proper use of the equipment, as well as operation and maintenance guidance.

- ☞ The residual **leak rate of the equipment** might render possible an exchange of gas, albeit extremely slight, between the environment and the system.

Adopt suitable measures to prevent contamination of the processed substances or the environment.

CAUTION



- Pay attention to the safety symbol "hot surfaces" on the equipment. Hot parts may cause burns if touched. Adopt suitable measures to prevent any danger arising from hot surfaces. Ensure that hot surfaces of the condenser do not cause burns. Provide a suitable contact guard if necessary.

NOTICE

Prevent the backpressure of gases and the backflow of condensates.

Check the liquid level in the catchpot during operation. Check the liquid level regularly. Do not allow the catchpot to overflow. Drain catchpot in time to avoid overflow.

Provide appropriate protective measures to allow for the possibility of failure and **malfunction**. The protective measures must also allow for the requirements of the respective application.

An **excess temperature protection** switches off the condenser in case of excess temperature.

Attention: The condenser will start automatically after sufficient cooling down. It is your responsibility to ensure that automatic start-up of the condenser will not lead to any dangerous condition. Provide appropriate safety measures.

Maintenance and repair

NOTICE

In order to comply with laws (occupational, health and safety regulations, safety at work law and regulations for environmental protection) equipment can only be returned when certain procedures (see section „Repair - Maintenance - Return - Calibration“, pg. 37) are followed.

DANGER

➔ **Never operate the equipment if parts are disassembled.**



➔ **Switch off the exhaust waste vapor condenser Peltronic®. Disconnect the electrical power cord and wait five seconds** before starting maintenance to allow the capacitors to discharge.

➔ **Note:** The exhaust waste vapor condenser Peltronic® may be contaminated with chemicals, which have been processed during operation. Ensure that the exhaust waste vapor condenser Peltronic® is completely decontaminated before maintenance commences.

WARNING

☞ Take adequate precautions to protect people from the effects of dangerous substances if contamination has occurred. Use appropriate protective clothing, safety goggles and protective gloves.

☞ **Never operate a defective or damaged exhaust waste vapor condenser Peltronic®.**

- ☞ Isolate the exhaust waste vapor condenser Peltronic® from the vacuum system before starting maintenance. Allow sufficient cooling of the condenser. Drain condensate, if applicable.

NOTICE

Ensure that **maintenance** is done only by suitably trained and supervised technicians. Ensure that the maintenance technician is familiar with the safety procedures, which relate to the products processed by the system.



Important information: Equipment marking (ATEX)

VACUUBRAND equipment bearing the ATEX mark (see rating plate)

The classification according to ATEX is only valid for the inner part (wetted part, pumped gas or vapor) of the equipment. The equipment is not suitable for use in external, potentially explosive atmospheres (environment).

The overall category of the equipment depends on the connected components. If the connected components do not comply with the classification of the VACUUBRAND equipment, the specified category of the VACUUBRAND equipment is no longer valid.

Vacuum pumps and vacuum gauges in category 3 are intended for connection to equipment in which during normal operation explosive atmospheres caused by gases, vapors or mists normally don't occur; or, if they do occur, are likely to do so only infrequently and for a short period only. Equipment in this category ensures the requisite level of protection during normal operation.

The use of gas ballast or the operation of venting valves is only permitted if thereby explosive atmospheres normally don't occur in the interior of the equipment or, if they do occur, are likely to do so only infrequently and for a short period.

The pumps are marked with "X" (according to EN 13463-1), i.e., restrictions of the operation conditions:

- The equipment is designated for a low degree of mechanical stress and has to be installed in a way so that it cannot be damaged from outside.

Pumping units have to be installed so that they are protected against shocks from the outside and against glass splinters in the event of breakage (implosion).

- The equipment is designated for an ambient and gas inlet temperature during operation of +10 to +40°C. Never exceed these ambient and gas inlet temperatures. If pumping / measuring gases which are not potentially explosive, extended gas inlet temperatures are permissible. See instructions for use, section “Gas inlet temperatures” or “Technical data”.

After any intervention at the equipment (e.g., repair / maintenance) the ultimate vacuum of the pump has to be checked. Only if the pump achieves its specified ultimate vacuum is the pump’s leak rate low enough to ensure that no explosive atmospheres will occur in the interior of the equipment.

After any intervention at the vacuum sensor, the leak rate of the equipment has to be checked.



Attention: This manual is not available in all languages of the EU. The user must not operate the device if he does not understand this manual. In this case a technically correct translation of the complete manual has to be available. The manual must be completely read and understood before operation of the device. All specified measures must be applied, or else must be replaced by equivalent measures at the user’s own risk.

Technical data

Exhaust waste vapor condenser Peltronic®		
Cooling capacity at 70°F (21°C) ambient temperature	W	approx. 50
Control temperature	°F (°C)	50 (10)
Maximum permissible temperature of gaseous media*	°F (°C)	continuous operation: 104 (40), for short periods (less than 5 minutes): up to 176 (80)
Permissible ambient temperature at storage / operation	°F (°C)	14 to 140 / 50 to 104 (-10 to +60 / +10 to +40)
Permissible relative atmospheric moisture during operation (no condensation)	%	30 to 85
Maximum permissible installation altitude above mean sea level	ft (m)	6500 (2000)
Permissible range of supply voltage (including tolerance)		90-126 V~ / 180-254 V~ 50-60 Hz
Rated current at: 100-120 V~ 50-60 Hz 200-230 V~ 50-60 Hz	A A	1.6 0.7
Power draw (controlled)	W	7 - 160
Heat dissipation including condensation heat	W	0 - 200
Permissible range of inlet and outlet pressure (absolute)	psi (bar)	13 to 16 (0.9 to 1.1)
Degree of protection IEC 529		IP 20
Inlet		connection for PTFE tube I.D. 3/8", O.D. 5/16" (10 / 8 mm)
Outlet		connection for PTFE tube I.D. 3/8", O.D. 5/16" (10 / 8 mm) or hose nozzle for tubing I.D. 3/8" (hose nozzle DN 10 mm)
Dimensions L x W x H approx.	in (mm)	6.9 x 7.0 x 15.4 (175 x 179 x 392)
Weight	lbs. (kg)	9.5 (4.3)
Volume of catchpot	quarts (ml)	0.52 (500)

* if operating with potentially explosive atmospheres: 50 °F to 104 °F (+10°C to +40°C)

We reserve the right for technical modification without prior notice!

Wetted parts

Components	Wetted materials
Fittings, hose nozzle	ETFE / ECTFE
Cooling surface	PP / PFA
Catchpot	Borosilicate glass (coated)
O-ring (at catchpot)	FEP

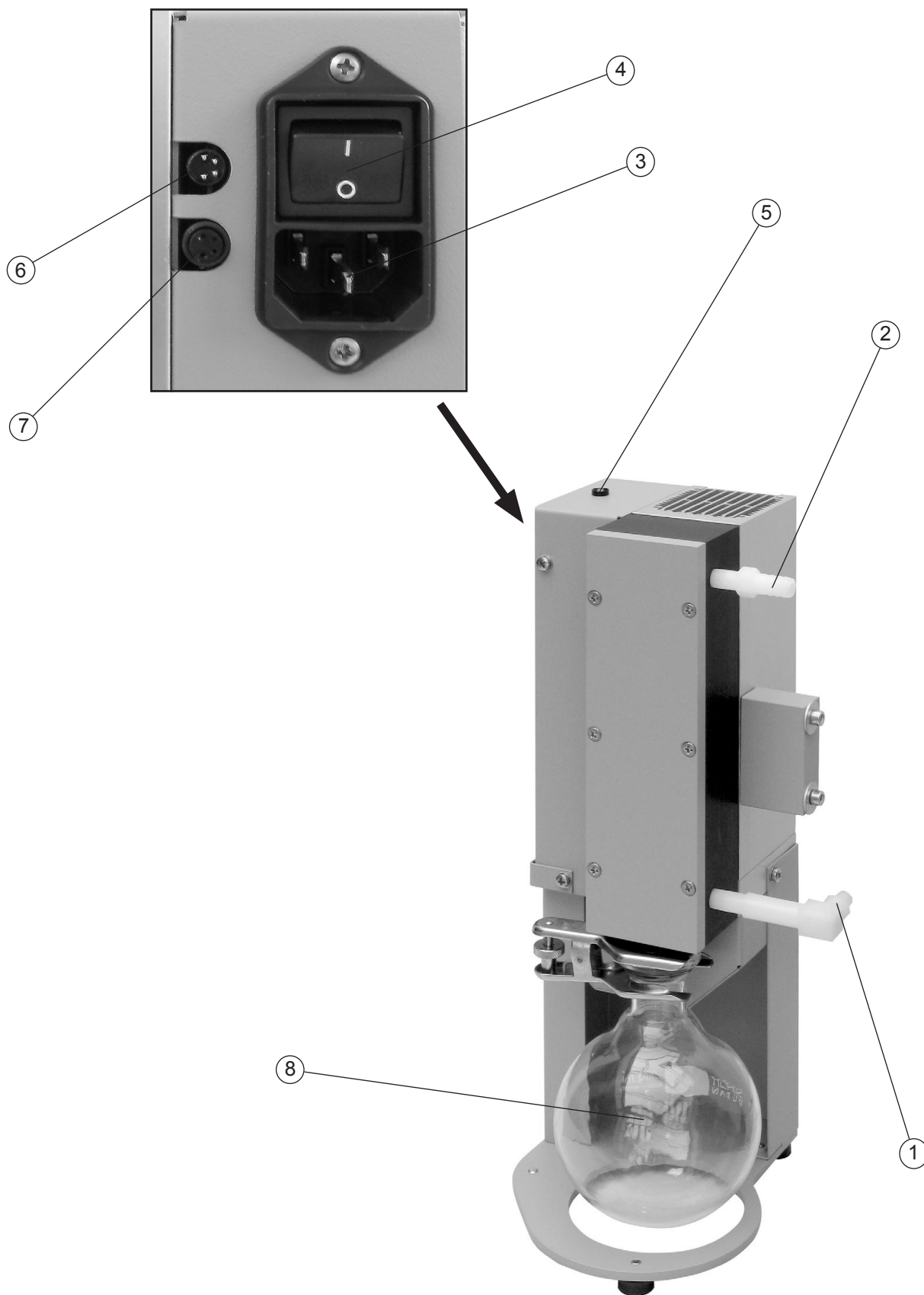
Abbreviations

ETFE:	Ethylene/Tetrafluoroethylene
ECTFE:	Ethylene/Chlorotrifluoroethylene
FEP:	Perfluoroethylene perfluoropropylene copolymer
PFA:	Perfluoroalkoxylalkane
PP:	Polypropylene

Condenser parts

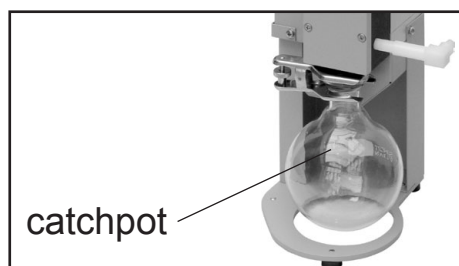
Position	Component
1	Inlet
2	Outlet
3	Mains connection
4	ON/OFF switch
5	LED
6	Connection plug of the VACUU • BUS line to the vacuum controller
7	Jack for connection of VACUU•BUS component (e.g., level sensor or valve or VMS-B module)
8	Catchpot

Exhaust waste vapor condenser Peltronic®



Use and operation

Assembling components



Catchpot

- Assemble the catchpot at the condenser using the joint clip.

Separation of condensate:

The round bottom flask is coated with a protective layer to prevent disintegration in case of breakage.

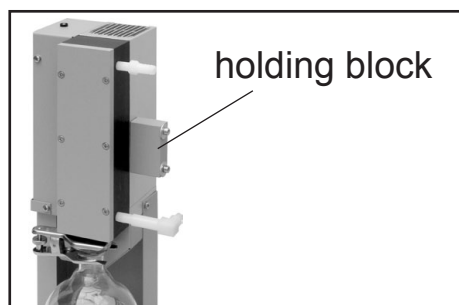
- ☞ Separation of condensate: Remove joint clip, remove catchpot and drain condensate.

Important: Comply with applicable regulations when disposing solvents. Reuse if possible, purify if contaminated.

Mounting the exhaust waste vapor condenser Peltronic® at VACUUBRAND pumping units with compact exhaust waste vapor condenser

- ☞ For mounting the exhaust waste vapor condenser Peltronic® at **VACUUBRAND pumping units with compact exhaust waste vapor condenser**, an assembly kit (see section „Accessories“, pg. 35) is required. The assembly kit contains corresponding assembly instructions.

Mounting the exhaust waste vapor condenser Peltronic® at VACUUBRAND pumping units with exhaust waste vapor condenser of older design

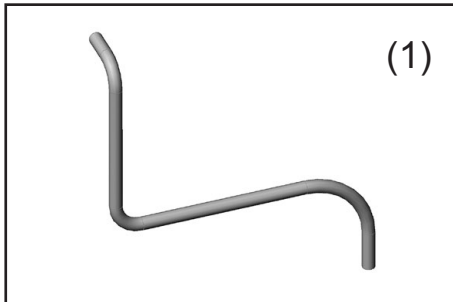


Mechanical fastening:

- Dismount water cooled exhaust waste vapor condenser.
- Screw the exhaust waste vapor condenser Peltronic® together with the holding block with two socket-head screws to the holder at the pump support.

Connecting the outlet of the pump to the exhaust waste vapor condenser Peltronic®:

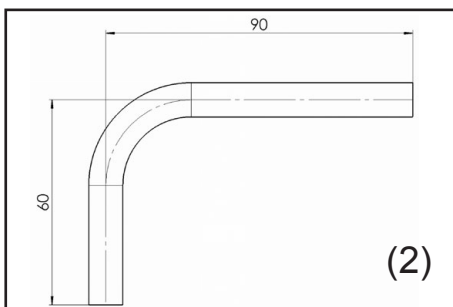
- ☞ Establish connection with the formed PTFE hose included in delivery.
- ➔ Slip union nuts on hose. Fasten the PTFE hose with union nuts at the tube fittings. If necessary widen the hose ends a bit by heating (538°F (280°C) at maximum).



- ☞ Depending on the pumping unit the formed PTFE hose has to be cut accordingly.

Attention: Do not crush the PTFE hose, in case use hose cutter (see section „Accessories“, pg. 35).

- ☞ Pumping units comprising a diaphragm pump with four pump heads and PC 2002: Assemble formed hose as delivered (1).



- ☞ Pumping units comprising diaphragm pumps with two pump heads (except PC 2002): Cut angled hose 90 mm x 60 mm (2).

- ☞ MD 1C AK + EK: Cut straight piece of hose. Length of 91 mm.

- ☞ PC 2001: Cut straight piece of hose. Length: 85 mm. Mechanical fastening only possible with special holding plate. Operation is also possible with free-standing condenser.



Hose cutter (see section „Accessories“, pg. 35)



Attention: The blade of the hose cutter is very sharp. Risk of injury!

Prior to use

⚠ WARNING

- ☞ **Maximum ambient temperature:** 104 °F (40 °C)
Attention: High ambient temperature reduces the cooling power of the condenser. Take into consideration heating-up of the ambient air due to the vacuum pump and the exhaust waste vapor condenser Peltronic®.
- ☞ Check the maximum temperatures, if installing the condenser in a cabinet or a housing, or if the ambient temperature is elevated. Make sure ventilation is adequate.
- ☞ **Assemble exhaust waste vapor condenser Peltronic® only at the outlet of a vacuum system (at atmospheric pressure).**

⚠ CAUTION

- Reduce the transmission of vibration. Prevent mechanical load due to rigid pipelines. Insert elastic hoses or flexible elements as couplings.
Note: Flexible elements will compress or flatten when evacuated if not designed for use under vacuum.
- If the equipment is installed at an altitude of more than 6500 ft (2000 m) above mean sea level, check compatibility with applicable safety requirements, and adopt suitable measures. There is a risk of overheating due to insufficient cooling.
- If a power failure constitutes a potential source of danger, take appropriate safety measures.

NOTICE

Use connecting hoses with large diameter and keep them as short as possible to avoid flow losses. When assembling, ensure **tightness**. After assembly, check the whole system for leaks.

Keep a minimum distance of 2 in (5 cm) between fans and surrounding items (e.g., housing, walls, etc.), or else install an external automatic ventilation system.

Use the equipment **only as intended**, that is, for condensation of emitted vapors at the outlet of vacuum systems and pumps (i.e. at atmospheric pressure).

During operation

! DANGER

- ➔ Adopt suitable measures to prevent the formation of explosive or flammable mixtures, use inert gas for venting if necessary.
- ➔ Adopt suitable measures to prevent the release of dangerous, toxic, explosive, corrosive, noxious or polluting fluids, vapors and gases when disposing of condensates.

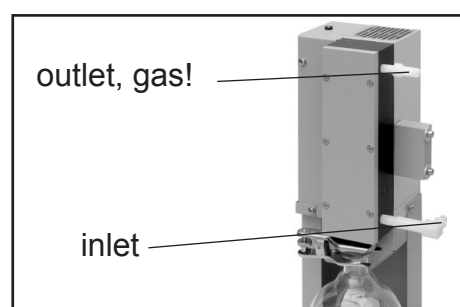
! WARNING

- ☞ **Maximum permissible operation pressure: 13 - 16 psi (0.9 - 1.1 bar) (absolute).**
Never block the gas outlet.

! CAUTION

- Make sure the fan's air supply is adequate. Clean ventilation slots, if necessary (e.g., remove dust or clean by suction).
- Prior to every use: Inspect the condenser for faults. There must be no damage. Do not use damaged components.

Notes concerning the use of the exhaust waste vapor condenser Peltronic®



The **exhaust waste vapor condenser Peltronic®** enables an efficient condensation of the pumped vapors at the outlet. The condenser's temperature is automatically controlled to +50°F (+10°C).

- ☞ Next to 100% solvent recovery.

- ☞ Never block the gas outlet. The exhaust hose has always to be unobstructed and without back pressure to enable an unhindered discharge of gases.
- ☞ Adopt suitable measures to prevent the release of dangerous or polluting fluids. To prevent any emission of such substances from the condenser outlet, install an appropriate collecting and disposal system.

NOTICE

The electronic exhaust waste vapor condenser Peltronic® features a LED indicating the condenser's operation status (see also section "Troubleshooting").

Continuous green light: Condenser at operating temperature (cold side $< +54^{\circ}\text{F}$ ($+12^{\circ}\text{C}$)).

Flashing orange light: Condenser temperature elevated (cold side $> +54^{\circ}\text{F}$ ($+12^{\circ}\text{C}$)).

The condenser reaches its optimum cooling temperature even without load only about one minute after switching on. (LED: change from flashing orange to continuous green).

CAUTION

- **Continuous red light:** Excess temperature at the condenser's hot side. The cooling of the exhaust waste vapor condenser Peltronic® is switched off. The fan remains running at maximum speed.

As soon as the condenser's hot side has cooled down to a temperature below 122°F (50°C), the exhaust waste vapor condenser Peltronic® restarts automatically. The LED will be continuously cycling red and orange respectively red and green (depending on the temperature of the cold side). The flashing red light indicates that a fault had occurred.

The fault indicator "red light" can only be reset by switching the condenser off/on. Determine and eliminate the cause of failure (e.g., gas inlet temperature too high, gas load too high, ambient temperature elevated).

Exhaust waste vapor condenser Peltronic® with VACUU-SELECT

Operation of the vacuum controller VACUU-SELECT and its functions are described in the VACUU-SELECT manual.

Connection possibility 1: Connect the Peltronic® condenser to a switched-off controller. When the controller is switched on, the Peltronic® condenser is automatically detected and monitored.

Connection possibility 2: Connect the Peltronic® condenser to a switched-on controller. Then perform a component detection at the controller (menu: „Settings/Administration/VACUU-BUS/Component detection“).

The Peltronic® condenser is listed in the context menu „**Component activation**“:

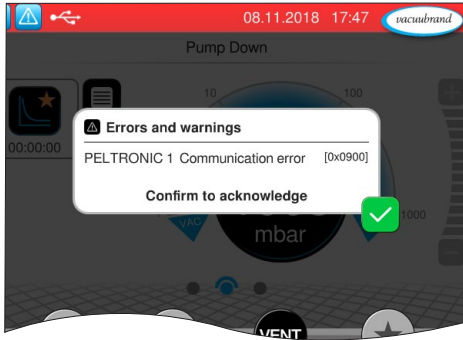


Using **component activation**, a connected Peltronic® condenser can be individually activated or deactivated, i.e., the Peltronic® condenser can remain connected but is switched on or off at the controller as required for the ongoing process.

Once a component detection has been performed, a connected Peltronic® condenser will always be listed as activated, even if it was deactivated prior to the component detection.

The exhaust waste vapor condenser Peltronic® is switched off simultaneously with the controller.

Disconnecting the Peltronic® condenser plug from the controller or switching off the Peltronic® condenser causes an error message, in case also when switching the controller on again:

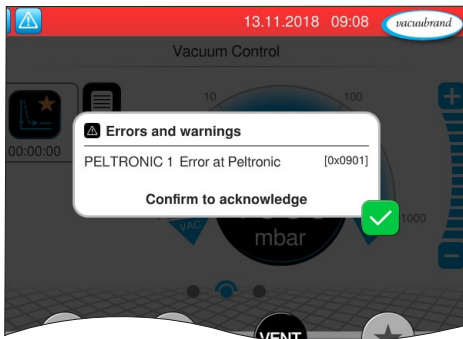


The **error indication** must be acknowledged after the error has been remedied.

Therefore plug in the Peltronic® condenser again at the controller or deactivate the Peltronic® condenser in the component activation context menu.

Another component detection with disconnected Peltronic® condenser will also result in the error indication being deleted.

A fault at the Peltronic® condenser causes an error message:



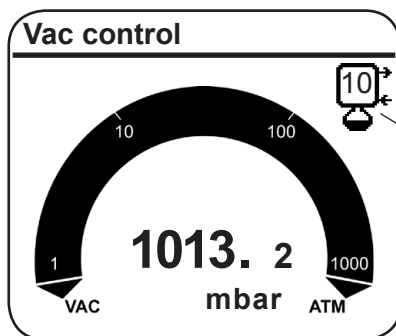
The **error indication** must be acknowledged after the error has been remedied.

Exhaust waste vapor condenser Peltronic® with CVC 3000

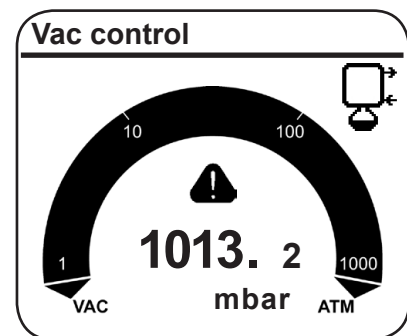
When switching on the controller, a connected exhaust waste vapor condenser Peltronic® is detected automatically and monitored until the controller is switched off. The condenser is displayed by a symbol on the LCD of the controller with the actual condenser temperature shown in °C. The exhaust waste vapor condenser Peltronic® is switched off simultaneously with the controller.

In case of fault or if removing the connection cable while the controller is switched on, a flashing warning triangle and a flashing condenser symbol (without temperature reading) are displayed. If "Sound" is set to "On", the controller sounds eleven blips.

Display of CVC 3000 during normal operation



condenser symbol
with condenser
temperature in °C



Display of CVC 3000
in case of fault

Exhaust waste vapor condenser Peltronic® with VNC 2 (E) (VARIO)

When switching on the controller, a connected exhaust waste vapor condenser Peltronic® is detected automatically and monitored until the controller is switched off.

The exhaust waste vapor condenser Peltronic® is switched off simultaneously with the controller.

In case of fault or if removing the connection cable while the controller is switched on, "Ext. Err." ("external error") is displayed. If "Sound" is set to "On", the controller sounds additionally one blip.

Display of VNC 2 in case of fault

1013mbar
Ext. Err.

Exhaust waste vapor condenser Peltronic® with level sensor

In case of high ambient humidity condensation may possibly occur on the cold surfaces of the exhaust waste vapor condenser Peltronic®. If condensation water is dripping onto the level sensor, an accidental level sensor alarm might be triggered. When installing a level sensor at the exhaust waste vapor condenser Peltronic®, pay attention to install it in a way that no potential condensation water can drip onto the level sensor. Avoid humidity on the sensor surface.

Valves and pressure transducers connected to the exhaust waste vapor condenser Peltronic® are handled just as well as components connected directly to the controller.

NOTICE

For optimal electromagnetic compatibility assemble a ferrite at all VACUU•BUS connection cables (see section „Accessories“, pg. 35).

Shutdown & storage

NOTICE

Short-term:

Remove catchpot and drain condensate.

Important: Comply with regulations when disposing of solvents/condensates. Recycle if possible; purify if contaminated.

Has the exhaust waste vapor condenser Peltronic® been exposed to media which may damage the condenser's materials or form **deposits**?

Check the exhaust waste vapor condenser Peltronic® (check inlet and outlet) and clean, if necessary.

Clean a contaminated exhaust waste vapor condenser Peltronic® as follows:

- Fill the condenser with a solvent (e.g., benzene) and allow sufficient cleaning time. Observe all regulations concerning usage and disposal of solvents!
- Drain the solvent and dispose of in accordance with regulations. Repeat cleaning if necessary.
- Rinse the condenser several times with alcohol in order to remove all solvent residues.
- Allow the emission condenser to dry.

Long-term:

- Take measures as described above regarding short-term shutdown.
- Separate the exhaust waste vapor condenser Peltronic® from the application.
- Close inlet and outlet ports (e.g., with transport caps).
- Store the exhaust waste vapor condenser Peltronic® under dry conditions.

Accessories

Assembly kit exhaust waste vapor condenser Peltronic® at VACUUBRAND pumping units with compact exhaust waste vapor condenser	20699935
Straight fitting for PTFE tube DN 10/8 mm (at inlet or outlet)	20638778 + 20639796
PTFE tubing DN 10/8 mm, sold by meter	20638644
Vacuum controller VACUU·SELECT® with sensor VACUU·SELECT®	20700000
Vacuum controller CVC 3000	20683160
Vacuum controller VNC 2	20683070
Vacuum controller VNC 2 VARIO	20683080
Vacuum controller VNC 2 E.....	20683090
Level sensor	20699908
Pressure transducer VSK 3000	20636657
(capacitive, ceramic diaphragm sensor 1080-0.1 mbar)	
VACUU·VIEW vacuum gauge	20683220
(capacitive, ceramic diaphragm sensor 1100-0.1 mbar)	
VACUU·SELECT® sensor	20700020
(capacitive, ceramic diaphragm sensor 1060-0.1 mbar)	
In-line valve VV-B 6, 24 V=	20674290
In-line valve VV-B 6C, 24 V=	20674291
In-line valve VV-B 15C, KF 16, 24 V=	20674210
In-line valve VV-B 15C, KF 25, 24 V=	20674215
Coolant valve VKW-B, 24 V=	20674220
Venting valve VBM-B / KF 16, 24 V=.....	20674217
Y-type adapter VACUU·BUS	20636656
Extension cable VACUU·BUS, 0.5 m	20612875
Extension cable VACUU·BUS, 2 m	20612552
Extension cable VACUU·BUS, 10 m	22618493
VMS-B Module A, 100-230 V, 50/60 Hz	20676030
Ferrite for VACUU·BUS connection cables	20612571
Hose cutter	20637257
Spare parts:	
Catchpot 0.52 qt (500 ml), coated	20638497
O-ring 28 x 2.5 mm (at catchpot).....	20638304

Troubleshooting

Fault	Possible cause	Remedy
<input type="checkbox"/> LED at the condenser is off, no fan noise.	<ul style="list-style-type: none"> ➔ Exhaust waste vapor condenser Peltronic® not switched on or controller switched off? ➔ Electrical power cord not plugged in, electrical supply failure? ➔ Exhaust waste vapor condenser Peltronic® defective? 	<ul style="list-style-type: none"> ✓ Switch on condenser and/or controller. ✓ Plug in power cord. Check fuse. ✓ Contact local distributor.
<input type="checkbox"/> LED is flashing orange, no change to continuous green light.	<ul style="list-style-type: none"> ➔ Very high condensation power? ➔ Ambient temperature too high? 	<ul style="list-style-type: none"> ✓ Check process parameters (e.g., reduce pumping speed of the vacuum pump, increase cooling at the vacuum side of the system). ✓ Comply with maximum permissible ambient temperature.
<input type="checkbox"/> Continuous red light at the condenser.	<ul style="list-style-type: none"> ➔ Ambient temperature much too high? ➔ Very high condensation power and ambient temperature too high? ➔ Exhaust waste vapor condenser Peltronic® defective? 	<ul style="list-style-type: none"> ✓ Comply with maximum permissible ambient temperature. ✓ Check process parameters (e.g., reduce pumping speed of the vacuum pump, increase cooling at the vacuum side of the system). Comply with maximum permissible ambient temperature. ✓ Contact local distributor.

Repair - Maintenance - Return - Calibration

IMPORTANT

Every employer (user) is held responsible for the health and safety of his employees. This also applies to service personnel performing repair, maintenance, return or calibration.

The **health and safety clearance form** informs the contractor about any possible contamination of the device and forms the basis for the risk assessment.

In case of devices which have been in contact with biological substances of risk level 2 contact the VACUUBRAND service absolutely before dispatching the device. These devices have to be completely disassembled and decontaminated by the user prior to shipment. Do not return devices which have been in contact biological substances of risk level 3 or 4. These devices cannot be checked, maintained or repaired. Also decontaminated devices must not returned to VACUUBRAND due to a residual risk.

The same conditions apply to on-site work.

No repair, maintenance, return or calibration is possible unless the correctly completed health and safety clearance form is returned. Devices sent are rejected if applicable. Send a completed copy of the **health and safety clearance form** to us in advance. The declaration must arrive before the equipment. Enclose a second completed copy with the product.

Remove all components from the device that are no original VACUUBRAND components. VACUUBRAND will not be responsible for lost or damaged components that are no original components.

Drain the device completely of fluids and residues. Decontaminate the device. Close all openings airtight especially if using substances hazardous to health.

To expedite repair and to reduce costs, please enclose a detailed description of the problem and the product's operating conditions with every product returned.

If you do not wish a repair on the basis of our **quotation**, the device may be returned to you disassembled and at your expense.

In many cases, the components must be cleaned in the factory prior to repair.

For cleaning we use an environmentally friendly water based process. Unfortunately the combined attack of elevated temperature, cleaning agent, ultrasonic treatment and mechanical stress (from pressurised water) may result in damage to the paint. Please mark in the health and safety clearance form if you wish a repaint at your expense just in case such a damage should occur. We will also replace parts for cosmetic reasons at your request and at your expense.

Before returning the device

Pack the device properly, if necessary, please order original packaging materials at your costs.

Mark the package completely

Enclose the completed health and safety clearance form.

Notify the carrier of any possible contamination if required.

Scrapping and waste disposal

Dispose of the equipment and any components removed from it safely in accordance with all local and national safety and environmental requirements. Particular care must be taken with components and waste oil which have been contaminated with dangerous substances from your processes. Do not incinerate fluoroelastomer seals and O-rings. You may authorize us to dispose of the equipment **at your expense**. Otherwise we return the device at your expense.

Warranty

VACUUBRAND shall be liable for insuring that this product, including any agreed installation, has been free of defects at the time of the transfer of risk.

VACUUBRAND shall not be liable for the consequences of improper handling, use, servicing or operation of this product or the consequences of normal wear and tear of wearing parts such as diaphragms, seals, valves, vanes, condensers, oil and the breakage of glass or ceramic parts, for the consequences of chemical, electrochemical or electrical influences or the failure to follow the instructions in this manual.

Claims for defects against VACUUBRAND shall be limited to one year from delivery. The same shall apply to claims for damages irrespective of legal grounds.

For further information on general terms and conditions refer to www.vacuubrand.com.

Health and safety clearance form

1. Device (Model):

2. Serial no.:

3. Reason for return / malfunction:

4. Has the device been used in a copper process step (e.g., semiconductor production): yes no

5. Substances (gases, liquids, solids, biological material, e. g. bacteria, viruses) in contact with the device / which have been pumped:

.....
.....
.....

6. Risk level of the used biological material: none 1 2* 3** 4**

* Contact the VACUUBRAND service absolutely before dispatching the device.

** Devices which have been in contact with biological substances of risk level 3 or 4 cannot be checked, maintained or repaired. Also decontaminated devices must not returned to VACUUBRAND due to a residual risk.

7. Radioactive contamination: yes no

8. Prior to return to the factory the device has been decontaminated: yes no

Description of the decontamination method and the test / verification procedure:

.....
.....

9. All parts of the device are free of hazardous, harmful substances: yes no

10. Protective measures required for service staff:

.....

11. If the paint is damaged, we wish a repaint or a replacement of parts for reason of appearance (repaint and replacement at customer's expense): yes no

12. Legally binding declaration

We assure for the returned device that all substances, which have been in contact with the device are listed in section 5 and that the information is complete and that we have not withheld any information. We declare that all measures - where applicable - have been taken listed in section "Repair - Maintenance - Return - Calibration". By our signature below, we acknowledge that we accept liability for any damage caused by providing incomplete or incorrect information and that we shall indemnify VACUUBRAND from any claims as regards damages from third parties. We are aware that as expressed in § 823 BGB (Public Law Code of Germany) we are directly liable for injuries or damages suffered by third parties, particularly VACUUBRAND employees occupied with handling/repairing the product. Shipping of the device must take place according to regulations.

Name: Signature:

Job title: Company's seal:

Date:

Release for repair grant by VACUUBRAND (date / signature):.....

Protective measures: Protective gloves, safety goggles Hood External cleaning





EG-Konformitätserklärung
EC Declaration of Conformity
Déclaration CE de conformité

Hersteller / Manufacturer / Fabricant:

VACUUBRAND GMBH + CO KG · Alfred-Zippe-Str. 4 · 97877 Wertheim · Germany

Hiermit erklärt der Hersteller, dass das Gerät konform ist mit den Bestimmungen der Richtlinien:

Hereby the manufacturer declares that the device is in conformity with the directives:

Par la présente, le fabricant déclare, que le dispositif est conforme aux directives:

2014/30/EU

2014/34/EU

2014/35/EU

2011/65/EU

Kühler / Cooler / Refroidisseur:

Typ / Type / Type: Emissionskondensator Peltronic® / Exhaust waste vapor condenser Peltronic®
 / Condenseur de vapeurs Peltronic®

Artikelnummer / Order number / Numéro d'article: 20699905

Seriennummer / Serial number / Numéro de série: Siehe Typenschild / See rating plate / Voir plaque signalétique

Angewandte harmonisierte Normen / Harmonized standards applied / Normes harmonisées utilisées:

DIN EN 61010-1:2011, IEC 61010-1:2010 (Ed. 3), DIN EN 61326-1:2013, DIN EN 1127-1:2011,
 DIN EN 13463-1:2009, DIN EN 50581:2013

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen / Person authorised to compile the technical file / Personne autorisée à constituer le dossier technique:

Dr. J. Dirscherl · VACUUBRAND GMBH + CO KG · Alfred-Zippe-Str. 4 · 97877 Wertheim · Germany

Wertheim, 01.07.2018

ort, Datum / place, date / lieu, date

(Dr. F. Gitmans)

Geschäftsführer / Managing Director /
 Gérant

ppa.

(Dr. J. Dirscherl)

Technischer Leiter / Technical Director /
 Directeur technique



VACUUBRAND GMBH + CO KG

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DECLARATION OF CONFORMITY – China RoHS 2

VACUUBRAND GMBH + CO KG has made reasonable efforts to ensure that hazardous materials and substances may not be used in its products.

In order to determine the concentration of hazardous substances in all homogeneous materials of the subassemblies, a “Product Conformity Assessment” (PCA) procedure was performed. As defined in GB/T 26572 the “Maximum Concentration Value” limits (MCV) apply to these restricted substances:

- Lead (Pb): 0.1%
- Mercury (Hg): 0.1%
- Cadmium (Cd): 0.01%
- Hexavalent chromium (Cr(+VI)): 0.1%
- Polybrominated biphenyls (PBB): 0.1%
- Polybrominated diphenyl ether (PBDE): 0.1%

Environmental Protection Use Period (EPUP)



EPUP defines the period in years during which the hazardous substances contained in electrical and electronic products will not leak or mutate under normal operating conditions. During normal use by the user such electrical and electronic products will not result in serious environmental pollution, cause serious bodily injury or damage to the user's assets.

The environmental Protection Use Period for VACUUBRAND products is 40 years.



此表格是按照SJ/T 11363-2006中规定所制定的。

This table is created according to SJ/T 11363-2006.

MATERIAL CONTENT DECLARATION FOR VACUUBRAND PRODUCTS							
部件名称 Part name	有毒有害物质或元素 Hazardous substances						环保期限标识 EPUP
	铅 Pb	汞 Hg	镉 Cd	六价铬 Cr(+VI)	多溴联苯 PBB	多溴二苯醚 PBDE	
包装 Packaging	○	○	○	○	○	○	
塑料外壳 / 组件 Plastic housing / parts	○	○	○	○	○	○	
真空油 Vacuum oil	○	○	○	○	○	○	
电池 Battery	○	○	○	○	○	○	
玻璃 Glass	○	○	○	○	○	○	
电子电气组件 Electrical and electronic parts	X	X	X	○	○	○	
控制器 / 测量设备 Controller / measuring device	X	○	X	○	○	○	
金属外壳 / 组件 Metal housing / parts	X	○	○	○	○	○	
电机 Motor	X	○	○	○	○	○	
配件 Accessories	X	○	○	○	○	○	



注释: 此表格适用于所有产品。以上列出的元件或组件不一定都属于所附产品的组成。

Note: Table applies to all products. Some of the components or parts listed above may not be part of the enclosed product.

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。

O: Indicates that the above mentioned hazardous substance contained in all homogeneous materials of the part is below the required limit as defined in GB/T 26572.

X: 表示该有毒有害物质至少在该部件某一均质材料中的含量超出GB/T 26572规定的限量要求。

X: Indicates that the above mentioned hazardous substance contained in at least one of the homogeneous materials of this part is above the required limit as defined in GB/T 26572.

除上表所示信息外，还需声明的是，这些部件并非是有意图用铅（Pb）、汞（Hg）、镉（Cd）、六价铬（Cr(+VI)）、多溴联苯（PBB）或多溴二苯醚（PBDE）来制造的。

Apart from the disclosures in the above table, the subassemblies are not intentionally manufactured or formulated with lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (Cr+VI), polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE).

Products manufactured by VACUUBRAND may enter into further devices (e.g., rotary evaporator) or can be used together with other appliances (e.g., usage as booster pumps).

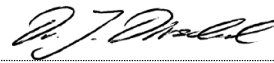
With these products and appliances in particular, please note the EFUP labeled on these products. VACUUBRAND will not take responsibility for the EFUP of those products and appliances.

Place. date: Wertheim, 04/24/2017



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ppa.



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Disclaimer: Our technical literature is only intended to inform our customer. The applicability of general empirical values and results obtained under lab conditions to your specific operations depends on a number of factors beyond our control. It is, therefore, strictly the users' responsibility to very carefully check the application of these data to their specific requirements. No claims arising from the information provided in this literature will, consequently, be entertained.



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