

Service Report Form

We would like to draw your attention to the correct procedure in case of a failed or rejected capacitor.

To ensure an efficient workflow and a high quality of analysis, a detailed description of the failure is crucial. So, please make sure, you provide as much information as possible, before returning capacitors to the factory for warranty claims or for technical evaluation.

We appreciate, if you make use of our Service Report Form provided on the COMET website. Below you will find some information on the form (pictures on pages 2 and 3).

Submission of form is only possible, when all mandatory fields (red, marked with *) are filled. This includes the checkbox at the bottom of the form (acceptance of conditions).

Therefore please make yourself familiar with the conditions and the information given on the second page about

- damage in transit
- handling and storage
- health and safety hazards (high voltage, X-ray, RF radiation, disposal)
- warranty
- the return procedure for warranty claims.

Some fields will only appear if needed, dependent on the content of other fields. Once all required information is entered, the *Submit* button will be active. Activating it will generate an email to csr-pct@comet.ch with the form attached as PDF. This file will no longer be editable. The procedure will not automatically send the email. That means you will be able to edit addressees, attach additional documents etc.

Please note: The form contains some JavaScripts, so to complete the form it's necessary to enable this function in your browser. Please be aware that at the time being, internet browsers on mobile devices do not support the full range of possibilities, JavaScript is offering, and the form might not work on such devices.

Please note: Concerning the return shipment of water cooled capacitor, we like to emphasize that if such a capacitor has been used and must be stored or packed, the water course must be carefully dried in order to avoid corrosion of the bellows. This can best be accomplished by using a vacuum pump.

Service Report Vacuum Capacitors

11. November 2015

Please insert as much information as possible, to allow an efficient workflow and a high quality of analysis! Submission of form only possible, when all mandatory fields (marked with *) are filled. The form will be sent to COMET csr-pct@comet.ch. If required, please attach pictures to the e-mail generated.

Capacitor Type*:	<input type="text"/>	Serial #*:	<input type="text"/>
Material #:	<input type="text"/>	Delivered to end customer*:	<input type="radio"/> yes <input type="radio"/> no
Customer/Buyer*:	<input type="text"/>	<input type="text" value="Please insert delivery address for return / replacement..."/>	
Sender's reference #:	<input type="text"/>		
Number of pieces:	<input type="text" value="1"/>	Invoice address different to delivery address?:	<input type="radio"/> yes <input type="radio"/> no

Date specifications [d-mmm-yy]

Receipt from factory:	<input type="text"/>	Test prior to commissioning:	<input type="text"/>
Failure*:	<input type="text"/>	Commissioning:	<input type="text"/>

Failure description / remarks:

Operating conditions

Operating hours*:	<input type="text" value="select/insert value"/>	Cycles performed:	<input type="text"/>
Equipment:	<input type="text"/>	Output [kW]:	<input type="text"/>
Orientation of installation:	<input type="text" value="select value..."/>	Peak RF working V [kV]:	<input type="text"/>
Operational range	min: <input type="text"/>	max: <input type="text"/>	Changes/day: <input type="text"/>
Temperature in [C*]:	<input type="text"/>	<input type="text"/>	
Frequency [MHz]:	<input type="text"/>	<input type="text"/>	<input type="text"/>



I confirm that I have read and understood all provisions, terms and conditions on the following page and fully accept their content

Send Form

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Date:

Damage in Transit

Each capacitor is subjected to electrical, mechanical and visual inspection prior to leaving the factory. It should be examined immediately upon receipt. If the capacitor has been damaged during transit, COMET or its agent should be notified immediately. If insurance has been arranged by the recipient (customer) a claim should be filed at the receiving end. In case insurance coverage was provided by COMET, COMET will take the necessary steps after notification.

Handling and Storage

- All capacitors but special variable capacitors must be stored in a dry environment.
- Residual water and/or humidity in conjunction with oxygen and air pollution can cause erosion of the bellows. The capacitor should be stored in a plastic bag, preferably with activated silica gel. Close the bag tightly.
- For water-cooled capacitors:
 - All water courses are carefully leak-checked in the factory using elevated gas pressure.
 - Avoid using water to test for water leaks.
 - If a water-cooled capacitor has been used and must be stored over a longer period of time, the water course must be carefully dried. This can best be accomplished with the use of a vacuum pump, then follow storing recommendations as shown above.

Health and Safety Hazards**High Voltage:**

Operating voltages of vacuum capacitors range from a few hundred Volts to more than 50'000 Volts. Since these voltages can be deadly, the equipment must be designed to assure that no personnel can come into contact with high voltage circuits. All equipment must be designed to include safety enclosures for high voltage circuits. Terminals with fail safe door interlock switches to open the primary circuits of the power supply and discharge all high voltage capacitors, and other stored charges.

Never bypass or "cheat" interlock switches!

Guard against residual capacitor charges by simultaneously touching both ends with a grounding bar prior to handling.

X-ray Radiation:

All high voltage devices operating above 10 kV produce progressively more dangerous X-ray radiation as the voltage is increased. Moreover, the X-ray radiation level may increase significantly with life and gradual deterioration due to changing leakage path over time. It is necessary to provide adequate shielding based on measurements and in accordance with the local laws covering X-ray radiation. If there is any doubt as to the adequacy of shielding, an expert in this field should be contacted to perform an X-ray survey of the equipment.

RF Radiation (under 300 MHz):

Personnel must not be exposed to excessive RF radiation and should avoid exposure even at relatively low frequencies. Even though most of the RF energy will pass completely through the human body with little attenuation and heating effect at frequencies below 30 MHz. Public health agencies are concerned with this hazard. Many commercial dielectric heating machines actually operate at frequencies as low as 13 and 27MHz. Proper enclosures and efficient coupling of the RF energy to the load will minimize the hazard.

Disposal:

The disposal of a used (end of life) vacuum capacitor does not require special precautions. The capacitor does not contain any hazardous material.

Warranty

COMET warrants all vacuum capacitors for trouble-free operation within the released technical data and general instructions. Any defect appearing more than 18 months after delivery to the buyer shall be deemed to be due to ordinary wear and tear or otherwise waived. This warranty does not extend to any COMET capacitor which has been subjected to intentional or unintentional misuse, negligence, be it by malfeasance, misfeasance, nonfeasance or abnormal

Conditions of operation on the part of the customer, consumer or their agents, representatives, officers or employees. The buyer's sole remedy under this warranty shall consist of the right to have the seller repair or replace, but not install free of charge FOB factory any defective items received by the seller within the above stated warranty period. It shall be the burden of the buyer to establish proof satisfactory to the seller that the warranty contained herein has been breached. This warranty is in lieu and disclaims all other warranties expressed or implied, including, without limitation, the warranties of merchantability of fitness for a particular purpose. There are no warranties which extend beyond the description herein contained. In no event shall the seller be liable for special or consequential damages or for delay in performance of this warranty.

If the warranty expired or if the analysis will not show any manufacturing, material or handling failure by COMET, COMET reserves the right to charge 200 CHF, 190 EUR, 220 USD or 150 GBP per failure analysis.

Return procedure for warranty claims

Where no obvious or external visible fault exists, make sure the capacitor actually is inoperable before returning it.

1. If the capacitor was obtained from a COMET representative or OEM, it should be returned to them and not to COMET. Be sure to enclose a completed service report.

THIS IS IMPORTANT. CREDIT CANNOT BE ISSUED WITHOUT IT.

2. If the capacitor was purchased directly from the factory, proceed as follows:

Complete the SERVICE REPORT form overleaf, giving all the data asked for and hand it in to COMET Customer Service & Export (csr-pct@comet.ch). Customer Service will issue an RMA number.

ADJUSTMENT/REPLACEMENT IS CONSIDERED ONLY IF THIS COMPLETED REPORT IS RECEIVED WITH THE CAPACITOR.

- a) Pack the capacitor carefully and in the same way it was packaged originally for shipment, preferably using the original materials. The RMA number **MUST** be clearly visible on the packaging. Without the RMA number, the package will not be accepted in the factory.
- b) Ship via **PREPAID Freight (DO NOT SHIP PARCEL POST)** to the factory. The sender and the shipping agency must assume responsibility for damage from improper packing or handling. Any insurance charges for returned goods must be borne by the sender.
3. Customer retains title of material returned for evaluation until COMET acknowledges adjustment/replacement responsibility in writing.
4. If COMET finds the capacitor has been returned without cause and is still serviceable, the customer will be notified and the capacitor returned to him at his expense.
5. If COMET finds that a replacement or credit allowance is in order, the customer will be notified. In the case of a replacement a new capacitor will be shipped prepaid. In the case of credit, the amount will be calculated based on the original charge to the COMET Representative or OEM and can only be issued through them.
6. It is often necessary to dismantle an inoperative capacitor in connection with the failure analysis. In returning a capacitor, the customer grants permission to dismantle at the discretion of COMET.
7. If no fault in workmanship or material is found as the cause of capacitor failure, no warranty adjustment will be made. Such unserviceable capacitors will be scrapped 14 days after notice of evaluation results is sent to the customer. If the customer desires return of an unserviceable capacitor, he should notify COMET within that time and the capacitor will be returned at his expense. If credit is given, or a replacement is made under warranty, the returned item becomes COMET property.

MAKE SURE TO PROVIDE AS MUCH INFORMATION AS POSSIBLE IN THE SERVICE REPORT OVERLEAF!

COMET

Technology with Passion

COMET AG

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