



EDWARDS LIMITED
Innovation Drive,
Burgess Hill,
West Sussex,
RH15 9TW,
UK

Company Name
Company address
Company address
Company address
Company address

Attention: Contact Name
Title

Date: YYYY-MM-DD

Dear Name,

PRODUCT SAFETY NOTIFICATION: PSN-2020-01-001

Customer safety is always Edwards' top priority and for this reason we have issued this Product Safety Notification.

This important notice relates to products you have purchased and requires prompt action on your part. Please forward this notice to your Health and Safety leader or a senior manager to ensure prompt action is taken in respect of the contents of this important communication.

Kindly read the following information carefully and take the actions advised. If you are uncertain about how to proceed please contact your local Edwards representative or contact us using the information provided below.

Problem statement

- Correct scheduled maintenance and periodic overhaul of Edwards turbomolecular pumps (hereinafter called TMP) is important to provide long term reliable operation of the product.
- In certain cases, depending on process tool, process gases and resulting process by-products, such periodic overhauls are also important to ensure continued safe operation of the TMP.
- In a rare number of cases, where sufficient maintenance has not been conducted, contact between process by-product deposits inside the TMP and the pump rotor has resulted in rotor breakage.

Affected products

Turbo molecular pump STP series

edwardsvacuum.com

What you must do

Edwards has always informed the necessity of periodical overhaul through the instruction manual, to guide customers on how to use STP pump correctly to maximise reliability and minimise risk. Although the exact timing is depend on the specific process conditions, below are typical recommendations as a guide for customers.

Process resulting in large amount of process by-product	: every 1 year
No process by-product but corrosive exhaust gas	: every 2 years
Other process	: every 5 years

For safety, rotor blade replacement is recommended for STP pumps used for 5 years or more as part of the overhaul.

Overhaul process conducted by Edwards includes decontamination of process by-product, parts inspection, rotor balancing, safety bearings replacement and pump performance inspection.

Technical information

- Process by-product may have accumulated inside the TMP depending upon the type of process tool and process gases. If periodic overhauls are not conducted then excessive build-up of process by-product inside the TMP may in rare cases lead to a malfunction or the following failure modes:
 - Rotor breakage due to contact of the rotor with the process by-product.
 - Damage of process chamber and valve due to ejected rotor debris.
 - Damage of cooling water lines due to shock from rotor breakage.
- On certain processes, rotor contact with process by-product can lead to chemical reaction between the process by-product and aluminium powder generated from the rotor. This may result in abnormal combustion and sudden pressure increase.
- Damage may be caused not only to the TMP but also the vacuum equipment where the TMP is installed and the surroundings.

If you need help

The intent of this notification is to remind our customers how to ensure optimum performance and maximum safe operating conditions for our STP products. We are here to help deal with any issues raised. If you have any questions whatsoever, please contact:

- *Please enter a named person with specific contact details by each region*
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Yours sincerely,



Paul Neller
VP Engineering Programmes
edwardsvacuum.com



Sara Fry
Head of Safety, Health, Environment for VTBA