

# Maintenance plan for Motor Purge system

Improve safety and reliability of motor & avoid costly issues

#### **ROTATING MACHINES**

GE has manufactured motors and generators for some of the first commercial and industrial electrical applications.

## **ATEX\***

Since 2003, in order to standardize the protection standards for goods and people, all the ATEX rules (Atmospheres Explosives) have been put in place.

Any equipment subject to flammable, explosive, dangerous or polluted materials must comply to these guidelines.



CERTIFICATION\*\* The certification is the attestation proving the respect of the standards (here ATEX). Conducted by independent organizations, this document is realized following a complete audit of the design and manufacturing of our motors, in order to attest the conformity of the product with the applicable standards.

# SERVICES FOR ALL ROTATING MACHINES OF GE NANCY AND RUGBY INSTALLED BASE

GE assures wide range of service and support for all equipment from our installed base throughout their lifetime, including equipment under popularly known GE legacy brands.



# **CONTACT:**

services.powerconversion@ge.com

#### SAFE OPERATION OF MOTOR

Systematic regular maintenance ensures efficient operation and safety environment of the motor .The purge system or automatic leakage compensation system (LCS) is one of the most significant safety components of the motor to protect people and goods against any danger of explosion coming from the motor enclosure.

Motors are sometimes operated in areas exposed to flammable, explosive or even polluted materials. This purge system complies with the mandatory **ATEX** standards as well as the **EN60079 certification** inherent to safety in this type of operating environment.

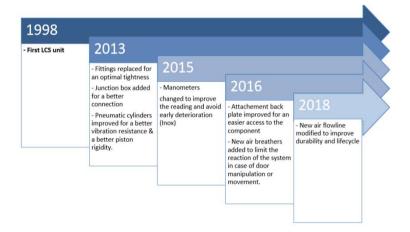
GE's recommended inspection and component replacement schedule helps to reduce critical problems of purge systems, that may arise during the motor operation therefore maintaining system safety.



"Example of a purging unit setup on one of our newest ATEX certified motor"

## **TECHNOLOGY EVOLUTION OF LCS SYSTEM OVER YEARS**

\*Over the last few years purge system has been optimized through major transformations due to technology development.



\*Considering the importance of the motor safety , the highly sensitive purging unit settings requires regular observation and replacement.



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#### **CRITICAL REQUIREMENTS OF PURGE SYSTEM**



#### > SYSTEM SETTINGS

The purge unit is very sensitive and critical to the health of your installation and motor safety. GE recommends its setup and maintenance to be done by one of our qualified field service engineers (with ATEX qualification). The initial setup of this assembly is done directly during manufacturing. Each modification, maintenance or replacement lead to an adjusted setup, affecting, among others, the relief valve which comes as part of this complete assembly.

# > AIR QUALITY

Air quality must be checked on the same basis and air must be dry & clean (without dirt, oil or humidity). Using non-purified air can badly damage the purge system and consequently lead to a complete motor outage. If you have any question regarding this topic, our team will be happy to help you.

### **GE'S MAINTENANCE RECOMMENDATIONS**

#### **LEVEL 1 - MONTHLY CHECK-UP**

(To be performed by Customer)





**Compensation Manometer Reading check** -In normal conditions, compensation manometer must show a pressure of **12mbar**. Any variation of this can be interpreted as functional defect.

Therefore, it's advised to contact GE immediately to reduce any outage.

# LEVEL 2/3 - PURGE SYSTEM INSPECTION AND REPLACEMENT

#### (To be performed by GE)

Over level 1 check-up,
GE should be contacted for executing the global purge
system maintenance plan

Functions	Every 5 Years	Every 7 Years	Every 10 years
Control/Overpressure regulation	Replace	Check	Replace
Pressure measure	Replace	Check	Replace
Purge Timing	Replace	Check	Replace
Regulation pressure	Check	Replace	Check
Control-room feedback	Check	Replace	Check
Safety component	Check	Check	Replace
Others	Check	Check	Replace

**Note:** In some instances, based on system replacement history, it is advisable to replace the complete purge unit instead of replacing individual components.



Parts replacement is strongly recommended to be done by GE services due to the precise adjustment and settings required. Customer can contact us for any technical question and our team will be glad to help and support you.

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