



IECEX certified service facilities scheme



While certification of new Ex equipment is covered by the IECEx certified equipment scheme, the IECEx certified service facilities scheme offers a single international scheme for organizations that provide the repair and overhaul of equipment in compliance with Ex safety standards.

Clarification

Before going any further:

- The IECEx certified equipment scheme is a product certification scheme based on type examination and quality assurance management
- The IECEx certified service facilities scheme is based on quality assurance management and attests that the certified facility or organization has an independently confirmed ability to provide an expected level of service with an appropriate level of competence
- An IECEx certificate for a service facility is NOT any of the following:
 - Certification by IECEx of a particular installation
 - Certification by IECEx of an area classification
 - Certification by IECEx of repaired equipment

Industry has long been concerned with the ongoing compliance of Ex equipment following repairs, overhauls or even minor modifications that are permissible within certification.

Manufacturers producing new Ex equipment in accordance with their Ex equipment certification regime cannot be held responsible for the actions or inactions taken during Ex repair and overhaul.

The IECEx certified service facilities scheme provides Ex equipment users, regulators and the community with the confidence that Ex safety is maintained when Ex equipment is designed, selected, installed, inspected, repaired, overhauled, modified or reclaimed, over and after its working lifespan, by an IECEx certified service facility in accordance with this scheme.

The IECEx certified service facilities scheme assesses and certifies that organizations and workshops that provide Ex equipment selection, design, installation, inspection, maintenance, repair, overhaul and reclamation services to the Ex industry, do so in accordance with the requirements of the following IEC International Standards: the IEC 60079-10 series, IEC 60079-14, IEC 60079-17 and IEC 60079-19.

These standards deal with specific aspects:

- IEC 60079-10-1 and IEC 60079-10-2: area classification
- IEC 60079-14: installation design and selection of equipment
- IEC 60079-14: installation and erection (on site)
- IEC 60079-14: initial inspection
- IEC 60079-17: visual, close, detailed inspection and maintenance
- IEC 60079-19: repair, overhaul and reclamation

The requirements of these standards are intended to ensure that explosion protection features designed and built into the Ex equipment are not compromised during any selection, design, installation, inspection, maintenance, repair, overhaul or reclamation processes.

Ex service facilities that achieve IECEx certification are required to demonstrate compliance with stringent IECEx requirements regarding:

- IECEx rules of procedure and operational documents that have been prepared by representatives of other service facilities and their customers



- Effective implementation and ongoing operation of an ISO 9001 quality management system
- The need to possess and maintain in operating conditions necessary facilities and equipment including test equipment and traceability of measurements
- Competent personnel with current competences related to Ex equipment standards, technologies, techniques and certification requirements. The staff of a service provider is a key factor in its capability. While an IECEx certified service facility is not obliged to employ holders of an IECEx certificate of personnel competence (CoPC) as a means of demonstrating staff competence, the advantages of doing so are obvious

Ongoing audits

The key element of the IECEx certified service facilities scheme is initial and periodic audits by an IECEx certification body that has been accepted and authorized to issue IECEx certificates to service facilities. The purpose of these management system audits is to ensure that services offered and delivered under the banner of IECEx certification always

continue to comply with IECEx requirements and those of the relevant IEC International Standards. The outcomes of these audits are published as an IECEx facility assessment report (IECEx FAR) along with the IECEx certified service facility certificate that the IECEx FAR supports. These are freely and permanently available for searching and viewing on the IECEx website.

In noting the long-standing IECEx objective of an international certification model that provides a single assessment and certification process adopted worldwide, extension of this approach to the Ex service sector provides the following benefits:

- A single certification process applied worldwide
- Cost savings by preventing development and maintenance of multiple systems at national levels
- Access to all certificates via the IECEx online certificate system
- A scheme managed and maintained by industry

An IECEx certificate benefits service facilities and provides them with many opportunities. It is like a badge of honour, publicly and freely available, that has meaning for the



market. The certificate is evidence that the facilities' system and practices have been independently assessed and confirmed as meeting the requirements of international standards specific to the specialized services they provide. Similarly, customers and users of these services have a means of sourcing and checking the capabilities of prospective suppliers of services. They can be confident that they make a correct and informed decision that can have a significant impact on the ongoing safety of their plant, equipment and personnel.

Manufacturers themselves see benefits in using the IECEx certified service facilities. Take the Ex motor repair and overhaul area for instance. An Ex motor manufacturer will take comfort in the knowledge that the service facility it uses is covered by independent certification complying with IEC 60079-19, a standard that contains specific technical requirements for a repair workshop seeking to gain acceptance as a manufacturer's authorized service agent.

You need to find a service provider (e.g. repair workshop)

All organizations certified by IECEx to provide Ex services are listed on the IECEx website and searchable via a range or combination of search criteria.

You are a service provider (e.g. repair workshop) and want to achieve IECEx certification for your services – how do you begin and what do you need to do?

As a starting point we recommend reading guide IECEx 03A and, once the process is clear, you can contact any of the IECEx certification bodies listed on the IECEx website.

You are NOT a service provider but you may want to know why a certification system for service facilities is needed

This is a very valid question. Like all IECEx schemes and activities, there must be a demonstrated need from industry to gain IEC approval in order to proceed and obtain ongoing support from IEC, the owner of the IECEx System, of which the IECEx certified service facilities scheme is one element.

Also, it needs to be understood that the publication of a standard does not ensure compliance. A standard merely provides the industry with an agreed technical specification based on the collective expertise of the IEC technical committee that writes and maintains the standard.





So perhaps the answer to the first question is a question itself: How do Ex equipment owners ensure that a service facility is conducting their operations in accordance with the requirements of the relevant standard(s)?

Equipment owners themselves could carry out a second-party assessment of the service facility but does the equipment owner have:

- the resources to undertake such assessments and the monitoring of repairers?
- the technical knowledge and understanding for such a task?
- the desire to do so, in the knowledge that they then carry all associated liabilities?

As an example, IEC 60079-19 has strict requirements for the replacement of components associated with Ex equipment protected by the intrinsic safety protection technique, and the rewinding of Ex motors and the special requirements applicable to the windings associated with Ex 'e' motors, given the nature of the Ex 'e' concept.



Information about IECEx



IECEx certificates/reports



IECEx certified service facilities scheme –
Approved ExCBs



IECEx 03A, *Guidance for applications from
service facilities seeking IECEx certification*



IEC 60079 series

About the IEC

Key figures

173

members and affiliates

>200

technical committees

20 000

experts from industry, test and research labs, government, academia and consumer groups

>10 000

international standards published

4

global conformity assessment systems

>1 million

conformity assessment certificates issued

>100

years of expertise

The IEC, headquartered in Geneva, Switzerland, is the world's leading publisher of international standards for electrical and electronic technologies. It is a global, independent, not-for-profit, membership organization (funded by membership fees and sales). The IEC includes 173 countries that represent 99% of world population and energy generation.

The IEC provides a worldwide, neutral and independent platform where 20 000 experts from the private and public sectors cooperate to develop state-of-the-art, globally relevant IEC International Standards. These form the basis for testing and certification, and support economic development, protecting people and the environment.

IEC work impacts around 20% of global trade (in value) and looks at aspects such as safety, interoperability, performance and other essential requirements for a vast range of technology areas, including energy, manufacturing, transportation, healthcare, homes, buildings or cities.

The IEC administers four conformity assessment systems and provides a standardized approach to the testing and certification of components, products, systems, as well as the competence of persons.

IEC work is essential for safety, quality and risk management. It helps make cities smarter, supports universal energy access and improves energy efficiency of devices and systems. It allows industry to consistently build better products, helps governments ensure long-term viability of infrastructure investments and reassures investors and insurers.



A global network of 173 countries that covers 99% of world population and electricity generation



Offers an affiliate country programme to encourage developing countries to get involved in the IEC free of charge



Develops international standards and runs four conformity assessment systems to verify that electronic and electrical products work safely and as they are intended to



IEC International Standards represent a global consensus of state-of-the-art know-how and expertise



A not-for-profit organization enabling global trade and universal electricity access

Further information

For further information, please visit the IEC website at www.iec.ch. In the “Who we are” section, you can contact your local IEC National Committee directly. Alternatively, please contact the IEC Central Office in Geneva, Switzerland or the nearest IEC Regional Centre.

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