

Shelter Solutions

Space and protection for measurement and analysis technology

Ready for more stringent flue gas monitoring

- High availability, long service life and minimal maintenance requirements of the installed technology
- Ex-version shelters also enable the use of non-ex-analyzer systems in explosion-hazardous areas
- CSC certification enables low-cost transport on shelter ships
- Minimized risk of transport damage to the measurement and analysis technology
- Quick installation as only the shelter needs to be connected
- Easy access to mounting plates and racks facilitates maintenance work



Shelter solutions for harsh environments

In industrial environments, finding the right installation site for a gas analysis system is often no easy task. In addition to the space issue, the ambient conditions also play an important role. Heat, cold, rain and dirt in addition to corrosive or explosive atmospheres and the risk of mechanical

damage from vehicles or earthquakes all must be taken into account. Containers are the perfect solution here. Properly equipped, they ensure high availability and a long service life of the measurement and analysis technology.

Modular multi-talents

From power plants and waste incineration plants to the cement and steel industries and process plants in chemicals, petrochemicals, and refineries, both emission measurements and process analytics play an important role for many industries. As diverse as the industries, plants, processes and regionally specific rules are, the requirements for the respective measurement technology and its housing are just as varied.

The different container types

Endress+Hauser distinguishes between three types of container:

- **shipping container**, in which a standard container is permanently installed and can therefore be transported cost-effectively and safely by ship thanks to its ISO standard dimensions and CSC-certificates.
 - **analyzer shelter** with standard dimensions of 10 to 40 feet.
 - **special shelter**, which can be designed on request with special dimensions or with an explosion-proof, fireproof, earthquake-proof or corrosion-resistant design, or for particularly high wind, dust, or snow loads.



Many advantages

Each container is unique. Each order is handled individually. The resulting requirements and solutions are as varied as the reasons for choosing a shelter solution. In addition to

protection against environmental influences, shelter solutions also offer other advantages for the customer and for measurement operations.

Extensive knowledge and product expertise due to customized equipment

When planning a container project, our experts provide their extensive industry knowledge and product expertise to find the best individualized solution for the customer. The installation of transformers and UPS, extinguishing, climate and gas warning systems is possible, as is the implementation of sample point switching or complex redundancy and signal concepts.

Easy to install and commission using pre-installed technology

All components are pre-installed, interconnected and tested at the factory so only the container as a whole needs to be connected on-site. This makes commissioning much easier, especially for systems with extensive sample preparation or complex redundancy and signal concepts. This saves time and money.

Safe and convenient transport – turnkey solutions

Endress+Hauser delivers all containers as turnkey solutions as standard. The risk of transport damage is reduced because fewer individual packages have to be shipped and assembled on-site.

Consistently ideal work conditions for safe environment

Not only the technology, but also the people performing maintenance work or upgrades are protected from environmental influences in the container. This makes their work safer, and in some cases makes maintenance possible in the first place.

Very high availability because of our services

As a provider of complete solutions, we offer numerous services at the customer site and also remotely to ensure the reliability and operational readiness of our systems at all times. Worldwide and for any industry.



Expansion options using the example of an analyzer shelter

The customer can choose from numerous components and systems that can be integrated into the container according to specific requirements. Whether these are analyzer systems and laboratories, computer workstations or washbasins:

The possibilities are nearly endless. Individualized requirements can also be implemented outside the container. Special paints, windows, a covered access point – Endress+Hauser enables the highest level of flexibility.

Gas bottle cabinet

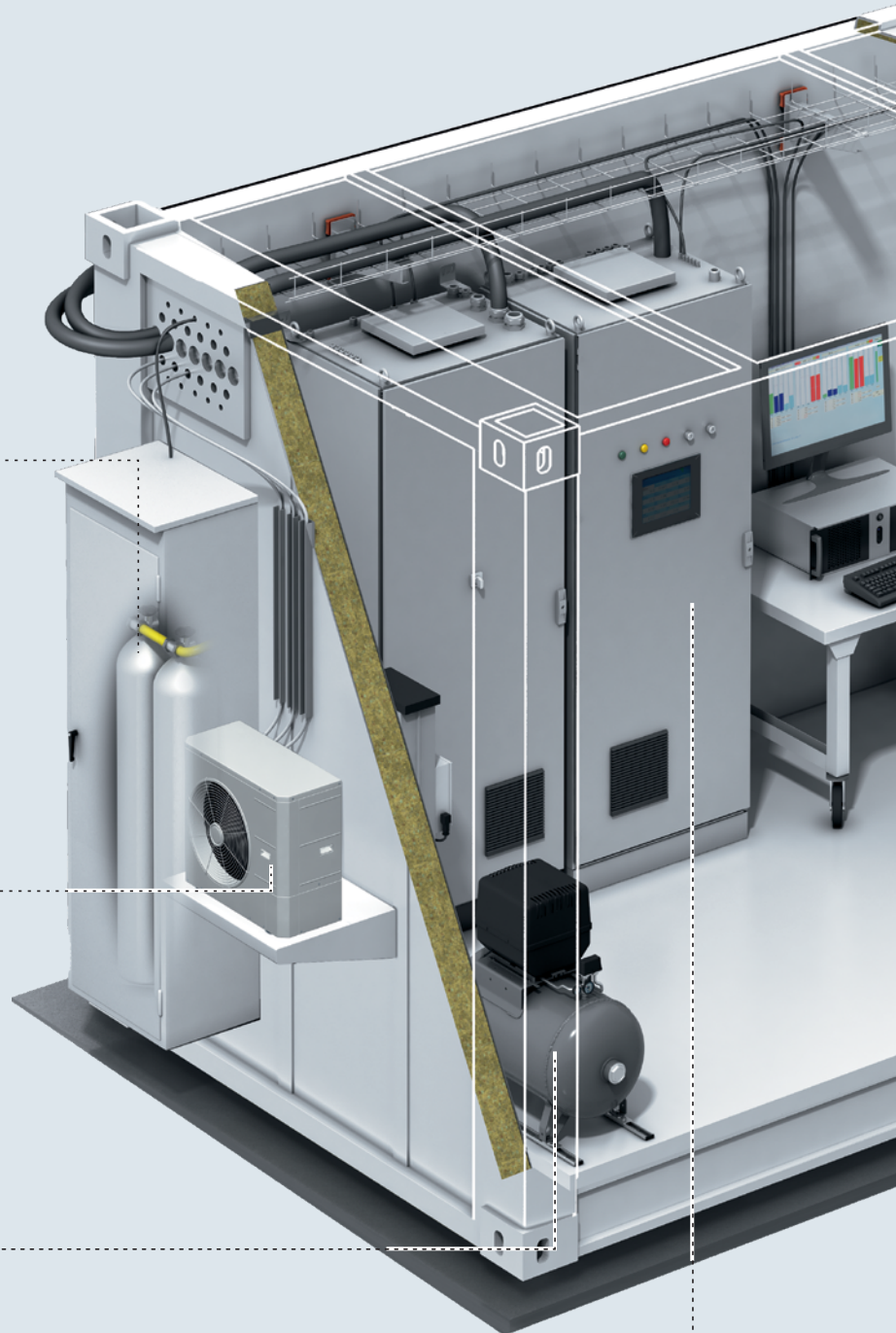
- Steel cabinet
- Grid cabinet
- Simple rack
- Release station
- Leak monitoring

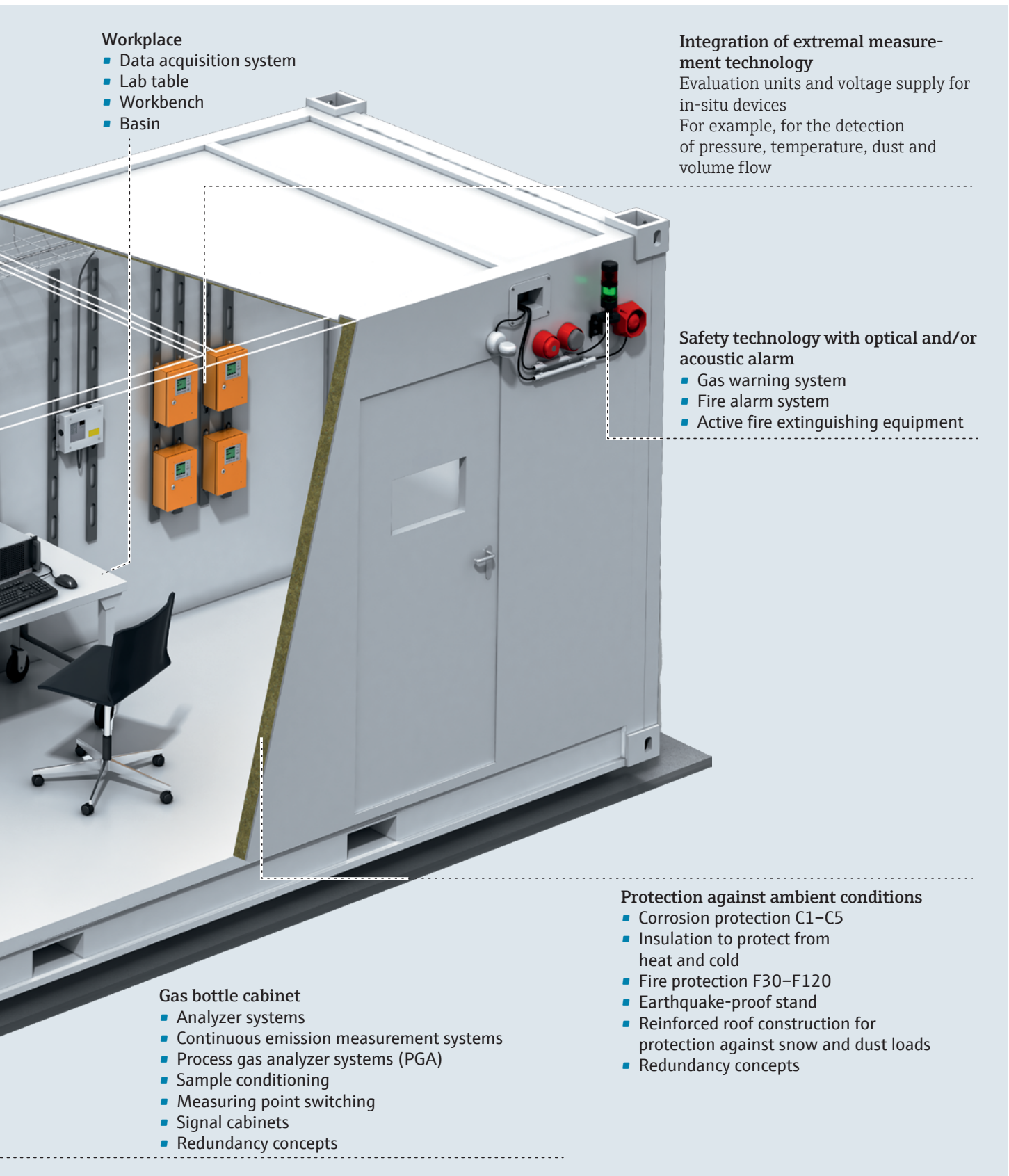
Heating, air conditioning, ventilation

- Defined air exchange rates
- Cooling and/or heating
- HVACs as well as ex-variants
- Redundant design possible

Gas bottle cabinet

- Steel cabinet
- Grid cabinet
- Simple rack
- Release station
- Leak monitoring



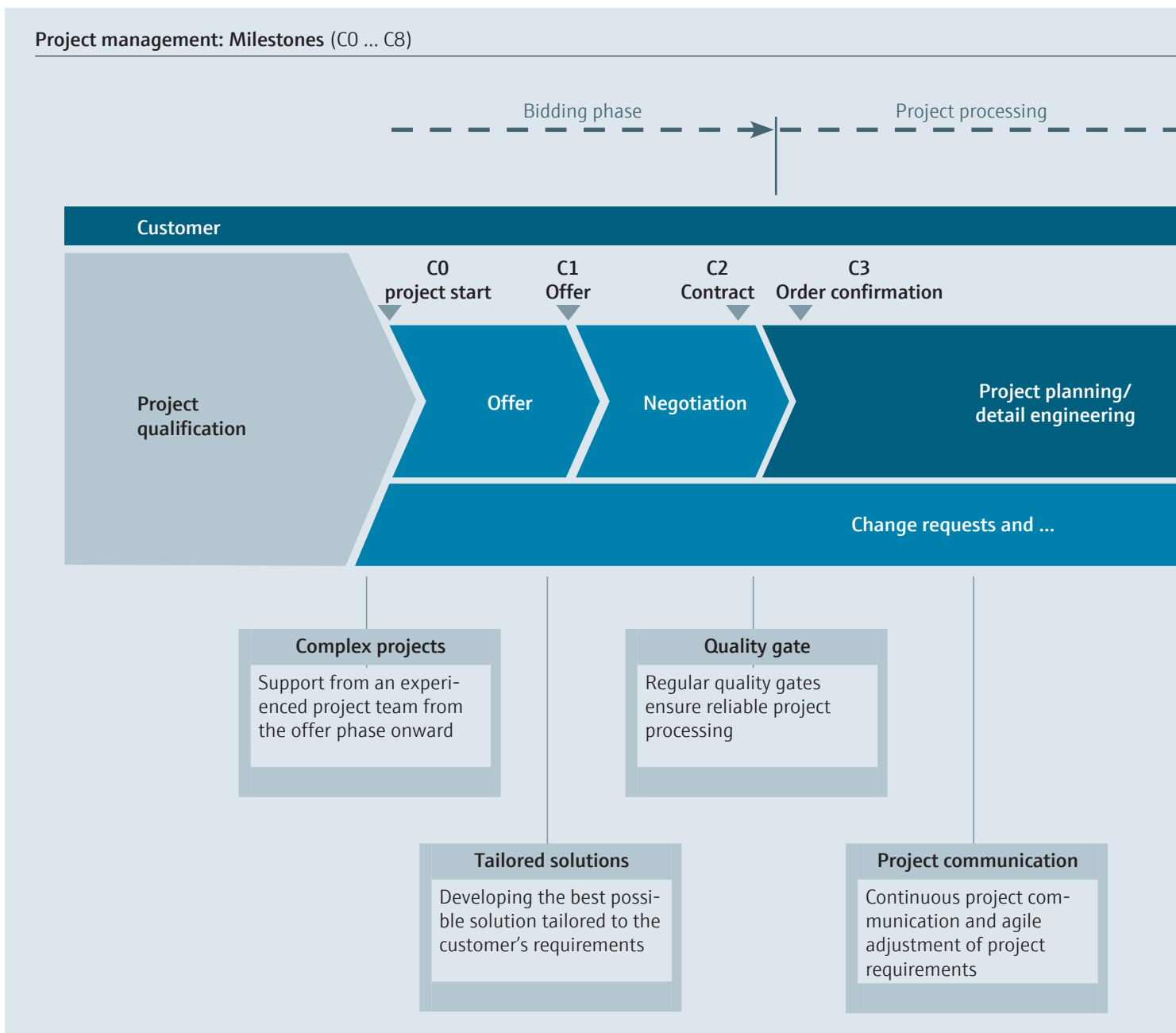


Customer project management

Our international project teams supply customized solutions around the world.

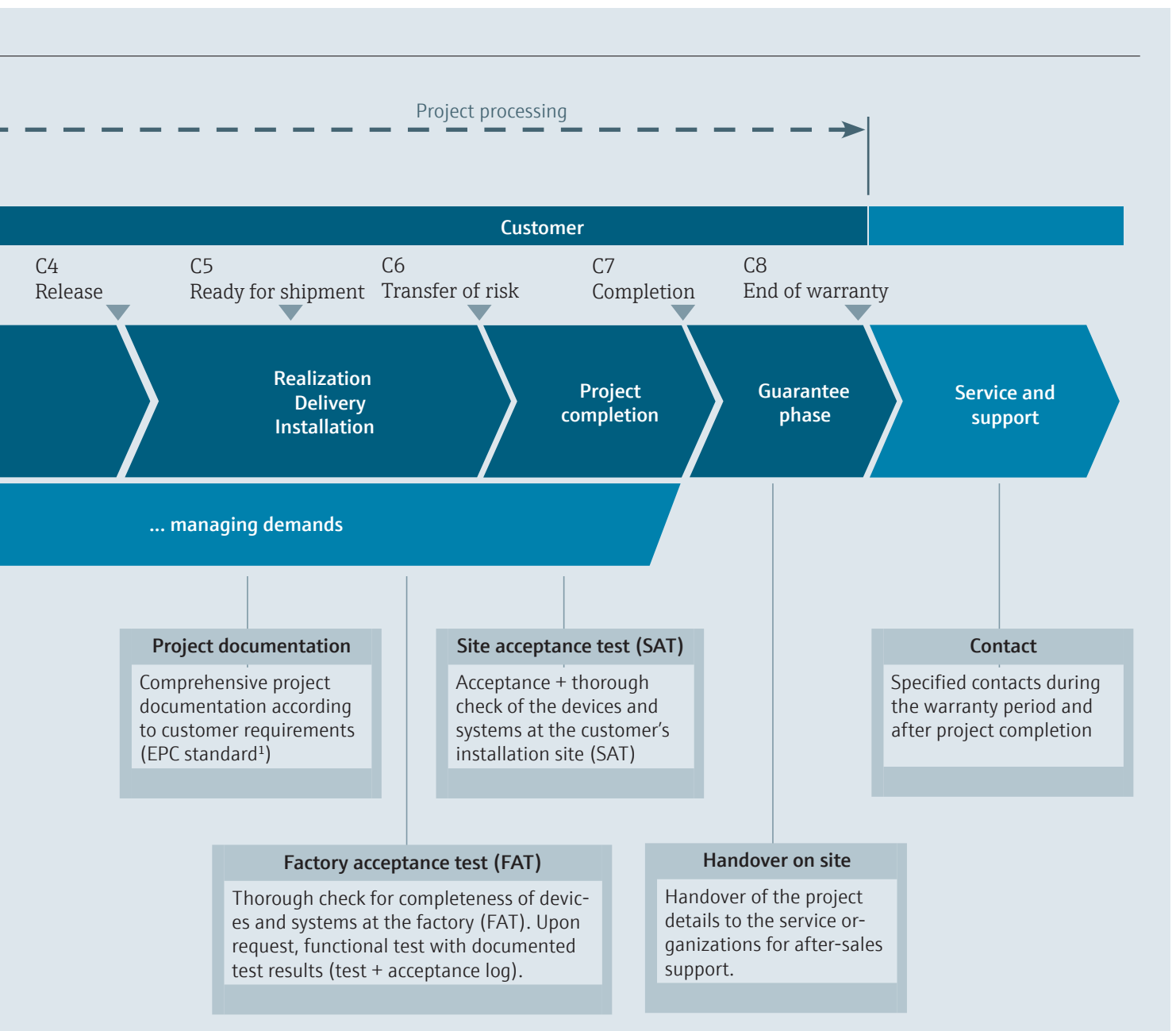
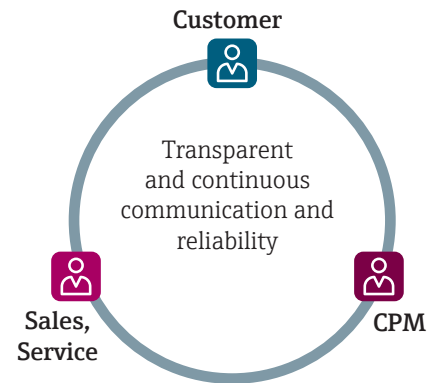
In order to ensure that the best possible solution is provided for complex customer requirements, we focus on project management activities. Based on internationally recognized management methods and years of expert experience, Endress+Hauser offers a standardized procedure (Customer Project Management, CPM) for processing customer projects, even on an international level.

We provide experienced project managers to ensure a successful and efficient project process. They ensure a better understanding and implementation of the customer requirements. From evaluating the requirements to realizing and completing the project: Our project managers use their extensive expertise to support the respective measures and customers throughout the entire project process.



Our strengths – your benefits

- **Our strength**
International project teams with many years of project experience in a global network
- **Our goal**
Professional advice and responsible processing throughout the entire project
- **Your advantage**
From the first contact to the fulfillment of all project goals – SICK as a professional end-to-end partner



Shelter Solutions: Space and protection for measurement and analysis technology



Product Description

Shelter solutions are primarily used to protect the installed analyzer systems from extreme ambient conditions such as heat, cold, dust, wind, earthquakes and corrosive or explosive atmospheres. They also offer advantages for transport as well as on-site installation and maintenance. At the factory, everything is coordinated and

pre-installed in the shelter in a clear manner. Each shelter can be equipped to fit individual customer requirements. The installation of transformers and UPS, extinguishing, climate and gas warning systems is possible, as is the implementation of sample point switching or complex redundancy and signal concepts.

At a glance

- Heating/Cooling/Ventilation (redundant on req.)
- Standard shelter, 10 to 40 ft
- Insulation and high-quality paint (C5)
- Fire alarm and fire extinguishers available
- CSC certificate for standard dimensions
- Suitable for ATEX zones
- Earthquake-safe and fireproof types available (F30, F60)
- Special constructions

Your benefits

- High availability, long service life and minimal maintenance requirements of the installed technology thanks to the protection from adverse ambient conditions
- Ex-version shelters also enable the use of non-ex-analyzer systems in explosion-hazardous areas
- CSC certification enables low-cost transport on shelter ships and does away with the need for seaworthy packaging
- Minimized risk of transport damage to the measurement and analysis technology
- Quick installation as only the shelter needs to be connected
- Easy access to mounting plates and racks facilitates maintenance work

Fields of application

- Protection of measurement and analysis technology from extreme ambient conditions in the field of process gas analysis and emission monitoring



More Information online

For more information, enter the link or scan the QR code to get direct access to technical data, operating instructions, software, application examples, and much more.

www.endress.com/shelter-solutions



Technical data

The precise device specifications and product performance data may vary and are dependent on the respective application and customer specifications.

Shelter solutions:

Description	Analyzer shelter	Shipping container	Special container
	Analyzer shelters are the ideal solution for making space for measurements in harsh environments without disturbing influences. Due to their standard dimensions, transport by truck is ideal.	The shipping containers feature an internal technical or analyzer shelter. Thanks to their ISO standard dimensions and GIC certification, they can be transported by ship and used worldwide.	Some environments require individual solutions. Whether for earthquake protection, explosion and fire protection or special dimensions: SICK also develops customized individual solutions for special requirements.
Size	Customized	ISO-Container (8' x 10' / 20' / 40')	Customized
Conformities			
GIC certification	–	✓	–
Ex (ATEX, IEX-Ex, NEC)	–	–	✓
Earthquake-proof type	✓	–	✓
Fireproof type	–	–	✓ (F30, F60)

Order Information

Our regional sales organization will be glad to advise you on which device configuration is best for you.

All continuous emission monitoring systems (CEMS), process gas analyzer systems (PGA) and liquid analysis systems can be ordered combined and on request for all shelter types.

www.addresses.endress.com

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