



## ADD-ON

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### **ELECTRONIC PRODUCT RELEASE**

#### **DESCRIPTION**

Medical gases are an important part of the gas industry and subject to strict directives in production, motoring and sales.

CRYO.TAS can be expanded by the add-on module for electronic product release, to make the process of release by qualified persons (QP) independent in time and location.

You may define any number of release steps and responsible persons within the system.

After a batch analysis of the product in the storage tank, CRYO.TAS will inform the responsible persons about creation of a batch by email. The WEB operating interface enables these persons to connect from any location after successfully signing in, to process the respective release step. Only when all release steps have been confirmed in the specified sequence will the corresponding batch protocol be created. The product will now be available for loading.

Every release step is documented seamlessly and GMP-compliantly in the respective release registers together with the results. This documentation also comprises possible OOS-results.

The electronic release is available for the different execution types. Whether batch creation takes place in a batch tank or only after loading on the tank vehicle is irrelevant for this.

The electronic product release for the medical gases can also be used for other special products.

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#### **BENEFITS**

- Automatic information of the responsible persons (QP)
- Free specification of the required release steps and the sequence according to the works specifications
- Assignment of several responsible persons to one release step (representation)

- Use of mobile end devices for the release of medical batches
- Seamless GMP-compliant documentation of all processes
- Recording of all results in release registers
- Recording of the possible OOS-results
- Location- and time-independent release of medical batches
- Can be used for batch creation in storage tanks, batch tanks or tank vehicles
- Electronic 4-eye principle
- Maximum process safety

## EXAMPLE: RELEASE IN A TANK VEHICLE

The screenshot displays the 'Release container' interface in the CRYO.TAS Master System. The main table lists release containers with columns for Factory, Reserv.code, Load date, Container no., License plate, Product group, Product, Active, First customer, Batch number, Driver, Filling place, only analysis, ODS, Attachment, Modified, and Editor. A specific batch is highlighted with a yellow background.

Below the main table, there is a section for 'Analysis results of the batch' with columns for Time stamp, Procedure No., Chem. symb., Operator, Analysis limit, Value, and Unit. This section shows analysis results for CO<sub>2</sub> and CO levels.

Another section shows 'Released and confirmed release step' with columns for Step, Person for approval, Procedure No., is approved, is acknowledged, Modified, and Editor. The first step is marked as approved and acknowledged.

Annotations on the screenshot include:
 

- 'Batch to be released from a load' pointing to the highlighted row in the main table.
- 'Analysis results of the batch' pointing to the analysis results table.
- 'Released and confirmed release step' pointing to the first row in the release steps table.
- 'Pending release steps' pointing to the first row in the release steps table.

### Function description

After loading an active substance in a tank vehicle, CRYO.TAS will automatically analyse the tank content, create a batch record and a batch to be released.

Then the persons from the release steps are automatically informed about this release request by email.

The releases can only be performed in the specified sequence.

If several persons have the right to release a step (same step number), only one person is required for the release.

The respective person must log in separately for each release step. The operating elements for release or rejection will only

be available after login.

After successful confirmation of the last release step, CRYO.TAS will create a release number. If the system is configured accordingly, a release record will be created for the finished medical product. Depending on system design, the data can be passed on to third-party systems.

Only then will the tank vehicle receive the transport or unloading release for the customer's tank.

If a release step is confirmed but not released, the reasons must be entered in the comment field. This entry will be documented as an OOS result in the system.

Past releases are archived in a release register.

## EXAMPLE: RELEASE IN A BATCH TANK

### Function description

Generally, the actual release process in a batch tank is identical to the procedure described for tank vehicles before.

Deviating from this, however, the finished medical product is created after completion of the release steps in the batch tank with this method. Loading into the tank vehicle takes place without requiring any further release steps. The prerequisite is the presence of a valid batch.

If a valve at this batch tank is opened without authorisation, the batch in the tank is automatically rendered invalid and can no longer be loaded. A new batch must be created. This process is automated as well. The tank is analysed for new creation of a batch after filling. When all thresholds are complied with, the active substance record and a new release will be created.

The releases for the batch tank can only be performed in the specified sequence.

If several persons have the right to release

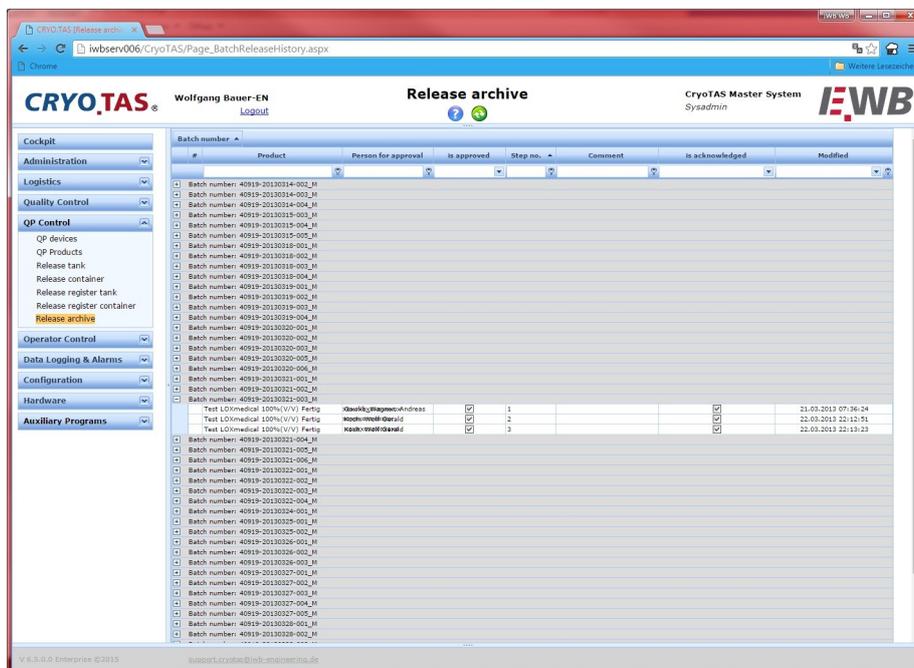
a step (same step number), only one person is required for the release.

The respective person must log in separately for each release step. The operating elements for release or rejection will only be available after login.

After successful confirmation of the last release step, CRYO.TAS will create a release record. Depending on system design, the data can be passed on to third-party systems.

If the release is confirmed in a release step but not released, the reasons must be entered in the comment field. This entry will be documented as an OOS result in the system.

## APPROVAL ARCHIVE



The screenshot displays the 'Release archive' interface in the CRYO.TAS Master System. The interface includes a navigation menu on the left with categories like Cockpit, Administration, Logistics, Quality Control, QP Control, Operator Control, Data Logging & Alarms, Configuration, Hardware, and Auxiliary Programs. The main area shows a table of release records with columns for Batch number, Product, Person for approval, Is approved, Step no., Comment, Is acknowledged, and Modified. The table lists numerous batch numbers and their corresponding products, with some entries showing approval status and dates.

#	Product	Person for approval	Is approved	Step no.	Comment	Is acknowledged	Modified
	Batch number: 40919-20130324-002_M						
	Batch number: 40919-20130314-003_M						
	Batch number: 40919-20130314-004_M						
	Batch number: 40919-20130315-001_M						
	Batch number: 40919-20130315-004_M						
	Batch number: 40919-20130315-005_M						
	Batch number: 40919-20130318-001_M						
	Batch number: 40919-20130318-002_M						
	Batch number: 40919-20130318-003_M						
	Batch number: 40919-20130318-004_M						
	Batch number: 40919-20130319-001_M						
	Batch number: 40919-20130319-002_M						
	Batch number: 40919-20130319-003_M						
	Batch number: 40919-20130319-004_M						
	Batch number: 40919-20130320-001_M						
	Batch number: 40919-20130320-002_M						
	Batch number: 40919-20130320-003_M						
	Batch number: 40919-20130320-005_M						
	Batch number: 40919-20130320-006_M						
	Batch number: 40919-20130322-001_M						
	Batch number: 40919-20130322-002_M						
	Batch number: 40919-20130322-003_M						
	Test LO(medical 100% V/V) Fertig	ibawilg@tagpac.ch	1				21.03.2013 07:36:24
	Test LO(medical 100% V/V) Fertig	nsch@vmsll.ch	2				22.03.2013 12:12:51
	Test LO(medical 100% V/V) Fertig	nsch@vmsll.ch	3				22.03.2013 12:13:23
	Batch number: 40919-20130323-004_M						
	Batch number: 40919-20130322-005_M						
	Batch number: 40919-20130322-006_M						
	Batch number: 40919-20130322-007_M						
	Batch number: 40919-20130322-008_M						
	Batch number: 40919-20130324-001_M						
	Batch number: 40919-20130324-002_M						
	Batch number: 40919-20130324-003_M						
	Batch number: 40919-20130324-004_M						
	Batch number: 40919-20130324-005_M						
	Batch number: 40919-20130324-006_M						
	Batch number: 40919-20130324-007_M						
	Batch number: 40919-20130324-008_M						
	Batch number: 40919-20130327-001_M						
	Batch number: 40919-20130327-002_M						
	Batch number: 40919-20130327-003_M						
	Batch number: 40919-20130327-004_M						
	Batch number: 40919-20130327-005_M						
	Batch number: 40919-20130328-001_M						
	Batch number: 40919-20130328-002_M						

Past releases are filed in the release archive in the system.

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## CRYO.TAS THE OVERALL CONCEPT

### Tank-Management

- Product availability monitoring
- Lock and unlock of products
- Batch creation
- Special functions for medical- and food-products
- Calculation of loaded quantities

### Analysis

- Automated gas path switching
- Test equipment- and calibration gas monitoring
- Auto-calibration
- Locking and unlocking of test equipment
- Connectivity to a wide range of sample point types (e.g. pipeline)

### Entrance

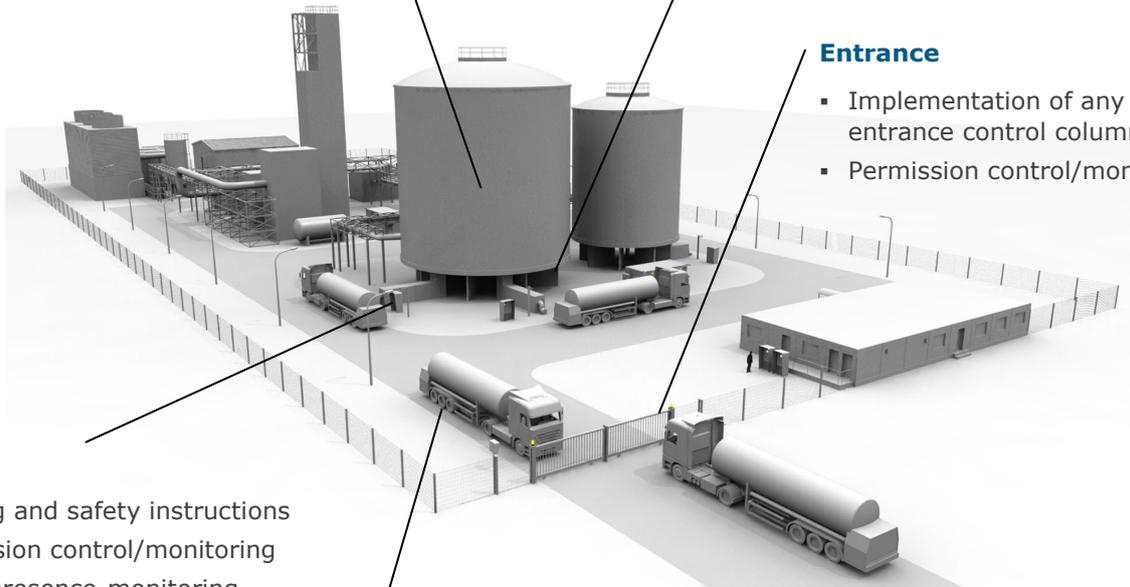
- Implementation of any number of entrance control columns
- Permission control/monitoring

### Loading

- Loading and safety instructions
- Permission control/monitoring
- Force-presence-monitoring
- Quality assurance/analysis
- Blending functionality
- Off-loading
- Special functions for medical products
- Control of all field devices

### SCALE.TAS

- Usage of any number of weigh bridges
- Free usage of entry- or exit weigh bridge, or both
- Creation of loading/transportation documents
- Quota control



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## INFORMATION

Would you like more information about the CRYO.TAS system? On the Internet you always get the latest information, or contact us directly. We are always ready to show you the performance of the system in a live presentation.

Simply contact:

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