SUPPLY LINE

Makes containers smart and chemical handling safe.

GERMAN INNOVATION AWARD '22 WINNER

14072022

Smart Solutions
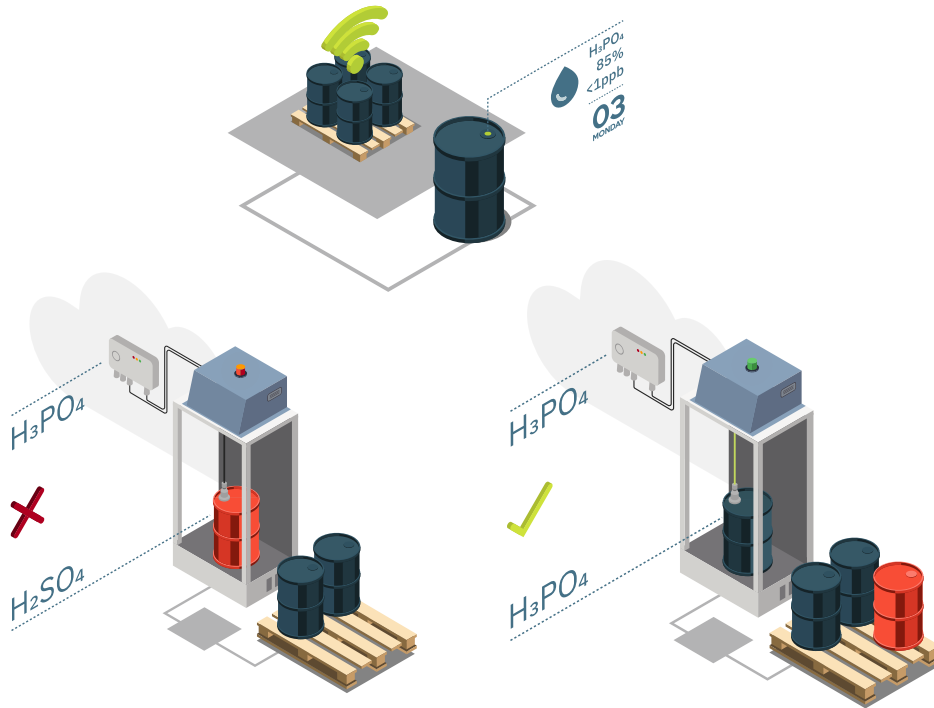
For Suppliers

→ Story

and

For Customers

→ Story

Twice the Safety
without additional effort - completely automatically

RFID Chip
Dip tubes digitally pre-coded by AS

+Test Scan

AS assigns a digital chemical key code to all dip tubes in addition to the mechanical coding.

H_3PO_4

H_2SO_4 Digital Key-Code
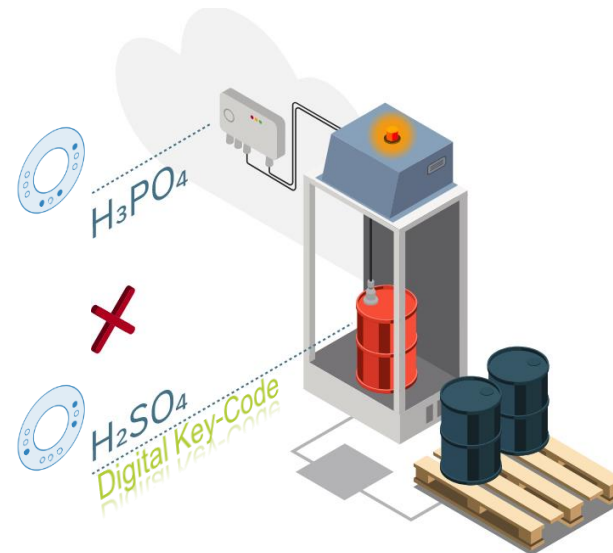
Prevents accidents automatically
for Suppliers and End Customers

The advantage of RFID dip tubes: The chemical code can be checked at any time at filling or dispensing stations - at the supplier's as well as the end customer's premises, independently of each other and regardless of who in the supply chain is already working with SupplyLine!

Chemical, Batch and Container-Data
simply added

Chemical, Batch and Container-Data
simply added

Dip Tube Details

Data | History

RFID-Chip
01001F000010DE73

Dip Tube Lifetime
10/2022

Chemical
BRAND® Sulfuric Acid 98% / SLSI / Customer 1

Batch no.
230622A

Installed

Container

Container S/N
123456

Container Inspection
08/2022

Container Lifetime
02/2024

Chemical
individually added
including Concentration,
Quality, Customer / Supplier

Batch
manually or automatically
assigned during filling

Container Serial no.
added via barcode

Container Lifetime
visual feedback

Prevents Accidents
during filling and emptying

Plant Control

3. Release
Switches
a contact
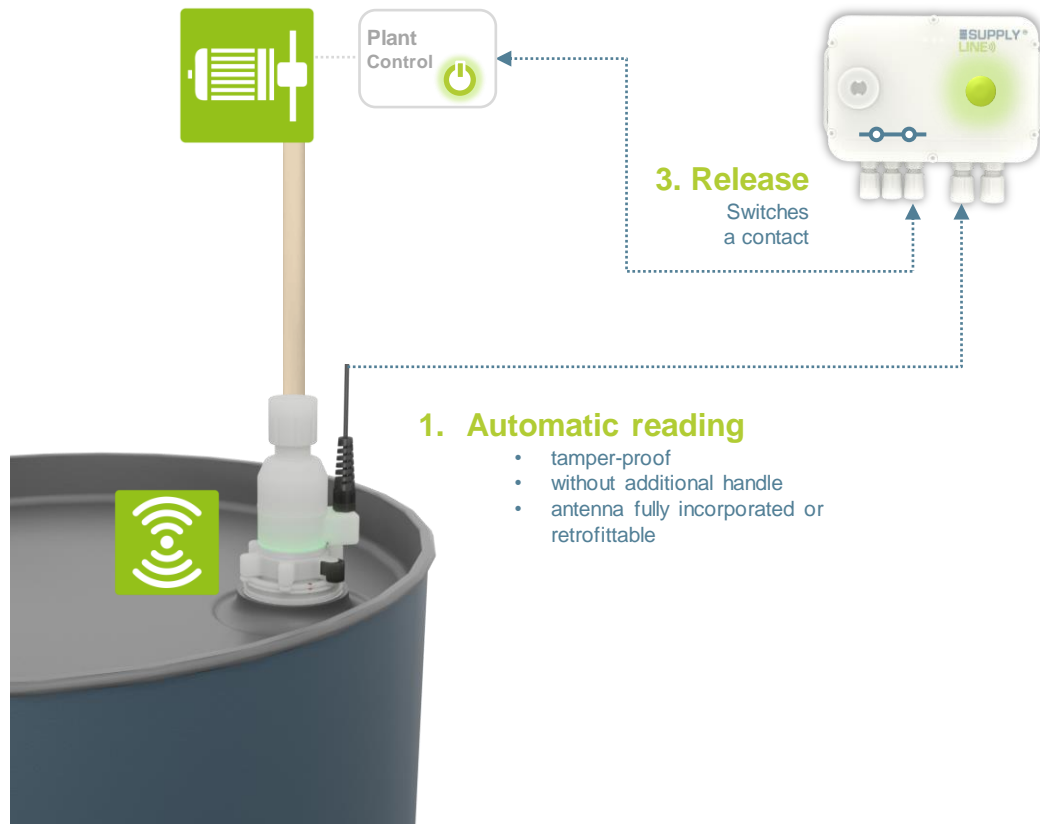
2. Real time verification

✓ **Chemical / Quality / Concentration / Customer / Supplier**
if container and station match

✓ **Container lifetime and inspection date**
are not exceeded (during filling)

✓ **Chemical Batch**
can automatically be assigned and documented

1. Automatic reading
- tamper-proof
- without additional handle
- antenna fully incorporated or retrofittable

* The Gateway does not exchange any data with the local plant control system and is therefore as easy to integrate as a standard sensor or switch.

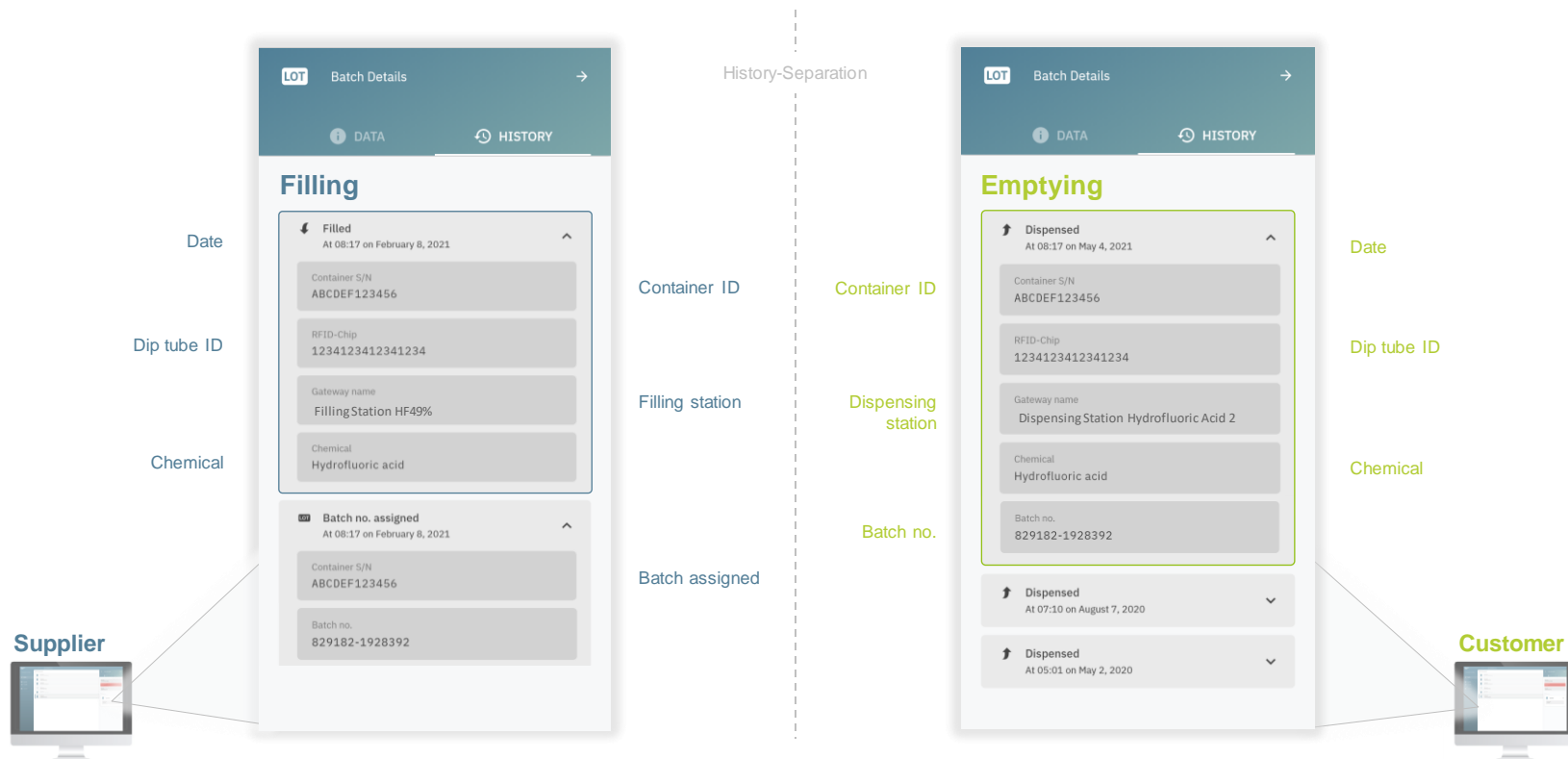# Prevents Accidents
during filling and emptying

Plant Control ⏻

Filling / dispensing can <u>not</u> be started

3. No Release

2. Real time verification

✔ **Chemical / Quality / Concentration / Customer**
if container and station match

✘ **Container lifetime and inspection date**
are exceeded

✔ **Chemical Batch**
can automatically be assigned and documented

1. Automatic reading
- tamper-proof
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* The Gateway does not exchange any data with the local plant control system and is therefore as easy to integrate as a standard sensor or switch.

Automatic Documentation
100% traceable

History-Separation

Filling

	Filled
	At 08:17 on February 8, 2021

Container S/N
ABCDEF123456

RFID-Chip
1234123412341234

Gateway name
Filling Station HF49%

Chemical
Hydrofluoric acid

	Batch no. assigned
	At 08:17 on February 8, 2021

Container S/N
ABCDEF123456

Batch no.
829182-1928392

Emptying

	Dispensed
	At 08:17 on May 4, 2021

Container S/N
ABCDEF123456

RFID-Chip
1234123412341234

Gateway name
Dispensing Station Hydrofluoric Acid 2

Chemical
Hydrofluoric acid

Batch no.
829182-1928392

	Dispensed
	At 07:10 on August 7, 2020

	Dispensed
	At 05:01 on May 2, 2020

Date — Container ID — Container ID — Date

Dip tube ID — Filling station — Dispensing station — Dip tube ID

Chemical — Batch assigned — Batch no. — Chemical

Supplier

Customer

* Only you have access to the history events you record.
You can determine yourself whether the history feature should be activated for your account.

Dip tube and Container History
for Suppliers

Number of fillings

How often was my container filled?

Installation date dip tube

Since when is my dip tube installed?

Time in chemical contact

How long was my container filled?

Dip tube change

In which containers was my dip tube installed?

Dip Tube Details

Data | History

Times refilled: 7 fillings
Chemical contact: 44 days
Dip tube Installed: 94 days

Dip tube installed
At 19:04 on June 23, 2022

Container S/N
123456

Dip tube removed
At 12:00 on June 24, 2022

Dip tube installed
At 12:00 on June 24, 2022
68 days

* Only you have access to the history events you record.
You can determine yourself whether the history feature should be activated for your account.

Dip Tube and Container Overview
for Suppliers

- Forecast how many containers and dip tubes will expire soon
- Timely replacement
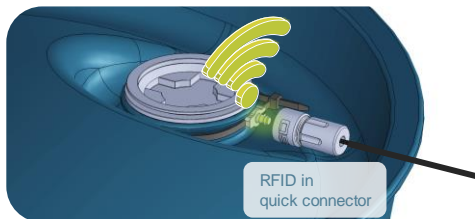- 100% traceability for each dip tube and container

Works with all Containers
even without dip tube

Fully incorporated
in dip tube

Seperately
attached to container

Retrofitted
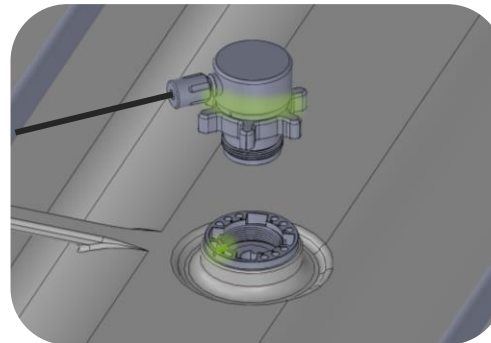to tank quick connect

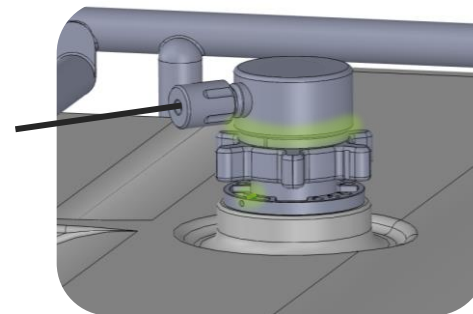RFID in quick connector

SUPPLY LINE

Existing Fill / Dispense Heads
RFID Antenna to retrofit
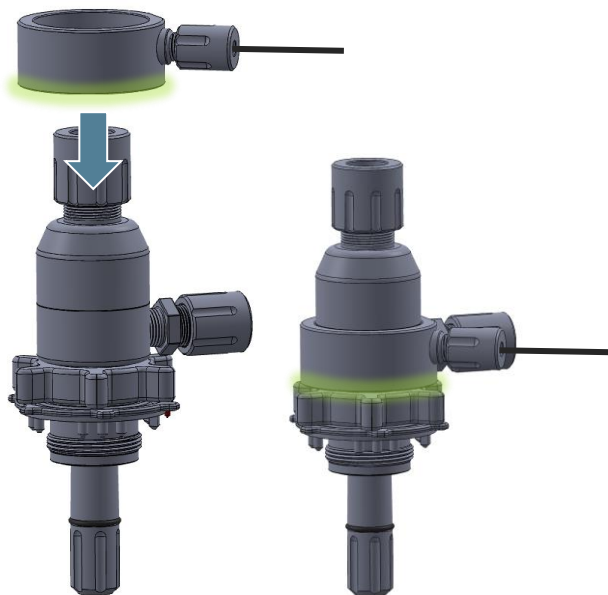
Filling <u>not</u> via dip tube?
Check RFID chip anyway

Adapter with RFID antenna for quick connection to dip tube during filling via separate container opening

Hang it up, Plug it in and Go!
SupplyLine "Starter-Kit"

1. SupplyLine®-Gateway
- Large signal light shows if everything is correct!
- Plug-and-play
- 100% protected against chemical vapors

24V

3. RFID Reader
easy assignment and readout of data

Test for yourself
Free of Charge

3. Fill / Dispense Head
RFID antenna incorporated or
separately for retrofitting

4. Router
as an alternative to the corporate network

SupplyLine Web-App
- Immediately ready for use without any installation
- Accessible via any web browser

LOGIN

RFID in Dip Tube
Preinstalled as a standard with digital chemical code

Contact

Do you need more information?
Please don't hesitate to contact me directly.

Nico Fischer
Business Development Manager
n.fischer@asstroemungstechnik.de
+49 (0) 711 220548-19