

**EN Industry Standard
based**

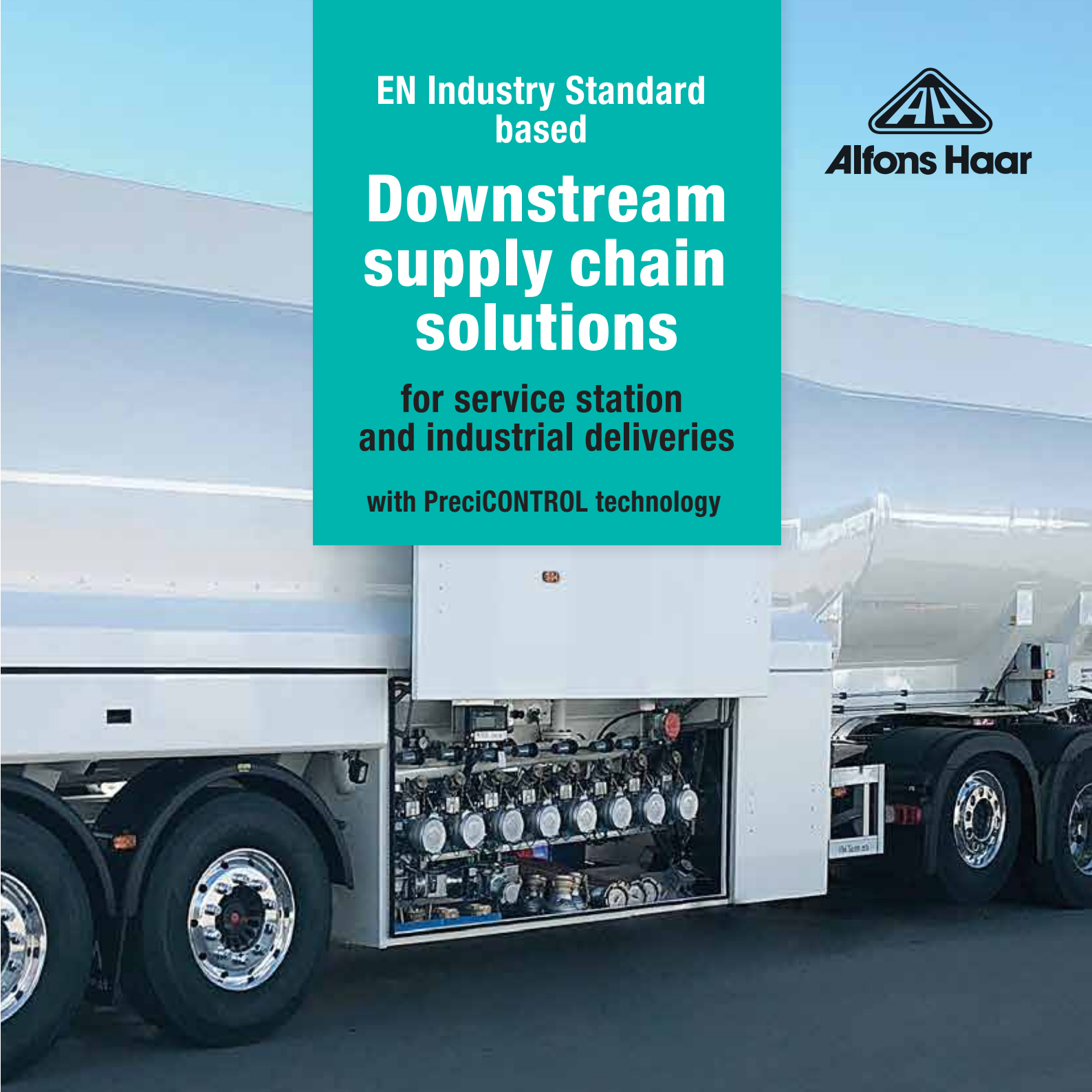
Downstream supply chain solutions

**for service station
and industrial deliveries**

with PreciCONTROL technology



Alfons Haar



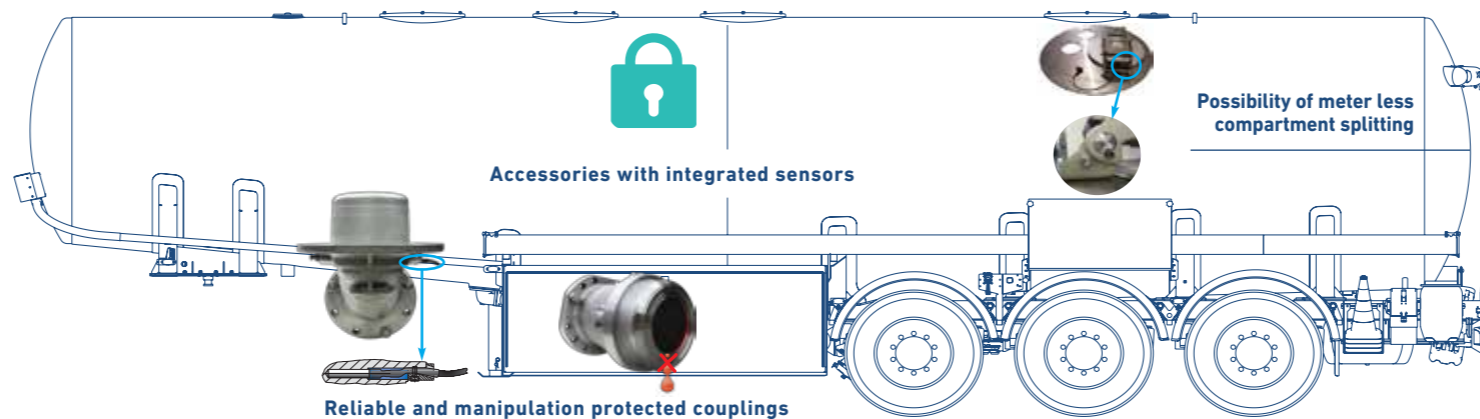
TERMINALS WITH DTMQ



Automated compartment and content recognition

- The automated DTMQ tanker read-out through the loading coupling enables a smarter overfill and cross-over prevention at terminals. Automatically identified tanker and compartments enable a faster loading process without unnecessary driver dialogues. Compartment residues are recognised and may master the next loading preset or avoid final compartment draining prior to a drive-in.
- Unexpected arm connections might be traced.
- Intended bill of lading (BOL) will be fully assured and directly transferred via the loading couplings into the tanker registers.
- The system is fully ATEX compliant.

LOW COST + MAXIMUM INTEGRITY



Reliable DTMQ coupling information and human independency

- The automatically read load plan is stored in the PreciCONTROL delivery controller and can be retrieved via the fuel truck link (FTL) connectivity by fleet operators for a fact based delivery planning and independent of high-level software infrastructures. It is user fail-safe, saves time and enables a reliable downstream cross-over prevention.

Reliable load surveillance during transport

- The integrity of the load is granted with a sealed parcel delivery system (SPDS). Anti-tampering designed tank accessories represent a core differential value. Alfons Haar engineers all SPDS components to the highest standards with in-house production assuring the reliability of the SPDS status in the harshest conditions at any time.

SPDS + FTL + COP + OPS

Cross-over and overfill prevention paired with hose supervision

- Customers can trust the load integrity and product cross-over prevention. The delivery system will prevent delivery when hoses are not correctly connected or tanks are full. Tampering during transport is logged and reported. Stationary MultiPID ID read-outs or combinations with GPS maybe used to authorise deliveries at unattended delivery.

Full drop or split compartment delivery without on-board meter

- The BOL data equals the delivery 100%, the absence of on-board meters improves the delivery chain uncertainty and re-calibration, maintenance and downtime are avoided. Load plan reconciliations by FTL connectivity enable accurate station tank measurements at full drops or in reverse may represent partial amounts.

SERVICE STATION SECURITY

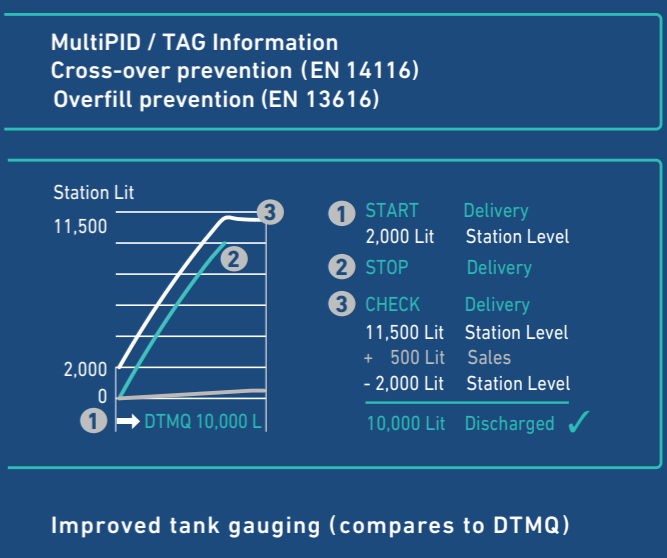
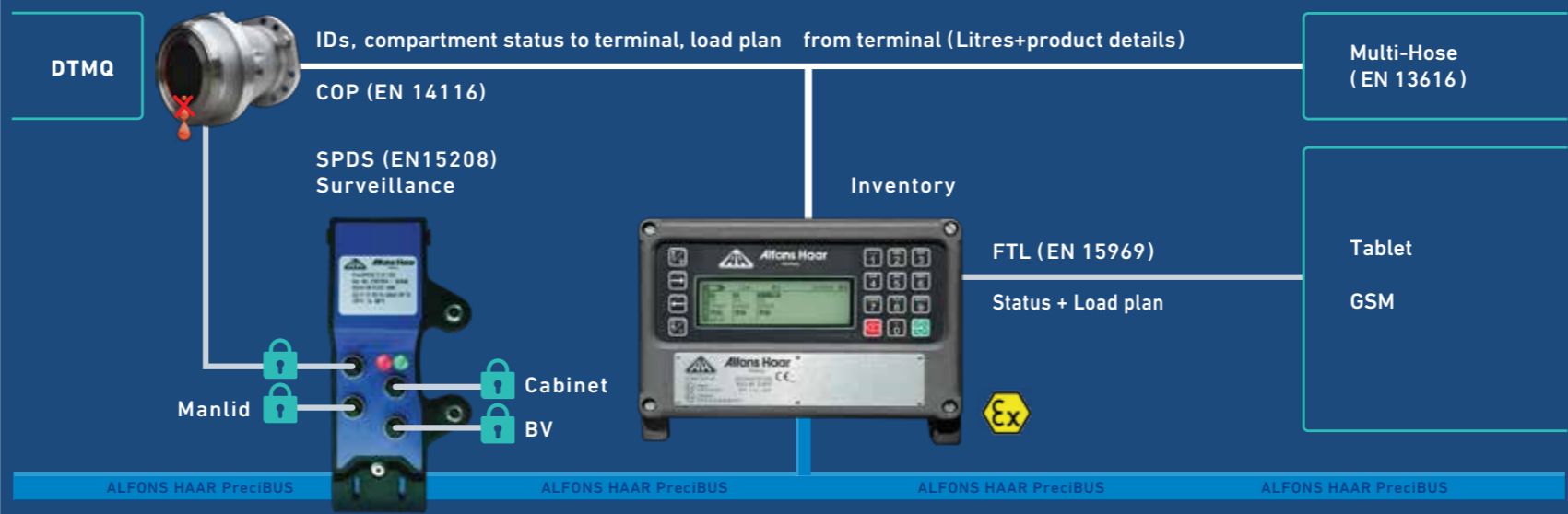
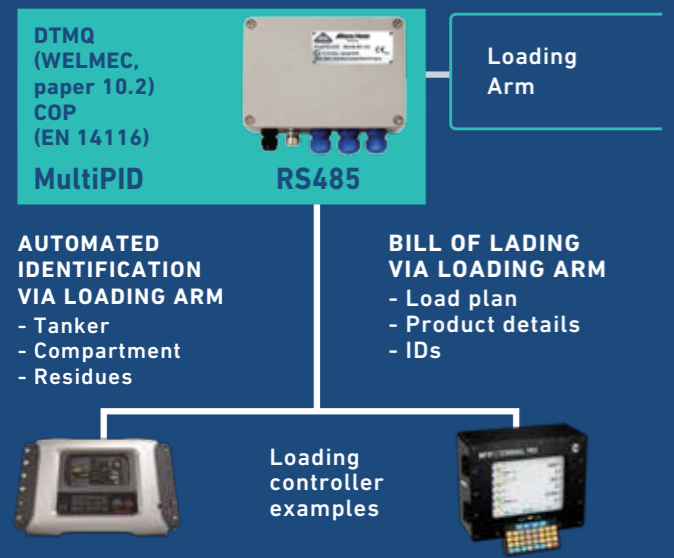


COP at Product brand level – easy integration

- Detailed product differences are recognised and cross-overs are prevented. The station overfill prevention is part of a multi-hose supervision concept. The system operates best with full capable MultiPIDs but also with simple Station TAGs.

Accurate partial deliveries with meter less tanker

- With only 2 accurate values to compare, this shortest possible measurement chain provides the lowest possible uncertainty. When a time-stamped delivery starts, the station tank level is recognised. Following tank level measurements, deducted by the initial and dispenser measurement (sales) since start of delivery, represents the tanker delivery volume.



Improved tank gauging (compares to DTMQ)

FLOW METERING WITH OPTIONS ON DEMAND FOR SPDS + COP + OPS



Cross-over free

PreciCONTROL delivery systems remain accurate

- Alfons Haar's PreciMA, PreciTURBO and PreciPURE systems are offering prime measurement stability, easy recalibration with conventional proving equipment and meter vs. inventory checks.

Clean deliveries

- Automated product return spouts grant driver independent cross-over prevention and consistent clean hose reel operations. PreciTURBO/PreciPURE ensure deliveries with zero contamination. Enhanced with EN normed cross-over prevention systems, terminal product codes are recognised and verified at customer sites prior a delivery.

Flexibility of delivery methods – automated (option)

- Efficient and risk reducing automated chassis, trailer and compartment management prevents mission critical driver errors.
- Measured and direct discharges are simultaneously executable. Set-up and product depending systems may automatically deliver by gravity only or permit a pumped delivery into above ground receiver tanks.
- SPDS for direct deliveries can be chosen on demand.

High capacity discharges

- Alfons Haar manufactures best in class isle pumps enabling over 1,600 lpm discharge rates, low noise emission, very light weight with longevity.

PreciTURBO + PreciPURE

PreciCONTROL
CountMASTER

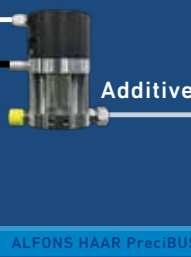


ALFONS HAAR PreciBUS

PreciNODE
4/3 I/O



PreciMIX



ALFONS HAAR PreciBUS

Metering Systems (suitable for
above ground tank delivery)



ALFONS HAAR PreciBUS

Pneumatic vent valve monitoring



EuroSENS
(Tanker +
Gantry OPS)

PreciNODE
AS-Monitor
(Receiver
tank OPS)

EuroLINK
+ Test



ALFONS HAAR PreciBUS



2534218

ALFONS HAAR MASCHINENBAU GMBH & CO. KG Fangdieckstrasse 67, D-22547 Hamburg
TEL +49 40 83391-0 FAX +49 40 844910 E-MAIL sales@alfons-haar.de WEB www.alfons-haar.de


Alfons Haar