

CONGESTED CHASSIS ?

CLEAN + COMPACT + CLEVER

C 490

Metering solution

- ✓ Euro6 Space Limitation
- ✓ Narrow Roads
- ✓ Smaller Batches
- ✓ All-in-one module



Alfons Haar

It's smart to be small

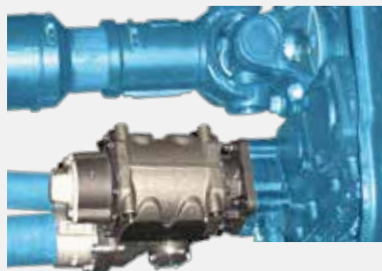
PreciCONTROL Single box Controller

Truly safe with
the PreciBUS



FPDV-60 pump Efficient and silent

Direct coupled to
PTO - no propshaft



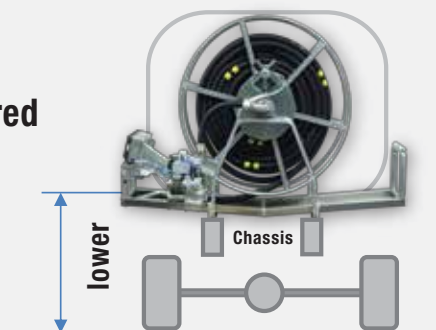
PD Meter C490 Compact & direct metering technology

Exceptionally
precise and
repeatable
measurement



HPSI Hosereel AirSTAR powered

Safe and
low profile,
fast rewind



... and safe



ATEX and MID certified all-in-one controller The weatherproof delivery controller is either integrated into the hosereel frame or can be mounted alongside. This provides a single place for the driver to work when carrying out deliveries. In the background PreciCONTROL operates the compartment valves and the metering system via the intrinsically safe PreciBUS. The pump, engine and PTO clutch can be controlled as well.

Clean delivery with a clean system installation Additional space-consuming junction boxes or further pneumatic controls are not required.

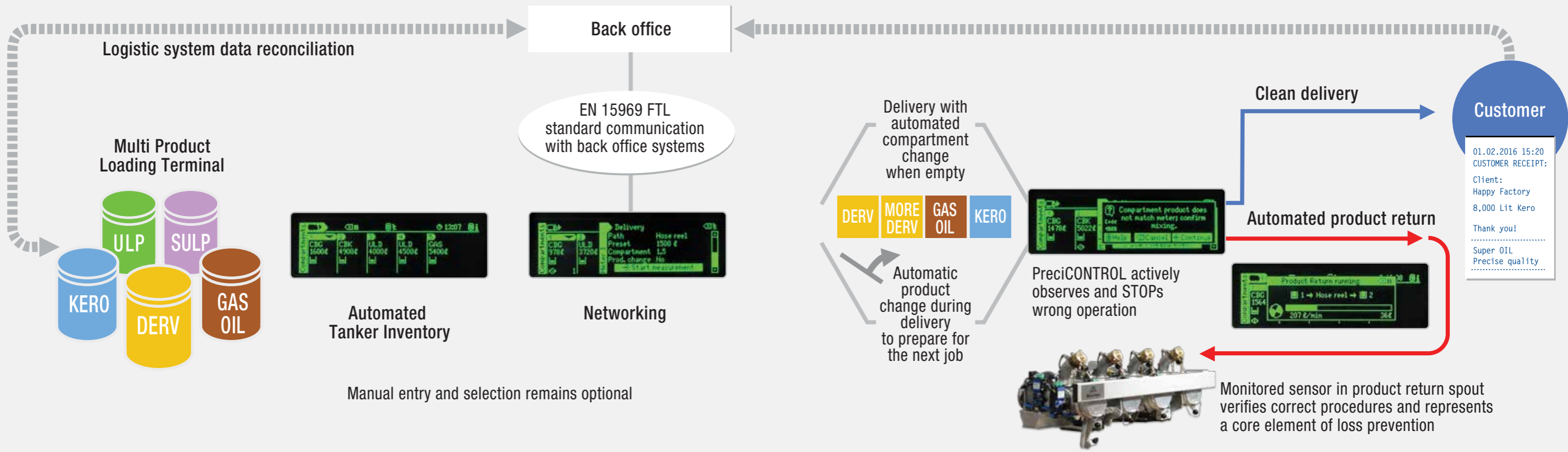
The FPDV-60 is a direct PTO coupled pump system. The elimination of pump mounting brackets and the absence of a propshaft shrinks the pump system dimension by 80%.

Reliable accurate Positive Displacement Meter The C490 is designed and optimised for hosereel deliveries, including integrated air elimination and control valves. Additionally a 2nd outlet path is available on request. Being so much smaller than comparable metering systems, this metering package can be integrated into the hosereel frame minimising space requirements. Accuracy of PD meters is independent of flow profiles and offer the advantage of detecting lowest flow rates, compared to indirect measurement technologies.

The HPSI pneumatic motor driven hosereel has no space consuming electric motor underneath and mounts significantly lower. This allows the center of gravity to be optimised and provides easier hose access for the driver. Fast rewind and driver-adjustable torque.

Clean products – customer care

Active error prevention



Security for loading depots

Truck and compartment identification and residue reported to the loading terminal controller or automation system, automatically through the API loading arm coupling (EN 14116).

Accurate Inventory on driver display

Traceable product loading data is received either through encoded API loading arm transfer, by on-board computer (FTL) or simple driver entry into the truck inventory. The inventory is updated in real-time at deliveries and transfers.

Transport and Delivery

Office systems may track and preset PreciCONTROL for the next

customer delivery without manual entry. Manual selection remains optional.

Quality and Efficiency – Customer satisfaction from Start to End

PreciCONTROL is 100% compliant with EN standards, THE industry solution for Road Tankers.

Core advantages - it is a fully developed concept from the loading to the delivery and internationally proven. It incorporates EN 14116 Cross Over Prevention, expanded by innovative and patented product return and line change automation – the ultimate solution!

Product change - more accurate, far less product mix loss – consistently clean

The driver stays at the customer tank during the entire delivery for more safety. The tank truck drains the manifold, flushes the system and switches precisely between products and compartments by itself.

Automated – All driver workflows kept on track

Automated compartments ensuring correct product change procedures biased by product grades. PreciCONTROL has full knowledge about every drop in the system. Automated valves drain and flush the manifold, pipe, metering and hose section. Products moved between compartments via unique and patented product return spouts are correctly accounted for in the inventory management.

Cargo Capacity

Pneumatic driven aluminum hosereel

Substantially lighter without heavy electric motor, no long heavy drive chains and more compact chassis installation - maintenance free.

C490 compact PD-Meter module

No additional heavy elements required and an integrated seal-less encoder prevents any risk of leaks caused by wear.

FPDV-60 Pump

Mounts on a PTO like hydraulic pumps.
No brackets – No propshaft – Less maintenance.

Ultralight direct coupled pump system reduces 66% of the pump's system weight.

**Light weight
solutions
increase
productivity**



PreciBUS – Highway to truck control

The slick single cable lightweight installation. No additional junction boxes required for bus controlled smart meters, valves, interlocks and manifold.

Up to 120kg lower system weight at the bottom line
2 tanker loads per day x 250 days/year ...
over 70,000 litres extra cargo annually





Real benefits



OLED Display – Crystal clear view

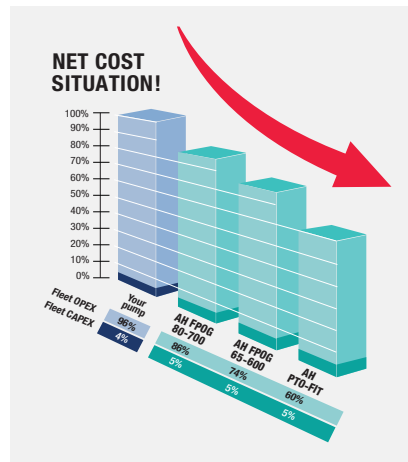
The latest display technology allows excellent viewing wide angles and under extremes of lighting and temperature conditions.

Automated compartments

PreciCONTROL offers a distinctive automatic switching to another compartment without drivers walking back and forth (2 x the hose length) just for product changes or due to empty compartments. This saves 40 to 80 miles or 2 to 3 days driver walking and none productive pumping time, annually.

Health & safety (HSE) keep up resources

Improve HSE with ATEX certification in hazardous areas and CE



conformity. Remote control can incorporate short messaging and a motion sensor that can be used for driver activity feedback.

Powerful pumps

Higher pressure can save in total 2 to 3 days pumping time for the same energy and quantities delivered, annually.

More power for the supply chain

Efficient low maintenance pumps offer 10% less pump fuel consumption.

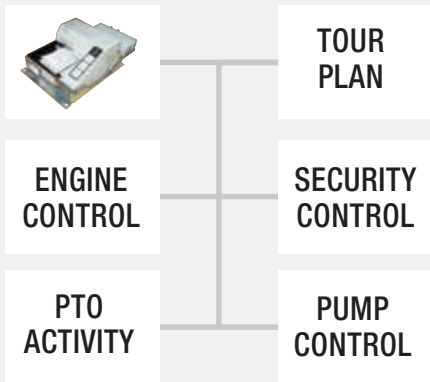
Remote Control

Hands-free wireless cockpit (optional) paired with error-free automated delivery. Real driver support for stress less operations, e.g. introducing line changes during delivery.

Making headway

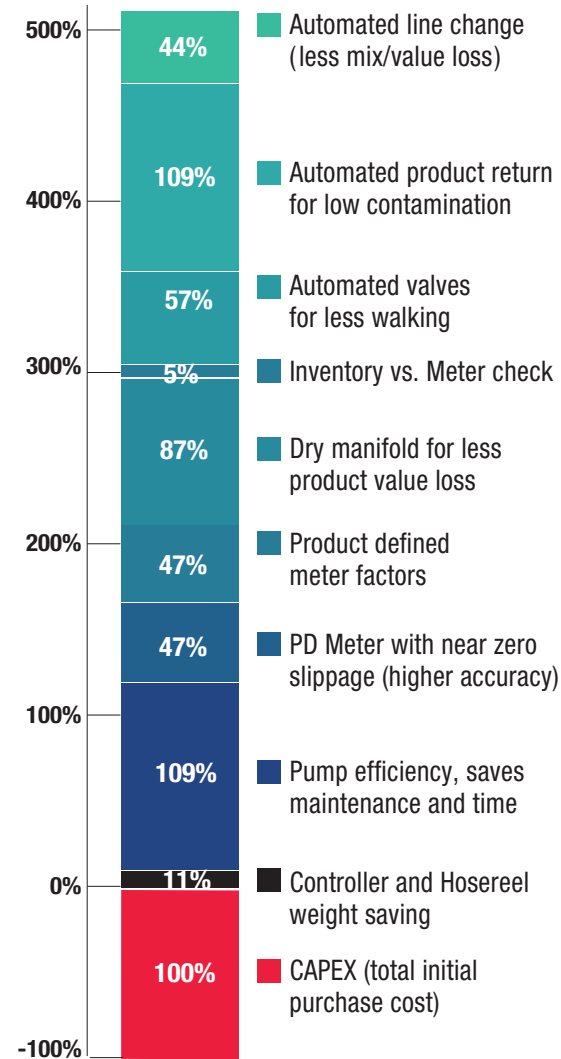


TRUCK CONTROLS



Available returns vs. investment

Lifecycle operating cost saving themes for AD Road Tanker



No vendor risk – proven EN standards

- Sealed Parcel Delivery System (SPD)
- Crossover Prevention System (COP)
- Terminal Measurement to Truck (DTMQ)
- Fuel Truck Link to Office System (FTL)

Customer Selection

Number of Compartments	1 – 2 – 3 – 4 – 5 – 6 – more (please advise)	
Flow rate	Up to 500 liter per minute C490 meter and PTO-FIT pump Metering primarily for hosereel solutions	Up to 800 liter per minute PreciMA 800 meter and FPO pump Metering for hosereel / bulk tanker solutions

Components and features included in standard PreciCONTROL system (automatic)

Positive displacement flow meter and pump

Pneumatic AirSTAR aluminum hosereel (suits for example a 60m DN35 - 200ft 1½" hose)

X-MASTER controller with application-dependent software and configuration, graphic display, numeric input

PreciBUS controlled and pre-assembled manifold system with monitored guard bar and automated compartment valves

Truck loading with intelligent inventory registration of product type and quantity per compartment – integrated inventory management

Product grade management with line flush control

Automated product delivery with active tank truck cross over prevention

Automated compartment change during delivery when a compartment is empty – eliminates drivers walking back to the tanker

Automated product change - planned prior offloading or/and at the end of delivery – eliminates drivers walking back to the tanker

Product return system – automated error-free, unique spouts with monitoring

Automated delivery paths and flow rate management e.g. by detecting driver low flow throttling

VOC system and Overfill prevention with interlock

Printer - slip type with free configurable receipt and reports

Truck interfacing for automated fuel and noise saving engine ON/OFF by demand, PTO management and brake interlock

FTL communication (order receipt from office, inventory and delivery reporting)

Remote control capable (input provided)

Detailed diagnostic analyser and activity logging

Automatic comparison of metered quantities against loadplan (detecting meter errors)

ATEX certifications, MID weight and measures approvals, CE declarations

Other options (examples only – please contact our application experts for more information)

Conventional operation Optional – Junior Package with manual operation only and pneumatic controls (several features not available)

Additive Injection Up to 4 injector systems – accounting, tank monitor, automatic batch recalculation and clean line management

Second Hosereel

DTMQ interface PRD Scanner to MultiPID - to receive loading arm data via the API coupling and automatic compartment registration