



“

*Our philosophy is simple: we listen to our customers and strive to meet their expectations and needs.*

”



Tanker of the year 2009  
Fitted with full MechTronic range





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# Welcome....

Thanks for taking the time to read this, our spring 2009 publication.

MechTronic's success will ultimately be judged by the extent to which we listen to and understand our customer's requirements. Some of our best innovations have come from you in the form of the challenges you face in your businesses on a day to day basis.

It is essential therefore that we share with you, not only our current products and services but some of our thoughts and ideas which underpin our thinking when it comes to resolving issues you may face.

We hope you will find the contents both interesting and informative and that it will, perhaps, inspire you to join us in making our industry a safer and a more cost effective place to be.



Trevor Poulter  
Director



Martyn Wilkie  
Director



*MechTronic's commitment to innovation  
means results where they matter*



# About MechTronic

MechTronic Ltd, the exciting innovative company formed with over 100 years of combined road tanker experience brings the AD market a fresh new look and class leading discharge solutions for the oil distribution market.

Since the company was founded, in April 2004, MechTronic has established itself as the market leader with a reputation for providing inventive product solutions which are easy to operate with improved reliability.

During 2007 MechTronic was the first equipment supplier to achieve the new European MID metrology standard allowing the sale of MechTronic metering systems throughout Europe. This accolade was further enhanced the following year by successfully gaining accreditation to the quality standard of ISO 9001:2000.

The importance of gaining this quality standard was fully realized when the Department of Trade and Industry approved MechTronic as a "Self Verifier" authorizing MechTronic's service engineers to undertake the calibrating and sealing of MechTronic meter systems as part of a full service contract package.



The product line up now encompasses the full range comprising manifold, product transfer, electronic metering and anti-contamination systems for the modern fuel oil distributor. MechTronic's commitment to continual improvement will be demonstrated this year by the addition of two new ground breaking products, VisiLevel and SmartNozzle.

VisiLevel is a simple product gauging device which allows the driver to see the product grade and volume of each compartment without the need for dipping. SmartNozzle is a vehicle based overfill prevention device which stops spills at your customers site.



VisiLevel and SmartNozzle add to MechTronic's growing product range.



# VISI LEVEL

PRODUCT GAUGING SYSTEM

*For the first time, see real time load level information at a glance.*



Since the introduction of 'The Work At Height Regulations 2005', the road tanker industry has endeavored to improve the safety of its drivers.

Visilevel represents the single biggest step forward in the effort to reduce accidents at height in our industry.

# Welcome to the next level

Once loaded, the Visilevel system is given the loaded contents of each compartment; the system then identifies the product class and asks the driver to confirm this information. If product class and volume do not correlate, the system alerts the driver to the possibility of an error, giving him the opportunity to correct the information. This 'handshake' between truck and driver ensures he and you know what is on the vehicle when it leaves the loading point.

Loaded compartments show a padlock on the screen display, which is removed when a significant change in liquid level is recorded. This event and any other level change is recorded by date/time and position stamped.

End of shift stock reconciliation at the push of a button - As well as detailed on screen information, the system can provide you with hard copy confirmation of the contents of each compartment, via the in-cab printer.

**Visilevel gives you an audit trail which is second to none.**



The Visilevel product recognition and gauging system represents a major breakthrough in:

## Driver safety

Visilevel allows you to interrogate compartment contents from the ground.

## Stock control

Accurate end of day reconciliation at a glance,

## Load security

Records the time, date and position of any significant change in liquid level

## Improved vehicle utilisation

Real time monitoring of compartment contents and vehicle location.

## Reduced build costs on trucks built to bottom load

Fit Visilevel instead of dip interlocks, dip sticks, catwalks, top sockets, rear ladders. Save Money, Save Weight, Save Time.

## **Visilevel reduces the incidence of:**

### **Gantry over spills**

No need to rely on driver calculations, Visilevel takes the guess work out of loading.

### **Cross contamination at the loading point**

Accurate on-truck product identification stops costly mistakes at the rack.

### **Time spent stripping vehicles**

Left On Board - Time is money, no need to routinely empty compartments at the day's end when your truck is fitted with Visilevel.





*Industry leading 'Manifold Systems' designed specifically for the oil distribution market.*



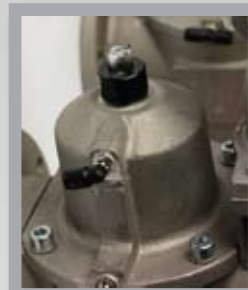
Good design is no accident. We have listened to our customers and responded with a manifold system that is easier to use, reduces costly contaminations and improves productivity.



# The System that Delivers!

## Manifold Open /Closed Indicator

Give's the driver the re-assurance he has selected the correct compartment



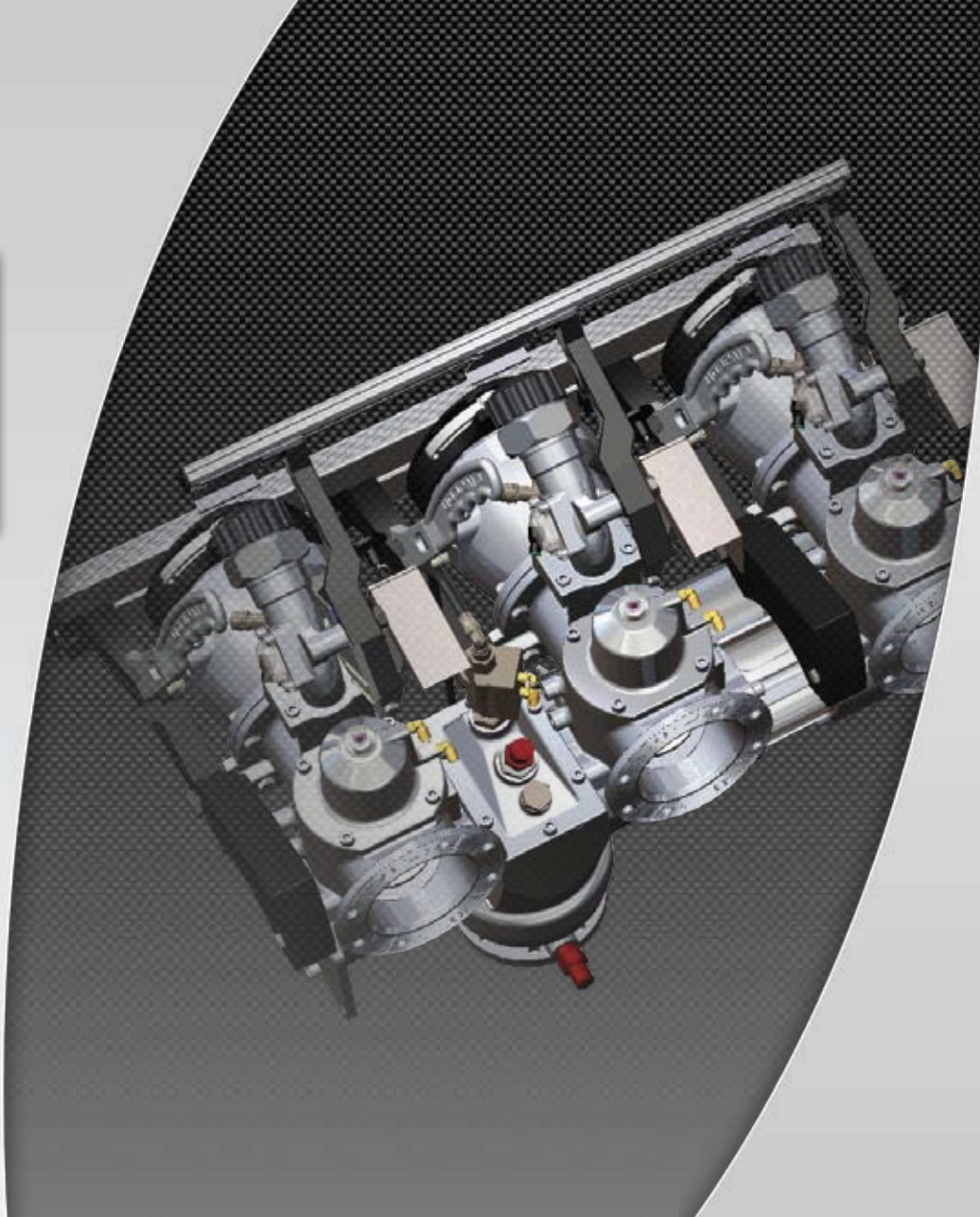
## Manifold Sight glass

No more guess work - Having made the compartment selection, the full width product site glass allows the driver to confirm his selection is correct.



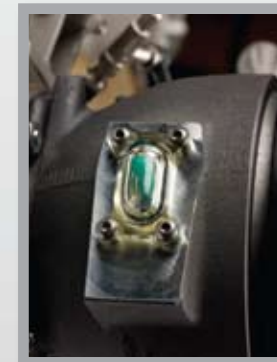
## Balanced Guard Bar

Damped operation, reducing wear and fatigue



## API sight glass

Accessible contents indication at a glance



## Foot valve Operation where it matters

No confusion - API mounted foot valve operation



Product transfer was a big step forward, we've taken it further. Our driver friendly approach to system design pays dividends – Take a look



*Product Transfer as it should be.*

### 30 degree return spout

The right orientation of the spout means connecting the trigger nozzle is easier.

### Sight glass

Keeping product off your customer's floor space. This unique feature gives your driver the facts before he disconnects.

### Driver controlled manual blow down

Back to basics, the driver decides when his line is clear.

### Gaurdbar interlock

No selecting back at the control cabinet. Simply lift the gaurdbar, connect the trigger nozzle and you are ready to go.

### Polypropelene Cap

Tough resilient and corrosion free.







*Compact, driver friendly and contamination free discharge*



An industry first, the MaxFlow metering system consolidates all driver controls into a single compact cabinet, affording room for an additional compartment on short wheelbase chassis or additional storage if needed. No confusion - the simplified approach to system control leaves the driver in control.

Patent application No: 0525633.4



**Simple, Centralised fingertip control, improving performance, driving down cost.**

### INTEGRATED ENGINE & HOSE REEL CONTROLS

CONVENIENT LOCATION ENCOURAGES INCREASED USAGE.  
REDUCES FUEL CONSUMPTION & ENGINE WEAR

### SMART PGI'S

ALERTS DRIVER TO CONTAMINATION THREAT.  
REDUCED CONTAMINATION RISK



### INTEGRAL LITRE COUNTER

INTUITIVE SOFTWARE WITH LARGE BACKLIT DISPLAY.  
REDUCED KEYING ERRORS

### MAXFLOW CONTROLLER

DIAGNOSTIC LED DISPLAY.  
QUICK AND EASY FAULT FINDING

### SLIDING POLYCARBONATE DOOR

PROVIDES SIMPLE MECHANICAL INTERLOCK.  
INCREASED RELIABILITY

### Integral Gas Extractor With Filter

Our very compact gas extractor with integral filter has no pipework running to it – this results in quicker degassing time and less waiting between compartment selections and less labour at the build stage.

Our unique integral filter housing enables quick and easy access to the filter element ensuring optimum performance from the system.

Access to your filter made easy. Our integral filter simplifies maintenance ensuring optimum performance of the system.



MaxFlows optimised system design means less joints and connections resulting in improved reliability.





# ADD FLOW

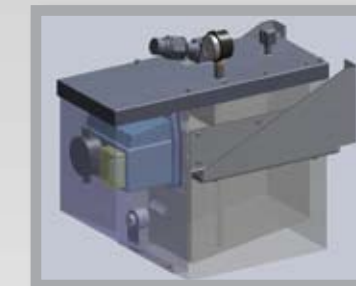
ADDITIVE INJECTION SYSTEM

*Adding Value to your premium products just got easier.*



## Bundled design

The Stainless steel holding tank is mounted inside the mild steel outer tank and is completely isolated from truck chassis movement.



## Hydrostatic level gauge with protective outer casing

Non-invasive design delivering proven reliability

## Guaranteed dosing

Premium Product selection means automatic dosing when the MaxFlow metering system is fitted to the truck.

## Low Level Audible Warning

Ensuring your customer gets what he needs

## Non-spill filling interface

Clean and safe – ensures the best filling conditions possible.





*A wireless link between your vehicle and the depot*

## *Data retrieval made easy*

All the delivery ticket information, i.e. date, time, grade and volume, is downloaded from vehicle to depot automatically via radio link as the vehicle drives into the depot on completion of its days work.

The day's events are then available for viewing on the office screen and can be ordered by date, product grade or vehicle registration number.

Reduced administration costs

Automatic stock and data reconciliation

Unlimited data retrieval

Simple low cost installation

Proven world wide system

VisiLevel data download.







SMART PRODUCT GRADE INDICATION SYSTEM

*Say goodbye to Contamination!*

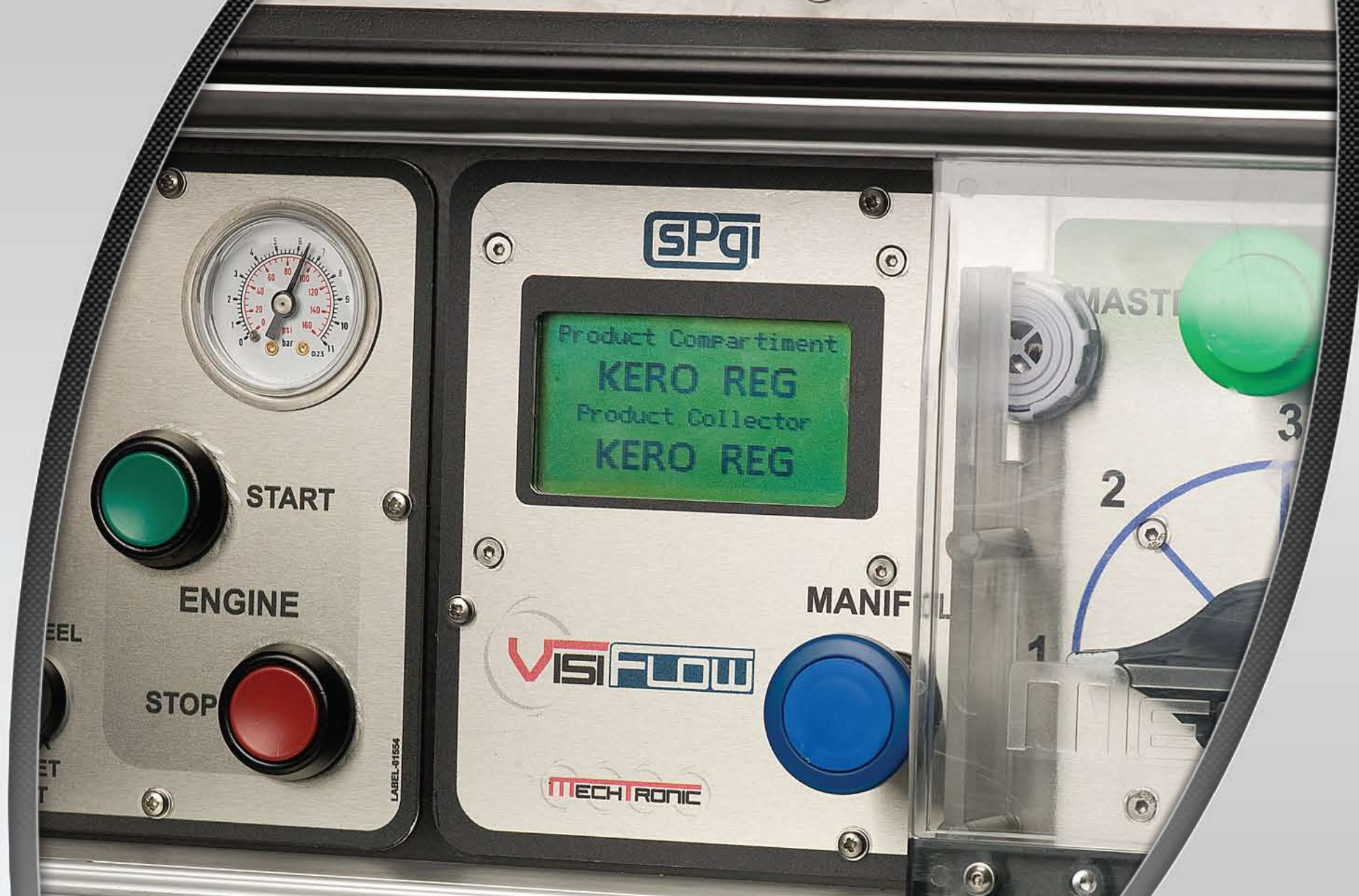
Drivers can get distracted, when they do, things can go wrong, costly mistakes can be made.

MechTronic's dedicated approach to product development delivers results not only in the field but where they matter most ..... your bottom line.

The revolutionary Smart Product Grade Indication System provides visual and audible warnings of the threat of contamination, ensuring the driver makes an informed choice before introducing a different product into the manifold.

...SPGI – Working hard to protect your margin

Patent No 2416756



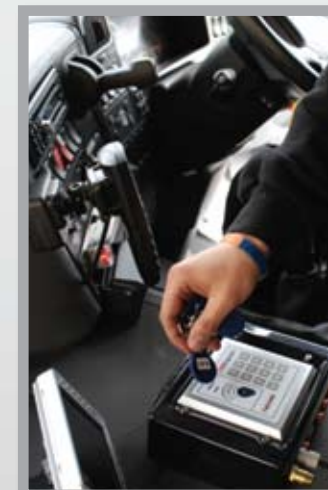


# ANTI MOVE

VEHICLE SECURITY SYSTEM

*Protecting your valuable asset.*

*AntiMove answers two problems within one module.*



The first problem is when the driver releases the hand brake and attempts to drive away but can't because one of the vehicle interlocks (i.e. guard bar) is still active. If the driver leaves the cab at this point to clear the active interlock without reapplying the hand brake first, the unattended vehicle, if parked on an incline, has the potential to roll away as soon as the interlock is reset.

AntiMove is designed to maintain the hand brake "on" signal until the driver returns to the cab and passes the tag over the AntiMove keypad which in turn releases the vehicle brakes.

The second feature of AntiMove is a security device which stops unauthorized movement of the vehicle when left unattended.

Imagine the typical situation when the driver is making a delivery, away from the vehicle cab with the keys in the ignition and the engine running. In the situation AntiMove prevents the vehicle from being moved until the driver returns and passes the tag over the AntiMove keypad which again releases the vehicle brakes.

- Stops unauthorized movement of vehicle
- Arms automatically when driver exits cab
- Incorporates anti-roll away feature
- Vehicle release via key fob or PIN number
- Easily retrofitted to existing vehicles





# SMART NOZZLE

ANTI SPILL SYSTEM

*Say NO to spillage!*



Your customer's boiler has broken down, he thinks he's out of fuel but his tank is still holding 500 litres , he orders 1000 litres from you.....

....A familiar tale, and one that fuel oil distributors dread, the resulting overspill can have disastrous consequences. Clean up costs, lost product, increased premiums and lost business.

Finally help is at hand – **SmartNozzle** is **MechTronic's** answer to this avoidable problem.

**SmartNozzle** senses the liquid level and upon contact immediately shuts down the discharge system.

Working in conjunction with **MechTronic's** powerful remote control with litre counter, the system provides overspill protection on conventional nozzle and screwed connection filling and fits to any conventional trigger nozzle without impeding delivery performance.

***Spillages cost the industry over £14 million annually – Do not become part of the statistic !!***





# Manlids & Diptubes

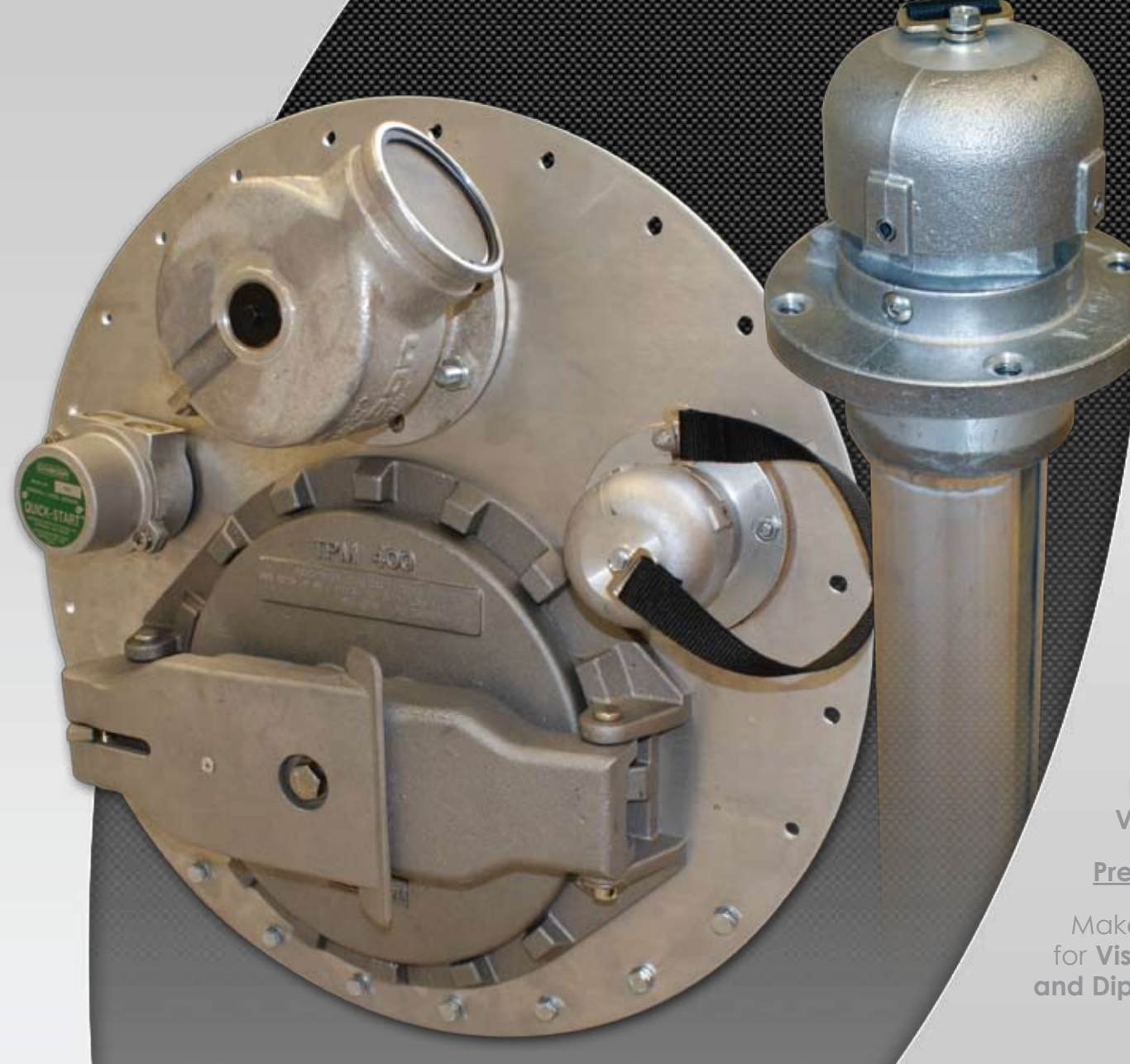
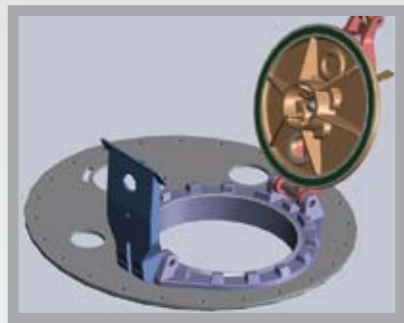
When we laid down our designs for these must have's on the tanker, we decided compliance with EN standards and drop test requirements was not enough, improvement was needed. As well as increased flexibility and better sealing we felt the design had to embrace the future.

## MechTronic 20" ADT Manlid

The traditional design for a manlid relies on flatness of the surface it is mounted to, any distortion in this surface can be transferred to the sealing face of the lid, giving rise to leaks on initial fitment as well as in-field problems after 'shake down'

### End your vapour tightness testing woes

**MechTronic's** 2 piece design isolates these irregularities from the sealing face of the fill cap where leaks can occur. Instead of depending on a rolled alloy sheet sealing face, the new design utilises a machined alloy casting resulting in the best sealing characteristics available.



Patent Application No: PCT/GB2009/050178

## Castellated protection

Top loading arms can damage the sealing face of the lid; our castellated design reduces this risk.

## Increased Flexibility

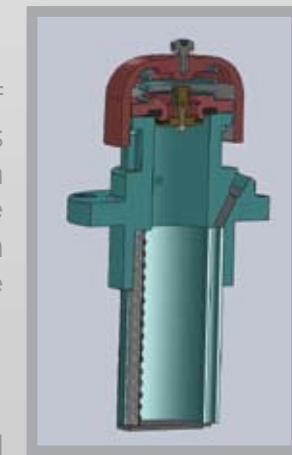
Our base plate can be detached and reversed on the cast alloy fill point assembly allowing builders options on orientation of diptubes, and high level cut off probes. This flexibility is further enhanced by elongated slots for optimum vent valve positioning.

## Mechtronic Dip Tube

As well as weighing a minimum of 35% less than equivalent offerings the MechTronic diptube design incorporates a second tube inside its extruded length. This addition houses the sensing lines for the **VisiLevel Gauging System**.

## Prepare for the future

Make sure your tanker is future proofed for **VisiLevel** by fitting **MechTronic Manlids and Diptubes**





# API Cap

## The critical interface between gantry and truck

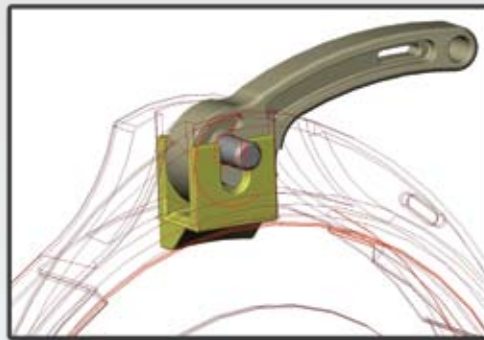
The integrity of the API valve is of huge importance for the safe operation of a fuel tanker. This component should be protected accordingly.

Tough alloy design.

Tested at pressures up to 3 bar

Secure – Sealable design

No wear design – taper induced locking ensures your API valves remain compliant for longer





# Technical Support

MechTronic has organized its after sales response to meet the demanding needs of the fuel oil distributor. Whether it's a planned maintenance package, meter calibration, a spare part or emergency breakdown response, MechTronic has it covered.

Drawing on the resources of MechTronic's network of experienced mobile engineers it is able to offer a comprehensive range of customer support packages. Each highly motivated engineer is fully trained to deliver effective support in a professional timely manner.

MechTronic's aim is to respond to unplanned maintenance requests within a maximum of 24 hours. In order to maintain and improve this quick response we have set ourselves performance indicators to continually measure our speed of service.

Full contract maintenance packages are available which can be tailored to suit your requirements. Each contract can include a full annual equipment service, a certified meter calibration, extended warranty and money back guarantees for unplanned technical support response. These packages fix your repair and maintenance costs for a three, five or seven year period.



Good service is the lifeblood of our business...  
.... It's people that make the difference.

Tom Cunningham  
Technical Support Manager - MechTronic Ltd





# Meter Proving

MechTronic Ltd is an ISO 9001:2000 accredited company. This accolade was further enhanced last year when the Department of Trade and Industry (DTI) approved MechTronic as a "Self Verifier" authorizing MechTronic's service engineers to undertake the calibration and sealing of MechTronic meter systems.

Our service engineers are entrusted by the DTI to deliver an honest and accurate calibration service to our customers, within the strict guidelines of our audited quality assurance system.

We have trailer mounted master meters strategically located around the country to provide a fast response to our customer requirements. These master meters are regularly proved and certified to NWML standards to ensure total accountability at all times.

A calibration service is offered for all MechTronic meter systems either independently or as part of a full maintenance contract package.



# Our Promise

“To Continue to recognize our customers needs and respond with inventive and cost effective solutions.”





# Looking Forward...

Economic, environmental and legislative pressure on business's has never been greater. Change is inevitable.

There are opportunities in the challenges that face us.

MechTronic is listening.....

Thanks for taking the time to read this publication.





www.mechtronic.ltd.uk

Visit our new web site at [www.mechtronic.ltd.uk](http://www.mechtronic.ltd.uk) for the latest on all of MechTronic's products and services.







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