

product overview



ISOIL
I M P I A N T I

oil product metering solutions





solutions for metering



The solutions that count...

...this statement defines the values, driving force and motivation behind Isoil Impianti spa, which is of the utmost importance to our company's future.

- **We** aim to provide enhanced solutions and service, to meet the ever changing demands of our customers and of the petrochemical Industry.
- **We** want to provide our customers with pioneering systems, measuring solutions and service, up-to-date with the latest technologies.
- **We** want to supply our customers solutions that count within the measurement automation and flow control' field.
- **We** want to establish long lasting relationships with our customers based on mutual trust and understanding.

These are our goals. This commitment involves and unifies everyone in our company.

1958

Foundation of Isothermic Swiss by Carlo Blumer and Pierluigi Guazzoni.

1970

Foundation of Oil Meter Impianti and Oil Meter Elettronica for production and sales of Positive Displacement Meters and electronic control system.

1981

Oil Meter has German PTB approval for custody transfer application.

1985

Oil Meter Elettronica introduces MycroMatic, the first electronic field batch controller.

1990

The Company changes its name into Gruppo Isoil.

1993

Isoil obtains quality certification according to ISO 9001:2000

1999

Metior, a division of Isoil, is the first National Calibration Service in Italy for proving tanks and meters in accordance to the primary standards of European traceability.

2000

The Company gives birth to two new companies: Isoil Impianti, focused on metering equipment for oil products, and Isoil Industria, for industrial instrumentation.

2004

Isoil Impianti opens a sales office in East Asia.

2008

Isoil obtains the certificate as per module D directive 2004/22/CE MID.

2012

Opening of a JV in China to distribute our products.





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Isoil Impianti is certified to ISO 9001:2008 quality standards and operates through a network of subsidiaries and representatives in key locations around the world.

EUROPE



A M E R I C A



A S I A

A F R I C A

O C E A N I A

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Our company is committed to expanding its presence throughout the world, offering its experience, gained in almost fifty years of operation and development. Aware of the importance of service in providing quality customer support, we are constantly selecting and training new agents and distributors, working with them and assisting them grow, in order to offer our customers the best possible service and after sales support. Thanks to these continuing efforts, Isoil has become the partner of most leading oil companies worldwide.



terminal & refinery

ISOIL
IMPIANTI

Our instruments are widely used on terminals for truck and train loading as well as for custody transfer lines.
We supply from single PD meter to complete multi arm skid mounted metering packages.

terminal & refinery







ISOIL
IMPIANTI

Our metering systems are currently in service on many trucks running in several countries. Specifically, truck measuring systems are designed to be light, compact, accurate and meet the specification and approval requirements for use on board. Portable systems are designed to measure oil products delivered by mobile tanks.

on truck







ISOIL
IMPIANTI

Our instruments are extensively used on aircraft refuellers and dispensers, as well as portable or mobile applications for both commercial and military aviation applications. Our meters are specifically designed to meet the demanding applications and high accuracy standards required in the aviation market.

aviation







ISOIL
IMPIANTI

Marine and refinery pipelines often move vast quantities of product at high speed and for such applications large meters are used.

Our meters are used in refineries, on docks and on board for both clean and black products.

marine







we know how

More than 40 year experience allows us to understand and solve customer's needs and requirements for light petroleum measurement. By understanding customer's procedures, we can provide turn key solutions that do not interfere with the daily operations, enhancing measuring and movement efficiency and control. This includes the latest (and more restrictive) safety procedures.

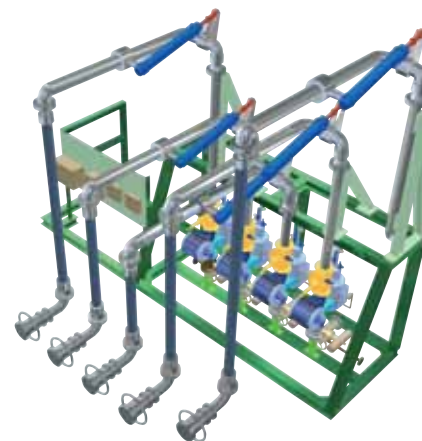
As a full package solution provider, we can design, build, test and commission advanced metering system. Our turn key solutions include skid mounted systems, that can be tested and commissioned at our production facility, allowing fast and trouble free on site installation with minimum inconvenience to existing operations.

Isoil Impianti has full certification for Explosion Proof Device (ATEX), Pressure Equipment (PED) and Metrological Certification (MID). We got Weight & Measures Office certification for China, Russia, South Africa, Kazakistan and many other countries. With such certifications and with our independent certified calibration laboratory, we are the right partner to provide appropriate, reliable and cost effective metering system solutions.

With technology packages such as 3D Autocad, trained and experienced engineers and certified sub-suppliers, Isoil Impianti makes solutions to meet the customers' requirements by working together as a team.

Isoil Impianti has recently designed, built and commissioned several skids for truck and train loading, additive injection and bio-diesel applications.

We also supplied several software solutions for supervision, control and automatization of oil movement products in several oil terminals both in Italy and in foreign countries.





Truck/railcar loading skid as per MID directive



Additive injection skid



Blending Skid

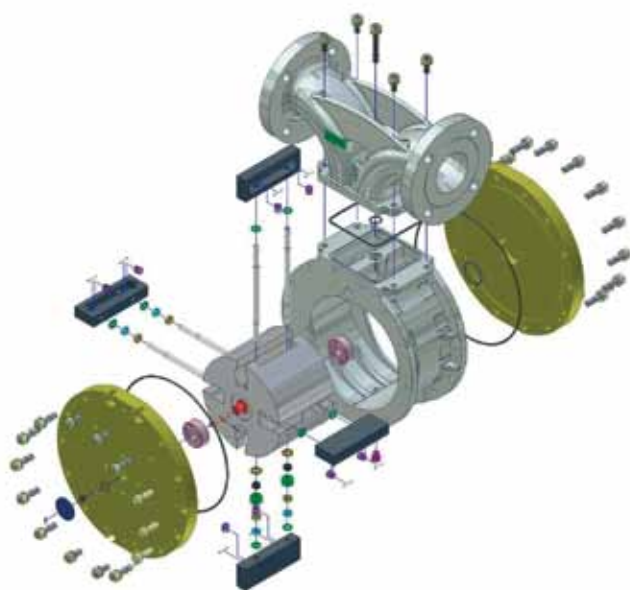
m e t e r s

Our PD meters allow an high accuracy and repeatability.

When a mechanical head is mounted on the meter, its high accuracy is allowed by a specific calibration mechanism with a micrometric calibrating variation.

If an electronic VEGA counter is used, the calibration is obtained changing its K-factor. With the so called "dynamic calibration" it's possible the linearization the meter error curve, obtaining the maximum linearity all over the flow rate range.

Thanks to the high accuracy our PD meters are often used as Master Meter to calibrate others meters of different brand and type.



3D three-dimensional check of some components by a 3D machine.

model	size	flow rate	accuracy	repeatability
SBM 32	1 1/2"	30 - 350 l/min	±0.2%	±0.04%
SBM75	2"	50- 500 l/min	±0.15%	±0.02%
SBM150	3"	100 - 1300 l/min	±0.1%	±0.01%
BM200, BMD200, BMV200	3"	100 - 1300 l/min	±0.1%	±0.01%
BM400, BMD400, BMV400	4"	200 - 2400 l/min	±0.1%	±0.01%
P4000	4"	200 - 3000 l/min	±0.15%	±0.02%
S9000	4"	200 - 1000 l/min	±0.15%	±0.02%
BM600, BMD600, BMV600	6"	300 - 3400 l/min	±0.1%	±0.01%
LBM1000	8"	700 - 7850 l/min	±0.15%	±0.02%
LBM3000	10"	1500 - 15700 l/min	±0.15%	±0.02%

Single case carbon steel meters

BM - BMV - P4000

Flow rate from 100 to 4,000 l/min.
Standard size: 3", 4" and 6".
Installation vertical or horizontal.
Carbon steel case.
Typically for ground installation, aviation refueller, medium big terminal, marine application.



Single case aluminium meters

SBM

Flow rate from 30 to 1,500 l/min.
Standard size: 1 1/2", 2" and 3".
Aluminium and carbon steel case.
Installation vertical or horizontal.
Typically for on board installation, military and civil aviation, small terminals.

Double case meters

BMD and LBM

Flow rate from 50 to 15,700 l/min.
Standard size: from 2" to 10".
Double case carbon steel.
High pressure rating up to 10,000 kPa.
Typically for custody transfer line for bunkering marine, pipeline and refineries.



Gravity / pump & gravity meters

S9000/SBM150G

Flow rate from 100 to 1,000 l/min.
Standard size: 3" and 4".
Typical installation on tank truck.
Aluminium case.
Pneumatic 2 stage air elimination system including preset valve.

LPG meters

BM/LPG and SBM/LPG

Flow rate from 76 to 2,500 l/min.
Standard rating 2,100 kPa.
Designed for LPG application both on truck and on terminals.





Single case stainless steel meters BMX and MK2

Standard size: from 2" to 6".
Single case stainless steel meter for high grade liquid compatibility.
SS316 case and inner parts.
Leak-proof magnetic seals.
Typically for chemicals and petrolchemicals application.

Electronic register Vega II

Full function head.
Rugged case and keyboard.
On board or remote mounting.
Totalizer, temperature volume compensator, preset register,
error meter linearization.
Host computer and printer communication.
ATEX approved.
24 Vdc or 110 Vac or 230 Vac power supply.



Electronic register Vega T

Light compact case.
Remote mounting
Totalizer, temperature compensator, preset register, error
meter linearization.
Host computer and printer communication.
ATEX approved.
24 Vdc or 110 Vac or 230 Vac power supply.



Mechanical register V/R 7887

Standard Veeder Root mechanical register.
Reading in litres, gallons or other units of measurements.
No power supply required.
Worldwide standard.



Mechanical preset register V/R 7889

Standard Veeder Root mechanical preset register.
No power supply required.
Mechanical linkage to the preset valve.
Pneumatic or electrical switches.



Mechanical ticket printers

V/R 7498-7951

Standard Veeder Root mechanical ticket printer.
Zero start or accumulative.



Electronic ticket printers

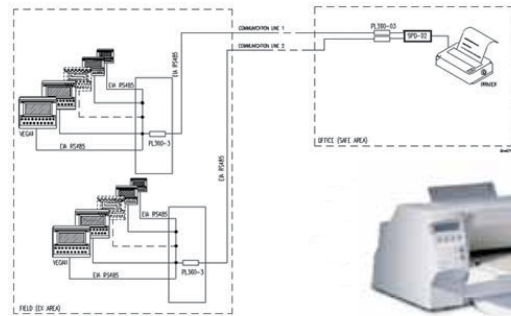
ST series

Electronic single ticket printer for safe area.
Used in conjunction with single Vega head.
RS232 serial port communication (RS422
or RS485 with converter).
ST302 is with rugged stainless steel casing
with cover.

Printing system

Sharing Printing Device,
dot matrix printer

Electronic ticket printer for safe area.
Used in conjunction with a network of Vega heads.
Direct RS422 or 485 connection.
Up to 32 Vega connected with one printer.
Also available in "cold back up" that grants an
uninterrupted operation.
Continuous paper feed.
Multiple copy paper allowed.



Metrical recording device

MRD

Device designed to store the delivery data collected by
serial lines from several VEGAs.
Conformity to MID.
Up to 8 RS485 two wires serial line connection.
Up to 64 VEGA connection.
Optional link with a ST500-M printer.

Pulse emitters

EM345, EM1264,
EM6422

EM345 to mount inside V/R register.
Intrinsically execution.
EM1264 to mount between the V/R
register and the meter.
ATEX approved.
EM6422 to mount on the meter shaft.
For metrological applications.
ATEX approved.





Remote display / rate of flow indicator LFD and ROF

LFD-6 Large Figure Display is a remote EX proof totalizer with high efficiency LED display. ROF is a mechanical rate of flow indicator to mount on board of the meter.

Pneumatic or mechanical preset valve V705, V705/P, V735

Size 2", 3" and 4" as standard.
Aluminium or carbon steel case.
Two stage closure and check function.
Mechanical execution with V/R counter linkage.
Pneumatic execution for electronic register linkage.



Diaphragm control valve ISE/N e ISOVALVE

Size from 3" to 10".
Carbon steel body.
Opening and closing in two stage or digital (Multistep),
flowrate control, pressure control and non return.

Strainers SFA, FA and FY

Standard size: from 2" to 10".
Carbon steel or stainless steel body.
Stainless steel basket net.
From 40 to 100 mesh filter basket.
Typically to protect the PD meters.



Strainers air eliminators SFDA and FDA

Standard size: from 2" to 10".
Floating system air eliminator.
Carbon steel or stainless steel body.
Stainless steel basket net.
From 40 to 100 mesh filter basket.
Typically to protect the PD meters.

Grounding systems

MT30

Grounding system for a tank truck filled during loading / unloading operations of no-conductive liquid (e.g. hydrocarbon or solvents).

ATEX approved.

Capacitive & resistive working principle.

High efficiency LED signalling with relay outputs.

Programmable via transponder.

Complete with self-releasing clamp, cable and cable roller.



Additive injection system

FlexiMix

System for single or multiple additive. Stainless steel piping and components.

Complete with gear meter.

Min. injection 5 cc.

ATEX approved.

Special solutions for LPG.

VEGA II blending

System for on line blending

- Ratio blending.
- Side stream blending.
- Wild blending.

Communication to host computer and printer

The system is made by:

- VEGA II blending.
- Meter for the main product.
- Meter for the secondary product.
- Flow control valve on main and/or secondary product.



Helios / RF-ID

Mod. Helios E and W

- Transponder badge reader/writer.
 - 4x40 display.
 - 16 keys keyboard.
 - N.2 RS232/422/485 communication lines.
 - Waterproof version (W) and Ex proof Atex version (E).
- Mod. RF-ID
- Transponder reading without display and keyboard.
 - Compact execution.
 - Atex version.

Serial port protection

PL and Multipro-6

To use in conjunction with Vega head or badge reader.

Serial port protection for extra-voltage.

Suitable for RS232, RS485 and RS422.

DIN rail mounting.

Primary protection 90V 10KA.

Secondary protection 1,5 KV 1 msec.



Automation system

Isoil Impianti, with its associated company "Oil Meters Sistemi", as a full automation supplier, is aiming at reaching the following goals:

- automation tool development for oil products handled in storage and refineries facilities;
- study and propose solutions to solve specific automation needs;
- software implementation, installation and service.

The offered solutions are based on a system architecture using standard hardware and software components, simplifying the system maintenance and granting a safe protection of the investments.

This grants a high modularity, both hardware and software, allowing the choice of the solution accomplishing the customer's current needs and having the opportunity of adding further features.

A specific software is dedicated to truck (both top and bottom loading) facility automation.

Such a system is based on the VEGA series electronic counter and (optional) HELIOS badge reader.

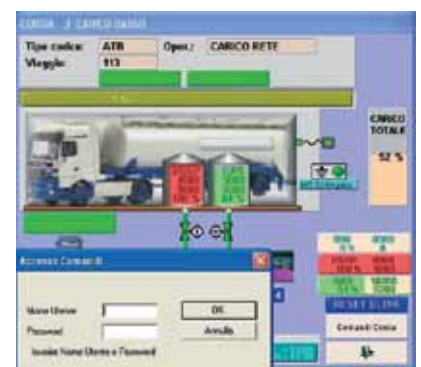
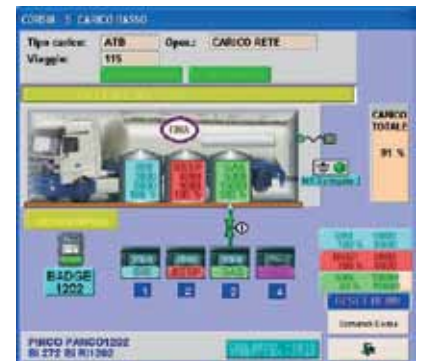
Software shows the operator, via coloured graphics synoptic diagrams, information about the current loading data and alarms, allowing a faster intervention on the plant if needed, granting the loading operations are performed according to the safety procedures.

All the data regarding loading are stored in the memory and are available both for statistics, for printing and for the host computer handling the invoicing.

It is suitable both for small size operations and much bigger ones with the following modules:

- PIN management, truck loading data management, operator functions
- Graphic Synoptic Diagrams
- Helios badge reader identification
- Truck access management
- Host computer interfacing
- Tank level supervision
- Pump management

Almost any kind of customisation may be realised on request, according to the specific needs of the application.



Metior

Metior is the ISOIL division for the calibration activities.

The laboratory has been accredited by the Italian authority "ACCREDIA", as number 108, member of the Italian laboratories network called "LAT". Calibration sectors are PD meters and calibrated tank (proving tank).

Besides in-site calibration, Metior offers on-field calibration with its own calibrated tanks and Master Meter.

Proving tanks

Fixed execution from 1 liter up to 25000 liters sizes.

Mobile execution from 1000 liters up to 5000 liters sizes, to allow an easier transport inside the oil terminal.

Carbon steel and stainless steel execution.

High pressure version for LPG calibration.

Master Meter

A good alternative to the calibrated tanks is the Master Meter.

The Master Meter is very carefully calibrated and therefore can be taken into account while calibrating other flow meters by comparison. It is supplied with several points calibration and with specific diagram.

To aid mobility, Master Meter can be trolley mounted, with the option of hoses and couplers.





www.isoilmeter.com



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