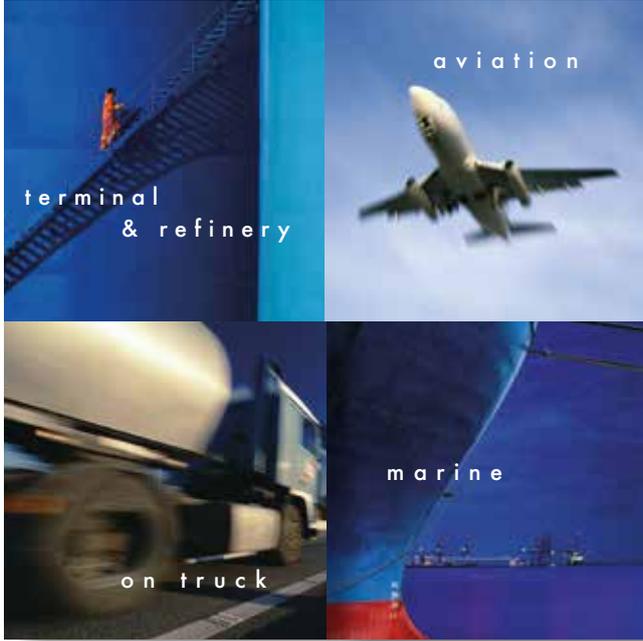


product overview



ISOIL
I M P I A N T I

oil product metering solutions





ISOIL I M P I A N T I



metering solutions for:

The solutions that count...

...this statement defines both the products and the values driving our Company's motivation to always do better.

- **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 with solutions in step with the measurement automation and flow control field.
- **We** aim to establish long lasting relationships with our Customers based on mutual trust and understanding.

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

1958

Establishment of Isothermic Swiss by Carlo Blumer and Pierluigi Guazzoni.

1970

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

1981

Oil Meter obtains PTB approval for custody transfer application.

1985

Oil Meter Elettronica introduces MycroMatic, the first field electronic 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 equipment.

2008

Isoil Impianti obtains the certificate as per module D of MID Directive 2004/22/CE.

2017

Isoil Impianti introduces VEGA 3: the latest generation of electronic counters for tank trucks loading bays.

2020

Launch of the new MT40 Grounding System, SIL2, ATEX and IECEx approved.





territories

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



markets

Our company is committed to expanding its presence throughout the world, offering its experience, gained in sixty 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 growing, in order to offer our customers the best possible service and after sales support. Thanks to our constant effort, we are Partner of many leading oil companies worldwide.



Our instruments are widely used on terminals for tank truck and rail car loading as well as for custody transfer lines.

We supply single PD meters as well as complete multi arm skids and metering packages.

terminal & refinery







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

on truck







Our instruments are extensively used on aircraft refuellers and dispensers as well as in both commercial and military applications in the aviation field. Our meters are designed to grant high accuracy standards and meet the needs of even such demanding applications as those of the aviation market.

aviation





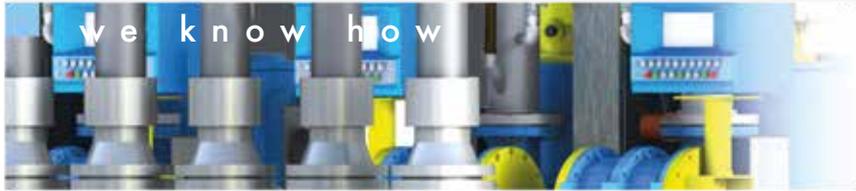


Ship refueling requires measuring systems both on board and in harbors. Our meters are used in refineries, on docks and on board for both clean and black products.

marine







we know how

Our **60 years experience** helps us understanding Customer's needs for light petroleum measurement.

ISOIL provides turnkey solutions that do not interfere with daily operations of the depots and enhances measuring efficiency and control with special attention to the latest safety procedures.

As a full package solution provider, we can design, build, test and commission advanced metering system. Our solutions include skid mounted systems that can be tested at our premises, thus allowing fast and trouble free on site installation.

Isoil Impianti is certified for Explosion Proof Devices according to ATEX, for Pressure Equipment (PED) and has MID Certification for metrological systems. We also obtained certifications for China, Russia, South Africa, Kazakhstan and many other countries by Weight & Measures Offices.

With such certifications and thanks to our independent certified calibration laboratory, we are a trustworthy Partner providing tailored reliable and cost effective metering solutions.

Technology, a trained and experienced staff of engineers and certified suppliers, are our key features to meet the customers' requirements by working together as a team.

Isoil Impianti designs, builds and puts into service skids for tank truck and rail car loading/unloading, additive injection and bio-diesel applications all over the world.

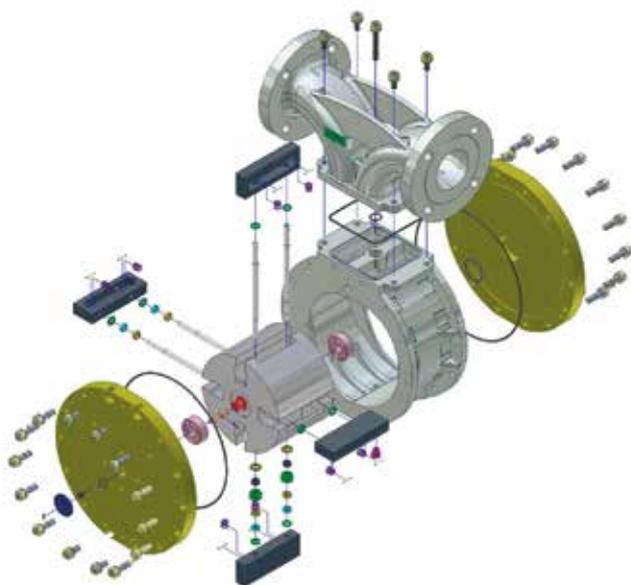
Several software solutions for supervision, control and automation of oil products handling have been supplied to our Customers both in Italy and in many other Countries.





m e t e r s

Our PD meters grant high accuracy and repeatability both with mechanical counters, where a specific calibration mechanism allows micrometric adjustment, and with electronic counters, such as ISOIL VEGA T, VEGA 3, where adjustment can be made by changing the K-factor. Thanks to “dynamic calibration” the linearization of the meter error curve is made possible, thus granting maximum linearity of the flow rate range. The high accuracy of our PD meters makes them suitable to be used as Master Meter to calibrate others meters.



A 3D machine for components checking and quality control.

model	size	flow rate	accuracy	repeatability
SBM32	1½"	30 - 350 l/min	±0.15%	0.04%
SBM75	2"	50 - 500 l/min	±0.15%	0.04%
SBM150	3"	100 - 1,300 l/min	±0.1%	0.02%
BM200, BMD200, BMV200	3"	120 - 1,300 l/min	±0.1%	0.02%
BM400, BMD400, BMV400	4"	200 - 2,400 l/min	±0.1%	0.02%
P4000	4"	300 - 3,000 l/min	±0.15%	0.04%
S9000	4"	200 - 1,000 l/min	±0.15%	0.04%
BM600, BMD600, BMV600	6"	300 - 3,400 l/min	±0.1%	0.02%
LBM1000	8"	700 - 7,850 l/min	±0.15%	0.04%
LBM1100	8"	700 - 7,850 l/min	±0.15%	0.04%
LBM3000	10"	1500 - 15,700 l/min	±0.15%	0.04%



Single case aluminium and carbon steel meters
SBM

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

LPG meters
BM/LPG

Flow rate from 76 to 2,500 l/min.
Standard version for 2,100 kPa.
Designed for LPG applications for tank trucks/rail tankers loading and transfer lines.



Single case stainless steel meters
BMX and SBMX 75

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.
Chemicals and petrolchemicals application.



Single case carbon steel meters
BM - BMV

Flow rate from 100 to 7,850 l/min.
Standard size: 3", 4", 6" and 8".
Vertical or horizontal installation.
Carbon steel case.
Application: stationary installation, aviation refuellers, medium to big terminals, marine application.



P.d. meters
P4000

Flow rate from 200 to 3,000 l/min.
Standard flanges: 4" ANSI150 RF
Application: stationary installation, aviation refuellers, medium to big terminals, marine application.



**Gravity /
pump & gravity meters**
S9000/SBM150G/S9500

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

P.d. meters
LBM1100

Flow rate from 700 to 7,850 l/min.
Standard flanges: 8" ANSI150 RF
Application: custody transfer line for marine bunkering, pipelines and refineries.



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 version for up to 10,000 kPa.
Application: custody transfer line for bunkering marine, pipeline and refineries.

Pulse emitters
EM345, EM6422 and EMT2-2

- EM345 to be mounted inside V/R register. Intrinsically safe execution.
- EMT2-2 to be mounted inside V/R register. Explosion proof.
- EM6422 to be mounted on the meter shaft. For metrological applications. ATEX-IECEx approved.



Mechanical counter, preset register and ticket printers
V/R 7887,7899,7498-7951

- Veeder Root mechanical register. Reading in litres, gallons or other units of measurement. No power supply required. Worldwide standard.
- Veeder Root mechanical preset register. Mechanical connection to the preset valve. Pneumatic or electrical switches. No power supply required.
- Veeder Root mechanical ticket printer. Zero start or accumulative.

Electronic counter
VEGA T2

Single meter and dual meter (only on vehicles) batch controller. Designed for aircraft refuelling vehicles, road tankers and fixed installations. Totalizer, temperature & pressure compensator, preset register, meter error linearization. ATEX-IECEEx, OIML approved. Ethernet / serial communication via Modbus TCP/RTU protocol. Wi-Fi and Bluetooth compatible. 24 Vdc or 115/230 Vac power supply.



Electronic counter
VEGA 3

Modular architecture: one main and up to 5 extension modules. Managing of up to 6 measuring systems. Applications: tank-truck/ rail tanker/ ships loading and unloading, pipelines, in line blending and additives injection. Totalizer, temperature compensator, preset register, meter error linearization. ATEX-IECEEx approved. Ethernet / serial communication via Modbus TCP/RTU protocol. 24 Vdc or 115 Vac or 230 Vac power supply.

Electronic ticket printers
serie ST

Electronic single ticket printer for safe area. Used with single VEGA counter. RS232 serial port communication (RS422 or RS485 4 wires).



Remote display / flow rate indicator
LFD and ROF

LFD-6 Large Figure Display is a ATEX-IECEEx certified remote totalizer with high efficiency LED display. ROF is a mechanical flow rate indicator to be mounted on board of the meter.

Pneumatic or mechanical preset valve

V705, V705/P, V735

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



Diaphragm control valve
 ISOVALVE and ISOVALVE/N

Size from 3" to 10".
 Carbon steel body.
 Two-stage/digital opening and closing, flow rate control, pressure control and non return.

Strainers and strainer air separators
 SFA, FA, SFDA, FDA and FY

Standard size: from 2" to 10".
 Floating system air eliminator for strainer air separator.
 Carbon steel or stainless steel body.
 Stainless steel basket net.
 From 40 to 100 mesh filter basket.
 Function: product filtering and air elimination to protect the PD meters.



Centrifugal gas separators
 DV

Standard size: from 3" to 16".
 Floating system air eliminator.
 Carbon steel or stainless steel body.
 DV series can be installed to prevent measuring errors due to the presence of air or gas.

Grounding System MT40

Grounding System designed to prevent the accumulation of electrostatic charges which may generate during the loading/unloading of tank trucks, rail tankers, IBCs, and drums for nonconductive liquids, powders and granulates, or during filling and emptying operations of Flexible Intermediate Bulk Containers (FIBC, 'Big Bags')

SIL2, ATEX and IECEx approved.

Capacitive and resistive mode.

Multicolour LED display monitor showing the operating mode, equipped with a serial port RS485 through which the unit can be connected to external devices with ModBus RTU protocol.

Sensibility level setting with RF-ID tag.

The system is supplied with coiled cable and stainless steel clamp.

Accessories: CR-02 Cable Reel, Tester, Insulated Support for clamp.



Additive injection system FlexiMix

System for single or multiple additives.

Stainless steel piping and components.

Complete with gear meter.

Min. injection 5 cc.

ATEX-IECEx certified.

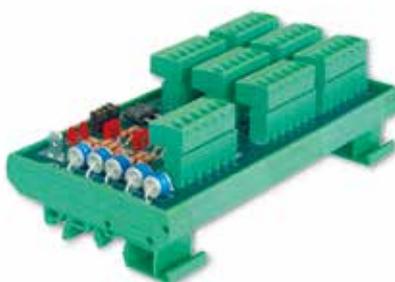
Special solution for LPG.

Badge readers SBR

Transponder reading without display and keyboard.

Compact execution

ATEX-IECEx certified.



Serial port protection PL and Multipro-6

To be used with VEGA counter or with 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, and its Partner are able to:

- develop automation tools for products handled in oil depots and refineries;
- study and offer solutions to solve specific automation needs;
- provide software implementation, installation and service.

Our solutions are based on standardized hardware and software components, simplifying system maintenance and granting long lasting solutions.

Moreover high modularity of both hardware and software enables accomplishing Customer's current needs but at the same time it allows for future modifications if needed.

A specific software is dedicated to tank trucks both for top and bottom loading automation.

Such a system is based on VEGA electronic counters and on HELIOS badge reader, the latest being optional.

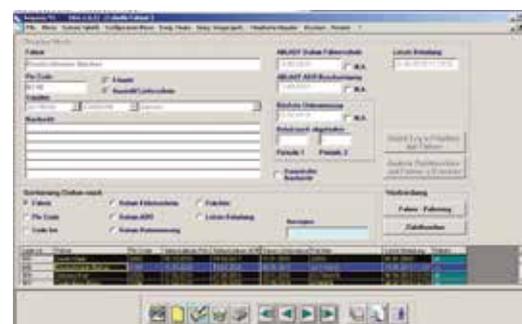
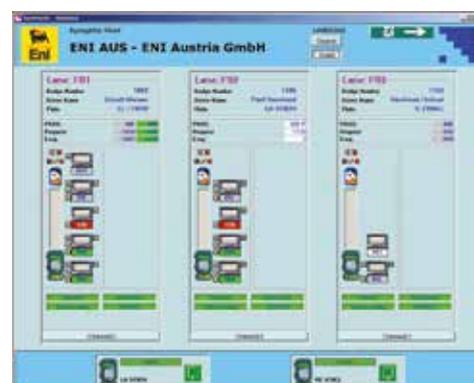
The software shows colored graphics synoptic diagrams and information about current loading data and alarms, thus allowing faster intervention on the plant if needed. Loading operations can therefore be performed according to the safety procedures.

All the data concerning loading are stored and they are available both for statistics and printing and for connection to host computer in order to manage documents and invoices.

The software is suitable for operations with small to big amounts of fuels thanks to:

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

Almost any kind of customisation can be made upon request, according to the specific needs of the application.



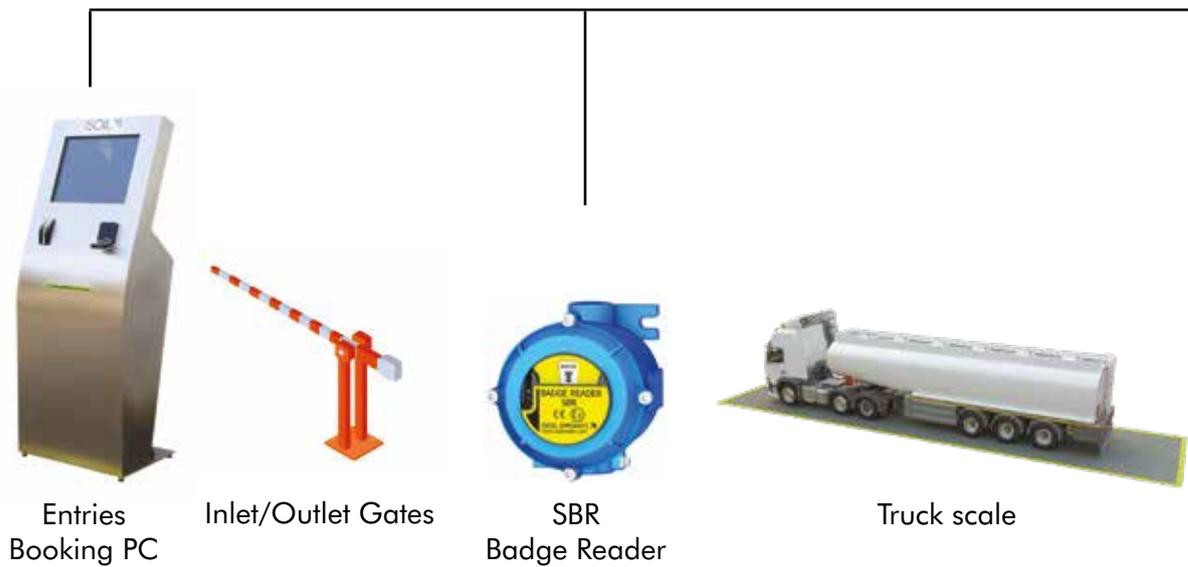
CONTROL ROOM

Communication devices



GATES

Field devices



LOADING BAYS

Tank truck gantries



Metior

Metior is the ISOIL Department whose Laboratory performs calibration activities.

The Laboratory is accredited by ACCREDIA (the Italian Accreditation Body) within the "LAT" network of laboratories, under n. 108 (refer to www.accredia.it)

The appointed calibration activities of Metior include PD meters and calibrated tanks (proving tanks) sectors.

Besides calibration at ISOIL premises, Metior offers - outside the accreditation field - on-site calibration solutions using its own calibrated tanks and Master Meters.

Proving tanks

Fixed execution from 1 liter up to 25,000 liters.

Mobile execution from 1,000 liters up to 5,000 liters, to allow easier transport inside the oil depot.

Carbon steel and stainless steel execution.

High pressure version for LPG calibration.

Master Meter

The Master Meter is a high precision calibrated meter that can be used as a reference for the calibration of other flow meters. It can therefore be adopted as a good alternative to proving tanks.

Each Master Meter is calibrated at increasing flow rates inside its range and it is always provided with a specific calibration report.

Master Meters can be mounted on a trolley to ease transportation, even on public roads, and they can be supplied with hoses and couplers.





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ISOIL
I M P I A N T I
The solutions that count

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