

PRODUCT CATALOGUE

CHECKWEIGHERS
X-RAY INSPECTION SYSTEMS
METAL DETECTORS · VISION
DATA CONTROL SOFTWARE
DEEP LEARNING · AI





QUALITY UNDER CONTROL.

Since 1983

VARPE



VARPE GROUP



Founded in 1983, the Varpe group is a leading manufacturer of global solutions in x-ray inspection, weight control and metal detection for its production processes. We provide our clients with the added value of **flexibility** and **customization** that they need, thus achieving the balance between **functionality** and **design**.

PHILOSOPHY

Varpe offers services throughout the entire process, from **commercial advice** to the end of the product life cycle, without forgetting design, manufacturing, custom software programming, equipment commissioning, user training, the certifications and legal scenarios of each territory (ENAC, MID, etc.), maintenance, spare parts services and after-sales service.

VISION

Our vision is to be an agile and solid company, a benchmark in innovative and tailored technological solutions thanks to a constant analysis of the future needs of the market.

MISSION

Our mission is to create global solutions of the latest technology in accordance with the demanding demands of today's market and accompany our clients throughout the process.

ESSENTIAL PRINCIPLES

AGILITY

Definition • Ability to move easily and quickly.

Goal • Reduce response time in all customer-related processes.



INNOVATION

Definition • Creation of pioneering technological solutions.

Goal • Make revolutionary products available to the market.



SOLIDITY

Definition • Set on a stable and consolidated base.

Goal • Increase turnover, growth and social responsibility.



TAILOR-MADE

Definition • Customization according to specifications.

Goal • Ensure that the product adapts to the established needs.



REFERENT

Definition • Role model.

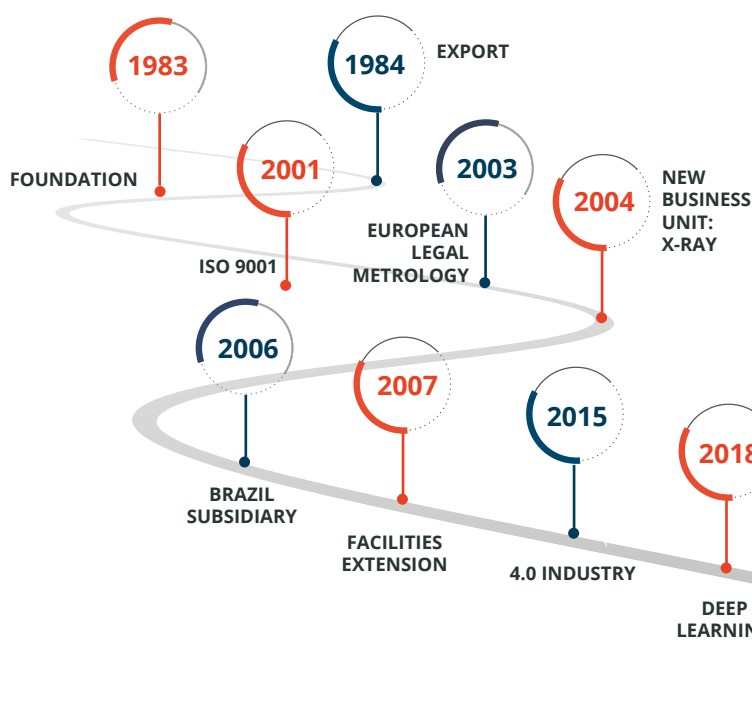
Goal • Being in the top of mind of our clients.



FUTURE NEEDS

Definition • Detection of medium and long-term needs.

Goal • Analyze and detect industry trends.



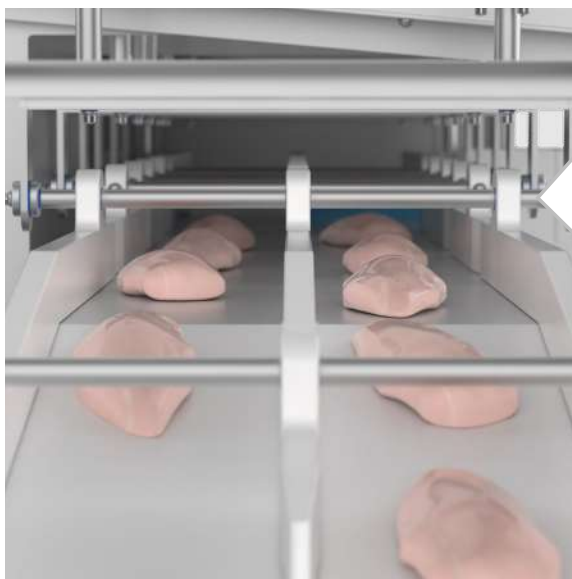
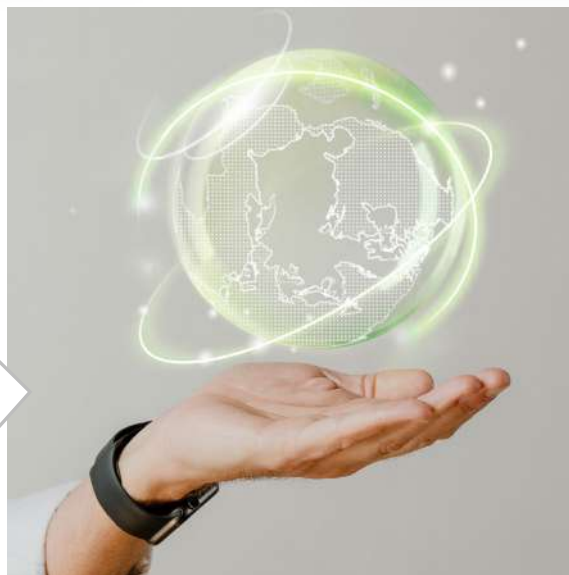
MILESTONES



SOCIAL FACTORY

Committed to the **environment**,
innovative SME, **quality**
company, committed to **people**,
proximity, **Agile**.

PAG. 8



TAILOR-MADE DESIGN

Upgrades, **needs** analysis,
technological solutions,
custom manufacturing,
hygienic design.

PAG. 11



NEW TECHNOLOGIES

Legal weight control, **contaminant**
inspection, **defect** detection, **X-rays**,
artificial intelligence, **deep**
learning, artificial **vision**, **R&D&i**,
global equipment **efficiency** and
technological consulting.

PAG. 14





SOFTWARE ADAPTABLE

Equipment **connectivity**.
Process integration (**MES...**),
data exploitation, **smart factories**,
VIT4, **real-time** monitoring, predictive
algorithms, **autonomous** equipment,
Internet of Things.

PAG. 22



BY YOUR SIDE

Technical **assistance service**,
remote **monitoring** (AR),
start-ups, audit **support**,
predictive maintenance,
corrective maintenance,
spare parts management,
custom **training**.

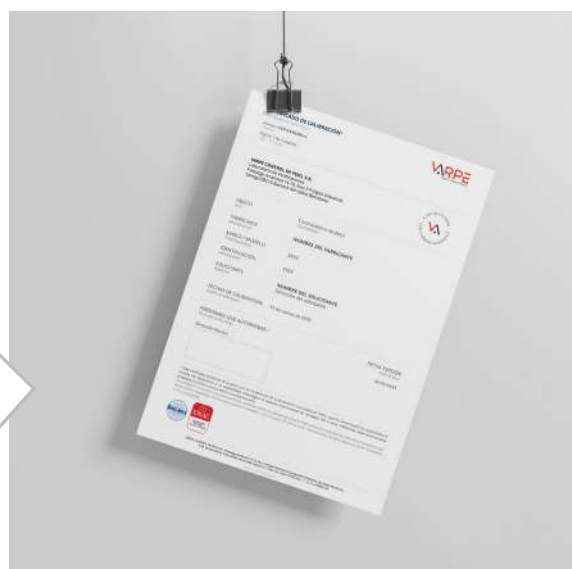
PAG. 26



LABORATORY OF VERIFICATIONS

Accredited **calibrations**,
accredited **tests**, support in
regulations and **certifications**,
quality advice, **CEM** and **CSN**,
metrology, **regulations** (IFS,
BRCS, GAMP5, CFR, FDA...)

PAG. 30





SOCIAL FACTORY

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Varpe has the mission of contributing to **society** with a **human team** committed to the **environment**, **quality** and, above all, **people**. For this reason, we place great importance on sustainability in all our processes, relying on local suppliers and seeking an **Agile** environment.



COMMITTED TO THE ENVIRONMENT

Sustainability concerns all aspects of our business, from design and production to the sale and supply of products, without forgetting the handling of these at the end of their **life cycle**.

INNOVATIVE SME



Varpe has the Innovative Company seal, a recognition that is granted to small and medium-sized companies that have a highly innovative character.





QUALITY COMPANY

- **UNE/EN/ISO 9001** quality certification.
- **UNE/EN/ISO 14001** environmental certification.
- Certification to commission Module D with **metrological confirmation** according to the European Metrology Directive.



COMMITTED TO SOCIETY

We have more than **40 years of experience** in many types of industries, which is why we offer technical support and quality advice and regulations that apply to the sector in which our clients operate.

PROXIMITY & AGILE

With preventive maintenance plans, Varpe will accompany you in the **care of your equipment** to get the most out of it and ensure that it is always adjusted and in optimal condition.



TAILOR-MADE DESIGN



VARPE develops customized state-of-the-art equipment and services based on the specific requirements and needs of each client and the industrial sector in which it operates.

Varpe offers customized global solutions and transforms weight control, X-ray inspection and metal detection systems depending on the type of format to be worked with.

In addition, Varpe has developed **specific technologies** for the detection of elements such as thorns, holes in bread, product integrity, etc.

TECHNOLOGICAL **SOLUTIONS** FOR EACH **SECTOR**

FOOD & DRINKS

The global solutions of Varpe respond to **regulatory compliance** and **safety requirements** of the food industry by improving processes in its production lines and product quality. Additionally, Varpe takes **hygienic characteristics** into account during the design, manufacturing and installation of all its equipment, thus ensuring food safety.





PACKAGING

Varpe has **specific solutions for other sectors**, such as packaging in general, including large volume packaging. Varpe approaches each client's perspective based on their needs.



AGRICULTURE, FARMING AND FISHERIES

The global solutions of Varpe for the agriculture, livestock and fishing sector **improve their production processes** by optimizing quality control management thanks to checkweighers, X-ray inspection systems and specifically designed metal detectors.

CHEMICAL, PHARMA AND COSMETIC

Varpe offers **high-performance solutions** with the greatest **precision** for applications in the chemical and pharmaceutical industry, with equipment protected especially to work in **aggressive environments**, equipped with the necessary IP grade.



EXPERIENCE WITH **MULTIPLE PRODUCT FORMATS**



PRE-PREPARED

Precooked, frozen foods, etc.



PRESERVES

Canned and uncanned preserves: tuna, mussels, olives, etc.



BAKERY

Industrial pastries: cookies, biscuits, sliced bread.



BEVERAGES

Any type of drink in glass bottles, PET, bricks, etc.



BULK

Coffee, legumes, nuts, rice, etc.



CORKS

Solutions for cava and wine corks.



MEAT & FISH

Unpackaged and packaged.



FRUITS & VEGETABLES

Fruits and vegetables of all kinds.



COSMETICS

Nail lacquers, perfume bottles, creams.



PHARMA

Nasal spray, blister packs, ointments, vitamins and powdered milk.



AEROSOLS

Aerosols for paint, lacquers, insecticides, etc.



TRAYS

Hygienic plastic cardboard sheets, bulky products.



EQUIPMENT WITH **CUSTOMIZED SOLUTIONS**

VARPE takes into account the premises and requirements of each client when designing the equipment. Not only is the sector and the type of product that must be controlled or inspected studied, but the feasibility of the project is also analyzed with respect to technical concepts such as sensitivity, the space available on the line,

whether it is an inclined plane or if the conveyor belts are in direct contact with the bulk product, for example.

All of this will define us as a unique team completely adapted to what the client needs.



HYGIENIC APPROACH

Hygienic approach committed to the EHEDG in the design, construction, installation and use of the equipment that will intervene in the process of manufacturing food or pharmaceutical products to guarantee the safety of the manufactured products and minimize their risk of contamination.



INCLINED PLANES

We develop equipment designed for inclined planes or working heights that are outside the standards.



UNIQUE PROJECTS

Varpe manufactures completely ad hoc equipment for factories with special characteristics.



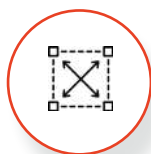
EASY TO DISMOUNT

The equipment is easy to disassemble and requires a minimum number of tools for maximum convenience in maintenance.



CORROSIVE ENVIRONMENTS

The equipment is adapted depending on the environment in which it will be installed, to obtain maximum durability and performance.



LITTLE SPACE

Its compact design requires little space on the production line. In addition, we manufacture equipment with several integrated solutions, to maximize space.



TECHNICAL CHARACTERISTICS

The technical characteristics of each equipment will be defined according to the line in which it will be installed, so that its integration is perfect.

NEW TECHNOLOGIES



New technologies provide enormous possibilities in all industrial areas, including quality control. Today's productions can have traceability, inspections and detections that a few years ago we could not even imagine.

In recent years, **new communications** have been incorporated into quality control equipment, such as QR codes, vision elements or Modbus OPC UA protocols for greater intercommunication with MES management programs and industry 4.0.

Now, new **artificial intelligence** technologies are beginning to be added to manufacturing lines, allowing even greater precision in the detection of defective products.

At this point it is important to talk about **deep learning**, whose goal is to make detectable what is visible to the human eye but until not so long ago was impossible for a machine to detect.

At Varpe we apply these **new technologies to our equipment**, from checkweighers with major developments in terms of traceability and labeling to X-ray inspection equipment that incorporates complex algorithms with artificial intelligence and deep learning.

TRACEABILITY

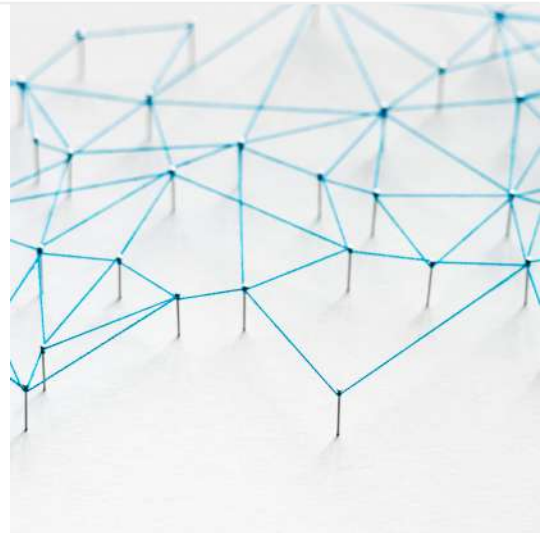
More and more manufacturers need to have **complete monitoring of all the processes** that the product goes through. Varpe incorporates into its equipment the necessary technologies for each application.





DEEP LEARNING & R+D+i

At Varpe, several applications based on deep learning are being developed for X-ray inspection with different cases and product typologies, such as **object detection**, **anomaly detection** and **intelligent segmentation**.



ARTIFICIAL VISION

Our **control and inspection** equipment can incorporate **complex artificial vision technologies** to help with the **detection of deformities**, **absence of labels** and other specific applications for each product.

GLOBAL EFFICIENCY EQUIPMENT

Varpe equipment is prepared to provide **high reliability** and **total effectiveness** when producing so that **maximum production performance** can be obtained.





NEW TECHNOLOGIES IN **CHECKWEIGHERS**



Checkweighers are equipment that weighs products that circulate on one or more conveyor belts. They are part of a **quality control system** and serve to ensure that all products leaving the production line are of the appropriate weight and meet packaging requirements.

The checkweighers determine the mass of the product without the intervention of an operator and automatically separate the products from the line that do **not comply with the tolerance limits**. The Varpe equipment, with high capacity and speed, follows the market demands for the optimization of control quality.

Varpe manufactures equipment **adapted to each product and sector**, taking into account the needs of each client so that the integration into its line is perfect and effective.

SYSTEMS AND REGULATIONS



WITHOUT STOPPAGES

Automatically **controls the weight of 100%** of the products without stopping the production chain.



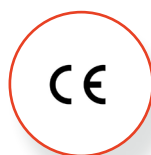
IP PROTECTION & INOX

The IP protection level and the materials of the equipment can be adapted depending on the aggressiveness of the environment.



BATCH CONTENT CONTROL

They control the effective content of the batch of packaged products **to comply with current** regulations.



CEE REGULATIONS

With the option to work under CEE regulations, which automatically takes into account the tolerance and quantity of accepted containers.



METROLOGY

Varpe checkweighers are measuring instruments that meet metrology requirements to control effective content.



FEEDBACK SYSTEM

Compensates for variations that occur in the density of some products during manufacturing and avoids unnecessary rejections.

VARPE CHECKWEIGHERS RANGE



V2000 ESSENTIA

Dynamic checkweigher with essential functions



V2000 CLASSIC

High precision dynamic checkweigher



V2000 CAN

Dynamic checkweigher for high production



V2000 MULTITRACK

Dynamic checkweigher for multitrack productions



V2000 WAFFER

Dynamic checkweigher for wafer applications



V2000 ROBUST

Dynamic checkweigher for bulky containers



V2000 ROTARY

Dynamic checkweigher for rotating productions



V2000 ACCURACY

Dynamic checkweigher for pharmaceutical applications



V2000 STATIC

Static checkweigher with nails



COMBO X-RAY

Checkweigher with X-ray inspection



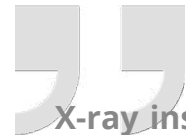
COMBI MD

Checkweigher with metal detection





NEW TECHNOLOGIES IN X-RAY INSPECTION SYSTEMS



X-ray inspection equipment can be installed in different phases of a production line, both at the beginning with the **bulk product**, and during **processing** or **final packaging**, in search of contaminants such as metal, glass, stone, ore, calcified and plastic bone.



These systems include **complex algorithms** that provide the production line with a high capacity for **detecting all types of contaminants**. Varpe develops specific equipment for any product and sector. Additionally, they simultaneously verify damaged products, breakages, mass measurement and counting of elements within the product.

EXCLUSIVE DEVELOPMENTS



VARIOUS TYPES OF BEAMS

Vertical, lateral and/or **double shot** (vertical and lateral) and **triple** shot beam technology.



IP PROTECTION & INOX

The **IP protection level** and the materials of the equipment can be adapted depending on the aggressiveness of the environment.



IA & DEEP LEARNING

It includes **exclusive X-ray developments** for packaged, canned and glass products, as well as bulk applications with artificial intelligence.



SAFETY

All equipment conforms to **international safety standards** governing ionizing radiation emissions.



DUAL ENERGY

It offers **improved accuracy** when finding low-density contaminants such as calcified bones, thorns and stones.



HIGH DEFINITION

High Definition X-ray generator and detector that provides sharper, high-resolution X-ray images.

RANGE OF X-RAY INSPECTION EQUIPMENT



IRIX ESSENTIA

X-ray inspection equipment with essential functionalities



IRIX DV CLASSIC

X-ray Inspection equipment with vertical beam



IRIX DL SIDE

X-ray Inspection equipment with side beam



IRIX DDL SIDE PLUS

X-ray Inspection equipment with double side beam



IRIX DLV AXIS

X-ray Inspection equipment with double side-vertical beam



IRIX TDV XXL

X-ray Inspection equipment with triple beam for big products



IRIX BULK

X-ray Inspection equipment for bulk applications



IRIX CORK

X-ray Inspection equipment for cork applications



IRIX DV HD

X-ray Inspection equipment with high-definition



IRIX DV DUAL ENERGY

X-ray Inspection equipment with dual energy



COMBO X-RAY

Checkweigher with X-ray inspection



NEW TECHNOLOGIES IN

METAL DETECTORS



Metal detection equipment checks for **metal-contaminated products** as they are transported through the production line, diverting them from the production line.

Varpe metal detectors offer comprehensive production monitoring with the goal of finding any metal contamination.

Our metal detectors are manufactured with the best components on the market, ensuring high operational performance and low maintenance.

TECHNOLOGIES & DEVELOPMENTS



VARIABLE FREQUENCY

Variable frequency technology optimizes detection levels over a wide range of different product conditions.



MULTIPLE FREQUENCY

Multi-frequency technology in Essentia products for greater sensitivity.



CLEAR-CUT INTERFACE

Its **clean interface** offers a great user experience and helps minimize user errors by simplifying inspection.



IP CLASSIFICATION

Ratings up to IP69K, which means they are suitable for both low and **extreme aggressive environments**.

RANGE OF METAL DETECTORS



MD SINGLE ESSENTIA

Essential embeddable metal detection Module



MD SINGLE CLASSIC

Classic embeddable metal detection Module



MD SINGLE HD

Integrable metal detection module with touch screen



MD PHARMA ESSENTIA

Metal detection system for essential pharmaceutical applications



MD FREE FALL ESSENTIA

Metal detection system for bulk equipment with essential aspects



MD FREEFALL HD

Metal detection system for bulk equipment with touch screen



MD PIPELINE HD

Metal detection system for fluid products



COMBI MD

Checkweigher with metal detection



ADAPTABLE SOFTWARE



We are aware of the importance of perfect integration of the equipment with the rest of the production line. Therefore, all our equipment has IoT technology for **real-time monitoring** of what is happening in the plant.

EQUIPMENT CONNECTIVITY

It is important that if something happens in the plant we immediately have control over it, without having to be at the machine thanks to the well-known Industry 4.0. For this reason, Varpe teams have extensive communications systems that adapt to the needs of each client and are thus easily added to smart factories.

There are several ways to establish this communication depending on the needs of the production line, whether you have a Manufacturing Execution System (MES) or whether you need external applications and the intervention of devices such as code readers, printers, etc

REAL-TIME CONNECTION

The equipment can be accessed through a remote connection in real time through an Ethernet connection and the Varpe Monitor software. This will allow you to access the equipment via remote control, see what is happening during production and make adjustments without having to go to the machine.





MES INTEGRATION

It is also possible to collect data on the current status and consolidated production of the machine through the standard industrial **protocols TCP Modbus** and **OPC UA**. This system also allows actions to be carried out on the equipment centrally without having to be present at the machine. External software is required to access the data.



SOFTWARE

If you want to view complete data from Varpe equipment without needing to implement an MES, there are two customizable data hubs developed by Varpe that store information in databases: VIT4 and Datahub. With these concentrators you can obtain complete information on productions with lists, formats, analytics and statistics.

PREDICTIVE ALGORITHMS

Varpe equipment includes algorithms that help implement **preventive maintenance** in the plant. For example, alarms can be set to warn of upcoming events, such as periodic reviews, or predictive actions based on hours of use.





ADAPTABLE SOFTWARE

SMART INDUSTRY VIT4



VIT4 is a software designed to **store and manage the data** generated by Varpe equipment during production.

DATA MANAGEMENT



REAL-TIME DATA

Shows real-time information on the status of connected machines and ongoing production. It has graphics for quick visualization.



FUTURE FORECASTS

The system gives warnings about future events, such as upcoming maintenance for better organization of production.



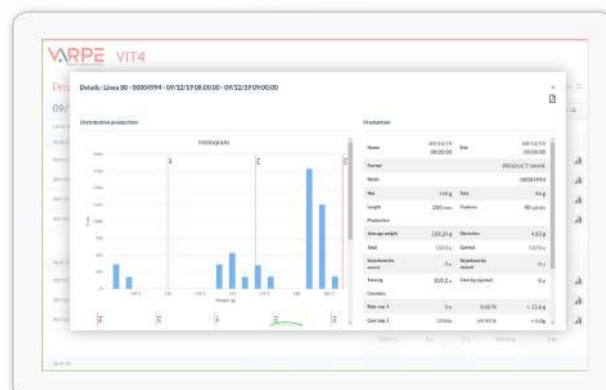
CONSOLIDATED PRODUCTION DATA

It stores the data that the Varpe machines have generated and displays it in an orderly manner, allowing subsequent analysis through the creation of reports.



VARIETY OF DATA

High data availability: level counters, average weight, deviation, productivity and current format data, production graphs and histograms, etc.



REPORTS AND DATA EXPORT

Complete reports of closed productions: production data, rejections, levels, formats and visual graphics. Easy export of all data using .csv extension.

VIT4 SOFTWARE SERVICES

VIEWER
VIT4 BASIC PLAN

ADVANCE
VIT4 ADVANCED PLAN

MASTER
VIT4 PREMIUM PLAN

	Free	Advanced	Complete
Current production statistical data (counters)	✓	✓	✓
Current production graphics	✓	✓	✓
Consolidated production statistical data (counters)	✓	✓	✓
Consolidated production graphics	✓	✓	✓
Consolidated production listing	✓	✓	✓
Export of consolidated productions	✗	✓	✓
Individual weights data, graphics, and listing (CP)	✗	✗	✓
Rejected images data (RX)	✗	✗	✓
Customization with logo	✗	✓	✓
Audit trail of latest movements (100 records)	✗	✓	✓
Historical audit trail	✗	✗	✓
Production data customization listing	✗	✗	✓
Preventive maintenance alerts	✗	✗	✓
Number of VIT4 users under login	-	3	unlimited
VIT4 user permissions management	default	default	configurable
Format configuration	✗	✗	✓
Machine configuration	✗	✗	✓
Machine user configuration	✗	✗	✓
Direct communication - RESTful API	✗	✗	✓

¿DO YOU NEED SOMETHING ELSE?

TAILOR-MADE SOFTWARE **TAILOR**
VIT4 CUSTOMIZED PLAN

Varpe offers customization of VIT4 tailored to the client's needs.



” ACCOMPANIMENT

Varpe offers services **throughout the entire process**, from commercial advice to the end of the product life cycle, without forgetting the commissioning of the equipment, user training, maintenance and spare parts services and after-sales service.



COMISSIONING & TRAINING

Commissioning of the equipment and checking its correct operation at the client's facilities with their products.

Training for operators who will regularly work with the equipment and maintenance personnel.

TECHNICAL ASSISTANCE SERVICE

We know exactly how to take care of your equipment to ensure perfect operation and we have a team of technicians at your disposal, constantly traveling throughout the territory.





MANAGEMENT & SHIPPING OF **SPARE PARTS**

Your Varpe technician will manage, prepare and send the spare parts you need. We always work with materials and products of the **highest quality**, as well as original spare parts.

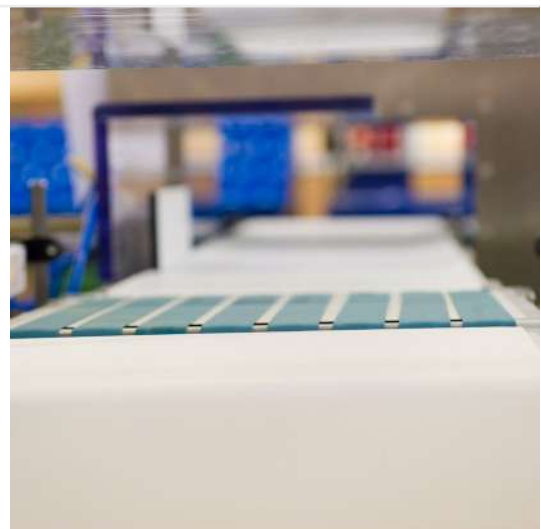


AUDITS SUPPORT

We have more than 40 years of experience in many types of industries, which is why we offer technical support and **quality advice and regulations** that apply to the sector in which our clients operate.

MAINTENANCE PLANS

With preventive maintenance plans, Varpe will accompany you in the care of your equipment to get the most out of it and ensure that it is **always adjusted** and in **optimal condition**.





ACCOMPANIMENT

MAINTENANCE PLANS



Thanks to preventive maintenance, your equipment will always be **adjusted** and ready to operate in **optimal conditions**.

Varpe maintenance plans are designed to cover all the maintenance needs of the different equipment.

- Avoid unnecessary production stops
- Schedule revisions when appropriate for your production
- Extend the life cycle of your equipment thanks to periodic reviews that will prevent major breakdowns
- Achieve maximum performance and optimal operation of your machinery
- Get a higher return on investment

With our plans we take care of your **equipment**, we take care of your **production**



Personalized
support and advice



Diagnostic
and review visits



Training
refreshment
for staff



Radiation
level certificate



Calibrations and
sensitivity tests with
ENAC certification

OFFICIAL **AFTER-SALES** PLANS

There are different **preventive maintenance** plans:



Commissioning of the equipment.



Remote assistance plan, there is always someone on the other side for you.



Preventive maintenance plan with a diagnostic visit and certificates included.



Complete maintenance plan tailored to the client.



MAINTENANCE PLANS



	Remote assistance	Preventive Maintenance
Telephone or remote support (10h) with Augmented Reality or Varpe Monitor	✓	✗
Telephone advice in less than 5 hours *	✓	✓
Diagnostic visit and check-up	✗	✓
Visual Component Status Review Document	✗	✓
Review and preparation for periodic metrology verifications	✗	✓
Reminder training during the visit	✗	✓
Quality & Engineering Consulting	✗	✓
Calibrations or sensitivity tests for two ENAC-certified formats	✗	✓
Radiation Level Certificate for X-ray Equipment	✗	✓

*During business hours (European time)

CUSTOMIZED MAINTENANCE PLANS

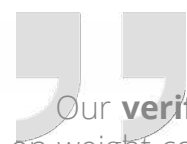


Do you need a **specific plan** for your production?

Consult your manager about the possibility of a service designed and created for you with the VA·GOLD plan.



VERIFICATIONS LABORATORY



Our **verifications laboratory** performs calibrations and different types of tests on weight control and contaminant inspection equipment. In addition, it has experts in **quality, metrology and regulations** (IFS, BRCS, GAMP, 21 CFR, FDA), who advise clients based on their needs.

The verification laboratory is an organization that impartially and confidentially carries out a series of tests, calibrations and sampling related to weight control, X-ray inspection and metal detection equipment.

In addition, the technical offices design the equipment based on the relevant approvals, to ensure compliance with regulations relating to weight control and X-rays.



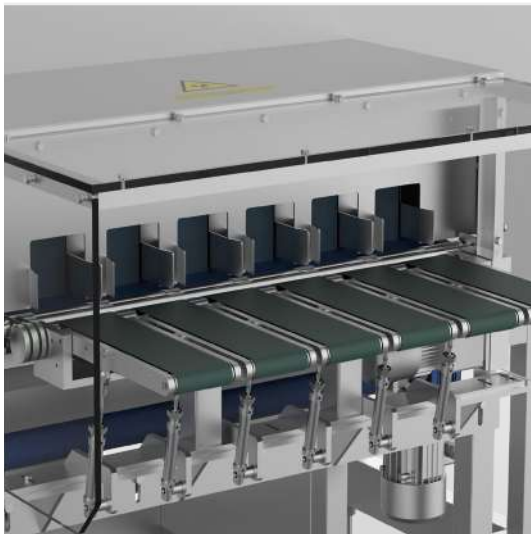
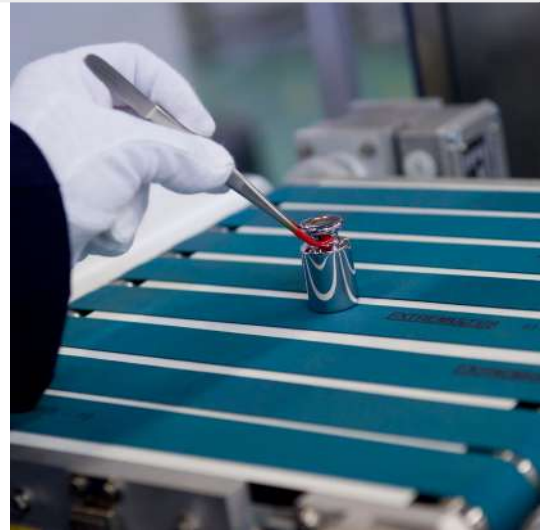
METROLOGICAL VALIDATION TEST

Metrological validation of checkweighers for marketing, commissioning and repair.



CALIBRATION OF CHECKWEIGHERS

Varpe performs **calibrations of checkweighers** based on the weights of the desired formats and the speed at which each weight must be calibrated, with **ENAC certification**.



RX AND DM SENSITIVITY TEST

Varpe carries out **sensitivity tests with ENAC certification** for a format at the predetermined working speed with the selected patterns.



RADIATION AND SAFETY LEVELS TEST

Measurement of radiation levels and verification of security systems for X-ray inspection equipment, mandatory according to CSN specifications.





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