

# WGL

PROCESS WEIGHT DOSER



 **PAGLIERANI**

mechatronics at its best

# Paglierani World

Paglierani offers you  
10 fundamental  
benefits  
for strengthening  
your business.



## SINGLE PARTNER

From a single machine to a complete line, from a simple standard system to a custom solution, Paglierani is your single partner to **reduce costs and risks** in the realisation of a high-performance plant.

## 99.9% RELIABILITY

Standard machines industrially constructed, almost a century of know-how in the weighing and bagging field are your guarantees of **high-performance and reliable machines**, perfectly **coordinated** with **the upstream and downstream machinery**.



# 3



# 4



# 5



# 6

## EVEN IN AGGRESSIVE ENVIRONMENTS

For use in aggressive environments, the machines are treated with **anti-corrosion painting** cycles and the parts in contact with the product are in **stainless steel**, nuts and bolts included.

## SAFETY AND REGULATORY COMPLIANCE

Perimeter protection and light curtains guarantee the most complete **extrinsic safety** while **intrinsic safety** is ensured by the machine's construction type.

## ITALIAN MADE

All Paglierani products are **designed, produced and assembled in Italy**, in our plants. With an all-Italian know-how to guarantee the highest quality level.

## REFERENCES ALL OVER THE WORLD

Our installations have been improving our customers' business **since 1926**. Almost a century of experience in the field and hundreds of **references across the globe**.





# 7

## PRE-SHIPMENT TESTING

Prior to shipment, all machines are **pre-assembled, connected and tested**. Thus ensuring their proper functioning and high performance. During this procedure, **the customer may attend all tests**.



# 8

## USER-FRIENDLY & SMART

Machines and complete lines that are **easy to use, quick to clean and simple to maintain**. Constantly monitored remotely with the **on-line service**.



# 9

## TECHNOLOGY AND SUSTAINABILITY

Our machines are designed to guarantee **optimal use of energy** and deliver the highest performance with **minimal consumption**.



# 10

## ORIGINAL SPARE PARTS. ANYTIME AND ANYWHERE

The high and constant availability of original spare parts, **guaranteed for machines' entire lifecycle**, makes Paglierani a totally reliable partner, with **fast deliveries anywhere in the world**. And your business is guaranteed to never stop.

# **WGL - Process weight doser. Making the process high-performance right from the start.**

## **WEIGHING PRECISION: +/- 0.1%**

The use of load cells (OIML approved, 3000 divisions) and the special weighing cycle guarantee outstanding precision (+/- 0.1%).

## **RUGGED CONSTRUCTION**

The high quality of the materials used and the impressive design and construction experience of Paglierani, mechatronics firm and industry leader, guarantee reliability and unbeatable performance. Extremely tough dosers, built to work NON-STOP, 24 hours a day.

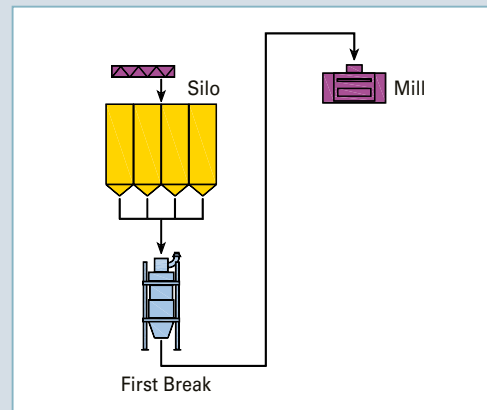
## **MINIMAL MAINTENANCE**

The elimination of moving parts and easy access to internal components deliver minimal, trouble-free maintenance.

## APPLICATIONS

### IN-PROCESS

For controlling quantities of incoming products.



## CONSTRUCTION TYPE

### TUBULAR

For weight dosers model:  
**WGL 20 - WGL 40**

The airtight tubular form makes these dosers ideal for applications requiring compliance with the strictest hygiene standards.

There are no parts where contamination may occur. All control devices (load cells, pneumatic cylinders and limit switches) are on the outside, preventing direct contact with the product and wear of the components themselves.



## QUALITY OF MATERIALS

The standard version is in **carbon steel painted with food-approved paints**.

A special anti-contamination version has contact parts only in **AISI 304 stainless steel**.

For aggressive environments and applications, units are in **AISI 304 or AISI 316 stainless steel** throughout.

## THROUGHPUT

**WGL 20** and **WGL 40** dosers, with constant outgoing flow regulator, are only suitable for use with granular products.

	WGL 20	WGL 40
Cereals (S.W. 0,7)	Up to 20 ton/h	Up to 40 ton/h
S.W. = kg/dm <sup>3</sup>		

The flow-rate required is set on the weighing control unit, which opens a discharge shutter by the amount required to obtain a constant flow of product, at the set flow-rate, to supply the process machine installed downstream.

The electronic control unit maintains and ensures a constant quantity of product inside the doser to neutralise static pressures and guarantee a precise output flow-rate.

To obtain a constant output flow rate to supply the process machines, the WGL doser is equipped with a self-regulating shutter at the doser discharge point.



## WEIGHING ELECTRONIC CONTROL UNIT

Can be installed on-board the unit or remote, in the zone considered most suitable for monitoring of the data processed. It is completely enclosed in an airtight case and also incorporates the electronic circuit boards. It is extremely user-friendly and the programming procedure involves "guided steps" (machine/operator dialogue).

The ECU has a weight autolearning programme and is able to save and display the following information:

- **Hourly throughput in t/h;**
- **Instant throughput in t/h;**
- **Total "A" cumulative in kg, resettable;**
- **Total "B" cumulative in kg, resettable;**
- **Daily total in kg;**
- **Previous day total in kg.**

The flow-rate achievable depends on the product (specific weight and particle size) and the weight required.



## PNEUMATIC CONTROL EQUIPMENT

The pneumatic system is complete with FRL unit and solenoid valve. It is easily accessible for maintenance.





## OPERATING CYCLE



# 0

When the Start command is given, the WGL doser opens the intake shutter to allow the set quantity of product to enter the weighing vessel.

# 1

Once the product has entered the vessel, the discharge actuator starts to open in accordance with the required flow-rate, and this aperture will remain constant, with small variations, in response to the reduction in weight inside the weighing vessel.

# 2

Once the minimum weight threshold set is reached, the discharge shutter position is frozen and the intake shutter is opened again to take in product.

# 3

This cycle is repeated continually so that the pressure on the discharge actuator is constant at all times, to avoid affecting the flow of product leaving the doser.

## COMMUNICATION OPTIONS

In addition to the machine's default communication equipment, the following are available:

- MODBUS TCP/IP
- 232 PROFINET
- 232 ETHERNET IP



**WEIGHING, PACKING FILLING, PALLETISING &  
STRETCH WRAPPING SYSTEMS.**

PAGLIERANI s.r.l. · via Santarcangelo, 5 · 47824 Poggio Torriana RN · Italy · tel. +39. 0541. 31 11 11 · fax +39. 0541. 67 54 60  
info@paglierani.com · [www.paglierani.com](http://www.paglierani.com)