

# V-Shapes®

Innovative unit-dose packaging



V-SHAPES® VFFS MACHINE MODEL

# alpha



**FOOD**



**COSMETIC**



**MEDICAL/PHARMA**



**CHEMICAL**



# alpha



Separated, external electrical cabinet IP55

Anti-vibration frame structure in solid cast steel

Patented mechanical micrometric engraving system with pneumatic actuation

✓ <b>HIGH PERFORMANCE INDUSTRY 4.0 INTEGRATED DESIGN</b>	✓ <b>MODULAR SYSTEM</b>	✓ <b>COST EFFECTIVE THROUGH MAXIMUM EFFICIENCY</b>	✓ <b>INTUITIVE AND USER FRIENDLY HMI</b>
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### Versatile

Filling volumes from 0.2ml to 30ml.  
Multiple sachet sizes and shapes available



### Easy change set

Changeover time under 30 minutes



### Reliable

The Alpha series machine represents the most efficient way to pack any type of product, whether liquid or thick



### Average output

Up to 16,000 units per hour



### Accurate

Up to 0.5% filling accuracy based on product type.  
Multiple precision filling and dispensing systems available



### Adaptable

To any industry: Pharmaceutical, Cosmetic, Food and Chemical

Our fully-automatic, multi-lane vertical form, fill & seal machine can work across multiple products in any industry.

With a wide range of filling volumes and customizable dimensions available, the Alpha also stands out for its small, compact footprint and modular system. The attractive, modern design houses a core of best-in-class technology and the latest generation components. Brushless motor technology and accurate brushless motor dosing systems prevent costly overfilling on volumes from 0.2 ml to 30 ml.



- ⊗ All parts in contact with the product are made of stainless steel AISI 316L
- ⊗ Brushless motors (up to 10 units)
- ⊗ Touch screen control operator panel 15" (HMI) with integrated recipe management
- ⊗ Welding station for vertical and horizontal sealing with electronically controlled temperature system Powered by Siemens (Rockwell upon request)
- ⊗ Expandible pneumatic reel shafts
- ⊗ Abnormal air pressure sensor
- ⊗ End of line pouch die-cutting group, with pneumatic system to control sachets output
- ⊗ Synchronization kit to handle synchronization between the pre-printed bottom semirigid film and top flexible film
- ⊗ Conformity with GMP, easy cleaning and access to all machine parts
- ⊗ Good visibility of the product flow
- ⊗ Clear and modular structure
- ⊗ Conformity with CE/FDA regulation
- ⊗ ATEX and CSA certifications upon request
- ⊗ Production management with pieces counter
- ⊗ Swing arm control panel
- ⊗ Up to 6 lanes depending on sachet format



FILLING SYSTEMS



VOLUMETRIC PUMP

**Volumetric Filling System**

This system is capable of dosing fluids with low/medium viscosity with quantities ranging from 1-15ml with a sensitivity of 0.2gr

**Composed by:**

- One volumetric pump to load the product into hopper on top of machine
- 6 volumetric guns for filling with integrated speed closed loop control controlled directly from HMI
- 6 flow sensors can be integrated in the system for automatic flow control at speed change
- Integrated pressurized C.I.P. system (Cleaning-In-Place) which guarantees the cleaning and sanitization of the filling circuit
- The cleaning program can be set via HMI



VOLUMETRIC GUN



FLOW SENSORS



**Direct Filling System**

This is the standard dosing system supplied with the Alpha machine. The system is capable of dosing fluids with high viscosity with quantities ranging from 5-30ml with a sensitivity of 0.5gr.

**Composed by:**

- One volumetric pump that transfers from the tanks to the dosing cannulas
- The product flow is controlled by 6 manual taps located above the cannulas.

**Customized dosing systems**

Tailor-made dosing systems are studied and created to meet customer needs (e.g. high precision, systems for pharma environments, high viscosities, etc.)

**INTEGRATED MARKING AND CODING**

**INKJET**

Inkjet gun is mounted over a sliding, motorized, PLC-controlled system

**THERMAL TRANSFER**

Three units (128 mm x 150 mm) cover and print the entire back surface of the V-Shapes® units

**LASER CODING**

Fiber Laser Marking System 50w: up to 600 m/min, max. marking area 498.5 mm x 366.5mm



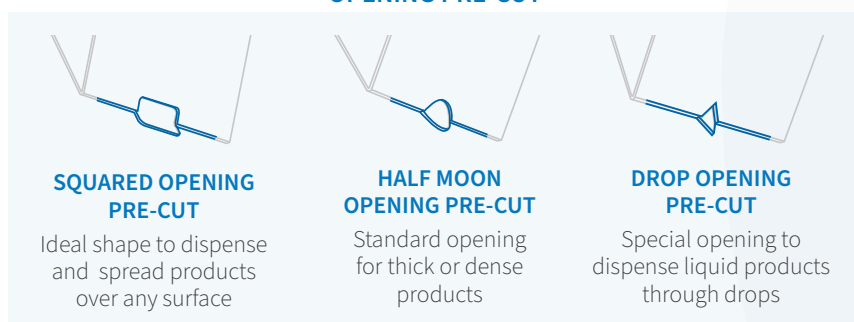
## TECHNICAL DATA

Production capacity	up to 300 units/minute
Changeover time for complete sachet change	30 minutes
Max film reels dimensions and weights	Left shaft 600mm/23.62" Left shaft 130kg/330.70 lb (Bottom semi-rigid reel) Right shaft 400mm/15.75" Right shaft 80Kg/176.37 lb (Top flexible reel)
Film reel consumption	up to 5000mm/min
Standard seals width dimensions	5mm
Max mechanical tolerance	+/-1mm
Machine colour	RAL 5026 or other RAL upon request
Electricals	Standard IP55, IP67 upon request
Electronic "On Board Equipment"	PLC Siemens S7 1500T - Rockwell PLC and Environment upon request 9 brushless motors 1 asynchronous for loading hopper or direct dosing Intelligent Power Management
V-Shapes® sachet dimensions	Height from 50 to 100mm / 1.969" to 3.937" Width from 40 to 100mm / 1.575" to 3.937"
Air pressure	8 bar, 600 NI/H
Power supply	24 Kw/h
Weight (maximum)	3000 kg / 6612 lb
Machine dimensions	2100mm x 1300mm x 1700 mm (H) 827" L x 512" W x 66.9" H

### ANY SIZE BETWEEN 40mm AND 100mm AVAILABLE



### OPENING PRE-CUT



INDUSTRY 4.0 CERTIFIED, SPECIFIC V-SHAPES® MES SYSTEM UPON REQUEST



Machine ready to use PLA compostable material and recyclable multilayer homopolymer.

**PATENTS** | 102017000149752 | PCT/IT2018/000108 | WO2019/138434 | 102017000149766 | PCT/IT2018/000166 | WO 2019/138435 | 102019000009036 | PCT/IT2020/050143 | 102018000003297 | PCT/IB2019/051718 | 102018000003287 | 102019000001235 | PCT/IB2020/050600 | 102020000021802 | 202020000005422 | 102020000025687

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