

MONTREAL

सिक्किम

ISTANBUL

YOUPOUGON

QUITO

MELBOURNE

UNIFILL

LEADING MONODOSE TECHNOLOGY
ITALIAN   MADE

The Equipment Range

SINGAPURA

SAN SALVADOR

MEDELLI

BILBAO

BOGOTA

KØBENHAVN

MILWAUKEE

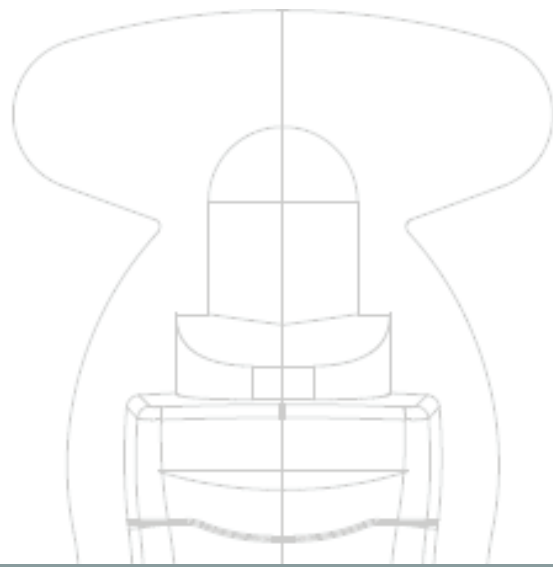
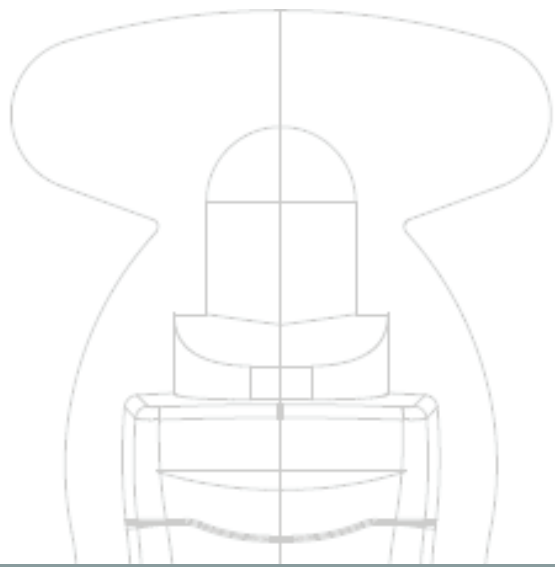
天津

杭州

LOCHAU

GUADALAJARA

AULO



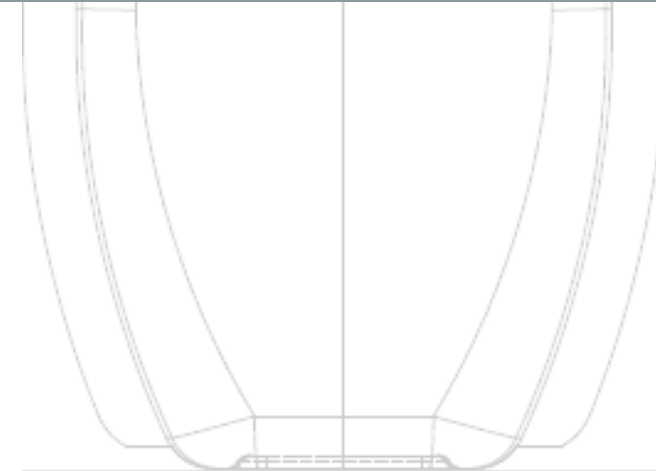
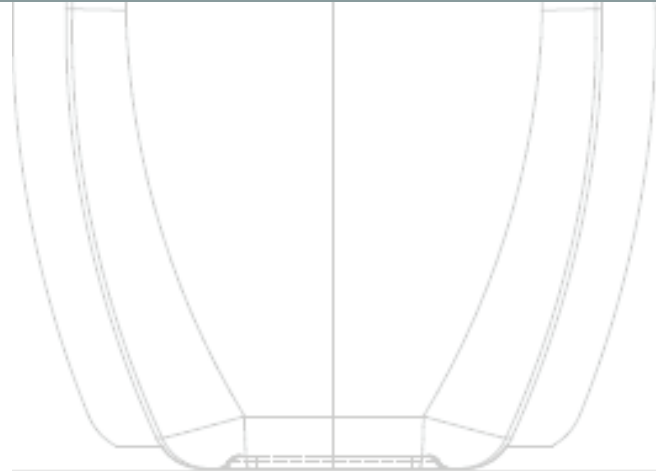
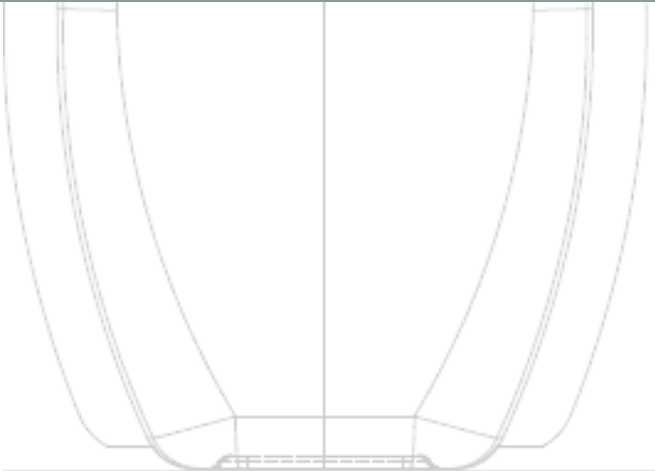
TF-K TF-K/HS

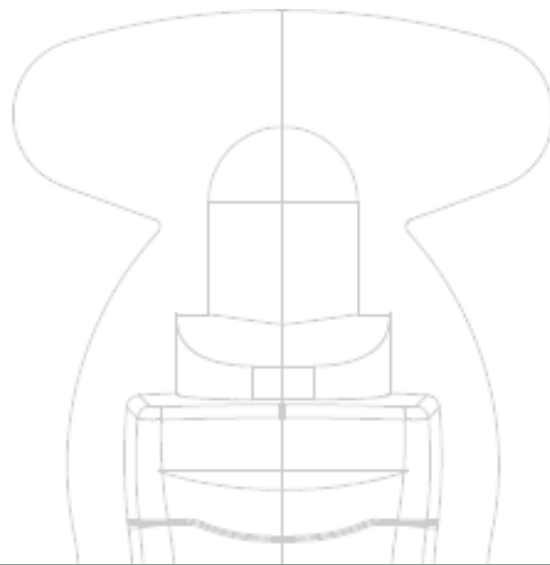
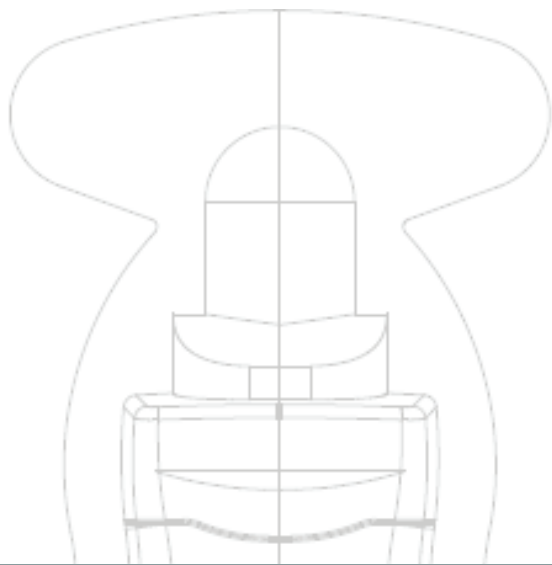


TF-02/EP TF-02/EP-300



TF-03

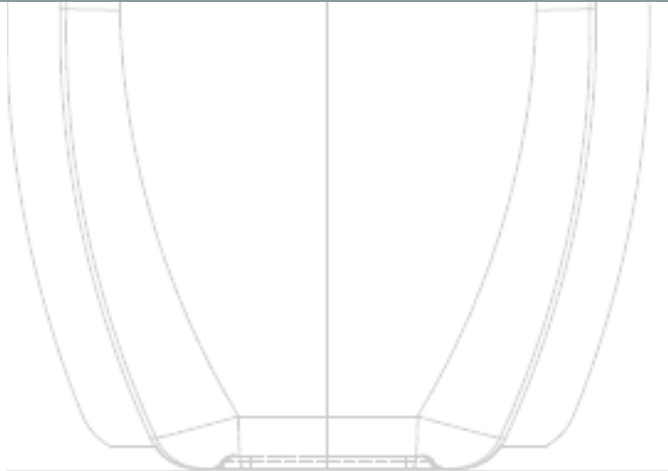
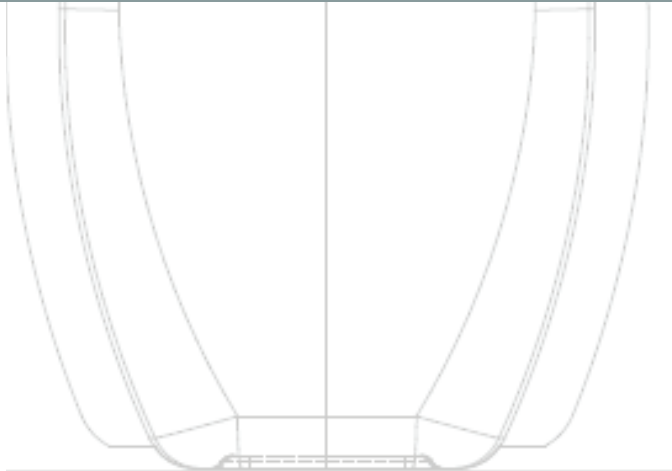


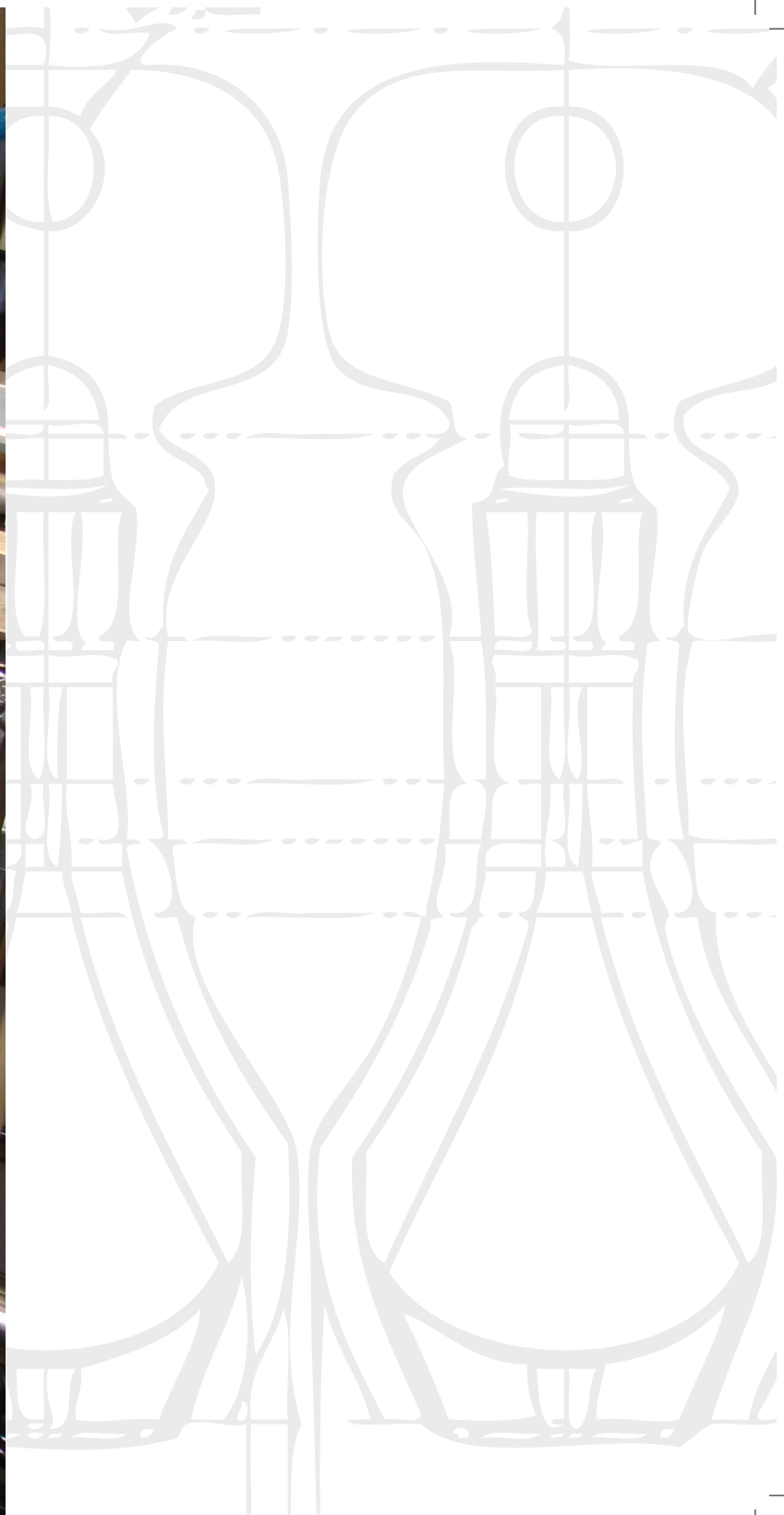



TF-400

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WHO WE ARE. As the inventor of the Vertical Thermoform, Fill & Seal technology back in the early 80s -and having been the unchallenged world leader in the manufacturing of such systems over the last three decades- UNIFILL can today offer fast and simple solutions to any requirement that may come from the world of unit-doses. With its wide range of highly efficient and versatile machines, UNIFILL can meet any specific demand in terms of investment budgets, special working conditions and output requirement.

WHAT WE DO. Ideal for any food and non-food application, UNIFILL machines can produce Peelable packs -for products that solidify after filling- as well as Squeezable packs -for products that remain liquid or semi-dense.

HOW WE DO IT. Smartly combining the benefits of Form Fill & Seal and Blow Fill & Seal technologies, the UNIFILL system represents the ideal solution for every unit-dose application as it offers the possibility to obtain attractive and unique 3D thermoformed containers produced with an unlimited variety of plastic materials.

WHAT WE FILL. UNIFILL machines are suitable for the filling of virtually any kind of liquid, semi-dense or even granular product.

HOW WE FILL IT. A wide range of Dosing and Filling Units are available to meet different product characteristics, such as GRAVITY FILLERS, PISTON FILLERS, MAGNETIC FILLERS, MASS FILLERS, etc. All Dosing & Filling Units

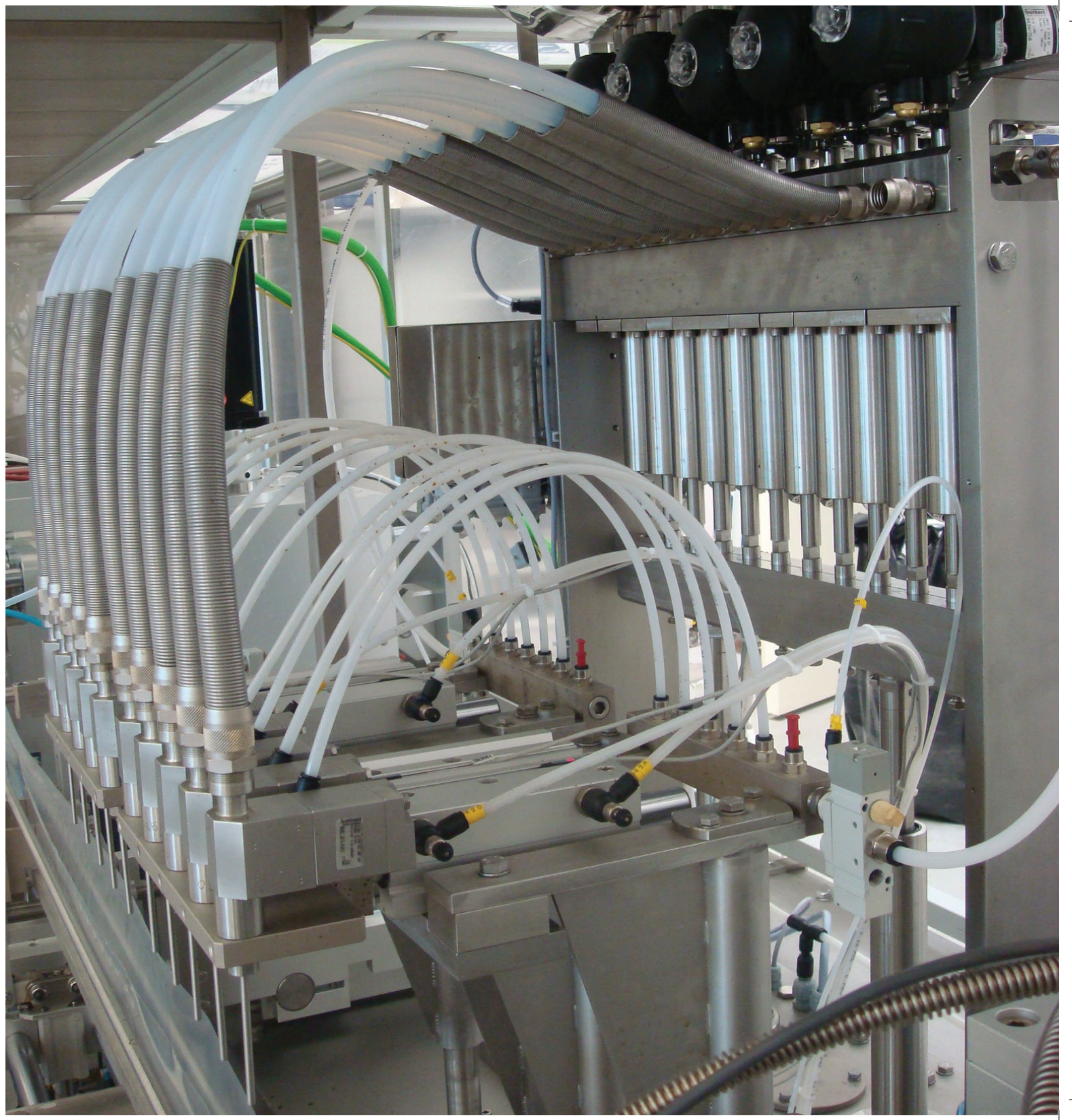
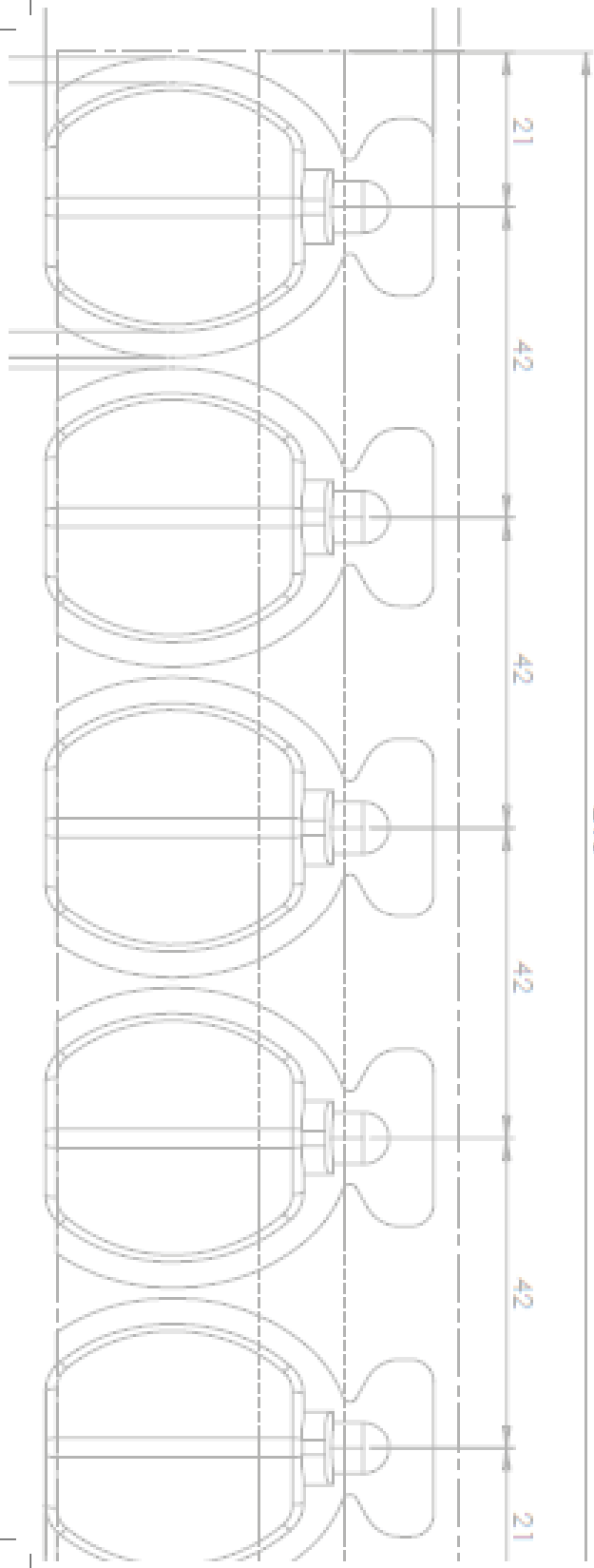
are also available in the HOT FILLING VERSION.

WHAT MATERIALS WE USE. UNIFILL machines can use any kind of heat-sealable and thermo-formable plastic material such as PVC/PE, PET/PE, PS/PE, PP/PE, PA/PE that can either be laminated or coextruded and that can feature -whenever needed- special barriers such as EVOH, PVDC, BAREX, etc, to offer your products the highest protection and the longest shelf life.

Special retort-materials can also be handled to allow a complete AUTOCLAVE post-sterilization process of the containers at machine exit.

AVAILABLE OPTIONS. Besides standard optional devices such as PRE-CUTTING DEVICES, PRINT REGISTRATION UNITS, CODING SYSTEMS, etc, some special optional INTEGRATED SYSTEMS are available such as INTEGRATED COOLING TUNNELS for products refrigeration immediately after filling, INTEGRATED LABELLING SYSTEMS for front & back labelling, CARTONING / BAGGING MACHINES for down-stream over-packing.

ULTRA-CLEAN PACKAGE. All UNIFILL machines can be built in special ULTRA-CLEAN versions for those applications that require highly hygienic operations. The basic Ultra-Clean Package includes THERMOFORMING WITH STERILE AIR, INERT GAS FLUSHING, MAGNETIC FILLING UNIT, LAMINAR FLOW WITH HEPA FILTER. Special film sterilization units and UV lamp devices are also available to complete the Ultra-Clean Package.



INDIVIDUALLY SHAPED-CUT CONTAINERS OR CONNECTED STRIPS
FLAT OR ROUND STICK APPLICATOR
POSSIBILITY TO ALSO SHAPED-CUT CONTAINERS OR CONNECTED STRIPS
FILL GRANULES
ANY KIND OF LIQUID AND SEMI-DENSE PRODUCTS
ANY PLASTIC MATERIAL TO INCLUDE ALL BARRIER MATERIALS
INTEGRATED COOLING SYSTEMS
TOP CLASS COMPONENTS
FAST CHANGE-OVER OPERATIONS
HIGHEST FLEXIBILITY WITH
UNIFILL
LEADING MONODOSE TECHNOLOGY
ITALIAN MADE
FLAT OR ROUND STICK APPLICATOR
INTEGRATED COOLING SYSTEMS
TOP CLASS COMPONENTS
MULTI-FLAVORS FILLING
OR CONNECTED STRIPS
INDIVIDUALLY SHAPED-CUT CONTAINERS
ANY PLASTIC MATERIAL TO INCLUDE ALL BARRIER MATERIALS
INTEGRATED LABELLING SYSTEMS
POSSIBILITY TO ALSO FILL GRANULES
MULTI-STEP FILLING
TOP CLASS COMPONENTS
FAST CHANGE-OVER OPERATIONS
HIGHEST FLEXIBILITY WITH
INTEGRATED COOLING SYSTEMS
ELECTRONIC CONTROLS WITH SERVO-MOTORS
MULTI-FLAVORS FILLING
OR CONNECTED STRIPS
INDIVIDUALLY SHAPED-CUT CONTAINERS
ANY PLASTIC MATERIAL TO INCLUDE ALL BARRIER MATERIALS
INTEGRATED LABELLING SYSTEMS
SPOUT & CAP APPLICATOR FOR MULTI-USE CONTAINERS
TOP CLASS COMPONENTS
MULTI-STEP FILLING

UNIFILL TECHNOLOGY HOW DOES THE CONCEPT WORK

WHILE THE RANGE OF MACHINES MANUFACTURED BY UNIFILL OFFERS A VARIETY OF MODELS THAT FEATURE DIFFERENT CHARACTERISTICS, AVAILABLE OPTIONS AND OUTPUT PERFORMANCES, THE BASIC WORKING PRINCIPLE OF ALL UNIFILL MACHINES IS THE SAME

STEP 1 - FILM UNWINDING

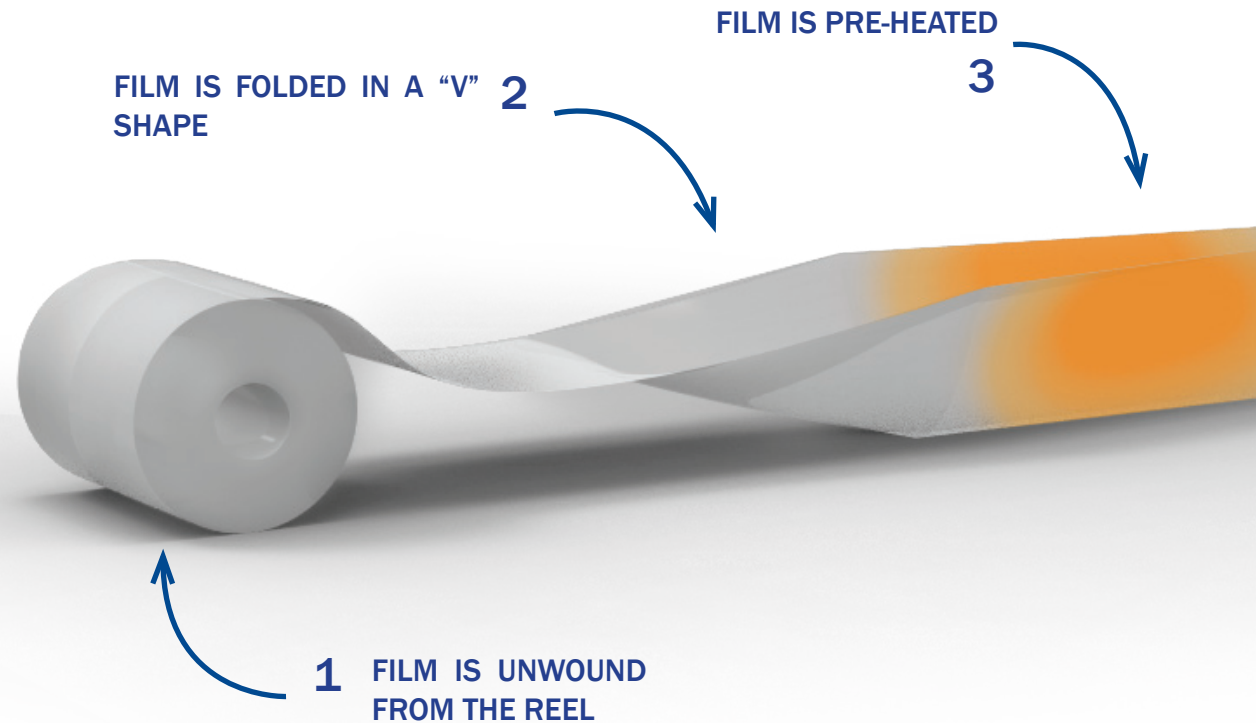
In the film unwinding unit, the plastic film web is automatically unwound from a reel. Most machines have a buffering unit that allows the reel change-over without stopping the machine.

STEP 2 - FILM FOLDING

The film is folded in a "V" shape and conveyed to the pre-heating station. "V" fold allows the forming of stand-up containers. Machines can be also fit with double reel shaft to allow working with two different materials

STEP 3 - PRE-HEATING STATION

The film strip goes through a pre-heating plate whose temperature is adjusted depending on the type and thickness of the film.



AIR IS BLOWN TO THERMOFORM THE CONTAINERS

4

THE FILLED CONTAINERS ARE TOP-SEALED

6

STEP 4 - SEALING AND FORMING STATION
The film strip goes through sealing molds where the two sides of the film are partially sealed and then through forming molds where compressed air is blown to thermoform the cavities.

STEP 5 - FILLING STATION

The film strip goes to the filling station where the product is dosed and the thermoformed cavities are filled with the required quantity of product. Many different types of dosing & filling units are available depending on products characteristics.

STEP 6 - NECK SEALING STATION

The film strip goes through a 4-steps station where the upper necks are pre-heated, pre-sealed, sealed and finally cooled.

STEP 7 - FINAL CUTTING STATION

The film strip goes through a buffer on its way to the final cutting station where the containers are cut into the required configuration, either in individually shaped-cut packs or into strips of multiple connected packs. Different strip configurations can be achieved directly from the control panel.

5

THE PRODUCT IS FILLED INSIDE THE THERMOFORMED CONTAINER

THE CONTAINERS ARE SHAPED CUT

7



TF-K TF-K/HS



The TF-K is an ultra-compact machine specifically designed for low to medium production needs as well as for frequent change over operations.

IDEAL FOR CONTRACT-PACKERS, the TF-K combines high technology and great versatility.

As a matter of fact, while the TF-K clearly benefits from all the highly innovative features and from **THE RELIABILITY AND EFFICIENCY** that are the “brand-mark” of UNIFILL, a special care has been put by the designers in the selection of specific technical solutions, dedicated components and construction materials, with the final purpose of making the UNIFILL technology widely accessible.

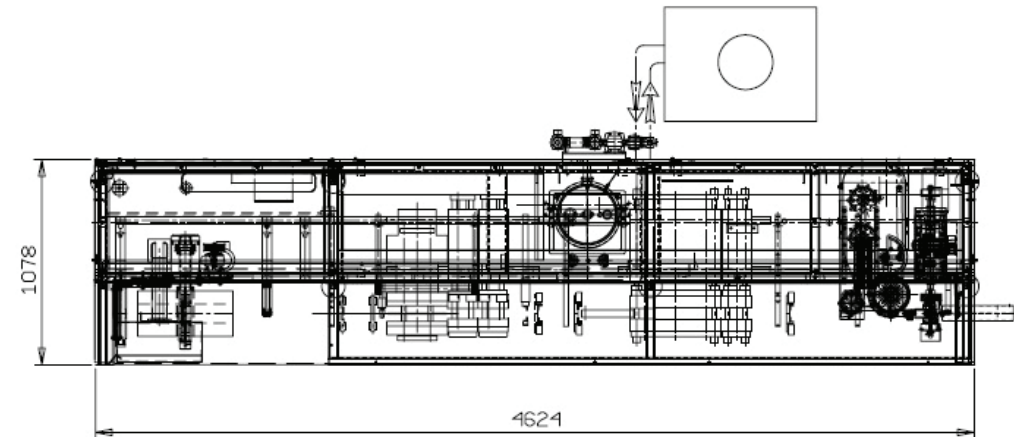
The TF-K/HS is an **ELECTRONICALLY CONTROLLED** upgraded version that perfectly combines **REDUCED FLOOR-SPACE** with very **HIGH MANUFACTURING STANDARDS** that allow this machine to reach extremely interesting output performances.

Likewise all UNIFILL machines, the TF-K machines are also available in the **ULTRA CLEAN VERSION** to include thermoforming area enclosure, laminar flow with HEPA filter, sterile air thermoforming, inert gas flushing and magnetic filler.

In terms of output, on a standard 10ml container, the TF-K can reach approx. 8,100 units/hour, while the TF-K/HS can reach 18,900 units/hour.

TECHNICAL FEATURES

	TF-K	TF-K/HS
MACHINE DIMENSIONS (LxWxH)	4700x1100x2500	4700x1100x2500
MOLD PITCH	Up to 160 mm	Up to 160 mm
MOLD HEIGHT (min/max)	50-120 mm	50-120 mm
THERMOFORMING DEPTH (min/max)	5mm / 36mm (max. 18mm on single side)	
CYCLES PER MINUTE (PRODUCTION)	15	35
MATERIAL THICKNESS	100-600 μ	100-600 μ
MACHINE DRIVE	Mechanical	Electronic
INSTALLED POWER	16 kW	20 kW
STANDARD VOLTAGE	400V - 3 Phases + Neutral + Earth (sep.) - 50 Hz	
MAX ABSORBED POWER	32 A	35 A
AIR CONSUMPTION	800 NL/1'	500 NL/1'
WEIGHT	2700 Kg	2700 Kg
REEL DIMENSIONS (DIA/CORE)	500 mm / 76 mm	500 mm / 76 mm
LABELLING MACHINE	One Side Only	One Side Only
STICK APPLICATOR	No	No
CAP APPLICATOR	No	No
ULTRA-CLEAN PACKAGE	Yes	Yes
SPIRAL COOLING TUNNELS	Yes	Yes



THE FILM UNWINDING UNIT



BUFFER AND FINAL CUTTING DIE

TF-02/EP TF-02/EP-300



The TF-02/EP -an electronically controlled state-of-the-art machine- has been for years the best selling model of the UNIFILL production range due to its perfect combination of **ELEVATED OUTPUT PERFORMANCES** with **EXTREMELY HIGH EFFICIENCY** and **UNIQUE WORKING VERSATILITY**. Ideal for food and non-food applications, the TF-02/EP has a number of standard features such as the film unwinding unit with buffer for quick reel change-over, the multiple pre-heating plates for special materials, etc, as well as some unique optional devices such as **CAP APPLICATORS** for the production of spouted containers, **STICK APPLICATORS** for round of flat stick , **MULTI-STEP / MULTI-FLAVOR FILLING**, **INTEGRATED COOLING TUNNELS** for in-line product cooling, **IN-LINE LABELLING SYSTEMS**, **CARTONING** or **BAGGING MACHINES**, etc.

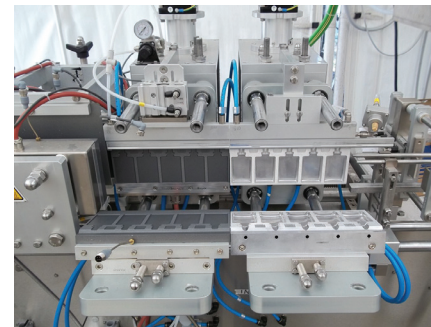
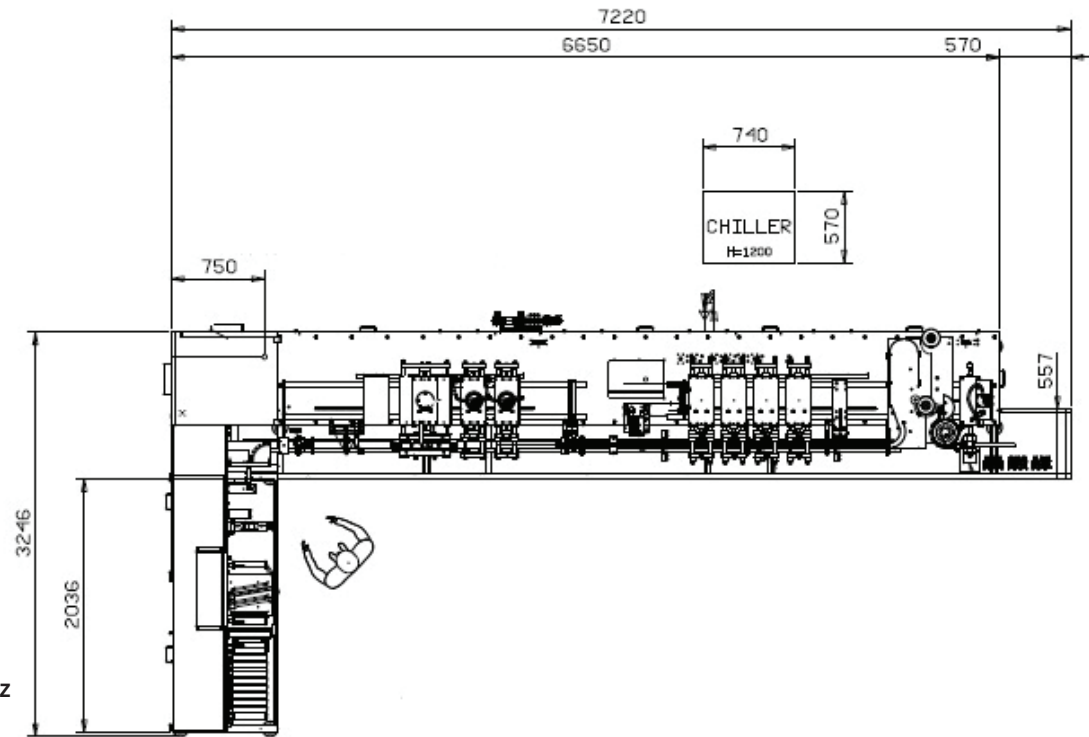
Its **LOW MAINTAINANCE CONCEPT** and its unique **STATIONS ADJUSTING SYSTEM** that allow the use of **ANY KIND OF PLASTIC MATERIAL**, make the TF-02/EP an extremely versatile machine capable of **WORKING UNDER ANY CONDITION** and with **LOCALLY AVAILABLE PLASTIC COMPLEXES**. The TF-0/EP machine is also available in the -300 VERSION with a working pitch of 300mm to offer even higher output performances.

Likewise all UNIFILL machines, the TF-02-SERIES machines are also available in the **ULTRA CLEAN VERSION** to include thermoforming area enclosure, laminar flow with HEPA filter, sterile air thermoforming, inert gas flushing and magnetic filler.

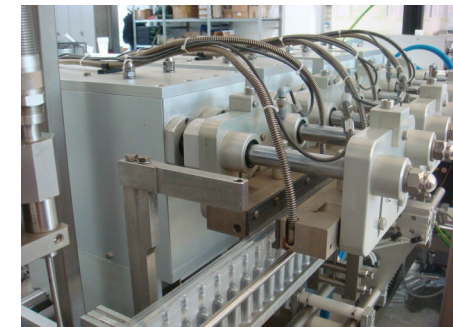
In terms of output, talking about a standard 10ml container, the TF-02/EP can reach approx. 31,500 units/hour, while the TF-02/EP-300 can reach 35,700 units/hour.

TECHNICAL FEATURES

	TF-02/EP	TF-02/EP-300
MACHINE DIMENSIONS (LxWxH)	6650x3250x2500	6650x3250x2500
MOLD PITCH	Up to 260 mm	Up to 300 mm
MOLD HEIGHT (min/max)	70-150 mm	70-150 mm
THERMOFORMING DEPTH (min/max)	5mm / 36mm (max. 18mm on single side)	
CYCLES PER MINUTE (PRODUCTION)	35	35
MATERIAL THICKNESS	100-600 μ	100-600 μ
MACHINE DRIVE	Electronic	Electronic
INSTALLED POWER	28 kW	28 kW
STANDARD VOLTAGE	400V – 3 Phases + Neutral + Earth (sep.) - 50 Hz	
MAX ABSORBED POWER	50 A	50 A
AIR CONSUMPTION	700 NL/1'	700 NL/1'
WEIGHT	3500 Kg	3600 Kg
REEL DIMENSIONS (DIA/CORE)	600 mm / 76 mm	600 mm / 76 mm
LABELLING MACHINE	Front/Back	Front/Back
STICK APPLICATOR	Yes	Yes
CAP APPLICATOR	Yes	Yes
ULTRA-CLEAN PACKAGE	Yes	Yes
SPIRAL COOLING TUNNELS	Yes	Yes



SEALING AND FORMING MOLDS



THE NECK SEALING STATIONS

TF-03



The TF-03 is the **LAST GENERATION MACHINE** that represents UNIFILL response to the growing demand for large capacity containers.

Thanks to its **INCREASED MOLD DIMENSIONS** as well as to a **MULTI-STEP FILLING SYSTEM**, the TF-03 offers the possibility to thermoform and fill containers with capacities from 80ml up to 500ml with extremely interesting output performances.

When talking about **LARGE CAPACITY CONTAINERS**, the advantages of the UNIFILL technology vs. the use of ready made containers go far beyond the pure packaging cost. As a matter of fact, all operations that are necessary when using ready-made containers (such as transportation, warehousing, de-palletising, unscrambling, rinsing, filling, etc.), are replaced by a single FF&S machine where everything is done at one time, thus giving significant savings in terms of time and labour.

Same as all other UNIFILL machines, the TF-03 can handle any kind of plastic material such as PVC/PE, PET/PE, PP/PE, PA/PE, etc, to also include any kind of barrier such as EVOH, PVDC, BAREX, etc.

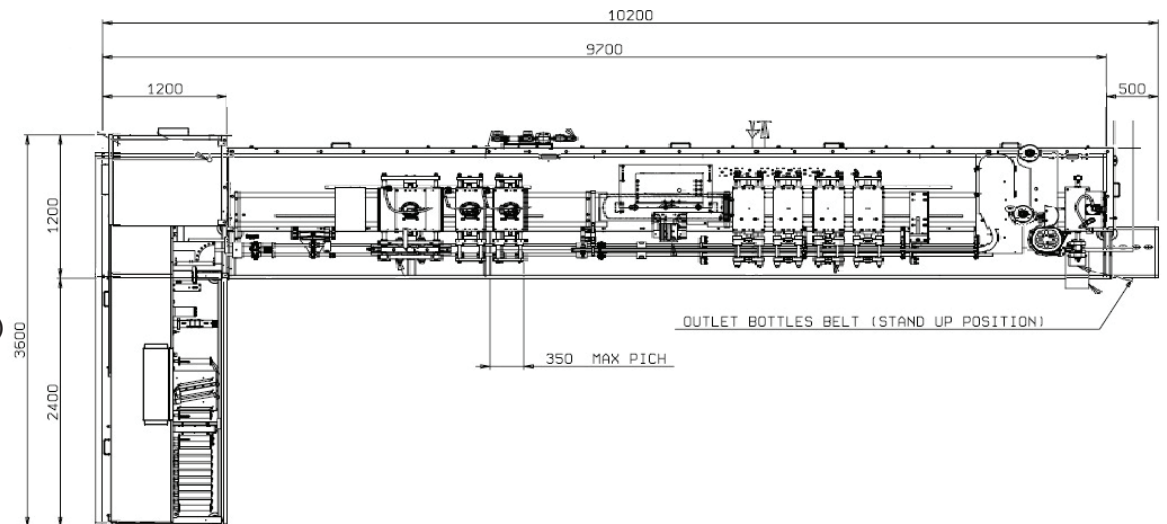
Likewise all UNIFILL machines, the TF-03 is also available in the **ULTRA CLEAN VERSION** to include thermoforming area enclosure, laminar flow with HEPA filter, sterile air thermoforming, inert gas flushing and magnetic filler.

In terms of output, taking as an example a 200ml container, the TF-03 can reach approx. 7,200 Units/hour.

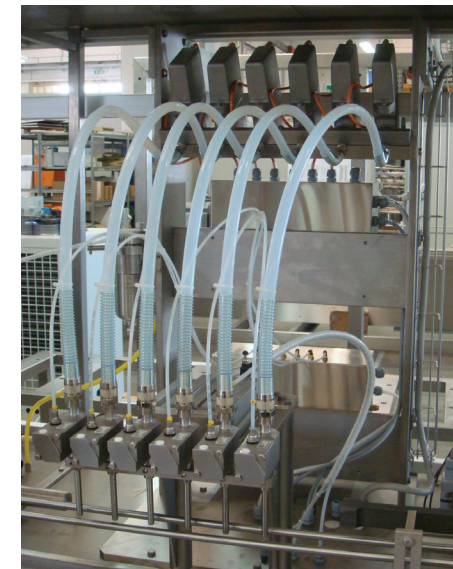
TECHNICAL FEATURES

TF-03

MACHINE DIMENSIONS (LxWxH)	9700x3550x2500
MOLD PITCH	Up to 350 mm
MOLD HEIGHT (min/max)	100-220 mm
THERMOFORMING DEPTH (min/max)	10mm / 50mm (max. 25mm on single side)
CYCLES PER MINUTE (PRODUCTION)	30
MATERIAL THICKNESS	300-600 μ
MACHINE DRIVE	Electronic
INSTALLED POWER	40 kW
STANDARD VOLTAGE	400V – 3 Phases + Neutral + Earth (sep.) - 50 Hz
MAX ABSORBED POWER	65 A
AIR CONSUMPTION	800 NL/1'
WEIGHT	4200 Kg
REEL DIMENSIONS (DIA/CORE)	600 mm / 76mm
LABELLING MACHINE	Front/Back
STICK APPLICATOR	No
CAP APPLICATOR	Yes
ULTRA-CLEAN PACKAGE	Yes
SPIRAL COOLING TUNNELS	No



MULTI-STEPS FILLING



MAGNETIC FILLER

TF-400



The TF-400 is a unique machine suitable for the production of *QwikPak*[™], a smart, flexible, thermoformed, spouted container with capacities between 100 and 500ml.

The *QwikPak*[™] produced on the TF-400 **SMARTLY COMBINES THE ADVANTAGES OF POUCHES AND BOTTLES**. As a matter of fact, it offers all the advantages of a pouch machine in terms of flexibility but can, at the same time, give your bottles a 3D shape, same as any other UNIFILL machine.

Due to its modular concept, the TF-400 can be equipped with a dosing & filling unit and with a capping device in order to deliver a finished product. The same machine can also be used to deliver empty spouted containers that can be later filled and capped on any filling and capping system.

The TF-400 machine can use soft but highly resistant materials such as PA/PE or PP/PE and is therefore suitable also for HOT FILLING operations.

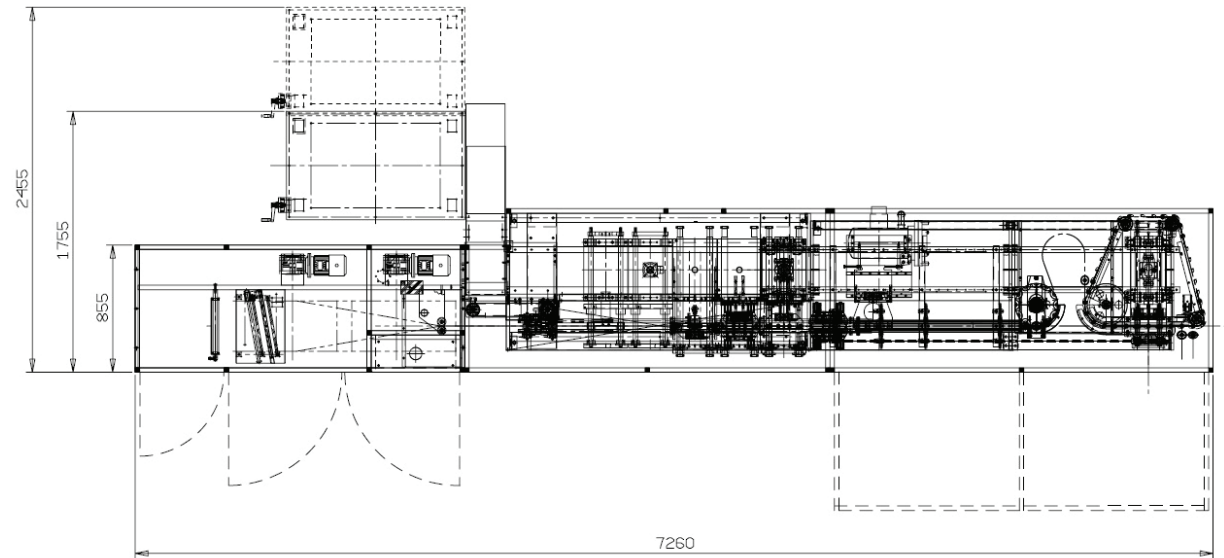
Likewise all UNIFILL machines, the TF-400 is also available in the **ULTRA CLEAN VERSION** to include thermoforming area enclosure, laminar flow with HEPA filter, sterile air thermoforming, inert gas flushing and magnetic filler.

Considering a 500ml container, the TF-400 can reach an output of approx. 9,000 units/hour.

TECHNICAL FEATURES

TF-400

MACHINE DIMENSIONS (LxWxH)	72600x2455x2350
MOLD PITCH	Up to 400 mm
MOLD HEIGHT (min/max)	120-200 mm
THERMOFORMING DEPTH (min/max)	20mm / 60mm
CYCLES PER MINUTE (PRODUCTION)	25
MATERIAL THICKNESS	200-300μ (SOFT)
MACHINE DRIVE	Electronic
INSTALLED POWER	40 kW
STANDARD VOLTAGE	400V – 3 Phases + Neutral + Earth (sep.) - 50 Hz
MAX ABSORBED POWER	65 A
AIR CONSUMPTION	600 NL/1'
WEIGHT	3800 Kg
REEL DIMENSIONS (DIA/CORE)	600 mm / 76mm
LABELLING MACHINE	No
STICK APPLICATOR	No
CAP APPLICATOR	Yes
ULTRA-CLEAN PACKAGE	Yes
SPIRAL COOLING TUNNELS	No



THE FILM SPLICING DEVICE



THE FORMING AND THE FILLING STATIONS



CHEMICALS

FOOD AND BEVERAGES

FOOD AND BEVERAGES

CHEMICALS



PERSONAL CARE

PHARMACEUTICALS

PHARMACEUTICALS

PHARMACEUTICALS

PHARMACEUTICALS

CHEMICALS

FOOD AND BEVERAGES

FOOD AND BEVERAGES

PERSONAL CARE

FOOD AND BEVERAGES

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PERSONAL CARE

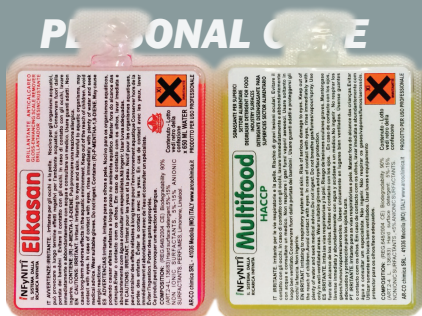
PERSONAL CARE

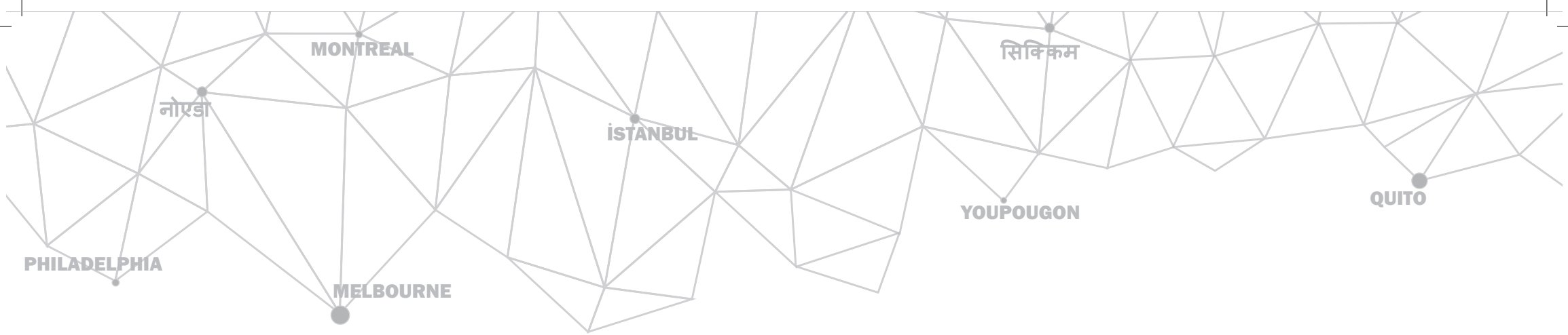
PERSONAL CARE

FOOD AND BEVERAGES

FOOD AND BEVERAGES

PERSONAL CARE





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LEADING MONODOSE TECHNOLOGY
ITALIAN   MADE

UNIFILL srl - via Aldo Moro, 68-74-80 - Bomporto (MO), ITALY
tel. +39.059.909928 - fax +39.059.8178019
www.unifill.it - mail: sales.dept@unifill.it

