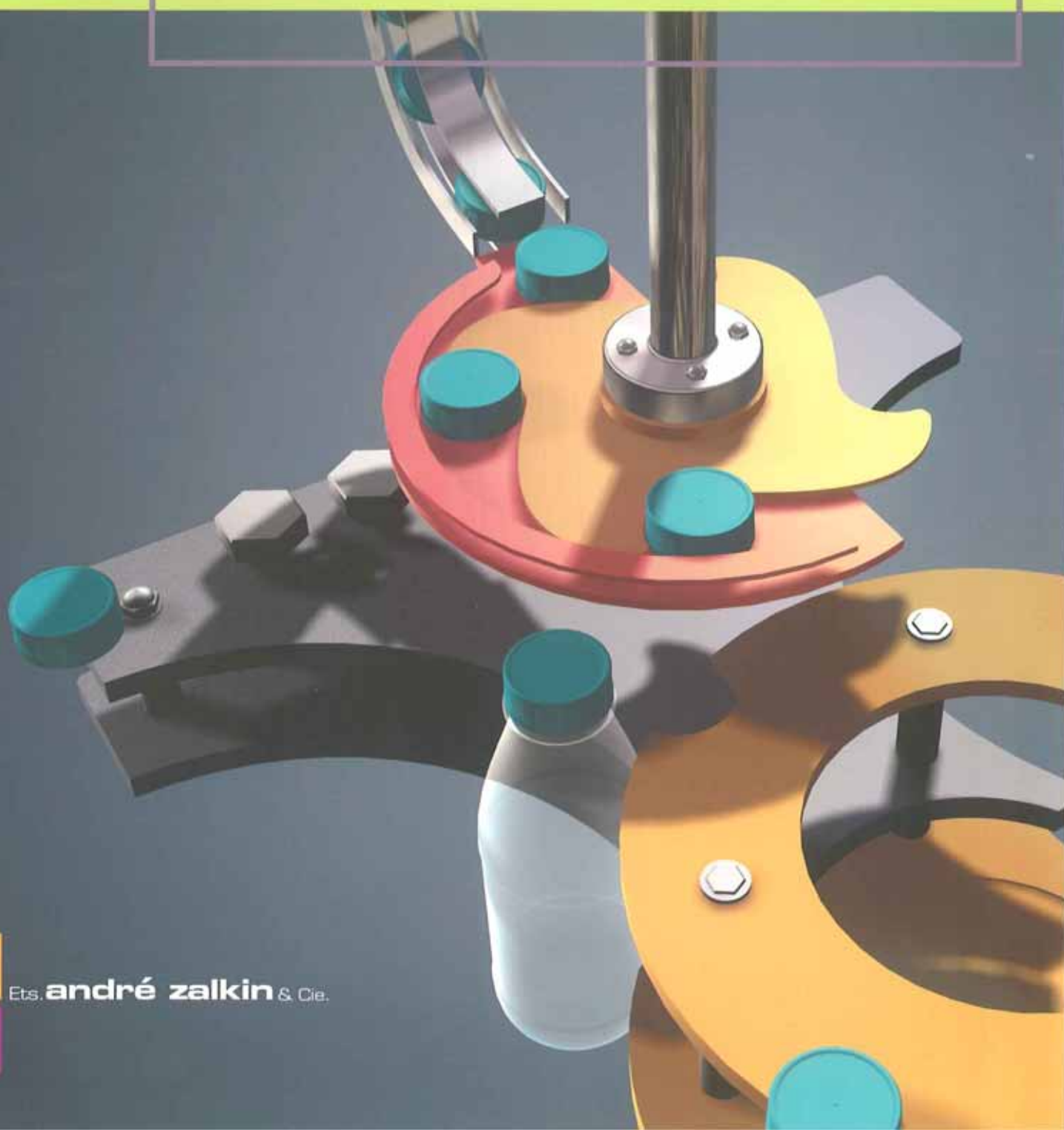


➤ SCREW CAPPING ➤ SEALING ➤ PUSH-ON CAPPING

zalkin



Ets. **andré zalkin** & Cie.

zalkin

AN ACKNOWLEDGED



From early semi-automatic capping machines with an average speed of 1,200 bottles an hour, to 36 head capping turrets applying 1,200 bottles every minute, what progress !

What progress from sealing heads using centrifugal force, to screw capping heads using a Brushless motor !

By exclusively specialising in the design and manufacture of capping machinery, André Zalkin & Cie have made extensive contributions to capping technology development.

We build strong relationships with our customers by working with them to develop machines with higher performance, and adapted to meet your particular needs.

To ensure we meet your expectations, our designs are continuously evaluated and improved to give you the best capping machines available, anywhere. In this brochure you will see many examples of our expertise, to perhaps give you ideas on how we could help you to improve your capping needs.

MICHEL ZALKIN

CHAIRMAN AND MANAGING DIRECTOR

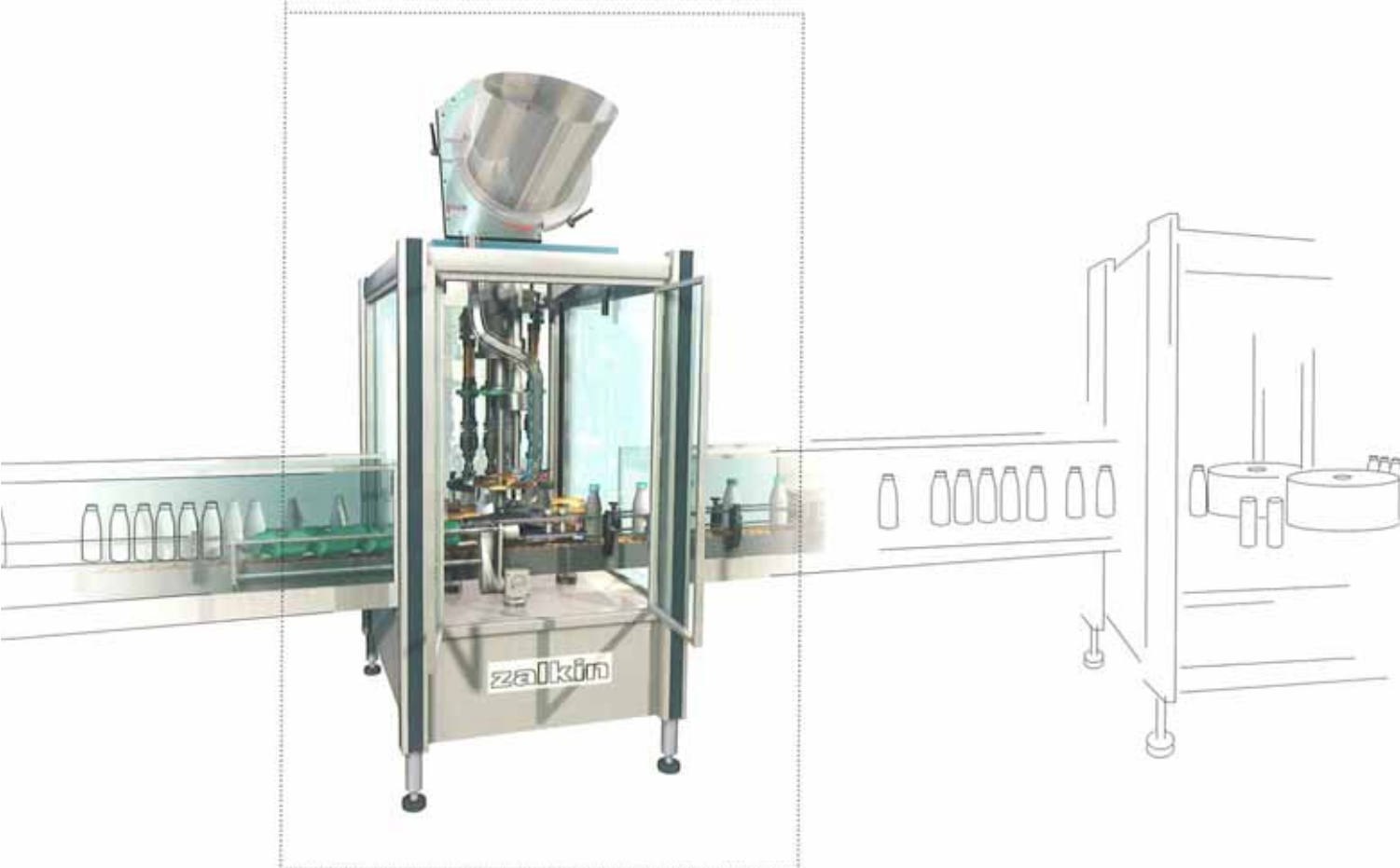


LEADER IN CAPPING TECHNOLOGY



IN 1932 ANDRÉ ZALKIN SET UP A COMPANY SPECIALIZED IN THE MAINTENANCE OF MACHINE TOOLS. TODAY ZALKIN RANK AMONG THE BEST IN THE SCREWING, SEALING AND PUSH-ON CAPPING FOR ALL TYPES OF BOTTLES AND CONTAINERS.

➤ **SCREW CAPPING** ➤ **SEALING** ➤ **PUSH-ON CAPPING**



the markets

[dairy products, sauces, powdered drinks...]

FOODS AND SPIRITS

AMORA MAILLE
AVENDIS
BACARDI MARTINI
BARDINET
BEHN
BESNIER
BESTFOOD
BLEDINA
BOISSET
BONGRAIN
BOUDIER
CAMPARI
CAMPINA MELKUNE
CANDIA
CARGILL
CASTEL FRERES
CHAMPAGNE
JACQUART
CHAMPAGNE
POMMERY
CHERRY ROCHER
CLS REMY
COINTREAU
COGNAC
HENNESSY
COGNAC HINE
COGNAC MARTELL
COURVOISIER
CUSENIER
DAIRY CREST
DANONE
DISTILLERS
DUCROS
FIRST IRELAND SPIRIT
GALLO
GRAND MARNIER
GYMA
ESTAVAYER
HEINZ
INTERMARCHÉ
IRISH DISTILLERS
JAGERMEISTER
JIM BEAN
KOBER
KRAFT JACOB SUCHARD
LA MARTINIQUE
LACTALIS
LEJAY LAGOUTTE
LESIEUR
MARIE BRIZARD
NESTLE
NDVANDIE
PARMALAT
PERNOD RICARD
PIPER ET C. HEIDSICK
PROVINS
R. WISEMAN DAIRIES
ROUTIN
SCHENK
SPW
SWISS DAIRY FOOD
TEISSEIRE
TRIBALLAT
UNILEVER
UDV



ABELLE
DE CHOLET
AMATIL
AMBEV
APPOLINARIS
BAESA
BERGER
BISCHOFZELL
BRASSERIES
DU MAROC
CARLSBERG
CCU
COCA COLA
DANONÉ
DR PEPPER
EMBOTTELLADORA
ANDINA
GATORADE
HEINEKEN
INTERMARCHÉ
JOKER
KING CAR FOOD
KRONENBOURG
GRANGINA PAMPRYL
PANAMCO
PEPSI
POLAR
PRESIDENT ENTERPRISE
QUAKER OATS
REA
SCHWEPPES
CADBURY
SUNNY DELIGHT
TEISSEIRE

[soft drinks, fruit juices...]

BEVERAGES



ARVE
BADOIT
BECKERICH
CAROLA
CHAUDFONTAINE
CHANTEREINE
CONTRIX
CRISTALINE
CRISTAL ROC
CRYSTAL GEYSER
DANONE
EVIAN
GEROLSTEIN
HENNIEZ
ICE RIVER SPRING
INTERMARCHÉ
ITALAQUAE
LA SALVETAT
NESTLE
OGEU
PARROT
PERRIER
PIERVAL
QUEZAC
ROBUST
ROXANE
SAN BENEDETTO
SAN PELLEGRINO
SEBA APROZ
SOURCE
DES ABATILLES
SOURCE
MONTCALM
SOURCE
SAINT-LEGER
SOURCE VALON
SPADEL
ST-AMAND
ST-YORRE
VALVERT
VITTEL
VOLVIC
WAHAMA
WULIANGSYE

[still, carbonated, flavoured...]

WATER

A WIDE EXPERIENCE IN MANY INDUSTRIES

FROM A PENICILLIN PHIAL, TO A 20 LITRE CONTAINER, VIA A BOTTLE OF WATER, ZALKIN SERVE A WIDE VARIETY OF INDUSTRIES WHOSE COMMON CONCERN IS THE SEARCH FOR HIGH-QUALITY CAPPING.



COSMETICS

AMWAY
BCM
BEIERSDORF
BOOTS
COLGATE PALMOLIVE
ELIDA FABERGÉ
FRAGRANCE
HENKEL
LANCASTER
L'OREAL
PROCTER & GAMBLE
RECKITT BENCKISER
REVLON
UNILEVER
YVES ROCHER

PHARMACEUTICALS

ABBOTT
AGUETTANT
AVENTIS
BIO RAD
BIOMERIEUX
BOIRON
DIAGNOSTICA STAGO
GLAXOSMITHKLINE
MERCK
MERIAL
PARKE DAVIS
PFIZER
RHONE POULENC RORER
SANDI
SOLVAY
SYNTHELABO
UPSA

CHEMICALS

[motor oils, cleaning, agrochemical products ...]

AGIP
BAYER
BOMBRIL
BP
BURMAN CASTROL
CALLIOPE
COLGATE PALMOLIVE
CUSSONS
DOW CHEMICALS
DU PONT DE NEMOURS
EXXON MOBIL LPS
FUCHS LUBRIFIANTS
FUJI
HENKEL
INTERMARCHÉ
JOHNSON & JOHNSON
KODAK
MERCK
MONSANTO
MOTUL
NOVARTIS
PLC MAC BRIDE
RECKITT BENCKISER
SCOTT'S
SHELL
TEXACO
TOTAL FINA ELF
UNILEVER
ZENECA

... your needs



ZALKIN MACHINES ARE FIRST AND FOREMOST AN ANSWER TO YOUR PARTICULAR NEEDS. EVERY COMPONENT IS SELECTED ACCORDING TO YOUR CAP, YOUR CONTAINER, YOUR PRODUCT AND YOUR LINE SPEED.

THE DESIGN OF YOUR MACHINE DEPENDS ON THE COMBINATION OF ALL THESE PARAMETERS:

? WHICH CAP

Whether your cap has to be screwed, sealed or pushed-on, whether it is cylindrical or shaped and whatever its material may be, we can propose a specific machine for you: a screw capper, a push-on capper or a sealing capper.



? WHICH BOTTLE

Whether your bottle is made of plastic, glass or metal, cylindrical or shaped, we select the type and size of handling parts for the machine.



THE BASIS OF THE MACHINE DESIGN



WHICH PRODUCT

Whether your product is liquid, a paste or solid, fragile or aggressive, the design and construction will take your environment into account.



WHICH SPEED

To suit your line speed, whether it is low, medium or high, a suitable model is available : with one or several heads, semi-automatic or automatic, free standing or to be integrated in a monobloc construction as a turret, or with mechanically or electronic synchronisation.



A MACHINE MADE TO MEASURE >>

the machine



THE MACHINE IS MADE UP OF VARIOUS COMPONENTS. THE CAP SORTER, THE TURRET WITH ITS DIFFERENT CAP TRANSFER SYSTEMS AND CAPPING HEADS, THE BOTTLE TRANSFER AND GRIPPING DEVICES AND THE CAP FEED STORAGE AND ELEVATOR COME TOGETHER TO MEET YOUR REQUIREMENTS.

MACHINES

Single head machines > PAGE 8
Rotary machines > PAGE 10
Rotary machines (small version) > PAGE 12
Specific developments > PAGE 13
De-capping machines > PAGE 14

TURRETS

The capping turret range > PAGE 15

HEADS



SCREW CAP

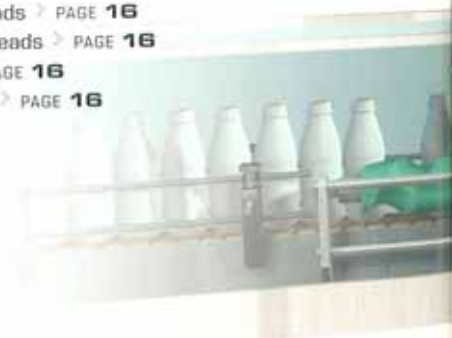


PUSH ON CAP



CAP TO BE SEALED

Screw capping heads > PAGE 16
Push-on capping heads > PAGE 16
Sealing heads > PAGE 16
De-capping heads > PAGE 16



CAP TRANSFER SYSTEMS



WITH PEGS



WITH SWEEP
STARWHEEL



DIRECT CAP
TRANSFER

Cap transfer with pegs > PAGE 20
Cap transfer with sweep starwheel > PAGE 20
Direct cap transfer > PAGE 20

COMPONENTS



CAP SORTING

Cap sorters > PAGE 17

CAP ELEVATORS

Cap elevators > PAGE 18

Waterfall type elevators > PAGE 19

BOTTLE GRIPPING DEVICE

Belt gripping device > PAGE 20

Neck gripping > PAGE 20



WITH BELT



NECK GRIPPING

single head machines



THE SINGLE HEAD MACHINE RANGE IS SUITABLE FOR SEALING, SCREW CAPPING AND PUSH-ON CAPPING FOR AN OUTPUT UP TO 3,500 BOTTLES AN HOUR. 3 MODELS ARE AVAILABLE: TM 3, TM 125 AND TM 200.

TM 200

automatic (pick and place)

The TM 200 machine can be fitted with single or dual station and combine several functions.



TM 3
semi-automatic
(manual cap placing)



TM 125
automatic (direct cap transfer)



TM 200 DUAL STATION



rotary capping machines

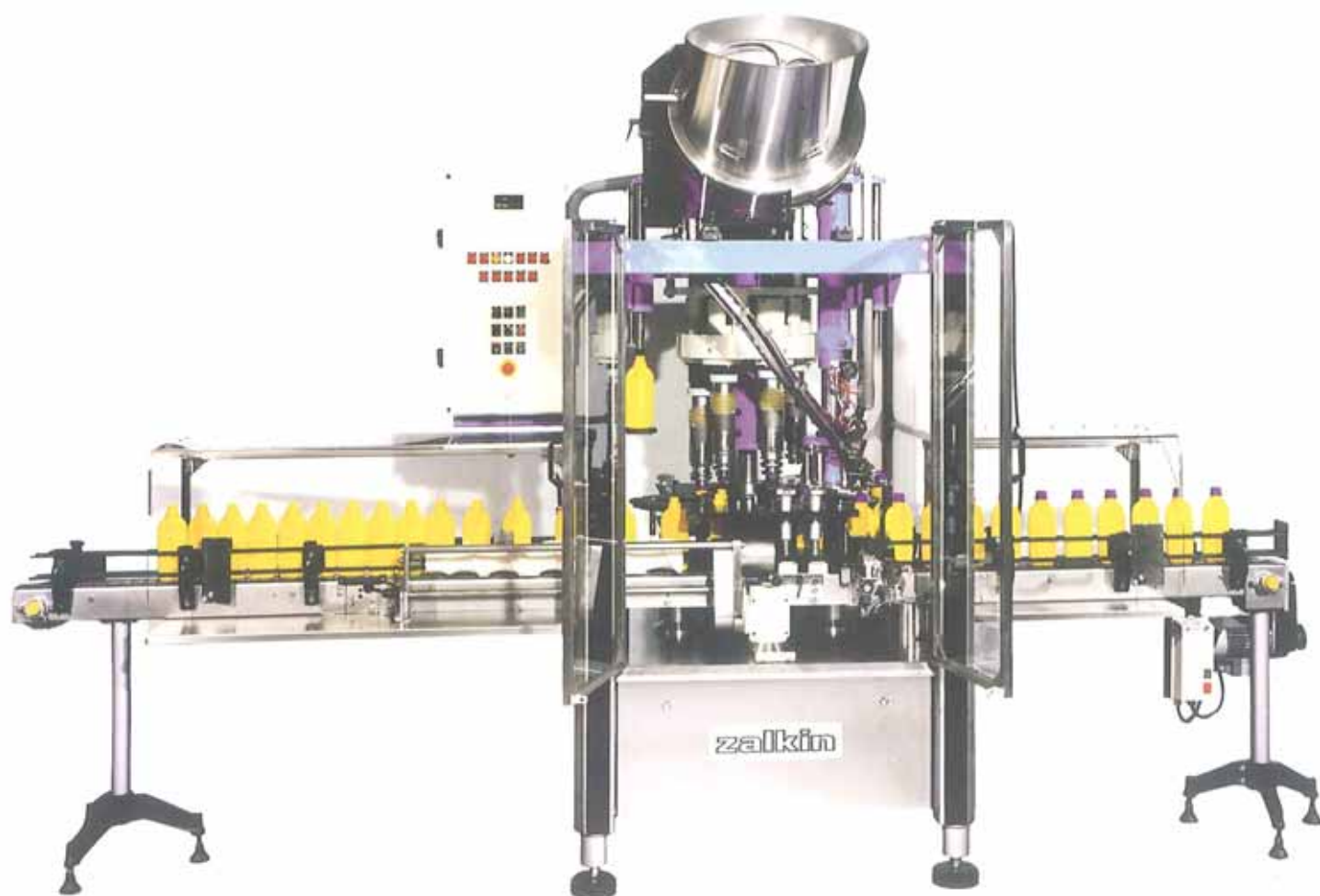


THE RANGE OF "CA" TYPE ROTARY CAPPERS (FROM 3 TO 24 HEADS) ARE DESIGNED FOR SEALING, SCREW CAPPING AND PUSH-ON CAPPING AND SUITABLE FOR SPEEDS RANGING FROM 3,500 TO 50,000 BOTTLES AN HOUR DEPENDING ON THE CAPS AND BOTTLES TO BE HANDLED.

DIFFERENT PITCH CIRCLE DIAMETERS ARE AVAILABLE (FROM 320 TO 720 MM) WITH ONE OR SEVERAL TURRETS. FOR HIGH SPEEDS OR FRAGILE BOTTLES, THE "CA" TYPE MACHINE CAN BE ELECTRONICALLY OR MECHANICALLY SYNCHRONISED WITH THE FILLER.

BEING HIGHLY FLEXIBLE THE RANGE OF "CA" TYPE CAPPERS SUIT VARIOUS LAYOUT CONFIGURATIONS FOR REAR INFEED OR DISCHARGE CONVEYORS, ETC AND CAN BE EQUIPPED WITH AUTOMATIC CONTROLS, REJECTION SYSTEMS AND QUICK RELEASE BOTTLE CHANGE PARTS.

SCREW CAPPING MACHINE



SEALING MACHINE



TWIN TURRET MACHINE



SCREW CAPPING MACHINE



PUSH-ON CAPPING MACHINE



**"TWIST OFF"
SCREW CAPPER**



rotary capping machines small version



SCREW CAPPER WITH PICK & PLACE



THE "CAPM" TYPE MACHINES ARE BASED ON THE "CA" MACHINE RANGE, BUT DEDICATED TO SMALL CONTAINERS WHATEVER THE INDUSTRY MAY BE (FOOD OR CHEMICAL) BUT MAINLY DESIGNED FOR THE PHARMACEUTICAL AND COSMETIC INDUSTRIES.

THESE MACHINES WITH COMPACT DESIGN ARE MANUFACTURED WITH SUITABLE MATERIALS TO MEET THE REQUIREMENTS OF THE PHARMACEUTICAL INDUSTRY. ANCILLARIES SUCH AS ROTARY FEED TABLES FOR CAPS OR BOTTLES AS WELL AS INFEED AND DISCHARGE COLLECTION TABLES ADD TO THE AVAILABLE SCOPE OF SUPPLY. THE MODEL "CAPM ST" HAS BEEN SPECIALLY DESIGNED FOR SEALING ALUMINIUM CAPS ONTO VIALS FILLED WITH PENICILLIN OR INTRAVENOUS SOLUTIONS VIA A SIMPLE BLADE, GIVING PERFECT CAP SEALING QUALITY.

MULTI-FUNCTION "CAPM" CAPPER



SCREW CAPPER WITH ROTARY FEED TABLE



specific developments



OUR RESEARCH AND DEVELOPMENT DEPARTMENT, TOGETHER WITH OUR DESIGN DEPARTMENT DEVELOP AND IMPROVE THE TECHNOLOGY USED FOR THE RANGE OF OUR CAPPING MACHINES. SOME EXAMPLES ARE BELOW:

MACHINE WITH STEAM INJECTION



Twist-off metal caps, and some plastic caps, require capping machines with steam treatment in the cap chute and under the heads to create a vacuum into the bottle head space.

MACHINE FOR ASEPTIC ENVIRONMENT



As a result of the increasing demand for delicate and short shelf-life products, packing machines are designed to meet more and more rigorous environments. ZALKIN have therefore developed a range of aseptic machines integrating the following solutions:

- elimination of "dirt traps"
- less greasing points
- suitable materials for cleaning and sterilization procedures

"BRUSHLESS" MACHINE



The "Brushless" motor system for the application of screw caps provides the best possible solution for electronic control of head speed and application torque. This is achieved via independent Brushless motors with individual controls for each capping head. The advantage in using the "Brushless" technology is the following:

- constant application torque
- remote torque adjustment
- feedback on the applied torque
- production tracking
- automatic compensation for varying line speeds
- pick-up and orientation of non-cylindrical caps
- reduced plastic and PET dust generation
- less greasing points and simplified mechanical items

decapping machines

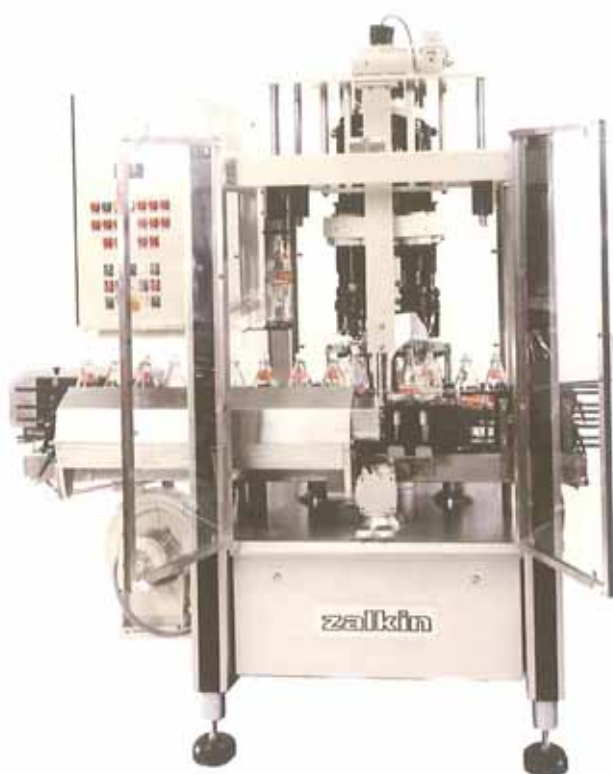


THE ZALKIN ROTARY DECAPPERS (WITH 3 TO 24 HEADS) ARE DESIGNED FOR THE REMOVAL OF BOTH PLASTIC AND ALUMINIUM CAPS FROM GLASS AND PET BOTTLES WITH A SPEED UP TO 60,000 BOTTLES AN HOUR.

TWO MODELS ARE AVAILABLE DEPENDING ON THE LINE LAYOUT:

- DR : DECAPPER WITH IN-LINE CONVEYOR
- MS : DECAPPER WITH PARALLEL INFEED / DISCHARGE CONVEYORS

DR DECAPPER



MS DECAPPER

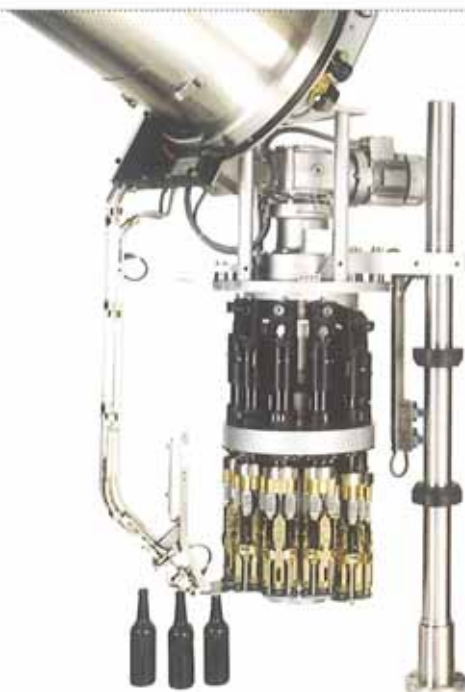


turrets



ZALKIN SCREW CAPPING, SEALING AND PUSH-ON CAPPING TURRETS ARE CHOSEN BY MOST MAJOR FILLING MACHINES MANUFACTURERS TO BE INTEGRATED IN THEIR MONOBLOC. DESIGNED TO MEET THE FILLER PITCH, THE TURRET CAN BE FITTED WITH 3 TO 36 HEADS. OFTEN COMBINED WITH WATERFALL TYPE ELEVATORS, CAP DEDUSTING AND STERILIZATION DEVICES BY MEANS OF UV LAMP, ZALKIN TURRETS MEET THE INCREASING REQUIREMENTS FOR SPEED (UP TO 70,000 BOTTLES AN HOUR) AND MAKING PACKING LINES MORE COMPACT.

**SEALING
TURRET**



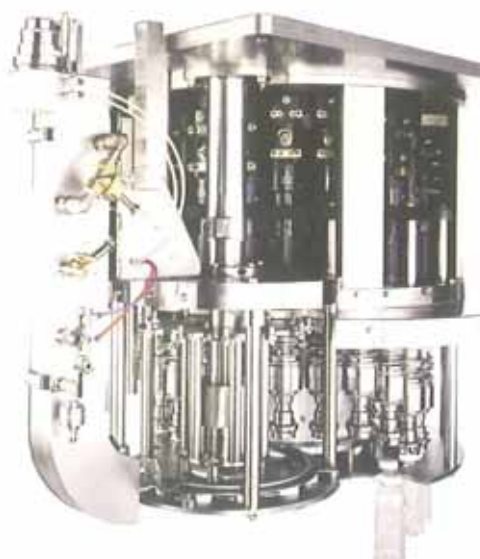
**SCREW CAPPING
TURRET**



**"BRUSHLESS"
TURRET**



TURRET WITH STEAM INJECTION



capping heads



ZALKIN TAKE PARTICULAR CARE IN DEVELOPING CAPPING HEADS, THE MASTERPIECES OF THE MACHINE. AS CAP DESIGNS CONTINUALLY EVOLVE, ZALKIN IS THE PREFERRED PARTNER OF CAP MANUFACTURERS.

SCREW CAPPING WITH HYSTERESIS TYPE HEADS

This technology is particularly suitable for high torques or caps having large diameters.



MAGNETIC SCREW CAPPING HEADS WITH CHUCKS OR JAWS

The screwing torque adjustment is controlled by two permanent concentric magnetic rings, which can be set, without tools, to a graduated scale on the heads.



"BRUSHLESS" SCREW CAPPING HEADS

Each head is driven by an independently brushless motor. The torque setting is individually controlled and automatically adjusted.



PUSH-ON CAPPING HEADS

Different models are available depending on the cap to be handled:

- vacuum pick up heads
- mechanically activated heads with jaws
- indexing heads for cap orientation



SEALING HEADS

Designed for aluminium caps they are fitted with thread rollers and tuck-under rollers and have a "no cap - no roll" safety feature to prevent damage to the container neck.



DECAPPING HEADS

These heads are fitted with 4 jaws equipped with a "no cap, no decapping" safety feature.



cap sorters



ZALKIN MECHANICAL CAP SORTERS AUTOMATICALLY FEED THE MACHINES WITH CORRECTLY POSITIONED CAPS.

"CA" TYPE

Designed for handling caps having a diameter greater than their height.



"UNIVERSAL" TYPE

This sorter offers a high flexibility in use. It can handle either long or short flange caps of any diameter via the replacement or automated adjustment of the hopper disc. The operating system requires this sorter to be fed on a regular controlled basis.



"GC" TYPE

Suitable for very high speeds, this sorter is designed only for handling caps having a diameter greater than their height. Depending on the cap to be handled and the required speed, it can have a recycling system for incorrectly orientated caps.



elevators



DEPENDING ON THE OPERATING SYSTEM OR TO REDUCE OPERATOR ATTENDANCE, THE CAP SORTER CAN BE FED ON A REGULAR CONTROLLED BASIS VIA AN ELEVATOR. THE ELEVATOR AND THE SORTER ARE THEN LINKED VIA A TRANSFER TUBE OR A CAP CONVEYOR BELT, DEPENDING ON THE LAYOUT REQUIREMENTS OF THE ELEVATOR IN RELATION TO THE MACHINE.

BLOWER TYPE CAP FEED ELEVATOR

Designed for light and robust caps. As the horizontal tube of this elevator can be rotated through 180°, it is suitable for feeding different machines. Storage bin : 400 and 1,000 l



BELT CAP FEED ELEVATOR

This elevator is particularly quiet and its conveyor handles the caps in a gentle manner.

Suitable for:

- fragile caps
- heavy caps
- large caps

Storage bin: 250, 400 and 800 l



CAP CONVEYOR

Dependent upon the layout, an intermediate cap conveyor can be installed between the elevator and the cap sorter.

waterfall type elevators



THESE MODELS CAN BOTH TRANSPORT AND ORIENTATE CAPS. THEY REPLACE THE USUAL ELEVATOR AND SEPARATE CAP SORTER. WITH THEIR MINIMAL HANDLING OF THE CAP THEY ARE PARTICULARLY SUITABLE FOR HIGH SPEED APPLICATIONS.

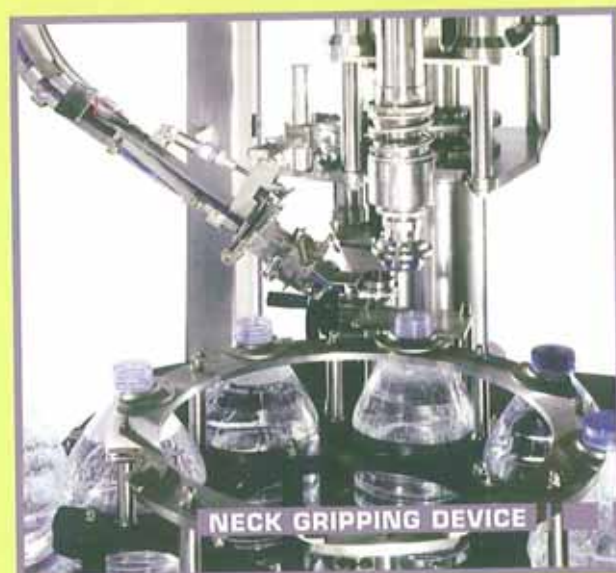
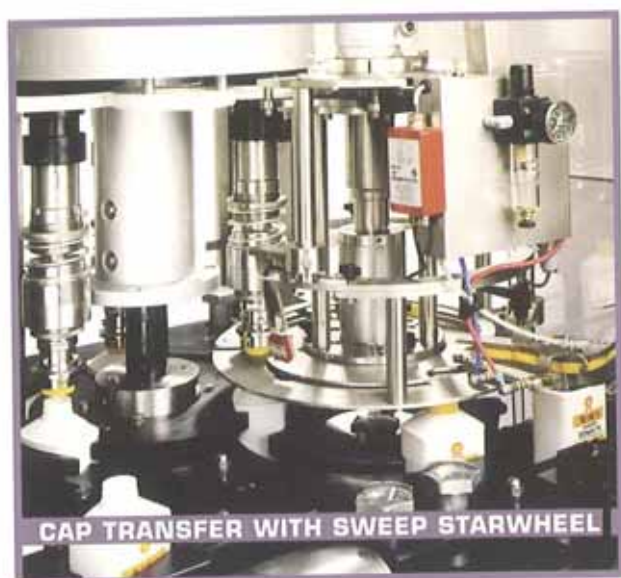
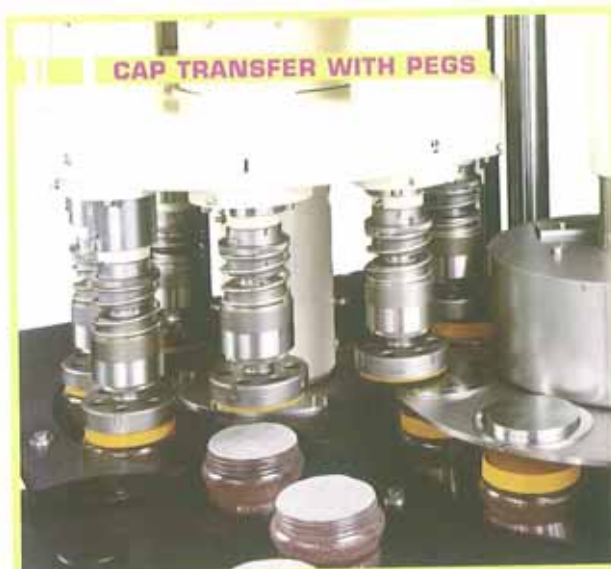
"WATERFALL" SMALL MODEL
(beverage caps)

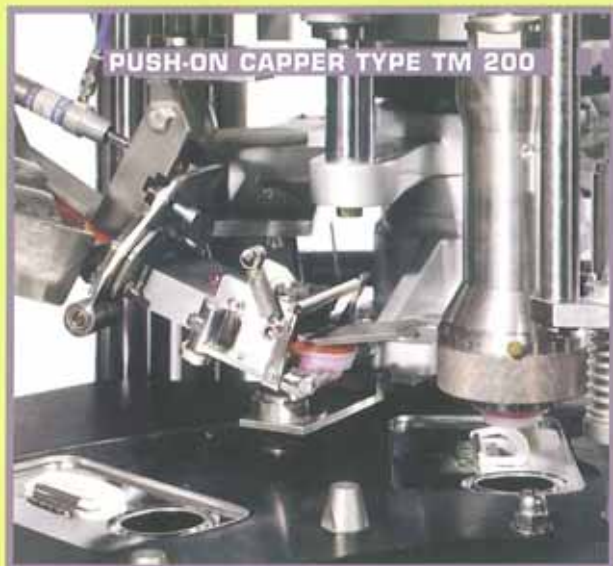


"WATERFALL" LARGE MODEL
(coffee jar caps)

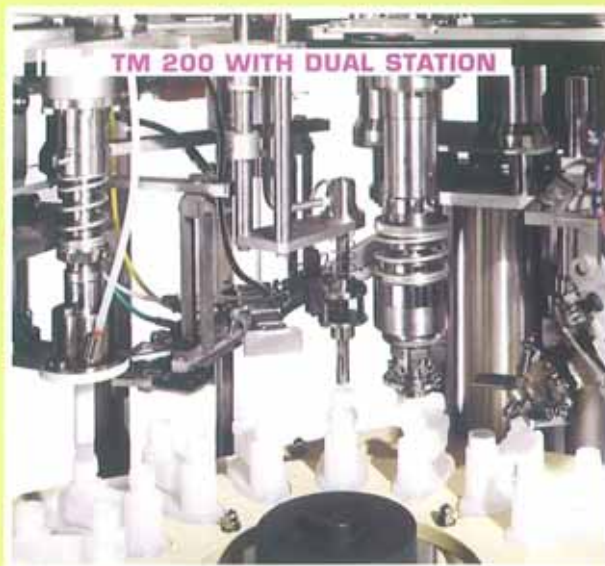


details





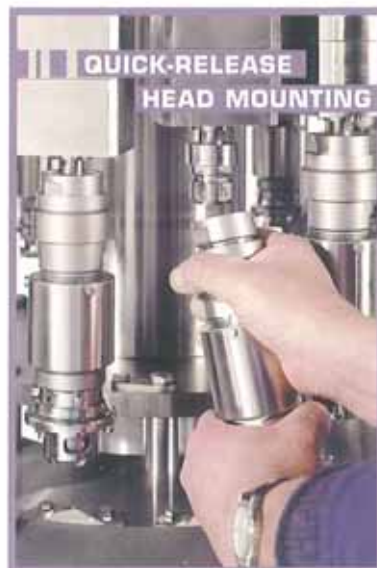
PUSH-ON CAPPER TYPE TM 200



TM 200 WITH DUAL STATION



"TWIST-OFF" APPLICATION



**QUICK-RELEASE
HEAD MOUNTING**



"BRUSHLESS" WIRING INSTALLATION



CAPM 3/3



CENTRALISED LUBRICATION



Ets. **andré zalkin** & Cie.



INTERNET WEB SITE: www.zalkin.fr



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Fax: +33 (0) 2 32 44 55 09
info@zalkin.fr

Directions from Paris

- > Join the A13 motorway, follow the signs "Rouen"
- > After the toll of Mantes-la-Jolie, take the exit Nr 15 "Chaufour"
- > In Evreux, follow the signs to "Bernay - Lisieux - Caen"
- > At the roundabout between RN13 and RN138 (Malbrouck crossroad), bear left to follow the signs to "Bernay"
- > At a large roundabout (Courteilles crossroad - approx. 10 km after Broglie) turn left to follow the signs to "Montreuil-l'Argillé - L'Aigle"
- > Within 1 km, turn right in to "route André ZALKIN" and follow for approx. 1 km to the factory.