

XPANDER



The World's first **complete**
round wipes packer

- AUTO CAN & LID FEEDING ■ WIPES CAN LOADING
- FILLING & PORTIONING ■ FOIL CUTTING & CAN SEALING
- CAPPING ■ LABELLING ■ QUALITY CONTROL



Let us build your vision

The **XPANDER** from Shemesh Automation:
the world's first, precision designed, single block,
complete round wipes packaging machine.



*Let us build **your vision***

XPANDER



Left: Shai Shemesh, President & CEO.
Right: Eli Shemesh, Founder

Built on decades of industry experience supporting the wipes manufacturing sector with our in-line, high-throughput downstream packaging portfolio, Shemesh Automation has now brought together all of our proven technologies for the first time in a single application. The **XPANDER'S** unique all-in-one monoblock design encompasses all aspects of round wipes downstream packaging from cans & wipes loading, dosing, and sealing through to capping, a full built-in QC and smart weight checking. The **XPANDER** has a throughput of up to 35ppm and is the only machine of its kind available on the market today.

Through a process of continual evolution and constant dialogue with our customers the all-new **XPANDER** offers significant productivity enhancements, benefiting manufacturers and boosting efficiency. Operated by as little as 2 operators, the **XPANDER** affords flexible and efficient operation and offers exceptional ROI while reducing waste, cutting production times and

maintaining high levels of product quality. The **XPANDER+** configuration offers virtually 'hands free' operation with the only requirement being that the lids and empty cans hoppers are full. In addition, with a monoblock footprint of only 2m x 2m, the **XPANDER** is capable of operating in very small spaces.

XPANDER

The 12-station servo-driven index table

- 1 Index table canister entry
- 2 Rolls stuffer module
- 3 Initial adjusted filler nozzle
- 4 Final adjusted filler nozzle, quality control & check-weigher
- 5 Extra index station
- 6 Foil cutter & canister sealer module
- 7 Sealing quality control
- 8 Extra index station
- 9 Capping module
- 10 Capping quality control
- 11 Smart defects exit
- 12 Finished packed canister exit

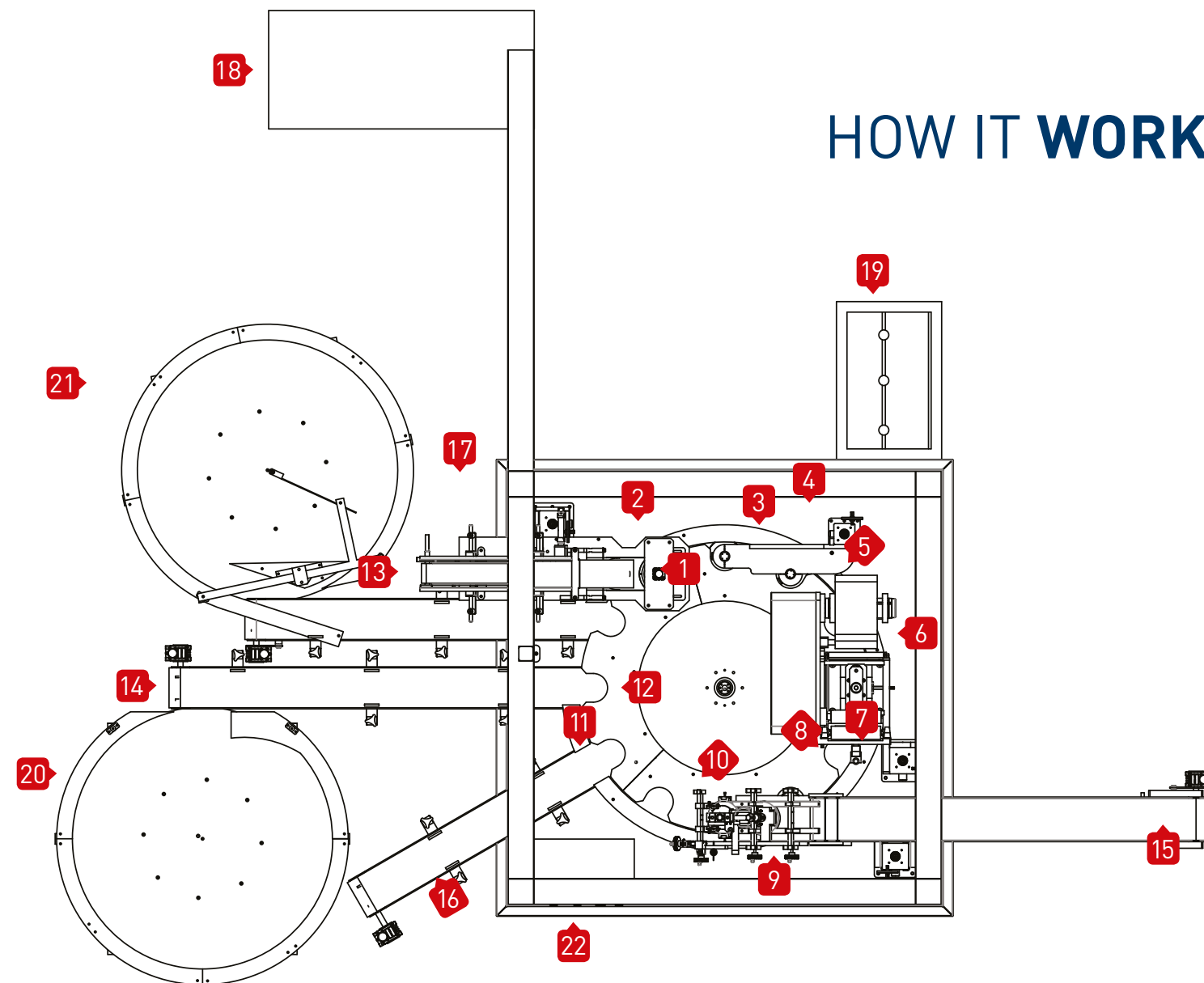
Rolls and canister sizes supported by the Xpander:

	Min. Dia.	Max. Dia.	Min. Height	Max. Height
Canister	75mm	130mm	100mm	280mm
Roll	50mm	130mm	100mm	270mm

HOW IT WORKS

With operating speeds of 30-35ppm, the **XPANDER** is a robust, fully-automatic, servo-driven vertical index machine. It is specifically designed as a single block for the downstream packaging of round, nonwoven wet wipes in cans.

Representing the state-of-the-art in packaging technology, **XPANDER** includes semi-automatic feeders for the empty cans and lids, and requires as little as 2 people to operate.



Conveyors

- 13 Empty canister in-feed conveyor
- 14 Finished packed canister discharge conveyor
- 15 Lid in-feed conveyor
- 16 Defects rejection conveyor
- 17 Empty roll in-feed conveyor

Miscellaneous

- 18 Main electrical cabinet
- 19 Liquid tank with filling & dosing gear pumps
- 20 Accumulating motorised turntable
- 22 Feeding motorised turntable

XPANDER FEATURES

The **XPANDER** possesses a number of specially designed features to support easy and reliable operation:

- **Height-adjustable filler nozzles.** With every cycle the filling nozzle is set (prior to the actual portioning and filling) to a position inside the can that is exactly above the roll but below the can's opening. This eliminates spillage and minimises waste
- **INDUSTRY 4.0 READY:** SECOMA Site Manager 1139 modem, integrated into the machine HMI to enable SMART remote support, live stats and performance analysis as well as manufacturer enhancement feedback
- A **newly developed capping mechanism** for round cans lids
- Advanced QC including multiple check-weighers and total QC for sealing and capping, significantly **increasing efficiency**
- Designed for operational flexibility and ultra-low tools-free **sub 40 minutes format parts changeover** downtime
- All welded to pharma sanitary standards using **316/304 stainless steel**
- A **newly developed design** for vertical wipes can loading
- Easy-to-access '**smart**' controls with multiple HMI's around the Xpander for simple operation
- Throughput of **30-35 products/minute** with up to 450cc liquid volume

- Up to **five conveyors** feeding into and out of the Xpander monoblock
- **Direct and easy integration** to the rewinding unit
- Adjustable rewriter-to-Xpander throughput technology
- **Truly universal – supports both round, conic, rectangular & oval shaped cans, screw and push lids, and wrap around front/back labelling**

STANDARD SPECS

- **Industry 4.0-ready**
- **Festo (Germany) pneumatics and Servo systems**
- Complete **SST304/316L** design
- **FDA** approved piping as applicable
- **SIEMENS (Germany) PLC & HMI and MOTORS Allen Bradley** - optional
- **BANNER** sensors
- **E-stop** buttons and safety interlocks wired through **CAT IV** safety controller
- **CE Marking**



WIPES CAN LOADING UNIT

- Adapted SAS series technology
- Vertical chute and main servo-driven index star wheel methodology
- Rolls diameter tolerance may be bigger than the can's opening by up to 3mm allowing extended operational flexibility and waste reduction



FILLING UNIT

- Enhanced height adjustable, anti-overflow proprietary designed nozzles
- Two consecutive dosing stations for further overflow prevention and increased throughput
- Portioning tolerance of 0.5% of filling volume – reducing waste
- No screws. All parts where liquid runs made with sanitary welding, significantly minimising bacteria presence
- **Electro-polished SST316L sealed, round smart liquid tank. Built in CIP and spray balls**
- Smart, fully automatic source-to-tank liquid generation
- Proprietary anti-drip, ultra wide shower nozzles for homogeneous roll liquid distribution
- Explosion proof, corrosion proof upgrades available



LAMINATE CUTTING & CANISTER CONDUCTION SEALING UNIT

- Minimum foil waste between batches of 15mm-20mm – reducing waste
- Tolerance margins of 3-4mm, and trim of 10mm – reducing waste
- HMI sealing strength tuning and fine tuning available
- Explosion proof, lid 'intrusion' and 'breathing foil' upgrades available



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CAPPING UNIT

- Proprietary servo-driven X-Y mechanism
- Universal design for use of both push and screw lids
- Suited for most industry-standard lids



(AUXILIARY) LABELLER

- Herma (Germany made) applicator
- Better than 0.33mm label positioning accuracy
- Universal design for both wrap around and front/back labelling



QUALITY CONTROL

- Built in check-weighers
- Total/partial sealing QC
- Capping QC
- Defects discharge conveyor
- Smart controls, minimising defects, reducing waste, facilitating operation, boosting productivity/efficiency



(OPTIONAL) XPANDER+ AUTOMATIC LIDS FEEDER AND CANS DESCRAMBLER

- Brings genuine 'hands-free' operation
- Automatic lid feeders and can descramblers designed for seamless mechanical and electrical integration
- Hopper alerts via the HMI interface for full, half-full and empty modes

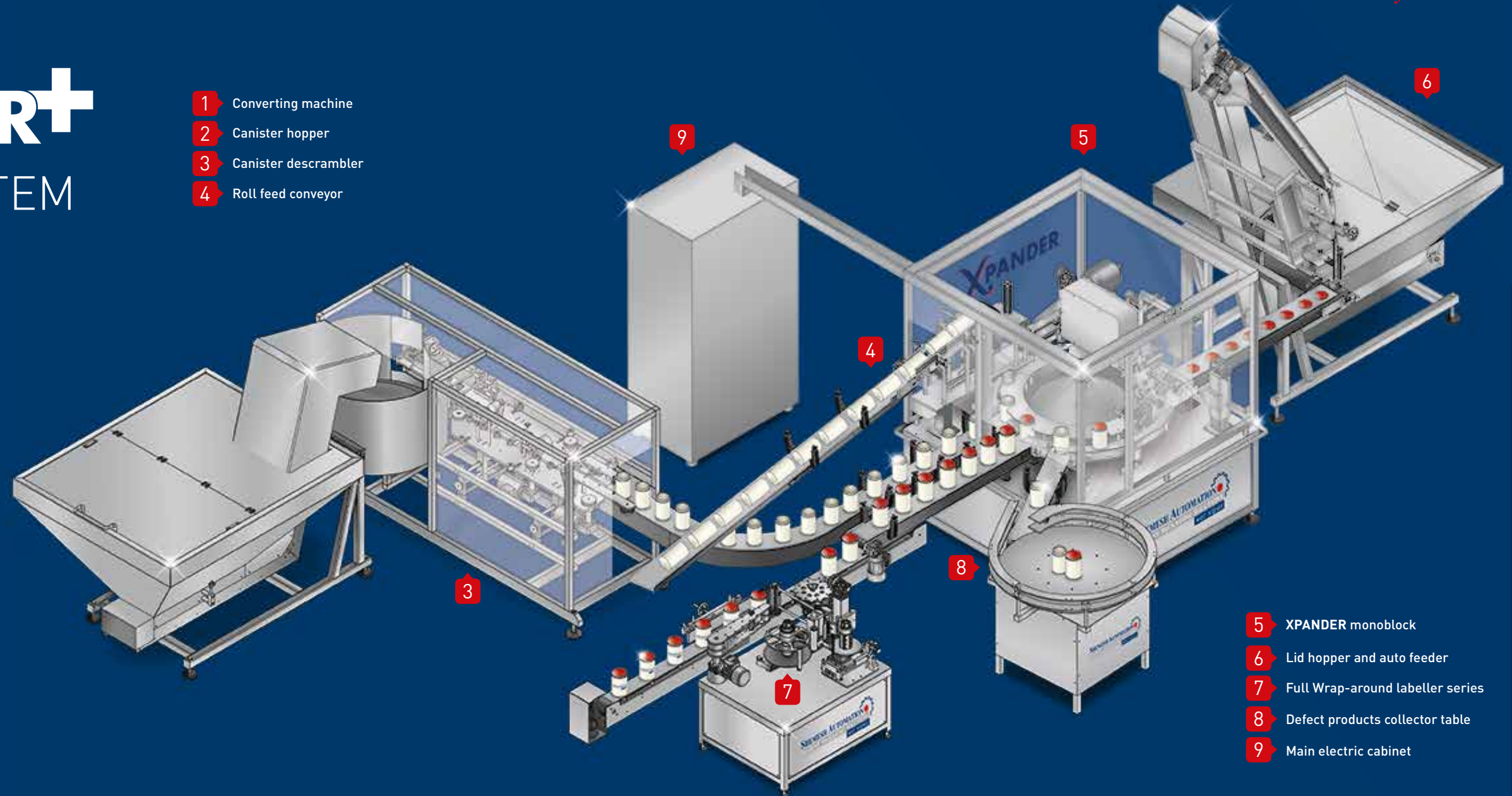


“Capable of generating operating efficiencies rarely seen in the industry, the unique all-in-one monoblock design encompasses all aspects of production from wipes canister loading, filling, dosing and sealing through to weight checking, capping, labelling, full QC and automatic can and lid feeding.”

XPANDER+ ECOSYSTEM

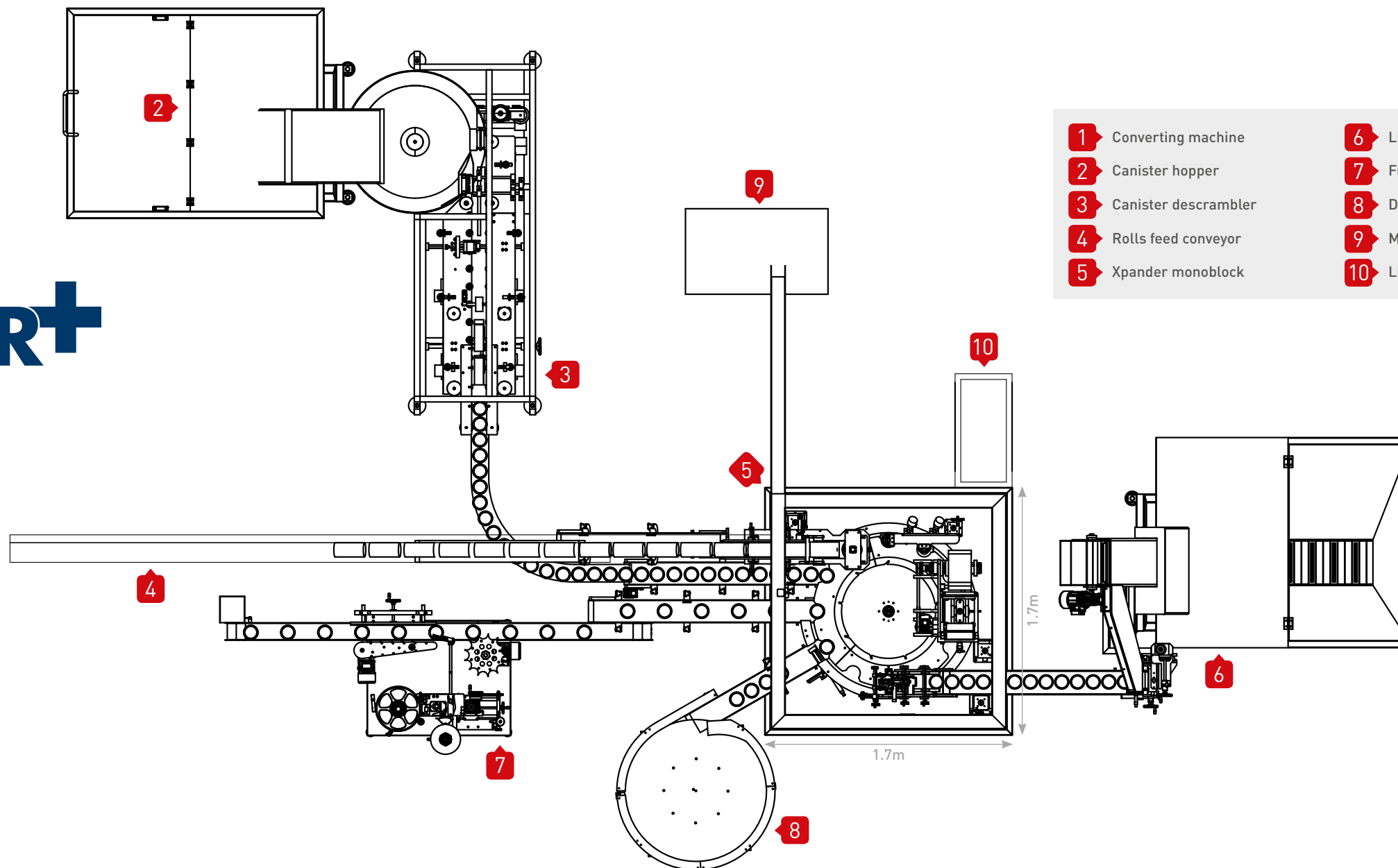
HOW IT WORKS

The **XPANDER+** differs from its sister unit in that fully automatic feeders can be added to the existing modules. This in turn means that, so long as the lid and canister hoppers are kept filled (typically 2 or 3 times per shift), the **XPANDER+** can be operated completely 'hands free' and delivers much greater operating efficiencies.



XPANDER+

1 CONVERTING MACHINE



- | | | | |
|---|----------------------|----|----------------------------------|
| 1 | Converting machine | 6 | Lid hopper and auto feeder |
| 2 | Canister hopper | 7 | Full Wrap-around labeller series |
| 3 | Canister descrambler | 8 | Defect products collector table |
| 4 | Rolls feed conveyor | 9 | Main electric cabinet |
| 5 | Xpander monoblock | 10 | Liquid tank |

GLOBAL PRESENCE



Wisconsin, USA
North America HQ

State-of-the-art machine showroom, sales and after-sales support, spare parts inventory and North American logistics centre.



Semur-en-Auxois, France
European HQ

French team, Tech centre featuring state-of-the-art machinery showroom, sales and after-sales support and European logistics centre.

Hampshire, UK
Global Headquarters

CEO's office, Marketing, Strategy, Business Development and Finance.



Tel Aviv, Israel
R&D and Manufacturing

Operations, R&D, Engineering and Manufacturing.



EXPLOSION PROOFED & CORROSION PROOFED

Corrosive or alcohol-based solutions dictate that your equipment is duly fitted to professionally handle these delicate environments. Years of experience in the field made it possible for us to tailor you the exact protection so your production is safe and stable while your people and equipment are well protected keeping your facility at the top of the range.

All of our machines are constructed using SST 304/316L, and are available with anti corrosive proprietary coating. As well as the machine base, all vital parts such as nozzles and pumps are also specially treated.



SHEMESH AUTOMATION'S FGW-120 FILLING MACHINE WITH COMPLETE EXPLOSION (EX) AND CORROSION PROTECTION



GLOBAL REPRESENTATION

Shemesh Automation collaborates with teams on complex Fortune 500 projects and has gained not only a proven and trusted network to put at your disposal, but also invaluable knowledge to help drive your projects.

We share our expertise to guarantee the maximum productivity of your machinery. Our global network of sales representatives and After Sales service specialists offer you flexible and efficient support. Our highly-qualified technicians ensure a fast solution whenever and wherever you need it.

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“Designed for operational flexibility and ultra-low, tools-free, sub 40-minute format parts changeover, it offers advanced Quality Control including multiple check-weighers and total QC for sealing and capping, significantly increasing efficiency.”

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