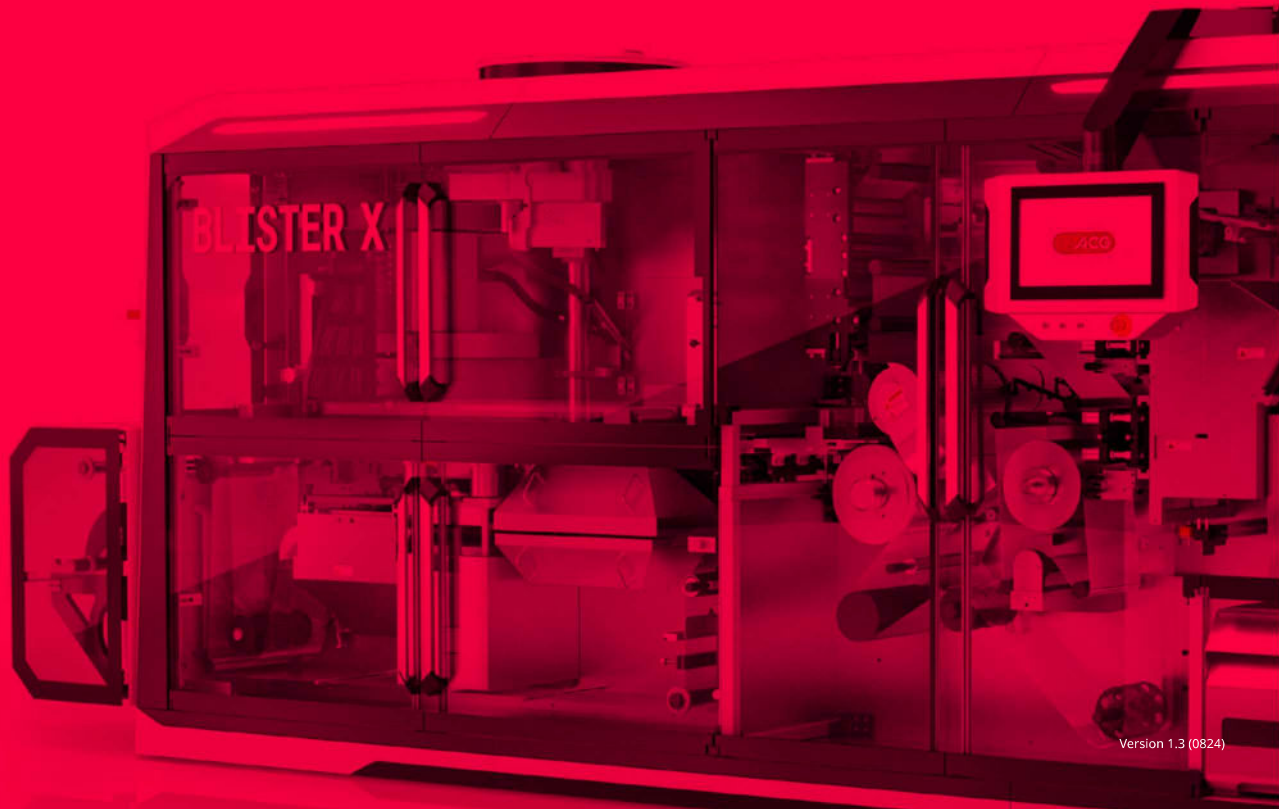


MACHINERY

Blister packaging



Version 1.3 (0824)

Contents

ROTARY FORMING – ROTARY SEALING

- 3 BP 102
- 4 BP 105 MF
- 5 BP 450 AD
- 6 CARTOBLIS
- 7 CARTOBLIS DD

FLAT FORMING – FLAT SEALING

- 8 BMAX PLUS
- 9 BQS
- 10 BQS E
- 11 SECUREBLIS MINI
- 13 MINIBLIS PLUS
- 14 QUEST NANOBLIS

FLAT FORMING – ROTARY SEALING

- 15 BLISTER X

17 FORMAT PARTS

ANCILLARIES

- 18 Deblistering machine (DBM 40)

ROTARY FORMING – ROTARY SEALING

BP 102

A compact, high-performance, cost-effective blister-packaging machine with robust rotary-forming and sealing technology. Producing high-quality thermoform blisters efficiently, BP 102 is perfect for the cost-conscious pharmaceutical industry and features unique single-drum technology for full operational flexibility.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules

Find this information on our website:
Machinery > Blister packaging > Rotary forming – rotary sealing > BP 102

Features	Benefits
A single drum for forming and sealing	Better blister quality, with fewer format parts
Available in single and twin-station configurations	Flexibility for a wide range of blister requirements
Compact footprint	Can be installed easily in limited space
Easy-fit punch-tool assembly	Faster, easier and more reassuring changeovers

Technical specifications	
Output	Up to 4.5 m / min (Thermoforming)
Forming depth	Up to 12 mm (Thermoforming)
Maximum blister size	200 mm × 100 mm
Forming materials	PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)
Lidding materials	Push-through foil, child-resistant foil, peelable (paper)



ROTARY FORMING – ROTARY SEALING

BP 105MF

A high-performance, cost-effective blister-packaging machine with robust rotary-forming and sealing technology. BP 105MF ensures you meet the demand for high-quality thermoform blisters for multiple products – efficiently. It's the ideal blister-packaging option for the cost-conscious, and features unique single-drum technology for full operational flexibility.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules

Find this information on our website:
Machinery > Blister packaging > Rotary forming – rotary sealing > BP 105 MF

Features	Benefits
A single drum for forming and sealing	Better blister quality, with fewer format parts
Available in single and twin-station configurations	Flexibility for a wide range of blister requirements
Easy-fit punch-tool assembly	Faster, more straightforward changeovers
Multi-feeding capabilities	Packs multiple products in a single blister

Technical specifications	
Output	Up to 4.5 m / min
Maximum blister size	200 mm × 100 mm
Forming depth	Up to 12 mm (Thermoforming)
Forming materials	PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)
Lidding materials	Push-through foil, child-resistant foil, peelable paper



ROTARY FORMING – ROTARY SEALING

BP 450AD

A deep-cavity blister packaging machine for ampoules, vials, pre-filled syringes, tubes, and combination packs of syringes and ampoules. ACG's BP 450AD combines the principles of vacuum thermoforming with our proven single-drum continuous-motion technology, and ensures seamless and simple feeding and operation.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules



Find this information on our website:
Machinery > Blister packaging > Rotary forming – rotary sealing > BP 450AD

Features	Benefits
A single drum for forming and sealing	Better blister quality, with fewer format parts
Forming up to a cavity depth of 28 mm	Simplified feeding, facilitating the formation of deep-cavity blisters
Print Registration and Control (PRC) enabled	Ensures appropriate print content on the final blister
Easy-fit punch-tool assembly	Faster, easier and safer changeover

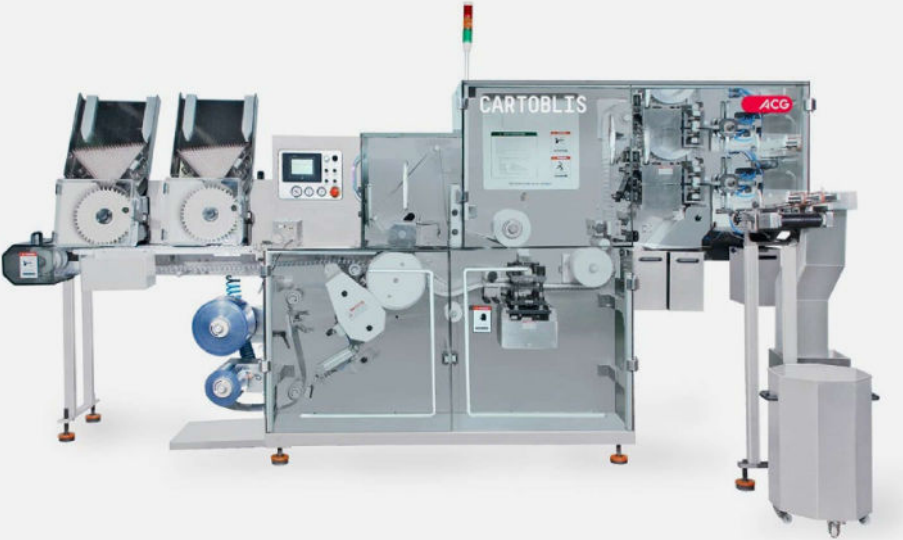
Technical specifications	
Output	Up to 4 m / min (Thermoforming)
Forming depth (mm)	Up to 28 mm (Thermoforming)
Maximum blister size	200 mm × 100 mm
Forming materials	PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)
Lidding materials	Push-through foil, child-resistant foil, peelable paper

ROTARY FORMING – ROTARY SEALING

CARTOBLIS

A cost-effective blister-packaging machine that integrates seamlessly with cartoning machines in various layout configurations. Based on unique single-drum technology and advanced automation, CARTOBLIS offers high flexibility.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules



Find this information on our website:
Machinery > Blister packaging > Rotary forming – rotary sealing > CARTOBLIS

Features	Benefits
Capable of drawing deep cavities up to 28 mm	Flexibility to pack ampoules, vials and syringes, as well as tablets and capsules
Vacuum-based rotary thermoforming with unique single-drum technology	Better blister quality, using fewer format parts
Fast punching and blister pick-up	High output with better blister quality
Edge-to-edge punching	Reduces foil wastage in web travel direction
Integration with carton packaging machine	Provides continuous feed to any online cartoner, fully automating the blister-cartoning operation

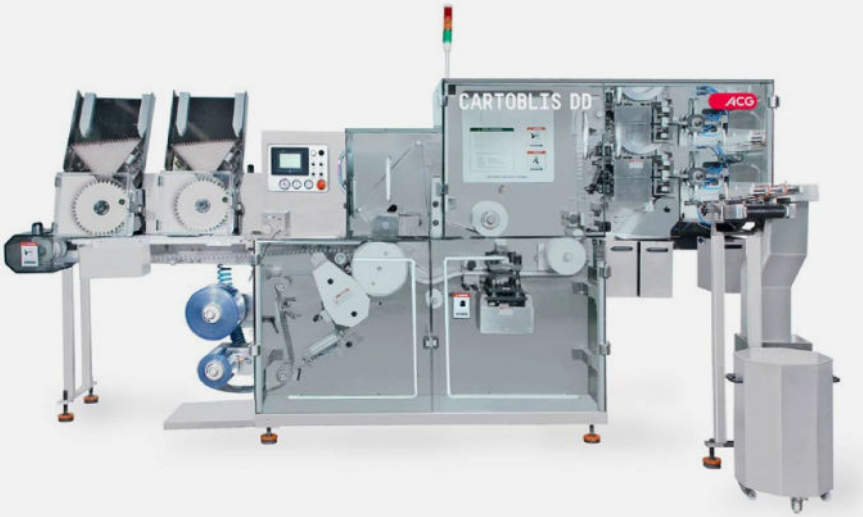
Technical specifications	
Output	Up to 6.5 m / min (Thermoforming)
Forming depth (mm)	Up to 12 mm (Thermoforming)
Format area	200 mm × 100 mm
Forming materials	PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)
Lidding materials	Push-through foil, child-resistant foil, peelable paper

ROTARY FORMING – ROTARY SEALING

CARTOBLIS DD

A cost-effective deep-draw blister-packaging machine that integrates seamlessly with cartoning machines in various layout configurations. Based on unique single-drum technology and advanced automation, CARTOBLIS DD offers high flexibility.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules



Find this information on our website:
Machinery > Blister packaging > Rotary forming – rotary sealing > CARTOBLIS DD

Features	Benefits
Capable of drawing deep cavities up to 28 mm	Flexibility to pack ampoules, vials and syringes, as well as tablets and capsules
Vacuum-based rotary thermoforming with unique single-drum technology	Better blister quality, using fewer format parts
Fast punching and blister pick-up	High output with better blister quality
Edge-to-edge punching	Reduces foil wastage in web travel direction
Integration with carton packaging machine	Provides continuous feed to any online cartoner, fully automating the blister-cartoning operation

Technical specifications

Output	Up to 4.5 m / min (Thermoforming)
Forming depth	Up to 12 mm (Thermoforming)
Format area	200 mm × 100 mm
Forming materials	PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)
Lidding materials	Push-through foil, child-resistant foil, peelable paper

FLAT FORMING – FLAT SEALING

BMAX PLUS

Drawing on our vast experience in packaging high-quality blister packs, in more than 6,000 thermoform and cold-form formats, we've designed BMAX PLUS to help you meet evolving demands as efficiently as possible.

Powered by the latest servo technology, it improves accuracy, speed, reliability and control significantly – making it our most versatile and efficient packaging machine yet. It can handle thermoforming and cold-forming packaging films and foils, and is fully compliant with 21 CFR Part 11.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules



Find this information on our website:
Machinery > Blister packaging > Flat forming – flat sealing > BMAX PLUS

Features	Benefits
Servo-enabled, continuous-motion flat-forming and flat-sealing	Higher quality thermoform and cold-form blisters
Elegant balcony design with upgraded setting mechanisms	Simpler operation and changeover Easier cleaning
Robust mono-block design	Enables smoother, more reassuring operation
Centralised Automated Lubrication System (CALS)	Assured safety and longevity of critical moving parts
Automated pressure settings	Prevention of unauthorised changes and reduced manual intervention ensures output quality and operator safety
Edge-to-edge blister-pack punching	Improved packaging yield
Rotary 'pick up' system	Higher output

Technical specifications

Forming cycle	Thermoforming	Up to 50 cycles / min
	Cold-forming	Up to 45 cycles / min
Forming depth	Thermoforming	Up to 12 mm
	Cold-forming	Up to 9 mm
Maximum forming area		240 mm × 180 mm
Forming materials		PVC, PVC / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
Lidding materials		Push-through foil, child-resistant foil, peelable paper

FLAT FORMING – FLAT SEALING

BQS

BQS remains the preference for customers with more than 1,000 active blister packaging installations globally. It is a flat-sealing, continuous-motion machine fully capable with the full range of thermoform films and cold-form packaging foils. Powered by servo technology, BQS ensures accuracy, reliability and control, and hence improves productivity.

It's also highly flexible, and therefore ideal for customising to specific requirements. It comes full CE / EAC / UL certification, and is equipped with proprietary ACG SMART CONNECTED technology, enabling remote asset visibility and real-time monitoring of machine health and performance.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules



Find this information on our website:
Machinery > Blister packaging > Flat forming – flat sealing > BQS

Features	Benefits
Ergonomic balcony design	Easy access and cleaning, for hassle-free changeover
Handles a wide range of thermoform films and cold-form packaging foils	Higher flexibility
Optimal format area	Suitable for a variety of blister pack sizes
Edge-to-edge blister-pack punching	Improves packaging yield
Effortless downstream integration with cartoning machines	Opens up options for blister-cartoning lines
Rotary indexing suitable for large blister sizes	Blister width up to 127 mm

Technical specifications

Forming cycle	Thermoforming	Up to 45 cycles / min
	Cold-forming	Up to 35 cycles / min
Forming depth	Thermoforming	Up to 12 mm
	Cold-forming	Up to 9 mm
Maximum forming area		240 mm × 180 mm
Forming materials		PVC, PVC / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
Lidding materials		Push-through foil, child-resistant foil, peelable paper

FLAT FORMING – FLAT SEALING

BQS E

A workhorse machine for blister packaging, ACG's BQS is increasingly first-choice among discerning manufacturers... and for good reasons. It now features the BQS E enclosure option, ensuring a safe packaging environment for solid dosage forms.

BQS E is a platen-sealing, continuous-motion machine capable of handling wide-ranging thermoform films and cold-form packaging foils. Powered by servo technology, it ensures accuracy, reliability, and precise control during blister packaging operations – and can be integrated with cartoners for seamless transitions from primary to secondary packaging.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules

Find this information on our website:
Machinery > Blister packaging > Flat forming – flat sealing > BQS E



Features	Benefits
Endlosure design from forming to sealing, operating under negative pressure	Removes excess particles from the working area
Rigid polycarbonate guarding for the entire machine	Full enclosure from feeding to sealing
Built-in glove ports	Safer operator access
Interlocks for all doors	Enhanced safety for operators
Can handle various thermoform films and cold-form packaging foils	Greater versatility
Differential pressure gauge for the filter and machine	Better in-process control
Effortless downstream integration with cartoners	Provides a viable solution for blister-cartoning lines

Technical specifications

Forming cycle	Thermoforming	Up to 45 cycles / min
	Cold-forming	Up to 35 cycles / min
Forming depth	Thermoforming	Up to 12 mm
	Cold-forming	Up to 9 mm
Maximum forming area		240 mm × 180 mm
Forming materials		PVC, PVC / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
Lidding materials		Push-through foil, child-resistant foil, peelable paper

FLAT FORMING – FLAT SEALING

SECUREBLIS MINI

A containment solution for drug products that belong to the highly potent active pharmaceutical ingredient (HPAPI) category, SECUREBLIS MINI is designed specifically to comply with Operational Exposure Band (OEB) 3, ensuring operators' utmost safety.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules

Find this information on our website:
Machinery > Blister packaging > Flat forming – flat sealing > SECUREBLIS MINI

Features	Benefits
The feeding and sealing enclosure area operates under negative pressure	HPAPIs are contained to aid OEB compliance
Glove ports at different locations	Easier manual interventions without breaching containment conditions
HEPA filters	Assured safety of the working environment and zero risk of product cross-contamination
Automated wet-in-place (WIP) system with strategically placed nozzles	Settles drug particles within the blister packaging area, covering all dead zones Makes cleaning and changeover far safer, easier and quicker
Additional safety interlocks across the machine	Ensures machine operates under contained conditions
Easy integration with product loading system	Ensures contained and safe loading of tablets or capsules, enhancing operator safety

Technical specifications

Forming cycle	Thermoforming	Up to 25 cycles / min
	Cold-forming	Up to 20 cycles / min
Forming depth	Thermoforming	Up to 12 mm
	Cold-forming	Up to 9 mm
Maximum forming area		156 mm × 96 mm
Forming materials		PVC, PVC / PVdC, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
Lidding materials		Push-through foil, child-resistant foil, peelable paper





FLAT FORMING – FLAT SEALING

MINIBLIS PLUS

ACG's MINIBLIS PLUS is a fully versatile flat-forming, flat-sealing intermittent-motion machine capable of packaging sensitive products in all forms of blister packs in short-run and small production batches. It supports production of all configurations of blisters, including thermoforming films and cold-form foils.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules



Find this information on our website:
Machinery > Blister packaging > Flat forming – flat sealing > MINIBLIS PLUS

Features	Benefits
Larger feeding area	Capable of multi-feeding different products
Nitrogen-purging capability	Facilitates handling of extremely moisture-sensitive and hygroscopic products
Handles thermoform and cold-form applications	Versatile and adaptable to a wide range of R&D set-ups
Compact footprint	Higher output per square metre
Low power consumption	Low total-cost-of-ownership
Interactive human-machine interface (HMI) and IPC	User-friendly controls
Capable of integrating with cartoning machines	Hassle-free integration with packaging line

Technical specifications

Forming cycle	Thermoforming	Up to 25 cycles / min
	Cold-forming	Up to 20 cycles / min
Forming depth	Thermoforming	Up to 12 mm
	Cold-forming	Up to 9 mm
Maximum forming area		156 mm × 96 mm
Forming materials		PVC, PVC / PVdC, Triplex (PVC / PE / PVdC), cold-form foil (Alu) Aclar (with plug assist)
Lidding materials		Push-through foil, child-resistant foil, peelable paper

FLAT FORMING – FLAT SEALING

QUEST NANOBLIS

A robust tabletop cGMP-compliant blister packaging machine ideal for clinical trials, and for feasibility and stability studies. QUEST NANOBLIS is compact, lightweight and portable. It's also highly versatile, with flat-forming, flat-sealing intermittent-motion blister packaging for R&D purposes.

Applications
Blister packaging of solid dosage products such as tablets, hard capsules and soft gelatine capsules



Find this information on our website:
Machinery > Blister packaging > Flat forming – flat sealing > QUEST NANOBLIS

Features		Benefits
Handles thermoform and cold-form materials		Versatility for a range of product applications
Ergonomic balcony design		User-friendly
Single-tool changeover		Fast, dependable and hassle-free adjustment to a range of requirements
Requires only a single-phase electrical connection		Ideal for use in R&D facilities
Perforation and embossing capability		Allows assessment of the feasibility of perforation and embossing that might be necessary on production scale-up

Technical specifications

Forming cycle		Up to 30 cycles / min
Forming depth	Thermoforming	Up to 12 mm
	Cold-forming	Up to 9 mm
Maximum forming area		80 mm × 38 mm
Forming materials		PVC, PVC / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
Lidding materials		Push-through foil, peelable paper

FLAT FORMING – ROTARY SEALING

BLISTER X

ACG's latest marvel in blister packaging technology, champions speed, embodying our commitment to exceed your high-output requirements.

A next-generation flat-forming, rotary-sealing, continuous-motion high-output blister packaging machine, BLISTER X, is powerhouse for both large manufacturing and campaign batches. It's designed with large forming areas for faster forming cycles and is completely servo-controlled, ensuring reliability, flexibility, and productivity of high-quality blister packs consistently.

BLISTER X's streamlined design exudes sophistication and advanced technology, making it functionally superior and visually striking for any manufacturing environment.



Find this information on our website:
Machinery > Blister packaging > Flat forming – rotary sealing > BLISTER X

Features	Benefits
Three-stage heating for film forming	Strict control of $\pm 2.5^{\circ}\text{C}$ of specified temperature reduces film shrinkage Ensures the formation of well-defined blister cavities with uniform thickness Avoids abrupt temperature fluctuations
Completely servo-controlled forming, even for cold-form blisters	Enhanced accuracy improving quality, productivity, and life of the machine
Servo-controlled rotary vibrator feeding mechanism with high angular velocity	Enhanced feeding efficiency for higher output even at rated cycles of requirements
Independently servo controlled sealing and counter sealing roller	Superior sealing quality with diamond-type sealing of cold-form and thermoform blisters Accuracy in both sealing and PRC (print registration control) applications
High-speed punching	Significantly higher output, with up to three tracks of blister and combi-packs Eliminates the limitations of punching in high-speed blister applications
High-speed servo-controlled blister dropping	Seamless line integration ensures blister packs land accurately on the conveyor belt and facilitate full integration with cartoning machinery
Large format area (276 mm $\times$ 220 mm)	Offers flexibility to produce high output in various combinations – single / twin / three track and combi packs

Technical specifications

Forming cycle	Thermoforming	55 cycles / min
	Cold-forming	45 cycles / min
Maximum forming area		276 mm × 220 mm
Forming materials		PVC, PVC / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
Lidding materials		Push-through foil, peelable paper

FORMAT PARTS

Packaging plays a critical role in safeguarding pharmaceutical products from the detrimental effects of ambient air and moisture, thereby extending their shelf life. However, it's worth noting that, beyond its protective function, superior packaging can help secure a genuine and compelling differentiation. And at ACG, we're acutely attuned to the contemporary demands of achieving shelf prominence and establishing a resilient brand identity in a crowded and competitive market.

That's why we've sold well over 10,000 format parts to the global pharmaceutical industry, facilitating the seamless customisation of packaging solutions across a diverse array of formats to accommodate varying product shapes and sizes.

For ACG, using format parts made by original equipment manufacturers (OEMs) is essential, because they're designed to fit specific machinery perfectly. As a result, they are longer-wearing, ensuring greater lifecycles, consistent productivity, and the highest overall efficiency of your equipment.

Original manufactured parts – a wise investment

ACG blister format parts are produced to the highest quality standards. As OEMs of many of the industry's top blister-packaging machines – including our highly acclaimed BQS – our parts are the best fit, by far.

Every single blister format part is tailor-made to your production requirements and uses only the highest quality materials. With the high-quality raw materials and cutting-edge machines we insist on, we can assure you the highest tolerances and standards.

Pre-tested and ready to go

Every single part that leaves our world-class facilities has passed a series of rigorous quality tests before dispatch. And because we test them on the very machines they're made for, you know you can use them straight from the box.

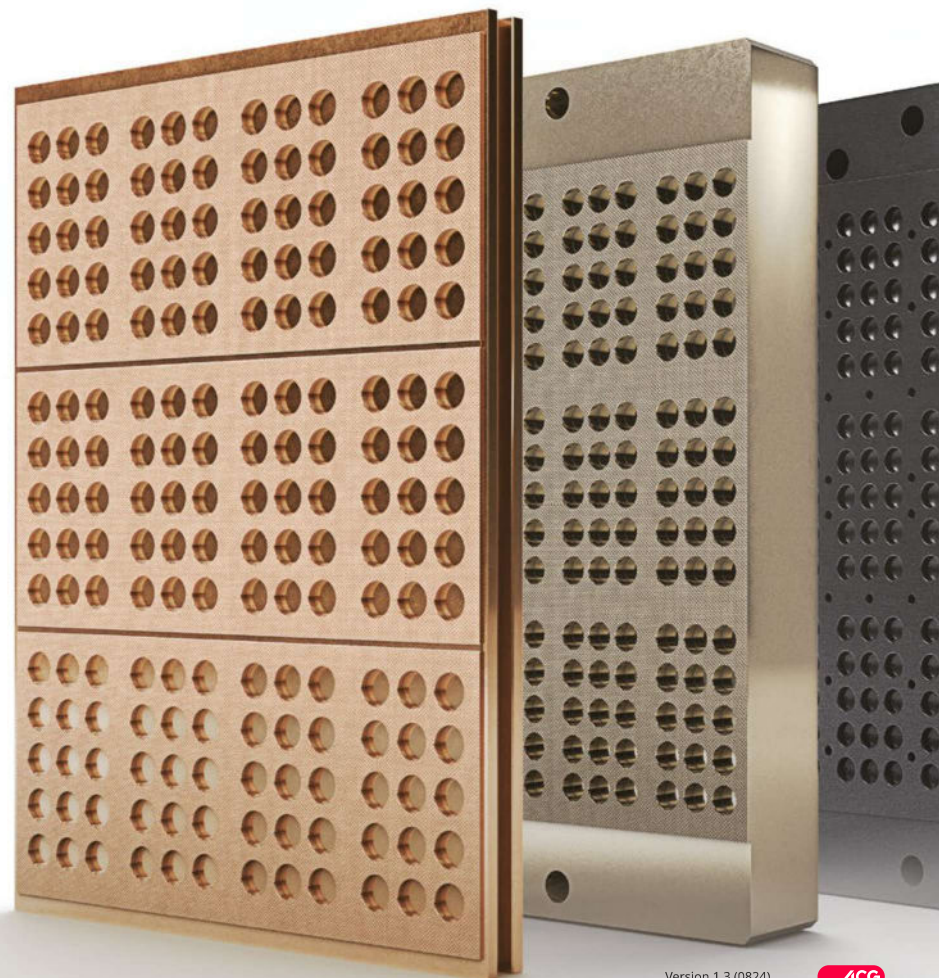
Of course, all format parts come with comprehensive service support to ensure your machine functions smoothly, for longer.

Our quality alloy seals: 4x better

Our proprietary alloy Better Seal™, used in the sealing plate of format parts, conducts heat four times faster than stainless steel. That ensures more uniform sealing and fewer rejects.

Better Seal™ is proven to have a temperature control 33% better than stainless steel plates. This means you can expect far fewer high-temperature alarms in your production run, while some customers have saved as much as 6.5 hours of production time. That's almost an entire shift!

Find this information on our website:
Machinery > Blister packaging > Format parts



Aftermarket. Not afterthought.

At ACG, we understand that when you get a new piece of factory equipment, you're buying far more than a machine; you're also investing in a relationship that will last its lifetime.

That's why we take our aftermarket service so seriously.

Whether you need advice or training, are preparing to make your factories 'smarter', or simply need a machine fixed fast, know that ACG will always go above and beyond to offer excellent service and value. As far as we're concerned, we're in this together – for life.



Let's talk.

Get in touch to find out more about our range of products and services. If you have specific equipment needs, we can even collaborate on delivering a purpose-made solution. We look forward to chatting.

Email us
sales.engineering@acg-world.com

North America

Canada
United States

Central and South America

Bolivia
Brazil
Colombia
Cuba
Dominican Republic
El Salvador
Guatemala
Paraguay
Peru
Venezuela

Europe

Bulgaria
Croatia
Czech Republic
Denmark
Germany
Greece
Italy
Latvia
Lithuania
Macedonia
Poland
Russia
San Marino
Serbia
Spain
Switzerland
Ukraine
United Kingdom

Africa

Algeria
Egypt
Ethiopia
Kenya
Morocco
South Africa
Tunisia

Middle East

Iran
Iraq
Israel
Jordan
Saudi Arabia
Syria
United Arab Emirates

Asia Pacific

Australia
Bangladesh
China
India
Indonesia
Malaysia
New Zealand
Philippines
South Korea
Sri Lanka
Taiwan
Thailand
Vietnam



Make it better.

ACG Engineering headquarters
127 Kandivali Industrial Estate,
Kandivali West, Mumbai 400 067,
India

+91 22 3078 0701 / 02

www.acg-world.com