# Blister packaging







### Make it better.

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## 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



#### Features

A single drum for forming and sealing

Available in single and twin-station configurations

Compact footprint

Easy-fit punch-tool assembly

Technical specifications

Output

Forming depth

Maximum blister size

**Forming materials** 

Benefits
Better blister quality, with fewer format parts
Flexibility for a wide range of blister requirements
Can be installed easily in limited space
Faster, easier and more reassuring changeovers

Up to 4.5 m / min (Thermoforming)	
Up to 12 mm (Thermoforming)	
200 mm × 100 mm	
PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)	
Push-through foil, child-resistant foil, peelable (paper)	



## ROTARY FORMING - ROTARY SEALING BP 105MF

A high-performance, cost-effective

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.

blister-packaging machine with

#### Applications

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



Features
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A single drum for forming and sealing

Available in single and twin-station configurations

Easy-fit punch-tool assembly

Multi-feeding capabilities

Technical specifications

Output

Maximum blister size

Forming depth

**Forming materials** 

Benefits
Better blister quality, with fewer format parts
Flexibility for a wide range of blister requirements
Faster, more straightforward changeovers
Packs multiple products in a single blister

Up to 4.5 m / min
200 mm × 100 mm
Up to 12 mm (Thermoforming)
PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)
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

#### Features

A single drum for forming and sealing

Forming up to a cavity depth of 28 mm

Print Registration and Control (PRC) enabled

Easy-fit punch-tool assembly

Technical specifications

#### Output

Forming depth (mm)

Maximum blister size

Forming materials

Benefits
Better blister quality, with fewer format parts
Simplified feeding, facilitating the formation of deep-cavity blisters
Ensures appropriate print content on the final blister
Faster, easier and safer changeover

Up to 4 m / min (Thermoforming)	
Up to 28 mm (Thermoforming)	
200 mm × 100 mm	
PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)	
Push-through foil, child-resistant foil, peelable paper	

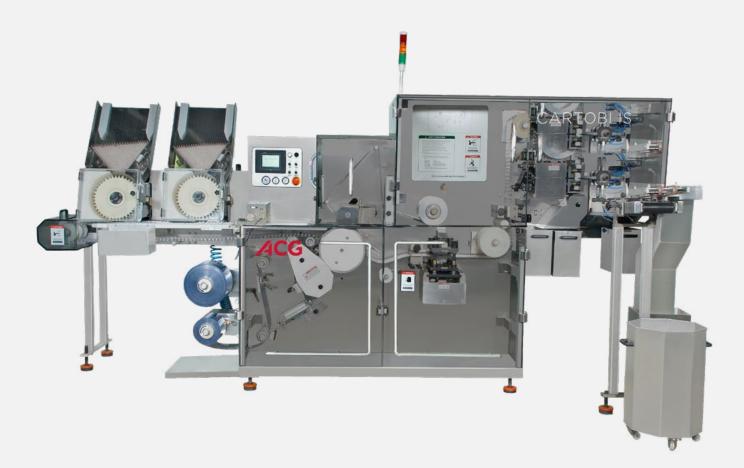


## ROTARY FORMING - ROTARY SEALING CARTOBLIS

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



Features

Capable of drawing deep cavities up to 28 mm

Vacuum-based rotary thermoforming with unique single-drum technology

Fast punching and blister pick-up

Edge-to-edge punching

Integration with carton packaging machine

Technical specifications

#### Output

Forming depth (mm)

Format area

**Forming materials** 

Benefits
Flexibility to pack ampoules, vials and syringes, as well as tablets and capsules
Better blister quality, using fewer format parts
High output with better blister quality
Reduces foil wastage in web travel direction
Provides continuous feed to any online cartoner, fully automating the blister-cartoning operation

Up to 6.5 m / min (Thermoforming)	
Up to 12 mm (Thermoforming)	
200 mm × 100 mm	
PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)	
Push-through foil, child-resistant foil, peelable paper	



### **ROTARY FORMING – ROTARY SEALING** CARTOBLIS DD

A cost-effective deep-draw blisterpackaging 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



#### Features

Capable of drawing deep cavities up to 28 mm

Vacuum-based rotary thermoforming with unique single-drum technology

Fast punching and blister pick-up

Edge-to-edge punching

Integration with carton packaging machine

Technical specifications

#### Output

Forming depth

Format area

**Forming materials** 

Benefits
Flexibility to pack ampoules, vials and syringes, as well as tablets and capsules
Better blister quality, using fewer format parts
High output with better blister quality
Reduces foil wastage in web travel direction
Provides continuous feed to any online cartoner, fully automating the blister-cartoning operation

Up to 4.5 m / min (Thermoforming)	
Up to 12 mm (Thermoforming)	
200 mm × 100 mm	
PVC, PVC / PVdC, Triplex (PVC / PE / PVdC)	
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

#### Features

Servo-enabled, continuous-motion flat-forming and flat-sealing

Elegant balcony design with upgraded setting mechanisms

Robust mono-block design

Centralised Automated Lubrication System (CALS)

Automated pressure settings

Edge-to-edge blister-pack punching

Rotary 'pick up' system

Technical specifications		
	Thermoforming	Up to 50 cycles / min
Forming cycle	Cold-forming	Up to 45 cycles / min
Forming donth	Thermoforming	Up to 12 mm
Forming depth	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



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

### Benefits Higher quality thermoform and cold-form blisters Simpler operation and changeover Easier cleaning Enables smoother, more reassuring operation Assured safety and longevity of critical moving parts Prevention of unauthorised changes and reduced manual intervention ensures output quality and operator safety Improved packaging yield Higher output



### **FLAT FORMING – FLAT SEALING**

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.

BQS

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

#### Features

Ergonomic balcony design

Handles a wide range of thermoform films and cold-form packaging foils

Optimal format area

Edge-to-edge blister-pack punching

Effortless downstream integration with cartoning machines

Rotary indexing suitable for large blister sizes

#### Technical specifications

Forming cycle	Thermoforming	Up to 45 cycles / min
	Cold-forming	Up to 35 cycles / min
Forming donth	Thermoforming	Up to 12 mm
Forming depth	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



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

Benefits
Easy access and cleaning, for hassle-free changeover
Higher flexibility
Suitable for a variety of blister pack sizes
Improves packaging yield
Opens up options for blister-cartoning lines
Blister width up to 127 mm



### **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



Enclosure design from forming to sealing, operating under negative pressure

Rigid polycarbonate guarding for the entire machine

Built-in glove ports

Interlocks for all doors

Can handle various thermoform films and cold-form packaging foils

Differential pressure gauge for the filter and machine

Effortless downstream integration with cartoners

#### Technical specifications

Thermoforming	Up to 45 d	
Cold-forming	Up to 35 (	
Thermoforming	Up to 12 r	
Cold-forming	Up to 9 m	
Maximum forming area		
Forming materials		
Lidding materials		
	Cold-forming Thermoforming Cold-forming	



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

	Benefits
r	Removes excess particles from the working area
	Full enclosure from feeding to sealing Safer operator access
	Enhanced safety for operators
	Enhanced safety for operators
	Greater versatility
	Better in-process control
	Provides a viable solution for blister-cartoning lines

cycles / min

cycles / min

mm

nm

× 180 mm

C / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)

rough foil, child-resistant foil, peelable paper

### **FLAT FORMING – FLAT SEALING** SECUREBLIS MINI

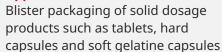
A containment solution for drug

Operational Exposure Band (OEB) 3,

ensuring operators' utmost safety.

#### **Applications**

products that belong to the highly potent active pharmaceutical ingredient (HPAPI) category, SECUREBLIS MINI is designed specifically to comply with





#### Features

The feeding and sealing enclosure area operates under negative pressure

Glove ports at different locations

**HEPA** filters

Automated wet-in-place (WIP) system with strategically placed nozzles

Additional safety interlocks across the machine

Easy integration with product loading system

#### Technical specifications

	Thermoforming	Up to 25 cycles / min
Forming cycle	Cold-forming	Up to 20 cycles / min
Foundary doubh	Thermoforming	Up to 12 mm
Forming depth	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

#### Benefits HPAPIs are contained to aid OEB compliance Easier manual interventions without breaching containment conditions Assured safety of the working environment and zero risk of product cross-contamination Settles drug particles within the blister packaging area, covering all dead zones Makes cleaning and changeover far safer, easier and quicker Ensures machine operates under contained conditions Ensures contained and safe loading of tablets or capsules, enhancing operator safety





## FLAT FORMING - FLAT SEALING MINIBLIS

ACG's MINIBLIS is a compact, fully

versatile flat-forming, flat-sealing

intermittent-motion machine for all forms of blister packs in

short-run and small production

of all configurations of blisters, including thermoforming films

and cold-form foils.

batches. It supports the production

#### Applications

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



Nitrogen-purging capability

Handles thermoform and cold-form applications

Compact footprint

Low power consumption

Interactive human-machine interface (HMI) and IPC

Can be integrated with all visual inspection machines

#### Technical specifications

Eorming cyclo	Thermoforming	Up to 25 (
Forming cycle	Cold-forming	Up to 20 (
Forming donth	Thermoforming	Up to 12 r
Forming depth	Cold-forming	Up to 9 m
Maximum forming area		156 mm >
Forming materials		PVC, PVC
Lidding materials		Push-thro

Benefits
Facilitates handling of moisture-sensitive and hygroscopic products
Versatile and adaptable to a wide range of R&D set-ups
Higher output per square metre
Low total-cost-of-ownership
User-friendly controls
Ensures high-quality blister packs

,	cycles	1	min	
·	cycics	'		

cycles / min

mm

mm

× 96 mm

C / PVdC, Triplex (PVC / PE / PVdC), cold-form foil (Alu)

ith plug assist)

rough 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



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 cyclo	Thermoforming	Up to 25 cycles / min
Forming cycle	Cold-forming	Up to 20 cycles / min
Foundary doubt	Thermoforming	Up to 12 mm
Forming depth	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

#### Applications

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 flatforming, flat-sealing intermittentmotion blister packaging for R&D purposes.

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



#### Features

Handles thermoform and cold-form materials

Ergonomic balcony design

Single-tool changeover

Requires only a single-phase electrical connection

Perforation and embossing capability

#### Technical specifications

Forming cycle

Forming depth

Thermoforming

**Cold-forming** 

Maximum forming area

Forming materials

Benefits
Versatility for a range of product applications
User-friendly
Fast, dependable and hassle-free adjustment to a range of requirements
Ideal for use in R&D facilities
Allows assessment of the feasibility of perforation and embossing that might be necessary on production scale-up

Up to 30 cycles / min
Up to 12 mm
Up to 9 mm
80 mm × 38 mm
PVC, PVC / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
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 highquality blister packs consistently. BLISTER X's streamlined design exudes sophistication and advanced technology, making it functionally superior and visually striking for any manufacturing environment.

#### Features

Three-stage heating for film forming

Completely servo-controlled forming, even for cold-form blisters

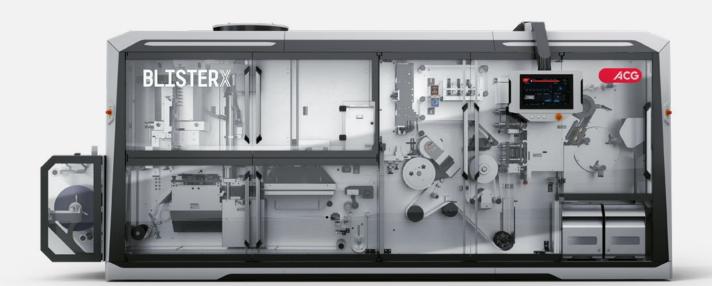
Servo-controlled rotary vibrator feeding mechanism with high angular velocity

Independently servo controlled sealing and counter sealing roller

High-speed punching

High-speed servo-controlled blister dropping

Large format area (276 mm × 220 mm)



Benefits
Strict control of ±2.5°C of specified temperature reduces film shrinkage
Ensures the formation of well-defined blister cavities with uniform thickness
Avoids abrupt temperature fluctuations
Enhanced accuracy improving quality, productivity, and life of the machine
Enhanced feeding efficiency for higher output even at rated cycles of requirements
Superior sealing quality with diamond-type sealing of cold-form and thermoform blisters
Accuracy in both sealing and PRC (print registration control) applications
Significantly higher output, with up to three tracks of blister and combi-packs
Eliminates the limitations of punching in high-speed blister applications
Seamless line integration ensures blister packs land accurately on the conveyor belt and facilitate full integration with cartoning machinery
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 Lidding materials		PVC, PVC / PVdC, Aclar, Triplex (PVC / PE / PVdC), cold-form foil (Alu)
		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 longerwearing, 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

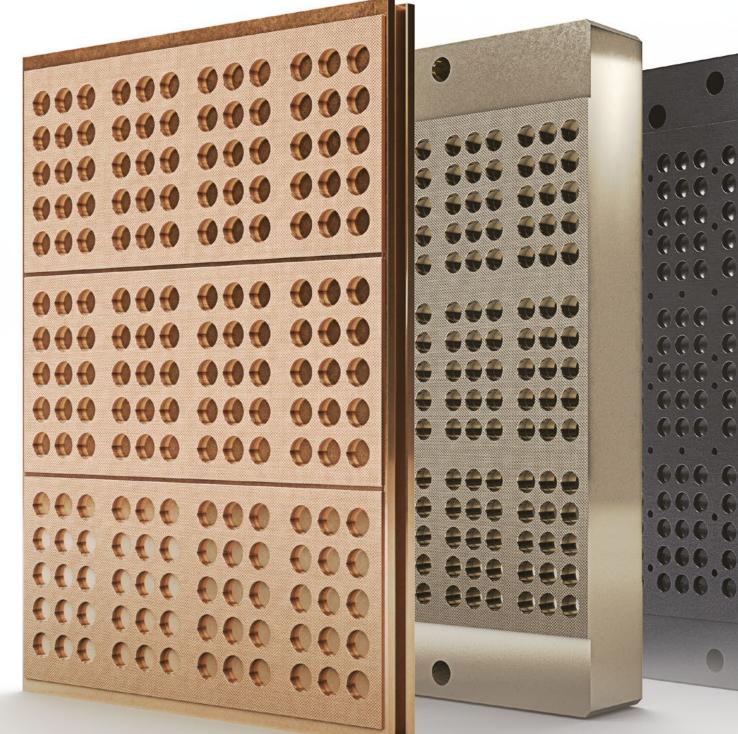
Every single part that leaves our world-class facilities has passed a series of rigorous quality tests before dispatch. And because we test them on the very machines they're made for, you know you can use them straight from the box.

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<sup>™</sup>, 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<sup>™</sup> 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



### **ANCILLARIES** De-blistering machine (DBM 40)

DBM 40 is a semi-automatic deblistering machine for emptying capsules and tablets in PVC or aluminium blister packs.



#### Features

Segregates product from blisters

Equipped with a movable stand and two trays

Technical specifications

Maximum size that can 240 mm × 100 mm be deblistered

#### Find this information on our website: Machinery > Blister packaging > Ancillaries > DBM 40

#### Benefits

Easy recovery of finished product from packaging
Straightforward collection of the products and waste foil



## 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.





#### **North America**

Canada United States

Central and South America Bolivia Brazil Colombia Cuba Dominican Republic El Salvador Guatemala Paraguay Peru Venezuela

## 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

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