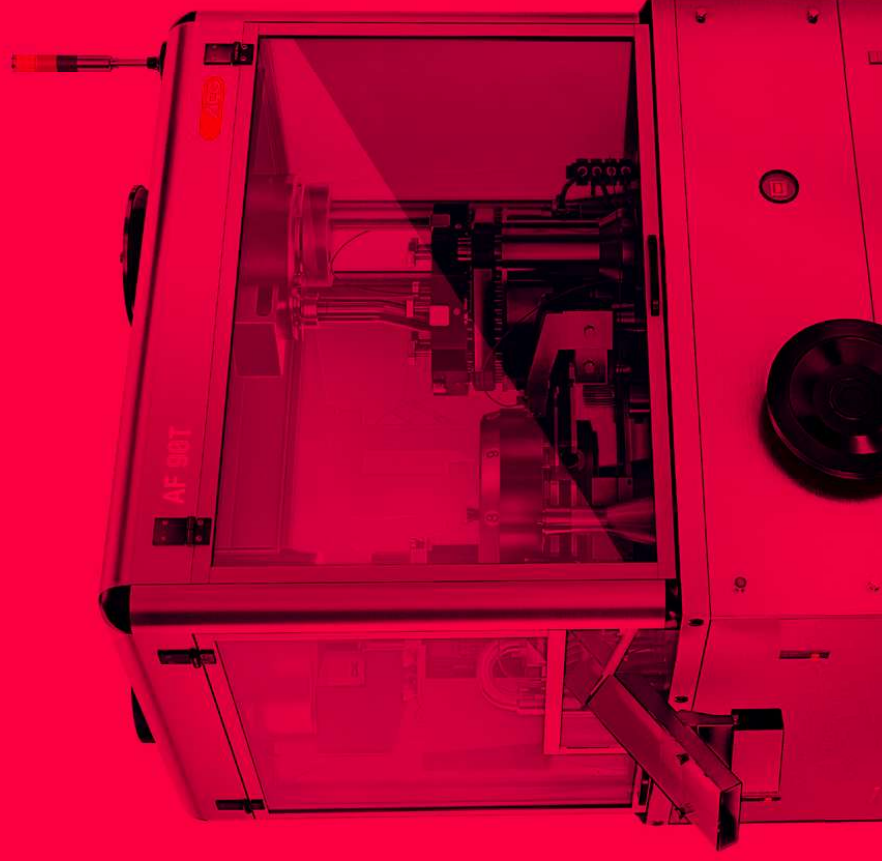


MACHINERY

Encapsulation



Make it better.



Version 1.3 (0824)

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SOLID FILLING / AF SERIES

AF series

With 2,227 successful installations (and counting) across the world, ACG's AF (automatic filling) series is a versatile high-speed option with a reputation for robustness over longer production runs. Fulfilling all GMP requirements, our AF machines support operations at hundreds of US FDA, EMA, MHRA, WHO and TGA-approved factories and have handled over 3,000 different formulations.

Applications

Fills pellets, tablets, micro-tablets, capsules, soft gels, and their combinations in capsules



Find this information on our website:
Machinery > Encapsulation > Solid fill > AF series

Features	Benefits
High capsule-filling accuracy thanks to a precise slug-dosing principle	Provides a better yield of high-quality capsules within optimal weight-variation limits, while reducing powder wastage
Partial filling capability (up to 25 mg) for capsule sizes 000 to 5	Allows filling of capsule-based dry-powder inhalation (cDPI) formulations with minimum excipients, as well as filling of low-dose API with or without excipients
Quick and easy mechanical changeover	Increases productivity with minimum downtime
Capable of filling powders, pellets, tablets, micro-tablets, capsules, soft gels, and combinations thereof	Diverse filling options expand opportunities to a wider range of capsule products
Can be integrated with ACCURA – online 100% capsule checkweighers	Allows capsule filling and weight-checking in one pass

Technical specifications

Model	Capsule size	Maximum speed
AF 40T	000 – 5	40,000 capsules / hr
AF 90T	000 – 5	90,000 capsules / hr
AF 150T	000 – 5	150,000 capsules / hr
AF 200T	000 – 5	200,000 capsules / hr

SOLID FILLING / AF SERIES

AF 25T

For pilot-scale batches, you want a machine that's not only small and versatile, but also gives you capsules of dependably accurate fill weight. ACG's AF 25T is that very machine. Compact and fully automatic, it's perfect for small batches, and offers multiple capsule-filling options for excellent quality output.

Applications
Fills pellets, tablets, micro-tablets, capsules, soft gels, and their combinations in capsules



Find this information on our website:
Machinery > Encapsulation > Solid fill > AF series

Features	Benefits	
Precise slug-dosing principle	Provides a better yield of high-quality capsules within optimal weight-variation limits, while reducing powder wastage	
Partial filling capability (up to 25 mg) for capsule sizes 000 to 5	Allows filling of capsule-based dry powder inhalation (cDPI) formulations with minimum excipients, as well as filling of low-dose API with or without excipients	
Swift and simple capsule size and product changeover	Minimal downtime means enhanced productivity	
Capable of filling powders, pellets, tablets, micro-tablets, capsules, soft gels, and their combinations	Diverse filling options allow you to work on a wide range of capsule products	

Technical specifications

Stations	8
Capsule size	000 – 5
Maximum speed	25,000 capsules / hr

SOLID FILLING / ZRO SERIES

ZRO series

ZRO is a patented ACG technology, developed with a singular objective – to ensure higher yields during capsule filling. With cutting-edge design, ZRO machines simplify the filling of capsules with powders that are difficult to tamp or compact, and reduce powder waste. They also increase yield significantly, and enhance overall equipment effectiveness (OEE).

Applications
Fills pellets, tablets, micro-tablets, capsules, soft gels, and their combinations in capsules



Find this information on our website:
Machinery > Encapsulation > Solid fill > ZRO series

Features	Benefits
Patented ZRO technology based on Zero Relative Motion (ZRM), in the powder-filling station	Achieves excellent capsule yield thanks to far less powder wastage
Partial filling capability (as low as 25 mg) for capsule sizes 000 to 5	It can handle sticky, fluffy, hygroscopic, and heat-sensitive powders – and those with a high percentage of fines
Simple mechanical changeover in under an hour	Facilitates capsule filling of low-dose APIs, such as inhalation formulations
Capable of filling powders, pellets, tablets, micro-tablets, capsules, soft gels, and combinations thereof	Maximum productivity with minimum downtime
Can be integrated with ACCURA – ACG's 100% capsule checkweigher	Fully adaptable to creating a wide range of capsule products
	Guarantees accurately weighed capsules

Technical specifications

Model	Capsule size	Maximum speed
ZRO 90T	000 – 5	90,000 capsules / hr
ZRO 200T	000 – 5	200,000 capsules / hr

SOLID FILLING / SEMI-AUTOMATIC FILLING MACHINE

SA 9

Manual capsule-filling of pilot-scale batches can be daunting and cumbersome, while investing in automatic filling machinery might not seem economically viable. That's when you turn to SA 9 – ACG's semi-automatic capsule-filling machine. Developed with a degree of automation, SA 9 ensures a high fill-weight accuracy and high yields. And you can operate it easily and safely with minimal intervention or maintenance.

Applications
Fills capsules with powders and pellets



Find this information on our website:
Machinery > Encapsulation > Solid fill > SA 9

Features		Benefits	
Automatic loading station		No need for continuous monitoring	
Automatic filling station		Reduces operator workload	
Capable of filling capsules with powders and pellets		Facilitates working on a wide range of products	
Technical specifications			
Capsule size	00	0	1 – 5
Maximum speed	21,600 capsules / hr	25,200 capsules / hr	28,800 capsules / hr

SOLID FILLING / CONTAINMENT FILLING / SECUREFILL SERIES

SECUREFILL series

The SECUREFILL series is our high-level containment capsule-filling machine range. It's designed for filling capsules with highly potent drugs, and complies with occupational exposure band (OEB) up to level 4. Built with operator safety in mind, these machines are equipped for filling capsules with oncological, hormonal, biopharmaceutical, antiviral formulations, and other formulations containing highly potent active pharmaceutical ingredients (HPAPIs).

Applications

Containment filling of pellets, tablets, micro-tablets, capsules, soft gels, and their combinations in capsules



Find this information on our website:
Machinery > Encapsulation > Solid fill > SECUREFILL series

Features	Benefits
Designed as a monoblock structure of SS316L containing HEPA filters, a rapid transfer port (RTP), glove ports, and accurate dosing mechanisms maintained in a negative pressure environment	Ensures complete containment, thereby avoiding operator contact within OEL range 1 – 10 µg / m ³
Provision for contained charging and discharging	Integrated containment for upstream and downstream processes
Wet-in-place system to ensure wetting of all suspended particles in the pharma zone	Protects the operator and the operational environment from formulation residues – and enables easy cleaning
Certified for highly potent and cytotoxic formulations requiring OEB up to level 4	Supports the production of life-saving drugs that contain HPAPIs, such as oncology products
Can be integrated with check-weighers, metal detectors and de-dusters under containment conditions	Ensures safe production of high-quality capsules

Technical specifications

Model	Capsule size	Maximum speed	OEL
SECUREFILL 25T	00 – 5	25,000 capsules / hr	1 – 10 µg / m ³
SECUREFILL 40T	00 – 5	40,000 capsules / hr	1 – 10 µg / m ³

LIQUID FILLING FLUIDOCAP F70

This unique series of fully automatic machines is designed for easy liquid-filling of two-piece hard capsules such as ACGcaps™ GL or ACGcaps™ HL. With output options ranging from 20,000 to 70,000 capsules per hour, you can use the machines not only for free-flowing liquids, but also pastes, suspensions, thixotropics and hot-melts.

Fluidocap F70 works best with medium to large batches.

Applications
Fills liquid and pellets, tablets, micro-tablets, capsules, soft gels and their combinations in liquid



Find this information on our website:
Machinery > Encapsulation > Liquid fill > FLUIDOCAP F70

Features	Benefits
Equipped with 'no-capsule-no-fill' sensors	Significantly less waste
Can handle formulations with viscosity of 100 to 40,000 cP	Far easier filling of capsules with pastes, hot melts and thixotropic solutions
Capable of filling liquid and pellets, tablets, micro-tablets, capsules, soft gels and their combinations in liquid	The versatility to create a wider range of capsule products
A built-in nitrogen / inert gas purging system	Supports the filling of oxygen-sensitive formulations

Technical specifications

Capsule size	00 – 4
Maximum speed	70,000 capsules / hr

LIQUID FILLING

FLUIDOCAP 1000

If you're looking to fill hard capsules with liquid, FLUIDOCAP 1000 is the ideal R&D or pilot-scale machine. It's semi-automatic, and integrates filling, closing and band-sealing processes in one compact and robust package. It can process a wide variety of capsules, from sizes 00 to 4, in gelatin and vegetarian variants.

Applications

Capsule filling with liquid, hot melts and pastes, and band sealing



Find this information on our website:
Machinery > Encapsulation > Liquid fill > FLUIDOCAP 1000

Features	Benefits
A single, small-footprint machine that integrates filling and sealing operations	Optimal use of space
Can handle formulations with viscosity ranging from 40 to 3,000 cP	Easy, reliable filling of capsules with pastes, hot melts and thixotropic solutions
Capable of band-sealing and drying filled capsules	Ensures integrity of the dosage form, provides brand distinction, and enhances shelf life

Technical specifications

Output	00 – 4
Maximum speed	1,000 capsules / hr

BAND SEALING PROSEAL 70

PROSEAL 70 is a capsule band sealing machine ideal for sealing two-piece hard capsules filled with liquids of varying viscosities, along with pellets, tablets, capsules and combinations thereof. PROSEAL 70 can be integrated with FLUIDOCAP, offering a seamless liquid-filling and band-sealing solution.

Applications
Capsule band sealing



Find this information on our website:
Machinery > Encapsulation > Band sealing > PROSEAL 70

Features	Benefits
Three-drum loading and orientation system	Smooth and efficient capsule loading
Provision for manual and automatic gelatin bath replenishment	Flexibility in operation
Option of automatic viscosity control and gelatin recycling system	Better in-process control – ensures the required viscosity Prevents wastage of gelatin
Improved drying through two blowers – one for suction and another for discharge	Effective airflow management to help drying of capsule seals

Technical specifications	
Output	70,000 capsules / hr

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
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