



Make it better.

Granulation



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Granulation

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HIGH SHEAR MIXERS

HSM X·ONE series

HSM X•ONE series

Find this information on our website:
 Machinery > Granulation > High shear mixers > HSM X•ONE series

An advanced series of high-shear mixer granulators that ensure faster processing and narrow particle-size distribution, while achieving content uniformity in the dry mix. The system is equipped with the ACG X•ONE command process control system and features the unique MOST™ safety concept.

Applications
 Wet granulation, mixing



Features

Benefits

Unique product bowl geometry	Facilitates uniform mixing by maintaining a roping flow regime, and faster process stabilisation due to linear scalability features – ensuring optimum mixing efficiency
Available with a Z-shaped impeller and multi-blade chopper	Superior centrifugal force means significantly fewer dead zones and achieves uniform binder distribution for higher yield and optimal particle-size distribution
A 12-bar pressure shock-resistant system featuring the Maximum Operator Safety Technology (MOST™) concept approved by FSA in Germany and compliant with ATEX (Directive 2014/34/EU)	No mechanical deformation caused in case of a pressure-shock event Production can be resumed in the shortest possible time A far safer working environment, thanks to a non-vented, fully contained design
Multiple systems for charging, discharging and wash-in-place (WIP)	Efficient product handling and easy cleaning, which means higher yield
ACG's exclusive X•ONE command process control system	Compliant with ATEX (Directive 2014/34/EU), GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control of the system

Technical specifications

Model	Working volume*	
HSM 150 X•ONE	Min	45 l
	Max	120 l
HSM 300 X•ONE	Min	90 l
	Max	240 l
HSM 400 X•ONE	Min	120 l
	Max	320 l
HSM 600 X•ONE	Min	180 l
	Max	480 l
HSM 800 X•ONE	Min	240 l
	Max	640 l
HSM 1200 X•ONE	Min	360 l
	Max	960 l

* Is dependent on the bulk density.

HSM 2000 X•ONE

Find this information on our website:
 Machinery > Granulation > High shear mixers > HSM X•ONE series

An advanced series of high-shear mixer granulators that ensure faster processing and narrow particle-size distribution, while achieving content uniformity in the dry mix. The system is equipped with the ACG X•ONE command process control system and features the unique MOST™ safety concept.

The HSM 2000 X•ONE is designed for large production batches and can be integrated fully into a granulation train or used as a standalone unit.

Applications

Wet granulation, mixing



Features

Benefits

Unique product bowl geometry	Facilitates uniform mixing by maintaining a roping flow regime, and faster process stabilisation due to linear scalability features – ensuring optimum mixing efficiency
Available with a Z-shaped impeller and multi-blade chopper	Superior centrifugal force means significantly fewer dead zones and achieves uniform binder distribution for higher yield and optimal particle-size distribution Significant utility conservation due to the use of a single chopper
A 12-bar pressure shock-resistant system featuring the Maximum Operator Safety Technology (MOST™) concept approved by FSA in Germany and compliant with ATEX (Directive 2014/34/EU)	No mechanical deformation caused in case of a pressure-shock event Production can be resumed in the shortest possible time A far safer working environment, thanks to a non-vented, fully contained design
Multiple systems for charging, discharging and wash-in-place (WIP)	Efficient product handling and easy washing Ensures minimal contents remain in the bowl after discharging which means better yield
ACG's exclusive X•ONE command process control system	Compliant with ATEX (Directive 2014/34/EU), GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control of the system

Technical specifications

Working volume*	Min	600 l
	Max	1,600 l

* Is dependent on the bulk density.

QUEST HSM II

Find this information on our website:
Machinery > Granulation > High shear mixers > HSM X•ONE series

QUEST HSM II supports innovation at R&D level, and is designed to help ensure cGMP compliance.

Applications
Wet granulation



Features

Benefits

12-bar pressure shock-resistant system featuring the Maximum Operator Safety Technology (MOST™) concept approved by ATEX and certified by FSA	No mechanical deformation caused in case of a pressure-shock event Production can be resumed in the shortest possible time A far safer working environment, thanks to a non-vented, fully contained design
Available with Z-shaped impeller blades	Optimum flow of material in and out of the shear zone, by providing superior centrifugal force to the material in less process time
Standalone mobile plug-and-play system	Use wherever it's needed in the lab – quickly and easily
Laser-cut multi-blade straight chopper	Breaks down lumps formed during granule formation, avoids 'dead zones', and achieves uniform binder distribution
Interchangeable bowls (2 l, 5 l, and 10 l)	Allows fully flexible batch sizes

Technical specifications

	Bowl size	2 l	5 l	10 l
Working volume*	Min	0.6 l	1.5 l	3 l
	Max	1.2 l	3 l	6 l

* Is dependent on the bulk density.

QUEST HSM III

Find this information on our website:
 Machinery > Granulation > High shear mixers > HSM X•ONE series

QUEST HSM III enables greater innovation at R&D level, and is designed to help with cGMP compliance.

Applications
 Wet granulation



Features

Benefits

<p>A 12-bar pressure shock-resistant system featuring the Maximum Operator Safety Technology (MOST™) concept approved by FSA in Germany and compliant with ATEX (Directive 2014/34/EU)</p>	<p>No mechanical deformation caused in case of a pressure-shock event</p> <p>Production can be resumed in the shortest possible time</p> <p>A far safer working environment, thanks to a non-vented, fully contained design</p>
<p>ACG's exclusive X•ONE command process control system</p>	<p>Compliant with ATEX, GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control</p>
<p>Available with Z-shaped impeller blades</p>	<p>Optimum flow of material in and out of the shear zone, by providing superior centrifugal force to the material in less process time</p>
<p>Standalone mobile plug-and-play system</p>	<p>Use wherever it's needed in the lab, quickly and easily</p>
<p>Laser-cut multi-blade straight chopper</p>	<p>Breaks down lumps formed during granule formation, avoids 'dead zones', and achieves uniform binder distribution</p>
<p>Interchangeable bowls (15 l, 30 l, and 65 l)</p>	<p>Allows fully flexible batch sizes</p>

Technical specifications

	Bowl size	15 l	30 l	65 l
Working volume*	Min	4.5 l	9 l	19.5 l
	Max	9 l	18 l	39 l

* Is dependent on the bulk density.

HIGH SHEAR MIXERS

HSM series

HSM series

Find this information on our website:

Machinery > Granulation > High shear mixers > HSM series

An integral part of the granulation train, ACG's High-Shear Mixer (HSM) is packed with innovative features and sets new standards of performance and adaptability in conventional processing equipment. Its advanced mixer/granulator technology guarantees efficient mixing, and ensures a high-quality end product.

With experience in handling over 1,000 formulations, our ACG Lab experts can help you with all aspects of process technology (including development, transfer, scale-up and optimisation) to achieve full efficiency and productivity.

Applications

Wet granulation, mixing

Features

Benefits

Ergonomic design of product bowl, with perfectly positioned access platform	Provides easy access to the machine and facilitates GMP compliance
Available with a Z-shaped impeller and multi-blade chopper	Superior centrifugal force avoids dead zones and achieves uniform binder distribution – thereby ensuring higher yield and optimal particle-size distribution
Multiple systems for charging and discharging, with a highly efficient vent air filtration system for wash-in-place (WIP)	Quick, dust-free transfer of raw materials, and easy washing
Integrated cleaning nozzles for product bowl and discharge	Makes cleaning much simpler

Technical specifications

Model	Working volume*	
HSM 150	Min	45 l
	Max	120 l
HSM 300	Min	90 l
	Max	240 l
HSM 400	Min	120 l
	Max	320 l
HSM 600	Min	180 l
	Max	480 l
HSM 800	Min	240 l
	Max	640 l
HSM 1200	Min	360 l
	Max	960 l

* Is dependent on the bulk density.

HSM 2000

Find this information on our website:

Machinery > Granulation > High shear mixers > HSM series

The HSM 2000 is designed for large production batches. You can integrate it with your granulation train, or use it as a standalone unit.

Applications

Wet granulation, mixing



Features

Benefits

Ergonomic design of product bowl, with perfectly positioned access platform	Provides easy access to the machine and facilitates GMP compliance
Available with a Z-shaped impeller and multi-blade chopper	Superior centrifugal force avoids dead zones and achieves uniform binder distribution – thereby ensuring higher yield and optimal particle-size distribution
Multiple systems for charging and discharging, with a highly efficient vent air filtration system for wash-in-place (WIP)	Quick, dust-free transfer of raw materials, and easy washing
Integrated cleaning nozzles for product bowl and discharge	Makes cleaning much simpler

Technical specifications

		Top-spray granulation
Working volume*	Min	600 l
	Max	1,600 l

* Is dependent on the bulk density.

FLUID BEDS

FBE X·ONE series

FBE X•ONE series

Find this information on our website:
 Machinery > Granulation > Fluid beds > FBE X•ONE series

The FBE X•ONE series is our most advanced range of fluid-bed systems. Developed at our Design Centre in Mülheim, Germany, it sets a new benchmark for performance, handling and operational safety. Offering excellent top-spray granulation and drying, it has already optimised the processing of over 1,800 formulations.

Applications

Top-spray granulation,
 wet-mass drying,
 hot-melt granulation



Features

Benefits

<p>A 12-bar pressure-shock-resistant system, featuring the Maximum Operator Safety Technology (MOST™) concept approved by FSA Germany, and compliant with ATEX (Directive 2014/34/EU)</p>	<p>No mechanical deformation caused in case of a pressure-shock event</p> <p>Production can be resumed in the shortest possible time</p> <p>Far safer for the environment, thanks to a non-vented, fully contained design</p>
<p>Unique C-flanges</p>	<p>Prevents the transfer of explosion pressure beyond the machine</p>
<p>X•ONE inflatable seals</p>	<p>Safety at low pressure (as low as 4.5 bar)</p>
<p>QASV (Quick Action Stop Valves)</p>	<p>Ensures explosion is contained within 20 milliseconds of detection</p>
<p>ACG's exclusive X•ONE command process control system</p>	<p>Compliant with ATEX (Directive 2014/34/EU), GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control</p>
<p>Customised charging, discharging and wash-in-place (WIP) systems – available in standalone and granulation-train configurations</p>	<p>Makes processing of granules highly efficient, ensures safety, and reduces changeover times</p>

Technical specifications

Model	Working volume*	
FBE 125 X•ONE	Min	33 l
	Max	168 l
FBE 250 X•ONE	Min	75 l
	Max	368 l
FBE 500 X•ONE	Min	135 l
	Max	608 l
FBE 800 X•ONE	Min	220 l
	Max	888 l
FBE 1300 X•ONE	Min	345 l
	Max	1,344 l
FBE 1800 X•ONE	Min	525 l
	Max	1,956 l

* Is dependent on the bulk density.

FLUID BEDS

FBE series

FBE series

Find this information on our website:
Machinery > Granulation > Fluid beds > FBE series

The FBE series is our highly acclaimed range of fluid-bed machines, and is synonymous with excellent performance. Featuring technologies for drying and top-spray granulation, it's a proven set-up for pharmaceutical and nutraceutical production.

Applications

Top-spray granulation,
wet-mass drying,
hot-melt granulation



Features

Precisely calculated and practically tested vent

A state-of-the-art filter bag shaking system

Customised charging, discharging and wash-in-place (WIP) systems available in standalone and granulation-train configurations

21 CFR part 11-compliant PC control system

Benefits

Ensures operator and equipment safety in the event of pressure-shock

Covers the largest possible filtration area and consumes far less compressed air compared with blowback filter systems

It's also easier to handle and achieves better cleaning

Quick and easy formulation processing

A regulatory-compliant, audit-friendly system

Technical specifications

Model	Working volume*	
FBE 125	Min	28.5 l
	Max	160 l
FBE 250	Min	70 l
	Max	344 l
FBE 500	Min	130 l
	Max	600 l
FBE 800	Min	225 l
	Max	896 l
FBE 1300	Min	335 l
	Max	1,288 l

* Is dependent on the bulk density.

FLUID BED COMBOS

FBC X·ONE series

FBC X•ONE series

Find this information on our website:
 Machinery > Granulation > Fluid bed combos > FBC X•ONE series

Supreme safety with ultimate versatility – that’s what you get with the FBC X•ONE series developed at our Design Centre in Mülheim, Germany. While you can use it for diverse applications, including drying, top-spray granulation and Wurster coating, its cutting-edge design and features don’t compromise process or operator safety. In short, you get the very best outcomes and unbeatable protection.

Applications

Top-spray granulation, wet-mass drying, hot-melt granulation, tangential spray granulation, Wurster coating



Features

Benefits

The 12-bar pressure shock-resistant system features the Maximum Operator Safety Technology (MOST™) concept approved by the FSA and compliant with ATEX (Directive 2014/34/EU)	No mechanical deformation caused in case of a pressure-shock event Production can be resumed in the shortest possible time Far safer for the environment, thanks to a non-vented, fully contained design
Unique C-flanges	Prevents the transfer of explosion pressure beyond the machine
X•ONE inflatable seals	Safety at low pressure (as low as 4.5 bar)
QASV (Quick Action Stop Valves)	Ensures explosion is contained within 20 milliseconds of detection
Customised charging, discharging and wash-in-place (WIP) systems available in standalone and granulation-train configurations	Makes processing of granules and pellets highly efficient, while ensuring safety and achieving faster changeovers
ACG’s exclusive X•ONE command process control system	Compliant with ATEX (Directive 2014/34/EU), GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control
Patented nozzles developed with Düsen-Schlick GmbH, Germany exclusively for ACG	Enhanced productivity, and simplified operation and cleaning

Technical specifications

Model	Working volume*	Top-spray granulation	Wurster coating
FBC 125 X•ONE	Min	33 l	9 l
	Max	168 l	80 l
FBC 250 X•ONE	Min	75 l	23 l
	Max	368 l	170 l
FBC 500 X•ONE	Min	135 l	40 l
	Max	608 l	365 l
FBC 800 X•ONE	Min	220 l	85 l
	Max	888 l	590 l
FBC 1300 X•ONE	Min	345 l	130 l
	Max	1344 l	835 l
FBC 1800 X•ONE	Min	525 l	180 l
	Max	1,956 l	1,185 l

* Is dependent on the bulk density.

QUEST FB II X•ONE

Find this information on our website:
Machinery > Granulation > Fluid bed combos > FBC X•ONE series

Combining great design with ergonomics, QUEST FB II X•ONE is a safe, versatile lab machine with multiple applications. Its capability and performance across drying, granulation, Wurster coating and rotor granulation cover the full range of R&D-scale studies.

Applications

Drying, wet granulation, Wurster coating and rotor granulation



Features

12-bar pressure shock resistant system featuring the Maximum Operator Safety Technology (MOST™) concept approved by ATEX and certified by FSA

Swivel filter housing

Unique filter change system

Slide-in/slide-out process inserts

Four process inserts

Benefits

No mechanical deformation caused in case of a pressure-shock event

Far safer for the environment, thanks to a non-vented, fully contained design

A versatile and portable system for drying, single-pot granulation and Wurster coating

Quick and easy to install and use anywhere in your lab. A single system for diverse applications

Reduces dust emissions to a minimum, and ensures operators' safety and ease of use

Easy charging and discharging

Handle varied batch sizes and multiple applications (drying, granulation, Wurster coating and rotor granulation) with greater operational flexibility

Technical specifications

		Top-spray granulation			
	Bowl size	3 l	6 l	9 l	12 l
Working volume*	Min	0.6 l	1.2 l	1.8 l	2.4 l
	Max	3 l	6 l	9 l	12 l

		Wurster coating		
	Bowl size	3 l	6 l	9 l
Working volume*	Min	0.6 l	1.2 l	1.8 l
	Max	2 l	4 l	8 l

* Is dependent on the bulk density.

QUEST FB III X•ONE

Find this information on our website:
 Machinery > Granulation > Fluid bed combos > FBC X•ONE series

A strong foundation for scale-up and design of experiments (DoE) studies, our QUEST FB III X•ONE is a versatile, intermediate-scale fluid-bed system featuring all aspects of typical commercial-scale equipment. This means you can establish process parameters quickly and accurately, and be confident scaling up your batches. QUEST FB III X•ONE also provides multiple applications, including drying, top-spray, tangential-spray and rotor granulation and Wurster coating.

Applications

Drying, wet granulation, Wurster coating, top-spray, tangential-spray and rotor granulation



Features

Benefits

<p>A 12-bar pressure shock resistant system featuring the Maximum Operator Safety Technology (MOST™) concept approved by ATEX and certified by FSA</p>	<p>No mechanical deformation caused in case of a pressure-shock event</p> <p>Far safer for the environment, thanks to a non-vented, fully contained design</p>
<p>Unique C-flanged X•ONE inflatable seals</p>	<p>12-bar-rated inflatable seals feature machined C-flanges that ensure safety at pressures as low as 4.5 bar</p> <p>Lower operating costs and significantly longer lifespan</p>
<p>State-of-the-art twin-filter bag-shaking system</p>	<p>Most efficient way of removing sticky materials which prevents filter choking, thereby improving overall filter performance</p> <p>Enhances yield significantly while maintaining lower compressed air consumption</p>
<p>ACG's exclusive X•ONE command process control system</p>	<p>Compliant with ATEX, GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control</p>
<p>Fully integrated multi-function column</p>	<p>Reduced maintenance downtime and operational costs</p> <p>The smart open-profile column has removable covers for swift and simple access to integrated peripherals, while a linear drive makes raising and lowering the exhaust air filter far easier</p> <p>The control panel and keyboard are adjustable to operator preference</p>

Technical specifications

		Top-spray granulation	Wurster coating
Working volume*	Min	12 l	5 l
	Max	55 l	25 l

* Is dependent on the bulk density.

FLUID BED COMBOS

FBC series

FBC series

Find this information on our website:
Machinery > Granulation > Fluid bed combos > FBC series

Our versatile FBC expands your process efficiency exponentially. With your need for flexible operations in mind, we designed our combo series to feature top-spray and Wurster coating technology in one innovative machine. It's a proven boost for the pharmaceutical and nutraceutical industries.

Applications

Top-spray granulation, wet-mass drying, hot-melt granulation, tangential spray granulation, Wurster coating



Features

Precisely calculated and tested vent

The state-of-the-art twin-chamber filter bag shaking system

Product container with multiple air-distribution plates

Customised charging, discharging and wash-in-place (WIP) systems available in standalone and granulation-train configurations

Benefits

Ensures operator and equipment safety in the event of pressure shock

Helps achieve continuous fluidisation via the largest possible filtration area. Meanwhile, it consumes far less compressed air compared with blowback filter systems. It's also easier to handle and achieves better cleaning results

Choose the air distribution that best suits your product

Efficient formulation processing and easy washing

Technical specifications

Model	Working volume*	Top-spray granulation	Wurster coating
FBE 125C	Min	28.5 l	7 l
	Max	160 l	80 l
FBE 250C	Min	70 l	23 l
	Max	344 l	170 l
FBE 500C	Min	130 l	40 l
	Max	600 l	365 l
FBE 800C	Min	225 l	85 l
	Max	896 l	590 l
FBE 1300C	Min	335 l	130 l
	Max	1,288 l	835 l
FBE 1800C	Min	525 l	180 l
	Max	1,388 l	900 l

* Is dependent on the bulk density.

GPCG 1.1

Find this information on our website:
 Machinery > Granulation > Fluid bed combos > FBC series

One of the workhorses in its performance class for feasibility and scale-up studies, the remarkably versatile GPCG 1.1 has all the features of a production-scale machine. Its capabilities include drying, granulation, particle/pellet coating, dry-powder layering, spray agglomeration and hot-melt coating – plus granulation and tangential coating.

Applications

Top-spray granulation, wet-mass drying, hot-melt granulation, tangential spray granulation, Wurster coating



Features

Features	Benefits
A mobile plug-and-play, standalone system with an optional integrated air-handling unit	Highly portable and user-friendly for quick switching across diverse applications
Filter bags with a shaking mechanism	Faster and more effective cleaning and handling
Multiple and interchangeable air-distribution plates	Select and install the plate that best suits your product, quickly and easily
Hinged filter-housing	Reduces machine height and enhances mobility

Technical specifications

		Top-spray granulation	Wurster coating	RGPCG
Working volume*	Min	1.4 l	0.5 l	1.5 l
	Max	4.7 l	2.4 l	4 l

* Is dependent on the bulk density.

MINIQUEST F

Find this information on our website:
 Machinery > Granulation > Fluid bed combos > FBC series

This unique tabletop granulation system is designed specifically for academic settings, and can handle batch sizes as small as 50 g. Featuring a nozzle from Düsen-Schlick GmbH, Germany, this versatile multitasking system is ideal for drying, granulation and Wurster coating.

Applications

Top-spray granulation, wet-mass drying, hot-melt granulation, tangential spray granulation, Wurster coating

Features

Benefits

Integrated peristaltic pump	Facilitates compact housing of the system and minimises footprint
Innovative tower assembly	Allows easy operation, inspection, and cleaning of the system
Unique venturi-based fluidisation system	Requires no electrically powered blower, making installation easier and more cost-effective
5µ sock filter prevents dust escape	Ensures cleaner operations and working environments

Technical specifications

		Top-spray granulation	Wurster coating
Working volume*	Min	225 ml	40 ml
	Max	750 ml	200 ml

* Is dependent on the bulk density.



QUEST FB

Find this information on our website:
Machinery > Granulation > Fluid bed combos > FBC series

QUEST FB is a highly versatile 'plug and play' fluid-bed unit for lab-scale feasibility studies, featuring a single retrofittable container for top-spray and Wurster coating applications. Its ease of use and adaptability make it ideal for R&D scientists.

Applications

Top-spray granulation, wet-mass drying, hot-melt granulation, tangential spray granulation, Wurster coating



Features

A versatile and portable system for drying, single-pot granulation and Wurster coating	Quick and easy to install and use anywhere in your lab A single system for diverse applications
Product container convertible from top-spray to Wurster coating, to tangential spray, with minor adjustments	Effortless, seamless transition from one application to another
A weighing scale integrated into the Programmable Logic Controller (PLC) for spray-rate measurement	Allows you to set and control the spray rate easily
Touchscreen human-machine interface (HMI) and PLC-based control system	User-friendly controls
Multiple air distribution plates	Choose the air distribution plate that best suits your product

Technical specifications

		Top-spray granulation	Wurster coating
Working volume*	Min	0.9 l	0.3 l
	Max	3 l	1.5 l

* Is dependent on the bulk density.

INTEGRATED GRANULATION LINE

GT series

Find this information on our website:
 Machinery > Granulation > Granulation trains > GT series

ACG's integrated granulation train (GT series) combines an advanced high-shear mixer (HSM) and fluid-bed (FBE/FBC) system designed in Germany. It takes manufacturing efficiency to the next level, and allows safe single-handed operation. So it not only achieves a highly efficient, dust-free wet granulation process, but also provides a cost-effective closed-loop design.



Features	Benefits
Contained product-handling supported by a vacuum charging system	<p>Ensures closed-loop product transfer for safe and smooth material flow</p> <p>Ensures minimum product leftover</p> <p>Granule sizing is far easier, with mill equipment integrated into the system</p>
Compact machine footprint	Reduces floorspace requirements by around 50%
Through-the-wall construction	Allows clear separation between processing and technical areas, ensuring easier maintenance, cleaning, operation and GMP compliance
Multiple systems for charging, discharging and wash-in-place (WIP)	<p>Efficient processing of formulation and easy washing</p> <p>Vastly reduces dust generation and product exposure, and reduces manual intervention significantly, thereby making GMP compliance far easier</p>
A wide variety of combination options for HSM and FBE/FBC	Easily customisable to a wide range of product and process requirements

GT X•ONE series

Find this information on our website:
Machinery > Granulation > Granulation trains > GT X•ONE series

The GT X•ONE series is ACG's answer to the long-standing call for greater efficiency and reassurance throughout the granulation line. Combining the best of our high-shear mixer (HSM X•ONE) and fluid-bed equipment (FBE X•ONE/FBC X•ONE), GT X•ONE makes granulation more adaptable and seamless – and enhances ease of use, safety and output.

Designed at our Design Centre in Mülheim, Germany, it's literally a shining example of how collaboration and applied insight can ensure less waste and downtime, while improving product consistency and quality... all in one highly advanced and ergonomic user experience.



Features	Benefits
<p>A 12-bar pressure shock-resistant system featuring the Maximum Operator Safety Technology (MOST™) concept approved by FSA in Germany and compliant with ATEX (Directive 2014/34/EU)</p>	<p>No mechanical deformation caused in case of a pressure-shock event</p> <p>Production can be resumed in the shortest possible time</p> <p>A far safer working environment, thanks to a non-vented, fully contained design</p>
<p>Unique C-flanges, X•ONE inflatable seals, and Quick Action Stop Valves (QASV)</p>	<p>Our unique seals have a longer lifespan due to significantly reduced operating pressures</p> <p>Ensures safety at pressures as low as 4.5 bar</p>
<p>Compact machine footprint</p>	<p>Reduces floorspace requirements by around 50%</p>
<p>Through-the-wall construction</p>	<p>Allows clear separation between processing and technical areas, ensuring easier maintenance, cleaning, operation and GMP compliance</p>
<p>Enclosed product handling, such as gravity charging or vacuum charging systems, that can be customised to suit user requirements</p>	<p>GT X•ONE ensures closed-loop product-transfer with safe and smooth material flow, and thereby reduces product leftovers</p> <p>For example, a vacuum charging system provides closed-loop material transfer, and so vastly reduces dust generation and product exposure – and reduces the need for manual intervention, which makes it GMP compliant</p>
<p>Superior wash-in-place (WIP) capability</p>	<p>Eliminates dead spots and deals effortlessly with crevices, sharp surfaces and difficult-to-access points</p> <p>Ensures easy washing and quick changeover</p>
<p>ACG's exclusive X•ONE command process and control system</p>	<p>Compliant with ATEX (Directive 2014/34/EU), GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control of the system</p>

SPECIAL ATTACHMENTS

R series (rotor attachments)

Find this information on our website:
[Machinery > Granulation > Special attachments > R series](#)

The R series rotor insert is the latest innovation in ACG's fluid-bed machines. Combining different processes into a single container facilitates a wide range of applications, including pelletisation, dry-powder layering, rotor granulation/suspension coating, and spherical granulation. Ultimately, this ensures perfect-shaped pellets and high-density granules with narrow particle-size distribution. All this is backed by extensive process and optimisation support from our experts, who have collective experience and expertise in handling over 1,000 formulations.

Applications

Spheronisation/pelletisation, powder layering, and solution and suspension coating



Features

Features	Benefits
Plug-and-play versatility, with interchangeable inserts retrofittable to existing fluid-bed machines	Access to cutting-edge technology without additional investment
Highly accurate powder dosing system for a wide range of applications	Precise process control for drug layering and powder coating applications
Rotor discs for the full range of applications	Enables spheronisation and drug layering
Integrates easily with a wide variety of powder feeders	Offers flexibility and is suitable for multiple applications

Technical specifications

		GPCG 1.1	R II	R125	R250	R500
Working volume	Min	1.5 l	2 l	15 l	30 l	45 l
	Max	4 l	6 l	50 l	100 l	150 l



Make it better.

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