

**MACHINERY** 

# Tablet coating



## **Contents**

#### **COATERS**

#### **SMARTCOATER X•ONE series**

- 3 SMARTCOATER 175 X•ONE
- 3 SMARTCOATER 250 X•ONE
- 3 SMARTCOATER 350 X•ONE
- 3 SMARTCOATER 500 X•ONE
- 3 SMARTCOATER 700 X•ONE
- 3 SMARTCOATER 1000 X•ONE
- 3 SMARTCOATER 1400 X•ONE
- 5 SMARTCOATER 2000 X•ONE

#### **QUEST series**

- 6 MINIQUEST T
- 7 QUEST TC
- 8 QUEST TC III

#### **CONTAINMENT COATERS**

#### **SECURECOAT** series

- 9 SECURECOAT 125
- 9 SECURECOAT 175
- 9 SECURECOAT 250
- 9 SECURECOAT 350

10 SECURECOAT TC III

Version 1.3 (1124) ACG

## **SMARTCOATER X•ONE series**

Backed by more than 60 years of ACG engineering expertise, the SMARTCOATER X•ONE incorporates everything you need to ensure swift and economical processes – and uphold consistently high standards.

As part of our new X•ONE series, and the next-level upgrade of ACG's premium tablet-coating system, it makes tablet coating extraordinarily fast and fully reassuring, with increased process speed, efficiency and usability.

#### **Applications**

Film coating and sugar coating of tablets, micro-tablet coating and pellet coating



| Features   | Benefits  |
|--|---|
| Unique coating system that includes baffles, spray arms and drum   | Flexibility to work with 10 – 100%* batch occupancy   |
| High-performing spray-arm design with full external control via infinity handle                                | Accurate bed coverage for the entire batch size, and can be positioned to match all product requirements  Avoids delays caused by in-process intervention |
|  | Avoids delays caused by in-process intervention   |
| ACG's X•ONE 2.0 Spray Nozzle developed in collaboration with Düsen-Schlick GmbH, Germany with an Anti-Bearding | No product build-up, so far easier to clean and maintain  |
| Cap – now 50% lighter (as light as 800 g)  | Easier handling   |
| Modular, automated and integrated design for tablet charging and discharging, with inbuilt discharge baffles   | Dust-free, closed-door charging, and 100% tablet discharge until the last tablet  |
| Advanced wash-in-place (WIP) technology featuring the optimum number and arrangement of nozzles                | Complete wetting of dead spots for faster, safer and efficient washing of all parts – including hard-to-reach corners                                     |
| ACG's exclusive X•ONE command process control system   | Compliant with ATEX, GAMP 5 and 21 CFR Part 11, our technology allows intuitive, secure monitoring and control  |

<sup>\*</sup> For SMARTCOATER 1000 X•ONE, SMARTCOATER 1400 X•ONE and SMARTCOATER 2000 X•ONE, the batch occupancy is 40 – 100%.

#### Technical specifications

| Model                    | Working volume | Tablet coating | Micro-tablet coating | Pellet coating |
|--------------------------|----------------|----------------|----------------------|----------------|
| SMARTCOATER 175 X•ONE    | Min            | 18 l*          | 53                   | 88 I           |
| SWARTCOATER 1/3 A*ONE    | Max            | 175 l          | 140 l                | 140            |
| SMARTCOATER 250 X•ONE    | Min            | 25 I*          | 75 I                 | 125 l          |
| SMARTCOATER 250 X*ONE    | Max            | 250 l          | 200                  | 200 l          |
| CMARTCOATER 250 V-ONE    | Min            | 35 l*          | 105 I                | 175 l          |
| SMARTCOATER 350 X•ONE    | Max            | 350 l          | 280 I                | 280 I          |
| SMARTCOATER 500 X•ONE    | Min            | 50 I*          | 150 l                | 250 l          |
|                          | Max            | 500 I          | 400 I                | 400 I          |
| SMARTCOATER 700 X•ONE    | Min            | 70 I*          | 210                  | 350 I          |
|                          | Max            | 700 I          | 560 I                | 560 I          |
| SMARTCOATER 1000 X•ONE** | Min            | 100 l*         | 400 I                | 500 I          |
|                          | Max            | 1,000 l        | 800 I                | 800 I          |
| SMARTCOATER 1400 X•ONE** | Min            | 140 l*         | 560 I                | 700 I          |
|                          | Max            | 1,400 l        | 1,120                | 1,120          |

MACHINERY / Tablet coating Version 1.3 (1124)

<sup>\*</sup> For select formulations only.\*\* Only film / sugar coating of tablets possible.

#### **COATERS / SMARTCOATER SERIES**

## **SMARTCOATER 2000 X•ONE**

The SMARTCOATER 2000 X•ONE is not only our highest-capacity coater yet – it's also our most productive and flexible. It features a larger drum fitted with universal mixing baffles, so there's no need for changeover when between 30 and 100% capacity. A simplified and ergonomic inbuilt manifold for washing is provided in the machine.

#### **Applications**

Film coating and sugar coating of tablets



| Features   | Benefits   |
|--|--|
| A shallower coating drum designed to hold XL batch sizes   | Faster and effective coating, while minimising the chances of crushing tablets   |
| Ergonomic design of spray arm with three directional settings  | Positional settings for all product requirements   |
|  | Accurate bed coverage, thanks to adjustable nozzle and intermediate angle adjustment                                     |
| Improved door design   | Smaller footprint and enhanced ergonomics  |
| ACG's X•ONE 2.0 Spray Nozzle – developed in partnership with Düsen-Schlick GmbH, Germany, with Anti-Bearding Cap – now 50% lighter (as light as 800 g) | No product build-up, so it's far easier to clean and maintain  Easier handling   |
|  |  |
| Modular, automated and integrated design for tablet charging and with built-in discharge baffles   | Dust-free, closed-door charging and 100% tablet discharge  |
|  | Virtually effortless discharge right up to the last tablet   |
| Advanced wash-in-place (WIP) technology featuring the optimum number and arrangement of nozzles  | Complete wetting of dead spots for faster, safer and efficient washing of all parts – including hard-to-reach corners    |
| ACG's exclusive X•ONE command process control system   | Compliant with ATEX, GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control |

#### Technical specifications

| Working volume | Min | 800 I   |
|----------------|-----|---------|
|                | Max | 2,000 l |

Version 1.3 (1124)



#### **COATERS / QUEST SERIES**

## MINIQUEST T

Designed especially for R&D and pilot scale batches, our QUEST series helps you generate tangible data, so you can establish process parameters quickly and accurately, and be confident scaling up your batches.

A tabletop tablet coating machine for future-ready pharmacists, MINIQUEST T is a direct result of ACG's pledge to bridge the gap between academia and industry expectations. This much-needed plug-and-play equipment gives students a hands-on contextual experience of coating machines, and requires minimal training.

**Applications**Tablet coating



| Features   | Benefits  |
|--|---|
| Separate Venturi blowers for inlet and exhaust air | Helps to maintain negative pressure in the system, controlling differential pressure (DP) precisely across the drum |
| Integrated peristaltic pump                        | Ensures compact housing for optimised footprint   |
| Needle-free Schlick nozzle                         | Ease of handling and excellent process results  |
|  | Easy scalability  |
| User-friendly control system                       | Simple and intuitive to operate   |

#### Technical specifications

| Working volume | Min | 0.2 |
|----------------|-----|-----|
|                | Max | 0.7 |

### Find this information on our website: Machinery > Tablet coating > QUEST series

#### **COATERS / QUEST SERIES**

## QUEST TC

This tabletop coating machine features a perforated drum design and comes with three interchangeable drums. Its smart design and exclusive Schlick nozzle ensure reliably excellent process results. QUEST TC can be used for batch sizes as small as 200 g, so it's perfect for R&D and feasibility studies.

#### **Applications**

Tablet coating, minitablet coating



| Features   | Benefits  |
|--|---|
| Three interchangeable drums – 0.8 l, 1.6 l and 2.5 l                     | Process a wide range of batch sizes with the same equipment   |
| Minitablet coating capability  | Process tablets as small as 2mm in diameter with the same equipment   |
| Adjustable 'gun-to-bed' distance and angle                               | Flexibility to cover maximum area across the tablet bed irrespective of batch size  Use coating solutions (aqueous or solvent-based) with varying drying times  Ensures efficient coating |
| Smart design enables easy access   | Faster and safer in-line handling and cleaning during the coating process   |
| A weighing scale integrated with the Programmable Logic Controller (PLC) | Simplified process and parameter  |
| Touchscreen human-machine interface (HMI) and PLC-based control system   | Intuitive, user-friendly controls   |

#### Technical specifications

|                | Drum sizes | 0.8 I  | 1.6 l | 2.5 |
|----------------|------------|--------|-------|-----|
| Working volume | Min        | 0.45 l | 0.91  | 1.4 |
|                | Max        | 0.81   | 1.6   | 2.5 |

#### **COATERS / QUEST SERIES**

## **QUEST TC III**

An R&D-to-pilot-scale machine to support easy scale-up, QUEST TC III features a perforated-drum tablet-coating system with four interchangeable drums for different batch-processing needs. Designed at our Design Centre in Mülheim, Germany, the machine deftly handles a wide variety of coating applications and batch sizes.

#### **Applications**

Tablet coating, minitablet coating



| Features   | Benefits  |
|--|---|
| Interchangeable and fully perforated drums (2, 9, 24 and 56 l) with optimised horizontal airflow | Well-defined spray and drying zones within the coating drum ensure reduced coating solution consumption, as well as less coating residue in the drum, process chamber, and ductwork |
| Split-design X•ONE nozzle developed exclusively with Düsen-Schlick GmbH, Germany                 | Separate dock and nozzle mean less re-alignment   |
| Wash-in-place (WIP) system with built-in washing nozzles   | Makes it far easier to wash the system  |
| ACG's exclusive X•ONE Command Process Control system with large interface screen                 | Compliant with GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive and secure monitoring and control   |

#### Technical specifications

|                | Drum sizes | 21  | 91  | 24 I   | 56 I   |
|----------------|------------|-----|-----|--------|--------|
| Working volume | Min        | 1.2 | 5 l | 13.5 l | 31.5 l |
|                | Мах        | 21  | 91  | 24     | 56 I   |



#### **CONTAINMENT COATERS / SECURECOAT SERIES**

## **SECURECOAT** series

The SECURECOAT series includes containment tablet coaters designed with operator safety front of mind, for use with highly potent active pharmaceutical ingredients (HPAPIs) that require occupational exposure band (OEB) 4 compliance.

#### **Applications**

Containment film coating, sugar coating and drug coating of tablets, and micro-tablet and pellet coating



| Features   | Benefits   |
|--|--|
| Contained product charging and discharging system, using bins and split valves                   | Complete containment of the product, ensuring operator safety  |
| Vacuum-based sampling mechanism  | Contained sampling throughout operation  |
| Uniquely designed baffles for effective tablet rolling   | Matches the mixing and coating efficiency of SMARTCOATER X•ONE baffles.  Easy to clean   |
| Strategically positioned washing nozzles for inaccessible areas, with a wash-in-place (WIP) rack | Far simpler washing  |
| ACG's exclusive X•ONE command and control system   | Compliant with ATEX, GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control of the system |

#### Technical specifications

| Model          | Working volume | Tablet coating | Micro-tablet<br>coating | Pellet coating |
|----------------|----------------|----------------|-------------------------|----------------|
| SECURECOAT 125 | Min            | 38 I           | 38 I                    | 63 I           |
| SECURECUAI 125 | Max            | 125 l          | 100 l                   | 100 I          |
| SECURECOAT 175 | Min            | 53 l           | 53 I                    | 88 I           |
|                | Max            | 175 l          | 140 I                   | 140 I          |
| SECURECOAT 250 | Min            | 75 I           | 75 l                    | 125 l          |
|                | Max            | 250 l          | 200 l                   | 200 l          |
| SECURECOAT 350 | Min            | 105 l          | 105 I                   | 175 l          |
|                | Max            | 350 l          | 280 l                   | 280 I          |

#### **CONTAINMENT COATERS / SECURECOAT SERIES**

## SECURECOAT TC III

The SECURECOAT TC III is a small-scale containment machine ideal for coating tablets containing oncological, cytotoxic, biopharmaceutical, hormonal, and other high-potency drugs.

#### **Applications**

Containment film coating, seal coating, sugar coating and drug coating of tablets, and micro-tablet and pellet coating



| Features   | Benefits   |  |
|--|--|--|
| Contained product charging and discharging system  | Complete containment of the product, ensuring operator safety  |  |
| Vacuum-based sampling mechanism  | Contained sampling throughout operation  |  |
| Uniquely designed baffles for effective tablet rolling   | Matches the mixing and coating efficiency of SMARTCOATER X•ONE baffles.  Easy to clean   |  |
| Strategically positioned washing nozzles for hard-to-access areas, with a wash-in-place (WIP) rack | Far simpler washing  |  |
| ACG's exclusive X•ONE command and control system   | Compliant with ATEX, GAMP 5 and 21 CFR Part 11, this advanced technology allows intuitive, secure monitoring and control of the system |  |

#### Technical specifications

|                | Drum sizes | 91 | 24 l   | 56 I |
|----------------|------------|----|--------|------|
| Working volume | Min        | 51 | 13.5 l | 31.5 |
|                | Max        | 91 | 24     | 56 I |

## 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**

12

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



#### **ACG Engineering headquarters**

127 Kandivali Industrial Estate, Kandivali West, Mumbai 400 067, India

+91 22 3078 0701 / 02

www.acg-world.com