



Process Engineering
Division

Niro Pharma Systems

AEROMATIC
BUCK
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Aeromatic-Fielder Integrated Systems





System integration

Current Good Manufacturing Practices increasingly require that product is fully contained during processing to protect operators and environment. Integrated process systems not only offer containment but improved productivity through automation, increased yield and efficient cleaning procedures.

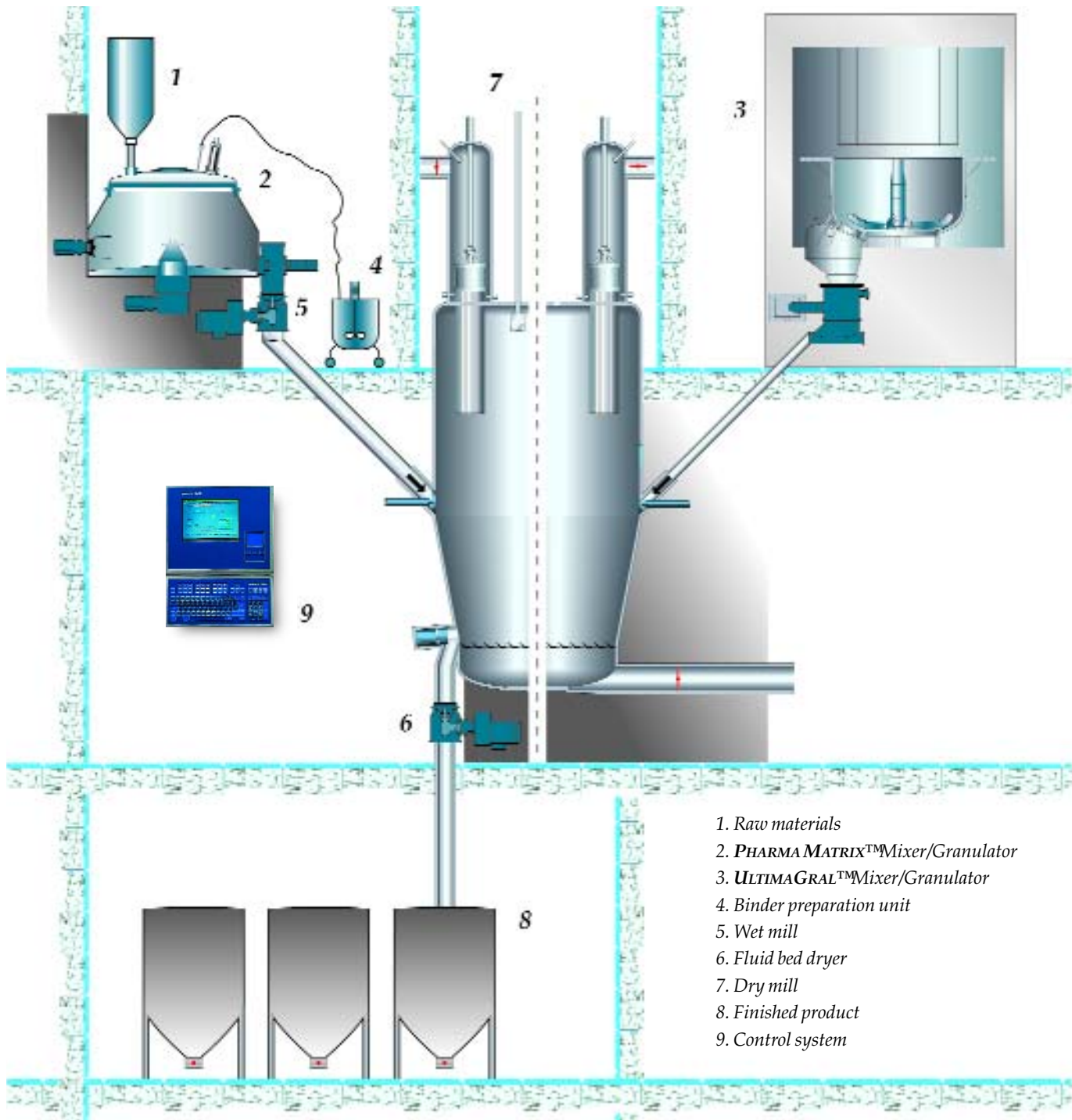
Aeromatic-Fielder is uniquely qualified to provide state of the art integrated High Shear Mixer Granulator and Fluid Bed technology. Drawing on the world class expertise of Niro Pharma Systems companies, we offer fully integrated turnkey installations including fluid bed process equipment combined with Top- and Bottom-drive High Shear Mixer-Granulators from Aeromatic-Fielder and Collette. Our service includes design, installation assistance, commissioning, process validation, as well as training, and technical support. Installation, operation qualification and documentation are carried out according to FDA/GAMP guidelines.

Integration by design

Aeromatic-Fielder's entire range of process equipment is designed with system integration in mind. A modular approach allows customers to select standard process modules to suit project needs. Fluid bed dryers and coaters can be combined with top-drive and bottom-drive high shear mixer-granulators, wet and dry milling facilities, product handling systems, binder and coating preparation units, filtration units, all designed for fully integrated systems. Safety, containment, product flow and building requirements are in-built for full integration for optimum process efficiency.

CIP

More efficient cleaning is one of the key advantages of system integration. We provide validated cleaning with minimal downtime. Aeromatic-Fielder offers CIP-by-design (patented) features into all of its process. Every aspect of the integrated plant, from inlet to discharge, has been value-engineered for optimum cleanability. Spray system, tanks cleaners, nozzles and seals are an integral part of our equipment design.



1. Raw materials
2. PHARMA MATRIX™ Mixer/Granulator
3. ULTIMA GRAL™ Mixer/Granulator
4. Binder preparation unit
5. Wet mill
6. Fluid bed dryer
7. Dry mill
8. Finished product
9. Control system

Automation and Control

Advanced PLC - based automation provides seamless integration of process and CIP control functions. Options include a graphical MMI operator interface, on-line monitoring and trending, recipe handling, batch management, bar coding and full CIM integration. Industry standard communications ensure full compatibility with existing control strategies, networks and plant-wide supervisory systems.

Technical data

Granulator Size	Fluid Bed Size	Average Capacity kg*
65 / 75	2	20
150	3	50
300	4	100
400	5	150
600	5	200
800 / 900	6	300
1200	7	450
1800	8	700

Values are process and product specific and may vary from those shown above.
*The filling range is based on a product bulk density of 0.5kg/l.

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Central Know-How on a Global Scale

Based on a strong commitment to research and development, pharmaceutical technology centres in Belgium, Denmark, Switzerland, the UK, Singapore, and USA provide global technical support and know-how to the pharmaceutical industry. These centres of excellence give customers access to a range of test facilities and expert teams with technical and process know-how. Our teams work closely with our customers to optimise processes and evaluate their products, enabling them to achieve their process and production goals.



Contracting Profitable Experience

A world leader in supplying pharmaceutical equipment, Niro Pharma Systems offers manufacturers all over the world the opportunity to enter into a profitable partnership for development and contract. NPS combine advanced in-house technology with a thorough understanding of the pharmaceutical industry to help customers maximize their development results.

Niro Pharma Systems is world leader in providing advanced processing solutions for solid dosage forms to the pharmaceutical industry. Based on a dedication to research and durable quality, Niro Pharma Systems offers a wide range of solutions, from individual pieces of equipment to complete integrated plants, by uniting the state-of-the-art technologies of Aeromatic, Buck, Collette, Courtoy, Fielder, Nica and Niro.

Niro Inc.
9165 Rumsey Road
Columbia · Maryland 21045, USA
Tel: +1 410 997 7010 · Fax: +1 410 997 5021
E-mail: info@niroinc.com

WWW.NIROINC.COM



A company of mg technologies group