Case Study

High Volume Granulation Line

The fast-growing Egyptian company Al Andalous is eager to enlarge its production capacity, and Diosna has delivered the required 1200 L working horse.
Important for the client was the fully automatic operation and the dust-free product transfer between all the granulation line components.

The Diosna Granulation Line CCS 1250 became the new core of Al Andalous production facility, which has increased the plant's granulation capacity by 500%.

Material flow

The mixer is loaded with powders via vacuum transfer via a handheld lance. Binder liquid is pumped into the mixer through two spray nozzles. Wet granules are discharged onto a conical wet-mill and then pneumatically transferred to the fluid bed. After drying the granules are pneumatically discharged using a vacuum discharge unit and then released over a conical dry-mill and finally discharged into IBCs.

Main features

- The complete granulation line is in 12-bar shock-proof design.
- Integrated control system for the whole line, compliant with FDA 21 CFR part 11.
- Automatic and closed process, with minimal manual intervention.
- Through the wall installation, and strict separation between the production and technical areas.
- Strong version of the peristaltic pump suitable for viscous binders.

Fact Box	
Customer:	Al Andalous Pharma
Country:	Egypt
Year:	2020
Delivered system and services:	Complete closed granulation line, including high-shear mixer granulator, fluid bed processor, wet & dry sieving mills, and others. Start-up and SAT.
Size:	Diosna CCS 1250
Client's success factors:	Excellent granules, Automatic operation and minimal dust generation

- The fluid bed processor is prepared for the three spraying methods (top-spray, tangential spray and wurster/bottom spray systems), which can be retrofitted in the future.

Picture 1: Diosna Granulation line CCS 1250

Picture 2: Diosna Fluid Bed Processor CAP 1250 (filters in the lowered position)