

DIOSNA Fluid Bed Technology for Laboratory and Pilot Plant



## MINILAB / MIDILAB

Powerful and versatile for rapid product and process development.





## MINILAB and MIDILAB

For many years DIOSNA Fluid Bed Equipment has been appreciated on all continents. In order to optimize R & D work we have developed two efficient laboratory processors: MINILAB and MIDILAB.

Whether you are interested in mixing, spray or melt granulating, spray cooling, powder coating, wurster processing or instantising on a laboratory scale, MINILAB and MIDILAB can cope.



## MINILAB XP



Wurster-Bottom-Spray:  
Coating in the MINILAB.

Rapid, comfortable and flexible processes are an important feature for product development in the laboratory. MINILAB XP is a highly flexible laboratory fluid bed plant to effect numerous processes quickly, comfortably and above all professionally. The device is designed for plug and play operation and offers all known possibilities of the fluid bed technology. The possible use of three different sizes of bowl on one base covers a wide range of batch sizes from 200 g to 3.5 kg. This allows exact simulation of the process situation in production plants and provides the condition for exact scale-up.



The bowls are either made of stainless steel or glass offering optimal inspection possibilities. Good handling of all plant components and good accessibility for maintenance complete the design of this compact laboratory fluid bed plant. Various different granulating or coating processes can be realised by top spraying and bottom spraying. The machine is operated via a fully graphic touch panel at the front side.



Graphic touch panel for comfortable handling.

Of course the MINILAB XP laboratory fluid bed plant can be tested with individual products at the DIOSNA laboratory at any time. It is also possible to rent the machine for tests at customer site.

Versatility for laboratory and pilot plant

## MIDILAB



The MIDILAB is the next bigger laboratory fluid bed plant after the MINILAB with increased range of applications. 3 interchangeable bowls for 7 l, 12 l and 16 l allow the production of bigger sample batches. The plant is 10 bar pressure shock proof and can be equipped with industrial PC with comprehensive batch reporting.



MIDILAB in explosion protected version, up to 10 bar shock resistant.



Comfortable handling.



Easy cleaning.

Numerous options for solvent operation, automatic feeding and discharging or air conditioning make sure that the plant corresponds to the functions and design of production plants. This is the basis for a rapid transfer of laboratory results to pilot and production scale.

## Professional Fluid Bed Processes



MINILAB XP

## Drying, Granulating, Coating with the Fluid Bed System

- Top or Bottom Spray Processes
- Scale-up and simulation of production plants
- Versatility in the process design
- Glass bowls for excellent process observation or alternatively stainless steel bowls
- Plug and Play: comfortable handling, easy cleaning

### MINILAB XP

- Table top unit for rapid product and process development
- 3 interchangeable bowls 3 l / 5 l / 7 l
- Comfortable handling via fully graphic display



MIDILAB

### MIDILAB

- MIDILAB for higher performance and bigger product batches
- 3 interchangeable bowls 7 l / 12 l / 16 l
- Pressure shock resistant version
- Option: industrial PC with complete batch reporting

## Technical data and dimensions

Parameters		MINILAB XP	MIDILAB
Volume material bowl	l	3 / 5 / 7	7 / 12 / 16
Diameter air distributor plate	mm	80 / 120 / 160	160 / 180 / 200
Diameter filter housing	mm	290	390
Inlet air temperature max. <sup>1)</sup>	°C	100	100
Air volume flow max.	m <sup>3</sup> /h	150	230
Electrical power with electrical heating	kW	7.5	17
Dimensions (w x d x h)	mm	1320 x 660 x 1050	2100 x 1100 x 2300

<sup>1)</sup> Increase of temperature ranges as option

Data are valid for basic design. We reserve the right to change technical data, design and specifications.

## Tradition, Experience, Innovation worldwide

### Processing plants for the pharmaceutical industry



With the DIOSNA Laboratory we have created a facility for use by customers and academic institutions. This we believe is the essence of a development partnership. New techniques from DIOSNA can be tested for incorporation into production processes.

The DIOSNA Laboratory is designed to meet the high requirements of research and development in the pharmaceutical industry and provides a valuable pilot scale for process developments. All of the DIOSNA range of equipment are available including the VCC. Product evaluation also takes place on site, the trial results can be extrapolated to production scale processing.



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