

ARIA

FLUID BED PROCESSOR

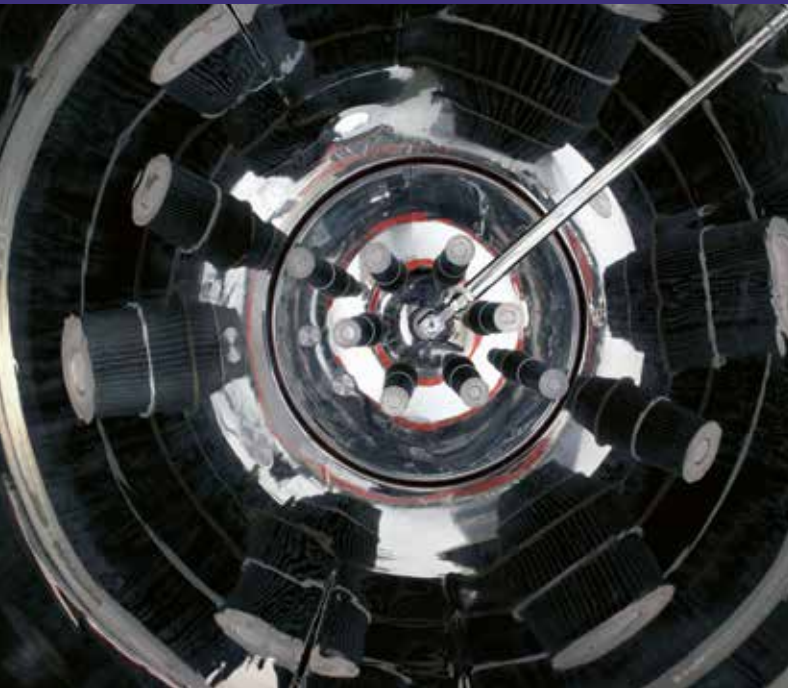


ARIA

Precise parameter control and premium quality engineering are the key features of IMA Active division's fluid bed processor. Simplified processing concepts based on smart design together with GMP-compliance for maximum efficiency and to fully respond to current industry requirements. Easily integrated with other granulation equipment, ARIA fits seamlessly into solid dose processing lines.

- INTELLIGENT DESIGN
- PROCESS IN HIGH CONTAINMENT
- CLOSED PRODUCT LOADING AND DISCHARGE
- SAFE USE OF SOLVENTS
- ACCURATE DETECTION OF PROCESS END-POINT
- COMPLETE ACCESSIBILITY TO PRODUCT FILTERS
- EASY MAINTENANCE





THROUGH THE WALL

ARIA fluid bed processor is designed to comply the current GMPs. It is suitable for through-the-wall installation to keep separated process and technical areas. It ensures fully contained process, including close product loading and unloading by means of pneumatic or gravity transfers.

FILTERS

Different type of filters can be recommended based on product and type of process: bag filters, star-pleated or stainless steel cartridges. All types are kept clean during the process by effective pulses of air counterflow, which do not disturb product fluidization.

SPRAYING TECHNOLOGY

IMA can recommend the most appropriate double fluid nozzles either for granulation or coating process. Accuracy of spraying is achieved by continuous control of liquid flow, volume and pressure.

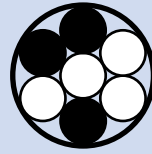
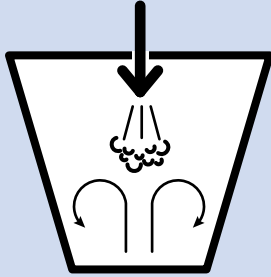
PRODUCT BOWL

Product bowls can have air distributor screens designed to achieve the maximum product yield. The air distributor can be easily washed in place and removed for inspection.



ARIA PROCESS TECHNIQUES

TOP SPRAY



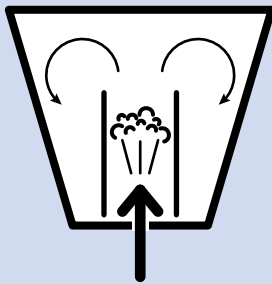
GRANULATION



COATING

GRANULES
PELLETS
MINI TABLETS
HARD CAPSULES

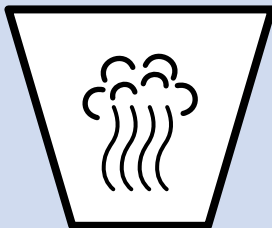
BOTTOM SPRAY



COATING

GRANULES
PELLETS
MINI TABLETS
HARD CAPSULES
SOFTGEL CAPSULES

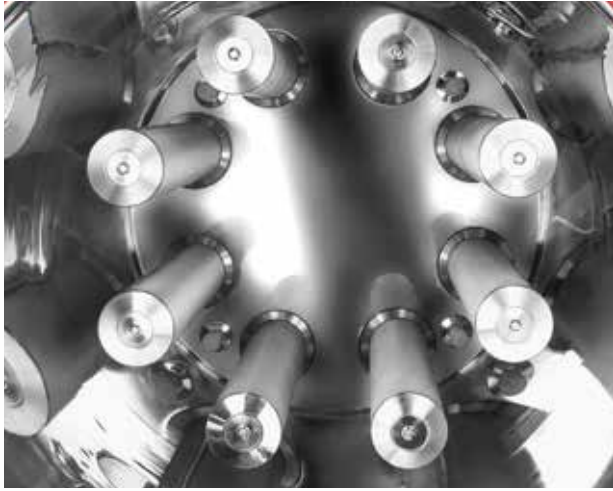
DRYING



GRANULES
PELLETS

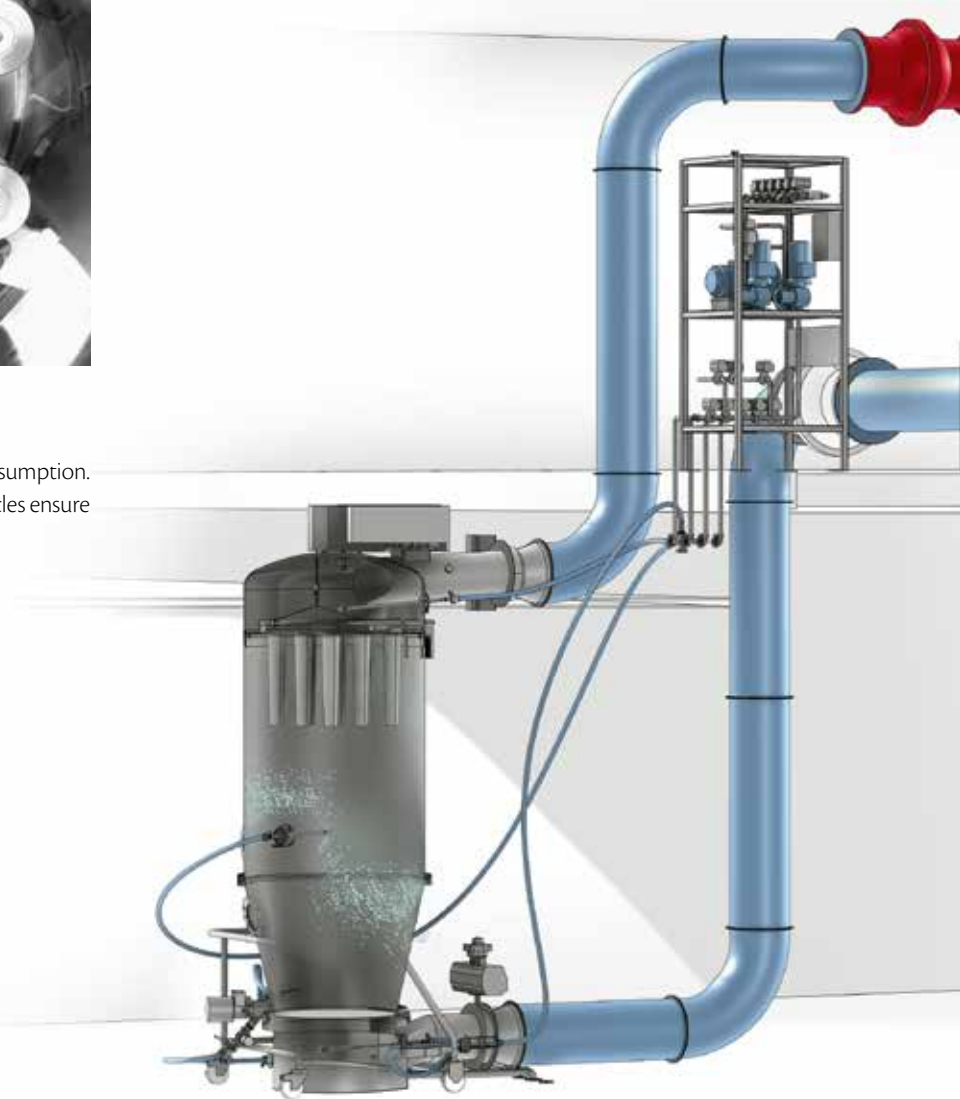
PROCESS GOALS

IMPROVED PARTICLE SIZE DISTRIBUTION
INCREASED COMPRESSION ABILITY
IMPROVED API BIOAVAILABILITY
SUITABLE FOR PROCESSING OF CONTROLLED RELEASE FORMS
EXCELLENT TASTE MASKING



WASH IN PLACE

Wash In Place optimizes cleaning times and water consumption. Filters can be wetted in place too. Automatic washing cycles ensure cleaning reproducibility and facilitate validation.



CONTROL SYSTEM AND PAT

The control system can run the machine in manual or automatic mode. Recipe and process data can be managed and transferred to the plant control system. Signals from PAT instruments can also be managed for in-line detection of moisture or API content. Integrated maintenance, remote service assistance help to maximize the equipment efficiency and extend the lifetime.

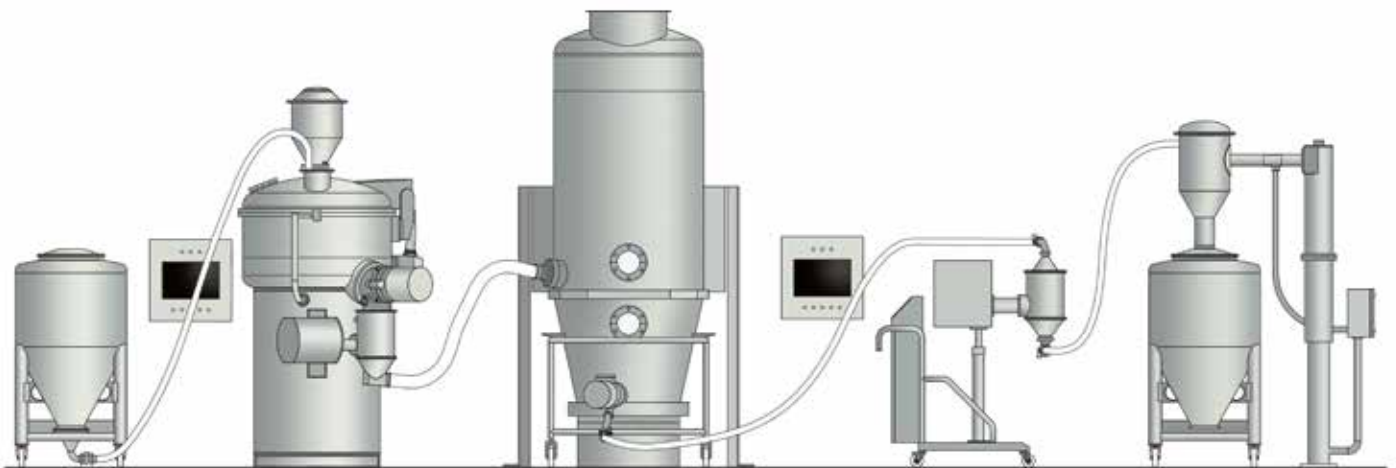
ARIA

INTEGRATED DESIGN

IMA provides customized solutions to comply with current health, environmental and safety regulations to protect the operators, the plant and preserve the products.

ARIA DESIGN FEATURES ALL KINDS OF PROTECTIONS FOR:

- CONTAINED AND SAFE SOLUTIONS FOR PRODUCT LOADING AND DISCHARGING: PNEUMATIC TRANSFER, VERTICAL PRODUCT FLOW, INTEGRATED MILLING STEP.
- EXPLOSION PROOF: 12 BAR PRESSURE SHOCK RESISTANCE, QUICK ACTION SAFETY VALVES, CONTROL OF STATIC CHARGES, ATEX COMPLIANCE.
- CONTROL OF EMISSIONS: POWDERS DEDUSTING, ABSOLUTE FILTRATION, SOLVENTS RECOVERY.



MYLAB

MYLAB is a laboratory scale equipment for R&D purposes, suitable for the granulation or coating process.

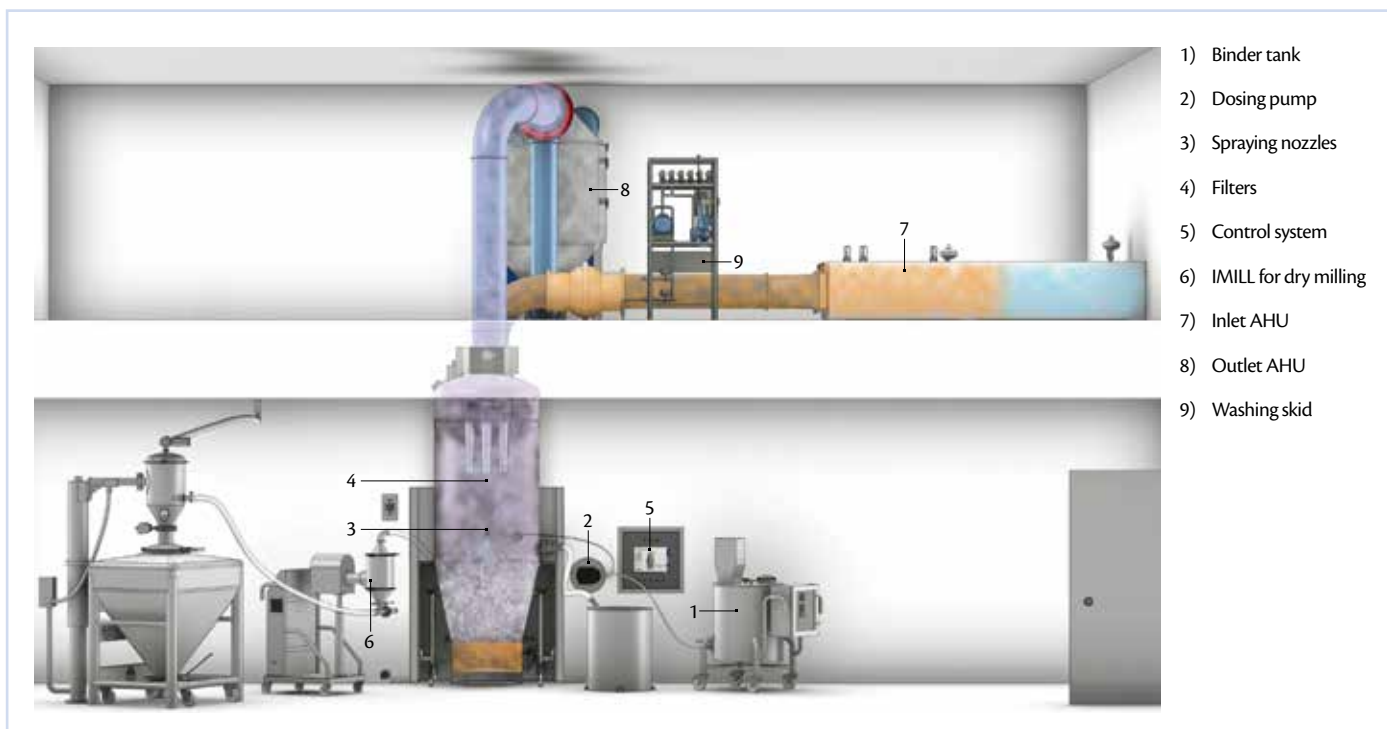
The fluid bed processor has interchangeable product containers for top or bottom spray process which can run batches from 2 to 6 litres.

The expansion chamber fits PE cartridges which have an automatic cleaning system by means of compressed air.

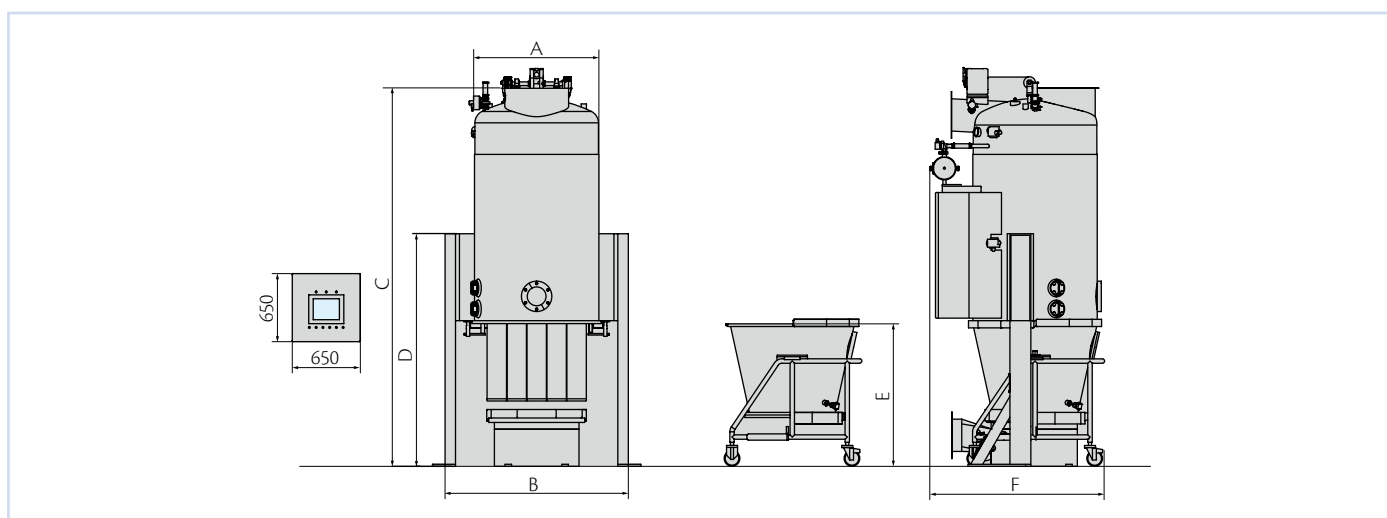


TECHNICAL DATA

ARIA



- 1) Binder tank
- 2) Dosing pump
- 3) Spraying nozzles
- 4) Filters
- 5) Control system
- 6) IMILL for dry milling
- 7) Inlet AHU
- 8) Outlet AHU
- 9) Washing skid



Model	60	120	300	600	900	1200	1500	2000
Recommended batch size (kg)	25	50	120	250	400	500	600	800
ROTO MIX inline (l)	60	120	300	600	900	1,200	1,500	2,500
A (mm)	590	700	960	1,190	1,410	1,740		1,800
B (mm)	1,150	1,260	1,520	1,750	2,040	2,300		2,800
C (mm)	2,500	2,790	3,235	3,615	4,100	5,670		6,300
D (mm)	1,775	1,775	1,840	2,220	2,675	3,785		3,800
E (mm)	1,010	1,010	1,050	1,360	1,530	1,900		2,150
F (mm)	1,420	1,420	1,560	1,610	1,830	2,160		2,600

www.ima-pharma.com



IMA S.p.A.
IMA ACTIVE division
Via l° Maggio 14 - 40064 Ozzano Emilia (Bologna) - Italy
Tel. +39 051 6514111 - Fax +39 051 6514287
mktg.soliddose@ima.it - www.ima.it

