

# **Archimica**

### **Corporate Presentation**

Strong. Steady. Focused on Technology.





# **Archimica at a Glance - Strengths**

Vast Experience with the Most Challenging Reagents, Reactions and Substance Classes Known.



Made in Europe



Premium Client Attention



Agile Capacity Availability



Experienced, flexible Technology Transfer, Development and Engineering Team



Highly Flexible Manufacturing and Development





### **Profile**

APIs/GMP Building Blocks - Process Development and Manufacturing. From Clinical to Large Commercial Scale for the Innovative and Generic Industry.

#### **Products**

#### APIs.

Active Pharmaceutical Ingredients.

GMP/non-GMP Building Blocks.

### **Capacities**

Typically:

1 to 600 mt annually.

Batch Size 25-2500 kg. synthesis steps 1-8.

Specifically:

2 to 300 mt annually.

Batch Size 50-1500 kg. Synthesis Steps 2-5.

Kilo lab

1-200 Kg annually

Batch size - 1 - 10 kg Synthesis steps 2-5

#### **Portfolio**

Products.

Generic API Portfolio.

Services.

Custom Development and Manufacturing.

Broad Range of Substance/Therapeutic Classes.

### Regulatory/Quality

Track Record of Successful Agency Inspections.

FDA (2017), AIFA (2024).

Broad Scope.

Highly Flexible Permit.
State-of-the-Art Environmental Protection.

### **Technology/Differentiators**

Small Molecules.

Up to OEB4 Potency Level.

Vast Range of the Most Challenging Reagents and Reactions on Industrial Scale.

### Company

Global Supply.

More than 50 Countries Actively Supplied.

Backed by Prime Independent Investor.





### **Market Presence**

Customers are relying on Archimica's Products and Services for Quality Medicine Worldwide.

All Therapeutic Classes
All Substance Classes (including Anticancer APIs)

7 Active Products
24 Active Drug Master Files in 39 Countries
200 Active Customers
Supplying more than 50 Countries Worldwide

SAPTM-ERP System







### **Site Overview**

500 L - Scale up/filing products

Highly Flexible, Efficient, Experienced GMP Site - Located in Lodi, Italy, close to Milano

Plant			Staff		ត្តត្តត្
Total Read	ctor Volume: 250 m <sup>3</sup>		Total Staff	Number: 116	
0	170 m <sup>3</sup> Multi-Purpose APIs and GMP intermediates			55% Production	
	50 m <sup>3</sup> Large-Volume Product			25% Quality	
	30 m <sup>3</sup> Anticancer Products			10% Engineering & Maintenance	<del>)</del>
Kilo Lab		A STORY		10% Sales & Administration	





# **Manufacturing Overview**

Reactor Capacity Supported by a Vast Range of Sophisticated Ancillary Technology

### **Reactor Capacity**



Highly Flexible Multi-Purpose Capacity. Various Materials of Construction.

Stainless Steel - Glass Line - Glass - Hastelloy - Monel - Various.

Temperature Range: -20 to 160°C. Pressure Range: 10 mbar to 6 bar.

Reactor Volume Range: 50 to 10.000 liters.

### **Centrifuges/Filters**



#### Filters:

Filter Presses - Filter Dryers - Pressure Filters

Centrifuges:

Vertical Axis Top Discharge - Vertical Axis Bottom Discharge - Horizontal Axis Peeler

### **Dryers**



Fluid Bed - Agitated Vacuum Pan - Vacuum Horizontal Agitated - Vacuum Double Cone - Planex<sup>TM</sup> - Tray

#### Kilo Lab



Capable of handling: 1 to 10kg batch size Three stages of manufacturing - Glass Radley reactors; SS reactors - Filtration & drying - Powder processing

### **Ancillary Equipment**



Sieves - Ultra Filters - Ion Exchange Chromatography Columns





# **Multi-Purpose Capabilities - Broad and Flexible**

Seamless from 100 gm to 100 mt-Scale - APIs and GMP Intermediates.

Scale	1-10 kg	>10-250 kg	> 1-5 mt	> 5-20 mt	> 5-100 mt	> 10-100 mt	0,1-100 mt
Plant	F5	F2B	F5B	F6B	<b>&gt;</b> F7	> F2A	F3B Drying
Reactor Size	0,05-0,1 m <sup>3</sup>	0,2-0,8 m <sup>3</sup>	3,0-4,9 m <sup>3</sup>	3,4-10 m <sup>3</sup>	0,7-6,6 m <sup>3</sup>	0,8-9,7 m <sup>3</sup>	0,1-1 m <sup>3</sup>
Temperature Range	-20/120°C			-20/160°C			-10/145°C
Equipment	Reactors Distillation Pressure Filters		Fluid Bed, Double Cone Various				
Construction Materials	Stainless Steel Glass Line	Stainless Steel Hastelloy Monel	Stainless Steel Glass Line				
Volume Total: 170 m <sup>3</sup>	0,25 m <sup>3</sup>	2,75 m³	15 m³	20 m³	60 m <sup>3</sup>	72 m³	Volume Total 5,5 m <sup>3</sup>





# **Therapeutic Areas and Substance Classes**

Supporting Active Pharmaceutical Ingredient Supply for All Applications.

### **Therapeutic Areas**



**Anthrachinones** 

Benzodiazepinones

Benzophenones

Dibenzazepines

Fluorouracils

Heterocyclic Acidic Acids

Heterotricyclics

**Nitroimidazoles** 

Nucleoside Analogues

Organometallic Complexes

Phospholipids, deacylated

**Phtalazines** 

Purine Analogues

Pyrrole Derivates

Sucrose Sulfates/Complexes

Sulfanilamides

Sulfonamides

Tetrazoles, Mono/Bicyclic

Ureas

#### **Substance Classes**



Anti-Alzheimer, Cognition Enhancers

Antiacidics, Antiulcers

Antiarrhythmics

Anticancers, Cytostatics

**Anticonvulsants** 

Antidepressives/Anti-Epileptics

**Anti-Bipolar Disorders** 

Antihistaminics, Antiallergics Antihypertensives/Vasodilators

**Antiinfectives** 

**Antiinflammatories** 

**Antiobesities** 

**Immunosuppressives** 





# Reactions, Reagents and Solvents

Practically unlimited capability to perform/use the most challenging reactions, reagents and solvents on small, medium and large industrial scale under GMP - a few examples.

### Reagents/Reactions



Solvents



1-500 mt/a

SO<sub>3</sub>·Py (sulfur trioxide/pyridine)

CISO<sub>3</sub>H (chlorosulfonic acid)

CrO<sub>3</sub> (chromium trioxide)

Ac<sub>2</sub>O (acetic anhydride)

HOAc (acetic acid)

Py (pyridine)

AlCl<sub>3</sub> (aluminium chloride)

POCl<sub>3</sub> (phosphorous

oxychloride)

1-100 mt/a

NH<sub>2</sub>OH (hydroxylamine)

NaOCN (sodium cyanate)
Natural source materials

(lecithin, aloine)

1-20 mt/a

N<sub>2</sub>H<sub>4</sub> (hydrazine)

NH<sub>3</sub> (ammonia)

HCHO (acetaldehyde)

HCOOH (formic acid)

HF/HCI/HBr (hydrogen halides)

KCN (potassium cyanide)

CH<sub>3</sub>N (trimethylamine)

F<sub>2</sub>/Cl<sub>2</sub>/Br<sub>2</sub> (halogen gases)

H<sub>2</sub> (hydrogen)

CH<sub>2</sub>O (ethylene oxide)

Styrene oxide

**Dess-Martin Periodinane** 

R-SO<sub>2</sub>Cl (sulfonyl chlorides)

Ag/Au/Cu-salts (precious metals)

1-500 mt/a

Dimethylacetamide

Ethanol

Acetone

Cyclohexane

Isopropanol

Methanol

1-100 mt/a

Methylene chloride

1,2-Dichloropropane

Tetrachloromethane

Dimethylformamide





### **Generic API Portfolio**

Archimica Continuous API Supply Worldwide.

### **Active Pharmaceutical Ingredients (APIs)**



Anticancer

Cytarabine (nucleoside analogue) - CEP Hydroxyurea (modified urea) - CEP

Antirheumatic

Diacerein (anthraquinone) - CEP

Antipsychotic

Mianserin (tetracyclic) – CEP ongoing Oxcarbazepine (dibenzazepine)

Antiacidic/Antiulcer

Sucralfate (saccharose sulfate)

Antiinfective

Sulfathiazole (sulfonamide)





### **Generic API Portfolio**

Archimica Continuous API Supply Worldwide.

### **Products on Request - Active Pharmaceutical Ingredients (APIs)**



More than additional 20 Active Pharmaceutical Ingredients (APIs) available from Archimica's Experience - including Customer-Specific Development - a selection

Amtolmetin Guacil

Aurothiomalate Sodium

Azanidazole

Bromfenac – EUDMF/USDMF

Capecitabine – EUDMF/USDMF

Citicoline – EUDMF

Dihydralazine sulfate – EUDMF

Disopyramide – EUDMF

Fludarabine

Hydralazine hydrochloride – EUDMF/USDMF

Iodocasein

Lithium Carbonate – EUDMF/USDMF

Pentetrazole – EUDMF

Pirenzepine Dihydrochloride - EUDMF/USDMF

Sulfapyridine – EUDMF/USDMF

Thenfadil – EUDMF

Tolmetin – EUDMF

Vidarabine





# **Quality System, Inspections, Certificates**

Sucessfully Inspected and Accepted Worldwide.

### **Quality System**



### **Inspections**

FDA (USA).



#### **Certificates**



Quality System Based on EU GMP part II, ICH Q7.

**Quality Processes Handled** via Trackwise<sup>™</sup>.

Deviations, Out-of-Specifications (OOS), CAPA, Change Control.

US/EU Drug Master Files.

24 Active Drug Master Files in 39 Countries and 4 active CEP.

Last Inspection April 2017.

AIFA (Italy).

Last Inspection February 2024.

KFDA (Korea).

Last Inspection October 2011.

Veterinary Ministry of Health. Last Inspection June 2019.

GMP Certificate (Human).

IT-API/104/H/2020.

GMP Certificate (Veterinary).

NBF/31/2020/V.

FEI Number

3002874947

DUNS Number.

429351620





# **Infrastructure - Operating Permits**

Integrated Responsibility for Environment, Health and Safety.

#### **Environment & Health**



### Safety



Residual Thermal Oxidizer.

All Waste Gas Streams.

Wastewater Treatment on Site.

Backed by External Partners.

Solvent Recovery.

Backed by Flexible Tank Farms.

#### IPPC-based Authorization.

Integrated Pollution Prevention and Control.

Highly flexible and broad permit for all technologies, reagents and solvents.

Compliance with IED Directive 2010/75/UE.

Best Available Technology.

Compliance with Directive 105/15 2012/18/EU.

Seveso Directive.

Prevention and Control of On-Shore Major Accident Hazards involving Dangerous Substances.





# **History**

Archimica's Evolution - 77 Years of Continuity of Supply into the World's Pharmaceutical Market.

1947		1984	2008	2012	$\rangle$	2016	>	2019		2023
Foundation of Istituto Chemioterapico Italiano (I.C.I.)	TI	Foundation of Prime European herapeuticals o.A (Euticals)	Mandarin Capital Partners becomes Majority	Clessidra, an Italian Financial Fund becom Majority		AMRI acquires Euticals Group	l	via acquires Lodi Site, it becomes Archimica		PI HEALTH SCIENCES Acquires chimica S.p.A
	٥.,	J.A (Lulicais)	Euticals Shareholder	Euticals Shareholde	er			LIVIA I NTERNATIONAL VENTURES & INVESTMENT ACTIVITIES		Health Sciences
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