ZIST TAKHMIR PHARMACEUTICAL Co.

Journal of Achievements

"Leading In the Human Probiotic Industry in Iran" Since 2010

www.zisttakhmir.com

Introduction

Zist Takhmir Company, was established in 2009 as a knowledge-based company with the aim of developing probiotic dosage forms. It was established as the first and the largest company of Iran producing autochthonous probiotics and quickly progressed to one of the most renowned manufacturing companies in the Science and Technology Park of Pardis.

Zist Takhmir Co. poses one of the richest probiotic strains banks in the region and is producing its own APIs using a state of the art fermenters in GMP facilities. It is currently leading manufacturer of probiotics in entire region of the Middle East. In recent years, Zist Takhmir has entered the field of manufacturing biological and also hazardous products and has since adopted drastic measures involving production in special facilities, installation of flowhoods, specialized isolators, and proper protective equipments in line with the IFDA. It also has the Safety and Quality Management System and the GMP Certification.







Company's Achievements

ZIST TAKHMIA

- The 13th pharmaceutical company in Iran
- The 2nd knowledge-based pharmaceutical company in Iran since 2009
- The largest production complex of probiotic medicinal products in the Middle East with an area of more than 18,000 square meters
- The first producer of probiotic and starters, used in various fields of livestock, human and food products and the only exporter of such products in Iran
- One of the top three producers in Pardis Technology Park in Tehran province
- · Setting up and obtaining a GMP certificate from the IFDA for solid and liquid production lines
- Higher savings rate of foreign currencies in the field of supplementary and natural products
- One of the three companies in Iran that have the technology to manufacture and produce hazardous pharmaceutical products for special patients, such as those with cancer and organ transplants
- Eliminating the need to import essential medicines by expanding the production of products that meet OEB4 and OEB5 standards
- The largest number of pharmaceutical knowledge-based product portfolio with more than 70 products covering all consumption groups including infants, children, adults, and the elderly
- Beginning to receive the European Standard Certificate (EU GMP) to facilitate the export process

Exports and Achievements in Foreign Exchange изттякния

- Production of supplements and medicinal products for export to other countries, such as Russia
- To prevent foreign exchange from leaving Iran, producing similar global products with lower costs
- Preventing of currency withdrawal from Iran
- The formulation of specific drugs (Hazardous Drugs) and production in the form of mutual product to buy special materials for other companies
- Export to other countries and import currency to Iran

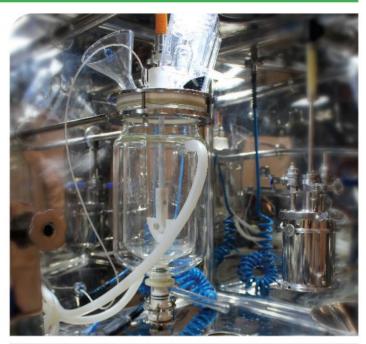
ZIST TAKHMIA



• The GMP certification for solids and liquids production line



 Bioreactors with volumes ranging from 50 to 5000-liter for API production



• Research and Development Department with equipment like Bioreactor, High speed Centrifuges, etc...



 Quality control laboratory with accreditation license for chemistry, Microbiology, and Biotechnology

ZIST TAKHMIA



 Manufacturing of oral drops including probiotics and liquid supplements



 Production of general pharmaceutical solid products including capsule, tablet and sachet



 Manufacturing of probiotic products in solid forms of capsule, tablet and sachet

ZIST TAKHMIA





• Specific line of hazardous drugs in solid dosage forms such as anticancer drugs



• Manufacturing of liquid-filled hard capsules (2 lines)



 Production of oral liquid supplements in Multi-use vials (2 lines)

ZIST TAKHMIA



• Equipped with building management system (BMS) to control and adjust mechanical equipment



• Equipped with a Pure Water system with 10,000 liter tanks and loop piping, covering an area of more than 7,000 square meters

Liquid Manufacturing Capacity and Equipment

Annual production capacity of 300 million medicines and supplements in the form of oral solution and 100 million in the form of oral drop.

Some of the Liquid manufacturing equipment: Manufacturing and Transfer Tanks, Drop filling machine and Liquid Vial Filling Machines, Static Pump







Solid Production Capacity and Equipment

Annual production of 500 million types of medicines and supplements in powder form, 2 billion in capsules form and 1,560 million types of vitamin and mineral supplements in tablet form

Some of the Solid production equipment: Dry Granulation Equipment (Blender, Mechanical sieve and Oscillator), Tablet Press Equipment, Powder and Liquid Capsule Filling Equipment, Single and 6 nozzles Sachet Filling Equipment, Tablet and Sachet Counting Equipment and Types of Blister Packaging Equipment (PVC, PVDC, Alu-Alu, Alu-PVC)





Laboratory, Research Facilities and Capabilities ZISTTAKHMIA

The laboratory and research complex factory is obtaining the necessary licenses for the reference laboratories of the Food and Drug Administration.

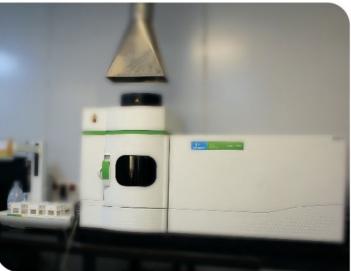
Chemistry Laboratory Facilities

This laboratory is equipped with weighing room, sample storage room and other standard laboratory parts.

Some of the machine-chemical equipment: HPLC, IPC, Gas Chromatography, Thermocycler, Shaker incubator, etc.

Some of the classic-chemical equipment: UV-visible spectrophotometer, FTIR spectrophotometer, Particle sizer, etc.





Laboratory, Research Facilities and Capabilities zisttakhmin

Microbial Laboratory Facilities

According to GMP regulations, this section has a sterile culture room, class A hood, rooms with the standard of class D, and is also equipped with other facilities and sections necessary for stability tests.

Laminar section: Class A hoods, Sterile rooms for Class C activities, Type of Bacterial and Fungal culture, etc.

Cellular and Molecular section: Equipment related to genomic tests of PCR, Post-PCR and Pre-PCR, Electrophoresis, Centrifuge, Gel Documentation, Thermocycler, etc.

Biological Cell bank: Under 85 Degree Celsius Freezer with 700 cells capacity, Cells extracted from bacteria, Lactic acid collection, Eukaryotic cell culture department is being set up, etc.

Other equipment: Lyophilizer, Autoclave, Water bath/Bain-Marie, Spectrophotometer, Hot Dryer, etc.





Laboratory, Research Facilities and Capabilities ZISTTAKHMIR

Research and Development Department

This department includes three sections: R&D1, R&D2, and an accelerator laboratory. There are also more than 40 experts with masters' and PhD degrees, who are active in updating the latest pharmaceutical products in the world.

R&D1 unit is equipped with 6 High-performance liquid chromatography (HPLC) devices, Gas chromatography device, Hydrogen generator, Inductively Coupled Plasma Optical Emission spectroscopy (ICP-OES) device.

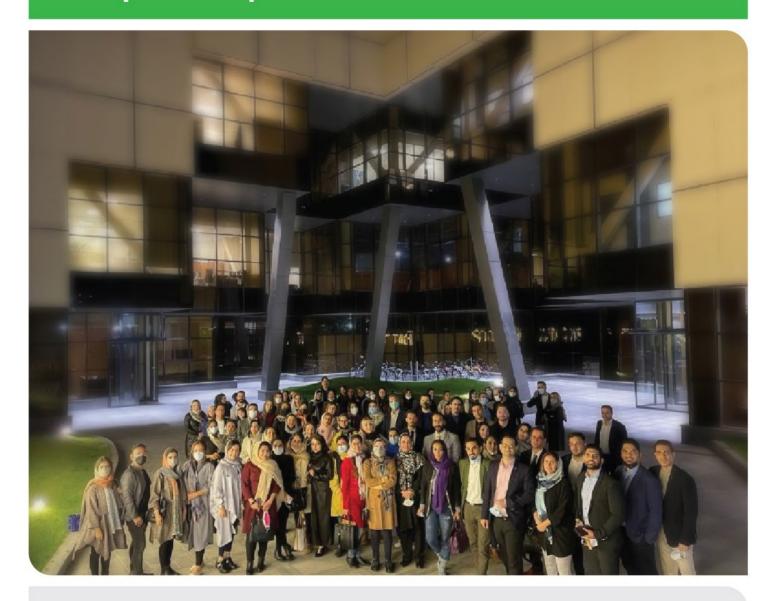
R&D2 unit has two parts: Synthesis unit and Laboratory of raw materials.

The synthesis section has a 10 and 50 liter bioreactors, Analysis of character and Cell measuring equipment.

Activities and tests performed in the raw materials laboratory include Analysis of synthesized materials, Stability test, Purification of synthesized materials by chemical and molecular analysis methods such as Infrared Spectroscopy, HPLC, Auto sampler, in addition to the latest generation of IPC test as well as other laboratory equipment such as Melting point measurement device, Ashing furnace, etc.







• Providing employment opportunities for more than 400 families directly and indirectly for 100 people

- · Increasing the capacity of production lines and obtaining relevant standard certifications
- Increasing the capacity of the company's site, in order to providing employment opportunities for over 1000 people
- Establishment of Production lines in various countries like Turkey
- Utilising the latest world technologies and striving for the standards of modern medicine
- · Achieving the EU GMP standard
- · Completion of high-risk raw material production line

Partner companies

Zist Takhmir has launched its subdivisions Bonyan Salamat Kasra and Zist Bonyan Accezone Accelerator with the goal of expanding its production of supplements and medicines as well as supporting innovative designs and ideas.

Other partner companies are Zistdaru Danesh and Zist Darman Mahan.









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