



BOTTLED WATER

INDUSTRY

BUSINESS

INTRODUCTION



Water is an essential commodity for living beings for their survival. Due to rapid industrialization, urbanization, effluents and indiscriminate use of chemicals, the sources of water like lakes and rivers available for drinking purpose are contaminated. 90% of the diseases as per the survey conducted are only due to the contaminated water and 80% of the man days lost is due to illness caused by contamination in drinking water. So, safe drinking water is very much essential for the health and safety of human beings. As the government is unable to ensure a consistent safe drinking water supply to public due to various constraints, this domain has transformed in to be private business entity.

GROWTH SEQUENCE AND FUTURE DEVELOPMENT:

Indian is a vast country with lots of diversification in water resources. This situation has given rise to development of packaged drinking water industry, which would supply packaged drinking Water in PET & PC jars of 25 lt, 20 lt, 10 lt & PET bottled of 5 lt, 2 lt, 1 lt, 500ml, 300ml, & 200ml. LDPE Pouches and PP Cups are also available in addition with the above. Market is divided in to two sectors namely corporate / domestic & retail. Generally 25lt, 20lt, & 10lt PET & PC Jars are sold in corporate and domestic sector. Others are sold only in Retail sector. As per latest survey available, this industry has grown up to 5000 crores approximately and will reach 15000 crores with in 2015. Now, it has become a common thing that any one at any place can get quality water called as Packaged Drinking Water/Nature Mineral Water.

REGULATION / BIS CERTIFICATION:

As per the Government Order Number GSR 760E, it has been clearly instructed that in India, **“no person shall manufacture, sell or exhibit for sale PACKAGED DRINKING WATER (Bottle Water) except under the Bureau of Indian Standards certification mark' (ISI).** This order has been issued on 09.09.2000 and has been done as an amendment on PFA act. It came in to force on 29.03.2001. Violation of this will be considered as food adulteration and sever punishments are there for that. Thousands of non-licensed bottled water manufacturers where available at that time. After severe actions against them by central & state government slowly all are eradicated. This has stabilized and created a healthy market and at the end of 2002, whole India was having only 450 licenses. Now India has 3850 licenses throughout the country. Now-a-days the bottled water industry has boomed from valleys to Everest. The growth prospects foretell that sky is the limit for this business sector. So, getting of BIS license and maintaining it till you sell water is must.

INDIAN STANDARDS FOR BOTTLED WATER:



Indian standards are the best among all the available international standards, as the permissible limits of chemical and microbiological contaminants of Water is very low, when compared with others. Two Indian standards available for bottled water are

IS : 14543:2004 PACKAGED DRINKING WATER

IS : 13428:2005 PACKAGED NATURAL MINERAL WATER

IS : 14543 - PACKAGED DRINKING WATER:

Water for a bore well or open well, which is processed and packed as per the conditions prescribed in IS 14543 is called as **PACKAGED DRINKING WATER**. The water should pass the requirements of chemical and microbiological parameters given in the Standard. All Treatment techniques which would not lead to harmful contamination are permitted in this standard.

IS : 13428 PACKAGED NATURAL MINERAL WATER:

Natural Mineral water is obtained directly from Natural of drilled sources form **underground water-bearing strata** for which all possible precautions should be taken within the protected perimeters to avoid any pollution of, or external influence on, the chemical and physical qualities. Packaged Natural mineral water should be collected under conditions which guarantee the original microbiological purity and chemical composition of essential components. Mineral Water is totally different from the Packaged Drinking Water. This water can only have Filtration and no disinfection or R.O processing / other salt removal methods are allowed. The packing of natural mineral water has to be done at the place of source only and transport in bulks is not permitted. Still now only 34 licenses are granted for Packaged Natural Mineral Water because of the non availability of prescribed source.





PROCESSES, TECHNOLOGY & EQUIPMENT EMPLOYED TO PURIFY THE WATER

There are various processes employed to purify the water and various combinations of the processes mentioned below are incorporated to ensure that final composition of the product confirms to BIS norms.

Filtration:

This includes sand, carbon, mixed bed filters and Micron filters. These are commonly called as Pre filtration techniques. The main objective of this is to remove the visible contaminants like dust, turbidity, and odour.

Process:

Salt separation is defined as the removal of dissolved salts from water. It can be performed by several processes including namely reverse osmosis, ultra filtration & nano filtration. Of all the above Reverse osmosis is being used in 99% of the Bottled water industry.

Disinfection:

Ultra Violet Disinfection and Ozone injection methods are used to disinfect water.

As per BIS instruction SS 304 and SS 316 grade Stainless Steel pipes has to be used for interconnecting pipes after pre filtration till filling of Packaged Drinking water.

REQUIREMENTS TO SET UP BOTTLED WATER UNIT

Preliminary requirement:

Basic & Prominent requirement for Starting Bottled water Unit is identification of proper source with abundant ground water. BIS says that the source should be in an area free from pollution and dust and there should not be any possibility of contamination by external sources. The Central & State ground water authority has categorized areas based on the availability of ground water as Over exploited, Critical, Semi Critical and Safe. For drawing of ground water, we have to follow the guidelines of Ground water authority and pollution control Board.

Buildings should be designed as per the BIS norms of Annex C of IS 14543: 2004 to do all operation in regulated flow. Facilities should be of sound construction and maintained in good repair. Enough storage area with respect to production capacity should be available.

Machinery **REQUIRED**



Water Purification System (Plant)*

Laboratory as per BIS requirement*



Jar Filling Machine

Automatic Bottle Filling Machine



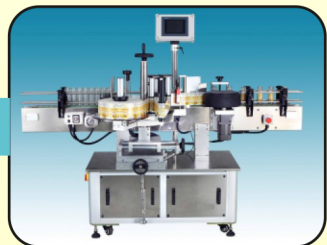
Pouch Filling Machine

Pet Bottle blow molding machine



Pet Bottle shrink wrapping machine

Pet Bottle lable applicator



Ink Jet Batch coder



*Item number 1 & 2 are mandatory for a unit and rest can be added if required.

* Photographs are taken from Internet:

EVERGREEN TECHNOLOGIES, is a company started on 2002 with a vision of supporting people who needs a definite standardization & System implementations for their company,

We have started with assisting BOTTLED WATER INDUSTRY by Consultation, Documentation, Training Quality Personal for Testing & Technical operation, Due to high Demand in Industry, later we have switched total into this industry by supply of Laboratory Equipments, Chemicals, Glassware, Accessories and All Bottled Water Industry needs. We are supporting industry for Turnkey Project Consultancy including Selection of Source, Building Designing & Monitoring as per Standard, Internal Audit, Documenting before after BIS License, regular support on supplying all kinds of accessories for processing plants.

We have wide experience and knowledge of more the 10 years in this field, and were presently having more than 750 customers all over India. Our team has experienced Engineers, Lab Chemist, Microbiologist & Trainers with us.

WHAT WE DO

Source / Site Selection | Building Design and Planning | Execution | Site construction monitoring | Periodical site visit & advises

Guidelines & Support

Project Report | Bank Loan | Govt. Subsidy | Pollution control board | Ground water authority | FSSAI license & other related activities

Lab installation | Training for Quality control person (on site) | instrument calibration and certification | Product standardization | Self life studies | sample testing co-ordination

Documentation | Paper compilation | ISI application preparation | Pre inspection-Audit | Inspection co-ordination | Documentation preparation - submission | File & record maintenance | Periodical factory visits & Audits | License renewal & other BIS related activities | OSL testing & reports (NABL Laboratories)

HOW NOW

TO START A BOTTLE UNIT

TO SELECT THE SOURCE

TO DESIGN THE FACTORY

TO GET THE CERTIFICATION

Contact

We assist you



evergreen

EVERGREEN TECHNOLOGIES

Committed to quality

No.5/1, Pillayarkovil Street, Essa Pallavaram,
Chennai - 600 043, Tamilnadu, India. Mobile : 98411 62411
Tel : 91-44-22642788, 91-44-65398916. Fax : 91-44-22642799
website : www.evergreentechnologies.in
Email : info@evergreentechnologies.in

