



Glass Bottling Solutions

Turnkey in-house water bottling projects
for hotels, resorts & premium brands



Machinery



Customized
Bottles



Crates



Closures



Branding



Installation
Support



COMPANY PROFILE

JAGRAT is a professionally managed organization manufacturing machinery on a turnkey basis for Distillery, Brewery, Beverage and Water Industries. Our products are designed and manufactured in accordance with global standards and precision, and are preferred in the industry for quality and after-sales support.

At JAGRAT, we are sensitive to customer needs; therefore, all our products are designed, manufactured and tested to ensure maximum value is delivered. In addition to our standard products, we also offer customized tailor-made solutions to suit specific customer requirements.

The JAGRAT Advantage

At JAGRAT we lay emphasis on 3M, i.e. Men, Machine & Method. Our engineers are fully trained to deliver maximum value to our customers through proven machinery and methodology. Further, the customer has the abundance of our experience to fall back on in order to implement and improve the process through detailed productivity improvement inputs. The population of machines and a host of satisfied customers in India and abroad is a true testimony to the quality of our products and services.

1



OUR VISION

Our vision is to be an organization that delivers reliable products, manufactured through eco-friendly processes with stringent quality control as a standard protocol, adhering to quality norms in line with international standards.

2



MISSION

At JAGRAT, our mission is to provide innovative, high-quality, and cost-effective manufacturing solutions, fostering technological leadership and ensuring customer satisfaction through excellent products and services.

3



OUR VALUES

At JAGRAT, our core values guide every aspect of our work. We believe in Quality, Innovation, Integrity, Customer Focus, Safety, Sustainability, Teamwork, operational standards, and a commitment to continuous improvement for long-term success.



OUR ESTEEMED CLIENTS

The exhaustive list of clients is a testimony to our sustained growth, to name a few: Pepsi, Coca-Cola, Bisleri, Sahara, Kingfisher, Budweiser, Kaalaiyan Soda, Pop and Gulp, Bacardi, Assess SRO-Slovakia, Podaran, 777, Kannan Soda, Pernod-Ricard and many more.

CONSULTANCY SERVICES

We offer a host of services to assist our customers from the project planning stage to the commissioning of the project and shall include:

- 1 Counseling and expert advice on viability of project
- 2 Project report and detailed project plan
- 3 Design of plant layout
- 4 Detailed technical specifications of the various machines and other utilities required
- 5 Installation, testing and commissioning of the machineries
- 6 Trial runs, fine-tuning and commencement of commercial production



HIGH PERFORMANCE SINGLE END GLASS BOTTLE WASHER

FOR SPARKLING CLEAN RESULTS



JAGRAT automatic glass bottle washers provide automated, high-efficiency cleaning and sanitation for returnable soiled liquor, beer, wine, soft drink, milk and mineral water bottles, replacing manual processes that were time-consuming, risky and prone to human error.

These machines offer comprehensive, multi-stage cleaning cycles, including pre-rinsing, hot caustic soaking and hot water washes, internal and external high-pressure sprays, and final rinsing to ensure bottles are contaminant-free and safe for reuse.

Key technological advancements include label separation, water recycling, and energy regeneration, making the process more productive, cost-effective, hygienic, and eco-friendly.

How JAGRAT Bottle Washers Revolutionize the Industry

1

ENHANCED HYGIENE AND SAFETY

The machines ensure thorough cleaning and sanitation, eliminating residues and contaminants, which is crucial for product quality and safety.

2

INCREASED PRODUCTIVITY

Automatic bottle washers handle high volumes of bottles, significantly increasing output compared to manual washing methods.

3

REDUCED RISK AND ERRORS

Automation removes the risk of human injury during bottle handling and minimizes errors in the washing process.

4

IMPROVED COST-EFFECTIVENESS

By recycling water and energy, these machines minimize steam and water consumption, making the operation more economical.

5

ENVIRONMENTAL BENEFITS

Technologies like water recycling and energy regeneration contribute to an eco-friendlier bottling process.



MULTI-STAGE
CLEANING



HIGH-PRESSURE
SPRAYS



LABEL & FOIL
REMOVAL



WATER
RECYCLING



ENERGY
REGENERATION



LOW-COST
MAINTENANCE



Key Features and Technologies

	Multi-Stage Cleaning Process: Typically includes a pre-rinse, detergent wash, rinsing with hot water or caustic solution, and a final sanitizing rinse.
	Automated Systems: Automatic loading and unloading of bottles improve efficiency and reduce labor.
	Label and Foil Removal: Specialized systems effectively remove labels and foils, simplifying the cleaning process for returnable bottles.
	High-Pressure Spraying: Internal and external high-pressure sprays ensure thorough cleaning of every bottle's surface.
	Water and Energy Recycling: Systems are designed to conserve resources by reusing water & regenerating energy from steam and hot water.

WHO BENEFITS

 Bottling Companies: They gain higher output, hygienic sparkling bottles and more reliable operations.	 Consumers: They benefit from safer and higher-quality products due to improved bottle hygiene.	 Employees: Manual labor is reduced minimizing risks and creating a safer working environment.
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Furthermore, all components are optimally designed to ensure high serviceability and durability. Boasting low heat consumption, low disinfectant carry-over proportion, and economical use of water, our glass bottle washer is able to meet the increasing demands of the beverage industry from both ecological and economic points of view.

Our glass bottle washing machine are widely used in industries such as

 Brewery unit	 Soft drink plant
 Distillery unit	 Juice plant
 Dairy plant	

Salient Features

- Fully automatic bottle washing system
- A wide range of models
- Ecologically friendly solution for bottles reuse
- Universal application in bottling plants
- Outputs from 60-400 BPM
- Efficient cleaning and sterilisation of bottles
- Complete removal of labels & foils
- Label separators
- Digital temperature control
- Steam condensate equipment
- Lye filtration
- Vapour extractor
- Water recirculation
- Low water & steam consumption
- Safety clutches and limit switches
- Dual voltage safety system
- Emergency stop
- Fault annunciator
- Easy and low-cost maintenance



FUNCTION

7-STAGE BOTTLE WASHING PROCESS

During the washing process, bottles are gradually stripped of dirt. The process is structured into seven successive phases to deliver consistent cleaning, hygiene and reuse-readiness.

PRE-SOAK

1

- 2-fold pre-wetting
- 1x pre-soaking with water at 35°C
- 1x rinse with water from the overflow of the spray section at 50°C

LONG DURATION SOAKING

2

- Exposure to lye
- Main caustic bath temperature 70–85°C

LABEL REMOVAL

3

- 2-stage label removal
- High-pressure spray — 1 nozzle per throat
- Overflow rinse — 2 nozzles per throat

SPRAYING & RINSING BOTTLES

4

- Closed section to prevent leachate entering other parts of the washer
- 1x splash of 65–70°C water using a fixed shower
- 1x rinse with 65–70°C water using a fixed shower

SPRAYING, RINSING & COOLING

5

- 3 cascaded sections
- 6x spraying with water at 20–65°C using rotating showers
- 4x water sprays at 20–65°C using fixed showers
- 3 rinses with water at 20–65°C using fixed showers

RO WATER SPRAY

6

- 2x spraying with RO water using rotary showers, nozzle diameter 2.5 mm
- 1x RO water spray with fixed showers, nozzle diameter 2.5 mm

WATER DRIPPING ZONE & BOTTLE UNLOADING

7

- Dripping zone for controlled water removal
- Smooth unloading for onward filling or handling

WATER DRIPPING ZONE AND BOTTLE UNLOADING



PROCESS ADVANTAGE

Designed to support hygienic bottle reuse through staged washing, controlled temperature zones, RO water rinsing and organized unloading for production continuity.

7

Successive
washing phases

70–85°C

Main caustic
bath range

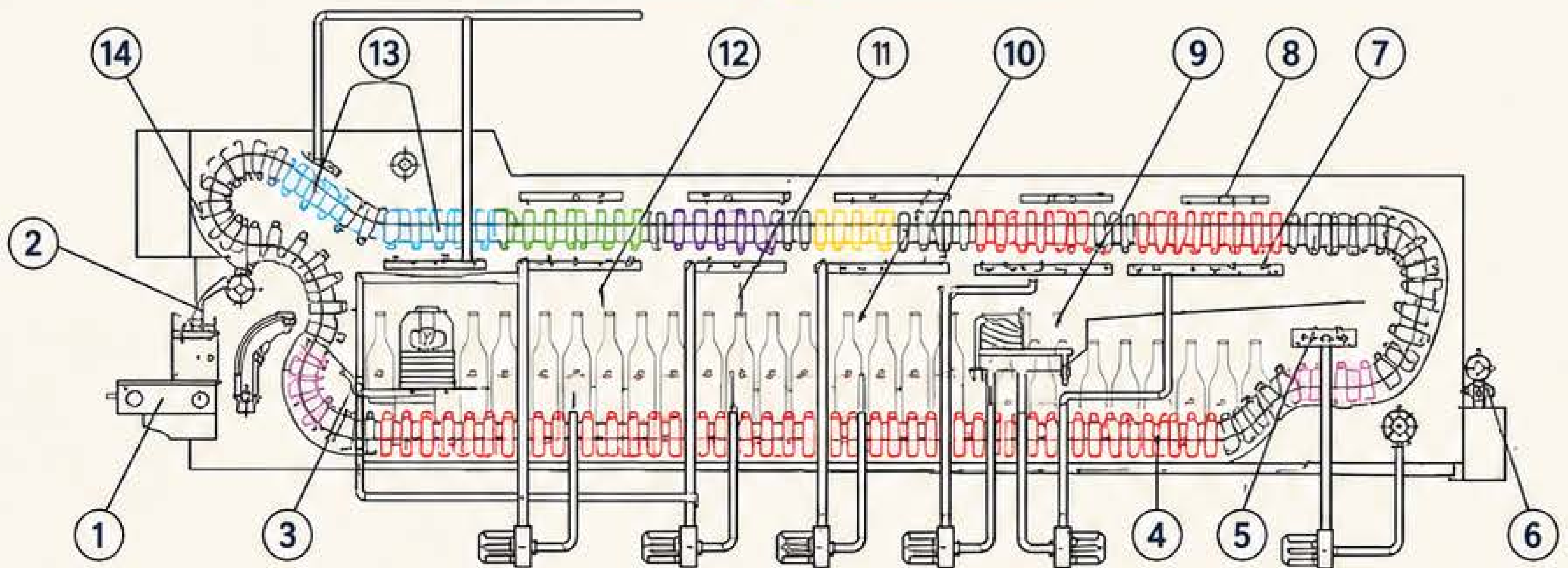
RO

Final water
spray stage

2.5 mm

Nozzle diameter
reference

GLASS BOTTLE WASHER CROSS SECTION VIEW

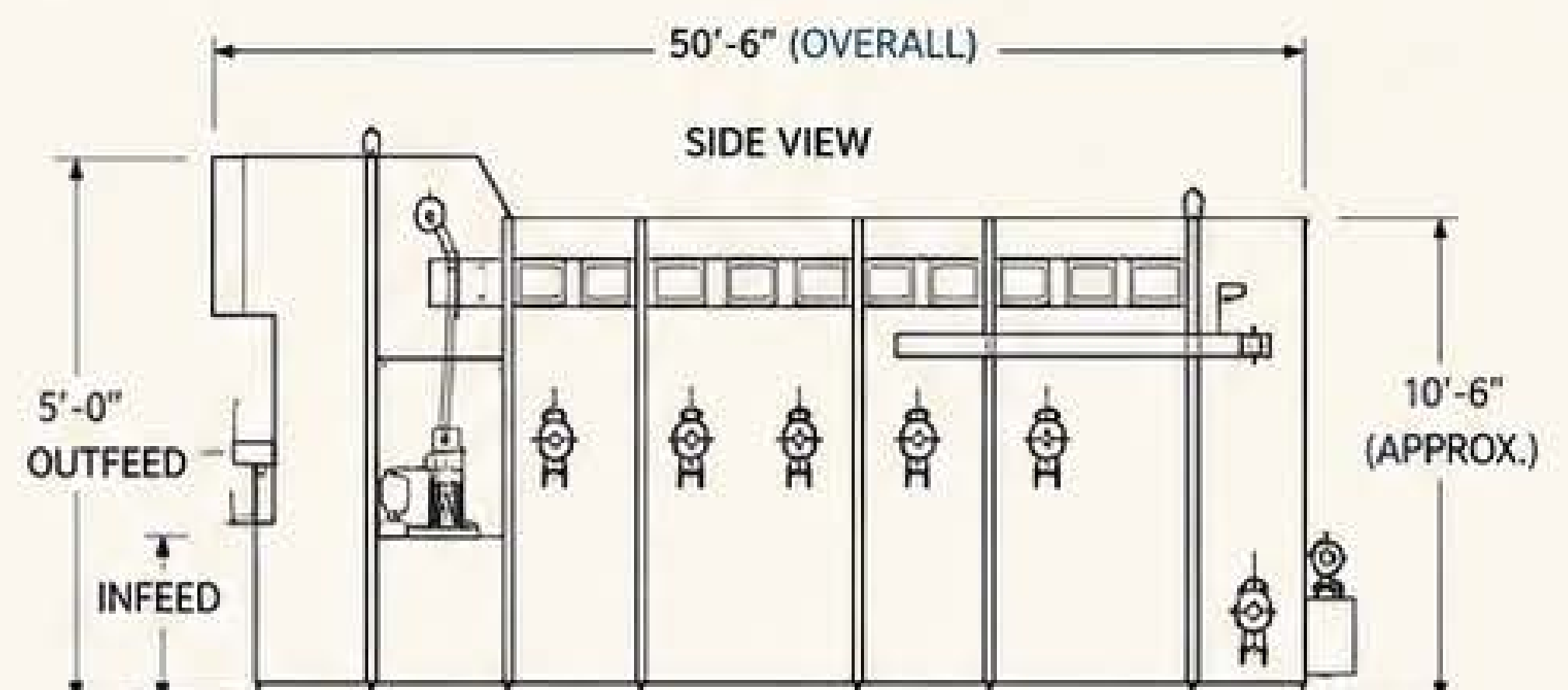
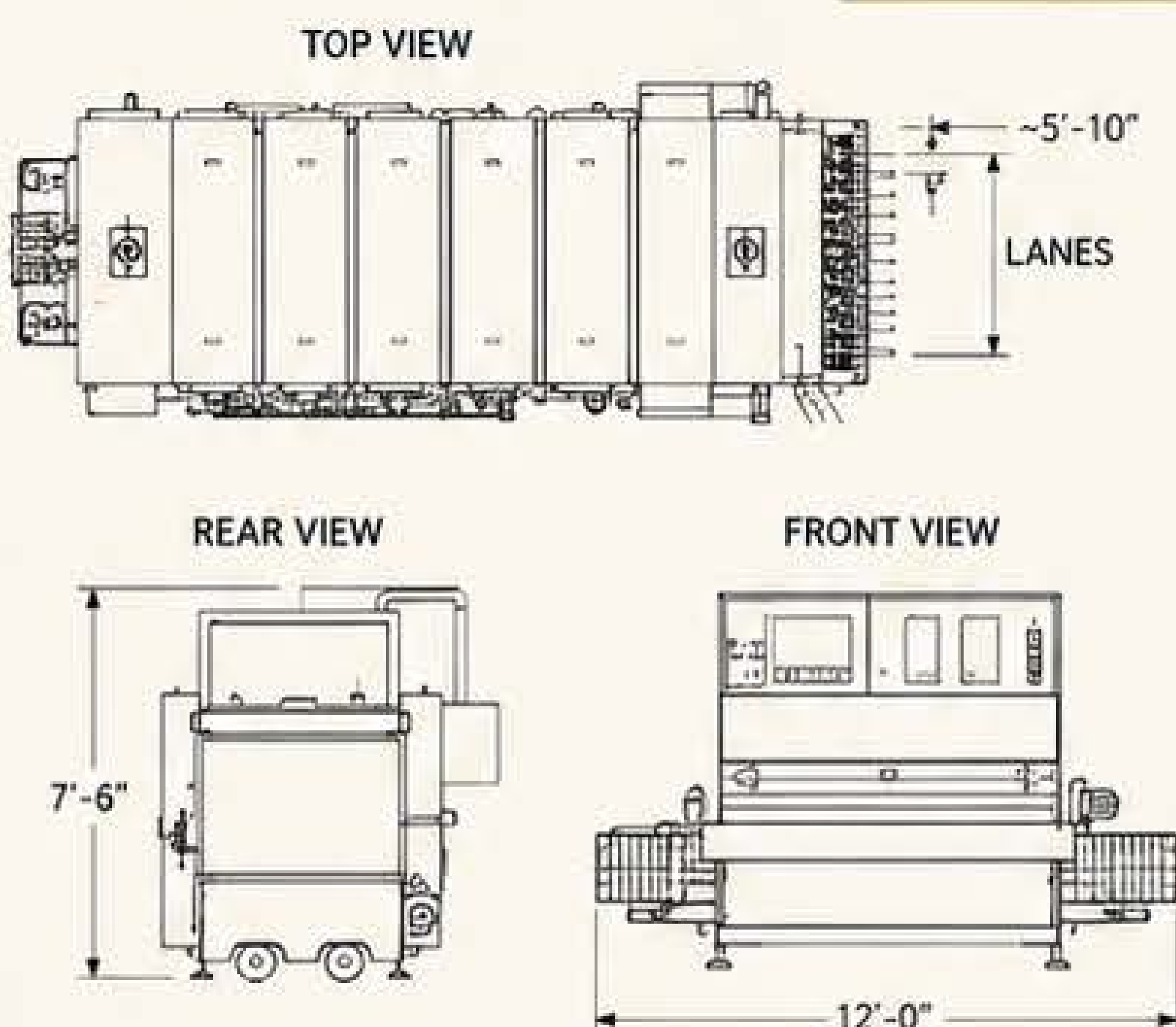


TREATMENT CYCLE

■	Preliminary spray	40°C
■	Main Caustic Soak	65°C
■	Hot Caustic Lye Flushing	65°C
■	Hot Caustic Lye Spraying (Internal/External)	80°C
■	Hot Water Spray	50°C
■	Hot Water Spray	40°C
■	Fresh Water Spray	30°C
■	Fresh Water Spray	Ambient
■	Drip-off Zone	

1. Auto loader
2. Bottle discharge
3. Pre-spray 40°C
4. Main caustic soak 65°C
5. Label flushing spray
6. Label separator
7. High pressure internal spray
8. High pressure external spray
9. Caustic zone 80°C
10. Hot water zone 50°C
11. Hot water zone 40°C
12. Hot water zone 30°C
13. Fresh water sprays
14. Drip off zone

MACHINE LAYOUT



AUTOMATIC GLASS BOTTLE FILLER & CROWNER



FEATURES OF GLASS BOTTLE FILLING MACHINE

1. Stainless steel construction, multiple functions, high level of automation, easy maintenance.
2. Applicable to different bottle types. Bottleneck clamping device and for safe and efficient filling.
3. Advanced technology from Germany and Italy adopted.
(1) Provides accurate liquid level control and fast filling.
(2) Fully enclosed beverage storage tank and CIP interface.
4. Avoids damage to the cap surface. Caps can be automatically fed through cap vibrator.
5. Magnetic torque is used for screw capping, causing no damage to the cap.
6. Touch screen panel:
(1) Automatically controlled liquid level.
(2) Automatic stop filling and capping without bottles.
7. All parts that come into contact with the beverage are made of stainless steel, providing good hygiene and a more effective cleaning.
8. Main electrical parts are from internationally well-known brands.



TECHNICAL PARAMETERS

The systems can work with water and carbonated soft drinks, beer, cider, sparkling wines. The bottling process takes place by bringing the glass bottle into contact with the dispenser, creating a positive pressure in the bottle to balance the pressure of the vessel, and accurately governing its depressurization to prevent any formation of foam or overflow of the liquid involved.

The filling machine can also be used very efficiently for bottling still beverages of various densities (with or without pulp). The vessel can withstand a working pressure of 6 bar and is tested for pressures up to 9 bar.

JAGRAT manufactures automatic glass bottle filling and sealing machines, offering a range of models for various production capacities.

These machines are designed for filling a variety of liquids into glass bottles, including carbonated and still beverages, and can be part of a complete bottling line.

TUNNEL PASTEURISER



TUNNEL PASTEURISER

TOP 3 BENEFITS



Sustainability



Excellent
product quality



Ergonomics



TUNNEL PASTEURIZER

JAGRAT Tunnel pasteurizers are high-quality, sustainable, ergonomic machines designed for beer, soft drinks, juices, sport drinks, etc. The system is designed to manage fresh water usage, reducing water and steam consumption during the pasteurization control phase, the water to cool down the central tanks is taken from the adjacent tanks, saving fresh water and also optimizes start & stop sequence.

DESIGN SPECIFICATIONS

- ✓ Self-cleaning spray nozzles
- ✓ Equip able with self-cleaning header
- ✓ All the tanks have sloped bottom and man-hole doors
- ✓ Hygienic design
- ✓ High accessibility to the tunnels
- ✓ Top area fully walkable and equipped with removable top covers.
- ✓ Our software is very user friendly and gives clear indications about machine functioning and performance

FEATURES

- Easy accessibility through ten side doors and covers on the roof
- Easy accessibility to tanks through manhole doors
- High density spraying
- High, evenly distributed spraying flow rate
- Water flow optimisation
- Quick Heat transfer Super Heat Zone
- Low Water and steam Consumption
- Economy of Space
- Energy Saving
- Stainless Steel In-feed, Out-feed
- Stainless Steel extra heavy-duty flat mesh belt
- Clog free Stainless-Steel Spray Pans
- Perfect Automatic Temperature Control Panel
- Fully Automatic Electric and Remote Panels with digital Readout and Printout
- Modern Pumping System



INTELLIGENT CONVEYOR SYSTEMS FOR BOTTLES



BOTTLE DISCHARGE CONVEYOR



BOTTLE OUTFEED CONVEYOR



HIGH-CAPACITY BOTTLE HANDLING LINE

Bottle conveyor belt and roller conveyor handling systems manufactured by JAGRAT are sturdy, efficient and of high quality.

With many years of experience in the industry, JAGRAT designs and manufactures a complete range of roller conveyors and conveyor belts for handling boxes, bottles, containers, jars and trays.

These systems are necessary for operation of the packaging line and for the integration of the various machines that comprise it.

JAGRAT also makes related accessories that complete conveyor lines, such as aligning devices, accumulation benches, diverters, rotating tables and accessories.

The standardisation of components, combined with the choice of high-quality components that are easy to find in the market, facilitates easy maintenance and long-term reliability.



LINE INTEGRATION

Connects washer, filler, capper and packing stations.



CUSTOM FLOW

Designed around layout, speed and bottle movement.



ACCESSORIES

Aligners, accumulation benches, diverters and rotating tables.



EASY MAINTENANCE

Standardized components ensure quick servicing and long-term reliability.

BOTTLE CONVEYORS

ROLLER CONVEYORS

ACCUMULATION BENCHES

DIVERTERS

ROTATING TABLES

LINE ACCESSORIES



OUR PRODUCT RANGE

FOR DISTILLERY, BREWERY, BEVERAGE AND WATER INDUSTRIES

- ✓ Glass Bottle Washing Machine
- ✓ Bottle Tunnel Pasteurizers
- ✓ Fully Automatic Rinsing, Filling & Capping Machines for Mineral Water, Carbonated Soft Drinks & Soda in PET bottles and Glass bottles
- ✓ SS Slat Chain Conveyors
- ✓ Water Treatment Plants
- ✓ Beverage Processing Equipment's
- ✓ Chillers
- ✓ PET Bottle Blowing Machines – Automatic & Semi-Automatic
- ✓ Automatic labelling machine

WATER & WASTE WATER TREATMENT PLANTS

- ✓ Water Treatment Plants of various Capacities
- ✓ Sea water Desalination Plants of Different Capacities
- ✓ Effluent Treatment Plants

TURNKEY MACHINE & PROCESSING SOLUTIONS



SS Mineral Water Plant



Automatic PET Blowing Machine



Automatic Monobloc Rinser, Filler & Capper



Blending Tanks



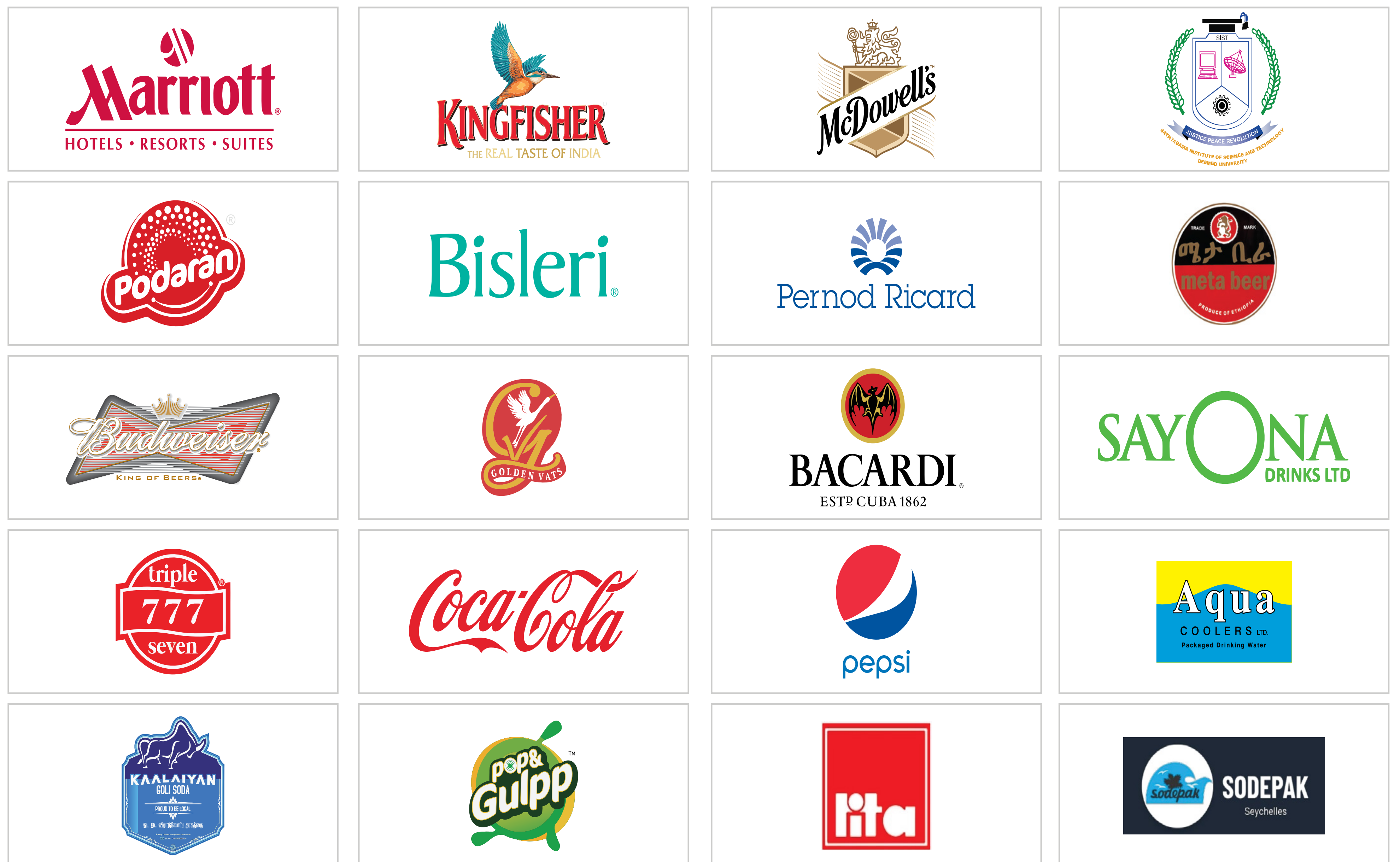
Glycol Chiller With PHE



Premix With Carbonator

A complete ecosystem for glass bottling projects — from washing, filling and capping to conveyors, treatment plants, processing systems and support equipment.

Our Valuable Clients



Office

4/6 Murali Nagar, Firozabad,
Uttar Pradesh - 283203, India

Factory

T3, 1st Main Road, Sidco Industrial Park,
Kattur, Thirumullaivoyal,
Chennai-600 062, India.

Mobile : +91 95206 50026/ +91 9999360740

Email : info@jagrat.glass

Website : www.jagrat.glass