

## 4000 LPH ISI GRADE RO SYSTEM FOR 40 BPM COMMERCIAL BOTTLING PLANT

### DESIGN BASIS

#### SCHEME OF PLANT FOR RO - 4000 LPH- ISI PLANT

- Filter Feed Pump(1w)
- Sand media filter
- Activated carbon filter
- 5 Micron Cartridge Filter
- HPP RO Feed Pump (1w)
- RO Antiscalant dosing
- RO Block
- pH Dosing
- UV System
- Post Micron Filter
- SS 304 RO Product Tank (5000 Lit-1.0 No)
- Ozone generator
- RO Transfer Pump
- RO Membrane Cleaning System

#### PLANT CAPACITIES

<b>Filter Feed Pump</b>	-	<b>10.0 m3/hr</b>
<b>Sand Media Filter</b>	-	<b>10.0 m3/hr</b>
<b>Activated Carbon Filter</b>	-	<b>10.0 m3/hr</b>
<b>RO Feed</b>	-	<b>8.0 m3/hr</b>
<b>RO Permeate</b>	-	<b>4.0 m3/hr</b>
<b>RO Reject</b>	-	<b>4.0 m3/hr</b>
<b>RO Recovery</b>	-	<b>50 %</b>
<b>SS RO Treated Water Tank</b>	-	<b>5.0 m3</b>

**4000 LPH ISI GRADE RO SYSTEM FOR 40 BPM COMMERCIAL BOTTLING PLANT****ISI PLANT – 4000 LPH RO SYSTEM**

S.NO	DESCRIPTION	SPECIFICATION	MAKE	QTY
1	Raw Water Tank	BORE SUMP (EXISTING)	--	---
2	Filter Feed Pump	Type : Self priming  MOC : CI & SS Impeller  Flow :10.0 m3/hr @ 3.5 Kg/cm2  Power rating : 3.0 hp	CRI/LUBI/EQUI	1.0 No
3	Pressure Sand Filter  Media	MOC: FRP  Dia-900 mm & HOS-1800mm  Fine Sand (16-32 mm)  Gravel (6-4 mm),(6-2 mm)  Pebbles (20-12 mm), (40-25mm)	LAYER/ALFA/PENTAIR/  EQUI	1.0 Set
4	Activated Carbon Filter	MOC: FRP  Dia-900 mm & HOS-1800mm  Activated Carbon Media  – Iodine Value900  Supporting Sand Media  Pebbles (20-12 mm)	LAYER/ALFA/PENTAIR/  EQUI	1.0 Set
5	Side Mount Auto Valves	50 nb – Side Mount valve	Initiative/Equi	2.0 Nos
6	JUMBO Cartridge Filter	Size:20” long ,5 Micron,  MOC: PP Spun  Make: Layer	Layer/Equi	4.0 nos

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7	JUMBO Cartridge Filter Housing	20" JUMBO HSG	20" JUMBO HSG	4.0 No
8	RO Skid	MOC: SS 304 SIZE : 40 mm, LONG	Customised	1.0 No
9	Flow Meter	Type : Variable Flow meter MOC : PP	Flow - 4000 Lph	1.0 Lot
10	Pressure Guage	Dial Size: 4" & 2.5" S.S-304	SUITABLE	4.0 Nos (2 each)
11	Antiscalant Dosing System	Dosing Pump : 6-10 lph (Online) MOC: PP Type: Digital Diaphragm Metering Dosing Tank : 500 litres MOC: PP/HDPE Antiscalant Dosing Chemical As per ISI STD	Dozer/Equi	1.0 Set
12	High Pressure Pump	Type: Multi stage Vertical High Pressure Pump MOC: SS 304 Size: 10.0 m <sup>3</sup> /hr @10-12 kg/cm <sup>2</sup> , 3 ph pump	CRI/Lubi/Equi	1.0 No
13	RO Membrane Housing	MOC: FRP Size: Dia 8" & Length: 80" Model : 8080	UKL/ALFA/Equi	2.0 Nos
14	RO Membrane Element	Size: 8" Dia , Length- 40" MOC: Thin Film Composite polyamide	Brackish/Layer/Equi	4.0 Nos

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		Type: Spiral Wound		
15	RO Control Panel & Auto Valves	MOC : SS 304 , Floor Mounted Auto with all Accessories	Initiative/Equi	1.0 Set
16	pH Dosing System	Dosing Pump : 6-10 lph (Online) MOC: PP Type: Digital Diaphragm Metering Dosing Tank : 500 litres MOC: PP/HDPE pH Dosing Chemical As per ISI STD	Dozer/Equi	1.0 Set
17	RO CIP Cleaning System	CIP Pump -1.0 m3/hr @2.5 kg/cm2 , CIP Tank -1.0 No- 500 Litres HDPE with suitable piping & Accessories	LAYER/EQUI	1.0 Set
18	RO Product Tank	Size: 5000 Litres MOC : SS , Thickness- 0.4 mm	LAYER/Equi	1.0 No
19	RO Product Transfer Pump	Type : Centrifugal Monoblock MOC : SS 304 Flow : 4.0 m3/hr @ 2.0 Kg/cm2	CRI/EQUI	1.0 No
20	Ultraviolet System	MOC: SS 304 Flow: 4.0 m3/hr	ALFA/SUKRUT/EQUI	1.0 No
21	Post Micron Filter	MOC : SS 304 , 2 & 1 Micron	Inhouse /Customised	1.0 No
22	Ozone generator	Flow: 5 gm/hr MOC : SS 304	Suitable	1.0 No

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23	PU Fittings	Blue Tube with PUSH fittings set	SS 304	1.0 Lot
24	Floaty	3 mtr Long , raw water floaty & overhead tank floaty	LCM/Equi	2.0 Nos
25	Solenoid Valve	1" - Brass for Raw water & 1" - Brass for flushing	SUITABLE	2.0 Nos
26	Piping & Fittings from Raw Water Pump to SS RO Tank	MOC : SS 304, High Pressure SS Piping (All Accessories)	SUITABLE	1.0 Lot
27	Bore Automation System	As Per Conditions Apply	Suitable	1.0 Set
28	Sump Automation System	As Per Conditions Apply	Suitable	1.0 Set
A.	<b>4000 LPH Automatic Reverse Osmosis Plant - AS Per ISI Plant From Raw Water Pump to Filling Area inlet, Complete Set</b>			<b>1.0 Unit</b>

**4000 LPH ISI GRADE RO SYSTEM FOR 40 BPM COMMERCIAL BOTTLING PLANT****B . SEMI - AUTOMATIC BLOWING MACHINE**

S.No.	Name of the Equipment	Qty
1	<p><b>Semi Automatic 200ml to 2000ml 2cavity with 1blower 1 infra-red heating convey or with auto dropping.</b></p> <p>Model No. SJE-01</p> <p><b><u>Specifications:</u></b></p> <p>Max product capacity: from 200ml to 2000ml            Max product diameter: 25-30 mm dia            Max product height:360mm            Operating Pressure: 8 kg            Blowing Pressure: 25 kg            Clamping force: 6 tonne            Operating Strokes: 200 mm            Mould Platen Size:450X340X35            Distance Between Tia Bar:320mm            Min Mould thickness:140mm            Heating Zone:6nos Heaters of 626mm long            Heating Power: 12 Kw Max</p> <p><b>Production Capacity: upto 1 ltr 1200 Bottles per hour,2cavity.</b></p> <p><b>Accessories to be provided from customer side:</b></p> <p>1) 20 hp high pressure compressor of 30kgs wp 20-25kg47cfm            2) Chiller of 2tonne with S.S water tank            3) Air dier of 47-54cfm complied to compressor Air pressure            4) Recommended spares for maintaining machine            Moulds rate as per cavities, shapes and size.</p>	1No.

**AQUAPOT RO TECHNOLOGIES** (Authorized for Aquapot)

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Water Professionals

RO PLANTS | BOTTLING UNITS | ISI PLANTS | TURNKEY PROJECTS  
SOFTENERS | SPARES



**4000 LPH ISI GRADE RO SYSTEM FOR 40 BPM COMMERCIAL BOTTLING PLANT****C. Automatic Rinsing, Filling & Capping Machine: Output 40 BPM for 1000 ml.**

Sr. No.	NAME OF THE MACHINE	QTY
1.	Automatic pet bottle rinsing, Filling & capping machine to fill from 200ml, till 2000ml with neck holding system. Machine includes cap feeding unit with no change over parts. Capacity:-40 BPM (1000 ml)	01 Nos
2.	SS In feed Air Convey or 4Feet with 0.5HP Blower	01 Nos
3.	SS Out feed Discharge 12 feet Convey or with slate belt	01 Nos
4.	Inspection Counter with label Shrink Tunnel	01 Nos
5.	S.S Body Cover With Acrylic Doors & Fittings	01 Nos

**Utilities required:**

- 1) Power 440 V AC -3 phases.
- 2) Compressed Air 3- 4 CFM at 6kg/cm<sup>2</sup> (compressor 3 H.P).
- 3) SS. Rinsing Pump 0.5H.P. with by pass arrangement and suitable buffer

**Machine Specification****Automatic Rotary Bottle Rinsing, Filling And Capping Machine****RINSERSECTION**

- Rinser top plate made of SS304
- Bottle Gripper mounted with UHMWPE bracket
- Bottle grippers are made of SS304 with machining for CNC machine.
- Rinser jet valve body is made of SS304.
- The Opening of the rinsing nozzle is the bottle place over the rinsing jet and turned at 180 degree by a mechanical cam
- Bottle rinsing with liquid recovery for Re-Use.
- No Bottle no Rinsing arrangement



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### FILLING SECTION

- Gravity filling mechanism suitable for room temperature.
- Tank is made of SS 316 with internal polished mirror Finish.
- The Filling nozzle is SS 316 & SS 304.
- No Bottle No Fill arrangement
- The Filling Nozzle seals are made of Food PLANT Silicon rubber.
- The Bottle gripper is made of SS 304.
- Lift Cylinder are made of LM6 Aluminum with PB Material.
- No Change over parts to fill the bottle from 100ml to 2000ml.
- Fast and accurate filling valves.
- The Level of Filling tank is Controlled by Solenoid Valves

### CAPPING SECTION

- Capping section suitable for application of screw on caps
- Hopper for mechanical cap feeder passes the caps into distributors chute.
- Sensors are provided which detect the caps in the chute.
- Individual Cap washing arrangement is fitted on chute.
- No Bottle No Cap system is provided.
- Accurate torque setting for capping head

MODEL RFC	Machine Dimension	OUTPUT BPM	ELECTRIC LOAD HP
10X10X5	1740 X 1740 X 2135	40	2.5

- **Imported Gear Box (Italy) Bon figlioli.**
- **Variable Speed Through Frequency Drive (VFD)**
- **Clutch and Break System provided to prevent Damages to the Machine.**
- **Detachable Control Panel.**
- **Easy Maintenance & Servicing Space in Machine.**

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### D. Semi-Automatic Shrink-Wrapping machine

SL.NO.	ITEM/DESCRIPTION		MAKE	QUANTITY
1.	SHRINK PACKING MACHINE		STANDARD	1
	Film	PVC		
	Packaging Material	MBP		
	Automation PLANT	Manual		
	Material	Mild Steel		
	Voltage	240V		
	Phase	Single Phase		
	Power	6kW		
	Size/Dimension	48x20x50Inches		
	Brand	MBP		
	Frequency	50- 60Hz		
	Weight	90Kg		
	Capacity	15pieces/minute		
	Temperature	225DegreeC		

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pot

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### E. Inkjet Printer for coding on to your laminate:

Basic Machine Machine Quantity:1	
Item Number	Description
1	Video jet Batch Coding Machine,(Type-Continuous inkjet)Model-W 620,2 line printing

Standard Accessories		
	Description	Qty
	PHOTO ELECTRIC SENSOR	1Units
	W630Machine Stand &Print Head Stand	1EA
	3 Waydin plug	1Units
	3pintop plug	1Units
	Sensor Bracket for Calypso	1Units

Supplies		
	Description	Qty
	Ink,Black,750mL	1EA
	Make-up,750mL	1EA
	CleaningSolution,1liter	1EA
		

**4000 LPH ISI GRADE RO SYSTEM FOR 40 BPM COMMERCIAL BOTTLING PLANT****F . Lab & ISI:**

We are also pleased and happy to introduce ourselves as leading dealers of Lab equipments, Chemicals & Glassware required for procuring **ISI License**. We have been in this field since Seven years. We have **1000 PLUS Valuable and satisfied Packaged Drinking Water Customers** in Andhra Pradesh, Karnataka, Maharashtra, Odisha, Rajasthan and Other States; let us have your enquiries to enable us to render our services effectively to your organization.

**ANNEXURE-I**

Sr.No	DESCRIPTION
1.	Lab equipment, chemicals, microbiological media & glassware <b>*GST &amp; Transportation are charged extra as on Invoice date.</b> <b>Insurance: Customer Scope</b>
2.	ISI Application Fee : (online payment)to Bureau of Indian Standards.

**ANNEXURE-II**

3.	Sample Testing:(online payment)(i)Water Testing, (ii) Radio Active Residues Testing & (iii) 20Litre Pet Jar Testing at <b>OSL (BIS approved laboratory)</b>
4.	ISI Licence Fee:(online payment) ISI marking licence fee to Bureau of Indian Standards.

**ANNEXURE-III**

5.	<b>Application Processing Charges</b>
6.	<b>Installation &amp; Training Charges</b> <ul style="list-style-type: none"> <li>➤ Chemist &amp; Microbiologist (Chemical and Microbiological) training for 2 days.</li> <li>➤ Training on record maintenance for laboratories, plant and all hygienic practices.</li> </ul>

**\*Note:** Sample passing at your own risk.

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### CHEMICAL LAB



### MICROBIOLOGICAL LAB



For, **AQUAPOT RO TECHNOLOGIES**

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