

# FOOD & BEVERAGES











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# TURNKEY PROJECTS PLAN CREATE EXECUTE

# **TURNKEY PROJECTS**

#### Plastic & Steel Recycling Plants

- PVC/HDPE/PET/Bottle Manufacturing Plants
- TMT Bar, Hot Rolling, Cold Rolling, Metal Scrap Plants
   Tube Mill, CRS, CTL Plants



#### Customized Plants

- Corrugated Sheet Forming Plants
- Waste Tyre Recycling and Retreading Plants
- Paper Bag, Cup Making Plants
- Fish, Poultry Feed & Farming Plants
- TSR Natural Rubber Plants
- Laundry and Toilet Soap Plants



#### Edible Oil Expelling & Refining Plants

- Peanut, Palm & Palm Kernel oil Plants
- Cottonseed, Cocoa, Sesame, Moringa oil Plants
- Oil Refinery Plants
- Solvent Extraction Plants
- Oil Filling Plants
- Cattle Feed Plants





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Fruit P

Solar Power Plants

Solar Pumping Syster

ON/OFF Grid Plants (1-20MW Solar Planels, Modules & Arrays Batteries & Invertors Solar Street Light, Lanterns

Food & Beverages Plants

**Processing Plants** 

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Water Plants Carbonated Beverages Plants

Bread Plants Making Plants ckaging & Processing Plants



#### **INTRODUCTION**

**"TRB GROUP"** is in the business for more than 50 years and growing its presence globally. **TRBEX IMPEX PVT. LTD.** is a flagship company of the TRB group which was established under the dynamic leadership of our Late Chairman Sh. Ved Prakash Aggarwal and his legacy is being carried forward by our current Chairman Sh. Rajesh Aggarwal.

#### **PIONEER AND VISION**

**Sh. Rajesh Aggarwal,** a modest man who made a humble beginning with a grand vision, has come a long way in 25 years, but if something has not changed along the way. It is his modesty and his vision "To provide products rich in quality and goodness across an ever growing network of consumers, with a motto of **'Everyday Everywhere'** making our products an essential part of the life for every individual".



Rajesh Aggarwal Managing Director

#### "From Humble Past to Glorious Present"

" The journey of a thousand miles is made up of a million steps , but the most important one is always the first step".

#### **QUALITY POLICY**

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Quality is about trust. Each and every one of us has the power to influence this trust through our dedication towards our passion and leadership. "We are committed to manufacture and supply quality products which exceed customer satisfaction and market requirements". TRB has served Africa with wide variety of product and services. It has been in the business of accomplishing Turnkey Projects from past 10 years in different countries of African continent. Our Quality Policy summarizes the essential elements of our commitment for excellence.

TRB is a responsible group with a vision of understanding the consumer's need, quality, distribution, business acumen and above all, a constant drive to keep bettering ourselves.

We believe that with our continued commitment to excellence in every aspect of whole some production and distribution. We are going to keep discovering newer, bigger and brighter horizons for ourselves, our partners, and above all, the most valued – our consumers.



# TURNKEY PROJECTS

Food & Beverage Plants

-MINERAL WATER PLANT
-ICE LOLLY FRUIT JUICE PROCESSING PLANT
-FRUIT JUICE MANUFACTURING UNIT
-CARBONATED BEVERAGE UNIT
-BISCUITS MAKING PLANT
-BREAD MAKING PLANT
-WAFER MANUFACTURING UNIT
-WHEAT FLOUR MANUFACTURING UNIT
-POULTRY FEED MANUFACTURING UNIT
-INCUBATOR EGG HATCHING MACHINE
-ICE CUBE MAKING MACHINE



# MINERAL WATER PLANT



# MINERAL WATER PLANT

# R.O Systems

#### What is a Reverse Osmosis System?

RO works by passing water through a semi-permeable membrane that separates the pure water into one stream and the salt water into another stream. The process is called "reverse osmosis" because it requires pressure to force pure water across a membrane, leaving the impurities behind. In most cases, 95% of the minerals, salts and other inorganic dissolved solids, such as metals, fluoride, sodium, and calcium are removed by RO systems



#### **R.O System**

We are one of the top manufacturers of **Reverse Osmosis System** in India. We have our own manufacturing unit where in we use all the parts as per worldwide standards. Our team consists of all highly qualified engineers having rich experience in the field of water treatment. **We are loyal for better quality control. We select the machinery used for the R.O System very** 





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# Annexure - A Design Basis For Ro System

- Capacity : 3000 lit/hr
- Max. Operating Hrs : 55 hrs.

PRELIMINARY RAW WATER PARAMETERS

RAW WATER PARAMETERS

Parameters	Specification
Appearance	Clear
Ph	6.5 to 7.5
TDS	<750 ppm (As Assumed)
Total	<300 ppm (As Assumed)

### Automatic bottling line for small bottle



Water Tank

**Pure Water Equipment** 

**Oxygen-Ozone Generation Water Tank** 



**Blow Molding Machine** 

5000BPH 3 in 1 Filling Machine

Shrink Wrapping Machine





#### ANNEXURE -B Process Description and Equipment details for 3000LPH RO System

#### Raw Water Storage Tank (Client scope)

To store raw water from sources loke Bore Well / Open Well / IDC water supply / Corporation supply etc. Minimum stirage of 10 times the water treatment capacity installed either in HDPE (Sintex Type or Possibly in Concrete tanks.

#### Chlorine Dosing System (Manual)

To diffuse chlorine into feed water to inhibit the growth of bacteria and eliminate any existing bacterial contamination in the feed water

#### Part 1 Raw Water Booster Pump

To boost water pressure from raw water tank and to deliver to the pretreatment at pressure and volum required.

Qnty	: 1No
MOC	: Cl
Make	: Kirlosker
Rating	: 4.5m2/Hr @ 35M
Head	: 35M

#### Part 2 Pressure Sand Filter

To filter sand and sediment (turbidity) down to 20 micron at 2 ppm

Qnty	: 1No
Make	: TRB
Model No	: PSF 1865 SS MPV
MOC	: SS 304
Maximum Operating Pressure	: 3.5 Kg/cm <sup>2</sup>
Minimum Operating Pressure	2 Kg/cm <sup>2</sup>
Filter Media	Multigrade sand
MPV Make	Praher, Austrian Control Valve for
	Backwash, Rinse





# Part 3 Activated Carbon Filter

To remove taste, odors, chlorine, colour and other organic material from feed water prior to reverse osmosis.

Qnt	: 1 No
Make	: TRB
Model No	: ACK 2065 SS MPV
MOC	: SS 304
Maximum Operating Pressure	: 3.5 Kg/cm <sup>2</sup>
Minimum Operating Pressure	: 5 Kg/cm <sup>2</sup>
Filter Media	: Activated Carbon Media : IV 900
MVP Make	: Praher, Austrian control valve for
	bacwash. Rinse

#### Part 4 Anti Scalent Dosing (Metering Pump)

To inject Anti Scalent Solution into feed water to avoid scale formation on the membrane

Qnt	: 1 No.
Tank Capacity	: 60 Litre
Tank MOC	: HDPE Chemical Tank
Pump	: Electronic Diaphragm Metering Pump 0 to 5Lph
Make	: Hanna Romania / Milton Roy Asia LMI
Solution	: Anti Scalent Solution

#### Part 5 Micron Bag Filter

To remove micron sediment particles & dust impurities from raw water perior to Reverse Osmosis system to avoid clogging of membrane.

: 1 No.
: TRB
: SS
: MBF 4" x 20'
: 10 Micron

#### Part 6 Micron Cartridge Filter

To remove micron sediment particles from raw water prior to Reverse Osmosis to avoid clogging of membrane.

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Qnt.	: 1 No.
Make	: TRB
Shell MOC	: SS
Cartridge Size	: MBF 4" x 20"
Porosity	: 5 Micron
Cartridge MOC	: Pleated Polypropy

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# Part 7 Reverse Osmosis Module

High Pressure Pump		
Qnty.	: 1 No.	
Make	: Grundfor	
Capacity	: 8M³/Hr.	
Head	: 100 M	
MOC	: SS 304	
RO Membrane		
Membrane Size	: 8" x 40"	
Make	: DOW / GE / Hydranautics or Equibalent	
No. Of Membrane	: 3 Nos	
Pressure Tube (Housi)ng		
Make	: TRB	
Pressure Vessel MOC	: SS 316	
Pressure Tube	: 3 Element Long 1 No.	
Inter Pipings	: Ss316	
Skid	: Ss304	
LP / HP cut off Switch	: Provided 1 No. Each	
Piping's and connector	: Provided for Reject and Product Water	
	: SS 316	
Part 8 SS Storage Tank for To store Reverse Osmosi	<b>Treated Water</b> s permeate (product) Water.	
Qnty	: 1 No.	
MOC of Tank	: SS	
Туре	: Plain	
Capacity	: 2000 Ltr. Holding Capacity	
Part 9 SS Transfer Pump		
To feed water to down str	eam to micron filter and UV system and filling line	
MOC of Impeller	: SS 316	
Make	: Grundfos or equibalent	
Rating	: 3.0m3 / Hr @ 30M	
Head	: 30M	
00 000	0 0	



### **Treatment Scheme**

An ISO 9001 : 2008 Certified Company

The scheme below is for your reference which explains you the process of water purification by the Reverse Osmosis System.

- Dual Media Filter
- Anthracite Carbon Filter
- Anti Scaling Dosing System
- Micro Cartridge Filter
- RO/ Desalination Module
- SS Storage Tank
- Ozona or
- UV Sterilization
- Post Cartridge Filter
- Transfer Pump
- Ozone circulation pump
- Electric Panel with L&T switch Gear







# Basis of Design

#### > Inlet Water Characteristics

Sr. No.	PARAMETERS	VALUE
01	Temperature	MAX,40°C
02	рН	6-7
03	Color	Nil
04	Turbidity	Less than 1 NTU
05	Total Suspended Solids	Nil
06	Total Alkality	200
07	Total Hardness	300
08	Total Dissolved Solids	1000
09.	Heavy Metal ,Fe, Silica	Nil.
10.	Oil & Grease.	Nil.

### > Treated Water Characteristics

Flow	4000 LPH
PH	6 to 7
Total Dissolved Solids	100 PPM
Total Hardness	Less than 50 PPM

### > Utilities required (By Client)

Feed Water	8000LPH
Power	Single phase/Three Phase
Chemicals	Cleaning and sanitization chemicals for Membrane cleaning





# **Technical Specification**

An ISO 9001 : 2008 Certified Company

RAW WATER PUMP	SPECIFICATION	
	Quantity	One No.
10	Op. Pressure	2.5 – 3.5 kg / cm2
81.	Make	CRI / Crompton / Kirlosker
	Purpose	Boosting For Raw Water up to Sand Filter

CARBON MEDIA FILTER	SPECIFICATION				
	Quantity	One No.			
	Op. Pressure	2.5 kg / cm2			
	Make	SS 304			
	Type of Media	1100 IV Activated Carbon			
	Purpose	For removing color, odor, chlorine Particles.			
	Backwash Require	Every day when you will go to start the plant.			

SAND MEDIA FILTER	SPECIFICATION				
	Quantity	One No.			
	Op. Pressure	2.5 – 3 kg / cm2			
	MOC of Filter	SS 304			
	Type of Media	Sand , Gravels, etc.			
	Backwash Require	Every day when you will go to start the plant.			
	Purpose	For removing >50 Micron dusts & other suspended Particles			

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MICRON CARTIDGE FILTER	SPECIFICATION				
<u></u>	Quantity	One			
	MOC of Housing	Stainless Steel 304			
	Filter Qty	1 No			
A A A A A A A A A A A A A A A A A A A	Size	20" X 4 ''			
	Filter Type	Spun / String Wound			
	Flow	2000 LPH			
	Purpose	For Removing >5 Micron Suspended Particles			
ANTISCALENT DOSING PUMP		SPECIFICATION			
	Quantity	One No			
	Dosing Rate	6 LPH			
	Туре	I –DOSE/ E-DOSE			
	Chemical	Antiscalant Liquid			
22	Dosing Tank	100 LTR White HDPV			
	Purpose	Scaling Resistance for Membrane and increase Membrane Life			
LOW PRESSURE SWITCH		SPECIFICATION			
	Quantity	One No.			
	Op. Pressure	0-5 kg / cm2			
	Make	Danfoss			
A STATE OF STATE	Туре	Inline			
	Function	To maintain pressure reduction			





HIGH PRESSURE PUMP	SPECIFICATION			
	Quantity	One No.		
	Op. Pressure	9 - 12 kg / cm2		
	Make	CRI / Lubi /equip		
	Туре	Centrifugal / Multistage		
	Function	To lift processed water towards SS tank		
R.O Module		SPECIFICATION		
	Membrane Qty	1 Lot		
	Make	Hydranautics - USA / Dow / GE		
	Membrane Size	8"		
1	RO Pressure Tube	FRP		
	To remove physical and chemical impurities in terms of total dissolved solids up to 90 to 95%.			

POST M.C.F	SPECIFICATION			
	Quantity	One		
	MOC	Stainless Steel 304		
	Filter Qty	3 Nos.		
	Size	20" X 4 ''		
	Filter Type	Spun / String Wound		





S.S STORAGE TANK		SPECIFICATION		
	Quantity	2 Nos.		
	Make	TRB		
The summer of the	Capacity	2000 Ltr		
	MOC	SS 304		
A A	Purpose	One Tank is used for Product water storage & second tank is used for Ozonator.		
TRANSFER PUMP		SPECIFICATION		
	Quantity	2 Nos		
	Make	CRI/CROMPTON/KIRLOSKAR/equip		
2 9 M	Op. Pressure	e 0.5 – 1.5 kg / cm2		
18 12-	MOC	SS		
	Purpose	One pump is used for forward first tank water to second tank & second pump is used for circling ozone in second tank.		
ULTRA VIOLET SYSTEM		SPECIFICATION		
	Quantity	One No.		
	Op. Flow	1/2 m3 / cm2		
	Make	TRB		
	Туре	Up Flow		
	Function	To deactivate bacteria strength		
OZONATOR SYSTEM		SPECIFICATION		
	Quantity	One No.		
<b>1072</b>	Op. Flow	1/2 m3 / cm2		
	MOC	SS 304		
	Type Make	2 GRAMS TRB		
	Function	To Increase shelf life of treated water by adding ozone		

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INSTRUMENTATION	SPECIFICATION			
	ONLINE TDS METER			
	Quantity		1 No.	
	Location	Location RO Product		
	Make		TRB	
ALMAN AT	Purpose	To chec	k TDS in PPM through online digital system.	
		FL	OW METER	
	Quantity		2 Nos.	
「「「「「「」」」	Туре		on line	
	Location		R.O. Product	
	Material Of Construction		Acrylic	
B B 27 25	Make		TRB	
		PRES	SURE GUAGE	
	Quantity	6 No.		
Country of	Mounting	bottom & ba	ck Entry	
ENERT 10	Туре	Borden type	tube	
120	Connection	1⁄2" BSPT		
bar arrive	Range	0-150 psi –L 0-600 psi –⊦	ow pressure ligh low pressure	
	Make	TRB		





### FULLY AUTOMATIC BOTTLING MACHINE

30 BPM Automatic Rotary Pet Bottle Rinsing – Filling – Capping Machine Model ( 6-6-3) WITH PICK & PLACE CAPPING MECHANISM

RINSING HEAD	6 N	IOS		
FILLING HEAD	6 NOS			
CAPPING HEAD	3 NOS.			
FILL VOLUME	200ML T0	D 2000ML		
FILLING MECHANISM	GRAVITY	′ FILLING		
INFEED CONVEYOUR WITH	4 F	EET		
BLOWER				
OUT FEED SLAT CHAN	10 F	EET		
CONVEYOR BELT				
POWER CONSUMPTION	4 HP for Machine and 6HF			
	for SS 304 Shrink Tunnel			
SHRINK TUNNEL	SS 304	1 MOC		
Electrical	415VAC	3Phase		
OUT PUT SPEED:	ML	SPEED PER		
		MINUTE		
	1000ML	30-35 BPM		
	2000ML	15-18 BPM		
	500ML	45-50 BPM		
Cap Elevator	Provided with Capacity of			
	600 (	Caps.		

#### **40 BPM**

Automatic Rotary Pet Bottle Rinsing – Filling – with Pick and Place Capping Machine Model ( 8-8-4)

Machine is suitable to Run Pet Bottles for Mineral Water from 200ml to 2000ml without help of any Change Parts at out-put speed of 40-45 Bottles Per Minute for 1000ml Filling.





		TECHNIC		ION	
					1
		FILLING HEAD	81		-
			4N	05.	
		FILL VOLUME	200ML T(	0 2000ML	1
	AUR.	FILLING MECHANISM	GRAVIT	Y FILLING	1
	1	INFEED CONVEYOUR WITH	6 F	EET	
	and the second s	BLOWER			
		OUT FEED SLAT CHAN CONVEYOR BELT	12	FEET	
		POWER CONSUMPTION	5 HP for Mac FOR Shri	hine and 7 HP nk Tunnel	
		SHRINK TUNNEL	SS 304	4 MOC	
		Electrical	415VA0	C 3Phase	]
		OUT PUT SPEED:	ML	SPEED PER MINUTE	
			1000ML	40 BPM	
			2000ML	20 BPM	
	9		500ML	60 BPM	
		Cap Elevator	Provided wit	h Capacity of	
			1000 Caps.	With 1.0 HP	
			Mo	otor	
		6 Automatic Rotary Pet Bottle Capping Mac Machine is suitable to Run 200ml to 2000ml without speed of 60 Bottles	O BPM Rinsing – Fillin chine Model ( : Pet Bottles fo help of any Ch Per Minute for	ng – with Pick a 12-12-6) or Mineral Wat ange Parts at o 1000ml Filling	and Place er from put-put g.
0	2		0.00	0.0	0
20	www.trbgroup.in		2000	3	•



	TECHNIC	AL SPECIFICAT	ION		
	RINSING HEAD	12	NOS		
	FILLING HEAD	12	NOS		
	CAPPING HEAD	6 N	OS.		
	FILL VOLUME	200ML T(	D 2000ML		
	FILLING MECHANISM	GRAVIT	' FILLING		
	INFEED CONVEYOUR WITH BLOWER	8 F	EET		
	OUT FEED SLAT CHAN CONVEYOR BELT	16	EET		
	POWER CONSUMPTION	6 HP for Mac for Shrin	nine and 7 HP k Tunnel		
	SHRINK TUNNEL	SS 304	MOC		
	Electrical	415VAC	3Phase		
	OUT PUT SPEED:	ML	SPEED PER		
			MINUTE		
		1000ML	60 BPM		
		2000ML	30 BPM		
and the second se		500ML	80 BPM		
	Cap Elevator	Provided wit	h Capacity of		
		1200 Caps H	opper. With		
		1.0 HP	iviotor		
	Work Purpose				
	For Filling: 200, 500,	1000 ML, 20	00 ML Pet Bottles		

#### FEATURES:

- > Entire Process is Fully Automatic for Rinsing Filling Capping
- Filling Tank of with High Level and Low Level SENSING SYSTEM





- ➢ No Bottle − No Filling
- No Bottle No Capping
- Inspection Section at Outfeed Conveyor
- Unique Torque Mechanism for Capping
- There is no chance for contamination by oil, grease and other contaminants from the machine as the rinse water is at all times passed through and is in contact only with stainless steel components, this includes the rinse water after use.
- > The machine is fully neck-run and infeed is by air conveyor.
- > Only Height Adjustment required to change the Fill Volume of Bottles.
- > The complete R.F.C is enclosed in transparent plastic and stainless steel guard cover without any rubber gaskets. This ensures there is no bacterial growth in the area.
- > Counting Sensor after Capping for Counting the batch at the end of the day
- > Chute Sensor so that if the chute get sufficient No. of Caps it will stop the Elevator Motor.
- > Control Panel will be Integrated with Timer
- > AC Drive for Out Feed Slat Conveyor / Main Machine will be provided

Cap Elevator with Hopper is provided to elevate the caps and feeds it in the Cap Chute. Chute has level infrared sensor motor starts when there will be no caps in chute.



### POUCH PACKING MACHINE

#### SPECIFICATION

Gravity Filter System to pack various free Flow liquids like Mineral Water High Accuracy Easy to Operate Very Low Maintenance Filling Range :- 200 ml Speed :- 2800/3000 Pouch / hour Packing Material :- Polyethylene Film





# SEMI AUTO BLOW MOLDING

PET BOTTLE blowing Machine – Water once purified is filled in PET Bottles where bottles can be blown IN HOUSE using Bottle stretch Blow Molding Machine. This Machine requires Heavy duty Compressor with Compressor Air Dryer unit. Bottles are blown using Semi Automatic Twin Blow blow machine.

#### PET STRETCH BLOW MOULDING MACHINE (SEMI - AUTO)

#### • TWIN BLOW WITH COMMON INFRA RED CONVEYOR

• Model No.

SP/2000/DC/SA (TWO cavity)

• Production Capacity 500 ml bottles 1000 ml bottles 1500 ml bottles

800 bph (Bottle per hour) 600 bph 500 bph

- For Processing PET Containers from 250ml to 2.0 Ltr.
- Neck Dia 28mm or 30 mm (Two Cavity) for Water.
- 37 CFM @ 40 bar air Pressure
- Hydraulic locking system with Infrared Conveyorised Pre- Heating system
- Storage Hopper and Automatic Feeder of Pet Preforms
- 2 cavity 1.0 ltr Mould Hard Chrome Diamond Finish
- Air Compressor/s suitable capacity
- Compressed Air Dryer & Filters
- Chiller Unit of suitable capacity



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# ICE LOLLY FRUIT JUICE AND BEVERAGES PLANT

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# ICE LOLLY FRUIT JUICE PROCESSING PLANT





# **Full Production Line**



Sugar Syrup Melting Tank (Double Jacketed)





Stainless Steel Syrup Filter Press

Plate Heat Exchanger







Ready Juice Tank (Height Should be 5 ft.)



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# AUTOMATIC CUP FORMING FILLING AND SEALING MACHINE

We manufacture machine production anged from 2000 Cups/hour to 12000 Cups/hour with cup forming, filling and sealing all in one plaaorm. This machine is fully automamatic in allocess and widely used for filling Chocolate, Jelly,milk, juice, water and yogurt.



#### SALIENT FEATURES

- 1. Temperature control, Photoelectric control, pneumaticcontrol, etc.
- 2. Fully automaticmachine with high-quality, high-efficiency, low power cr consumpt manufactured in modern facilities..
- 3. Integrated combined cuttin mould made from high grade die steel has longer shelf life. The mold is designed specially for quick change over parts.
- Using latest control technology, the main working positions are driven by servo motor. The movements of all working positionsare synchronized. Photoelectric sensor controls and serves controlled deviationrrectying system guarantees the accuracy of the forming, sealing cuttin statations.



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# AUTOMATIC PAPER CUP MAKING MACHINE

Our MSPC - 650 Smart (a 12) Model paper Cup making machine is an automatic machine with multirunning position Perfectly Suitable for Indian Standards. The Prproducti of pper cup completes after this machine runs a whole procedure of paper-feeding, oiling, go om-punching, gluing, rolling, heating, rimming, rounding and tripping Easy changing molds produce different sizes paper cup. It is an ideal equipment of making hot drinks (tea, coffee, milk) disposable paper cups amd ice-cream paper cups ecy





# FRUIT JUICE MANUFACTURING UNIT



Fresh juices are best in taste and color and are best to be consumed fresh. The efforts to preserve them & to ensure their quality, various techniques are to be adopted. This includes various process and preservation methods. The most important aspect is to ensure such methods which helps to retain these properties to the maximum extent.

The range offered by us is manufactured with complete solution and with quality grade components. The plant size ranges between 1 Ton/day to 200 Ton/day or even more depending on availability of fruits.



Fruit Juice Production is divided into two steps :

Juice Extraction

**Juice Bottling Plant** 



# **PLANT PROCESS**



# **PLANT CAPACITY / SPECIFICATIONS**

- Fully Automatic fruit juice plant
- PLC Control
- Capacity varies from 500 LPH to 2000 LPH
- Bottling Capacity ranging from 0.25 2.5 L
- High efficiency
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# CARBONATED BEVERAGE UNIT



A Carbonated drink also known as soft drink is a beverage that typically contains water usually a sweetener and a flavoring agent. The sweetener may be sugar, high-fructose corn syrup, fruit juice, sugar substitutes or some combination of these.

Soft drinks are made by mixing dry ingredients and/or fresh ingredients (for example, lemons, oranges, etc.) with water.

Carbonation or fizz is the process of dissolving carbon dioxide in a liquid. The process usually involves carbon dioxide under high pressure. When the pressure is reduced, the carbon dioxide is released from the solution as small bubbles, which causes the solution to become effervescent, or fizzy. An example of carbonation is the dissolving of carbon dioxide in water, resulting in carbonated water.

### SALIENT FEATURES

- Easy to operate
- Simple in design
- Low maintenance
- Strong build for long-life
- Flexible production process
- Modern manufacturing facility
- Design by experts to get optimum performance
- Extensive testing by quality control department before shipment



## Processing Machines

Stainless Steel Jacketed Sugar Melting Plant for preparing sugar syrup

Chilling Plant for chilling flavored drink and sugar syrup mixture before carbonation

Premix Carbonation unit for mixing Carbon Dioxide gas with chilled flavored liquid at high Pressure

### Packaging Machines

Automatic Bottle Filling Line for filling carbonated drinks in plastic bottles





## **PROCESS FLOW**





# FOOD PACKAGING & PROCESSING PLANT

TRB GROUP

# **BISCUITS MAKING PLANT**

BISCUIT is a term used for a variety of baked, commonly flour-based food products. These products are ideal for breakfast, and is an excellent alternative of regular biscuits & breads. Biscuit making is a conventional activity in many parts of the country. Despite the advent of modern, large capacity and automatic biscuit making plants, large section of people especially in semi-urban and rural areas still prefer fresh biscuits from local bakery as they are cheap and offer many varieties.

### Types of Biscuits

There are many types of biscuits. They come in different shapes, flavour, and size. The biscuits also differ in texture. There are crackers, sweet and salty biscuits, wafers, and digestive types of biscuits.

#### • Sugar Biscuits • Sweet Biscuits • Butter Biscuits • Cream Biscuits • Orange Biscuits

### Glucose Biscuits Coconut Biscuits Chocolate Biscuits







# MANUFACTURING EQUIPMENTS



DOUGH MIXER

SOFT BISCUIT FORMING MACHINE

HARD BISCUIT FORMING MACHINE

TRB GROUP



SYRUP AND SALT SPRAYE

INLET OVEN

**BAKING TUNNEL OVEN** 



# **BREAD MAKING PLANT**

Bread is a fast and convenient foord based on wheat. There are many varieties of bread depending upon the local demand loke whole flour bread, briown bread, bread fortified with vitamins and minerals, milk bread and bread for diabetic patient. Its consumption is more in cities and towns where industieal working group population is more. Bread and biscuits cionsumption is increasing day bu day and these are being increasingly used for various feeding programmes for children managed by voluntry agenciesand state Departments of Health . The raw materisal required for bread is wheat flour / maida which is available in plenty in the country considering increase in wheat production from 26 million tones in early 1950 to 54 million tones as of today.



### Flow Diagram







# Process Layout



# The Baking Process





# TRB GROUP

# WAFER MANUFACTURING UNIT

Our potato chips production line processes fresh potatoes as the raw material into crispy and high quality potato chips as a turnkey project, and with reasonable price. With leading-edge technique and strict production process, this potato chips making equipment passed several globally recognized quality certifications, and sold worldwide. All above has proven our supreme designing and manufacturing competence, outstanding management skills, and responsible working attitude.





### PLANT FEATURES

Potato Peeler : Standard abrasive batch type peeler
Potato Slicer : Standard top fed slicer with various cuts like plain, ripple and shredding
Dehydrator : to remove excess water from the sliced chips.
IN FEED Shaker : Better quality of Chips by separating small chips from bigger chips
Continuous Fryer : Inspection Belt : Some potatoes have excess sugar due to
which the potato chips turn black or brown these chips are removed manually over the inspection belt
Seasoning Drum : To ensure coating on both sides of chips Better Oil Management



# Plant / Process Layout



# WASHING AND PEELING CUTTING PRE-COOKING AND PEELING COOKING AND ADDITIVE FEEDING DRYING AND COOLING PACKAGING PROJECT REQUIREMENTS

Capacity: 50kg/hr, 100kg/hr, 300kg/hr, 500kg/hr Minimum Factory Layout: about 800M2, minimum length 40M Water Required: 1000L/h Electric Required: 24HP Gas Required: about 23kg/hr (If Diesel, about 28kg/hr) Edible Oil Required: about 30kg/hr. Air Compressor: 2 Horse Power Raw Material: 400kg 1.15SG Fresh White Potato and sugar





# WHEAT FLOUR MANUFACTURING UNIT



We can supply complete flour milling plant, with capacity of 50-250 TPD, which is grinding mill to process wheat and maize is popular grain mill.

The flour mill machine has advantages of advanced equipments, such as wheat flour milling machine, corn flour milling machine, complete flowchart, good grading efficiency, excellent quality flour, high capacity and flour output, easy operation and maintenance, can produce grade flour, special flour, is efficient for any size flour

### Wheat must meet specifications for:

Variety: different varieties produce different flour qualities.

Moisture content: this determines the length of time that a grain can be stored.

Specific weight: a high weight is considered to be better.

Enzyme activity: high enzyme levels can result in sticky bread, making slicing difficult.

Protein quality and quantity: important for baking purposes.





# Plant Layout



## **Plant Process**



#### WHEAT CLEANING



#### GRAIN CONDITIONING



#### FLOUR GRINDING

## **Plant Capacity**

1. The extraction rate of our plants is min. 65-75%, and the capacities range from

5 to several tons.

- 2. High Technology with PLC controlling system.
- 3. Different types of Packing machines as per customer demand.



# Pro POULTRY FEED MANUFACTURING UNIT



Enriched with years of industry experience and in depth of industrial knowledge, we are engaged in fabrication precision range of Animal Feed Processing equipments. The Product range offered by us comprises of semiautomatic and fully automatic feed mills. All the machines are fabricated by using premium quality steel of different grades and certified components. In addition to fabricating a wide array of machines, we also undertake turnkey projects for our esteemed clients as per their requirements.



# Types of Products

Chicken and poultry feed comes in three forms: crumbles, pellets and mash. Crumbles are excellent if you can get them, but pellets are sometimes the only form available. Mash is usually used for baby chicks, but can be mixed with warm water to make a thick oatmeal-like treat for chickens. However, it must be fed right away or else it can get spoiled and moldy, so don't let mixed mash sit around.



MASH



CRUMBLER

## Working Principle

It consists of the feeder, the conditioner, the ring di e and the motor.

Firstly, the material go through the feeder from whi ch the material can flow into the pellet machine at the best speed to ensure the full load working of the machine.

And then the hot dry steam mix with the material a nd soften, steam the material for easier pelletizing and this design can also extend its life.

Finally the softened and steamed material go throu gh the ring die to be marked into pellet, we can adjust the ring die to get different size of Pellets.



#### **SALIENT FEATURES**

- Centralized control
- Convenient operation
- Excellent safety features
- Module design and easy
   assembling
- Improved feed conversion ratio (FCR)





# **INCUBATOR EGG HATCHING MACHINE**



CAPACITY RANGING FROM 500 TO 5000 EGGS



An incubator is a device simulating avian incubation by keeping eggs warm and in the correct humidity, and if needed to turn them, to hatch them.

The incubator is an apparatus that is used for environmental conditions, such as temperature and humidity that needs to be controlled. It is often used for growing bacterial cultures, hatching eggs artificially, or providing suitable conditions for a chemical or biological reaction.

### Salient Features

Egg Handling High hatching rate Fully automatic, easy to operate, Low cost Construction – durable and energy efficient High intelligence, scientific ventilative system Egg turning by electric actuator and programmer Stable and reliable automatic egg turning mechanism, Automatic temp. and humidity control







#### Process

It takes 21 days for the embryo to develop into a baby chicken, we call this process of development incubation of the chick from day 1 through day 19 is done in incubator known as the setter.

Days 19 through 21 are usually spent in an incubator known as the hatcher. The hatchers have slightly lower temperatures (98 degrees) and have chick holding trays that cut down on the debris from hatching eggs that may cause disturbances to other eggs.

Also Incubation times depend on the species of bird being hatched.



### **Process Flow**



### Factors Influencing The Process

Temperature : Optimum temperature for hatching chickens is between 99 and 100 degrees F.

**Humidity :** Humidity levels should be around 60% for the first 18 days, followed by 70% for the remaining days.

Ventilation : Proper circulation is critical to assure a fresh supply of oxygen and removal of carbon dioxide

**Position and turning of Eggs :** Eggs should be incubated large end up, and turned three to five times daily to prevent the developing embryo from attaching to the shell membrane.



# ICE CUBE MAKING MACHINE





Today, ice plays various roles. A style element for cocktail drinks. Cool bedding for delicacies. A preserver of life saving drugs. The list is as long as it is diverse in Hotels, Bars, Amusement parks, Spas, Hospitals, coffee houses and Offices need ice for a variety of application. TRB deals in all types of Ice Cube Machines from as small as 500 kgs to upto 5000 kg of ice machines. TRB caters to these needs through its energy efficient range of cubed ice making machines. These machines are fully automatic and are available in various output capacities to suit the customer's requirement. TRB cubed ice making machines are known for its reliable and trouble free performance. This fully automatic machine is very easy to handle.

#### SALIENT FEATURES

MODEL	DIMENSIONS (IN MM)		CAPACITY (KG/24 HRS.)	STORAGE BIN LTR.	NO. OF CUBE / CYL	POWER VOLT/HZ	
	W	D	н				
TRB 015	680	750	1200	150	150	216	230 / 50
TRB 024	1000	600	1500	250	260	280	230 / 50
TRB 050	1100	745	1850	500	500	560	230 / 50



# Installing projects was never so easy, never so convenient, never so rewarding...





# **INSTALLÉ AVEC SUCCÈS**

#### PROJETS EN AFRIQUE OCCIDENTALE ET CENTRALE

**Tube Mill Plants Rolling Mill Plants Corrugated Sheet Forming Plants** Cut to Length & Slitting Lines **Cattle Feed Plants Poultry Farms** Blow Moulding Roto Moulding & Injection Units **Mineral Water Plants** Solar on/off Grid Plants Plastic Recycling Plants & packaging Units

CHAD









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