

# GOLDFINCH™

One - Stop Solution for Wastewater Treatment  
Goldfinch Engineering Systems Private Limited



We create the **BEST**  
**EXPERIENCE**  
with no  
**COMPROMISES**

**ASIA | AFRICA**

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## 1. CONTACT DETAILS

1.	<b>Name</b>	Goldfinch Engineering Systems Private Limited.
2.	<b>Address</b>	Plot No. A – 288, Road No. 16 Z, Thane Industrial Area, MIDC, Opp. Agricultural bus stop (Wagle Estate), Thane (W) - 400 604. Maharashtra, India
3.	<b>Telephone</b>	91- 022 - 2580 1546 / 09920093829 / 07208579136
4.	<b>Email</b>	<a href="mailto:mktg@goldfinchengg.com">mktg@goldfinchengg.com</a>
5.	<b>Visit us on</b>	<a href="http://www.goldfinchengg.com">www.goldfinchengg.com</a>
6.	<b>Constitution of Company</b>	Private Limited

## 2. INTRODUCTION

GOLDFINCH Engineering Systems Pvt. Ltd. Is a leading & growing turnkey solution provider in Industrial Wastewater Treatment & Recycle.

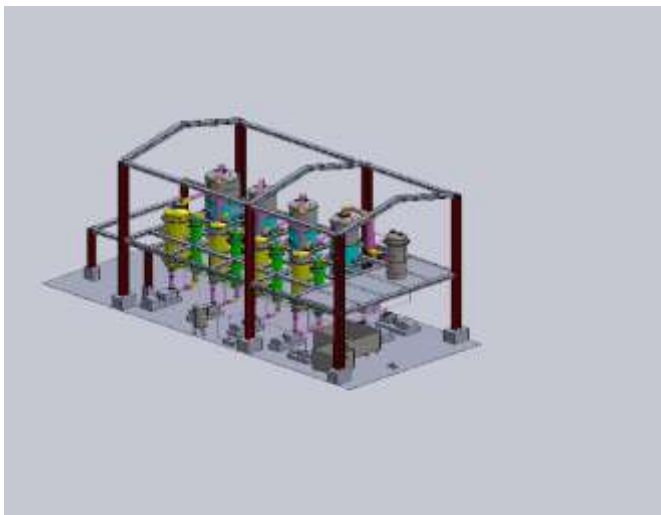
GOLDFINCH provides customized solutions for a wide range of services:

- ✚ Zero Liquid Discharge (ZLD) plants
- ✚ Multiple Effect Evaporators
- ✚ Salt Recovery plants
- ✚ Product Concentration & Recovery

We have recently brought into the market the wastewater treatment and recovery from **STATE OF ART 'FORWARD OSMOSIS (in co-operation with Aquaporin, Denmark)' and 'PATENTED DRAW RECOVERY (in co-operation with FWT, CANADA)' system**

GOLDFINCH has INHOUSE manufacturing facility spread over 10000 square feet which ensures product quality as per the Quality Assurance Policy

We offer 'ON FIELD PILOT PLANTS' for customer to get the feel of the technology and also to gather the real time data which helps us in scaling up the actual plant.



## 2.1 Business Operations:

Goldfinch has three divisions in its business operations. All three divisions have separate and dedicated teams headed by competent HODs for efficient operations. All divisions are ably supported by Piloting Facility & R & D Centre.

- ✚ Goldfinch has in-house manufacturing facility for Heat Exchangers & Evaporators.
- ✚ Goldfinch has full-fledged On Field Pilot Plants for various Technologies to establish the process

### 1) Evaporator Division

- Forced Effect Evaporators
- Falling Film Evaporators
- MVR Based Evaporators
- Zero Liquid Discharge (ZLD)
- Agitated Thin Film Dryers (ATFD)

### 2) Bio ETP Division

- Activated Sludge process
- SBR process

### 3) Forward Osmosis Division

- Zero Liquid Discharge (ZLD) Projects with state-of-art Forward Osmosis Technology

**For your wastewater treatment project Goldfinch can offer**

- ✚ **EPC (Engineering, Procurement & Construction)**
- ✚ Services for Process and Detailed Engineering, Project Management and Consultancy (PMC)

## 2.2 Infrastructure

Over the years Goldfinch has acquired an operational infrastructure which provides a strong base to the services provided. Outline of the infrastructure which is specifically developed to meet services oriented work is given below.

### 2.2.1 Technical Expertise

Human resources are obviously is at the heart of any successful organization. Our dedicated personnel consist of highly qualified, result-oriented, experienced people. Goldfinch employs about 26 technical people apart from the administration, accounts and other support staff.

Sr. No.	Description	No. of People
1)	Technical / Engineering (Chemical, Electrical, Mechanical etc.)	18
2)	Technical Support	3
3)	Shop floor (Welder, Fitter, Electrician etc.)	10
4)	Laboratory	7
5)	Administration and Accounts	10
6)	Casuals and Helping Staff	7

### 2.2.2 Engineering Office

Goldfinch has a comfortable, centrally located office in Thane. The office is equipped with all modern amenities and gadgets to complete any design, drafting, and publishing work in-house. In addition, the state-of-art communication system facilitates immediate contact, interactions and data communication either from field to office or with any client around the globe.



### 2.2.3 Laboratory

Our well-equipped State of Art laboratory is capable of conducting all major analytical tests on air, water or solid samples. This laboratory also consists of bench scale equipment to carry out treatability studies like physical separations, biological oxidation (aerobic and anaerobic), chlorination, filtration, evaporation etc. to evaluate the design parameters.

Laboratory also possesses small pilot plants which can be transported to field to corroborate the suitability of selected treatment scheme and design parameters before executing the full scale plant.



## 2.2.4 In-house Own Manufacturing Facility

Our state of art manufacturing facility is well equipped to manufacture a range of equipment. Pressure Vessels, Heat Exchangers, piping and skid mounted plants etc. The manufacturing facility is spread over 10000 square feet.







## 2.2.5 On Field Pilot Plants

Goldfinch has full-fledged field level pilot plants for following technologies:

### A. Evaporator & Salt Recovery



### B. Forward Osmosis & Product Concentration



## C. ATFD



### 2.2.6 Reference Library

Our reference library consists of reference books, journals, papers, articles, publications, reports and other such comprehensive study material. Excellent references for environmental, chemical, civil, mechanical, electrical engineering are available here.

### 3. CLIENT LIST

#### REPRESENTATIVE PROJECT DETAILS FOR DESIGN, PROCUREMENT, INSTALLATION & COMMISSIONING OF EVAPORATORS

Sr. No.	Name of Client	Location			Type of Effluent	Plant Capacity (m <sup>3</sup> / day)	Value of Project (Rs. Lacs)	Value of Project Including Civil (Rs. Lacs)
		Area	State	Country				
<b>API, BULK DRUG &amp; PHARMACEUTICALS</b>								
1	Chemco International Private Limited	Tarapur	Maharashtra	India	Process Effluent + RO Reject	25	100	130
2	Rubicon Research Ltd.	Ambernath	Maharashtra	India	RO Reject	6	40	50
3	Anuh Pharma	Tarapur	Maharashtra	India	Process Effluent + RO Reject	75	150	250
<b>CHEMICALS</b>								
4	Metropolitan Eximchem Ltd.	Dombivli	Maharashtra	India	Process Effluent	40	120	155
5	Melog Speciality Chemicals Ltd.	Ambernath	Maharashtra	India	Process Effluent + RO Reject	100	200	250
6	Eskay Dyestuff	Ghatkopar	Maharashtra	India	Process Effluent	15	60	90
7	Reliance Chemical Products Ltd.	Lagos	Nigeria	India	Process Effluent	10	24	40
8	JDM Research	Baroda	Gujarat	India	Process Effluent	4	50	60
9	Union Park	Tarapur	Maharashtra	India	Process Effluent + RO Reject	50	110	140
10	Alkyl Amines Ltd.	Kurkumbh	Maharashtra	India	RO Reject	12	60	85
11	Ashu Organics Private Limited	Badlapur	Maharashtra	India	Process Effluent	30	100	125
12	Rupa Organics Private Limited	Taloja	Maharashtra	India	Process Effluent	30	100	125
<b>ENGINEERING</b>								
13	Emerson Climate Technologies Private Limited	Satara	Maharashtra	India	RO Reject	21	140	175
<b>FOOD</b>								
14	Liberty Oil Mills Ltd.	Shahapur	Maharashtra	India	RO Reject	10	30	30
<b>PAINTS</b>								
15	Kansai Nerolac	Sayakha	Gujarat	India	RO	20	100	120

	Paints Ltd.				Reject			
<b>Ongoing Projects</b>								
16	Union Park	Tarapur	Maharashtra	India	Process Effluent + RO Reject	50	30	50
17	Seya Industries	Tarapur	Maharashtra	India	Process Effluent + RO Reject	225	450	450
18	Gitanjali Chemicals	Jalgoan	Maharashtra	India	Process Effluent	60	150	240
19	Asolution Pharmaceuticals	Ambernath	Maharashtra	India	Process Effluent	20	80	125
20	Laxachem	Amravati	Maharashtra	India	Process Effluent	10	50	65
21	Godrej - Astec	Mahad	Maharashtra	India	Process Effluent	40	135	225
22	Metropolitan Eximchem Ltd.	Jhagadia	Gujarat	India	Process Effluent + RO Reject	150	205	300
23	Aastrid	Mahad	Maharashtra	India	Process Effluent + RO Reject	50	100	150
24	Alkyl Amines Ltd.	Patalganga	Maharashtra	India	RO Reject	15	69	105
25	Reckitt Benkiser	Hosur	Tamilnadu	India	Process Effluent	10	75	95
26	Alta Laboratories	Khopoli	Maharashtra	India	Process Effluent + RO Reject	70	165	225
27	Orex Pharmaceuticals	Dombivli	Maharashtra	India	Process Effluent	5	65	95
28	Alkyl Amines Ltd.	Kurkumbh	Maharashtra	India	RO Reject	20	100	140

**TOTAL NO. OF PROJECTS FOR ALL CATAGORIES: OVER 400**

**REPRESENTATIVE PROJECT DETAILS FOR DESIGN, PROCUREMENT,  
INSTALLATION & COMMISSIONING OF ZLD**

Sr. No.	Client Name	Location			Plant Capacity (m3/ day)		Value of Project (Rs. Lacs)			Value of Project Including Civil (Rs. Lacs)		
		Area	State	Country	MEE	ETP +MEE Condensate	MEE	ETP +MEE Condensate	Total	MEE	ETP +MEE Condensate	Total
<b>Completed Projects</b>												
1	Chemco International Private Limited	Tarapur	Maharashtra	India	25	25	80	20	100	120	30	150
2	Reliance Chemical Products Ltd.	Lagos	Nigeria	Africa	10	-	24	-	24	40	-	40
3	Eskay Dyestuff	Ghatkopar	Maharashtra	India	15	-	60	-	60	90	-	90
4	Kansai Nerolac Paints Ltd	Saykha	Gujarat	India	20	140	100	200	300	120	380	500
5	Emerson Climate Technologies Private Limited	Satara	Maharashtra	India	21	-	140	-	140	175	-	175
6	Rubicon Research Ltd.	Ambernath	Maharashtra	India	6	-	40	-	40	50	-	50
7	Union Park	Tarapur	Maharashtra	India	50	-	140	-	140	190	-	190
8	Anuh Pharma	Tarapur	Maharashtra	India	75	100	150	222	372	250	528	778
9	Metropolitan Eximchem Ltd.	Dombivli	Maharashtra	India	40	-	120	-	120	155	-	155
10	Melog Speciality Chemicals Ltd.	Ambernath	Maharashtra	India	100	-	200	-	200	250	-	250
11	JDM Research, Baroda	Baroda	Gujarat	India	4	-	50	-	50	60	-	60
12	Alkyl Amines Ltd.	Kurkumbh	Maharashtra	India	12	-	60	-	60	85	-	85
13	Rupa Organics Private Limited	Taloja	Maharashtra	India	30	-	100	-	100	125	-	125
14	Liberty Oil Mills Ltd.	Shahapur	Maharashtra	India	10	-	30	-	30	30	-	30
15	Ashu Organics Private Limited	Badlapur	Maharashtra	India	30	-	100	-	100	125	-	125
<b>Ongoing Projects</b>												
1	Seya Industries	Tarapur	Maharashtra	India	225	-	450	-	450	-	-	-
2	Metropolitan Eximchem Ltd	Jhagadia	Gujarat	India	150	300	205	150	355	300	400	700
3	Alta Laboratories	Khopoli	Maharashtra	India	70	70	165	38*	203	225	175*	400
4	Laxachem Organics Pvt. Ltd	Amravati	Maharashtra	India	10	-	50	-	50	65	-	65
5	Gitanjali Chemicals	Jalgaon	Maharashtra	India	60	-	150	-	150	240	-	240
6	Asolution Pharmaceuticals	Ambernath	Maharashtra	India	20	-	80	-	80	125	-	125
7	Godrej - Astec	Mahad	Maharashtra	India	40	-	135	-	135	225	-	225
8	Aastrid	Mahad	Maharashtra	India	50	-	100	-	100	200	200	400
9	Alkyl Amines Ltd.	Patalganga	Maharashtra	India	15	-	69	-	69	105	-	105
10	Reckitt Benckiser	Hosur	Tamilnadu	India	10	-	75	-	75	95	-	95
11	Orex Pharmaceuticals	Dombivli	Maharashtra	India	5	-	65	-	65	95	-	95
12	Alkyl Amines Ltd.	Kurkumbh	Maharashtra	India	20	-	100	-	100	140	-	140



### **ASSOCIATED WITH CONSULTANTS:**

- Mott MacDonald., Mumbai
- TCE Consulting Engineers Ltd. Pune & Navi Mumbai
- Jacobs H & G Pvt. Ltd. Navi Mumbai
- Spectrum Pharma TECH Consultants Pvt. Ltd., Thane
- Pharmadeep Turnkey Consultants & Engineers Pvt. Ltd., Thane
- IPS Mehthalia, Mumbai
- Econ Pollution control consultant, Mumbai
- Shroff & Associates Consultant, Mumbai.

### **MEMBERSHIP OF PROFESSIONAL BODIES**

- Thane Small Scale Industries Association (TISSA)
- Thane Manufacturers Association (TMA)

### **SOFTWARES IN USE**

- HTRI (Heat Transfer Research INC) for Evaporators / Heat Exchangers designing.
- Solid Works 2013 for 3 D fabrication, piping and structural drawings.
- Auto CAD 2017 for 2D fabrication, piping and structural drawings.



## 4. PROJECT HIGHLIGHTS

### 4.1 SOLVENT STRIPPER AND MULTIPLE EFFECT EVAPORATOR FOR METROPOLITAN, DOMBIVALI – 40 M3 / DAY



This Multiple Effect Evaporator was designed for treating process effluent which was mix of organics and high TDS of around 100000 ppm. The total wastewater was 40 m<sup>3</sup> / day. The stripper was in place to remove the low volatile organics and the Evaporator for concentrating the dissolved salts. The precipitated salts were then centrifuged.

#### 4.2 SOLVENT STRIPPER AND MULTIPLE EFFECT EVAPORATOR FOR MELOG, AMBERNATH – 100 M<sup>3</sup> / DAY



This Multiple Effect Evaporator was designed for treating mix of process effluent and RO reject water which was mix of organics and high TDS of around 50000 ppm. The total wastewater was 100 m<sup>3</sup> / day. The stripper was in place to remove the low volatile organics and the Evaporator for concentrating the dissolved salts. The precipitated salts were then centrifuged.

4.3 MULTIPLE EFFECT EVAPORATOR WITH ATFD FOR CHEMCO, TARAPUR – 25 M3 / DAY



This Multiple Effect Evaporator was designed for treating process effluent which had high TDS of around 100000 ppm. The total wastewater was 25 m<sup>3</sup> / day. The Evaporator was for concentrating the dissolved salts. The concentrated salts were then dried in ATFD

#### 4.4 ZERO LIQUID DISCHARGE (ZLD) FOR EMERSON, SATARA – 200 M3 / DAY



This plant was designed for achieving Zero liquid discharge for wastewater generated from engineering facility. The effluent was pretreated and then pumped through the Reverse Osmosis system designed for 200 m<sup>3</sup> / d. The reject of the RO was then pumped to the Multiple Effect Evaporator. The Evaporator was for concentrating the dissolved salts. The precipitated salts were

then centrifuged.

#### 4.5 MULTIPLE EFFECT EVAPORATOR FOR RELIANCE CHEMICAL, NIGERIA - 10 M<sup>3</sup> / DAY



This Multiple Effect Evaporator was designed for treating process effluent which was generated from the sulphonation plant. The total wastewater was 10 m<sup>3</sup> / day. The Evaporator was for concentrating the dissolved salts. The precipitated salts were then centrifuged.

#### 4.6 ZERO LIQUID DISCHARGE (ZLD) FOR ANUH PHARMA, TARAPUR



This Multiple Effect Evaporator was designed for treating process effluent which had high TDS of around 40000 ppm. The total wastewater was 75 m<sup>3</sup> / day. The Evaporator was for concentrating the dissolved salts. The concentrated salts were then filtered in Box Filter. The evaporator condensate was then biodegraded in Bio – ETP and then pumped to the RO for recovery of water. The RO reject was pumped back to Evaporator.

#### 4.7 ZERO LIQUID DISCHARGE (ZLD) FOR ALTA LABORATORIES, KHOPOLI



The total wastewater was 200 m<sup>3</sup> / day which was pumped to the RO. The Multiple Effect Evaporator was designed for treating process effluent which had high TDS of around 80000 ppm. The Evaporator was for concentrating the dissolved salts mainly Sodium Sulphate. The Evaporator was designed for 70 m<sup>3</sup> / d. The concentrated salts were then filtered in Pusher Centrifuge.

4.8 BIO ETP FOR INDOFIL, DAHEJ, GUJARAT – 500 M3 / DAY



This ETP was designed for treating agrochemical waste. The total wastewater was 500 m<sup>3</sup> / day. The bioreactor is operating and working successfully at a TDS of around 70000 ppm.



4.9 ZERO LIQUID DISCHARGE (ZLD) PROJECT FOR KANSAI NEROLAC PAINTS LTD., DAHEJ - 140 KLD



The Zero Discharge project was designed to treat the wastewater from paint manufacturing facility. The wastewater was biologically treated and then pumped through the reverse Osmosis unit. The reject of the Reverse Osmosis unit was then pumped to the Multiple Effect Evaporator for concentrating the dissolved salts. The precipitated salts were then centrifuged.

# 5. TESTIMONIALS

Goldfinch meets the customer satisfaction as illustrated in some sample testimonial



