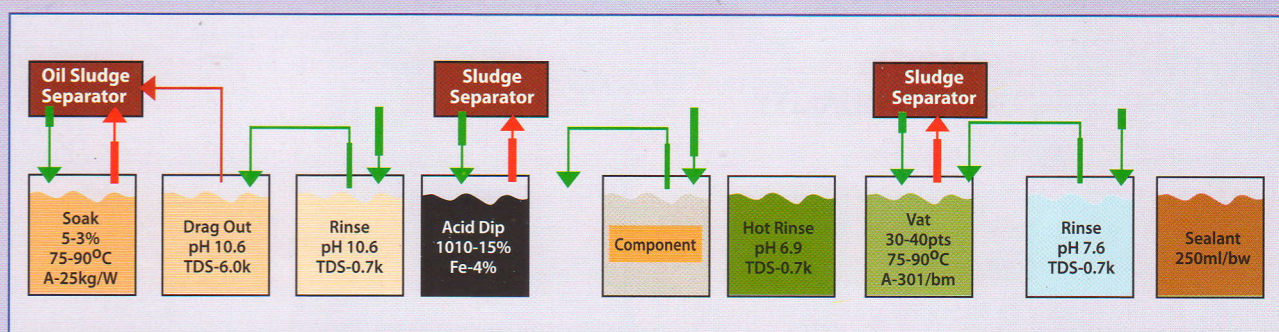


# QUALITY & PRODUCTIVITY IMPROVEMENT in ELECTROPLATING & PHOSPHATING

- ✿ 5% Increase in productivity as no weekly cleaning required
- ✿ No Friday or Monday quality or month end quality
- ✿ Defects or rework down by 70%



For Online cleaning of

**ONLINE OIL (100% Oil Removal) & SLUDGE SEPARATOR for DE GREASING TANKS**  
(4 Years no changing of bath)

**ONLINE SLUDGE SEPARATOR for PHOSPHATING TANKS**  
(with Agitation no powder on the component)

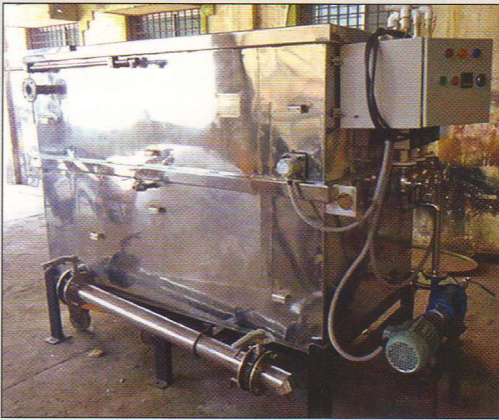
**PICKLING ACIDS, TRAMP OIL FROM COOLANTS, FURNACE QUENCH WATER**



# OIL & SLUDGE SEPARATORS

Removes the oil 100% , QUALITY Improves by 50%.

Anything short of total removal of oil is as good as not removing the oil at all



**“You can make a poor coating perform with excellent pretreatment, but...  
.... you can’t make an excellent coating perform with poor pretreatment.”**

**ABSOLUTELY NO MAINTENANCE REQUIRED**  
**TROUBLE FREE WORKING.**  
**THERE IS NO MOVING PARTS or PRESSURE LINES**

- 4 years bath life
- More than 60 units sold in the last 10 years
- Because the bath is always agitated high quality of cleaning.

## INCREASE in PRODUCTIVITY & QUALITY

- No weekly cleaning is required
- 5% increase in Productivity as no weekly cleaning required . 8 hrs/week cleaning time saved  $8 \text{ hrs} / 144 \text{ hrs} = 5\%$
- No Friday quality or Monday quality or month end quality. Bath is always clean, no oil no sludge.
- Defects or rework down by 70%. No oil floating anywhere in the tank.
- Because we are operating at a single point always, continuous improvement is possible.
- Has been working for the last 8 years, more than 100 units sold.

## DECREASE in POLLUTION

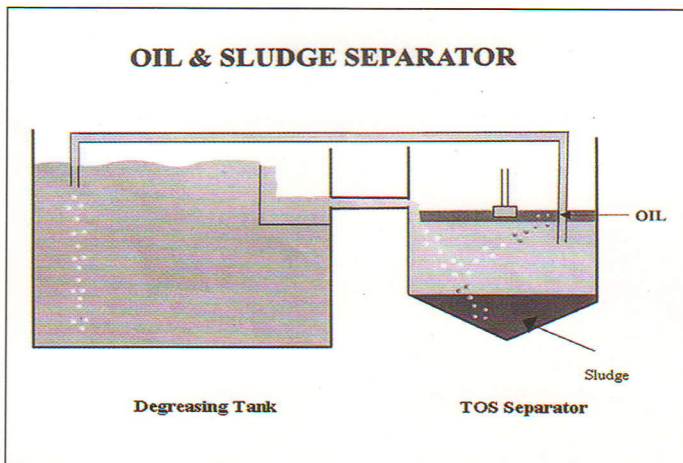
- No weekly cleaning. 30% bath solution saved.
- Because we are operating at a single point always, continuous improvement is possible



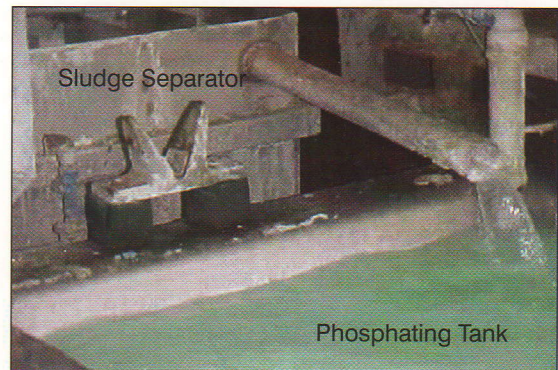


# Online sludge Removal in the Phosphating tank

## Degreasing Bath



## Phosphating vat



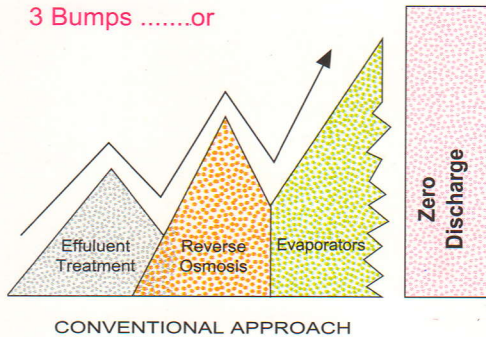
- No white powder on the component.
- Increased bath life
- Because the bath is always agitated high quality deposit of phosphating
- 20 units working for the last 8 years.

## Achieving Zero Discharge easier

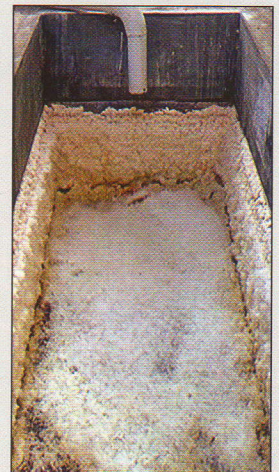
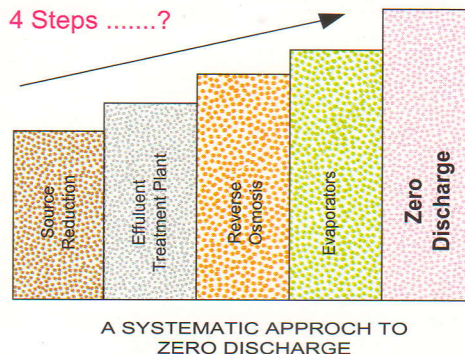
The missing link in the struggle by many companies to achieve zero discharge even after installation of fully loaded ETP + RO + Evaporator is .... **oil and sludge separator** Oil and sludge separators helps to achieve zero discharge in the most economically & consistently.

### Which Road you want to Achieve Zero Discharge ?

3 Bumps .....or

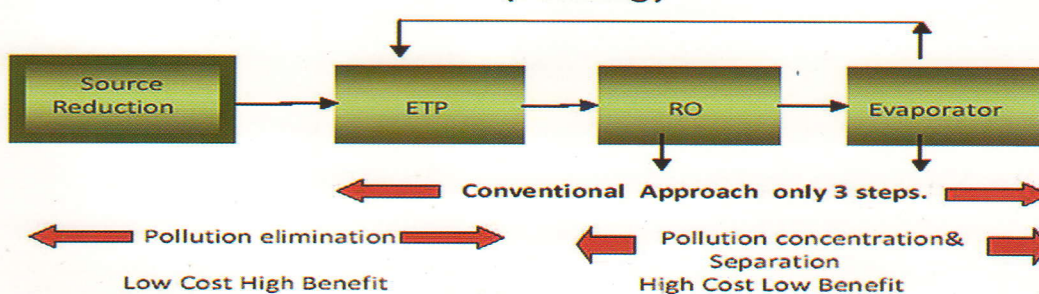


4 Steps .....?



## RoadMap to Zero Discharge

### 4 Step Strategy





## Brakes India Limited

Padi, Chennai - 600 050  
Telephone : (044) - 26258161  
Fax : (044) - 26257810, (044) - 26257844

Date: 18-12-09

### DECLARATION & RECOMMENDATION

M/S SARTIME HOROLOGICAL PVT LTD, developed the Total oil sludge (TOS) separator and Sludge separator for our Phosphating tank at Brakes India, Padi.

They also developed a pump which is unique in nature to conserve water in the rinsing operation.

Both the above systems are working without any maintenance problem and we find that they are very useful in streamlining our production.

We find M/s SARTIME is very professional, dedicated and sincere in executing their work and hence we recommend their services.

Thanks & Regards,

Yours sincerely,  
For BRAKES INDIA LIMITED  
*V.R. Narasimhan*  
V.R. NARASIMHAN  
SR. GENERAL MANAGER

Regd. Office : 21, Patullos Road, Chennai - 600 002.  
Visit our Website : [www.brakesindia.com](http://www.brakesindia.com)



*The miracles of science™*

June 11, 2001

Dr. V. Ravichandran  
Enviro Energy Systems

Congratulations!

You have been selected to receive a Corporate Sustainable Growth Excellence Award for Zero Effluent Through Networking and Creativity.

In each of the past ten years, the safety, health, and environmental accomplishments of DuPont employees around the world have generated hundreds of nominations. Fifty-seven finalists were forwarded to the Corporate Selection Committee, comprised of DuPonters and external representatives from leading environmental organizations. The Committee singled out twelve achievements for the 2001 Sustainable Growth Excellence Awards.

The awards were selected for excellence on the basis of safety, health, and environmental significance, business impact, and social responsibility. All nominations considered by the committee were excellent, and the selection process was very challenging. You can take special pride in this achievement, as it has demonstrated persistence and vision and set an example for all of DuPont.

The awards are designed to encourage and illustrate DuPont's sustainable growth commitment around the world. Thank you for making such a significant contribution to DuPont.

Sincerely,

*Chad*  
C. O. Holliday, Jr.

## ROYAL ENFIELD

Date: 09/04/2014

To whom it may concern

Sartime Horological Pvt Ltd has installed an STP, an effluent treatment system, 4 stage R.O. system and evaporator at our plant at Oragadam. The plant has been working satisfactorily for the past one year achieving a recovery of 90-95% from RO and this water is re-used in the process. The rest is evaporated in the evaporator, and salts are recovered, making our waste water system operate on a "Zero Liquid Discharge" cycle.

The operation and maintenance support provided by Sartime during the period is Satisfactory.

With Regards,

*G. Rajagopal*  
G. Rajagopal  
Head (Projects)  
For Eicher Motors Ltd. Unit, Royal Enfield

ROYAL ENFIELD is a part of EICHER MOTORS LIMITED, Chennai  
[www.eicherroyal.com](http://www.eicherroyal.com)

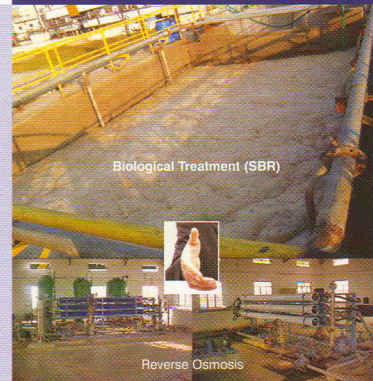


We have supplied ETP and RO plants for some of the demanding applications in the industry.



A Manager's Guide

## High RO permeate Recovery from SBR+RO



**Sartime Horological (P) Ltd.**

ZERO Pollution Div.

59 Electrical Electronics Industrial Estate, Perungudi, Chennai 600 096.

Tel : 044 2496 1175, 94440 24673,

E-mail : [sartime@eth.net](mailto:sartime@eth.net), [sartime@dataone.in](mailto:sartime@dataone.in)

Web : [www.enviroenergysystems.co.in](http://www.enviroenergysystems.co.in)

Copies of the above book will be mailed against request

## Sartime Horological (P) Ltd.

ZERO Pollution Division

59 Electrical & Electronics, Industrial Estate, Perungudi, Chennai 600 096

Tel : 044 2496 1175, 94440 24673, 94440 23683

Email : [sartime@gmail.com](mailto:sartime@gmail.com), [Sartimeoffice@gmail.com](mailto:Sartimeoffice@gmail.com)

Web : [www.sartime.in](http://www.sartime.in) / [www.indiamart.com/sartime](http://www.indiamart.com/sartime)