



**LaDePa**

*One step separation of detritus from bio-solids  
and conversion of bio-solids to high carbon organic  
fertiliser through pasteurisation on the Parsep Dryer.*

The LaDePa Process



Scan the QR  
code for more

## COMPANY OVERVIEW

PSS LaDePa (Pty) Ltd is a private company that began operations in 2013. It develops and sells faecal sludge treatment technology known as LaDePa, to public and private Sanitation Service Providers (SSPs).

LaDePa not only treats the faecal sludge, but can also be used to convert the LaDePa product into high carbon organic soil conditioner or with additives, carbon rich fertiliser, which the SSPs can then sell to farmers.

# CONTENTS

3	SERVICES
4	APPLICATION
6	PASTEURISATION PROCESS
8	PLANT
10	CONTACT

## SERVICES OFFERED

Patented faecal sludge treatment technology provided through outright sale or lease option. Maintenance services for LaDePa technology provided with the lease. Conversion of human and animal sludge into a pasteurised high carbon organic fertiliser.

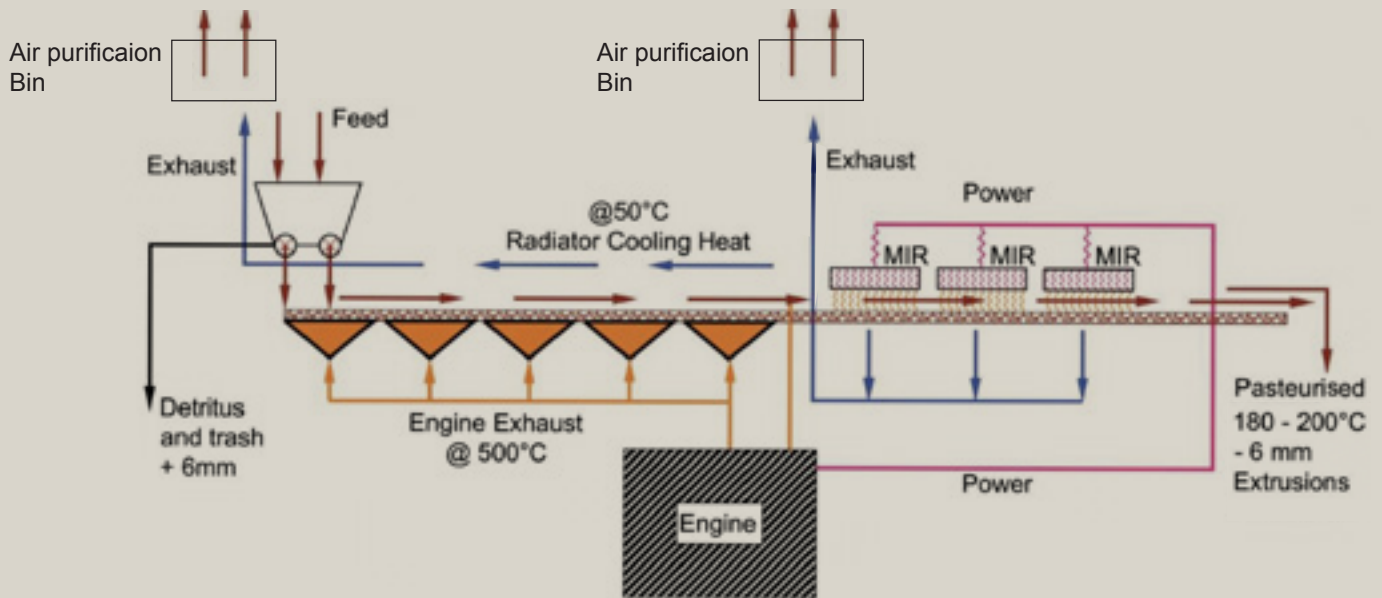
*"You can bury waste or you can burn it,  
but it will never go away" - Anon*

4 Tambotie Street,  
Homelake, Randfontein,  
1759 South Africa

# APPLICATIONS

BIO-SOLIDS AND DETRITUS/  
TRASH SEPARATION

BIO-SOLIDS PASTEURISATION  
AND DRYING



# FEATURES



- 1 - 2 TPH Contained mobile plant
- Can operate on engine or electric grid power
- 18-35% solids processed to a +80 solids product



- Sterilised product +8 minutes at 150 - 200°C
- Fully intergrated plant
- Feed arrangement outside the drying container



- Detritus and trash disposal outside the container
- Condensate disposal outside the container
- Exhaust gas disposal by chimney via an air purifier bin
- Dry product discharge for bagging

# PATENTED PROCESS

TECHNOLOGY



## PSS LaDePa

PSS LaDePa manufactures the LaDePa Plant which can be leased or sold to SSP or municipalities with an optional maintenance contract.



**THE ETHEKWINI MUNICIPALITY**



**WATER RESEARCH COMMISSION (WRC)**



**THE SOUTH AFRICAN SANITATION TECHNOLOGY EVALUATION PROGRAMME (SASTEP)**

In partnership with; Water Research Commission (WRC), The South African Sanitation Technology Evaluation Programme (SASTEP) and The Department of Water and Sanitation, Durban, South Africa.

# LATRINE AND PROCESSED SLUDGE PASTEURISATION PROCESS:

- *Separation of trash and detritus*
- *Extraction of the bio-sludge*
- *Drying and pasteurisation of the bio-sludge*
- *Blending dry bio-sludge with additives*
- *Re-introduction of bacteria*
- *Pelletizing*
- *Bagging and distribution*
- *Agriculture benefits and irrigation saving*

Graeme Sait World Agriculture Author

Greenhouse effects can be reduced by 50% by simply rebuilding the soil which has been destroyed through erosion and overgrazing.

Prof Anthony Thurton

For every 1% carbon reintroduced into the soil a 30% water irrigation saving is realised.



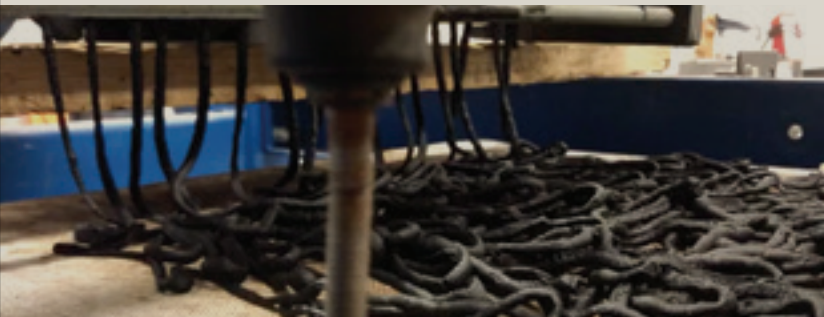
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## A METHOD OF REMOVING ILLEGAL SLUDGE AND PIT LATRINE DUMPSITES



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## DETRITUS AND TRASH SEPARATION FROM SLUDGE AND REMOVAL TO LANDFILL



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## SLUDGE TO EXTRUSION CONVERSION

into 6-8mm solids  
extrusions on a steel belt to be subjected  
to heat treatment.



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## STERILISATION AND DRYING

Using hot air flows and MIR (Medium  
wave infrared radiation) to elevated  
temperatures under vacuum.



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## DRY STERILISED PRODUCT

Through the killing of all pathogens,  
escari and viruses. Ready for soil  
conditioning or high carbon  
fertiliser conversion.

## CONTAINERISED OR FREE STANDING, DIESEL OR ELECTRIC POWERED PLANT

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01

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**0.5-20 TPH Design  
generic with customer  
requirements**



02

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**Belt width vs kW  
MIR per array**

0.3M + MULTIPLES OF"	3,7 kW
0.6M + MULTIPLES OF"	15 kW
0.9M + MULTIPLES OF"	48 kW
1.4M + MULTIPLES OF"	78 kW
1.9M + MULTIPLES OF"	108 kW
2.5M + MULTIPLES OF"	138 kW
3.0M + MULTIPLES OF"	168 kW
3.5M + MULTIPLES OF"	192 kW



03

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**MIR, Medium  
wave infrared  
radiation array**





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## LaDePa

A process that can convert pit latrine and WWTW sludge into a usable, pasteurised, dry product, high in carbon, beneficial for all agricultural use.