



Technology/Service: Manure Separators (Screw Presses)

Information by: Tyler Trimmer

Date: May 23, 2017

COMPANY INFORMATION

Company: Vincent Corporation

Phone: 813-248-2650

Web Site: www.vincentcorp.com

Address: 2810 E 5th Ave.

City: Tampa

State: Florida

Zip Code: 33605

TECHNICAL CONTACT

Name: Bob Johnston

Phone: 813-248-2650

Email: bob@vincentcorp.com

Address: 2810 E 5th Ave.

City: Tampa

State: Florida

Zip Code: 33605

DEMONSTRATION SITE CONTACT

Site Name: Fair Oaks Farms

Contact: Carl Ramsey

Title: General Manager

Phone: 219-869-1773

Email: carl@fairoaksdairy.com

Address: 4365 E 500N

City: Fair Oaks

State: IN

Zip Code: 47943

INITIAL TECHNOLOGY OVERVIEW

This information is to guide in the development of a more specific and detailed Technology Information Request. Please answer the following questions for each Technology or Service Provided.

What is the name of the technology or service you provide?

Manure separator (screw press)

Describe how this technology is used in a larger Nutrient Management System. Please be as detailed as possible.

Concentration of manure solids for bedding or composting

How many systems do you have installed on dairy farms or other livestock operations?

SYSTEMS	NUMBER OF SITES	SIZE OF INSTALLATIONS
Dairy	80+	Up to 40,000 cows
Pork	14+	4000+ hogs
Poultry		

Do you have a preferred region or area for the location of projects?

North America

Location of farm(s)?

Global

What's the smallest and largest farm using your system?

100 to 40,000 head

Input and output of your unit/system – do you have a mass balance analysis?

If a mass balance is available, please include below or attach as a separate document.

Available upon request

Input material description and characteristics:

For example: raw manure, digestate, screened digestate, suitable non-farm feedstocks, other.

Raw manure and digestate

Does the technology treat the full manure stream for a farm or a fraction of the stream?

Full

Do you consider this a mature system or ongoing farm development?

Mature

Any weather constraints? Yes No *If so, please describe.*

Any bedding constraints? Yes No *If so, please describe.*

Output material description and characteristics:

Please include the % of the total stream for each material, i.e. 10% fiber and 90% screened liquid by weight.

Output up to 35% solids (or as low as 65% moisture)

Do the Outputs of the process have a resale market identified? Yes No

If so, under what brand name or who is the contract with?

Is this process scalable and to what extent (top and bottom limits)? Yes No *If so, please describe.*

From as low as 100 cows; no upper limit

Do you have a known scaling factor? Yes No *If so, please describe.*

Does this technology require any air input? Yes No

What is the preferred air connection? *For example: psi, fitting size, air quality.*

If not distributed by the system, please list each connected device.

3/4" NPT; single connection at filter-regulator

Does this technology require any water input? Yes No *If so, please describe.*

What is the preferred water connection? For example: psi, fitting size, water quality, gpm.
If not distributed by the system, please list each connected device.

Does this technology require any electrical input? Yes No If so, please describe.

What is the preferred electrical connection? For example: phase #, voltage, full load amps.
If not distributed by the system, please list each connected device.

Three phase 230/460 volt; VFD preferred

Does this technology require any mechanical input? Yes No If so, please describe.

What is the preferred mechanical connection? For example: horsepower, connection, rpms.
If not distributed by the system, please list each connected device.

Does this system require any special plumbing? Yes No If so, please describe what is required.

Does this system require any special foundations or pads? Yes No If so, please describe.

Do you consider this technology part of a larger system that you provide? Yes No If so, please describe.

Does your system require any other components that you do not provide or are not included in your proposal? Yes No
If so, please describe.

A means to introduce wet manure to the inlet hopper

How is the system delivered to the site? For example: skid mounted, assembled on site, constructed on site.

Skid mounted

Is this system portable or configured in such a way that it could be easily transported for use in several locations?
Yes No If so, please describe.

Presses up through 16" diameter are transportable

Has your technology been accepted by the NRCS and is it included into a practice standard? Yes No
If so, please describe if necessary.

Are there any unusable or hazardous byproducts of this process? Yes No
If so, please describe the product and recommended means of disposal.

What spare parts and redundant components are included with the system?

None

How is the system controlled and what are the components and capabilities of the control system?

VFD (recommended) and manual pressure regulator and air valve

What is the usable life of the system?

20+ years

What is the salvage value at the end of the usable life?

Negligible

What is the educational and technical level of competence for the operation of the system?

Low to moderate

What level of maintenance is required for the system?

Please indicate if rebuilds or major components must be replaced and what the frequency is for these components.

Semi-annual screw rebuild and screen replacement

Are consumables used in the process? Yes No

Please provide the nature and purchase relationship for these consumables. For example: proprietary, special contract, generally available.

Which of these NRCS codes would your technology be classified under? Check all that apply. Add if necessary.

CODE	NRCS DESCRIPTION	CHECK ALL THAT APPLY
472	Access Control	<input type="checkbox"/>
560	Access Road	<input type="checkbox"/>
309	Agrichemical Handling	<input type="checkbox"/>
371	Air Filtration and Scrubbing	<input type="checkbox"/>
591	Amendments for the Treatment of Agricultural Waste	<input type="checkbox"/>
366	Anaerobic Digester	<input type="checkbox"/>
672	Building Envelope Improvement	<input type="checkbox"/>
372	Combustion System Improvement	<input type="checkbox"/>
317	Composting Facility	<input type="checkbox"/>
554	Drainage Water Management	<input type="checkbox"/>
375	Dust Control from Animal Activity on Open Lot Surfaces	<input type="checkbox"/>
373	Dust Control on Unpaved Roads and Surfaces	<input type="checkbox"/>
374	Farmstead Energy Improvement	<input type="checkbox"/>
512	Forage and Biomass Planting	<input type="checkbox"/>
561	Heavy Use Area Protection	<input type="checkbox"/>
516	Livestock Pipeline	<input type="checkbox"/>
590	Nutrient Management	<input checked="" type="checkbox"/>
521A	Pond Sealing or Lining, Flexible Membrane	<input type="checkbox"/>
533	Pumping Plant	<input type="checkbox"/>
588	Roof Runoff Structure	<input type="checkbox"/>
367	Roofs and Covers	<input type="checkbox"/>

318	Short-Term Storage of Animal Waste and By-Products	<input type="checkbox"/>
570	Stormwater Runoff Control	<input type="checkbox"/>
606	Subsurface Drain	<input type="checkbox"/>
635	Vegetated Treatment Area	<input type="checkbox"/>
601	Vegetative Barrier	<input type="checkbox"/>
360	Waste Facility Closure	<input type="checkbox"/>
632	Waste Separation Facility	<input checked="" type="checkbox"/>
313	Waste Storage Facility	<input type="checkbox"/>
634	Waste Transfer	<input type="checkbox"/>
629	Waste Treatment	<input checked="" type="checkbox"/>
359	Waste Treatment Lagoon	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

Can you provide an estimate of the capital required for the installation of this technology?

Please include all components and designate if provided by you or others.

\$2,000 - \$6,000

Can you provide an estimate of the operational costs required for this technology?

Please include all costs and designate if provided by you or others.

\$3,000 - \$12,000 annually

Is there financing available for this system? Yes No *If so, what are the conditions for this financing?*

Is the system available for lease? Yes No *If so, please describe.*

What sort of warranty or guarantee do you provide with this technology?

Do you provide any performance guarantees or strictly defects in parts and materials?

One year defects in parts and materials

Explain how this system is unique or transformative and how does it improve upon or go beyond other technologies that are currently available.

Already a common technology for the application

Would you be willing to provide a location for a site visit by Newtrient? Yes No *If so, please provide location.*

TECHNOLOGY REFERENCES

Please provide customers with whom we can discuss this technology and its performance.
Include a company name, location, contact name and contact information.

Reference 1

Company Name:	
Company Location:	***Same as those shown on Business Information Request form***
Contact Name:	
Contact Information:	

Reference 2

Company Name:	
Company Location:	
Contact Name:	
Contact Information:	

Reference 3

Company Name:	
Company Location:	
Contact Name:	
Contact Information:	

Reference 4

Company Name:	
Company Location:	
Contact Name:	
Contact Information:	

Are there any other facts about this technology that you feel should be included in this document?