

Save time.
Save money.
Save lives.
Stay running.



BRISTOLA

Agenda

- Introduction
- Who We Are
- Industry Dynamics
- Technology
- Cost Advantage
- Growth/ Management Team



Our Story

Bristola was founded in 2019 by our CEO Jared Burma based on passion, experience, and a close call in a tank that nearly cost him his life.

Bolstered by a belief that renewable clean energy is the key to our shared future, **Bristola operates with one mission in mind: to provide a safer, more efficient, and economical solution for cleaning liquid storage facilities that will successfully reduce their operational downtime and carbon footprint.**





Industry Overview

4 Growing Industry Opportunities:

Agriculture Digesters

Wastewater Treatment

Fresh Water Tanks

Oil/Chemical Storage Facilities

The Traditional Cleaning Process

Traditional cleaning methods are time-consuming, expensive, and dangerous – **often putting employee safety at risk and requiring costly facility downtime.**



1

Take Digester Off-Line

(Costly and inefficient)

2

Dispose of Liquid and Release Gas from Tank

(Environmentally Harmful and expensive)

3

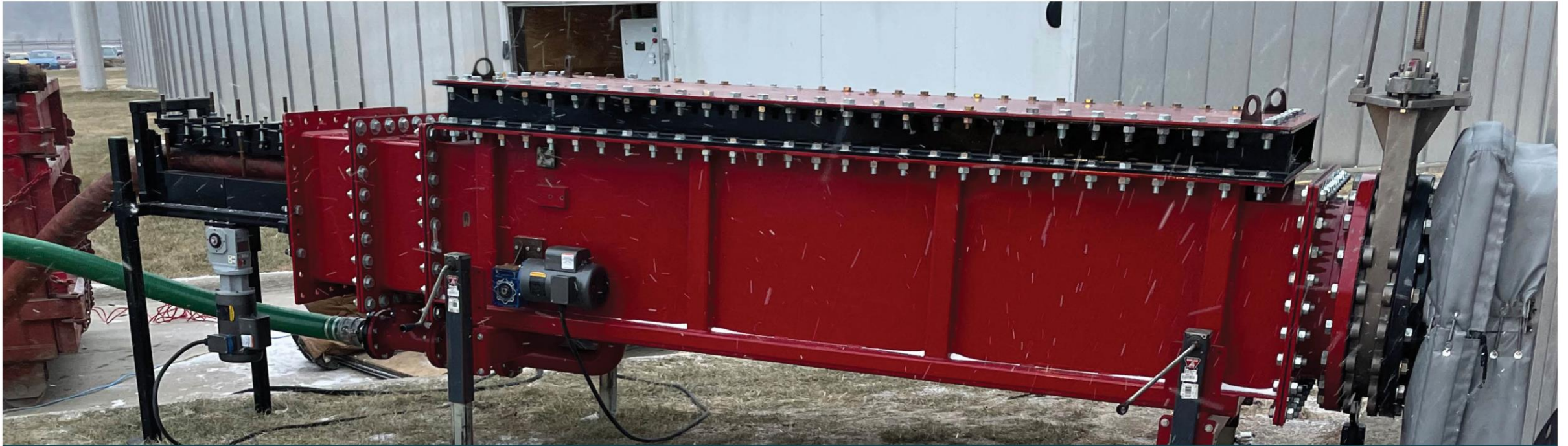
Temporary Storage for Incoming Materials

(Costly and inefficient)

4

Dangerous Manual Cleaning of Solids

(Costly and inefficient)



Technology Overview

The only system in the world that cleans liquid storage facilities with no human entry and no facility downtime.

Cost Advantage

\$147,400

Annual savings/per digester

\$737,000

5-Year Savings/per digester

Traditional Cleaning	assumption to clean out 1 time every 5 years					5 Year Total Costs	5 Year Annualized Costs
	Year 1	Year 2	Year 3	Year 4	Year 5		
Mobilization					\$ 45,000.00	\$ 45,000.00	\$ 9,000.00
Shut down to clean					\$ 200,000.00	\$ 200,000.00	\$ 40,000.00
Gas loss during cleaning					\$ 146,500.00	\$ 146,500.00	\$ 29,300.00
Gas production decrease due to inefficiency	\$ -	\$ 16,750.00	\$ 50,250.00	\$ 117,250.00	\$ 251,250.00	\$ 435,500.00	\$ 87,100.00
Labor equipment and parts	\$ 40,000.00	\$ 60,000.00	\$ 100,000.00	\$ 150,000.00	\$ 150,000.00	\$ 500,000.00	\$ 100,000.00
Bristola SRCS cleaning	assumption to clean out every year on dairy farm					\$ 1,327,000.00	\$ 265,400.00
Mobilization	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 25,000.00	\$ 5,000.00
Cleaning cost (500 Cubic yds) annual removed	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 250,000.00	\$ 50,000.00
Gas production decrease during cleaning	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 25,000.00	\$ 5,000.00
Valve install	\$ 40,000.00	\$ -	\$ -	\$ -	\$ -	\$ 40,000.00	\$ 8,000.00
Labor equipment and parts	\$ 40,000.00	\$ 40,000.00	\$ 50,000.00	\$ 60,000.00	\$ 60,000.00	\$ 250,000.00	\$ 50,000.00
						\$ 590,000.00	\$ 118,000.00
						\$ 737,000.00	\$ 147,400.00

These are estimated numbers using actual clean out data from previous cleanouts on similar systems. Every feedstock is different as is every facility so these are for estimating purposes only



ROI Assumptions

Assumption is that MMBtus are being sold for \$28.00. Currently prices are significantly higher which would drive the 5 years of lost gas revenue per digester much higher. Using the following assumptions and RNG price of \$28.00 MMBtu. We want to show the value of this system without overdependency on credits. This is a low end but still higher than natural gas price and captures the value of the Bristola System

Return on Investment Assumption sheet

The below charts are the basis for the ROI case. Each facility will be different with its unique challenges, but this gives an example of the savings and potential return on your investment.

Inputs and expected yields (metric tons)

Substrat	Quantity p.a.	Quantity p.d.	DM	CH4	Yield per ton	Total
Cattle slurry, dairy cattle	228,128 t/a	625.01 t/d	8.00%	55%	19.01 Nm ³ /t	4,337,116 Nm ³ /a

Digester(s) - hydraulic paramters

Digester Typ 1	Fermenter 6188m ³ Netto 6850m ³ Brutto Ø=31.48 H=8.8
Quantity	3.00 piece(s)
Digester Typ 2	n.a.
Quantity	0 piece(s)
Total Digesting Volume	18,564 m ³
Gas Storage Volume (incl. Residue Tanks)	7,362 m ³
Organic Loading Rate	2.29 kg oDM/day
Retention Time	30 day(s)
Dry Matter Content in Digester	6.34 %

Products

Total electrical Energy	0 kWh/a
Total thermal Energy	7,501,416 kWh/a
Bio-Methane (97.5% CH4) [@1013.25mbar 0°C]	2,325,778 Nm ³ /a
	165 ft ³ /min
Gross calorific value of Biomethane	26,305 MWh/a
	89,755 MMBtu

The output listed is using 3 digesters so assume we divide 89,755 MMBtu by 3 to get output of one digester. This is 29,918.33 MMBtu per digester annually. If you lose capacity in your digester, the retention time shrinks, causing your gas production to shrink. It is assumed the digester won't lose much the first year of operation. Year two there would be an estimated 2% volume decrease. It is estimated gas production would be at 98% efficiency resulting in a \$16,750 decrease in revenue in year 2. Year 3 this number would double due to inefficiencies beginning to show up with your digester. Year 3 efficiency is estimated at 94% resulting in \$50,250 loss of revenue per digester. Year 4 would see estimated efficiency drop to 86% and gas production loss of \$117,250. It is estimated by year 5 each digester gas production will have dropped to 70% efficiency with a gas production loss of \$251,250. For a five-year gas production loss of \$435,500 per digester or \$87,100 annually.

Labor, equipment, and parts is based on the knowledge and operating history of a typical digester on a dairy farm. This section accounts for the cost to operate the digester and handle sediment issues. The more the sediment builds up the more wear on agitators, pumps and other infrastructure occurs. The more the sediment builds up the more often the repairs and the harder it is to handle the facility which increases labor.

We did not quantify the CO2 release when digesters are opened and cleaned out the traditional method, but it is substantial and is currently being quantified which will make this even larger saving to using Bristola SRCS.

Complete Management Team



Jared Burma

Founder/CEO/COO



Jeff Harclerode

Chief Financial Officer



Ian Dunlap

Chief Technology Officer



Luke Aduddell

Chief Sales and Marketing Officer





Thank you for your time.

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