

Enviro Voraxial Technology, Inc.

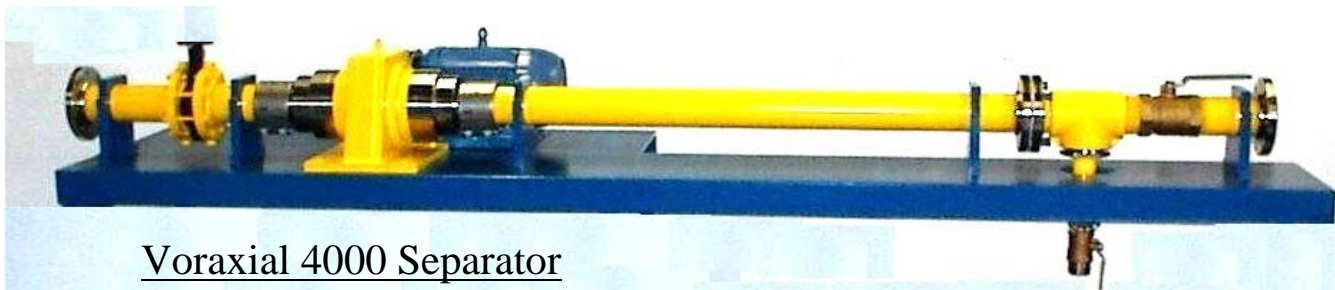


A Growing Leader in Environmental and
Industrial Separation Technology



Enviro Voraxial Technology, Inc.

- Headquarters: Fort Lauderdale, Florida USA
- Subsidiary is called “Florida Precision Aerospace”
- Precision machining for Aerospace, NASA, Defense Contracting and Automotive industries
 - Manufactured various parts, gyroscopes for satellites and even Hubble Space Telescope
- Developed and manufactures Voraxial Separator, a proven, proprietary technology with applications in oil & gas, mining, manufacturing, and oil spill.
- Stock Symbol “EVTN”



Voraxial 4000 Separator

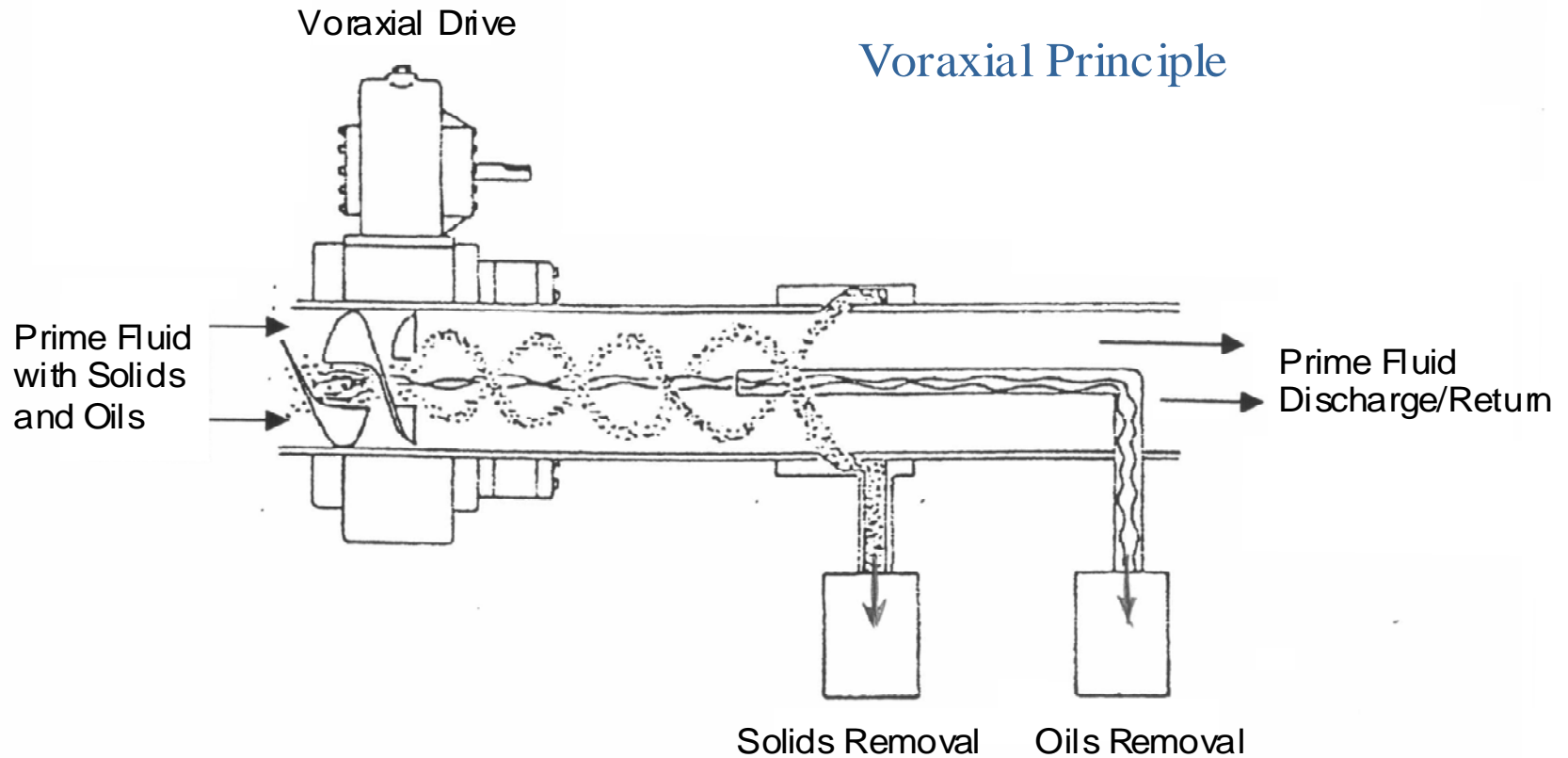


The Voraxial®

How it Works

- A continuous flow turbo machine capable of separating liquids and solids of differential weight from fluid stream
- A vortex is produced with the heavier materials drawn to the outside of the vortex and the lighter elements forming the core of the vortex
- A specially designed manifold is utilized to collect the separated streams

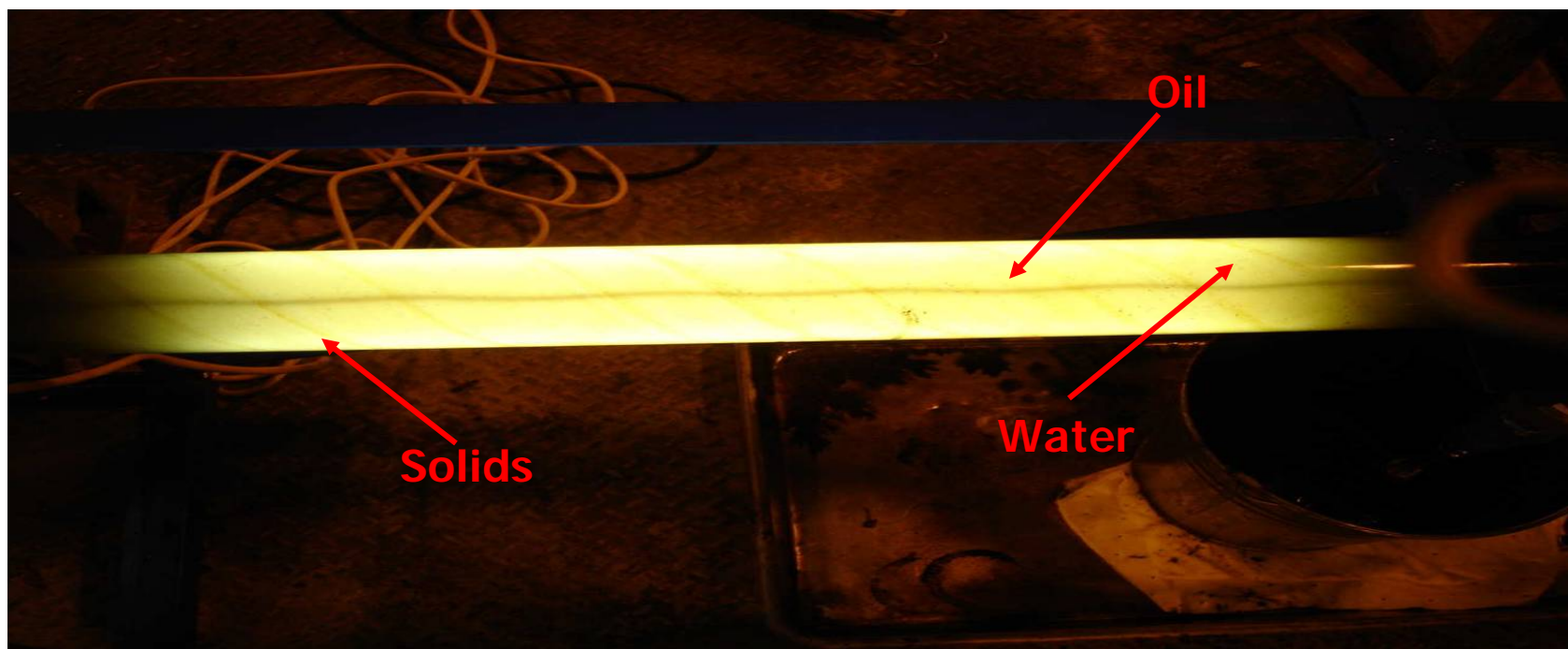
Voraxial[®] Principle





Voraxial's Vortex with Oil / Water / Solids

A View of the Vortex With Produced Water





Voraxial Separator Benefits

- Separation of 3 components – solids, oil, and water simultaneously
- High volume capability with low power consumption
- Compact unit – small footprint
- Capable of operating with low inlet pressure
- Ease of installation and operation
- Low maintenance requirements
- Non-clogging impeller operates at high speeds and generates high “G” force
- Handles wide range of flows and fluctuations in flow without adjustments
- Handles fluctuation in contaminants without adjustments
- Different models to handle various flow rates

Voraxial is Scalable

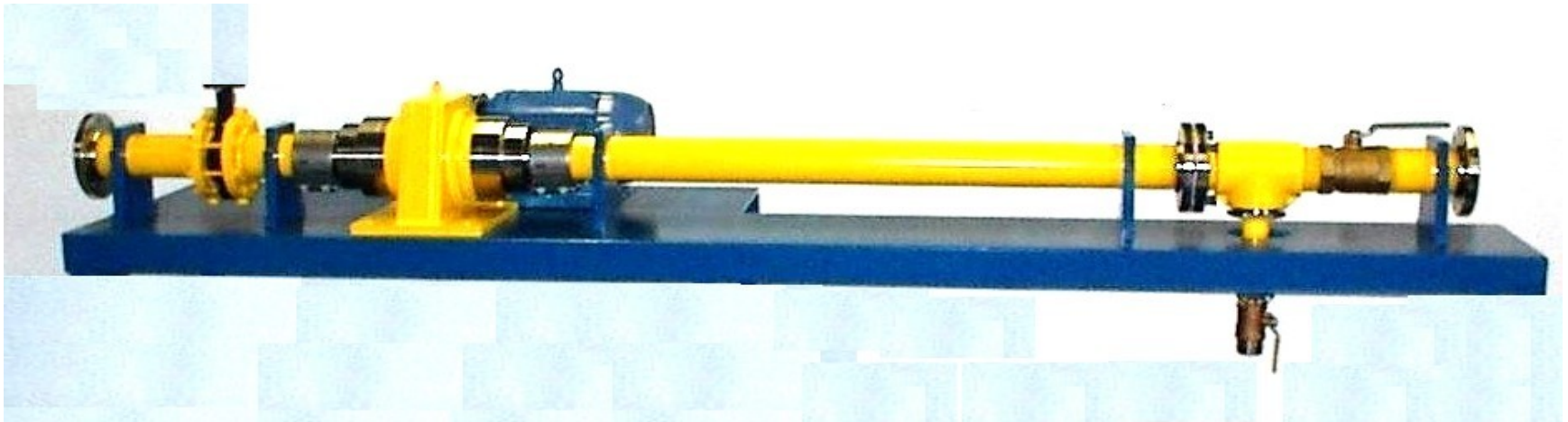
The Voraxial is scalable, light weight and energy efficient - can be installed on any size vessel.

Model	Avg. Volume Per / Day*	Weight (Lbs)	Energy (HP)
Voraxial 2000	100,000	300	3
Voraxial 4000	700,000	650	10
Voraxial 8000	7,000,000	950	50

* In gallons

Voraxial 4000 Model

**4" Diameter Separation Chamber
Treats 500 GPM
700,000 GPD**





Voraxial 8000 Separator

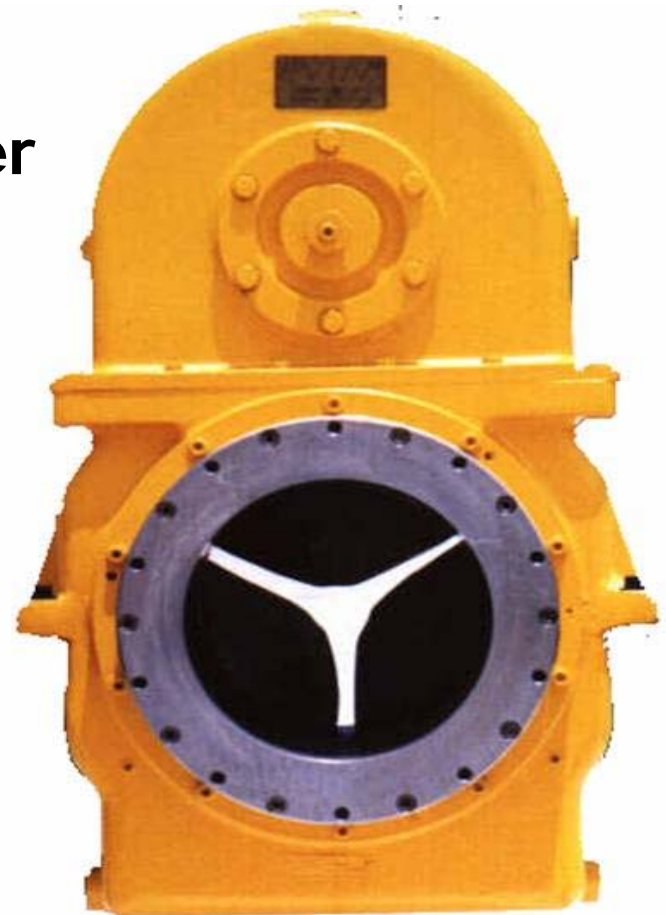
View of Open Impeller

8" Diameter Separation Chamber

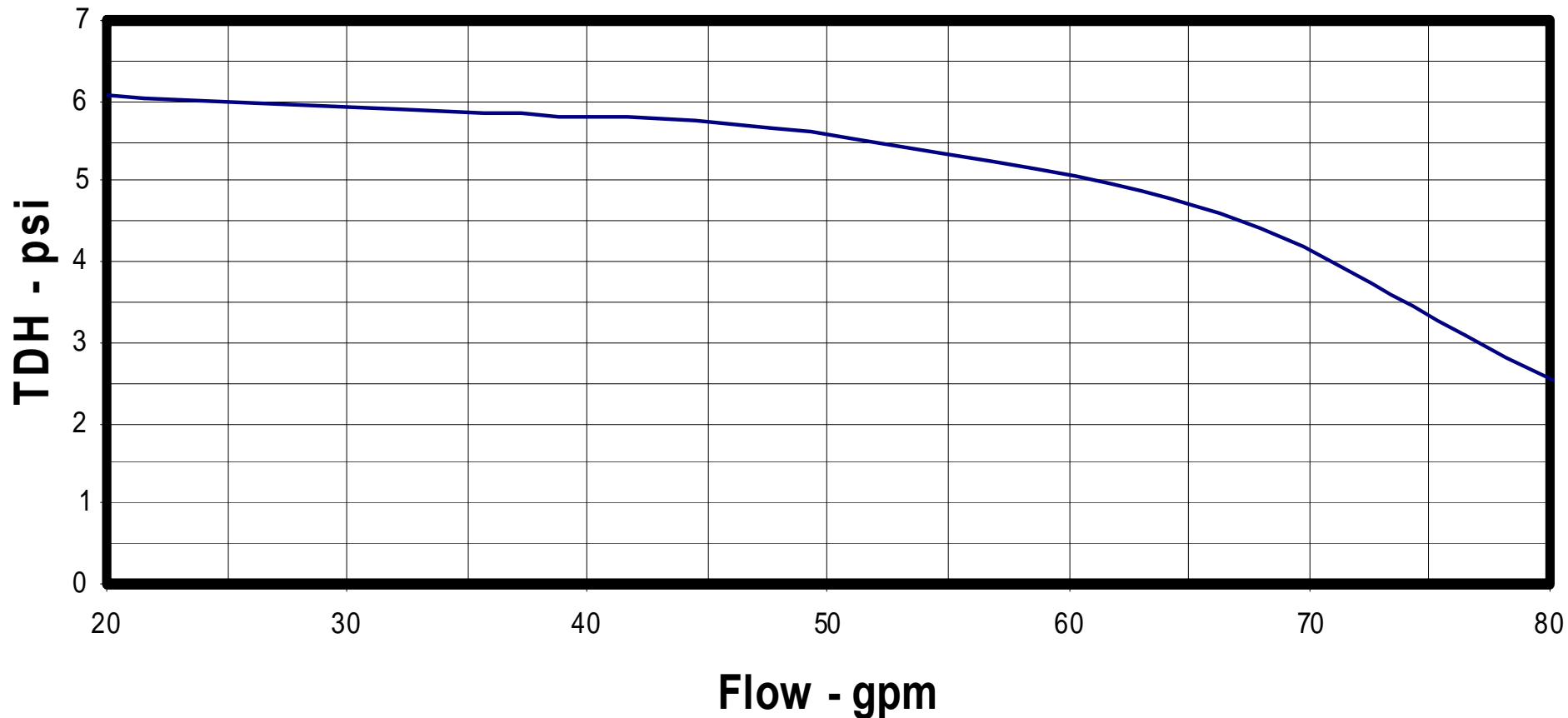
Processes

5000 GPM

7,000,000 GPD



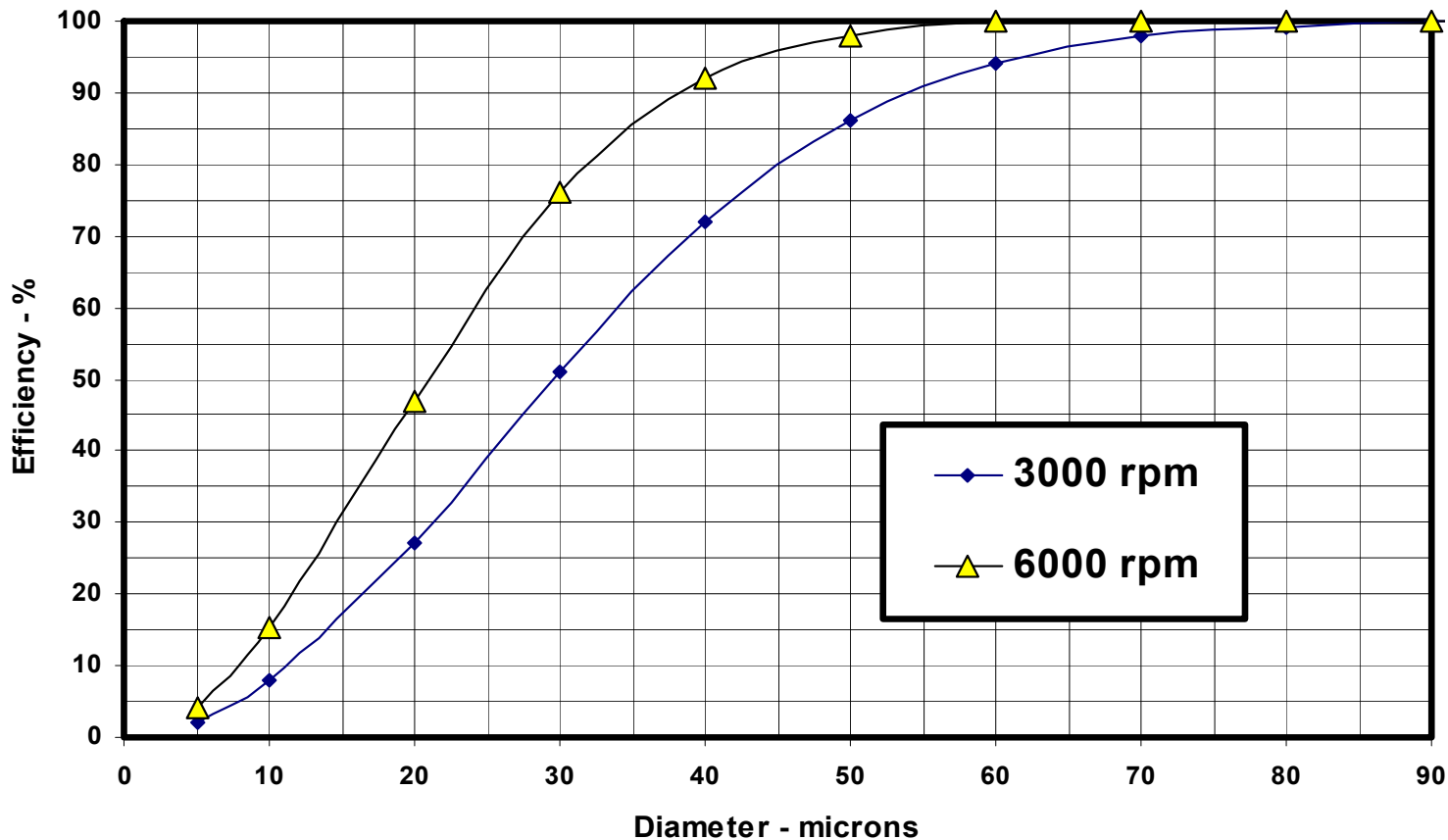
Voraxial 2000 Separator Pump Curve



"G" Forces

MODEL	RPM	"G" FORCE	IMPROVEMENT
2000	3000	255	----
2000	6000	1022	300 %
4000	3000	511	----
4000	6000	2043	300 %

Separation Efficiency Improvement With Increased Speed



Hillsborough Wastewater Facility

Model Voraxial4000



- Effective for grit separation at Headworks of the Wastewater facility
- Effective for grit separation at pumping station

[®] **Voraxial Technology**

Municipal Wastewater Applications

- **Wastewater Grit Removal at the Headworks**
 - 81% to 89% removal efficiency down to 45μ grit size. Upgraded Voraxial achieves greater efficiency.

Mesh	Particle Size Microns	Voraxial Separator Efficiency	Vortex-Type Grit Separator Design
70	240		85%
60 – 100	150 - 250	85 - 95%	
100	150		65%
100 – 200	75 - 150	87 - 97%	
200 - 400	45 - 75	66 - 84%	

Comparable Technologies

- Voraxial is the only technology that can be used in applications involving a wide range of pressures and volume flow rates

		Hydrocyclone	Centrifuge	Voraxial
High Pressure	High Volume	✓		✓
	Low Volume	✓	✓	✓
Low Pressure	High Volume			✓
	Low Volume		✓	✓

- Separation tank is another technology that can also be used under a wide range of pressures and volumes, but these require a huge amount of space –

Note: At low pressures, additional pumps are needed for Hydrocyclones to be effective.



Voraxial 4000 - Offshore



Voraxial 4000
Model

Skid Performance

Run #	Flow (gpm)	Inlet Oil (ppm)	First Stage Voraxial Efficiency (%)	Skid Efficiency (%)	Efficiency With Polisher (%)
A1	44	3,490			99.96
A2	44	3,000			99.93
1	44	2,070	93.1	99.3	
2	44	2,120	87.5	98.6	
3	31	1,410	91.3	97.6	
4	31	17,200	96.5	99.8	
5	31	2,760	97.2	98.9	
6	31	7,510	98.3	99.5	
7	31	2,710	95.3	98.5	
8	30	1,980	93.6	98.6	
9	26	1,920	93.6	98.4	
10	26	1,401	92.6	98.1	



Voraxial® For Oil Spill

Voraxial can be secured on vessels for open waters or close to shore oil spill recovery.

Similar to other auxiliary equipment such as firefighting hoses, the compactness of the Voraxial enables Supply Boats or Tug Boats to be equipped with oil spill response equipment for quick deployment.

- Secured on vessel for oil/water separation
 - Before holding tank and after skimmer
 - After holding tank similar to conventional separators
- Submerged in the ocean for skimming / separator combination
- Submerged to the ocean floor for underwater oil spill



Voraxial® For Oil Spill

Voraxial Separator Benefits for Oil Spill

- Processes higher volume of oil/water mixture in less time.
- Instead of capturing 100% of the oil/water mixture into holding tanks, the Voraxial separates 80-90% of the oil/water mixture as clean water and discharges it back to the ocean.
- The balance 10-20% of high concentration of oil is discharged into a holding tank for onshore processing.
- Recovers more oil in less time
- Increases the holding tanks capacity by discharging clean water into the ocean.



Voraxial® For Oil Spill

Voraxial Separator Benefits for Oil Spill

Advantages:

- Potentially a solution to address under water oil spills
- Essentially “plug & play” into current open water skimming framework
 - Skimmers capable of 500gpm – Voraxial 4000
- Essentially “plug & play” to address oily water mixture already collected
- Smaller Voraxial’s also can address shallow water cleanup
- Environmentally friendly, not a toxic solution



Voraxial As Part of BP RAT Pack Program

Included in BP Rat Pack Program



BP Rapid Attack Team:

A fleet of local commercial, shallow draft, nimble and fast moving vessels operating under the Vessels of Opportunity program.

Please review the information on the attached document.



Voraxial on 26' Vessel for Gulf Spill



- Voraxial is available in different sizes
- Can be secured on any size vessel
- This picture is a 200,000 gallons per day skimmer.
- Close to shore system
- Shallow draft.
- 26' Vessel for easy maneuvering in delicate areas.

Submersible Voraxial

- The vessel processes more fluids and captures more oil without increasing tank size
- Single unit processes over 7,000,000 gallons per day
- Increases skimming efficiency to allow for more skimmers to be deployed per boat without increasing tank sizes





Submersible Voraxial®

- By conducting the separation in the ocean, a higher efficiency of oil recovery is achieved.
 - Oil/water mixture enters the Voraxial
 - The separated oil is discharged into a storage tank
 - The separated, clean water remains in the ocean
- The vessel **processes more fluids** and **captures more oil** without increasing tank size
- Can be easily retrofitted onto existing vessels



Submersible Voraxial[®] Benefits

- Increases skimming efficiency
- Increases holding/frac tank efficiency
- Used by large vessels for open water oil recovery
- Used by shallow draft vessels for close to shore oil recovery
- Not disruptive to the ecosystem
- Increases volume skimmed without increasing tank size
- Solids such as sand does not effect separation
- Fluctuation in oil quantity does not effect separation
- Non-clogging, open impeller - low shear impeller
- Ease of installation and operation

Comparison Between Voraxial and Popular Tech. Largest Models

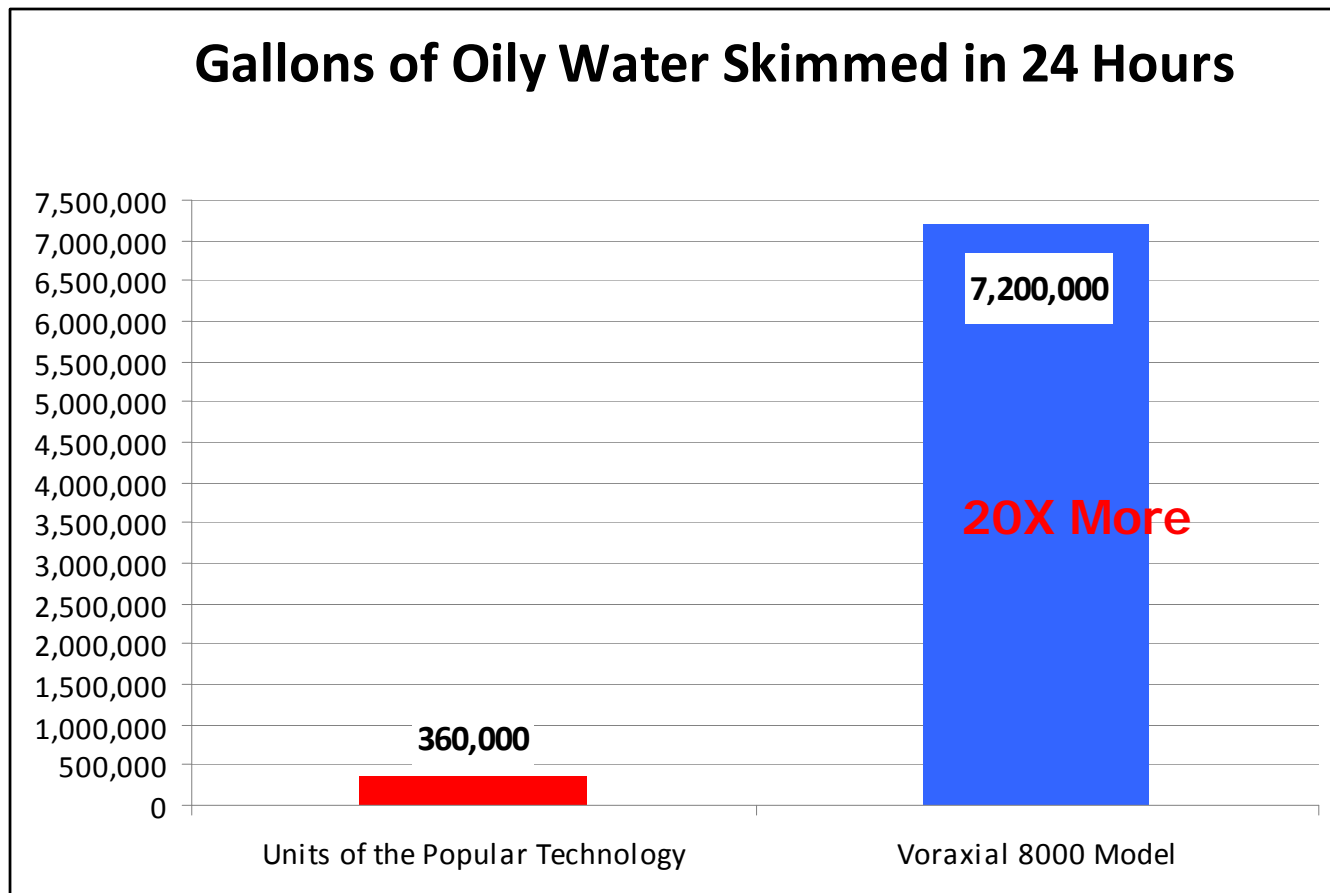
	Voraxial 8000	Popular Technology*
Volume (GPM)	5000 GPM	250 GPM
Approx. Weight	950 lbs	4500 lbs
Size	8 inch Pipe x 12ft	4ft x 4ft x 8ft
Energy	50HP	60HP

* Information provided by websites



Comparison of Oil Spill Recovery Systems

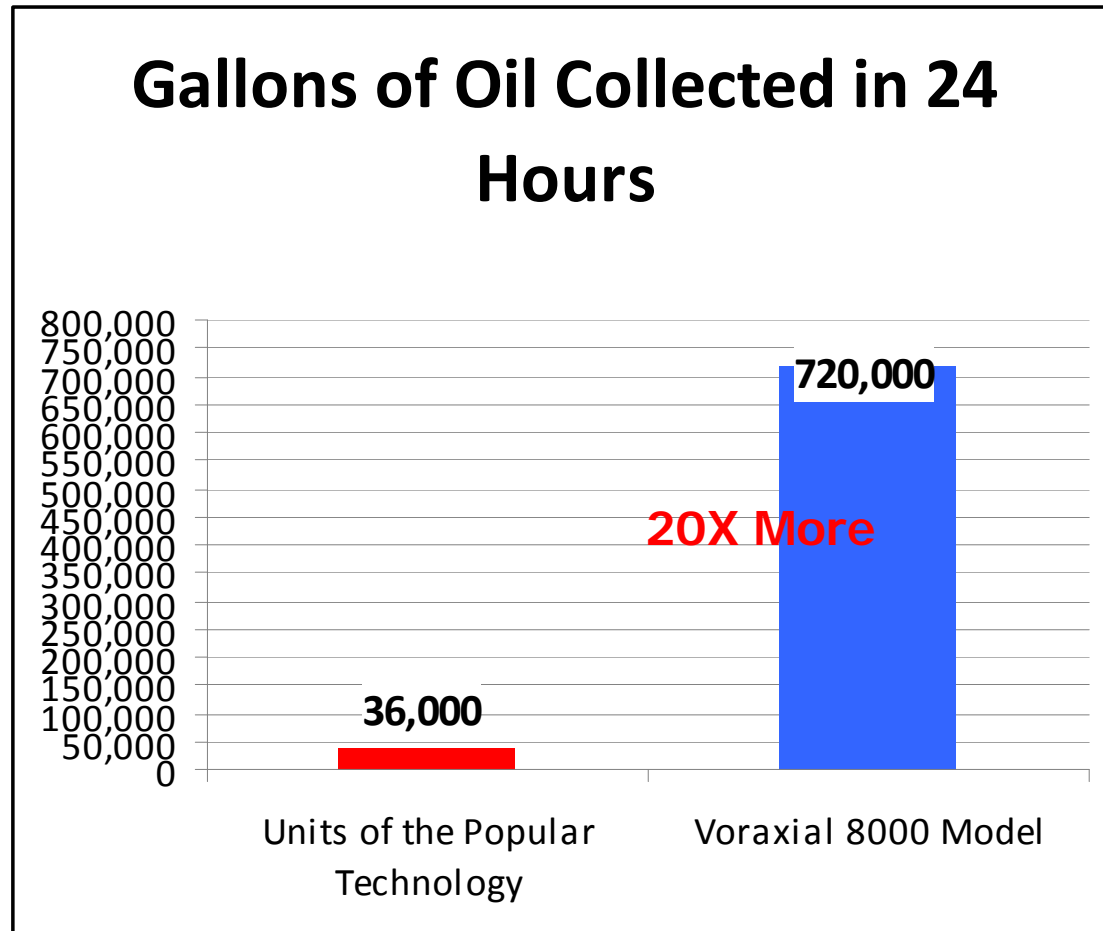
Processes 20x more fluids with same # of vessels





Comparison of Oil Spill Recovery Systems

Collects 20x more oil with same # of vessels



Assumes 10% of fluid skimmed by vessel is oil.

Voraxial® Comparison

The Whale
= 21,000,000 GPD



3 Unit of the
Voraxial 8000 Separators
= 21,000,000 GPD



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