



Platinum Control VRUs *When Less is More*

Vapor Recovery Unit (VRUs) are commonly categorized based on their horsepower (HP) rating, but we suggest that the gas volume they can handle, or load factor, is a better benchmark for comparing performance. Due to the lack of a linear correlation between gas volume throughput and HP rating, making direct comparisons can pose challenges. Efficiency emerges as the differentiator among VRUs with identical HP ratings, underscoring the fact that not all VRUs are created equal or designed to the same standard of efficiency.

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In this paper, we cover the primary factors influencing VRU efficiency and shed light on why Platinum Control VRUs consistently outperform alternative units, typically moving 30% more gas volume despite sharing the same HP rating.

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EFFICIENC

Equals More



www.platinumcontrol.com

sales@platinumcontrol.com

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FACT CHECK

One of the primary factors resulting in inefficient gas recovery is improperly sized equipment. Consider a scenario where a 150 HP unit underperforms compared to a Platinum Control 125. The larger unit that moves less gas reduces overall system efficiency and impairs the overall scalability. Properly sizing equipment is not just about meeting capacity requirements but optimizing efficiency and performance.

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Factors Impacting Overall Efficiency

FLOW EFFICIENCY

- VRUs with well-engineered designs and advanced technology can optimize flow efficiency by minimizing pressure drops and turbulence within the system.
- Regular maintenance ensures that components such as valves, seals, and filters are clean and in good working condition, preventing obstructions that can impede flow and reduce efficiency.
- Seamless integration with upstream and downstream processes ensures smooth flow transitions, minimizing disruptions and maximizing flow efficiency throughout the system.

PIPING

- Proper piping design, including the selection of appropriate materials and configurations, is critical for minimizing frictional losses and maximizing flow efficiency. Smooth bore piping with minimal bends and restrictions is preferred.
- Proper alignment and routing of piping within the VRU system ensure efficient flow distribution and minimize pressure losses, optimizing overall flow efficiency.
- Piping diameter and capacity should be adequately sized to handle the expected flow rates without causing excessive pressure drops. Undersized piping can lead to flow restrictions and reduced efficiency.
- Regular inspection and maintenance of piping are essential for detecting and addressing issues such as corrosion, leaks, or buildup of deposits that can impede flow and reduce efficiency.

COMPONENT LOCATION

- Component placement within the VRU system should be carefully considered to minimize flow restrictions and pressure drops.
 Components such as valves, filters and compressors should be strategically positioned to optimize flow efficiency.
- Components should be appropriately sized to handle the expected flow rates without causing excessive pressure losses. Oversized components can lead to inefficiencies due to increased energy consumption or flow turbulence.
- The VRU itself should be installed on the well site or facility in a location that optimizes flow efficiency of the entire production system, including tanks, sales lines and other components.

The Platinum Control Advantage

Platinum VRUs boast moving 30% more gas than alternatives with the same horsepower rating. This efficiency advantage stems from our innovative design, high-quality materials and technology like PULSE[™] remote monitoring.

ECONOMIC IMPACTS

We suggest evaluating VRU performance and economic impact using two factors, including (a) the initial capital outlay and (b) ongoing revenue impact.

REVENUE GENERATION

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The economic impact of increased efficiency and greater mechanical availability of Platinum VRUs is summarized in the table below.



125 HP VRU Comparison - REVENUE IMPACT										
Option	Load factor (SCFD)	Mechanical Availability	Gas Price (\$/Mcf)	72-Hour Revenue						
Platinum Control	600	98%	\$3.00	\$5,292						
Alternative 1	420	95%	\$3.00	\$3,591						

In this comparison, the Platinum 125 HP VRU delivers 47% more revenue in a 72-hour period than the competing alternative because it not only handles more gas, but also enjoys higher mechanical availability. Platinum VRUs typically average 98.0% mechanical availability, based on actual data from our PULSE[™] remote monitoring platform.

The chart opposite illustrates the difference in revenue generated by a 125 HP Platinum VRU as compared to the typical alternative.

GREATER EFFICIENCY. The 125 HP Platinum VRU can move more gas volume (600 SCFD as compared to 420 SCFD for the typical 125hp alternative from an alternative supplier).

HIGHER MECHANICAL AVAILABILITY. Platinum VRUs typically deliver 98% mechanical availability, as documented by our PULSE remote monitoring platform, as compared to the 95% generally advertised by other providers.



Achieve the Same Gas Flow Volume for Less Money

Because Platinum Control VRUs are more efficient and use less horsepower to handle the same load factor as more expensive units, your capital outlay is lower, and the savings can be substantial. The table below summarizes three common scenarios and compares the suitable VRUs from Platinum Control and a competitor.

125 HP VRU Comparison - CAPITAL OUTLAY IMPACT										
Scenario	Load Factor (Average MCFD)	Platinum Control		Competitor		Saving with Platinum Control				
		HP Rating	Price (\$M)	HP Rating	Price (\$M)	\$M	% Savings			
Scenario 1	600	125 hp	\$170.7	150 hp	\$244.9	\$74.2	30%			
Scenario 2	750	150 hp	\$232.4	200 hp	\$298.9	\$66.5	22%			
Scenario 3	1,000	200 hp	\$249.5	300 hp	\$460.0	\$210.5	46%			

The chart opposite illustrates the reduced capital outlay and savings for each of the common scenarios analyzed in the table.

The choice is clear – Platinum Control VRUs generate more revenue than competing offerings at a substantially lower capital outlay.

With Platinum VRUs, companies can achieve more with fewer units, reducing total cost per MCFD, maintenance expenses, and operational complexities.

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Benefits

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Benefits of Choosing Platinum VRUs:

Higher Efficiency Generates More Revenue. You can move the same volume of tank vapor gas with fewer VRUs.



Lower Capital Outlay Boosts Economic ROI. Reduce the total capital cost per SCF.

Improved Scalability. You do not need as many VRUs to move an equivalent volume of gas, making it easier and more cost effective to increase capacity.

Reduced Maintenance and Repair (Higher Uptime). Right-sized, more efficient units are subject to less stress and wear and tear on components and seals.

Simplified Operations. Fewer units mean fewer connections, less potential for fugitive emissions and overall improved operational efficiency.

Flexibility. Flexible Fleet[™] lease plans are designed for operational simplicity and conserve capital.

Ready to unlock the full potential of your gas recovery operations? Contact us today to learn more about how Platinum VRUs can elevate your efficiency and profitability.

CONTACT

432.695.4992

Chance Lauer VP Sales & Service Platinum Control Email: clauer@platinumcontrol.com Phone: 800-994-0579





PLATINUM CONTROL 2400 ECR 123 Midland, TX 79706 432.695.4992

> Fort Worth, TX 877.374.1115

Carlsbad, NM 877.374.1115



💌 sales@platinumcontrol.com



platinumcontrol.com